Draft Environmental Impact Report

Aviation Station Project

State Clearinghouse No. 2009051097

County Project No. TR070853-(2)
Vesting Tentative Tract Map No. TR070853
General Plan Amendment No. RPAT200900002
Zone Change No. RZCT200900002
Conditional Use Permit No. RCUPT200900024
Parking Permit No. RPKPT201000008
Aviation Permit No. RAVT201000003
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County of Los Angeles
Department of Regional Planning
320 West Temple Street
Los Angeles,
California 90012

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EXECUTIVE SUMMARY

INTRODUCTION

It is the intent of the Executive Summary to provide the reader with a clear and simple description of the proposed Project and its potential environmental impacts. CEQA Guidelines section 15123 requires that the summary identify each significant effect with proposed mitigation measure(s), and alternatives that would reduce or avoid potential significant impacts; areas of controversy known to the lead agency, including issues raised by agencies and the public; and issues to be resolved, including the choice among alternatives, and whether or how to mitigate significant effects. This summary focuses on the major areas of the proposed Project that are important to decision makers.

PROJECT SUMMARY

The Aviation Station Project site is comprised of approximately 5.9 gross acres located within both the unincorporated community of Del Aire in Los Angeles County and within the City of Los Angeles. The Project site is bound by Aviation Boulevard to the west; West 117th Street to the south; Judah Avenue to the east; and the existing Metropolitan Transportation Authority (Metro) Green Line Aviation/LAX Station to the north. The Project involves the redevelopment of the Project site with a mixed-use, transit-oriented development.

Currently the Project site is partially bisected by the West 116th Street cul-de-sac. The portion of the Project site south of West 116th Street is referred to as Lot 1 and is privately-owned (located within the unincorporated County of Los Angeles); the portion of the Project site north of and including West 116th Street is referred to as Lot 2 and is largely owned by the California Department of Transportation (Caltrans) and the portion of West 11th Street is owned by the City of Los Angeles (located within the City of Los Angeles). The Project would divide the Project site into two lots: Lot 1 (southerly lot) and Lot 2 (northerly lot). For the purpose of simplicity of reference throughout this EIR, these areas will be referred to as Lot 1 and Lot 2, with the understanding that the boundaries of these lots are defined through the proposed Vesting Tentative Tract Map (VTTM) 70853 and are not existing lots on the Project site.

All existing land uses within Lot 1, including 11 residences (7 single-family homes and 2 duplexes), a 4,568 square foot (sf) commercial structure (Wild Goose Restaurant/Bar), an 8-room motel (Aviation Motel), and surface parking, would be demolished. The existing on-site Metro bus terminal within Lot 2 would be relocated to a portion of the off-site existing Caltrans Park-and-Ride Lot as a part of the proposed off-site improvements. The proposed site plan is depicted in Exhibit 2-1 in Section 2.0, Project Description, and depicts both the Project as well as the off-site improvements to the north. The Project would develop a total of 390 residential units and 29,500 square feet (sf) of commercial. Lot 1 would include 278 residential units and 8,000 sf of commercial and leasing office space within the 3.2-acre, and Lot 2 would contain 112 residential units and 21,500 sf of commercial within the 2.7-acre. The commercial uses may include retail, restaurant, and other service industry uses. The residential units within Lot 1 would be developed as for-sale condominium units and townhouses, and the residential units within Lot 2 would be developed as rental apartments.

The proposed 20 two-story townhomes would be developed along West 117th Street and Judah Avenue, and the remaining residential units would be located behind the townhomes within four buildings (1A, 2A, 1B, and 2B) that each includes 4 levels. The four buildings would be built upon a podium level (Level 1) and would be separated from each other by community open space areas (swimming pool, barbeque areas, tot-lot, etc.) and pedestrian corridors. The

Project would provide 797 parking spaces through construction of one level of subterranean parking that would underlie the majority of Lot 1 and Lot 2, which would be designated for residential parking only (154 spaces for apartment residents and 349 for condominium residents), and surface off-street parking at the street/ground level. Street-level parking would be available for residents (6 spaces for apartment residents and 72 for condominium residents), guests of the residents (28 spaces for apartment guests and 70 spaces for condominium guests), for the leasing office (12 spaces) and for commercial users (106 spaces).

The podium level (Level 1) would be constructed above the street/ground level. Vehicle access would include one driveway on West 117th Street and one driveway on Aviation Boulevard. Access to the subterranean parking garage would be located internal to the Project site from these two driveways. There would be no vehicle access directly onto Judah Avenue or West 116th Street from the Project site. A 28-foot wide emergency vehicle-only Fire Lane would be located between the existing off-site Metro Green Line Station north of Lot 2 and buildings 2A/2B within Lot 2. The fire lane may also restrict pedestrian access to the intersection of Judah Avenue and West 116th Street. The driveways on West 117th Street (28-feet wide) and on Aviation Boulevard (40-feet wide) would also serve as fire lanes.

Approximately 6.1 acres of off-site property owned by Caltrans located immediately to the north of the Project site would be improved as a part of the Project, as shown on Exhibit 2-1, Site Plan, in Section 2.0, Environmental Setting and Project Description. The “Caltrans Off-site Project Area” includes the relocated 1.85-acre Metro bus terminal, the reconfiguration of the 3.65-acre Caltrans Park-and-Ride Lot, and the reconfiguration of 0.6-acre of parking for the Caltrans Maintenance Facilities. The relocated Metro bus terminal, currently located within Lot 2 of the Project site, would require the reconfiguration of the existing Caltrans Park-and-Ride Lot.

The Park-and-Ride Lot currently contains 400 spaces; after the reconfiguration, a total of 400 spaces would continue to be available, including 10 Americans with Disabilities Act (ADA)–compliant spaces. Therefore, the total number of parking spaces available to the users of the Park-and-Ride Lot would be maintained with implementation of the Project. Additionally, the relocated Metro bus terminal would include five spaces reserved for Metro employee parking, which would be accessed separately from the Park-and-Ride Lot. The Caltrans Maintenance Facility building is located east of the “Caltrans Off-site Project Area”. Approximately 0.6-acre of parking stalls associated with the Caltrans Maintenance Facility would also be reconfigured to accommodate the relocated Metro bus terminal. The reconfigured parking for the Caltrans Maintenance Facility would continue to provide a total of 50 spaces for Caltrans employee parking. The Metro Green Line Aviation/LAX Station located to the north of the Project site would remain unchanged with Project implementation.

Other off-site improvements involve upgrades/replacement of existing infrastructure/utilities, as needed, to support the proposed development. Infrastructure improvements to storm drains, wastewater, water, and dry utilities would be needed to connect to existing facilities within or adjacent to the Project site. All utilities would be placed underground. The portion of Aviation Boulevard adjacent to Lot 1 and Lot 2 would be widened by 4-feet to accommodate a northbound right-turn lane at the former location of West 116th Street. A traffic signal would be installed at the existing Caltrans driveway on West Imperial Highway to accommodate access to the reconfigured Metro and Caltrans facilities. The traffic signal at the Caltrans driveway would feature separate westbound left-turn phasing for vehicles turning left into the Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility surface parking lots.

The Project would involve the decertification of the Caltrans-owned portion of Lot 2 and its sale to Metro. Once under Metro ownership, this portion of Lot 2 would then be leased to the Project

Applicant. Additionally, a modification to the County of Los Angeles and City of Los Angeles boundaries will be required, involving detachment through the Local Agency Formation Commission for the County of Los Angeles (LAFCO), to allow the entire Project site (including a portion of West 116th Street) to become part of unincorporated County of Los Angeles. The proposed detachment is depicted in Exhibit 2-11 in Section 2.0, Project Description.

The current *County of Los Angeles General Plan* land use designation for Lot 1 is "Low Density Residential", and the current *City of Los Angeles General Plan* land use designation for Lot 2 (excluding West 116th Street) is "Public Facilities". The requested VTTM No. 70853 would divide the Project site into Lot 1 and Lot 2, allowing for the development of commercial/for-rent residential units on the northerly Lot 2 and commercial/for-sale condominiums on the southerly Lot 1.

The Project would require a General Plan Amendment (GPA) to change the existing General Plan site designation to "High Density Residential", which would be the ultimate land use designation for both Lot 1 and Lot 2. Lot 1 is currently zoned C-1 (Restricted Business Zone) and R-1 (Single-Family Residence) in the County of Los Angeles Zoning Ordinance. Lot 2 is currently zoned PF (Public Facilities) in the City of Los Angeles Zoning Ordinance. The Project would require a zone change to MXD-DP (Mixed Use Development/Development Program) in order to provide development standards to regulate development on both Lot 1 and Lot 2. A Conditional Use Permit (CUP) would be required pursuant to County Code Section 22.40.520(B) to allow for mixed use development in the MXD-DP zone. The CUP would also establish site-specific development standards for the Project. A parking permit would be required pursuant to *Los Angeles County Code* Section 22.56.990(C) to allow for the sharing of parking across Lot 1 and Lot 2. Additionally, an aviation permit will be required for consistency with the Los Angeles County Airport Land Use Plan.

PROJECT ALTERNATIVES

In accordance with Section 15126.6 of the CEQA Guidelines, Section 7.0 of this EIR, Project Alternatives, includes an alternatives discussion which evaluates the comparative merits of the Project alternatives. This EIR includes an evaluation of the following alternatives to the Project:

- **Alternative 1, No Project/No Development.** Under this alternative scenario, the Project site would remain in its existing state and no development would occur. Potential Project-related impacts described in this EIR would not occur.
- **Alternative 2, Existing General Plan and Zoning.** This alternative assumes that existing land uses would be demolished and the Project site would be redeveloped pursuant to the existing zoning and General Plan land use designations,
- **Alternative 3, Reduced Scale/Reduced Density.** This alternative proposes the same land uses as the Project, but at a reduced density that involves the elimination of the upper two stories of residential units, leaving 205 residential units and 29,500 sf of commercial.
- **Alternative 4, No Subterranean Parking.** This alternative proposes the same number of residential units and commercial sf as the Project. However, the subterranean parking garage is eliminated and a multi-level aboveground parking structure is developed instead, which increases the height of the podium level by 16 feet to accommodate an extra level of above-ground parking, thereby increasing the overall building heights.

Section 7.0, Project Alternatives, provides descriptions and analyses of each alternative to allow the decision-makers to determine whether an alternative should be adopted in lieu of the

Project. As required by CEQA, this section identifies the environmentally superior alternative. It should also be noted that an Alternative Project Location, a Surface Parking Lot or Parking Structure, and a Cul-de-sac on West 117th Street alternatives were considered but eliminated, as discussed further in Section 7.0.

ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain a discussion of issues to be resolved. With respect to the Project, the key issues to be resolved include whether or how to mitigate potentially significant environmental impacts from the Project, and whether one of the alternatives should be approved rather than the Project.

AREAS OF CONTROVERSY

Section 15123(b)(2) of the State CEQA Guidelines indicates that an EIR summary should identify areas of controversy known to the lead agency including issues raised by agencies and the public. This EIR has taken into consideration the comments received from the public, various agencies, and jurisdictions in response to the Notice of Preparation (NOP) and during the public scoping session held on June 11, 2009. Written comments received during the NOP and scoping period are provided in Appendix A. Based on the scoping process, potential areas of controversy known to the County of Los Angeles generally included land use compatibility issues, air quality, noise, and traffic. These topics are addressed in Section 3.4 Noise, Section 4.2 Air Quality, Section 4.4, Visual Qualities, Section 5.1 Traffic/Access, and Section 6.2 Land Use.

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table ES-1 summarizes the potential environmental effects of the Project, the recommended mitigation measures (MMs), and the level of significance after mitigation. Implementation of the mitigation measures, as detailed in each environmental analysis presented in this EIR, would reduce most of the potentially significant impacts to a less than significant level. However, with implementation of the MMs, the Project would result in the following significant and unavoidable impacts:

- Air Quality: Construction activities would result in significant and unavoidable impacts related to the exceedance of the PM10 and PM2.5 local emissions thresholds for a period of approximately 28 days after implementation of MM 4.2-1 (Rule 403). Construction of the Project would result in short-term significant cumulative local impacts of PM10 and PM2.5.

- Noise: Long-term significant noise impacts for developing residential land uses in an exterior noise environment that exceeds 65 CNEL.

TABLE ES-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
Geotechnical (Section 3.1)			
The Project has the potential to be subject to strong seismic ground shaking and secondary seismic effects, including expansive soils.	**MM 3.1-1**	The design and construction of the Project shall comply with the County of Los Angeles Building Code and/or any other applicable building codes and standards to the satisfaction of the Los Angeles County Department of Public Works.	Less than significant
	MM 3.1-2	All grading activities as well as the design and construction of the Project shall comply with the specific recommendations and requirements provided in a comprehensive geotechnical report, subject to approval by the Los Angeles County Department of Public Works.	
Flood (Section 3.2)			
The Project would alter the drainage pattern of the Project site, which could significantly impact the capacity of storm drain facilities.	**MM 3.2-1**	The Project shall implement storm water quality Best Management Practices (BMPs) in accordance with the Los Angeles County Department of Public Works (LACDPW)'s current *Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP)* and *Low Impact Development (LID) Standard Manual* to the satisfaction of LACDPW. Proposed BMPs shall require that: • Three on-site storm drains shall have catch basin inserts, Continuous Deflective Separation (CDS) units, or equivalent technologies, to filter hydrocarbons, trash, heavy metals, sediments, and organics; • All storm drains shall be stenciled with "Warning! Drains to Ocean" notes and symbols per NPDES standards, or as approved by the LACDPW; • Rooftop and podium-level runoff shall be conveyed through planter boxes for filtration prior to entering a public storm drain; and • An on-site underground infiltration system shall be installed beneath the proposed parking lot located north of the intersection of Judah Avenue and 116th Street, and sized to capture the post-development runoff volume increase (LID volume) of 11,761 cubic feet.	Less than significant
	MM 3.2-2	The Project shall include: (1) use of existing storm water drainage features; (2) removal and/or relocation of selected existing storm water drainage features; and (3) installation of new features within the Project site, which shall be reviewed and approved with improvement plans to the satisfaction of the County of Los Angeles Department of Public Works (LACDPW). Specifically, the Project shall: • Retain 12 existing catch basins, remove 5 on-site existing catch basins, remove and relocate 2 on-site existing catch basins, and install 5 new on-site catch basins with filter inserts; • Retain existing concrete gutters where feasible and install new 4-foot concrete	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
	gutters along new and/or reconfigured interior roadways and parking areas; • Remove a segment of the existing Dominguez Channel 8-foot by 10-foot (8' x 10' – ¾") RCB structure beneath Aviation Boulevard and West 116th Street, and relocate it northward on the Project site beneath the proposed fire lane adjacent to the existing Metro Green Line Station; • Extend an existing storm drain near the intersection of Aviation Boulevard and the existing Dominguez Channel to connect to the relocated Dominguez Channel; • Install new storm drains from the on-site parking area, from the proposed underground infiltration basin, and from the on-site Project site to the existing storm drain beneath 116th Street and the relocated Dominguez Channel; • Install a new building drainage outlet near the intersection of Judah Avenue and 116th Street (the subterranean sump pump shall be installed to collect nuisance flows from the subterranean parking garage, as well as stormwater runoff from the filtration planters, and pump it into the Dominguez Channel); and • Record a storm drain easement dedication to the Los Angeles County Flood Control District over the relocated alignment of the Dominguez Channel within the Project site. The size and type of easement dedication may vary and shall be determined with the improvement plans to the satisfaction of the LACDPW. • Off-site improvements are subject to the discretion of the proper permitting authority, including Caltrans for any improvements to the Caltrans Off-Site Project Area, or other jurisdictions for improvements within their right-of-way.	
	MM 3.2-3 All proposed storm drains and other storm water management features specified in the *Drainage Concept, Hydrology, SUSMP, and LID Analysis for Vesting Tentative Tract Map No. 70853* prepared by Land Design Consultants, Inc. shall be designed and implemented to meet NPDES Permit/SUSMP requirements and the County LID requirements, subject to review and approval by the Los Angeles County Department of Public Works.	
	MM 3.2-4 Prior to the issuance of building permits, the Project Applicant/Developer shall construct all Dominguez Channel improvements, including design capacity and location, to the satisfaction of the Los Angeles County Flood Control District (LACFCD) and shall record an easement dedication to the County of Los Angeles for operation and maintenance of the new Dominguez Channel alignment. Subterranean detention boxes shall be sized according to the Q_{allow} and shall be located in proximity to the relocated Dominguez Channel, to the satisfaction of LACFCD.	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
	MM 3.2-5	The Project Applicant/Developer shall obtain a construction permit from the Los Angeles County Flood Control District (LACFCD) for all Project components that affect existing LACFCD facilities.	
	MM 3.2-6	The Project Applicant/Developer shall obtain an encroachment permit from California Department of Transportation (Caltrans) for construction activities within the off-site, Caltrans-owned property.	
Fire (Section 3.3)			
The Project would have the potential to create a fire hazard through the increase in population on the Project site and the increase in the density of structures on-site requiring fire services.	**MM 3.3-1**	The Project shall comply with all applicable *Los Angeles County Code* Title 32 and Ordinance requirements regarding fire prevention and suppression measures, and/or measures approved or required by the Fire Chief, including construction materials, building access and evacuation routes, automatic fire extinguishing systems, standards for multi-family housing and commercial land uses, site access/fire lanes, hydrants water availability, and fire flows and pressures, among other requirements to the satisfaction of the Los Angeles County Fire Department (LACFD). Prior to issuance of building permits, Project Applicant/Developer shall submit all necessary plans and materials to the LACFD for review and approval.	Less than significant
	MM 3.3-2	Prior to issuance of building permits, the Project Applicant/Developer shall demonstrate to the County of Los Angeles Department of Public Works and the Los Angeles County Fire Department (LACFD) that the Project includes appropriate infrastructure to ensure adequate water and fire flow infrastructure and compliance with Los Angeles County Code Title 32 requirements. It is anticipated that segments of the existing four- and six-inch diameter water lines in Aviation Boulevard (between West 116th Street and West 117th Street), 116th Street (between Aviation Boulevard and Judah Avenue), West 117th Street (between Aviation Boulevard and Isis Avenue), and Judah Avenue (between West 117th Street and West 118th Street) shall be abandoned and three existing fire hydrants shall be removed. The Project shall include the following new water and fire flow infrastructure to the satisfaction of the LACFD: • Twelve-inch diameter water line within West 117th Street between Aviation Boulevard and Isis Avenue turning south at Isis Avenue and immediately connecting with the existing 12-inch water line; • Eight-inch-diameter water lines within Aviation Boulevard (between West 117th Street and the proposed Fire Lane along the northern property boundary), the proposed Fire Lane (between Aviation Boulevard and Judah Avenue), and Judah Avenue (between the proposed Fire Lane and West 118th Street). These lines will connect with the new 12-inch line in West 117th Street; • A 6-inch-diameter water lateral from Building 1A to the new water line in West 117th Street, 8-, 6-, and 2-inch-diameter water laterals from the Building 1B to	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
		the new water line in Judah Avenue, and from Building 2A to the new water line in the Fire Lane. Building 2B would be served via the laterals extending to Building 2A; and • Six new fire hydrants evenly distributed around the perimeter of the Project site.	
The Project would involve a new restrooms and water fountain in the Metro bus terminal.	**MM 3.3-3**	Prior to issuance of building permits for the off-site Project Area, the Project Applicant/Developer shall demonstrate to the County of Los Angeles Department of Public Works that the Project includes adequate water infrastructure. It is anticipated that a new water lateral within the off-site, Caltrans-owned property shall be constructed to provide service to the restrooms and water fountain associated with the new Metro bus terminal. The water line shall be connected to the existing 6-inch-diameter water line within the off-site Caltrans property.	Less than significant
Noise (Section 3.4)			
The Project would result in short-term construction noise.	**MM 3.4-1**	Prior to any grading activities, a 10-foot-high temporary noise barrier shall be constructed along the Project site's eastern and southern boundaries, Judah Avenue and West 117th respectively. Noise barriers shall be constructed of material with a minimum weight of four pounds per square foot with no gaps or perforations. Noise barriers may be constructed of, but are not limited to, $^{5}/_{8}$-inch-thick plywood or $^{5}/_{8}$-inch-oriented strand board. The noise barriers shall remain in place until the end of grading/excavation activities. No more than two loader/backhoes and two dozers shall operate simultaneously at ground level during grading activities.	Less than significant
	MM 3.4-2	Stationary equipment (such as generators, cranes, and air compressors) that will be operational for 10 consecutive working days or more shall not be operated closer than 250 feet of any occupied home. If this distance limitation is not feasible, the Project Applicant/Developer shall ensure that the stationary equipment is equipped with appropriate noise reduction measures (e.g., silencers, shrouds, or other devices) to limit the equipment noise at the nearest residences to 60 dBA Lmax or the ambient noise level without the equipment operating, whichever is higher. Noise measurements shall be taken prior to operation of stationary equipment to determine the ambient noise level without the equipment operating and noise measurements shall be taken during operation of the stationary equipment to illustrate compliance with the maximum noise threshold. Documentation of compliance with the maximum noise threshold shall be provided to the County of Los Angeles Department of Regional Planning for each day that the equipment cannot be kept at a minimum of 250 feet from any occupied home.	
	MM 3.4-3	All construction trucks and vehicles accessing the Project site shall be required to use nearby designated truck routes (i.e., Aviation Boulevard and West Imperial Highway/Interstate 105), where feasible, and no construction traffic or queuing shall	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
		be allowed on residential portions of West 117th Street, Judah Avenue, or any other residential streets within the Del Aire community.	
	MM 3.4-4	In accordance with Section 12.08.440 of the County Noise Ordinance, construction activities that generate noise that could create a disturbance across a property line shall not occur between the hours of 7:00 PM and 7:00 AM on weekdays, at any time on Sunday, or a holiday.	
The Project would result in long-term operations noise.	**MM 3.4-5**	The Project Applicant/Developer shall specify in the contract for each operator of a commercial space that (1) the operator shall require delivery trucks to enter and exit the Project site from the Aviation Boulevard driveway and (2) Truck deliveries shall be restricted to the daytime hours (7:00 AM to 10:00 PM).	Less than significant
	MM 3.4-6	Residential air conditioning units shall be designed and installed in accordance with Section 12.08.530 of the County's Noise Ordinance, which limits noise at property lines and at neighboring units. Commercial air conditioning units and other stationary noise sources shall be designed and installed in accordance with Section 12.08.390 of the County's Noise Ordinance, which limits exterior noise at property lines.	
The Project would expose future residents to exterior noise, including aircraft noise associated with the Los Angeles International Airport (LAX).	**MM 3.4-7**	Residential units shall be designed and constructed to ensure that interior noise levels from exterior transportation sources—including aircraft, vehicles on adjacent roadways, and light rail—shall not exceed 45 dBA CNEL. In order to ensure that all dwelling units achieve an adequate noise reduction to achieve an interior noise level of 45 dBA CNEL, the following features shall be included in the building design and construction of all dwelling units: (1) upgraded dual-glazed windows; (2) mechanical ventilation/air conditioning; (3) exterior wall/roof assemblies free of cut-outs or openings; and (4) ceiling insulation in the top floor of each building to reduce aircraft noise by at least 20 dBA. Prior to the issuance of a building permit, the Project Applicant/Developer shall submit architectural plans and a detailed acoustical analysis study prepared by a qualified acoustical consultant that demonstrates that interior noise levels in all residential units due to exterior transportation noise sources would be 45 dBA CNEL or less to the Los Angeles County Department of Public Health for review and approval.	Significant and unavoidable
	MM 3.4-8	In accordance with the *State Business and Professions Code* and the *State Civil Code* each prospective purchaser of residential property within the Project shall be notified as follows: NOTICE OF AIRPORT IN VICINITY - This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (e.g., noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
		acceptable to you. In addition, although not required by the *State Civil Code* (Section 1103 et. seq.), each prospective tenant of leased residential property within the Project shall also be notified as described above.	
Water Quality (Section 4.1)			
On-site and off-site construction activities, and on-site post-development activities, have the potential to release pollutants into storm water runoff.	**MM 4.1-1**	Prior to the issuance of a grading permit, the Project Applicant/Developer shall file a Permit Registration Document (PRD) with the State Water Resources Control Board (SWRCB) in order to obtain coverage under NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities. The PRD shall consist of a Notice of Intent (NOI); Risk Assessment; Site Map; SWPPP; annual fee; and a signed certification statement. Pursuant to permit requirements, the Project Applicant/Developer shall develop and incorporate BMPs for reducing or eliminating construction-related pollutants in the site runoff to the satisfaction of Los Angeles County Department of Public Works.	Less than significant
	MM 4.1-2	Educational materials regarding water quality impacts associated with pet waste, and appropriate options for pet waste disposal, shall be provided to all future homeowners through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs) and all future renters through the Leasing Office.	
	MM 4.1-3	The Project Applicant/Developer shall install and maintain post-construction treatment control Best Management Practices (BMPs) pursuant to the requirements of the Los Angeles County Department of Public Works' *Standard Urban Stormwater Mitigation Plan (SUSMP)* and *Low Impact Development (LID) Standard Manual* to the satisfaction of the Los Angeles County Department of Public Works.	
	MM 4.1-4	Prior to the commencement of construction activities in the off-site, Caltrans-owned property, the Project Applicant/Developer shall demonstrate compliance with any applicable regulations related to drainage infrastructure and post-construction treatment control BMPs pursuant to the requirements of the Caltrans Statewide SWMP and other applicable local, State, and federal regulations to the satisfaction of Caltrans.	
In addition, MM 3.2-1 from Section 3.2, Flood, is also applicable to the water quality analysis.			
Air Quality (Section 4.2)			
Construction of the Project would result in. localized emissions from grading activities, which would exceed the 24-hour ambient air quality standards for PM10 and	**MM 4.2-1**	Dust control measures applied to Project construction activities shall be in compliance with SCAQMD Rule 403 for Best Available Control Measures and to the satisfaction of SCAQMD and the County Department of Regional Planning. Contractor compliance with Rule 403 requirements shall be mandated in the contractor's final construction plans and specifications and shall include the	Significant and unavoidable (short-term direct and cumulative)

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
PM2.5 at the nearest off-site receptors (i.e., localized significance thresholds).		following measures: • Land disturbance shall be minimized to the extent feasible. Grading activities shall be limited to the disturbance of no more than 1.25 acres per day and shall not exceed 2,400 cubic yards of grading per day. • Haul trucks shall be covered when loaded with fill. • Paved streets shall be swept at least once per day where there is evidence of dirt that has been carried onto the roadway. • Watering trucks shall be used to minimize dust. Watering should be sufficient to confine dust plumes to the Project work areas. Active disturbed areas shall have water applied to them three times daily. • For disturbed surfaces to be left inactive for four or more days and that will not be revegetated, a chemical stabilizer shall be applied per manufacturer's instruction. • For unpaved roads, chemical stabilizers shall be applied or the roads shall be watered once per hour during active operation. • Vehicle speed on unpaved roads shall be limited to 15 miles per hour. • For open storage piles that will remain on site for two or more days, water shall be applied once per hour, or coverings shall be installed. • For paved road track-out, all haul vehicles shall be covered, or shall comply with vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads. During high wind conditions (wind speeds in excess of 25 mph), all earth moving activities shall cease or water shall be applied to soil not more than 15 minutes prior to disturbing such soil.	
Construction of the Project would result in regional criteria pollutant emissions.	**MM 4.2-2**	Mass grading operations shall be planned and operated in a manner such that NOx emissions shall not exceed 100 pounds/day. This shall be demonstrated by emissions calculations for a reasonable maximum mass grading day, using the specific equipment selected for off-road and on-road use, subject to SCAQMD and Los Angeles County Department of Regional Planning review and approval. Should new-technology Tier 3 equipment or better be used, then it may be possible to exceed the equipment and equipment use data assumed in the URBEMIS model for the Project by substantial quantities without exceeding the 100 pounds/day NOx threshold.	Less than significant
	MM 4.2-3	In order to minimize NOx emissions, the Applicant/Developer shall include the following measures in all contractor's final construction plans and specifications: • Use electricity from power poles rather than temporary diesel or gasoline power generators;	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
		• Ensure that all vehicles and equipment shall be properly tuned and maintained according to manufacturers' specifications; • Prohibit all diesel trucks from idling in excess of five minutes, both on- and off-site; • Schedule off-site haul activities that affect traffic flow on the arterial system to off-peak hours to the extent practicable, that is, peak hour hauls on the off-site arterial system shall occur only if necessary to avoid extending the length of the applicable phase of construction; and • Provide temporary traffic controls, such as a flag person, during all phases of construction as necessary to maintain smooth traffic flow. If needed to avoid congestion, provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site and/or modify signal synchronization. • Configure construction parking to minimize traffic interference.	
Future residents would be exposed to PM10, PM2.5, and ultrafine particles due to the Project's proximity to the I-105.	**MM 4.2-4**	Information regarding exposure to PM10, PM2.5, and ultra-fine particles due to the Project's proximity to I-105 shall be provided to all future homeowners and residents of the Project through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs).	Less than significant
Cultural Resources (Section 4.3)			
Construction of the Project could encounter unknown archeological resources remaining under existing development.	**MM 4.3-1**	During all grading and excavation activities that occur within native soils (i.e., not within engineered fill materials that are present at the surface), a trained Archaeological Monitor shall be present to monitor the earth-moving activities. Based on the site conditions and grading program, the Archaeological Monitor shall determine an appropriate monitoring schedule, subject to the approval of the Los Angeles County Department of Regional Planning (LACDRP). The Archaeological Monitor would not need to be present once grading and excavations reach a depth of 15 feet or deeper (see MM 4.3-2), or once bedrock is encountered. Should archaeological resources be encountered, a qualified Archaeologist shall be retained to implement procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the resources, as appropriate. If the resources are found to be significant, the Archaeologist shall determine appropriate actions for preservation and/or data recovery to the satisfaction of the LACDRP. If the Monitor determines that the sediments are not sensitive for the presence of resources, monitoring efforts can be terminated.	Less than significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
Construction of the Project could encounter unknown paleontological resources within older Quaternary Alluvium at depths of approximately 15 feet or deeper beneath the Project site.	**MM 4.3-2**	A qualified Paleontologist shall be retained to monitor earth-moving activities of 15 feet or deeper (i.e. the depths at which significant vertebrate fossils have been recovered from older Quaternary Alluvium). Should paleontological resources be encountered during earth-moving activities (i.e., grading and excavation), the Paleontologist shall implement procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the resources, as appropriate. If the resources are found to be significant, the Paleontologist shall determine appropriate actions for preservation and/or data recovery to the satisfaction of the Los Angeles County Department of Regional Planning. If the Paleontologist determines that the sediments are not sensitive for the presence of resources, monitoring efforts can be terminated.	Less than significant
Construction of the Project could encounter human remains buried.	**MM 4.3-3**	In accordance with *California Health and Safety Code*, Section 7050.5, if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined the appropriate treatment and disposition of the human remains. The County Coroner shall be notified within 24 hours of the discovery and shall make such determination within 2 working days of notification of discovery. If the County Coroner determines that the remains are or believed to be Native American, the County Coroner shall notify the Native American Heritage Commission in Sacramento within 24 hours. In accordance with *California Public Resources Code*, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendents shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.	Less than significant
Visual Qualities (Section 4.4)			
Construction activities could adversely alter the visual character of the site.	**MM 4.4-1**	Prior to commencement of construction activities, the Contractor shall install a visual barrier along the entire perimeter of the construction site (e.g., green mesh fabric or similar view-blocking material) to obstruct street-level views of construction activities from residents in the immediate vicinity of the site. This barrier shall remain in place until the completion of grading activities requiring heavy mobile trucks/equipment. This shall be included on the contractor specifications and verified by the County of Los Angeles.	Less than significant
The Project would introduce new landscaping, which could affect the visual character of the Project area.	**MM 4.4-2**	Prior to issuance of a grading permit, the Project Applicant/Developer shall submit the Landscaping Plan to the Los Angeles County Department of Regional Planning for review and approval.	Less than significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
The Project includes commercial and residential signage, which could affect the visual character of the Project area.	**MM 4.4-3**	Prior to issuance of a building permit, a signage plan shall be submitted to the Los Angeles County Department of Public Works for review and approval. Project signage shall be designed and implemented in compliance with all applicable Los Angeles County standards and requirements.	Less than significant
The Project would be a new source of nighttime lighting.	**MM 4.4-4**	Prior to issuance of a building permit, a lighting plan shall be submitted to the Los Angeles County Department of Public Works for review and approval. Project lighting shall be designed and implemented in compliance with all applicable Los Angeles County lighting standards.	Less than significant
Traffic/Access (Section 5.1)			
The Project would involve improvements to the intersection of the Caltrans-owned property with West Imperial Highway.	**MM 5.1-1**	All traffic improvements and construction-related activities that involve Caltrans-owned property shall be subject to the approval of an encroachment permit from Caltrans and shall be designed and constructed in accordance with applicable Caltrans standards and requirements, including the California 2010 MUTCD Manual, to the satisfaction of Caltrans.	Less than significant
The Project would involve circulation improvements for the Project site and the off-site Project area.	**MM 5.1-2**	To ensure adequate vehicular access and circulation on the Project site and the off site Project area, the Project shall construct the following traffic and circulation features to the satisfaction of the Los Angeles County Department of Public Works (LACDPW): • Vehicular access to the Project site shall be limited to driveways on Aviation Boulevard and West 117th Street. o The existing Aviation Boulevard signalized driveway (driveway entrance to the Metro bus terminal) is located at the northwest corner of the Project site and shall be modified to serve as the main Project driveway for access to the commercial and residential components of the Project and associated parking areas. The existing traffic signal equipment at the Aviation Boulevard driveway shall be modified accordingly. The proposed Aviation Boulevard driveway shall provide full access (i.e., left-turn and right-turn ingress and egress turning movements). For exiting traffic, two lanes shall be provided: one for left-turns and one for right-turns. o The West 117th Street driveway shall be located on the north side of West 117th Street at the southwest corner of the Project site, and shall provide secondary access to the commercial and residential components of the Project and associated parking areas. This driveway shall accommodate left-turn ingress and right-turn egress movements only to direct Project-related traffic to and from Aviation Boulevard (i.e., limit Project traffic from travelling on nearby local residential streets). • The existing Metro bus terminal shall be relocated to the western portion of the existing Caltrans Park-and-Ride Lot. The existing Caltrans Park-and-Ride Lot	Less than significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures	Level of Significance After Mitigation
	and the adjacent surface parking lot associated with the Caltrans Maintenance Facility shall be reconfigured to accommodate the relocation of the Metro bus terminal in order to maintain at least the current number of Park-and-Ride spaces (approximately 400 parking spaces). o Vehicular access to the relocated Metro facilities shall be provided via two driveways: one on Aviation Boulevard and one on West Imperial Highway. o The existing Caltrans Park-and-Ride driveway on Aviation Boulevard shall be relocated approximately 100 feet north of its current position and shall accommodate right-turn ingress and egress movements only. o The existing Caltrans Park-and-Ride driveway on West Imperial Highway shall be relocated approximately 30 feet east of its current position and shall be used as an exit only driveway (i.e., limited to right-turn egress movements only). o The existing Caltrans driveway on West Imperial Highway shall be reconfigured to provide one inbound lane and one outbound lane, with left-turn and right-turn ingress and right-turn egress only (i.e., no left-turn egress movements would be permitted onto westbound West Imperial Highway). The reconfigured Caltrans driveway shall provide direct access to the Caltrans Park-and-Ride Lot and Caltrans surface parking lot. o A traffic signal shall be installed at the existing Caltrans driveway on West Imperial Highway to accommodate access to the reconfigured Metro and Caltrans facilities. The traffic signal at the Caltrans driveway shall feature separate westbound left-turn phasing for vehicles turning left into the Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility parking lot and a northbound right-turn overlapping phase for vehicles exiting the driveway. The cost of the traffic signal installation shall be the sole responsibility of the Project Applicant. The installation of the traffic signal shall be complete and in operation prior to the operation of the new Metro bus terminal. • A new driveway on West Imperial Highway shall be constructed for the relocated Metro bus terminal and will provide right turn ingress and egress movements. • Modifications to the traffic signal located at the intersection of Aviation Boulevard and West 116th Street shall be constructed prior to occupancy of the Project. The cost of the design and modification of the traffic signal shall be the sole responsibility of the Project Applicant/Developer. A detailed striping and signal plans shall be submitted to LACDPW Traffic and Lighting Division for review and approval.	

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
		• The design/redesign of the intersections (and associated traffic signal installations) roadways and the site plan layout, including driveway encroachments within Los Angeles County, shall be to the satisfaction of LACDPW.	
The Project would require new parking facilities.	**MM 5.1-3**	The provision, design, and location of parking for the Project shall comply with the Americans with Disabilities Act (ADA).	Less than significant
The Project would generate an estimated net increase of 1,114 net daily vehicle trips.	**MM 5.1-4**	Prior to issuance of the first occupancy permit, the Project Applicant/Developer shall coordinate with the Los Angeles County Department of Public Works regarding a possible restricted parking program for West 117th Street and Judah Avenue adjacent to the Project site, which currently have unrestricted parking. Whether or not restricted parking is implemented and the type of restriction used (e.g., meters, permits, signs) shall be determined to the mutual satisfaction of the Project Applicant/Developer, the County, and the adjacent residents.	Less than significant
The Project would relocate the existing Metro bus terminal.	**MM 5.1-5**	The Project Applicant/Developer shall demonstrate to the satisfaction of the County of Los Angeles and the Metropolitan Transportation Authority that the relocated Metro bus terminal is fully operational prior to the removal of the existing Metro bus terminal located on Lot 2 of the Project site.	Less than significant
The Project site is in proximity to the Los Angeles International Airport.	**MM 5.1-6**	To minimize potential cumulative construction traffic impacts in the Los Angeles International Airport (LAX) area, the Project Applicant/Developer shall provide Los Angeles World Airports with the Project's construction schedule, construction hours, haul routes, and construction personnel contact information at least 10 days before construction activities begin.	Less than significant
In addition, MM 3.2-6 from Section 3.2, Flood, and MM 3.4-3 from Section 3.4, Noise, are applicable to the traffic/access analysis.			
Sewage Disposal (Section 5.2)			
The Project would result in a net generation of approximately 77,626 gallons per day of wastewater that would be conveyed from the Project	**MM 5.2-1**	Prior to the issuance of building permits, the Project Applicant/Developer shall pay the applicable connection fees in accordance with the Sanitation Districts of Los Angeles County *Master Connection Fee Ordinance of County Sanitation District No. 5 of Los Angeles County*.	Less than significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
	MM 5.2-2	Prior to issuance of building permits, the Project Applicant/Developer shall demonstrate to the Sanitation Districts of Los Angeles County and Los Angeles County Department of Public Works that the Project includes appropriate infrastructure to ensure adequate wastewater conveyance. It is anticipated that segments of the existing eight-inch-diameter local sewer line within Aviation Boulevard (between West 116th Street and West 117th Street) and West 116th Street (between Aviation Boulevard and Judah Avenue) will be removed. The Project shall include the following new wastewater infrastructure: • An 8-inch-diameter local sewer line within Aviation Boulevard beginning north of West 116th Street and connecting to the sewer line within West 117th Street; • An 8-inch-diameter local sewer line within West 117th Street connecting the Aviation Boulevard sewer line to the existing sewer line in West 117th Street; • An 8-inch-diameter local sewer line within Judah Avenue beginning mid-block between West 116th Street and West 117th Street, and connecting to the existing sewer line in West 117th Street; • An 8-inch-diameter local sewer line within Judah Avenue beginning mid-block between West 116th Street and extending north of West 117th Street, and connecting to the existing sewer line in West 116th Street; • Six-inch-diameter sewer laterals from each of the four proposed buildings to a local sewer line; and • Four-inch-diameter sewer laterals from each individual townhome along West 117th Street and Judah Avenue to a local sewer line.	
The Project would require annexation of existing City of Los Angeles sewer lines into the County.	**MM 5.2-3**	Prior to the issuance of building permits, the Project Applicant/Developer shall complete the annexation of all appropriate local sewer lines and laterals necessary to serve the Project that are currently within the City of Los Angeles into the Los Angeles County Department of Public Works (LACDPW) Consolidated Sewer Maintenance District. All proposed sewer lines shall be constructed in compliance with the LACDPW's sewer design standards to the satisfaction of LACDPW.	Less than significant
The Project would involve new restrooms in the Metro bus terminal.	**MM 5.2-4**	Prior to issuance of building permits for the off-site Caltrans-owned property, the Project Applicant/Developer shall demonstrate to the Los Angeles County Department of Public Works that the Project includes adequate wastewater infrastructure. A new sewer lateral line within the off-site, Caltrans-owned property shall be constructed to provide service to the restrooms associated with the new Metro bus terminal. The sewer line shall be connected to the existing eight-inch diameter local sewer line within the off-site Caltrans property.	Less than significant
Education (Section 5.3)			
The Project would generate	**MM 5.3-1**	The Project Applicant/Developer shall pay new development fees in effect at the	Less than significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
additional school-age children to be served by the Wiseburn School District and the Centinela Valley Union High School District.		time of building permit issuance to the Wiseburn School District and the Centinela Valley Union High School District pursuant to *California Government Code,* Section 65995 (SB 50).	
The Project would lead to an estimated net increase of 1,117 persons residing on the Project site that would be served by the County of Los Angeles Public Library.	**MM 5.3-2**	The Project Applicant/Developer shall remit to the Los Angeles County Public Library a fee in effect at the time of building permit issuance, pursuant to the Library Facilities Mitigation Fee Program.	Less than significant
Fire/Sheriff (Section 5.4)			
The Project would be served by the Los Angeles County Fire and Sheriff's Departments.	**MM 5.4-1**	Prior to issuance of a certificate of occupancy, the Project Applicant/Developer shall notify the Los Angeles County Sheriff's Department, including the Transportation Bureau-Green Line, of Project completion in order to facilitate their internal assessment to ensure that services are appropriately allocated to areas in need.	Less than significant
In addition, MM 3.3-1 from Section 3.3, Fire, MM 3.4-3 from Section 3.4, Noise, and MM 5.1-1 from Section 5.1, Traffic/Access, are applicable to the fire/sheriff analysis.			
Utilities/Other Services (Section 5.5)			
The Project would generate a gross demand for approximately 148.6 afy of potable water to be provided by Golden State Water Company.	**MM 5.5-1**	Prior to the issuance of building permits; the Project Applicant/Developer shall pay the applicable connection fees in accordance with the Golden State Water Company standards and requirements.	Less than significant
The Project would generate solid wastes and disposal demands due to construction and operation of the Project.	**MM 5.5-2**	Prior to commencement of construction activities, a Recycling and Reuse Plan must be submitted to the Los Angeles County Department of Public Works, Environmental Programs Division for review and approval. Construction activities on the Project site shall be conducted in compliance with Section 22.52.2100, Green Building of the Los Angeles County Code, which requires the recycling/reuse of at least 65 percent of non-hazardous construction/demolition debris by weight.	Less than significant
In addition, MM 3.3-2 from Section 3.3, Fire, and MMs 6.4-1 and 6.4-2 from Section 6.4, Greenhouse Gas Emissions, are applicable to the utilities analysis.			
Environmental Safety (Section 6.1)			
There are no known sources of contaminants on the Project site; however, there is the potential to discover unknown contamination through on-site grading and excavation activities.	**MM 6.1-1**	Prior to the issuance of a grading permit(s), the Project Applicant/Developer shall submit the final contractor specifications that includes a contingency plan to address the potential to encounter unknown subsurface anomalies during site grading and excavation to the satisfaction of the County. The specifications shall also include the appointment of a Construction Monitor with a CalOSHA Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) certification to identify and provide initial response to any hazard or hazardous material	Less than significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
		encountered during Project implementation. The contingency plan shall specify that, if construction workers encounter any hazards or hazardous materials (including, but not limited to, pipes, USTs, stained soils, odors, gases, uncontained spills, and/or other unidentified substances), the Contractor shall stop work, notify the Construction Monitor (if not already aware), and cordon off the affected area. The Construction Monitor shall contact the Los Angeles County Certified Unified Program Agency (CUPA), which is the Los Angeles County Fire Department, Health Hazardous Materials Division, who shall determine the next steps regarding possible site evacuations, notification of other oversight agencies, sampling, handling, and disposal of the material(s) consistent with federal, State, and local regulations. If required, the Project site shall be remediated to the satisfaction of the CUPA.	
Demolition of on-site structures has the potential to result in the accidental release of asbestos-containing materials (ACMs), lead-based paint (LBP), and/or polychlorinated biphenyls (PCBs) into the environment.	**MM 6.1-2**	Prior to the issuance of a demolition permit for any structure on the Project site, pre-demolition surveys for ACMs and LBP—including sampling and analysis of all suspected building materials—and inspections for PCB-containing electrical fixtures shall be performed for the structure(s) proposed for demolition. All surveys, inspections, and analyses shall be performed by fully licensed and qualified individuals in accordance with all applicable federal, State, and local regulations, including ASTM E 1527-05; 15 USC Chapter 15 (Toxic Substances Control); CalOSHA requirements; and SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). If the pre-demolition surveys/inspections do not identify ACMs, LBP, and/or PCB-containing fixtures, the Project Applicant/Developer shall provide documentation to the County of the survey/inspection showing that no further abatement actions are required as part of the application for a demolition permit. If the pre-demolition surveys/inspections identify ACMs, LBP, and/or PCB-containing fixtures, all such materials shall be handled in accordance with SCAQMD Rule 1403. The Project Applicant/Developer shall provide documentation to the Los Angeles County Certified Unified Program Agency (CUPA) that appropriately qualified individuals have been retained to manage the identified materials as part of the application for a demolition permit. All demolition activities that may expose construction workers and/or the public to asbestos-containing materials, lead-based paint (LBP), and/or PCB-containing electrical fixtures shall be conducted in accordance with applicable regulations, including, but not limited to 15 *United States Code* (USC) Chapter 53 Toxic Substances Control; CalOSHA regulations (8 CCR Section 1529 [Asbestos] and Section 1532.1 [Lead]); and SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). The requirement to adhere to all applicable regulations shall be included in the contractor specifications, and such inclusion shall be approved by the Los Angeles County CUPA and verified by the Los Angeles County Department of Public Works	Less than significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
		prior to issuance of the demolition permit. After demolition, the Project Applicant/Developer shall provide documentation (e.g., required waste manifests, air monitoring results, and laboratory analytical results) to the Los Angeles County Department of Public Health (DPH) and CUPA illustrating that abatement of any ACMs, LBP, and/or PCB-containing fixtures identified in the demolished structure has been completed in full compliance with applicable regulations. The County of Los Angeles Department of Public Works shall be copied on all materials submitted to the DPH and CUPA.	
	MM 6.1-3	Any contaminated soils or other hazardous materials removed from the Project site shall be transported only by a Licensed Hazardous Waste Hauler, who shall be in compliance with all applicable State and federal requirements, including U.S. Department of Transportation regulations under 49 CFR (Hazardous Materials Transportation Act), Caltrans standards, CalOSHA standards, and 40 CFR 263 (Subtitle C of Resource Conservation and Recovery Act).	
The Project site is included in the Federal Aviation Administration (FAA) notification area.	**MM 6.1-4**	All structures shall comply with Federal Aviation Administration (FAA) height restrictions, pursuant to Federal Aviation Regulation (FAR) Part 77, Subpart C. The Project Applicant/Developer shall provide the County of Los Angeles Department of Regional Planning with proof of a current and valid FAA "Determination of No Hazard to Air Navigation" at the time of building permit issuance.	Less than significant
Construction of off-site Project components would involve activities within local streets.	**MM 6.1-5**	Before the start of construction, Worksite Traffic Control Plans (WTCP) and Traffic Circulation Plans, including identification of detour requirements, shall be prepared in cooperation with the County of Los Angeles, the City of Los Angeles, and other affected jurisdictions in accordance with the Work Area Traffic Control Handbook (WATCH) manual and Manual on Uniform Traffic Control Devices (MUTCD), as required by the relevant jurisdiction. Construction activities shall comply with the approved WTCP to the satisfaction of the affected jurisdictions.	Less than significant
In addition, MM 4.1-1 from Section 4.1, Water Quality, is applicable to the hazards analysis.			
Population, Housing, Employment and Recreation (Section 6.3)			
The Project would generate additional demands for recreational facilities.	**MM 6.3-1**	Prior to the clearance of the final map by the Los Angeles County Department of Parks and Recreation (DPR), the Project Applicant/Developer shall provide the DPR with in-lieu fee payment to meet the parkland obligation calculated by the DPR for the Project in accordance with the County Parkland Dedication Ordinance.	Less than significant
Climate Change (Section 6.4)			
Construction and operation of the Project would generate greenhouse gas (GHG) emissions.	**MM 6.4-1**	The Project shall be designed and constructed in accordance with the following regulations as set forth in the *Los Angeles County Code*: Section 12.84.410 et seq., Low Impact Development; Section 21.52.2200 et seq., Drought Tolerant Landscaping; and Section 22.52.2100, Green Building. The Green Building	Less than significant

TABLE ES-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impacts	Mitigation Measures		Level of Significance After Mitigation
		ordinance requires features/actions relative to the Project including, but not limited to, the following: • Achievement of at least 15 percent more energy efficiency than the 2005 Title 24 California Energy Efficiency Standards; • Installation of smart irrigation controllers, drought-tolerant vegetation (per Chapter 22.52 requirements), and high-efficiency toilets in all dwelling units and mixed-use buildings; • Recycle/reuse of at least 65 percent of non-hazardous construction/demolition debris by weight; and • Planting of at least one 15-gallon tree for every 5,000 sf of multi-family developed area with at least 50 percent of the trees being drought tolerant, and plant at least three 15-gallon trees for every 10,000 sf of non-residential developed area with at least 65 percent of the trees being drought-tolerant.	
	MM 6.4-2	Educational materials regarding water conservation techniques and programs, waste reduction and recycling services, energy conservation, the benefits of mixed-use, transit-oriented developments in support of the reduction of vehicle trips, and information about public transportation options shall be provided to all future homeowners and residents of the Project through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs).	
	MM 6.4-3	Preferred parking for low-emission and fuel-efficient vehicles and on-site bicycle storage shall be provided to the satisfaction of Los Angeles County Department of Regional Planning.	

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SECTION 1.0
INTRODUCTION

1.1 PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) California Public Resources Code (PRC) Section 21002.1 states that the purpose of an environmental impact report (EIR) is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant impacts can be reduced, mitigated or avoided. A detailed description of the proposed Aviation Station Project (Project) is provided in Section 2.0, Environmental Setting and Project Description, of this Draft EIR.

The Project requires approval of certain discretionary actions by the County of Los Angeles (County) and other governmental agencies. Therefore, in accordance with PRC Section 21080, the Project is subject to environmental review under CEQA. For purposes of complying with CEQA, the County is identified as the Lead Agency for the Project.

In accordance with Section 15121(a) of the CEQA Guidelines, this EIR is an informational document that will inform public agency decision makers and the public generally of: 1) the significant environmental effect of the Project; 2) identify possible ways to minimize the significant effects; and 3) define and analyze alternatives to the Project which would reduce or avoid significant impacts. Thus, the EIR is an important document that is ultimately used by decision makers when considering whether or not to approve, deny, or modify a project.

This EIR has been prepared in conformance with CEQA, (*California Public Resources Code* [PRC], Section 21000 et seq.) and the CEQA Guidelines (Title 14, *California Code of Regulations* [CCR] Section 15000 et seq.). Section 15151 of the CEQA Guidelines defines the standards of adequacy for an EIR:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

This draft EIR is intended to serve as a Project EIR under CEQA. Section 15161 of the CEQA Guidelines states that a Project EIR should focus primarily on changes in the environment that would result from the development project. In addition, a Project EIR must examine all phases of a project, including planning, construction and operation. This Project EIR is intended to provide the environmental information necessary for the County of Los Angeles to make a final decision on the requested entitlements for this Project. This EIR is also intended to support discretionary reviews and decisions by other agencies.

1.2 ENVIRONMENTAL REVIEW PROCESS

In accordance with the requirements of CEQA, the LACDRP prepared an Initial Study (dated April 16, 2009) that identified the topics to be analyzed in the EIR. The Initial Study is contained in Appendix A of this Draft EIR.

Based on the review of environmental issues by the LACDRP, this Draft EIR analyzes the following environmental topics:

- Geotechnical Hazards
- Flood Hazards
- Fire Hazards
- Noise
- Water Quality
- Air Quality
- Cultural Resources
- Visual Qualities
- Traffic/Access
- Sewage Disposal
- Education
- Fire/Sheriff Services
- Utilities/Other Services
- Environmental Safety
- Land Use
- Population, Housing, Employment, and Recreation
- Greenhouse Gas Emissions and Climate Change

In compliance with CEQA Guidelines Section 15082, the County oversaw the preparation of the Notice of Preparation (NOP), which was distributed on May 20, 2009 to the State Clearinghouse and other public agencies for the required 30-day review and comment period. Additionally, a Scoping Meeting was held on June 11, 2009 in the unincorporated community of Del Aire at the Del Aire Park Community Room to facilitate public review and comment on the Project. The NOP (including the Initial Study), comments received by the County, and Scoping Meeting comments are contained in Appendix A of this Draft EIR.

This Draft EIR was prepared under the direction and supervision of the LACDRP, Impact Analysis Section. This Draft EIR has been subjected to a 30-day Los Angeles County departmental review, prior to the required 45-day public review and comment period as mandated by CEQA (CEQA Guidelines Section 15105). During the public review period, written comments concerning the adequacy of the document will be submitted by interested public agencies and members of the public to the County of Los Angeles, Department of Regional Planning, 320 West Temple Street, Los Angeles, California 90012; Attention: Christina Tran.

A public hearing(s) will be held before the Los Angeles County Regional Planning Commission and Board of Supervisors to consider the Project, the requested entitlements and the adequacy of this Draft EIR, at which time public testimony will be received. After the public review comment period, written responses to all written comments and oral testimony pertaining to environmental issues will be prepared as part of the Final EIR. As required by CEQA, responses to comments submitted by responsible public agencies will be distributed to those agencies for review prior to consideration of the Final EIR by the Regional Planning Commission. At the conclusion of the EIR public hearing process, the Regional Planning Commission and Board of

Supervisors will vote on whether or not to certify the EIR, adopt findings relative to the Project's environmental effects after implementation of mitigation measures, and then take action to recommend outright approval, conditional approval, or denial of the Project.

1.3 ORGANIZATION OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

This Draft EIR is organized into 12 sections. A list of the Draft EIR sections and a brief description of their contents is provided below to assist the reader in locating information.

- **Executive Summary:** This section provides a summary of the Project Description, Alternatives to the proposed Project, environmental impacts, and mitigation measures.

- **Section 1.0 (Introduction):** This section briefly discusses the purpose of the EIR, identifies the environmental issues assessed in the EIR, describes the environmental review process and organization of the EIR.

- **Section 2.0 (Environmental Setting and Project Description):** This section provides a general overview of the Project location and setting (including the physical environment), a detailed description of the Project characteristics during construction and operation, a description of applicable regional plans, a statement of the Project objectives, and a list of related projects considered in the cumulative impact analysis.

- **Section 3.0 (Hazards):** This section provides an analysis of potential geotechnical, flood (hydrology), fire, and noise impacts resulting from implementation of the Project. Potential impacts are described and mitigation measures are discussed that would eliminate or reduce any identified impacts.

- **Section 4.0 (Resources):** This section provides an analysis of potential water quality, air quality, cultural resources, and visual qualities impacts resulting from implementation of the Project. Potential impacts are described and mitigation measures are discussed that would eliminate or reduce any identified impacts.

- **Section 5.0 (Services):** This section provides an analysis of potential traffic/access, sewage disposal, education, fire/sheriff services, dry utilities, water supply, and solid waste impacts resulting from implementation of the Project. Potential impacts are described and mitigation measures are discussed that would eliminate or reduce any identified impacts.

- **Section 6.0 (Other):** This section provides an analysis of potential impacts related to environmental safety, land use and community character, population, housing, employment, recreation, and greenhouse gas emissions and climate change resulting from implementation of the Project. Potential impacts are described and mitigation measures are discussed that would eliminate or reduce any identified impacts.

- **Section 7.0 (Project Alternatives):** Pursuant to Section 15126.6 of the CEQA Guidelines, this section includes an analysis of a range of reasonable alternatives to the Project. Alternatives are analyzed that would feasibly attain most of the basic objectives of the Project, but would avoid or reduce any of the significant effects of the Project. The comparative merits of each alternative are also evaluated and an environmentally superior alternative is identified.

- **Section 8.0 (Impacts Found Not To Be Significant):** This section discusses the reason(s) for the determination of "no impact" in the Initial Study for the identified impact category or environmental issue. The Initial Study is provided in Appendix A of this Draft EIR.

- **Section 9.0 (Long-Term Implications of the Proposed Project):** This section discusses the long-term environmental effects of the Project, including an analysis of growth-inducing impacts and changes that would be considered significant and irreversible. The analysis includes a discussion of the Project's potential to foster economic or population growth (e.g., extend utilities, create new housing) or other activities that could significantly and irreversibly affect the environment, either individually or cumulatively.

- **Section 10.0 (List of EIR Preparers and Contributors):** This section lists the persons that directly contributed to preparation of the Draft EIR.

- **Section 11.0 (References):** This section lists all information sources used or referenced in preparing the Draft EIR. References listed in technical reports used in the preparation of the Draft EIR are incorporated by reference and are therefore not contained herein.

The Executive Summary and Sections 1.0 through 11.0 are presented in Volume I of this Draft EIR. Appendices A through L are presented in Volume II. For each environmental issue analyzed in Sections 3.0, 4.0, 5.0, and 6.0, the assessment is structured as follows:

RELEVANT POLICIES AND REGULATIONS

This section includes information about policies and regulations that would be applicable to the Project and relevant to the environmental issue(s) being analyzed. Although not an exhaustive listing, this includes standard conditions of approval and other regulatory requirements that would be applied to the Project. This information is listed in order of decreasing jurisdictional authority (i.e., federal, State, regional, County, and local), if an applicable requirement from that jurisdiction is included. For instance, not all environmental issues are subject to applicable federal requirements and, therefore, a listing for federal regulations is not always included.

EXISTING CONDITIONS

Section 15125 of the CEQA Guidelines states that "an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time of the Notice of Preparation is published from both a local and regional perspective" (14 CCR 15125). The existing conditions are used as the baseline physical conditions to which potential adverse impacts associated with implementation of the Project would be compared. A discussion of the regional setting is included, as appropriate, and the analysis identifies environmental resources that are rare or unique to the region and that would be affected by the Project.

THRESHOLDS OF SIGNIFICANCE

This section includes a bulleted list of the CEQA thresholds of significance as presented in the County's Initial Study; these thresholds and any other agency thresholds applicable to that environmental issue (e.g., South Coast Air Quality Management District air quality thresholds) are used as a basis for environmental analysis. Thresholds of significance provide an identifiable quantitative, qualitative, or performance standard for evaluating the significance of a project's particular environmental effect.

PROJECT DESIGN FEATURES

Project design features (PDFs) are characteristics of the Project that were expressly designed to avoid or reduce potential environmental impacts relevant to the topic being addressed. They are incorporated into the Project design and are therefore not considered mitigation measures.

ENVIRONMENTAL IMPACTS

This section presents the analysis of direct and indirect environmental impacts associated with implementation of the Project for both “On-Site Impacts” and “Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts”. The analysis includes consideration of all phases of the Project from construction through operation (after occupancy). Thresholds of significance are described to provide an identifiable quantitative, qualitative, or performance level of a particular environmental effect. If Mitigation Measures (MMs) are required to reduce the impact to a level less than significant, the MMs are listed and referred to in the text.

CUMULATIVE IMPACTS

Pursuant to the State CEQA Guidelines Section 15130, “an EIR shall discuss cumulative impacts of a project when the project’s incremental effect is cumulatively considerable”. As defined in the State CEQA Guidelines Section 15065(a)(3), an effect may be cumulatively considerable if “the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects”.

The analyses of cumulative impacts in this EIR complies with State CEQA Guidelines Section 15130 (b)(1), which states that the analysis of cumulative impacts may consider either a list of past, present, and probable future projects or a summary of projections contained in an adopted general plan, another related planning document, or in a previously adopted EIR.

MITIGATION MEASURES

If an environmental impact from implementation of the Project would exceed the threshold of significance, then mitigation is required to avoid or reduce the impact. MMs are incorporated into the Draft EIR when a significant environmental impact has been identified. Project-specific mitigation measures are recommended to minimize the significant impacts of a project. Incorporation of mitigation measures does not always ensure that Project impacts would be considered less than significant.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This section summarizes the level of significance of impacts that would result from the Project after implementing mitigation measures, if applicable. The level of significance would be either no impact, less than significant, or significant and unavoidable.

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SECTION 2.0
ENVIRONMENTAL SETTING AND PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND SETTING

The Aviation Station Project site is located within both the unincorporated community of Del Aire in Los Angeles County and within the City of Los Angeles. The Project site is bounded by Aviation Boulevard to the west; West 117th Street to the south; Judah Avenue to the east; and the existing Metro Green Line Aviation/LAX Station to the north. Regional access to the Project site is provided by Interstate (I) 105 (San Diego Freeway), which is located approximately 260 feet north of the Project site, and I-405 (Glenn M. Anderson Freeway), which is located approximately 0.5 mile to the east. West Imperial Highway is located farther north of the Project site and serves as the northern boundary of the "Caltrans Off-Site Project Area" described below. The regional location and local vicinity of the project site are depicted on Exhibit 2-1 .

The community of Del Aire is entirely surrounded by other urban municipalities, including the Cities of Los Angeles, El Segundo, Hawthorne, and the unincorporated Lennox community, as depicted on Exhibit 2-2. The unincorporated community of Del Aire is largely composed of single-family residences that extend (1) southerly to Rosecrans Avenue and strip commercial land uses along Aviation Boulevard and (2) easterly into the City of Hawthorne. However, the residential community of Del Aire is somewhat segmented in that it is divided in half by I-405, and bound to the north by I-105 and the Los Angeles International Airport (LAX) and to the west by the Northrop Grumman complex located in the City of El Segundo.

Currently, the Project site is partially bisected by the West 116th Street cul-de-sac. The portion of the Project site south of West 116th Street is located within the community of Del Aire in the unincorporated County of Los Angeles, and the portion of the Project site north of West 116th Street is within the City of Los Angeles. Exhibit 2-3 provides an aerial view of the Project site and depicts the current boundary between the County of Los Angeles and the City of Los Angeles, as well as the boundary of the adjacent City of El Segundo.

Dockweiler State Beach and the Pacific Ocean are located approximately three miles to the west of the Project site. LAX is located approximately 0.15 mile northwest of the Project site. The Project vicinity is highly urbanized with a diverse mix of land uses. This portion of Los Angeles County is a residential community with important regional employment centers, including LAX and aerospace/defense-related corporations (i.e., Raytheon Company, Boeing Satellite Systems, Inc., Northrop Grumman Corporation, Aerospace Corporation, Lockheed Martin). Other major employers in the region include the Port of Los Angeles and petroleum refining corporations (i.e., British Petroleum, Chevron, Conoco Phillips, ExxonMobil, Tesoro, and Valero). Other regional attractions and employment centers within a few miles of the Project site include Marina del Rey; Loyola Marymount University; Hawthorne Municipal Airport; LAX-related businesses (e.g., car rentals, hotels, restaurants); and various beaches, including Manhattan Beach, Dockweiler State Beach, and Venice Beach.

2.2 SURROUNDING PHYSICAL ENVIRONMENT

The *State CEQA Guidelines* require a description of the physical environmental conditions, as they exist at the time the Notice of Preparation (NOP) is published, from both a local and regional perspective. This section describes the physical characteristics of the existing environment, and the applicable regional and local plans for the Aviation Station Project. The NOP was mailed on May 20, 2009, for public review and marks the timeframe for the discussion presented in Section 2.2 of this EIR.

Geology

The topography of the Project area is essentially flat, with elevations ranging between 94 and 96 feet above mean sea level (msl). The Project site is located within the Los Angeles Basin, which is part of the Peninsular Ranges Geomorphic Province of California. The Project site is underlain by undocumented fill soils that vary from one to three feet thick, but could be thicker elsewhere on site (i.e., such as underlying the existing structures); these soils are composed primarily of sandy to silty clays. Quaternary Older Alluvium soils were encountered below the undocumented fill soils across the entire Project site to a maximum boring depth of approximately 61.5 feet.

Groundwater was encountered at a depth of approximately 40 feet below ground surface (bgs) during site investigations and was concluded to be perched (i.e., totally confined and not connected to an underlying aquifer). The Newport-Inglewood Fault (Los Angeles Basin Segment) is located approximately 4.3 miles to the east of the Project site. Other active faults in the region that could provide seismic shaking at the Project site and that are described in the Geotechnical Report include the Palos Verdes Fault, the Santa Monica Fault, the Elysian Park Thrust Fault, the Hollywood Fault, the Malibu Coast Fault, the Raymond Fault, and the Verdugo Fault. Geotechnical hazards are discussed in Section 3.1 of this EIR, and regional faults are illustrated on Exhibit 3.1-1.

Drainage and Hydrology

The Project site is located within the 133-square-mile Dominguez Watershed, which begins in the Cities of Inglewood and Los Angeles to the north and terminates in the Port of Los Angeles to the south. The watershed drains all or portions of the Cities of Carson, Compton, El Segundo, Gardena, Hawthorne, Inglewood, Lawndale, Lomita, Long Beach, Los Angeles, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, and Torrance. Since virtually the entire watershed is highly urban, drainage within the Dominguez Watershed is primarily conducted through an extensive network of underground storm drains. These drains generally originate at curb inlets on municipal streets and increase in size as they progress in the downstream direction to an open channel or detention basin (LACDPW 2004).

The Dominguez Channel, draining approximately 62 percent of the Dominguez Watershed, is the largest single drainage feature within the watershed. The channel begins at West 116th Street (approximately two miles east of the Project site) in the City of Hawthorne, and continues in a southwesterly direction until emptying into the Consolidated Slip of Los Angeles Harbor. A tributary portion of the main Dominguez Channel lies beneath the Project site in an underground channel. Flood hazards are discussed in Section 3.2 of this EIR.

Noise

The Project site is located adjacent to LAX, I-105, the Caltrans Park-and-Ride Lot, the Metro Green Line Aviation/LAX Station, and the Northrop Grumman Integrated Systems complex, which are the key sources of existing noise affecting the Project site. Aviation Boulevard is a major thoroughfare that forms the Project site's western boundary and is the source of much of the site's traffic-related noise. Additionally, the Burlington Northern Santa Fe (BNSF) freight railroad line is located on the western side of Aviation Boulevard. Other existing sources of noise include the on-site business/commercial use (Wild Goose Restaurant/Bar). Single-family residential homes are located on the Project site and to the south and east of the Project site.

Regional Location and Local Vicinity

Exhibit 2-1

Aviation Station Project

N W E S

2,000 1,000 0 2,000 Feet

BonTerra CONSULTING

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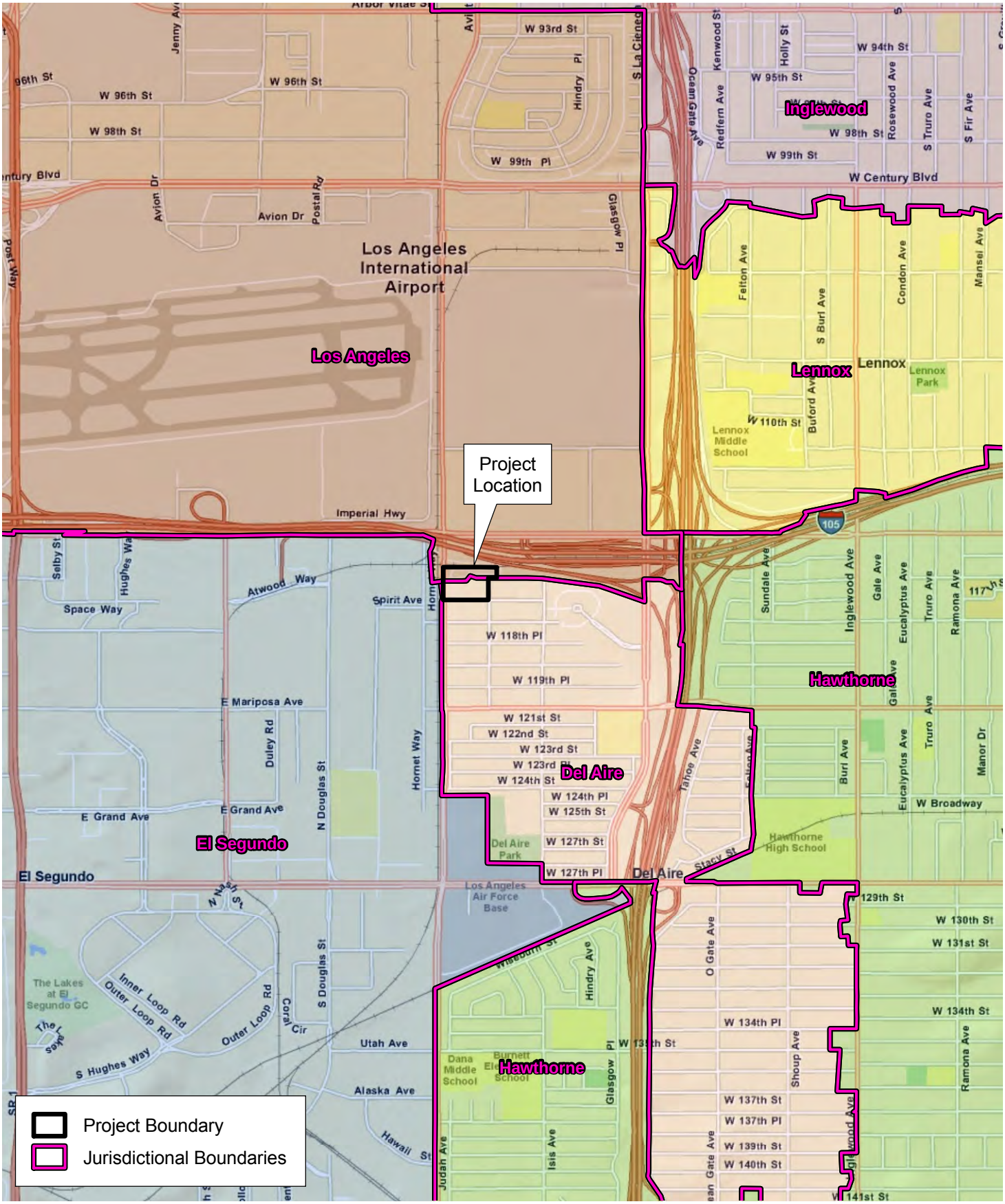

Adjacent Jurisdictions

Exhibit 2-2

Aviation Station Project

N W E S

2,000 1,000 0 2,000 Feet

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Aerial View of the Project Site

Exhibit 2-3

Aviation Station Project

N W E S

500 250 0 500 Feet

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Existing short-term peak noise levels in the Project area range from 75.5 A-weighted decibels (dBA, noise sources are traffic on I-105 and Aviation Boulevard, buses at the Metro bus terminal, and Metro Green Line trains) to 80.1 dBA (noise sources are traffic on Aviation Boulevard and the Northrop Grumman complex to the west of the Project site). As measured from the northwestern corner of the roof of the Wild Goose Restaurant/Bar, taken for a period of 24 hours, the 24-hour Community Noise Equivalent Level (CNEL) for the Project site was 71.5 CNEL. Noise is discussed further in Section 3.4 of this EIR.

Water Quality

Water bodies that do not meet water quality standards are deemed "impaired" and, under Section 303(d) of the Clean Water Act (CWA), are placed on a list of impaired waters for which a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total daily load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards. The Dominguez Channel is located within the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB). According to the 2006 CWA Section 303(d) List of Water Quality Limited Sections (which was approved by the LARWQCB on June 28, 2007), the Dominguez Channel is considered impaired for various pollutants. The Beneficial Uses of the Dominguez Channel and the West Coast Groundwater Basin (according to the LARWQCB Basin Plan) are identified in Table 4.1-1, and the TMDL criteria pollutants are identified in Table 4.1-2 in Section 4.1 of this EIR.

The Project site is located within the West Coast Groundwater Basin (Basin), which underlies 140 square miles in the southwestern part of the Los Angeles Coastal Plain. The Basin provides groundwater to approximately 11 cities and unincorporated areas of Los Angeles County. Aquifers within the Basin are generally confined and receive the majority of their natural recharge from adjacent groundwater basins or from the Pacific Ocean via seawater intrusion. The West Coast Basin Barrier Project (completed in 1965) and the Dominguez Gap Barrier Project (completed in 1971) include a series of injection wells that are intended to minimize seawater intrusion in an effort to preserve drinking water resources. Despite the controls on pumping and the injection of fresh water, groundwater quality is an ongoing concern in the West Coast Basin, where some groundwater levels remain well below sea level. Water quality is discussed in Section 4.1 of this EIR.

Air Quality

Air quality in Los Angeles County is regulated by the South Coast Air Quality Management District (SCAQMD). The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin (SoCAB), which includes the Project site. The SoCAB is arid with little rainfall, light winds, and abundant sunshine during the summer months. The combination of poor dispersion and abundant sunshine provides conditions especially favorable to the formation of photochemical smog.

Concentrations of the following air pollutants are used by the SCAQMD as indicators of ambient air quality conditions: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter of 10 micrometers or less (PM10), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM2.5), and lead. These pollutants are commonly referred to as "criteria air pollutants" since they are the most prevalent air pollutants known to be deleterious to human health, and there is extensive documentation available on the health effects criteria for these pollutants.

The SoCAB is currently classified as a federal and State nonattainment area for O_3, PM10, and PM2.5 and a federal attainment/maintenance area for CO and NO_2. The SoCAB is classified as a State attainment area for CO and NO_2 and currently meets the federal and State standards for SO_2 and lead. Criteria air pollutant concentrations are measured at several monitoring stations in Los Angeles County. The closest station to the Project site is identified as LAX Hastings, located at 7201 West Parkway, approximately 2.6 miles northwest of the Project site on the northern side of LAX. Equipment at the station measures O_3, PM10, CO, NO_2, and SO_2 levels. Table 1-1 summarizes the air quality data from this station for the most recent three years (2006-2008). Air Quality is discussed in Section 4.2 of this EIR.

TABLE 2-1
AMBIENT AIR QUALITY AT THE LAX HASTINGS MONITORING STATION

Pollutant	California Standard	National Standard	Year	Max. Level	Days State Standard Exceeded[a]	Days National Standard Exceeded[a]
O_3 (1 hour)	0.09 ppm	None	2009	0.077	0	N/A
			2008	0.086	0	N/A
			2007	0.087	0	N/A
O_3 (8 hour)	0.070 ppm	0.075 ppm for 8 hr.	2009	0.070	0	0
			2008	0.075	1	0
			2007	0.075	1	0
PM10 (24 hour)	50 µg/m^3	150 µg/m^3	2009	45.0	0	0
			2008	50.0	0	0
			2007	128.0	3	0
PM10 (AAM)	20 µg/m^3 AAM	None	2009	*	*	N/A
			2008	25.5	Yes	N/A
			2007	*	*	N/A
NO_2 (1 hour)	0.18 ppm	None	2009	0.077	0	N/A
			2008	0.094	0	N/A
			2007	0.084	0	N/A
NO_2 (AAM)	0.030 ppm	0.053 ppm	2009	*	*	*
			2008	0.014	No	No
			2007	0.014	No	No
CO (1 hour)	20 ppm	35 ppm	2009	*	*	*
			2008	4.000	0	0
			2007	3.000	0	0
CO (8 hour)	9 ppm	9 ppm	2009	1.99	0	0
			2008	2.53	0	0
			2007	2.39	0	0
SO_2 (24 hour)	0.04 ppm	0.14 ppm	2009	0.006	0	0
			2008	0.004	0	0
			2007	0.009	0	0

µg/m^3 – micrograms per cubic meter; ppm – parts per million

[a] For annual averaging times a "yes" or "no" response is given if the annual average concentration exceeded the applicable standard. N/A indicates that there is no applicable standard.

[b] Annual Arithmetic Mean

* Data Not Reported or insufficient data available to determine the value.

Source: BonTerra Consulting 2010a (EIR Appendix E)

Biological Resources

The Project site is fully developed with urban land uses, including commercial and residential buildings and associated surface parking lots, and does not contain any open space areas. On-site vegetation is limited to ornamental landscaping consisting of trees, grasses, and shrubs that are typically found within the yards of single-family residences. The Project site does not contain any native/natural vegetation communities, riparian habitat, drainages, wetlands, or any other sensitive wildlife species. The Project site is within a developed, urban area and does not support any wildlife movement corridors.

Cultural Resources

The Project site contains a total of 15 parcels with associated Assessor's Parcel Numbers (APNs) and is comprised of 11 structures. There are seven single-family residences, two multiple-family residences (duplexes), one extended-stay motel, and one restaurant/bar that date from the mid-1930s to the late 1940s. The single-family residences are located along West 116th Street and West 117th Street, and two multiple-family parcels are located at the northeastern and southeastern corners of the block. The residences were constructed largely for workers and their families that were employed at the new Los Angeles Airport, and later, those employed by the fledgling aeronautic industry that developed in Los Angeles after World War II.

The Wild Goose Restaurant/Bar is a commercial enterprise located at the northwestern corner of the block at West 11604 Aviation Boulevard, and at the southwestern corner is the Aviation Motel, which serves as an extended-stay motel and supports long-term residents. The residential and commercial buildings on the Project site are not historic or eligible for listing in the National Register of Historic Places or the California Register of Historical Resources. The Project site is not within a historic resources zone or preservation area. Cultural resources, including historic, archaeological, and paleontological resources, are discussed in Section 4.3 of this EIR.

Traffic/Access

The Los Angeles County Metropolitan Transportation Authority (Metro) serves as the transportation planning, coordinating, designing, building, and operating agency for one of the largest, most populous counties in the United States. The Metro operates over 2,000 peak-hour buses on an average weekday and now operates 73.1 miles of Metro Rail service. The Metro Rail system consists of the Red Line subway system, the Blue Line, the Green Line, Purple Line, and the Gold Line. In total, the Metro Rail system serves 62 rail stations.

The Project site currently contains a Metro bus terminal for several County and multiple-city bus routes, including Metro Routes 120, 439, 625, 626, and Rapid 3; Santa Monica's Big Blue Bus 3; the City of Redondo Beach's "Beach Cities Transit" 109; the Culver City's Bus 6; LAX Shuttle G; and the City of Torrance's MAX2, 3, and 3X (Metro 2009). Currently, buses enter and exit the Project site from Aviation Boulevard.

The Metro Green Line Aviation/LAX Station is located directly north of the Project site. The Metro Green Line is a light rail line, running east-west and serving the communities of Norwalk, Downey, Lynwood, Watts, Inglewood, Lennox, Los Angeles, El Segundo, Manhattan Beach, Redondo Beach, and Del Aire. The "Caltrans Off-Site Project Area", located north of the Metro Green Line Aviation/LAX Station, contains the Caltrans Park-and-Ride Lot located at 11500 Aviation Boulevard and Caltrans employee parking associated with the Caltrans Maintenance Facility. Park-and-Ride lots allow residents to park their cars in a central location and join a carpool or vanpool, or use bus or rail transit to access their destinations.

Regional access to the Project site is provided by I-405 and the I-105 freeways. The California Department of Transportation (Caltrans) District 7 has jurisdiction over I-405 and I-105. Aviation Boulevard and West Imperial Highway are the primary north-south and east-west arterials, respectively, in the Project area. All arterials in the Project area currently operate at an acceptable level of service (LOS). Currently, the I-105 freeway ramp at Imperial Highway operates at an LOS D in the morning peak hour. The I-405 freeway segment north of Century Boulevard and the I-405 freeway segment south of El Segundo Boulevard both operate at an LOS F during either the morning and/or afternoon peak hours. Transportation and traffic issues are discussed in Section 5.1 of this EIR.

Public Services and Utilities

Public services and utilities are currently provided to the Project site and surrounding area by various providers, as listed below. Sewage is discussed in Section 5.2; water infrastructure is discussed in Section 3.3; storm drains are discussed in Section 3.2; and fire/sheriff services are discussed in Section 5.4 of this EIR. The agencies responsible for these services are provided in parenthesis below:

- Police Protection (County of Los Angeles Sheriff's Department and City of Los Angeles Police Department);
- Fire Protection (County of Los Angeles Fire Department and City of Los Angeles Fire Department);
- Storm drain facilities (Los Angeles County Flood Control District and City of Los Angeles Department of Public Works);
- Water facilities (Golden State Water Company and City of Los Angeles Department of Water and Power);
- Wastewater facilities (Los Angeles County Sanitation District and City of Los Angeles Department of Public Works Consolidated Sewer Maintenance District);
- Electricity (Southern California Edison);
- Natural Gas (Southern California Gas Company); and
- Communication systems (AT&T [telephone] and Time Warner [cable]).

Two school districts currently serve the Project site: Wiseburn School District and Centinela Valley Union High School District. Anza Elementary School is located approximately 0.5 mile from the Project site; Lennox Preschool is located approximately 0.8 mile from the Project site; Lennox Middle School and Buford Elementary School are located approximately 0.9 mile from the Project site; and Felton Elementary School is located approximately 1.1 miles from the Project site. Education is discussed in Section 5.3 of this EIR.

Hazards/Hazardous Materials

The existing residences on the Project site were all constructed between 1936 and 1947, and both the Wild Goose Restaurant/Bar and the motel were constructed in 1947. Given the age of the buildings on the Project site, asbestos-containing materials (ACMs) and lead-based paint (LBP) may be present within interior and/or exterior materials and surfaces. Also, based on the age of the on-site buildings, there is a potential for electrical transformers to contain dielectric fluid based on polychlorinated biphenyls (PCBs) as well as fluorescent light fixtures that may contain PCBs. No hazardous materials sites or properties listed in compliance with *California Government Code,* Section 65962.5 (e.g., Comprehensive Environmental Response,

Compensation and Liability Information System [CERCLIS], Resource Conservation and Recovery Act [RCRA]) are located on the Project site. There are properties in the Project site vicinity that are listed in hazardous materials databases, as discussed in detail in Section 6.1. Environmental safety is discussed in Section 6.1 of this EIR.

Land Use

The Project site is composed of 15 assessor parcels that encompass approximately 5.9 acres. An aerial photograph of the Project site and immediately surrounding land uses is provided in Exhibit 2-3. As shown on the aerial photograph, West 116th Street currently bisects the Project site and terminates in a cul-de-sac halfway through the property. The Project site currently contains 11 residences (7 single-family homes and 2 duplexes), a 4,568-square-foot business/commercial structure (Wild Goose Restaurant/Bar), an 8-room motel (Aviation Motel), the Metro bus terminal, and surface parking. The existing Metro Green Line Aviation/LAX Station for light-rail is located off site directly north of Project site and would be unaffected by the Project. Immediately to the north of the light rail station is the Caltrans Park-and-Ride Lot located at 11500 Aviation Boulevard. The Caltrans Maintenance Facility parking lot is located to the northeast of the Project site, adjacent to the Park-and-Ride Lot.

The Project vicinity is highly urbanized with a diverse mix of land uses. This portion of Los Angeles County is a residential community with important regional employment centers, including LAX and aerospace/defense-related corporations (i.e., Raytheon Company, Boeing Satellite Systems, Inc., Northrop Grumman Corporation, Aerospace Corporation, Lockheed Martin). As shown in the aerial photograph (Exhibit 2-3), the Project site is surrounded by urban development, consisting of single-family residences immediately to the south and east, the Northrop Grumman Integrated Systems campus to the west, LAX to the northwest, and transit/transportation infrastructure (i.e., Caltrans Park-and-Ride Lot, Metro Green Line Aviation/LAX Station, Metro bus terminal, I-105) to the north.

The current zoning and land use designations for the Project site involve two separate jurisdictions: the County of Los Angeles and the City of Los Angeles. The portion of the Project site within the County of Los Angeles is currently zoned C-1 (Restricted Business Zone) and R-1 (Single-Family Residence) in the County of Los Angeles' Zoning Ordinance. Except for West 116th Street, the City of Los Angeles' Zoning Ordinance designates its portion of the Project site (i.e., Lot 2) as PF (Public Facilities). The current *County of Los Angeles General Plan* land use designation is "Low Density Residential", and the current *City of Los Angeles General Plan* land use designation is "Public Facilities".

Population, Housing, Employment, and Recreation

The Project area's demographics are examined in the context of existing and projected population for the Subregion (classified as the unincorporated portions of the City of Los Angeles), the County of Los Angeles (County) as a whole, and the six-county Southern California Association of Governments (SCAG) region.

Between 2010 and 2035, the population is anticipated to increase in the SCAG Region, Los Angeles County, and the Subregion by 24 percent, 16 percent, and 15 percent, respectively. Between 2010 and 2035, the number of households is anticipated to increase in the SCAG Region, Los Angeles County, and the Subregion by 27 percent, 19 percent, and 15 percent, respectively. Between 2010 and 2035, the employment is anticipated to increase in the SCAG Region, Los Angeles County, and the Subregion by 23 percent, 11 percent, and 7 percent, respectively.

The area surrounding the Project site does not contain regional parks or natural open space areas. The closest regional park in the Project area is Dockweiler State Beach. Smaller neighborhood or community parks in the Project vicinity include the Del Aire County Park (unincorporated community of Del Aire); Lennox County Park (unincorporated community of Lennox); Siminski Park and Center Park (City of Inglewood); Eucalyptus Park, Hawthorne Memorial Park, Holly Glen Park, Glasgow Strip Park, and Ramona Park (City of Hawthorne); James Addams Park and Rogers-Anderson Park (City of Lawndale); Aviation Park and Glenn Anderson Park (City of Redondo Beach); Polliwog Park, Marine Avenue Park, and Live Oak Park (City of Manhattan Beach); and El Segundo Athletic Fields, Freedom Park, Hilltop Park, Recreation Park, and Library Park (City of El Segundo). A detailed discussion of population projections for these areas is provided in Section 6.3, Population, Housing, Employment, and Recreation.

Greenhouse Gas Emissions

In 2005, the U.S. was the top generator of greenhouse gas (GHG) emissions. Based on GHG emissions in 2005, 6 states—Texas, California, Ohio, Pennsylvania, Florida, and Illinois (in ranked order beginning with highest emissions)—each ranked among the top 25 GHG emitters internationally. The primary GHG emitted by human activities in the U.S. was CO_2, representing approximately 85 percent of the total GHG emissions. CO_2 from fossil fuel combustion, the largest U.S. GHG emission source, accounted for approximately 80 percent of U.S. GHG emissions.

Based on the 2004 GHG inventory data (the latest year available) compiled by the California Air Resources Board (CARB) for the California 1990 GHG inventory, California emitted 484 million metric tons of carbon dioxide equivalent ($MMTCO_2e$), including emissions resulting from out-of-state electrical generation. The primary contributors to GHG emissions in California are transportation; electric power production from both in-state and out-of-state sources; industry; agriculture and forestry; and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions are discussed in Section 6.4 of this EIR.

SCAG calculated existing GHG emissions for Los Angeles County for construction sources, mobile sources, natural gas consumption, and electricity generation. Existing County emissions of GHGs are estimated to be approximately 93 MMTCO2e/year (yr). It is important to note a few limitations before comparing SCAG regional GHG emissions to the State emissions inventory prepared by CARB. First, 2004 is the latest year for which CARB has estimated State emissions, and SCAG emissions are presented for 2008. However, the comparison provides a reasonable percentage estimate of State emissions that are generated in the SCAG region. Second, the CARB emissions inventory includes emission estimates from various sources that were not included in the SCAG analysis because every emissions source (e.g., mineral industry, livestock, manure management) that CARB analyzed could not be analyzed for the SCAG region due to methodological and data limitations. As a result, SCAG emissions are an underestimation when compared to the total State emissions.

2.3 PROJECT DESCRIPTION

2.3.1 ON-SITE PROJECT COMPONENTS

In order to provide the details of the Vesting Tentative Tract Map (VTTM) 70853, a full size copy of the VTTM and Site Plan is included as an attachment to this EIR in a slip-folder.

Proposed Land Uses

The Project site includes approximately 5.9 acres of property divided into two lots: Lot 1 (southerly lot) and Lot 2 (northerly lot), which are currently separated by West 116th Street. For the purpose of simplicity, these areas will be referred to as Lot 1 and Lot 2, with the understanding that the boundaries of these lots are defined through the proposed VTTM No. 70853 and are not existing lots on the Project site.

The portion of the Project site south of West 116th Street (Lot 1) is privately-owned and located within the unincorporated County of Los Angeles; the portion of the Project site north of and including West 116th Street (Lot 2) is owned predominantly by Caltrans, with the City of Los Angeles owning the portion consisting of West 116th Street (located within the City of Los Angeles).

All existing land uses within Lot 1 (southerly lot) and Lot 2 (northerly lot) would be demolished or relocated to accommodate the development of 390 multi-family units and 29,500 square feet (sf) of commercial, such as the leasing office and retail, restaurant, and service industry uses. Structures to be demolished within Lot 1 include 11 residences (7 single-family homes and 2 duplexes), a 4,568-sf commercial structure (Wild Goose Restaurant/Bar), an 8-room motel (Aviation Motel), and surface parking. Structures within Lot 2 to be demolished include the existing on-site Metro bus terminal, which would be relocated to a portion of the off-site existing Caltrans Park-and-Ride Lot (as discussed in Section 2.3.2 of this EIR).

The proposed site plan is shown in Exhibit 2-4, which depicts the Project (Lot 1 and Lot 2) boundary in blue, and the "Caltrans Off-site Project Area" in orange. Table 2-2 provides a summary of the proposed development.

TABLE 2-2
AVIATION STATION DEVELOPMENT SUMMARY BY LOT

Site Summary	Lot 1	Lot 2	Total
Lot Area - Net	3.15 acres (137,214 sf)	2.63 acres (114,563 sf)	5.78 acres (251,777 sf)
Lot Area - Gross	3.20 acres (139,392 sf)	2.70 acres (117,612 sf)	5.90 acres (257,004 sf)
Residential Units	278	112	390
Commercial (sf)	8,000	21,500	29,500
Density (# units/gross lot area)	71.28 du/ac	38.36 du/ac	N/A
Floor-to-Area Ratio (FAR)	2.43	1.36	N/A
Lot Coverage (sf)	90,402	35,093	125,495
Open Space[1] (sf)	66.060	65,790	131,850

sf: square feet
du/ac: dwelling unit per acre
[1] Includes all common and private landscape and hardscape outdoor use areas

The residential units within Lot 1 would be developed as for-sale condominium units and townhouses, and the residential units within Lot 2 would be developed as rental apartments. The proposed residential units have been classified according to type. The floor plans for all levels, including the basement level, Street Level, podium level (Level 1) and Levels 2, 3 and 4 are graphically depicted on Exhibit 2-5.

The basement level illustration shows the limits of the basement and proposed use for residential parking, discussed further below. The Street Level illustration shows the locations of the single-story commercial buildings (with residential above), street-level parking, and the proposed 20 two-story townhouses. The proposed two-story townhomes would be developed along West 117th Street and Judah Avenue, facing the existing single-family homes adjacent to the Project site, while the commercial uses would be developed to face Aviation Boulevard to the west and the Metro Green Line to the north.

All remaining residential units would be located within four buildings built upon a podium level (Level 1). The Level 1 and Levels 2, 3 and 4 illustrations show the locations of the residential buildings 1A, 1B, 2A, and 2B, which would be separated from each other by community open space areas and pedestrian corridors. Table 2-3 provides a breakdown of land use type by size and quantity for each of the four proposed buildings.

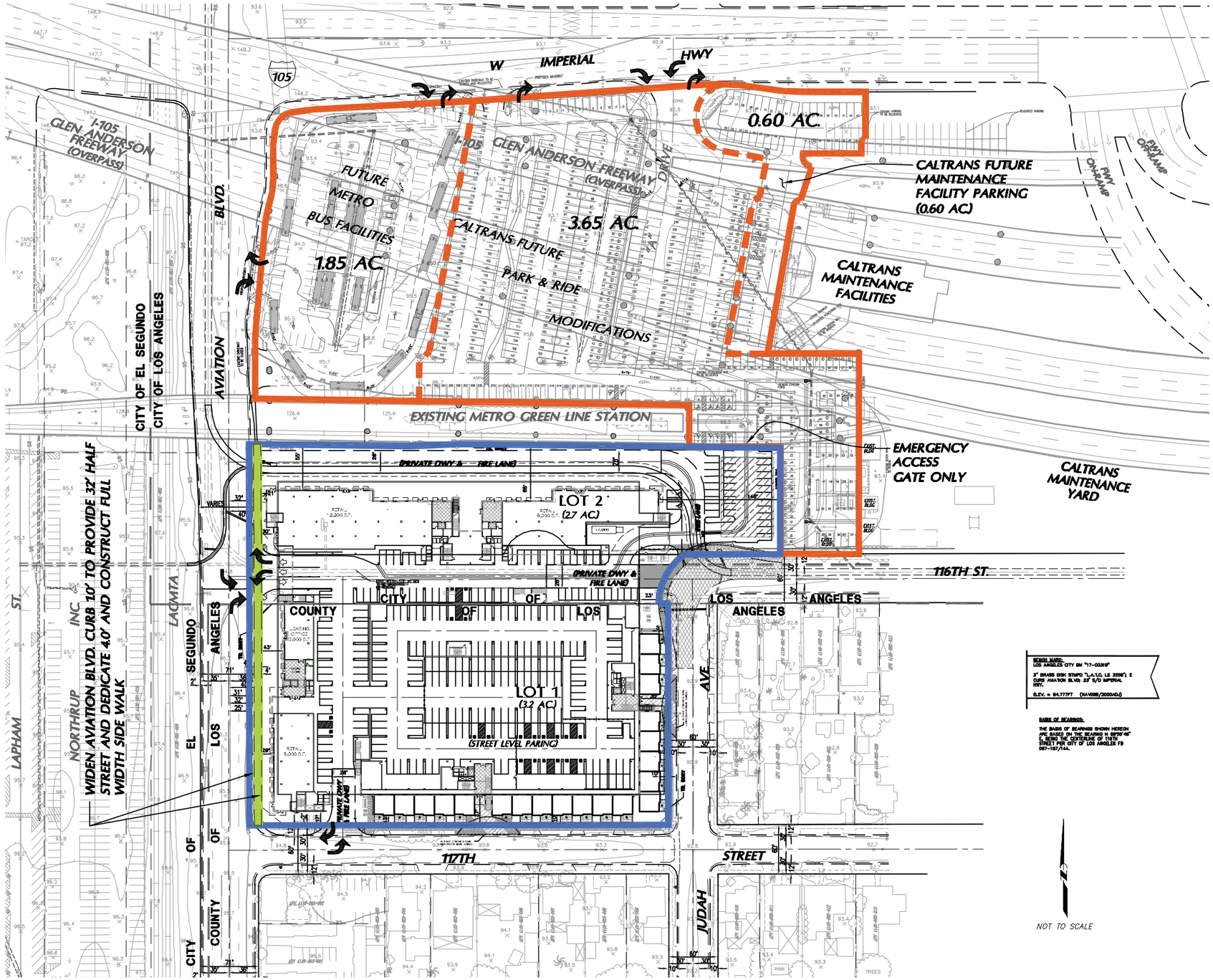
TABLE 2-3
AVIATION STATION DEVELOPMENT SUMMARY BY BUILDING

Site Summary	Commercial	Bldg 1A	Bldg 1B	Bldg 2A	Bldg 2B	Total
Commercial and Leasing Office (sf)	29,500	0	0	0	0	29,500
Residential Total Units		94 du	184 du	56 du	56 du	390
A- Studio (543 sf)		*4 du*	*12 du*	*0*	*0*	*16*
B- 1BR/1BA (720 sf)		*43 du*	*76 du*	*32 du*	*32 du*	*183*
C- 2BR/2BA (1,217 sf)		*4 du*	*12 du*	*0*	*0*	*16*
D- 2BR/2BA (1,043 sf)		*35 du*	*52 du*	*20 du*	*20 du*	*127*
E- 2BR/2BA (1,140 sf)		*4 du*	*12 du*	*0*	*0*	*16*
F- 2BR/2BA (Townhouse- 1,194 sf)		*0*	*20 du*	*0*	*0*	*20*
G- 3BR/2BA (1,288 sf)		*4 du*	*0*	*4 du*	*4 du*	*12*
Total Parking Spaces	118	165	326	94	94	797

sf: square feet
du: dwelling unit
BR: bedroom
BA: bathroom
Source: VTTM 70853, LDC 2009

Parking and Circulation

Table 2-3 also presents the total number of parking spaces (797 spaces) for the Project, allocated among each of the four buildings and commercial/leasing office. The Project would provide a total of 797 parking spaces through construction of one level of subterranean parking that would underlie the majority of Lot 1 and Lot 2, and through Street Level parking. The subterranean parking level would be designated for residential parking only (154 spaces for apartment residents and 349 for condominium residents). Street-level parking would be available for residents (6 spaces for apartment residents and 72 for condominium residents), guests of the residents (28 spaces for apartment guests and 70 spaces for condominium guests), for the leasing office (12 spaces) and for commercial users (106 spaces). Exhibit 2-6 depicts the distribution of public and private (residential) parking on the basement and Street Levels.



BENCH MARK:
LOS ANGELES CITY BM "17-003HP"
3" BRASS DISK STAMPED "L.A.C.E. LS 32286" E CURB AVIATION BLVD. 23' S/O IMPERIAL HWY.
ELEV. = 94.777FT (NAVD88/2000ADJ)

BASIS OF BEARINGS:
THE BASIS OF BEARINGS SHOWN HEREON ARE BASED ON THE BEARING N 88°56'40" E, BEING THE CENTERLINE OF 116TH STREET PER CITY OF LOS ANGELES PB 087-157/164.

SITE SUMMARY

LOT 1

LOT AREA - NET	3.15 acres	137,214 sf
LOT AREA - GROSS	3.20 acres	139,392 sf
TOTAL RESIDENTIAL UNITS	278	
TOTAL RETAIL	8,000 sf	
DENSITY (# of units / General Plan Ammendment)	71.28 Du/acre	3.90 acres
FAR	2.43	
LOT COVERAGE	90,402 sf	
LANDSCAPE (Softscape)	18,763 sf	
OPEN SPACE (COMMON + PRIVATE)	66,060 sf	

LOT 2

LOT AREA - NET	2.63 acres	114,563 sf
LOT AREA - GROSS	2.70 acres	117,612 sf
TOTAL RESIDENTIAL UNITS	112	
TOTAL RETAIL	21,500 sf	
DENSITY (# of units / General Plan Ammendment)	38.36 Du/acre	2.92 acres
FAR	1.36	
LOT COVERAGE	35,093 sf	
LANDSCAPE (Softscape)	23,863 sf	
OPEN SPACE (COMMON + PRIVATE)	65,790 sf	

SITE TOTALS (LOT 1 + LOT 2)

LOT AREA - NET	5.78 acres	251,777 sf
LOT AREA - GROSS	5.90 acres	257,004 sf
TOTAL RESIDENTIAL UNITS	390	
TOTAL RETAIL	29,500 sf	
DENSITY (# of units / General Plan Ammendment)	57.18 Du/acre	6.82 acres
FAR	1.94	
LOT COVERAGE	125,495 sf	
LANDSCAPE (Softscape)	42,626 sf	
OPEN SPACE (COMMON + PRIVATE)	131,850 sf	

CONSTRUCTION TYPE

RETAIL + PARKING	TYPE I
RESIDENTIAL	TYPE V-A

PROGRAM SUMMARY

LOT 1 - BUILDING 1A

PLAN	DESCRIPTION		QNTY	GROSS AREA	PARKING RATIO (inc. 0.25 Guest)	PARKING PROVIDED (inc. 0.25 Guest)
	RETAIL			5,000 sf	1 / 250	20
	LEASING / RETAIL			3,000 sf	1 / 250	12
A	STUDIO	FLAT	4 (4%)	543 sf	1.25	5
B	1 BR 1 BA	FLAT	43 (46%)	720 sf	1.25	53.75
C	2 BR 2 BA	FLAT	4 (4%)	1,217 sf	2.25	9
D	2 BR 2 BA	FLAT	35 (37%)	1,043 sf	2.25	78.75
E	2 BR 2 BA	FLAT	4 (4%)	1,140 sf	2.25	9
G	3 BR 2 BA	FLAT	4 (4%)	1,288 sf	2.25	9
SUBTOTAL UNITS:			94	residential units provided		197 spaces provided

LOT 1 - BUILDING 1B

PLAN	DESCRIPTION		QNTY	GROSS AREA	PARKING RATIO (inc. 0.25 Guest)	PARKING PROVIDED (inc. 0.25 Guest)
A	STUDIO	FLAT	12 (7%)	543 sf	1.25	15
B	1 BR 1 BA	FLAT	76 (41%)	720 sf	1.25	95
C	2 BR 2 BA	FLAT	12 (7%)	1,217 sf	2.25	27
D	2 BR 2 BA	FLAT	52 (28%)	1,043 sf	2.25	117
E	2 BR 2 BA	FLAT	12 (7%)	1,140 sf	2.25	27
F	2 BR 2 BA	TOWNHOME	20 (11%)	1,194 sf	2.25	45
SUBTOTAL UNITS:			184	residential units provided		326 spaces provided

TOTAL LOT 1

RETAIL	8,000	sf	
UNITS	278	residential units provided	523 spaces provided

LOT 2 - BUILDING 2A

PLAN	DESCRIPTION		QNTY	GROSS AREA	PARKING RATIO (inc. 0.25 Guest)	PARKING PROVIDED (inc. 0.25 Guest)
	RETAIL			12,200 sf	1 / 250	48.8
B	1 BR 1 BA	FLAT	32 (57%)	720 sf	1.25	40
D	2 BR 2 BA	FLAT	20 (36%)	1,043 sf	2.25	45
G	3 BR 2 BA	FLAT	4 (7%)	1,288 sf	2.25	9
SUBTOTAL UNITS:			56	residential units provided		143 spaces provided

LOT 2 - BUILDING 2B

PLAN	DESCRIPTION		QNTY	GROSS AREA	PARKING RATIO (inc. 0.25 Guest)	PARKING PROVIDED (inc. 0.25 Guest)
	RETAIL			9,300 sf	1 / 250	37.2
B	1 BR 1 BA	FLAT	32 (57%)	720 sf	1.25	40
D	2 BR 2 BA	FLAT	20 (36%)	1,043 sf	2.25	45
G	3 BR 2 BA	FLAT	4 (7%)	1,288 sf	2.25	9
SUBTOTAL UNITS:			56	residential units provided		131 spaces provided

TOTAL LOT 2

RETAIL	21,500	sf	
UNITS	112	residential units provided	274 spaces provided

TOTAL LOT 1 + 2

RETAIL	29,500	sf	
UNITS	390	residential units provided	797 spaces provided

LEGEND:

- TRACT BOUNDARY
- FUTURE METRO BUS FACILITY PARKING, CALTRANS MAINTENANCE FACILITY PARKING, AND PARK & RIDE BOUNDARY
- AVIATION BLVD. STREET WIDENING

Source: Land Design Consultants, Inc 2010

Site Plan

Exhibit 2-4

Aviation Station Project

BonTerra CONSULTING

(Rev 11/23/10 CJS) Projects/Cox/J002/Graphics/Cox/J002/EIR/Ex2-4_site_plan_detail.pdf

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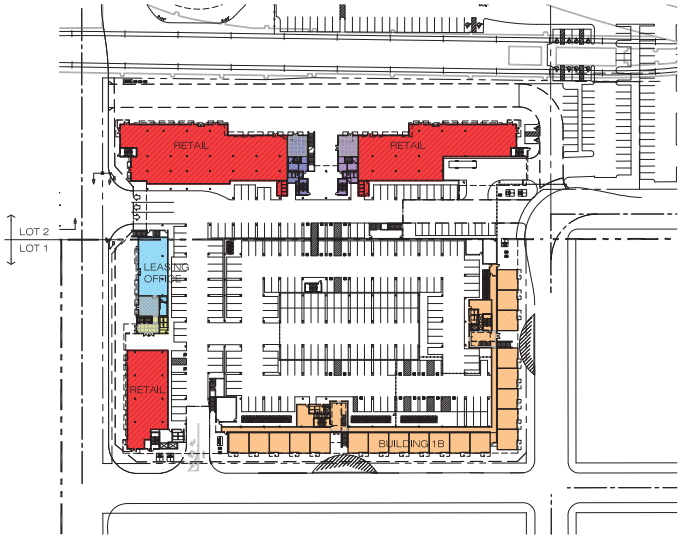
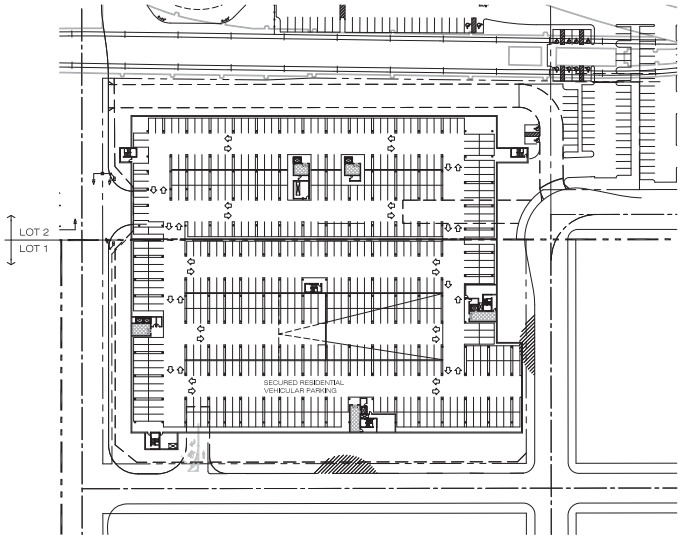
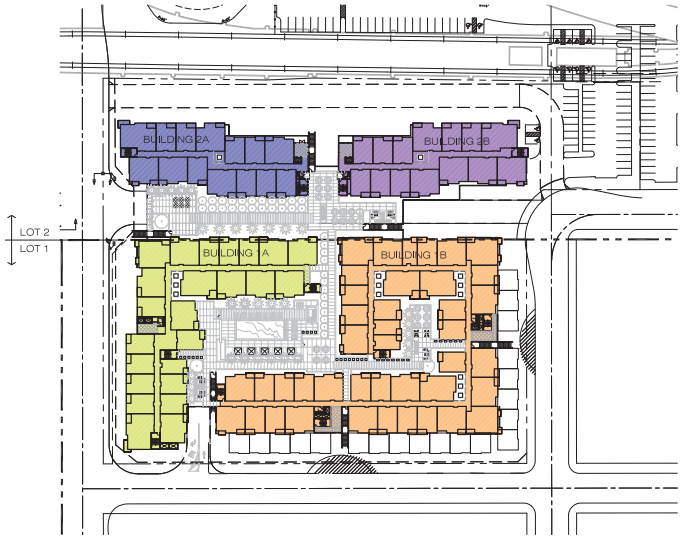


BUILDING ORGANIZATION
STREET LEVEL FLOOR PLAN

BUILDING ORGANIZATION
2ND TO THE 3RD + 4TH FLOOR PLAN



BUILDING ORGANIZATION
BASEMENT LEVEL FLOOR PLAN



BUILDING ORGANIZATION
PODIUM / 1ST FLOOR PLAN

LEGEND
- RETAIL
- LEASING OFFICE
- BUILDING 1A
- BUILDING 1B
- BUILDING 2A
- BUILDING 2B

scale: 1" = 60'-0"
0 60 120 180 240

Source: Withee Malcolm Architects, LLP 2010

Floor Plans

Exhibit 2-5

Aviation Station Project

BonTerra CONSULTING

(Rev 10/29/10 CJS) Projects/Cox/J002/Graphics/EIR/Ex2-5_floor_plans.pdf

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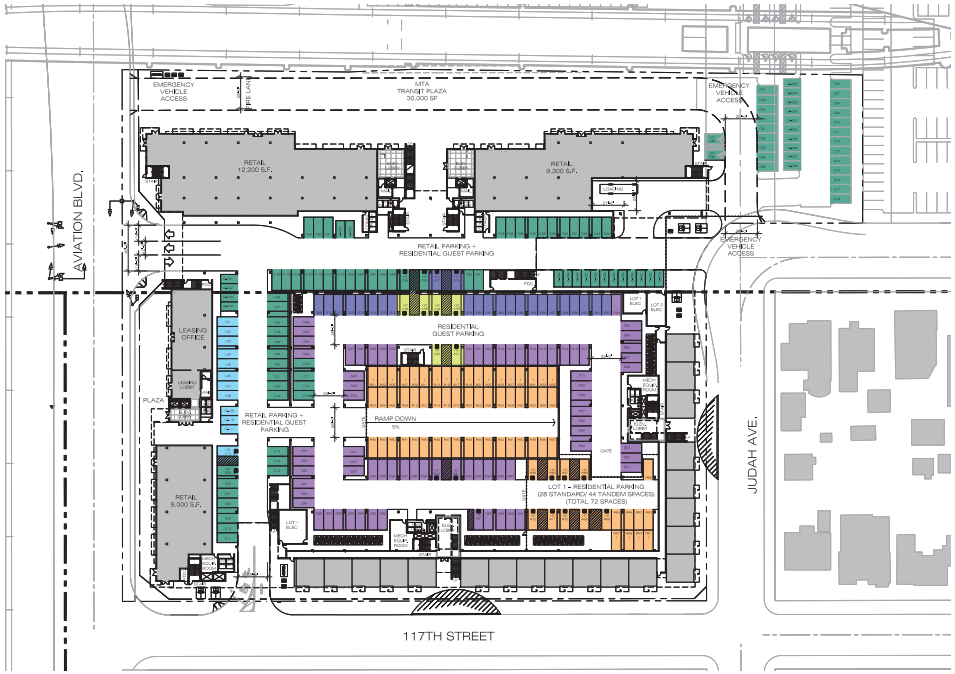
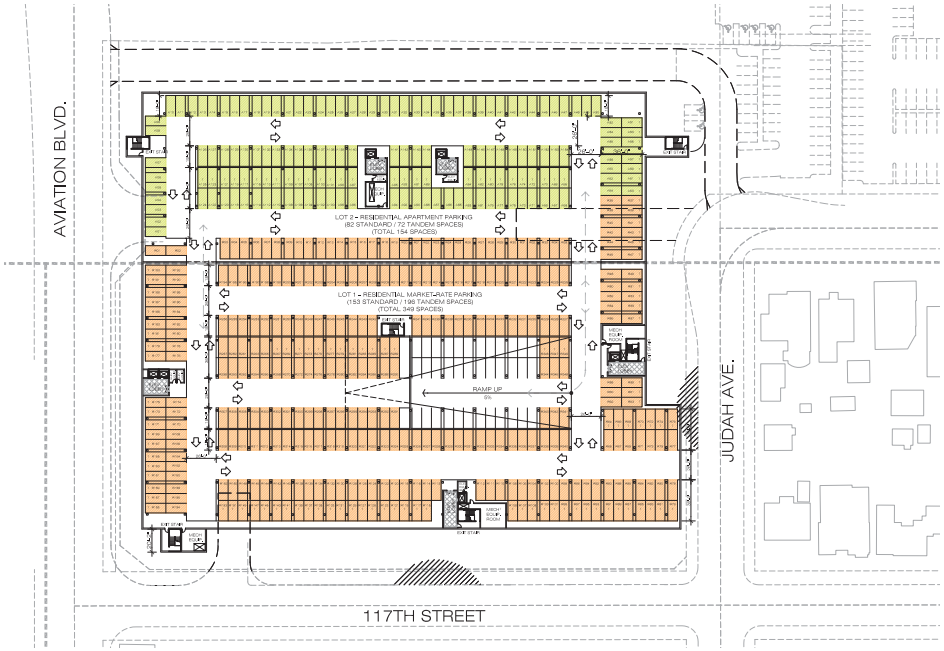
Street Level Parking



Basement Level Parking



LEGEND

- RETAIL PARKING 106 spaces (5 HC)
- LEASING OFFICE PARKING 12 spaces (1 HC)
- RESIDENTIAL GUEST APARTMENTS 28 spaces (2 HC)
- RESIDENTIAL GUEST CONDOMINIUMS 70 spaces (3 HC)
- RESIDENTIAL PARKING APARTMENTS (6 HC)
- RESIDENTIAL PARKING CONDOMINIUMS 72 spaces (9 HC)

LEGEND

- RESIDENTIAL PARKING APARTMENTS 154 spaces
- RESIDENTIAL PARKING CONDOMINIUMS 349 spaces

Source: Withee Malcolm Architects, LLP 2010

Parking Distribution

Exhibit 2-6

Aviation Station Project

BonTerra CONSULTING

(Rev 10/29/10 CJS) Projects/Cox/J002/Graphics/EIR/Ex2-6_parking.pdf

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Exhibit 2-7 shows the vehicular ingress/egress points and internal circulation for the Project, as well as the pedestrian points of ingress/egress. Vehicle access would include one driveway on Aviation Boulevard and one driveway on West 117th Street. Access to the subterranean parking garage would be located internal to the Project site via a ramp located across from the Leasing Office and commercial building located beneath Building 1A, as shown on Exhibit 2-7. Residential parking is located on the ramp leading to the subterranean parking level. No vehicle access directly onto Judah Avenue or West 116th Street from the Project site is proposed.

As shown in Exhibits 2-4, Site Plan, a 28-foot-wide emergency-vehicle-only Fire Lane would be located between the existing Metro Green Line Station to the north of the Project site and Buildings 2A/2B. The gated ingress/egress to the Fire Lane occurs from Aviation Boulevard and from the intersection of Judah Avenue and West 116th Street and would prohibit non-emergency vehicle access and may prohibit pedestrian access. There would be no parking or traffic allowed in the Fire Lane, which would have decorative paving and hardscaping design, as discussed below. Pedestrians would be allowed to cross the Fire Lane from the commercial businesses toward the transit facilities to the north. An additional gated emergency-use only point is located between the Project commercial parking lot located east of Building 2B, separating Project parking from the adjacent Park-and-Ride Lot. Additionally, the 28–foot-wide ingress/egress driveway on West 117th Street, as well as the 40-foot wide ingress/egress driveway at West 116th Street/Aviation Boulevard, also serve as Fire Lanes.

As shown on Exhibit 2-4, Site Plan, the portion of Aviation Boulevard adjacent to Lot 1 and Lot 2 would be widened by 4-feet to accommodate a northbound right-turn lane at the former location of West 116th Street. The West 116th Street/Aviation Boulevard intersection driveway would provide full access (i.e., left-turn and right-turn ingress and egress turning movements), and would provide access to the commercial and residential components of the Project and associated parking areas. For exiting traffic, two lanes would be provided: one for left-turns and one for right-turns.

The West 117th Street driveway would be located on the northern side of West 117th Street at the southwestern corner of the Project site, and would provide access to the commercial and residential components of the Project and associated parking areas. This driveway would accommodate left-turn ingress and right-turn egress movements only to direct Project-related traffic to and from Aviation Boulevard (i.e., limit Project traffic from traveling on nearby local residential streets).

As shown on Exhibit 2-7, residents and pedestrians could enter/exit the Project site via the West 116th Street/Aviation Boulevard intersection driveway and/or the West 117th Street driveway. Residents could enter/exit the Project site via pedestrian corridors between Buildings 2A and 2B, between Buildings 2B and 1B, or from two internal resident/guest lobbies located in Building 1B. The Fire Lane from Aviation Boulevard to the intersection of Judah Avenue and West 116th Street may allow pedestrian access.

As shown on Exhibit 2-7, ingress and egress for delivery trucks to the Project site would occur from the West 116th Street/Aviation Boulevard intersection driveway only. A back-up bay would be constructed to allow the unloading of deliveries to the commercial land uses on the southeastern side of Building 2B. No ingress/egress would be allowed for commercial vehicles onto Judah Avenue or the Park-and-Ride Lot to the north of the Project site.

Building Design and Heights

The Project includes one level of subterranean parking; single-story commercial and two-story townhomes and surface parking at street-level; and four additional levels of residential built within four buildings (Buildings 1A, 1B, 2A, and 2B). These five levels of above-ground development are depicted in Exhibits 2-8 through 2-9.[1]

Exhibit 2-8 shows an elevation of the Project from the north (Elevation 1 from Metro Green Line area) and from the west (Elevation 2 from Aviation Boulevard area). The Project would include commercial stores that face the sidewalks and the Street Level. The Project includes sidewalk and landscape improvements along all four perimeters of the Project site, discussed further below under "Landscape and Lighting Plan". As indicated in Exhibits 2-8 and 2-9, shade trees would be planted to provide pedestrian-friendly and aesthetically pleasing sidewalks that provide access to the commercial land uses. The commercial building facades, as shown in both Elevation 1 and Elevation 2, would be undulating and set back in certain areas to allow for pedestrian amenities, such as outdoor dining spaces, landscaping, benches, and/or building entrances. Street-adjacent commercial buildings would incorporate numerous window openings to provide views of the street and to avoid blank, windowless facades.

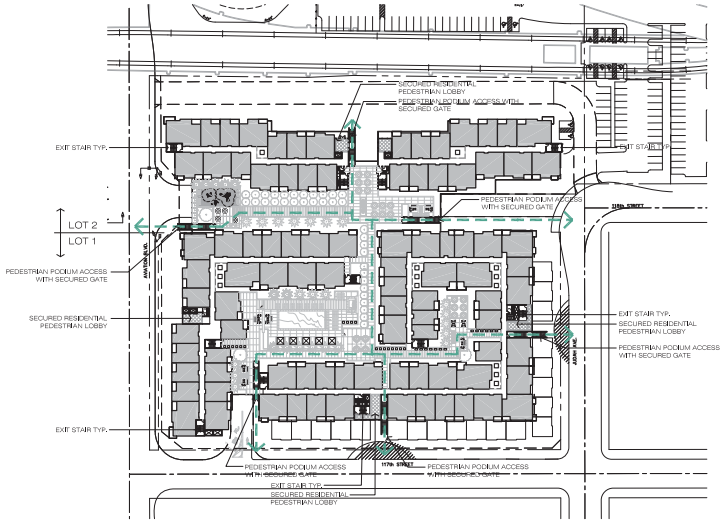
Elevation 2 also shows the West 116th Street/Aviation Boulevard intersection driveway to the Project site. The left side of Elevation 2 shows the juxtaposition of the Project massing in relation to the height and distance from the existing Metro Green Line Aviation/LAX Station, and the right side shows the juxtaposition of the Project massing in relation to the adjacent single family home located at the corner of Aviation Boulevard and West 117th Street.

Exhibit 2-9 shows the Project from the south (Elevation 3 from West 117th Street area) and from the east (Elevation 4 from Judah Avenue area). The Project's southern-facing and eastern-facing facades include the two-story townhomes, as shown in Elevations 3 and 4, which are located at the Street Level. The Building 1B condominiums are set back 25 feet from the front façade of the townhomes to allow for a transition in building massing between the Project and the existing single-family residences on the southern side of West 117th Street and the eastern side of Judah Avenue. Elevation 3 shows the street-level townhomes from West 117th Street, and Elevation 4 shows the juxtaposition of the Project massing in relation to the adjacent single-family home located at the corner of Judah Avenue and West 117th Street.

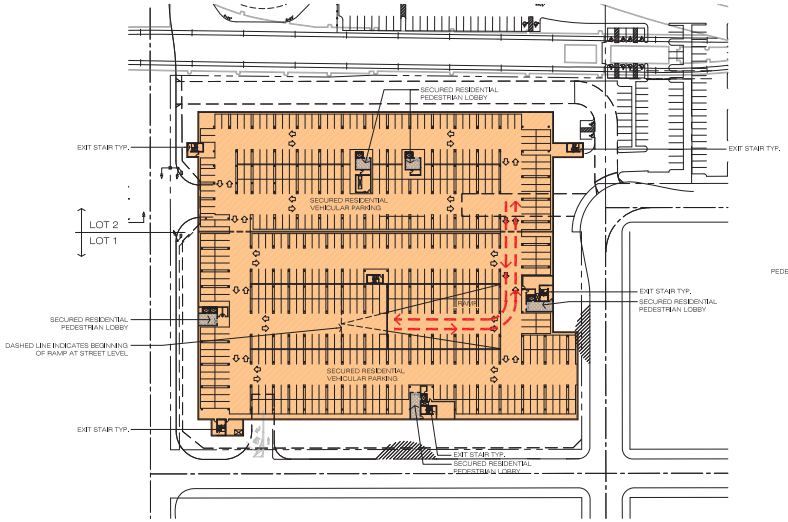
Exhibit 2-10, provides a cross-section of the Project that depicts the heights of the Project in relation to adjacent land uses, including single-family homes and the adjacent Metro Green Line station and I-105. Exhibit 2-10 also illustrates the juxtaposition of the townhomes to adjacent residences, as well as the height and location of the two-story townhomes compared to the taller buildings behind. Some of the building unit types previously described in Table 2-3, (i.e. units A, B, C, D, E, F [townhomes], and G) are depicted on Exhibit 2-10

As shown on VTTM 70853 and Site Plan included as attachments to the EIR in a slip folder, the frontage of the townhomes along Judah Avenue would be setback 10'0" from the right-of-way (property line), with an additional 10 feet between the property boundary and the curb line, for a total of 20 feet between the frontage of the townhomes and curb. The townhome buildings along

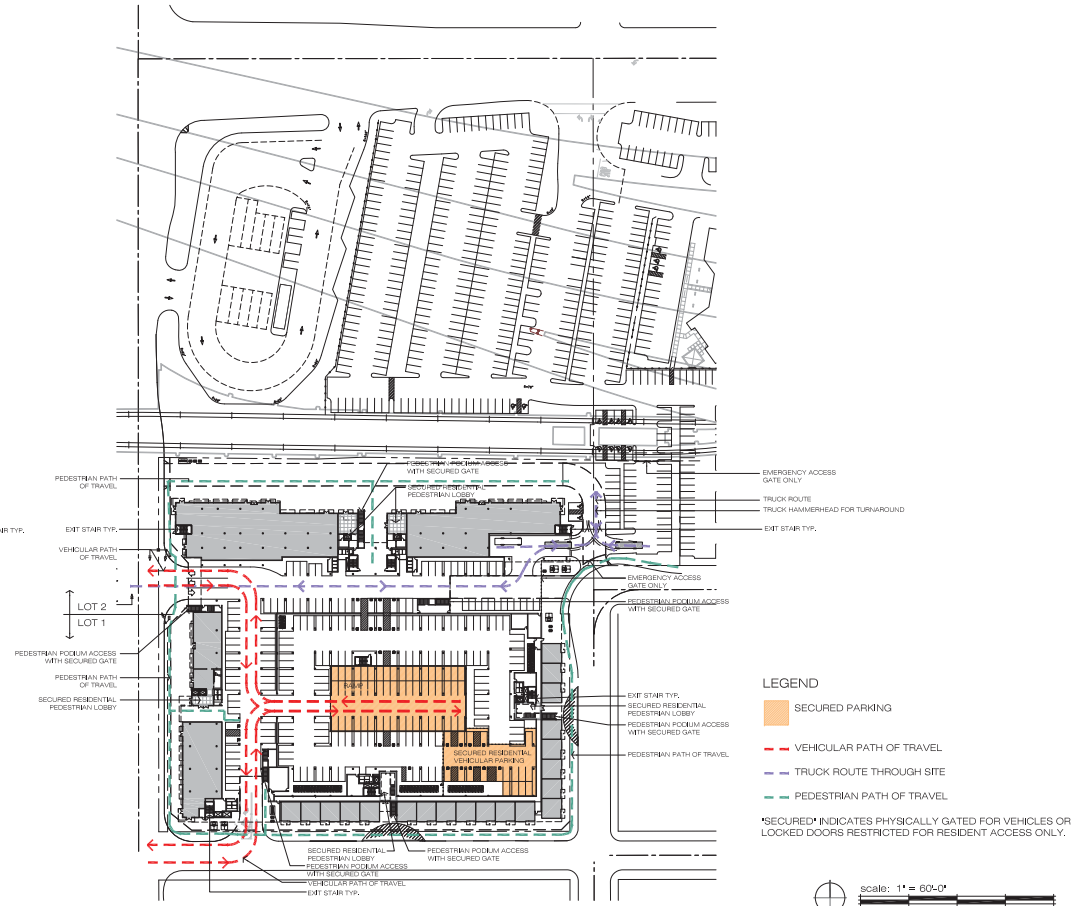
[1] Project development on the Street Level includes single story commercial and two-story townhomes. The overall height for the commercial/leasing office structures is 16' 6" (the townhomes would be slightly taller), which equates to approximately two stories in height. The four-story Buildings would be built upon the podium level constructed on top of the commercial buildings, resulting in an overall Project height of approximately 67 to 72 feet above ground level. Therefore, the Project is generally six stories tall, if the heights of the commercial buildings and townhomes are considered to be two stories.



PEDESTRIAN ACCESS + EGRESS EXHIBIT
TYPICAL FLOOR PLAN



VEHICULAR ACCESS + EGRESS EXHIBIT
BASEMENT LEVEL FLOOR PLAN



VEHICULAR ACCESS + EGRESS EXHIBIT
STREET LEVEL FLOOR PLAN

Source: Withee Malcolm Architects, LLP 2010

Vehicle and Pedestrian Circulation

Exhibit 2-7

Aviation Station Project

BonTerra CONSULTING

(Rev. 11/23/10 JFG) PAS R:/Projects/Cox/J002/Graphics/EIR/Ex2-7_vehic_pedest_circ.pdf

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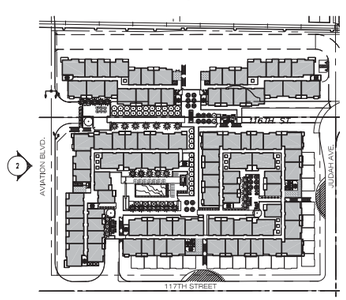
BUILDING ELEVATION - 1
NORTH ELEVATION

BUILDING ELEVATION - 2
WEST ELEVATION - AVIATION BLVD.

Note: The landscaping depicted on this Exhibit is for illustrative purposes only. For the proposed Landscape Plan, refer to Exhibits 2-1 and 2-12 of this EIR.



Source: Withee Malcolm Architects, LLP 2010

Building Elevations – North and West

Exhibit 2-8

Aviation Station Project

BonTerra CONSULTING

(Rev 10/29/10 CJS) Projects/Cox/J002/Graphics/Cox/J002/EIR/Ex2-8_bldg_elevs_NW.pdf

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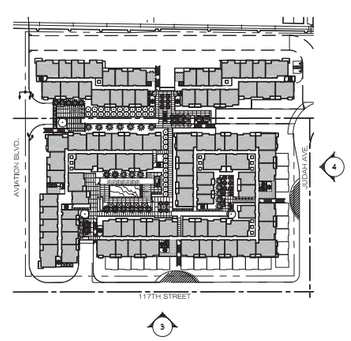
BUILDING ELEVATION - 3

SOUTH ELEVATION - 117TH STREET

BUILDING ELEVATION - 4

EAST ELEVATION - JUDAH AVE.

Note: The landscaping depicted on this Exhibit is for illustrative purposes only. For the proposed Landscape Plan, refer to Exhibits 2-1 and 2-12 of this EIR.



Source: Withee Malcom Architects, LLP 2010

Building Elevations – South and East

Exhibit 2-9

Aviation Station Project

BonTerra CONSULTING

(Rev 10/29/10 CJS) Projects/Cox/J002/Graphics/Cox/J002/EIR/Ex2-9_bldg_elevs_SE.pdf

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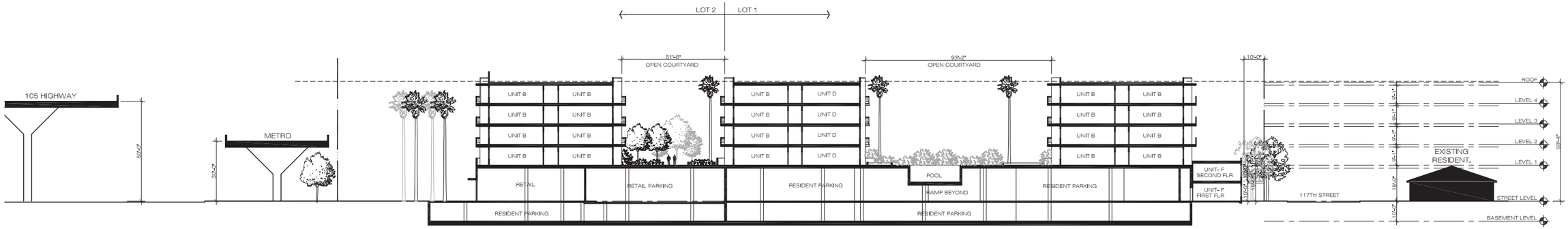
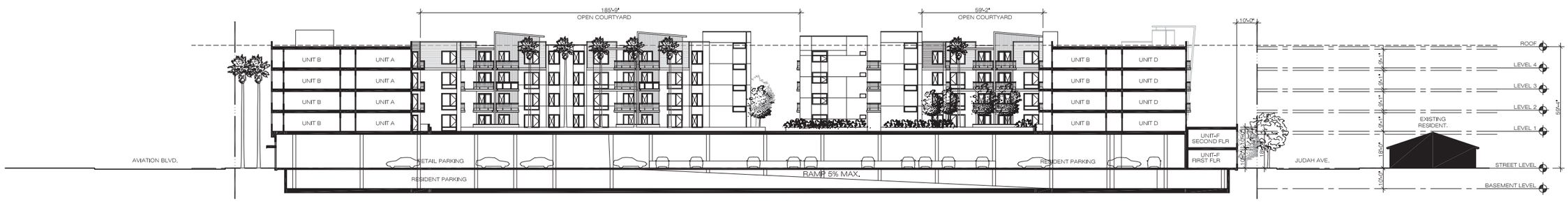
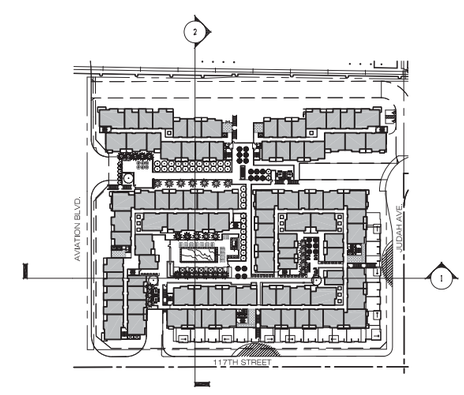


BUILDING SECTION - 2



BUILDING SECTION - 1

Note: The landscaping depicted on this Exhibit is for illustrative purposes only. For the proposed Landscape Plan, refer to Exhibits 2-1 and 2-12 of this EIR.



scale: 1" = 20'-0"
0 20 40 60 80

Source: Withee Malcolm Architects, LLP 2010

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Building Elevations – Cross Section

Exhibit 2-10

Aviation Station Project

BonTerra CONSULTING

(Rev 07/12/10 CJS) Projects/Cox/J002/Graphics/Cox/J002/EIR/Ex2-10_bldg_elevs_sections.pdf

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Judah Avenue would be 25 feet deep; therefore, the podium level Building 1B would be located 25 feet from the front façade of the townhomes, 35 feet from the property boundary, and 45 feet from the curb.

Along West 117th Street, the frontage of the townhomes would be setback 13'0" from the right-of-way (property line), with an additional 12 feet between the property boundary and the curb, for a total of 25 feet between the frontage of the townhomes and curb. The townhome buildings along West 117th Street would be 24 feet deep; therefore, the podium level Building 1B would be located 37 feet from the property boundary, and 49 feet from the curb.

The total building heights of the Project, including mechanical equipment and antennae, range from 67 feet above ground level (agl) to 72 feet agl. This maximum height includes architectural details or design features that may be located on rooftops to complement the modern architectural design. Building materials include brick veneers, metal awnings, and aluminum storefronts with metal panels on the commercial buildings, which would also include street-level entrances and signage.

The four residential buildings would include horizontal siding and plaster finishes and balconies with metal guardrails. The Project proposes to maintain visual continuity through the consistent application of high quality building, landscape, and hardscape design and materials. Only non-reflective building materials would be used.

Landscaping, Hardscape and Lighting

Exhibit 2-11, Street Level Conceptual Landscape Plan, illustrates the concept for landscape and hardscape amenities along the perimeter of the Project site at the Street Level, and Exhibit 2-12, Podium Level Conceptual Landscape Plan illustrates the concept for the private, interior common areas that would be used by future residents. Exhibit 2-13 provides the preliminary plant palette for the Project.

As shown in Exhibit 2-11, the Street Level concept plan is divided into six outdoor use areas (labeled 1 through 6). Along the northern portion of the Project site, the area between buildings 2A and 2B and the off-site Green Line Station would serve multiple purposes. A "retail plaza" would be developed adjacent to the commercial storefronts and provide amenities such as seating areas, seat walls (low walls that accommodate seating), rows of trees and other plantings and a water feature. The Fire Lane would be accommodated within the overall landscape concept with the installation of varying pavers whose placement and patterns would blend into the surrounding open space areas without creating one broad, straight path that would visually divide the space. Finally, paved areas would be strategically placed along the northern perimeter to allow convenient and visible pedestrian connections to the Metro bus terminal and Green Line terminal to the north.

Each of the townhomes along West 117th Street and Judah Avenue would have a private patio with street access through a low wall (e.g. brick, stone) with a gate. Along the western portion of the site, a "storefront promenade" would be developed with amenities such as varying paving patterns, benches and seat walls, and landscaping. Exhibit 2-11 also demonstrates how the proposed landscaping would provide a buffer between the Project site and surrounding uses.

As shown in Exhibit 2-12, the private (for residents only) internal open space areas are divided into seven outdoor use areas (labeled 1 through 7), including: a pool forecourt, a pool terrace, a "park" terrace, a conversation terrace, a courtyard and a "quiet" courtyard, and a "hide-away" courtyard. These use areas represent separate outdoor rooms connected by paved pathways

lined with landscaping. Outdoor areas would include amenities such as a 22-foot by 60-foot pool, a 9-foot by 16-foot spa, community barbeque areas, a tot lot, water features, outdoor fireplace, a fire pit, large-scale pottery and in-ground landscaping, and outdoor furniture.

The plant palette, as listed on Exhibit 2-13, includes a mix of both native and ornamental landscaping trees and plants. Some tree species are included on the County of Los Angeles Drought Tolerant Plant List for Zone 3, including the evergreen pear, hollywood juniper, little gem southern magnolia, Carolina cherry, windmill palms, bottle tree, cajeput tree, corral tree, pink melaleuca, California sycamore, African sumac, flame tree, sweetshade, crape myrtle, purple-leaf plum, and ornamental pear.

Exhibit 2-14 shows the distribution and amount of proposed landscape area and open space within the Project site for both the Street Level and Level 1. As shown in Exhibit 2-14, areas defined as landscaped are included within the category of open space, but not vice versa. The open space areas include all landscape and hardscape outdoor use areas. There would be a total of 131,850 sf (approximately 3.0 acres) of open space areas, inclusive of public and private outdoor use areas at the Street Level and Level 1. The Project Applicant would meet the County's entire parkland requirement through payment of the in lieu fee based on the County Parkland Dedication Ordinance.

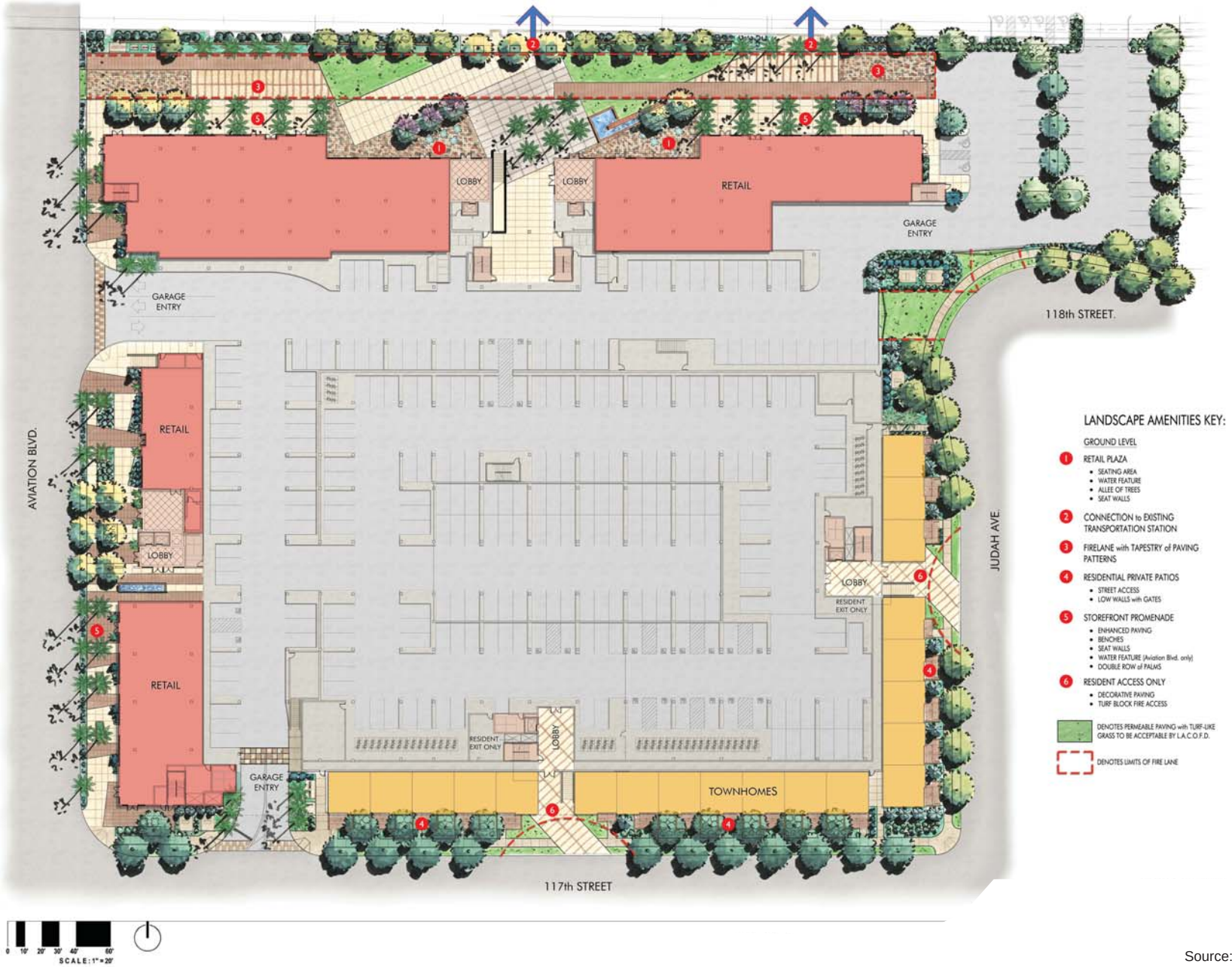
As discussed further below under "Greenhouse Gas Emissions and Sustainability Features", the Project would be designed and constructed in accordance with the regulations as set forth in the Los Angeles County Code, including the Drought-Tolerant Landscaping Ordinance, which describes an acceptable plant palette and water-efficient irrigation requirements.

The Project will incorporate energy efficient lighting fixtures that are intended to aesthetically illuminate the building structure, while avoiding spillover lighting on adjacent land uses. Exterior Project lighting would include mid-level street lights for delivery zones and pedestrian passageways; low-level bollard lights for pedestrian accent lighting; and other minor accent and security lighting to ensure safe passage through the Project site. The Project will incorporate fluorescent can and under-counter kitchen lighting features within the residential units, one outdoor wall-mounted light fixture per residential patio, and one fixed ceiling mounted light fixture per bedroom that would be facing streets.

Signage and Graphics

The Project's conceptual signage plan includes 10 different types of signs, graphics or other wayfinding indicators, including: 2 types of building identifiers, building identify blades, awning signs and projecting signs (for commercial identity), wall signs (for commercial identity and wayfinding), commercial window signs, public parking entrance identity signs and clearance bars, elevator lobby wayfinding signage, and unit numbers. These signage types vary from large building-mounted architectural details to small hanging and window signs.

The conceptual signage plan includes the potential layout of the Project signs, with the majority of signs placed along on Aviation Boulevard and the north side of the Project facing the Metro plaza, commensurate with the location of commercial land uses and more intense vehicular and/or pedestrian traffic. The secured residential lobbies on West 117th Street and Judah Avenue, non-lighted public parking entrance identity signs and clearance bars, and elevator lobby wayfinding signage and unit numbers represent the limited signage that is proposed on the south and east sides of the Project where the proposed townhomes are located and adjacent to residential land uses.



Source: MJS Design Group, 2010

Street Level Conceptual Landscape Plan

Exhibit 2-11

Aviation Station Project

BonTerra CONSULTING

(Rev 10/29/10 CJS) Projects/Cox/J002/Graphics/EIR/Ex2-11_lndscp_ground.pdf

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Source: MJS Design Group, 2010

Podium Level Conceptual Landscape Plan

Exhibit 2-12

Aviation Station Project

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(Rev 10/29/10 CJS) Projects/Cox/J002/Graphics/EIR/Ex2-12_lndscp_level2.pdf

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PRELIMINARY PLANT PALETTE

AVIATION STATION - COUNTY OF LOS ANGELES

THE OBJECTIVE OF THE OVERALL LANDSCAPING CONCEPT IS TO PROVIDE A DISTINCT VISUAL IMPRESSION AND COMMUNITY IDENTITY, SOFTEN THE URBAN EXPERIENCE, PROVIDE THE HIGHEST LEVEL OF AESTHETIC STANDARDS COMPLIMENTED BY THE QUALITY OF THE BUILDING MATERIALS THAT WILL ASSURE AN ATTRACTIVE ENVIRONMENT ENHANCING THE QUALITY OF LIFE AMONG ITS RESIDENTS AND VISITORS.

SUCCESSFUL STREETSCAPES ARE A PARTNERSHIP BETWEEN THE BUILDING DESIGN AND THE LANDSCAPED EDGE OF THE STREET DISTINGUISHING EACH TYPE OF STREET THROUGH DISTINCTIVE LANDSCAPING, LIGHTING AND STREET FURNISHINGS.

THE LANDSCAPE IRRIGATION CONCEPT FOR THE COMMUNITY WILL BE DESIGNED TO PROVIDE THE MOST EFFICIENT MEANS TO DISTRIBUTE IRRIGATION WATER AND PROVIDE THE AVIATION STATION COMMUNITY WITH THE LATEST TECHNOLOGY FOR WATER CONSERVATION.

THE FOLLOWING PLANT MATERIAL AS SELECTED FOR AVIATION STATION IS COMPLIANT WITH THE COUNTY OF LOS ANGELES APPROVED PLAN LIST FOR WATER CONSERVATION AND NON-INVASIVE SPECIES.

* DENOTES TREES INCLUDED IN THE COUNTY OF L.A. DROUGHT TOLERANT PLANT LIST FOR ZONE 3

TREES

	Botanical Name	Common Name	Size:
	Aviation Boulevard:		
	Street Tree		
	Washingtonia filifera	California Fan Palm	22' b.t.h.
	Flowering Accent Tree		
*	*Pyrus kawakamii*	Evergreen Pear (Standard Trunk)	36" box
	117th Street:		
	Street Tree		
	Celtis sinensis	Chinese Hackberry	24" box
	Flowering Accent Tree		
*	*Pyrus kawakamii*	Evergreen Pear (Standard Trunk)	36" box
	Garage Entry		
	Washingtonia filifera	California Fan Palm	22' b.t.h.
	Background Trees/Palms		
*	*Juniperus chinensis*	Hollywood Juniper	15 gallon
*	*Magnolia* 'Little Gem"	Little Gem Southern Magnolia	24" box
*	*Prunus c.* Bright 'n Tight"	Compact Carolina Cherry	15 gallon
	Trachycarpus fortunei	Windmill Palms	6'-12' b.t.h.
	Judah Avenue:		
	Street Tree		
*	*Pyrus kawakamii*	Evergreen Pear (Standard Trunk)	36" box
	Lobby Entry		
	Washingtonia filifera	California Fan Palm	18' b.t.h.
	Background Trees		
*	*Juniperus chinensis*	Hollywood Juniper	15 gallon
*	*Magnolia g.* 'Little Gem"Little Gem Southern Magnolia		24" box
	Pinus eldarica	Afghan Pine	24" box
*	*Prunus* c. Bright 'n Tight"	Compact Carolina Cherry	15 gallon
	Trachycarpus fortunei	Windmill Palms	6'-12' b.t.h.
	Retail Promenade *(Firelane)*:		
	Perimeter Lot Line		
*	*Brachychiton populneus*	Bottle Tree	24" box
*	*Melaleuca quinquenervia*	Cajeput Tree (Multi-trunk)	24" box
	Pinus eldarica	Afghan Pine	24" box
	Washingtonia filifera	California Fan Palm	18' b.t.h.
	Plazas		
*	*Erythrina caffra*	Corral Tree	36" box
*	*Melaleuca nesophila*	Pink Melaleuca	36" box
	Olea europeae "Swan Hill"	Fruitless Olive	48" box
*	*Platanus racemosa*	California Sycamore (Standard Trunk)	24" box
	Washingtonia filifera	California Fan Palm	18' b.t.h.
	Parking Lot		
*	*Platanus racemosa*	California Sycamore (Standard Trunk)	24" box
	Prunus c. Bright 'n Tight"	Compact Carolina Cherry	15 gal.
*	*Rhus lancea*	African Sumac (Standard Trunk)	24" box
	Residential Courtyards and Pool Recreation Area		
	Arbutus 'Marina'	Hybrid Strawberry Tree (Std.Trunk)	24" box
*	*Brachychiton acerifolius*	Flame Tree	24" box
*	*Hymenosporum flavum*	Sweetshade	24" box
*	*Lagerstroemia* hybrid	Crape Myrtle	36" box.
*	*Magnolia* 'Little Gem"	Little Gem Southern Magnolia	24" box
	Olea europeae "Swan Hill"	Fruitless Olive	48" box
*	*Prunus* c. Bright 'n Tight"	Compact Carolina Cherry	15 gal.
*	*Prunus c.* Vesuvius	Purple-leaf Plum	24" box
*	*Pyrus calleryana.* "Aristrcrat"	Ornamental Pear	24" box
*	*Raphiolepis* "Majestic Beauty"	India Hawthorne - Tree Form	15 gal.
*	*Rhus lancea*	African Sumac	24" box
	Trachycarpus fortunei	Windmill palm	Heights vary
	Washingtonia filifera	California Fan Palm	18' b.t.h.

SHRUBS and GROUNDCOVERS

Botanical Name	Common Name
Large shrubs *(minimum 5 gallon size at 3' o.c.)*	
Chamaerops humilis	Mediterranean Fan Palm - multi trunk
Photinia x fraserii	Red-tipped Photinia
Tecoma stans	Yellow Bells
Westringia fruiticosa	Coast Rosemary
Medium Shrubs *(minimum 5 gallon size)*	
Bougainvillea species	Bouganivillea
Dietes vegeta	Fortnight Lily
Grevillia species	Grevillia
Hemerocallis hybrids	Evergreen Daylilies
Raphiolepis indica species	India Hawthorn
Salvia greggi	Autumn Sage
Low Shrubs and Groundcovers *(minimum 1 gallon size)*	
Agapanthus 'Peter Pan'	Dwarf Lily of the Nile - white
Carex species	Sedge
Mahonia repens	Creeping Mahonia
Myoporum parvifolium	Myoporum
Limonium species	Statice
Rosmarinus o. prostratus	Dwarf Rosemary
Accent/color shrubs *(minimum 5 gallon size)*	
Aeonium x floribundum	Aeonium Hybrid
Aloe species	Aloe
Agave species	Agave
Cycas revoluta	Sago
Dasylirion wheeleri	Desert Spoon
Muhlenbergia species	Deer Grass

Line of Sight Note:
Maintain shrubs at 24" high inside of Line of Sight at street intersections.

Source: Withee Malcolm Architects, LLP 2010

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Preliminary Plant Palette — Exhibit 2-13

Aviation Station Project

N W E S

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(Rev 10/29/10 CJS) PAS/Projects/Cox/J002/Graphics/EIR/Ex2-13_plant_palette.pdf

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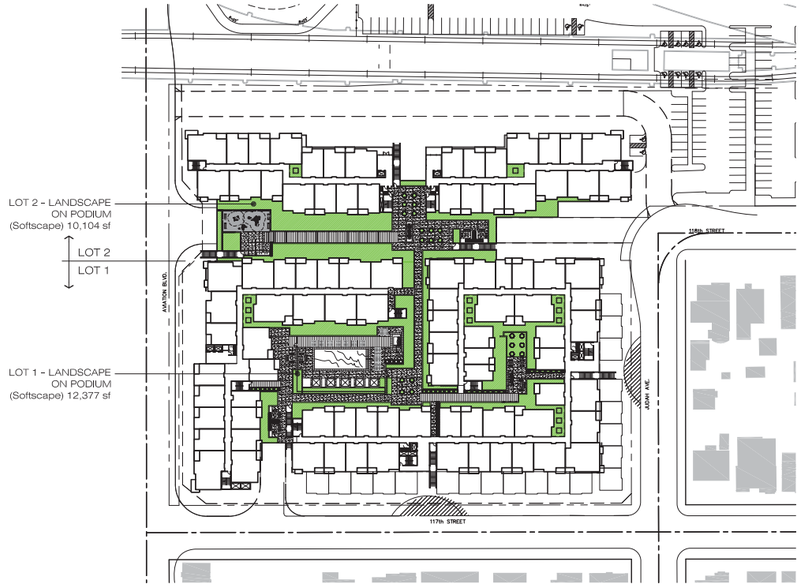
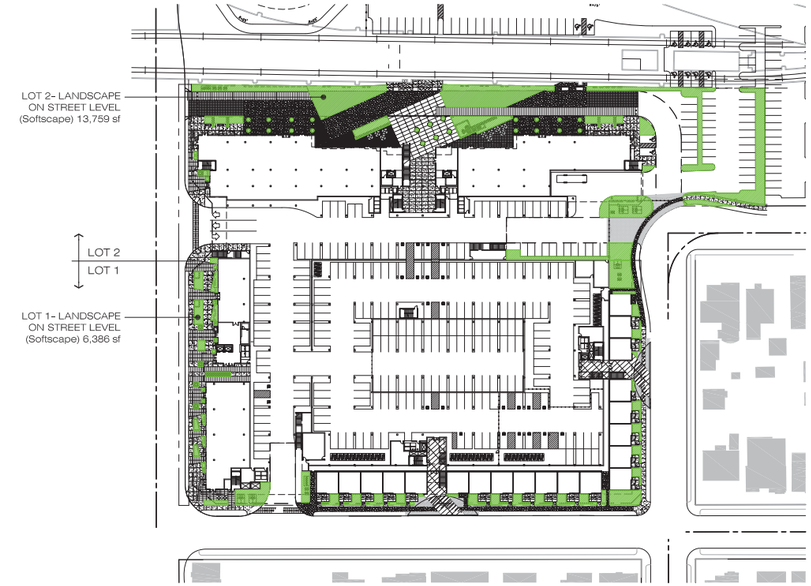


LANDSCAPE EXHIBIT
LEVEL 1 FLOOR PLAN



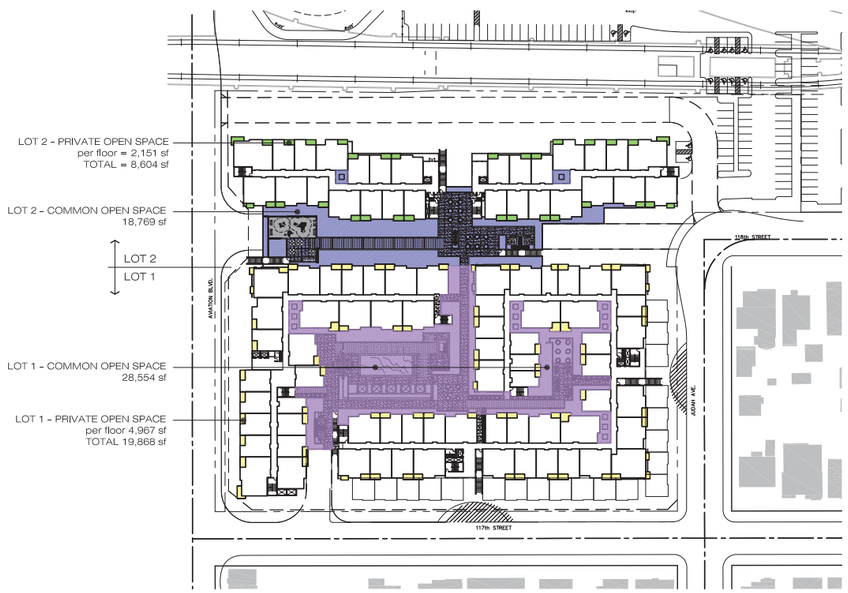
LANDSCAPE EXHIBIT
STREET LEVEL FLOOR PLAN

LANDSCAPE SUMMARY

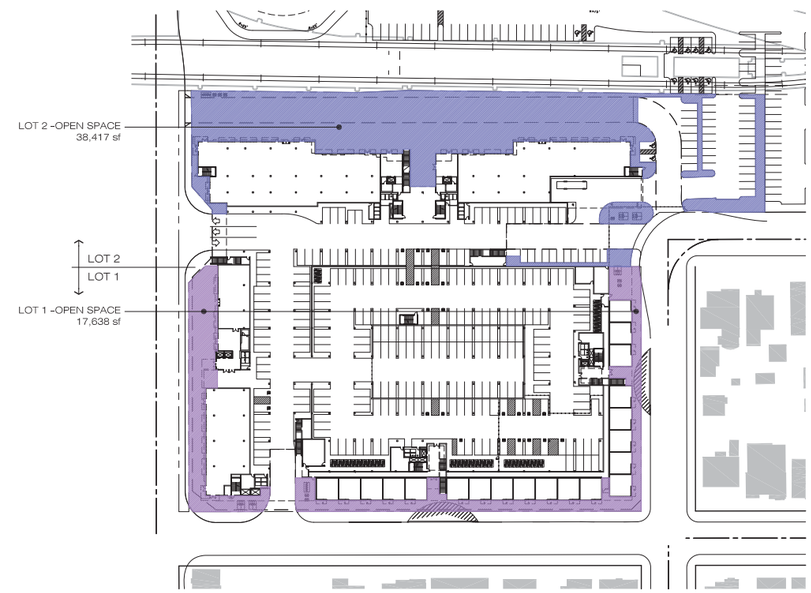
LOT 1 STREET LEVEL LANDSCAPE (Softscape)	6,386 sf
LOT 1 PODIUM LEVEL LANDSACPE (Softscape)	12,377 sf
LOT 1 TOTAL LANDSCAPE (Softscape)	18,763 sf
LOT 2 STREET LEVEL LANSCAPE (Softscape)	13,759 sf
LOT 2 PODIUM LEVEL LANDSCAPE (Softscape)	10,104 sf
LOT 2 TOTAL LANDSCAPE (Softscape)	23,863 sf
TOTAL LOT 1 + 2 LANDSCAPE (Softscape)	42,626 sf

LEGEND

LOT 1 + 2 - LANDSCAPE (Softscape)



OPEN SPACE EXHIBIT
LEVEL 1 FLOOR PLAN



OPEN SPACE EXHIBIT
STREET LEVEL FLOOR PLAN

OPEN SPACE EXHIBIT SUMARY

LOT 1 TOTAL LANDSCAPE (Softscape)	18,763 sf
LOT 1 TOTAL HARDSCAPE	27,429 sf
LOT 1 TOTAL COMMON OPEN SPACE	46,192 sf
LOT 1 TOTAL PRIVATE OPEN SPACE (PATIOS / DECKS)	19,868 sf
LOT 1 TOTAL OPEN SPACE (COMMON + PRIVATE)	66,060 sf
LOT 2 TOTAL LANDSCAPE (Softscape)	23,863 sf
LOT 2 TOTAL HARDSCAPE	33,323 sf
LOT 2 TOTAL COMMON OPEN SPACE	57,186 sf
LOT 2 TOTAL PRIVATE OPEN SPACE (PATIOS / DECKS)	8,604 sf
LOT 2 TOTAL OPEN SPACE (COMMON + PRIVATE)	65,790 sf
TOTAL LOT 1 + 2 OPEN SPACE (COMMON + PRIVATE)	131,850 sf

LEGEND

LOT 1 - COMMON OPEN SPACE
LOT 1 - PRIVATE OPEN SPACE
LOT 2 - COMMON OPEN SPACE
LOT 2 - PRIVATE OPEN SPACE

scale: 1" = 60'-0"
0 60 120 180 240

Source: Whithee Malcolm Architects, LLP 2010

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Open Space

Exhibit 2-14

Aviation Station Project

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The proposed sign types, and the conceptual designs and locations, are described briefly in Section 4.4, Visual Qualities. The potential distribution of these sign types is depicted in Exhibit 4.4-7, and a more detailed description of the sign types as well as pictures depicting examples and typical signage scenarios for the Project are provided in the *Project Identity, Entrance and Retail Signage Standards* document provided in Appendix G-2 of this EIR. Where not specified in the conceptual signage plan, the size, materials and/or colors of the signs will be determined as plans and specifications are refined, and will be dependent on the specific commercial tenants (for commercial identity signage) as well as the County of Los Angeles zoning code. Many of these signage types would be lighted. In addition, all sign-related lighting will be in compliance with Los Angles Code Section 22.52.820, which states, "In no case shall a lighted sign or lighting device thereof be so placed or directed so as to permit the beams and illumination therefrom to be directed or beamed upon a public street, highway, sidewalk or adjacent premises so as to cause glare or reflection that may constitute a traffic hazard or nuisance".

Utilities

The Project would require improvements to existing infrastructure/utilities, as needed, to support the proposed development. Infrastructure improvements to storm drains, wastewater, water, and dry utilities would be needed to connect to existing facilities within or adjacent to the Project site. The majority of the water and wastewater infrastructure improvements would be off-site and are therefore discussed below in Section 2.3.2; however, fire hydrants and water/wastewater lateral lines would be on-site. The majority of storm drain and dry utility infrastructure improvements would be conducted on-site and are summarized below, although infrastructure improvements in off-site roadways would occur. All utilities would be placed underground. The proposed infrastructure described below would be constructed by the Project Applicant/Developer to specifications required by the governing jurisdiction (e.g., the County of Los Angeles, the Los Angeles County Flood Control District). Proposed infrastructure improvements include the following:

- ***Storm Drains.*** Exhibit 3.2-1 in Section 3.2, Flood Hazards, illustrates the existing and proposed storm drainage features on the Project site. The storm water drainage system for the Project would include use of existing storm water drainage features, removal and/or relocation of selected existing storm water drainage features, and installation of new features both within the Project site and within the off-site area immediately to the north, including the following:
    - Retain 12 existing catch basins, remove 5 on-site existing catch basins, remove and relocate 2 on-site existing catch basins, and install 5 new on-site catch basins with filter inserts;
    - Retain existing concrete gutters where feasible and install new 4-foot concrete gutters along new and/or reconfigured interior roadways and parking areas;
    - Remove a segment of the existing Dominguez Channel 8-foot by 10-foot reinforced concrete box (RCB) structure beneath Aviation Boulevard and West 116th Street, and relocate it northward on the Project site beneath the proposed Fire Lane adjacent to the existing Metro Green Line Station;
    - Extend an existing storm drain near the intersection of Aviation Boulevard and the existing Dominguez Channel to connect to the relocated Dominguez Channel;

- Install new storm drains from the on-site parking area, from the proposed underground infiltration basin, and from the on-site Project site to the existing storm drain beneath 116th Street and the relocated Dominguez Channel;
- Install a new building drainage outlet near the intersection of Judah Avenue and 116th Street (a sump pump will be installed to collect nuisance flows from the subterranean parking garage and pump it into the Dominguez Channel); and
- Place a 15-foot-wide storm drain easement over the relocated alignment of the Dominguez Channel within the Project site.

- ***SUSMP and LID Infrastructure.*** Exhibit 3.2-1 in Section 3.2, Flood Hazards, illustrates the existing and proposed storm drainage features on the Project site. The Project incorporates storm water quality Best Management Practices (BMPs) in accordance with the Los Angeles County Department of Public Works' current *Standard Urban Stormwater Mitigation Plan (SUSMP)* and *Low Impact Development (LID) Standard Manual.* Proposed BMPs would require the following:
  - Three on-site storm drains shall have catch basin inserts, Continuous Deflective Separation (CDS) units, or equivalent technologies, to filter hydrocarbons, trash, heavy metals, sediments, and organics;
  - All storm drains shall be stenciled with "Warning! Drains to Ocean" notes and symbols per NPDES standards, or as approved by the LACDPW;
  - Rooftop and podium-level runoff shall be conveyed through planter boxes for filtration prior to entering a public storm drain; and
  - An on-site underground infiltration system shall be installed beneath the proposed parking lot located north of the intersection of Judah Avenue and 116th Street, and sized to capture the post-development runoff volume increase (LID volume) of 11,761 cubic feet.

- ***Dry Utilities.*** Because the majority of the Project site would be subject to subterranean excavation to accommodate the parking structure, all existing utilities within the Project site would require relocation. Existing dry utility infrastructure (electrical, natural gas, telephone, and cable lines) that serve the Project site are located underground and overhead and/or north of the Project site in the adjacent off-site Caltrans-owned property. Overhead electrical and telephone/cable lines are located on site within the existing commercial properties and between the backyards of the on-site, single-family homes. These utilities would be relocated to underground facilities within the rights-of-way surrounding the Project site and within the Project site.

Greenhouse Gas Emissions and Sustainability Features

The Project contains numerous specific measures and standards to promote sustainability and minimize the Project's contributions to greenhouse gas (GHG) emissions. The Project has been designed with consideration of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) criteria, the California Green Building Standards Code, and the California Office of Planning and Research's Technical Advisory for CEQA and Climate Change, and has included applicable standards to the Project. The Project design features that would promote sustainability and minimize the Project's contributions to GHG emissions are summarized below.

The Project would be designed and constructed in accordance with the requirements set forth in the Los Angeles County's Green Building Program, including LID (Chapter 12.84 of the County Code), Drought-Tolerant Landscaping (Chapter 22.52, Part 21 of the County Code), and the Green Building (Chapter 22.52, Part 20 of the County Code). The Green Building Program requires project designs and practices that will result in the conservation of scarce resources (i.e. water and energy), divert waste from landfills, minimize impacts to existing infrastructure, and promote a healthier environment. Compliance with these requirements would be verified through the site plan review process, and final compliance would be determined by the LACDPW.

The Green Building ordinance would require the following features/actions relative to the Project: (1) achievement of at least 15 percent more energy efficiency than the 2005 Title 24 California Energy Efficiency Standards; (2) installation of smart irrigation controllers, drought-tolerant vegetation (per Chapter 22.52 requirements), and high-efficiency toilets in all dwelling units and mixed-use buildings; (3) recycle/reuse of at least 65 percent of non-hazardous construction/demolition debris by weight; (4) planting of at least one 15-gallon tree per every 5,000 sf of multi-family developed area with at least 50 percent of the trees being drought tolerant; and (5) planting of at least three 15-gallon trees per every 10,000 sf of non-residential developed area with at least 65 percent of the trees drought-tolerant. Based on these standards, the Project would require a total of 33 15-gallon trees, including 18 drought-tolerant tree species. The Project is anticipated to plant approximately 110 trees that are 15-gallon or greater on-site, including 64 drought-tolerant species, providing a surplus of 77 trees beyond the County requirements.

All proposed buildings on the Project site, including all commercial and residential land uses, would be designed and constructed with features to achieve LEED™ Silver certification. Drought-tolerant landscaping, smart-irrigation moisture based controls, and water-catchment cisterns for storm water runoff from building rooftops shall be incorporated to reduce potable irrigation water demand by 50 percent. All residential units would be constructed with water-efficient, low-flow fixtures and appliances, including faucets, dishwashers, laundry facilities, and toilets. Educational materials regarding water conservation techniques and programs, waste reduction and recycling services, the benefits of mixed-use, transit-oriented developments in support of the reduction of vehicle trips, and information about public transportation options would be provided to all future homeowners through the Homeowners Association and mandated through the Covenants, Conditions and Restrictions (CC&Rs). Additionally, on-site bicycle storage and preferred parking for low-emission and fuel-efficient vehicles would be provided.

2.3.2 OFF-SITE PROJECT COMPONENTS

Caltrans Off-Site Project Area

Approximately 6.10 acres of property located to the north of the Project site, owned by Caltrans and located in the City of Los Angeles, would be modified as a part of the Project. This off-site property is bound by Aviation Boulevard to the west, West Imperial Highway to the north, the Caltrans Maintenance Facility building to the east, and the Metro Green Line Aviation/LAX Station to the south. The proposed off-site modifications are depicted in the Site Plan (see Exhibit 2-4).

The "Caltrans Off-Site Project Area" includes the relocated 1.85-acre Metro bus terminal, the reconfiguration of the 3.65-acre Caltrans Park-and-Ride Lot, and the reconfiguration of 0.6-acre of parking for the Caltrans Maintenance Facilities. The relocated Metro bus terminal, currently located within Lot 2 of the Project site, would require the excavation of existing pavement and re-paving with a more substantial concrete surface to accommodate the bus activity.

The relocated Metro facility would require excavation of up to approximately 10 inches below the pavement, totalling approximately 1,500 cubic yards of cut for export. The development of the Metro bus terminal would require that the existing Caltrans Park-and-Ride Lot be moved slightly further east through the reconfiguration of the stalls (i.e. superficial improvements, including re-striping). No grading would be required for the reconfiguration of the Caltrans Park-and-Ride Lot.

The Park-and-Ride Lot currently contains 400 spaces; after the reconfiguration, a total of 400 spaces would continue to be available, including 10 Americans with Disabilities Act (ADA)-compliant spaces. Therefore, the total number of parking spaces available to the users of the Park and Ride lot would be maintained with implementation of the Project. Additionally, the relocated Metro bus terminal would include five spaces reserved for Metro employee parking, which would be accessed separately from the Park-and-Ride Lot. The Caltrans Maintenance Facility building is located east of the "Caltrans Off-site Project Area". Approximately 0.6-acre of parking stalls associated with the Caltrans Maintenance Facility would also be reconfigured to accommodate the relocated Metro bus terminal. The reconfigured parking for the Caltrans Maintenance Facility would continue to provide a total of 50 spaces for Caltrans employees. The Metro Green Line Aviation/LAX Station located to the north of the Project site would remain unchanged with Project implementation.

Ingress/egress for the bus transfers at the relocated Metro bus terminal would be provided via two driveways: one on Aviation Boulevard and one on West Imperial Highway. The existing Caltrans Park-and-Ride driveway on Aviation Boulevard would be relocated approximately 100 feet northerly and would accommodate right-turn ingress and egress movements only into the Metro bus terminal. The ingress/egress driveway for the Metro bus terminal on West Imperial Highway would also accommodate right-turn ingress and egress movements only. Bus circulation would occur in a counterclockwise flow around a central median, which would contain restroom facilities and a locker room for Metro employees, which are included in the existing Metro bus terminal and would be newly constructed in the proposed facility.

The existing Caltrans Park-and-Ride driveway on West Imperial Highway would be relocated approximately 30 feet easterly and would be used as an exit-only driveway (i.e., limited to right-turn egress movements only). The remaining existing driveway into the Caltrans Park-and-Ride Lot on West Imperial Highway would be reconfigured to provide one inbound lane and one outbound lane, with left-turn and right-turn ingress and right-turn only egress (i.e., no left-turn egress movements would be permitted onto westbound Imperial Highway). The reconfigured driveway would provide direct access to the Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility surface parking lots. The Park-and-Ride Lot would be located directly to the east of the Metro bus transfer facility.

Roadway Improvements for Caltrans Off-Site Project Area

A traffic signal would be installed at the existing Caltrans driveway on West Imperial Highway to accommodate access to the reconfigured Metro and Caltrans facilities. The traffic signal at the Caltrans driveway would feature separate westbound left-turn phasing for vehicles turning left into the Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility surface parking lots.

Utility Infrastructure for Caltrans Off-Site Project Area

- ***Water.*** A new water lateral within the off-site, Caltrans-owned property will be constructed to provide service to the restrooms and water fountain associated with the new Metro bus terminal. The water line will be connected to the existing 6-inch-diameter water line within the off-site Caltrans property.

- ***Sewer.*** A new sewer lateral line within the off-site Caltrans-owned property would be constructed to provide service to the restrooms and water fountain associated with the relocated Metro bus terminal. The sewer line would be connected to the new eight-inch-diameter local sewer line in Aviation Boulevard.

- ***Storm Drains.*** The existing storm drain system would remain unchanged with the development of the proposed off-site improvements. The construction of the relocated Metro bus terminal and reconfiguration of the existing Park and Ride lot would not result in additional impervious areas, and no additional storm water flows would be generated; therefore, no changes to the existing storm drain system would be necessary.

- ***Dry Utilities.*** The off-site area does not currently contain any habitable structures that require cable, phone, natural gas, or other dry utility infrastructure. Development of off-site improvements would not generate a new demand for these utilities; therefore, no additional or new infrastructure would be required. The site currently contains parking lot lighting, which would be incorporated into the reconfigured Park-and-Ride Lot, and would be used to provide lighting in the restroom facility.

Off-Site Utility Improvements

Infrastructure improvements to storm drains, wastewater, water, and dry utilities would be needed to connect to existing facilities within or adjacent to the Project site. As noted below, the infrastructure improvements required for the Project would also involve the installation of off-site utility lines within existing public streets. All utilities would be placed underground. The proposed infrastructure described below would be constructed by the Project Applicant/Developer to specifications required by the governing jurisdiction (e.g., the County of Los Angeles, the Los Angeles County Flood Control District). Proposed off-site infrastructure improvements include the following:

- ***Water.*** Exhibit 3.3-1 in Section 3.3, Fire, illustrates the proposed water and fire infrastructure on the Project site. The majority of this infrastructure would be off-site; however, fire hydrants and lateral lines connecting to these water line improvements would be on-site. Segments of the existing four- and six-inch diameter water lines in Aviation Boulevard (between West 116th Street and West 117th Street), West 116th Street (between Aviation Boulevard and Judah Avenue), West 117th Street (between Aviation Boulevard and Isis Avenue), and Judah Avenue (between West 117th Street and West 118th Street) will be abandoned and three existing fire hydrants will be removed or relocated. The Project includes the following new water and fire flow infrastructure: (1) twelve-inch diameter water line within West 117th Street between Aviation Boulevard and Isis Avenue turning south at Isis Avenue and immediately connecting with the existing 12-inch water line; (2) eight-inch-diameter water lines within Aviation Boulevard (between West 117th Street and the Fire Lane along the northern property boundary), the Fire Lane (between Aviation Boulevard and Judah Avenue), and Judah Avenue (between the Fire Lane and West 118th Street), connecting with the new 12-inch line in West 117th Street; (3) eight-, six-, and two-inch-diameter water laterals from proposed structures to a new water line; and (4) six new fire hydrants evenly distributed around the perimeter of the Project site.

- ***Sewer.*** Exhibit 5.2-1 in Section 5.2, Sewage Disposal, illustrates the existing and proposed sewer infrastructure on the Project site. The majority of this infrastructure would be off-site; however, lateral lines connecting to these sewer line improvements would be on-site. Segments of the existing eight-inch-diameter local sewer line within Aviation Boulevard (between West 116th Street and West 117th Street) and West 116th Street (between Aviation Boulevard and Judah Avenue) would be abandoned in place. The Project includes the following new wastewater infrastructure:

  - An eight-inch-diameter local sewer line within Aviation Boulevard beginning north of West 116th Street and connecting to the sewer line within West 117th Street;

  - An eight-inch-diameter local sewer line within West 117th Street connecting the Aviation Boulevard sewer line to the existing sewer line in West 117th Street;

  - An eight-inch-diameter local sewer line within Judah Avenue beginning mid-block between West 116th Street and West 117th Street, and connecting to the existing sewer line in West 117th Street;

  - An eight-inch-diameter local sewer line within Judah Avenue beginning mid-block between West 116th Street and West 117th Street, extending north and connecting to the existing sewer line in West 116th Street;

  - Six-inch-diameter sewer laterals from each of the four proposed buildings to a local sewer line (as described above); and

  - Four-inch-diameter sewer laterals from each individual townhome along West 117th Street and Judah Avenue to a local sewer line (as described above).

2.3.3 CONSTRUCTION ACTIVITIES

Grading and Excavation

On-site construction activities associated with the Project and analyzed in this EIR include demolition of existing structures and grading of the Project site (including excavation for the subterranean parking and building substructure, storm water infiltration system, Dominguez Channel RCB structure, and existing Metro bus terminal), and construction of buildings and infrastructure. Off-site construction activities within the Caltrans Off-Site Project Area include demolition of concrete to prepare the site for the relocated Metro bus terminal, and the reconfiguration of the Caltrans Park-and-Ride and 0.6-acre Caltrans Maintenance Facility parking lot. Users of the Caltrans Park-and-Ride Lot would be redirected to existing Park-and-Ride Lots within the City of Hawthorne (i.e. Crenshaw Green Line Station, Hawthorne Green Line Station, or Hawthorne Plaza) or the City of El Segundo (Douglas Green Line Station, El Segundo Green Line Station) during the re-striping and reconfiguration of the parking stalls. Other off-site utility infrastructure improvements would require trenching in roadways/right-of-way.

The Project would be developed in one phase, with Caltrans Off-site Project Area, roadway and utility improvements occurring during the Project construction period. Construction activities are anticipated to commence in mid-2011 and occur for approximately 18 months and would be completed at the end of 2012. Occupancy of the Project is expected to take approximately one year, with full occupancy occurring in early 2014.

The initial construction activities would involve construction of the relocated off-site Metro bus terminal, which is anticipated to require approximately two months. Improvements at the existing Metro bus terminal would involve superficial grading (approximately 10 inches below the

pavement) in preparation for installation of replacement pavement and result in an estimated 1,500 cy of soil excavation that would be exported. Concurrent to these activities, the 3.65-acre Caltrans Park-and-Ride Lot, as well as the 0.6-acre parking for the Caltrans Maintenance Facility, would be reconfigured to accommodate the new Metro bus terminal, which would be fully operational before the existing Metro bus terminal would be decommissioned. Upon completion of the relocated Metro bus terminal, the existing terminal and any remaining on-site structures would be demolished.

Concurrent with these activities, all existing structures within Lot 1 (southerly lot), including the commercial buildings, surface parking, and single-family homes and associated vegetation; would be demolished (demolition schedule is anticipated to require approximately two months and would overlap with construction of the Metro bus terminal). The removal of landscaping trees would be timed to avoid the nesting bird season, or pre-construction surveys would be conducted to ensure that no nesting birds are disturbed by demolition activities. Upon completion of the off-site Metro bus terminal and on-site demolition activities within Lots 1 and 2, the Project site would be excavated for the following subterranean facilities:

- Subterranean parking garage – 56,000 cubic yards (cy) excavation (all exported);
- Storm water infiltration system – 2,000 cy excavation (1,335 cy exported and 665 cy backfill); and
- Dominguez Channel reinforced concrete box (RCB) structure – 3,300 cy excavation (2,165 cy exported and 1,135 cy backfill).

The Dominguez Channel RCB structure would be located to the north of the subterranean parking garage, and the storm water infiltration system would be to the northeast. The RCB structure is estimated to have a total excavation depth of approximately 15 feet below grade, the storm water infiltration system is estimated to have a total excavation depth of approximately 20 feet below grade, and the parking garage is estimated to have an excavation depth of approximately 8.5 feet below grade. In total, an estimated 62,800 cy of soil would be removed for these four major excavation activities. Of this, an estimated 61,000 cy of soil from the Project site and the Caltrans Off-Site Project Area would be exported off-site over the course of approximately 6 weeks, with the remaining approximately 1,800 cy used as backfill on the Project site.

Off-site trenched excavations for utility infrastructure (e.g. pipeline replacements/improvements) in adjacent roadways would be approximately 5 to 8 feet deep by 2 to 4 feet wide. Once utility improvements are completed, these excavated soils would be returned to the trench as backfill and only negligible amounts, if any, of soil would be exported.

Assuming the use of 20-cubic-yard trucks, approximately 3,050 truck trips would be required for export of the estimated 61,000 cy of excavated soil to be removed from the site. Trucks accessing the site would be required to use Aviation Boulevard and West Imperial Highway/I-105 when feasible, which are designated truck routes by the Cities of El Segundo and Los Angeles. Construction staging areas would be located on site, and no construction traffic or queuing would be allowed on West 117th Street, Judah Avenue, or any residential streets within the Del Aire community.

Once the Project site has been cleared and excavated, construction activities would begin. Construction would include trenching for utility improvements; constructing of the subterranean parking structure; construction of street level commercial buildings and townhomes; construction of Buildings 1A, 2A, 1B, and 2B; driveways, and community areas; architectural coatings (i.e., painting and exterior finishes); and installation of hardscaping/landscaping.

Groundwater beneath the Project site appears to be perched (i.e., confined and not connected to an underlying aquifer) at approximately 40 feet below ground surface (bgs). Excavation activities would not exceed 20 feet bgs; therefore, construction activities would not encounter groundwater, and there would be no need for construction-related dewatering during subterranean excavations (LGC 2009). The RCB structure (8' x 10' box) will be excavated to about 15' feet below grade with an estimated back fill of about 5' feet.

2.3.4 PROPERTY OWNERSHIP AND JURISDICTIONAL TRANSFERS

As previously discussed, the portion of the Project site south of West 116th Street (Lot 1) is privately owned and portions of the Project site north of and including West 116th Street (Lot 2) are predominantly owned by the Caltrans, with the City of Los Angeles owning the applicable portion of West 116th Street. For the purpose of simplicity of reference throughout this EIR, these areas will be referred to as Lot 1 and Lot 2, with the understanding that the boundaries of these lots are defined through the proposed VTTM 70853 and are not existing lots on the Project site. The proposed VTTM 70853 is a 2-lot subdivision that includes Lot 1, which would include the development of 278 for-sale attached residential units, 8,000 sf of commercial and leasing office space, and Lot 2, which would include the development of 112 rental residential units and 21,500 sf of commercial space.

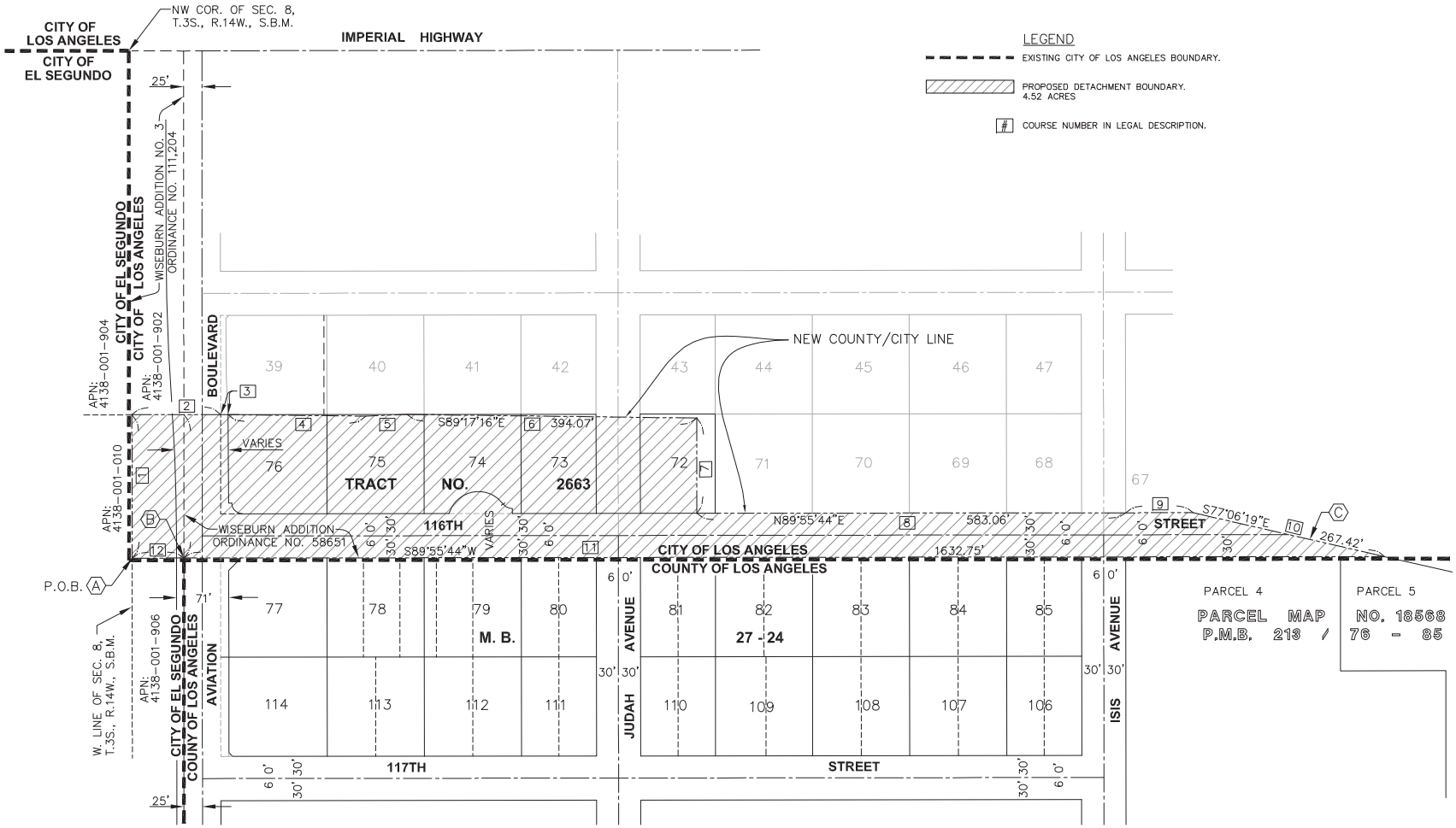
The Project requires the decertification of the Caltrans-owned portion of Lot 2 and its sale to Metro. Once under Metro ownership, Lot 2 would then be leased to the Project Applicant/Developer. A modification to the County of Los Angeles and City of Los Angeles boundaries would be required, involving “detachment” through the Local Agency Formation Commission for the County of Los Angeles (LAFCO), to allow the entire Project site (including a portion of West 116th Street) to become part of unincorporated County of Los Angeles. All of Lot 2 and a portion of the West 116th Street right-of-way would be included in the detachment. This required detachment from the City of Los Angeles is graphically depicted on Exhibit 2-15.

All existing storm drain facilities are owned and operated by the Los Angeles County Flood Control District (LACFCD); therefore, no changes in jurisdiction would be required for storm drain infrastructure improvements or long-term operation. The Project is entirely located within the jurisdiction of District No. 5 of the County Sanitation Districts of Los Angeles County; therefore, no changes in jurisdiction would be required for sewage infrastructure improvements. However, the County of Los Angeles Department of Public Works’ Consolidated Sewer Maintenance District is responsible for the maintenance of the local sewers within the unincorporated County area. Therefore, sewer development within the entire Project area would be required to be annexed into the Consolidated Sewer Maintenance District.

Additionally, water service for Lot 2 currently is under City of Los Angeles Department of Water and Power jurisdiction and would be divested to the Golden State Water Company upon detachment from the City of Los Angeles.

2.4 APPLICABLE LOCAL AND REGIONAL PLANS AND POLICIES

The Project is subject to multiple local and regional plans and policies. The key plans and policies guiding development of the Project are summarized below. Refer to EIR Section 8.2 (Land Use) for more information including an assessment of the Project’s consistency with the following plans and pertinent policies. Other applicable plans and policies are discussed in the environmental assessments presented for each resource topic in Sections 3.0 through 6.0 (Hazards, Resources, Services, and Other Issues) in the “Relevant Policies and Regulations” subsection.



Source: Land Design Consultants, Inc 2009

Proposed Detachment

Exhibit 2-15

Aviation Station Project

BonTerra CONSULTING

(Rev. 07/12/10 CJS) PAS R:/Projects/Cox/J002/Graphics/EIR/Ex2-15_proposed_detach.pdf

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County of Los Angeles General Plan

The County of Los Angeles's current General Plan was adopted in 1980. The County is in the process of updating its General Plan, and a proposed Comprehensive General Plan Update is available for public review, but has not been formally adopted. The following nine *County of Los Angeles General Plan* elements address countywide planning issues: Land Use; Circulation; Housing;[2] Conservation, Open Space and Recreation; Noise; Safety; Public Facilities; and Economic Development. Each of these elements is summarized in Section 6.2, Land Use. The General Plan goals and policies presented in each element represent the general course of action that should be followed to achieve the environment envisioned for the unincorporated County.

County of Los Angeles Zoning Ordinance

Land use, population density, lot coverage, and building sizes and locations on the Project site are regulated through the County of Los Angeles Planning and Zoning Code (*Los Angeles County Code* Title 22).

County of Los Angeles Green Building Program

In November 2008, the County adopted the Green Building Program, which is codified in the County Code and includes: LID (Chapter 12.84 of the County Code), Drought-Tolerant Landscaping (Chapter 22.52, Part 21 of the County Code), and the Green Building (Chapter 22.52, Part 20 of the County Code).

LID requires the use of structural devices, engineered systems, vegetated natural designs, and education to distribute stormwater and urban runoff across the development site in order to replenish groundwater supplies, improve the quality of surface water runoff, stabilize natural stream characteristics, preserve natural site characteristics, and minimize downstream impacts.

Drought-Tolerant Landscaping establishes minimum standards for the design and installation of landscaping using drought-tolerant plants and native plants that require minimal use of water in order to help conserve water resources.

Green Building establishes green building development standards for new projects that are intended to result in the conservation of scarce resources (i.e. water and energy), divert waste from landfills, minimize impacts to existing infrastructure, and promote a healthier environment. Green Building requires residential projects with five or more dwelling units must comply with the County's Green Building Standards or Green Point Rated, California Green Builder, or LEED certification standards. Non-residential buildings of greater than 10,000 square feet (sf) must comply with the County's Green Building Standards or LEED certification standards. The County's Green Building Program standards require the incorporation of energy efficient features, the recycling or reuse of construction/demolition debris, the use of smart irrigation equipment, planting of trees, and installation of high-efficiency toilets, and other green building design requirements.

Southern California Association of Governments

SCAG is the Metropolitan Planning Organization (MPO) for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The region has a population that exceeds

[2] State law (Government Code Section 65583 et. seq.) requires that General Plan Housing Elements are updated every six years; the current County of Los Angeles Housing Element was adopted in 2008.

18 million persons in an area that covers more than 38,000 square miles. The federal government has also mandated SCAG, as the designated MPO, to research, develop, and prepare plans for transportation, growth management, hazardous waste management, and air quality. SCAG undertakes the following activities:

- Maintaining a continuous, comprehensive, and coordinated planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program;
- Developing integrated land use, housing, employment and transportation programs, measures, and strategies for portions of the South Coast Air Quality Management Plan;
- Determining the conformity of projects, plans, and programs to the region's Air Quality Management Plan, as mandated in the Federal Clean Air Act;
- Functioning as the authorized regional agency for intergovernmental review of programs proposed for federal financial assistance and direct development activities;
- Reviewing environmental impact reports for projects that have regional significance for consistency with regional plans;
- Functioning as the authorized areawide waste treatment management planning agency, pursuant to federal water pollution control statutes;
- Preparing the Regional Housing Needs Assessment, as mandated under California law; and
- Preparing, together with the San Diego Association of Governments and the Santa Barbara County/Cities Area Planning Council, the Southern California Hazardous Waste Management Plan pursuant to the *California Health and Safety Code.*

SCAG has developed a number of plans to achieve the regional objectives. The most applicable to the Project are the *2008 Regional Transportation Plan* (RTP) and the *Compass Growth Vision Report*.

Regional Transportation Plan

Federal guidelines require that all new, regionally significant transportation projects be included in the RTP before they can receive federal or State approvals or funds. Metro is the transportation planning body and transit service provider for Los Angeles County. Metro submits the program of Los Angeles County projects for inclusion into the Regional Transportation Improvement Program (RTIP).

SCAG adopted the current RTP, *Making the Connections, 2008 Regional Transportation Plan* (2008 RTP), on May 8, 2008. Implementation of the 2008 RTP would provide adequate highway, transit, rail, aviation, and goods movement infrastructure to meet the region's needs in 2035. The 2008 RTP is a $531.5 billion program that emphasizes the importance of system management, goods movement, and innovative transportation financing. It provides a regional investment framework to address the region's transportation and related challenges, and looks to strategies that preserve and enhance the existing transportation system and integrate land use into transportation planning. The 2008 RTP is linked to transportation plans and models of the County of Los Angeles and the City of Los Angeles in the form of shared growth and travel projections. The 2008 RTP includes goals and policies applicable to transportation and, in some cases, land use projects.

Compass Blueprint Growth Vision Report

The Compass Blueprint is a set of planning principles generated through a comprehensive "Growth Vision" process initiated by SCAG in 2000. The adopted *2004 Compass Blueprint Growth Vision Report* details the evolution of the draft vision from the study of emerging growth trends to the effects of different growth patterns on transportation systems, land consumption, and other factors. The Compass Blueprint 2% Strategy is a guideline for how and where the Growth Vision for Southern California's future can be implemented. It calls for modest changes to current land use and transportation trends that make up approximately 2 percent of the land area of the region. The Project site is located within a Compass 2% Strategy Area where development is intended to balance employment, housing, and services to reduce vehicle trips and emissions, enhance livability, expand prosperity, and increase sustainability.

South Coast Air Quality Management District

The Project site is located in the SoCAB and within the jurisdiction of SCAQMD. The SCAQMD is responsible for controlling emissions of air pollution primarily from stationary sources, including those from both businesses and residences. Many consumer product manufacturers are also considered stationary sources; these include house paint, furniture varnish, and thousands of products containing solvents that evaporate into the air. About 23 percent of the Basin's ozone-forming air pollution is generated by stationary sources; the remaining 77 percent is produced by mobile sources—mainly cars, trucks, buses, trains, and construction equipment.

Emission standards for mobile sources are established by State or federal agencies, such as CARB and the U.S. Environmental Protection Agency (USEPA), rather than by local agencies such as the SCAQMD. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, which includes Los Angeles County. SoCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. SoCAB's climate is generally mild and arid although the moist marine layer can add humidity and restrict visibility in the area. SoCAB's distinctive climate is determined by its terrain and geographic location. SoCAB is a coastal plain with connecting broad valleys and low hills, bound by the Pacific Ocean to the southwest and high mountains around the rest of its perimeter. The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds.

Los Angeles County Airport Land Use Plan

Under *California Public Utilities Code* Section 21670 et seq. (Aeronautics Act), each county in which there is an airport served by a scheduled airline and each county with an airport operated for the benefit of the general public, with certain exceptions, is required to establish an airport land use commission (ALUC). The ALUC's purpose is to coordinate planning for the area around public use airports to protect the public health, safety and welfare from land uses that do not minimize the public's exposure to excessive noise and safety hazards (*California Public Utilities Code* Section 21670(a)(2)). To that end, the ALUC has the power to prepare and adopt an airport land use compatibility plan, known as Airport Land Use Plan (ALUP), and to review plans, regulations, or actions by a local government to ensure compatibility with the ALUP.

The ALUP delineates areas of critical concern from an airport noise and safety standpoint, and sets forth policy recommendations for achieving compatibility between airport and the surrounding land uses. However, the authority of the ALUC is limited. The ALUC has no jurisdiction over existing land uses. Also, it does not have jurisdiction over airport operations, nor can it enact zoning requirements. Instead, the ALUC sets uniform standards to discourage development of new incompatible uses, but it is the responsibility of the local agencies, through their planning and zoning powers, to specify which uses are appropriate within their jurisdictions.

Section 21676.5 of the *California Public Utilities Code* requires that projects within an airport planning boundary be reviewed by the ALUC when the local agency general plan has not been reviewed for consistency with the ALUP. If the ALUC finds the project inconsistent with the ALUP, the local agency, after a public hearing, may propose to overrule the ALUC by a two-thirds vote of its governing body, provided it makes specific findings that the proposed action is consistent with the purpose of the relevant statute, namely *California Public Utilities Code* Section 21670 et seq. (*California Public Utilities Code Section* 21656(b)).

The Project site is located partially within the Airport Influence Area for the Los Angeles International Airport (LAX). Therefore, the proposed general plan amendment and zone change require an ALUC consistency determination pursuant to Section 21676(b) of the California Public Utilities Code.

2.5 PROJECT OBJECTIVES

Section 15124 of the CEQA Guidelines requires an EIR to include a statement of objectives sought by the Project. This disclosure assists in developing the range of Project alternatives to be investigated in the EIR, as well as providing a rationale for the adoption of a Statement of Overriding Considerations, if one is in fact adopted. The Project's compliance with the *County of Los Angeles General Plan's* Goals and Policies is presented in Section 6.2, Land Use. Identified below are Project Applicant/Developer goals and objectives related to the Project.

Objective 1: To minimize the County's "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Objective 2: To provide a diverse housing stock of various sizes, including rental units and for-sale properties, located in close proximity to major regional employers.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Objective 5: To design an aesthetically pleasing Project with visual continuity through the careful and consistent application of high quality building, landscape, and hardscape design and materials.

Objective 6: Incorporate Project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emission reductions.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Objective 8: To implement the goals and policies of the County *of Los Angeles General Plan* to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

2.6 INTENDED USES OF THIS EIR

The intended uses of this EIR include compliance with CEQA and to provide information needed by the Los Angeles County Regional Planning Commission and Board of Supervisors, and other County departments, to make decisions regarding Project approvals and conditions. The EIR is also intended to support all federal, state, and regional and/or local government discretionary approvals that may be required to develop the Project.

2.6.1 DISCRETIONARY ACTIONS

As depicted on VTTM No. 70853, the current zoning and land use designations for the Project site involve two separate jurisdictions: the County of Los Angeles and the City of Los Angeles. In addition to the boundary modification discussed above (Section 2.3.4), the following discretionary applications have been requested to be approved by Los Angeles County and various other public agencies.

Vesting Tentative Tract Map

The Project Applicant is requesting a vesting tentative tract map to develop 278 residential units, 8,000 square feet (sf) of commercial and leasing office space within the 3.2-acre Lot 1, and 112 residential units and 21,500 sf of commercial within the 2.7-acre Lot 2. The residential units within Lot 1 would be developed as for-sale condominium units and townhouses, and the residential units within Lot 2 would be developed as rental apartments.

General Plan Amendment

The current County of Los Angeles General Plan land use designation for Lot 1 is “Low Density Residential” and the current City of Los Angeles General Plan land use designation for Lot 2 is “Public Facilities”. The Project requires a General Plan Amendment to change the land use designation for the property to “High Density Residential”, which would be the ultimate land use designation for both Lot 1 and Lot 2.

Zone Change

Lot 1 within the County of Los Angeles is currently zoned C-1 (Restricted Business Zone) and R-1 (Single-Family Residence) in the County of Los Angeles’ Zoning Ordinance. Lot 2, excluding the West 116th Street, within the City of Los Angeles is currently zoned PF (Public Facilities) in the City of Los Angeles’ Zoning Ordinance. That portion of West 116th Street would be vacated as a part of the VTTM approval process. The Project requires a zone change to MXD-DP, Mixed Use Development/Development Program, to provide development standards to regulate development for both Lot 1 and Lot 2.

Conditional Use Permit

A Conditional Use Permit (CUP) is required pursuant to County Code Section 22.40.520(B) and Section 22.40.040 to allow mixed use development on a property with MXD zoning and a DP overlay. The CUP would also establish site-specific development standards for the Project.

Parking Permit

A Parking Permit is required pursuant to County Code Section 22.56.990(C) to allow for the sharing of parking across Lot 1 and Lot 2.

LAFCO Boundary Modification

The Project requires a modification to the County of Los Angeles and City of Los Angeles boundaries involving "detachment" through LAFCO, to allow the entire Project site (including a portion of West 116th Street) to become part of unincorporated County of Los Angeles. All of Lot 2 and a portion of the West 116th Street right-of-way would be included in the detachment.

Water Service Area Boundary Adjustment

The Project requires an adjustment of the respective service areas of the City of Los Angeles Department of Water and Power and the Golden State Water Company, which would serve the entire Project site

Consolidated Sewer Maintenance District Annexation

The County of Los Angeles Department of Public Works' Consolidated Sewer Maintenance District is responsible for the maintenance of the local sewers within the unincorporated County area. Therefore, sewer development within the entire Project area is required to be annexed into the Consolidated Sewer Maintenance District.

Aviation Permit

The Project requires an Aviation Permit to establish consistency with the Los Angeles County Airport Land Use Plan.

Caltrans Encroachment Permit

The Project requires an encroachment permit from California Department of Transportation (Caltrans) for construction activities within the off-site, Caltrans-owned parking lot.

Metro Ownership of Lot 2

The Project requires the sale of the Caltrans-owned portion of Lot 2 to Metro. Once under Metro ownership, Lot 2 would then be leased to the Project Applicant/Developer.

2.7 BASIS FOR CUMULATIVE IMPACT ANALYSIS

Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which when considered together are considerable or which compound or increase other environmental impacts". Section 15355 further describes potential cumulative impacts as follows: (a) the individual effects may be changes resulting from a single project or a number of separate projects; or (b) the cumulative impacts from several projects are the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed where they are significant. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great a level of detail as that which is necessary for the project alone. Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

The CEQA Guidelines (Section 15130[b][1]) states that the information utilized in an analysis of cumulative impacts should come from one of two sources, either: (1) a list of past, present, and probable future projects producing related cumulative impacts, including if necessary, those projects outside the control of the agency; or (2) a summary of projections contained in an adopted general plan or related planning document or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact.

The cumulative impacts analyses contained in this EIR use both methods. As appropriate, the cumulative impact analyses provided in this EIR uses the *County of Los Angeles General Plan* study area. In addition, the cumulative analysis for individual topical issues may consider specific cumulative study areas designated by respective agencies for regional or areawide conditions. Topic-specific cumulative study areas (e.g., SoCAB) have been developed for traffic and air quality. Also, this EIR considers regional programs directed at mitigating cumulative impacts of development, such as those instituted for urban runoff. A description of the basis for the cumulative impact analysis for individual topical issues is provided within each cumulative analysis discussion in this EIR. The cumulative projects considered as current/future development within the Project area are identified on Exhibit 2-16 and are listed in Table 2-5.

TABLE 2-4
CUMULATIVE PROJECTS

Map No.	Project Name/ Project Number	Project Status	Address/ Location	Land Use Date		Project Data Source [1]	Daily Trip Ends [2] Volumes	AM Peak Hour Volumes [2]			PM Peak Hour Volumes [2]		
				Land-Use	Size			In	Out	Total	In	Out	Total
County of Los Angeles													
LAC 1	Green Dot Lennox Charter High School	Proposed	11044 and 11111 Freeman Avenue	High School	560 Students	[3]	862	143	64	207	33	37	70
City of El Segundo													
E1	Office	Under Construction	1700 East Grand Avenue	General Office Medical-Dental Office Building	24,930 GSF 8,050 GSF	[4], [5], [6]	565	50	9	59	14	53	67
E2	Hotel	Approved	101 Continental Boulevard	Hotel	167 Rooms	[4], [7]	1,364	54	26	80	39	53	92
E3	Data Center	Approved	445 North Douglas Street	Data Center-Office (Net)	109,137 GSF	[4], [5], [8]	1,202	149	20	169	28	135	163
E4	Data Center	Approved	444 North Nash Street	Data Center-Office (Net)	33,899 GSF	[4], [5], [8]	373	47	6	53	9	42	51
E5	El Segundo Business Park Project	Under Construction	222 Kansas Street	Business Park High-Turnover Restaurant (Less Existing Business Park)	83,812 GSF 4,437 GSF (88,249) GSF	[9]	516	21	22	43	27	13	40
E6	Hotel	Approved	888 North Sepulveda Boulevard	Hotel	179 Rooms	[10]	1,462	61	39	100	56	50	106
E7	Hotel	Proposed	1960 East Grand Avenue	Hotel	150 Rooms	[4], [7]	1,226	51	33	84	27	23	50
E8	EA819GPA	In Review	900, 950 & 960 Sepulveda Boulevard 901-915 Shelby Street	Warehouse (Net) General Office (Net) Manufacturing (Net)	(59,346) GSF 67,474 GSF 11,471 GSF	[8], [11], [12], [13]	(211) 743 44	(14) 92 6	(4) 13 2	(18) 105 8	(5) 17 3	(14) 84 5	(19) 101 8
E9	El Segundo Corporate Campus	Under Construction	700-800 North Nash Street	General Office Shopping Center	197,300 GSF 18,700 GSF	[5], [14], [15]	2,172 803	269 15	37 10	306 25	50 22	244 18	294 40
E10	LA Air Force	Proposed	2400-2460 East	Condominium	625 DU	[4], [16]	3,631	47	228	275	218	107	325

TABLE 2-4 (Continued)
CUMULATIVE PROJECTS

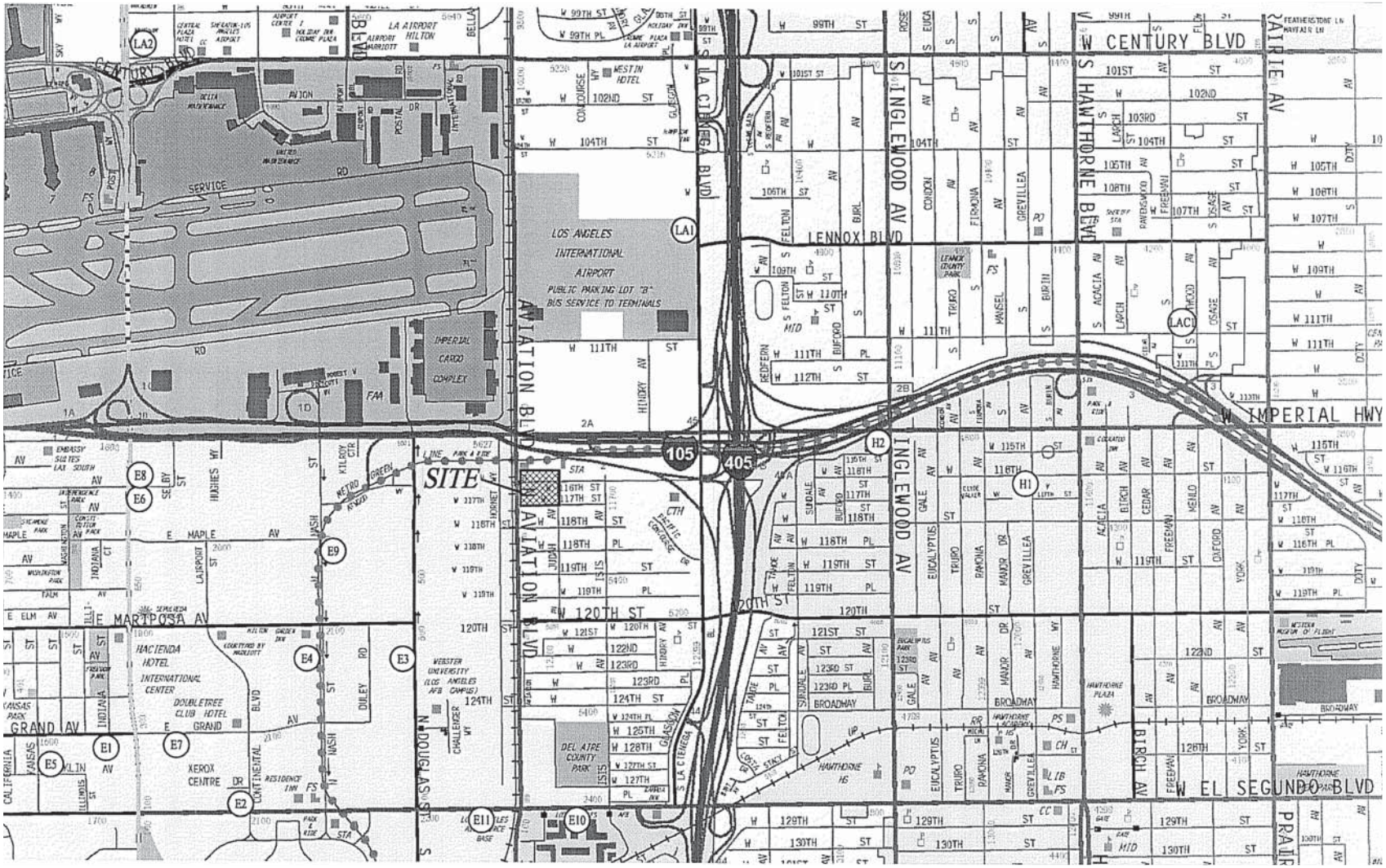
Map No.	Project Name/ Project Number	Project Status	Address/ Location	Land Use Date		Project Data Source [1]	Daily Trip Ends [2] Volumes	AM Peak Hour Volumes [2]			PM Peak Hour Volumes [2]		
				Land-Use	Size			In	Out	Total	In	Out	Total
	Base Area A		El Segundo Boulevard										
E11	LA Air Force Base Area B	Proposed	2350 East El Segundo Boulevard	General Office (Less Existing Office)	150,000 GSF (120,000) GSF	[4], [5], [17]. [12]	1,652 (1,321)	205 (164)	28 (22)	233 (186)	38 (30)	186 (149)	224 (179)
City of Los Angeles													
LA1	Metro Bus Facility	Proposed	West Side of La Cienega Boulevard, at the Lennox Boulevard intersection	Standard Buses Articulated Buses Other Vehicles	235 Buses 106 Buses 800 Employees	[18]	2,430	160	83	243	194	45	239
LA2	LAX Hotel Airport Project	Proposed	6225 West Century Boulevard	Hotel	340 Rooms	[19]	4,067	213	119	332	155	187	342
City of Hawthorne													
H1	Prestige Villas	Proposed	4500 West 116th Street	Single Family Detached Housing	West 116 DU	[20]	1,110	22	65	87	74	43	West 117
H2	Retail	Proposed	Southwest Corner of the Inglewood Avenue/ Imperial Highway Intersection	Retail	50,000 GLSF	[21], [22]	2,147	31	19	50	92	95	187
						TOTAL	**24,837**	**1,458**	**797**	**2,255**	**1,061**	**1,257**	**2,318**

TABLE 2-4 (Continued)
CUMULATIVE PROJECTS

Map No.	Project Name/ Project Number	Project Status	Address/ Location	Land Use Date		Project Data Source [1]	Daily Trip Ends [2] Volumes	AM Peak Hour Volumes [2]			PM Peak Hour Volumes [2]		
				Land-Use	Size			In	Out	Total	In	Out	Total

Source: LLG 2009

[1] Sources: County of Los Angeles Department of Regional Planning, City of Los Angeles Departments of Transportation and Planning, City of El Segundo Planning Department, and City of Hawthorne Department of Planning, March 2009. The daily and peak hour traffic volumes were forecast based on trip generation rates provided in ITE "Trip Generation", 8th Edition, 2008, unless otherwise noted.
[2] Trips are one-way traffic movements, entering or leaving.
[3] Source: "Traffic Impact Study, Green Dot Lennox Charter High School", prepared by LLG Engineers, February 20, 2008.
[4] Source: Table 4, Related Projects Trip Generation Summary, " El Segundo Business Park Traffic Impact Analysis", prepared by PBS&J, February 2009.
[5] Daily traffic volumes forecast based on ITE Land Use Code 710 (General Office Building) trip generation average rates.
[6] Daily traffic volumes forecast based on ITE Land Use Code 720 (Medical-Dental Office) trip generation average rates.
[7] Daily traffic volumes forecast based on ITE Land Use Code 310 (Hotel) trip generation average rates.
[8] The sizes of the land use utilized in the analysis reflects the net square footage of the Project, which takes into account both the existing and proposed uses as outlined in the City of El Segundo Cumulative Projects List, March 2009.
[9] Source: "El Segundo Business Park Traffic Impact Analysis", prepared by PBS&J, February 2009.
[10] ITE Land Use Code 310 (Hotel) trip generation average rates.
[11] ITE Land Use Code 150 (Warehouse) trip generation average rates.
[12] ITE Land Use Code 710 (General Office Building) trip generation average rates.
[13] ITE Land Use Code 140 (Manufacturing) trip generation average rates.
[14] The approved proposed El Segundo Corporate Campus project consists of 1,740,000 gross square feet (GSF) of office, 75,000 gross leasable square feet of retail, 7,000 GSF of child care, 7,000 GSF of medical office, a 19,000 GSF health club, 75,000 GSF of restaurant, a 100-room hotel, 25,000 GSF of light industrial, 75,000 GSF of research and development, and 65,000 GSF of technology/telecommunications floor area. Based on information provided by City of El Segundo Planning staff, approximately 197,000 GSF of office/light industrial floor area and 18,700 GLSF of retail floor area of the project is under construction and is expected to be completed by the anticipated build out year for the proposed Aviation Station project.
[15] Daily traffic volumes forecast based on ITE Land Use Code 820 (Shopping Center) trip generation average rates.
[16] ITE Land Use Code 230 (Residential Condominium/Townhouse) trip generation average rates.
[17] The approved proposed LA Air Force Base - Area B project consists of 150,000 gross square feet (GSF) of office, and 15,000 GSF of research and development floor area. Based on discussions with City of El Segundo Planning Department staff, approximately 150,000 GSF of office floor area is under construction and is expected to be completed by the anticipated build out year for the proposed Aviation Station project.
[18] Source: "Traffic Study for the Metro Bus Facility at LAX - Parking Lot B", prepared by Fehr & Peers, September 2008.
[19] Source: "Scoping for Traffic Study Memorandum of Understanding (MOU), LAX Hotel and Airport Parking Structure", prepared by Fehr & Peers, January 2009.
[20] ITE Land Use Code 210 (Single-Family Detached Housing) trip generation average rates.
[21] Based on information provided by City of Hawthorne staff, the size of the project is assumed to be 50,000 square feet of retail floor area.
[22] ITE Land Use Code 820 (Shopping Center) trip generation average rates.



MAP SOURCE: THOMAS BROS. GUIDE

(LA) CITY OF LOS ANGELES

(LAC) COUNTY OF LOS ANGELES

(E) CITY OF EL SEGUNDO

(H) CITY OF HAWTHORNE

Source: Linscott, Law & Greenspan Engineers 2009

Location of Cumulative Projects

Exhibit 2-16

Aviation Station Project

BonTerra CONSULTING

(Rev 07/12/10 CJS) Projects/Cox/J002/Graphics/EIR/Ex1-4_related_projects.pdf

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SECTION 3.0
HAZARDS

3.1 GEOTECHNICAL

This section analyzes potential geotechnical hazards that may adversely affect the Project site or that may be exacerbated by implementation of the Project. Information presented in this section is summarized from the *Geotechnical Investigation Report for the Proposed Aviation Station Multi-Unit Mixed Use Development, County of Los Angeles, California* (Geotechnical Report) prepared by LGC Valley, Inc. and dated July 27, 2009 (provided in EIR Appendix B).

The Geotechnical Report includes (1) a review of published geologic maps, available geotechnical reports, and other documents relevant to the Project site; (2) a summary regarding site reconnaissance and a subsurface investigation; (3) results from a laboratory testing program; and (4) results from the percolation testing to address Los Angeles County Low Impact Development (LID) standards. The subsurface investigation on the Project site consisted of 5 borings (8-inch diameter) that extended to depths ranging from 31.5 to 61.5 feet below the ground surface (bgs) and 1 bucket auger (24-inch diameter) that extended to a depth of approximately 30 feet bgs and that was utilized for percolation testing. Laboratory testing was performed on soil samples collected during the subsurface investigation in order to evaluate the Project site's liquefaction potential and to characterize the near-surface geotechnical characteristics.

3.1.1 RELEVANT POLICIES AND REGULATIONS

Federal

International Building Code

The International Building Code (IBC) is the national model building code. The 2006 IBC is the most recent edition of the International Building Code, which was incorporated into the 2007 California Building Code, and currently applies to all structures being constructed in California (ICC 2008).[1] The national model codes are incorporated by reference into state and local building codes, such as the California Building Code and County Building Code, and are discussed below.

State

Alquist-Priolo Earthquake Fault Zoning Act

The 1971 San Fernando Earthquake in Southern California resulted in the development of the Alquist-Priolo Special Studies Zones Act of 1972. The Act was renamed in 1994 to the Alquist-Priolo Earthquake Fault Zoning (APEFZ) Act. The California Geological Survey (CGS), (formerly Department of Mines and Geology) Special Publication 42 (Hart and Bryant) includes the provisions of the Act and an index to maps of Earthquake Fault-Rupture Zones (formerly Alquist-Priolo Special Study Zones), as well as current revisions to these two documents (including Supplements 1 and 2 added in 1999 and Supplement 3 added in 2003).

Earthquake Fault-Rupture Zones have been delineated along the traces of active faults within to prevent the construction of urban developments across the trace of active faults. If habitable structures are proposed within these zones, the State requires detailed fault investigations be

[1] International Code Council

performed so that engineering geologists can mitigate the hazards associated with active faulting by identifying the location of faults and allowing for a setback from the zone of previous ground rupture. According to the State Geologist, an active fault is defined as a fault that has previously had surface displacement within the Holocene Epoch (the last 11,000 years). A potentially active fault is defined as any fault which has had surface displacement during Quarternary time (last 1,600,000 years) but not within the Holocene period.

California Building Code

The California Building Code (CBC) is promulgated under the *California Code of Regulations* (CCR), Title 24, Parts 1 through 12 (also known as the California Building Standards Code), and is administered by the California Building Standards Commission (CBSC). The CBSC is responsible for administering California's building codes, including adopting, approving, publishing, and implementing codes and standards. The CBC is a compilation of three types of building standards from three different origins:

- Standards adopted by State agencies without change from the national model codes.
- Standards adopted and adapted from the national model code standards to meet California conditions.
- Standards authorized by the California legislature which constitute extensive additions that are not covered by the national model codes and that were adopted to address concerns particular to California.

The national model code standards adopted into Title 24 apply to all habitable structures in California except for modifications adopted by State agencies and local governing bodies. The current version of the CBC is the 2007 triennial edition (2007 CBC).

Seismic Hazards Mapping Act of 1990

The Seismic Hazards Mapping Act of 1990 (*Public Resources Code*, Sections 2690–2699.6) directs the State of California Department of Conservation to identify and map areas subject to earthquake hazards (e.g., liquefaction, earthquake-induced landslides, and amplified ground shaking). Passed by the State legislature after the 1989 Loma Prieta earthquake, the Seismic Hazards Mapping Act was aimed at reducing the threat to public safety and minimizing potential loss of life and property in the event of a damaging earthquake event. A product of the resultant Seismic Hazards Mapping Program, Seismic Zone Hazard Maps identify Zones of Required Investigation; most developments designed for human occupancy within these zones must conduct site-specific geotechnical investigations to identify the hazard and to develop appropriate mitigation measures prior to permitting by local jurisdictions. As discussed below, the Project site is not located within an area designated susceptible to earthquake-induced liquefaction on the CGS Seismic Hazard Zone Map of the Venice Quadrangle.

<u>County</u>

County of Los Angeles Building Code

The County of Los Angeles Building Code (County Building Code) is promulgated under the Los Angeles County Code (Title 26 et. seq., "Building Code"). The County Building Code incorporates (and adopts by reference) the 2007 CBC described above. Therefore, Section 101.3 of Title 26 (Chapter 1) states that, except as otherwise modified, "the building standards contained in the International Building Code of the International Code Council, which are published in the California Building Standards Code, are applicable to all occupancies and uses throughout the County of Los Angeles". This would include the proposed Project.

County of Los Angeles General Plan

The *County of Los Angeles General Plan* addresses geologic and seismic issues that affect the County. A consistency analysis of the proposed Project's specific goals and policies with the County's relevant plans, policies and regulations is provided in Section 6.2, Land Use, of this EIR.

3.1.2 EXISTING CONDITIONS

Regional and Local Geology

The Project site is located within the Los Angeles Basin, which is a northwest-trending alluvial lowland plain; it is about 50 miles long and 20 miles wide and is part of the Peninsular Ranges Geomorphic Province of California. Mountains and hills that generally expose late Mesozoic to late Pleistocene-aged sedimentary and igneous rocks bound the Los Angeles Basin along the north, northeast, east, and southeast. The Los Angeles Basin is a site of active sedimentation, with sediments traveling from mountainous areas towards the ocean through the Basin's rivers and drainages.

The subsurface investigation performed as part of the LGC Geotechnical Report determined that the Project site is underlain by a thin veneer of undocumented fill soils and Quaternary Older Alluvium (Qoal). The fill soils encountered were one to three feet thick, but could reportedly be thicker elsewhere on site (i.e., such as beneath the existing structures); these fill soils are composed primarily of sandy to silty clays. The Qoal were encountered below the undocumented fill soils across the entire Project site to the maximum boring depth of approximately 61.5 feet. These soils consist of brown to black, slightly moist to wet, medium stiff to hard silty/sandy clays and yellowish to reddish-brown, slightly moist to moist, medium dense to very dense silty/clayey sands.

In general, the soil profile on site consists of 10 to 15 feet of fine-grained soils (silts and clays) underlain by sandy layers to a depth of approximately 35 feet bgs, subsequently underlain by clayey/silty soil layers to a depth of approximately 50 feet. From 50 feet to the maximum explored depth of 61.5 feet, site soils were composed of sandy layers. The soils encountered below the elevations of the proposed subterranean level were found to be medium stiff to hard sandy to silty clays or medium dense to very dense silty to clayey sands. The alluvial deposits are underlain by bedrock at significant depth.

Groundwater

Groundwater was encountered at a depth of approximately 40 feet bgs during the subsurface investigation, which was concluded to be perched (i.e., totally confined and not connected to an underlying aquifer). According to the Geotechnical Report, this is consistent with California Geological Survey (CGS) data for the area, which indicates that the historically highest groundwater is approximately 40 feet bgs.

Soil Percolation

As part of the Geotechnical Report, percolation testing was performed to determine the rate that surface water infiltrates the existing soils (i.e., percolation rate). The percolation testing was conducted approximately 5 to 28 feet bgs in the bucket auger boring (24-inch diameter), which was taken from the northeastern corner of the Project site. The existing percolation rate calculated for the Project site soils was 38.7 gallons per square foot per day (gallons/sf/day). The percolation rate was measured to aid in the Project's design of runoff infiltration features; this is discussed further in Section 3.2, Flood, of this EIR.

Faulting and Seismicity

As with all of Southern California, the Project site lies within a seismically active region. The primary seismic parameters to be considered when discussing the potential for earthquake-related hazards are: (1) the distance(s) to the causative fault(s), (2) earthquake magnitudes, and (3) expected ground accelerations.

The Geotechnical Report includes a site-specific probabilistic seismic hazard analysis,[2] which reflects these seismic parameters and discusses them in terms of the potential seismic event that could be produced by the maximum probable earthquake likely to occur at the Project site. The Geotechnical Report determines that there are no known active or potentially active faults traversing the Project site and the Project site is not included within an Alquist-Priolo Earthquake Fault Zone.

The Newport-Inglewood Fault (Los Angeles Basin Segment) is located approximately 4.3 miles (6.9 kilometers [km]) to the east of the Project site and is considered to be the source of the maximum probable earthquake at the site. The Geotechnical Report concludes that the maximum probable earthquake for the Project site, with a 10 percent chance of being exceeded in 50 years, could produce a magnitude weighted Peak Horizontal Ground Acceleration of 0.36g (36 percent of gravity) at the site. This is consistent with the CGS Seismic Hazard Zone Report for the Venice Quadrangle, which includes the Project site. Other active faults in the region that could provide seismic shaking at the Project site include the Palos Verdes Fault, Santa Monica Fault, Elysian Park Thrust Fault, Hollywood Fault, Malibu Coast Fault, Raymond Fault, and the Verdugo Fault (LGC 2009). Regional faults are illustrated on Exhibit 3.1-1.

Secondary Seismic Hazards

Secondary seismic hazards include several types of ground failure that can occur as a result of severe ground shaking, such as liquefaction, dynamic settlement, landsliding, shallow ground (surface) rupture, seiches, and tsunamis. The probability for each type of ground failure depends on the severity of the earthquake, the site's distance from the fault, the site topography, and subsoil and groundwater conditions, among other factors. According to the Geologic Report, the property is relatively flat with no indications of landslides close to, or within, the Project site, and the property is not located within an area designated to be susceptible to earthquake-induced liquefaction on the CGS Seismic Hazard Zone Map of the Venice Quadrangle (LGC 2009).

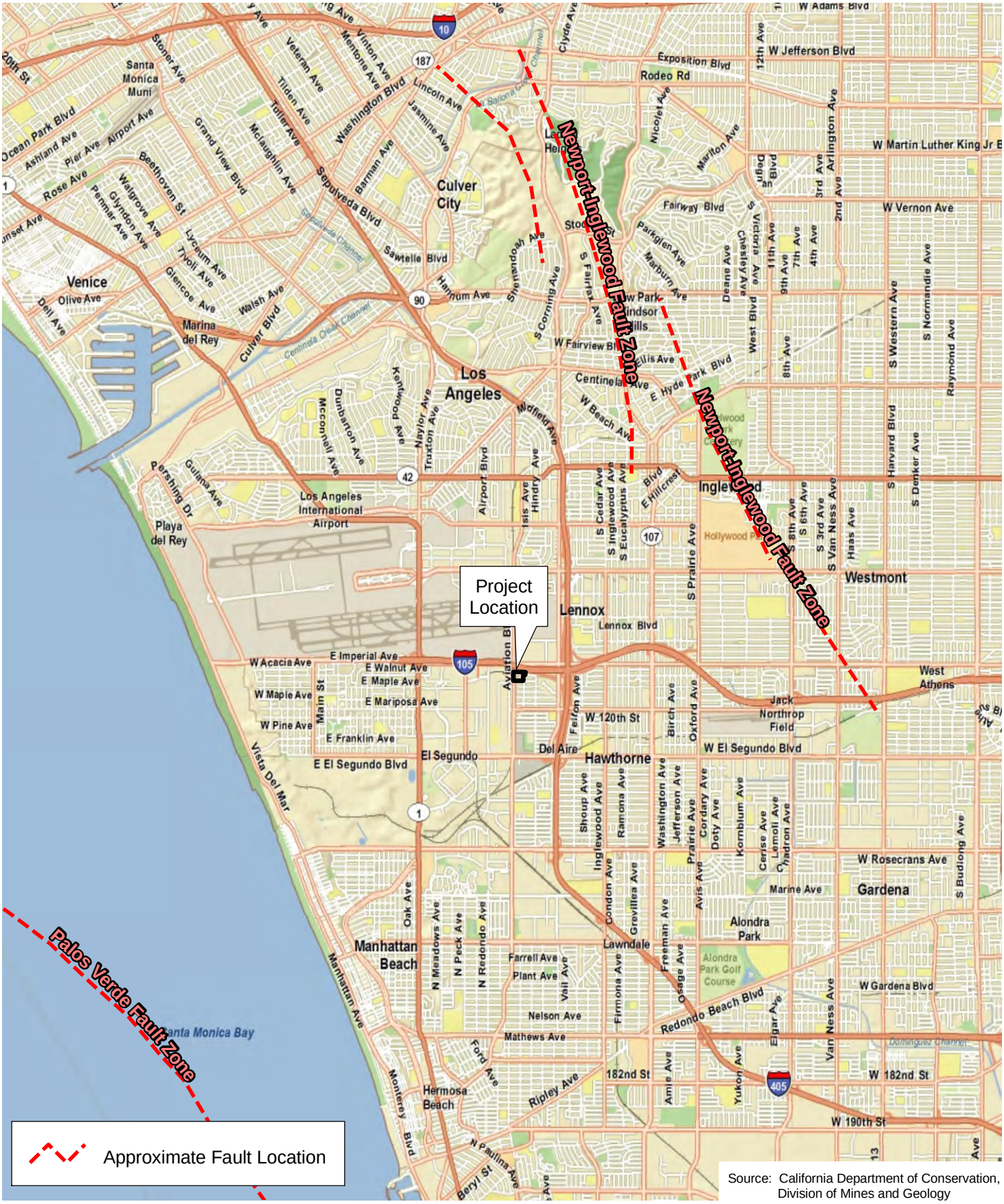
3.1.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 3.1a: Is the project located in an active or potentially active fault zone, Seismic Hazards Zone, or Alquist-Priolo Fault Zone?

Threshold 3.1b: Is the project located in an area containing a major landslide(s)?

[2] The goal of probabilistic seismic hazard analysis is to quantify the rate (or probability) of exceeding various ground-motion levels at a site given all possible earthquakes. Peak ground acceleration is used to quantify ground motion.



Source: California Department of Conservation, Division of Mines and Geology

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Regional Faults

Exhibit 3.1-1

Aviation Station Project

N W E S

7,500 3,750 0 7,500 Feet

BonTerra CONSULTING

(Rev. 08/27/09 CJS) R:\Projects\Cox\J002\Graphics\EIR\Ex3.1-1_regional_faults.pdf

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Threshold 3.1c: Is the project located in an area having high slope instability?

Threshold 3.1d: Is the project site subject to high subsidence, high groundwater level, liquefaction, or hydrocompaction?

Threshold 3.1e: Is the proposed project considered a sensitive use (school, hospital, public assembly site) located in close proximity to a significant geotechnical hazard?

Threshold 3.1f: Will the project entail substantial grading and/or alteration of topography including slopes of more than 25 percent?

Threshold 3.1g: Would the project be located on expansive soil, as defined in Table 18-1-B of Uniform Building Code (1994), creating substantial risks to life or property?

3.1.4 PROJECT DESIGN FEATURES

There are no geotechnical constraints identified on the Project site that necessitate the incorporation of project design features.

3.1.5 ENVIRONMENTAL IMPACTS

Threshold 3.1a: Is the project located in an active or potentially active fault zone, Seismic Hazards Zone, or Alquist-Priolo Earthquake Fault Zone?

On-Site Impacts

The Project site is not located within an Alquist-Priolo Earthquake Fault Zone, and there are no known active or potentially active faults traversing the site. Therefore, while there is always the potential for unknown buried (or thrust) faults to be present on a site, the Geotechnical Report concludes that shallow ground rupture due to active faulting within the Project site is unlikely and would represent a less than significant impact (LGC 2009).

As discussed above, the Project site would be susceptible to moderate to strong seismic ground shaking (Peak Horizontal Ground Acceleration of 0.36g) over the life of the Project from an earthquake on one or more active or potentially active regional faults. The Geotechnical Report concludes that the Project is feasible and that no geotechnical constraints were identified that could not be managed through standard engineering measures, (e.g., remedial earthwork and structural design elements). The Project would be constructed in compliance with the County Building Code, as described in Mitigation Measure (MM) 3.1-1, and all geotechnical recommendations for the Project, as defined in the County-approved Geotechnical Report and any other geotechnical reports completed for the Project, as described in MM 3.1-2. Therefore, there would be a less than significant impact related to seismic ground shaking with implementation of MMs 3.1-1 and 3.1-2.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

There are no known active or potentially active faults traversing the location of any off-site Project components. There are no new habitable structures or other features that would pose a risk to people or structures in the event of an earthquake and all proposed off-site Project components would be required to be constructed in compliance with the County Building Code in accordance with MM 3.1-1. Therefore, there would be less than significant impacts related to strong seismic ground shaking from implementation of off-site Project facilities.

Threshold 3.1b: Is the project located in an area containing a major landslide(s)?

Threshold 3.1c: Is the project located in an area having high slope instability?

Threshold 3.1e: Is the proposed project considered a sensitive use (school, hospital, public assembly site) located in close proximity to a significant geotechnical hazard?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The Project site would not be considered a sensitive use, although the existing off-site Metro Green Line could be considered a public assembly site. However, the Project would not make any adjustments to the existing Metro Green Line. As discussed above, the Project site, Caltrans Off-Site Project Area, and surrounding areas are essentially flat. Therefore, there would be no impacts related to landslides, slope stability, or grading of slopes greater than 25 percent and no impacts related to an Alquist-Priolo Earthquake Fault Zone or other known active or potentially active faults traversing the site. Additionally, the Project site, Caltrans Off-Site Project Area, and surrounding areas are not subject to hazards associated with liquefaction, seiche/tsunami, or soil settlement/collapse and development of the on-site and off-site improvements would not adversely affect the adjacent Metro Green Line Station. Therefore, there would be no impacts associated with these thresholds.

Threshold 3.1d: Is the project site subject to high subsidence, high groundwater level, liquefaction, or hydrocompaction?

Threshold 3.1g: Would the project be located on expansive soil, as defined in Table 18-1-B of Uniform Building Code (1994), creating substantial risks to life or property?

On-Site Impacts

There are a variety of natural site and soil characteristics that have the ability to adversely affect development of a site and for which specific engineering measures must be implemented, including seismic-related soil instabilities and hazards. The Project site and soil constraints investigated as part of the Geotechnical Report (EIR Appendix B) for the Project site are discussed below.

Groundwater

Based on a groundwater level of approximately 40 feet bgs, the Geotechnical Report concludes that the Project would not be adversely affected by groundwater (LGC 2009). Neither the subterranean parking level nor the underground infiltration basin (discussed in Section 3.2, Flood) would extend to a depth that would encounter the current and historic high groundwater level in the Project area. Therefore, there would be no impact.

Seiche and Tsunami

Based on the elevation of the Project site with respect to sea level and distance from large open bodies of water (approximately 3 miles from the Pacific Ocean), the Geotechnical Report concludes that the potential of seiche or tsunami affecting the Project is considered to be non-existent (LGC 2009). Therefore, there would be no impact.

Liquefaction

Liquefaction is defined as the transformation of a granular material from a solid state into a liquid state with vibration (most commonly seismic shaking) in the presence of water. This condition can lead to damage of overlying structures caused by loss of bearing, settlement, or subsidence of the soil. Liquefaction occurs when three general conditions exist: (1) shallow groundwater; (2) low density, non-cohesive (granular) soils; and (3) high-intensity ground motion. The Project site is not located within an area designated susceptible to earthquake-induced liquefaction on the CGS Seismic Hazard Zone Map of the Venice Quadrangle. However, a site-specific liquefaction analysis was performed in accordance with County standards by utilizing the on-site soil samples collected during the subsurface investigation. The Geotechnical Report concludes that, based on the lack of a shallow ground water table, the lack of loose low-density non-cohesive (granular) soils and laboratory testing of on-site soil samples, the potential for liquefaction and associated settlement at the Project site is considered to be very low. Therefore, impacts would be less than significant.

Soil Settlement/Collapse

Dynamic settlement of dry sands can occur because the sand particles tend to settle and densify as a result of a seismic event. Based on the density of the sandy soils encountered at the Project site, the Geotechnical Report concludes that the potential for dry sand settlement is negligible.

Laboratory test results of the on-site soils indicate that the undocumented fill and alluvial soils are potentially compressible/collapsible within the upper one to three feet bgs. The geotechnical recommendations provided in the Geotechnical Report require remedial grading, including removal and recompaction of unsuitable soils on the Project site prior to construction of proposed structures. The Geotechnical Report determined that the on-site soils below the recommended grading/excavation depths have a low potential for static settlement. Also, the soils that underlie the anticipated subterranean parking facility were determined to have a negligible potential for hydro-collapse. Therefore, with implementation of the County Building Code and all geotechnical recommendations for the Project (in accordance with MMs 3.1-1 and 3.1-2), there would be a less than significant impact related to soil settlement or collapse.

Expansive Soils

The Geotechnical Report includes expansion potential testing for on-site soils, which indicates an expansion index of 84, “Medium”. Therefore, site development would require compliance with the 2007 CBC, which specifies special foundation/slab design for construction on soils that have an expansion potential of Low or greater. With conformance to the County Building Code (refer to MM 3.1-1) and implementation of all geotechnical recommendations for the Project (refer to MM 3.1-2), implementation of the Project would be feasible and would result in less than significant impacts related to expansive soils.

Corrosivity

Laboratory testing of representative on-site soil samples indicates a water soluble sulfate content of 0.008 percent and 0.029 percent, which is considered “Negligible” as defined by the American Concrete Institute. Also, a corrosion suite of tests was performed, which included potential of hydrogen (pH), resistivity, and chloride content. The results were a pH value of 8.93, a minimum resistivity value of 1,400 ohm-centimeters,[3] and a chloride content of 219 parts

[3] An “ohm” is the practical meter-kilogram-second unit of electric resistance equal to the resistance of a circuit in which a potential difference of one volt produces a current of one ampere.

per million (ppm). According to the Geotechnical Report, the California Department of Transportation (Caltrans) defines a corrosive area where any of these following conditions exist: the soil contains more than 500 ppm of chlorides, more than 2,000 ppm (0.02 percent) of sulfates, or a pH of 5.5 or less. Based on these criteria, the on-site soils would not be corrosive to metal or concrete and impacts would be less than significant.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The soil engineering and seismic conditions defined in the Geotechnical Report for the Project site would apply to the immediately surrounding area, including the location of all off-site Project components. Off-site construction activities include the relocation of the currently on-site Metro bus terminal into the off-site property to the north, which would require the excavation of existing pavement and re-paving with a more substantial concrete surface to accommodate the bus activity. The relocated Metro facility would require up to approximately 10 inches of excavation below the pavement, totalling approximately 1,500 cubic yards of cut for export. The development of the Metro bus terminal would require that the existing Caltrans Park-and-Ride Lot be moved slightly further east through the reconfiguration of the stalls (i.e. superficial improvements, including re-striping).

The Caltrans Maintenance Facility building is located east of the “Caltrans Off-site Project Area”. Approximately 0.6-acre of parking stalls associated with the Caltrans Maintenance Facility would also be reconfigured to accommodate the relocated Metro bus terminal. No grading would be required for the reconfiguration of the Caltrans Park-and-Ride Lot or the Caltrans Maintenance Facility parking. Therefore, off-site improvements in the Caltrans-owned property would not involve deep excavations or the construction of habitable structures.

Other off-site improvements, including utility pipeline replacements in adjacent roadways as described in Sections 3.2 Flood, 3.3 Fire, and 5.2 Sewage, would require deeper trenched excavations (e.g. approximately 5 to 8 feet deep by 2 to 4 feet wide) to replace/construct new utility improvements. However, these pipeline improvements would not involve the construction of habitable structures that could pose geotechnical hazards. As previously discussed for on-site Project components, all off-site improvements would not be located within an area designated susceptible to earthquake-induced liquefaction, and on site soils have a negligible potential for hydro-collapse with a medium expansion potential and non-corrosive soils. Design and construction of proposed off-site Project components would also be required to comply with the County Building Code (in accordance with MM 3.1-1) and would result in less than significant impacts related to soil engineering constraints or seismic-related hazards.

Threshold 3.1f: Will the project entail substantial grading and/or alteration of topography including slopes of more than 25 percent?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The the Project site, Caltrans Off-Site Project Area, and surrounding areas are essentially flat and there are no slopes currently existing or planned through the development of the Project. Therefore, the Geotechnical Report concludes that the Project site is not susceptible to hazards from landslides or slope instability, or grading of slopes greater than 25 percent. Also, the Geotechnical Report determines that implementation of the Project, in particular the construction of the subterranean parking facility, would not adversely affect the Project, the adjacent Metro Green Line Station or any other adjacent off-site properties. There would be no impacts related to on- or off-site slopes or landslides and no mitigation would be required.

3.1.6 CUMULATIVE IMPACTS

Geology and soils impacts are generally site specific and there is typically little, if any, cumulative relationship between the development of a Project and development within a larger cumulative area. For example, development at the Project site would not alter geologic events or soil features/characteristics (such as ground shaking, seismic intensity, or soil expansion); therefore, the Project would not affect the level of intensity at which a seismic event occurs on an adjacent site.

In addition, the Geotechnical Report concludes that the Project would not adversely affect the stability of adjacent properties. However, Project development and future development in the area may expose more persons to seismic hazards. The Project, as well as the related projects in the Project area, would also be required to comply with the applicable State and local requirements, such as the 2007 CBC. As such, potential impacts would be reduced to a less than significant level and to the maximum extent practicable under current engineering practices. Seismic impacts are a regional issue and are also addressed through compliance with applicable codes and design standards. For these reasons, the Project's contribution to cumulative geotechnical and soils impacts would be less than significant.

3.1.7 MITIGATION MEASURES

MM 3.1-1 The design and construction of the Project shall comply with the County of Los Angeles Building Code and/or any other applicable building codes and standards to the satisfaction of the Los Angeles County Department of Public Works.

MM 3.1-2 All grading activities as well as the design and construction of the Project shall comply with the specific recommendations and requirements provided in a comprehensive geotechnical report, subject to approval by the Los Angeles County Department of Public Works.

3.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

There would be less than significant impacts related to geology and soils with implementation of MMs 3.1-1 and 3.1-2.

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3.2 FLOOD

This section analyzes potential flood hazards and hydrological impacts with implementation of the Project. Information in this section is derived from (1) the *Drainage Concept, Hydrology, SUSMP, and LID Analysis for Vesting Tentative Tract Map No. 70853* (Drainage Report) prepared by Land Design Consultants, Inc. (LDC) dated January 20, 2010 located in EIR Appendix C, and (2) written correspondence from the County of Los Angeles Department of Public Works (LACDPW) dated June 23, 2009 (Burger 2009), located in EIR Appendix A.

3.2.1 RELEVANT POLICIES AND REGULATIONS

County

Los Angeles County Flood Control Act

The Los Angeles County Flood Control District (LACFCD) is empowered to carry out the objectives of the Los Angeles County Flood Control Act of 1915. The objectives of the Act are to provide for the control and conservation of flood, storm, and other wastewater and to protect harbors, waterways, public highways, and property within the LACFCD jurisdiction from damage.

Storm Water Permitting (MS4 Permit)

Refer to Section 4.1, Water Quality, for a discussion of (1) the State's Municipal Storm Water Permitting Program, which regulates storm water discharges from Municipal Separate Storm Sewer Systems (MS4s); (2) the County's Standard Urban Stormwater Mitigation Plan (SUSMP); (3) the County's Low-Impact Development standards for development projects; and (4) the County's Stormwater and Runoff Pollution Control Ordinance.

3.2.2 EXISTING CONDITIONS

The Drainage Report prepared for the Project assesses the existing and proposed hydrologic conditions on the Project site and Caltrans Off-Site Project Area in accordance with the current Los Angeles County Department of Public Works (LADPW) *Hydrology/Sedimentation Manual* (January 2006), and provides specifications for the design of the storm water management features to meet applicable regulatory requirements of the LADPW's *A Manual for the Standard Urban Stormwater Mitigation Plan* (2002) and *Low Impact Development (LID) Standard Manual* (2009).

Regional Hydrology

The Project site is located within the Dominguez Watershed, which drains an area of approximately 133 square miles in southwestern Los Angeles County. The watershed drains all or portions of the Cities of Carson, Compton, El Segundo, Gardena, Hawthorne, Inglewood, Lawndale, Lomita, Long Beach, Los Angeles, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, and Torrance. Since virtually the entire watershed is highly urban, drainage within the Dominguez Watershed is primarily conducted through an extensive network of underground storm drains. These drain inflows generally originate at curb inlets on city streets and increase in size as they progress in the downstream direction to an open channel or detention basin (LACDPW 2004).

The Dominguez Channel, draining approximately 62 percent of the Dominguez Watershed, is the largest single drainage feature within the watershed. The channel begins at West 116th Street (approximately two miles east of the Project site) in the City of Hawthorne, and continues in a generally southwesterly direction until emptying into the Consolidated Slip of Los Angeles Harbor and the Pacific Ocean.

The County of Los Angeles has calculated the capacity of the Dominguez Channel in terms of the "allowable flow" (Q_{allow}) of storm water runoff per acre. Storm water runoff is measured as "Q" in cubic feet per second (cfs). The County has drainage areas defined in the Laguna Dominguez Channel Hydrology Study dated June 1983 (LDC 2010a); the Project site is located within Subareas 36A (18 acres) and 37A (19 acres) as defined in that study. The County has identified the Q_{allow} for Subarea 36A to be 1.566 cubic feet per second (cfs) per acre and the Q_{allow} for Subarea 37A to be 1.478 cfs per acre. These limits represent the maximum flow per acre that can be accommodated in the existing Dominguez Channel. Based on these limits, Table 3.2-1 shows the calculation for the Q_{allow} for the Project site.

TABLE 3.2-1
CALCULATIONS FOR THE Q_{allow} FOR THE PROJECT SITE

County Subarea	Project Site Subarea	County Q_{allow} (cfs per acre)	Project Site Subarea (acres)	Project Site Subarea Q_{allow} Allocation (cfs)
36A	5A	1.566	0.78	1.22
36A	6A	1.566	0.88	1.38
37A	7A	1.478	3.98	5.88
Total			5.64[a]	

[a] The difference between the 5.64-acre drainage area and the 5.90-acre Project site is 0.47 acres of parkway planters and the sidewalks that lie between the building envelope and street curbs on Aviation Boulevard, West 117th Street, and Judah Avenue. These area drain to their respective streets via street catch basins, and as such are not assigned a Q_{allow} because no detention is permissible in a public street.

Source: LDC 2010a

Project Site Hydrology

The Drainage Report considers the hydrologic characteristics of the proposed on-site uses (5.90 gross acres)[1] and the proposed off-site improvements to the Caltrans-owned property (6.10 gross acres) located immediately north of the Project site.

In lieu of an existing condition hydrology, Los Angeles County Department of Public Works Design Division provided an "allowable Q" (Q_{allow}) for the site, which is the maximum runoff from the site allowed into the existing Dominguez Channel reinforced concrete box (RCB) storm drain structure. The Design Division determined the Q_{allow} by multiplying the corresponding peak Q from their 1983 hydrology study by the ratio of the site acreage to the acreage of the upstream watershed. With the Q_{allow} fixed in this manner, an analysis of the existing condition hydrology was determined by the LADPW to be unnecessary (Hunter 2010). As presented in Table 3.2-1 above, the total acres for Subareas 5A, 6A, and 7A include 5.64 acres. This represents the 5.90 gross acres of the Project site, less the acres associated with the public right-of-way (0.47 acres). Therefore, the Project site Q_{allow} includes runoff from on-site property within the Project's boundary limits.

Under current conditions, the portion of the Dominguez Channel in the vicinity of the Project site is located beneath Aviation Boulevard, turns eastward at the Project site and continues beneath West 116th Street. The Dominguez Channel is currently over capacity in the vicinity of the Project site. The as-built design capacity for the existing Dominguez Channel within the Project site is Q = 780 cfs (LDC 2010a), while the 1983 hydrology study assigns a corresponding Q_{50} (runoff from a 50-year storm event) at this point in the watershed of 1,873 cfs (Gilman 2010).

[1] The Project site consists of 5.9 gross acres, but for the purposes of the hydrology analysis, the site is considered to extend to the center of the adjacent rights-of-way, totaling 6.82 gross acres.

Storm Water Management Features

The existing storm water management features on and surrounding the Project site consist of a typical "curb and gutter" runoff collection system within the roadway rights-of-way and catch basins/storm drains within the existing parking lot areas. The Project area contains 19 catch basins, a system of 18-inch-diameter, reinforced concrete pipelines (RCP), and an underground portion of the Dominguez Channel that collectively captures and conveys storm water from the Project site into the municipal storm drain system. The existing alignment of the Dominguez Channel in the Project area consists of a concrete channel located entirely underground within an 8-foot by 10-foot (8' x 10' – ¾"), reinforced concrete box (RCB) structure. The locations of the existing catch basins, existing storm drains, and the Dominguez Channel are depicted in Exhibit 3.2-1, Existing and Proposed Project Drainage Features.

3.2.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 3.2a: Is there a major drainage course, as identified on a USGS quad sheet by a dashed line, located on the project site?

Threshold 3.2b: Is the project site located within or does it contain a floodway, floodplain, or designated flood hazard zone?

Threshold 3.2c: Is the project site located in or subject to high mudflow conditions?

Threshold 3.2d: Could the project contribute or be subject to high erosion and debris deposition from runoff?

Threshold 3.2e: Would the proposed project substantially alter the existing drainage pattern of the site or area?

3.2.4 PROJECT DESIGN FEATURES

No Project Design Features related to flood hazards have been identified.

3.2.5 ENVIRONMENTAL IMPACTS

Threshold 3.2a: Is there a major drainage course, as identified on a USGS quad sheet by a dashed line, located on the project site?

Threshold 3.2b: Is the project site located within or does it contain a floodway, floodplain, or designated flood hazard zone?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The Project site, Caltrans Off-Site Project Area, and surrounding areas are fully developed with urban land uses. There are no major drainage courses within or adjacent to these Project areas. The Project site, Caltrans Off-Site Project Area, and surrounding areas are not located within a 100-year or a 500-year Federal Emergency Management Agency (FEMA) flood hazard area. There would be no impacts associated with these thresholds.

Threshold 3.2c: Is the project site located in or subject to high mudflow conditions?

Threshold 3.2d: Could the project contribute or be subject to high erosion and debris deposition from runoff?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The Project site, Caltrans Off-Site Project Area, and surrounding areas are essentially flat and urbanized; there are no naturally vegetated or manufactured slopes on or nearby the Project site that could present hazards from mudflows and the Project area is not located within or adjacent to a hillside management area. The development of the Project site, Caltrans Off-Site Project Area, and surrounding areas would not require the removal of hillside vegetation that could result in erosion or debris-laden runoff. As discussed in Section 3.1, the Project site, Caltrans Off-Site Project Area, and surrounding areas are not susceptible to hazards from landslides or slope instability, or grading of slopes greater than 25 percent. There would be no impacts related to on- or off-site mudflows or erosion/debris flows.

Threshold 3.2e: Would the proposed project substantially alter the existing drainage pattern of the site or area?

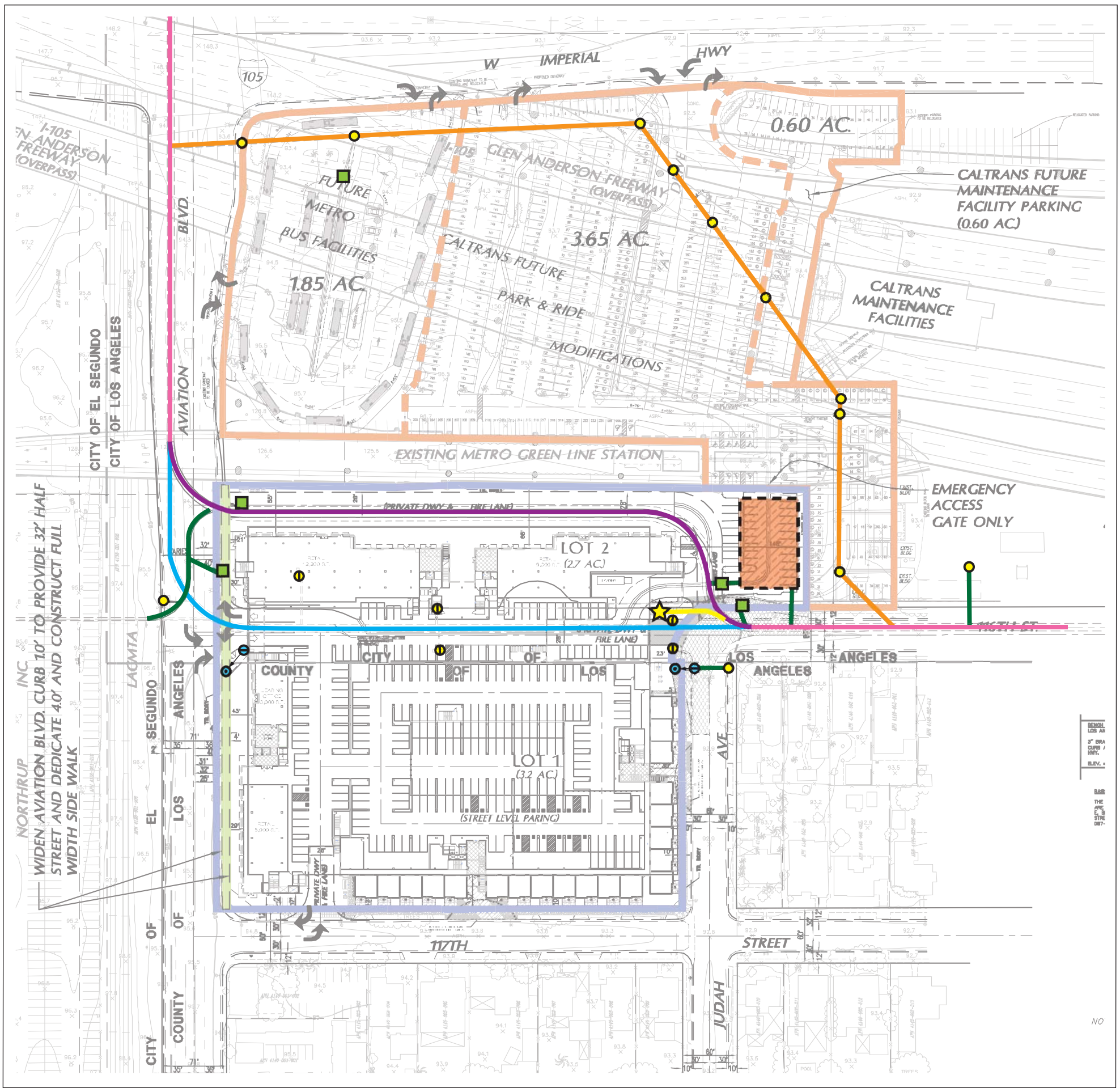
On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

As noted above, the geographic area analyzed in the Drainage Report encompasses both the Project site (5.90 gross acres) and the Caltrans Off-Site Project Area immediately to the north (6.10 gross acres). Therefore, the post-development hydrologic conditions calculated for the Project reflect the entirety of both the on-site (Lot 1 and Lot 2) and off-site areas (Caltrans-owned property). However, the County-approved Drainage Concept for Tract Map No. 70853 did not include the review of the off-site improvements on the Caltrans-owned property. Review and approval of off-site improvements are subject to the discretion of Caltrans. As stated in MM 4.1-4 from Section 4.1, Water Quality, prior to the commencement of construction activities in the off-site, Caltrans-owned property, the Project Applicant/Developer must demonstrate compliance with any applicable regulations related to drainage infrastructure and post-construction treatment control BMPs pursuant to the requirements of the Caltrans Statewide SWMP and other applicable local, State, and federal regulations to the satisfaction of Caltrans.

There would be no change in drainage pattern associated with the off-site utility infrastructure because all improvements would be located on previously paved areas and would be restored to an impervious surface.

The Drainage Report delineates the Project site and the Caltrans Off-Site Project Area to the north into a total of 15 drainage subareas. The drainage subareas are depicted in Exhibit 3.2-1, Existing and Proposed Project Drainage Features, Exhibit 3.2-2, Project Site Drainage Sub-Areas, and Exhibit 3.2-3, Freeway and Caltrans Park-and-Ride Lot Off-Site Drainage Sub-Areas. The drainage subareas in Exhibit 3.2-3 are differentiated according to whether the runoff originates from the on-site area or from the off-site Interstate 105 (I-105) Freeway (located above the off-site area) or Metro Green Line Station. The off-site utility components are entirely underground and would not affect surface drainage patterns after installation.

Runoff is measured as “Q” in cubic feet per second (cfs), and can be calculated for different drainage areas and subareas and for different storm intervals (e.g., 2-year, 5-year, 10-year, 25-year, 50-year), and it includes factors that consider the condition of the land. In accordance with LACDPW standards, the hydrologic and hydraulic calculations for the Project site were



- Proposed Catch Basin with Filter Inserts
- Existing Catch Basin to Remain
- Existing Catch Basin to be Removed
- Existing Catch Basin to be Relocated
- Proposed Sump Pump
- Proposed Sump Pump Outlet
- Existing 18" RC Pipe to Remain
- Proposed Storm Drain Extension/Construction
- Proposed Relocated 8'x10' RC Box
- Existing 8'x10' RC Box to Remain
- Existing 8'x10' RC Box to be Removed and Relocated
- Proposed Underground Infiltration System
- Project Site Boundary

Source: Land Design Consultant, Inc 2010

Existing and Proposed Project Drainage Features

Exhibit 3.2-1

Aviation Station

BonTerra CONSULTING

(Rev 10/29/10 CJS) Projects/Cox/J002/Graphics/EIR/Ex3.2-1_drain_features.pdf

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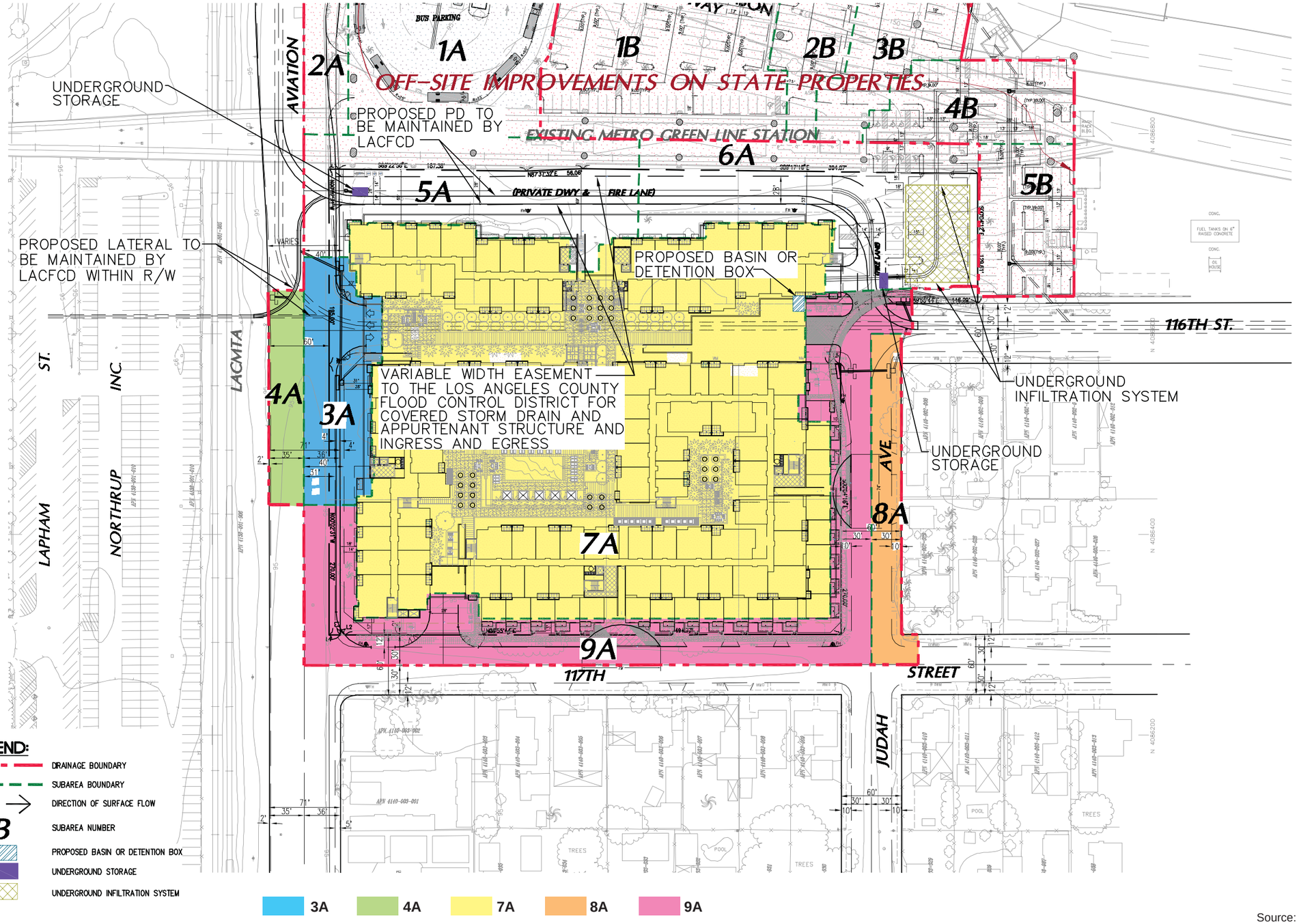

Source: Withee Malcolm Architects, LLP 2010

Project Site Drainage Sub-Areas

Exhibit 3.2-2

Aviation Station Project

BonTerra CONSULTING

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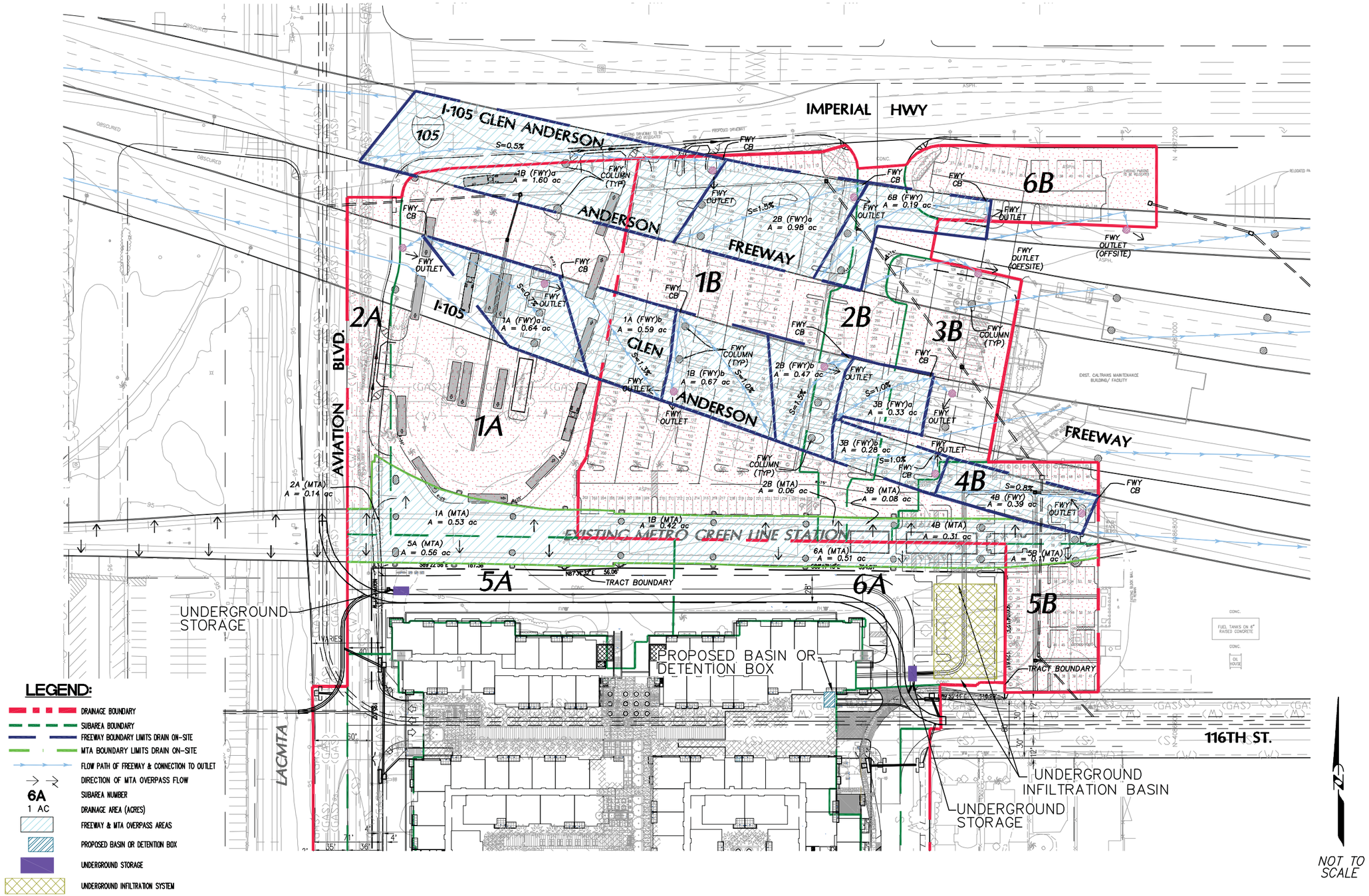

Source: Withee Malcolm Architects, LLP 2010

Freeway and Caltrans Park-and-Ride Lot Off-Site Drainage Sub-Areas

Exhibit 3.2-3

Aviation Station Project

BonTerra CONSULTING

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assessed for a 50-year storm event (Q_{50}). The 15 subareas' acreages and post-development runoff rates for a 50-year storm event are summarized below in Table 3.2-2. In addition to the post-development runoff Q and Subarea acreages, Table 3.2-2 also summarizes the calculated Post-Development SUSMP Runoff Rates, measured as Q_{PM} (peak mitigation flows) in cfs, and the Post-Development LID Runoff Volume,[2] measured in acre-feet (af), with implementation of the runoff BMPs described in the Drainage Report.

TABLE 3.2-2
POST-DEVELOPMENT SUSMP RUNOFF RATES AND LID VOLUMES

Subarea	Size (acres)	50-Year Storm Event Flows Q_{50} (cfs)	SUSMP Peak Mitigation Flows Q_{PM} (cfs)	Post-Development LID Runoff Volume (af)	Undeveloped LID Runoff Volume (af)
1A	0.96	2.13			
1A (Fwy)a	0.23	0.64			
1A (Fwy)b	0.21	0.59			
1A (Metro)	0.19	0.53			
2A	0.23	0.51	0.04	See Note 2	See Note 2
2A (Metro)	0.05	0.14			
3A	0.38	1.06	0.08	0.01	0.00
4A	0.17	0.47	0.04	NA	NA
5A	0.56	1.44	0.14	0.03	0.00
5A (Metro)	0.22	0.56			
6A	0.68	1.74	0.15	0.03	0.00
6A (Metro)	0.20	0.51			
7A	3.98	7.58	0.65	0.21	0.03
8A	0.24	0.62	0.04	NA	NA
9A	1.18	2.01	0.19	0.02	0.00
1B	0.96	2.29			
1B (Fwy)a	0.67	1.60			
1B (Fwy)b	0.24	0.67			
1B (Metro)	0.15	0.42			
2B	0.15	0.42			
2B (Fwy)a	0.35	0.98			
2B (Fwy)b	0.17	0.47			
2B (Metro)	0.02	0.06			
3B	0.20	0.56			
3B (Fwy)a	0.12	0.33			
3B (Fwy)b	0.10	0.28			
3B (Metro)	0.03	0.08			
4B	0.07	0.20			
4B(Fwy)	0.14	0.39			
4B (Metro)	0.11	0.31			

[2] The difference between a runoff rate and a runoff volume is that a rate considers the time a given volume of water flows between selected points, while a volume considers the amount of water within a specified area.

TABLE 3.2-2 (Continued)
POST-DEVELOPMENT SUSMP RUNOFF RATES AND LID VOLUMES

Subarea	Size (acres)	50-Year Storm Event Flows Q_{50} (cfs)	SUSMP Peak Mitigation Flows Q_{PM} (cfs)	Post-Development LID Runoff Volume (af)	Undeveloped LID Runoff Volume (af)
5B	0.28	0.78			
5B (Metro)	0.04	0.11			
6B	0.39	1.09			
6B (Metro)	0.01	0.03			
TOTAL	**13.68**			**0.30**	**0.03**

NA = Not Applicable. These sub-areas are existing streets whose inlets are tributary to proposed storm drain connections and are required to provide SUSMP devices.

Required LID Volume: 0.30 af – 0.03 af = 0.27 af (11,761 cubic feet)

Q_{50}: 50-Year storm flow (runoff) rate; Q_{PM}: peak mitigation flow (runoff) rate; cfs: cubic feet per second; af: acre-feet; SUSMP: Standard Urban Storm Water Mitigation Plan; LID: Low-Impact Development; Fwy: Freeway

1A: The "A" represents a Subarea that includes drainage from the Aviation Station Project site or off-site Metro and Caltrans facilities.

1B- The "B" represents a Subarea that includes drainage from the off-site Caltrans property.

Notes:

1. The hydrology calculations in the Drainage Report applied a 91% impervious area factor for non-attended parking, freeways and major roads, and a 95% impervious area factor for a regional shopping center from the County's Hydrology Manual for the Project analysis. The Isohyet for rainfall was calculated at 5.2 inches for the Q_{50} and 0.75 inches for the Q_{PM}. An Isohyet is a contour line drawn through geographical points, recording equal amounts of precipitation during a specific period.
2. The Post-Development LID volume calculations used sub-area acreages that include half of the contiguous exiting streets, from right-of-way to crown line, even though the planned improvements may only extend from the right-of-way to the curb (West 117th St. and Judah Ave.) or from the right-of-way to the join line of the 2-feet of widening (Aviation Blvd.) Therefore, the LID requirement calculations can be considered "conservative" since the areas used are slightly larger than might technically be required and account for the minimal acreage associated with street frontage improvements associated with subarea 2A, which fronts Aviation Boulevard.
3. Improvements on State property are beyond the authority of the County to impose LID standards and are subject to the review and approval of Caltrans, per MM 4.1-4 in Section 4.1, Water Quality, of this EIR.

Source: LDC 2010 (EIR Appendix C)

SUSMP and Post-Development LID Runoff Volume

The County's SUSMP regulations allow four methods of runoff volume calculation for BMP design. One allowed method is to calculate "the volume of runoff produced from a 0.75-inch storm event prior to its discharge to a storm water conveyance system" (LACDPW 2006), which is the method applied in the Drainage Report. The calculated runoff rates for a 0.75-inch storm event (Q_{PM}) with Project implementation provide the basis for selection of SUSMP BMPs for management of storm water volumes and water quality of site runoff. As shown in Table 3.2-2 above, the SUSMP Q_{PM} calculations only consider storm water runoff from the 7.42 acres of drainage subareas that are located within the Project site and Caltrans Off-Site Project Area boundaries[3] (including subareas labelled "Metro") and do not include those areas within the public right-of-way and I-105 Freeway.[4]

The County's LID Standards Manual requires that incremental storm water runoff volume, or ΔV, from each lot upon which such development occurs must be infiltrated at the lot or, alternatively, the incremental storm water runoff volume from the entire development site must be infiltrated in subregional infiltration facility(ies) built for this specific purpose. The Post-Development LID Runoff Volume, as shown in Table 3.2-2, is the amount of storm water runoff that must be retained and infiltrated on-site under the County's LID requirements.

[3] Subareas 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A.
[4] Those Subareas in Table 3.2-2 labeled "Freeway" are not included in the SUSMP Q_{PM} calculations.

The Undeveloped LID Runoff Volume is also calculated in order to allow for the reduction in the post-development runoff volume to correspond to the amount of site runoff that would be generated in the undeveloped condition. As shown in Table 3.2-2, the ΔV from a 0.75-inch storm event would generate a post-development runoff volume of 0.30 acre-feet (af). With a reduction of 0.03 af from the undeveloped LID runoff volume, the required volume for the LID BMP design capacity would be 0.27 af or 11,761 cubic feet.[5]

The Drainage Report depicts that, in order to meet County standards, the appropriate SUSMP and LID BMPs would include use of existing storm water drainage features, relocation of selected existing storm water drainage features, and installation of new features, as described in Mitigation Measure (MM) 3.2-1 and MM 3.2-2. Specific storm water drainage features that would be constructed as part of the Project include new catch basins; new storm drain pipelines connecting to existing lines; a new building drainage outlet near the intersection of Judah Avenue and West 116th Street; stormwater transport through filtering planter boxes prior to conveyance to the subterranean sump pump, which will also collect nuisance flows from the subterranean parking garage and pump it into the Dominguez Channel; and relocation of the Dominguez Channel. These improvements are depicted in Exhibit 3.2-1.

As required by MM 3.2-3, the Project would be required to manage storm water and other runoff in accordance with both the County's SUSMP and LID requirements based on the methodologies described in the appropriate LACDPW manuals (LACDPW 2002). As described in MM 3.2-1, rooftop and podium-level storm water runoff would be conveyed through planter boxes for filtration prior to entering a public storm drain to provide for treatment and retention. In addition, an underground storm water infiltration system would be constructed under the surface parking lot near the intersection of Judah Avenue and West 116th Street to accommodate on-site runoff flows in accordance with the County's LID requirements, and would be sized to capture the required LID volume of 11,761 cubic feet (cf). The final dimensions of the underground infiltration system would be determined in the later, engineering phase of the Project. Storm water chambers, such as the StormTech SC-740 chamber or comparable technology, would be installed within the underground storm water infiltration system to facilitate the infiltration of runoff. Storm water runoff from the portions of the Project site within Lot 1 and Lot 2 would be treated pursuant to County SUSMP water quality requirements (as required by MM 3.2-3 and as described in Section 4.1, Water Quality) prior to entering the underground storm water infiltration system. Water quality as it relates to the implementation of SUSMP and LID requirements is analyzed in Section 4.1, Water Quality, of this EIR.

Post-Development Hydrology

As described in MM 3.2-2, a portion of the Dominguez Channel located beneath the Project site would be relocated approximately 120 feet to the north of its present location. The relocated channel would connect with the existing channel beneath Aviation Boulevard near the Metro Green Line Station and would be located beneath the proposed Fire Lane in Lot 2, eventually reconnecting with the existing infrastructure within West 116th Street. Construction of the Project would not alter the drainage pattern on the Project site, although various connection points to the Dominguez Channel would be relocated/replaced in addition to new connection points, as depicted on Exhibit 3.2-1.

However, because the current Dominguez Channel is over capacity in the existing condition, the Project must accommodate and detain any runoff that is more than the Q_{allow} on the Project site. As shown in Table 3.2-3 below, Q_{50} for Subareas 5A, 6A, and 7A were subtracted from the Q_{allow} to determine how much storm water runoff from the Project site and off-site area is in

[5] 0.30 af (post-development runoff volume) – 0.03 af (undeveloped LID runoff volume) = 0.27 af or 11,761 cubic feet (LID BMP Design Capacity)

excess of the $Q_{allow.}$ This flow was then converted to a minimum storage volume for each Subarea that must be detained on the Project site and Caltrans Off-Site Project Area.

TABLE 3.2-3
CALCULATIONS FOR POST-DEVELOPMENT RUNOFF DETENTION

Subarea	Subarea Q_{allow} Allocation (cfs per acre)	Subarea Q_{50} Peak Flow (cfs per acre)	Difference (cfs per acre)	Minimum Storage Volume (cubic feet)
5A	1.22	2.00	-0.78	229.43
6A	1.38	2.25	-0.87	236.62
7A	5.88	7.58	-1.70	680.74

Note: Subareas 2A, 3A, 4A, 8A and 9A are street subareas and, as discussed previously, are not considered in LID calculations because no detention is permissible in public streets.

Source: LDC 2010a

As stated in MM 3.2-4, the Project Applicant/Developer must construct all improvements to the Dominguez Channel, including the design capacity and location, to the satisfaction of the LACFCD and must record an easement dedication to the County for operation and maintenance of the new alignment of the Dominguez Channel. Additionally, as stated in MM 3.2-4, subterranean detention boxes will be constructed at the connection points between the storm drain pipe from each Subarea storm drain inlet and the Dominguez Channel, to the satisfaction of the LACFCD. These detention boxes will hold the minimum storage volume during rain events and will include by-pass mechanisms to allow flows to enter Dominguez Channel when the detention boxes are full. As shown in Exhibit 3.2-1, storm drain infrastructure from the Caltrans Off-Site Project Area will remain and continue to connect to the Dominguez Channel at points located within Aviation Boulevard and within West 116th Street.

With implementation of MM 3.2-4, potential impacts related to the post-development drainage on the Project site would be less than significant.

As stated in MM 3.2-5, the Project Applicant/Developer must obtain a construction permit from the County of Los Angeles for all Project components that would affect existing LACFCD facilities. Additionally, as stated in MM 3.2-6, the Project Applicant/Developer must obtain an encroachment permit from Caltrans District 7 for construction activities within the Caltrans Off-Site Project Area.

The Final Drainage Concept/Hydrology, SUSMP, and LID Study, as approved by the LACDPW, would require full compliance with all applicable County storm water regulations. Implementation of MMs 3.2-1 through 3.2-6 would ensure that there would be less than significant impacts related to alteration of the drainage pattern on the Project site and Caltrans Off-Site Project Area.

3.2.6 CUMULATIVE IMPACTS

The Drainage Report, prepared in accordance with County's standards, is inherently a cumulative analysis because it considers the Project site and Caltrans Off-Site Project Area, as well as the upstream geographic area that is tributary to the Project site since upstream off-site areas contribute surface runoff to the storm drain system in the Project area.[6] The area

[6] The County-approved Drainage Concept for Tract Map No. 70853 did not include the review of the off-site improvements on the Caltrans-owned property. Review and approval of off-site improvements are subject to the discretion of Caltrans. As stated in MM 4.1-4 from Section 4.1, Water Quality, prior to the commencement of construction activities in the off-site, Caltrans-owned property, the Project Applicant/Developer must demonstrate compliance with any applicable regulations related to drainage infrastructure and post-construction treatment

that is tributary to the Project site is densely urban and therefore largely covered with impervious surfaces. As such, implementation of related projects or other future land use development and/or redevelopment in the Project site vicinity would not substantively increase impervious surfaces or the extent and capacity of the existing municipal storm drain system, as would be the case with new (i.e., greenfield) development.

Short-term construction activities for the Project and other cumulative projects would be subject to the requirements of the applicable NPDES Construction General Permit described Section 4.1, Water Quality, and would ensure that storm water runoff would be appropriately treated/retained on each Project site. Finally, all projects in the County as well as surrounding city jurisdictions would be required to comply with storm water management regulations as implemented by each jurisdiction. Therefore, because the Project would result in a less than significant impact to hydrology and flood, and because the Drainage Report considers the entire tributary area of the Project site, the Project would not result in a cumulatively considerable impact.

3.2.7 MITIGATION MEASURES

MM 3.2-1 The Project shall implement storm water quality Best Management Practices (BMPs) in accordance with the Los Angeles County Department of Public Works (LACDPW)'s current *Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP)* and *Low Impact Development (LID) Standard Manual* to the satisfaction of LACDPW. Proposed BMPs shall require that:

- Three on-site storm drains shall have catch basin inserts, Continuous Deflective Separation (CDS) units, or equivalent technologies, to filter hydrocarbons, trash, heavy metals, sediments, and organics;
- All storm drains shall be stenciled with "Warning! Drains to Ocean" notes and symbols per NPDES standards, or as approved by the LACDPW;
- Rooftop and podium-level runoff shall be conveyed through planter boxes for filtration prior to entering a public storm drain; and
- An on-site underground infiltration system shall be installed beneath the proposed parking lot located north of the intersection of Judah Avenue and 116th Street, and sized to capture the post-development runoff volume increase (LID volume) of 11,761 cubic feet.

MM 3.2-2 The Project shall include: (1) use of existing storm water drainage features; (2) removal and/or relocation of selected existing storm water drainage features; and (3) installation of new features within the Project site, which shall be reviewed and approved with improvement plans to the satisfaction of the County of Los Angeles Department of Public Works (LACDPW). Specifically, the Project shall:

- Retain 12 existing catch basins, remove 5 on-site existing catch basins, remove and relocate 2 on-site existing catch basins, and install 5 new on-site catch basins with filter inserts;
- Retain existing concrete gutters where feasible and install new 4-foot concrete gutters along new and/or reconfigured interior roadways and parking areas;

control BMPs pursuant to the requirements of the Caltrans Statewide SWMP and other applicable local, State, and federal regulations to the satisfaction of Caltrans.

- Remove a segment of the existing Dominguez Channel 8-foot by 10-foot (8' x 10' – ¾") RCB structure beneath Aviation Boulevard and West 116th Street, and relocate it northward on the Project site beneath the proposed fire lane adjacent to the existing Metro Green Line Station;
- Extend an existing storm drain near the intersection of Aviation Boulevard and the existing Dominguez Channel to connect to the relocated Dominguez Channel;
- Install new storm drains from the on-site parking area, from the proposed underground infiltration basin, and from the on-site Project site to the existing storm drain beneath 116th Street and the relocated Dominguez Channel;
- Install a new building drainage outlet near the intersection of Judah Avenue and 116th Street (the subterranean sump pump shall be installed to collect nuisance flows from the subterranean parking garage, as well as stormwater runoff from the filtration planters, and pump it into the Dominguez Channel); and
- Record a storm drain easement dedication to the Los Angeles County Flood Control District over the relocated alignment of the Dominguez Channel within the Project site. The size and type of easement dedication may vary and shall be determined with the improvement plans to the satisfaction of the LACDPW.
- Off-site improvements are subject to the discretion of the proper permitting authority, including Caltrans for any improvements to the Caltrans Off-Site Project Area, or other jurisdictions for improvements within their right-of-way.

MM 3.2-3 All proposed storm drains and other storm water management features specified in the *Drainage Concept, Hydrology, SUSMP, and LID Analysis for Vesting Tentative Tract Map No. 70853* prepared by Land Design Consultants, Inc. shall be designed and implemented to meet NPDES Permit/SUSMP requirements and the County LID requirements, subject to review and approval by the Los Angeles County Department of Public Works.

MM 3.2-4 Prior to the issuance of building permits, the Project Applicant/Developer shall construct all Dominguez Channel improvements, including design capacity and location, to the satisfaction of the Los Angeles County Flood Control District (LACFCD) and shall record an easement dedication to the County of Los Angeles for operation and maintenance of the new Dominguez Channel alignment. Subterranean detention boxes shall be sized according to the Q_{allow} and shall be located in proximity to the relocated Dominguez Channel, to the satisfaction of LACFCD.

MM 3.2-5 The Project Applicant/Developer shall obtain a construction permit from the Los Angeles County Flood Control District (LACFCD) for all Project components that affect existing LACFCD facilities.

MM 3.2-6 The Project Applicant/Developer shall obtain an encroachment permit from California Department of Transportation (Caltrans) for construction activities within the off-site, Caltrans-owned property.

3.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with MM 3.2-1 through MM 3.2-6 would ensure that the Project's impacts to on-site and off-site drainage would be less than significant and in full compliance with all applicable County storm water regulations.

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3.3 FIRE

This section describes the potential fire hazard for the Project site and immediate vicinity and discusses impacts that could result from implementation of the Project. Analysis of fire protection service is discussed in Section 5.4 (Fire/Sheriff Services).

3.3.1 RELEVANT POLICIES AND REGULATIONS

Local

County of Los Angeles Fire Code

The *County of Los Angeles Code* Title 32 "Fire Code" describes all standards and requirements for development in the unincorporated County pertaining the fire prevention and suppression, including construction materials, building access and evacuation routes, automatic fire extinguisher systems, standards for multi-family housing and commercial/retail land uses, site access/Fire Lanes, hydrants, water availability, and fire flows (pressures), among other requirements.

County of Los Angeles General Plan

A discussion of *County of Los Angeles General Plan* elements and consistency of the Project with goals and polices related to fire safety is provided in Section 6.2, Land Use.

3.3.2 EXISTING CONDITIONS

Fire Protection Services

The Los Angeles County Fire Department (LACFD) provides fire protection and paramedic services to existing land uses within Lot 1 (i.e., residential and commercial land uses). The City of Los Angeles Fire Department provides fire protection and paramedic services to existing land uses within Lot 2 (i.e., Metro bus staging area and terminal). However, Project implementation requires a modification to the County of Los Angeles and City of Los Angeles boundaries, allowing the entire Project site to become part of unincorporated Los Angeles County. Upon Project implementation, the LACFD would serve the Project site. Therefore, the LACFD is the focus of this fire services analysis, and County fire safety standards would apply.

Fire Code Designation

This area of the County of Los Angeles is subject to the threat from urban fires. According to the Very High Fire Hazard Severity Zone (VHFHSZ) Map from the County's 2008 *Draft General Plan*, the Project site is not located within a VHFHSZ area (LACDRP 2008c).[1] There are no other fire hazard ratings, only the identification of VHFHSV areas. This is consistent with the Project area being fully urbanized with limited areas of natural vegetation as well as being relatively flat.

3.3.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

[1] Although the *Draft General Plan* is not yet adopted, this document provides the most current information on existing conditions for selected planning-related topics, such as fire hazard rating, within the unincorporated County.

Threshold 3.3a: Is the project site located in a Very High Fire Hazard Severity Zone (Fire Zone 4)?

Threshold 3.3b: Is the project site in a high fire hazard area and served by inadequate access due to length, width, surface materials, turnarounds or grade?

Threshold 3.3c: Does the project site have more than 75 dwelling units on a single access in a high fire hazard area?

Threshold 3.3d: Is the project site located in an area having inadequate water and pressure to meet fire flow standards?

Threshold 3.3e: Is the project located in close proximity to potential dangerous fire hazard conditions/uses (such as refineries, flammables, explosives manufacturing)?

Threshold 3.3f: Does the proposed use constitute a potentially dangerous fire hazard?

3.3.4 PROJECT DESIGN FEATURES

PDF 3.3-1 A 28-foot wide emergency-vehicle-only Fire Lane will be constructed between the existing off-site Metro Green Line Station and Buildings 2A/2B. There will be no parking or traffic allowed in the Fire Lane. Pedestrians will have access to cross from the commercial businesses, across the Fire Lane, into the transit facilities to the north. One Fire Lane/driveway would be located on the main Project ingress point on West 117th Street and one Fire Lane/driveway would be located near the cul-de-sac intersection of Judah Avenue and West 116th Street. The Fire Lane ingress/egress points from intersection of Judah Avenue and West 116th Street will be gated and will prohibit all non-emergency vehicles.

3.3.5 ENVIRONMENTAL IMPACTS

Threshold 3.3a: Is the project site located in a Very High Fire Hazard Severity Zone (Fire Zone 4)?

Threshold 3.3b: Is the project site in a high fire hazard area and served by inadequate access due to length, width, surface materials, turnarounds or grade?

Threshold 3.3c: Does the project site have more than 75 dwelling units on a single access in a high fire hazard area?

<u>On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts</u>

The Project site, Caltrans Off-Site Project Area, and surrounding areas are fully developed with urban land uses within an urban portion of the County and is not located within a VHFHSZ, as discussed above. The Project site and Caltrans Off-Site Project Area currently have adequate access for fire protection. The Project is designed with three points of ingress/egress in addition to the construction of a new emergency-only Fire Lane as described in PDF 3.3-1 (refer to Exhibit 2-4 in Section 2.0, Environmental Setting and Project Description). Therefore, the Project would not include 75 or more units on a single access, regardless of fire hazard area, and would have adequate access in conformance with LACFD requirements. As described in MM 3.3-1, the Project would comply with all applicable *County of Los Angeles Code* and Ordinance requirements regarding fire prevention and suppression measures, including site access.

The Caltrans Off-Site Project Area improvements would include two points of ingress/egress to the Metro and Caltrans facilities (via Aviation Boulevard and West Imperial Highway) in addition to the emergency-only Fire Lane exit onto West 116th Street. The off-site utility improvements would be entirely underground and would not affect emergency vehicle access and circulation after installation. Therefore, there would be less than significant impacts related to fire code designation and site access with implementation of PDF 3.3-1 and MM 3.3-1.

Threshold 3.3e: Is the project located in close proximity to potential dangerous fire hazard conditions/uses (such as refineries, flammables, explosives manufacturing)?

Threshold 3.3f: Does the proposed use constitute a potentially dangerous fire hazard?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

There are no manufacturing or industrial land uses adjacent to the Project site, Caltrans Off-Site Project Area, and surrounding areas that could pose potential dangerous fire hazard conditions associated with on-site use or material storage. The land uses to the north are transit-related and to the east and south are single-family residential; these land uses present no potentially dangerous fire hazard conditions or uses. To the west beyond Aviation Boulevard is the Northrop Grumman Integrated Systems campus within the City of El Segundo, which is zoned for and has a General Plan land use designation of “Urban Mixed Use-North”. Northrop Grumman provides a wide range of engineering and information technology services, organized into five business sectors: Aerospace Systems, Electronic Systems, Information Systems, Shipbuilding and Technical Services (Northrop Grumman 2010). These services do not represent a potentially dangerous fire hazard.

The Project land uses (i.e. residential, commercial and parking) would not constitute a potentially dangerous fire hazard. However, it is likely that restaurants would be located within the retail businesses developed as part of the Project, and restaurants involve the use of fire and flammable materials used during cooking (e.g. oils, grease). The *County of Los Angeles Code* Title 32 describes requirements for the design, construction, and operation of restaurants that reflect the potential fire danger. As described in MM 3.3-1, the Project would comply with all applicable *County of Los Angeles Code* Title 32 and Ordinance requirements regarding fire prevention and suppression measures, including risk of fire associated with restaurant operation. Therefore, the potential restaurant operations do not constitute an unusual or potentially dangerous fire hazard. There are also no land uses adjacent to the off-site Project area that would pose potential dangerous fire hazard conditions, nor would the proposed Project site, Caltrans Off-Site Project Area, or utility improvements in surrounding roadways generate a fire hazard. Therefore, there would be a less than significant impact related to development of, or proximity to, a fire hazard condition or use with implementation of MM 3.3-1.

Threshold 3.3d: Is the project site located in an area having inadequate water and pressure to meet fire flow standards?

On-Site Impacts

The *County of Los Angeles Code* Title 32 and County Ordinances include specific requirements regarding fire prevention and suppression measures, including construction materials, building access and evacuation routes, automatic fire-extinguishing systems, standards for multi-family housing and commercial land uses, site access/Fire Lanes, hydrants, water availability, and fire flows (pressures), among other requirements. As discussed in Section 5.5, Utilities/Other Services, of this EIR, the Project would have adequate water supplies from Golden State

Water Company. The results of a fire flow test conducted by Golden State Water Company in April of 2009 indicated that the existing water system was not adequate for fire flows. In order to ensure the Project receives adequate fire flow pressure, the Project includes the construction of new water and fire protection infrastructure, including water lines, water laterals and fire hydrants, as described in MM 3.3-2. The location of proposed water line abandonment and installation of new infrastructure is illustrated in Exhibit 3.3-1.

The LACFD has performed a review of the tentative tract map for the Project and defined the conditions of approval related to fire safety, including water and pressure requirements. As described in MM 3.3-1, the Project would comply with applicable *County of Los Angeles Code* Title 32 and Ordinance requirements and all LACFD conditions of approval. Therefore, potential impacts related to fire safety, including adequate water and pressure, would be less than significant with implementation of MM 3.3-1 and MM 3.3-2.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The Caltrans Off-Site Project Area components would include the relocation of the restroom facility at the Metro bus terminal. There would be no permanently habitable structures developed as part of these proposed off-site improvements. As described in MM 3.3-3, a new water lateral within the off-site, Caltrans-owned property would be constructed to provide service to the restrooms and water fountain associated with the new Metro bus terminal. The water line would be connected to the existing 6-inch-diameter water line within the off-site Caltrans property. Implementation of MM 3.3-3 would ensure that impacts related to water and pressure would be less than significant.

Physical construction impacts related to off-site water (utility) infrastructure are addressed as part of the Project. The primary environmental impacts associated with off-site infrastructure installation, including grading, excavation, movement and placement of the utility pipeline segments, and possible lane closures and/or traffic detours when working in the roadway right-of-way, would be addressed with implementation of standard conditions of approval and/or mitigation measures, as described in Section 4.2, Air Quality, Section 4.4, Noise, and Section 6.1, Traffic/Access.

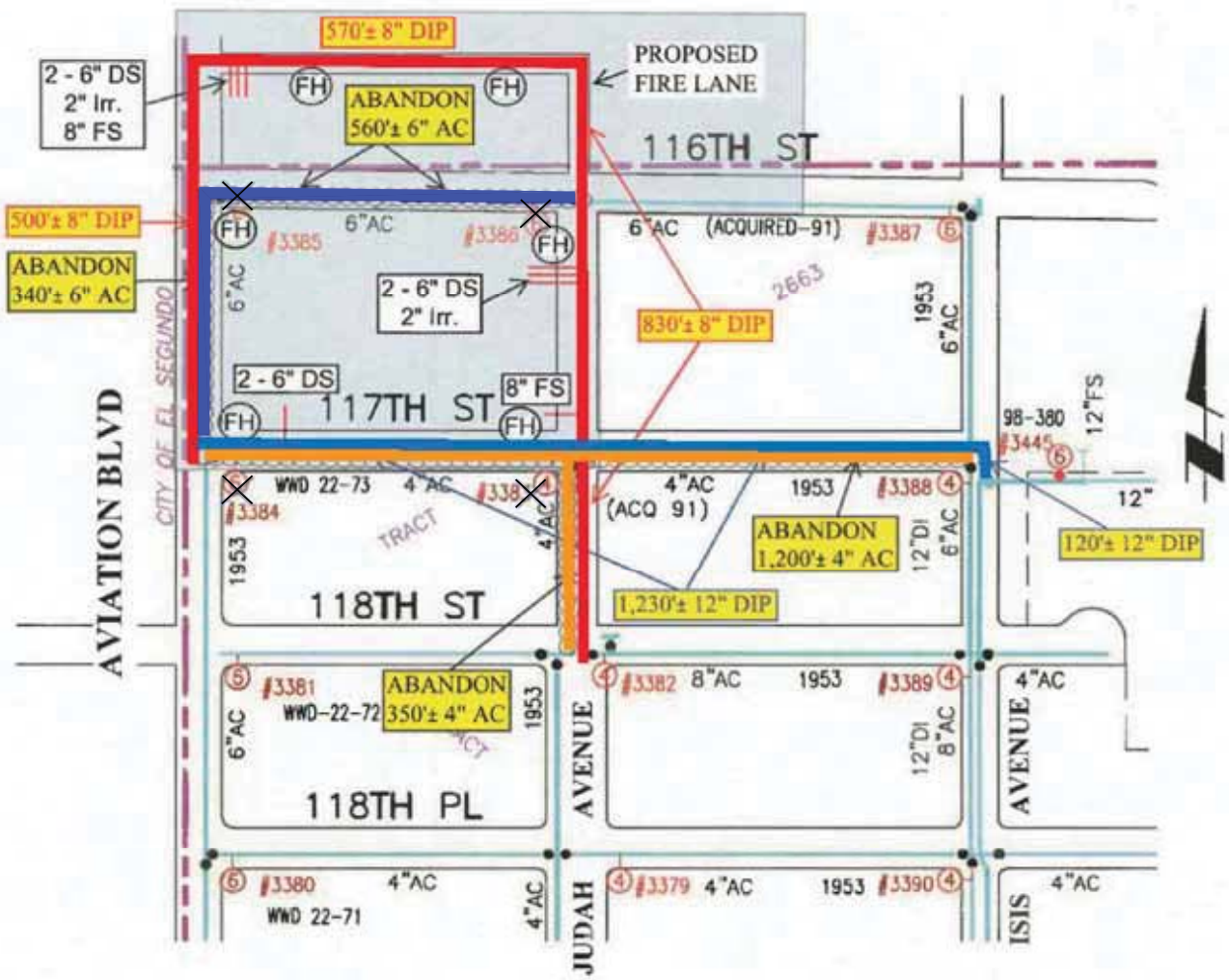
3.3.6 CUMULATIVE IMPACTS

The Project is not within a designated VHFHSZ nor would it consist of or be near dangerous fire hazard conditions/uses and therefore would not contribute to a cumulatively considerable risk of wildland fire exposure or fire hazard conditions or land uses. All development and redevelopment projects in the unincorporated County and within the surrounding municipalities must comply with state and local (either County or city) fire suppression and safety requirements as part of Project design, construction and long-term maintenance. Consequently, the Project would not contribute to a cumulatively considerable impact related to fire hazards. For these reasons, the Project's contribution to cumulative fire safety impact would be less than significant.

3.3.7 MITIGATION MEASURES

There would be no significant impacts related to fire safety with adherence to *County of Los Angeles Code* Title 32 and Ordinance requirements, which would be ensured via the following mitigation measure.

MM 3.3-1 The Project shall comply with all applicable County of Los Angeles Code Title 32 and Ordinance requirements regarding fire prevention and suppression measures, and/or measures approved or required by the Fire Chief, including



Mainline

Install

- 1,350'± of 12" DIP (Ductile Iron Pipeline)
- 1,900'± of 8" DIP (Ductile Iron Pipeline)

Abandon

- 900'± of Ex. 6" AS (Asbestos Cement Pipeline)
- 1,550'± of Ex. 4" AS (Asbestos Cement Pipeline)

Services

- 2 - 8" FS (Fire Service)
- 6 - 6" DS (Domestic Service)
- 2 - 2" Irrigation

Hydrants

- (FH) 6 - New or Replaced 6" FH (Fire Hydrant)
- ╳ 4 - Remove Ex. FH (Fire Hydrant)

Other Features

- City/County Boundaries
- Existing Water Infrastructure

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Proposed Project Water and Fire Infrastructure

Exhibit 3.3-1

Aviation Station Project

BonTerra CONSULTING

(Rev 10/29/10 CJS) Projects/Cox/J002/Graphics/EIR/Ex3.3-1_fire_infra.pdf

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construction materials, building access and evacuation routes, automatic fire extinguishing systems, standards for multi-family housing and commercial land uses, site access/fire lanes, hydrants water availability, and fire flows and pressures, among other requirements, to the satisfaction of the Los Angeles County Fire Department (LACFD). Prior to issuance of building permits, Project Applicant/Developer shall submit all necessary plans and materials to the LACFD for review and approval.

MM 3.3-2 Prior to issuance of building permits, the Project Applicant/Developer shall demonstrate to the County of Los Angeles Department of Public Works and the Los Angeles County Fire Department (LACFD) that the Project includes appropriate infrastructure to ensure adequate water and fire flow infrastructure and compliance with Los Angeles County Code Title 32 requirements. It is anticipated that segments of the existing four- and six-inch diameter water lines in Aviation Boulevard (between West 116th Street and West 117th Street), 116th Street (between Aviation Boulevard and Judah Avenue), West 117th Street (between Aviation Boulevard and Isis Avenue), and Judah Avenue (between West 117th Street and West 118th Street) shall be abandoned and three existing fire hydrants shall be removed. The Project shall include the following new water and fire flow infrastructure to the satisfaction of LACFD:

- Twelve-inch diameter water line within West 117th Street between Aviation Boulevard and Isis Avenue turning south at Isis Avenue and immediately connecting with the existing 12-inch water line;
- Eight-inch-diameter water lines within Aviation Boulevard (between West 117th Street and the proposed Fire Lane along the northern property boundary), the proposed Fire Lane (between Aviation Boulevard and Judah Avenue), and Judah Avenue (between the proposed Fire Lane and West 118th Street). These lines will connect with the new 12-inch line in West 117th Street;
- A 6-inch-diameter water lateral from Building 1A to the new water line in West 117th Street, 8-, 6-, and 2-inch-diameter water laterals from the Building 1B to the new water line in Judah Avenue, and from Building 2A to the new water line in the Fire Lane. Building 2B would be served via the laterals extending to Building 2A.
- Six new fire hydrants evenly distributed around the perimeter of the Project site.

MM 3.3-3 Prior to issuance of building permits for the off-site Project Area, the Project Applicant/Developer shall demonstrate to the County of Los Angeles Department of Public Works that the Project includes adequate water infrastructure. It is anticipated that a new water lateral within the off-site, Caltrans-owned property shall be constructed to provide service to the restrooms and water fountain associated with the new Metro bus terminal. The water line shall be connected to the existing 6-inch-diameter water line within the off-site Caltrans property.

3.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

There would be less than significant impacts related to fire hazards with implementation of PDF 3.3-1 and MM 3.3-1 through MM 3.3-3.

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3.4 NOISE

This section analyzes potential noise impacts associated with implementation of the proposed Aviation Station Project and is summarized from the *Noise Report for the Aviation Station Environmental Impact Report* (Noise Report) prepared by BonTerra Consulting (January 2011) included in Appendix D to this EIR. This section provides background information on noise and community noise assessment criteria; presents existing noise levels in the Project area; and examines noise impacts that could potentially occur during construction and operation of the Project.

3.4.1 RELEVANT POLICIES AND REGULATIONS

Federal

Federal Transit Administration Vibration Standards

The Federal Transit Administration (FTA) groundborne vibration impact criteria are based on land use and train frequency, as shown in Table 3.4-1. Category 2 in Table 3.4-1 covers all residential land uses and any buildings where people sleep, such as hotels and hospitals. No differentiation is made between different types of residential areas. It should also be noted that Table 3.4-1 includes separate FTA criteria for groundborne noise, which is the "rumble" that can be radiated from the motion of room surfaces in buildings due to groundborne vibration.

TABLE 3.4-1
GROUNDBORNE VIBRATION AND GROUNDBORNE NOISE IMPACT CRITERIA

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch/sec)			GBN Impact Levels (dB re 20 micro Pascals)		
	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB[d]	65 VdB[d]	65 VdB[d]	N/A[d]	N/A[d]	N/A[d]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB[e]	78 VdB[e]	83 VdB[e]	40 dBA[e]	43 dBA[e]	48 dBA[e]

GBV: groundborne vibration; GBN: groundborne noise; dB: decibel; VdB: Logarithmic decibel scale for vibration; N/A: Not Applicable; dBA: A-weighted decibels.

Notes:
[a] "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
[b] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
[c] "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
[d] This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research swill require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the heating, ventilating, and air conditioning systems and stiffened floors.
[e] Vibration-sensitive equipment is generally not sensitive to ground-borne noise.

Source: BonTerra Consulting 2010c

Although expressed in A-weighted decibels (dBA), which emphasizes the more audible middle and high frequencies, the criteria are set significantly lower than for airborne noise to account for the low-frequency character of groundborne noise. Because airborne noise often masks

groundborne noise for aboveground (i.e., at-grade or elevated) rail systems, groundborne noise criteria are primarily applied to subway operations where airborne noise is not a factor. Groundborne noise criteria apply only to buildings that have sensitive interior spaces that are well insulated from exterior noise.

State

State of California Noise Standards

The *California Building Code* (Title 24 of the *California Code of Regulations*) requires that residential structures, other than detached single-family dwellings, be designed to prevent the intrusion of exterior noise (attributable to exterior sources) so that the interior community noise equivalent level (CNEL) with windows closed shall not exceed 45 dBA in any habitable room.

Title 21, Subchapter 6 of the *California Code of Regulations* (Airport Noise Standards) establishes 65 dBA CNEL as the acceptable level of aircraft noise for persons living in the vicinity of airports. Title 21 applies to airports that have been designated as “noise problem airports”, which includes Los Angeles International Airport (LAX). Noise-sensitive land uses in locations where the aircraft exterior noise level exceeds 65 dBA CNEL are generally incompatible, unless (1) an aviation easement for aircraft noise has been acquired by the airport proprietor or (2) the residence is a high-rise apartment or condominium that has an interior CNEL of 45 dBA or less in all habitable rooms despite aircraft noise and an air circulation or air conditioning system, as appropriate. Assembly Bill (AB) 2776, passed in 2002 and effective January 1, 2004, modified the *State Business and Professions Code* and the *State Civil Code* to require any person who intends to offer subdivided lands, common interest developments, and residential properties for sale or lease within an airport influence area to disclose that fact to the person buying the property.

County

County of Los Angeles General Plan Noise Element

The currently adopted General Plan Noise Element does not have quantitative noise standards for regulating acceptable exterior and interior noise environments at residential and mixed-use land uses, but includes goals to reduce transportation noise to a level that does not jeopardize health and welfare, minimize future transportation noise levels, and establish compatible land uses adjacent to transportation facilities. The Noise Element does not include standards for noise-land use compatibility.

Los Angeles County Airport Land Use Commission

In Los Angeles County, the Regional Planning Commission is given the responsibility for coordinating the airport planning of public agencies within the County and functions as the Los Angeles County Airport Land Use Commission (ALUC). The statutes governing ALUCs are set in the State Aeronautics Act part of the *California Public Utilities Code* (Title 24). The ALUCs are tasked with assisting local agencies “in ensuring compatible land uses and to coordinate compatibility planning efforts at the state, regional, and local levels”. The ALUC is charged with coordinating the airport land use compatibility planning of the communities surrounding the airports in its jurisdiction. The ALUC fulfills this responsibility through the development of airport land use compatibility plans, known as an Airport Land Use Plan (ALUP), and through the review of plans, regulation or actions by a local government to ensure compatibility with the adopted ALUP. The Los Angeles County Airport Land Use Plan ALUP includes the following policies related to noise (BonTerra Consulting 2010c):

N-1: Use the Community Noise Equivalent Level (CNEL) method for measuring noise impacts near airports in determining suitability for various types of land uses.

N-2: Require sound insulation to insure a maximum interior 45 dBA CNEL in new residential, educational, and health-related uses in areas subject to exterior noise levels of 65 dBA CNEL or greater.

N-3: Utilize the Table Listing Land Use Compatibility for Airport Noise Environments in evaluating projects within the planning boundaries.

N-4: Encourage local agencies to adopt procedures to ensure that prospective property owners in aircraft noise exposure areas above a current or anticipated 60 dBA CNEL are informed of these noise levels and of any land use restrictions associated with high noise exposure.

County of Los Angeles Noise Ordinance

Section 12.08 of the County of Los Angeles Code (County Code) contains the County's Noise Ordinance. The County of Los Angeles Noise Ordinance is designed to control unnecessary, excessive, and annoying sounds from sources on private properties by setting limits that cannot be exceeded at adjacent properties.

Transportation Sources

The County's Noise Ordinance requirements are not applicable to mobile noise sources such as automobiles or heavy trucks when traveling in a legal manner on public roadways or on private property. Similarly, the Noise Ordinance is not applicable to railroad or aircraft noise. Control of the mobile noise sources is preempted by federal and State laws. Local jurisdictions usually address noise as it relates to land use compatibility for transportation sources in the General Plan and, occasionally, in a noise ordinance. However, Los Angeles County does not address noise as it relates to land use compatibility for roadway or rail noise in either the General Plan or the Noise Ordinance. Aircraft noise land use compatibility is addressed via the Los Angeles County ALUC, as discussed above.

Construction

Section 12.08.440 of the County Code prohibits construction noise between the hours of 7:00 PM and 7:00 AM on weekdays, and at any time on Sunday or a holiday if it creates a disturbance across a residential or commercial property line. The County also sets maximum noise levels not to exceed the following maximum noise levels from mobile equipment (nonscheduled, intermittent, short-term operations for less than 30 days) as summarized in Table 3.4-2.

TABLE 3.4-2
COUNTY OF LOS ANGELES MOBILE EQUIPMENT NOISE LIMITS

Time Interval	Single-Family Residential (dBA)	Multi-Family Residential (dBA)	Semi-Residential or Commercial (dBA)
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	75	80	85
Daily, 8:00 PM to 7:00 AM, and all day Sunday and legal holidays	60	64	70
dBA: A-weighted decibels Source: County of Los Angeles Code, Section 12.08, 2009			

Maximum noise levels from stationary equipment (repetitively scheduled and relatively long-term operations of ten days or more) are summarized in Table 3.4-3.

TABLE 3.4-3
COUNTY OF LOS ANGELES STATIONARY EQUIPMENT NOISE LIMITS

Time Interval	Single-Family Residential (dBA)	Multi-Family Residential (dBA)	Semi-Residential or Commercial (dBA)
Daily, except Sundays and legal holidays, 7:00 AM to 8:00 PM	60	65	70
Daily, 8:00 PM to 7:00 AM, and all day Sunday and legal holidays	50	55	60
dBA: A-weighted decibels Source: County of Los Angeles Code, Section 12.08, 2009			

Operation

Exterior Standards

The County of Los Angeles Noise Ordinance also specifies exterior noise levels that cannot be exceeded at the receiving properties for a specified period of time. The general application of these standards is to noise made from one property to another. As stated in the ordinance,

> Unless otherwise herein provided, no person shall operate or cause to be operated, any source of sound at any location within the unincorporated county, or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level, when measured on any other property either incorporated or unincorporated, to exceed any of the following exterior noise standards.

Exceptions to the exterior standards include, but are not limited to (1) construction and (2) residential air conditioning or refrigeration equipment; these two cases are regulated separately, as described below.

The County-specified noise standards are listed in Table 3.4-4. It should be noted that these standards do not apply to the assessment of land use compatibility for transportation noise.

TABLE 3.4-4
COUNTY OF LOS ANGELES EXTERIOR NOISE STANDARDS

Noise Zone	Designated Noise Zone Land Use	Time Interval	Exterior Noise Level (dBA)
I	Noise-Sensitive Area	Anytime	45
II	Residential Area	10:00 PM to 7:00 AM 7:00 AM to 10:00 PM	45 50
III	Commercial Area	10:00 PM to 7:00 AM 7:00 AM to 10:00 PM	55 60
IV	Industrial Area	Anytime	70
dBA: A-weighted decibels Source: County of Los Angeles Code, Section 12.08, 2009			

The applicable standards listed in Table 3.4-4 should not be exceeded at the property line of the noise-sensitive use for:

- a cumulative period of more than 30 minutes in any hour; if the ambient L_{50} exceeds the foregoing level, then the ambient L_{50} becomes this standard;
- the applicable standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour (if the ambient L_{25} exceeds the foregoing level, then the ambient L_{25} becomes this standard);
- the applicable standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour(if the ambient L_8 exceeds the foregoing level, then the ambient L_8 becomes this standard);
- the applicable standard plus 15 dBA for more than the standard for a cumulative period of more than 1 minute in any hour (if the ambient L_2 exceeds the foregoing level, then the ambient L_2 becomes this standard); or
- the noise standard plus 20 dBA for any period of time (if the ambient L_0 exceeds the foregoing level, then the ambient L_0 becomes this standard).

If the measurement location is on a boundary of a property between two different noise zones (see Table 3.4-4), the exterior noise level shall be the arithmetic mean of the exterior noise levels of the subject zones.

Interior Standards

The Noise Ordinance specifies interior noise levels that cannot be exceeded at the receiving properties for a specified period of time, as shown in Table 3.4-5 and in the following text:

A. No person shall operate or cause to be operated within a dwelling unit, any source of sound, or allow the creation of any noise, which causes the noise level when measured inside a neighboring receiving dwelling unit to exceed the following standards:

   Standard No. 1 – The applicable interior noise level for cumulative period of more than five minutes in any hour; or

   Standard No. 2 – The applicable interior noise level plus 5 dB for a cumulative period of more than one minute in any hour; or

   Standard No. 3 – The applicable interior noise level plus 10 dB or the maximum measured ambient noise level for any period of time.

B. The following interior noise levels for multi-family residential dwellings shall apply, unless otherwise specifically indicated, within all such dwellings with windows in their normal seasonal configuration.

TABLE 3.4-5
COUNTY OF LOS ANGELES INTERIOR NOISE STANDARDS

Noise Zone	Designated Land Use	Time Interval	Allowable Interior Noise Level (dB)
All	Multifamily	10:00 PM to 7:00 AM	40
	Residential	7:00 AM to 10:00 PM	45

dB: decibel
Source: County of Los Angeles Code, Section 12.08, 2009

C. If the measured ambient noise level reflected by the L_{50} exceeds that permissible within any of the interior noise standards in subsection A, the allowable interior noise level shall be increased in 5 dB.

Residential Air Conditioning or Refrigeration Equipment

In accordance with Los Angeles County Code Section 12.08, it is prohibited to operate or to give permission to operate any air conditioning or refrigeration equipment that exceeds any of sound levels shown in Table 3.4-6.

TABLE 3.4-6
AIR CONDITIONING AND REFRIGERATION EQUIPMENT NOISE STANDARDS

Measurement Location	dBA
Any point on neighboring property line, 5 feet above grade level, no closer than 3 feet from any wall.	55
Center of neighboring patio, 5 feet above grade level, no closer than 3 feet from any wall.	50
Outside the neighboring living area window nearest the equipment location, not more than 3 feet from the window opening, but at least 3 feet from any other surface.	50
Source: County of Los Angeles Code, Section 12.08, 2009	

County of Los Angeles Vibration Standards

Section 12.08.560 of the County Code prohibits the operation of any device that creates vibration that is above the vibration perception threshold of any individual at or beyond the property boundary of the source if the source is on private property. According to the County Noise Ordinance, the perception threshold is a motion velocity of 0.01 inch per second (in/sec, 80 VdB)[1] over the range of 1 to 100 Hertz (Hz). For the purposes of the Project, the construction vibration impacts to the existing residences to the south and east of the Project site were evaluated according to the vibrations standards listed in Table 3.4-1.

3.4.2 EXISTING CONDITIONS

Noise Terminology

Sound and Noise

"Sound" is a vibratory disturbance created by a moving or vibrating source and is capable of being detected. "Noise" is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance and, in the extreme, hearing impairment.

Decibels and Frequency

In its most basic form, a continuous sound can be described by its frequency or wavelength (pitch) and its amplitude (loudness). Frequency is expressed in cycles per second, or hertz. Frequencies are heard as the pitch or tone of sound. High-pitched sounds produce high frequencies; low-pitched sounds produce low frequencies. Sound pressure levels are described in units called the decibel (dB).

[1] VdB, or vibration velocity level in dB, is a logarithmnic scaling of vibration magnitude.

Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB.

Perception of Noise and A-Weighting

A typical noise environment consists of a base of steady "background" noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. Examples of local sources can vary from periodic aircraft or train passing by, to intermittent periods of sound, such as amplified music, to virtually continuous noise from, for example, traffic on a major highway. In a large number of community surveys, transportation noise has been ranked among the most significant causes of community dissatisfaction.

The human ear is not equally sensitive to all frequencies within the sound spectrum. To accommodate this phenomenon, the A-scale, which approximates the frequency response of the average healthy ear when listening to most ordinary everyday sounds, was devised. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Therefore, the "A-weighted" noise scale is used for measurements and standards involving human perception of noise. Noise levels using A-weighted measurements are written dB(A) or dBA. Human perception of noise has no simple correlation with acoustical energy. Due to subjective thresholds of tolerance, the annoyance of a given noise source is perceived very differently from person to person. The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at 3 feet from the noise source is approximately 60 dBA, while loud jet engine noises equate to 110 dBA, which can cause serious discomfort. Exhibit 3.4-1 shows the relationship of various noise levels to commonly experienced noise events.

Studies show that noise increases trigger community reactions varying from sporadic complaints to widespread complaints, legal threats, and/or vigorous action. It is widely accepted that (1) the average healthy ear can barely perceive changes of 3 dBA; (2) a change of 5 dBA is readily perceptible; and (3) an increase/decrease of 10 dBA sounds twice/half as loud, respectively. In community situations, noise exposure and changes in noise levels occur over a number of years, unlike the immediate comparison made in a field study situation. The 3-dBA increase criterion represents a balance of community benefits and reasonableness and has been widely published, discussed, and cited by many professionals in acoustics as a barely perceptible increase in noise.

Noise Propagation

From the source to the receiver, noise changes both in level and frequency. Noise levels decrease as the distance from the source increases; the manner in which noise reduces with distance depends on many factors, which are discussed below.

Geometric Spreading From Point and Line Sources: Sound from a small localized source (approximating a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (lessens) at a rate of 6 dBA for each doubling of the distance (i.e., if the noise level is 70 dBA at 25 feet, it is 64 dBA at 50 feet). Vehicle movement makes the source of the sound appear to emanate from a line (line source) rather than a point when viewed over some time interval. The sound level attenuates at a rate of 3-dBA per doubling of distance for line sources.

Ground Absorption: To account for the ground-effect attenuation (absorption), two types of site conditions are commonly used in noise prediction: soft site and hard site conditions. Hard sites (i.e., sites with a reflective surface between the source and the receiver, such as parking lots or smooth bodies of water) receive no excess ground attenuation, and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. Soft sites are sites that have an absorptive ground surface (e.g., soft dirt, grass, or scattered bushes and trees) and receive an excess ground attenuation value of 1.5 dBA per doubling of distance.

Atmospheric Effects: Wind speed will bend the path of sound to "focus" it on the downwind side and make a "shadow" on the upwind side of the source. At short distances, the wind has minor influence on the measured sound level. For longer distances, the wind effect becomes appreciably greater. Temperature gradients create effects similar to those of wind gradients, except that they are uniform in all directions from the source. On a sunny day with no wind, temperature decreases with altitude, giving a shadow effect for sound. On a clear night, temperature may increase with altitude, focusing sound on the ground surface.

Shielding by Natural and Man-Made Features, Noise Barriers, Diffraction, and Reflection: A large object in the path between a noise source and a receiver can significantly attenuate noise levels at that receiver location. The amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features (e.g., hills and dense woods) and man-made features (e.g., buildings and walls) can significantly alter noise levels. For a noise barrier to work, it must be high enough and long enough to block the view from the receiver to a road or to the noise source. Effective noise barriers can reduce noise levels by up to 15 dB.

Noise Descriptors

Several rating scales (or noise "metrics") exist to analyze effects of noise on a community. These scales include the equivalent noise level (L_{eq}), the community noise equivalent level (CNEL), and the day-night average sound level (DNL or L_{dn}). Average noise levels over a period of minutes or hours are usually expressed as dBA L_{eq}, which is the equivalent noise level for that period of time. The period of time averaging may be specified; $L_{eq(3)}$ would be a three-hour average. When no period is specified, a one-hour average is assumed. It is important to understand that noise of short duration (i.e., substantially less than the averaging period) is averaged into ambient noise during the period of interest. Thus, a loud noise lasting many seconds or a few minutes may have minimal effect on the measured sound level averaged over a one-hour period.

To evaluate community noise impacts, L_{dn} was developed to account for human sensitivity to nighttime noise. L_{dn} represents the 24-hour average sound level with a penalty for noise occurring at night. The L_{dn} computation divides the 24-hour day into 2 periods: daytime (7:00 AM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM). The nighttime sound levels are assigned a 10-dBA penalty prior to averaging with daytime hourly sound levels. CNEL is similar to L_{dn} except that it separates a 24-hour day into 3 periods: daytime (7:00 AM to 7:00 PM), evening (7:00 PM to 10:00 PM), and nighttime (10:00 PM to 7:00 AM). The evening sound levels are assigned a 5-dBA penalty, and the nighttime sound levels are assigned a 10-dBA penalty prior to averaging with daytime hourly sound levels.

Several statistical descriptors are also often used to describe noise, including L_{max}, L_{min}, and L_x. L_{max} and L_{min} are respectively the highest and lowest A-weighted sound levels that occur during a noise event. L_x signifies the noise level that is exceeded "x" percent of the time; for example, L_{10} denotes the level that was exceeded 10 percent of the time.

Common Outdoor Activities	Common Indoor Activities	A - Weighted Sound Level dBA	Subjective Loudness	Effects of Noise
Threshold of Pain		140	Intolerable or Deafening	Hearing Loss
Near Jet Engine		130		
		120		
Jet Fly-Over at 1000 ft	Rock Band	110		
Loud Auto Horn		100	Very Noisy	
Gas Lawn Mower at 3 ft		90		
Diesel Truck at 50 ft, at 50 mph	Food Blender at 3 ft	80		Speech Interference
Noisy Urban Area, Daytime	Vacuum Cleaner at 10 ft	70	Loud	
Heavy Traffic at 300 ft	Normal Speech at 3 ft	60		
Quiet Urban Daytime	Large Business Office	50	Moderate	
Quiet Urban Nighttime	Theater, Large Conference Room (Background)	40		Sleep Disturbance
Quiet Suburban Nighttime	Library	30	Faint	No Effect
Quiet Rural Nighttime	Bedroom at Night, Concert Hall (Background)	20		
	Broadcast/Recording Studio	10	Very Faint	
Lowest Threshold of Human Hearing	Lowest Threshold of Human Hearing	0		

Source: Noise Technical Supplement by Caltrans

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Typical Noise Levels and Their Subjective Loudness and Effects

Exhibit 3.4-1

Aviation Station Project

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Vibration Terminology

Vibration is the periodic movement of mass over time. It is described in terms of frequency and amplitude, and unlike sound, there is no standard way of measuring and reporting amplitude. Vibration is described in units of velocity (in/sec), and discussed in dB units in order to compress the range of numbers required to describe vibration.

The frequency of a vibrating object describes how rapidly it is oscillating. The number of cycles per second of oscillation is the vibration frequency, which is described in terms of hertz (Hz). The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz.

Vibration Propagation

Vibrations spread out as they travel through the ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations diminish much more rapidly than low frequencies, so low frequencies tend to dominate at long distances from the source. Discontinuities among soil strata can also cause differences that affect the propagation of vibration over long distances. When vibration encounters a building, a ground-to-foundation coupling loss will usually reduce the overall vibration level. However, under certain circumstances, the ground-to-foundation coupling may also amplify the vibration level due to structural resonances of the floors and walls.

Vibration Descriptors

Vibration levels are usually expressed as single-number measure of vibration magnitude in terms of velocity or acceleration; these levels describe the severity of the vibration without the frequency. The peak particle velocity (ppv) is defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in in/sec. Since it is related to the stresses that are experienced by buildings, ppv is often used in monitoring blasting vibration and the vibration of heavy construction equipment. Vibration is also described in decibel units, written as VdB, to distinguish from noise level decibels.

Perception of Vibration

The primary concern from vibration is its ability to intrude and annoy local residents and other vibration-sensitive land uses. While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings caused by construction activities may be perceived as motion of building surfaces or rattling of windows, items on shelves, and pictures hanging on walls. Vibration of building components can also take the form of an audible low-frequency rumbling noise, which is referred to as groundborne noise.

The source of groundborne noise is typically from trains and similar transit vehicles and not from construction activities. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz), or when the structure and the construction activity are connected by foundations or utilities, such as sewer and water pipes. Groundborne vibration is almost never annoying to people who are outdoors.

Numerous studies have been conducted to characterize the human response to vibration and over the years, numerous vibration criteria and standards have been suggested by researchers, organizations, and governmental agencies. These studies suggest that the thresholds for perception and annoyance vary according to duration, frequency, and amplitude of vibration. Exhibit 3.4-2 illustrates common vibration sources and typical human and structural responses.

Sensitive Receptors

Noise-sensitive receptors are generally considered to be humans who are engaged in activities or who are utilizing land uses that may be subject to the stress of significant interference from noise. Activities usually associated with sensitive receptors include but are not limited to talking, reading, and sleeping. Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals and places where quiet is an essential element of the intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure to excessive, disturbing, or offensive interior or exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to increases in exterior noise levels. Schools, places of worship, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

Vibration-sensitive receptors are generally considered to be humans who are engaged in activities or who are utilizing land uses that may be subject to significant interference from vibration. Activities and land uses often associated with vibration-sensitive receptors are similar to those associated with noise-sensitive receptors. Construction vibration is generally associated with pile driving and rock blasting. Occasionally, large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. Vibration generated by construction activity has the potential to cause structural damage (i.e., cracking of floor slabs, foundations, columns, beams, or wells) or cosmetic/architectural damage (i.e., cracked plaster, stucco, or tile). Although it is possible for vibration from construction projects to cause building damage, the vibration from construction activities are almost never of sufficient amplitude to cause more than minor cosmetic damage to buildings.

Existing noise- and vibration-sensitive receptors near the Project site are the residential homes approximately 70 feet to the east across Judah Avenue, and a motel and residential homes approximately 70 feet south across West 117th Street.

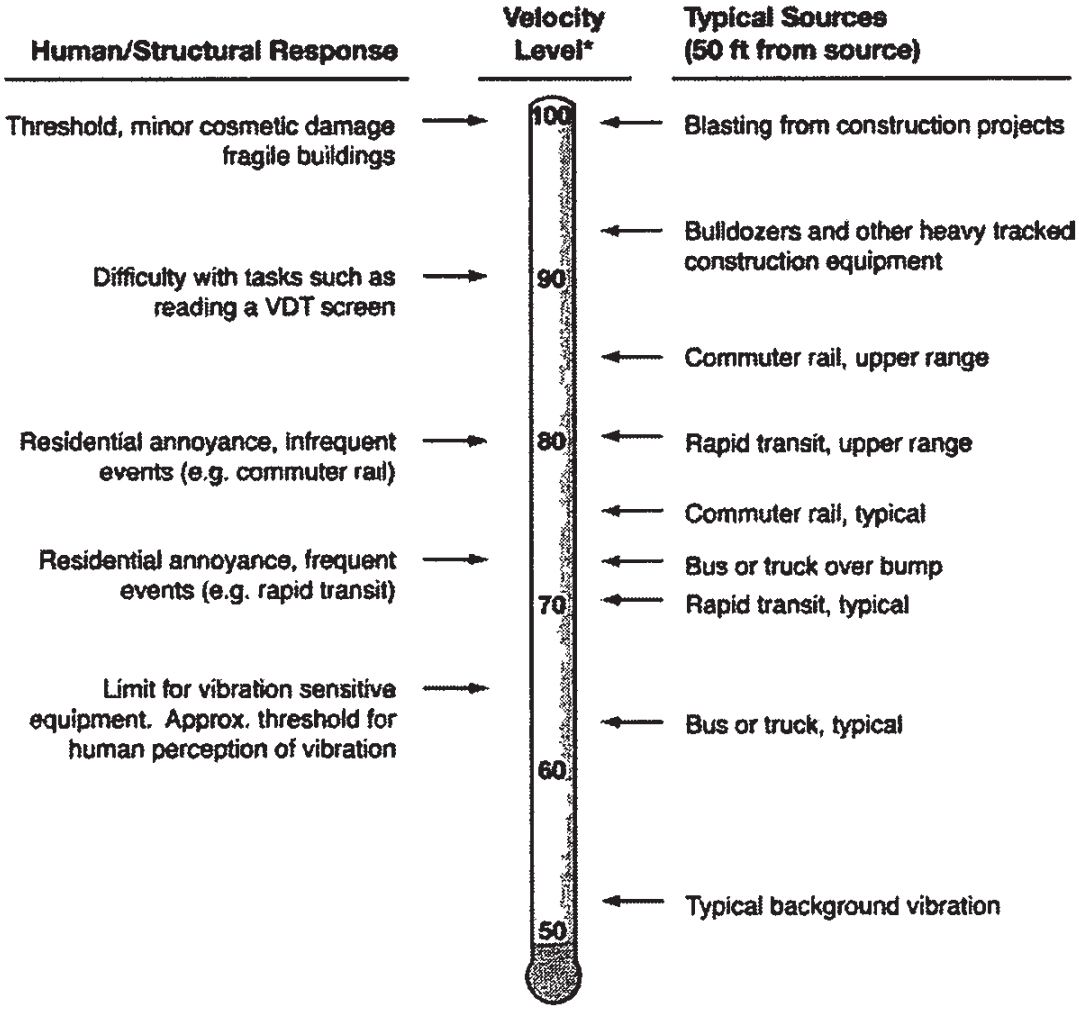
Existing Noise Environment

The existing noise environment in the Project area is influenced by traffic noise on Aviation Boulevard, Imperial Highway, bus and train activity at the Aviation Station and bus terminal, aircraft landing and take-off at the Los Angeles International Airport (LAX), and noise from the Northrop Grumman Integrated Systems complex west of the Project site.

The Los Angeles County Metropolitan Transportation Agency (Metro) Green Line Aviation/LAX Station and bus terminal is located adjacent to the site to the north; the southeastern corner of LAX is located approximately 1,000 feet northwest of the site; and the Northrop Grumman complex is approximately 400 feet west of the site on the western side of Aviation Boulevard. The bus terminal has a 9-foot-high wall extending from the southeastern corner of the terminal and ending approximately 250 feet east of Aviation Boulevard.

Ambient Noise Survey

BonTerra Consulting conducted an ambient noise survey on June 17 and 18, 2009, to document the existing noise environment at various locations in the study area, as defined in the Project traffic study (Appendix H of this EIR). These locations include the areas adjacent to the Project site and the uses adjacent to the roadways and intersections evaluated in the traffic study. Noise level measurements were taken using a Larson Davis Laboratories Model 831 integrating sound level meter (LD 831). The sound level meter and microphone was mounted on a tripod five feet above the ground and equipped with a windscreen during all measurements. The LD 831 was calibrated before and after use with a Larson Davis Model CAL200 acoustical calibrator to ensure



** RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

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Common Vibration Sources
and Typical Human and Structural Responses

Exhibit 3.4-2

Aviation Station Project

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measurement accuracy. The sound level meter was programmed in "slow" mode to record noise levels in "A"-weighted form. Meteorological conditions during the measurement periods were favorable and representative of the typical conditions, with clear skies, daytime temperatures approximately 70 degrees Fahrenheit (°F), and light to 5 mile per hour winds.

A total of 6 short-term and 1 long-term (24-hour) noise level measurements were collected. Each short-term measurement was taken for the duration needed to provide a representative average daytime noise level. Ambient noise survey locations are shown in Exhibit 3.4-3, and the L_{eq}, L_{max}, and L_{min} values taken at each short term ambient noise measurement location are summarized in Table 3.4-7.

TABLE 3.4-7
SUMMARY OF SHORT-TERM AMBIENT NOISE LEVELS IN THE PROJECT AREA

Location No.	Location, Date and Time Description	Noise Levels (dBA)			Primary Noise Source	Notes
		L_{eq}	L_{max}	L_{min}		
1	Adjacent to the existing motel on the southwestern corner of the site approximately 30 feet from the curb of Aviation Boulevard. Taken on June 17, 2009, 1:45-2:00 PM	69.7	80.1	51.8	Traffic on Aviation Boulevard and noise at the Northrop Grumman facility	Background noise at the Northrop Grumman facility of approximately 63 dBA. Peaks due to heavy vehicles on Aviation Boulevard.
2	In a residential area on the southeastern corner of the site approximately 20 feet from the curb of West 117th Street and Judah Avenue. Taken on June 17, 2009, 2:05-2:20 PM	60.4	78.6	50.1	Traffic on Aviation Boulevard and noise at the Northrop Grumman facility.	Noisy activities from Northrop Grumman could be heard, plus a helicopter fly-by and background traffic on Aviation Boulevard.
3	In a residential area in the northeastern corner on the site approximately 20 feet from the curb of West 116th Street and Judah Avenue. Taken on June 17, 2009, 2:25-2:41 PM	63.2	77.2	57.6	Buses and rail at the transit station, I-105 Freeway, and an aircraft landing.	Approximately 62 dBA background noise, increasing to approximately 68 to 70 dBA with Green Line trains. Peaks due to buses.
4	Located at the transit center approximately 50 feet south of the Green Line station and approximately 200 feet east of Aviation Boulevard. Taken on June 17, 2009, 2:45-2:58 PM	65.9	75.5	59.7	Traffic on the I-105 Freeway and Aviation Boulevard, buses at the transit station and Green Line trains.	Same as above.
5	In a residential area east of Judah Avenue approximately 300 feet from the Green Line station. Taken on June 17, 2009, 3:05-3:20 PM	61.7	75.3	56.5	Traffic on the I-105 Freeway and Aviation Boulevard, buses at the transit station and Green Line trains.	Background noise mostly from traffic on I-105 Freeway and buses. Peaks due to traffic on Judah Avenue.
6	Adjacent to the Anza Elementary School approximately 350 feet south of La Cienega Boulevard. Taken on June 17, 2009, 3:25-3:40 PM	63.4	75.7	50.3	Traffic on West 120th Street and La Cienega Boulevard.	Peaks due to traffic on West 120th Street.

dBA: A-weighted decibel; L_{eq} = Average noise level for the approximate 15-minute measurement period of time; L_{max} and L_{min} = the highest and lowest, respectively, A-weighted sound level that occur during that noise event.

Source: BonTerra Consulting 2010c (EIR Appendix D).

As shown in Table 3.4-7, average daytime noise levels in the Project study area ranged from 60.4 to 69.7 dBA L_{eq}. The major sources of noise in the study area are traffic on Aviation Boulevard, and bus and light-rail activity at the Metro's Aviation Station. The higher average noise levels were observed at the northern and western portions of the Project site due to traffic on Aviation Boulevard, activities at the Northrop Grumman Integrated Systems campus, and the bus and light-rail activity. Traffic on the Interstate (I) 105 Freeway and periodic aircraft take-off and landing could be sporadically heard as background noise; these are considered minor noise sources at the Project site, based on observations at the ground level and approximately 30 feet above ground level.

The Project site is partially within the Planning Boundary/Airport Influence Area for LAX, as depicted on Exhibit 3.4-5; however, the Project site is not located within the flightpath. Flights take off and land in a general east-west direction, and the Project site is south of LAX.

Location 1 is the southwestern corner of the site adjacent to the existing Aviation Motel, approximately 30 feet from the curb of Aviation Boulevard. The major source of noise was traffic on Aviation Boulevard and activities at the Northrop Grumman facility. The 15-minute L_{eq} is 69.7 dBA. The turbine testing background noise occurred during most of the noise measurements and was observed to be approximately 63 dBA; the peaks in noise occurred during heavy vehicles passing by on Aviation Boulevard. The minimum noise level of 51.8 dBA occurred when there were simultaneous lulls in both the Aviation Boulevard traffic and turbine testing.

Location 2 is the southeastern corner of the site, approximately 20 feet from the curb of West 117th Street and Judah Avenue in the residential area surrounding the Project site. The dominant source of noise is traffic on Aviation Boulevard and activities at the Northrop Grumman facility. The 15-minute L_{eq} is 60.4 dBA, and the peaks occurred when vehicles sporadically passed by on West 117th Street.

Location 3 is the northeastern corner of the site, approximately 20 feet from the curb of West 116th Street and Judah Avenue, and approximately 60 feet south of the Metro bus terminal. The dominant sources of noise were traffic on I-105, buses and light-rail activity, and sporadic aircraft landings at LAX. The 15-minute L_{eq} is 63.2 dBA, with peaks caused by bus and rail activity.

Location 4 is the transit center approximately 50 feet south of the Green Line station and approximately 200 feet east of Aviation Boulevard. The dominant sources of noise were traffic on I-105, buses and train activity, and sporadic aircraft landings at LAX. Traffic background from I-105, Aviation Boulevard, and Imperial Highway was approximately 58 dBA. The 12-minute L_{eq} is 65.9 dBA, with peaks caused by bus and rail activity. It was observed that the light-rail train electric engines and wheel squeaking generated up to 70 dBA during train arrivals and departures, but the buses generated the highest noise levels of up to 75.5 dBA.

Location 5 is the residential area east of Judah Avenue, approximately 300 feet south of the eastern end of the Green Line station. The dominant source of noise is traffic on the I-105, buses and train activity, and sporadic aircraft landings at LAX. The 15-minute L_{eq} is 61.7 dBA, and the peaks occurred by sporadic vehicles passing by on Judah Avenue, and bus and rail activity.

Location 6 is near a softball field and picnic area adjacent to West 120th Street at Anza Elementary School. The dominant source of noise is traffic on West 120th Street and background noise from La Cienega Boulevard and the I-405 Freeway. The 15-minute L_{eq} is 63.4 dBA, and the peaks occurred by sporadic vehicles passing by on West 120th Street.

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Noise Level Measurement Locations

Exhibit 3.4-3

Aviation Station Project

N W E S

300 150 0 300 Feet

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A 24-hour noise level measurement was taken at the northwestern corner of the site approximately 80 feet east of Aviation Boulevard and 300 feet from the Green Line Aviation Station. The noise meter was mounted on a tripod on the roof of the Wild Goose Restaurant/Bar approximately 30 feet from ground level. While traffic on I-105 and occasional aircraft takeoff and landing could be heard sporadically, the dominant source of noise at that location is traffic on Aviation Boulevard, buses, and the Green Line trains. The results of the 24-hour measurements at this location, summarized in Table 3.4-8, show that the hourly noise levels ranged from 57.9 to 69.2 dBA L_{eq}, and the 24-hour weighted average is 71.5 dBA CNEL. The highest hourly average noise of 69.2 dBA L_{eq} occurred at 7:00 AM and again at 4:00 PM, and the lowest hourly average noise of 57.9 dBA L_{eq} occurred at 2:00 AM.

The aircraft noise contribution to the existing noise level is approximately 65 dBA CNEL, as discussed further below. The short-term noise monitoring results are included in Appendix A and the 24-hour noise monitoring results are included in Appendix B of the Noise Report in EIR Appendix D.

TABLE 3.4-8
SUMMARY OF 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location No.	Location, Date and Time Description	Noise Levels (dBA)					Primary Noise Source	Notes
			Highest 1-hr L_{eq}		Lowest 1-hr L_{eq}			
		24-hr CNEL	L_{eq}	hour	L_{eq}	hour		
A	Located on the northeastern corner of the roof of the Wild Goose Restaurant. Taken for a period of 24 hours starting June 16, 2009, 1:00 PM	71.5	69.2	7AM/ 4PM	57.9	2AM	Traffic on Aviation Boulevard. and transit station	Peaks occurred during bus passbys and Green Line arrivals and departures.
Source: BonTerra Consulting 2010c (EIR Appendix D).								

3.4.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 3.4a: Is the project site located near a high noise source (airports, railroads, freeways, industry)?

Threshold 3.4b: Is the proposed use considered sensitive (school, hospital, senior citizen facility) or are there other sensitive uses in close proximity?

Threshold 3.4c: Could the project substantially increase ambient noise levels, including those associated with special equipment (such as amplified sound systems) or parking areas associated with the project?

Threshold 3.4d: Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels without the project?

3.4.4 PROJECT DESIGN FEATURES

No Project Design Features related to noise have been identified.

3.4.5 ENVIRONMENTAL IMPACTS

Threshold 3.4a: Is the project site located near a high noise source (airports, railroads, freeways, industry)?

Threshold 3.4b: Is the proposed use considered sensitive (school, hospital, senior citizen facility) or are there other sensitive uses in close proximity?

Threshold 3.4c: Could the project substantially increase ambient noise levels, including those associated with special equipment (such as amplified sound systems) or parking areas associated with the project?

Threshold 3.4d: Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels without the project?

On-Site Impacts

Construction-Related Noise

Construction equipment can operate in two modes: stationary and mobile. Stationary equipment operates in one location for one or more days at a time, with either a fixed-power operation (such as pumps, generators and compressors) or a variable noise operation (such as pile drivers, rock drills, and pavement breakers). Mobile equipment (such as bulldozers, graders, and loaders) moves around the construction site with power applied in cyclic fashion. Noise impacts from stationary equipment are assessed from the location of the specific equipment, while noise impacts from mobile construction equipment are assessed from the center of the equipment activity or construction site.

Variation in power imposes additional complexity in characterizing the noise source levels from construction equipment. Power variation is accounted for by describing the noise at a reference distance from equipment operating at full power and adjusting it based on the duty cycle of the activity to determine the L_{eq} of the operation. Typical duty cycles and associated noise levels generated by representative pieces of equipment are listed in Table 3.4-9.

TABLE 3.4-9
TYPICAL MAXIMUM CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Noise Level (dBA) at 50 ft	Typical Duty Cycle (%)
Auger Drill Rig	85	20
Backhoe	80	40
Blasting	94	1
Chain Saw	85	20
Clam Shovel	93	20
Compactor (ground)	80	20

TABLE 3.4-9 (Continued)
TYPICAL MAXIMUM CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Noise Level (dBA) at 50 ft	Typical Duty Cycle (%)
Compressor (air)	80	40
Concrete Mixer Truck	85	40
Concrete Pump	82	20
Concrete Saw	90	20
Crane (mobile or stationary)	85	20
Dozer	85	40
Dump Truck	84	40
Excavator	85	40
Front End Loader	80	40
Generator (25 KVA or less)	70	50
Generator (more than 25 KVA)	82	50
Grader	85	40
Hydra Break Ram	90	10
In situ Soil Sampling Rig	84	20
Jackhammer	85	20
Mounted Impact Hammer (hoe ram)	90	20
Paver	85	50
Pile Driver, Impact (diesel or pneumatic)	95	20
Pile Driver, Vibratory	95	20
Pneumatic Tools	85	50
Pumps	77	50
Rock Drill	85	20
Scraper	85	40
Tractor	84	40
Vacuum Excavator (vac-truck)	85	40
Vibratory Concrete Mixer	80	20

dBA: A-weighted decibel; ft = feet; KVA = kilovolt amps.
Source: BonTerra Consulting 2010c (EIR Appendix D).

Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some would have higher continuous noise levels than others, and some have high-impact noise levels. The L_{eq} of each phase is determined by combining the L_{eq} contributions from each piece of equipment used in that phase.

The approximately 18-month total construction period for the Project is anticipated to extend from mid-2011 through the end of 2012. The first construction phase would include the demolition of a portion of the existing Park-and-Ride Lot for the relocation of the Metro bus terminal and the reconfiguration of the remaining Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility parking lot. Within the approximate 18-month total construction period, this phase is anticipated to last approximately two months. Concurrent with these activities, all existing structures within Lot 1 (southerly lot), including the commercial buildings, associated surface parking, and single-family homes; would be demolished (demolition schedule is anticipated to require approximately two months and would overlap with construction of the Metro bus terminal).

Upon completion of the off-site Metro bus terminal and on-site demolition activities within Lots 1 and 2, the Project site would be excavated for the subterranean parking and building substructure, storm water infiltration system, Dominguez Channel RCB structure, and existing Metro bus terminal. In total, an estimated 62,800 cy of soil would be removed for these four major excavation activities. Of this, an estimated 61,000 cy would be exported off-site over the course of approximately 6 weeks, with the remaining approximately 1,800 cy used as backfill on the Project site. Once the Project site has been cleared and excavated, construction activities would begin. Construction would include trenching for utility improvements; construction of the subterranean parking structure; construction of street level commercial buildings and townhomes; construction of Buildings 1A, 2A, 1B, and 2B; driveways, and community areas; architectural coatings (i.e., painting and exterior finishes); and installation of hardscaping/landscaping.

Mobile Construction Equipment Noise

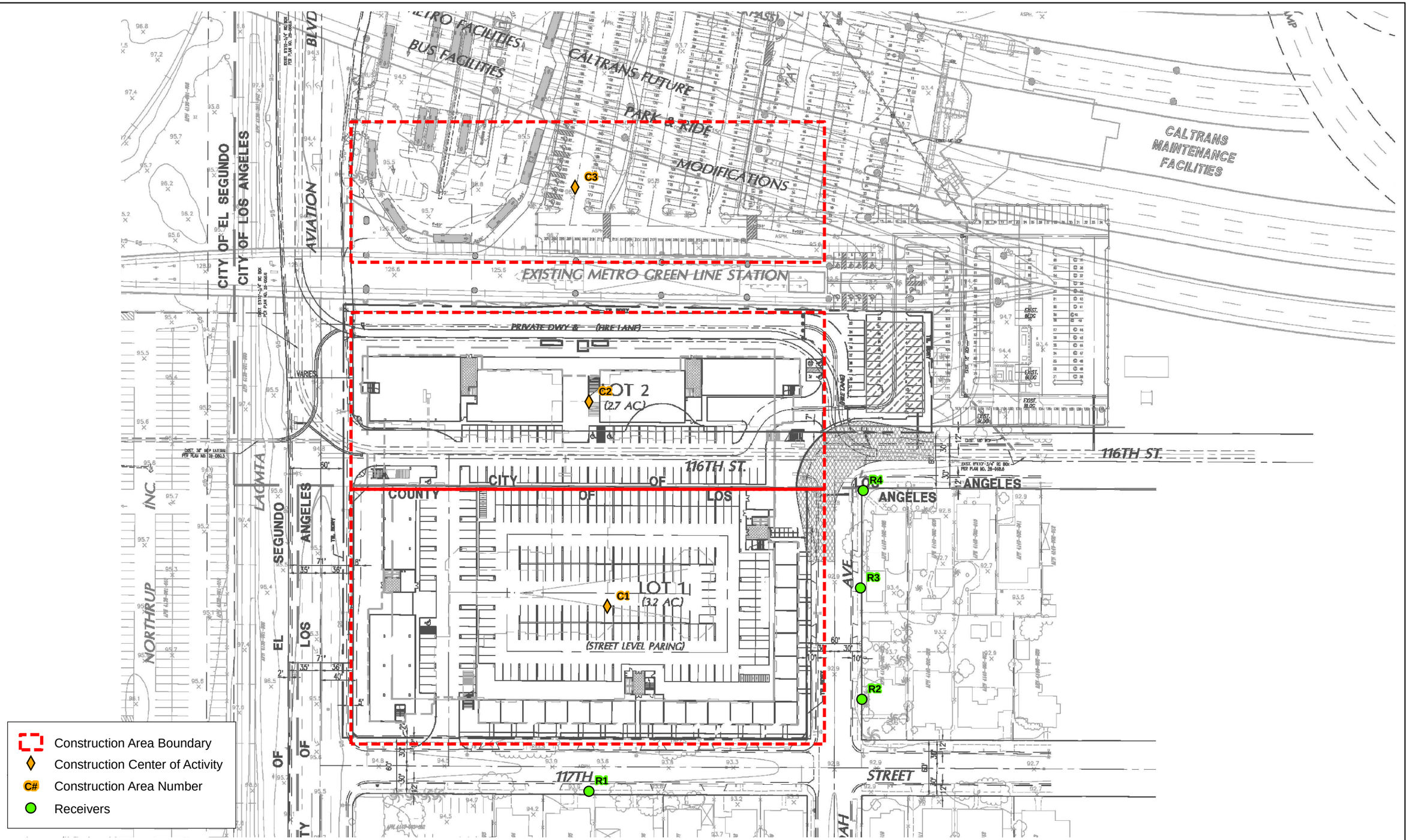
The County of Los Angeles noise standard for construction noise for sensitive residential areas is 75 dBA L_{max} for mobile equipment. During construction, nearby noise-sensitive receptors would be exposed to occasional high noise levels associated with the operation of heavy mobile equipment (including dozers, loaders/backhoes, and haul trucks) during the demolition and grading/excavation (earthmoving) phases. In typical construction projects where pile driving and rock blasting do not occur—such as the Project—demolition and grading activities generate the highest noise levels since these phases involve the largest equipment. The nearest off-site noise-sensitive receptors are the residences east of the site across Judah Avenue and south of the site across West 117th Street and West 116th Street. The front yards of these residences are located approximately 50 feet from the Project site boundary.

The construction noise levels were modeled utilizing the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (RCNM), which is the FHWA's national model for the predicting construction noise. The RCNM utilizes the same noise data presented in Table 3.4-9 above. During grading, mobile construction noise was modeled with the operation of two loader/backhoes and two dozers operating simultaneously. The average construction noise levels were calculated assuming that all construction equipment is located at ground level in the center of activity at Lot 1 (C1), Lot 2 (C2), and the new bus terminal (C3).[2] This provides a conservative scenario for the majority of construction activities because with the exception of initial earthmoving activities, the grading equipment would often operate below ground level when grading and excavating for the construction of the subterranean parking levels and the excavation walls would provide noise attenuation.

Construction noise was calculated at 4 receptors (R1, R2, R3, R4), ranging from 200 to 690 feet from the center of each construction activity at each phase. Exhibit 3.4-4 shows the center of activity and receptor locations used for this analysis.

The unmitigated average noise levels during demolition at areas at the nearest noise-sensitive uses were calculated. Table 3.4-10 shows that when demolition occurs at Lot 1, construction noise would average from 63.5 to 68.2 dBA L_{eq}; when demolition occurs at Lot 2, construction noise would average from 60.9 to 63.8 dBA L_{eq}; and when demolition occurs at the new bus terminal area, construction noise would average from 57.4 to 60.9 dBA L_{eq}.

[2] The center of the site is used for the analysis because it provides the "average" location of mobile construction equipment over the course of construction activities.



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Construction Noise Center Of Activity And Receptor Locations

Exhibit 3.4-4

Aviation Station Project

N W E S

100 50 0 100 Feet

BonTerra CONSULTING

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TABLE 3.4-10
UNMITIGATED AVERAGE CONSTRUCTION NOISE LEVELS DURING DEMOLITION

Center of Construction Activity	Noise Levels at Receivers (dBA L_{eq})			
	R1	R2	R3	R4
Lot 1 (C1)	68.2	63.8	64.1	63.5
Lot 2 (C2)	61.1	60.9	62.6	63.8
New bus terminal (C3)	57.4	57.8	59.2	60.9

Note: Implementation of MM 3.4-1 (constructing a sound barrier on the south and east Project site borders) would reduce these noise levels by approximately 8 to 9 dBA.

Source: BonTerra Consulting 2010c (EIR Appendix D).

The unmitigated average noise levels during grading at the nearest noise-sensitive uses were calculated assuming that grading would always occur at the street level. Table 3.4-11 shows that when grading occurs at Lot 1, construction noise would average from 65.7 to 70.4 dBA L_{eq}; when grading occurs at Lot 2, construction noise would average from 63.1 to 66.0 dBA L_{eq}.

TABLE 3.4-11
UNMITIGATED AVERAGE CONSTRUCTION NOISE LEVELS DURING GRADING

Center of Construction Activity	Noise Levels at Receivers (dBA L_{eq})			
	R1	R2	R3	R4
Lot 1 (C1)	70.4	66.0	66.3	65.7
Lot 2 (C2)	63.3	63.1	64.8	66.0

Note: Implementation of MM 3.4-1 (constructing a sound barrier on the south and east Project site borders) would reduce these noise levels by approximately 8 to 9 dBA.

Source: BonTerra Consulting 2010c (EIR Appendix D).

Therefore, during demolition and grading activities, average construction noise levels at the receivers would not exceed 71 dBA L_{eq}. The construction noise would be heard, but would not be excessive or offensive.

Heavy-duty equipment would intermittently pass near the Project boundaries. It is calculated that when a large piece of equipment is operating under maximum load at the boundary of the Project site, maximum noise levels could reach approximately 82 dBA at the nearest residences, which are approximately 70 feet to the east across Judah Avenue, and 70 feet south across West 117th Street. These noise levels would exceed the County Noise Ordinance Standard of 75 dBA L_{max}, and would be a significant impact. To meet the County's noise standards for mobile construction equipment, Mitigation Measure (MM) 3.4-1, which requires the installation of a temporary noise barrier/curtain on the southern and eastern boundaries of the Project site during construction, shall be incorporated into the Project. With the recommended noise barrier or curtain, mobile construction equipment maximum noise levels at the closest homes would be approximately 73 dBA, a reduction of approximately 9 decibels, which would reduce the impact to a less than significant level.

Stationary Construction Equipment Noise

The County of Los Angeles noise standard for construction noise for sensitive residential areas is 60 dBA L_{max} for stationary equipment that would operate for 10 consecutive working days or more. Stationary equipment operated for less than 10 days has a maximum noise standard of 75 dBA L_{max}, as previously discussed. Primary noise sources associated with building construction would include mostly stationary noise sources such as air compressors, generators, and tower cranes. According to the RCNM, the maximum noise levels from operation of this type of equipment at 50 feet are 82.0 dBA L_{max}. By applying 6-dBA attenuation with each doubling of distance from source to receptor, stationary equipment operation in unmitigated conditions has the potential to exceed the 60 dBA L_{max} standard when operated within 630 feet from an occupied home.

To meet the County of Los Angeles 60-dBA L_{max} standard for stationary equipment and considering the attenuation of the 10-foot-high temporary noise barrier to be located on the site's southern and eastern boundary as specified in MM 3.4-1, the operations of stationary equipment (such as air compressors, generators, and tower cranes) must not occur within 250 feet of any occupied home, as required by MM 3.4-2. If this distance is not feasible, MM 3.4-2 requires noise-reduction measures (e.g. silencers, shrouds, or other devices) to limit the equipment noise at the nearest residences to 60 dBA L_{max} or the ambient noise level without the equipment operating, whichever is higher. Noise measurements would be required prior to operation of stationary equipment to determine the ambient noise level without the equipment operating, and again during operation of the stationary equipment to illustrate compliance with the maximum noise threshold. MM 3.4-2 would also require that documentation of compliance be provided to the County of Los Angeles Department of Regional Planning for each day that the equipment cannot be kept at a minimum of 250 feet from any occupied home. With implementation of MM 3.4-2, the County standard would not be exceeded and the impact would be less than significant. The construction noise impact calculations are included in Appendix C of the Noise Report in Appendix D of this EIR.

Construction Traffic Noise

In addition to construction noise from the Project site, the construction of the Project would cause increased traffic noise along access routes to the site due to haul trucks moving to and from the site. It is expected that in order to export an estimated 61,000 cubic yards of soil from the Project site and Caltrans Off-Site Project Area, approximately 3,050 truck trips would be required. Assuming the use of 20-cubic-yard trucks, this equates to approximately 85 truck trips (round trip) per day, based on a six-day per week construction schedule (i.e., no construction activity on Sundays in compliance with the County noise ordinance). MM 3.4-3 requires all construction trucks and vehicles accessing the Project site to use the nearby designated truck routes (i.e., Aviation Boulevard and West Imperial Highway/Interstate 105), where feasible, and no construction traffic or queuing shall be allowed on the residential portion of West 117th Street, Judah Avenue, or any other residential streets within the Del Aire community.

With MM 3.4-3, construction truck traffic would not result in a substantial increase in traffic noise to sensitive receptors along roadways in the vicinity of the Project. During the Building Phase of construction activity, which is the most worker-intensive phase, and based on the construction of approximately 380,000 sf of building area (including the commercial and residential units), approximately 122 one-way worker trips per day would be required. According to the existing traffic data for the AM peak hour, as shown on Exhibit 5.1-3 in Section 5.1, Traffic/Access, traffic volumes on Aviation Boulevard south of the intersection with West 116th Street are approximately 2,000 during the peak hour. Assuming a typical peak-traffic to daily-traffic factor of 10, existing volumes on the segment of Aviation Boulevard is estimated to be approximately

20,000 daily trips. A doubling of traffic volume is required to produce a barely perceptible (i.e. 3 dBA) noise increase. In this case, the estimated volume of daily worker trips from the Project would cause an increase of less than 1 percent over the existing traffic volumes on Aviation Boulevard. Therefore worker commute trips would not result in a significant noise increase and no mitigation would be required.

Summary of Construction Noise

In summary, construction activities would be heard above the existing noise levels and may create temporary annoyance; however, with the recommended mitigation measures, the noise impacts during construction would remain below the County's noise standards. Noise levels would be less at locations farther away than those identified adjacent to the Project boundary across West 117th Street, West 116th Street, and Judah Avenue. In accordance with MM 3.4-4, no construction would occur between the hours of 7:00 PM and 7:00 AM on weekdays or at any time on Sunday or a federal holiday. With implementation of MMs 3.4-1 through 3.4-4, construction noise impacts would be less than significant.

Operational (Long-Term) Noise

Project implementation and operation would create Project-related traffic noise to off-site receptors and stationary noise to on-site and off-site receptors. These stationary sources would include the typical noise sources associated with commercial land uses, such as vehicles arriving and leaving the parking lots, truck deliveries, and air conditioning units.

Project-Related Traffic

One of the principal sources of Project-related noise to the study area would be Project-related traffic on local roadways. The long-term Project-related noise analysis is based on traffic projections contained in the Project traffic report (LLG 2009). Roadway segments of interest are those adjacent to noise-sensitive land uses, including:

- West 120th Street from Aviation Boulevard to La Cienega Boulevard;
- Aviation Boulevard from West 117th Street to West 120th Street;
- La Cienega Boulevard north of West 120th Street; and
- La Cienega Boulevard south of West 120th Street.

Traffic noise contour boundaries are often utilized by local land planning and zoning authorities (i.e. cities and counties) to evaluate sound level exposures on land that is being considered for development that is adjacent to highways. The noise contours do not take into account the effect of any existing noise barriers that may affect ambient noise levels, and contours for local streets do not take into account the noise contribution from traffic on I-105, aircraft, or the transit facilities. Noise contour boundaries are utilized in this analysis to assess the off-site noise level impacts associated with development of the Project. Noise contours were developed for the following three traffic scenarios:

- ***Existing:*** This scenario refers to noise conditions for existing traffic volumes without construction of the Project.

- ***Opening Year (2014) Without/With Project:*** These scenarios refer to the background noise conditions in 2014 without and with the Project, respectively. This corresponds to the completion and occupation of the Project in year 2014.

The noise level contours were estimated using the FHWA Highway Traffic Noise Prediction Model (RD-77-108). The FHWA model determines a predicted noise level through a series of adjustments to a reference sound level. These adjustments account for traffic flows, speed, truck mix, varying distances from the roadway, length of exposed roadway, and noise shielding. Vehicle speeds on each roadway were assumed to be the posted speed limit, and no reduction in speed was assigned due to congested traffic flows. Current roadway characteristics, such as the number of lanes and posted speed limits, were determined from field observations and descriptions of roadways in the Project traffic report (LLG 2009). Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. Based on a site visit and a comparison of the existing noise level measurements with the calculated noise contours for existing conditions, hard site conditions are more appropriate to develop noise level contours in this area.

The distances to the 70, 65, and 60 CNEL contours for selected roadway segments in the vicinity of Project for Existing, 2014 Without Project, and 2014 With Project scenarios are identified in Tables 3.4-12, 3.4-13 and 3.4-14, respectively. The FHWA RD-77-108 noise prediction model calculations are included in the technical appendix of the Noise Report (Appendix D).

TABLE 3.4-12
NOISE CONTOURS FOR EXISTING CONDITIONS

Roadway	Segment	Peak Hour Volume	Noise Level at 50 feet (dBA CNEL)	Distance to Noise Contour (feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
West 120th Street	Aviation Boulevard to La Cienega Boulevard	1,023	69.5	44	140	442
Aviation Boullevard	West 117th Street to West 120th Street	2,046	72.5	88	279	884
La Cienega Boulevard	North of West 120th Street	1,776	71.9	77	243	767
La Cienega Boulevard	West 120th Street to 405 Southbound ramps	1,324	70.6	57	181	572
Source: BonTerra Consulting 2010c (EIR Appendix D).						

TABLE 3.4-13
NOISE CONTOURS FOR 2014 WITHOUT PROJECT CONDITIONS

Roadway	Segment	Peak Hour Volume	Noise Level at 50 feet (dBA CNEL)	Distance to Noise Contour (feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
West 120th Street	Aviation Boulevard to La Cienega Boulevard	1,059	69.6	46	145	457
Aviation Boulevard	West 117th Street to West 120th Street	2,156	72.7	93	294	931
La Cienega Boulevard	North of West 120th Street	1,869	72.1	81	255	807
La Cienega Boulevard	West 120th Street to 405 Southbound ramps	1,405	70.8	61	192	607
Source: BonTerra Consulting 2010c (EIR Appendix D).						

TABLE 3.4-14
NOISE CONTOURS FOR 2014 WITH PROJECT CONDITIONS

Roadway	Segment	Peak Hour Volume	Noise Level at 50 feet (dBA CNEL)	Distance to Noise Contour (feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
West 120th Street	Aviation Boulevard to La Cienega Boulevard	1,063	69.6	46	145	459
Aviation Boulevard	West 117th Street to West 120th Street	2,121	72.6	92	290	916
La Cienega Boulevard	North of West 120th Street	1,869	72.1	81	255	807
La Cienega Boulevard	West 120th Street to 405 Southbound ramps	1,405	70.8	61	192	607
Source: BonTerra Consulting 2010c (EIR Appendix D).						

Table 3.4-15 presents a comparison of the 2014 Without and With Project noise levels shown in Tables 3.4-13 and 3.4-14 above. As shown, the Project would not increase the noise levels along the study area roadway segments.

TABLE 3.4-15
2014 PROJECT OFF-SITE CONTRIBUTIONS

Roadway	Segment	CNEL at 50 feet (dBA)			
		No Project	With Project	Project Contribution	Significant Impact?
West 120th Street	Aviation Boulevard to La Cienega Boulevard	69.6	69.6	0.0	no
Aviation Boulevard	West 117th Street to West 120th Street	72.7	72.6	-0.1	no
La Cienega Boulevard	North of West 120th Street	72.1	72.1	0.0	no
La Cienega Boulevard	West 120th Street to 405 Southbound ramps	70.8	70.8	0.0	no
Source: BonTerra Consulting 2010c (EIR Appendix D).					

Under CEQA, consideration must be given to the magnitude of the increase and the existence of noise-sensitive receptors in order to determine if the noise increase is a significant adverse environmental effect. Since CEQA does not define the magnitude of a significant increase, other applicable sources must be referenced. In general, a noise level increase of 3 dBA is considered barely perceptible, while an increase of 5 dBA is considered clearly noticeable. Table 3.4-15 shows that due to a net reduction on traffic volumes on Aviation Boulevard between West 117th Street to West 120th Street, the Project would result in a 0.1 dBA CNEL reduction of noise levels along that segment. This noise level reduction is a reflection of the net reduction in peak hour traffic volumes on this segment of Aviation Boulevard due to the changes in traffic patterns resulting from the relocation of the Metro Green Line Station bus terminal, as discussed further in Section 5.1, Traffic/Access, of this EIR. Project-related traffic noise would not create significant impacts to nearby schools, including the Anza Elementary School and the Lennox Preschool. The implementation of the Project would not increase traffic noise levels to off-site receivers adjacent to roadway segments; therefore, impacts would be less than significant.

Project-Related Stationary Noise

The Project would include commercial, restaurant, and/or office uses that would be located in the first floor of the buildings facing the Green Line Aviation Station to the north and Aviation Boulevard to the west. An underground parking lot is also planned to provide parking for the residential units. Potential noise impacts from these uses are the air conditioning units from the buildings, car maneuvers in the parking lots, and truck deliveries.

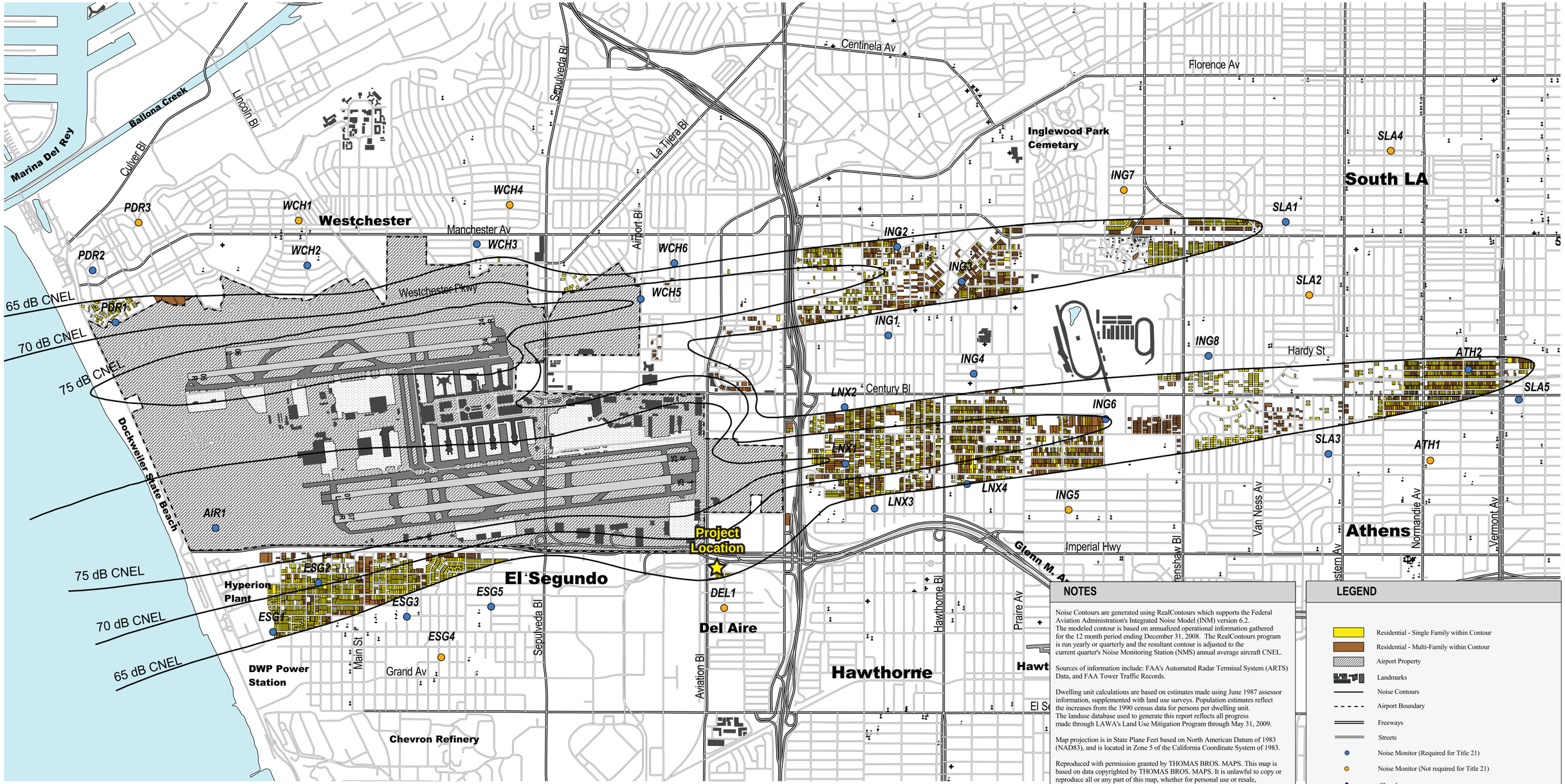
According to the Traffic Study (LLG 2009), the primary site access would be to and from Aviation Boulevard, approximately 300 feet north of West 117th Street. An estimated 90 percent of the Project traffic would use this driveway (refer to Exhibit 5.1-7). The secondary southern access to West 117th Street would be located approximately 60 feet from the corner of Aviation Boulevard, accommodating 10 percent of the highest traffic peak hour Project trips (i.e., approximately 30 based on Table 5.1-3 in Section 5.1, Traffic/Access), which is approximately 1 car every 2 minutes. The underground parking lot ramp would face west towards Aviation Boulevard. Due to the proximity to Aviation Boulevard, low traffic volumes on West 117th Street and the location of the parking lot ramp on the western portion of the site facing Aviation Boulevard, car maneuvers would not create significant noise impacts to the nearest homes.

A loading dock would be located on the eastern portion of Lot 2, approximately 200 feet from the nearest home on the corner of Judah Avenue and West 116th Street. Noise generated by diesel engines, braking, and backup alarms during low speed maneuvering are treated as a single event from a point source.

Delivery trucks would enter and exit the Project site from the Aviation Boulevard driveway. A back-up bay would be constructed to allow the unloading of deliveries to the commercial land uses on the southeastern side of Building 2B. Truck backup alarms have the potential to generate high noise levels for short periods of time (seconds intermittently) during truck maneuvers. At 100 feet away, standard fixed level backup alarms generate approximately 56 dBA. While backup alarm noise would have the potential to be heard by nearby receptors, these events would be sporadic and very short in duration, lasting generally a minute or two per day, and would not be excessive or interfere with speech and daily activities. Noise generated from truck engine noise during truck maneuvering and idling during the daytime hours would be overshadowed by daytime Green Line light rail noise and traffic noise from the I-105 Freeway, and would therefore be lower than the daytime ambient noise. As such, truck deliveries during the daytime would not create significant noise impacts and no mitigation is required.

Because ambient noise during the nighttime hours is lower, and people's sensitivity to noise is higher, truck deliveries at night could result in noise increases over ambient levels, resulting in the potential to cause sleep disturbance and annoyance; these are potential significant impacts. To minimize the noise impacts from truck deliveries, MM 3.4-5 would prohibit the unloading of trucks during the nighttime hours (10:00 PM to 7:00 AM) and would specify the on-site truck delivery route described above. With implementation of MM 3.4-5, the noise impact from delivery trucks would be less than significant.

Stationary equipment specifications and precise locations of the equipment are not currently known. In accordance with MM 3.4-6, residential air conditioning units would be required to be designed and installed to comply with Section 12.08.530 of the Noise Ordinance; commercial air conditioning units and other stationary sources, such as pumps, would be required to be designed and installed to comply with Section 12.08.390 of the Noise Ordinance. These sections of the Noise Ordinance limit noise levels at the property boundaries and at residential units. Compliance may be achieved by several methods, including selecting quiet models,



NOTES

Noise Contours are generated using RealContours which supports the Federal Aviation Administration's Integrated Noise Model (INM) version 6.2.
The modeled contour is based on annualized operational information gathered for the 12 month period ending December 31, 2008. The RealContours program is run yearly or quarterly and the resultant contour is adjusted to the current quarter's Noise Monitoring Station (NMS) annual average aircraft CNEL.

Sources of information include: FAA's Automated Radar Terminal System (ARTS) Data, and FAA Tower Traffic Records.

Dwelling unit calculations are based on estimates made using June 1987 assessor information, supplemented with land use surveys. Population estimates reflect the increases from the 1990 census data for persons per dwelling unit.
The landuse database used to generate this report reflects all progress made through LAWA's Land Use Mitigation Program through May 31, 2009.

Map projection is in State Plane Feet based on North American Datum of 1983 (NAD83), and is located in Zone 5 of the California Coordinate System of 1983.

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LEGEND

- Residential - Single Family within Contour
- Residential - Multi-Family within Contour
- Airport Property
- Landmarks
- Noise Contours
- Airport Boundary
- Freeways
- Streets
- Noise Monitor (Required for Title 21)
- Noise Monitor (Not required for Title 21)
- Churches
- Hospitals
- Schools

Source: Los Angeles World Airports, 1Q09

LAX Noise Contours

Exhibit 3.4-5

Aviation Station Project

BonTerra CONSULTING

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constructing barriers or parapet walls, enclosing equipment, and placing the equipment in strategic places. Therefore, with the implementation of the identified MM 3.4-6, noise impacts from on-site noise sources would be less than significant.

Aircraft Noise

Aircraft noise is presented graphically as contour lines of equal noise exposure. Noise contours are overlaid on maps of the land uses surrounding the airport to determine the area and land uses affected by noise. Exhibit 3.4-5 shows the LAX Airport Influence Area and illustrates that a portion of the Project site is located within the 65 dBA CNEL airport noise contour, based on the most recent, publicly available, quarterly noise contour map (first quarter 2009) prepared by Los Angeles World Airports (LAWA).

With respect to the State Airport Noise Standards (i.e., Title 21 of the *California Code of Regulations*), the residential uses would be incompatible with the aircraft noise environment unless the residence is a high-rise apartment or condominium having an interior CNEL of 45 dBA or less in all habitable rooms.[3] Also, with respect to the Los Angeles County ALUC noise and land use compatibility guidelines for residential land uses, a noise exposure from 60 to 70 dBA CNEL falls under the "caution" category. Under this category, a review of the noise insulation needs is required.

The interior noise exposure is the difference between the projected exterior noise exposure at the building facade and the noise reduction of the structure. Standard new building construction generally provides a 25 to 30 dBA noise reduction with windows closed. All units must be provided with upgraded construction features to achieve a noise reduction of 30 dBA. As stated in MM 3.4-7, the required interior noise reduction would be achieved by including the following in the building design of all dwelling units:

- Upgraded dual-glazed windows;
- Mechanical ventilation/air conditioning to allow a "windows closed" condition;
- Exterior wall/roof assemblies free of cut-outs or openings; and
- Ceiling insulation in the top floor of each building to reduce aircraft noise by at least 20 dBA.

MM 3.4-7 requires verification of these requirements based upon a detailed acoustical analysis study, which would be submitted to and approved by the County of Los Angeles Department of Public Health prior to obtaining building permits. The final noise study would evaluate the effects of the precise building placement and design materials used for construction.

Compliance with MM 3.4-7 requires that architectural design has noise reduction measures in place such that the interior noise level is 45 dBA CNEL or less. This standard must be achieved with the windows closed in conjunction with a fresh air mechanical ventilation or air conditioning system. Therefore, the Project would comply with State interior noise standards (Title 21 and Title 24, discussed further below) and would also be consistent with ALUP Policy N-2. The Project is also consistent with ALUP policies N-1, N-3, and N-4 because the CNEL metric and ALUP land use compatibility table have been used for impact analysis (N-1 and N-3), and MM 3.4-8 requires the Project Applicant/Developer to disclose to potential buyers of the residential units that the property is in the LAX noise influence area (N-4). With respect to compliance with the Airport Noise Standards and State Codes modified by AB 2776, as

[3] High-rise buildings are typically defined as buildings tall enough to require an elevator rather than being able to rely solely on the use of stairs.

discussed above, MM 3.4-8 requires that potential buyers are provided notice that the property is in the LAX noise influence area. Thus, the Project would comply with the applicable regulation for interior noise standards and the Project impact would be less than significant.

Total Noise

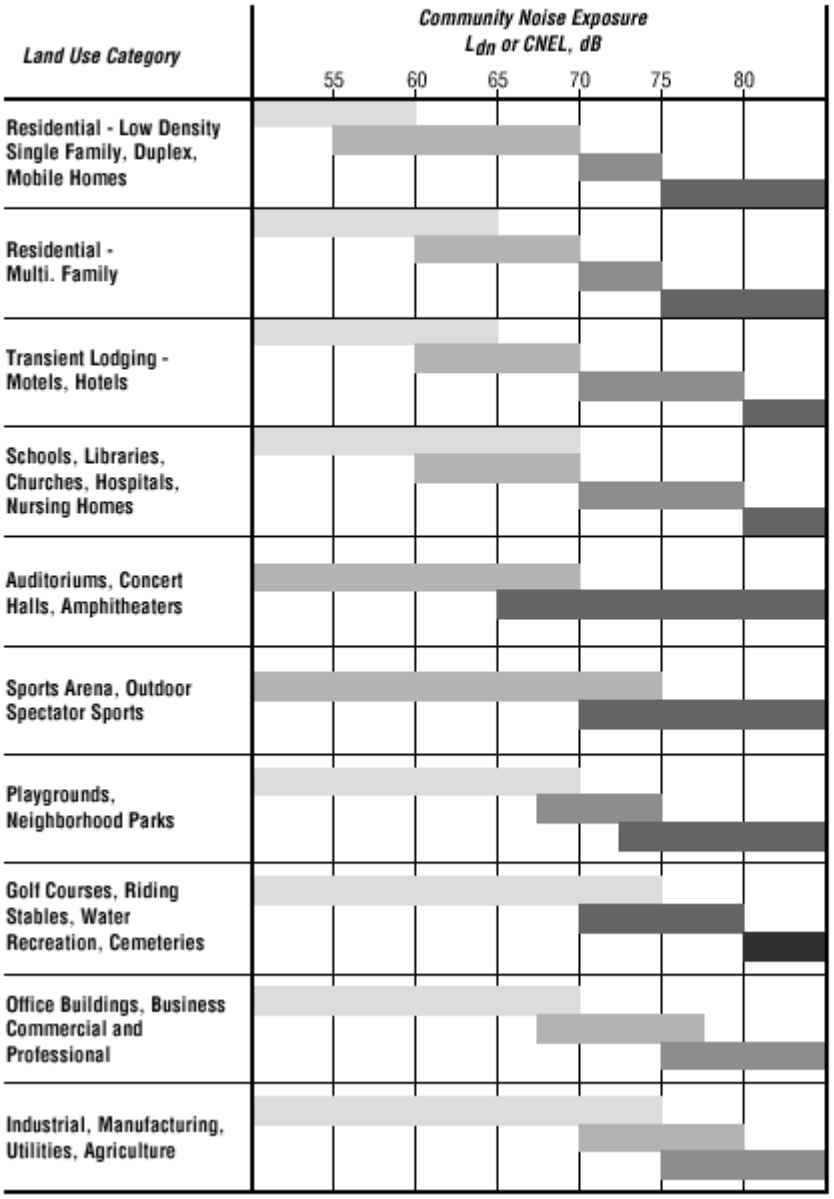
Aircraft noise is one component of the total noise environment. As described above, the dominant noise sources at the Project site are vehicles on Aviation Boulevard and I-105. Additional noise sources include the Metro Green Line Station. The County does not have a noise to land use compatibility standard. Therefore, the Noise Report uses the California Office of Planning and Research's (OPR's) noise compatibility matrix, shown in Exhibit 3.4-6. For multi-family homes, an exterior ambient noise level ranging from 60 to 70 dBA CNEL is considered "conditionally acceptable", and an exterior ambient noise level ranging from 70 to 75 dBA CNEL is considered "generally unacceptable".

According to OPR's noise compatibility matrix for office buildings, businesses and commercial uses, an exterior ambient noise level ranging from 67 to 77 dBA CNEL is considered "conditionally acceptable". Under conditionally acceptable conditions, "new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning would normally suffice, and the outdoor environment would seem noisy". Under "generally unacceptable" conditions, "new construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed insulation features included in the design. Outdoor areas must be shielded".

As described above, the 24-hour ambient noise level measurements show that the existing noise level at the Project site is 71.5 dBA CNEL. To evaluate the future noise impacts to the Project site, the noise impacts were modeled for existing and future long range (2030) conditions. The traffic noise impacts were modeled using the FHWA's Traffic Noise Model (TNM) version 2.5. Traffic peak hour volume inputs were provided by the traffic report (LLG 2009) and Caltrans's traffic data branch website. The traffic noise model was calibrated by comparing the modeled noise levels for existing conditions with the noise measurements taken in June 2009. The modeled results range from 1.0 to 2.3 dBA higher due to the fact that the noise measurements were taken during off-peak traffic hours. The TNM results are included in the technical appendix of the Noise Report (EIR Appendix D).

The noise impacts from the Metro Green Line Aviation/LAX Station were modeled based on the FTA's Transit Noise and Vibration Impact Assessment methodology. Train activity data was obtained from the Metro Green Line Timetables assuming an average train speed of ten miles per hour. The modeled rail activity noise resulted in 72.0 dBA CNEL at 50 feet from the centerline of the tracks. The Green Line noise impact calculations are included in Appendix F of the Noise Report (Appendix D). Aircraft noise levels were obtained from the most recent, publicly available quarterly noise contour map (1Q 2009) prepared by Los Angeles World Airports and, as noted above, the noise contour level is 65 dBA CNEL in the Project area.

Finally, the Burlington North Santa Fe (BNSF) Railroad maintains a single railroad track for transporting freight that runs parallel to Aviation Boulevard, approximately 110 feet west of the Project site. It appears, however, that with the completion of the Alameda Corridor most train activity has been diverted from this area. Based on aerial photography and site visits, this spur line is currently being used to stage rail cars from West 111th Street to El Segundo Boulevard.



INTERPRETATION:

Normally Acceptable
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable
New construction or development should generally not be undertaken.

Source: OPR 2003

Noise and Land Use Compatibility Table

Exhibit 3.4-6

Aviation Station Project

BonTerra CONSULTING

(Rev 09/25/09 CJS) Projects/Cox/J002/Grphics/EIR/Ex3.4-6_noise_LU_matrix.pdf

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There was no rail activity during the site visits and the noise measurements did not measure levels that are typical of freight train activity. Therefore, freight train noise impacts are not being considered to the overall ambient noise.

When traffic, light rail, and aircraft noise are combined, the future ambient noise levels at the facades of the proposed Lot 1 dwelling units would range from 68.0 to 72.0 dBA CNEL, and from 72.0 to 74.3 dBA CNEL at the facades of the proposed Lot 2 dwelling units, as summarized in Table 3.4-16.

TABLE 3.4-16
MODELED FUTURE TOTAL NOISE LEVELS (DBA CNEL)

Lot	Dwelling Unit Location (Building Corner)	Building Floor	Traffic Impacts[a]	Aircraft Impacts[b]	Rail Impacts[c]	Total (Combined Noise)
1	Northwest	1	70.3	65.0	63.0	72.0
		2	70.0	65.0	63.0	71.8
		3	69.7	65.0	63.0	71.6
		4	69.6	65.0	63.0	71.5
		5	69.2	65.0	63.0	71.3
	Northeast	1	61.3	65.0	63.0	68.1
		2	60.7	65.0	63.0	68.0
		3	60.7	65.0	63.0	68.0
		4	60.7	65.0	63.0	68.0
		5	60.9	65.0	63.0	68.1
2	Northwest	1	71.5	65.0	69.9	74.3
		2	71.2	65.0	69.9	74.2
		3	70.9	65.0	69.9	74.0
		4	70.7	65.0	69.9	73.9
		5	70.4	65.0	69.9	73.8
	Northeast	1	65.0	65.0	69.9	72.1
		2	63.4	65.0	69.9	72.0
		3	64.5	65.0	69.9	72.0
		4	64.5	65.0	69.9	72.0
		5	64.6	65.0	69.9	72.0

[a] From TNM
[b] Airport Noise Contours
[c] FTA Methodology

Source: BonTerra Consulting 2010c (EIR Appendix D).

Residential Interior Noise

To meet the required 45 dBA CNEL interior noise standard of the *California Building Code* (Title 24), all residential units would require upgraded insulation features in the design. As discussed above, compliance with MM 3.4-7 requires the architectural design to have noise reduction such that the interior noise levels are 45 dBA CNEL or less. Therefore, the Project would comply with State interior noise standards (Title 21 and Title 24) and impacts related to residential interior noise would be less than significant.

Common Exterior Area Noise

Upon Project completion, the proposed exterior use areas (i.e., pool, tot-lot play area, barbeques) would be surrounded by the Project buildings, thereby buffering these uses from existing ambient noises. The Project's approximately 69-foot-high building structures would provide a noise reduction in excess of 15 dBA for potential outdoor use areas, reducing the traffic and rail noise levels at these areas to less than 65 dBA CNEL. Therefore, the noise from traffic on Aviation Boulevard and I-105 and from light rail operations would be perceived as lower level background noise within the center of the Project site due to the height and mass of the Project buildings surrounding the exterior use areas.

However, aircraft noise levels at the pool, tot lot, and other common exterior residential use areas would still be located within the 65 dBA CNEL due to the intermittent landings and takeoffs from LAX. As aircraft noise levels at the common exterior residential use areas would be exposed to levels above 65 dBA CNEL due to aircraft noise, and no feasible mitigation is available to mitigate aircraft noise for common exterior areas of the Project, noise impacts to these areas would be significant and unavoidable.

Private Exterior Area Noise

The Project design indicates that some residential units facing Aviation Boulevard and I-105 would have exterior balconies. As shown in Table 3.4-16 above, noise levels at these balconies could range from approximately 68 to 74 dBA CNEL with steady traffic noise at many locations. Noise levels at balconies on the south and east sides of the Project site would be less than those on the north and east sides because there would not be direct exposure to Aviation Boulevard or the Green Line Station. However, noise levels at balconies on the south and east sides of the Project site would be 65 dBA CNEL or more due to aircraft noise, minor street traffic noise, and noise from activities west of Aviation Boulevard. This noise level is likely to be annoying or excessive to some people. MM 3.4-8 requires prospective purchasers of residential property to be notified of the existing noise environment with respect to the proximity of the airport. As aircraft noise levels at the private exterior residential use areas would be exposed to levels above 65 dBA CNEL due to transportation noise (i.e. traffic on I-105, Green Line light rail noise, and aircraft noise) and no additional feasible mitigation is available to mitigate aircraft noise for private exterior areas of the residential development, noise impacts to these areas would be significant and unavoidable.

Vibration Assessment

The Project has the potential to generate vibration impacts to the nearest homes across West 117th Street and Judah Avenue during construction. This section also evaluates the potential vibration impacts from truck deliveries and from the Metro Green Line Station light rail. Potential vibration impacts may occur during the construction of the Project. Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. Groundborne vibration generated by construction projects is usually highest during rock blasting, pile driving, soil compacting, using jackhammers, and completing other demolition-related activities. Table 3.4-17 summarizes the typical vibration levels during construction activities in in/sec at 25 feet from the equipment.

While noise impacts are evaluated to the receiver property line, vibration impacts are assessed at the receiving property structure. The nearest structure is located 65 feet from the Project site boundary. With the vibration data provided in Table 3.4-17 and the propagation equations

described in the Noise Report, the vibration levels for the heaviest construction equipment would be 0.021 in/sec at a distance of 65 feet from the equipment. The vibration level due to construction equipment would be less than 0.01 in/sec ppv at distances of 110 feet or greater.

According to Caltrans, the threshold for structural vibration damage is 0.3 in/sec for intermittent sources, which include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Below this level, there is virtually no risk of building damage. If very heavy equipment were to operate on the southern or eastern edge of the Project site, a vibration level of 0.21 in/sec ppv would be well below levels that could create structural damage. However, this value is greater than the 0.01 in/sec ppv limit of the County ordinance. It is unlikely that large bulldozers of the type that can cause a vibration of 0.089 in/sec ppv at 50 feet would be used on the Project. Further, the heaviest equipment on the Project site would be used for the excavation of the subterranean garage, and that excavation would not occur within 110 feet of the homes south and east of the site. Therefore, the vibration impacts to the homes east and south of the Project site would be less than the County standard, and the overall construction activity temporary and short-term. The potential for groundborne vibration would be less than significant.

TABLE 3.4-17
TYPICAL VIBRATION LEVELS DURING CONSTRUCTION ACTIVITIES

Equipment	PPV at 25 ft (in/sec)
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

PPV =peak particle velocity
Ft =feet
in/sec = inches per second
Source: BonTerra Consulting 2010c (EIR Appendix D).

Project Operation

The Project would have commercial uses and a loading dock on the northeastern portion of the site in Lot 2. Commercial developments typically do not operate machinery that can create significant long term vibration impacts. Truck vibration levels depend on vehicle characteristics, load, speed, and pavement condition. Typical vibration levels for heavy trucks on normal traffic speeds can reach levels of up to 65 VdB. However, on-site truck deliveries would be traveling at very low speeds, normally less than 15 miles per hour; therefore delivery truck vibration impacts would be less than significant for the proposed homes on the site and the adjacent homes across Judah Avenue.

Vibration from the Green Line Station

The Project includes the construction of 112 residential units on Lot 2. The nearest units would be constructed approximately 55 feet from the southern (eastbound) Green Line track centerline and approximately 100 feet from the northern (westbound) track.

This section evaluates potential vibration impacts from light rail trains passing by according to the General Vibration Assessment included the FTA's *Transit Noise and Vibration Impact Assessment*. The general assessment uses generalized data to estimate vibration levels as

a function of distance from the tracks, and applies adjustments to account for factors such as track support, vehicle speed, type of building, and wheel condition. The estimated groundborne vibration and noise is then compared to the acceptable criteria.

The FTA groundborne vibration impact criteria are based on land use and train frequency. Currently, the Green Line operates approximately 200 trains daily, running roughly from 4:00 AM to midnight, and is therefore considered a "frequent event". The criterion for acceptable levels of groundborne vibration for residential buildings for frequent events 72 VdB. There is separate FTA criteria for groundborne noise, the "rumble" that can be radiated from the motion of room surfaces in buildings due to groundborne vibration. The level for groundborne noise is 35 dBA. Although expressed in dBA, which emphasizes the more audible middle and high frequencies, the criteria are set significantly lower than for airborne noise to account for the annoying low-frequency character of groundborne noise. Groundborne noise criteria are primarily applied to subway operations where airborne noise is not a factor. For the purpose of the Noise Report, groundborne noise criteria does not apply because airborne noise would mask groundborne noise for the aboveground Green Line rail system.

To evaluate a worst-case vibration impact scenario, it is assumed that all trains run on the nearest (southern) track. All trains stop at Aviation Station, but for the purpose of this analysis, a speed of 20 miles per hour is assumed to account for the impacts that trains would generate while arriving at and departing from Aviation Station. Table 3.4-18 shows the calculation to estimate the vibration levels to the nearest residential units in Lot 2 facing the Green Line tracks.

TABLE 3.4-18
GREEN LINE VIBRATION LEVEL ESTIMATE

Adjustment Factor	Vibration Level (VdB)
Reference Vibration level at 55 feet	73
Speed adjustment	-8
Elevated Structure	-10
Estimated Vibration Levels	**55**

According to the FTA, the vibration from elevated structures is lower than from at-grade tracks because of the mass and dampening of the structure and the extra distance that the vibration must travel before it reaches the receivers. Due to low speeds and the elevated structure, vibration levels at the nearest homes in the Project are estimated to be 55 VdB, well below the FTA criteria of 72 VdB for frequent events, and below the threshold of human perception of approximately 65 VdB. Therefore, the operation of the Green Line would result in less than significant vibration impacts at the proposed residential uses of the Project.

Caltrans Off-Site Project Area and Off-Site Utility improvements Impacts

Construction activities for proposed off-site Project components, including the reconfiguration of the Park-and-Ride Lot within the Caltrans Off-Site Project Area, immediately to the north of the Project site, would result in temporary construction noise. Improvements at the existing Metro bus terminal would involve superficial grading (approximately 10 inches below the pavement) in preparation for installation of replacement pavement and result in an estimated 1,500 cubic yards of soil excavation that would be exported (part of the estimated 61,000 cubic yards of exported soil). Implementation of the relocated Metro bus terminal and would not require pile driving, blasting, or other unusually noisy construction methods. The off-site Project area to the north is farther from the nearest sensitive receptors than any portion of the Project site.

Construction activities for all on-site and off-site components are anticipated to start in mid 2011 and continue through the end of 2012 (approximately 18 months). Off-site construction activities for the new Metro bus terminal would be completed within the first two months of construction. Off-site trenched excavations for utility infrastructure (e.g. pipeline replacements/improvements) in adjacent roadways would be limited (approximately 5 to 8 feet deep by 2 to 4 feet wide) and would not result in export of soils. Also, the off-site utility improvements would occur during the total Project construction period, and would not be a noticeable noise source amid the overall construction activity. As the construction noise levels for the Project would be less than significant, the more limited scope and shorter time period required for construction of off-site Project components, which would involve similar construction phases and equipment, would also therefore result in less than significant noise impacts.

Operation of the reconfigured Park-and-Ride Lot within the Caltrans Off-Site Project Area would result in noise sources and noise levels essentially the same as the existing condition. The location of the new Metro bus terminal would be approximately 350 feet to the north of the existing bus terminal, which would be further from residences than in the existing condition. Off-site utility improvements would not result in operational noise. Therefore, there would be less than significant operational noise impacts related to off-site Project components and no mitigation would be required. Neither construction nor operation of proposed off-site Project components would result in noticeable vibration levels, and there would be no impact.

3.4.6 CUMULATIVE IMPACTS

Construction

Adverse noise and vibration impacts during construction of the Project, including off-site Project components, would be localized and would occur intermittently for varying periods of time throughout the construction period. Short-term cumulative impacts related to ambient noise and vibration levels could occur if construction associated with the Project as well as surrounding current and future development were to occur simultaneously. Noise or vibration associated with construction of the Project in combination with other another projects could adversely impact sensitive receptors in the vicinity of the Project with a cumulative noise level greater than the noise generated solely at the Project site. Additionally, all other projects under construction would need to comply with the County Noise Ordinance requirements. There are no known projects to be constructed in the vicinity of the Project site during the construction period of the Project; therefore, there would be no cumulative construction noise or vibration impacts.

Operation

The analysis of potential traffic-related noise impacts presented above was based on the Project traffic analysis (LLG 2009), which considered cumulative traffic from ambient growth and cumulative projects expected to be developed in the study area. The Project would not result in significant traffic noise impacts along roadways near the Project site. Therefore, no cumulative noise impacts would occur.

As discussed above, operation of the Project would contribute to ambient noise levels at levels considered less than significant. There are no other known foreseeable projects adjacent to the Project site that would increase the noise levels in the vicinity of the Project site. The operation of the Project would not add significant noise above daytime or nighttime ambient noise levels in the Project area and/or in excess of standards in the County's Noise Ordinance for adjacent properties. Therefore, because the Project would have less than significant operational noise impacts, the incremental contribution the Project would have on noise effects would not result in

significant cumulative noise impacts. In addition, because operation of the Project would not involve any significant vibration sources, there would be no incremental contribution to cumulative vibration impacts.

3.4.7 MITIGATION MEASURES

Construction Noise

MM 3.4-1 Prior to any grading activities, a 10-foot-high temporary noise barrier shall be constructed along the Project site's eastern and southern boundaries, Judah Avenue and West 117th respectively. Noise barriers shall be constructed of material with a minimum weight of four pounds per square foot with no gaps or perforations. Noise barriers may be constructed of, but are not limited to, $^5/_8$-inch-thick plywood or $^5/_8$-inch-oriented strand board. The noise barriers shall remain in place until the end of grading/excavation activities. No more than two loader/backhoes and two dozers shall operate simultaneously at ground level during grading activities.

MM 3.4-2 Stationary equipment (such as generators, cranes, and air compressors) that will be operational for 10 consecutive working days or more shall not be operated closer than 250 feet of any occupied home. If this distance limitation is not feasible, the Project Applicant/Developer shall ensure that the stationary equipment is equipped with appropriate noise reduction measures (e.g., silencers, shrouds, or other devices) to limit the equipment noise at the nearest residences to 60 dBA L_{max} or the ambient noise level without the equipment operating, whichever is higher. Noise measurements shall be taken prior to operation of stationary equipment to determine the ambient noise level without the equipment operating and noise measurements shall be taken during operation of the stationary equipment to illustrate compliance with the maximum noise threshold. Documentation of compliance with the maximum noise threshold shall be provided to the County of Los Angeles Department of Regional Planning for each day that the equipment cannot be kept at a minimum of 250 feet from any occupied home.

MM 3.4-3 All construction trucks and vehicles accessing the Project site shall be required to use nearby designated truck routes (i.e., Aviation Boulevard and West Imperial Highway/Interstate 105), where feasible, and no construction traffic or queuing shall be allowed on the residential portion of West 117th Street, Judah Avenue, or any other residential streets within the Del Aire community.

MM 3.4-4 In accordance with Section 12.08.440 of the County Noise Ordinance, construction activities that generate noise that could create a disturbance across a property line shall not occur between the hours of 7:00 PM and 7:00 AM on weekdays, at any time on Sunday, or a holiday.

MM 3.4-5 The Project Applicant/Developer shall specify in the contract for each operator of a commercial space that (1) the operator shall require delivery trucks to enter and exit the Project site from the Aviation Boulevard driveway and (2) truck deliveries shall be restricted to the daytime hours (7:00 AM to 10:00 PM).

MM 3.4-6 Residential air conditioning units shall be designed and installed in accordance with Section 12.08.530 of the County Noise Ordinance, which limits noise at property lines and at neighboring units. Commercial air conditioning units and other stationary noise sources shall be designed and installed in accordance with Section 12.08.390 of the County Noise Ordinance, which limits exterior noise at property lines.

MM 3.4-7 Residential units shall be designed and constructed to ensure that interior noise levels from exterior transportation sources—including aircraft, vehicles on adjacent roadways, and light rail—shall not exceed 45 dBA CNEL. In order to ensure that all dwelling units achieve an adequate noise reduction to achieve an interior noise level of 45 dBA CNEL, the following features shall be included in the building design and construction of all dwelling units: (1) upgraded dual-glazed windows; (2) mechanical ventilation/air conditioning; (3) exterior wall/roof assemblies free of cut-outs or openings; and (4) ceiling insulation in the top floor of each building to reduce aircraft noise by at least 20 dBA. Prior to the issuance of a building permit, the Project Applicant/Developer shall submit architectural plans and a detailed acoustical analysis study prepared by a qualified acoustical consultant demonstrating that interior noise levels in all residential units would be 45 dBA CNEL or less to Los Angeles County Department of Public Health for review and approval.

MM 3.4-8 In accordance with the *State Business and Professions Code* and the *State Civil Code* each prospective purchaser of residential property within the Project shall be notified as follows:

> NOTICE OF AIRPORT IN VICINITY- This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (e.g., noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

In addition, although not required by the *State Civil Code* (Section 1103 et. seq.), each prospective tenant of leased residential property within the Project shall also be notified as described above.

3.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Exterior residential use areas would be located within the 65 dBA CNEL contour due to the intermittent landings and takeoffs from LAX. As no feasible mitigation is available to mitigate aircraft noise for exterior areas of the residential development, aircraft noise impacts to these areas would be significant and unavoidable.

With implementation of MMs 3.4-1 through 3.4-8, all impacts to off-site uses and Project's interior areas associated with short-term construction and long-term operation would be less than significant.

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SECTION 4.0
RESOURCES

4.1 WATER QUALITY

This section analyzes water quality impacts from development of the proposed Aviation Station Project. The effects of Project implementation on the quality of both surface waters and groundwater are addressed. Potential drainage and flood-control impacts are described in Section 3.2, Flood Hazards, and potential impacts to groundwater supplies are addressed in Section 5.5, Utilities. Under the integrated water resources management approach, water quality is addressed through the application of Low-Impact Development (LID) principles, source-control best management practices (BMPs), and treatment-control BMPs.

4.1.1 RELEVANT POLICIES AND REGULATIONS

Federal

Clean Water Act

In 1972, the Federal Water Pollution Control Act (later referred to as the Clean Water Act [CWA]) was amended to require National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants to "Waters of the U.S." from any point source.[1] In 1987, the CWA was amended to require that the U.S. Environmental Protection Agency (USEPA) establish regulations for permitting municipal and industrial storm water discharges under the NPDES permit program. The USEPA published final regulations regarding storm water discharges on November 16, 1990. The regulations require that municipal separate storm sewer system (MS4) discharges and industrial (including construction) storm water discharges to surface waters be regulated by an NPDES permit. NPDES permit requirements relevant to the Project are further discussed below under Regional regulations.

The CWA requires States to adopt water quality standards for receiving water bodies and to have those standards approved by the USEPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing) in addition to the water quality criteria necessary to support those uses. Water quality criteria are prescribed concentrations or levels of constituents (e.g., lead, suspended sediment, and fecal coliform bacteria) or narrative statements that represent the quality of water that supports a particular use. Because of gaps in California's regulations, the USEPA promulgated the California Toxics Rule (40 *Code of Federal Regulations,* §131.38), which establishes numeric water quality criteria for the protection of human health or aquatic life in California surface waters.

When designated beneficial uses of a particular receiving water body are being compromised by water quality, Section 303(d) of the CWA requires identification and listing of that water body as "impaired". Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards (plus a "margin of safety"). Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

[1] Discrete water conveyances, such as pipes or man-made ditches.

State

California Porter-Cologne Act

The CWA places the primary responsibility for water pollution control and for planning the development and use of water resources on the States, although it does establish certain guidelines for the States to follow in developing their programs. California's primary statute governing water quality and water pollution issues is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) broad powers to protect water quality, and is the primary vehicle for implementing California's responsibilities under the federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to (1) adopt plans and policies; (2) regulate discharges to surface and groundwater; (3) regulate waste disposal sites; and (4) require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality plan (or Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and those established by the SWRCB in its State Water Policy. The Porter-Cologne Act also provides that an RWQCB may include water discharge prohibitions applicable to particular conditions, areas, or types of waste within its regional plan. The RWQCBs are also authorized to enforce discharge limitations; take actions to prevent violations of these limitations from occurring; and conduct investigations to determine the status of the quality of any State waters. Civil and criminal penalties are also applicable to persons who violate the requirements of the Porter-Cologne Act or any SWRCB/RWQCB orders.

Caltrans Storm Water Management Plan

The California Department of Transportation (Caltrans) Statewide Storm Water Management Plan (SWMP), dated May 2003, describes a program to reduce the discharge of pollutants associated with the storm water drainage systems that serve highways and highway-related properties, facilities, and activities. It also identifies how Caltrans will comply with the provisions of the NPDES permit (Order No. 99-06-DWQ) (Permit) issued by the SWRCB on July 15, 1999.

The Statewide SWMP describes (1) the BMP categories that are used by Caltrans; (2) the process used to identify BMPs; and (3) the BMP implementation process. These BMPs are applied to meet the maximum extent practicable (MEP) and best conventional technology/best available technology (BCT/BAT) requirements and to address compliance with water quality standards. The BMP categories identified in the SWMP are:

- ***Category I BMPs:*** Technology-based pollution prevention controls to meet MEP requirements for designing and maintaining roadways and related facilities.

- ***Category II BMPs:*** Temporary construction BMPs to meet BCT/BAT requirements for construction projects that disturb five or more acres, which are also applied to sites smaller than 5 acres.

- ***Category III BMPs:*** Treatment controls.

NPDES Construction General Permit

The NPDES permit program was first established under CWA authority to control water pollution by regulating point sources that discharge pollutants into “Waters of the U.S.”. Pursuant to CWA Section 402(p), which requires regulations for permitting of certain storm water discharges, the SWRCB has issued the statewide NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities, Order No 2009-009-DWQ, NPDES No. CAS000002, adopted by the SWRCB on September 2, 2009, effective for all project sites on July 1, 2010. Under this Construction General Permit, individual NPDES permits or Construction General Permit coverage must be obtained for discharges of storm water from construction sites with a disturbed area of one or more acres and are required to either obtain individual NPDES permits for storm water discharges or be covered by the Construction General Permit.

Coverage under the Construction General Permit is accomplished by completing and filing a Permit Registration Document (PRD) with the SWRCB prior to commencement of construction activities. The PRD consists of a Notice of Intent (NOI); Risk Assessment; Site Map; Storm Water Pollution Prevention Plan (SWPPP); annual fee; and a signed certification statement. The primary objective of the SWPPP is to identify, construct, implement, and maintain BMPs to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction. The Construction General Permit requires dischargers to assess the risk level of a project based on both sediment transport and receiving water risk, and each project will then be categorized into Risk Level 1, 2, or 3. For all Risk Level 3 and for some Risk Level 2 sites, the Construction General Permit requires effluent and receiving water monitoring for percent hydrogen (pH) and turbidity.

Numeric Action Levels (NALs) are established for pH (6.5 to 8.5) and for turbidity (250 Nephelometric Turbidity Units [NTU]). NALs have monitoring requirements intended to provide operational information regarding the performance of the BMPs used at the project site to minimize the discharge of pollutants. NALs are not directly enforceable and do not constitute Numeric Effluent Limitations (NELs). If NALs are exceeded, additional BMPs must be immediately implemented and the SWPPP must be revised accordingly. NAL exceedances are reported on the SWRCB on-line SMARTS system.

NELs are only applicable to projects categorized as Risk Level 3. Exceedances of NELs (turbidity of 500 NTU or higher) are a violation of the Construction General Permit. Exceedances would be required to implement additional monitoring, incorporate BMPs, revise SWPPPs accordingly, and provide an NEL Violation Report to the SWRCB. Visual monitoring of storm water and non-storm water discharges and a record of monitoring inspections is required for all sites. Additionally, the Construction General Permit requires sampling, analysis, and monitoring for non-visible pollutants at all sites subject to the permit.

A future component of the new Construction General Permit includes post-construction standards, which will become effective three years from the adoption date of the permit (September 2, 2012). Coverage under the permit shall require projects to replicate the pre-project water balance for volume through the use of non-structural or structural measures. For sites larger than two acres, a project shall also maintain the site’s pre-project rate of runoff. Compliance with the requirements of the Construction General Permit is the primary method used to evaluate a project’s construction- and post-construction related impacts on surface water quality.

Regional/Local

Basin Plans

The Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) (LARWQCB 1995) is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. The Basin Plan provides quantitative and narrative criteria for a range of water quality constituents applicable to certain receiving water bodies and groundwater basins within the Los Angeles Region. The Basin Plan (1) designates beneficial uses for surface and ground waters; (2) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and to conform to the State's anti-degradation policy; and (3) describes implementation programs to protect all waters in the Region. All applicable SWRCB and RWQCB plans and policies and other pertinent water quality policies and regulations are incorporated by reference into the Basin Plan.

Drainage from the Project site is tributary to the Dominguez Channel, which is located within the Dominguez Watershed. Table 4.1-1 lists the beneficial uses of the waterbodies that would receive runoff from the Project site, as specified in the Basin Plan.

TABLE 4.1-1
BENEFICIAL USES FOR DOMINGUEZ CHANNEL AND WEST COAST GROUNDWATER BASIN

Beneficial Uses[a]		Dominguez Channel above Vermont Avenue	Dominguez Channel below Vermont Avenue	West Coast Groundwater Basin
MUN	Municipal and Domestic Supply	P*		E
IND	Industrial Service Supply			E
NAV	Navigation		P	
REC-1	Water Contact Recreation	Ps	Es	
REC-2	Non-contact Water Recreation	E	E	
COMM	Commercial and Sport Fishing		E	
WARM	Warm Freshwater Habitat	P		
EST	Estuarine Habitat		E	
MAR	Marine Habitat		E	
WILD	Wildlife habitat	P	E	
RARE	Rare, Threatened, or Endangered Species	E	Ee	
MIGR	Migration of Aquatic Organisms		Ef	
SPWN	Spawning, Reproduction, or Development		Ef	

E – Existing beneficial use
P – Potential beneficial use
* – Designated under SP 88-63 and may be considered for functional exemptions RB 89-03 at a later date.
e – One or more rare species utilize all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.
f – Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas, which are heavily influenced by freshwater inputs.
s – Access prohibited by Los Angeles County DPW
[a] Definitions of Beneficial Uses are provided in text below this table.

Source: LARWQCB 1995

The definitions of the beneficial uses are as follows:

Municipal and Domestic Supply (MUN): Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.

Industrial Service Supply (IND): Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.

Navigation (NAV): Uses of water for shipping, travel, or other transportation by private, military or other commercial vessels.

Water Contact Recreation (REC-1)[2]: Uses of water for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.

Non-contact Water Recreation (REC-2): Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.

Commercial and Sport Fishing (COMM): Uses of water that support commercial or recreational collection of fish or other organisms, including those collected for bait. These uses may include, but are not limited to, uses involving organisms intended for human consumption.

Warm Freshwater Habitat (WARM): Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife (including invertebrates).

Marine Habitat (MAR): Uses of water that support marine ecosystems that include, but are not limited to, preservation and enhancement of marine habitats, vegetation (e.g., kelp), fish and shellfish, and wildlife (e.g., marine mammals and shorebirds).

Estuarine Habitat (EST): Uses of water that support estuarine ecosystems, which may include, but are not limited to, preservation and enhancement of estuarine habitats; vegetation; fish and shellfish; and wildlife such as waterfowl, shorebirds, and marine mammals.

Wildlife Habitat (WILD): Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats; vegetation; wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates); or wildlife water and food sources.

Rare, Threatened, or Endangered Species (RARE): Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under State or federal law as Rare, Threatened, or Endangered.

Spawning, Reproduction, and/or Early Development (SPWN): Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.

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[2] The **REC 1** and **REC 2** beneficial uses of designations assigned to surface water bodies in this region should not be construed as encouraging recreational activities. In some cases, such as Lake Matthews and certain reaches of the Santa Ana River, access to the water bodies is prohibited because of potentially hazardous conditions and/or because of the need to protect other uses, such as municipal supply or sensitive wildlife habitat. Where **REC 1** or **REC 2** is indicated as a beneficial use, the designations are intended to indicate that the uses exist or that the water quality of the water body could support recreational uses.

Storm Water Permitting (MS4 Permit)

The State's Municipal Storm Water Permitting Program regulates storm water discharges from MS4s. MS4 Permits were issued in two phases. Under Phase I, which started in 1990, the RWQCBs adopted NPDES storm water permits for medium (serving between 100,000 and 250,000 people) and large (serving more than 250,000 people) municipalities. Most of these permits were issued to a group of Co-permittees encompassing an entire metropolitan area.[3] As part of Phase II, the SWRCB adopted a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) in order to provide permit coverage for smaller municipalities (including non-traditional Small MS4s), which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

In 2001, the Los Angeles RWQCB (LARWQCB) issued an NPDES Permit and Waste Discharge Requirements (Order No. 01-182; NPDES No. CAS0041) (Los Angeles County MS4 Permit) under the CWA and the Porter-Cologne Act for discharges of urban runoff in public storm drains in Los Angeles County. The Los Angeles County MS4 Permit was amended on August 9, 2007, by Order No. R4-2007-0042. The Los Angeles County MS4 Permit regulates storm water discharges from the Project site, which is within the jurisdiction of the LARWQCB. The Los Angeles County MS4 Permit details requirements for new development and significant redevelopment, including specific sizing criteria for treatment BMPs and flow-control requirements. This program regulates municipal storm water and urban runoff discharges for development projects within the County of Los Angeles and requires that all Co-Permittees prohibit non-storm water discharges into the MS4 and watercourses.

To implement the requirements of the NPDES permit, the Los Angeles County Co-Permittees have created development planning guidance and control measures that control and mitigate storm water quality and quantity impacts to receiving waters as a result of new development and redevelopment. The Los Angeles County Co-Permittees are also required to implement other municipal source detection and elimination programs and maintenance measures. The MS4 Permit requires the Co-Permittees to implement a Storm Water Quality Management Program (SQMP) that includes the components that will be implemented to comply with the MS4 Permit and to reduce discharges of pollutants in storm water to the MEP.

For new development, the Co-Permittees implement their obligations under the MS4 Permit through adoption of ordinances to protect water quality and through implementation of plans to impose water quality requirements on new development projects. In Los Angeles County, applicable water quality ordinances mandating compliance with established programs are found in Chapter 12.80 of the Los Angeles County Code. These ordinances allow programs such as the Standard Urban Stormwater Mitigation Plan (SUSMP) to be developed and require that storm water and urban runoff to storm drain systems and waterways in the County comply with these MS4 Permit-related programs (see *Los Angeles County Code*, §§12.80.400 and 12.80.410).

<u>Standard Urban Stormwater Mitigation Plan</u>

Pursuant to LARWQCB NPDES Permit and Waste Discharge Requirements (Order No. 01-182; NPDES No. CAS0041), the County prohibits the discharge of pollutants from private property developments by requiring the installation and maintenance of post-construction treatment control BMPs. The SUSMP was approved by the LARWQCB as part of the MS4 program to address storm water pollution from new construction and redevelopment within Los Angeles County. The SUSMP contains a list of minimum BMPs that must be employed to infiltrate or treat storm water runoff, control peak flow discharge, and reduce the post-development

[3] The Permittees are the Los Angeles County cities and the County (collectively "the Co-Permittees").

discharge of pollutants from storm water conveyance systems. The SUSMP defines, based upon land use type, the types of BMPs that must be included and issues appropriate to the development type and size that must be addressed. Compliance with SUSMP requirements is used as one method to evaluate the significance of project development impacts on surface water runoff.

Low-Impact Development Ordinance

Chapter 12.84 of the *Los Angeles County Code* requires the use of LID standards in development projects.[4] This chapter applies to all development within the unincorporated area of the County after January 1, 2009. The LID standards require that applicable development projects:

- Mimic undeveloped storm water and urban runoff rates and volumes in any storm event up to and including the "50-year capital design storm event", as defined by the County of Los Angeles Department of Public Works (LACDPW);
- Prevent pollutants of concern from leaving the development site in storm water as the result of storms, up to and including a water quality design storm event; and
- Minimize hydromodification impacts to natural drainage systems.

To meet these standards, the LID Standards state that development projects that consist of five or more residential units, or nonresidential development, shall comply with the following:

> The excess storm water runoff volume (ΔV, defined as the post-developed runoff volume minus the pre-developed runoff volume for the 85th percentile storm event) from each lot upon which such development is occurring shall be infiltrated at the lot level or, in the alternative, the excess storm water runoff volume from the entire development site (including streets and public rights-of-way) shall be infiltrated in sub-regional infiltration facilities built for this specific purpose. The tributary area of a sub-regional infiltration facility shall be limited to five acres, but may be exceeded with approval of the Director of LACDPW. When infiltration of all excess storm water runoff volume is not technically feasible, on-site storage, reuse, or other water conservation uses of the excess runoff volume is required and shall be implemented as authorized by the Director of LACDPW.

Los Angeles County has developed a LID Standards Manual that outlines storm water runoff quantity and quality control development principles, technologies, and design standards for achieving compliance with the LID Standards of Chapter 12.84. The LID Standards Manual requires that large-scale residential and nonresidential development projects prioritize the selection of BMPs in the following order of preference:

1. BMPs that promote infiltration of storm water.
2. BMPs that store and beneficially use storm water runoff.

[4] LID is a sustainable practice that benefits water supply and contributes to water quality protection. Unlike traditional storm water management (which collects and conveys storm water runoff through storm drains, pipes, or other conveyances to a centralized storm water facility), LID uses site design and storm water management to maintain the site's pre-development runoff rates and volumes. The goal of LID is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall.

3. BMPs that utilize the runoff for other water conservation uses including but not limited to (1) BMPs that incorporate vegetation to promote pollutant removal and runoff volume reduction and to integrate multiple uses and (2) BMPs that percolate runoff through engineered soil and allow it to discharge downstream slowly.

4. If the Director of Public Works determines that compliance with the above (No. 3) LID requirements is technically infeasible, in whole or in part, in response to an applicant's submittal, the Director shall require the applicant to submit a proposal for approval by the Director that incorporates design features demonstrating compliance with the LID requirements to the maximum extent practicable.

Los Angeles County Storm Water and Runoff Pollution Control Ordinance

Los Angeles County Code, Chapter 12.80 includes the County's ordinance pertaining to storm water runoff and pollution. The purpose of the ordinance is to protect the health and safety of County residents by protecting the beneficial uses, marine habitats, and ecosystems of receiving waters within the County from pollutants carried by storm water and non-storm water discharges. Accordingly, the ordinance enhances and protects the water quality of the receiving waters of the State and the U.S. The ordinance applies to the discharge, deposit, or disposal of any storm water and/or runoff to the storm drain system and/or receiving waters within any unincorporated area covered by an NPDES municipal storm water permit. The ordinance regulates prohibited discharges and connections; facilities required to obtain an NPDES permit; BMPs for construction activities; industrial and commercial facilities; and enforcement procedures.

4.1.2 EXISTING CONDITIONS

Surface Water Quality

As discussed in Section 3.2, Flood Hazards, the Project site is located within the Dominguez Watershed, which drains an area of approximately 133 square miles in southwestern Los Angeles County. Since virtually the entire watershed is highly urban, drainage within the Dominguez Watershed is primarily conducted through an extensive network of underground storm drains. The Dominguez Channel, which begins at West 116th Street (approximately two miles east of the Project site) and continues in a generally southwesterly direction until emptying into the Pacific Ocean. This channel is the largest single drainage feature within the watershed.

According to the 2006 CWA Section 303(d) List of water quality limited sections, approved by the LARWQCB on June 28, 2007, the Dominguez Channel is considered impaired for the constituents listed below in Table 4.1-2.

Currently, there are no known water quality treatment BMPs located within the Project site. The commercial and residential properties were developed in the 1930s and 1940s, and the storm drain inlets along West 116th Street and Judah Avenue do not have storm drain inserts. The Metro bus terminal and associated Caltrans Park-and-Ride Lot (constructed in August 1992) and Caltrans Maintenance Facility (constructed in 1996) were not developed with water quality BMPs.

TABLE 4.1-2
DOMINGUEZ CHANNEL 303(D) LISTED POLLUTANTS

Water Body	Area Affected	Pollutant	Expected TMDL Completion Date
Dominguez Channel (lined portion above Vermont Avenue)	6.7 miles	Ammonia	01/01/2019
		Copper	01/01/2019
		Dieldrin (tissue)	01/01/2021
		Indicator Bacteria	01/01/2007
		Lead (tissue)	01/01/2019
		Sediment Toxicity	01/01/2021
		Zinc (sediment)	01/01/2019
Dominguez Channel Estuary (unlined portion below Vermont Avenue)	140 acres	Ammonia	01/01/2019
		Benthic Community Effects	
		Benzo(a)pyrene (PAHs)	
		Benzo(a)anthracene	
		Chlordane (tissue)	
		Chrysene (C1-C4)	
		Coliform Bacteria	
		DDT (tissue and sediment)	
		Dieldrin (tissue)	
		Lead (tissue)	
		PCBs (Polychlorinated biphenyls)	
		Phenanthrene	
		Pyrene	
		Zinc (sediment)	

TMDL: Total Maximum Daily Load; PAHs: Polycyclic Aromatic Hydrocarbons; DDT: Dichlorodiphenyltrichloroethane
Source: LARWCB 2007

Groundwater Quality

The Project site is located within the West Coast Groundwater Basin (Basin), which underlies 140 square miles in the southwestern part of the Los Angeles Coastal Plain. The Basin provides groundwater to approximately 11 cities and unincorporated areas of Los Angeles County, with an annual production of approximately 52,000 acre-feet (af) per year (WBMWD 2009). Aquifers within the Basin are generally confined and receive the majority of their natural recharge from adjacent groundwater basins or from the Pacific Ocean via seawater intrusion.

The extensive use of groundwater in the Central and West Coast Basins of Los Angeles County during the first half of the 20th century altered the groundwater flow, resulting in a decline in groundwater levels that led to widespread seawater intrusion and deterioration of water quality along most reaches of the coast. To address this problem, injection of freshwater via groundwater wells began in 1953 along a one-mile line in Manhattan Beach. In 1959, the Water Replenishment District of Southern California was formed for the purpose of replenishing and managing groundwater supplies in the two basins. By court order, the West Coast Basin was adjudicated in 1961, and a limit on pumpage was set at 64,468 af/year (yr). Water injection was subsequently expanded by the LACDPW in order to further control seawater intrusion.

A series of injection wells, which constitute the West Coast Basin Barrier Project and Dominguez Gap Barrier Project, were completed in 1965 and 1971, respectively (Land et al. 2004).

The seawater barrier projects play a dual role in the West Coast Basin: they impede seawater intrusion and provide freshwater replenishment to the groundwater system. Despite the controls on pumping and the injection of freshwater, groundwater quality is an ongoing concern in the West Coast Basin, where some groundwater levels remain well below sea level. In aquifers along the coast, concentrations of chloride and dissolved solids commonly exceed the USEPA's Secondary Maximum Contaminant Levels (250 and 500 milligrams per liter [mg/L]), respectively.

4.1.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 4.1a: Is the project site located in an area having known water quality problems and proposing the use of individual water wells?

Threshold 4.1b: Will the proposed project require the use of a private sewage disposal system?

Threshold 4.1c: Could the project's associated construction activities significantly impact the quality of groundwater and/or storm water runoff to the storm water conveyance system and/or receiving water bodies?

Threshold 4.1d: Could the project's post-development activities potentially degrade the quality of storm water runoff and/or post-development non-storm water discharges contribute potential pollutants to the storm water conveyance system and/or receiving bodies?

4.1.4 PROJECT DESIGN FEATURES

No Project Design Feature related to water quality have been identified.

4.1.5 ENVIRONMENTAL IMPACTS

Threshold 4.1a: Is the project site located in an area having known water quality problems and proposing the use of individual water wells?

Threshold 4.1b: Will the proposed project require the use of a private sewage disposal system?

<u>On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts</u>

The Project would connect to existing infrastructure and would require the construction of new water and wastewater pipelines, as discussed in Section 3.2, Flood; Section 5.2, Sewage; and 5.5, Utilities. The Project would not require the use of individual water wells or require the use of a private sewage disposal system. There would be no impacts associated with these thresholds.

Threshold 4.1c: Could the project's associated construction activities significantly impact the quality of groundwater and/or storm water runoff to the storm water conveyance system and/or receiving water bodies?

On-Site Impacts

Storm water runoff from the Project site during construction could contain pollutants such as soils and sediments released during grading and excavation activities and petroleum-related pollutants due to spills or leaks from heavy equipment and machinery. Other common pollutants that may result from construction activities include solid or liquid chemical spills; concrete and related cutting or curing residues; wastes from paints, stains, sealants, solvents, detergents, glues, acids, lime, plaster, and cleaning agents; and heavy metals from equipment.

The storm water runoff from the Project site would flow into the storm drain inlets throughout the Project area. Storm water runoff has the potential to enter receiving waters (i.e., the Dominquez Channel) and to infiltrate into the groundwater table. As discussed under "Relevant Policies and Regulations", the CWA establishes a framework for regulating potential water quality impacts from construction activities through the NPDES program. Construction activities that involve more than one acre are required to obtain an NPDES permit from the SWRCB, Division of Water Quality.

As previously discussed in Section 4.1.1, coverage under the Construction General Permit is accomplished by completing and filing a PRD with the SWRCB prior to commencement of construction activities (see MM 4.1-1). The determination of Risk Level 1, 2, or 3 for the Aviation Station Project would be made at the time of PRD submittal. The construction-period BMPs set forth in the SWPPP that are most often used include (1) erosion-control BMPs such as hydraulic mulch, soil binders, and geotextiles and mats to stabilize soils; (2) temporary drainage swales to divert runoff from exposed soils; (3) sediment controls such as fiber rolls along disturbed areas, temporary desilting basins, and gravel bags around storm drain inlets; (4) watering of exposed soils and covering stockpiles of soil; (5) stabilization of construction entrance/exit points to reduce tracking sediments; and (6) timing of grading to avoid the rainy season (November through April).

Provisions of the 2007 *California Building Code*, grading permit requirements and conditions, and Fire Code provisions include elements that require reduction of erosion and sedimentation impacts. Additionally, the Project would comply with the *Los Angeles County Code* Section 12.80, which sets forth the County's requirements for protecting water quality, including "good housekeeping" provisions for storm water runoff management (Section 12.80.500), such as prohibiting runoff from washing of paved areas, storage of hazardous materials in areas not susceptible to runoff, and regular sweeping /removal of debris from parking lots with more than 25 spaces, as well as construction BMPs.

As required by MM 4.1-1, the Project Applicant/Developer's full compliance with the NPDES General Permit for Storm Water Discharges Associated with Construction Activity is required. Pursuant to permit requirements, the Project Applicant/Developer shall develop a PRD (including an SWPPP) that incorporates BMPs for reducing or eliminating construction-related pollutants in the site runoff, and ongoing monitoring of site runoff water quality. As a result, compliance with the requirements of the NPDES Construction General Permit, per MM 4.1-1, and the *Los Angeles County Code* Chapter 12.80, would reduce short-term, general construction-related water quality impacts to surface water and to groundwater to levels less than significant.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Construction of proposed Caltrans Off-Site Project Area would be limited to the demolition of the existing concrete and construction of the relocated Metro bus terminal and restroom facility, as well as the reconfiguration of the Caltrans Park-and-Ride Lot. Off-site utility improvements would involve temporary trenching within roadways. Such activities could generate storm water pollutants, including soils and sediments released during grading activities; petroleum-related pollutants due to spills or leaks from heavy equipment and machinery; concrete and related cutting or curing residues; and wastes from cleaning agents. As discussed above, all construction activities, including all off-site Project components, would also be subject to NPDES Construction General Permit requirements, as described in MM 4.1-1, reducing short-term construction-related water quality impacts to a less than significant level. The off-site utility improvements would be entirely underground and would not affect long-term water quality after installation.

Threshold 4.1d: Could the project's post-development activities potentially degrade the quality of storm water runoff and/or post-development non-storm water discharges contribute potential pollutants to the storm water conveyance system and/or receiving bodies?

On-Site Impacts

The pollutants of concern for post-development water quality are those that are anticipated or that potentially could be generated by implementation of the Project, and those that have been identified by regulatory agencies as having the potential to impair beneficial uses in receiving water bodies, including the Dominguez Channel. If the Project would generate pollutants in amounts that could impact storm water quality and downstream 303(d) listed water bodies, then significant impacts would result.

The Project involves the construction of residential and commercial land uses (the same as current land uses), which would not be a substantive source of the 303(d) listed pollutants for Dominguez Channel in Table 4.1-2. The pollutants for which TMDLs have been assigned for Dominguez Channel are remnants of historically commonly used pollutants (i.e. DDT, Lead), or are generated by industrial and/or manufacturing land uses, which are not proposed for the Project site.

Proposed residential land uses could contribute to the generation of Coliform Bacteria and/or Indicator Bacteria through an increase in on-site domestic pets (specifically dogs). If animal waste is not properly removed and disposed, it can be a source of additional bacteria in storm water runoff. However, the Project would not create extensive grassy lawn areas that could attract pet owners. The only Project-related grassy lawn areas would be associated with the small townhome front lawns, thereby reducing opportunities for substantial increases in pet waste and additional bacteria in storm water runoff. County Code, Title 10, Chapter 10.40.060, requires pet owners to pick up and remove pet waste from the ground in order to prevent the waste from washing down storm drains. Section 11.16.050 of the County Code prohibits the deposition or discharge of "excrement… any other putrid or offensive animal or vegetable matter" upon the ground surface or in a manner that could contaminate any standing water, stream or public place. Additionally, as discussed further below, Los Angeles County SUSMP requires minimum BMPs that reduce the post-development discharge of pollutants expected from the proposed land uses, including bacteria.

In order to ensure that animal waste is disposed properly, MM 4.1-2 requires that educational pamphlets are provided to each property-owner and renter. Therefore, with implementation of MM 4.1-2, and for the reasons discussed above, the Project would not exacerbate the 303(d) listing for Coliform Bacteria and/or Indicator Bacteria.

Based on the land uses proposed for the Aviation Station Project, the pollutants of concern can be divided up into anticipated pollutants and potential pollutants. Table 4.1-3 summarizes typical pollutants of concern for major land uses and project categories, including those that are included in the Project.

TABLE 4.1-3
ANTICIPATED AND POTENTIAL POLLUTANTS GENERATED BY LAND USE TYPE

Priority Project Categories and/or Project Features	General Pollutant Categories								
	Bacteria/Virus	Heavy Metals	Nutrients	Pesticides	Organic Compounds	Sediments	Trash and Debris	Oxygen Demanding Substances	Oil & Grease
Attached Residential Development	P		X	X		X	X	P [a]	P [b]
Commercial Development	P [c]	P	P [a]	P [a]	P [e]	P [a]	X	P [a]	X
Restaurants	X						X	X	X
Parking Lots	P [f]	X	P [a]	P [a]	X [d]	P [a]	X	P [a]	X

X: anticipated; P: potential.
[a] A potential pollutant if landscaping or open area exists on site.
[b] A potential pollutant if the project includes uncovered parking areas.
[c] A potential pollutant if land use involves food or animal waste products.
[d] Including petroleum hydrocarbons.
[e] Including solvents.
[f] Analyses of pavement runoff routinely exhibit bacterial indicators.

Source: County of Orange et. al. 2003

The following are potential storm water and urban runoff pollutants that are expected to be associated with the long-term operation of the Project:

- ***Bacteria and Viruses.*** Sources include animal excrement (found in areas where pets are often walked), sanitary sewer overflow, and trash handling areas (dumpsters). Bacteria and viruses may pose public health and safety concerns if they are present in drinking water reservoirs or recreational water bodies.

- ***Heavy Metals.*** Sources of trace metals (copper, lead, cadmium, chromium, nickel, and zinc) can include motor vehicles, roofing and construction materials, and chemicals. Trace metals can be toxic to aquatic organisms and, in accumulated quantities, can contaminate drinking water supplies.

- ***Nutrients.*** Nutrients include nitrogen, phosphorus, and other organic compounds that can be found in organic litter, fertilizers, food waste, sewage, and sediment. Excess nutrients impact creek health and impair use of water in lakes and other water supply sources by promoting excessive growth of algae or vegetation (i.e., eutrophication).

- ***Pesticides.*** Pesticides (including herbicides) are chemical compounds commonly used to control nuisance growth or prevalence of organisms. Excessive application of a pesticide may result in runoff containing toxic levels of its active component.

- ***Organic Compounds.*** These compounds are derived from automotive fluids, pesticides, and fertilizers. Organic compounds often attach to soil particles.

- ***Sediments.*** Sediments are soils or other surficial materials eroded and then transported or deposited by the action of wind, water, ice, or gravity. Sediments can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organisms' survival rates, smother bottom-dwelling organisms, and suppress aquatic vegetation growth.

- ***Trash and Debris.*** Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic matter (such as leaves, grass cuttings, and food waste) are general waste products on the landscape. The presence of trash and debris may have a significant impact on the recreational value of a water body and aquatic habitat. Excess organic matter can create a high biochemical oxygen demand in a stream and thereby lower its water quality. In addition, in areas where stagnant water exists, the presence of excess organic matter can promote septic conditions resulting in the growth of undesirable organisms and the release of odorous and hazardous compounds such as hydrogen sulfide.

- ***Oxygen-Demanding Substances.*** This category includes biodegradable organic material as well as chemicals that react with dissolved oxygen in water to form other compounds. Proteins, carbohydrates, and fats are examples of biodegradable organic compounds. Compounds such as ammonia and hydrogen sulfide are examples of oxygen-demanding compounds. The oxygen demand of a substance can lead to depletion of dissolved oxygen in a water body and possibly the development of septic conditions.

- ***Oil and Grease.*** The most common sources of oil and grease in urban runoff stem from spilled fuels and lubricants, discharge of domestic and industrial wastes, atmospheric deposition, and runoff. Runoff can contain leachate from roads, breakdown of tires/rubber, and deposition of automobile exhaust. Some petroleum hydrocarbons, such as polycyclic aromatic hydrocarbons (PAH), can bioaccumulate in aquatic organisms and are toxic at low concentrations. Hydrocarbons can be measured in a variety of ways including petroleum hydrocarbons, oil and grease, or as individual groups such as PAHs. Hydrocarbons can persist in sediment for long periods of time in the environment and can result in adverse impacts on the diversity and abundance of benthic communities.

Pursuant to LARWQCB NPDES Permit and Waste Discharge Requirements, the County is required to prohibit the discharge of pollutants from private property developments by requiring the installation and maintenance of post-construction treatment control BMPs. The Los Angeles County SUSMP addresses storm water pollution from new construction and redevelopment and contains a list of minimum BMPs that must be employed to infiltrate or treat storm water runoff, control peak flow discharge, and reduce the post-development discharge of pollutants from storm water conveyance systems. Additionally, Chapter 12.84 of the *Los Angeles County Code* requires the use of LID standards in development projects. These requirements are set forth in MM 4.1-3.

As previously mentioned, the Project would not develop extensive grassy lawn areas that would require fertilizers. The conceptual landscape plans, as depicted in Exhibits 2-11 and 2-12, and preliminary plant palette, depicted in Exhibit 2-13 in Section 2.0, Environmental Setting and Project Description, includes potted plants and minor landscaped areas (approximately 42,668 sf, or less than 1 acre) that may require minimal amounts of nutrients (fertilizers) and/or pesticides. This amount of landscaping is substantially less than what is currently located on the Project site, including front and back lawns associated with

the 11 residences (7 single-family homes and 2 duplexes) and would therefore represent an overall reduction in the need for fertilizers and pesticides. Additionally, these areas would be maintained by a licensed landscape maintenance company, rather than individual tenants, and would be required to use only State-approved chemical fertilizers and/or pesticides in accordance with directed usage requirements, which, when used as directed, have been determined to not cause substantial environmental harm. Due to the minor amount of landscaping within the Project combined with the presence of required BMPs, impacts to storm water from nutrients and/or pesticides would be less than significant.

Given the increased number of residential units and sf of commercial proposed for the Project site, there is the potential for increased concentrations of the pollutants previously described above. MM 3.2-1 from Section 3.2, Flood of this EIR, describes the proposed storm water treatment BMPs proposed for the Aviation Station Project, including an underground infiltration system to capture and percolate the total increase in runoff volume (LID volume) from implementation of the Project; catch basin inserts to filter hydrocarbons, heavy metals, sediments, and organics; conveyance of rooftop and podium-level runoff through planter boxes for filtration prior to entering a public storm drain; and storm drain stenciling that states “Warning! Drains to Ocean”. These BMPs are not currently on the Project site. Additionally, the County Code Section 12.80 sets forth the County’s requirements for protecting water quality, including “good housekeeping” provisions for storm water runoff management and BMPs for commercial facilities.

The depth of groundwater under the Project site, as stated Section 3.1, Geotechnical Hazards, is 40 feet below ground surface (bgs). This is well below the anticipated depth of excavation for subterranean parking construction, which would not exceed approximately 20 feet bgs. Therefore, no construction or operational dewatering activities would be required, and there would be no direct contact with the groundwater table.

Therefore, implementation of MM 3.2-1 and compliance with MM 4.1-3 would ensure that potential long-term impacts to surface water and to groundwater quality would be less than significant, and no mitigation would be required.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Operation of the Caltrans Off-Site Project Area Project components would not change with the implementation of the Project. Vehicle movement and parking is currently associated with the Caltrans Park-and-Ride Lot, and the Caltrans Maintenance Facility parking lot and would remain unchanged. The relocation of the Metro bus terminal to the adjacent Caltrans Off-Site Project Area would not change the type of pollutants generated in the off-site area, which would be limited to pollutants associated with vehicle activities, including those listed for “Parking Lots” in Table 4.1-3 above.

Although there would be no change in land uses associated with off-site improvements, including utility improvements, and no new pollutants would be introduced to the area, the Project would involve relocation of the Metro bus transfer area and terminal, as well as the reconfiguration of the Caltrans Park-and-Ride Lot. The Caltrans Off-Site Project Area is currently owned by Caltrans. According to the Caltrans SWMP, facilities that may be subject to water quality BMPs include road surfaces and shoulders; highway-related facilities, including maintenance facilities and park-and-ride lots; and construction activities within highway rights-of-way.

Additionally, any third parties (individuals, contractors, corporations, utilities, cities, counties, and other government agencies) proposing to conduct any type of activity within State right-of-way must obtain an Encroachment Permit issued by the Division of Traffic Operations, as stated in Section 5.1, Traffic/Access. Such activities may include utility construction, roadway approaches

and driveways, landscaping, drainage facilities, filming, special events, signals and lighting, geophysical testing, noise barrier construction, material removal, sidewalks, airspace development, and contractor's yards. An Encroachment Permit also requires compliance with Caltrans' standard plans and specifications, including storm water requirements (Caltrans 2003).

MM 4.1-4 would require the Project Applicant/Developer to satisfy all applicable regulatory requirements for all off-site components, including but not limited to the Caltrans SWMP within the Caltrans Off-Site Project Area. Compliance with MM 4.1-4 would ensure that impacts to water quality from off-site improvements would be less than significant.

4.1.6 CUMULATIVE IMPACTS

The study area for cumulative water impacts is the Dominguez Watershed. The Project site is fully developed with commercial and single-family residential uses. As required by MM 4.1-1 and MM 4.1-3, the Project would be designed in compliance with the applicable NPDES permit requirements for source-control/treatment-control BMPs, as set forth in the NPDES Construction General Permit and the SUSMP, as a part of a watershed-wide program to address cumulative impacts of development in the watershed. As previously discussed, the Project would not be a substantive source of the 303(d) listed pollutants for Dominguez Channel in Table 4.1-2 based on the type of proposed land uses combined with implementation of required BMPs (MM 4.1-3 and 4.1-4). The pollutants for which TMDLs have been assigned for Dominguez Channel are remnants of historically commonly used pollutants (i.e. DDT, Lead), or are generated by industrial and/or manufacturing land uses, which are not proposed for the Project site.

The Project would not contribute considerably to water quality impacts to downstream waters because (1) all impacts would be less than significant with implementation of MMs; (2) all other new projects and redevelopment projects in the subarea watershed would be required to comply with applicable NPDES permit requirements for water quality; and (3) the Project area is within a subarea watershed that is already essentially built out. Previous projects were therefore considered in the existing condition, and there would be no substantial future development in the area; therefore, there would be less than significant cumulative water quality impacts associated with the Project.

4.1.7 MITIGATION MEASURES

MM 4.1-1 Prior to the issuance of a grading permit, the Project Applicant/Developer shall file a Permit Registration Document (PRD) with the State Water Resources Control Board (SWRCB) in order to obtain coverage under NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities. The PRD shall consist of a Notice of Intent (NOI); Risk Assessment; Site Map; SWPPP; annual fee; and a signed certification statement. Pursuant to permit requirements, the Project Applicant/Developer shall develop and incorporate BMPs for reducing or eliminating construction-related pollutants in the site runoff to the satisfaction of Los Angeles County Department of Public Works.

MM 4.1-2 Educational materials regarding water quality impacts associated with pet waste, and appropriate options for pet waste disposal, shall be provided to all future homeowners through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs) and all future renters through the Leasing Office.

MM 4.1-3 The Project Applicant/Developer shall install and maintain post-construction treatment control Best Management Practices (BMPs) pursuant to the requirements of the Los Angeles County Department of Public Works' *Standard Urban Stormwater Mitigation Plan (SUSMP) and Low Impact Development (LID) Standard Manual* to the satisfaction of the Los Angeles County Department of Public Works.

MM 4.1-4 Prior to the commencement of construction activities in the off-site, Caltrans-owned property, the Project Applicant/Developer shall demonstrate compliance with any applicable regulations related to drainage infrastructure and post-construction treatment control BMPs pursuant to the requirements of the Caltrans Statewide SWMP and other applicable local, State, and federal regulations to the satisfaction of Caltrans.

In addition, the following Mitigation Measure from Section 3.2, Flood, is also applicable to the water quality analysis.

MM 3.2-1 The Project shall implement storm water quality Best Management Practices (BMPs) in accordance with the Los Angeles County Department of Public Works (LACDPW)'s current *Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP)* and *Low Impact Development (LID) Standard Manual* to the satisfaction of LACDPW. Proposed BMPs shall require that:

- Three on-site storm drains shall have catch basin inserts, Continuous Deflective Separation (CDS) units, or equivalent technologies, to filter hydrocarbons, trash, heavy metals, sediments, and organics;
- All storm drains shall be stenciled with "Warning! Drains to Ocean" notes and symbols per NPDES standards, or as approved by the LACDPW;
- Rooftop and podium-level runoff shall be conveyed through planter boxes for filtration prior to entering a public storm drain; and
- An on-site underground infiltration system shall be installed beneath the proposed parking lot located north of the intersection of Judah Avenue and 116th Street, and sized to capture the post-development runoff volume increase (LID volume) of 11,761 cubic feet.

4.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of MM 4.1-1 through MM 4.1-4 and MM 3.2-1 would ensure that direct and cumulative water quality impacts associated with the implementation of the Project would be less than significant.

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4.2 AIR QUALITY

This section of the EIR addresses potential short-term (construction-related) and long-term (operational) air quality impacts that would result from implementing the Aviation Station Project. This analysis is based on the *Draft Air Quality Impact Analysis, Aviation Station Project* (January 2011), prepared by BonTerra Consulting and located in Appendix E-1 of this EIR.

The Air Quality Impact Analysis includes a discussion of existing air quality, including monitored criteria pollutants, attainment designations, the LAX Air Quality and Source Apportionment Study, and toxic air contaminants. The impact analysis considers impacts that would occur from construction and operational mass daily emissions, local concentrations of criteria pollutants from on-site emissions, carbon monoxide hotspots, and toxic air contaminants. This section includes a summary of the findings of the Air Quality Impact Analysis; for the comprehensive air quality analysis and supporting data, refer to Appendix E-1 of this EIR.

4.2.1 RELEVANT POLICIES AND REGULATIONS

Federal

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (USEPA) regulates emissions sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The USEPA's air quality mandates are drawn primarily from the Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress were in 1990. As part of its enforcement responsibilities, the USEPA requires each State with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain and maintain the federal standards. The SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution by using a combination of performance standards and market-based programs within the SIP-identified timeframe. The USEPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for criteria pollutants, which are discussed further below under Section 4.2.2, Existing Conditions. Table 4.2-1, National and California Ambient Air Quality Standards, below provides additional information.

State

California Air Resources Board

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency, is responsible for coordinating and administering both the federal and State air pollution control programs in California. In this capacity, CARB conducts research; sets the California Ambient Air Quality Standards (CAAQS), as shown in Table 4.2-1 below; compiles emission inventories; develops suggested control measures; oversees local programs; and prepares the SIP. For regions that do not attain the CAAQS, CARB requires the air districts to prepare plans for attaining the standards. These plans are then integrated into the State SIP. CARB establishes emissions standards for motor vehicles sold in California, consumer products (e.g., hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

TABLE 4.2-1
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	State Standards[a,c]	Federal Standards[b]	
			Primary[c,d]	Secondary[c,e]
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	Same as Primary
PM10[h]	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM[f]	20 µg/m^3	–	Same as Primary
PM2.5	24 Hour	–	35 µg/m^3	Same as Primary
	AAM[f]	12 µg/m^3	15.0 µg/m^3	Same as Primary
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
NO_2	AAM[f]	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m^3)	0.100 ppm[g]	–
SO_2				
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	1 Hour[j]	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	–
Lead[h]	30 day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month average[i]	–	0.15 µg/m^3	
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride[h]	24 Hour	0.01 ppm (26 µg/m^3)		

TABLE 4.2-1 (Continued)
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	State Standards[a,c]	Federal Standards[b]	
			Primary[c,d]	Secondary[c,e]

O_3: ozone; µg/m^3 – micrograms per cubic meter; ppm – parts per million; PM10: large particulate matter; PM2.5: fine particulate matter; CO: carbon monoxide; NO_2: nitrogen dioxide; SO_2: sulfur dioxide.

[a] California standards for O_3, CO (except Lake Tahoe), SO_2 (1 and 24 hour), NO_2, PM10, PM2.5, and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

[b] National standards (other than O_3, PM10, PM2.5, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact USEPA for further clarification and current federal policies.

[c] Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[e] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] Annual Arithmetic Mean

[g] To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm.

[h] The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[i] National lead standard, rolling 3-month average.

[j] On June 2, 2010, the USEPA established a 1-hour primary standard for SO_2. In the same action, the 24-hour and annual standards were revoked.

–: No Standard; ppm: parts per million; µg/m^3: micrograms per cubic meter; mg/m^3: milligrams per cubic meter.

Source: CARB 2010a.

Regional

South Coast Air Quality Management District

The Aviation Station Project is located in Los Angeles County, in the South Coast Air Basin (SoCAB), where the South Coast Air Quality Management District (SCAQMD) is the agency principally responsible for comprehensive air pollution control. A regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), County transportation commissions, and local governments, and cooperates actively with all federal and State government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs). Two versions are in different stages of approval. The 2003 AQMP is an update to the 1997 AQMP. The 2003 AQMP employs up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources. The 2003 AQMP proposes policies and measures to achieve federal and State standards for healthy air quality in the SoCAB, which includes the urbanized portions of Los Angeles, Riverside and San Bernardino Counties, and all of Orange County.

The 2003 AQMP updates the attainment demonstration with the federal standards for O_3 and PM10; replaces the 1997 attainment demonstration for the federal CO standard and provides a basis for a future CO maintenance plan; and updates the maintenance plan for the federal

NO_2 standard, which the SoCAB has met since 1992. The 2003 AQMP was adopted by the SCAQMD in August 2003 and was approved, with modifications, by CARB in October 2003. CARB then submitted the 2003 State and Federal Strategy of the California SIP (which incorporates the 2003 AQMP) to the USEPA on January 9, 2004. However, this SIP has not been approved, and the 1997 AQMP with 1999 amendments remains the federally approved AQMP.

At the State level, the SCAQMD Governing Board adopted the 2007 AQMP on June 1, 2007. However, this AQMP has not been federally approved. Its purpose is to set forth a comprehensive program that will lead the SoCAB into compliance with federal 8-hour O_3 and PM2.5 air quality standards. Federal and State 8-hour O_3 and PM2.5 standards were implemented subsequent to 2003. CARB adopted the State Strategy for the 2007 SIP, including the 2007 AQMP as part of the 2007 SIP, on September 27, 2007. On November 28, 2007, CARB submitted a SIP revision to the USEPA for ozone (O_3), fine particulate matter (PM2.5), carbon monoxide (CO), and nitrogen dioxide (NO_2) in the SoCAB; this revision is identified as the "2007 South Coast SIP". The 2007 AQMP/2007 South Coast SIP demonstrates attainment of the federal PM2.5 standard in the SoCAB by 2014 and attainment of the federal 8-hour O_3 standard by 2023. The SIP also includes a request to reclassify the O_3 attainment designation from "severe" to "extreme" (CARB 2007). The USEPA approved the redesignation on May 5, 2010 to be effective June 4, 2010. The Extreme designation requires the attainment of the 8-hour O_3 standard in the SoCAB by June 2024.

In a March 2009, CARB reported the following status: "With its actions since adopting the State Strategy in September 2007, California now has in place programs and regulations that will achieve 87 percent of the reductions needed for PM2.5 attainment in the South Coast. California has also achieved 90 percent of the reductions needed from near-term measures for ozone attainment in the South Coast. Additional reductions are still needed from long term measures (CARB 2009).

4.2.2 EXISTING CONDITIONS

Climate and Meteorology

The Project site is located in the SoCAB, which is arid with little rainfall and abundant sunshine during the summer months. It has light winds and poor vertical mixing compared to the other large urban areas in the U.S. The combination of poor dispersion and abundant sunshine provides conditions especially favorable to the formation of photochemical smog. The basin is bound to the north and east by mountains with elevations exceeding 10,000 feet. The unfavorable combination of meteorology, topography, and emissions from the nation's second largest urban area results in the basin having the worst air quality in the U.S. (SCAQMD 2007a).

The annual average maximum temperature measured at the LAX climatic station from 1944 through 2009 was 70.2 degrees Fahrenheit (°F). The highest monthly average maximum temperature (76.4°F) occurs in August and the lowest monthly average minimum temperature (47.4°F) occurs in January. The average annual precipitation during the same period was 11.99 inches (WRCC 2009a). The prevailing wind direction is west to west-southwest with a mean wind speed of 7.5 miles per hour (WRCC 2009b).

Criteria Pollutants

Air quality regulations were first promulgated with the Federal Clean Air Act (CAA) of 1970. Air quality is defined by ambient air concentrations of seven "criteria air pollutants", which are a group

of common air pollutants identified by the USEPA to be of concern with respect to the health and welfare of the general public. Federal and State governments regulate criteria air pollutants by using ambient standards based on information regarding the health and/or environmental effects of each pollutant. These pollutants include NO_2, O_3, PM10, PM2.5, CO, SO_2, and lead.

Nitrogen Dioxide (NO_2)

Nitrogen gas, normally relatively inert (nonreactive), comprises about 80 percent of the air. At high temperatures (e.g., in a combustion process) and under certain other conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitrogen oxides (NOx). Nitric oxide (NO), NO_2, and nitrous oxide (N_2O) are important constituents of NOx. NO is converted to NO_2 in the atmosphere. Motor vehicle emissions are the main source of NOx in urban areas.

NO_2 is a red-brown pungent gas and is toxic to various animals and to humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membranes, and skin. In animals, long-term exposure to nitrogen oxides increases susceptibility to respiratory infections, lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans (e.g., asthmatics) who are exposed to high concentrations of NO_2 can suffer lung irritation and, potentially, lung damage. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes, and with hospital admissions for respiratory conditions.

While the NAAQS only address NO_2, NO and NO_2 are both precursors in the formation of O_3 and PM2.5, as discussed below. Because of this and the fact that NO emissions largely convert to NO_2, NOx emissions are typically examined when assessing potential air quality impacts.

Ozone (O_3)

Ozone is a secondary pollutant, which means that it is not directly emitted. It is a gas that is formed when volatile organic compounds (VOCs) (also referred to as reactive organic gases) and NOx undergo photochemical reactions that occur only in the presence of sunlight. The primary source of VOC emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NOx forms as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O_3 to form; as a result, ozone is known as a summertime air pollutant. (Ground-level O_3 is not to be confused with atmospheric O_3 or the “ozone layer”, which occurs very high in the atmosphere and shields the planet from some ultraviolet rays.) Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind, and high O_3 concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when ozone levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level ozone exposure to a variety of problems, including:

- lung irritation that can cause inflammation much like a sunburn;
- wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities;
- permanent lung damage to those with repeated exposure to ozone pollution; and
- aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis.

Particulate Matter (PM10 and PM2.5)

Particulate matter includes both aerosols and solid particles of a wide range of size and composition. Of particular concern are those particles smaller than 10 microns in size (PM10) and smaller than or equal to 2.5 microns (PM2.5). Particulate matter size refers to the aerodynamic diameter of the particle. Smaller particles are of greater concern because they can penetrate deeper into the lungs than large particles.

PM10 is generally emitted directly as a result of mechanical processes that crush or grind larger particles or from the re-suspension of dusts, most typically through construction activities and vehicular travels. PM10 generally settles out of the atmosphere rapidly and is not readily transported over large distances. PM2.5 is directly emitted in combustion exhaust and formed in atmospheric reactions between various gaseous pollutants including NOx, sulfur oxides (SOx), and VOCs. PM2.5 can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effect of airborne particulate matter is on the respiratory system. According to the USEPA, some people are much more sensitive than others to breathing fine particles (i.e., PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses and premature death, and people with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

Short-term exposures to high PM2.5 levels are associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposures to high PM2.5 levels are associated with premature mortality and development of chronic respiratory disease. Short-term exposures to high PM10 levels are associated with hospital admissions for cardiopulmonary diseases, increased respiratory symptoms, and possible premature mortality. The USEPA has concluded that available evidence does not suggest an association between long-term exposure to PM10 at current ambient levels and health effects.

Particulate matter tends to occur primarily in the form of fugitive dust. This dust appears to be generated by both local sources and by region-wide dust during moderate to high wind episodes. These regional episodes tend to be multi-district and sometimes interstate in scope. The principal sources of dust in the urban areas are grading, construction, disturbed areas of soil, and dust entrained by vehicles on roadways.

Carbon Monoxide (CO)

Carbon monoxide is a colorless and odorless gas which, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, can aggravate cardiovascular disease, and can impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations are typically found near crowded intersections, along heavily used roadways carrying slow-moving traffic, and at or near ground level. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (i.e., up to 600 feet or 185 meters) of heavily traveled roadways. Overall, CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973.

Currently, CO levels in the Project region are in compliance with the State and federal one-hour and eight-hour standards. High levels of CO commonly occur near major roadways and freeways. CO may potentially be a continual problem in the future for areas next to freeways and other major roadways.

Sulfur Dioxide (SO_2)

Sulfur oxides (SOx) constitute a class of compounds of which SO_2 and sulfur trioxide (SO_3) are of greatest importance. Ninety-five percent of pollution-related SOx emissions are in the form of SO_2. SOx emissions are typically examined when assessing potential air quality impacts of SO_2. The primary contributor of SOx emissions is fossil fuel combustion for generating electric power. Industrial processes, such as nonferrous metal smelting, also contribute to SOx emissions. SOx is also formed during combustion of motor fuels. However, most of the sulfur has been removed from fuels, greatly reducing SOx emissions from vehicles.

SO_2 combines easily with water vapor, forming aerosols of sulfurous acid (H_2SO_3), a colorless, mildly corrosive liquid. This liquid may then combine with oxygen in the air, forming the even more irritating and corrosive sulfuric acid (H_2SO_4). Peak levels of SO_2 in the air can cause temporary breathing difficulty for people with asthma who are active outdoors. Longer-term exposures to high levels of SO_2 gas and particles cause respiratory illness and aggravate existing heart disease. SO_2 reacts with other chemicals in the air to form tiny sulfate particles which are measured as PM2.5. Sulfur dioxide is monitored at several sites in the SoCAB.

Lead

Lead is a stable compound, which persists and accumulates both in the environment and in animals. In humans, it affects the body's blood-forming (or hematopoietic), nervous, and renal systems. In addition, lead has been shown to affect the normal functions of the reproductive, endocrine, hepatic, cardiovascular, immunological and gastrointestinal systems, although there is significant individual variability in response to lead exposure. Since 1975, lead emissions have been in decline due in part to the introduction of catalyst-equipped vehicles, and to the decline in the production of leaded gasoline. In general, an analysis of lead is limited to projects that emit significant quantities of the pollutant (i.e., lead smelters) and is not required for residential and commercial development projects.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. The USEPA uses the term "hazardous air pollutant" (HAP); CARB and SCAQMD use TAC. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the "criteria" pollutants previously discussed in that ambient air quality standards have not been established for them. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk, and chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM. In 1998, California identified diesel exhaust PM as a TAC based on its potential to cause cancer,

premature death, and other health problems. Diesel engines also contribute to California's fine particulate matter (i.e., PM2.5) air quality problems. Those most vulnerable are children whose lungs are still developing and the elderly who may have other serious health problems. Based on year 2005 emissions in California, diesel PM contributes each year to approximately 3,500 premature deaths and thousands of hospital admissions, asthma attacks and other respiratory symptoms, and lost workdays. Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. In addition, diesel soot causes visibility reduction and is a potent global warmer.

TACs in California are primarily regulated through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (Hot Spots Act) (AB 2588). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review must occur before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted the USEPA's list of HAPs as TACs.

Once a TAC is identified, the CARB then adopts an Airborne Toxics Control Measure for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate best available control technology (BACT) to minimize emissions (e.g., the Airborne Toxic Control Measure limits truck idling to five minutes in accordance with Title 13 California Code of Regulations [CCR] Chapter 10 Section 2485).

The CARB has adopted diesel-exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). Mobile-source emissions of TACs, including diesel PM, have been reduced significantly over the last decade, and will be reduced further in California through a progression of regulatory measures and control technologies. Compared with emissions in 2000, it was expected that diesel PM concentrations will be reduced by 75 percent in 2010 and 85 percent in 2020 (CARB 2000). The most recent data from the CARB relative to that goal was in April 2008; that data state that adopted regulations are anticipated to achieve 74 percent reduction and regulations "in progress" would increase the reduction to 85 percent (Hand 2010, CARB 2008)

CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective*, which provides guidance concerning land use compatibility with TAC sources (CARB 2005). While not a law or adopted policy, the handbook offers advisory recommendations for siting sensitive receptors near uses associated with TACs (such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities) to help keep children and other sensitive populations out of harm's way.

Existing Air Quality in the Project Area

Air Quality Monitoring

Criteria air pollutant concentrations are measured at several monitoring stations in Los Angeles County. The closest station to the Project site is identified as LAX Hastings, located at 7201 West Westchester Parkway, approximately 2.6 miles northwest of the Project site, on the northern side of LAX. Equipment at the station measures O_3, PM10, CO, NO_2, and SO_2 levels. Table 4.2-2 summarizes the air quality data from this station for the most recent three years (2007–2009).

TABLE 4.2-2
AMBIENT AIR QUALITY AT THE LAX HASTINGS MONITORING STATION

Pollutant	California Standard	National Standard	Year	Max. Level	Days State Standard Exceeded[a]	Days National Standard Exceeded[a]
O_3 (1 hour)	0.09 ppm	None	2009	0.077	0	N/A
			2008	0.086	0	N/A
			2007	0.087	0	N/A
O_3 (8 hour)	0.070 ppm	0.075 ppm for 8 hour	2009	0.070	0	0
			2008	0.075	1	0
			2007	0.075	1	0
PM10 (24 hour)	50 µg/m^3	150 µg/m^3	2009	45.0	0	0
			2008	50.0	0	0
			2007	128.0	3	0
PM10 (AAM)	20 µg/m^3 AAM	None	2009	*	*	N/A
			2008	25.5	Yes	N/A
			2007	*	*	N/A
NO_2 (1 hour)	0.18 ppm	None	2009	0.077	0	N/A
			2008	0.094	0	N/A
			2007	0.084	0	N/A
NO_2 (AAM)	0.030 ppm	0.053 ppm	2009	*	*	*
			2008	0.014	No	No
			2007	0.014	No	No
CO (1 hour)	20 ppm	35 ppm	2009	*	*	*
			2008	4.000	0	0
			2007	3.000	0	0
CO (8 hour)	9 ppm	9 ppm	2009	1.99	0	0
			2008	2.53	0	0
			2007	2.39	0	0
SO_2 (AAM)	–	0.030 ppm	2009	*	N/A	*
			2008	0.001	N/A	No
			2007	0.002	N/A	No
SO_2 (24 hour)	0.04 ppm	0.14 ppm	2009	0.006	0	0
			2008	0.004	0	0
			2007	0.009	0	0
SO_2 (3 hour)	–	0.5 ppm	2009	*	*	*
			2008	*	*	*
			2007	*	*	*
SO_2 (1 hour)	0.25 ppm	0.075 ppm	2009	*	*	*
			2008	0.02	0	0
			2007	0.02	0	0

µg/m^3 – micrograms per cubic meter; ppm – parts per million

[a] For annual averaging times a "yes" or "no" response is given if the annual average concentration exceeded the applicable standard. N/A indicates that there is no applicable standard.

[b] Annual Arithmetic Mean

* Data Not Reported or insufficient data available to determine the value.

Source: BonTerra Consulting 2010a (EIR Appendix E-1); CARB 2010a; USEPA 2010b.

Attainment Designations

Based on monitored air pollutant concentrations, the USEPA and CARB designate an area's status in attaining the NAAQS and CAAQS, respectively, for the criteria pollutants identified above. As described above, when a region is designated as a nonattainment area, the State is required to prepare a SIP and the air district is required to prepare a regional attainment plan. When an area has been reclassified from a nonattainment to an attainment area for a federal standard, the status is identified as "maintenance", and there must be a plan and measures that will keep the region in attainment for the following ten years. Table 4.2-3 summarizes the attainment status in the SoCAB for the criteria pollutants.

TABLE 4.2-3
ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN

Pollutant	State	Federal
O_3 (1 hour)	Nonattainment	No Standard
O_3 (8 hour)		Extreme Nonattainment[a]
PM10	Nonattainment	Serious Nonattainment[b]
PM2.5	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Nonattainment[c]	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment/Nonattainment[d]	Attainment
All others	Attainment/Unclassified	No Standards

[a] The USEPA redesignated the SoCAB from Severe 17 to Extreme Nonattainment effective June 4, 2010.
[b] On April 10, 2010 CARB requested the USEPA to designate the SoCAB as an attainment area for the PM10 Federal standard.
[c] The SoCAB was reclassified from attainment to nonattainment for NO_2 on March 25, 2010.
[d] Los Angeles County was reclassified from attainment to nonattainment for lead on March 25, 2010; the remainder of the SoCAB is in attainment of the State standard.

Source: CARB 2010a, 2010b; USEPA 2010a, USEPA 2010b

LAX Air Quality and Source Apportionment Study

Los Angeles World Airports (LAWA) is conducting the LAX Air Quality and Source Apportionment Study (AQAS) to identify emissions in the LAX area and the airport's contributions to specific air pollutants at and near LAX. The AQAS began in 2008 and is in its initial Demonstration Project phase. During this phase, pollutants were monitored at five locations during the summer of 2008. Published results are limited, but state that PM2.5 concentrations in the vicinity of the Project site are approximately 1 microgram per cubic meter ($\mu g/m^3$), which is below the State annual standard of 12 $\mu g/m^3$.

Toxic Air Contaminants

Carcinogenic risks (i.e., cancer risks) are estimated as the incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a probability (e.g., 10 in 1 million). A risk level of 1 in a million implies a likelihood that up to 1 person out of 1 million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the specific concentration over 70 years (an assumed lifetime). This would be in addition to those cancer cases that would normally occur in an unexposed population of one million people. The Hazard Index (HI) expresses the potential for chemicals to result in non-cancer-related health impacts.

HIs are expressed using decimal notation (e.g., 0.001). A calculated HI exposure less than 1.0 will not likely result in adverse non-cancer-related health effects over a lifetime of exposure. However, an HI greater than 1.0 does not necessarily mean that adverse effects will occur. Pursuant to SCAQMD Rule 1401(d)(1), the risks associated with potential exposure to emissions from a source equipped with the best available control technology for toxics (T-BACT) and from all emissions sources included within a "project" are acceptable if the incremental cancer risk (1) is less than 10 in 1 million and (2) is less than 1 in 1 million for sources not equipped with T-BACT.

The Multiple Air Toxics Exposure Study III (MATES III) is a monitoring and evaluation study conducted in the SoCAB. The study is a follow up to previous air toxics studies in the SoCAB and is part of the SCAQMD Governing Board's 2003–2004 Environmental Justice Workplan.

The MATES III Study consists of several elements, including a monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to characterize risk across the SoCAB. The study focuses on the carcinogenic risk from exposure to air toxics. It does not estimate mortality or other health effects from particulate exposures.

The average carcinogenic risk from air toxics in the Basin, based on the average concentrations at the fixed monitoring sites during 2004, 2005 and 2006, is about 1,200 per 1 million. This risk refers to the expected number of additional cancers in a population of 1 million individuals that are exposed over a 70-year lifetime. Using the MATES III methodology, about 94 percent of the risk is attributed to emissions associated with mobile sources, and about 6 percent of the risk is attributed to toxics emitted from stationary sources, which include industries and businesses such as dry cleaners and chrome plating operations. The results indicate that diesel exhaust is the major contributor to air toxics risk, accounting on average for about 84 percent of the total.

The MATES III study used monitored data to model risk throughout the SoCAB. The modeled carcinogenic risk for the Project area is 1,151 people per 1 million, which is less than the SoCAB average of 1,200 per million described above. The modeling also calculated the change in risk compared to prior MATES data from 1998–1999. Overall, air toxics risk improves to varying levels in most of the SoCAB with the exceptions of the areas directly downwind of the ports and those areas heavily impacted by activities associated with goods movement. For the Project site, the MATES III model comparison shows a decrease in the range of 51 to 250 per 1 million when compared with the 1998–1999 data.

4.2.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 4.2a: Will the project exceed the State's criteria for regional significance (generally (a) 500 dwelling units for residential users or (b) 40 gross acres, 650,000 sf of floor area, or 1,000 employees for non-residential uses)?

Threshold 4.2b: Is the proposal considered a sensitive use (schools, hospitals, parks) and located near a freeway or heavy industrial use?

Threshold 4.2c: Will the project increase local emissions to a significant extent due to increased traffic congestion or use of a parking structure or exceed AQMD thresholds of potential significance?

Threshold 4.2d: Will the project generate or is site in close proximity to sources that create obnoxious odors, dust, and/or hazardous emissions?

Threshold 4.2e: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Threshold 4.2f: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Threshold 4.2g: Would the project result in cumulatively considerable net increases of any criteria pollutant for which the project region is in nonattainment under applicable federal or state ambient air quality standards (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

South Coast Air Quality Management District

The SCAQMD has established significance thresholds to assess the regional and localized impacts of Project-related air pollutant emissions. The significance thresholds are updated as needed to appropriately represent the most current technical information and attainment status in the SoCAB. Table 4.2-4 presents the most current significance thresholds including regional daily thresholds for short-term construction and long-term operational emissions; maximum incremental cancer risk and hazard indices for TACs; and maximum ambient concentrations for exposure of sensitive receptors to localized pollutants. A project with daily emission rates, risk values, or concentrations below these thresholds is generally considered to have a less than significant effect on air quality.

TABLE 4.2-4
SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

Mass Daily Thresholds		
Pollutant	Construction	Operation
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants		
TACs[a]	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to Rule 402[b]	
Ambient Air Quality For Criteria Pollutants		
NO_2	1-hour average ≥ 0.18 ppm Annual average ≥ 0.03 ppm	

TABLE 4.2-4 (Continued)
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds	
PM10	24-hour average ≥ 10.4 μg/m^3 (construction)[c] 24-hour average ≥ 2.5 μg/m^3 (operation) Annual average ≥ 1.0 μg/m^3
PM2.5	24-hour average ≥ 10.4 μg/m^3 (construction)[c] 24-hour average ≥ 2.5 μg/m^3 (operation)
Sulfate	24-hour average ≥ 1.0 μg/m^3
CO	1-hour average ≥ 20.0 ppm (State) 8-hour average ≥ 9.0 ppm (State/federal)

lbs/day – pounds per day; ppm – parts per million; μg/m^3 – micrograms per cubic meter

[a] Toxic air contaminants (carcinogenic and non-carcinogenic).

[b] Rule 402 states that a project shall not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

[c] Ambient air quality threshold based on SCAQMD Rule 403.

Source: BonTerra Consulting 2010a (EIR Appendix E-1).

4.2.4 PROJECT DESIGN FEATURES

No Project Design Features related to air quality have been identified.

4.2.5 ENVIRONMENTAL IMPACTS

Threshold 4.2a: Will the project exceed the State's criteria for regional significance (generally (a) 500 dwelling units for residential users or (b) 40 gross acres, 650,000 sf of floor area, or 1,000 employees for non-residential uses)?

On-Site Impacts

The Project includes 390 residential units and 29,500 square feet (sf) of commercial and leasing office uses and would have approximately 68 employees. The Project would not exceed the State's criteria for regional significance. There would be no impact associated with this threshold.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The off-site Project components would not involve population- and/or new employment-generating uses and would not exceed the State's criteria for regional significance. There would be no impact.

Threshold 4.2b: Is the proposal considered a sensitive use (schools, hospitals, parks) and located near a freeway or heavy industrial use?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Although the Project site and Caltrans Off-Site Project Area are near the I-105 Freeway and would be adjacent to the relocated Metro bus terminal, the Project is not a school, hospital, or

park, and is not a sensitive use. Therefore, there would be no impact. However, the health risks to residents of the Project are discussed below under Threshold 4.2d.

Threshold 4.2c: Would the project increase local emissions to a significant extent due to increased traffic congestion or use of a parking structure or exceed AQMD thresholds of potential significance?

Threshold 4.2f: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The short-term construction-related emissions consider demolition and development of the Project site, the off-site redevelopment of the Caltrans Off-Site Project Area, and the off-site utility improvements. The long-term operations of the Project consider traffic generated by the proposed land uses (commercial and multi-family residential). Neither on-site nor off-site Project components would have notable long-term stationary sources of air pollutants, such as large engine-generators or boilers. Therefore, the discussions of impacts related to construction and operational air quality emissions for both on- and off-site Project components are combined below.

Construction Emissions

Regional Emissions Thresholds

Construction and operational regional emissions were calculated by using the Urban Emissions Model (URBEMIS) Version 9.2.4. URBEMIS is a computer program accepted by the SCAQMD that can be used to estimate anticipated emissions associated with land development projects in California by calculating emission rates for criteria pollutants utilizing the EMission FACtor model (EMFAC 2007) for on-road vehicles, OFFROAD 2007 for off-road vehicles, and USEPA formulas. URBEMIS has separate data bases for specific counties and air districts. The Los Angeles County database was used for the Project. The model calculates emissions of VOC and NOx (ozone [O_3] precursors), CO, SO_2, PM10, and PM2.5.[1] The results are expressed in pounds per day (lbs/day) and are compared with the mass daily thresholds of Table 4.2-4 to determine impact significance. As discussed above, an analysis of lead is limited to projects that emit significant quantities of the pollutant (i.e., lead smelters) and is not required for residential and commercial/retail development projects.

Specific inputs to URBEMIS for both construction and operations include Project land uses and acreages. Construction input data include but are not limited to the start and finish dates of Project construction phases; inventories of construction equipment to be used during each phase; volumes of structures to be demolished; volumes of cut and fill grading and materials to be imported to and exported from the site; areas to be paved; and areas to be painted.

The URBMEIS model assumes the following construction phases: Demolition, Fine Grading, Mass Grading, Trenching, Paving, Building Construction, and Architectural Coatings. The following input parameters were assumed for each phase:

[1] URBEMIS also calculates carbon dioxide (CO_2) emissions. CO_2 is not a criteria pollutant, but the data may be used in analysis of project greenhouse gas emissions.

Demolition: 377.6 on-road vehicle miles traveled (VMT); 433,500 cf of demolition materials; 1 air compressor; 1 concrete industrial saw; 1 rubber tired dozer; 2 tractors/loaders/backhoes.

Mass Grading: 61.000 cy of export resulting in 2,179 on-road VMT; 5 total acres disturbed; 1.25 acres disturbed per day; 2,400 cy of cut/fill per day; 2 rubber tired dozers; 2 tractors/loaders/backhoes; 1 water truck.

Fine Grading: 5 total acres disturbed; 1.25 acres disturbed per day; 1 grader, 1 rubber tired dozer; 1 tractor/loader/backhoe; 1 water truck

Trenching: 2 excavators; 1 general use equipment; 1 tractor/loader/backhoe.

Paving (Metro): 0.8 acres to be paved; 4 cement and mortar mixers; 1 paver; 1 roller; 1 tractor/loader/backhoe.

Paving (Project): 1.56 acres to be paved; 4 cement and mortar mixers; 1 paver; 1 paving equipment; 1 roller; 1 tractor/loader/backhoe.

Building Construction: 1 crane; 2 forklifts; 1 generator set; 1 other equipment; 1 tractor/loader/backhoe;3 welders

Architectural Coatings: 50 – 100 VOC for residential interior; 100 – 250 VOC for residential exterior; 250 VOC for non-residential interior and exterior

Output emissions data sources include off-road equipment, on-road vehicles, fugitive dust, and VOCs from asphalt and architectural coatings. The URBEMIS model includes data to calculate emissions reductions resulting from implementing mitigation measures. The details of phasing, selection of construction equipment, areas to be paved, and other input parameters, including URBEMIS data, are included in Appendix E-1, Air Quality Impact Analysis, of this EIR.

Temporary air quality emissions would result from Project construction activities. Air pollutants would be emitted by off- and on-road construction equipment and worker vehicles; fugitive dust would be generated during demolition and grading on the Project site. Other construction activities that emit criteria pollutants include painting, surface coating, and asphalt paving operations. Construction activities are anticipated to start in mid-2011 and continue through the end of 2012 (approximately 18 months). Construction emissions were calculated for a series of phases (e.g., demolition, grading/excavation, construction, architectural coatings) with an overlapping of phases as appropriate. It was assumed that the mass grading and areas of excavation would be five acres total, of which a maximum of 25 percent (or 1.25 acres) of grading/excavation would occur per day, not to exceed 2,400 cy of cut/fill per day during mass grading.

The results of the URBEMIS calculations for Project construction, including off-site areas, are shown in Table 4.2-5. Compliance with SCAQMD Rules is required; specifically, construction would be performed in accordance with Rule 403, Fugitive Dust, as described in MM 4.2-1. Therefore, dust-control measures have been included in the calculations shown in Table 4.2-5. The data are presented as the maximum anticipated daily emissions for comparison with the SCAQMD mass daily thresholds.

TABLE 4.2-5
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)

Year	VOC	NOx	CO	SOx	PM10	PM2.5
2011[a]	9	92	60	<1	71	18
2012[b]	54	45	60	<1	3	3
Maximum Day For Construction	54	92	60	<1	71	18
SCAQMD Thresholds	***75***	***100***	***550***	***150***	***150***	***55***
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

[a] Maximum 2011 emissions of VOC, NOx, PM10, and PM2.5 emissions occur during mass grading. Maximum 2011 emissions of CO occur during concurrent building and trenching.
[b] Maximum 2012 emissions of VOC, NOx, CO, PM10, and PM2.5 occur during concurrent asphalt paving, building, and architectural coating. Emissions by activity are shown in Appendix E-1.
Source: BonTerra Consulting 2010a (EIR Appendix E-1).

As shown in Table 4.2-5, the highest NOx, PM10, and PM2.5 emissions would occur during the mass grading phase in 2011 and the maximum anticipated daily VOC and CO emissions would occur during the concurrent building, painting, and paving activities in 2012. The construction emissions calculations indicate that the on-road export of excavated soil during the mass grading phase would be the critical factor for NOx emissions. The destination for disposal of the soil would not be known until the time of construction; the URBEMIS model uses a default value of 20 miles round trip.

Based on the default value, NOx emissions must not exceed 100 lbs/day (as shown in Table 4.2-5) to ensure a less than significant impact. Therefore, MM 4.2-2 requires that mass grading operations do not exceed NOx emissions threshold of 100 lbs/day, which must be demonstrated by emissions calculations for a typical day based on the equipment selected for on-road and off-road use. MM 4.2-3 describes five additional measures to minimize NOx emissions, such as limiting diesel equipment idling to less than five minutes and scheduling hauling activities during off-peak hours to the extent practicable. Therefore, with implementation of MM 4.2-2 and MM 4.2-3 to limit NOx emissions and MM 4.2-1 (SCAQMD Rule 403) to reduce particulate emissions, Project construction maximum regional daily emissions would be less than the SCAQMD thresholds and impacts would be less than significant.

Local Significance Thresholds

As part of the SCAQMD's environmental justice program, attention has focused on localized effects of air quality. In addition to the mass daily emissions (or regional thresholds), the SCAQMD established CEQA significance thresholds for ambient air quality to address localized impacts, as shown in Table 4.2-4. SCAQMD staff then developed localized significance threshold (LST) methodology and mass rate look-up tables by source receptor area (SRA) that can be used by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts. The Project site is within Source Receptor Area (SRA) 3, Southwest Coastal Los Angeles County.

LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each SRA. The LST methodology is recommended to be limited to projects where the emissions source area is five acres or less and avoids the need for complex dispersion modeling. This method may be used for the Project because the total area of active grading/excavation activity would not exceed five acres. The local concentration analysis has been performed for Project construction activities, but not for Project operations because there would be no substantial long-term

sources of pollutants, such as boilers or engine-generators. In the LST analysis, only on-site emissions are considered[2]; thus, off-site emissions such as haul trucks and worker commuting are not included, and the emissions are less than shown in Table 4.2-5.

The closest receptors to the site boundary are the homes on the eastern side of Judah Avenue and on the southern side of West 117th Street opposite the Project site. The results of the LST calculations in the Air Quality Analysis are shown in Table 4.2-6.

TABLE 4.2-6
LOCAL SIGNIFICANCE THRESHOLD EMISSIONS

	Emissions (lbs/day)			
	NOx	**CO**	**PM10**	**PM2.5**
Maximum Daily Emissions	30	21	**68**	**15**
LST Thresholds	100[a]	550[a]	15	8
Exceed Threshold?	**No**	**No**	**Yes**	**Yes**

Bold and underlined values are greater than the threshold.
lbs/day: pounds per day; LST: localized significance threshold

[a] Mass daily emissions thresholds are shown because the LST table values for NOx and CO are greater than the mass emissions thresholds.

Source: BonTerra Consulting 2010a (EIR Appendix E-1).

As shown in Table 4.2-6, the maximum daily NOx and CO emissions would be well below the LST thresholds. However, the maximum daily PM10 and PM2.5 emissions would exceed the thresholds and indicate a potential for local particulate matter concentrations in excess of the 24-hour standards. As discussed above, the Project would be required to implement SCAQMD Rule 403, Fugitive Dust, as described in MM 4.2-1; the maximum particulate emission reductions available in the URBEMIS model have been included in the calculations. Therefore, the LST analysis indicates a significant impact. Rule 403 represents the feasible mitigation measures for dust control, and prohibits visible dust beyond the property line of the Project site. This limitation may result in impacts less than indicated by Table 4.2-6, but the additional reductions cannot be quantified. Therefore, the local impact related to emissions of particulate matter would be significant and unavoidable for a short-term period of approximately 28 working days, which is the approximate timeframe required for grading and subterranean excavation.

Operational Emissions

Operations inputs to URBEMIS include year of operations and vehicle trip generation rates. Model default values for trip distances, fleet composition, and other factors may be adjusted for Project-specific conditions. Output operational emissions data sources include area sources and mobile sources. The area sources are natural gas use, fireplaces, landscape maintenance equipment, architectural coatings used for routine maintenance, and consumer products that include VOCs. Mobile sources are the vehicles used by residents and by patrons, staff, and vendors for commercial businesses.

Operational emissions for the Project were calculated as follows: the total emissions for the Aviation Station Project were calculated, and then the emissions for the existing Project site uses were calculated and subtracted from the future uses to provide a result of the net emissions attributed to the Project. Inputs to the model for area source emissions are the

[2] In this instance, on-site refers to both the "on-site areas and the Caltrans Off-Site Project Area" as defined for the Project.

residential and commercial land uses and include a reduction for energy use because the buildings would be designed to exceed 2005 Title 24 energy standards.

Inputs to the model for mobile sources are the vehicle trip generation data from the Project traffic impact analysis, as described in Section 5.1, Traffic, of this EIR. Although the URBEMIS model includes mitigation measures for mixed-use development and nearby transit service, these measures were not incorporated because the traffic analysis incorporates trip reductions for these factors. The results of the calculations are shown in Table 4.2-7.

TABLE 4.2-7
ESTIMATED MAXIMUM DAILY OPERATIONAL EMISSIONS (POUNDS/DAY)

Year 2014	VOC	NOx	CO	SOx	PM10	PM2.5
Proposed Project						
Area Source Emissions	21	3	6	<0.5	<0.5	<0.5
Vehicle Emissions	20	30	232	<0.5	51	10
Total	*41*	*33*	*238*	*<0.5*	*51*	*10*
Existing Land Uses						
Area Source Emissions	1	<0.5	5	<0.5	0	0
Vehicle Emissions	11	17	132	<0.5	30	6
Total	*12*	*18*	*137*	*<0.5*	*30*	*6*
Net Project Emissions	**29**	**15**	**101**	**<0.5**	**21**	**4**
SCAQMD Thresholds	***55***	***55***	***550***	***150***	***150***	***55***
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

Values shown are higher of summer or winter emissions totals may not add due to rounding.
Source: BonTerra Consulting 2010a (EIR Appendix E-1)

As shown in Table 4.2-7, the estimated maximum daily operational emissions would be less than the SCAQMD CEQA thresholds. Impacts would be less than significant and no mitigation would be required.

Carbon Monoxide Hotspots

A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. An initial screening procedure is provided in the procedures and guidelines contained in the *Transportation Project-Level Carbon Monoxide Protocol* (the CO Protocol) to determine whether a project poses the potential for a CO hotspot. According to the protocol, projects may worsen air quality if they (1) increase the percentage of vehicles in cold start modes by two percent or more; (2) increase traffic volumes by five percent or more over existing volumes; or (3) worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at Level of Service (LOS) E or F, or causing an intersection that would operate at LOS D or better without the Project to operate at LOS E or F.

An initial screening for the potential for the Project to create a CO hotspot was conducted in accordance with the CO Protocol. The Project traffic analysis, as described in Section 5.1, Traffic, and Appendix H of this EIR, indicates that under 2014 Project conditions at the intersection of Aviation and Imperial Boulevards, the Project would generate 92 cold start trips in the AM peak hour and 191 total trips in the PM peak hour. These values are less than two percent of the forecast volumes of approximately 4,900 and 5,300 vehicles for the AM and PM peak hours, respectively. Further, all study area intersections would operate at LOS D or better. Therefore, the Project would not create a CO hotspot. There are no severely congested

intersections adjacent to the Project site; therefore, the Project would not expose future residents to excessive CO concentrations. The impact would be less than significant.

Toxic Air Contaminants

Pollutants Generated On-Site

Construction activities would result in short-term, Project-generated emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment used for site preparation (e.g., demolition, excavation, and grading); paving; building construction; and other miscellaneous activities. CARB identified diesel PM as a TAC in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk.[3] The risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer period of time.

According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Project. Thus, Project-generated or construction-related emissions of TACs would not expose sensitive receptors to substantial emissions of TACs because (1) the use of off-road, heavy-duty diesel equipment would be temporary (short in duration when compared to 70 years); (2) diesel PM has highly dispersive properties; and (3) exhaust emissions would further be reduced with improved equipment.

Operation of the Project's residential and commercial uses would not be a source of substantial TACs. Therefore, the exposure of future residents of the Aviation Station Project to TACs from on-site sources would be less than significant and no mitigation would be required. Exposure to future residents from existing, off-site sources of TACs is discussed below under Threshold 4.2d.

Threshold 4.2d: Would the project generate or is site in close proximity to sources that create obnoxious odors, dust, and/or hazardous emissions?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Construction Emissions

Project construction equipment and activities would generate odors, dust, and diesel PM. Dust emissions, dust control, and diesel PM emissions were addressed above under Threshold 4.2c. Potential construction odors include diesel exhaust emissions, roofing, painting, and paving operations. There would be situations where construction activity odors would be noticeable by nearby residents, but these odors would not be unfamiliar or necessarily objectionable. The odors would be temporary and would dissipate rapidly from the source with an increase in distance. Therefore, the impacts would be short-term, would not likely be objectionable, and would be considered less than significant.

[3] Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance.

Operational Emissions

Odors

During long-term Project operations, some odors associated with residential uses would be expected to occur, such as from cooking or barbequing. Additional odors may come from the commercial uses if a restaurant occupies one or more of the commercial spaces. The odors would be no different than in any other residential area with supporting services and would not be considered objectionable by a substantial number of people. Therefore, potential impact associated with odors would be less than significant and no mitigation would be required.

Health Risks to Residents Near Freeways

Background Studies and Guidelines

There is a body of data linking adverse health effects with traffic-generated pollutants. As noted in Section 4.2.2, Long-term exposures to high PM2.5 levels are associated with premature mortality and development of chronic respiratory disease. Additionally, ultrafine particles (UFP or PM0.1), which are particulate matter less than or equal to 0.1 micron in size, are also considered an important contributor to cardiovascular and respiratory diseases. As compared with PM10 and PM2.5, UFP have a higher carbon content, larger total surface area, and greater potential for carrying toxic compounds. Because of their small size, these particles can be inhaled deeply into the lung and deposited in the alveoli (smallest sacs) of the lung. Diesel exhaust is a source of UFP. UFP is not a criteria pollutant, and there are no ambient air quality standards for UFP.

These studies have resulted in the publication of guidelines and recommendations relative to the location of certain land uses near freeways and major roadways with high traffic volumes. In 2005, CARB recommended that new sensitive land uses not be sited within 500 feet of a freeway, urban road with 100,000 vehicles/day, or rural road with 50,000 vehicles/day.

There are limitations to a generalized application of the health studies and CARB recommendation to individual projects. These limitations include the following, and are further discussed in subsequent paragraphs as they relate to the proposed Project:

- Many of the studies relating diesel PM and health effects were performed on freeways, i.e. in the freeway traffic following diesel vehicles, or adjacent to freeways with relatively high volumes of diesel trucks, such as in the Port of Los Angeles/Port of Long Beach area. The studies do not relate truck or traffic volumes to health effects.

- Few of the studies address the meteorological relationships of the subjects to the freeway.

- The studies are, necessarily, historical; thus, the diesel vehicle fleet was older and had higher pollutant emissions than the cleaner vehicles now mandated by federal and state regulations.

Pollutants Contributing To Negative Health Effects

Cancer risk and chronic non-cancer risks from on-road traffic have been associated principally with PM2.5, Diesel PM, benzene, and 1.3-butadiene. The risk from Diesel PM represents approximately 70 percent of the known statewide cancer risk from outdoor air toxics. As noted above, UFP is now also considered an important factor for some negative health effects.

General and Project-Specific Factors Affecting Exposure to Pollutants

Distance

As discussed in the CARB Air Quality and Land Use Handbook, the distances of 300 feet and 500 feet from a freeway are both important. A southern California study showed measured concentrations of vehicle-related pollutants, including ultra-fine particles, decreased within approximately 300 feet of the 710 and 405 freeways. Another study looked at the validity of using distance from a roadway as a measure of exposure to traffic related air pollution. This study showed that concentrations of traffic related pollutants declined with distance from the road, primarily in the first 500 feet.

These findings are consistent with air quality modeling and risk analyses done by ARB staff that show an estimated range of potential cancer risk that decreases with distance from freeways. The estimated risk varies with the local meteorology, including wind pattern. As an example of a study done in relation to Interstate 80, at 300 feet downwind from that freeway with truck traffic of 10,000 trucks per day, the potential cancer risk was as high as 100 in one million. The cancer health risk at 300 feet on the upwind side of the freeway was much less. The risk at that distance for all freeways will vary based on local conditions – it may be higher or lower.

However, in all these analyses the relative exposure and health risk dropped substantially within the first 300 feet. State law restricts the siting of new schools within 500 feet of a freeway, urban roadways with 100,000 vehicles/day, or rural roadways with 50,000 vehicles with some exceptions. The available data also show that exposure is reduced at approximately 300 feet. Exhibit 4.2-1 shows lines 300 and 500 feet from the southern edge of the main lane of eastbound I-105 on the Aviation Station Project site plan.

Meteorology

Because wind transports roadway pollutants, sites upwind of freeways have pollutant concentrations near background levels and sites downwind of freeways have elevated concentrations in the first 500 feet. A SCAQMD study found elevated levels of pollutants from vehicle exhaust near freeways. The concentrations dropped off downwind from the freeway within the first 150 meters (490 feet) and approached upwind levels at about a 300-meter (980-foot) distance. This is illustrated in the upper graph in Exhibit 4.2-2 (SCAQMD 2005). The lower graph of Exhibit 4.2-2 shows that the reduction of concentration with distance occurs similarly on freeways with low and high fractions of diesel truck traffic.

Representative wind data for the Project site is data collected by the SCAQMD at the LAX Hasting site. As shown in Exhibit 4.2-3, the wind blows away from the site 65 percent of the time. Thus, the Project site is more often upwind than downwind, and is likely to be subject to winds from the freeway about 35 percent of the time.

Total and Truck Traffic Volumes

The CARB Handbook gives no criterion for truck volumes, although medium and heavy trucks are the major source of diesel PM on roadways. The USEPA and the Federal Highway Administration (FHWA), in their guidance document *Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas*, divide projects into those that are “of air quality concern” and those that are not. An example of a project of concern is one located on a new highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 annual average daily traffic trips (AADT), and where 8 percent or more of such AADT is diesel truck traffic

(USEPA and FHWA 2006). Thus, a project of air quality concern for particulates would have 10,000 AADT or more of diesel truck traffic.

The existing traffic volume on I-105 in the segment adjacent to the Aviation Station site is 121,000 AADT (Caltrans 2009). Assuming all trucks with 3 or more axles are diesel, the corresponding truck volume is 1,682, or less than 1.4 percent of the AADT. Given that the Project traffic analysis projects an annual traffic increase of 0.7 percent, the year 2035 AADT would be approximately 1,982. While the AADT would be in the range of concern indicated in the FHWA guidance documents, the diesel truck component would be less than 20 percent of the implied threshold of 10,000 AADT or greater.

Anticipated Changes in the Emissions Sources

From 2008 to 2035, traffic volume is expected to grow approximately 21 percent, increasing pollutant levels. However, due to EPA regulations requiring cleaner fuels and engines, emission factors will decrease. According to a 2006 FHWA analysis, even if VMT increases by 64 percent, MSATs will decrease 57 to 87 percent from 2000 to 2020 (FHWA 2006). Moreover, it is reasonable to assume that the FHWA did not assume the recent federal and State laws mandating further improvements in average fuel economy, and that future emission reduction estimates would now be greater.

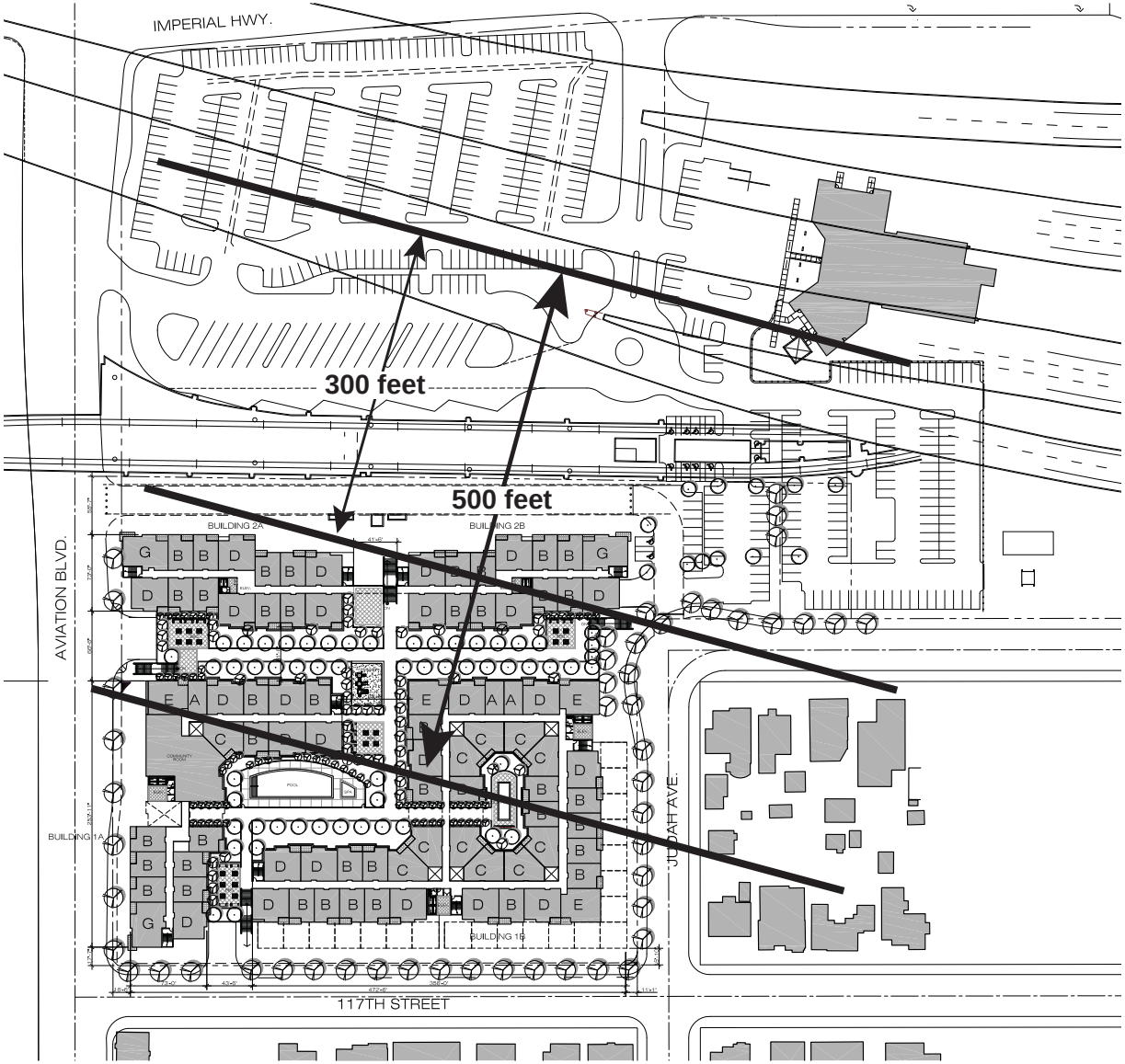
The CARB has adopted diesel-exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment. Mobile-source emissions of TACs, including diesel PM, have declined significantly over the last decade, and will be reduced further by a progression of regulatory measures and control technologies. Adopted regulations are anticipated to achieve 74 percent reduction compared with the year 2000, and regulations “in progress” would achieve 85 percent reductions (Hand 2010, CARB 2008a).

Quantitative Analysis

A quantitative health risk assessment (HRA) was conducted in accordance with the methods and procedures described in the California Air Pollution Control Officers Association (CAPCOA) July 2009 guidance document *Health Risk Assessments for Proposed Land Use Projects.* The purpose of the HRA is to estimate the incremental cancer risk and non-cancer health risk due to diesel PM. PM10 concentrations at the Project site from diesel trucks on I-105 were calculated using the USEPA CAL3QHCR dispersion model. Peak hour truck volume and emission factor were assumed.

Cancer Risk. The maximum PM10 concentration from diesel exhaust would occur at the northeast corner of the Project buildings. The maximum incremental cancer risk (MICR) is calculated by assuming that a resident at that location would be exposed to the maximum PM10 concentration for 350 days per year for a period of 70 years. Because it is very unlikely that a person would live at this location for 70 years and because diesel PM emissions will decline in future years, as described above, the risk calculation is very conservative. The cancer risk from diesel PM at the northeast corner of the Project, i.e. the MICR, was calculated to be 4.4 in 1 million. This value is less than the SCAQMD CEQA significance threshold of 10 in 1 million; see Table 4.2-4. The cancer risk would be less at all other parts of the Project site, declining to approximately 1 in 1 million at the southern edge of the proposed buildings.

Cancer Burden. SCAQMD requires calculation of the cancer burden for areas where the cancer risk would be greater than or equal to 1 in one million. For the Project, this area would include the entire Project site. If it is conservatively assumed that the residential population of



Source: Withee Malcom Architects, LLP

Distances from Freeway – Eastbound I-105

Exhibit 4.2-1

Aviation Station Project

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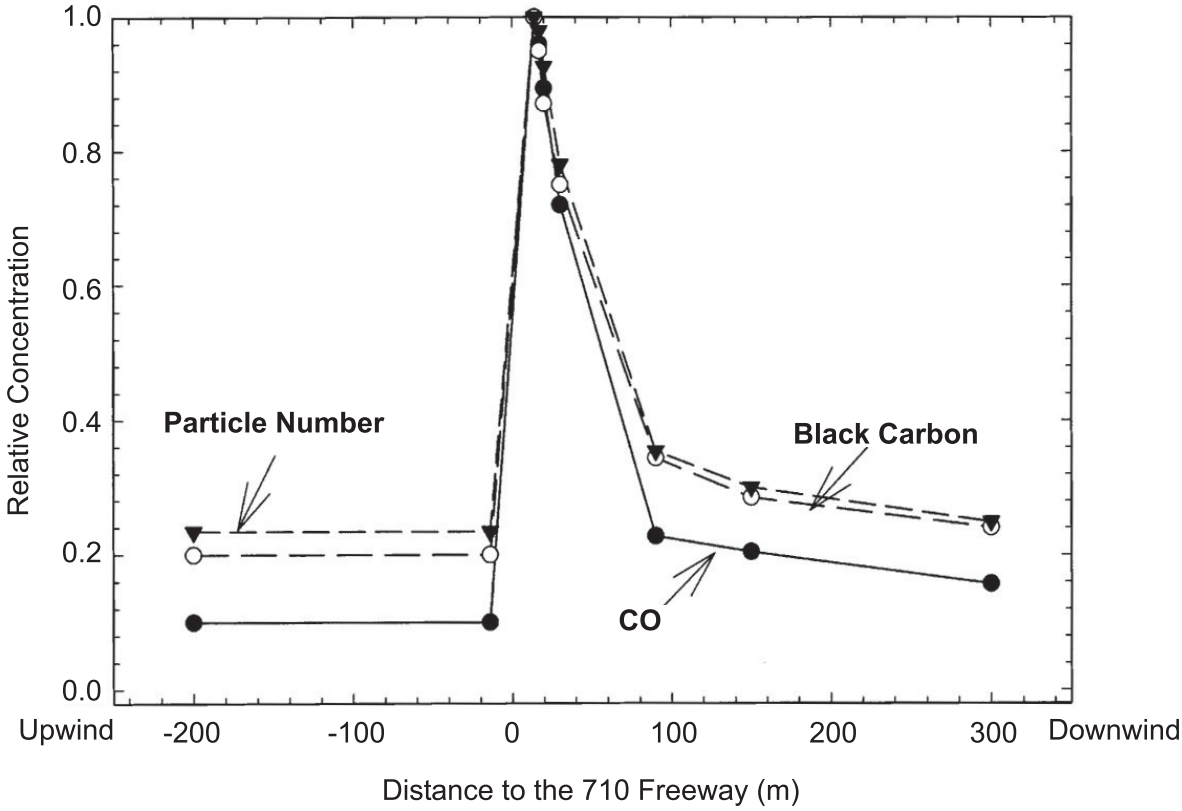

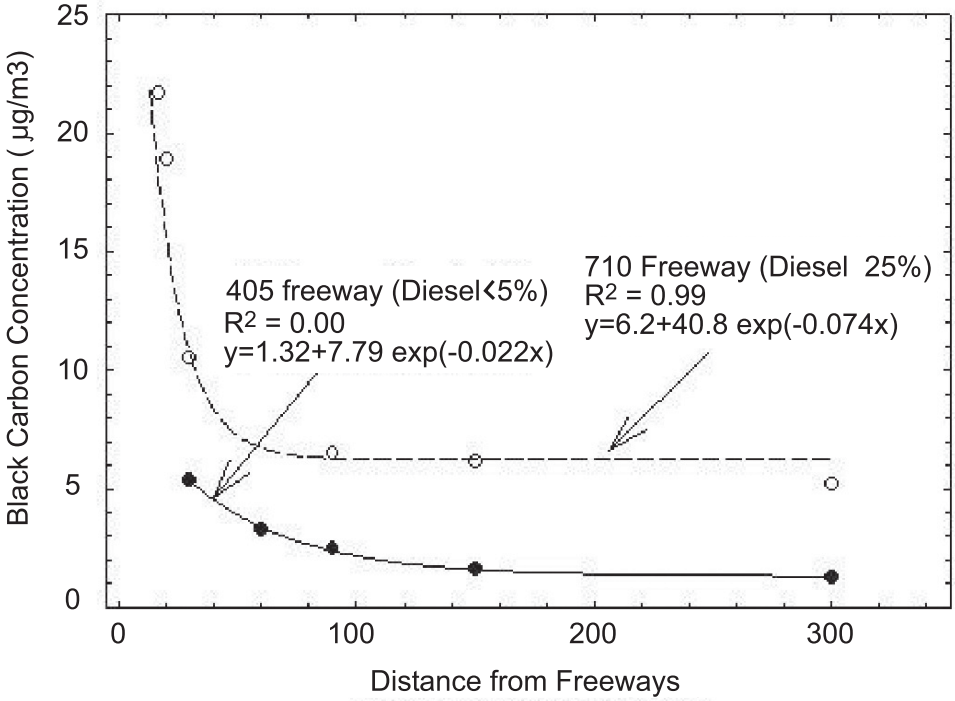

Zhu et al.," Study of ultrafine particles near a major highway with heavy-duty diesel traffic, Atmospheric Environment," 36, (2002) 4323-4335

Source: EDAW Inc. 2007

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Pollutant Concentrations

Exhibit 4.2-2

Aviation Station Project

BonTerra CONSULTING

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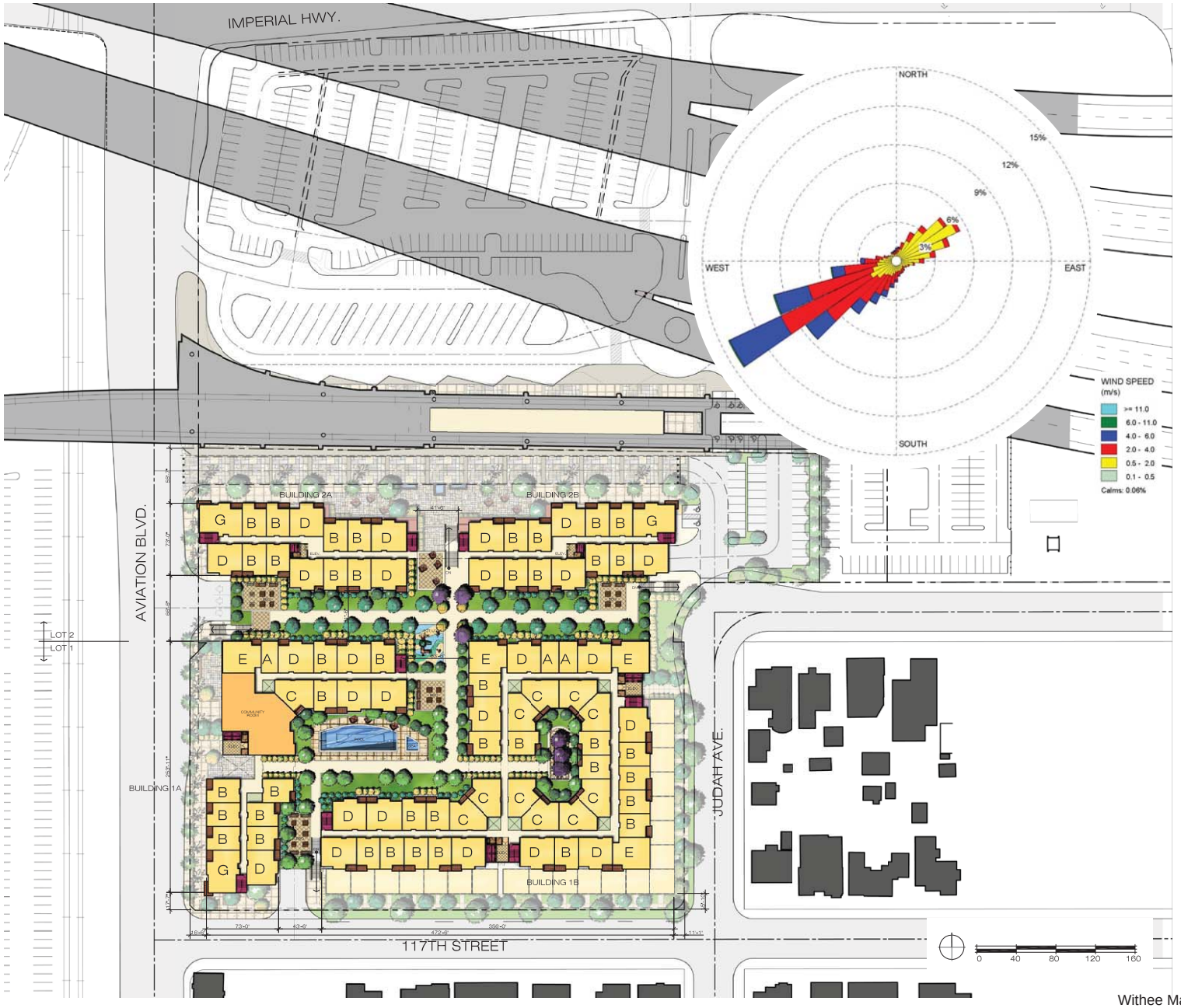

Withee Malcolm Architects, LLP 2009

Wind Rose on Site Plan

Exhibit 4.2-3

Aviation Station Project

BonTerra CONSULTING

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the Project, 1,156 persons would be exposed to the MICR of 4.4 in 1 million, the cancer burden would be 0.005 excess cases. This value is approximately one percent of the SCAQMD CEQA significance threshold of 0.5 excess cases; see Table 4.2-4.

Non-cancer Health Risk. The hazard index for non-cancer health risk was calculated to be 0.003, which is substantially less than the SCAQMD CEQA significance threshold of 1.0, as shown in Table 4.2-4.

Conclusions

Based upon the above data, it is concluded that the health risk to residents of the Project from diesel PM emissions from I-105 would be less than significant and no mitigation would be required.

Although the HRA demonstrates that cancer and chronic non-cancer risks would be less than significant, it is recognized that persons residing near freeways and roadways with diesel-engine vehicles would be exposed to more pollutants, including PM10, PM2.5, and UFP during downwind conditions, than persons living at greater distances from the same freeways and roadways. Therefore, the potential for negative health effects due to particulate exposure would be greater for persons living near freeways. However, consideration of the truck volume and meteorological factors specific to the Project site, and the forecast continuing reduction in diesel exhaust emissions, the health risks to residents of the proposed Project would be less than significant. Although impacts are less than significant, MM 4.2-4 is included to provide future residents of the Project with information regarding exposure to PM10, PM2.5, and UFP.

Pollutants Generated at Los Angeles International Airport (LAX)

The southeastern corner of the boundary of LAX is approximately 1,000 feet northwest of the Project site. The May 2009 LAX Bradley West Draft Environmental Impact Report (EIR) included a health risk analysis for a proposed LAX project. The results of the analysis state that project-related cancer risks for all adult receptors and young children are predicted to be below the threshold of significance (i.e., 10 in 1 million). The detailed map in the analysis document shows that the risk in the Aviation Station Project area would be less than 1 in 1 million. The analysis also states that project-related chronic non-cancer health hazards for all receptor types are below the threshold of significance (i.e. Hazard Index <1.0). Based on the above data, the exposure of future residents of the Project to TACs from off-site sources would be less than significant and no mitigation would be required.

Threshold 4.2e: Would the project conflict with or obstruct implementation of the applicable air quality plan?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The two principal criteria for conformance to the AQMP are whether (1) the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards and (2) whether the project would exceed the assumptions in the AQMP (SCAQMD 1993).

With respect to the first criterion, the analysis above demonstrates that the Project would not result in a long-term increase in the frequency or severity of existing regional air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards because neither operational emissions nor local CO emissions would exceed SCAQMD CEQA significance thresholds.

With respect to the second criterion, the current County of Los Angeles General Plan land use designation for Lot 1 is “Low Density Residential”, and the current City of Los Angeles General Plan land use designation for Lot 2 is “Public Facilities”. The Project would require a General Plan Amendment (GPA) to change the site designation to “High Density Residential”, the planned Project land use designation for both Lot 1 and Lot 2. The AQMP assumptions for mobile source emissions are based on assumed VMT, calculated from trip generation and trip distances, which are in turn based upon existing uses and the anticipated land uses included in general plans. Section 6.3, Population, Housing, Employment, and Recreation analysis, determined that the population that would be generated by the Project is within the SCAG projections for both the County and the Subregion, the Project would improve the jobs/housing ratio, support alternative transit modes and ridesharing programs, and would have a less than significant impact on VMT. Based on these analyses, the Project would conform to the AQMP and there would be no impact.

Threshold 4.2g: Would the project result in cumulatively considerable net increases of any criteria pollutant for which the project region is in nonattainment under applicable federal or state ambient air quality standards (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Construction-Related Impacts

The region is a nonattainment area for PM10, PM2.5, NO2, and ozone precursors VOC and NOx. The Project would contribute criteria pollutants to the area during short-term Project construction. With implementation of MM 4.2-1 through MM 4.2-3, the Project would result in less than significant temporary construction-related regional air quality impacts, as quantified above in Tables 4.2-5 through 4.2-7. Assuming all related projects also implement available feasible construction emission-control measures consistent with SCAQMD guidelines, regional air quality construction emissions on a project-by-project basis would be less than significant.

However, localized Project construction emissions of PM10 and PM2.5 would have a direct significant and unavoidable temporary impact based on localized significance thresholds on surrounding sensitive receptors, even with the implementation of Rule 403’s best available control measures (MM 4.2-1). As previously discussed, this impact would be significant and unavoidable.

Short-term cumulative impacts related to air quality could occur if construction associated with the Project and surrounding current and future development was to occur simultaneously. In particular, with respect to local impacts, cumulative construction particulate impacts are considered when projects may be within a few hundred yards of each other. However, as shown on Exhibit 2-4 in Section 2.0 Environmental Setting and Project Description, there are no known projects within one-half mile of the Project site that would be undergoing major construction concurrently with the Project. Therefore, cumulative short-term construction emissions would be less than significant for VOC and NOx because the likelihood of the simultaneous construction is low due to the small number of potential future projects in proximity to the Project site.

Operational Impacts

The region is a nonattainment area for PM10, PM2.5, NO2, and ozone precursors VOC and NOx. The Project would contribute criteria pollutants to the area during Project operation. Long-term emissions of VOC from operation of the Project would be less than 55 percent of the

SCAQMD threshold and emissions of other nonattainment pollutants would be less than 30 percent of the thresholds. These incremental quantities are not of a magnitude to be cumulatively considerable, such as emissions in the range of 80 to 99 percent of the SCAQMD thresholds. Therefore, the Project would have a less than significant cumulative air quality impact and no mitigation would be required.

4.2.6 CUMULATIVE IMPACTS

This section provides an analysis of cumulative air quality impacts of the Project, in association with other past, present, and reasonably foreseeable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines (*California Code of Regulations,* Title 14). The list of past, present, and reasonably foreseeable future projects used for this cumulative analysis is presented in Section 2.5, Basis for Cumulative Impact Analysis, of this EIR.

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The region is a nonattainment area for PM10, PM2.5, NO2, and ozone precursors VOC and NOx, which would be increased in the Project area during short-term Project construction and during operations. Other air quality pollutants of concern include CO hotspots, diesel PM and TACs, and odors. The analysis of the Project's incremental contribution to these air pollutants is provided below.

Construction-Related Cumulative Impacts

As previously discussed, with implementation of MM 4.2-1 through MM 4.2-3, the Project would result in less than significant temporary construction-related regional air quality impacts related to criteria pollutants. Assuming all related projects also implement available feasible construction emission-control measures consistent with SCAQMD guidelines, construction emissions on a project-by-project basis would be less than significant.

However, Project construction emissions of PM10 and PM2.5 would have a direct localized significant and unavoidable impact based on localized significance thresholds on surrounding sensitive receptors, even with the implementation of Rule 403's best available control measures (MM 4.2-1). Therefore the impact would also be cumulatively significant and unavoidable. There would be less than significant impacts related to exposure of sensitive receptors to substantial pollutant concentrations from CO hot spots, odors, or TACs.

Short-term cumulative impacts for criteria pollutants, CO hotspots, diesel PM and TACs, and odors could occur if construction associated with the Project and surrounding current and future development was to occur simultaneously. However, as previously discussed under Threshold 4.2g above, there are no known projects within one-half mile of the Project site that would be undergoing major construction concurrently with the Project. Therefore, cumulative short-term construction emissions would be less than significant for criteria pollutants, CO hotspots, diesel PM and TACs, and odors because the likelihood of the simultaneous construction is low due to the small number of potential future projects in proximity to the Project site.

Operational Cumulative Impacts

As previously discussed under Threshold 4.2g above, long-term emissions of VOC from operation of the Project would be less than 55 percent of the SCAQMD threshold and emissions of other nonattainment pollutants would be less than 30 percent of the thresholds. These incremental quantities are not of a magnitude to be cumulatively considerable, such as

emissions in the range of 80 to 99 percent of the SCAQMD thresholds. Therefore, the Project would have a less than significant cumulative air quality impact on criteria pollutants and no mitigation would be required. Additionally, the Project has less than significant direct operational impacts related to CO hotspots, diesel PM and TACs, and odors. As shown on Exhibit 2-4 in Section 2.0 Environmental Setting and Project Description, there are no known projects within one-half mile of the Project site that are planned for construction. Therefore, there are no forseeable new projects in the vicinity that would contribute to CO hotspots, diesel PM and TACs, or odors, and cumulative impacts would be less than significant.

4.2.7 MITIGATION MEASURES

MM 4.2-1 Dust control measures for Project construction activities shall be in compliance with SCAQMD Rule 403 for Best Available Control Measures and to the satisfaction of SCAQMD and the County Department of Regional Planning. Contractor compliance with Rule 403 requirements shall be mandated in the contractor's final construction plans and specifications and shall include the following measures:

- Land disturbance shall be minimized to the extent feasible. Grading activities shall be limited to the disturbance of no more than 1.25 acres per day and shall not exceed 2,400 cubic yards of grading per day.
- Haul trucks shall be covered when loaded with fill.
- Paved streets shall be swept at least once per day where there is evidence of dirt that has been carried onto the roadway.
- Watering trucks shall be used to minimize dust. Watering should be sufficient to confine dust plumes to the Project work areas. Active disturbed areas shall have water applied to them three times daily.
- For disturbed surfaces to be left inactive for four or more days and that will not be revegetated, a chemical stabilizer shall be applied per manufacturer's instruction.
- For unpaved roads, chemical stabilizers shall be applied or the roads shall be watered once per hour during active operation.
- Vehicle speed on unpaved roads shall be limited to 15 miles per hour.
- For open storage piles that will remain on site for two or more days, water shall be applied once per hour, or coverings shall be installed.
- For paved road track-out, all haul vehicles shall be covered, or shall comply with vehicle freeboard requirements of Section 23114 of the *California Vehicle Code* for both public and private roads. During high wind conditions (wind speeds in excess of 25 mph), all earth-moving activities shall cease or water shall be applied to soil not more than 15 minutes prior to disturbing such soil.

MM 4.2-2 Mass grading operations shall be planned and operated in a manner such that NOx emissions shall not exceed 100 pounds/day. This shall be demonstrated by

emissions calculations for a reasonable maximum mass grading day, using the specific equipment selected for off-road and on-road use, subject to SCAQMD and Los Angeles County Department of Regional Planning review and approval. Should new-technology Tier 3 equipment or better be used, then it may be possible to exceed the equipment and equipment use data assumed in the URBEMIS model for the Project by substantial quantities without exceeding the 100 pounds/day NOx threshold.

MM 4.2-3 In order to minimize NOx emissions, the Applicant/Developer shall include the following measures in all contractor's final construction plans and specifications:

- Use electricity from power poles rather than temporary diesel or gasoline power generators;
- Ensure that all vehicles and equipment shall be properly tuned and maintained according to manufacturers' specifications;
- Prohibit all diesel trucks from idling in excess of five minutes, both on- and off-site;
- Schedule off-site haul activities that affect traffic flow on the arterial system to off-peak hours to the extent practicable, that is, peak hour hauls on the off-site arterial system shall occur only if necessary to avoid extending the length of the applicable phase of construction;
- Provide temporary traffic controls, such as a flag person, during all phases of construction as necessary to maintain smooth traffic flow. If needed to avoid congestion, provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site and/or modify signal synchronization; and
- Configure construction parking to minimize traffic interference.

MM 4.2-4 Information regarding exposure to PM10, PM2.5, and ultra-fine particles due to the Project's proximity to I-105 shall be provided to all future homeowners and residents of the Project through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs).

4.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Regional Construction Impacts: Construction of the Project, including off-site Project areas, would result in less than significant regional emissions of NOx (after implementation of MM 4.2-2 and MM 4.2-3), PM10, PM2.5, CO, VOCs, and SOx.

Localized Construction Impacts: Construction activities would result in a significant and unavoidable impacts related to the exceedance of the PM10 and PM2.5 local emissions thresholds for a period of approximately 28 days after implementation of MM 4.2-1 (Rule 403). The Project would result in less than significant localized impacts for local NOx and CO emissions.

Operational Impacts: Operation of the Project would result in less than significant impacts related to exposure of sensitive receptors to substantial pollutant concentrations (criteria air pollutants, CO hot spots and TACs) and odors.

Cumulative Impacts: Construction of the Project would result in short-term cumulative local impacts of PM10 and PM2.5. Short-term cumulative significant impacts for other pollutants and long-term cumulative impacts for all pollutants would be less than significant.

4.3 CULTURAL RESOURCES

This section of the EIR analyzes the Project's potential impacts on archaeological, historical, and paleontological resources. Information presented in this section is derived from *Phase I Cultural Resources Study, Aviation Station Project, County of Los Angeles, California,* (Cultural Resources Study) prepared by BonTerra Consulting in August 2009 (located in EIR Appendix F). The Cultural Resources Study involved a literature review for archaeological, historical, and paleontological resources; Native American consultation; and a field survey for historic resources, as further discussed below.

BonTerra Consulting Archaeologist Patrick Maxon, a Registered Professional Archaeologist (RPA), conducted a literature review of records on file at the South Central Coastal Information Center (SCCIC) at the California State University, Fullerton on June 22, 2009. In addition, a review of California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register of Historical Resources (CRHR), the National Register of Historic Places (NRHP) and the California State Historic Resources Inventory (HRI) was conducted as part of the historical resources investigation. Dr. Sam McLeod of the Natural History Museum of Los Angeles County conducted a review of the museum's geologic and vertebrate paleontological records for the Project site and vicinity on July 16, 2009.

Regarding Native American resources, BonTerra Consulting contacted the Native American Heritage Commission (NAHC) and requested a review of the Sacred Lands File database regarding the possibility of Native American cultural resources in the Project vicinity that are not documented on other databases. A response was received from Program Analyst, Dave Singleton on June 26, 2009. The County sent consultation letters to all Native American individuals on the list provided by the NAHC. Pursuant to Senate Bill (SB) 18 (*California Government Code,* Section 65352.3), for projects involving a general plan amendment and/or specific plan, such as the Project, local governments are required to consult with NAHC-identified California Native American tribes for the purpose of protecting and/or mitigating impacts to cultural places.

Regarding historical resources, Ms. Pamela Daly, M.S.H.P,[1] of Daly and Associates completed an investigation of the built environment within the Project site to identify any potential historic resources on the Project site and to make initial recommendations regarding any such resources. The investigation consisted of a pedestrian reconnaissance, research into the historic development of the area, additional research at the Los Angeles County Tax Assessor to review individual property information, and a letter report documenting findings. The findings of this investigation are located within Appendix F.

4.3.1 RELEVANT POLICIES AND REGULATIONS

State

California Register of Historical Resources

CEQA requires a lead agency to determine whether a project would have a significant effect on one or more historical resources. A "historical resource" is defined as a resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR) (*California Public Resources Code* [PRC], Section 21084.1); a resource included in a local register of historical resources (14 *California Code of Regulations* [CCR], Section 15064.5[a][2]); or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (14 CCR 15064.5[a][3]).

[1] Master of Science in Historic Preservation

Section 5024.1 of *California Public Resources Code*, Section 15064.5 of the CEQA Guidelines (14 CCR), and Sections 21083.2 and 21084.1 of the CEQA Statutes were used as the basic guidelines for the cultural resources study. PRC 5024.1 requires evaluation of historical resources to determine their eligibility for listing on the CRHR. The purposes of the CRHR are to maintain listings of the State's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP per the criteria listed at 36 *Code of Federal Regulations* (CFR) Section 60.4 below:

> The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and that:
>
> (a) Are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> (b) Are associated with the lives of persons significant in our past; or
>
> (c) Embody the distinctive characteristics of a type, period, or method of installation, 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.

According to Section 15064.5(a)(3)(A–D) of the CEQA Guidelines, a resource is considered historically significant if it meets the criteria for listing in the NRHP (per the criteria listed at 36 CFR 60.4 previously discussed). Impacts that affect those characteristics of the resource that qualify it for the NRHP or that would adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered to have a significant effect on the environment. Impacts to cultural resources from the Project are thus considered significant if the project (1) physically destroys or damages all or part of a resource; (2) changes the character of the use of the resource or physical feature within the setting of the resource which contributes to its significance; or (3) introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

The purpose of the historical resources investigation prepared by Daly and Associates is to evaluate whether any cultural resources remain exposed on the surface of the Project area, or can reasonably be expected to exist in the subsurface. If resources are discovered, management recommendations would be included that require evaluation of the resources for NRHP or CRHR eligibility.

Senate Bill 18

Senate Bill (SB) 18 (*California Government Code,* Section 65352.3) incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB 18 requires public notice to be sent to tribes listed on the Native American Heritage Commission's SB 18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by

the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the *Public Resources Code* that may be affected by the proposed adoption or amendment to a general or specific plan.

Human Remains

California Health and Safety Code, Section 7050.5 provides for the disposition of accidentally discovered human remains. Section 7050.5 states that if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined the appropriate treatment and disposition of the human remains.

California Public Resources Code, Section 5097.98 states that, if remains are determined by the Coroner to be of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours, which in turn must identify the person or persons it believes to be the most likely descended from the deceased Native American. The descendents shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

4.3.2 EXISTING CONDITIONS

Cultural Setting

Prehistory

A long-standing tenet of New World archaeology has been that man did not arrive in the western hemisphere until about 10,000 to 11,000 years Before Present (ybp).[2] Most of the generally accepted early remains indicate a very small, mobile population apparently dependent on hunting large game animals as the primary subsistence strategy. However, recent evidence suggests that some very early people may have had a more sedentary lifestyle and probably relied upon a variety of resources. While early populations certainly used other resources, the bulk of the few traces remaining today are related to game hunting. It is probable that the Paleo-Indians lived in groups no larger than extended families and that contact with other such groups was infrequent. Table 4.3-1 below summarizes the sequence of the later prehistoric periods of Southern California.

Ethnography

The Project is located in an area that was occupied during the Late Prehistoric Period by the Native American society commonly known to anthropologists as the Gabrielino. The name “Gabrielino” identifies those Native Americans who were under the control of the Spanish Mission San Gabriel. The overwhelming number of people here were of the same ethnic nationality and language group, and they generally referred to themselves as *Tongva*. Their territory extended from northern Orange County north to the San Fernando Valley in Los Angeles County. The terms the Native Americans in Southern California used to identify themselves have, for the most part, been lost; therefore, the names do not necessarily identify specific ethnic or tribal groups.

[2] “Before Present” assumes that 1950 is “present”. Subtracting 1950 from 2009 is 58, which, when subtracted from 10,000 is 9,941 years before 2009(i.e., 7,932 Before Common Era [BCE]). When subtracted from 11,000, it is 8,932 BCE.

TABLE 4.3-1
PREHISTORIC CULTURAL CHRONOLOGY

Period	Temporal Span	Major Diagnostic Traits	Characteristics and Adaptations
Early Man (San Dieguito)	11,000(?) to ±7,500 BCE (?)	• Lack of grinding implements. • Large, well made projectile points.	• Subsistence through hunting of large Pleistocene game animals. • Temporary camps at large kills. • Groups no larger than extended family. • Widespread; covered most of North American continent, but no sites known locally. • Very small total population.
Milling Stone (Encinitas)	±7,500 BCE (?) to ±1,000 BCE (±250)	• Predominance of manos and metates. • Ornaments made of stone. • Large and often crude projectile points. • Cogstones and discoidals. • Charmstones. • Some mortars and pestles near end of period.	• Heavy reliance on hunting in early part of period. Deer, rabbit, and other small game associated with chaparral. • In middle to late part of period, reliance was on hard seeds associated with chaparral. • Coastal groups utilized shellfish and near-shore resources. • Seasonal round based on ripening vegetable resources rather than animal migrations. This caused increased isolation leading to noticeable differences in culture in much smaller geographic areas. • Probably about 50 persons in average group. • Very little noticeable change in the last $^{2}/_{3}$ of period. • Permanent settlement of Channel Islands by end of period.
Intermediate (Campbell/Encinitas)	1,000 BCE (±250) to 750 (±250) CE	• Bone ornaments. • Widespread use of mortars and pestles along with manos and metates. • Use of steatite begins. • Many discoidals. • Large projectile points trending to smaller in the last part of the period.	• Heavy reliance on acorns as food resource. Hard seeds, small animals, and coastal resources continue to be used. • Many more deep water [open] ocean resources utilized. • First permanently occupied villages. • Large increases in local population. • *Atlatl* (spear thrower) in use. Bow and arrow probably introduced near end of period. • Some evidence of trade.
Late Prehistoric (Shoshonean)	750 (±250) CE to 1769 CE	• Shell ornaments. • Mortar, pestle, mano, and metate use continues. • Small, finely worked projectile points. • Widespread use of steatite. • Some pottery vessels appear near the end of the period.	• Increased exploitation of all resources (especially marine resources in coastal areas). • Large populations, some villages had as many as 1,500 persons. • Great increase in art objects. • Much evidence of trade.

BCE: Before Common Era; CE: Common Era.
Source: BonTerra Consulting 2009 (EIR Appendix F).

Area History

Juan Rodriguez Cabrillo sailed along the California coast in 1542 and, according to available records, stopped only at San Diego and the Channel Islands and was the first European to come into contact with the Gabrielino. The first Europeans to visit the area arrived in 1769 when Gaspar de Portolá led an overland expedition from San Diego to Monterey. This expedition of 63 persons passed near the study area, using Arroyo Trabuco as a route to the north. Mission San Gabriel in Los Angeles County was founded in September 1771, and all the Native Americans from the Los Angeles plain were persuaded to settle in its vicinity. The effects of mission influence upon the local native populations were devastating. The reorganization of their culture alienated them from their traditional subsistence patterns and social customs. European diseases, against which the natives had no immunities, reached epidemic proportions, and Gabrielino populations were decimated.

Archaeological Resources

Eighteen cultural resources studies have been performed that at least partially overlap the Project site. Based on review of these studies, the Cultural Resources Study determines that no recorded cultural resources are present on the Project site or within the off-site Project area; however, three historic cultural resources are recorded within a one-mile radius. Those resources are the William H. West residence constructed in the 1920s (19-188005), the Philip L. Heureux residence, which was also constructed in the 1920s (19-188006); and a 1961 era motel (19-188022), which is not the on-site Aviation Motel.

Native American Heritage Commission Consultation

The NAHC's Sacred Lands File search does not indicate the presence of Native American cultural resources in the immediate Project area. The Native American Contacts List included six individuals. Each individual on the list was sent an informational letter with a description of the Project and asked to contact BonTerra Consulting should they have additional knowledge or concerns relative to cultural resources on the property. One response was received via email from John Tommy Rosas, Tribal Administrator, Gabrielino Tongva Territorial Tribal Nation. Mr. Rosas confirmed receipt of the documents and requested additional information on the extent of grading and other planned ground-disturbing activities related to the Project. A second response was received via facsimile from Sam Dunlap, Tribal Secretary, Gabrielino Tongva Nation. Mr. Dunlap acknowledged that the Project site falls within Gabrielino Tongva Nation traditional tribal territory; however, he does not perceive the Project to have an adverse impact on Gabrielino Tongva Nation cultural resources. He had no specific comments or concerns (BonTerra Consulting 2009).

Historical Resources

The historical resources investigation determines that a total of 15 Assessor's Parcel Numbers (APNs), comprised of 11 structures, are located on the Project site. These 11 structures include 9 single- or multiple-family residences that date from the mid-1930s to the late 1940s, the Wild Goose Restaurant/Bar, and the Aviation Motel. The residences were constructed largely for workers and their families that were employed at the new Los Angeles Airport, and later, those employed by the fledgling aeronautic industry that developed in Los Angeles after World War II. The Wild Goose Restaurant/Bar is a 4,568 square foot commercial structure built in 1947 and located at the northwestern corner of the block at 11604 Aviation Boulevard, and the 8-room Aviation Motel, which has been converted for use as a multiple-family residence, is located at the southwestern corner of the block (BonTerra Consulting 2009).

Paleontological Resources

The Natural History Museum of Los Angeles County paleontological records review for the Project site reveals no vertebrate fossil localities recorded within the Project site; however, localities recorded nearby from the same sedimentary units as present on the Project site do exist and include mammoth, bison, horse, and others. The entire Project site has surficial deposits of older Quaternary Alluvium derived primarily from the Windsor Hills to the north and the Rosecrans Hills to the east.

4.3.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 4.3a: Is the project site in or near an area containing known archaeological resources or containing features (drainage course, spring, knoll, rock outcroppings, or oak trees) which indicate potential archaeological sensitivity?

Threshold 4.3b: Does the project site contain rock formations indicating potential paleontological resources?

Threshold 4.3c: Does the project site contain known historic structures or sites?

Threshold 4.3d: Would the project cause a substantial adverse change to the significance of an historical or archaeological resource as defined in CEQA Guidelines Section 15064.5?

Threshold 4.3e: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

4.3.4 PROJECT DESIGN FEATURES

No project design features related to archaeological, historical, or paleontological resources have been identified.

4.3.5 ENVIRONMENTAL IMPACTS

Archaeological Resources

Threshold 4.3a: Is the project site in or near an area containing known archaeological resources or containing features (drainage course, spring, knoll, rock outcroppings, or oak trees) which indicate potential archaeological sensitivity?

Threshold 4.3d: Would the project cause a substantial adverse change to the significance of an historical or archaeological resource as defined in CEQA Guidelines Section 15064.5?

On-Site Impacts

Based on the cultural resources records search undertaken at the SCCIC and Native American scoping, the Cultural Resources Survey concludes that no significant cultural resources are recorded or known within the Project site. However, it is unlikely that cultural resources studies were performed before the initial construction of the area; therefore, it is likely that existing structures, streets, parking lots, or other structures were built without the benefit of cultural resources monitoring. As a result, undisturbed archaeological resources, including Native American resources, could potentially remain under existing development. The potential to encounter previously unknown archaeological resources during excavation and construction activities for Project implementation is a potentially significant impact. This impact would be reduced to a level considered less than significant with implementation of Mitigation Measure (MM) 4.3-1, which requires monitoring by a qualified Archaeologist in those areas deemed sensitive for archaeological resources in the event that cultural resources are discovered during ground-disturbing activities, which are anticipated to extend to a depth of up to approximately 15 feet below grade within the Project site.

In addition, excavation in native soils always has the potential to uncover unanticipated human remains, including remains within Native American burial grounds. Procedures for conduct following a discovery of human remains are mandated by California law and would be implemented, as described in MM 4.3-3. With implementation of MM 4.3-1 and MM 4.3-3, there would be less than significant impacts related to the potential discovery of unanticipated archaeological resources or human remains from implementation of the Project.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Implementation of off-site Project components that would involve excavation into native soils would have the same potential to encounter unanticipated archaeological resources and human remains as the construction activities on the Project site. Off-site construction activities in the Caltrans Off-Site Project Area would require only superficial grading (approximately 10 inches below the pavement) to relocate the Metro bus terminal and restroom facility, and no grading to reconfigure and re-stripe the Caltrans Park-and Ride-Lot. Therefore, off-site improvements in the Caltrans-owned property would not involve deep excavations into native soils.

Other off-site improvements, including utility pipeline replacements in adjacent roadways as described in Sections 3.2 Flood, 3.3 Fire, and 5.2 Sewage, would require deeper trenched excavations (e.g. approximately 5 to 8 feet deep by 2 to 4 feet wide) to replace/construct new utility improvements. Therefore, MM 4.3-1 and MM 4.3-3 would apply to implementation of off-site Project components and would reduce this potential impact to a less than significant level.

<u>Historical Resources</u>

Threshold 4.3c: Does the project site contain known historic structures or sites?

Threshold 4.3d: Would the project cause a substantial adverse change to the significance of an historical or archaeological resource as defined in CEQA Guidelines Section 15064.5?

On-Site Impacts

As discussed above under Existing Conditions, the historical resources study conducted by Daly and Associates reveals that 15 Assessor's Parcel Numbers (APNs) comprising 11 structures

include 9 single- or multiple-family residences, the Wild Goose Restaurant/Bar, and the Aviation Motel. There are 7 single-family residences located along West 116th and West 117th Street and 2 multiple-family parcels located at the northeastern and southeastern corners of the block. The homes are generally small, simple houses with many having been altered in the past with the addition of new windows and the replacement of the original clapboard siding with stucco.

The Wild Goose Restaurant/Bar dates from 1947 and has a faux tudor facade on the front. The main block of the building has a flat roof and, except for the front wall, the exterior is clad with a stucco siding. There are no windows on the building. The building is surrounded by a large expanse of paved parking area which extends to the east. The Aviation Motel located at 11618 Aviation Boulevard functions as an extended-stay motel and is devoid of any decorative elements; the original windows have been removed and a large swath of blacktop fills the lot.

Analysis subject to the CRHR (PRC 5024.1) significance criteria reveals that the buildings on the Project site have not been recorded as associated with the lives of persons important in our past (Criterion A); they are not associated with any important patterns or events in local, State or national history (Criterion B); they were not constructed or designed by important individuals, nor do they embody distinctive characteristics (Criterion C); and they have no potential to yield important information in history (Criterion D).

Therefore, the residential and commercial buildings in the Project area would not be eligible for listing in the NRHP or the CRHR, and the demolition of the buildings on the Project site would not result in a significant adverse impact on historical resources. Therefore, impacts to historical resources would be less than significant, and no mitigation would be required.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

There are no potentially historical resources in the built environment in the Caltrans Off-Site Project Area immediately to the north of the Project site or within the locations of off-site utility improvements. Therefore, there would be no impact related to historical resources from implementation of off-site Project components, and no mitigation would be required.

<u>Paleontological Resources</u>

Threshold 4.3b: Does the project site contain rock formations indicating potential paleontological resources?

Threshold 4.3e: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

On-Site Impacts

As noted above, older Quaternary Alluvium is underlies the Project site. Significant fossils have been discovered in the area from depths of 13 to 40 feet below the present surface in this sedimentary unit. Therefore, the Los Angeles County Museum of Natural History concludes that, while shallow excavations in the Quaternary Alluvium would not likely encounter significant vertebrate fossil remains, deeper excavation could possibly encounter such remains. The potential to encounter previously unknown paleontological resources during excavation and construction activities for Project implementation is a potentially significant impact. This impact would be reduced to a level considered less than significant with implementation of MM 4.3-2, which requires monitoring by a qualified Paleontologist where ground-disturbing activities extend below approximately 15 feet below the present ground surface, and the recovery and

recordation, if necessary, of any paleontological resources encountered. With implementation of MM 4.3-2, there would be less than significant impacts related to the potential discovery of unanticipated paleontological resources from implementation of the Project.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Implementation of proposed off-site components, including the reconfiguration of existing uses in the Caltrans Off-Site Project Area immediately to the north of the Project site and off-site utility improvements, would not be anticipated to extend near depths of greater than 15 feet below the ground surface, which is the depth at which significant paleontological resources may be encountered. However, in the event that deeper excavation activities would be required for any off-site Project component. MM 4.3-2, discussed above, would be required and would reduce this potential impact to a less than significant level.

4.3.6 CUMULATIVE IMPACTS

Direct impacts to cultural resources are generally site-specific. As defined in Section 15130 of the CEQA Guidelines, a cumulative impact consists of an impact that is created as a result of the incremental effects of the Project, together with the effects of other projects, causing related impacts. Although the Project, in conjunction with the effects of past projects, other current projects, and probable future projects may result in the disturbance of prehistoric archaeological resource sites and paleontological resources throughout the region, the County requires the mitigation of impacts to these resources. Therefore, despite the site-specific nature of the resources, the mitigation identified for use in the event that unknown or undocumented resources were discovered would reduce the potential for cumulative impacts. As a result, anticipated development on the Project site would not contribute to a significant cumulative impact on archaeological or paleontological resources or result in a significant cumulative loss in regional history or prehistory. The Project would not contribute to a cumulative effect on historic resources because the site does not contain any significant historical resources.

4.3.7 MITIGATION MEASURES

MM 4.3-1 During all grading and excavation activities that occur within native soils (i.e., not within engineered fill materials that are present at the surface), a trained Archaeological Monitor shall be present to monitor the earth-moving activities. Based on the site conditions and grading program, the Archaeological Monitor shall determine an appropriate monitoring schedule, subject to the approval of the Los Angeles County Department of Regional Planning (LACDRP). The Archaeological Monitor would not need to be present once grading and excavations reach a depth of 15 feet or deeper (see MM 4.3-2), or once bedrock is encountered. Should archaeological resources be encountered, a qualified Archaeologist shall be retained to implement procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the resources, as appropriate. If the resources are found to be significant, the Archaeologist shall determine appropriate actions for preservation and/or data recovery to the satisfaction of the LACDRP. If the Monitor determines that the sediments are not sensitive for the presence of resources, monitoring efforts can be terminated.

MM 4.3-2 A qualified Paleontologist shall be retained to monitor earth-moving activities of 15 feet or deeper (i.e. the depths at which significant vertebrate fossils have been recovered from older Quaternary Alluvium). Should paleontological resources be encountered during earth-moving activities (i.e., grading and excavation), the

Paleontologist shall implement procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the resources, as appropriate. If the resources are found to be significant, the Paleontologist shall determine appropriate actions for preservation and/or data recovery to the satisfaction of the Los Angeles County Department of Regional Planning. If the Paleontologist determines that the sediments are not sensitive for the presence of resources, monitoring efforts can be terminated.

MM 4.3-3 In accordance with *California Health and Safety Code*, Section 7050.5, if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined the appropriate treatment and disposition of the human remains. The County Coroner shall be notified within 24 hours of the discovery and shall make such determination within 2 working days of notification of discovery. If the County Coroner determines that the remains are or believed to be Native American, the County Coroner shall notify the Native American Heritage Commission in Sacramento within 24 hours. In accordance with *California Public Resources Code*, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendents shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

4.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Archaeological Resources

There would be less than significant impacts related to archaeological resources with implementation of MM 4.3-1 and MM 4.3-3.

Historical Resources

With implementation of the Project, no impact would occur to historical resources.

Paleontological Resources

There would be less than significant impacts related to paleontological resources with implementation of MM 4.3-2 and MM 4.3-3.

4.4 VISUAL QUALITIES

This section describes the following associated with the Project: (1) the existing aesthetic character of the Project area; (2) views of and from the Project site; (3) an analysis of the potential visual, light, and glare effects; and (4) shade and shadow effects. The analysis presented in this section is based on field reconnaissance, review of aerial photographs, architectural renderings of the Project, and computer simulations of shade and shadow effects from the proposed development.

A Lighting Study was prepared by Fashandi & Associates, Inc. in June 2010 to determine the effect and level of light projection from the future residential units in this Project to both the street and the adjacent residential buildings across West 117th Street and Judah Avenue. This report is located in Appendix G-1 of this EIR. Additionally, the conceptual signage plan, the *Project Identity, Entrance and Retail Signage Standards*, was prepared by Withee Malcolm Architects, LLP in November 2010; this report describes the planned sign types and locations, as well as typical views and other details of the Project signage, including lighting. This report is located in Appendix G-2 of this EIR.

An analysis of impacts related to visual qualities generally involves the identification of existing visual resources and the aesthetic quality of what can be seen, set in comparison to the visual resources and aesthetic quality of the Project. Light and glare is a concern with both the creation of daytime and nighttime glare due to the reflection of the sun (such as on glass surfaces) and/or an increase in ambient lighting levels (such as from building lights, street lights, and vehicle headlights). Shade and shadow are concerns with the effects of shadows cast by proposed structures on sun-sensitive land uses.

4.4.1 RELEVANT POLICIES AND REGULATIONS

State

California Department of Transportation Scenic Highway Program

The State of California enacted the California Scenic Highway Program in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The Scenic Highway System, through the California Department of Transportation (Caltrans), includes a list of either officially designated scenic highways or highways that are eligible for such designation. A highway may be designated as “scenic” depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler’s enjoyment of the view.

County

County of Los Angeles Scenic Highway System Map

The County, as part of its General Plan, developed a Scenic Highway System Map illustrating three tiers of designation for roadways: Adopted, First Priority, and Second Priority. The State’s category of “Officially Designated” is comparable to the County’s category of “Adopted”, and the State’s category of “Eligible” is comparable to the County’s category of “First Priority”. There is no equivalent State category for the County “Second Priority” category.

4.4.2 EXISTING CONDITIONS

Visual Characteristics of the Site and Surrounding Area

The Project site is located in a highly urbanized area with a diverse mix of land uses and is immediately southwest of two major regional freeways: Interstate (I) 405 to the east and I-105 immediately to the north. The Project site includes approximately 5.9 acres and includes a total of 15 Assessor's Parcel Numbers (APNs), comprised of 11 structures, which are located on the Project site. The 11 on-site structures include 9 single- or multiple-family residences that date from the mid-1930s to the late 1940s; a 4,568 square foot commercial structure (i.e., Wild Goose Restaurant/Bar); and an 8-room motel (i.e., Aviation Motel). The topography of the Project site and surrounding areas is essentially flat, with elevations ranging between 94 and 96 feet above mean sea level (msl).

The Project site is bound by Aviation Boulevard to the west; the Metro Green Line Aviation/LAX Station to the north; West 117th Street to the south; and Judah Avenue to the east. Currently, West 116th Street ends in a cul-de-sac halfway through the Project site. The southern portion of the Project site (Lot 1), located within the County of Los Angeles, contains 7 single-family residences located along West 116th Street and West 117th Street; it also contains 2 multiple-family parcels, which are located at the northeastern and southeastern corners of the block. The residential units are currently located within 2.3 acres of the Project site that are zoned for R-1 (Single Family Residence). Therefore, the current density of the residential portion of the Project site is 0.21 dwelling unit (du) per acre. The western portion of Lot 1 contains 0.9-acre and is zoned for C-1 (Restricted Business Zone); this portion contains the Wild Goose Restaurant/Bar, the Aviation Motel, and associated surface parking.

The northern portion of the Project site (Lot 2), located within the City of Los Angeles, contains the Metro bus terminal and a portion of West 116th Street. The existing Metro Green Line Station for light-rail is located off site directly north of the Project site, adjacent to surface parking for the Caltrans Park-and-Ride Lot; Caltrans Maintenance Facility parking is located to the east of the Caltrans Park-and-Ride Lot. Both the Metro Green Line Station and I-105 are elevated and dominate the Project site's northern viewshed.

This portion of Los Angeles County is a residential community with important regional employment centers. An aerial photograph of the Project site is provided in Exhibit 2-3, Aerial View of the Project Site, in Section 2.0, Environmental Setting and Project Description. Specifically, surrounding areas to the north and west are largely comprised of commercial, office, and engineering and information technology services land uses, with a high concentration of aviation/aerospace-related facilities. The Los Angeles International Airport (LAX) is located approximately 0.15 mile to the northwest of the Project site, and the Northrop Grumman Integrated Systems campus is located immediately to the west of the site across Aviation Boulevard.

The Burlington Northern Santa Fe (BNSF) railroad line runs parallel to the western side of Aviation Boulevard. The lands immediately west of the Project site (encompassing the Northrop Grumman campus) are zoned for and have a General Plan land use designation of "Urban Mixed Use-North". The east side of Aviation Boulevard, south of the Project site, is developed with commercial businesses, including a liquor store, a motel, a check-cashing business, a pawn shop, and restaurants. Areas immediately to the south and east of the site are comprised predominately of single-family residences. The Los Angeles County Airport Courthouse, commercial office space, and the Pacific Place luxury apartment complex are located further to the east of the site near the I-105/I-405 interchange.

Because the topography of the Project area is flat and the Project area is fully developed, views of the Project site beyond the adjacent roadways and land uses are obstructed currently. The primary viewers of the Project site include travelers on the surrounding streets (temporary/short-term views),[1] the Metro Green Line travelers (temporary views), the Metro bus users (temporary views), on-site and adjacent residents on Judah Avenue and West 117th Street (long-term views), and visitors to the on-site and surrounding commercial businesses (temporary views). Views of the Project site from several public vantage points are depicted in the aerial and site photographs presented in Exhibit 4.4-1, View Location Key, which depicts the location and direction of each photograph, and Exhibits 4.4-2a through 4.4-2e, Project Area Photograph Documentation. The views presented in these photographs and corresponding site characteristics are described below.

- ***View 1 (View of On-Site Properties): Intersection of Judah Avenue and West 117th Street.*** This view to the northwest depicts the existing conditions on the Project site from the intersection of Judah Avenue and West 117th Street. The single-family residential development and landscaping (e.g., non-native mature trees, shrubs, lawn) depicted are typical of the residential land uses present on the Project site and in the Del Aire community. The elevated Metro Green Line Aviation/LAX Station is depicted in the background to the right, while Boeing's El Segundo office tower is shown to the left (Exhibit 4.4-2a).

- ***View 2 (View of Off-Site Properties): Motel at Intersection of West 117th Street and Aviation Boulevard.*** This southern view from the Project site depicts an existing off-site motel located directly across from the southwestern corner of the Project site. This type of commercial development—along with convenience stores, liquor stores, and other strip-mall retail centers—are common along the eastern side of Aviation Boulevard in the Project vicinity (Exhibit 4.4-2a).

- ***View 3 (View of On-Site Properties): South Side of Aviation Motel from West 117th Street.*** This view depicts the southern-facing back side of the Aviation Motel, located on the Project site at the corner of West 117th Street and Aviation Boulevard. The Northrop Grumman Integrated Systems campus and Boeing buildings are visible in the background (Exhibit 4.4-2b).

- ***View 4 (View of On-Site Properties): Aviation Motel from Aviation Boulevard.*** This view depicts the Aviation Motel and surface parking lot at the southwestern portion of the Project site, as seen from Aviation Boulevard (Exhibit 4.4-2b).

- ***View 5 (View of On-Site Properties): Wild Goose Restaurant/Bar.*** This view depicts the Wild Goose and surface parking areas, as seen from across Aviation Boulevard. The Aviation/LAX Station is visible on the left of the photograph, and the Airport Courthouse branch of the Superior Court of Los Angeles is visible in the background (Exhibit 4.4-2c).

- ***View 6 (View of Off-Site Properties): Northrop Grumman and BNSF Railway.*** This southern view depicts a portion of the Northrop Grumman Integrated Systems campus and the adjacent BNSF freight railroad along the western side of Aviation Boulevard, directly west of the Project site. Worker surface parking is located along the Northrop Grumman campus between its facilities and the railroad (Exhibit 4.4-2c).

- ***View 7 (View of Off-Site Properties): Metro Bus Terminal.*** This view depicts the Metro bus terminal for transit riders utilizing the Metro Green Line Aviation/LAX Station. Various

[1] Temporary, or short-term, views are those experienced by motorists, pedestrians, site visitors, or anyone who is temporarily in the Project site vicinity.

municipal bus lines and LAX shuttle services use this facility. The elevated Metro Green Line Station is visible on the left of the photograph, and the Los Angeles County Airport Courthouse is visible in the background (Exhibit 4.4-2d).

- ***View 8 (View of Off-Site Properties): Intersection of Aviation Boulevard and West 116th Street.*** This view shows the route accessed by transit buses using the Metro bus terminal shown in View 7. In the upper left background is the Metro Green Line Aviation/LAX Station; the close proximity of the station to the bus terminal fosters efficient transfers between the two modes of alternative public transportation (Exhibit 4.4-2d).

- ***View 9 (View of Off-Site Properties): Aviation/LAX Green Line Station and I-105 from Imperial Highway.*** The elevated Metro Green Line Station (background) and I-105 (foreground) are shown in this view, in addition to a view of the Caltrans Park-and-Ride Lot. West Imperial Highway, a major east-west thoroughfare, is located in the foreground and provides access to the I-105. This photograph clearly illustrates the dominance of the elevated Metro Green Line Station on the Project site's northern viewshed (Exhibit 4.4-2e).

- ***View 10 (View of Off-Site Properties): Caltrans Facility.*** This view depicts the Caltrans Maintenance Facility located to the northeast of the Project site. To the right, underneath the I-105, is the Caltrans Maintenance Facility and the surface parking lot for Caltrans vehicles (Exhibit 4.4-2e).

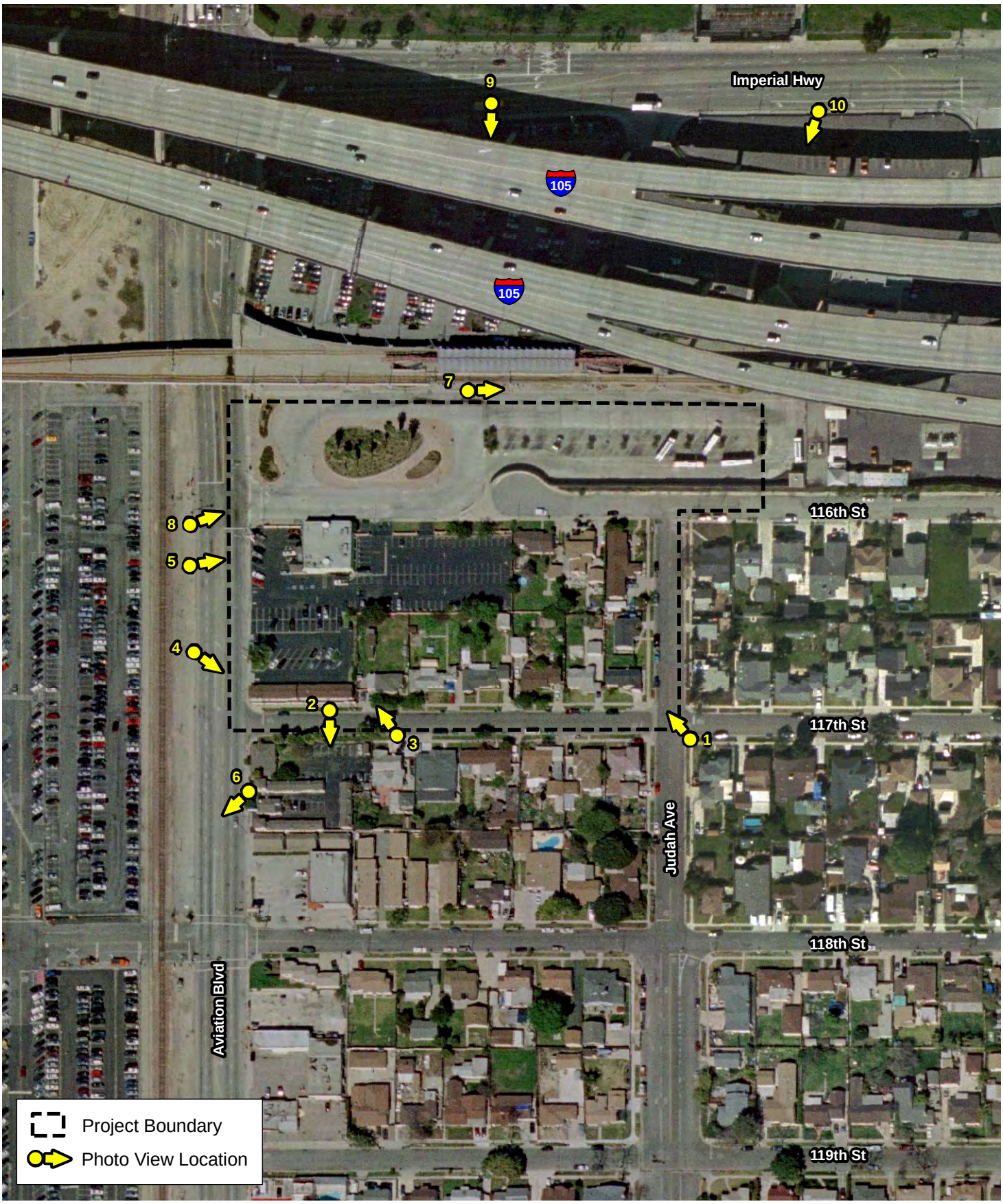
As shown in Exhibits 4.4-2a through 4.4-2e, depending on the location of the viewer, existing public views of the Project site are dominated by either residential land uses typical of the Del Aire community or the on-site commercial land uses and associated surface parking areas. Views of surrounding areas are dominated by the nearby transit and freeway facilities as well as small- and large-scale commercial/industrial development. The existing visual quality of the site would not be considered a scenic resource or otherwise unique.

Light and Glare

Artificial lighting is widely utilized in most urban and suburban areas to provide visibility for both traffic and security. The Project area has nighttime illumination typical of an urbanized area. This condition is attributable to the commercial and residential development, street lighting, and parking lot lighting in the Project vicinity and on the site itself. Overhead lighting is present on all adjacent roadways, within the Metro bus terminal, and within the Caltrans Off-Site Project Area to the north of the Project site. Transient lighting from vehicular headlights also contributes to nighttime illumination in the Project area. There are no existing buildings or other man-made features on site or in proximity to the Project site that are constructed of materials that cause substantial glare. For the purpose of this analysis, light-sensitive land uses include residential properties. As such, the residential homes along Judah Avenue and West 117th Street in proximity to the Project site are considered to be light-sensitive land uses.

Shade and Shadow

Shade and shadows can be generally defined as the comparative darkness caused by the screening of light rays from an object. For the purposes of this analysis, land uses that would be sensitive to shade and shadows are defined as those that benefit from sunshine in conjunction with the uses of the property. Such shade-sensitive land uses include, but are not limited to, residential properties for gardening and playing in front/backyards; parks for vegetation/wildlife and outdoor recreation; yards at schools/day care centers for outdoor recreation; and other land



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View Location Key

Exhibit 4.4-1

Aviation Station Project

N W E S

200 100 0 200 Feet

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View 1: Project Site- Judah Ave. and 117th St.

View 2: Off-site- South of 117th St.

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Project Area Photographic Documentation

Exhibit 4.4-2a

Aviation Station Project

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View 3: Project Site- Back of Aviation Motel

View 4: Project Site- Aviation Motel

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Project Area Photographic Documentation

Exhibit 4.4-2b

Aviation Station Project

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View 5: Project Site- Wild Goose Restaurant

View 6: Off-site- Northrop Grumman and BNSF Railroad

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Project Area Photographic Documentation

Exhibit 4.4-2c

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View 7: Project Site- Metro Bus Station

View 8: Project Site- Metro Bus Station and Green Line Station

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Project Area Photographic Documentation

Exhibit 4.4-2d

Aviation Station

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View 9: Off-site I-105 and Park and Ride Lot

View 10: Off-site- Caltrans Facility

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Project Area Photographic Documentation

Exhibit 4.4-2e

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uses (i.e., hotels) that have outdoor amenities, such as swimming pools. Shade-sensitive off-site land uses for this Project include the single-family residential homes located along Judah Avenue and West 117th Street in proximity to the Project site.

Because all existing structures on the Project site are one story, the existing shade and shadow effects on other on-site structures are minimal. Existing trees on site may exceed the height of a two-story structure and provide shade for existing land uses. Structures immediately adjacent to the Project site are not tall enough to cast substantial shadows to on-site light-sensitive land uses, nor are the existing on-site structures tall enough to cast substantial shadows on adjacent land uses.

4.4.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study Checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 4.4a: Is the project site substantially visible from or will it obstruct views along a scenic highway (as shown on the Scenic Highway Element), or is it located within a scenic corridor or will it otherwise impact the viewshed?

Threshold 4.4b: Is the project substantially visible from or will it obstruct views from a regional riding or hiking trail?

Threshold 4.4c: Is the project site located in an undeveloped or undisturbed area that contains unique aesthetic features?

Threshold 4.4d: Is the proposed use out-of-character in comparison to adjacent uses because of height, bulk, or other features?

Threshold 4.4e: Will the project result in a major change in the patterns, scale, or character of the general area or community? (Threshold from County Initial Study Section "Other Factors – General")

In addition, the Project was determined to have a potentially significant impact for the following threshold: "Is the project likely to create substantial sun shadow, light or glare problems?" The County of Los Angeles does not have a quantitative criteria for what is a "substantial" shade and shadow impact. Therefore, BonTerra Consulting researched quantitative thresholds applied in recent (since 2007) Environmental Impact Reports (EIRs) prepared for projects in Southern California. Although no codified or otherwise officially adopted standards were found, the following quantitative thresholds for significant shade and shadow have been applied in EIRs for projects in the Cities of Santa Monica, Los Angeles, Anaheim, and Costa Mesa:

1. "…shadows would be cast upon potentially sensitive uses for more than two hours of the main daylight hours (9:00 AM to 3:00 PM during the fall, winter, and spring seasons); and 9:00 AM to 5:00 PM (daylight savings time) during the summer season. Light-sensitive uses include public parks, nurseries, residences, and other light-sensitive uses" (City of Santa Monica 2009).

2. "Shadow-sensitive uses shaded by project related structures for more than three hours between 9:00 AM and 3:00 PM PST between late October and early April (including

Winter Solstice), or for more than four hours between early April and Late October (including Summer Solstice)" (City of Santa Monica 2008).

3. "A project impact would normally be considered significant if shadow-sensitive uses would be shaded by project-related structures for more than 3 hours between the hours of 9:00 AM and 3:00 PM Pacific Standard Time (between late October and early April), or for more than 4 hours between the hours of 9:00 AM and 5:00 PM Pacific Standard Time (between early April and late October)" (City of Los Angeles).

4. "…50 percent of sun sensitive area is in shade/shadow for at least 50 percent of the duration for the season (i.e., three hours between 9:00 AM and 3:00 PM) during winter daylight hours" (City of Anaheim 2009, 2007).

5. "Cast shade or shadow onto sensitive uses in adjacent off-site area for more than two hours between the hours of 10:00 AM and 3:00 PM" (City of Costa Mesa 2007).

Of these, the first threshold listed above from a City of Los Angeles threshold is the most applicable due to the fact that a portion of the Project is within the City of Los Angeles. Therefore, for purposes of this analysis, the following threshold has been created for the analysis of shade and shadow that would result from implementation of the Project:

Threshold 4.4f: Is the project likely to create substantial sun shadow, light or glare problems? Substantial sun shadow is defined as shade cast upon potentially sensitive land uses by project-related structures for more than 3 hours between the hours of 9:00 AM and 3:00 PM Pacific Standard Time (between late October and early April), or for more than 4 hours between the hours of 9:00 AM and 5:00 PM Pacific Standard Time (between early April and late October). Shadow-sensitive uses include public parks, nurseries, residences.

4.4.4 PROJECT DESIGN FEATURES

PDF 4.4-1 The Project would include the following design features to integrate the proposed scale and density into the Project site and surrounding land uses:

- The two-story townhomes are entered at street level and Buildings 1A, 1B, 2A, and 2B are set back from the street to provide a visual transition of the building massing between the Project and the existing single-family residential to the south and east.

- Along Judah Avenue, the frontage of the townhomes would be setback 10 feet (10′0″) from the right-of-way (property line), with an additional 10 feet between the property boundary and the curb line, for a total of 20 feet between the frontage of the townhomes and curb. The townhome buildings along Judah Avenue would be 25 feet deep; therefore, the podium level Building 1B would be located 35 feet from the property boundary, and 45 feet from the curb.

- Along West 117th Street, the frontage of the townhomes would be setback 13 feet (13′0″) from the right-of-way (property line), with an additional 12 feet between the property boundary and the curb, for a total of 25 feet between the frontage of the townhomes and curb. The townhome buildings along West 117th Street would be 24 feet deep; therefore, the podium level Building 1B would be located 37 feet from the property boundary and 49 feet from the curb.

- Sidewalk and landscape improvements, including shade trees, would be placed along all four perimeters of the Project site.

- Undulating building facades with varying setbacks would be constructed in certain areas to allow for pedestrian amenities (outdoor dining spaces, landscaping, benches, and/or building entrances).

- Street-level commercial buildings would incorporate numerous window openings to provide informal views of the street and avoid blank, windowless facades.

- Visual continuity will be incorporated through the consistent application of design and materials.

- Convenient pedestrian circulation will be integrated within the Project.

PDF 4.4-2 Proposed building materials would include brick veneers, metal awnings, and aluminum storefronts with metal panels on the commercial buildings. The residential buildings would include horizontal siding and plaster finishes and balconies with metal guardrails. Non-reflective exterior building materials would be used. All exterior lighting shall be indirect, incandescent, and screened such that no light spillover would occur to adjacent residential land uses.

4.4.5 ENVIRONMENTAL IMPACTS

Threshold 4.4a: Is the project site substantially visible from or will it obstruct views along a scenic highway (as shown on the Scenic Highway Element), or is it located within a scenic corridor or will it otherwise impact the viewshed?

Threshold 4.4b: Is the project substantially visible from or will it obstruct views from a regional riding or hiking trail?

Threshold 4.4c: Is the project site located in an undeveloped or undisturbed area that contains unique aesthetic features?

<u>On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts</u>

Neither the Project site nor the other off-site components are located adjacent to a scenic corridor or scenic highway, and these components are not visible from any regional riding or hiking trails. The Project site, Caltrans Off-Site Project Area, and surrounding areas are fully developed with urban land uses within an urban portion of the County and are not located within an undeveloped or undisturbed area that contains unique aesthetic features. There would be no impacts associated with these thresholds.

Threshold 4.4d: Is the proposed use out-of-character in comparison to adjacent uses because of height, bulk, or other features?

Threshold 4.4e: Will the project result in a major change in the patterns, scale, or character of the general area or community?

Temporary (Construction-Related) Impacts

On-Site Impacts

During construction on the Project site, there would be views of construction activities throughout the various stages of Project implementation. Views of on-site construction would include activities and materials such as soil excavation and associated heavy equipment (e.g., graders, bulldozers, dump trucks); building construction activities and equipment; and stockpiles of building materials and vehicle staging areas. In general, views of construction activities may be considered unappealing by some; however, construction and other forms of development are common in urban areas and interruptions to the visual character of the site are largely accepted as a temporary inconvenience. Short-term construction activity would be less than significant because of its temporary and commonplace nature in its interruption to the visual character of the site. Although no significant visual impacts would result during construction, Mitigation Measure (MM) 4.4-1 is recommended to obstruct street-level views of at-grade and below-grade construction activities on the Project site from residences in the immediate vicinity of the site, thereby minimizing impacts to the visual qualities of the area during the construction activities.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Reconfiguration of the Caltrans Off-Site Project Area would involve removal of paving and other existing features for the relocated Metro bus terminal and restroom facility; reconfiguration of the Park-and-Ride Lot; and construction/installation of new lighting, landscaping, signage, and other similar appurtenances to replace what currently exists in this area. In addition, there would be some construction activity within adjacent roadways and nearby intersections related to utility improvements.

Short-term construction activity would be less than significant because of its temporary and commonplace nature in its interruption to the visual character of the Caltrans Off-Site Project Area and surrounding roadways during utility infrastructure installation. The relocation of the Metro bus terminal and reconfiguration of the Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility parking lot is anticipated to require approximately two months. Off-site trenched excavations for utility infrastructure would occur during the excavation phase for the Project and would also be completed within a few months. These temporary visual impacts would not affect the character of the surrounding area or community. Impacts would be less than significant and no mitigation is required.

Long-Term (Operational) Impacts

On-Site Impacts

Implementation of the Project would alter the existing visual character of the site and views from surrounding land uses. The Project would introduce 390 multi-family units and 29,500 square feet (sf) of commercial onto the Project site; this would include a total of 4 buildings with total building heights ranging from 67 feet above ground level (agl) to 72 feet agl (this height estimate includes mechanical equipment, mechanical penthouses and antennae). This maximum height includes architectural details or design features that may be located on rooftops to complement the modern architectural design.

The Project site would be developed with two lots: Lot 1 would include 278 residential units (for sale condominium units and townhouses) and 8,000 sf of commercial and Lot 2 would include 112 residential units (rental apartments) and 21,500 sf of commercial. All existing land

uses within Lot 1 (southerly lot) and Lot 2 (northerly lot) would be demolished to accommodate the development. Lot 1 would be developed with a density of 71.28 du/acre and Lot 2 would be developed with a density of 38.36 du/acre.

In terms of size, scale, and land use types, there is currently no transitional development between the office/transit facilities in the area (such as the Northrop Grumman Integrated Systems campus and the Metro and Caltrans facilities) and the largely single-family residential uses located to the south and east of the site. The Project would provide a mix of residential and commercial land uses at a scale and density that would provide a transition between the elevated transit facilities to the north and the single-family residential uses to the south.

Obstruction of Views

Because of the height and density of the proposed development, views into and through the Project site from adjacent residences and passing traffic would be partially obstructed. However, as discussed above, because of flat topography and density of urban development, views beyond the adjacent roadways and land uses are currently obstructed. There would be no obstruction of scenic or otherwise sensitive viewsheds or scenic highways with implementation of the Project.

Compatibility with Adjacent Land Uses

Density, Massing, and Setback

The density and massing of the Project would be generally inconsistent with the one-story commercial and single-family residential land uses in the Del Aire community to the south and east. The existing residential character of Del Aire was established in the mid-1930s to the mid-1940s when single-story, single-family housing was constructed to support the aviation industries in the area. More recent development in the area, including the 4- to 5-story Pacific Place Apartments located approximately 0.4 mile from the Project site and adjacent to the same Del Aire community, include multi-story residential projects. The Del Aire community is also near multi-story industrial and public facilities, including the approximate 10-story County Superior Court – West District Airport Courthouse located approximately 0.35 mile from the Project site, as shown in Exhibit 4.4-2d.

The Project's five-story height and massing is compatible with the urban land uses to the north and west, including the elevated Metro Green Line Aviation/LAX Station, the Metro bus terminal, and the I-105 immediately to the north, as well as the Northrop Grumman campus, BNSF railroad, and other land uses located in the City of El Segundo to the west across Aviation Boulevard. As shown on Exhibit 2-10 in Section 2.0, Environmental Setting and Project Description, the Metro Green Line Aviation/LAX Station is approximately 30 feet above msl and would be aligned with the Level 2 of the Project (refer to Exhibits 2-8 and 2-9). The I-105 is approximately 50 feet above msl and would be aligned with the Level 4 of the Project.

The Project has been specifically designed to provide transitional land uses that offer the density required to support a transit-oriented development while buffering the single-family residential land uses in Del Aire from the transit land uses near the intersection of Aviation Boulevard and West Imperial Highway and the industrial land uses beyond, including LAX, which is located approximately 0.15 mile northwest of the Project site. The Project incorporates a combination of site planning and design considerations, as well as architectural and landscape/hardscape features to provide an aesthetically pleasing development and to assist in preserving the integrity and residential character of the single-family community to the south and east (see PDF 4.4-1). These include the use of street setbacks that vary dependent

on the adjacent land uses, variations in building height, architectural design and fenestration intended to "break up" the building mass and provide a human scale at ground level,[2] and convenient pedestrian circulation throughout the site.

To help create a human-scale environment at ground level, the first story of development along the northern and western sides of the site would be differentiated from the remainder of the structure by a warm-colored brick veneer and awnings and storefront signage that are unique to the lower level (see Exhibits 2-8, 2-9, 4.4-3 and 4.4-4). The proposed signage for the Project is discussed further below. As described in PDF 4.4-2, proposed building materials would include brick veneers, metal awnings, and aluminum storefronts with metal panels on the commercial buildings. The residential buildings would include horizontal siding and plaster finishes and balconies with metal guardrails. Non-reflective exterior building materials would be used.

The four proposed buildings are designed with varying roof heights and other architectural features, instead of one massive roof level; they also include articulated facades that have extensive windows and other openings that contribute to a more inviting and pedestrian-friendly structure. These architectural features are discussed further below and are illustrated in Exhibits 2-4 through 2-14 in Section 2.0, Environmental Setting and Project Description, which provide Project site plans, building elevations, and circulation elements (vehicular and pedestrian). In addition, three-dimensional visual simulations of the Project are illustrated in Exhibits 4.4-3 through 4.4-6. Exhibit 4.4-3 depicts the commercial plaza/promenade area that separates the Project from the Metro Green Line station. Exhibit 4.4-4 depicts the commercial storefronts along Aviation Boulevard.

The majority of the Project's southern-facing and eastern-facing facades consist of the proposed townhomes before transitioning to the taller apartment/condominium uses, as depicted in Exhibit 4.4-5. The townhomes along West 117th Street and Judah Avenue are located at the street level and have a height of 16 feet 6 inches to accommodate the two stories. The townhomes along West 117th Street would have a total of 25 feet between the frontage of the townhomes and curb and townhomes along Judah Avenue would have a total of 20 feet between the frontage of the townhomes and curb.

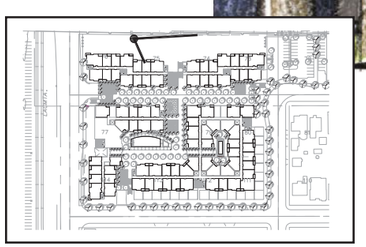
Levels 1, 2, 3, and 4 would be further set back on both West 117th Street and Judah Avenue, as previously described, to allow for a transition in building massing between the Project and the existing off-site single-family residences (see PDF 4.4-1). This tapering of height and density along the Project site's southern and eastern boundaries would provide for a more gradual visual transition from the adjacent single-family residential land uses to the Project land uses. Exhibit 4.4-6 illustrates the private view of the interior courtyard that would be available for residents and their visitors.

The four proposed buildings are designed with varying roof heights and other architectural features instead of one massive roof level; they also include articulated facades that have extensive windows and other openings that contribute to a more inviting and smaller-looking structure.

Landscaping and Hardscaping

The proposed Street Level Landscape Plan is depicted in Exhibit 2-11, the Podium Level Landscape Plan is depicted in Exhibit 2-12, and the preliminary plant palette is provided in Exhibit 2-13, located in Section 2.0, Environmental Setting and Project Description. Exhibits 2-11 and 2-12 show the spacing and foliage coverage for the trees that are anticipated

[2] Fenestration is the design and disposition of windows and other exterior openings of a building.



Source: Withee Malcom Architects, LLP

Visual Simulation of Metro Plaza

Exhibit 4.4-3

Aviation Station Project

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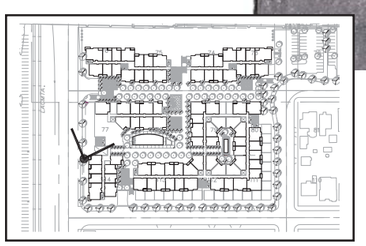

Source: Withee Malcom Architects, LLP

Visual Simulation of Aviation Boulevard

Exhibit 4.4-4

Aviation Station Project

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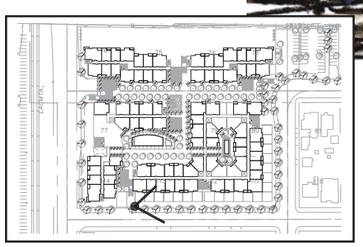

Source: Withee Malcom Architects, LLP

Visual Simulation of Townhomes on 117th Street

Exhibit 4.4-5

Aviation Station Project

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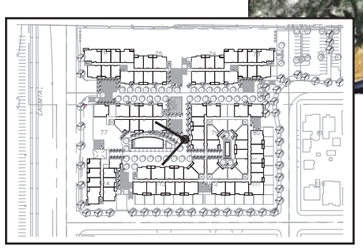

Source: Withee Malcom Architects, LLP

Visual Simulation of Interior Courtyard

Exhibit 4.4-6

Aviation Station Project

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to be planted along West 117th Street and Judah Avenue. Each front yard for the proposed townhomes along West 117th Street will have a tree, grass, and landscaping shrubs/plants/flowers. Additionally, an additional tree will be planted in the right-of-way in front of each townhome. Trees planted along West 117th Street include Chinese Hackberry (*Celtis sinensis*) and Evergreen Pear (*Pyrus kawakamii*). Additional trees and palms include California Fan Palm (*Washingtonia filifera*), Hollywood Juniper (*Juniperus chinensis*), Little Gem Southern Magnolia (*Magnolia "*Little Gem*"*), Compact Carolina Cherry (*Prunus caroliniana*), and Windmill Palms (*Trachycarpus fortunei*).

The townhomes along Judah Avenue would have slightly smaller yards landscaped with grass and shrubs/plants/flowers, as well as a tree in the right-of-way in front of each townhome. Trees planted along Judah Avenue include Evergreen Pear and California Fan Palm, with background trees including Hollywood Juniper, Little Gem Southern Magnolia, Afghan Pine (*Pinus eldarica*), Compact Carolina Cherry, and Windmill Palms. As required by MM 4.4-2, prior to commencement of construction activities, the Project Applicant/Developer must submit the Landscaping Plan to the County of Los Angeles Department of Regional Planning for review and approval.

Exhibit 2-11 also illustrates the proposed hardscape features incorporated into the Project design along West 117th Street and Judah Avenue. The residential townhomes would have low walls made of brick, stone, stucco or other comparable material (approximately three feet high) with gates that encompass the tiled patios. Additionally, the Project would provide paved sidewalks and decorative paving entryways into the residential/fire access lobby entrances.

The Project is "transit-oriented", meaning its design and location encourages future residents and visitors to utilize the adjacent public transit opportunities and to reduce dependence on private vehicles. The Project would include the construction of approximately 800 surface and subterranean parking spaces that would satisfy the anticipated parking needs of residents and visitors of the development. Creating a transit-oriented development while providing adequate on-site parking would minimize spillover parking within the surrounding neighborhood; this would prevent adverse changes in visual character related to increases in vehicle parking on residential streets. A discussion of parking is provided in Section 5.1, Traffic/Access of this EIR.

The Project has been designed with the intention of maintaining pedestrian-friendly circulation within and across the Project site to connect to the transit facilities to the north, while limiting pedestrian activities to the south and east, as shown in Exhibit 2-7, Vehicle and Pedestrian Circulation in Section 2.0 of this EIR. The proposed Street Level Landscape Plan is depicted in Exhibit 2-11, and the Podium Level Landscape Plan is depicted in Exhibit 2-12, located in Section 2.0, Environmental Setting and Project Description. These plans show the anticipated spacing and foliage coverage for the trees to be planted along the commercial promenades along Aviation Boulevard and the Fire Lane that separates the Project site from the Green Line station to the north.

Trees to be planted along the commercial promenades include Bottle Tree (*Brachychiton populneus),* Cajeput Tree *(Melaleuca quinquenervia),* Afghan Pine, and California Fan Palm*.* Trees to be planted along the plaza area adjacent to the Fire Lane include Corral Tree (*Erythrina caffra*)*,* Pink Melaleuca (*Melaleuca nesophila*)*,* Fruitless Olive (*Olea europeae* "Swan Hill"), California Sycamore (*Platanus racemosa*)*,* and California Fan Palm. As required by MM 4.4-2, prior to commencement of construction activities, the Project Applicant/Developer must submit the Landscaping Plan for the Project to the County of Los Angeles Department of Regional Planning for review and approval.

In addition to the landscaping, which will provide shade and visual appeal for residents and visitors to the Project site, the Project will incorporate various hardscape features to enhance the pedestrian experience. The commercial promenade will include enhanced paving, benches, seat walls, and a double row of palms to buffer the promenade from traffic along Aviation Boulevard. The commercial plaza area, which is located adjacent to the main lobby entrance adjacent to the Fire Lane, will include a seating area, an alley of trees, seat walls, and a water feature. The proposed Fire Lane would be accommodated within the overall landscape concept with the installation of varying pavers whose placement and patterns would blend into the surrounding open space areas without creating one broad, straight path that would visually divide the space. Finally, paved areas would be strategically placed along the northern perimeter to allow convenient and visible pedestrian connections to the Metro transit uses to the north.

Signage and Graphics

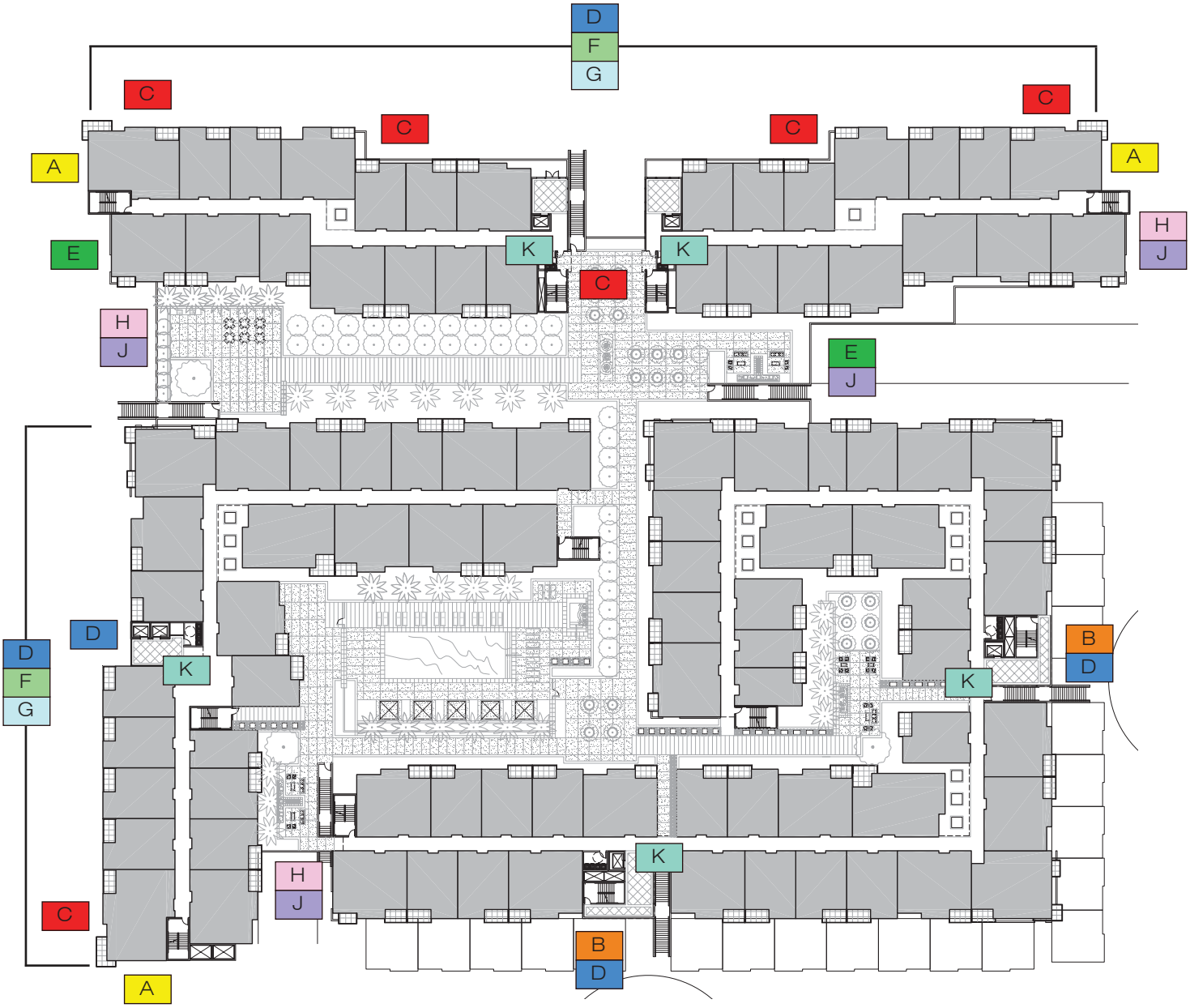
As discussed in Section 2.0, Environmental Setting and Project Description, the Project's conceptual signage plan includes ten different types of signs, graphics or other wayfinding indicators, including: two types of building identifiers, building identify blades, awning signs (for commercial identity), wall signs (for commercial identity and wayfinding), projecting signs (for commercial identity), commercial window signs, public parking entrance identity signs and clearance bars, and elevator lobby wayfinding signage and unit numbers. These signage types vary from large building-mounted architectural details to small hanging and window signs, and are further described below.

Exhibit 4.4-7, Proposed Signage Plan, indicates the sign types and locations for the proposed Project; a more detailed description of the sign types as well as pictures depicting examples and typical signage scenarios for the Project are provided in the *Project Identity, Entrance and Retail Signage Standards* document provided in Appendix G-2.

As shown in Exhibit 4.4-7, the majority of signs are proposed on Aviation Boulevard and the north side of the Project facing the Metro and Caltrans facilities, commensurate with the more intense vehicular and/or pedestrian traffic along the western and northern portions of the Project site. The secured residential lobbies on West 117th Street and Judah Avenue, public parking entrance identity signs and clearance bars, and elevator lobby wayfinding signage and unit numbers represent the limited signage that is proposed on the southern and eastern sides of the Project site, where the proposed townhomes are located and adjacent to existing residential land uses.

Where not specified in the conceptual signage plan, and in the descriptions below, the size, materials, and/or colors of the signs will be determined as plans and specifications are refined, and will depend on the specific commercial tenants (for commercial identity signage) as well as the County of Los Angeles zoning code. In addition, all sign-related lighting will be in compliance with Section 22.52.820 of the Los Angeles County Code.

Both types of "building identifiers" are large signs that are intended to be an extension of the architecture and to create a sense of place. The first type of building identifier (denoted as "A" on Exhibit 4.4-7) is a building-mounted vertical sign extending out from the top and down the face of the building. These signs are conceptually designed to be approximately 16 feet wide and approximately 53 feet high, with an approximate 31-foot extension of the top of the building; these signs would have external or ambient lighting, per the Zoning Code requirements. This signage is proposed to be placed in two locations: (1) at the northwestern corner of the Project along Aviation Boulevard near the Metro bus terminal and (2) at the southwestern corner of the



A	Building Identifier	F	Projecting Sign (Retail Identity)
B	Building Identifier	G	Window Signage
C	Building Identity Blade	H	Public Parking Entrance Identity
D	Awning Sign (Retail Identity)	J	Public Parking Entrance Clearance Bars
E	Wall Sign (Retail Identity + Wayfinding)	K	Elevator Lobby Wayfinding + Unit Numbers

Source: Withee Malcolm Architects LLP 2010

Projects/Cox/J002/Graphics/Ex_signage.ai

Proposed Signage Plan

Exhibit 4.4-7

Aviation Station

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(Rev 11/12/10 CJS) Projects/Cox/J002/Graphics/Ex4.4-7_signage.pdf

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Project along West 117th Street at Aviation Boulevard, across from the commercial land uses on West 117th Street.

The second type of building identifier (denoted as "B" on Exhibit 4.4-7) is a building-mounted graphic placed on the building's face. These signs are conceptually designed to be approximately 12 feet wide and approximately 46 feet high, extending beyond the top of the proposed buildings; they would have either external or ambient illumination. The extension of the vertical signage above the building facade also assists in screening the adjacent residences to the south and east from ambient light. This signage is proposed to be placed in two locations: (1) the entrance lobby on West 117th Street and (2) the entrance lobby on Judah Avenue.

The "building identity blade" (labeled "C" on Exhibit 4.4-7) is also a large, building-mounted vertical sign, but is placed perpendicular to the building, rather than in line with the facade like the building identifiers. The building identity blades are intended to be site-specific marquees that assist pedestrian wayfinding throughout the Project and also contribute to a sense of place. These signs are proposed to be constructed of aluminum or aluminum frame materials, with external or ambient illumination. The building identity blades are conceptually proposed to be located primarily along the commercial frontage facing with Metro facilities, with one sign along Aviation Boulevard at the southwest corner of the Project.

The awning signs (labeled "D" on Exhibit 4.4-7) are comprised of dimensional aluminum or aluminum frame letters, finished on all sides, mounted onto the edge of a metal "eyebrow". The purpose of awning signs is to clearly illustrate the access point into the commercial stores, parking garages, and residential lobbies. These signs would have a maximum length of 19 feet, and would be either externally illuminated or internally halo-lit. These signs are proposed along the commercial storefronts facing the Metro facilities and the storefronts on Aviation Boulevard within building 1B.

The wall signs (labeled "E" on Exhibit 4.4-7) are comprised of letters mounted directly to the building facade with no back plate, and would be externally illuminated or internally halo-lit. The size and colors of the wall signs are variable and would depend on the commercial tenants, who often have a trademark nameplate that would be reflected in the signage. As shown in Exhibit 4.4-7, wall signs are proposed along a portion of the storefronts on Aviation Boulevard within building 2A, and at the parking garage entrance at the terminus of West 116th Street.

The projecting signs (labeled "F" on Exhibit 4.4-7) are building-mounted blade signs, much like the building identifier blades discussed above but substantially smaller. These signs would be comprised of aluminum or aluminum frame and/or painted, and would be externally illuminated or internally halo-lit. Projecting signs would be used both for commercial identification and wayfinding, such as indicating the presence of stairs. The size of the projecting signs is, in part, dependent on the height of placement. In accordance with the Los Angeles County Code, the higher on the building face the bottom of the sign is placed, the further out it can project from the building. Specifically, at the minimum allowable placement height of 8 feet, the sign can project a total of 1 foot, and for every 2 feet in height increase the sign can project an additional 1 foot from the building. (This is depicted on page 7 of the conceptual signage plan in Appendix G-2.) The projecting signs are proposed along the commercial storefronts along Aviation Boulevard and facing the Metro facilities.

The window signs (labeled "G" on Exhibit 4.4-7) are temporary signs that are displayed behind commercial storefront glazing, and would not occupy more than 25 percent of the total transparent area of any window. The window signs are also proposed along the commercial storefronts along Aviation Boulevard and facing the Metro facilities.

The public parking entrance identity signs (labeled "H" on Exhibit 4.4-7) are comprised of raised metal letters, finished on all sides, mounted on the building or an architectural canopy with no back plate and would be used to identify (1) the main vehicle parking entrance off Aviation Boulevard; (2) the secondary vehicle parking entrance off West 117th Street; and (3) the vehicle parking access to/from the eastern surface parking lot at Judah Avenue and West 116th Street. The parking identity signs would have a maximum width of 27 feet and height of 18 inches. To aid vehicular circulation within the parking garage, a pair of public parking clearance bars (labeled "J" on Exhibit 4.4-7) would hang below the entrance interior to demonstrate the maximum vehicle height within the garage, and with a minimum height of eight feet and two inches.

Finally, the elevator lobby wayfinding signage and unit numbers (labeled "K" on Exhibit 4.4-7) includes the use of color and graphics to identify the floor number, and would scale the height of the hallway. These graphics would be located in the vicinity of all elevator locations.

The conceptual signage plan depicts a variety of sign types and designs that emphasize long, clean, geometric lines and minimum extraneous details that harmonize with and contribute to the overall architectural style. The signage and graphics proposed for the Project would be similar in placement, materials, and visual quality to recent commercial or mixed-use developments in metropolitan areas across Southern California. As noted above, the majority of signs would be placed along Aviation Boulevard and facing the Metro and Caltrans facilities, and there would be minimal signage placed along the southern and eastern sides of the Project near the proposed townhomes and adjacent to existing residential land uses.

In compliance with MM 4.4-3, a signage plan shall be submitted to the County of Los Angeles Department of Regional Planning for review and approval. Project signage shall be designed and implemented in compliance with all applicable Los Angeles County standards and requirements. With implementation of MM 4.4-3, visual impacts would be less than significant.

Summary of Analysis

As articulated in PDF 4.4-1 and PDF 4.4-2, the height and bulk/massing of the Project was designed to minimize impacts to adjacent land uses, while still providing a vibrant transit-oriented development. Although the Project is generally inconsistent with the height, massing, and scale of the adjacent residential land uses to the south and east, the Project incorporates various features, including landscaping, architectural design details and hardscaping, setbacks, and a cohesive signage plan that is intended to contribute to the overall architectural style in order to minimize this impact. Additionally, the Project does serve as a transitional development between the industrial/manufacturing land uses to the west, the transit land uses to the north, and the single-family residential to the south and east.

The Project will maintain and strengthen the residential character of the Del Aire community by including new housing opportunities for both renters and owners. Therefore, although the Project would alter the height, massing, and visual character of land uses on the Project site, these changes would not result in a major adverse change to the patterns, scale, or character of the general area. Impacts would be less than significant and no mitigation is required.

Visual character is one of several factors considered in the analysis of land use compatibility, which is addressed fully in Section 6.2, Land Use, of this EIR.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The changes to the Caltrans Off-Site Project Area and temporary off-site utility trenching would not alter the existing visual condition or character of the area. The Metro bus terminal

would simply be relocated to an area approximately 100 feet to the north, with largely the same design and layout. There would be no substantive change to the height, bulk, or other character-defining features of this Caltrans Off-Site Project Area, including landscaping, lighting and signage. Off-site Project components' utility improvements would be limited both in scale and geographic extent, and would be entirely underground after installation. Construction activities would be short-term and these Project components would not substantially change the visual character of the off-site areas. There would be a less than significant impact to visual character related to off-site Project components.

Threshold 4.4f: Is the project likely to create substantial sun shadow, light or glare problems? Substantial sun shadow is defined as shade cast upon potentially sensitive land uses by project-related structures for more than 3 hours between the hours of 9:00 AM and 3:00 PM Pacific Standard Time (between late October and early April), or for more than 4 hours between the hours of 9:00 AM and 5:00 PM Pacific Standard Time (between early April and late October). Shadow-sensitive uses include public parks, nurseries, and residences.

Shade and Shadow

Shade and shadow simulations were prepared for the Project for the summer solstice, winter solstice, and spring equinox, as depicted in Exhibits 4.4-8 through 4.4-10. The length and persistence of shadows varies with both the time of day and day of the year, with the longest shadows cast nearest the winter solstice and the shortest shadows cast nearest the summer solstice. June 21 (summer solstice) and December 21 (winter solstice) represent the days of the year with the longest and shortest periods of daylight, respectively. September 22 (autumnal equinox) and March 20 (spring equinox) each represent a day halfway between the summer and winter solstices so the length of the day and resulting shadows are relatively the same for both equinoxes. Therefore, the spring equinox simulation is used as the basis for analyzing the conditions at both the spring and autumnal equinoxes.

The simulations produce an accurate angle of the sun and the resulting shadows over the course of these three days of the year in one-hour intervals. Regardless of the time of year, during early morning hours (sunrise), the sun is positioned low in the sky and casts longer shadows. As the day progresses, shadow lengths become shorter as the sun approaches its highest point in the sky around midday (noon). From this point in the day, the sun's position in the sky again becomes progressively lower and the corresponding shadows become longer until the sun disappears below the horizon at sunset.

The first (top) simulation shown in Exhibits 4.4-8 through 4.4-10 represents the first time that shadows cast by the Project intersect any off-site shade-sensitive land uses; in this case, it is defined as the existing single-family residences to the south and east of the site. The second (bottom) simulation in each exhibit represents the shade conditions one hour after the first shade intersects an adjacent residential land use.

The shade and shadow simulations prepared for the Project indicate that shadows that are cast onto off-site shade-sensitive land uses would be limited to nearby residences along Judah Avenue north of West 117th Street. Specifically, during the winter solstice, shade from the Project would first affect adjacent residential land uses at approximately 2:30 PM, with the shade extending further to the north and east throughout the afternoon until sunset. During the summer solstice, shade would first affect adjacent residential land uses at approximately 5:15 PM, with shade primarily extending further to the east until sunset. During the spring equinox, which is generally equivalent to the autumnal equinox, shade would first affect

adjacent residential land uses at approximately 4:30 PM, with shade extending to the north and east until sunset.

Based on the shade and shadow simulations, there would be approximately 30 minutes of shade within the main daylight hours during the winter and there would be no shade during the main daylight hours during the spring, summer, or fall as a result of the Project. Therefore, the Project would not result in more than three hours of shade being cast on existing shade-sensitive land uses during the main daylight hours, as defined in Threshold 4.4f. There would be a less than significant impact related to shade and shadow, and no mitigation would be required.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed reconfiguration of transit-related land uses in the Caltrans Off-Site Project Area to the north would not result in new or otherwise taller structures that would create more substantive shade than in the existing condition. Off-site Project components' utility improvements would not result in new structures that would cast shade. Therefore, there would be no impacts related to shade and shadow from off-site Project components and no mitigation would be required.

Light and Glare

On-Site Impacts

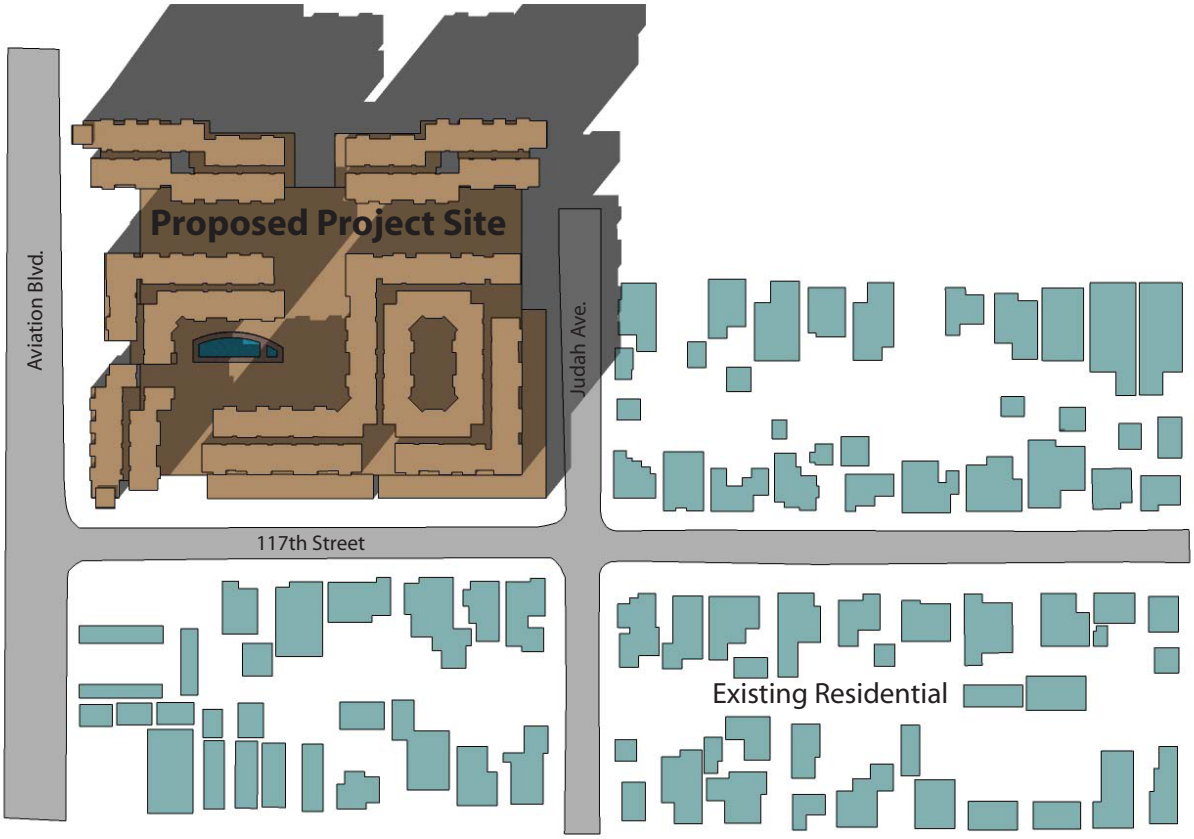
Although the Project would introduce new and more intensive development to the Project site, it is located in an area that is already subject to nighttime lighting from on-site and surrounding uses. Due to the urban nature of the Project site and surrounding area, the Project area experiences what is termed "sky glow", the illumination of the night sky from urban uses. The Project would involve both new sources of interior and exterior lighting, which are discussed below.

Interior Lighting

Within the residential units, the Project would incorporate energy efficient lighting fixtures that are intended to aesthetically illuminate the structure, while avoiding spillover lighting on adjacent land uses (MM 4.4-4). The Project would incorporate fluorescent can and under-counter kitchen lighting features, only one outdoor wall-mounted light fixture per patio, and one fixed ceiling-mounted light fixture per bedroom that would be facing streets.

Based on these assumptions, a lighting simulation was prepared by Fashandi & Associates, Inc. in June 2010 to determine the effect and level of light projections from the future residential units to the street and adjacent homes across West 117th Street and Judah Avenue (Appendix G-1).

Lighting simulations to predict the results of light spilling from all open windows along West 117th Street and Judah Avenue were performed using industry standard software that analyzes the foot candles (FC) for light projection from a light fixture, and it is used widely in photometric analyses. The analysis used an exterior three-dimensional building model to include the two-story townhomes and all four-levels of units above the podium of the building along the side of those streets. The building surface was given a nominal reflectance value of 50 percent and all windows and sliding glass doors to the outside were all calculated to have double paned, clear glass-type assemblies with transmission value of 80 percent. All interior surfaces of the units were calculated using the industry default reflectance values of 80 percent for the ceilings, 50 percent for the walls, and 20 percent for the floors. All calculation planes were placed for horizontal FC measurement at grade levels.



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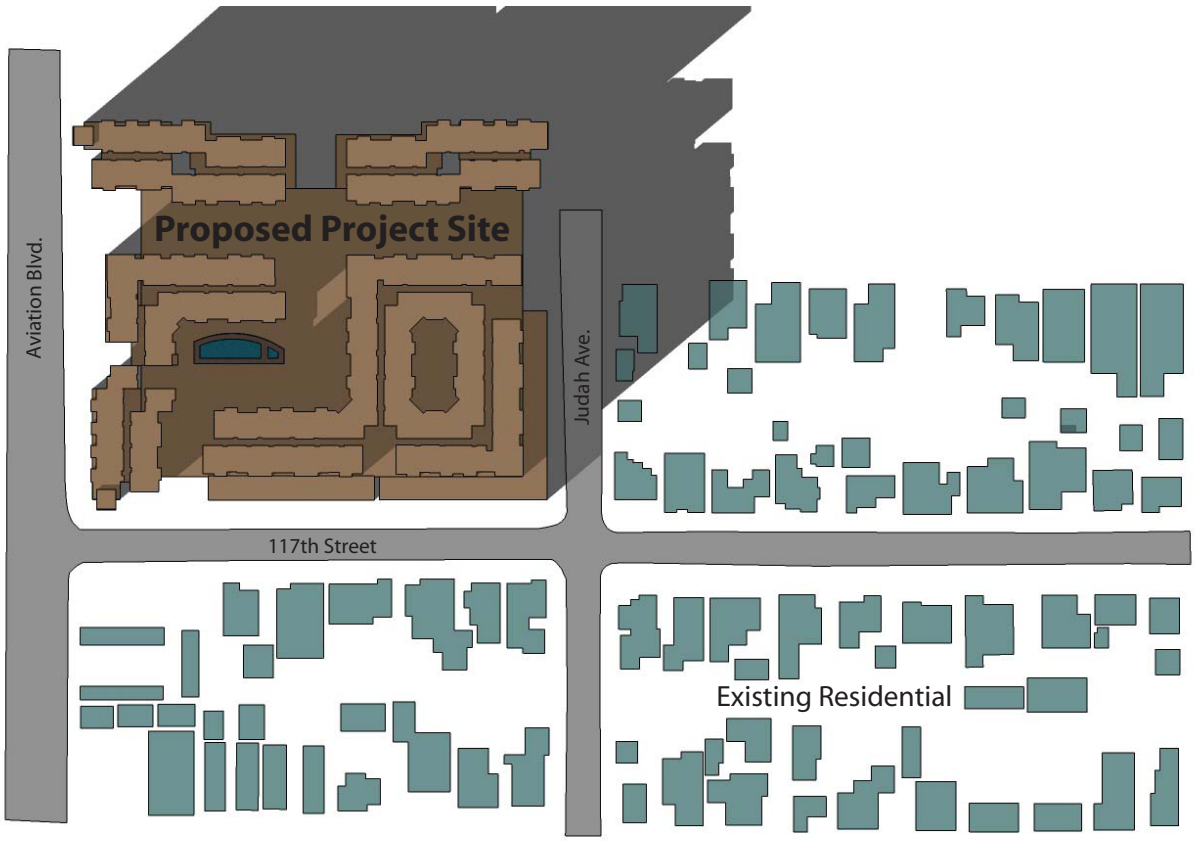

December 22, 2011 3:30pm

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Shade and Shadow Simulation – Winter Solstice

Exhibit 4.4-8

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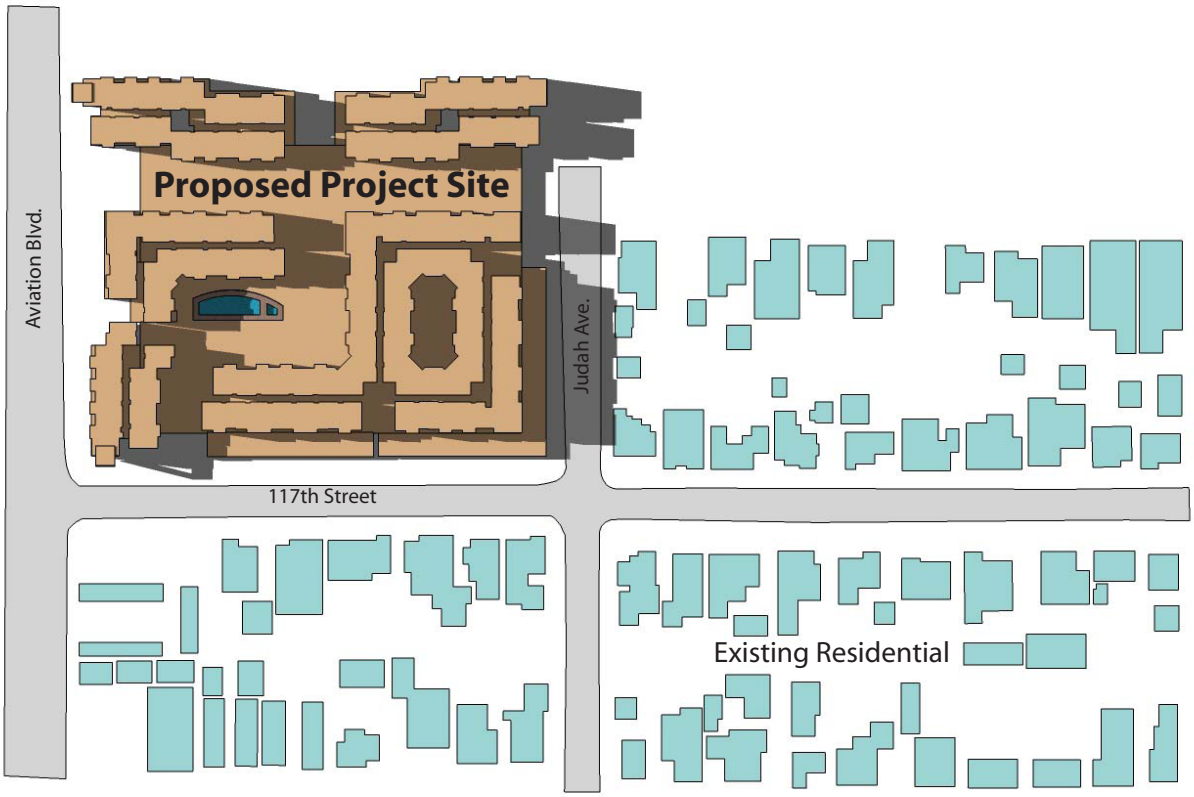

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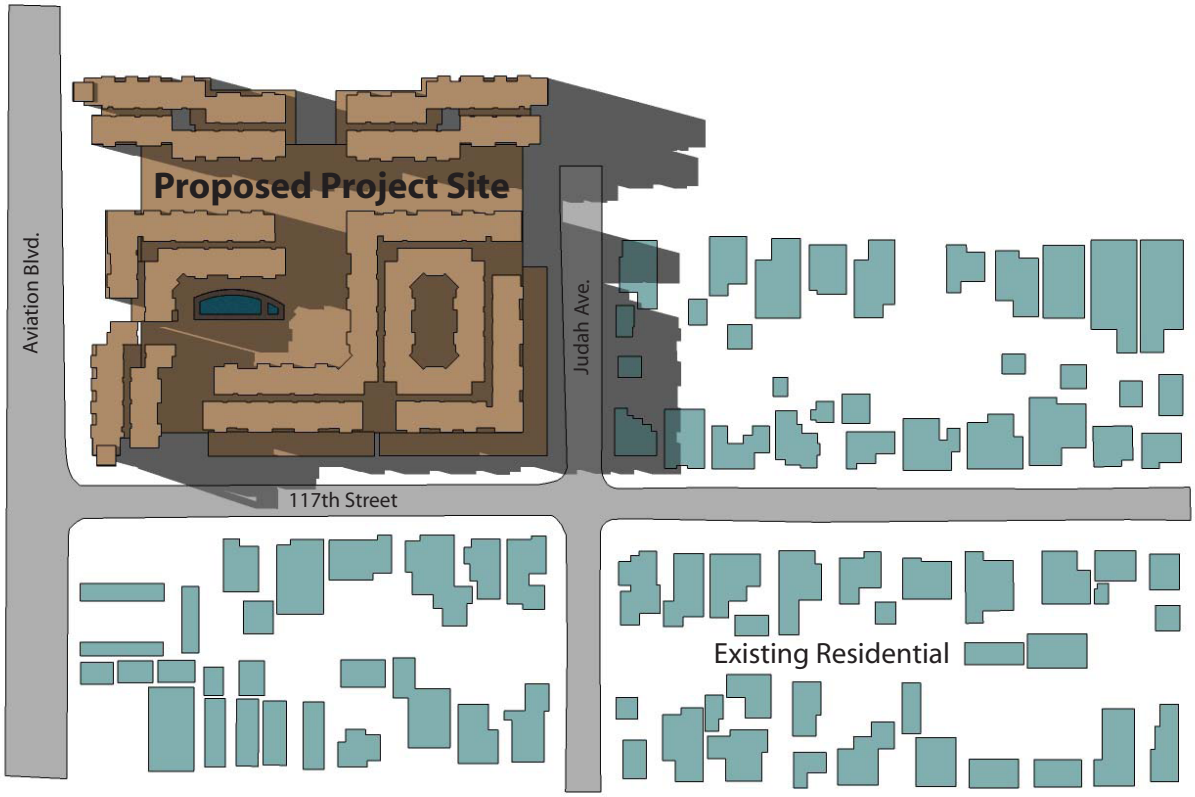

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Shade and Shadow Simulation – Summer Solstice

Exhibit 4.4-9

Aviation Station

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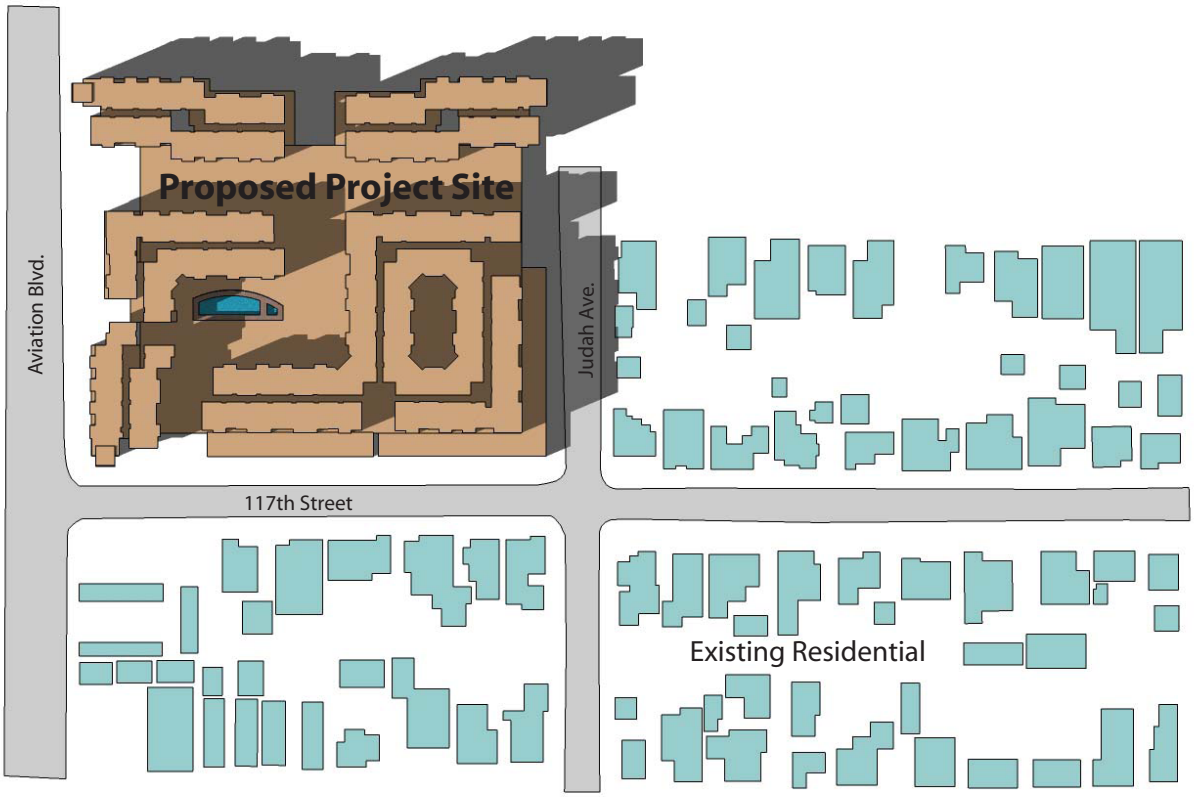

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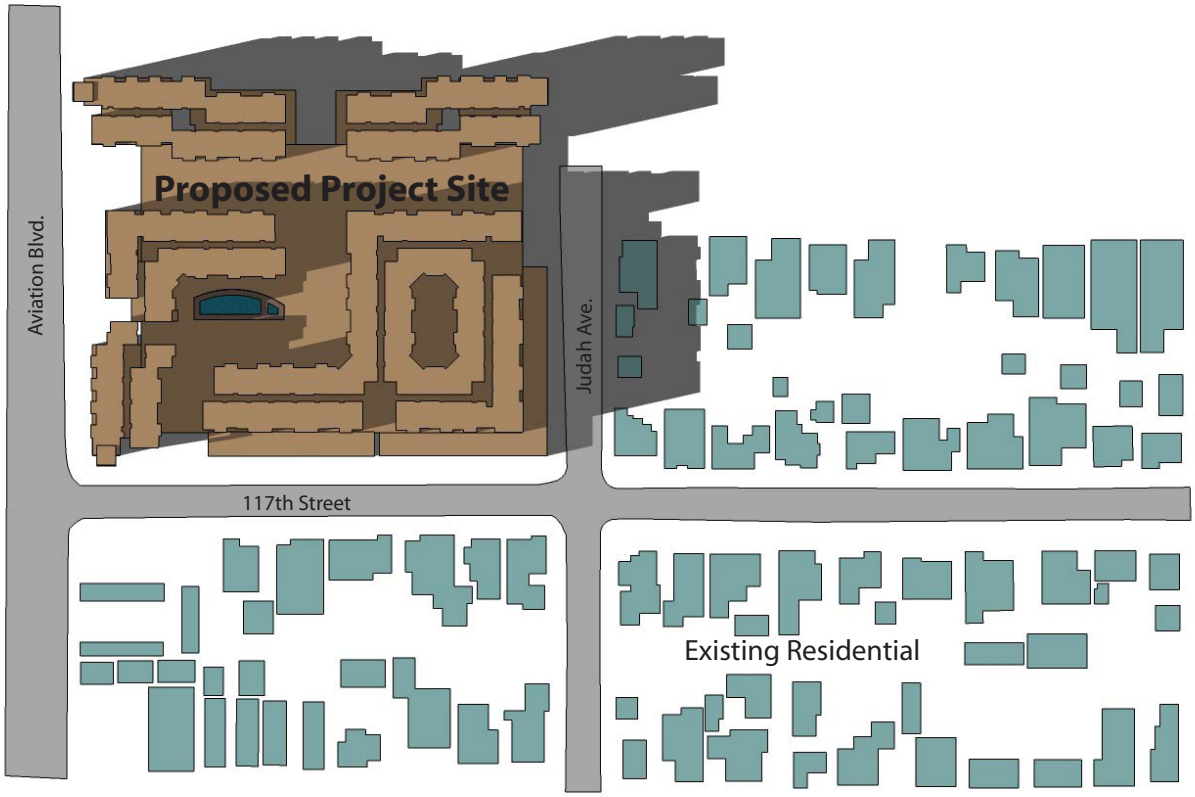

March 20, 2011 5:30pm

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Shade and Shadow Simulation – Spring Equinox

Exhibit 4.4-10

Aviation Station

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To perform these analyses, published Illuminating Engineering Society (IES) formatted photometric files were completed according to the plans and were used for each interior fixture type and for all fixtures that were placed in the electrical design drawings. The specifications related to selected light fixtures are included in Appendix G-1. The results of the analysis indicate that FC values along the West 117th Street and Judah Avenue do not exceed 0.2 FC near the adjacent buildings. This level is estimated to be similar to the amount of light cast from a full moon (0.1 FC) and at twilight under a clear sky (0.34 FC). These values suggest low light transmittance levels from the subject property into the adjacent buildings as modeled. Therefore, light generated by the residential units would not result in a significant lighting projection (spillover) onto the adjacent properties. Therefore, there would be a less than significant impact related to interior lighting.

Exterior Lighting

Exterior Project lighting would include mid-level street lights for delivery zones and pedestrian passageways; low-level bollard lights for pedestrian accent lighting; and other minor accent and security lighting to ensure safe passage through the Project site. On-site exterior lighting would be greater than the existing condition due to the density and height of the Project. However, it would be consistent with the type and extent of nighttime lighting in place at surrounding urban land uses in the Los Angeles basin and would not contribute materially to the existing sky glow.

Regarding proposed signage, as discussed above, the majority of signs are proposed on Aviation Boulevard and on the north side of the Project site facing the Metro plaza. The secured residential lobbies on West 117th Street and Judah Avenue, public parking entrance identity signs and clearance bars, and elevator lobby wayfinding signage and unit numbers represent the limited signage that is proposed on the southern and eastern sides of the Project where the proposed townhomes are located and adjacent to residential land uses. Pictures depicting proposed signage examples and typical signage scenarios for the Project are provided in the *Project Identity, Entrance and Retail Signage Standards* document provided in Appendix G-2.

As described above, the signs will be internally illuminated, externally illuminated, internally halo-lit or have ambient illumination, depending on sign type and consistency with the Los Angeles County Code. No flashing, neon, or liquid crystal display (LCD) light displays are proposed as part of the signage plan. As such, the Project signage fixtures would emit static lighting (at one continuous level) and would not be distracting for pedestrians or area drivers, including drivers on the I-105. As noted above, the I-105 is at approximately 50 feet above msl and would be aligned with the Level 4 of the Project. As such, drivers on I-105 would have sightlines above and over the majority of the site. The signage and graphics proposed for the Project would be typical in lighting types and level to recent commercial or mixed-use developments in metropolitan areas across Southern California and in the immediate Project area.

As noted in the proposed signage plan, all signs and graphics would be implemented in compliance with Section 22.52.820 of the Los Angeles County Code, which states, “In no case shall a lighted sign or lighting device thereof be so placed or directed so as to permit the beams and illumination therefrom to be directed or beamed upon a public street, highway, sidewalk or adjacent premises so as to cause glare or reflection that may constitute a traffic hazard or nuisance”. Section 22.52.1060 regarding parking lot lighting for all land uses states, “Lighting shall be so arranged to prevent glare or direct illumination in any residential or agricultural zone”.

Therefore, as required by MM 4.4-4, which requires compliance with the Los Angeles County lighting standards, and PDF 4.4-2, which requires all exterior lighting to be indirect, incandescent, and screened from adjacent residential land uses, impacts from Project-generated signage and lighting would be less than significant. Additionally, based on the Project

site's urban setting and level of existing nighttime lighting, the Project would not contribute substantial light that could adversely affect day or nighttime views for the adjacent residential homes or other populations in the Project area.

Glare

Glare is caused by light reflections from pavement, vehicles, and building materials such as reflective glass and polished surfaces. During daylight hours, the amount of glare depends on intensity and direction of sunlight. Glare resulting from reflective building materials can be a nuisance to on- and off-site viewers of the Project and is therefore considered an adverse aesthetic effect. In addition, due to the site's visibility from major thoroughfares, such as Aviation Boulevard and the I-105 freeway, there is a potential for unsafe traffic conditions due to glare from the Project site development.

As discussed in PDF 4.4-2, building materials specified by the architect for the Project include non-reflective products such as brick veneers, metal awnings, aluminum storefronts with metal panels on the commercial buildings and horizontal siding and plaster finishes and balconies with metal guardrails on the residential buildings. Only non-reflective building materials, including glass, would be used where the location, direction, and/or massing of the material could cause glare that would affect pedestrians, residents, and/or motorists, such as windows and exterior walls. Based on the proposed building material specifications, the Project would not generate substantial glare that would create a hazard and/or nuisance to residents and visitors of the Project or surrounding land uses. There would be a less than significant impact and no mitigation would be required.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed off-site Project components would not generate substantial light or glare. The Caltrans Off-Site Project Area to the north would not include new structures, signs, lights, or other potential light- or glare-generating facilities of a quantity or type beyond the new fixtures that would replace what currently exists on and around the Project site. The off-site utility improvements would not include new signs, lights, or other light- or glare-generating facilities. Therefore, there would be less than significant impacts related to light and glare from off-site Project components and no mitigation would be required.

4.4.6 CUMULATIVE IMPACTS

The cumulative projects illustrated on Exhibit 2-16, Location of Cumulative Projects, in Section 2.0, Environmental Setting and Project Description, are not located in the immediate vicinity of the Project site and would not, therefore, be within the same viewshed as the Project site. The Project would result in less than significant impacts related to visual quality, shade and shadow, and light and glare with implementation of PDF 4.4-1, PDF 4.4-2, and MMs 4.4-1 through 4.4-4. Therefore, the Project's incremental impact would not be expected to be cumulatively significant to visual qualities.

4.4.7 MITIGATION MEASURES

MM 4.4-1 Prior to commencement of construction activities, the Contractor shall install a visual barrier along the entire perimeter of the construction site (e.g., green mesh fabric or similar view-blocking material) to obstruct street-level views of construction activities from adjacent residents along West 117th Street and Judah Avenue. This barrier shall remain in place until the completion of grading activities requiring heavy mobile trucks/equipment. This shall be included on the contractor specifications and verified by the County of Los Angeles.

MM 4.4-2 Prior to issuance of a grading permit, the Project Applicant/Developer shall submit the Landscaping Plan to the Los Angeles County Department of Regional Planning for review and approval.

MM 4.4-3 Prior to issuance of a building permit, a signage plan shall be submitted to the Los Angeles County Department of Regional Planning for review and approval. Project signage shall be designed and implemented in compliance with all applicable Los Angeles County standards and requirements.

MM 4.4-4 Prior to issuance of a building permit, a lighting plan shall be submitted to the Los Angeles County Department of Public Works for review and approval. Project lighting shall be designed and implemented in compliance with all applicable Los Angeles County lighting standards.

4.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

There would be less than significant impacts during construction and operation of the Project related to visual quality, shade and shadow, and light and glare with implementation of PDFs 4.4-1 and 4.4-2, and MMs 4.4-2 through 4.4-4. Although less than significant impacts would occur, MM 4.4-1 would further reduce visual impacts during construction.

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4.4 VISUAL QUALITIES

This section describes the following associated with the Project: (1) the existing aesthetic character of the Project area; (2) views of and from the Project site; (3) an analysis of the potential visual, light, and glare effects; and (4) shade and shadow effects. The analysis presented in this section is based on field reconnaissance, review of aerial photographs, architectural renderings of the Project, and computer simulations of shade and shadow effects from the proposed development.

A Lighting Study was prepared by Fashandi & Associates, Inc. in June 2010 to determine the effect and level of light projection from the future residential units in this Project to both the street and the adjacent residential buildings across West 117th Street and Judah Avenue. This report is located in Appendix G-1 of this EIR. Additionally, the conceptual signage plan, the *Project Identity, Entrance and Retail Signage Standards*, was prepared by Withee Malcolm Architects, LLP in November 2010; this report describes the planned sign types and locations, as well as typical views and other details of the Project signage, including lighting. This report is located in Appendix G-2 of this EIR.

An analysis of impacts related to visual qualities generally involves the identification of existing visual resources and the aesthetic quality of what can be seen, set in comparison to the visual resources and aesthetic quality of the Project. Light and glare is a concern with both the creation of daytime and nighttime glare due to the reflection of the sun (such as on glass surfaces) and/or an increase in ambient lighting levels (such as from building lights, street lights, and vehicle headlights). Shade and shadow are concerns with the effects of shadows cast by proposed structures on sun-sensitive land uses.

4.4.1 RELEVANT POLICIES AND REGULATIONS

State

California Department of Transportation Scenic Highway Program

The State of California enacted the California Scenic Highway Program in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The Scenic Highway System, through the California Department of Transportation (Caltrans), includes a list of either officially designated scenic highways or highways that are eligible for such designation. A highway may be designated as “scenic” depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler’s enjoyment of the view.

County

County of Los Angeles Scenic Highway System Map

The County, as part of its General Plan, developed a Scenic Highway System Map illustrating three tiers of designation for roadways: Adopted, First Priority, and Second Priority. The State’s category of “Officially Designated” is comparable to the County’s category of “Adopted”, and the State’s category of “Eligible” is comparable to the County’s category of “First Priority”. There is no equivalent State category for the County “Second Priority” category.

4.4.2 EXISTING CONDITIONS

Visual Characteristics of the Site and Surrounding Area

The Project site is located in a highly urbanized area with a diverse mix of land uses and is immediately southwest of two major regional freeways: Interstate (I) 405 to the east and I-105 immediately to the north. The Project site includes approximately 5.9 acres and includes a total of 15 Assessor's Parcel Numbers (APNs), comprised of 11 structures, which are located on the Project site. The 11 on-site structures include 9 single- or multiple-family residences that date from the mid-1930s to the late 1940s; a 4,568 square foot commercial structure (i.e., Wild Goose Restaurant/Bar); and an 8-room motel (i.e., Aviation Motel). The topography of the Project site and surrounding areas is essentially flat, with elevations ranging between 94 and 96 feet above mean sea level (msl).

The Project site is bound by Aviation Boulevard to the west; the Metro Green Line Aviation/LAX Station to the north; West 117th Street to the south; and Judah Avenue to the east. Currently, West 116th Street ends in a cul-de-sac halfway through the Project site. The southern portion of the Project site (Lot 1), located within the County of Los Angeles, contains 7 single-family residences located along West 116th Street and West 117th Street; it also contains 2 multiple-family parcels, which are located at the northeastern and southeastern corners of the block. The residential units are currently located within 2.3 acres of the Project site that are zoned for R-1 (Single Family Residence). Therefore, the current density of the residential portion of the Project site is 0.21 dwelling unit (du) per acre. The western portion of Lot 1 contains 0.9-acre and is zoned for C-1 (Restricted Business Zone); this portion contains the Wild Goose Restaurant/Bar, the Aviation Motel, and associated surface parking.

The northern portion of the Project site (Lot 2), located within the City of Los Angeles, contains the Metro bus terminal and a portion of West 116th Street. The existing Metro Green Line Station for light-rail is located off site directly north of the Project site, adjacent to surface parking for the Caltrans Park-and-Ride Lot; Caltrans Maintenance Facility parking is located to the east of the Caltrans Park-and-Ride Lot. Both the Metro Green Line Station and I-105 are elevated and dominate the Project site's northern viewshed.

This portion of Los Angeles County is a residential community with important regional employment centers. An aerial photograph of the Project site is provided in Exhibit 2-3, Aerial View of the Project Site, in Section 2.0, Environmental Setting and Project Description. Specifically, surrounding areas to the north and west are largely comprised of commercial, office, and engineering and information technology services land uses, with a high concentration of aviation/aerospace-related facilities. The Los Angeles International Airport (LAX) is located approximately 0.15 mile to the northwest of the Project site, and the Northrop Grumman Integrated Systems campus is located immediately to the west of the site across Aviation Boulevard.

The Burlington Northern Santa Fe (BNSF) railroad line runs parallel to the western side of Aviation Boulevard. The lands immediately west of the Project site (encompassing the Northrop Grumman campus) are zoned for and have a General Plan land use designation of "Urban Mixed Use-North". The east side of Aviation Boulevard, south of the Project site, is developed with commercial businesses, including a liquor store, a motel, a check-cashing business, a pawn shop, and restaurants. Areas immediately to the south and east of the site are comprised predominately of single-family residences. The Los Angeles County Airport Courthouse, commercial office space, and the Pacific Place luxury apartment complex are located further to the east of the site near the I-105/I-405 interchange.

Because the topography of the Project area is flat and the Project area is fully developed, views of the Project site beyond the adjacent roadways and land uses are obstructed currently. The primary viewers of the Project site include travelers on the surrounding streets (temporary/short-term views),[1] the Metro Green Line travelers (temporary views), the Metro bus users (temporary views), on-site and adjacent residents on Judah Avenue and West 117th Street (long-term views), and visitors to the on-site and surrounding commercial businesses (temporary views). Views of the Project site from several public vantage points are depicted in the aerial and site photographs presented in Exhibit 4.4-1, View Location Key, which depicts the location and direction of each photograph, and Exhibits 4.4-2a through 4.4-2e, Project Area Photograph Documentation. The views presented in these photographs and corresponding site characteristics are described below.

- ***View 1 (View of On-Site Properties): Intersection of Judah Avenue and West 117th Street.*** This view to the northwest depicts the existing conditions on the Project site from the intersection of Judah Avenue and West 117th Street. The single-family residential development and landscaping (e.g., non-native mature trees, shrubs, lawn) depicted are typical of the residential land uses present on the Project site and in the Del Aire community. The elevated Metro Green Line Aviation/LAX Station is depicted in the background to the right, while Boeing's El Segundo office tower is shown to the left (Exhibit 4.4-2a).

- ***View 2 (View of Off-Site Properties): Motel at Intersection of West 117th Street and Aviation Boulevard.*** This southern view from the Project site depicts an existing off-site motel located directly across from the southwestern corner of the Project site. This type of commercial development—along with convenience stores, liquor stores, and other strip-mall retail centers—are common along the eastern side of Aviation Boulevard in the Project vicinity (Exhibit 4.4-2a).

- ***View 3 (View of On-Site Properties): South Side of Aviation Motel from West 117th Street.*** This view depicts the southern-facing back side of the Aviation Motel, located on the Project site at the corner of West 117th Street and Aviation Boulevard. The Northrop Grumman Integrated Systems campus and Boeing buildings are visible in the background (Exhibit 4.4-2b).

- ***View 4 (View of On-Site Properties): Aviation Motel from Aviation Boulevard.*** This view depicts the Aviation Motel and surface parking lot at the southwestern portion of the Project site, as seen from Aviation Boulevard (Exhibit 4.4-2b).

- ***View 5 (View of On-Site Properties): Wild Goose Restaurant/Bar.*** This view depicts the Wild Goose and surface parking areas, as seen from across Aviation Boulevard. The Aviation/LAX Station is visible on the left of the photograph, and the Airport Courthouse branch of the Superior Court of Los Angeles is visible in the background (Exhibit 4.4-2c).

- ***View 6 (View of Off-Site Properties): Northrop Grumman and BNSF Railway.*** This southern view depicts a portion of the Northrop Grumman Integrated Systems campus and the adjacent BNSF freight railroad along the western side of Aviation Boulevard, directly west of the Project site. Worker surface parking is located along the Northrop Grumman campus between its facilities and the railroad (Exhibit 4.4-2c).

- ***View 7 (View of Off-Site Properties): Metro Bus Terminal.*** This view depicts the Metro bus terminal for transit riders utilizing the Metro Green Line Aviation/LAX Station. Various

[1] Temporary, or short-term, views are those experienced by motorists, pedestrians, site visitors, or anyone who is temporarily in the Project site vicinity.

municipal bus lines and LAX shuttle services use this facility. The elevated Metro Green Line Station is visible on the left of the photograph, and the Los Angeles County Airport Courthouse is visible in the background (Exhibit 4.4-2d).

- ***View 8 (View of Off-Site Properties): Intersection of Aviation Boulevard and West 116th Street.*** This view shows the route accessed by transit buses using the Metro bus terminal shown in View 7. In the upper left background is the Metro Green Line Aviation/LAX Station; the close proximity of the station to the bus terminal fosters efficient transfers between the two modes of alternative public transportation (Exhibit 4.4-2d).

- ***View 9 (View of Off-Site Properties): Aviation/LAX Green Line Station and I-105 from Imperial Highway.*** The elevated Metro Green Line Station (background) and I-105 (foreground) are shown in this view, in addition to a view of the Caltrans Park-and-Ride Lot. West Imperial Highway, a major east-west thoroughfare, is located in the foreground and provides access to the I-105. This photograph clearly illustrates the dominance of the elevated Metro Green Line Station on the Project site's northern viewshed (Exhibit 4.4-2e).

- ***View 10 (View of Off-Site Properties): Caltrans Facility.*** This view depicts the Caltrans Maintenance Facility located to the northeast of the Project site. To the right, underneath the I-105, is the Caltrans Maintenance Facility and the surface parking lot for Caltrans vehicles (Exhibit 4.4-2e).

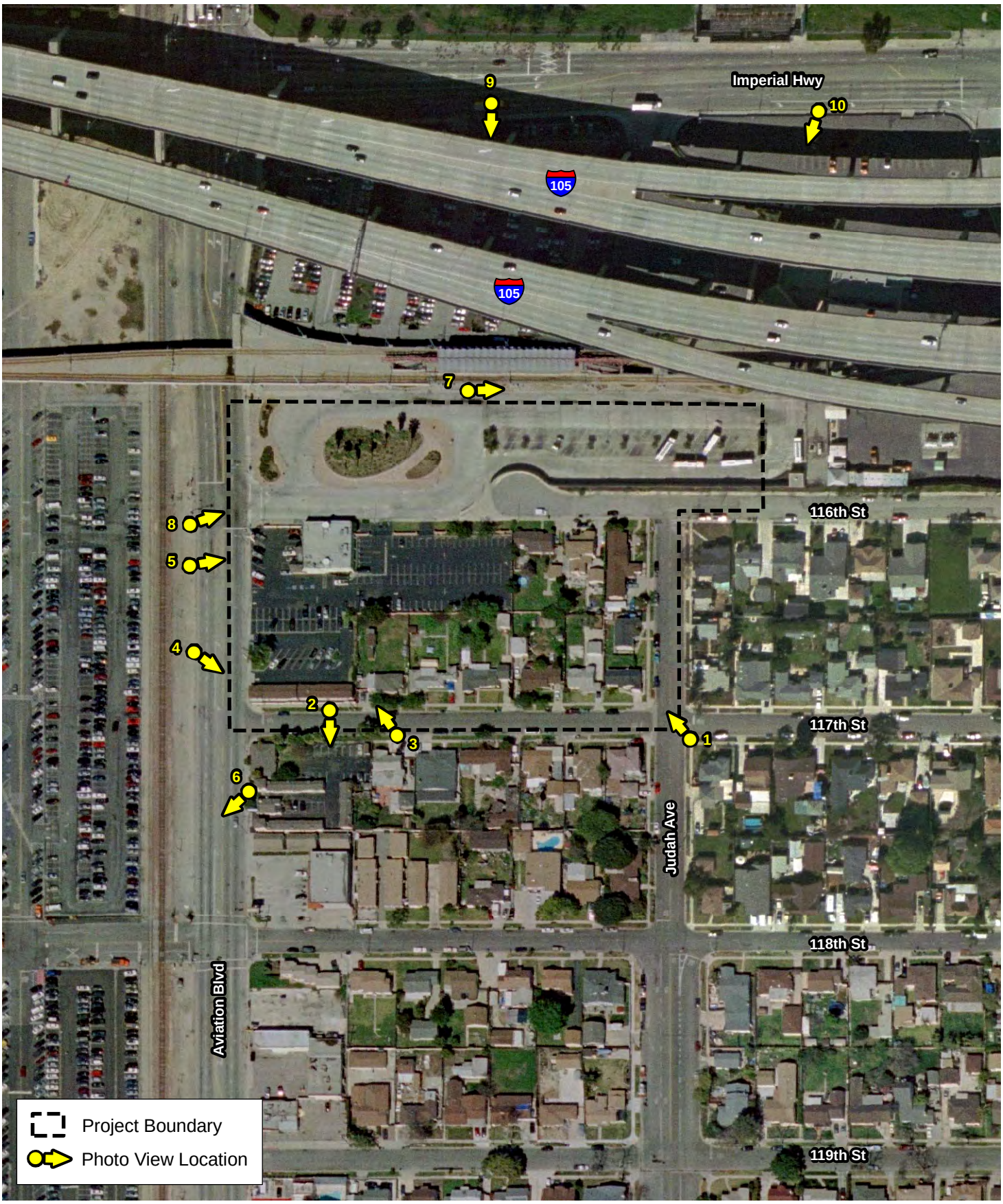
As shown in Exhibits 4.4-2a through 4.4-2e, depending on the location of the viewer, existing public views of the Project site are dominated by either residential land uses typical of the Del Aire community or the on-site commercial land uses and associated surface parking areas. Views of surrounding areas are dominated by the nearby transit and freeway facilities as well as small- and large-scale commercial/industrial development. The existing visual quality of the site would not be considered a scenic resource or otherwise unique.

Light and Glare

Artificial lighting is widely utilized in most urban and suburban areas to provide visibility for both traffic and security. The Project area has nighttime illumination typical of an urbanized area. This condition is attributable to the commercial and residential development, street lighting, and parking lot lighting in the Project vicinity and on the site itself. Overhead lighting is present on all adjacent roadways, within the Metro bus terminal, and within the Caltrans Off-Site Project Area to the north of the Project site. Transient lighting from vehicular headlights also contributes to nighttime illumination in the Project area. There are no existing buildings or other man-made features on site or in proximity to the Project site that are constructed of materials that cause substantial glare. For the purpose of this analysis, light-sensitive land uses include residential properties. As such, the residential homes along Judah Avenue and West 117th Street in proximity to the Project site are considered to be light-sensitive land uses.

Shade and Shadow

Shade and shadows can be generally defined as the comparative darkness caused by the screening of light rays from an object. For the purposes of this analysis, land uses that would be sensitive to shade and shadows are defined as those that benefit from sunshine in conjunction with the uses of the property. Such shade-sensitive land uses include, but are not limited to, residential properties for gardening and playing in front/backyards; parks for vegetation/wildlife and outdoor recreation; yards at schools/day care centers for outdoor recreation; and other land



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View Location Key

Exhibit 4.4-1

Aviation Station Project

N W E S

200 100 0 200 Feet

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View 1: Project Site- Judah Ave. and 117th St.

View 2: Off-site- South of 117th St.

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Project Area Photographic Documentation

Exhibit 4.4-2a

Aviation Station Project

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View 3: Project Site- Back of Aviation Motel

View 4: Project Site- Aviation Motel

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Project Area Photographic Documentation

Exhibit 4.4-2b

Aviation Station Project

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View 5: Project Site- Wild Goose Restaurant

View 6: Off-site- Northrop Grumman and BNSF Railroad

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Project Area Photographic Documentation

Exhibit 4.4-2c

Aviation Station Project

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View 7: Project Site- Metro Bus Station

View 8: Project Site- Metro Bus Station and Green Line Station

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Project Area Photographic Documentation

Exhibit 4.4-2d

Aviation Station

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View 9: Off-site I-105 and Park and Ride Lot

View 10: Off-site- Caltrans Facility

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Project Area Photographic Documentation

Exhibit 4.4-2e

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uses (i.e., hotels) that have outdoor amenities, such as swimming pools. Shade-sensitive off-site land uses for this Project include the single-family residential homes located along Judah Avenue and West 117th Street in proximity to the Project site.

Because all existing structures on the Project site are one story, the existing shade and shadow effects on other on-site structures are minimal. Existing trees on site may exceed the height of a two-story structure and provide shade for existing land uses. Structures immediately adjacent to the Project site are not tall enough to cast substantial shadows to on-site light-sensitive land uses, nor are the existing on-site structures tall enough to cast substantial shadows on adjacent land uses.

4.4.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study Checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 4.4a: Is the project site substantially visible from or will it obstruct views along a scenic highway (as shown on the Scenic Highway Element), or is it located within a scenic corridor or will it otherwise impact the viewshed?

Threshold 4.4b: Is the project substantially visible from or will it obstruct views from a regional riding or hiking trail?

Threshold 4.4c: Is the project site located in an undeveloped or undisturbed area that contains unique aesthetic features?

Threshold 4.4d: Is the proposed use out-of-character in comparison to adjacent uses because of height, bulk, or other features?

Threshold 4.4e: Will the project result in a major change in the patterns, scale, or character of the general area or community? (Threshold from County Initial Study Section "Other Factors – General")

In addition, the Project was determined to have a potentially significant impact for the following threshold: "Is the project likely to create substantial sun shadow, light or glare problems?" The County of Los Angeles does not have a quantitative criteria for what is a "substantial" shade and shadow impact. Therefore, BonTerra Consulting researched quantitative thresholds applied in recent (since 2007) Environmental Impact Reports (EIRs) prepared for projects in Southern California. Although no codified or otherwise officially adopted standards were found, the following quantitative thresholds for significant shade and shadow have been applied in EIRs for projects in the Cities of Santa Monica, Los Angeles, Anaheim, and Costa Mesa:

1. "…shadows would be cast upon potentially sensitive uses for more than two hours of the main daylight hours (9:00 AM to 3:00 PM during the fall, winter, and spring seasons); and 9:00 AM to 5:00 PM (daylight savings time) during the summer season. Light-sensitive uses include public parks, nurseries, residences, and other light-sensitive uses" (City of Santa Monica 2009).

2. "Shadow-sensitive uses shaded by project related structures for more than three hours between 9:00 AM and 3:00 PM PST between late October and early April (including

Winter Solstice), or for more than four hours between early April and Late October (including Summer Solstice)" (City of Santa Monica 2008).

3. "A project impact would normally be considered significant if shadow-sensitive uses would be shaded by project-related structures for more than 3 hours between the hours of 9:00 AM and 3:00 PM Pacific Standard Time (between late October and early April), or for more than 4 hours between the hours of 9:00 AM and 5:00 PM Pacific Standard Time (between early April and late October)" (City of Los Angeles).

4. "…50 percent of sun sensitive area is in shade/shadow for at least 50 percent of the duration for the season (i.e., three hours between 9:00 AM and 3:00 PM) during winter daylight hours" (City of Anaheim 2009, 2007).

5. "Cast shade or shadow onto sensitive uses in adjacent off-site area for more than two hours between the hours of 10:00 AM and 3:00 PM" (City of Costa Mesa 2007).

Of these, the first threshold listed above from a City of Los Angeles threshold is the most applicable due to the fact that a portion of the Project is within the City of Los Angeles. Therefore, for purposes of this analysis, the following threshold has been created for the analysis of shade and shadow that would result from implementation of the Project:

Threshold 4.4f: Is the project likely to create substantial sun shadow, light or glare problems? Substantial sun shadow is defined as shade cast upon potentially sensitive land uses by project-related structures for more than 3 hours between the hours of 9:00 AM and 3:00 PM Pacific Standard Time (between late October and early April), or for more than 4 hours between the hours of 9:00 AM and 5:00 PM Pacific Standard Time (between early April and late October). Shadow-sensitive uses include public parks, nurseries, residences.

4.4.4 PROJECT DESIGN FEATURES

PDF 4.4-1 The Project would include the following design features to integrate the proposed scale and density into the Project site and surrounding land uses:

- The two-story townhomes are entered at street level and Buildings 1A, 1B, 2A, and 2B are set back from the street to provide a visual transition of the building massing between the Project and the existing single-family residential to the south and east.

- Along Judah Avenue, the frontage of the townhomes would be setback 10 feet (10′0″) from the right-of-way (property line), with an additional 10 feet between the property boundary and the curb line, for a total of 20 feet between the frontage of the townhomes and curb. The townhome buildings along Judah Avenue would be 25 feet deep; therefore, the podium level Building 1B would be located 35 feet from the property boundary, and 45 feet from the curb.

- Along West 117th Street, the frontage of the townhomes would be setback 13 feet (13′0″) from the right-of-way (property line), with an additional 12 feet between the property boundary and the curb, for a total of 25 feet between the frontage of the townhomes and curb. The townhome buildings along West 117th Street would be 24 feet deep; therefore, the podium level Building 1B would be located 37 feet from the property boundary and 49 feet from the curb.

- Sidewalk and landscape improvements, including shade trees, would be placed along all four perimeters of the Project site.

- Undulating building facades with varying setbacks would be constructed in certain areas to allow for pedestrian amenities (outdoor dining spaces, landscaping, benches, and/or building entrances).

- Street-level commercial buildings would incorporate numerous window openings to provide informal views of the street and avoid blank, windowless facades.

- Visual continuity will be incorporated through the consistent application of design and materials.

- Convenient pedestrian circulation will be integrated within the Project.

PDF 4.4-2 Proposed building materials would include brick veneers, metal awnings, and aluminum storefronts with metal panels on the commercial buildings. The residential buildings would include horizontal siding and plaster finishes and balconies with metal guardrails. Non-reflective exterior building materials would be used. All exterior lighting shall be indirect, incandescent, and screened such that no light spillover would occur to adjacent residential land uses.

4.4.5 ENVIRONMENTAL IMPACTS

Threshold 4.4a: Is the project site substantially visible from or will it obstruct views along a scenic highway (as shown on the Scenic Highway Element), or is it located within a scenic corridor or will it otherwise impact the viewshed?

Threshold 4.4b: Is the project substantially visible from or will it obstruct views from a regional riding or hiking trail?

Threshold 4.4c: Is the project site located in an undeveloped or undisturbed area that contains unique aesthetic features?

<u>On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts</u>

Neither the Project site nor the other off-site components are located adjacent to a scenic corridor or scenic highway, and these components are not visible from any regional riding or hiking trails. The Project site, Caltrans Off-Site Project Area, and surrounding areas are fully developed with urban land uses within an urban portion of the County and are not located within an undeveloped or undisturbed area that contains unique aesthetic features. There would be no impacts associated with these thresholds.

Threshold 4.4d: Is the proposed use out-of-character in comparison to adjacent uses because of height, bulk, or other features?

Threshold 4.4e: Will the project result in a major change in the patterns, scale, or character of the general area or community?

Temporary (Construction-Related) Impacts

On-Site Impacts

During construction on the Project site, there would be views of construction activities throughout the various stages of Project implementation. Views of on-site construction would include activities and materials such as soil excavation and associated heavy equipment (e.g., graders, bulldozers, dump trucks); building construction activities and equipment; and stockpiles of building materials and vehicle staging areas. In general, views of construction activities may be considered unappealing by some; however, construction and other forms of development are common in urban areas and interruptions to the visual character of the site are largely accepted as a temporary inconvenience. Short-term construction activity would be less than significant because of its temporary and commonplace nature in its interruption to the visual character of the site. Although no significant visual impacts would result during construction, Mitigation Measure (MM) 4.4-1 is recommended to obstruct street-level views of at-grade and below-grade construction activities on the Project site from residences in the immediate vicinity of the site, thereby minimizing impacts to the visual qualities of the area during the construction activities.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Reconfiguration of the Caltrans Off-Site Project Area would involve removal of paving and other existing features for the relocated Metro bus terminal and restroom facility; reconfiguration of the Park-and-Ride Lot; and construction/installation of new lighting, landscaping, signage, and other similar appurtenances to replace what currently exists in this area. In addition, there would be some construction activity within adjacent roadways and nearby intersections related to utility improvements.

Short-term construction activity would be less than significant because of its temporary and commonplace nature in its interruption to the visual character of the Caltrans Off-Site Project Area and surrounding roadways during utility infrastructure installation. The relocation of the Metro bus terminal and reconfiguration of the Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility parking lot is anticipated to require approximately two months. Off-site trenched excavations for utility infrastructure would occur during the excavation phase for the Project and would also be completed within a few months. These temporary visual impacts would not affect the character of the surrounding area or community. Impacts would be less than significant and no mitigation is required.

Long-Term (Operational) Impacts

On-Site Impacts

Implementation of the Project would alter the existing visual character of the site and views from surrounding land uses. The Project would introduce 390 multi-family units and 29,500 square feet (sf) of commercial onto the Project site; this would include a total of 4 buildings with total building heights ranging from 67 feet above ground level (agl) to 72 feet agl (this height estimate includes mechanical equipment, mechanical penthouses and antennae). This maximum height includes architectural details or design features that may be located on rooftops to complement the modern architectural design.

The Project site would be developed with two lots: Lot 1 would include 278 residential units (for sale condominium units and townhouses) and 8,000 sf of commercial and Lot 2 would include 112 residential units (rental apartments) and 21,500 sf of commercial. All existing land

uses within Lot 1 (southerly lot) and Lot 2 (northerly lot) would be demolished to accommodate the development. Lot 1 would be developed with a density of 71.28 du/acre and Lot 2 would be developed with a density of 38.36 du/acre.

In terms of size, scale, and land use types, there is currently no transitional development between the office/transit facilities in the area (such as the Northrop Grumman Integrated Systems campus and the Metro and Caltrans facilities) and the largely single-family residential uses located to the south and east of the site. The Project would provide a mix of residential and commercial land uses at a scale and density that would provide a transition between the elevated transit facilities to the north and the single-family residential uses to the south.

Obstruction of Views

Because of the height and density of the proposed development, views into and through the Project site from adjacent residences and passing traffic would be partially obstructed. However, as discussed above, because of flat topography and density of urban development, views beyond the adjacent roadways and land uses are currently obstructed. There would be no obstruction of scenic or otherwise sensitive viewsheds or scenic highways with implementation of the Project.

Compatibility with Adjacent Land Uses

Density, Massing, and Setback

The density and massing of the Project would be generally inconsistent with the one-story commercial and single-family residential land uses in the Del Aire community to the south and east. The existing residential character of Del Aire was established in the mid-1930s to the mid-1940s when single-story, single-family housing was constructed to support the aviation industries in the area. More recent development in the area, including the 4- to 5-story Pacific Place Apartments located approximately 0.4 mile from the Project site and adjacent to the same Del Aire community, include multi-story residential projects. The Del Aire community is also near multi-story industrial and public facilities, including the approximate 10-story County Superior Court – West District Airport Courthouse located approximately 0.35 mile from the Project site, as shown in Exhibit 4.4-2d.

The Project's five-story height and massing is compatible with the urban land uses to the north and west, including the elevated Metro Green Line Aviation/LAX Station, the Metro bus terminal, and the I-105 immediately to the north, as well as the Northrop Grumman campus, BNSF railroad, and other land uses located in the City of El Segundo to the west across Aviation Boulevard. As shown on Exhibit 2-10 in Section 2.0, Environmental Setting and Project Description, the Metro Green Line Aviation/LAX Station is approximately 30 feet above msl and would be aligned with the Level 2 of the Project (refer to Exhibits 2-8 and 2-9). The I-105 is approximately 50 feet above msl and would be aligned with the Level 4 of the Project.

The Project has been specifically designed to provide transitional land uses that offer the density required to support a transit-oriented development while buffering the single-family residential land uses in Del Aire from the transit land uses near the intersection of Aviation Boulevard and West Imperial Highway and the industrial land uses beyond, including LAX, which is located approximately 0.15 mile northwest of the Project site. The Project incorporates a combination of site planning and design considerations, as well as architectural and landscape/hardscape features to provide an aesthetically pleasing development and to assist in preserving the integrity and residential character of the single-family community to the south and east (see PDF 4.4-1). These include the use of street setbacks that vary dependent

on the adjacent land uses, variations in building height, architectural design and fenestration intended to "break up" the building mass and provide a human scale at ground level,[2] and convenient pedestrian circulation throughout the site.

To help create a human-scale environment at ground level, the first story of development along the northern and western sides of the site would be differentiated from the remainder of the structure by a warm-colored brick veneer and awnings and storefront signage that are unique to the lower level (see Exhibits 2-8, 2-9, 4.4-3 and 4.4-4). The proposed signage for the Project is discussed further below. As described in PDF 4.4-2, proposed building materials would include brick veneers, metal awnings, and aluminum storefronts with metal panels on the commercial buildings. The residential buildings would include horizontal siding and plaster finishes and balconies with metal guardrails. Non-reflective exterior building materials would be used.

The four proposed buildings are designed with varying roof heights and other architectural features, instead of one massive roof level; they also include articulated facades that have extensive windows and other openings that contribute to a more inviting and pedestrian-friendly structure. These architectural features are discussed further below and are illustrated in Exhibits 2-4 through 2-14 in Section 2.0, Environmental Setting and Project Description, which provide Project site plans, building elevations, and circulation elements (vehicular and pedestrian). In addition, three-dimensional visual simulations of the Project are illustrated in Exhibits 4.4-3 through 4.4-6. Exhibit 4.4-3 depicts the commercial plaza/promenade area that separates the Project from the Metro Green Line station. Exhibit 4.4-4 depicts the commercial storefronts along Aviation Boulevard.

The majority of the Project's southern-facing and eastern-facing facades consist of the proposed townhomes before transitioning to the taller apartment/condominium uses, as depicted in Exhibit 4.4-5. The townhomes along West 117th Street and Judah Avenue are located at the street level and have a height of 16 feet 6 inches to accommodate the two stories. The townhomes along West 117th Street would have a total of 25 feet between the frontage of the townhomes and curb and townhomes along Judah Avenue would have a total of 20 feet between the frontage of the townhomes and curb.

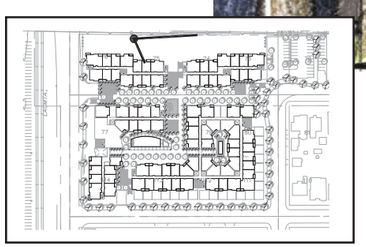
Levels 1, 2, 3, and 4 would be further set back on both West 117th Street and Judah Avenue, as previously described, to allow for a transition in building massing between the Project and the existing off-site single-family residences (see PDF 4.4-1). This tapering of height and density along the Project site's southern and eastern boundaries would provide for a more gradual visual transition from the adjacent single-family residential land uses to the Project land uses. Exhibit 4.4-6 illustrates the private view of the interior courtyard that would be available for residents and their visitors.

The four proposed buildings are designed with varying roof heights and other architectural features instead of one massive roof level; they also include articulated facades that have extensive windows and other openings that contribute to a more inviting and smaller-looking structure.

Landscaping and Hardscaping

The proposed Street Level Landscape Plan is depicted in Exhibit 2-11, the Podium Level Landscape Plan is depicted in Exhibit 2-12, and the preliminary plant palette is provided in Exhibit 2-13, located in Section 2.0, Environmental Setting and Project Description. Exhibits 2-11 and 2-12 show the spacing and foliage coverage for the trees that are anticipated

[2] Fenestration is the design and disposition of windows and other exterior openings of a building.



Source: Withee Malcom Architects, LLP

Visual Simulation of Metro Plaza

Exhibit 4.4-3

Aviation Station Project

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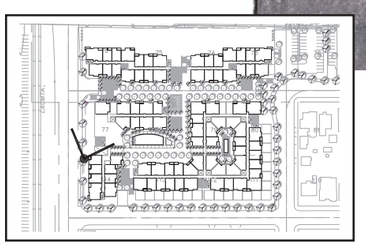

Source: Withee Malcom Architects, LLP

Visual Simulation of Aviation Boulevard

Exhibit 4.4-4

Aviation Station Project

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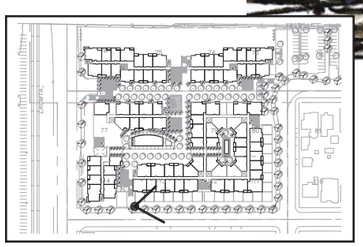

Source: Withee Malcom Architects, LLP

Visual Simulation of Townhomes on 117th Street

Exhibit 4.4-5

Aviation Station Project

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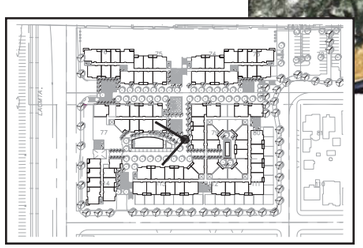

Source: Withee Malcom Architects, LLP

Visual Simulation of Interior Courtyard

Exhibit 4.4-6

Aviation Station Project

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to be planted along West 117th Street and Judah Avenue. Each front yard for the proposed townhomes along West 117th Street will have a tree, grass, and landscaping shrubs/plants/flowers. Additionally, an additional tree will be planted in the right-of-way in front of each townhome. Trees planted along West 117th Street include Chinese Hackberry (*Celtis sinensis*) and Evergreen Pear (*Pyrus kawakamii*). Additional trees and palms include California Fan Palm (*Washingtonia filifera*), Hollywood Juniper (*Juniperus chinensis*), Little Gem Southern Magnolia (*Magnolia "*Little Gem*"*), Compact Carolina Cherry (*Prunus caroliniana*), and Windmill Palms (*Trachycarpus fortunei*).

The townhomes along Judah Avenue would have slightly smaller yards landscaped with grass and shrubs/plants/flowers, as well as a tree in the right-of-way in front of each townhome. Trees planted along Judah Avenue include Evergreen Pear and California Fan Palm, with background trees including Hollywood Juniper, Little Gem Southern Magnolia, Afghan Pine (*Pinus eldarica*), Compact Carolina Cherry, and Windmill Palms. As required by MM 4.4-2, prior to commencement of construction activities, the Project Applicant/Developer must submit the Landscaping Plan to the County of Los Angeles Department of Regional Planning for review and approval.

Exhibit 2-11 also illustrates the proposed hardscape features incorporated into the Project design along West 117th Street and Judah Avenue. The residential townhomes would have low walls made of brick, stone, stucco or other comparable material (approximately three feet high) with gates that encompass the tiled patios. Additionally, the Project would provide paved sidewalks and decorative paving entryways into the residential/fire access lobby entrances.

The Project is "transit-oriented", meaning its design and location encourages future residents and visitors to utilize the adjacent public transit opportunities and to reduce dependence on private vehicles. The Project would include the construction of approximately 800 surface and subterranean parking spaces that would satisfy the anticipated parking needs of residents and visitors of the development. Creating a transit-oriented development while providing adequate on-site parking would minimize spillover parking within the surrounding neighborhood; this would prevent adverse changes in visual character related to increases in vehicle parking on residential streets. A discussion of parking is provided in Section 5.1, Traffic/Access of this EIR.

The Project has been designed with the intention of maintaining pedestrian-friendly circulation within and across the Project site to connect to the transit facilities to the north, while limiting pedestrian activities to the south and east, as shown in Exhibit 2-7, Vehicle and Pedestrian Circulation in Section 2.0 of this EIR. The proposed Street Level Landscape Plan is depicted in Exhibit 2-11, and the Podium Level Landscape Plan is depicted in Exhibit 2-12, located in Section 2.0, Environmental Setting and Project Description. These plans show the anticipated spacing and foliage coverage for the trees to be planted along the commercial promenades along Aviation Boulevard and the Fire Lane that separates the Project site from the Green Line station to the north.

Trees to be planted along the commercial promenades include Bottle Tree (*Brachychiton populneus),* Cajeput Tree *(Melaleuca quinquenervia),* Afghan Pine, and California Fan Palm*.* Trees to be planted along the plaza area adjacent to the Fire Lane include Corral Tree (*Erythrina caffra*)*,* Pink Melaleuca (*Melaleuca nesophila*)*,* Fruitless Olive (*Olea europeae* "Swan Hill"), California Sycamore (*Platanus racemosa*)*,* and California Fan Palm. As required by MM 4.4-2, prior to commencement of construction activities, the Project Applicant/Developer must submit the Landscaping Plan for the Project to the County of Los Angeles Department of Regional Planning for review and approval.

In addition to the landscaping, which will provide shade and visual appeal for residents and visitors to the Project site, the Project will incorporate various hardscape features to enhance the pedestrian experience. The commercial promenade will include enhanced paving, benches, seat walls, and a double row of palms to buffer the promenade from traffic along Aviation Boulevard. The commercial plaza area, which is located adjacent to the main lobby entrance adjacent to the Fire Lane, will include a seating area, an alley of trees, seat walls, and a water feature. The proposed Fire Lane would be accommodated within the overall landscape concept with the installation of varying pavers whose placement and patterns would blend into the surrounding open space areas without creating one broad, straight path that would visually divide the space. Finally, paved areas would be strategically placed along the northern perimeter to allow convenient and visible pedestrian connections to the Metro transit uses to the north.

Signage and Graphics

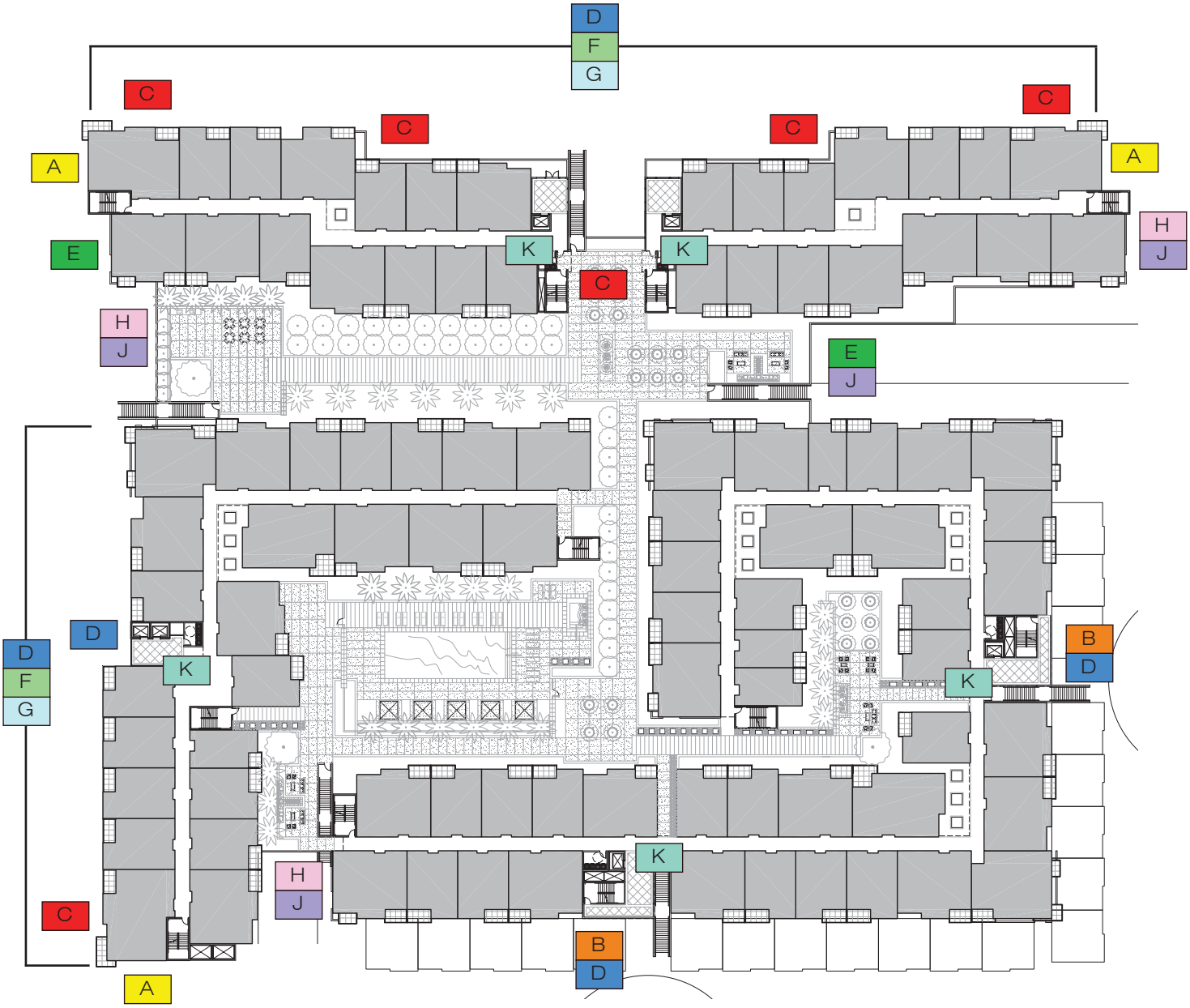
As discussed in Section 2.0, Environmental Setting and Project Description, the Project's conceptual signage plan includes ten different types of signs, graphics or other wayfinding indicators, including: two types of building identifiers, building identify blades, awning signs (for commercial identity), wall signs (for commercial identity and wayfinding), projecting signs (for commercial identity), commercial window signs, public parking entrance identity signs and clearance bars, and elevator lobby wayfinding signage and unit numbers. These signage types vary from large building-mounted architectural details to small hanging and window signs, and are further described below.

Exhibit 4.4-7, Proposed Signage Plan, indicates the sign types and locations for the proposed Project; a more detailed description of the sign types as well as pictures depicting examples and typical signage scenarios for the Project are provided in the *Project Identity, Entrance and Retail Signage Standards* document provided in Appendix G-2.

As shown in Exhibit 4.4-7, the majority of signs are proposed on Aviation Boulevard and the north side of the Project facing the Metro and Caltrans facilities, commensurate with the more intense vehicular and/or pedestrian traffic along the western and northern portions of the Project site. The secured residential lobbies on West 117th Street and Judah Avenue, public parking entrance identity signs and clearance bars, and elevator lobby wayfinding signage and unit numbers represent the limited signage that is proposed on the southern and eastern sides of the Project site, where the proposed townhomes are located and adjacent to existing residential land uses.

Where not specified in the conceptual signage plan, and in the descriptions below, the size, materials, and/or colors of the signs will be determined as plans and specifications are refined, and will depend on the specific commercial tenants (for commercial identity signage) as well as the County of Los Angeles zoning code. In addition, all sign-related lighting will be in compliance with Section 22.52.820 of the Los Angeles County Code.

Both types of "building identifiers" are large signs that are intended to be an extension of the architecture and to create a sense of place. The first type of building identifier (denoted as "A" on Exhibit 4.4-7) is a building-mounted vertical sign extending out from the top and down the face of the building. These signs are conceptually designed to be approximately 16 feet wide and approximately 53 feet high, with an approximate 31-foot extension of the top of the building; these signs would have external or ambient lighting, per the Zoning Code requirements. This signage is proposed to be placed in two locations: (1) at the northwestern corner of the Project along Aviation Boulevard near the Metro bus terminal and (2) at the southwestern corner of the



A	Building Identifier	F	Projecting Sign (Retail Identity)
B	Building Identifier	G	Window Signage
C	Building Identity Blade	H	Public Parking Entrance Identity
D	Awning Sign (Retail Identity)	J	Public Parking Entrance Clearance Bars
E	Wall Sign (Retail Identity + Wayfinding)	K	Elevator Lobby Wayfinding + Unit Numbers

Source: Withee Malcolm Architects LLP 2010

Projects/Cox/J002/Graphics/Ex_signage.ai

Proposed Signage Plan

Exhibit 4.4-7

Aviation Station

BonTerra CONSULTING

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Project along West 117th Street at Aviation Boulevard, across from the commercial land uses on West 117th Street.

The second type of building identifier (denoted as "B" on Exhibit 4.4-7) is a building-mounted graphic placed on the building's face. These signs are conceptually designed to be approximately 12 feet wide and approximately 46 feet high, extending beyond the top of the proposed buildings; they would have either external or ambient illumination. The extension of the vertical signage above the building facade also assists in screening the adjacent residences to the south and east from ambient light. This signage is proposed to be placed in two locations: (1) the entrance lobby on West 117th Street and (2) the entrance lobby on Judah Avenue.

The "building identity blade" (labeled "C" on Exhibit 4.4-7) is also a large, building-mounted vertical sign, but is placed perpendicular to the building, rather than in line with the facade like the building identifiers. The building identity blades are intended to be site-specific marquees that assist pedestrian wayfinding throughout the Project and also contribute to a sense of place. These signs are proposed to be constructed of aluminum or aluminum frame materials, with external or ambient illumination. The building identity blades are conceptually proposed to be located primarily along the commercial frontage facing with Metro facilities, with one sign along Aviation Boulevard at the southwest corner of the Project.

The awning signs (labeled "D" on Exhibit 4.4-7) are comprised of dimensional aluminum or aluminum frame letters, finished on all sides, mounted onto the edge of a metal "eyebrow". The purpose of awning signs is to clearly illustrate the access point into the commercial stores, parking garages, and residential lobbies. These signs would have a maximum length of 19 feet, and would be either externally illuminated or internally halo-lit. These signs are proposed along the commercial storefronts facing the Metro facilities and the storefronts on Aviation Boulevard within building 1B.

The wall signs (labeled "E" on Exhibit 4.4-7) are comprised of letters mounted directly to the building facade with no back plate, and would be externally illuminated or internally halo-lit. The size and colors of the wall signs are variable and would depend on the commercial tenants, who often have a trademark nameplate that would be reflected in the signage. As shown in Exhibit 4.4-7, wall signs are proposed along a portion of the storefronts on Aviation Boulevard within building 2A, and at the parking garage entrance at the terminus of West 116th Street.

The projecting signs (labeled "F" on Exhibit 4.4-7) are building-mounted blade signs, much like the building identifier blades discussed above but substantially smaller. These signs would be comprised of aluminum or aluminum frame and/or painted, and would be externally illuminated or internally halo-lit. Projecting signs would be used both for commercial identification and wayfinding, such as indicating the presence of stairs. The size of the projecting signs is, in part, dependent on the height of placement. In accordance with the Los Angeles County Code, the higher on the building face the bottom of the sign is placed, the further out it can project from the building. Specifically, at the minimum allowable placement height of 8 feet, the sign can project a total of 1 foot, and for every 2 feet in height increase the sign can project an additional 1 foot from the building. (This is depicted on page 7 of the conceptual signage plan in Appendix G-2.) The projecting signs are proposed along the commercial storefronts along Aviation Boulevard and facing the Metro facilities.

The window signs (labeled "G" on Exhibit 4.4-7) are temporary signs that are displayed behind commercial storefront glazing, and would not occupy more than 25 percent of the total transparent area of any window. The window signs are also proposed along the commercial storefronts along Aviation Boulevard and facing the Metro facilities.

The public parking entrance identity signs (labeled "H" on Exhibit 4.4-7) are comprised of raised metal letters, finished on all sides, mounted on the building or an architectural canopy with no back plate and would be used to identify (1) the main vehicle parking entrance off Aviation Boulevard; (2) the secondary vehicle parking entrance off West 117th Street; and (3) the vehicle parking access to/from the eastern surface parking lot at Judah Avenue and West 116th Street. The parking identity signs would have a maximum width of 27 feet and height of 18 inches. To aid vehicular circulation within the parking garage, a pair of public parking clearance bars (labeled "J" on Exhibit 4.4-7) would hang below the entrance interior to demonstrate the maximum vehicle height within the garage, and with a minimum height of eight feet and two inches.

Finally, the elevator lobby wayfinding signage and unit numbers (labeled "K" on Exhibit 4.4-7) includes the use of color and graphics to identify the floor number, and would scale the height of the hallway. These graphics would be located in the vicinity of all elevator locations.

The conceptual signage plan depicts a variety of sign types and designs that emphasize long, clean, geometric lines and minimum extraneous details that harmonize with and contribute to the overall architectural style. The signage and graphics proposed for the Project would be similar in placement, materials, and visual quality to recent commercial or mixed-use developments in metropolitan areas across Southern California. As noted above, the majority of signs would be placed along Aviation Boulevard and facing the Metro and Caltrans facilities, and there would be minimal signage placed along the southern and eastern sides of the Project near the proposed townhomes and adjacent to existing residential land uses.

In compliance with MM 4.4-3, a signage plan shall be submitted to the County of Los Angeles Department of Regional Planning for review and approval. Project signage shall be designed and implemented in compliance with all applicable Los Angeles County standards and requirements. With implementation of MM 4.4-3, visual impacts would be less than significant.

Summary of Analysis

As articulated in PDF 4.4-1 and PDF 4.4-2, the height and bulk/massing of the Project was designed to minimize impacts to adjacent land uses, while still providing a vibrant transit-oriented development. Although the Project is generally inconsistent with the height, massing, and scale of the adjacent residential land uses to the south and east, the Project incorporates various features, including landscaping, architectural design details and hardscaping, setbacks, and a cohesive signage plan that is intended to contribute to the overall architectural style in order to minimize this impact. Additionally, the Project does serve as a transitional development between the industrial/manufacturing land uses to the west, the transit land uses to the north, and the single-family residential to the south and east.

The Project will maintain and strengthen the residential character of the Del Aire community by including new housing opportunities for both renters and owners. Therefore, although the Project would alter the height, massing, and visual character of land uses on the Project site, these changes would not result in a major adverse change to the patterns, scale, or character of the general area. Impacts would be less than significant and no mitigation is required.

Visual character is one of several factors considered in the analysis of land use compatibility, which is addressed fully in Section 6.2, Land Use, of this EIR.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The changes to the Caltrans Off-Site Project Area and temporary off-site utility trenching would not alter the existing visual condition or character of the area. The Metro bus terminal

would simply be relocated to an area approximately 100 feet to the north, with largely the same design and layout. There would be no substantive change to the height, bulk, or other character-defining features of this Caltrans Off-Site Project Area, including landscaping, lighting and signage. Off-site Project components' utility improvements would be limited both in scale and geographic extent, and would be entirely underground after installation. Construction activities would be short-term and these Project components would not substantially change the visual character of the off-site areas. There would be a less than significant impact to visual character related to off-site Project components.

Threshold 4.4f: Is the project likely to create substantial sun shadow, light or glare problems? Substantial sun shadow is defined as shade cast upon potentially sensitive land uses by project-related structures for more than 3 hours between the hours of 9:00 AM and 3:00 PM Pacific Standard Time (between late October and early April), or for more than 4 hours between the hours of 9:00 AM and 5:00 PM Pacific Standard Time (between early April and late October). Shadow-sensitive uses include public parks, nurseries, and residences.

Shade and Shadow

Shade and shadow simulations were prepared for the Project for the summer solstice, winter solstice, and spring equinox, as depicted in Exhibits 4.4-8 through 4.4-10. The length and persistence of shadows varies with both the time of day and day of the year, with the longest shadows cast nearest the winter solstice and the shortest shadows cast nearest the summer solstice. June 21 (summer solstice) and December 21 (winter solstice) represent the days of the year with the longest and shortest periods of daylight, respectively. September 22 (autumnal equinox) and March 20 (spring equinox) each represent a day halfway between the summer and winter solstices so the length of the day and resulting shadows are relatively the same for both equinoxes. Therefore, the spring equinox simulation is used as the basis for analyzing the conditions at both the spring and autumnal equinoxes.

The simulations produce an accurate angle of the sun and the resulting shadows over the course of these three days of the year in one-hour intervals. Regardless of the time of year, during early morning hours (sunrise), the sun is positioned low in the sky and casts longer shadows. As the day progresses, shadow lengths become shorter as the sun approaches its highest point in the sky around midday (noon). From this point in the day, the sun's position in the sky again becomes progressively lower and the corresponding shadows become longer until the sun disappears below the horizon at sunset.

The first (top) simulation shown in Exhibits 4.4-8 through 4.4-10 represents the first time that shadows cast by the Project intersect any off-site shade-sensitive land uses; in this case, it is defined as the existing single-family residences to the south and east of the site. The second (bottom) simulation in each exhibit represents the shade conditions one hour after the first shade intersects an adjacent residential land use.

The shade and shadow simulations prepared for the Project indicate that shadows that are cast onto off-site shade-sensitive land uses would be limited to nearby residences along Judah Avenue north of West 117th Street. Specifically, during the winter solstice, shade from the Project would first affect adjacent residential land uses at approximately 2:30 PM, with the shade extending further to the north and east throughout the afternoon until sunset. During the summer solstice, shade would first affect adjacent residential land uses at approximately 5:15 PM, with shade primarily extending further to the east until sunset. During the spring equinox, which is generally equivalent to the autumnal equinox, shade would first affect

adjacent residential land uses at approximately 4:30 PM, with shade extending to the north and east until sunset.

Based on the shade and shadow simulations, there would be approximately 30 minutes of shade within the main daylight hours during the winter and there would be no shade during the main daylight hours during the spring, summer, or fall as a result of the Project. Therefore, the Project would not result in more than three hours of shade being cast on existing shade-sensitive land uses during the main daylight hours, as defined in Threshold 4.4f. There would be a less than significant impact related to shade and shadow, and no mitigation would be required.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed reconfiguration of transit-related land uses in the Caltrans Off-Site Project Area to the north would not result in new or otherwise taller structures that would create more substantive shade than in the existing condition. Off-site Project components' utility improvements would not result in new structures that would cast shade. Therefore, there would be no impacts related to shade and shadow from off-site Project components and no mitigation would be required.

Light and Glare

On-Site Impacts

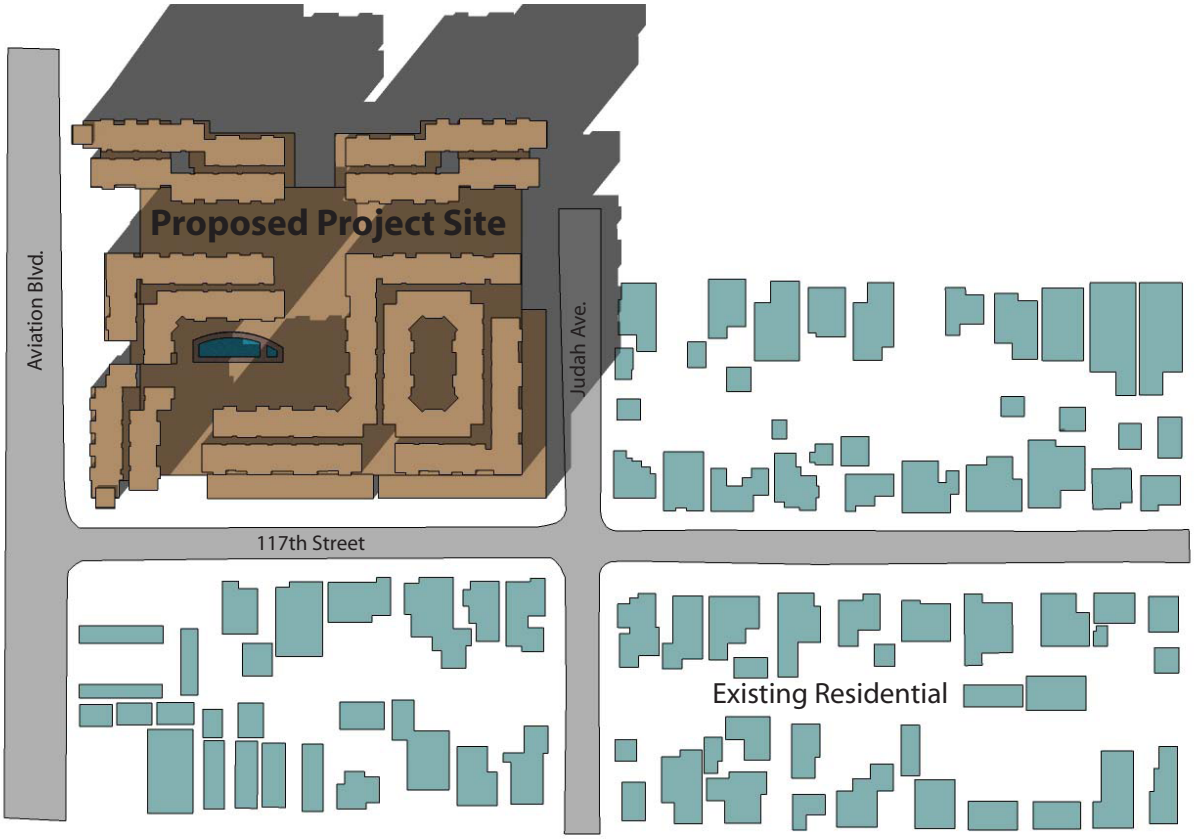
Although the Project would introduce new and more intensive development to the Project site, it is located in an area that is already subject to nighttime lighting from on-site and surrounding uses. Due to the urban nature of the Project site and surrounding area, the Project area experiences what is termed "sky glow", the illumination of the night sky from urban uses. The Project would involve both new sources of interior and exterior lighting, which are discussed below.

Interior Lighting

Within the residential units, the Project would incorporate energy efficient lighting fixtures that are intended to aesthetically illuminate the structure, while avoiding spillover lighting on adjacent land uses (MM 4.4-4). The Project would incorporate fluorescent can and under-counter kitchen lighting features, only one outdoor wall-mounted light fixture per patio, and one fixed ceiling-mounted light fixture per bedroom that would be facing streets.

Based on these assumptions, a lighting simulation was prepared by Fashandi & Associates, Inc. in June 2010 to determine the effect and level of light projections from the future residential units to the street and adjacent homes across West 117th Street and Judah Avenue (Appendix G-1).

Lighting simulations to predict the results of light spilling from all open windows along West 117th Street and Judah Avenue were performed using industry standard software that analyzes the foot candles (FC) for light projection from a light fixture, and it is used widely in photometric analyses. The analysis used an exterior three-dimensional building model to include the two-story townhomes and all four-levels of units above the podium of the building along the side of those streets. The building surface was given a nominal reflectance value of 50 percent and all windows and sliding glass doors to the outside were all calculated to have double paned, clear glass-type assemblies with transmission value of 80 percent. All interior surfaces of the units were calculated using the industry default reflectance values of 80 percent for the ceilings, 50 percent for the walls, and 20 percent for the floors. All calculation planes were placed for horizontal FC measurement at grade levels.



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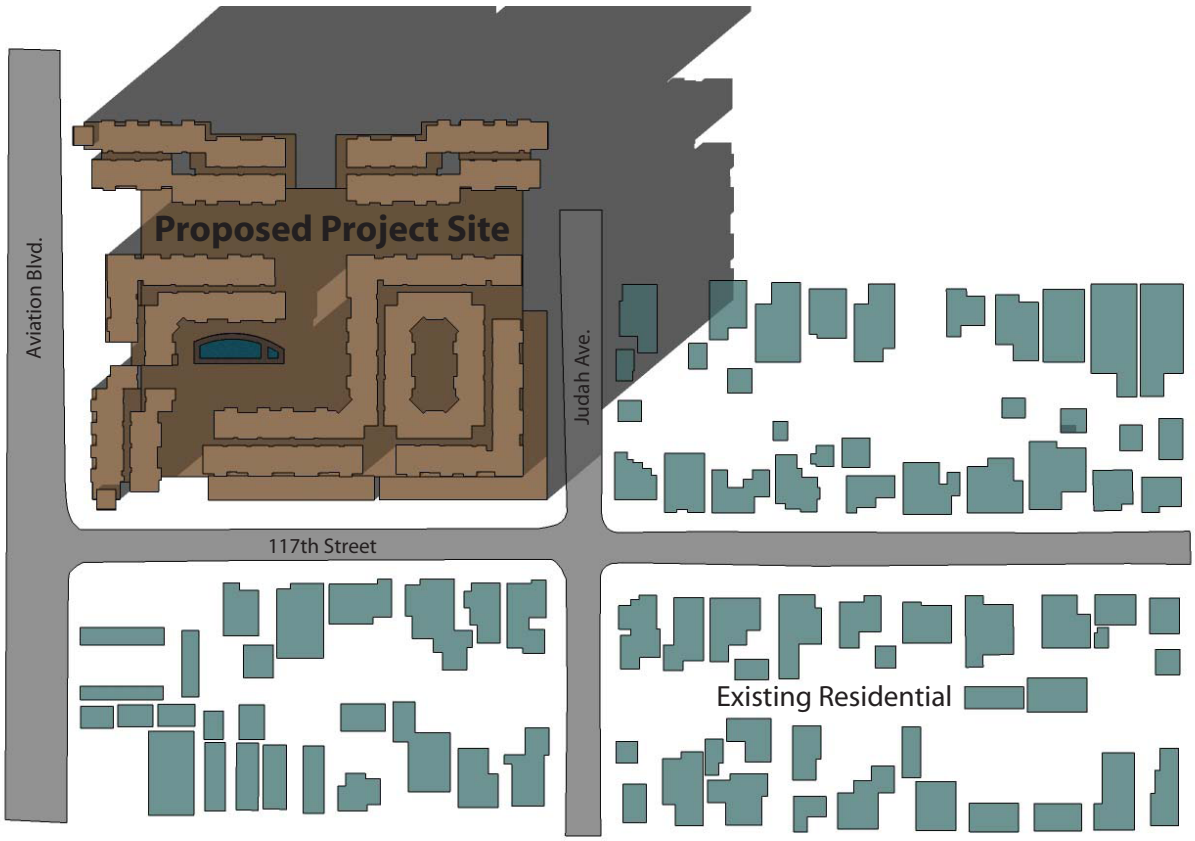

December 22, 2011 3:30pm

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Shade and Shadow Simulation – Winter Solstice

Exhibit 4.4-8

Aviation Station

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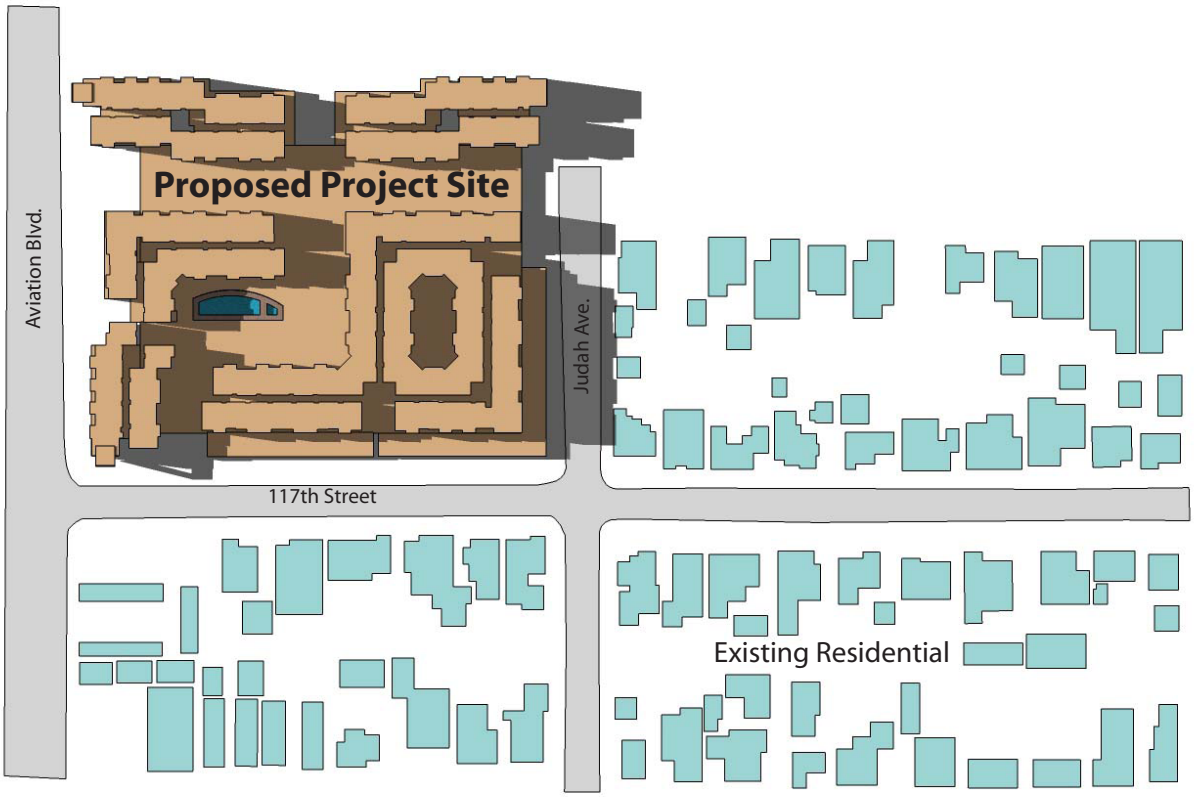
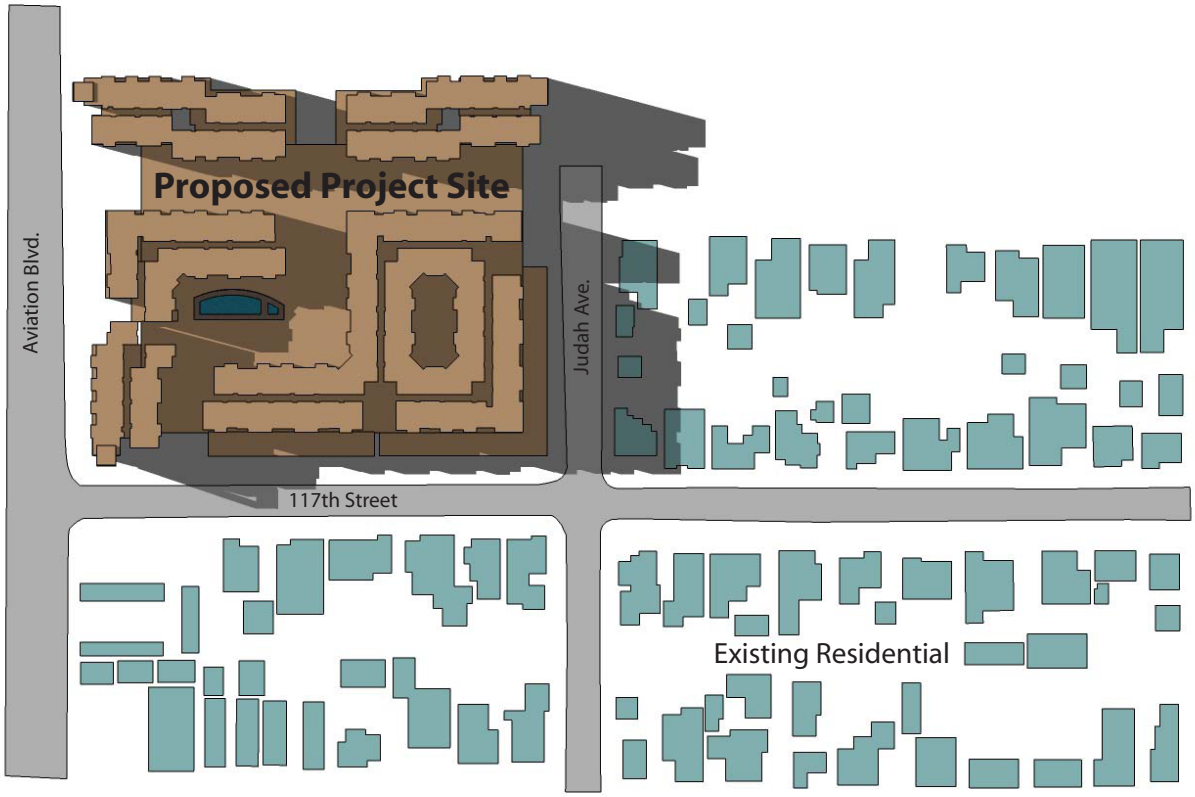


June 21, 2011 5:15pm



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Shade and Shadow Simulation – Summer Solstice

Exhibit 4.4-9

Aviation Station

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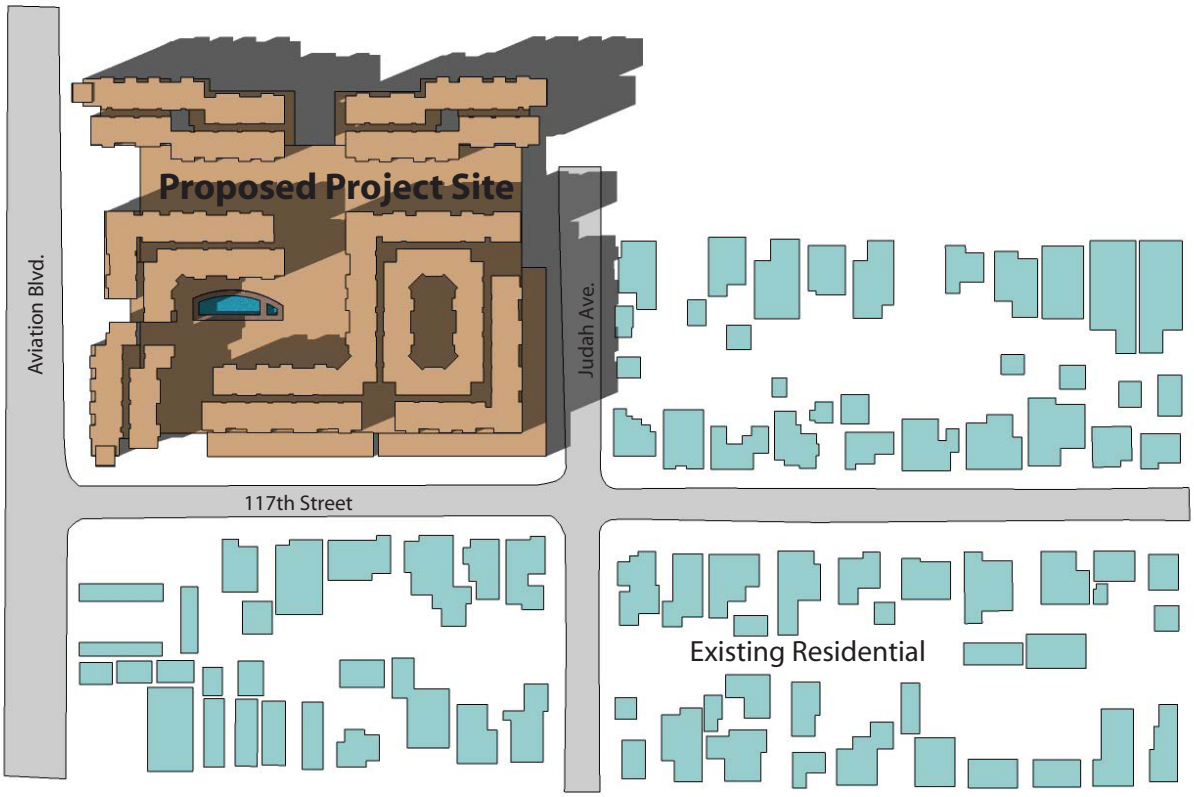
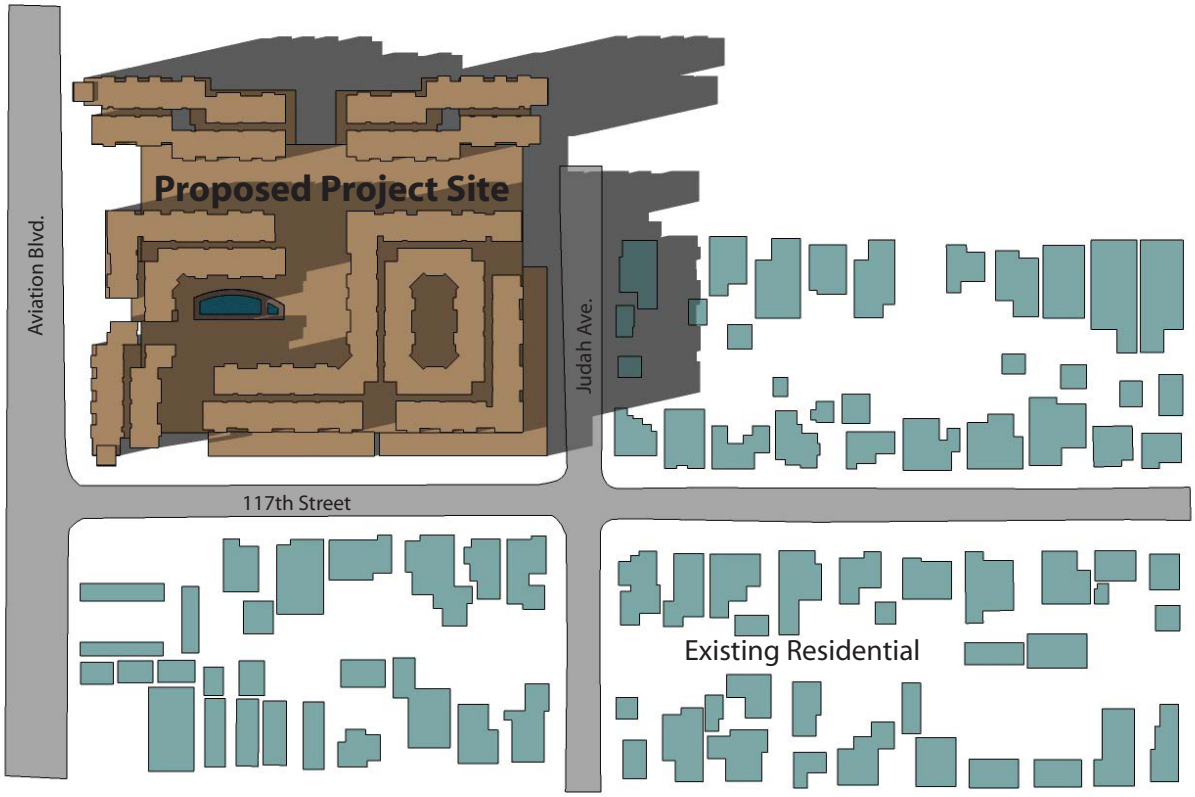


March 20, 2011 4:30pm



March 20, 2011 5:30pm

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Shade and Shadow Simulation – Spring Equinox

Exhibit 4.4-10

Aviation Station

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To perform these analyses, published Illuminating Engineering Society (IES) formatted photometric files were completed according to the plans and were used for each interior fixture type and for all fixtures that were placed in the electrical design drawings. The specifications related to selected light fixtures are included in Appendix G-1. The results of the analysis indicate that FC values along the West 117th Street and Judah Avenue do not exceed 0.2 FC near the adjacent buildings. This level is estimated to be similar to the amount of light cast from a full moon (0.1 FC) and at twilight under a clear sky (0.34 FC). These values suggest low light transmittance levels from the subject property into the adjacent buildings as modeled. Therefore, light generated by the residential units would not result in a significant lighting projection (spillover) onto the adjacent properties. Therefore, there would be a less than significant impact related to interior lighting.

Exterior Lighting

Exterior Project lighting would include mid-level street lights for delivery zones and pedestrian passageways; low-level bollard lights for pedestrian accent lighting; and other minor accent and security lighting to ensure safe passage through the Project site. On-site exterior lighting would be greater than the existing condition due to the density and height of the Project. However, it would be consistent with the type and extent of nighttime lighting in place at surrounding urban land uses in the Los Angeles basin and would not contribute materially to the existing sky glow.

Regarding proposed signage, as discussed above, the majority of signs are proposed on Aviation Boulevard and on the north side of the Project site facing the Metro plaza. The secured residential lobbies on West 117th Street and Judah Avenue, public parking entrance identity signs and clearance bars, and elevator lobby wayfinding signage and unit numbers represent the limited signage that is proposed on the southern and eastern sides of the Project where the proposed townhomes are located and adjacent to residential land uses. Pictures depicting proposed signage examples and typical signage scenarios for the Project are provided in the *Project Identity, Entrance and Retail Signage Standards* document provided in Appendix G-2.

As described above, the signs will be internally illuminated, externally illuminated, internally halo-lit or have ambient illumination, depending on sign type and consistency with the Los Angeles County Code. No flashing, neon, or liquid crystal display (LCD) light displays are proposed as part of the signage plan. As such, the Project signage fixtures would emit static lighting (at one continuous level) and would not be distracting for pedestrians or area drivers, including drivers on the I-105. As noted above, the I-105 is at approximately 50 feet above msl and would be aligned with the Level 4 of the Project. As such, drivers on I-105 would have sightlines above and over the majority of the site. The signage and graphics proposed for the Project would be typical in lighting types and level to recent commercial or mixed-use developments in metropolitan areas across Southern California and in the immediate Project area.

As noted in the proposed signage plan, all signs and graphics would be implemented in compliance with Section 22.52.820 of the Los Angeles County Code, which states, “In no case shall a lighted sign or lighting device thereof be so placed or directed so as to permit the beams and illumination therefrom to be directed or beamed upon a public street, highway, sidewalk or adjacent premises so as to cause glare or reflection that may constitute a traffic hazard or nuisance”. Section 22.52.1060 regarding parking lot lighting for all land uses states, “Lighting shall be so arranged to prevent glare or direct illumination in any residential or agricultural zone”.

Therefore, as required by MM 4.4-4, which requires compliance with the Los Angeles County lighting standards, and PDF 4.4-2, which requires all exterior lighting to be indirect, incandescent, and screened from adjacent residential land uses, impacts from Project-generated signage and lighting would be less than significant. Additionally, based on the Project

site's urban setting and level of existing nighttime lighting, the Project would not contribute substantial light that could adversely affect day or nighttime views for the adjacent residential homes or other populations in the Project area.

Glare

Glare is caused by light reflections from pavement, vehicles, and building materials such as reflective glass and polished surfaces. During daylight hours, the amount of glare depends on intensity and direction of sunlight. Glare resulting from reflective building materials can be a nuisance to on- and off-site viewers of the Project and is therefore considered an adverse aesthetic effect. In addition, due to the site's visibility from major thoroughfares, such as Aviation Boulevard and the I-105 freeway, there is a potential for unsafe traffic conditions due to glare from the Project site development.

As discussed in PDF 4.4-2, building materials specified by the architect for the Project include non-reflective products such as brick veneers, metal awnings, aluminum storefronts with metal panels on the commercial buildings and horizontal siding and plaster finishes and balconies with metal guardrails on the residential buildings. Only non-reflective building materials, including glass, would be used where the location, direction, and/or massing of the material could cause glare that would affect pedestrians, residents, and/or motorists, such as windows and exterior walls. Based on the proposed building material specifications, the Project would not generate substantial glare that would create a hazard and/or nuisance to residents and visitors of the Project or surrounding land uses. There would be a less than significant impact and no mitigation would be required.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed off-site Project components would not generate substantial light or glare. The Caltrans Off-Site Project Area to the north would not include new structures, signs, lights, or other potential light- or glare-generating facilities of a quantity or type beyond the new fixtures that would replace what currently exists on and around the Project site. The off-site utility improvements would not include new signs, lights, or other light- or glare-generating facilities. Therefore, there would be less than significant impacts related to light and glare from off-site Project components and no mitigation would be required.

4.4.6 CUMULATIVE IMPACTS

The cumulative projects illustrated on Exhibit 2-16, Location of Cumulative Projects, in Section 2.0, Environmental Setting and Project Description, are not located in the immediate vicinity of the Project site and would not, therefore, be within the same viewshed as the Project site. The Project would result in less than significant impacts related to visual quality, shade and shadow, and light and glare with implementation of PDF 4.4-1, PDF 4.4-2, and MMs 4.4-1 through 4.4-4. Therefore, the Project's incremental impact would not be expected to be cumulatively significant to visual qualities.

4.4.7 MITIGATION MEASURES

MM 4.4-1 Prior to commencement of construction activities, the Contractor shall install a visual barrier along the entire perimeter of the construction site (e.g., green mesh fabric or similar view-blocking material) to obstruct street-level views of construction activities from adjacent residents along West 117th Street and Judah Avenue. This barrier shall remain in place until the completion of grading activities requiring heavy mobile trucks/equipment. This shall be included on the contractor specifications and verified by the County of Los Angeles.

MM 4.4-2 Prior to issuance of a grading permit, the Project Applicant/Developer shall submit the Landscaping Plan to the Los Angeles County Department of Regional Planning for review and approval.

MM 4.4-3 Prior to issuance of a building permit, a signage plan shall be submitted to the Los Angeles County Department of Regional Planning for review and approval. Project signage shall be designed and implemented in compliance with all applicable Los Angeles County standards and requirements.

MM 4.4-4 Prior to issuance of a building permit, a lighting plan shall be submitted to the Los Angeles County Department of Public Works for review and approval. Project lighting shall be designed and implemented in compliance with all applicable Los Angeles County lighting standards.

4.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

There would be less than significant impacts during construction and operation of the Project related to visual quality, shade and shadow, and light and glare with implementation of PDFs 4.4-1 and 4.4-2, and MMs 4.4-2 through 4.4-4. Although less than significant impacts would occur, MM 4.4-1 would further reduce visual impacts during construction.

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SECTION 5.0
SERVICES

5.1 TRAFFIC/ACCESS

This section analyzes potential traffic impacts from development of the proposed Aviation Station Project. Information presented in this section is summarized from the *Traffic Impact Study, Aviation Station Project, County of Los Angeles, California* (Traffic Study) prepared by Linscott, Law & Greenspan, Engineers (LLG) and revised November 17, 2009 (provided in EIR Appendix H).

The Traffic Study was prepared in accordance with Los Angeles County Department of Public Works (LACDPW) traffic study guidelines and is consistent with traffic impact assessment guidelines set forth in the Los Angeles County Congestion Management Program (CMP). The Intersection Capacity Utilization (ICU) and Critical Movement Analysis methods were used to determine Volume-to-Capacity (V/C) ratios and corresponding Levels of Service (LOS) at the study intersections, and were determined in consultation with LACDPW Traffic and Lighting Division staff.

While the Project site is partially situated within the jurisdiction of the County of Los Angeles, the Traffic Study evaluates potential traffic impacts associated with the Project at study intersections located in the cities of Los Angeles and El Segundo. The key study intersections located within these two jurisdictions were evaluated based on the respective agency traffic study guidelines. A queuing analysis was prepared to measure the potential effects related to installing a proposed traffic signal at the existing California Department of Transportation (Caltrans) driveway on West Imperial Highway using Synchro Studio 7 modeling software. Three freeway segments in the Project vicinity were evaluated for Project-related impacts. Also, a review was conducted in accordance with the *2004 Congestion Management Program for Los Angeles County* to determine the potential impacts on designated monitoring locations on the CMP highway system (LLG 2009).

The Traffic Study analyzed a development scenario of 393 residential units and 26,500 square feet (sf) of commercial. Subsequent to the completion of the 2009 Report, the Project description was changed to include 390 residential units, 26,500 sf of commercial, and 3,000 sf or leasing office space. However, these changes to the Project description do not warrant revisions to the Traffic Report. The ITE trip generation rates for the residential component of the Project accounts for the potential trip generation of ancillary uses, such as the leasing office. Thus, a separate and additive forecast of trips associated with the ancillary leasing office use is not necessary (Bravo 2010). A complete description of the methodology applied in the Traffic Study can be found in EIR Appendix H.

5.1.1 RELEVANT POLICIES AND REGULATIONS

State

Relevant policies and regulations related to transportation include the Southern California Association of Governments' (SCAG's) *2008 Regional Transportation Plan* (2008 RTP) and *Compass Growth Vision Report* (CGV Report). SCAG is the Project region's Metropolitan Planning Organization, and the federal government mandates it to research and develop transportation plans, which include the 2008 RTP and CGV Report. The *County of Los Angeles General Plan* also provides policies regarding transportation. The role of SCAG and the Project's consistency with applicable policies of the 2008 RTP, CGV Report, and County General Plan are discussed fully in Section 6.2, Land Use, of this EIR.

California Department of Transportation

Pursuant to the provisions of the California Vehicle Code Section 21400 and the recommendation of the California Traffic Control Devices Committee, Caltrans has set forth the 2010 California Manual on Uniform Traffic Control Devices (MUTCD), which includes the Federal Highway Administrations' MUTCD Revisions dated December 21, 2007. The California MUTCD adopts uniform standards and specifications for all official traffic control devices, including all signs, signals, markings and other devices used to regulate, warn, or guide traffic on streets or highways, or pedestrian walkways or bikeways.

5.1.2 EXISTING CONDITIONS

Traffic Study Area

The Traffic Study evaluates potential Project-related impacts at nine key intersections in the vicinity of the Project site during the weekday morning and afternoon peak hours. The traffic study area is illustrated in Exhibit 5.1-1, and the study intersections are described below under the "Local Street System" heading. The locations selected for analysis were based on coordination with LACDPW and Caltrans staff; the proposed Aviation Station Project peak hour vehicle trip generation; the anticipated distribution of Project vehicular trips; and the existing nearby intersection and corridor operations.

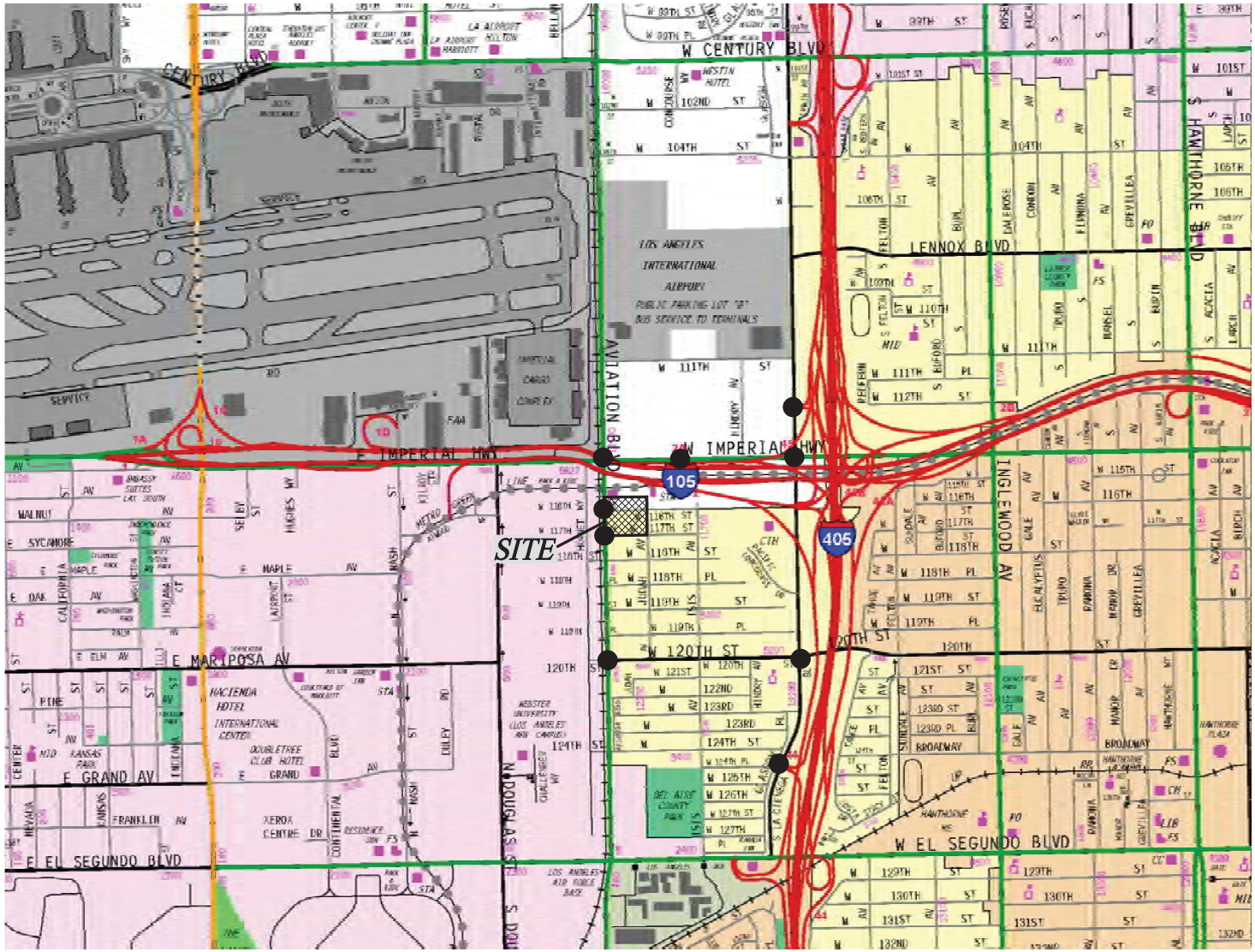
Additionally, intersections were selected if they are: (1) immediately adjacent or in close proximity to the Project site; (2) in the vicinity of the Project site that are documented to have current or projected future adverse operational issues; and (3) in the vicinity of the Project site and are forecasted to experience a relatively greater percentage of Project-related vehicular turning movements (e.g., at freeway ramp intersections).

Existing Transportation Systems

Regional Highway System

Regional access to the Project site is provided by Interstate (I) 405 (San Diego Freeway) and I-105 (Glenn M. Anderson Freeway), as shown in Exhibit 5.1-1. The I-405 Freeway is a north-south oriented freeway that connects the Los Angeles County area to the north and Orange County to the south. The I-405 generally contains five mainline freeway lanes in each direction (four mixed-flow lanes and one high-occupancy vehicle [HOV] lane) along with auxiliary lanes in the Project vicinity. Within the Project area, southbound on and off-ramps are provided on the I-405 at La Cienega Boulevard, north and south of West Imperial Highway and north of El Segundo Boulevard. Northbound and southbound on- and off-ramps are also provided on the I-405 at El Segundo Boulevard. A full interchange at West Imperial Highway and the I-105 is located approximately one-half of a mile east of the Project site.

The I-105 Freeway is a major east-west oriented freeway that extends between the Norwalk area to the east and the El Segundo/Los Angeles International Airport area to the west. In the Project area, the I-105 contains five mainline freeway lanes (four mixed flow lanes and one HOV lane) in each direction. Eastbound and westbound off-ramps are provided on the I-105 at West Imperial Highway, which is located approximately one-half of a mile east of the Project site.



MAP SOURCE: THOMAS BROS. GUIDE

● STUDY INTERSECTION

Source: Linscott, Law & Greenspan Engineers 2009

Study Intersections

Exhibit 5.1-1

Aviation Station Project

N W E S

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(Rev 07/20/10 KFD) Projects/Cox/J002/Graphics/EIR/Ex5.1-1_study_intersections.pdf

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Local Street System

Immediate access to the Project site is provided via Aviation Boulevard, West 116th Street, and West 117th Street. The following nine study intersections were analyzed in the Traffic Study (the jurisdiction in which each study intersection is located is identified in parentheses):

1. Aviation Boulevard/West Imperial Highway (City of Los Angeles/City of El Segundo)
2. Aviation Boulevard/ West 116th Street (County of Los Angeles/City of El Segundo)
3. Aviation Boulevard/ West 117th Street (County of Los Angeles/City of El Segundo)
4. Aviation Boulevard/ West 120th Street (County of Los Angeles/City of El Segundo)
5. I-105 On- and Off-Ramps/West Imperial Highway (City of Los Angeles)
6. La Cienega Boulevard/I-405 Southbound (SB) On- and Off-Ramps, North of West Imperial Highway (County of Los Angeles/City of Los Angeles)
7. La Cienega Boulevard/West Imperial Highway (County of Los Angeles/City of Los Angeles)
8. La Cienega Boulevard/ West 120th Street (County of Los Angeles)
9. La Cienega Boulevard/I-405 SB On- and Off-Ramps, South of West 120th Street (County of Los Angeles)

As shown on Exhibit 5.1-1, seven of the nine study intersections are located within the unincorporated portions of the County of Los Angeles; of these, five are shared with the neighboring Cities of Los Angeles and El Segundo. The remaining two study intersections are located within the City of Los Angeles, including one study intersection that is shared with the City of El Segundo. Eight of the nine study intersections selected for analysis are currently controlled by traffic signals. The remaining study intersection (No. 3, Aviation Boulevard/ West 117th Street) is currently stop-sign controlled with the stop signs facing the minor street approach (West 117th Street).

Aviation Boulevard is a north-south roadway that borders the Project site to the west. Aviation Boulevard is classified as a Secondary Highway in the County of Los Angeles Highway Plan. Two through travel lanes are provided in each direction on Aviation Boulevard in the Project vicinity. Dual exclusive left-turn lanes are provided in each direction on Aviation Boulevard at the West Imperial Highway intersection. Exclusive left-turn lanes are also provided in the southbound direction on Aviation Boulevard at the West 116th Street, West 117th Street, and West 120th Street intersections and in the northbound direction at the 120th Street intersection. Additionally, exclusive right-turn lanes are provided in each direction on Aviation Boulevard at the West Imperial Highway intersection. Curbside parking is prohibited along both sides of Aviation Boulevard within the Project vicinity except between West 117th Street and West 120th Street where one-hour metered parking between the hours of 9:00 AM and 3:00 PM is allowed along the east side of the roadway. Aviation Boulevard has a posted speed limit of 40 miles per hour (mph) in the Project vicinity.

La Cienega Boulevard is a north-south oriented roadway located east of the Project site. La Cienega Boulevard is classified as a Major Highway in the County of Los Angeles Highway Plan. Two through travel lanes are provided in each direction on La Cienega Boulevard in the Project vicinity. Dual exclusive left-turn lanes are provided in each direction on La Cienega Boulevard at the West Imperial Highway intersection. Exclusive left-turn lanes are also provided in each direction on La Cienega Boulevard at the I-405 SB Ramps (located north of

West Imperial Highway) and West 120th Street intersections and in the southbound direction at the I-405 SB Ramps (south of West 120th Street) intersection. Exclusive right-turn lanes are provided in each direction on La Cienega Boulevard at West Imperial Highway, and in the northbound direction at the I-405 SB Ramps (north of West Imperial Highway) and I-405 SB Ramps (south of West 120th Street) intersections. Curbside parking is generally prohibited along both sides of La Cienega Boulevard within the Project vicinity except north of the I-405 SB Ramps (north of West Imperial Highway) where parking is allowed along both sides of the roadway and north of the West 120th Street intersection where four-hour on-street parking is provided on the west side of the roadway. La Cienega Boulevard has a posted 40 mph speed limit in the Project vicinity.

West Imperial Highway is an east-west oriented roadway that is located north of the Project site. Imperial Highway is classified as a Major Highway in the County of Los Angeles Highway Plan. Three through travel lanes are generally provided along both sides of Imperial Highway within the Project vicinity. Dual exclusive left-turn lanes are provided in the eastbound direction on Imperial Highway at the Aviation Boulevard and La Cienega Boulevard intersections, and in the westbound direction at the Aviation Boulevard, La Cienega Boulevard, and I-105 EB Ramps intersections. Dual exclusive right-turn lanes are provided in each direction on West Imperial Highway at the La Cienega Boulevard intersection. Exclusive right-turn lanes are provided in the westbound direction on West Imperial Highway at the Aviation Boulevard intersection, as well in the eastbound direction at the La Cienega Boulevard intersection. Curbside parking is generally prohibited along both sides of the roadway within the Project vicinity. West Imperial Highway has a posted speed limit of 40 mph within the Project vicinity.

West 116th Street is an east-west oriented discontinuous roadway that bisects the Project site. West of Judah Avenue, West 116th Street currently serves as the Metro Bus Terminal driveway while east of Judah Avenue, West 116th Street currently serves as a residential street. West 116th Street is classified as a Local Street in the County of Los Angeles Highway Plan and is currently closed to through traffic between Aviation Boulevard and Judah Avenue. One through travel lane is generally provided on West 116th Street in the Project vicinity. An exclusive left-turn lane, as well as an exclusive right-turn lane is provided in the westbound direction at the Aviation Boulevard intersection. Curbside parking is permitted along both sides of West 116th Street except east of Aviation Boulevard where curbside parking is prohibited. A speed limit of 25 mph is posted on West 116th Street near the Project site except adjacent to the Metro Bus Terminal where a 10-mph speed limit is posted.

West 117th Street is an east-west oriented roadway that borders the Project site to the south. West 117th Street is classified as a Local Street in the County of Los Angeles Highway Plan. One through travel lane is generally provided on West 117th Street in the Project vicinity. Curbside parking is generally allowed along both sides of West 117th Street in the Project vicinity. There is no speed limit posted on West 117th Street within the Project study area, thus a speed limit of 25 mph is assumed, which is consistent with the *California Vehicle Code* for streets without a posted speed limit.

West 120th Street is an east-west oriented roadway that is located south of the Project site. West 120th Street is classified as a Local Street in the County of Los Angeles Highway Plan. Two through travel lanes are generally provided on West 120th Street in the Project vicinity. Exclusive left-turn lanes are provided in each direction on West 120th Street at the La Cienega Boulevard intersection. Curbside parking is generally allowed along both sides of West 120th Street in the Project vicinity except immediately east of Aviation Boulevard where one hour parking between the hours of 7:00 AM and 6:00 PM is permitted on the north side of the roadway, and between the hours of 8:00 AM and 4:00 PM on the south side of the roadway. West 120th Street has a posted speed limit of 35 mph within the Project vicinity.

Bus Transit Service

Public bus transit service in the Project study area is currently provided by Metro, Santa Monica's Big Blue Bus (BBB), the City of Torrance, Municipal Area Express (MAX), the City of Culver City, and the City of Redondo Beach. In addition, shuttle service between the Los Angeles International Airport (LAX) and the Metro Green Line Aviation/LAX Station is currently provided. The existing public transit routes provided in the Project site vicinity are illustrated in Exhibit 5.1-2, and a summary of the existing bus lines, including the transit route, the destinations, and the number of buses during peak hours can be found in the Traffic Study (Appendix H).

Light Rail Transit Service

The Metro Rail system is comprised of the Metro Blue, Green, Red, Purple, and Gold Lines. The Project study area is currently served by the Metro Green Line, a light rail transit line that runs east-west from the Norwalk area to the Westchester area and north-south from the Westchester area to the Redondo Beach area, curving south near LAX. The Metro Green Line system provides one station in the Project vicinity, the Aviation/LAX Station, which is located immediately north of the Project site. During the AM and PM peak hours, the Metro Green Line provides headways of approximately eight minutes per train (i.e., approximately eight trains per hour) in the eastbound and westbound directions.

Existing Traffic Conditions

Site Access

Vehicular access to the existing parcels is currently provided via a total of four driveways on Aviation Boulevard, two driveways on Judah Avenue, three driveways on 116th Street, and six driveways on 117th Street. The existing driveways on Aviation Boulevard are located along the westerly property frontage of Lot 1 and provide access to the existing adult entertainment commercial building, the motel, and associated parking areas. One of the existing Project driveways on Aviation Boulevard accommodates full access (i.e., left-turn and right-turn ingress and egress movements) while the remaining three operate as one-way driveways. The existing driveways on Judah Avenue and 117th Street and two of the three driveways on 116th Street provide access to the existing seven single-family residences and two duplex multi-family residences located on Lot 1 and currently accommodate full access. Vehicular access to Lot 2 is provided via one driveway on 116th Street that provides access to the existing Metro bus terminal and pick-up and drop-off area for the Aviation/LAX Metro Green Line Station.

Traffic Volumes

Intersections

Manual counts of vehicular turning movements were conducted in March 2009 at each of the nine study intersections during the weekday morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) commuter periods to determine the peak hour traffic volumes. The AM and PM peak hour existing traffic volumes and vehicle movements at the study intersections are illustrated on Exhibits 5.1-3 and 5.1-4, respectively.

Project Site Driveways

In addition to determining traffic counts at the study intersections, the Traffic Study included manual driveway traffic counts at the existing Metro bus terminal, Caltrans Park-and-Ride, and Caltrans Maintenance Facility driveways on Aviation Boulevard and West Imperial Highway

from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM to obtain the weekday AM and PM peak hour trips associated with these land uses. The AM and PM peak hour manual vehicle movement counts at the existing Metro and Caltrans driveways are shown in Exhibit 5.1-5. The data worksheets for the manual driveway traffic counts at the existing Metro and Caltrans driveways can be found in the appendix to the Traffic Study (EIR Appendix H).

Project Site Trip Generation and Trip Distribution

Traffic volumes expected to be generated by the existing Metro bus transfer area and terminal on the site during the AM and PM peak hours, as well as on a daily basis, were estimated in the Traffic Study using rates published in the ITE *Trip Generation* manual and the LACDPW traffic study guidelines. To determine trip distribution, the existing site traffic was assigned to the local roadway system based on a traffic distribution pattern that reflects the existing land use, the existing site access scheme, existing traffic movements, characteristics of the surrounding roadway system, and nearby employment and residential areas as applicable to the existing uses on-site. The estimated trip generation and distribution for the existing Project site land uses are illustrated in Exhibit 5.1-6.

As presented in Table 5.1-3 (see Section 5.1.4 Environmental Impacts below, which also includes Project trip generation), the existing uses are expected to generate 9 vehicle trips (2 inbound trips and 7 outbound trips) during the AM peak hour, and 189 vehicle trips (120 inbound trips and 69 outbound trips) during the PM peak hour. Over a 24-hour period, the existing uses are estimated to generate 1,886 daily trip ends during a typical weekday (943 inbound trips and 943 outbound trips).

Parking

The Project site contains surface parking to accommodate the needs of the Wild Goose Restaurant/Bar and the Aviation Motel. Additional private parking is available for the single- and multi-family residences on the Project site. The off-site Park-and-Ride lot contains approximately 400 parking spaces available to transit users. Additionally, the Caltrans Maintenance Facility has surface parking available for their maintenance and staff vehicles.

5.1.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 5.1a: Does the project contain 25 dwelling units or more and is it located in an area with known congestion problems (roadway or intersections)?

Threshold 5.1b: Will the project result in any hazardous traffic conditions?

Threshold 5.1c: Will the project result in parking problems with a subsequent impact on traffic conditions?

Threshold 5.1d: Will inadequate access during an emergency (other than fire hazards) result in problems for emergency vehicles or residents/employees in the area?

MAP SOURCE: METROPOLITAN TRANSPORTATION AUTHORITY (METRO) WEBSITE

Source: Linscott, Law & Greenspan Engineers 2009

Existing Public Transit Routes

Exhibit 5.1-2

Aviation Station Project

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(Rev 07/20/10 KFD) Projects/Cox/J002/Graphics/EIR/Ex5.1-2_transit_routes.pdf

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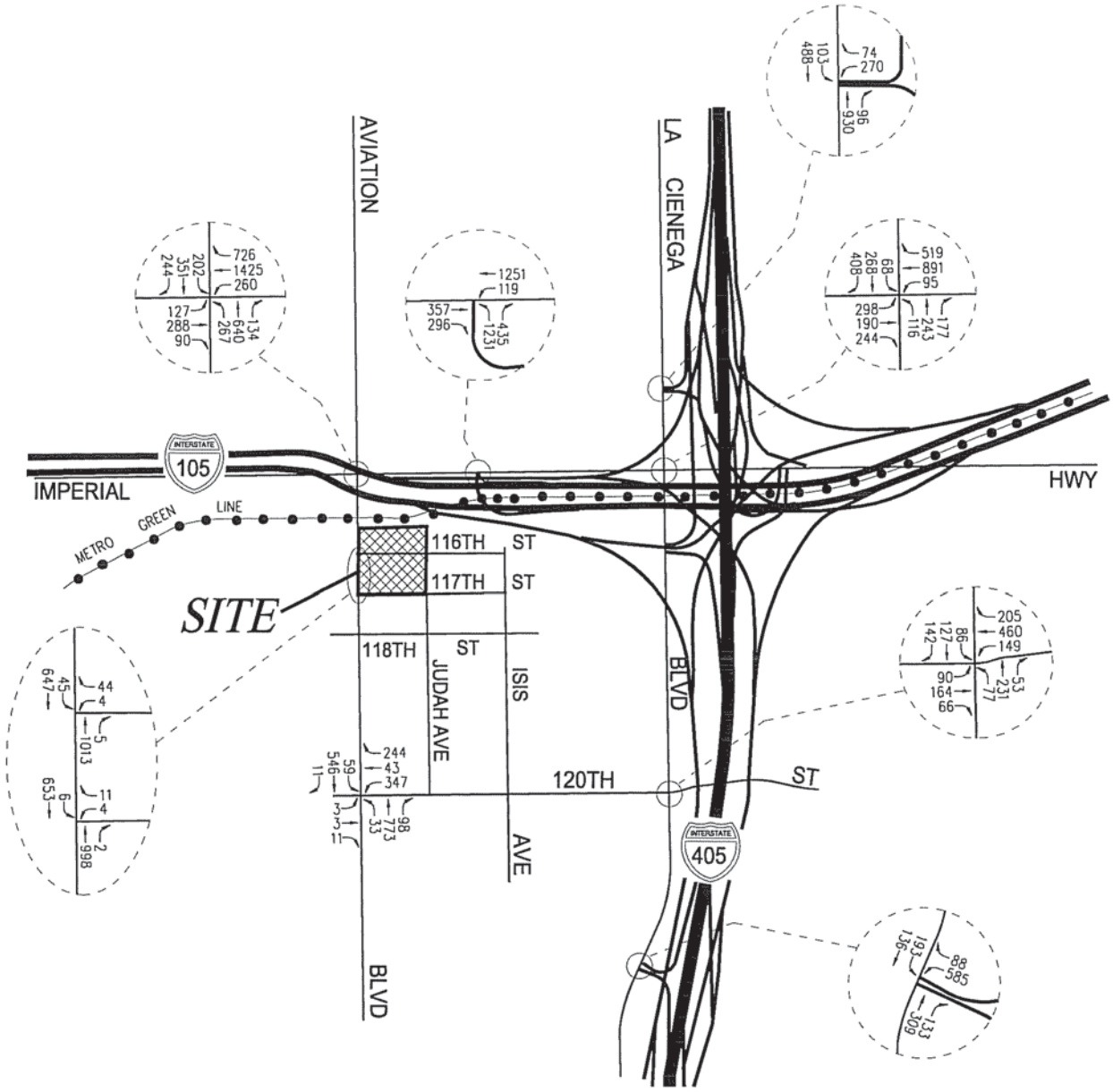

Source: Linscott, Law & Greenspan Engineers 2009

Existing Traffic Volumes – AM Peak Hour

Exhibit 5.1-3

Aviation Station Project

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(Rev 10/16/09 CJS) Projects/Cox/J002/Graphics/EIR/Ex5.1-3_vlms_exist_AM.pdf

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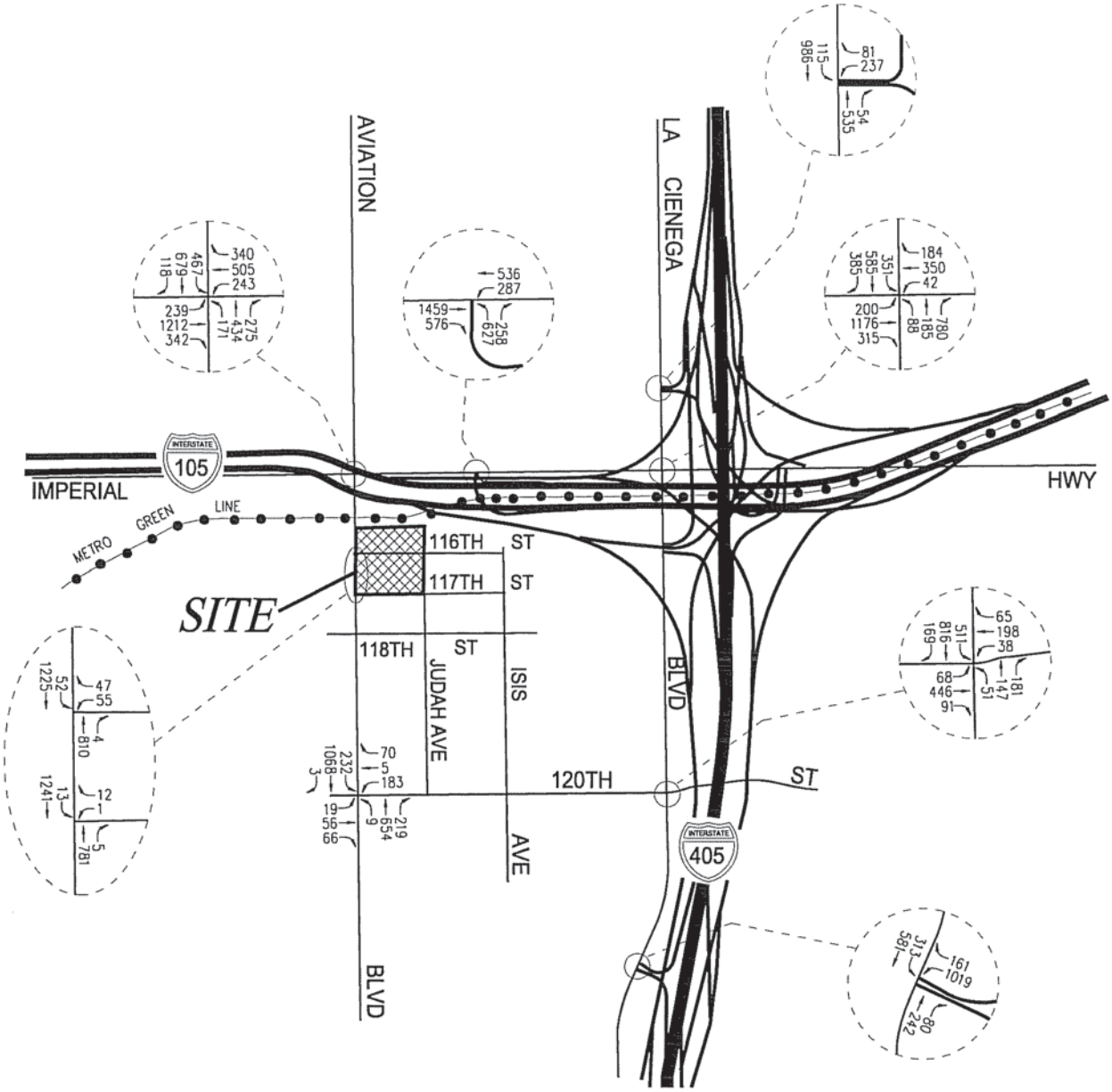

Source: Linscott, Law & Greenspan Engineers 2009

Existing Traffic Volumes - PM Peak Hour

Exhibit 5.1-4

Aviation Station Project

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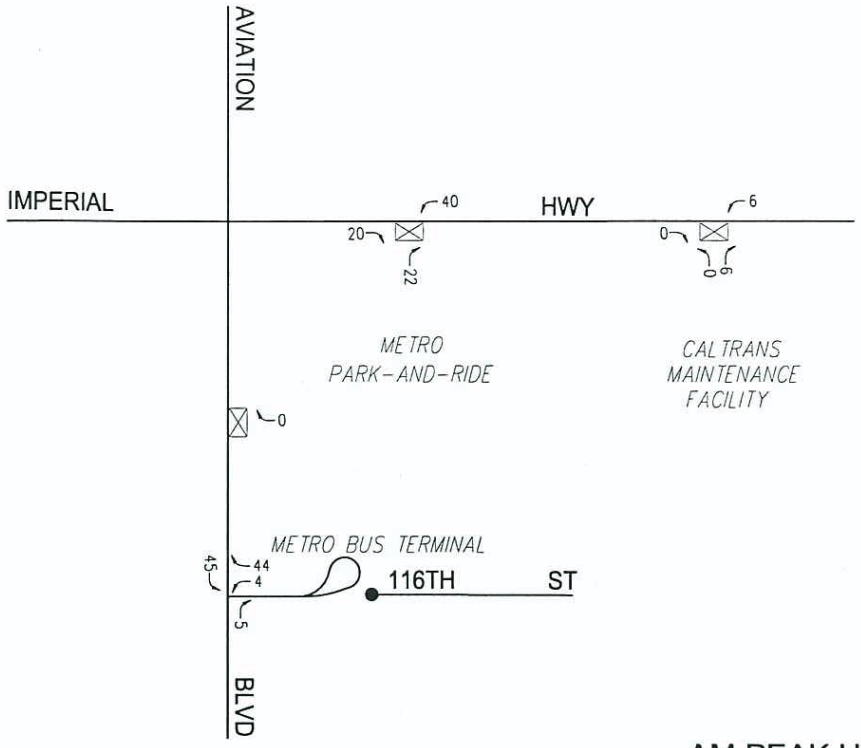
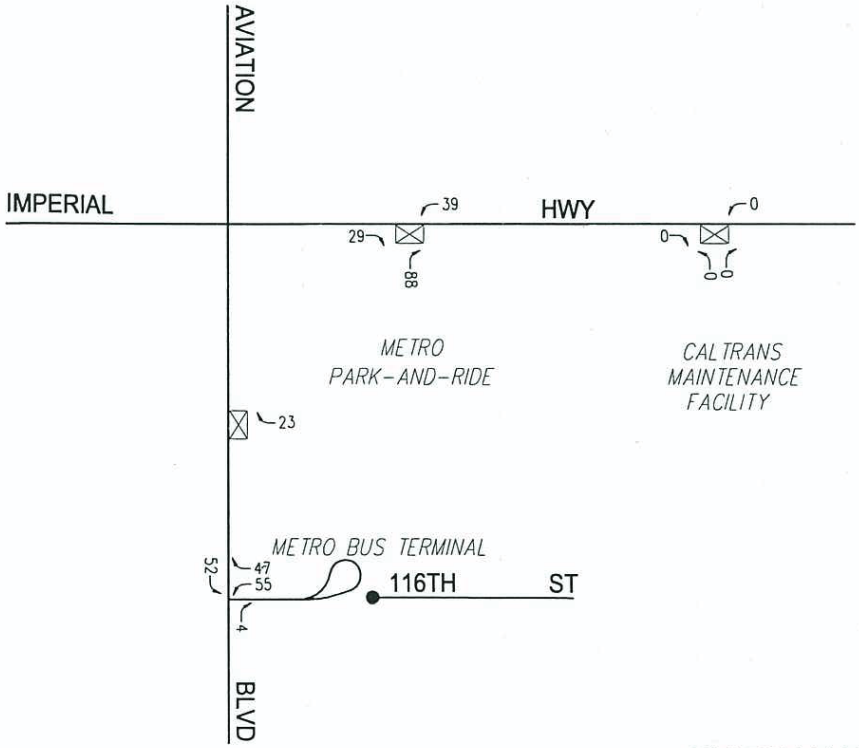


AM PEAK HOUR (8:00 AM)



PM PEAK HOUR (5:00 PM)

Source: Linscott, Law & Greenspan Engineers 2009

Metro and Caltrans Driveway Traffic Volumes

Exhibit 5.1-5

Aviation Station Project

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(Rev 10/16/09 CJS) Projects/Cox/J002/Graphics/EIR/Ex5.1-5_driveway_vols.pdf

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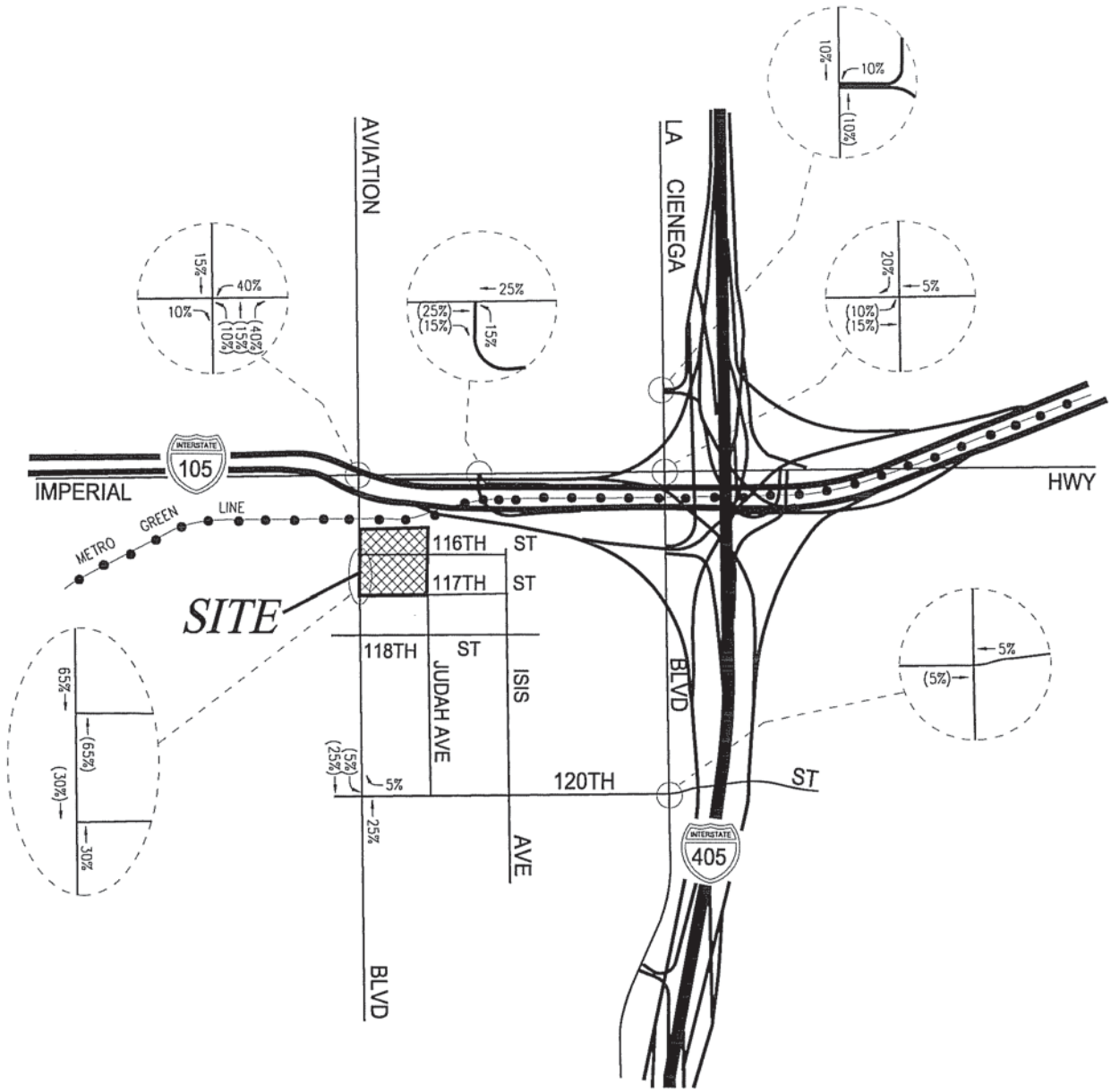

Source: Linscott, Law & Greenspan Engineers 2009

Existing Site Trip Distribution

Exhibit 5.1-6

Aviation Station Project

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Threshold 5.1e: Will the congestion management program (CMP) Transportation Impact Analysis thresholds of 50 peak hour vehicles added by project traffic to a CMP highway system intersection or 150 peak hour trips added by project traffic to a mainline freeway link be exceeded?

Threshold 5.1f: Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus, turnouts, bicycle rack)?

Threshold 5.1g: Other factors?

The Traffic Study was prepared using the methodologies of the respective jurisdictions where the study intersections are located. Specifically, the intersection capacity utilization (ICU) methodology was used to determine volume-to-capacity (V/C) ratios and corresponding Levels of Service (LOS) at the two study intersections located solely in the County of Los Angeles. The Critical Movement Analysis (CMA) method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service at the one study intersection located solely in the City of Los Angeles. Both the ICU and CMA methods were applied to the remaining seven study intersections that are shared between the County of Los Angeles, City of Los Angeles, and/or City of El Segundo.

For both the ICU and CMA methodologies, the overall intersection V/C ratio is subsequently assigned an LOS value to describe intersection operations. The LOS varies from LOS A (free flow) to LOS F (jammed condition). It should be noted that LOS D is typically recognized as the minimum acceptable LOS in urban areas. The specific threshold criteria for each of these methodologies are discussed below.

County of Los Angeles Impact Criteria

The significance of the potential Project-generated traffic impacts at the seven County of Los Angeles study intersections was identified using criteria set forth in the Los Angeles County Department of Public Works' *Traffic Impact Analysis Report Guidelines* (January 1997). According to the County's published guidelines, the impact is considered significant if the Project-related increase in the V/C ratio equals or exceeds the thresholds presented in Table 5.1-1.

TABLE 5.1-1
COUNTY OF LOS ANGELES INTERSECTION IMPACT CRITERIA

Final V/C	LOS	Project Related Increase in V/C
≥ 0.71–0.80	C	equal to or greater than 0.040
≥ 0.81–0.90	D	equal to or greater than 0.020
≥ 0.91 or more	E/F	equal to or greater than 0.010

V/C: volume-to-capacity ratio; LOS: level of service
Source: LLG 2009

According to the County of Los Angeles requirements, the ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and a dual-lane capacity of 2,880 vph. A clearance interval of 0.10 is also included in the ICU calculations. The County's Sliding Scale Method requires mitigation of Project traffic impacts whenever traffic generated by the proposed development causes an increase of the analyzed intersection's V/C ratio by an amount equal to or greater than the values shown above.

City of Los Angeles Impact Criteria

The significance of the potential impacts of Project-generated traffic at each of the City of Los Angeles study intersections was identified using criteria set forth in the Los Angeles Department of Transportation's (LADOT's) *Traffic Study Policies and Procedures* (March 2002). According to the City's Sliding Scale Method for calculating the level of impact due to traffic generated by the Project, a significant transportation impact is determined based on the sliding scale criteria presented in Table 5.1-2.

TABLE 5.1-2
CITY OF LOS ANGELES INTERSECTION IMPACT CRITERIA

Final V/C	LOS	Project Related Increase in V/C
> 0.700–0.800	C	equal to or greater than 0.040
> 0.800–0.900	D	equal to or greater than 0.020
>0.900	E or F	equal to or greater than 0.010
V/C: volume-to-capacity ratio; LOS: level of service Source: LLG 2009		

City of El Segundo Impact Criteria

Pursuant to the City of El Segundo's policy, the significance of the potential impacts of Project-generated traffic at the City of El Segundo study intersections was identified using criteria set forth in the County of Los Angeles Metropolitan Transportation Authority's *2004 Congestion Management Program for Los Angeles County* (July 2004). However, because the four City of El Segundo study intersections are shared with either the County of Los Angeles or City of Los Angeles, these intersections were evaluated for potential traffic impacts using the more stringent criteria of the County of Los Angeles and City of Los Angeles, as applicable, based on the shared jurisdiction of the intersection. Thus, a separate analysis based on the City of El Segundo traffic analysis methodology and significant impact thresholds was not prepared.

Freeway Segment Impact Analysis

Freeway segments have been evaluated in accordance with the standards included in the *2004 Congestion Management Program for Los Angeles County* (2004 CMP)(Metro 2004). A significant impact on the freeway system is defined as follows:

> For purposes of the CMP, a significant impact occurs when the Project increases traffic demand on a CMP facility by 2% of capacity (V/C greater than or equal to 0.02), causing LOS F (V/C>1.00); if the facility is already LOS F, a significant impact occurs when the Project increases traffic demand on a CMP facility by 2% of capacity (V/C greater than or equal to 0.02).

The 2004 CMP also states:

> Calculation of LOS based on D/C ratios is a surrogate for the speed-based LOS used by Caltrans for traffic operational analysis. LOS F(1) through F(3) designations are assigned where severely congested (less than 25 mph) conditions prevail for more than one hour, converted to an estimate of peak hour demand in the table above. Note that calculated LOS F traffic demands may therefore be greater than observed traffic volumes.

5.1.4 PROJECT DESIGN FEATURES

Project Design Features

No Project Design Features related to traffic have been identified.

5.1.5 ENVIRONMENTAL IMPACTS

Threshold 5.1a: Does the project contain 25 dwelling units or more and is it located in an area with known congestion problems (roadway or intersections)?

Threshold 5.1d: Will inadequate access during an emergency (other than fire hazards) result in problems for emergency vehicles or residents/employees in the area?

Threshold 5.1e: Will the congestion management program (CMP) Transportation Impact Analysis thresholds of 50 peak hour vehicles added by project traffic to a CMP highway system intersection or 150 peak hour trips added by project traffic to a mainline freeway link be exceeded?

Threshold 5.1g: Other factors?

Construction-Related Impacts

On-Site, Caltrans Off-Site Project Area and Off-Site Utility ImprovementsConstruction activities associated with the Project would include demolition of existing structures, grading of the Project site (including excavation for subterranean parking and building substructure, storm water infiltration system, and Dominguez Channel box structure), and construction of buildings and infrastructure. Construction activities are anticipated to occur for approximately 18 months and would be completed at the end of 2012. During construction, there would be a temporary increase in truck trips in the Project area.

The City of El Segundo General Plan designates Aviation Boulevard as an existing and recommended truck route, and the City of Los Angeles General Plan designates West Imperial Highway/Interstate 105 as a designated truck route, while the Los Angeles County General Plan does not designate truck routes. Construction-related traffic would use the existing regional and local road network, specifically, nearby designated truck routes (i.e., Aviation Boulevard and West Imperial Highway/Interstate 105), where feasible, and no construction traffic or queuing shall be allowed on the residential portion of West 117th Street, Judah Avenue, or any other residential streets within the Del Aire community (MM 3.4-3 from Section 3.4, Noise).

The largest amount of truck traffic would be associated with excavation for the subterranean parking, storm water infiltration system, and Dominguez Channel box structure, and associated earth material exported from the site (approximately 61,000 cubic yards). It is estimated that approximately 3,050 truck trips (round-trip) would be required for soil export over the course of approximately 6 weeks, assuming the use of 20-cubic-yard trucks. This equates to approximately 85 round-trip truck trips per day, based on a six-day per week construction schedule (i.e., no construction activity on Sundays in compliance with the County noise ordinance). As shown in Table 5.1-3 below, the operation of the Project is expected to generate 1,114 net daily trips, which is less than significant. In comparison, the approximately 85 daily round-trip truck trips for construction traffic would also be less than significant.

This increase in daily trips, in combination with long-term ambient growth and cumulative projects, was determined to result in less than significant traffic impacts. Therefore, because daily truck trips from construction would be well below the Project's daily trip generation and because traffic would use only non-residential roadways, the temporary increase in construction traffic would result in a less than significant impact on the operation of Aviation Boulevard and West Imperial Boulevard and other surrounding roadways.

As required in MM 5.1-1, the design of the intersection of the Caltrans-owned property with West Imperial Highway, and associated traffic signal installation, will be designed and constructed in accordance with the California 2010 MUTCD Manual. The MUTCD Manual provides rules for the design, placement, operation, maintenance, uniformity, and responsibility for traffic control devices. For instance, it is required that the traffic control devices be within the road user's view for visibility, legible, and placed such that adequate time is available for drivers to make the proper response. There are requirements related to the regulatory signs (i.e. stop, yield, speed limit, lane control signs), warning signs, guide/wayfinding signs, and emergency management signs.

Additionally, as required by MM 3.2-6 from Section 3.2, Flood, the Project Applicant/Developer must obtain an encroachment permit from California Department of Transportation (Caltrans) for construction activities within the off-site, Caltrans-owned parking lot. Implementation of MM 5.1-1 and MM 3.2-6 will ensure potential construction-related traffic impacts to Caltrans facilities would be less than significant.

Operational-Related Impacts

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements

The Traffic Study included concurrent analyses of the proposed on-site Project components and the off-site improvements within the Caltrans Off-Site Project Area to the immediate north of the Project site. Caltrans provided substantial input to the Project in terms of the design of the Project access features as they relate to State facilities. Specifically, at a meeting on February 25, 2010, Caltrans staff (Yunus Ghausi – Traffic Investigations, Jeremy Chen – Traffic Investigations, Shain Cai – Right-of-Way, and Vince Lundblad – Right-of-Way) stated that the Project vehicular access scheme, including the concept design of the proposed signalized intersection of A Drive and West Imperial Highway, was acceptable to Caltrans (Shender 2010).

Off-site Project components utility improvements would not affect traffic and circulation. Therefore, the summary of the Traffic Study presented below includes assessment of potential impacts from implementation of both the proposed on-site and Caltrans Off-Site Caltrans Area Project components.

Traffic Analysis Scenarios

County of Los Angeles/City of El Segundo Intersections

Level of Service calculations for the County of Los Angeles and City of El Segundo study intersections were analyzed for the following scenarios:

(a) Existing conditions.

(b) Condition (a) with 0.70 percent (0.70%) ambient traffic growth through year 2014.

(c) Condition (b) with completion and occupancy of the Project.

(d) Condition (c) with implementation of project mitigation measures, where necessary.

(e) Condition (d) with completion and occupancy of the related projects, without any potential mitigation measures from the related projects.

(f) Condition (e) with implementation of cumulative mitigation measures, where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

City of Los Angeles Intersections

Level of Service calculations for the City of Los Angeles study intersections were analyzed for the following scenarios:

(a) Existing conditions.

(b) Condition (a) with 0.70 percent (0.70%) ambient traffic growth through year 2014.

(c) Condition (b) with completion and occupancy of the related projects, without any potential mitigation measures from the related projects.

(d) Condition (c) with completion and occupancy of the Project.

(e) Condition (d) with implementation of project mitigation measures, where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

Traffic Analysis Assumptions

Proposed Project Trip Generation

Traffic volumes expected to be generated by the Project during the AM and PM peak hours, as well as on a daily basis, were estimated using rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation* manual and the LACDPW traffic study guidelines. In addition to the trip generation forecast for the Project (which is essentially an estimate of vehicles that could be expected to enter and exit the site access points), a forecast was made of the likely internal capture, pass-by, and transit trips that could be anticipated at the site.

The Project's commercial component would benefit from its proximity to the Aviation/LAX Metro Green Line Station, the surrounding commercial areas, and the residential components of the Project. Additionally, the Project site is well served by public transit services with bus stops within the Project vicinity along Aviation Boulevard and West Imperial Highway. A description of the adjustments to the Project trip generation forecasts due to internal capture, pass-by, and transit trips are provided in the footnotes in Table 5.1-3. Finally, the estimated trip generation for the existing land uses on the site that would be removed, and therefore no longer generate vehicle trips, was subtracted from the Project trip generation to determine the net trip generation. Table 5.1-3 summarizes the net Project trip generation.

TABLE 5.1-3
PROPOSED PROJECT TRIP GENERATION

ITE Code[a]	Land Use	Amount	Daily Trip Volumes[b]	AM Peak Hour Volumes[b]			PM Peak Hour Volumes[b]		
				In	Out	Total	In	Out	Total
Proposed Project									
N/A	Condominium/Townhome	281 du	2,248	17	135	152	132	73	205
220	Apartment	112 du	745	11	46	57	45	24	69
820	Shopping Center	26,500 gsf	1,138	16	11	27	49	50	99
	Less 5% Walk-in/Internal Capture[c]		(57)	(1)	(1)	(2)	(2)	(3)	(5)
	Less 30% Pass-by[d]		(324)	(5)	(3)	(8)	(14)	(14)	(28)
	Less 20% Transit[e]		(750)	(8)	(38)	(46)	(42)	(26)	(68)
	Proposed Project Subtotals		*3,000*	*30*	*150*	*180*	*168*	*104*	*272*
Existing Land Uses									
440	Wild Goose Restaurant	(4,568 gsf)	(1,770)	Nom.	Nom.	Nom.	(113)	(64)	(177)
320	Motel	(6 rooms)	(34)	(1)	(2)	(3)	(2)	(1)	(3)
210	Single-family Residential	(7 du)	(66)	(1)	(4)	(5)	(4)	(3)	(7)
N/A	Duplex/Townhome	(2 du)	(16)	(0)	(1)	(1)	(1)	(1)	(2)
	Existing Subtotals		*(1,886)*	*(2)*	*(7)*	*(9)*	*(120)*	*(69)*	*(189)*
	Net Trip Generation Totals		***1,114***	***28***	***143***	***171***	***48***	***35***	***83***

N/A = not applicable; du = dwelling unit; room = hotel room; gsf = gross square feet; Nom = nominal trips.

[a] ITE Codes come from ITE 2008. Trip generation rates for condominiums/townhomes obtained from the LACDPW's *Traffic Impact Analysis Guidelines,* (1997); there is no ITE Code.

[b] A "trip" is a one-way traffic movement, entering or leaving.

[c] The walk-in/internal capture reduction for the commercial use is based on the synergy between the residential and commercial uses provided within the Project site, the Project characteristics, and the characteristics of the surrounding Project area. The walk-in trip reduction accounts for the walk-in patronage both from on the Project site and in other surrounding uses.

[d] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street on a roadway that offers direct access to the generator. The trip reduction for pass-by trips has been applied to the commercial component of the Project based on a review of the recommended practice in the ITE *Trip Generation Handbook* (June 2004), the Project characteristics, the characteristics of the surrounding Project area and existing traffic volumes on Aviation Boulevard.

[e] The transit reduction is based on a review of the 2004 Los Angeles County Congestion Management Program, the site's proximity to the adjacent Aviation/LAX Metro Green Line station, its associated bus transfer center and park-and-ride lot, and the land use characteristics of the Project.

Source: LLG 2009.

As shown in Table 5.1-3, the Project is expected to generate a net increase of 171 vehicle trips (28 inbound trips and 143 outbound trips) during the AM peak hour, and a net increase of 83 vehicle trips (48 inbound trips and 35 outbound trips) during the PM peak hour. Over a 24-hour period, the Project is forecasted to generate a net increase of 1,114 daily trip ends during a typical weekday (557 inbound trips and approximately 557 outbound trips).

Proposed Project Trip Distribution

Proposed Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- The site's proximity to major traffic corridors (i.e., Aviation Boulevard, La Cienega Boulevard, West Imperial Highway, etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;

- Ingress/egress availability at the Project site assuming the site access and circulation scheme described in Section 2.0 Project Description;
- The location of proposed parking areas;
- Nearby population and employment centers; and
- Input from LACDPW staff.

The general, directional traffic distribution pattern for the proposed Aviation Station Project is shown in Exhibit 5.1-7. The net new Project traffic volume distribution for study intersections during the weekday AM and PM peak hours are displayed in Exhibits 5.1-8 and 5.1-9, respectively. The traffic volume assignments presented in Exhibits 5.1-8 and 5.1-9 reflect the Project traffic distribution characteristics shown in Exhibit 5.1-7, the existing site and Project trip generation forecast presented in Table 5.1-3, the existing site traffic distribution characteristics shown in Exhibit 5.1-6, and the redistribution of existing trips associated with the Metro Bus and Caltrans Park-and-Ride facilities.

The trips associated with the Caltrans Park-and-Ride Lot and Metro bus terminal have been redistributed based on the proposed reconfiguration of the Metro and Caltrans facilities. The redistributed AM and PM peak hour traffic volumes associated with the Caltrans Park-and-Ride Lot and Metro bus terminal are presented in Exhibits 5.1-10 and 5.1-11, respectively.

Proposed Project Site Access and Circulation

The Project site access is illustrated in Exhibit 5.1-12. Vehicular access to the Project site would be provided via driveways on Aviation Boulevard and West 117th Street, as described below.

- The existing Aviation Boulevard signalized Project driveway will be modified to serve as the main Project driveway for access to the commercial and residential components of the Project and associated parking areas. The existing traffic signal equipment at the Aviation Boulevard intersection will be modified accordingly. The Aviation Boulevard driveway will provide full access (i.e., left-turn and right-turn ingress and egress turning movements). For exiting traffic, two lanes will be provided: one for left-turns and one for right-turns.

- The West 117th Street Project driveway will be located on the north side of West 117th Street (i.e., along the southerly property frontage) at the Project site's southwestern corner. The West 117th Street Project driveway will provide access to the Project's commercial and residential components and associated parking areas. The West 117th Street driveway will be designed so as to direct Project-related traffic to and from Aviation Boulevard (i.e., limit Project traffic from travelling on nearby local residential streets). As such, the West 117th Street Project driveway will accommodate left-turn ingress and right-turn egress movements only.

The anticipated site access and circulation for the proposed off-site reconfiguration of land uses to the north to accommodate the Project are discussed below.

Proposed Metro Bus Terminal and Caltrans Park-and-Ride Lot Access

Vehicular access to the relocated Metro bus terminal will be provided via two driveways: one driveway on Aviation Boulevard and one driveway on West Imperial Highway (see Exhibit 5.1-12). Vehicular access to the Caltrans Park-and-Ride Lot would be provided via the reconfigured Caltrans Maintenance Facility (discussed below) driveway on West Imperial

Highway, as well as the existing Caltrans Park-and-Ride Lot driveway on West Imperial Highway. The existing Caltrans Park-and-Ride driveway on West Imperial Highway would be relocated approximately 30 feet east of its current location and used as an exit only driveway (i.e., limited to right-turn egress movements only); the existing Park-and-Ride Lot driveway on Aviation Boulevard would be relocated approximately 100 feet north of its current location and would accommodate right-turn ingress and egress movements only. A new driveway on West Imperial Highway would be constructed for the relocated Metro bus terminal and would provide right-turn ingress and egress movements.

Proposed Caltrans Maintenance Facility Access

Vehicular access to the Caltrans Maintenance Facility would be provided via the existing driveway on West Imperial Highway, as shown in Exhibit 5.1-12. The existing Caltrans driveway would be reconfigured to provide one inbound lane and one outbound lane. The reconfigured Caltrans driveway would provide left-turn and right-turn ingress and right-turn egress only (i.e., no left-turn egress movements would be permitted onto westbound West Imperial Highway). The reconfigured Caltrans driveway would provide direct access to the Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility surface parking lot.

A traffic signal would be installed at the existing Caltrans driveway on West Imperial Highway to accommodate access to the reconfigured Metro and Caltrans facilities. The traffic signal at the Caltrans driveway would feature separate westbound left-turn phasing for vehicles turning left into the Caltrans Park–and-Ride Lot and Caltrans Maintenance Facility surface parking lot. In addition, the northbound right-turn movement (i.e., vehicles exiting the Caltrans driveway) would have an overlapping phase with the westbound left-turn phase. It should be noted that the westbound through movement on West Imperial Highway would not stop (i.e., it would have a green light at all times).

Ambient Growth and Cumulative Project Assumptions

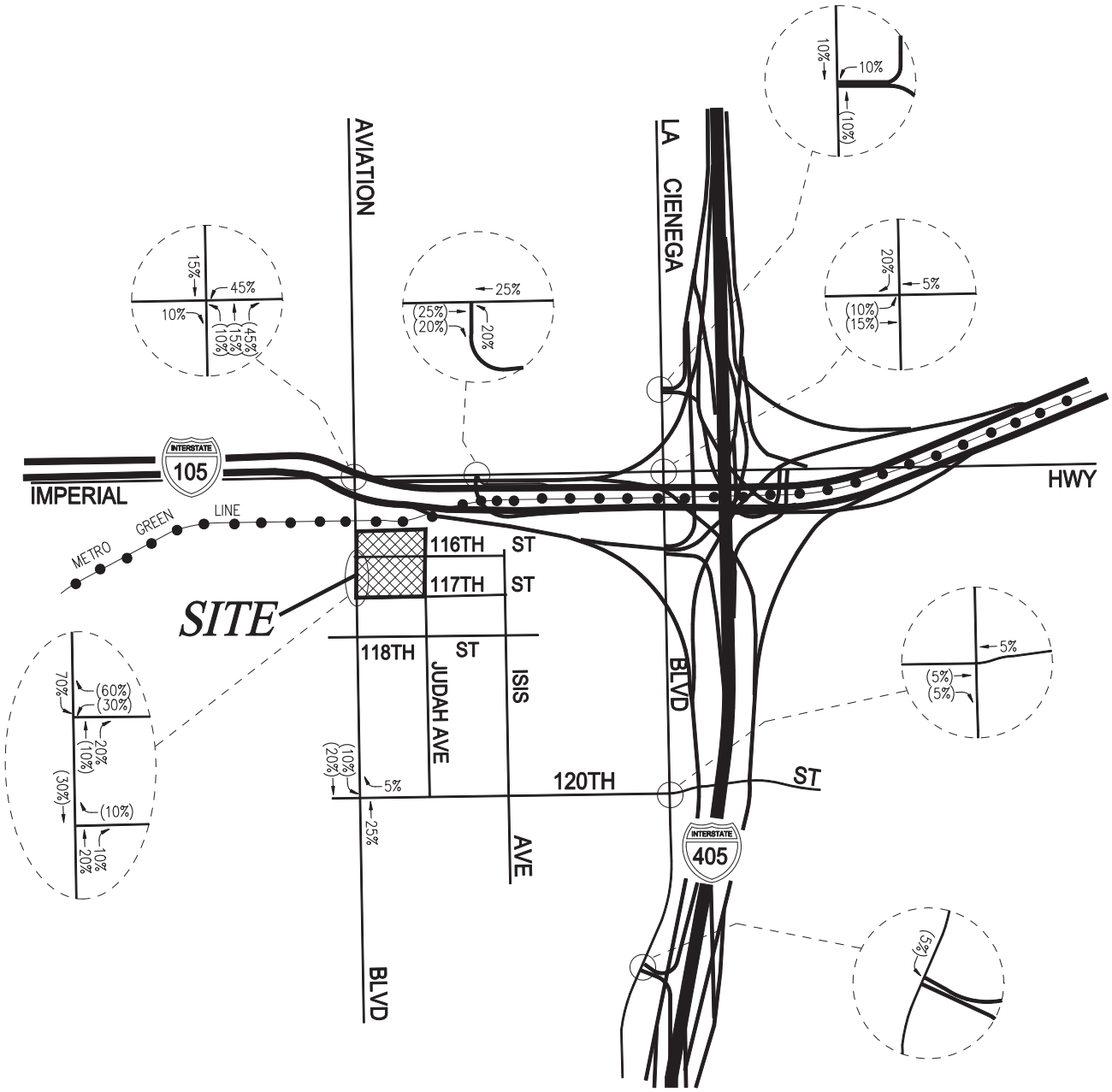
The forecast of future pre-Project conditions was prepared in accordance with procedures outlined in Section 15130 of the CEQA Guidelines (14 *California Code of Regulations* [CCR]). Specifically, the CEQA Guidelines provides two options for developing the future traffic volume forecast:

> (A) A list of past, present, and probable future Projects producing related or cumulative impacts, including, if necessary, those Projects outside the control of the [lead] agency, or
>
> (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

The Traffic Study provides a highly conservative estimate of future pre-Project traffic volumes as it incorporates both the “A” and “B” options outlined in CEQA Guidelines.

Related Projects

A forecast of on-street traffic conditions prior to occupancy of the Project was prepared by incorporating the potential trips associated with other known development projects (related



Source: Linscott, Law & Greenspan Engineers 2009

Proposed Project Trip Distribution

Exhibit 5.1-7

Aviation Station Project

N W E S

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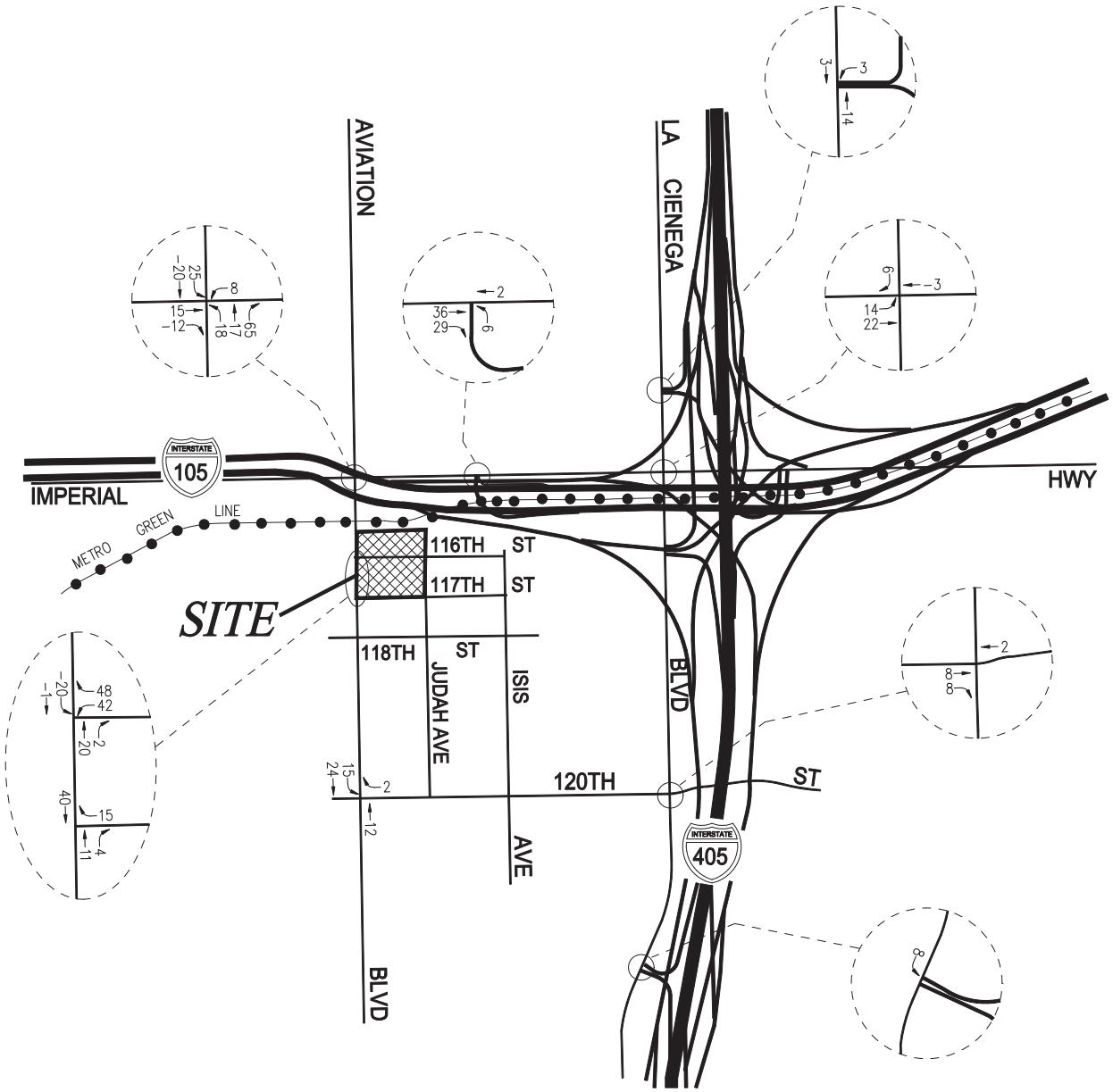

Source: Linscott, Law & Greenspan Engineers 2009

Proposed Project Only Traffic Volumes – AM Peak Hour

Exhibit 5.1-8

Aviation Station Project

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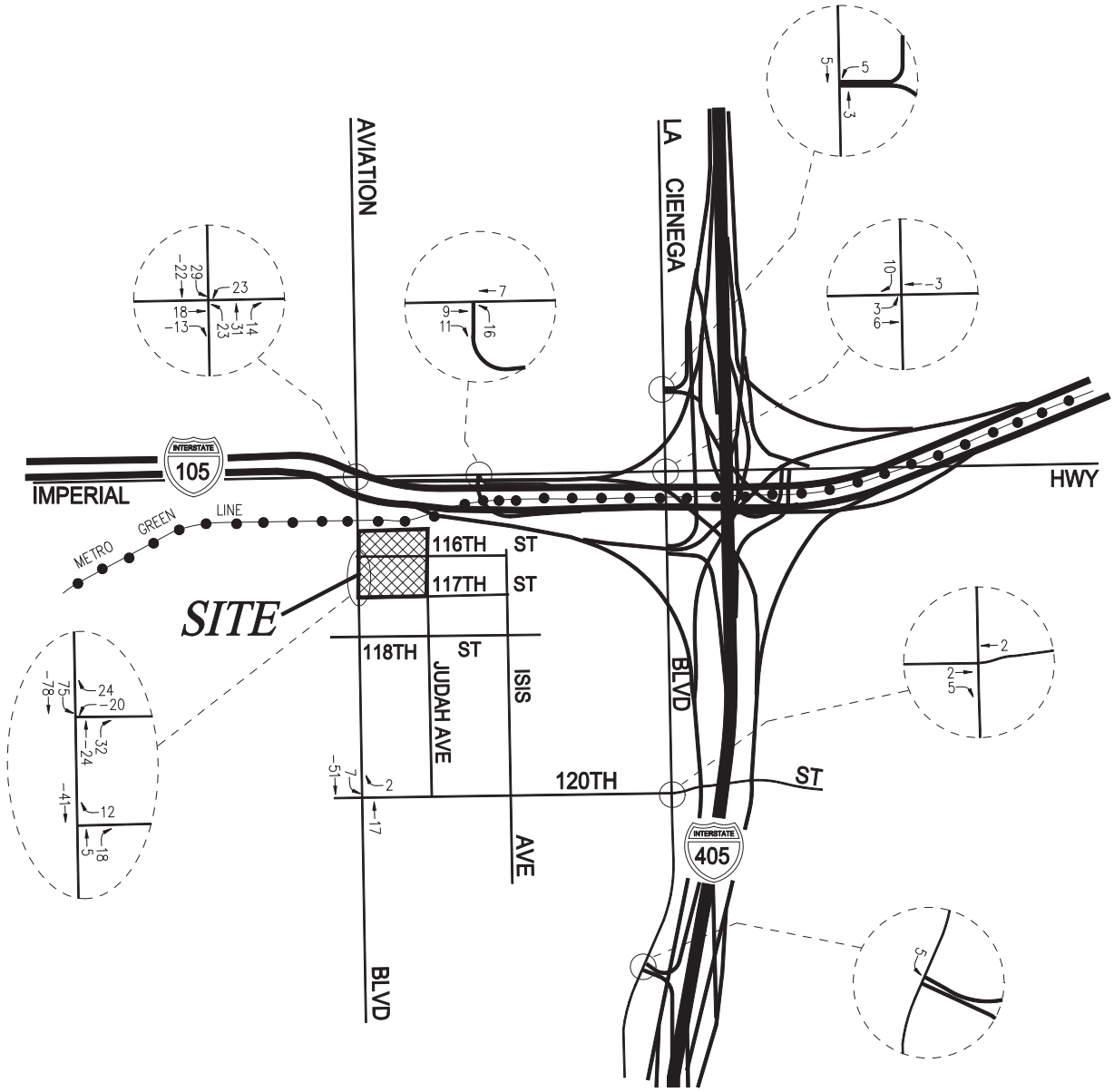

Source: Linscott, Law & Greenspan Engineers 2009

Proposed Project Only Traffic Volumes - PM Peak Hour

Exhibit 5.1-9

Aviation Station Project

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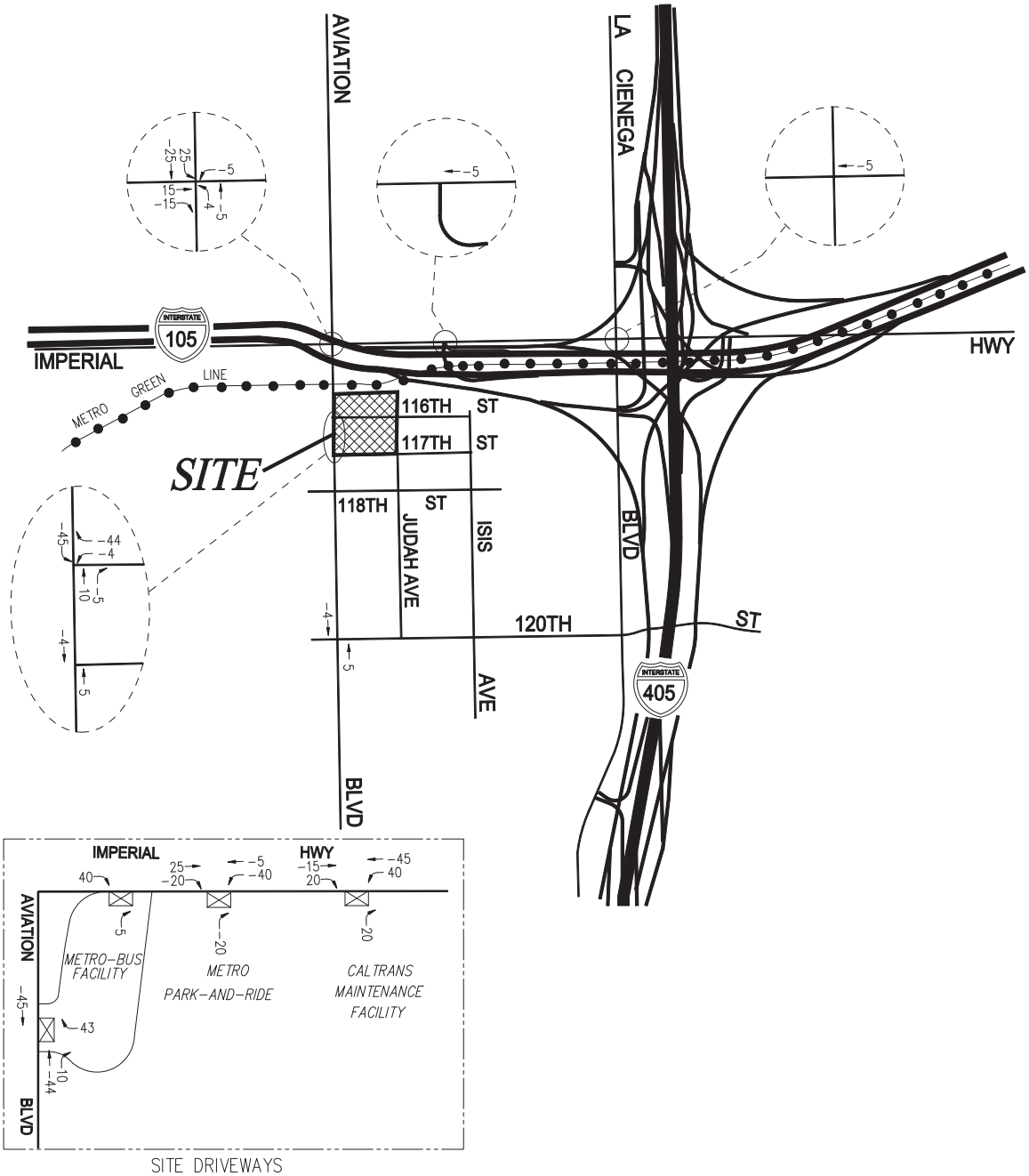

Source: Linscott, Law & Greenspan Engineers 2009

Traffic Volumes for Reconfigured Metro Facilities – AM Peak Hour

Exhibit 5.1–10

Aviation Station Project

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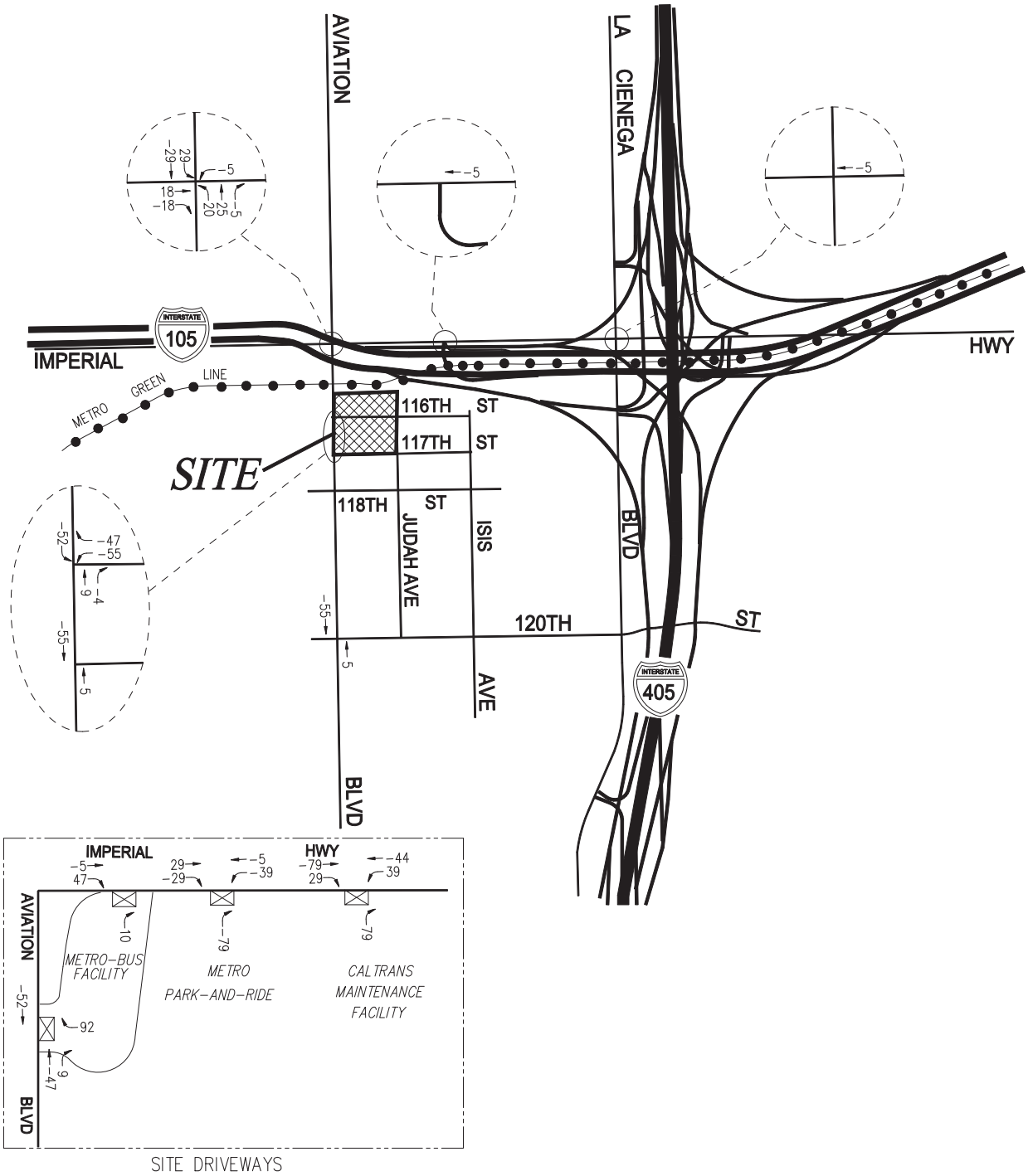

Source: Linscott, Law & Greenspan Engineers 2010

Traffic Volumes for Reconfigured Metro Facilities – PM Peak Hour

Exhibit 5.1-11

Aviation Station Project

N W E S

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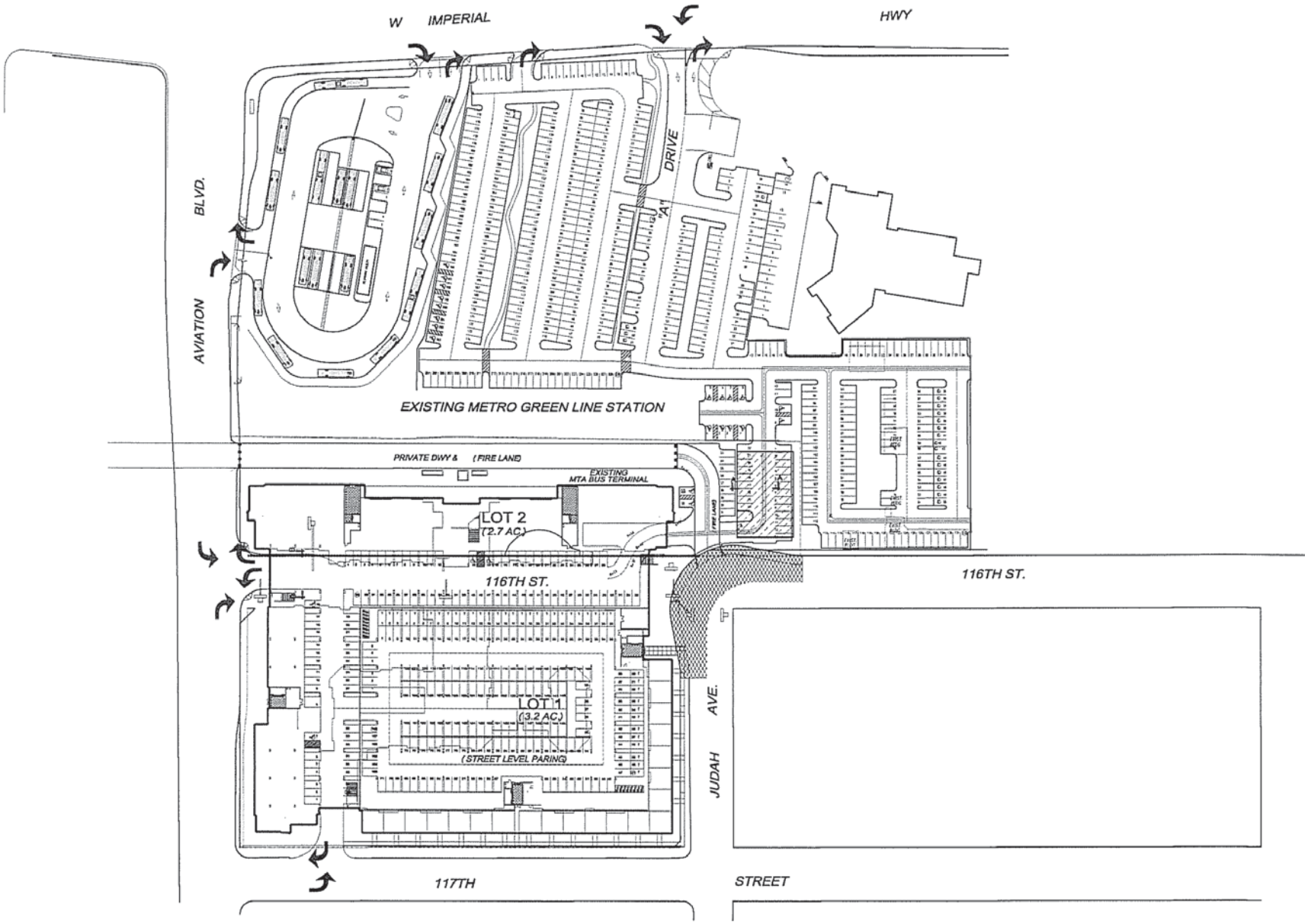

Source: Linscott, Law & Greenspan Engineers 2009

Proposed On-site and Off-site Access and Circulation

Exhibit 5.1-12

Aviation Station Project

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projects) in the area. With this information, the Project's potential impact can be evaluated within the context of the cumulative impact of all ongoing development. The related projects research was conducted in March and April 2009 based on information on file at the County of Los Angeles, the City of Los Angeles, the City of El Segundo, and the City of Hawthorne planning departments. The locations of related projects, which was used for the cumulative impact analyses throughout this EIR, is depicted in Exhibit 2-16 in Section 2.0, Environmental Setting and Project Description.

Traffic volumes expected to be generated by the related projects were calculated using rates provided in the ITE Trip Generation manual. The related projects' respective traffic generation rates for the AM and PM peak hours, as well as on a daily basis for a typical weekday, are also summarized in Table 2-5 in Section 2.0, Environmental Setting and Project Description.

Ambient Traffic Growth Factor

In order to account for unknown related projects not included in this analysis, the existing traffic volumes were increased at an annual rate of 0.70 percent (0.70%) per year to the year 2014 (i.e., the anticipated year of Project buildout). The ambient growth factor was based on general traffic growth factors provided in the *2004 Congestion Management Program for Los Angeles County* (the "CMP Manual") and determined in consultation with LACDPW Traffic and Lighting Division staff.

Based on a review of the general traffic growth factors provided in the CMP Manual for the South Bay area, the existing traffic volumes are expected to increase at an annual rate of approximately 0.65 percent (0.65%) per year between 2005 and 2015. Thus, application of the 0.70 percent annual growth factor allows for a conservative, worst case, forecast of future traffic volumes in the area. Further, the CMP manual's traffic growth rate is intended to anticipate future traffic generated by development projects in the Project vicinity. Thus, the inclusion in this traffic analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor based on CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

<u>County of Los Angeles Intersection Impact Analysis</u>

The traffic impact analysis prepared for the seven study intersections with total or shared jurisdiction in the County of Los Angeles using the ICU methodology and application of the County of Los Angeles traffic impact criteria is summarized in Table 5.1-4. The ICU worksheets are contained in the technical appendix of the Traffic Study (EIR Appendix H).

TABLE 5.1-4
SUMMARY OF V/C RATIOS AND LOS FOR COUNTY OF LOS ANGELES STUDY INTERSECTIONS

Intersection	Peak Hour	[1] Year 2009 Existing		[2] Year 2014 w/Ambient Growth		[3] Year 2014 w/Proposed Project				[4] Year 2014 w/Related Projects			
		V/C	LOS	V/C	LOS	V/C	LOS	Change V/C[a] [3]-[2]	Significant Impact?	V/C	LOS	Change V/C[b] [4]-[2]	Significant Impact?
2. Aviation Boulevard/ 116th Street (Site Driveway)	AM	0.374	A	0.387	A	0.411	A	0.024	NO	0.418	A	0.031	NO
	PM	0.417	A	0.432	A	0.417	A	-0.015	NO	0.424	A	-0.008	NO
3. Aviation Boulevard/ 117th Street	AM	0.426	A	0.437	A	0.451	A	0.014	NO	0.458	A	0.021	NO
	PM	0.496	A	0.510	A	0.504	A	-0.006	NO	0.511	A	0.001	NO
4. Aviation Boulevard/ 120th Street	AM	0.608	B	0.626	B	0.640	B	0.014	NO	0.647	B	0.021	NO
	PM	0.619	B	0.637	B	0.647	B	0.010	NO	0.652	B	0.015	NO
6. La Cienega Boulevard/ I-405 Southbound Ramps	AM	0.449	A	0.464	A	0.470	A	0.006	NO	0.495	A	0.031	NO
	PM	0.391	A	0.405	A	0.408	A	0.003	NO	0.417	A	0.012	NO
7. La Cienega Boulevard/ West Imperial Highway	AM	0.470	A	0.487	A	0.492	A	0.005	NO	0.509	A	0.022	NO
	PM	0.652	B	0.675	B	0.676	B	0.001	NO	0.621	B	-0.054	NO
8. La Cienega Boulevard/ 120th Street	AM	0.507	A	0.521	A	0.521	A	0.000	NO	0.526	A	0.005	NO
	PM	0.713	C	0.735	C	0.737	C	0.002	NO	0.746	C	0.011	NO
9. La Cienega Boulevard/ I-405 Southbound Ramps	AM	0.528	A	0.542	A	0.547	A	0.005	NO	0.559	A	0.017	NO
	PM	0.740	C	0.762	C	0.766	C	0.004	NO	0.775	C	0.013	NO

V/C = volume to capacity ratio; LOS = level of service
[a] Change V/C for 2014 w/Proposed Project is calculated by subtracting the Year 2014 w/Ambient Growth V/C from the Year 2014 w/Proposed Project V/C.
[b] Change V/C 2014 w/Related projects is calculated by subtracting the Year 2014 w/Related projects V/C from the Year 2014 w/Ambient Growth V/C.
Source: LLG 2009

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Year 2009 (Existing) Conditions

As indicated in "Year 2009 Existing", column [1], of Table 5.1-4, the seven County of Los Angeles study intersections are presently operating at LOS C or better during the weekday AM and PM peak hours under existing conditions. The existing traffic volumes at the study intersections during the AM and PM peak hours are illustrated in Exhibits 5.1-3 and 5.1-4, respectively.

Year 2014 with Ambient Growth Conditions

The growth in ambient traffic, at a rate of 0.70 percent per year through year 2014, incrementally increases the V/C ratios at all study intersections. As shown in the "Year 2014 w/Ambient Growth", column [2], of Table 5.1-4, all seven County of Los Angeles study intersections are expected to continue operating at LOS C or better during the AM and PM peak hours with the addition of ambient traffic growth.

Also, for the intersections of Aviation Boulevard/West 116th Street and Aviation Boulevard/ West 117th Street, there would be a net reduction in the PM peak hour traffic volumes and associated volume to capacity ratios (V/C). As previously noted, in conjunction with the Project, the existing Metro bus terminal (currently located on Lot 2 south of the Aviation/LAX Metro Green Line Station) would be relocated to the site of the existing Caltrans Park-and-Ride Lot (located north of the Aviation/LAX Metro Green Line Station). Vehicular access to the existing Metro bus terminal is currently provided via the signalized intersection of Aviation Boulevard and West 116th Street, which accommodates all traffic movements (i.e., left-turn and right-turn ingress and egress). As part of the Project, access to the new Metro bus terminal would be provided via two driveways: (1) on the east side of Aviation Boulevard south of Imperial Highway and (2) on the south side of Imperial Highway east of Aviation Boulevard. Vehicular movements at both proposed driveways serving the relocated Metro bus terminal would be limited to right-turns in and right-turns out, due primarily to their proximity to the Aviation Boulevard/Imperial Highway intersection.

Thus, certain traffic movements currently accommodated at the existing access serving the Metro bus terminal (i.e., left-turns in from southbound Aviation Boulevard and left-turns out to southbound Aviation Boulevard) would not be directly provided under the access scheme for the relocated Metro bus terminal. Instead, vehicles entering and exiting the relocated bus terminal with origins and destinations via southbound Aviation Boulevard will require a slightly altered travel pattern. For example, inbound vehicles from southbound Aviation Boulevard would be required to turn left onto West Imperial Highway and then turn right into the new driveway on West Imperial Highway serving the relocated bus terminal.

Outbound vehicles would exit onto eastbound West Imperial Highway and then turn right onto southbound La Cienega Boulevard to reach southerly destinations. These shifts in existing traffic patterns related the proposed changes to the Metro bus terminal circulation have the effect of causing reduced traffic volumes on some roadway segments (i.e., portions of Aviation Boulevard) while increases to others (i.e., portions of West Imperial Highway). These revised travel patterns have been considered and evaluated in the traffic analysis (e.g., see Appendix C in the Traffic Study for specific changes to driveway turning movement volumes related to the Metro bus terminal and the Caltrans Park-and-Ride Lot due to the Project).

Future (Year 2014) with Project Conditions

The Future with Project conditions scenario includes: (1) the reduction in trips due to removal of the existing uses on the Project site; (2) the redistribution of existing trips associated with the

Metro Bus and Park-and-Ride facilities, which would be modified as a result of the Project; and (3) the potential new trips associated with development of the Project.

As shown in "Year 2014 w/Proposed Project", column [3], of Table 5.1-4, application of the County's threshold criteria to the "With Proposed Project" scenario indicates that the Project would not result in any significant impacts at the seven County of Los Angeles study intersections. Therefore, no mitigation measures are required or recommended.

Future (2014) Conditions with Related Projects (Cumulative) Conditions

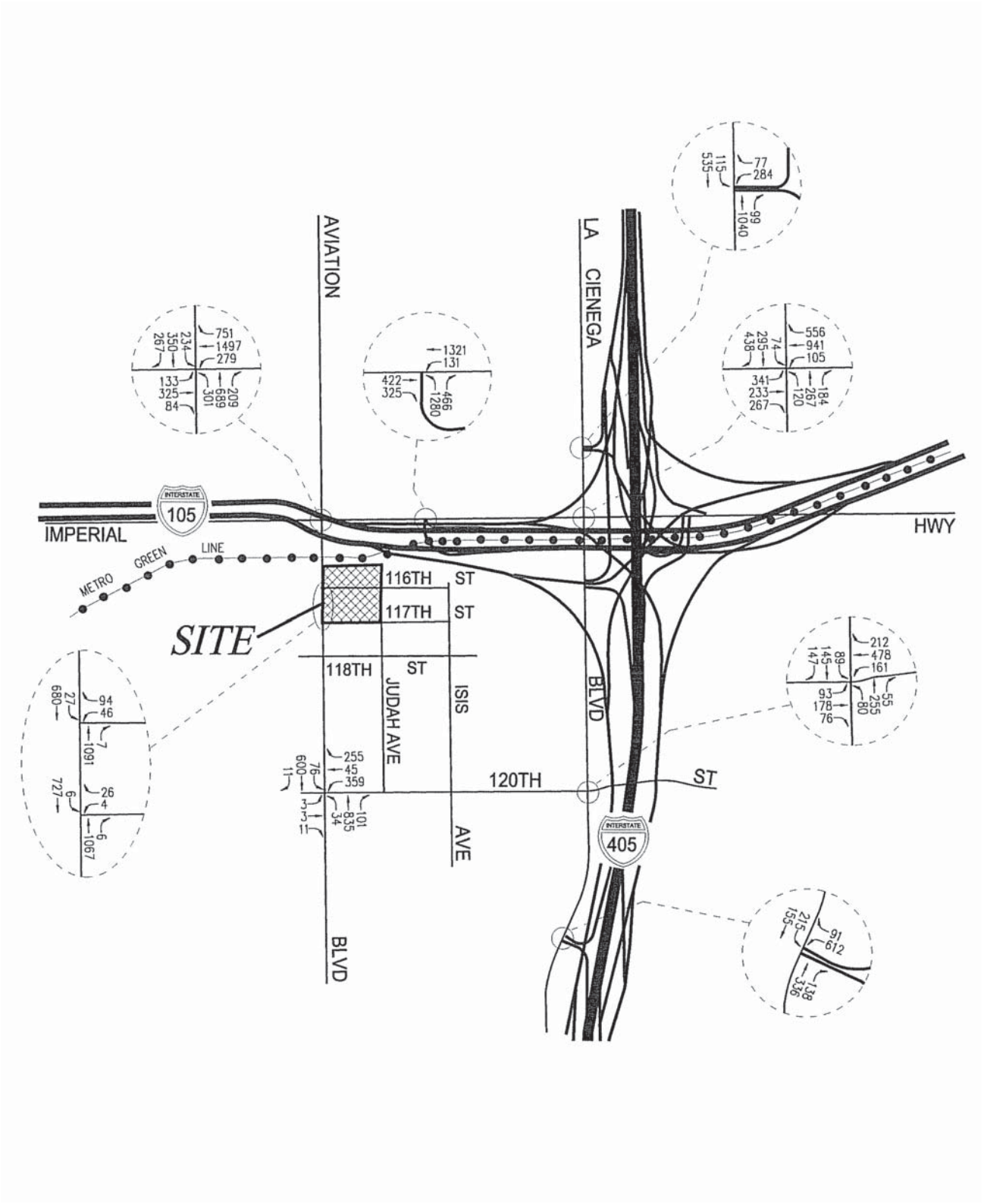
The V/C ratios at the study intersections are incrementally increased with the addition of traffic generated by the related projects. As shown in "Year 2014 w/Related projects", column [4] of Table 5.1-4, application of the County's threshold criteria to the "With Related Projects" scenario indicates that the cumulative developments in the Project vicinity would not create cumulative impacts at any of the seven County of Los Angeles study intersections. The future cumulative (i.e., existing, ambient growth, Project, and related projects) traffic volumes at all nine study intersections during the AM and PM peak hours are presented in Exhibits 5.1-13 and 5.1-14, respectively.

City of Los Angeles Intersection Impact Analysis

The traffic impact analysis prepared for the four study intersections with total or shared jurisdiction in the City of Los Angeles using the ICU methodology, using the CMA methodology and application of the City of Los Angeles traffic impact criteria is summarized in Table 5.1-5. The CMA worksheets are provided in the technical appendix of the Traffic Study (EIR Appendix H).

Year 2009 (Existing) Conditions

As indicated in "Year 2009 Existing", column [1] of Table 5.1-5, all City of Los Angeles study intersections are presently operating at LOS D or better during the AM and PM peak hours under existing conditions.



Source: Linscott, Law & Greenspan Engineers 2009

Future Cumulative Traffic Volumes - AM Peak Hour

Exhibit 5.1-13

Aviation Station Project

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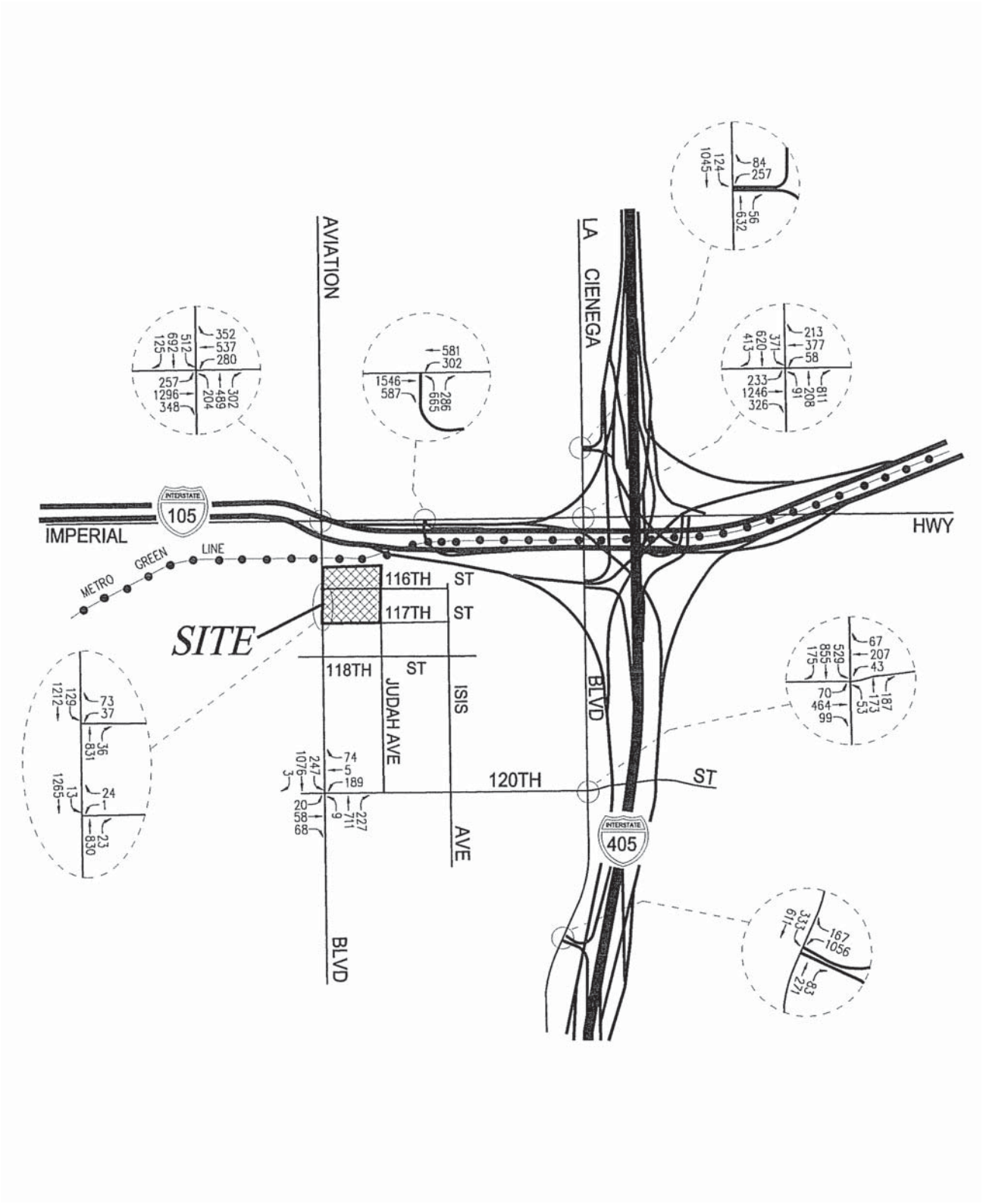

Source: Linscott, Law & Greenspan Engineers 2009

Future Cumulative Traffic Volumes - PM Peak Hour

Exhibit 5.1-14

Aviation Station Project

N W E S

BonTerra CONSULTING

(Rev 10/16/09 CJS) Projects/Cox/J002/Graphics/EIR/Ex5.1-14_trffc_vlms_total_prop_PM.pdf

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TABLE 5.1-5
SUMMARY OF V/C RATIOS AND LOS FOR CITY OF LOS ANGELES STUDY INTERSECTIONS

Intersection	Peak Hour	[1] Year 2009 Existing		[2] Year 2014 w/ Ambient Growth		[3] Year 2014 w/Related Projects		[4] Year 2014 w/Proposed Project			
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	Change V/C[a] [4]-[3]	Significant Impact?
1. Aviation Boulevard / West Imperial Highway	AM	0.712	C	0.740	C	0.744	C	0.751	C	0.007	NO
	PM	0.719	C	0.747	C	0.760	C	0.793	C	0.033	NO
5. I-105 Ramps / West Imperial Highway	AM	0.847	D	0.880	D	0.889	D	0.892	D	0.003	NO
	PM	0.619	B	0.644	B	0.653	B	0.662	B	0.009	NO
6. La Cienega Boulevard / 1-405 Southbound Ramps	AM	0.403	A	0.420	A	0.449	A	0.455	A	0.006	NO
	PM	0.338	A	0.354	A	0.363	A	0.367	A	0.004	NO
7. La Cienega Boulevard / West Imperial Highway	AM	0.430	A	0.448	A	0.462	A	0.468	A	0.006	NO
	PM	0.731	C	0.760	C	0.774	C	0.775	C	0.001	NO

V/C = volume to capacity ratio; LOS = level of service
[a] Change V/C is calculated by subtracting the Year 2014 w/Proposed Projects V/C from the Year 2014 w/Related Projects V/C.
Source: LLG 2009

Year 2014 (Future) With Ambient Growth Conditions

As shown in "Year 2014 w/Ambient Growth", column [2] of Table 5.1-5, all four City of Los Angeles study intersections are expected to continue to operate at LOS D or better during the AM and PM peak hours with the addition of ambient growth traffic through the year 2014.

Year 2014 (Future) Conditions With Related Projects

The V/C ratios at the study intersections are incrementally increased with the addition of traffic generated by the related projects. As presented in column [3] of Table 5.1-5, all of the City of Los Angeles study intersections are expected to continue operating at LOS D or better during the AM and PM peak hours with the addition of growth in ambient traffic and the traffic due to the related projects.

Year 2014 (Future) with Project Conditions

The Future with Project scenario includes: (1) the reduction in trips due to removal of the existing uses on the Project site; (2) the redistribution of existing trips associated with the Metro Bus and Park-and-Ride facilities, which would be modified as a result of the Project; and (3) the potential new trips associated with development of the Project.

As shown in "Year 2014 w/Proposed Project", column [4] of Table 5.1-5, application of the City of Los Angeles' threshold criteria to the "With Proposed Project" scenario indicates that the

Project would not create a significant impact at any of the City of Los Angeles study intersections. Therefore, no mitigation measures are required or recommended.

Queuing Analysis

Vehicle queuing analysis was prepared for the future year 2014 with Project conditions at the West 117th Street Project driveway and at the Aviation Boulevard/117th Street intersection during the AM and PM peak hours. The Highway Capacity Software (HCS) provides the 95th percentile vehicle queue length for each lane group, which represents the maximum length of queue with 95th percentile traffic volumes. The vehicle queue analysis for the West 117th Street Project driveway during the AM and PM peak hours shows vehicle queue lengths of 0.01 vehicles and 0.03 vehicles, respectively, for the eastbound lane group (i.e., eastbound approach on West 117th Street at the Project driveway). The vehicle queue analysis for the Aviation Boulevard/ West 117th Street intersection during the AM and PM peak hours shows vehicle queue lengths of 0.25 vehicles and 0.14 vehicles, respectively, for the westbound lane group (i.e., westbound approach on West 117th Street at Aviation Boulevard).

The available storage length on West 117th Street (i.e., 80 feet on West 117th Street between the Project driveway and Aviation Boulevard) is deemed to be adequate in terms of accommodating the forecast peak vehicle queues. Vehicles waiting to turn left into the Project driveway from eastbound West 117th Street will not queue into the Aviation Boulevard intersection. Similarly, vehicles on westbound West 117th Street waiting to turn onto Aviation Boulevard will not block vehicles attempting to enter and exit the Project driveway.

A queuing analysis has also been prepared for the future year 2014 with Project conditions using the Synchro Studio 7 software to measure the potential effects related to the installation of the proposed traffic signal at the existing Caltrans driveway on West Imperial Highway, focusing on the key eastbound through lane group at the intersection. The Synchro Studio 7 software provides the 95th percentile vehicle queue length for each lane group, which represents the maximum length of queue with 95th percentile traffic volumes. The vehicle queue analysis for Future (2014) With Project Conditions at the “A” Drive/ West Imperial Highway intersection during the AM and PM peak hours will result in vehicle queue lengths of 7 feet and 54 feet, respectively, for the eastbound West Imperial Highway through lane group.

Based on a review of the queuing analyses and the available storage lengths for the eastbound through lanes, extensive vehicle queuing on West Imperial Highway would not occur with installation of the subject traffic signal. Thus, the installation of a traffic signal on West Imperial Highway at the existing Caltrans driveway (i.e., “A” Drive), as described in MM 5.1-2, would not adversely affect traffic flow on West Imperial Highway.

Freeway Segment Analysis

The impact of the Project on the regional mainline freeway system has been determined based on the existing peak hour traffic volumes data published in Caltrans’ *2007 Traffic Volumes on California State Highways*. The year 2007 freeway mainline traffic volumes were increased by an annual average growth rate of 0.70 percent per year to reflect year 2009 (Existing) Conditions and Future (2014) Conditions with Related Projects. The selected freeway segment lane configurations used in the analysis are based on information obtained from field reviews. The freeway impact analysis is based on the number of mainline freeway lanes only, including HOV lanes. Along some freeway segments, auxiliary lanes are provided to facilitate entering and exiting freeway traffic to and from the freeway mainline. Although some of the freeway auxiliary lanes accommodate through traffic, they have not been considered in this analysis in order to provide a conservative assessment of freeway impacts due to the Project (Appendix H).

The freeway lane capacity has been assumed to be 2,000 vehicles per lane per hour for mainline freeway lanes and 1,000 vehicles per lane per hour for HOV lanes. It should be noted that the Transportation Research Board's *Highway Capacity Manual* (2000) indicates that through recent research a capacity of 2,200 vehicles per hour for 4-lane freeways and 2,300 vehicles per lane per hour for 9 or more lane freeways can be expected (Appendix H).

The Caltrans traffic volume data is presented in several ways. The total daily and peak hour traffic volumes for various freeway segments statewide are noted (i.e., non-directional). In addition, factors are included in the Caltrans document which indicates the direction and magnitude of the peak-hour traffic volumes. These factors are utilized to convert the Annual Average Daily Traffic (AADT) volumes to directional peak hour traffic volumes for each freeway segment in the vicinity of the Project site.

Freeway Segment Levels of Service

Demand/capacity (D/C) ratios and LOS relationships are defined in the 2004 CMP and presented in Table 5.1-6.

TABLE 5.1-6
CALTRANS FREEWAY SEGMENT LEVEL OF SERVICE DESIGNATIONS

D/C	LOS	D/C	LOS
0.00–0.35	A	> 1.00–1.25	F(0)
> 0.35–0.54	B	> 1.25–1.35	F(1)
> 0.54–0.77	C	> 1.35–1.45	F(2)
> 0.77–0.93	D	> 1.45	F(3)
> 0.93–1.00	E	–	–

D/C: design/capacity ratio; LOS: level of service
Source: LLG 2009

Freeway Segment Impact Analysis

For the Project analysis, the following freeway segments were evaluated:

1. I-405 Freeway, north of Century Boulevard;
2. I-405 Freeway, south of El Segundo Boulevard;
3. I-105 Freeway, east of I-405 Freeway;

The results of the freeway segment impact analysis associated with the AM and PM peak hours for the Project are summarized in Table 5.1-7.

TABLE 5.1-7
FREEWAY SEGMENT IMPACT ANALYSIS

Freeway Segment	Peak Hour	Dir.	Existing Peak Hour Capacity	2009 Existing			2014 Future Pre-Project			Project Trips	2014 Future w/ Proposed Project			D/C Increase w/ Project	Sig. Impact?
				Demand	D/C	LOS	Demand	D/C	LOS		Demand	D/C	LOS		
I-405 north of Century Boulevard	AM	NB	10,000	11,290	1.13	F(0)	11,690	1.169	F(0)	14	11,704	1.170	F(0)	0.001	NO
		SB	10,000	7,870	0.79	D	8,150	0.815	D	3	8,153	0.815	D	0.000	NO
	PM	NB	10,000	10,080	1.01	F(0)	10,430	1.043	F(0)	3	10,433	1.043	F(0)	0.000	NO
		SB	10,000	11,330	1.13	F(0)	11,730	1.173	F(0)	5	11,735	1.174	F(0)	0.001	NO
I-405 south of El Segundo Boulevard	AM	NB	10,000	11,040	1.10	F(0)	11,430	1.143	F(0)	3	11,433	1.143	F(0)	0.000	NO
		SB	10,000	7,690	0.77	C	7,960	0.796	D	15	7,975	0.798	D	0.002	NO
	PM	NB	10,000	9,860	0.99	E	10,210	1.021	F(0)	11	10,221	1.022	F(0)	0.001	NO
		SB	10,000	11,070	1.11	F(0)	11,460	1.146	F(0)	7	11,467	1.147	F(0)	0.001	NO
I-105 east of I-405	AM	EB	10,000	6,150	0.62	C	6,370	0.637	C	6	6,376	0.638	C	0.001	NO
		WB	10,000	9,070	0.91	D	9,390	0.939	E	29	9,419	0.942	E	0.003	NO
	PM	EB	10,000	7,200	0.72	C	7,450	0.745	C	16	7,466	0.747	C	0.002	NO
		WB	10,000	6,070	0.61	C	6,280	0.628	C	11	6,291	0.629	C	0.001	NO

Dir. = direction; D/C = demand to capacity ratio; LOS = level of service; NB: northbound; SB: southbound; EB: eastbound; WB: westbound.
Source: LLG 2009

As presented in Table 5.1-7, the maximum increase in the freeway mainline traffic during the AM peak hour is estimated to be 15 vehicles on a portion of I-405 Freeway and the maximum increase during the PM peak hour in the freeway mainline traffic is estimated to be 11 vehicles on a portion of I-405 Freeway. Similarly, the maximum increase in the freeway mainline traffic during the AM peak hour is estimated to be 29 vehicles on a portion of the I-105 Freeway and the maximum increase during the PM peak hour in the freeway mainline traffic is estimated to be 16 vehicles on a portion of the I-105 Freeway. These increases in overall mainline freeway traffic volumes correspond to a maximum D/C increase of 0.003, or less than three-tenths of one percent of the total capacity for the segments included in the analysis. Increases of this magnitude are likely not to be discernible to typical motorists. Thus, no significant Project-related mainline freeway impacts are anticipated along the I-405 or I-105 Freeways and no mitigation is required.

Congestion Management Program Traffic Impact Assessment

The CMP is a State-mandated program that was enacted by the State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system. As required by, and in accordance with, the 2004 CMP, a traffic impact assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The 2004 CMP criterion for determining a significant impact is as follows:

> A significant transportation impact occurs when the Project increases traffic demand on a CMP facility by 2% of capacity (V/C $\geq$ 0.02), causing or worsening LOS F (V/C > 1.00).

The CMP impact criterion applies for analysis of both freeway and intersection monitoring locations. These analyses are discussed below.

Freeways

The following CMP freeway monitoring station in the Project vicinity has been identified:

- **Station:** No. 1041; **Segment:** I-105 Freeway east of Sepulveda Boulevard

The CMP TIA guidelines require that freeway monitoring locations must be examined if the Project will add 150 or more trips (in either direction) during either the weekday AM or PM peak hours. The Project would not add 150 or more trips (in either direction) during either the weekday AM or PM peak hours to the CMP freeway monitoring locations. Therefore, no further review of freeway monitoring locations that are part of the CMP highway system is required and there would be no impact.

Intersections

The following CMP intersection monitoring station in the Project vicinity has been identified:

- **Station:** No. 20; **Segment:** Sepulveda Boulevard/El Segundo Boulevard intersection

The CMP TIA guidelines require that intersection monitoring locations must be examined if the Project will add 50 or more trips during either the weekday AM or PM peak hours. The Project would not add 50 or more trips during the AM or PM peak hours at the CMP monitoring intersections. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

Transit Impact Review

As required by the 2004 CMP, a review has been made of the Project's potential impacts on transit service. The Project trip generation was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 20 percent of the total person trips) to estimate transit trip generation.

Pursuant to the CMP guidelines, the Project is forecasted to generate demand for 50 transit trips during the weekday AM peak hour ($180 \times 1.4 \times 0.20 = 50$).[1] During the weekday PM peak hour, the Project is anticipated to generate demand for 76 transit trips ($272 \times 1.4 \times 0.20 = 76$).[2] Over a 24-hour period, the Project is forecasted to generate demand for 840 daily transit trips ($3{,}000 \times 1.4 \times 0.20 = 840$).[3]

A total of 14 bus transit lines and routes are provided adjacent to or in close proximity to the Project site, with 11 of these transit lines and routes directly serving the site along one or more of the Project frontages. A total of seven different bus transit providers provide service within the study area. These 14 transit lines provide service for an average (i.e., an average of the directional number of buses during the peak hours) of approximately 76 buses during the AM peak hour and roughly 73 buses during the PM peak hour. Therefore, based on the above calculated AM and PM peak hour transit trips, this would correspond to less than one transit rider per bus. Therefore, the existing transit service in the Project area would adequately accommodate the Project-generated transit trips. Thus, given the anticipated number of new transit trips per bus, no impacts on existing or future transit services in the Project area would occur as a result of the Project and no mitigation would be required.

Emergency Access Assessment

The Project is subject to County of Los Angeles Fire Department review with regard to adequate design for emergency vehicle access. The Project includes an emergency access Fire Lane adjacent to the Metro Green Line and would be designed in compliance with all applicable *California Building Code* requirements. Impacts associated with emergency access would be less than significant.

Threshold 5.1b: Will the project result in any hazardous traffic conditions?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

With incorporation of MM 5.1-2, which includes the implementation of a traffic light at the intersection of West Imperial Highway and the California Department of Transportation (Caltrans) driveway, and MM 5.1-1, which requires compliance with MUTCD, all traffic-related impacts would be less than significant. The Traffic Study was prepared using the methodologies of the respective jurisdictions where the study intersections are located. Specifically, the ICU methodology was used to determine Volume-to-Capacity ratios and corresponding Levels of Service at the seven study intersections located wholly or partially in the County of Los Angeles, including three study intersections that are also located in the City of El Segundo. The Critical Movement Analysis (CMA) method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service at the four study intersections located wholly or partially in the City of Los Angeles, including one study intersection that is also in the City of El Segundo. The

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1 Table 5.1-3 above reflects 180 vehicle trips during the weekday AM peak hour.
2 Table 5.1-3 above reflects 272 vehicle trips during the weekday PM peak hour.
3 Table 5.1-3 above reflects 3,000 total daily vehicle trips for Project.

analysis determined that the Project would not result in any short-term or long-term hazardous traffic conditions, and impacts would be less than significant.

Threshold 5.1c: Will the project result in parking problems with a subsequent impact on traffic conditions?

On-Site Impacts

Parking for the Project would provide a total of 797 parking spaces through construction of one level of subterranean parking that would underlie the majority of Lot 1 and Lot 2, and through Street Level parking. The subterranean parking level would be designated for residential parking only (154 spaces for apartment residents and 349 for condominium residents). Street-level parking would be available for residents (6 spaces for apartment residents and 72 for condominium residents), guests of the residents (28 spaces for apartment guests and 70 spaces for condominium guests), for the leasing office (12 spaces) and for commercial users (106 spaces). Exhibit 2-6, Parking Distribution, in Section 2.0 Environmental Setting and Project Description, depicts the distribution of public and private (residential) parking on the basement and Street Levels.

As described in MM 5.1-3, the location and design of parking provided for the Project shall comply with the ADA. A parking permit would be required pursuant to *Los Angeles County Code* Section 22.56.990(C) to allow for the sharing of parking across Lot 1 and Lot 2.

The general parking provisions in the County Code do not apply to mixed use developments in the Mixed Use Development zone. Instead, the hearing officer is authorized to specify parking standards for the Project in an amount that is adequate to prevent traffic congestion and excessive on-street parking. However, the following standards must be met: (1) no less than 1 parking space per dwelling unit or (2) no less than 50 percent of the required number of parking spaces for commercial uses specified in the vehicle parking space regulations of the County Zoning Ordinance. The Project would meet the standards above, as summarized in Table 5.1-8.

TABLE 5.1-8
PROPOSED PROJECT PARKING SUMMARY

Land Use		Parking Ratio	Parking Spaces Provided
Residential	1 BR (194 du)	1.25 per du	243
	2 & 3 BR (199 du)	2.25 per du	448
		Residential Parking Subtotal	*691*
Commercial (26,500 sf)		1 per 250 sf	106
		Total Parking for On-Site Land Uses	***797***
Caltrans Park-and-Ride Lot (Off Site)		N/A	400

sf = square feet; du = dwelling units
Source: BonTerra Consulting 2009

Further details on the location and provision of parking by land use are shown in Exhibit 2-6,Parking Distribution. The commercial, residential, and off-site parking associated with the Project is discussed further below.

Residential Parking

Residential parking for the Project will be provided in one subterranean and one street-level parking lot. The proposed residential parking is consistent with the parking requirements specified for non-mixed-use and non-transit-oriented residential projects in the County Zoning Ordinance, with one exception. Where the general vehicle parking space regulations require 1.75 parking spaces for every one-bedroom unit, the Project would provide 1.25 parking spaces. Two- and three-bedroom units would be provided with 2.25 parking spaces, consistent with the County Zoning Ordinance.

The Project therefore proposes to provide a total of 691 residential parking spaces, which is a 12.3 percent reduction from the general vehicle parking space requirements of the County Zoning Ordinance for the Project (788 residential parking spaces).[4] Residential parking spaces may be assigned to a residential unit or provided as a separate amenity with a potential market for surplus parking spaces.

However, because the Project is a transit-oriented development (TOD), there are opportunities to reduce the number of parking spaces below conventional parking requirements for commercial and residential land uses. In 2002, Caltrans and the California Business, Transportation and Housing Agency prepared a report on the parking challenges and opportunities for TOD projects (Statewide TOD Study; Caltrans et. al. 2002), which found the following:

- Residents of TODs tend to be young professionals, singles, retirees, childless households, and immigrants.

- Residents of TODs typically work in downtown areas and other locations that are well served by transit.

- A study on housing near Bay Area Rapid Transit stations found that TOD residences averaged 1.66 people and 1.26 vehicles per household, as compared to 2.4 people and 1.64 vehicles for all households in the same census tract.

- TODs offer the potential to reduce parking per household (by 23 percent) largely by virtue of attracting different types of households.

- A study of households near transit stations in Vancouver, Canada found that TOD households own 10 percent–29 percent fewer cars than households that are further away from transit. Based on these findings, the City of Vancouver has since allowed parking reductions ranging from 14 percent to 28 percent for new projects in other multi-family zones near major transit stations.

- Parking reductions of approximately 20 percent are most feasible for multi-family, rental TOD projects with smaller households (e.g., young couples, singles, and empty nesters).

The Project is a TOD, developing residential and commercial land uses adjacent to a light rail station and major bus terminal. Therefore, it is expected that fewer project residents would be car owners than residents of non-TOD projects. The Project proposes a 12.3 percent parking reduction from the general vehicle space requirements specified in the County Zoning Ordinance for a conventional (i.e., non-TOD) residential project. As stated above, TOD projects

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[4] Based on 1.75 spaces for 194 1BR units (340 spaces) and 2.25 spaces for 199 2BR & 3BR units (448 spaces).

have been shown to reduce vehicle ownership and associated parking demand per household from 14 percent to 28 percent. Therefore, the Project's reduction in parking of 12.3 percent is less than the lowest reduction in parking determined to be necessary to adequately serve a TOD project in any of the studies cited in the Statewide TOD Study. The Project complies with the parking requirements of the applicable MXD-DP zone. The Project provides at least 1 parking space for each dwelling unit and more than 50 percent of the required number of parking spaces for commercial uses specified in the vehicle parking space regulations of the County Zoning Ordinance. The amount of parking provided would be adequate to prevent traffic congestion. A Parking Permit is required pursuant to County Code Section 22.56.990(C) to allow for the sharing of parking across Lot 1 and Lot 2. Also, as demonstrated in the Traffic Study, the Project results in less than significant traffic impacts.

Finally, although the Project would not result in excessive on-street parking and no significant impacts would result, because it is a TOD project and since parking in excess of the parking reductions cited as feasible in the Statewide TOD Study would be provided (as discussed above), to provide further assurances that Project's residents would not park on adjacent streets, MM 5.1-4 shall be implemented; this mitigation measure requires that the Project Applicant/Developer coordinate with the LACDPW regarding a possible restricted parking program for West 117th Street and Judah Avenue, which currently have unrestricted parking, to reduce potential traffic conflicts for the adjacent single-family residential neighborhood. Whether or not restricted parking is implemented and the type of restriction used (e.g., meters, permits, signs) would be determined to the mutual satisfaction of the Project Applicant/Developer, the County, and the adjacent residents.

In summary, the Project would provide adequate residential parking and there would be a less than significant impact. Although a significant parking impact was not identified, MM 5.5-4 would be implemented to reduce potential on-street parking conflicts for the adjacent neighborhood.

Commercial Parking

The Project would provide 1 off-street parking space for every 250 square feet of proposed commercial use, or 106 parking spaces. The proposed provision of commercial parking is consistent with the general commercial parking requirements specified in the County Zoning Ordinance and exceeds the requirements of the applicable MXD zone. As such, the Project would provide adequate commercial parking and there would be a less than significant impact.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts The Project would involve the relocation of the currently on-site Metro bus terminal onto the Caltrans Off-Site Project Area which would, in turn, require the reconfiguration of the existing Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility parking lot. The Park-and-Ride Lot currently contains 400 spaces; after the reconfiguration, a total of 400 spaces would continue to be available, including 10 Americans with Disabilities Act (ADA)–compliant spaces. Therefore, the total number of parking spaces available to the users of the Park-and-Ride Lot would be maintained with implementation of the Project. Additionally, the relocated Metro bus terminal would include five spaces reserved for Metro employee parking, which would be accessed separately from the Park-and-Ride Lot. The reconfigured parking for the Caltrans Maintenance Facility would continue to provide a total of 50 spaces for Caltrans employees. Also, as described in MM 5.1-1, the Project Applicant/Developer shall obtain an encroachment permit from Caltrans for construction activities within the Caltrans Off-Site Project Area, thereby ensuring less than significant construction-phase parking impacts.

Threshold 5.1f: Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus, turnouts, bicycle rack)?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The Project includes the on-site demolition and off-site reconstruction of the Metro bus transfer area and terminal within the Caltrans Off-Site Project Area to the north of the Project site. The relocation of the existing Metro bus terminal has the potential to disrupt existing bus operations if the newly constructed Metro bus terminal is not fully operational. Although standard Metro procedures provide uninterrupted bus services, the inclusion of MM 5.1-5 requires that the existing on-site Metro bus terminal be maintained until the new off-site Metro bus terminal is fully operational, thereby eliminating a potential impact to Metro bus transit services. Compliance with MM 5.1-5 would ensure that impacts would be less than significant.

As discussed fully in Section 6.2, Land Use, the Project supports and is consistent with regional (i.e., SCAG) and County policies regarding transportation, including alternative transportation. Therefore, Project implementation would not conflict with adopted policies, plans, or programs that support alternative transportation and impacts would be less than significant.

5.1.6 CUMULATIVE IMPACTS

Construction traffic from the Project in combination with construction traffic from related projects could result in cumulative considerable impacts. As described in MM 3.4-3, the Project's construction traffic would be limited to Aviation Boulevard and West Imperial Highway/Interstate 105, where feasible, and would not be allowed on the residential portion of West 117th Street, Judah Avenue, or any residential street within the Del Aire community. There are no related projects in the immediate vicinity of the Project site (please refer to Exhibit 2.6-1). Also, as discussed above, the peak construction traffic during export of excavated soil of approximately 85 truck trips (round-trip) per day is far below the Project's estimated net trip generation 1,114 daily trips. As this level of traffic was determined to be less than significant, temporary construction traffic would also be less than significant. Therefore, because there are no related projects in the vicinity and direct traffic impacts would be less than significant, cumulative construction traffic impacts would be less than significant.

The Traffic Study contains a cumulative impact analysis of long-term traffic because the Project's estimated trip generation is considered in the context of both ambient growth and the implementation of known related projects in the Project vicinity. As discussed above, the Traffic Study determined that the Project would result in less than significant impacts related to study intersections, queuing, mainline freeway segments, and CMP monitoring locations.

Since the Project would have a less than significant impact related to parking, both on site and off site, the Project would have a less than significant cumulative impact. Visitors to related projects in the area considered in the cumulative analysis are not located immediately adjacent to the Project site, nor are they otherwise close enough that parking demand associated with a related project would spill over to the Project, and vice versa. There would be no cumulative parking demand associated with the Project.

Since the Project would have a less than significant impact on the Metro bus facilities with implementation of MM 5.1-5 and is consistent with regional and County policies related to transportation, the Project would have a less than significant cumulative impact related to alternative transportation policies.

Construction activities associated with the Project would include demolition of existing structures, grading of the Project site (including excavation for subterranean parking and building substructure, storm water infiltration system, and Dominguez Channel box structure), and construction of buildings and infrastructure. Construction activities are anticipated to occur

for approximately 18 months and would be completed at the end of 2012. During construction, there would be a temporary increase in truck trips in the Project area. Construction-related traffic would use the existing regional and local road network, specifically, nearby designated truck routes (i.e., Aviation Boulevard and West Imperial Highway/Interstate 105), where feasible, and no construction traffic or queuing shall be allowed on the residential portion of West 117th Street, Judah Avenue, or any residential streets within the Del Aire community (MM 3.4-3).

The largest amount of truck traffic would be associated with excavation for subterranean parking and associated earth material exported from the site. It is estimated that approximately 3,250 round trip truck trips would be required for soil export over the course of approximately 6 weeks. This equates to approximately 85 round-trip truck trips per day, based on a six-day per week construction schedule (i.e., no construction activity on Sundays or holidays in compliance with the County noise ordinance). As shown in Table 5.1-3, the Project is expected to generate 1,114 net daily trips, or approximately 10 times the peak period of daily construction traffic. This increase in daily trips, in combination with long-term ambient growth and cumulative projects, was determined to result in less than significant traffic impacts. Therefore, because daily truck trips from construction would be well below the Project's daily trip generation and because traffic would use only non-residential roadways, the temporary increase in construction traffic would result in a less than significant impact on the operation of Aviation Boulevard and West Imperial Boulevard and other surrounding roadways. However, in response to the Notice of Preparation (NOP) comment letter received from the Los Angeles World Airports (LAWA), MM 5.1-6 requires the Project Applicant/Developer to provide LAWA with the Project's construction schedule, hours, haul routes, and contact information to minimize any potential cumulative construction traffic impacts in the Los Angeles International Airport (LAX) area.

5.1.7 MITIGATION MEASURES

MM 5.1-1 All traffic improvements and construction-related activities that involve Caltrans-owned property shall be subject to the approval of an encroachment permit from Caltrans and shall be designed and constructed in accordance with applicable Caltrans standards and requirements, including the California 2010 MUTCD Manual, to the satisfaction of Caltrans.

MM 5.1-2 To ensure adequate vehicular access and circulation on the Project site and the off-site Project area, the Project shall construct the following traffic and circulation features to the satisfaction of the Los Angeles County Department of Public Works (LACDPW):

- Vehicular access to the Project site shall be limited to driveways on Aviation Boulevard and West 117th Street.
    - The existing Aviation Boulevard signalized driveway (driveway entrance to the Metro bus terminal) is located at the northwest corner of the Project site and shall be modified to serve as the main Project driveway for access to the commercial and residential components of the Project and associated parking areas. The existing traffic signal equipment at the Aviation Boulevard driveway shall be modified accordingly. The proposed Aviation Boulevard driveway shall provide full access (i.e., left-turn and right-turn ingress and egress turning movements). For exiting traffic, two lanes shall be provided: one for left-turns and one for right-turns.
    - The West 117th Street driveway shall be located on the north side of West 117th Street at the southwest corner of the Project site, and shall provide

secondary access to the commercial and residential components of the Project and associated parking areas. This driveway shall accommodate left-turn ingress and right-turn egress movements only to direct Project-related traffic to and from Aviation Boulevard (i.e., limit Project traffic from travelling on nearby local residential streets).

- The existing Metro bus terminal shall be relocated to the western portion of the existing Caltrans Park-and-Ride Lot. The existing Caltrans Park-and-Ride Lot and the adjacent surface parking lot associated with the Caltrans Maintenance Facility shall be reconfigured to accommodate the relocation of the Metro bus terminal in order to maintain at least the current number of Park-and-Ride spaces (approximately 400 parking spaces).
    - Vehicular access to the relocated Metro bus terminal shall be provided via two driveways: one on Aviation Boulevard and one on West Imperial Highway.
    - The existing Caltrans Park-and-Ride driveway on Aviation Boulevard shall be relocated approximately 100 feet north of its current position and would accommodate right-turn ingress and egress movements only.
    - The existing Caltrans Park-and-Ride driveway on West Imperial Highway shall be relocated approximately 30 feet east of its current position and shall be used as an exit only driveway (i.e., limited to right-turn egress movements only).
    - The existing Caltrans driveway on West Imperial Highway shall be reconfigured to provide one inbound lane and one outbound lane, with left-turn and right-turn ingress and right-turn egress only (i.e., no left-turn egress movements would be permitted onto westbound West Imperial Highway). The reconfigured Caltrans driveway shall provide direct access to the Caltrans Park-and-Ride Lot and Caltrans surface parking lot.
    - A traffic signal shall be installed at the existing Caltrans driveway on West Imperial Highway to accommodate access to the reconfigured Metro and Caltrans facilities. The traffic signal at the Caltrans driveway shall feature separate westbound left-turn phasing for vehicles turning left into the Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility parking lot and a northbound right-turn overlapping phase for vehicles exiting the driveway. The cost of the traffic signal installation shall be the sole responsibility of the Project Applicant. The installation of the traffic signal shall be complete and in operation prior to the operation of the new Metro bus terminal.

- A new driveway on West Imperial Highway shall be constructed for the relocated Metro bus terminal and will provide right turn ingress and egress movements.

- Modifications to the traffic signal located at the intersection of Aviation Boulevard and West 116th Street shall be constructed prior to occupancy of the Project. The cost of the design and modification of the traffic signal shall be the sole responsibility of the Project Applicant/Developer. A detailed

striping and signal plans shall be submitted to LACDPW Traffic and Lighting Division for review and approval.

- The design/redesign of the intersections (and associated traffic signal installations) roadways and the site plan layout, including driveway encroachments within Los Angeles County, shall be to the satisfaction of LACDPW.

MM 5.1-3 The provision, design, and location of parking for the Project shall comply with the Americans with Disabilities Act (ADA).

MM 5.1-4 Prior to issuance of the first occupancy permit, the Project Applicant/Developer shall coordinate with the Los Angeles County Department of Public Works regarding a possible restricted parking program for West 117th Street and Judah Avenue adjacent to the Project site, which currently have unrestricted parking. Whether or not restricted parking is implemented and the type of restriction used (e.g., meters, permits, signs) shall be determined to the mutual satisfaction of the Project Applicant/Developer, the County, and the adjacent residents.

MM 5.1-5 The Project Applicant/Developer shall demonstrate to the satisfaction of the County of Los Angeles and the Metropolitan Transportation Authority that the relocated Metro bus terminal is fully operational prior to the removal of the existing Metro bus terminal located on Lot 2 of the Project site.

MM 5.1-6 To minimize potential cumulative construction traffic impacts in the Los Angeles International Airport (LAX) area, the Project Applicant/Developer shall provide Los Angeles World Airports with the Project's construction schedule, construction hours, haul routes, and construction personnel contact information at least 10 days before construction activities begin.

In addition, the following mitigation measure from Section 3.2, Flood, is applicable to the traffic analysis:

MM 3.2-6 The Project Applicant/Developer shall obtain an encroachment permit from California Department of Transportation (Caltrans) for construction activities within the off-site, Caltrans-owned property.

In addition, the following mitigation measure from 3.4, Noise, is applicable to the traffic analysis:

MM 3.4-3 All construction trucks and vehicles accessing the Project site shall be required to use nearby designated truck routes (i.e., Aviation Boulevard and West Imperial Highway/Interstate 105), where feasible, and no construction traffic or queuing shall be allowed on residential portions of West 117th Street, Judah Avenue, or any other residential streets within the Del Aire community.

5.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with MM 5.1-1 through MM 5.1-6, MM 3.2-6, and MM 3.4-3 would ensure that all Project related traffic/access and parking impacts would be less than significant.

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5.2 SEWAGE DISPOSAL

This section describes the existing sewer lines and wastewater treatment plant serving the Project site and addresses potential impacts on the capacity of the sewage (i.e., wastewater) disposal infrastructure associated with implementation of the Project. Information presented in this section is derived from (1) the *Sewer Area Study Report for V.T.T.M. No. 70852* (Sewer Area Study) prepared by Land Design Consultants, Inc. in October 2009 (located in EIR Appendix I); (2) written correspondence received from the Sanitation Districts of Los Angeles County (LACSD) dated May 28, 2009 and August 25, 2010, the County of Los Angeles Department of Public Works (LACDPW) dated June 23, 2009 (located in EIR Appendix J); and (3) information provided on the LACSD's website (LACSD 2009).

5.2.1 RELEVANT POLICIES AND REGULATIONS

Local/County

Master Connection Fee Ordinance of County Sanitation District No. 5 of Los Angeles County

The LACSD is a confederation of 23 independent special districts that work cooperatively under a Joint Administration Agreement to provide wastewater treatment and solid waste services to 78 cities and all unincorporated areas within Los Angeles County, an area covering approximately 820 square miles. Seventeen of the special districts that provide sewerage services to the metropolitan Los Angeles area are signatory to a Joint Outfall Agreement, which provides for a regional approach to wastewater management known as the Joint Outfall System. The Joint Outfall System consists of interconnected facilities that provide wastewater collection, treatment, reuse, and disposal services and allows excess flows at one treatment facility to be transferred to another facility. The Project site is within the jurisdictional boundaries of District No. 5.

The LACSD has set forth the *Master Connection Fee Ordinance of County Sanitation District No. 5 of Los Angeles County* (Ordinance)(LACSD 2007) pursuant to *California Health and Safety Code,* Section 5471. The purpose of the Ordinance is to impose fees in order to connect facilities that increase the strength or quantity of wastewater discharged from connected properties to the sewerage system. Revenue derived under the Ordinance is used for the expansion of LACSD capital facilities and to fund loans. The Ordinance requires all new connections to the LACSD sewerage system, as well as existing connections that significantly increase the quantity or strength of their wastewater discharge, to pay their fair share of the costs for providing additional conveyance, treatment, and disposal facilities. Connection fees must be paid before a sewer connection permit is issued by the LACDPW Consolidated Sewer Maintenance District.

5.2.2 EXISTING CONDITIONS

Sewage Infrastructure

Wastewater generated at the Project site is currently discharged into lateral lines beneath the Project site and within local streets, which are ultimately connected to trunk lines under the jurisdiction of the LACSD. Sewer lines within the portion of the Project site located in the unincorporated community of Del Aire (Lot 1) are maintained by the LACDPW Consolidated Sewer Maintenance District. The Project site is served by eight-inch-diameter local sewer lines located within Aviation Boulevard, West 116th Street, and West 117th Street. These three lines collectively convey wastewater from the Project site easterly to the LACSD's Imperial Highway Extension Trunk Sewer, located on Isis Avenue between West 117th Street and West 116th Street.

Sewer lines within the portion of the Project site located within the City of Los Angeles (Lot 2 and Caltrans Off-Site Project Area) are maintained by the City of Los Angeles Bureau of Sanitation. Ultimately, all Project site discharges are conveyed into the LACSD's Imperial Highway Extension Trunk Sewer. This 10-inch-diameter trunk sewer has a design capacity of 0.6 million gallons per day (mgd), or 0.93 cubic feet per second (cfs), and conveyed a peak flow of 0.2 mgd (0.31 cfs) when last measured in 2007. Wastewater generated by the Project site and off-site areas is treated at the Joint Water Pollution Control Plant (JWPCP) located in the City of Carson, which has a design capacity of 400 mgd, and currently processes an average flow of 280.7 mgd. As shown in Exhibit 5.2-1, Sewer Area Study, the existing sewer lines within the Project area include:

- An eight-inch, vitrified clay pipe (VCP) sewer line within Aviation Boulevard, beginning at 116th Street and flowing southerly towards the West 117th Street sewer line;
- An eight-inch VCP sewer line within West 117th Street that flows easterly towards Judah Avenue; and
- An eight-inch VCP sewer line within West 116th Street that flows easterly towards Judah Avenue.

Wastewater Generation

The existing land uses on the site include 11 residences (7 single-family homes and 2 duplexes), the 4,568-square-foot Wild Goose Restaurant/Bar, and the 8-room Aviation Motel. Based on the LACSD's land use categories and wastewater generation factors, these land uses currently generate approximately 8,012 gallons per day (gpd), as summarized in Table 5.2-1. The existing Metro bus terminal contains public restrooms that would be relocated to the off-site Caltrans-owned property to the north.

TABLE 5.2-1
EXISTING WASTEWATER GENERATION

LACSD Land Use Category	Units	Wastewater Generation per Unit (gallons per day)	Total Flow (gallons per day)
Single-Family Homes	7 du	260	1,820
Duplex Residential	2 duplexes (4 du)	312	624
Hotel/Motel/Rooming House	8 rooms	125	1,000
Restaurant (4,568 sf)	4.568 sf	1,000 (per 1,000 sf)	4,568
		Total Existing Wastewater Generation	**8,012**

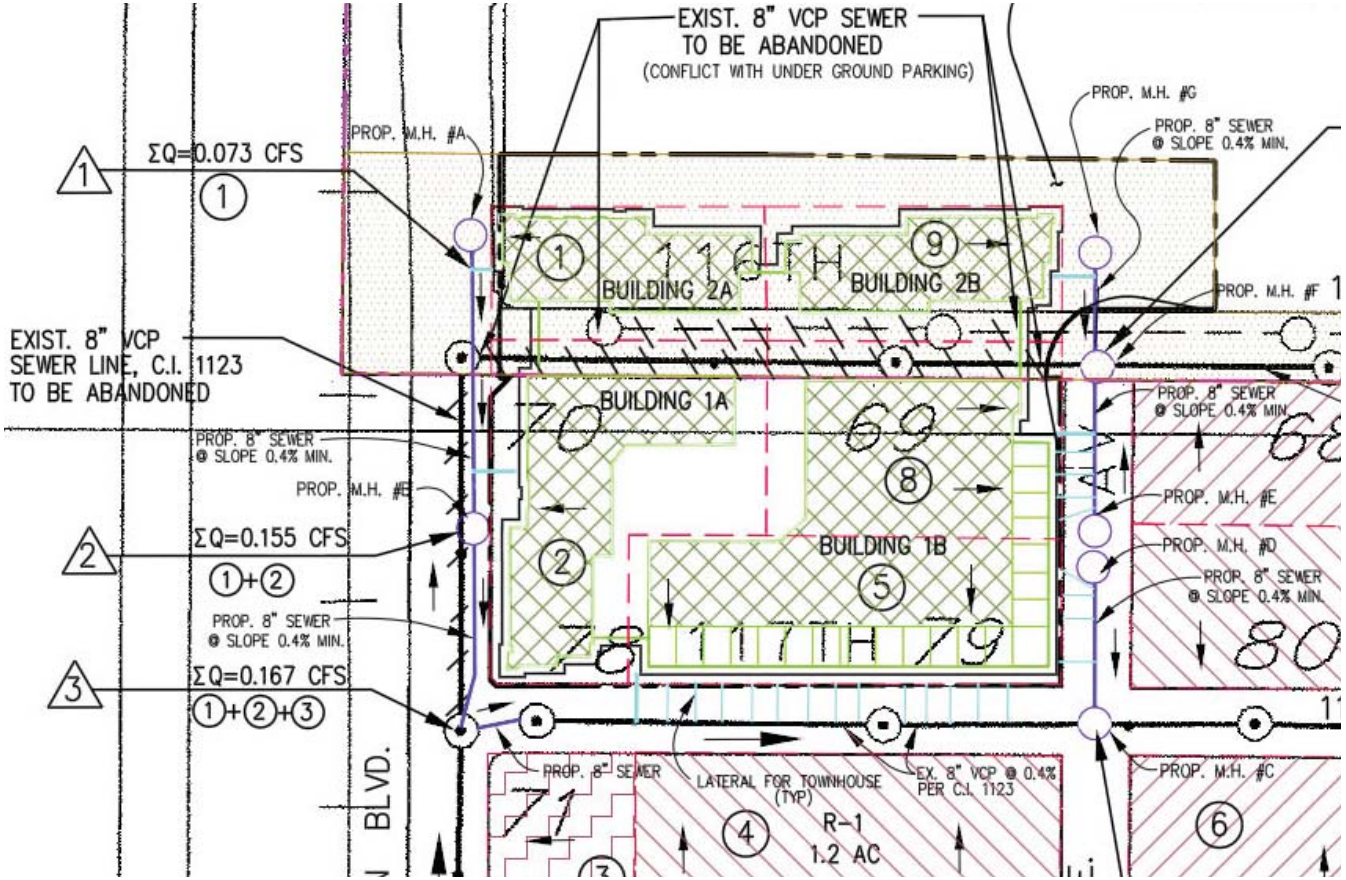
du: dwelling units; sf: square feet
Source: LACSD 2009 (EIR Appendix J)

5.2.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 5.2a: If served by a community sewage system, could the project create capacity problems at the treatment plant serving the project?

Threshold 5.2b: Could the project create capacity problems in the sewer lines serving the project site?



LEGEND

- CLAY SEWERS MAINTAINED BY SMD. 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- (8) SUB-AREA NUMBER
- SUB-AREA BOUNDARY
- PROP. 8" SEWER PIPE
- PROP. SEWER LATERAL TO BUILDING
- (2) SEWER FLOW REACH NUMBER
- ΣQ CULMULATIVE CALCULATED FLOW RATE AT REACH
- SEWER FLOW DIRECTION
- EXIST. R-1, SUB-AREA
- EXIST. C-1, SUB-AREA
- PROPOSE MXD BUILDING
- PROPOSE DETACHMENT AREA FROM THE CITY L.A.

Source: Land Design Consultants, Inc, October 2009

Sewer Area Study

Exhibit 5.2-1

Aviation Station Project

BonTerra CONSULTING

(Rev 10/30/09 CJS) Projects/Cox/J002/Graphics/Ex5.2-1_sewer_area_study.pdf

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5.2.4 PROJECT DESIGN FEATURES

No Project Design Features related to sewer infrastructure and wastewater treatment have been identified.

5.2.5 ENVIRONMENTAL IMPACTS

Threshold 5.2a: If served by a community sewage system, could the project create capacity problems at the treatment plant serving the project?

On-Site Impacts

The LACSD estimates that the average wastewater flow from the Project would be 85,248 gpd. However, this reflects only the proposed land uses and does not consider the removal of existing land uses on the Project site that currently generate approximately 8,012 gpd of wastewater, as shown in Table 5.2-1 above. Table 5.2-2 summarizes the Project's net daily wastewater generation, from which wastewater from the existing land uses on the Project site is subtracted.

TABLE 5.2-2
PROPOSED PROJECT WASTEWATER GENERATION

LACSD Land Use Category	Units	Wastewater Generation per Unit (gallons per day)	Total Flow (gallons per day)
Condominium	390 du	195	76,050
Shopping Mall	29,500 sf	325 (per 1,000 sf)	9,588
		Total Proposed Land Use Wastewater Generation	*85,638*
		Less Existing Wastewater Generation	*8,012*
		Net Wastewater Generation	***77,626***

du: dwelling units; sf: square feet
Source: LACSD 2009 (EIR Appendix J)

As shown in Table 5.2-2, the net daily wastewater contribution to the LACSD facilities from the Project would be 77,626 gpd. It should be noted that the LACSD's will-serve letter and the Project's Sewer Area Study is based on the total wastewater generation of the Project (85,638 gpd).

The Project's expected net daily wastewater generation of 77,626 gpd would represent approximately 0.065 percent of the available 119,300,000-gpd (119.3 mgd) remaining capacity of the JWPCP.[1] This small increment in wastewater contributed from the Project would not create capacity problems at the treatment plant serving the Project.

Also, the *California Health and Safety Code* allows the LACSD to charge a fee for connecting to the LACSD sewer system or for increasing the existing strength or quantity of wastewater attributable to a particular parcel. The Project would be subject to this fee, as described in MM 5.2-1. This connection fee is required in order to provide capacity to accommodate increases in sewage generation by new development. Therefore, due to the Project's small contribution to the daily capacity of wastewater treated at the JWPCP and the LACSD's standard connection fee requirement, ensured via MM 5.2-1, there would be a less than significant impact to wastewater, and no mitigation would be required.

[1] The JWPCP has an average flow of 280.7 mgd and a maximum design capacity of 400 mgd, which equates to a remaining capacity of approximately 119.3 mgd.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The Caltrans Off-Site Project Area components would include the construction of a restroom facility at the Metro bus terminal. Currently, there are no restroom facilities within the Park-and-Ride Lot. However, the existing Metro bus terminal does contain restroom facilities. Therefore, implementation of proposed improvements in the Caltrans Off-Site Project Area would not result in a net increase in sewage generated by the new Metro bus terminal and would not impact the treatment capacity at the JWPCP. Impacts would be less than significant, and no mitigation would be required. Off-site utility improvements include the abandonment, removal and installation of new sewer lines and laterals. Any new connection to the LACSD's sewage infrastructure would require payment of the connection fee pursuant to MM 5.2-1. Payment of this fee would ensure that impacts associated with incremental demands on treatment capacity associated with off-site Project components would be less than significant.

Threshold 5.2b: Could the project create capacity problems in the sewer lines serving the project site?

On-Site Impacts

The Sewer Area Study for the Project, prepared in accordance with the LACDPW's Sewer Area Study Guidelines, determined that improvements to the sewer line infrastructure would be required to serve the Project. Portions of Lot 2 (containing Buildings 2A and 2B) did not have access to sewer lines, and extensions would need to be constructed. The Sewer Area Study requires the construction of the proposed sewer improvements described in MM 5.2-2 and depicted on Exhibit 5.2-1. The replacement and/or new eight-inch-diameter sewer lines and new sewer laterals would connect to portions of the existing sewer system to convey the Project's wastewater to the LACSD's Imperial Highway Extension Trunk Sewer. The new local sewer lines would be annexed into the LACDPW's Consolidated Sewer Maintenance District, as required by MM 5.2-3.

The Sewer Area Study determined that, with the implementation of the sewer line improvements stated in MM 5.2-2, there would be adequate access and capacity in the local sewer system and trunk sewer serving the Project site. Therefore, there would be a less than significant impact, and no mitigation would be required. The physical environmental impacts related to construction of proposed wastewater infrastructure within the Project site footprint are addressed in Section 4.1, Water Quality, Section 4.2, Air Quality, and Section 4.4, Noise.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The Caltrans Off-Site Project Area Project components would include the relocation of the restroom facility at the Metro bus terminal. As described in MM 5.2-4, a new sewer lateral line within the off-site, Caltrans-owned property would be constructed to provide service to the restrooms and water fountain associated with the new Metro bus terminal. The sewer line would be connected to the existing eight-inch-diameter local sewer line within the off-site Caltrans property. Implementation of MM 5.2-4 would ensure that impacts related to sewer line capacity would be less than significant.

Physical construction impacts related to off-site wastewater infrastructure are addressed as part of the Project. The primary environmental impacts associated with off-site infrastructure installation, including grading, excavation, movement and placement of the pipeline segments, and possible lane closures and/or traffic detours when working in the roadway right-of-way, would be addressed with implementation of standard conditions of approval and/or mitigation measures, as described in Section 4.2, Air Quality, Section 4.4, Noise, and Section 6.1, Traffic/Access.

5.2.6 CUMULATIVE IMPACTS

As discussed above, the Project would generate a total of 85,638 gpd of wastewater, or a net increase of 77,626 gpd, which represents approximately 0.065 percent of the available treatment capacity remaining at the JWPCP. The need to treat a total of 77,626 additional gpd could be accommodated by the existing infrastructure. The LACSD reports that the available capacity of the LACSD's wastewater facilities, including trunk lines and treatment facilities, is limited to wastewater generation levels associated with the adopted Southern California Association of Governments (SCAG) regional growth forecast.

Although not anticipated in SCAG's adopted *2008 Regional Transportation Plan* (RTP), as discussed in Section 7.3, Population and Recreation, the Project's estimated net population growth is within the RTP growth forecast. SCAG projections are based on numerous factors, including U.S. Census Bureau and state-level data, and take into consideration the fact that jurisdictions will have an obligation to meet their Regional Housing Need Assessment (RHNA) allocations, etc. Therefore, the fact that the Project requires a General Plan Amendment and zone change does not necessarily conflict with the SCAG projections, which are not solely based on land use designations.

Therefore, because the Project is within the anticipated regional growth forecast and would comply with LACSD connection fee requirements (MM 5.2-1), the incremental increase in wastewater generation associated with the Project would not represent a cumulatively considerable contribution to LACSD wastewater conveyance and treatment facilities. Therefore, there would be less than significant cumulative impact to wastewater disposal infrastructure, and no mitigation would be required.

5.2.7 MITIGATION MEASURES

There would be no significant impacts to sewage infrastructure or treatment capacity with adherence to LACSD and LACDPW standard requirements, which would be ensured via the following mitigation measures.

MM 5.2-1 Prior to the issuance of building permits, the Project Applicant/Developer shall pay the applicable connection fees in accordance with the Sanitation Districts of Los Angeles County *Master Connection Fee Ordinance of County Sanitation District No. 5 of Los Angeles County*.

MM 5.2-2 Prior to issuance of building permits, the Project Applicant/Developer shall demonstrate to the Sanitation Districts of Los Angeles County and Los Angeles County Department of Public Works that the Project includes appropriate infrastructure to ensure adequate wastewater conveyance. It is anticipated that segments of the existing eight-inch-diameter local sewer line within Aviation Boulevard (between West 116th Street and West 117th Street) and West 116th Street (between Aviation Boulevard and Judah Avenue) will be removed. The Project shall include the following new wastewater infrastructure:

- An 8-inch-diameter local sewer line within Aviation Boulevard beginning north of West 116th Street and connecting to the sewer line within West 117th Street;

- An 8-inch-diameter local sewer line within West 117th Street connecting the Aviation Boulevard sewer line to the existing sewer line in West 117th Street;

- An 8-inch-diameter local sewer line within Judah Avenue beginning mid-block between West 116th Street and West 117th Street, and connecting to the existing sewer line in West 117th Street;

- An 8-inch-diameter local sewer line within Judah Avenue beginning mid-block between West 116th Street and extending north of West 117th Street, and connecting to the existing sewer line in West 116th Street;

- Six-inch-diameter sewer laterals from each of the four proposed buildings to a local sewer line; and

- Four-inch-diameter sewer laterals from each individual townhome along West 117th Street and Judah Avenue to a local sewer line.

MM 5.2-3 Prior to the issuance of building permits, the Project Applicant/Developer shall complete the annexation of all appropriate local sewer lines and laterals necessary to serve the Project that are currently within the City of Los Angeles into the Los Angeles County Department of Public Works (LACDPW) Consolidated Sewer Maintenance District. All proposed sewer lines shall be constructed in compliance with the LACDPW's sewer design standards to the satisfaction of LACDPW.

MM 5.2-4 Prior to issuance of building permits for the off-site Caltrans-owned property, the Project Applicant/Developer shall demonstrate to the Los Angeles County Department of Public Works that the Project includes adequate wastewater infrastructure. A new sewer lateral line within the off-site, Caltrans-owned property shall be constructed to provide service to the restrooms associated with the new Metro bus terminal. The sewer line shall be connected to the existing eight-inch-diameter local sewer line within the off-site Caltrans property.

5.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of MM 5.2-1 through MM 5.2-4 would ensure that impacts to sewage infrastructure and treatment capacity would be less than significant.

5.3 EDUCATION

This section describes existing public school and library resources serving the Project site and analyzes the potential impacts to education and library services with implementation of the Project. The analysis of potential impacts to schools is based on written correspondence with the Wiseburn School District (EIR Appendix J) and the Centinela Valley Union High School District website. The analysis of impacts to libraries is based on written correspondence with the County of Los Angeles Public Library (EIR Appendix A) as well as the County Library's website.

5.3.1 RELEVANT POLICIES AND REGULATIONS

State

Senate Bill 50

Senate Bill (SB) 50, the Leroy Green School Facilities Act, enacted in 1998 as emergency legislation, represents the most significant school facility finance and developer fee reform legislation for school facilities construction and modernization since the adoption of the 1986 School Facilities Act. SB 50 established a comprehensive program for funding school facilities based on 50 percent funding from the State and 50 percent funding from local districts, while limiting the obligation of developers to mitigate the impact of projects on school facilities.

Section 65995 of the *California Government Code* establishes the statutory criteria for assessing construction fees. The legislation recognizes the need for the fees to be adjusted periodically to keep pace with inflation; therefore, the State of California Department of General Services State Allocation Board increases the maximum fees according to the adjustment for inflation in the statewide cost index for Class B construction.[1] As of January 30, 2008, the maximum rates are $0.47 per square foot of enclosed and covered new commercial/industrial construction, and $2.97 per assessable square foot of new residential construction for school districts that have demonstrated that they meet the statutory requirements to implement the fees.

The payment of school mitigation impact fees authorized by SB 50 is deemed to provide "full and complete mitigation of impacts" from the development of real property on school facilities (*California Government Code* §65995). SB 50 states that a State or local agency may not deny or refuse to approve the planning, use, or development of real property on the basis of a developer's refusal to provide mitigation in amounts in excess of that established by SB 50.

County

County of Los Angeles Code Chapter 22.72: Library Facilities Mitigation Fee

The County of Los Angeles has established a uniform fee within each library planning area (known as the Library Facilities Mitigation Fee), which is based on the estimated cost of providing projected library facility needs (including building and material costs) in each library planning area. The Mitigation Fee for Planning Area 6 (Southwest), within which the Project site is located, is currently $812.00 per dwelling unit (*Los Angeles County Code* Chapter 22.72.030; effective as of July 1, 2010). The Mitigation Fee Program was established in 1998 to mitigate impacts from residential development in unincorporated Los Angeles County that would be served by the County Library. The fee does not vary based on dwelling type. The County Library Facilities Mitigation Fee is subject to an annual Consumer Price Index (CPI) adjustment on July 1 of each year.

[1] The Office of Public School Construction defines "Class B construction" as buildings constructed primarily of reinforced concrete, steel frames, concrete floors, and roofs.

5.3.2 EXISTING CONDITIONS

Schools

The Project site is within the jurisdiction of two school districts: the Wiseburn School District (WSD) and the Centinela Valley Union High School District (CVUHSD). These school districts were contacted via the Notice of Preparation (NOP) of the Environmental Impact Report (EIR) as well as a separate letter request for information in support of the EIR analysis. As of the time of EIR preparation, correspondence has been received only from the WSD. Therefore, information on the specific schools that serve the Project site, student generation factors, and SB50 status are not available for CVUHSD.

Wiseburn School District

The WSD serves grades K–8 with a total of three elementary schools and one middle (junior high) school: Juan de Anza Elementary, Peter Burnett Elementary, Juan Cabrillo Elementary, and Richard Henry Dana Middle School (WSD 2009). The WSD schools that would serve the Project site, their current enrollment, and current capacity are shown in Table 5.3-1.

TABLE 5.3-1
WISEBURN SCHOOL DISTRICT FACILITIES AND ENROLLMENT SERVING THE PROJECT SITE

School	Enrollment	Capacity
Juan de Anza Elementary School (K–6 grade) 12110 S. Hindry Avenue, Del Aire 28 permanent and 0 portable classrooms	600	600
Dana Middle School (7–8 grade) 5504 West 135th Street, Hawthorne 33 permanent and 0 portable classrooms	875	900
Source: Wiseburn School District 2009b (EIR Appendix J).		

Juan de Anza Elementary School is located approximately 0.6-mile southeast of the Project site and Dana Middle School is located approximately 1.4 miles south of the Project site.

Centinela Valley Union High School District

The CVUHSD serves grades 9–12 and has a student population of approximately 7,800 students. The CVUHSD consists of three comprehensive high schools (Hawthorne, Lawndale, and Leuzinger High Schools), a continuation high school (Lloyde High School),[2] the Independent Study High School, and Centinela Valley Adult School. The school districts that feed students to the CVUHSD are Hawthorne, Lawndale, Lennox, and Wiseburn (CVUHSD 2009). Hawthorne High School, the nearest school, is located approximately 1.6 miles southeast of the Project site.

Library

Library services for the unincorporated County of Los Angeles are provided by the County of Los Angeles Public Library (County Library). The Project site is located within County Library Planning Area 6 (Southwest), which includes the service area of the Wiseburn Library, located at 5335 West 135th Street in Hawthorne. The 5,000-square-foot Wiseburn Library serves the

[2] A continuation high school is an alternative to a comprehensive high school, primarily for students who are considered at-risk of not graduating at the normal pace.

City of Hawthorne and nearby unincorporated (County) areas with a collection of 42,983 books and other materials and 7 public access computers (as of March 31, 2010). The County Library reports that the Wiseburn Library currently does not meet the County Library's planning guidelines for library facility space (minimum of 0.50 gross square feet per capita) and public access computers (1 computer per 1,000 people) based on the current service area population of 12,008 (as of the 2000 US Census [Appendix J]).

There are also County public libraries in the Project area and city-operated libraries in the surrounding municipalities that residents and employees of the Project could use in addition to the Wiseburn Library. However, the Wiseburn Library is the primary designated library service provider to the Project site.

5.3.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 5.3a: Could the project create capacity problems at the district level?

Threshold 5.3b: Could the project create a capacity problem at individual schools that serve the project site?

Threshold 5.3c: Could the project create student transportation problems?

Threshold 5.3d: Could the project create substantial library impacts due to increased population and demand?

5.3.4 PROJECT DESIGN FEATURES

No Project Design Features related to schools and libraries have been identified.

5.3.5 ENVIRONMENTAL IMPACTS

Threshold 5.3a: Could the project create capacity problems at the district level?

Threshold 5.3b: Could the project create a capacity problem at individual schools that serve the project site?

<u>On-Site Impacts</u>

The WSD has a student generation rate for multi-family land uses of 0.127 students per unit for grades K–5 and 0.086 students per unit for grades 6–8, or 0.213 total students per unit. Based on this student generation rate, the Project's 390 multi-family units would result in an estimated 83 Kindergarten through 8th grade students. Grade K–5 students generated by the Project would be served by Juan de Anza Elementary, which is currently at capacity, and grade 6-8 students would be served by Dana Middle School, which is near capacity. The WSD is currently eligible to collect a Level II fee under SB 50.

As discussed above, applicable school capacity, student generation rates, and SB 50 status (eligibility and level of development fee) were not available at the time of EIR preparation.

However, CVUHSD's correspondence stated that based on the Project's distance from the CVUHSD's schools and location to the west of the I-405, the Project has "little chance" of adversely impacting the CVUHSD, and that the CVUHSD had no further comments to consider in the EIR (Huttenberger 2010). Payment of the statutory fees under SB 50 would mitigate for all impacts associated with the implementation of the Project to all affected school districts, as SB 50 expressly states that the payment of SB 50 fees is deemed to provide "full and complete mitigation of impacts". Potential impacts of the Project on the WSD and the CVUHSD would be less than significant with payment of State-mandated new development fees (*California Government Code* §65995), as required in MM 5.3-1.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed off-site Project components would not generate habitable structures or associated population increases and would therefore have no impact on schools.

Threshold 5.3c: Could the project create student transportation problems?

On-Site Impacts

The schools that would serve the school children residing in the residences within the Project are all within 2 miles of the Project site and these residences would not be eligible for school bus services. Juan de Anza Elementary School is located approximately 0.6-mile southeast of the Project site and Dana Middle School is located approximately 1.4 miles south of the Project site. Both of these schools are accessible to the residential Del Aire community and students would not need to cross beneath the I-405 freeway to attend school. The Hawthorne High School is located approximately 1.6 miles southeast of the Project site, on the opposite side of the I-405 freeway. This school is within walking or bicycling distance from the Project site and would also be easily accessible for those high school students.

There may be a demand for special needs student transportation to these schools; however, the numbers of children generated by the Project that would need this service would be minimal (for instance, there would be approximately 83 Kindergarten through 8th grade students) and would not generate a significant impact to student transportation services. Impacts would be less than significant and no mitigation would be required.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed off-site Project components would not generate habitable structures or associated population increases and would therefore have no impact on school transportation.

Threshold 5.3d: Could the project create substantial library impacts due to increased population and demand?

On-Site Impacts

The County Library's current service level planning guidelines are as follows: a minimum of 0.50 gross square foot of library facility space per capita, 2.75 items (books and other library materials) per capita, and 1 public access computer per 1,000 people served. As described in Section 6.3, Population and Recreation, the Project is estimated to generate a net population increase of 1,117 persons. Based on the projected population, the Project would require a minimum of 558.5 gross square feet of library facility space, 3,072 library materials, and 1 computer to meet the County Library's planning guidelines.

To mitigate the costs associated with the provision of service expansions to satisfy the demands of new populations, the County of Los Angeles established the Library Facilities Mitigation Fee Program (Chapter 22.72 of the County Code), discussed above under Section 5.3.1, Relevant Policies and Regulations. The Library Facilities Mitigation Fee is applicable to new residential development (such as the Project) in the unincorporated area of Los Angeles County served by the County Library. The current fee is $812 per dwelling unit and is adjusted annually based on the Consumer Price Index. Therefore, at the current rate, the Project would be required to remit a payment of $316,680 to the County Library, or the applicable fee at the time building permits are issued, for the construction of 390 proposed dwelling units. The construction of new facilities would not be required to serve new residents generated by the Project, and payment of the applicable fee, ensured via MM 5.3-2, would ensure that impacts would be less than significant.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed off-site Project components would not generate population and would therefore have no impact on library services.

5.3.6 CUMULATIVE IMPACTS

The cumulative impacts to school facilities from this and other projects include both the WSD and the CVUHSD. All development projects within the two school districts would be required to pay for potential impacts to the respective districts through either the Statutory School Fees pursuant to SB 50. Therefore, the impacts associated with regional growth are mitigated incrementally as each development provides payment to these districts. Because the Project would also contribute payments to the two affected school districts, cumulative impacts from implementation of the Project would be less than significant.

A development fee system is also established for the mitigation of County Library impacts. The County Library Facilities Mitigation Fee Program eliminates the direct impacts associated with new development. Because the Project would contribute payments to the County for library services, as would all other new development projects in the area, cumulative impacts from implementation of the Project would be less than significant.

5.3.7 MITIGATION MEASURES

There would be no significant impacts to schools and libraries with adherence to State and County standard fee programs, which would be ensured via the following mitigation measures.

MM 5.3-1 The Project Applicant/Developer shall pay new development fees in effect at the time of building permit issuance to the Wiseburn School District and the Centinela Valley Union High School District pursuant to *California Government Code,* Section 65995 (SB 50).

MM 5.3-2 The Project Applicant/Developer shall remit to the Los Angeles County Public Library a fee in effect at the time of building permit issuance, pursuant to the Library Facilities Mitigation Fee Program.

5.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with MM 5.3-1 and MM 5.3-2 would ensure that impacts to education and libraries would be less than significant.

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5.4 FIRE/SHERIFF SERVICES

This section describes existing fire protection and sheriff/police protection services for the Project site and analyzes the potential impacts to fire and sheriff services with implementation of the Project. This analysis is based on written correspondence with the Los Angeles County Fire Department (LACFD) and the County of Los Angeles Sheriff's Department (LACSD), located in EIR Appendix J. These agencies were consulted to determine the potential impacts of the Project on their service levels and if the Project would require new or physically altered governmental facilities to reduce these impacts. Refer to Section 3.3, Fire, of this Environmental Impact Report (EIR) for a discussion of fire safety and fire hazards for the Project.

5.4.1 RELEVANT POLICIES AND REGULATIONS

Local

A discussion of *County of Los Angeles General Plan* elements and consistency of the Project with goals and polices related to public services is provided in Section 6.2, Land Use.

5.4.2 EXISTING CONDITIONS

Fire Protection Services

The LACFD provides fire protection and paramedic services to existing land uses within Lot 1 (i.e., residential and commercial land uses). The City of Los Angeles Fire Department provides fire protection and paramedic services to existing land uses within Lot 2 (i.e., Metro bus staging area and terminal). However, with Project implementation, a modification to the County of Los Angeles and City of Los Angeles boundaries would be required, allowing the entire Project site to become part of unincorporated Los Angeles County. Upon Project implementation, the LACFD would serve the Project site. Therefore, the LACFD is the focus of this analysis.

Within Battalion 20, which serves the City of Inglewood and unincorporated areas of Los Angeles County, there are a total of six fire stations, including Fire Stations #14, #18, #170, #171, #172, and #173. LACFD Fire Station #18 in Battalion 20, located at 4518 West Lennox Boulevard, Lennox, currently serves the Project site. This fire station is approximately 1.7 miles from the Project site and contains a 4-person paramedic engine. The LACFD reports that fire protection in the Project area is adequate for the existing land uses (EIR Appendix J) (LACFD 2009).

Sheriff Protection Services

The LACSD provides police protection services to the existing land uses within Lot 1, and the City of Los Angeles Police Department provides police protection services to the existing land uses within Lot 2. However, with Project implementation, the entire Project site would become part of unincorporated Los Angeles County, and the LACSD would serve the entire Project site. Therefore, the LACSD is the focus of this analysis.

The Project site will be served by the South Los Angles Station, located at 1310 West Imperial Highway in the City of Los Angeles. The LACSD's established response times are as follows: routine response within 60 minutes; priority response within 20 minutes; and emergency response within 7 minutes. The LACSD reports that there is currently 1 patrol car assigned to 6 reporting districts (including Del Aire) and that there is an estimated 60 minutes of service provided per 24-hour period to the Del Aire community (EIR Appendix J)(LACSD 2009).

5.4.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 5.4a: Could the project create staffing or response time problems at the fire station or sheriff's substation serving the project site?

Threshold 5.4b: Are there any special fire or law enforcement problems associated with the project or the general area?

5.4.4 PROJECT DESIGN FEATURES

The following project design feature described in Section 3.3, Fire, and also applicable to the analysis of fire protection services:

PDF 3.3-1 A 28-foot wide emergency-vehicle-only Fire Lane will be constructed between the existing off-site Metro Green Line Station and Buildings 2A/2B on Lot 2. There will be no parking or traffic allowed in the Fire Lane. Pedestrians will have access to cross from the commercial businesses, across the Fire Lane, into the transit facilities to the north. One Fire Lane/driveway would be located on the main project ingress point on West 117th Street and one Fire Lane/driveway would be located near the cul-de-sac intersection of Judah Avenue and West 116th Street. The Fire Lane ingress/egress points from intersection of Judah Avenue and West 116th Street will be gated and will prohibit all non-emergency vehicles.

5.4.5 ENVIRONMENTAL IMPACTS

Threshold 5.4a: Could the project create staffing or response time problems at the fire station or sheriff's substation serving the project site?

Threshold 5.4b: Are there any special fire or law enforcement problems associated with the project or the general area?

<u>On-Site Impacts</u>

Los Angeles County Fire Department

Construction-related activities, primarily from the hauling of large equipment and materials to and from the Project site, could temporarily increase traffic congestion and obstruct traffic circulation in the vicinity of the Project site, thereby potentially impacting fire department response times. However, all construction vehicles would be required to enter and exit the Project site from nearby designated truck routes (i.e. Aviation Boulevard and/or West Imperial Highway/Interstate 105), where feasible, and no construction traffic or queuing shall be allowed on the residential portion of West 117th Street, Judah Avenue, or any residential streets within the Del Aire community, in accordance with MM 3.4-3 (repeated from Section 3.4, Noise). The City of El Segundo General Plan designates Aviation Boulevard as an existing and recommended truck route, and the City of Los Angeles General Plan designates West Imperial Highway/Interstate 105 as a designated truck route, while the Los Angeles County General Plan does not designate truck routes. Therefore, no construction traffic would affect access to the residential properties along West 117th Street, Judah Avenue, or other residential streets in the Project vicinity. Therefore, potential impacts to response times due to construction vehicles would be less than significant.

As stated in PDF 3.3-1 (repeated from Section 3.3, Fire), a 28-foot-wide emergency-vehicle-only Fire Lane would be located between the existing off-site Metro Green Line Station and Buildings 2A/2B on Lot 2. There would be no parking or traffic allowed in the Fire Lane. Pedestrians would be allowed to cross the Fire Lane from the commercial businesses toward the transit facilities to the north. Additionally, one Fire Lane driveway would be located on the main Project ingress point on West 117th Street and one Fire Lane/driveway would be located near the cul-de-sac intersection of Judah Avenue and West 116th Street. The Fire Lane ingress/egress points from intersection of Judah Avenue and West 116th Street would be gated and used for emergency vehicles only.

The LACFD determined that the proposed buildings, increased density of development, and associated increased demand for LACFD services would result in a less than significant impact to fire protection services in the Project area (see Appendix J). Also, the LACFD has not indicated any special fire protection problems existing in the Project area. Additionally, there are no current plans for, nor would the Project require, the construction of new or expanded facilities or other additional fire protection resources in order to adequately serve the Project (Vidales 2009).

As described in MM 3.3-1, the Project would comply with all applicable *County of Los Angeles Code* and Ordinance requirements regarding fire prevention and suppression measures, including construction materials, building access and evacuation routes, automatic fire-extinguishing systems, standards for multi-family housing and proposed commercial land uses, site access/fire lanes, water availability, fire flows, and hydrants, among other requirements. There are no Fire Department fees applicable to the Project. Potential impacts to fire services staffing or response times would be less than significant.

County of Los Angeles Sheriff's Department

As discussed for fire protection services above, short-term construction activities and associated trucks and vehicles entering and exiting the site could temporarily increase traffic congestion and obstruct traffic circulation in the vicinity of the Project site, thereby potentially impacting sheriff's department response times. However, per PDF 5.4-1, all construction vehicles would be required to enter and exit the Project site from Aviation Boulevard and/or West Imperial Highway, and no construction traffic would affect access to the residential properties along West 117th Street or Judah Avenue. Therefore, potential impacts to response times due to construction vehicles would be less than significant.

Based on an evaluation of recent law enforcement activity in the Project area and the Project's land uses and related population increase, the LACSD has indicated that implementation of the Project would increase demand for LACSD services, which would result in the need for additional law enforcement resources for the general area of service (see Appendix J). However, the LACSD concluded that implementation of the Project would not significantly impact acceptable service ratios or response times (i.e. routine response time within 60 minutes; priority response time within 20 minutes; and emergency response time within 7 minutes), that no new facilities are required to serve the Project, and there are no special law enforcement problems in the Project area.

Increased need for sheriff's deputies and other LACSD resources from urban development and associated population growth, such as the Project, is financed by County resident tax revenue; by fees for LACSD permits, penalties, services; and through the County of Los Angeles annual budget process. As stated in the LACSD response letter in Appendix J, the Project would not create the need for expanded facilities or new facilities, and existing facilities are adequate to serve the Project. Therefore, the increased demand for sheriff protection services provided by the LACSD would be less than significant, and no mitigation is required.

The LACSD recommends that after occupancy of the Project, a re-assessment of sheriff services demands be initiated to determine whether additional services would be required. MM 5.4-1 is included to reduce potential impacts related to sheriff services. The recommended LACSD assessment would be intended to ensure that services are appropriately allocated to areas in need. Additionally, the LACSD would implement the Block Watch Program for the Project, as is standard for all new housing developments. The purpose of the Program is to bridge community stakeholders with law enforcement to reduce crime.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed reconfiguration of land uses on the Caltrans Off-Site Project Area immediately north of the Project site and off-site utility improvements to serve the Project would not result in new or expanded land uses that would require additional fire or police protection services. Construction of off-site utility improvements may require encroachment into the public right-of-way of surrounding streets. All construction activities would be implemented in compliance with the California Manual on Uniform Traffic Control Devices (MUTCD), as required by MM 5.1-1 in Section 5.1, Traffic/Access, to ensure that safe and efficient vehicular and pedestrian traffic in the public-right-of-way is maintained. The MUTCD Manual provides rules for the design, placement, operation, maintenance, uniformity, and responsibility for traffic control devices. For instance, it is required that the traffic control devices be within the road user's view for visibility, legible, and placed such that adequate time is available for drivers to make the proper response. There are requirements related to the regulatory signs (i.e. stop, yield, speed limit, lane control signs), warning signs, guide/wayfinding signs, and emergency management signs.

Therefore, construction of the off-site utility and roadway improvements would result in less than significant impacts related to traffic, including emergency vehicles, in the Project site vicinity. In addition, implementation of MM 5.1-1 would ensure that there would be no impacts related to fire or sheriff services with implementation of off-site Project components.

5.4.6 CUMULATIVE IMPACTS

Based on their inherent purpose, the provision of public services and facilities takes into consideration a larger service area than just individual Project boundaries. The cumulative study area for public services is the service area for the LACFD and the LACSD. Through coordination with the service providers for individual projects, the cumulative needs of the area have been considered in the analyses presented above. When reviewing proposed development projects, such as the proposed Aviation Station Project, the emergency service providers take into consideration surrounding development within their service area when determining needs for staffing and facility locations.

The Project would involve development of multi-family residential units and commercial development, which would result in an increased demand for fire services. As noted above, the LACFD has not indicated that there are current plans for, nor would the Project require, the construction of new or expanded facilities or other additional fire protection resources in order to adequately serve the Project. Additionally, the LACFD has not indicated the Project would result in a cumulative impact. Therefore, because the Project would not significantly impact the LACFD, the Project would not result in a cumulatively considerable impact to LACFD services.

Sheriff service levels are in need of periodic re-evaluation as the service area population grows. The Project would have less than significant impacts to sheriff service ratios and would not require the need for expanded facilities or new facilities. As noted by the LACSD correspondence in Appendix J of this EIR, individual projects may increase demands on sheriff services. New development, including the Project, would contribute to the County's tax revenues, which would assist in financing additional facilities and personnel, in order to meet additional police protection requirements. Therefore, the Project's incremental contribution to cumulative impacts for fire and sheriff services would be less than significant.

5.4.7 MITIGATION MEASURES

Although less than significant impacts have been identified related to sheriff services, the following mitigation is recommended to minimize potential impacts.

MM 5.4-1 Prior to issuance of a certificate of occupancy, the Project Applicant/Developer shall notify the Los Angeles County Sheriff's Department, including the Transportation Bureau-Green Line, of Project completion in order to facilitate their internal assessment to ensure that services are appropriately allocated to areas in need.

The following MMs from Section 3.3, Fire, Section 3.4, Noise, and Section 5.1, Traffic of this EIR are also applicable to the analysis of fire and sheriff services:

MM 3.3-1 The Project shall comply with all applicable *Los Angeles County Code* Title 32 and Ordinance requirements regarding fire prevention and suppression measures, and/or measures approved or required by the Fire Chief, including construction materials, building access and evacuation routes, automatic fire extinguishing systems, standards for multi-family housing and commercial land uses, site access/fire lanes, hydrants water availability, and fire flows and pressures, among other requirements to the satisfaction of the Los Angeles County Fire Department (LACFD). Prior to issuance of building permits, Project Applicant/Developer shall submit all necessary plans and materials to the LACFD for review and approval.

MM 3.4-3 All construction trucks and vehicles accessing the Project site shall be required to use nearby designated truck routes (i.e., Aviation Boulevard and West Imperial Highway/Interstate 105), where feasible, and no construction traffic or queuing shall be allowed on residential portions of West 117th Street, Judah Avenue, or any other residential streets within the Del Aire community.

MM 5.1-1 All traffic improvements and construction-related activities that involve Caltrans-owned property shall be subject to the approval of an encroachment permit from Caltrans and shall be designed and constructed in accordance with applicable Caltrans standards and requirements, including the California 2010 MUTCD Manual, to the satisfaction of Caltrans.

5.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of PDF 3.3-1, MM 3.3-1, MM 3.4-3, MM 5.1-1 and MM 5.4-1 would ensure that Project impacts related to fire and sheriff services would be less than significant.

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5.5 UTILITIES/OTHER SERVICES

This section of the Draft EIR addresses potential impacts to water supply, services, dry utilities (i.e., electricity, natural gas, telephone and cable television), and solid waste disposal that would result from the development of the Aviation Station Project.

Information regarding solid waste services is based on written correspondence with the Los Angeles County Sanitation Districts (LACSD) regarding solid waste disposal dated August 20, 2009 (Appendix J); the Los Angeles County Department of Public Works' (LACDPW) *2007 Annual Report on the Los Angeles County Countywide Integrated Waste Management Plan* (2007 Annual Report), dated May 2009 (LACDPW 2009) and *Solid Waste Management in Los Angeles County*, dated in May 2007 (LACDPW 2007); and the California Integrated Waste Management Board's waste generation rates.

Information regarding water supply and reliability was prepared by ENTRIX and is based on communications with Golden State Water Company (GSWC) personnel (2009); GSWC's *2005 Urban Water Management Plan – Southwest*, dated December 2005 (GSWC 2005), and *2007 Southwest Water System Master Plan*, dated September 2007 (GSWC 2007a); Metropolitan Water District of Southern California's (Metropolitan's) *Integrated Water Resources Plan Implementation Report*, dated October 2007 (Metropolitan 2007), *Water Surplus and Drought Management Plan*, dated August 2009 (Metropolitan 2009); and the California Department of Water Resources (DWR) Draft 2009 State Water Project (SWP) Reliability Report (DWR 2010).

5.5.1 RELEVANT POLICIES AND REGULATIONS

State

Senate Bill 610

By implementation of Senate Bill 610 (SB 610 – Costa; Chapter 643, Stats. 2001), the California Water Code (CWC) requires public agencies, parties, or purveyors that may supply water to certain proposed development projects to prepare a Water Supply Assessment (WSA) for use by the planning agency in compliance with the California Environmental Quality Act (CEQA).[1] A WSA is required for any "project" that is subject to State CEQA Guidelines, which under CWC Section 10912(2), is defined as one of the following: a proposed residential development of more than 500 dwelling units; a proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space; a proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; a proposed hotel or motel, or both, having more than 500 rooms; a proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area; a mixed-use project that includes one or more of the projects specified in this subdivision; or a project that would demand the amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project. The Aviation Station Project does not meet these requirements.

[1] SB 610 amended section 21151.9 of the California Public Resources Code, and amended sections 10631, 10656, 10910, 10911, 10912, and 10915 of, repealed section 10913 of, and added and amended section 10657 of, the California Water Code.

California Integrated Waste Management Act (AB 939)

The California Integrated Waste Management Act of 1989 (AB 939) requires all counties to prepare an Integrated Waste Management Plan. The County has an adopted plan that includes the following mandated components: Source Reduction and Recycling Elements; Household Hazardous Waste Elements; a countywide Siting Element that identifies 15 years of available disposal capacity; and, a statement of significant solid waste disposal problems facing the jurisdiction.

The Source Reduction and Recycling Element (SRRE) of the Integrated Waste Management Plan is required by AB 393 to identify how each jurisdiction would meet the mandatory state waste diversion goals of 25 percent by the year 1995 and 50 percent by the year 2000. The purpose of AB 939 was to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." Noncompliance with the goals and timelines set forth within the Act can be severe, as the bill imposes fines up to $10,000 per day on jurisdictions (cities and counties) not meeting these recycling and planning goals.

The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the lowest adverse impact on human health and the environment. The California Integrated Waste Management Act has established a waste management hierarchy as follows:

- Source Reduction;
- Recycling;
- Composting;
- Transformation;
- Disposal.

California Solid Waste Reuse and Recycling Access Act of 1991

Faced with the challenge of trying to implement AB 939, the California Solid Waste Reuse and Recycling Access Act of 1991 was passed by the State legislature and instructs the CIWMB to draft a "model ordinance" for the disposal of construction waste associated with development projects. Since 1994, the CIWMB model ordinance has been in effect for the County. On January 4, 2005, the County adopted the Construction and Demolition Debris Recycling and Rescue Ordinance. This ordinance will require most development projects in unincorporated areas to recycle or reuse 50 percent of the debris generated. The County began accepting Recycling and Reuse Plans on April 5, 2005. It is noted that the County's Green Building Program, discussed further below, would require a minimum of 65 percent of the "non-hazardous construction and demolition debris by weight" to be recycled or reused. This Act also requires local agencies to ensure adequate areas for the collection and loading of recyclable materials in development projects.

California Health and Safety Code Section 25218

The California Health and Safety Code Section 25218 governs cities' and counties' disposal of household hazardous waste. It identifies the State as the responsible governing entity for the provision of "an expedited and streamlined permitting and regulatory structure for household hazardous waste and conditionally exempt small quantity generator waste collection and handling" (CHSC 2008). As such, the CIWMB has instituted a Used Oil Recycling and Household Hazardous Waste Program to develop alternatives to the illegal disposal of used oil and household hazardous waste. The goals of the program include: (1) providing the public with

convenient collection locations; (2) increasing the demand for re-refined oil (CIWMB 2007); and (3) developing methods to motivate the public to recycle their used oil and hazardous waste.

California Integrated Waste Management Board Model Ordinance

Subsequent to enactment of the California Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Re-use and Recycling Access Act of 1991 (Public Resources Code Section 42900–42911) directs the CIWMB to draft a "model ordinance" relating to adequate areas for collecting and loading recyclable materials in development projects. If by September 1, 1994, a local agency did not adopt its own ordinance based on the CIWMB model, the CIWMB model took effect for that local agency. The County chose to use the CIWMB model ordinance. Recently, on March 6, 2005, the County of Los Angeles adopted its own ordinance that requires all development projects to recycle 50 percent of all construction waste materials.

<u>County</u>

County of Los Angeles Resolution and Ordinances

A Resolution was adopted by the County of Los Angeles Board of Supervisors on August 5, 2008 declaring a Countywide Water Supply and Conservation Alert. This Resolution urges County residents, businesses, local water purveyors, and cities to intensify water conservation efforts to achieve an overall reduction in water demand of 15 to 20 percent; directing all County departments to evaluate water usage and immediately implement conservation measures to reduce consumption by a target amount of 10 percent by December 31, 2008 and report back to the Board of Supervisors with recommended measures to reduce consumption by an additional 10 percent; urging local water purveyors and cities to accelerate and intensify public outreach campaigns; urging cities to update and adopt water wasting ordinances and prepare for enforcement of the ordinances, if necessary; and encouraging County residents to follow ten easy tips to reduce their water consumption (County of Los Angeles 2008).

On October 7, 2008, in response to this Resolution, the Los Angeles County Board of Supervisors readopted the provisions stated in the Los Angeles County Code, Title 11, Chapter 11.38, Water and Sewers, regarding water conservation requirements for the Los Angeles County area, such a prohibiting the wash down of driveways and sidewalks, limiting the hours and duration of watering any lawn or landscaping, and prohibiting water runoff into adjoining streets. In addition, Title 26, Chapter 71 of the Los Angeles County Code, Water-Efficient Landscaping, includes regulations for designing, installing and maintaining water-efficient landscapes in new projects.

On November 18, 2008, the County of Los Angeles adopted a Green Building Program intended, in part, to improve design and construction techniques that promote water conservation. The Los Angeles County Code, Title 22, Chapter 22.52, Part 20, Green Building, as a component of the Green Building Program, requires the installation of smart irrigation controllers and high-efficiency toilers, and requires a minimum of 65 percent of the "non-hazardous construction and demolition debris by weight" to be recycled or reused; Drought-Tolerant Landscaping (Los Angeles County Code, Title 22, Chapter 22.52, Part 21) provides additional standards for the design and installation of landscaping using drought-tolerant plants that require minimal use of water and limitations on turf areas; and the Los Angeles County Code, Title 12, Chapter 12.84, Low Impact Development encourages the preservation of watersheds, drainage paths, water supplies, and natural resources through compliance with additional development standards. Where a conflict exists between provisions

of the Green Building Program and other ordinances, statutes, regulations, or requirements, the stricter provision shall apply (Los Angeles County Code, Title 22, Chapter 22.52, Part 20, Green Building).

County of Los Angeles Integrated Waste Management Plan

In accordance with AB 939 described above, the County adopted its Integrated Waste Management Plan in 1996, and it includes the following components: Source Reduction and Recycling Element, Household Hazardous Waste Element, Countywide Siting Element and the Non-Disposal Facility Element.

County of Los Angeles Source Reduction and Recycling Element (SRRE)

The County SRRE was prepared in response to AB 939. It describes policies and programs that the County must implement for its unincorporated areas to achieve the State's mandate of 25 and 50 percent waste disposal reductions by the years 1995 and 2000, respectively. The most recent CIWMB-approved diversion rate for unincorporated County areas was 53 percent for reporting year 2004 (approved March 2007) (CIWMB 2007).

County of Los Angeles Household Hazardous Waste Element (HHWE)

AB 939 requires every city and county within the state to prepare an HHWE that provides for the management of household hazardous waste generated by the residents within its jurisdiction. The Countywide Household Hazardous Waste Management Program, consisting of collection and public education/information services, has been formulated to serve residents throughout the County in a convenient and cost-effective manner. In addition to reducing the amount of waste that might otherwise be sent to a landfill as required by AB 939, these programs are important facets in the County's effort to clean up the solid waste stream.

County of Los Angeles Countywide Siting Element

In June 1996, Los Angeles County prepared the Los Angeles County Countywide Siting Element to project waste generation and waste disposal capacity within the County. Projections are made for 15-year planning periods. LACDPW updates the Siting Element annually. The most recent report is the *Los Angeles County Integrated Waste Management Plan 2003 Annual Report on the Countywide Summary Plan and Countywide Siting Element* (February 2005). This report projects landfill capacity through 2025.

County of Los Angeles Non-Disposal Facility Element (NDFE)

AB 939 also requires every City and County within the state to prepare and adopt a Non-Disposal Facility Element (NDFE) that identifies all existing, expansions of existing, and proposed new non-disposal facilities that will be needed to implement the local jurisdiction's SRRE. The County's NDFE identifies 20 existing materials recovery facilities/transfer stations, and 9 proposed material recovery facilities as non-disposal facilities that the County intends to utilize in order to implement its SRRE and meet the diversion requirements of AB 939. In addition, the County's NDFE also identifies the utilization of four landfill facilities, operated by the LACSD, for diversion of yard/green waste which is intended to be used as alternative daily cover at the landfills.

Construction and Demolition Debris Recycling and Reuse Ordinance

The County adopted an ordinance, effective March 6, 2005, that requires all construction projects to recycle at least 50 percent of construction wastes. The ordinance amends Title 20 of the Los Angeles County Code by adding Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse). The ordinance states that at least 50 percent of all construction and demolition (C&D) debris, soil, rock, and gravel removed from a Project site must be recycled or reused unless a lower percentage is approved by the Director of Public Works. A Recycling and Reuse Plan (RRP) must be submitted to the Department of Public Works, Environmental Programs Division, after an application for a permit has been filed for a project. The RRP must contain a project description and the estimated total weight of the project C&D debris, with separate estimates for: (1) soil, rock, and gravel; (2) other inert materials; and (3) all other project C&D debris. The ordinance also requires that annual progress reports be submitted to the Director of Public Works for review.

5.5.2 EXISTING CONDITIONS

Water Supply

Sources

The Southwest System of Golden State Water Company (GSWC), which is regulated by the California Public Utilities Commission (CPUC), currently provides water to the Project site. GSWC serves more than 260,000 customers within 75 communities, 10 counties, and 39 customer service areas throughout California ranging from Lake County to the north to Imperial County to the south.

GSWC's Southwest System obtains its water from three primary sources: imported water, recycled water, and GSWC-operated groundwater wells. GSWC purchases its imported water from Central Basin Municipal Water District (CBMWD) and West Basin Municipal Water District (WBMWD), both of which obtain their imported water supplies from Metropolitan Water District of Southern California (Metropolitan). WBMWD supplies recycled water to GSWC. Groundwater is supplied through GSWC-operated groundwater wells in the Southwest System, in addition to GSWC having an adjudicated groundwater pumping allocation in the Central Basin and West Basin (GSWC 2005).

The approximate amount of water supplied by each of the sources described above in acre-feet per year (afy), as of 2005, is summarized in Table 5.5-1. In accordance with GSWC's long-term water supply planning projections and those of its wholesale suppliers, each source's availability is estimated through the year 2030. As shown in Table 5.5-1, GSWC's water supply is projected to increase by approximately 15 percent from 2005 through 2030 in order to meet the projected water demands. According to GSWC's *2005 Urban Water Management Plan*, this demand will be met by the implementation of conjunctive use storage programs expected to be developed in the Central and West basins, groundwater, and imported water.

TABLE 5.5-1
CURRENT AND PLANNED WATER SUPPLIES FOR GSWC IN AFY, 2005-2030

Source	Year					
	2005	**2010**	**2015**	**2020**	**2025**	**2030**
Purchased water	28,933	30,628	32,013	33,446	34,826	36,174
Groundwater from CBMWD[a]	900	900	900	900	900	900
Groundwater from WBMWD[b]	7,260	7,260	7,260	7,260	7,260	7,260
Recycled water	490	750	800	800	800	800
Total	**37,583**	**39,538**	**40,973**	**42,406**	**43,786**	**45,134**

[a] Based on GSWC's Central Basin allowed pumping allocation
[b] Based on GSWC's West Basin adjudicated rights

Source: GSWC 2005, 2007a

Approximately 77 percent of the available supply for 2005 is composed of purchased imported water and groundwater pumping leases, with about 21 percent of the supply from GSWC groundwater pumping and 2 percent of the supply from recycled water sources. Table 5.5-1 shows that GSWC's water availability is highly dependent upon the amount of available water supplied by CBMWD and WBMWD, as the purchased water may comprise approximately 80 percent of the total supplies in future years.

Imported Water Supplies

Central Basin Municipal Water District

In 1952, CBMWD started as a regional agency composed of groundwater producers in southeastern Los Angeles County. In 1954, when native groundwater supplies in southeastern Los Angeles County became critically over-drafted, CBMWD became one of Metropolitan's 26 member agencies. Today, CBMWD wholesales potable water to over 2 million people in 24 cities, mutual water companies, investor-owned utilities, water districts and private companies in the region, including GSWC. In addition, the District supplies recycled water to the region for municipal, commercial and industrial use. CBMWD currently provides approximately 90,000 afy of imported water to meet retail municipal and industrial use and groundwater replenishment demands in its 227 square mile service area. Approximately 78 percent of this water is obtained from local sources (groundwater, recycled water, and conservation), while the remaining 22 percent is imported water supplied by Metropolitan. The demand for imported water is expected to increase to approximately 110,000 afy by 2030, and the percentage of imported water is projected to increase slightly to 23 percent by this time (CBMWD 2005).

West Basin Municipal Water District

WBMWD was formed in 1947 and became one of Metropolitan's 26 member agencies in 1948. WBMWD has a service area of 185 square miles and serves a population of approximately 900,000 people in 17 cities, mutual water companies, investor-owned utilities, water districts and private companies in the region, including GSWC. Over the past two decades, WBMWD has implemented mix of education, conservation, water recycling, and desalination programs. The largest water recycling facility in the nation (West Basin Water Recycling Facility), which provides billions of gallons of recycled water to users throughout southwest Los Angeles County, is operated by WBMWD. Recently, this water recycling facility has partnered with the Water Replenishment District of Southern California in order to provide water for barrier injection to protect groundwater wells from seawater intrusion. Approximately 65 percent of WBMWD's water (approximately 130,000 afy) is supplied

by Metropolitan, while the remaining 35 percent comes from local sources (e.g., groundwater, recycled water, conservation, and ocean desalination). The demand for imported water is projected to decline to approximately 102,000 afy by 2030 and will then comprise approximately 39 percent of the total supply.

Metropolitan Water District

Metropolitan supplies imported water to CBMWD and WBMWD, who in turn supply this water to GSWC. Metropolitan water indirectly purchased by GSWC for their Southwest System arrives through twelve connections: ten connections with WBMWD, rated at a total of 72,243 afy, and two connections with CBMWD, rated at a total of 18,057 afy. There currently are no physical limitations on the capability of the system to deliver imported water because system capacity is greater than the projected demand in 2030 (45,134 af) (GSWC 2005). Moreover, the Southwest System Water Management Plan (GSWC 2007a) identified no capacity or storage deficiencies in Zone 250, where the proposed Project would be located, through 2030.

Metropolitan has developed a diversified portfolio of water supplies consisting of not only imported SWP water and Colorado River supplies, but also recycled water and groundwater recovery, surface storage, Central Valley banking programs, and groundwater storage programs. Its dry-year conjunctive use programs involve storing surplus water supplies within the service area in order to maintain reliability during dry, drought, and emergency conditions. Metropolitan also has cyclic storage agreements in two major groundwater basins in its service area that allow for up to 240,000 af of imported water storage. Metropolitan also is undertaking a number of other measures to increase water supply reliability, including providing incentives for locally produced seawater desalination to reduce the need for imported supplies (Metropolitan 2009). In addition, Metropolitan has implemented a number of measures intended to reduce water demand, thus further lessening its dependence on imported supplies. In fiscal year 2008/2009, Metropolitan implemented new rebates and other conservation activities, which resulted in water savings of more than 16,000 afy. When combined with other water-saving devices that were implemented earlier, the total annual water savings is about 134,000 af. Additional rebate programs save approximately 16,100 afy (Metropolitan 2010). Metropolitan's Integrated Water Resources Plan (Metropolitan 2004) calls for an annual water conservation goal of over 1.1 million acre-feet by 2025 to be met by a combination of incentive-based conservation and tiered water rates and compliance with plumbing codes and other laws.

Other options also are available to Metropolitan during periods of water shortages. In April 2009, Metropolitan implemented its Water Supply Allocation Plan (WSAP), reducing water deliveries to its member agencies for the first time since 1991. Mandatory restrictions went into effect into July 2009 (Metropolitan 2010). Metropolitan has the option of implementing a WSAP in future years, as well, should this be necessary to manage demands and preserve storage. Metropolitan also continues to pursue other initiatives, including extraordinary conservation, Colorado River transactions, SWP transactions, groundwater recovery, near-term Delta actions, and local resources, in order to enhance water supply reliability in its service area (Metropolitan 2009).

Table 5.5-2 summarizes the recent demand and supplies in Metropolitan's service area. It shows Metropolitan's base supplies, provided by the Colorado River Aqueduct and SWP, as well as additional supplies available through the Water Surplus and Drought Management Plan (WSDM), which include transfers and exchanges, surface storage, groundwater storage programs, and Central Valley banking programs. The actual percentage of any particular supply in a given year is variable and depends upon a number of factors, including demand, hydrologic conditions, and constraints imposed by court decisions and regulatory conditions. Additional information regarding the WSDM and other measures to increase reliability are discussed below under "Water Supply Reliability."

TABLE 5.5-2
METROPOLITAN SUPPLIES VS. DEMAND (IN ACRE-FEET)

Resource Category	2008	2009
Demand	2,261,000	2,022,000
Base Supplies	1,480,000	1,991,000
Colorado River Aqueduct	742,000	1,333,000
State Water Project	738,000 (35% allocation)	858,000 (40% allocation)
Additional Supply Needed	781,000	31,000
WSDM Actions [a]	781,000[b]	31,000
Balance	0	0

[a] Includes transfers and exchanges, surface storage, groundwater storage programs, and Central Valley banking programs
[b] 2,000 acre-foot difference due to rounding

Source: Metropolitan 2008, 2009

Recycled Water Supplies

In 2005, approximately 490 afy of recycled water were consumed by customers in GSWC's Southwest System (GSWC 2007a). GSWC's recycled water supply is wholesaled from WBMWD, who purchases the water from the City of Los Angeles' Hyperion Wastewater Treatment Plant and treats the water to meet recycled water quality standards at WBMWD's West Basin Water Recycling Facility in El Segundo, California.

Groundwater

Central Basin

GSWC's Southwest System is supplied groundwater by two wells in the Central Basin. This subbasin has an approximate surface area of 277 square miles. A surface divide, the La Brea High, bounds the Central Basin on the north, and emergent less permeable Tertiary rocks of the Elysian, Repetto, Merced and Puente Hills bound the basin on the northeast and east. Coyote Creek forms the southeast boundary between Central Basin and Orange County Groundwater Basin and the Newport-Inglewood fault system and uplift form the southwest boundary (DWR 2004a).

The Central Basin is divided into two forebays and two pressure areas: the Los Angeles forebay, the Montebello forebay, the Whittier area, and the Central Basin pressure area. The Los Angeles forebay is located in the northern part of the Central Basin where the Los Angeles River enters the Central Basin via the Los Angeles Narrows, while the Montebello forebay lies south of the Whittier Narrows where the San Gabriel River enters the Basin. The Montebello forebay is the most important recharge area in the Central Basin (DWR 2004a). The aquifers in these forebays, which provide recharge to the Central Basin, are relatively interconnected and unconfined, extending up to 1,600 feet deep (DWR 1961 as cited in DWR 2004a). The Whittier area contains freshwater-bearing sediments and extends south from the Puente Hills and southwest to the axis of the Santa Fe Springs-Coyote Hills uplift. The largest of the Central Basin divisions is the Central Basin pressure area, which extends about 2,200 feet below the surface and contains several permeable sand and gravel aquifers that are separated by semi-permeable to impermeable sandy clay to clay layers (DWR 1961 as cited in DWR 2004a).

Replenishment of groundwater in the Central Basin, predominantly occurring in the forebay areas, happens through surface and subsurface flow and by direct percolation of precipitation, stream flow, and applied water. Inflow through Whittier Narrows and from the San Gabriel Valley largely contributes to natural replenishment of the groundwater supply. Artificial recharge in the

Montebello forebay at the Rio Hondo and San Gabriel River spreading grounds occurs using imported water purchased from Metropolitan and recycled water from Whittier and San Jose Treatment Plants. The estimated total storage capacity of the Central Basin is 13,800,000 acre-feet (DWR 2004a).

In 1965, *Central and West Basin Water Replenishment District vs. Charles E. Adams, et al.* (Superior Court, County of Los Angeles, case no. 786656) adjudicated the Central Basin. This ruling limits the amount of groundwater each party can extract from the Central Basin annually, which is referred to as the "Allowed Pumping Allocation" (APA). The APA is monitored by a court-appointed Watermaster. The adjudication limit for groundwater extraction across the entire Central Basin is 217,367 afy, while GSWC has an APA of 16,439 afy (GSWC 2005).

West Coast Basin

GSWC's Southwest System is supplied groundwater by 14 wells in the West Coast Basin. This subbasin has an approximate surface area of 142 square miles. The Ballona Escarpment bounds the basin to the north, the Newport-Inglewood fault zone bounds it to the east, and the Pacific Ocean and consolidated rocks of the Palos Verdes Hills bound it to the west and south, respectively (DWR 2004b).

Unconsolidated and semi-consolidated marine and alluvial sediments of Holocene, Pleistocene, and Pliocene ages comprise the water-bearing deposits of the West Coast Basin. The most productive aquifer in the West Coast Basin is the Silverado aquifer, which underlies most of the Basin. Annually, this aquifer yields from 80 to 90 percent of groundwater extracted from the West Coast Basin (DWR 1999 as cited in DWR 2004b). The West Coast Basin has eight other confined and unconfined aquifers ranging in maximum thickness from 60 feet to 700 feet (DWR 2004b).

Natural replenishment of groundwater in the West Coast Basin is limited to underflow from the Central Basin through and over the Newport-Inglewood fault zone. Seawater intrusion is a problem within the West Coast Basin, and injection wells in the West Coast Basin Barrier create a north-south trending mound of freshwater from Los Angeles International Airport south to the Palos Verdes Hills. The uppermost aquifers see minor replenishment from infiltration of surface inflow from both the Los Angeles and San Gabriel Rivers. Artificial recharge in the West Coast Basin is minor and consists of return irrigation water from fields and lawns, industrial waters, and other applied surface waters (DWR 2004b). The estimated total storage capacity of the Silverado aquifer, which is the most productive in the Basin, is 6,500,000 acre-feet (DWR 2004b).

In 1961, *Central and California Water Service Company, et al. vs. City of Compton, et al.* (Superior Court, County of Los Angeles, Case No. 506806) adjudicated the West Coast Basin. This adjudication allows groundwater producers to annually pump the volume of water as decided in the ruling and is monitored by a court-appointed Watermaster. The adjudication limit for groundwater extraction across the entire West Coast Basin is 64,468 afy, while GSWC has legal rights to 7,260 afy of water.

Water Supply Reliability

Based on the information provided in GSWC's 2005 Urban Water Management Plan - Southwest (2005 UWMP), GSWC's normal year demand is anticipated to be approximately 45,134 af in 2030. Based on this projected demand, the UWMP concluded that GSWC's water supply for non-discounted non-interruptible demands is expected to be 100 percent reliable through 2030 (GSWC 2005). As noted above in Table 5.5-1, however, a substantial portion of GSWC's water supply is expected to be imported water from Metropolitan (77 percent in 2010 and 80 percent in 2030), and the reliability of Metropolitan's supplies has changed since 2005 when the UWMP was written in light of ongoing drought conditions and

increasing reductions in SWP supplies as a result of a number of factors. The 2007 SWP Delivery Reliability Report (DWR 2008b) describes three areas of significant uncertainty to SWP delivery reliability: the recent and significant decline in pelagic organisms in the Delta (open water fish such as striped bass, longfin smelt,[2] and delta smelt), climate change and sea level rise (refer to Section 6.4, Climate Change for further discussion), and the vulnerability of Delta levees' to failure. Additionally, recent Biological Opinions (BOs) prepared by the U.S. Fish and Wildlife Service (USFWS)[3] (for delta smelt) and the National Marine Fisheries Service (NMFS)[4] (for salmonids and green sturgeon) restrict negative flows on watercourses leading to the SWP and Central Valley Project (CVP) export facilities in the Delta, resulting in restrictions on SWP pumping. This has led to reduced water supplies and increased uncertainty regarding the ability of the SWP to meet its contractual deliveries to Metropolitan and other SWP contractors. Footnotes 4 and 5 provide background regarding these BOs.[5] [6] DWR, which is the state agency

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[2] The 2007 SWP Delivery Reliability Report notes that longfin smelt is being considered for listing under the California Endangered Species Act (CESA) (DWR 2008b). On February 7, 2008, the California Fish and Game Commission (Commission) designated longfin smelt as a candidate species for listing under CESA. Under CESA, candidate species receive the same legal protection as listed threatened and endangered species. Under state law, take of candidate species (including incidental take by engaging in activities that may result in take) is prohibited unless authorized by the Commission or the California Department of Fish and Game (Department) under specified conditions. On February 17, 2009, DWR adopted a Negative Declaration (ND) for the ongoing SWP operations in the Sacramento-San Joaquin Delta for the protection of the longfin smelt as authorized by the DFG through issuance of a permit for take of longfin smelt under Section 2081 of CESA (California Fish and Game Code Section 2081). The permit issued by DFG allows the incidental take of longfin smelt until it expires on December 31, 2018. The action consists of operation of SWP facilities consistent with certain actions identified in the U.S. Fish and Wildlife Service Delta Smelt Biological Opinion of the Operating Criteria and Plan (OCAP) for the Coordinated Operations of the Central Valley Project and State Water Project. The action includes operation of SWP facilities from December through June to protect adult longfin smelt migration and spawning and larvae and juvenile rearing. The protection of longfin smelt is achieved through operations undertaken during the same period to protect delta smelt, which DWR found are sufficient for the protection of longfin smelt because of adaptive management provisions and the substantial overlap in timing and distribution of these species in the Sacramento-San Joaquin Delta. DFG also imposed additional mitigation measures as part of its Incidental Take Permit. On March 4, 2009, the California Fish and Game found that a threatened listing was warranted for longfin smelt, and its regulatory findings indicated that a variety of factors are affecting the fish and posing a threat to its recovery, including water project operations in the Delta, pollutants, dredging and sand mining operations, and commercial bait fishing for bay shrimp. On June 25, 2009, the Commission formally listed longfin smelt as a threatened species under CESA. On August 8, 2007, USFWS was petitioned to list only the San Francisco Bay-Delta population of longfin smelt as a Distinct Population Segment (DPS). On May 6, 2008, the USFWS published a 90-day finding that listing might be warranted. On April 9, 2009, the USFWS issued a full 12-month finding that it did not qualify as a DPS. They also announced a new status review of the species through its entire range. On April 8, 2009, the USFWS announced that the Bay-Delta population of longfin smelt does not meet the legal criteria for protection as a species subpopulation under the federal Endangered Species Act. The USFWS simultaneously announced that it is seeking additional information for a broader assessment of the longfin smelt that could lead to future action, although no decision can be made before reviewing any new information.

[3] U.S. Fish and Wildlife Service, Biological Opinion on the Proposed Coordinated Operations of the Central Valley Project and State Water Project, December 2008.

[4] National Marine Fisheries Service, Southwest Region, Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project, June 2009.

[5] On May 25, 2007, the United States District Court (Eastern District of California, Fresno Division) in Natural Resources Defense Council, et al. v. Kempthorne, Case No. 1:05-cv-01207-OWW-NEW (Kempthorne) granted in part the plaintiff's motion for summary judgment and found that the USFWS's 2005 BO on the impacts of the long-term operations of the Central Valley Project (CVP) and the SWP on delta smelt was inadequate. In late June 2007, District Judge Oliver W. Wanger in Kempthorne heard and rejected Natural Resources Defense Council's and Earthjustice's motion for a temporary restraining order to curb southbound water shipments at least temporarily due to smelt issues. On August 31, 2007, the court in Kempthorne issued an oral statement of decision granting a preliminary injunction and remedial order to protect delta smelt until a new delta smelt BO was issued by the USFWS. The decision, finalized on December 14, 2007, set interim operating limits for the joint SWP and CVP operations and required new steps to monitor delta smelt. The Kempthorne requirements were triggered by environmental conditions and the presence of specific delta smelt life stages and were focused on minimizing the

charged with the statutory responsibility to build, manage, and operate the SWP, estimates that water deliveries to cities, farms, and businesses throughout much of the state will be reduced about 20 to 30 percent on average as a result of the USFWS BO, but that cuts could be even greater under certain hydrologic conditions (DWR 2008a). DWR estimates that restrictions included in the NMFS BO could reduce Delta exports on average by 300,000 to 500,000 af.

Multiple entities have challenged the scientific basis of these restrictions, and some water agencies are developing other means of protecting biological resources in the Delta while providing water supply benefits. Among the projects that are being developed, but have not yet received approvals and/or permits are the Bay-Delta Conservation Plan, the purpose of which is to develop a conservation plan that resolves the conflict between fishery protection under state and federal Endangered Species Acts and water operations of the SWP, CVP, and Mirant Power facilities in the legal Delta; improvements to the North Bay Aqueduct, which are intended to benefit protected species and improve water quality; the Los Vaqueros Reservoir Expansion Project, which could provide water supplies for environmental water management in the Delta to support fish protection, habitat management and other environmental water needs; and installation of operable gates in key channels in the Delta in order to control flows and thereby provide reduced entrainment of delta smelt and other sensitive aquatic species at the SWP and CVP export pumping facilities. Given the factors described above, however, the SWP supply reliability is uncertain, and is expected to remain below the contractual maximum described in the Table A Amount,[7] and somewhat less than or equal to the amount most recently provided by DWR in the 2007 SWP Delivery Reliability Report (2008b) until or unless the proposed infrastructural improvements are in place.

DWR recently issued the 2009 Draft SWP Reliability Report (DWR 2010), which is the most current guidance for assessing the availability of SWP water supplies. The Draft 2009 SWP Reliability Report incorporates regulatory requirements for SWP and CVP operations in accordance with USFWS and NMFS BOs. Estimates of future reliability also reflect potential impacts of climate change and sea level rise.

Table 5.5-3 compares estimates of SWP Table A deliveries for current (2009) conditions for average and dry years that were included in the 2007 SWP Delivery Reliability Report with those from the Draft 2009 report. As shown, 2009 estimates of updated SWP deliveries under current

negative entrainment effects caused when the combined export pumping of the SWP and the CVP reverses the flow in Old and Middle River (OMR). The decision required the USFWS to complete a new BO by September 15, 2008; however, the USFWS requested and was granted a three-month extension to complete the BO, which was then issued on December 15, 2008 (http://www.fws.gov/sacramento/es/documents/SWP-CVP_OPs_BO_12-15_final_OCR.pdf). The new BO supersedes the operating parameters and requirements set forth in the interim remedial order, but continues similar parameters and requirements.

6 Similar to the challenge to the delta smelt BO, a second BO, covering Sacramento River winter-run Chinook, Central Valley spring-run Chinook, Central Valley steelhead and other aquatic species, issued in October 2004 by the NMFS, was challenged in Pacific Coast Federation of Fishermen's Associations/Institute for Fisheries Resources, et al. v. Gutierrez, Case No. 1:06-cv-00245-OWW-GSA. Subsequent to the initiation of this lawsuit, the U.S. Bureau of Reclamation reinitiated consultation on the BO. On April 16, 2008, Judge Wanger issued a summary judgment order in this case invalidating the salmon and steelhead BO, finding it unlawful and inadequate on a number of grounds. Judge Wanger ruled that the BO, consequently, must be remanded to the NMFS and the U.S. Bureau of Reclamation for further consultation in accordance with law (which, as noted above, is already ongoing) and that the U.S. Bureau of Reclamation must continue to take no actions during re-consultation that make any irreversible or irretrievable commitment of resources which forecloses the formulation or implementation of reasonable and prudent alternative measures. On June 4, 2009, NMFS released its BO (http://swr.nmfs.noaa.gov/ocap.htm), which concludes that CVP and SWP operations will jeopardize the covered species and destroy or adversely affect critical habitat.

7 An agency's Table A Amount is its contractual "right" to imported water via the SWP.

conditions during average conditions are slightly less than the 2007 estimates and estimated deliveries during dry periods are essentially the same.

TABLE 5.5-3
AVERAGE AND DRY PERIOD SWP TABLE A DELIVERIES UNDER CURRENT CONDITIONS

Study of Current Conditions	SWP Table A Delivery from the Delta (in percent of maximum Table A)[a]					
	Long-term Average[b]	Single dry-year (1977)	2-year drought (1976-1977)	4-year drought (1931-1934)	6-year drought (1987-1992)	6-year drought (1929-1934)
2007 SWP Reliability Report, Study 2007[b]	63%	6%	34%	35%	35%	34%
Updated Studies (2009)[c]	60%	7%	36%	34%	35%	34%

[a] Maximum Table A Amount is 4,133 thousand acre feet/year.
[b] Values reflect averaging annual deliveries from the two scenarios of Old and Middle River flow targets.
Source: DWR, Draft 2009 State Water Project Delivery Reliability Report, 2010, Table 6.4.

Table 5.5-4 compares estimates of SWP Table A deliveries for future (2029) conditions for average and dry years that were included in the 2007 SWP Delivery Reliability Report with those from the Draft 2009 SWP Reliability Report. As indicated, estimates of updated SWP deliveries during dry periods are about the same as the 2007 report for four-year and six-year droughts. Deliveries during the 2-year drought are estimated to increase by 11 to 12 percent when compared to the 2007 estimate, and deliveries during a single dry year are estimated to increase by 4 to 5 percent.

TABLE 5.5-4
AVERAGE AND DRY PERIOD SWP TABLE A DELIVERIES UNDER FUTURE CONDITIONS

Study of Current Conditions	SWP Table A Delivery from the Delta (in percent of maximum Table A)[a]					
	Long-term Average	Single dry-year (1977)	2-year drought (1976-1977)	4-year drought (1931-1934)	6-year drought (1987-1992)	6-year drought (1929-1934)
2007 SWP Reliability Report, Study 2027b	66-69%	6-7%	26-27%	32-37%	33-35%	33-36%
Updated Studies (2029)	60%	11%	38%	35%	32%	36%

[a] Maximum Table A Amount is 4,133 thousand acre feet/year.
[b] Range in values reflects four modified scenarios of climate change: annual Table A deliveries were first interpolated between full 2050 level and no climate change scenarios, then averaged over the two scenarios of Old and Middle River flow targets.
Source: DWR, Draft 2009 State Water Project Delivery Reliability Report, 2010, Table 6.13.

Thus, the 2009 projections for average deliveries are somewhat lower than those included in the 2007 SWP Reliability Report, but under some scenarios, deliveries would be similar or even greater. Nonetheless, Metropolitan has undertaken several planning initiatives to enhance supply reliability as discussed above under “Metropolitan Water District.” The following provides additional detail on the 2007 Integrated Water Resources Plan Implementation Report (IWRPIR) and the WSDM Plan. Additional information regarding Metropolitan’s investments in local resources is included in the recycled water and seawater desalination discussion in the subsection “WBMWD’s Water Supply Programs” below.

Metropolitan's 2007 Integrated Water Resources Plan Implementation Report (IWRPIR)

Metropolitan approved the Integrated Resources Plan Update in 2004, which provided long-term targets for water resources development in Metropolitan's service area through 2025. A water supply buffer was also established, allowing Metropolitan and its member agencies (including WBMWD and CBMWD) to manage uncertainties and unreliability of supplies and/or demands. The IWRPIR, transmitted in October 2007, focuses on a dry-year supply mix, with a supply buffer of an additional 500,000 af of contingency supplies, for the year 2025. The resources supply mix, ideally, would include the following: 28 percent from local groundwater, surface water, and Los Angeles Aqueduct water; 17 percent from conservation programs; 17 percent from the Colorado River Aqueduct; 10 percent from recycling, groundwater recovery, and desalination; 9 percent from in-basin surface water storage; 9 percent from SWP; 8 percent from Central Valley storage and transfers; and 4 percent from in-basin groundwater storage (Metropolitan 2007).

Metropolitan is currently updating its Integrated Resources Plan, which will outline a strategy for water reliability through the year 2030.

Metropolitan's Water Surplus and Drought Management Plan (WSDM Plan)

The WSDM Plan was adopted in 1999 by Metropolitan in order to integrate operational actions with respect to both a surplus and a shortage of water supplies. Its main principle is to manage Metropolitan's water resources and management programs in order to maximize management of wet year supplies and minimize impacts of water shortages to retail customers during dry years. The WSDM Plan is updated approximately every month and continues to follow considerations that go into an equitable allocation of imported water: population growth; changes and/or losses in local supplies; impact on retail consumers and regional economy; investments in local resources, including recycling and conservation; and investment in Metropolitan's facilities (GSWC 2005).

In 2008, a Five-Year Supply Plan was initiated that identifies specific resources and conservation actions to be implemented over the following five years in order to expedite the augmentation of water supplies and deliveries under continued drought conditions and court-order restrictions. Approximately 404,000 af of resources were identified for 2009, and a potential for 461,000 to 1 million af per year have been identified for future years (Metropolitan 2009b).

WBMWD's Water Supply Programs

There are proposed water supply projects in the WBMWD's service area to increase reliability. GSWC's Southwest System currently received recycled water from WBMWD's West Basin Recycled Water Project. However, as of 2005, WBMWD does not plan on expanding its recycled water distribution networks within the boundaries of the Southwest System service area (GSWC 2005). The potential to increase recycled water demand within the Southwest System will be discussed with WBMWD for the purposes of GSWC updating their UWMP for 2010. The CBMWD does not supply GSWC's Southwest System with any recycled water.

Currently GSWC does not receive any water via seawater desalination (GSWC 2005). However, Metropolitan initiated the Seawater Desalination Program (SDP) in 2001, which provides support for desalination projects within its service area that would deliver desalted water up to 50,000 afy, including financial assistance. In addition, WBMWD is planning on installing a full-scale seawater desalination plant by 2011. This plant would have a capacity of 20,000 afy. Any future desalination projects by Metropolitan or WBMWD would increase supply reliability for GSWC's Southwest System.

GSWC's Groundwater Supply Reliability

Central Basin

GSWC's total APA in the Central Basin is 16,439 afy, which is divided between all of their systems in the basin. In addition to its legal right to pump their allocation from the Central Basin, if GSWC's actual demands exceed these adjudicated limits, GSWC can use leased rights, on an annual basis, to increase allowed pumping (historically, GSWC has leased up to 7,500 afy) (GSWC 2005). Groundwater producers in the Central Basin, like GSWC, work together with the Los Angeles County Department of Public Works (LACDPW), the Water Replenishment District of Southern California (WRDSC), and the CBMWD to ensure that the producers' APA is available to be pumped each year. In order to increase and ensure the Central Basin's groundwater supply reliability, the use of recycled water has become key in augmenting dependence on imported water. CBMWD plans to increase deliveries of recycled water from 3,800 afy in 2005 to 10,500 afy in 2010 and to 15,500 afy by 2030 (GSWC 2005). LACDPW also recharges up to 45,000 afy of recycled water annually through various spreading grounds throughout the Basin.

West Coast Basin

GSWC's total APA in the West Coast Basin is 7,260 afy. In addition to its legal right to pump their allocation from the West Coast Basin, if GSWC's actual demands exceed these adjudicated limits, GSWC can use leased rights, on an annual basis, to increase allowed pumping (historically, GSWC has leased up to 6,475 afy, including a long-term lease of 3,651 afy through 2013) (GSWC 2005). Similar to the Central Basin, GSWC works together with LACDPW, WRDSC, and WBMWD to ensure that the producers' APA is available to be pumped each year. The West Coast Barrier Project, which is operated and maintained by LACDPW, maintains groundwater levels at the coastline to prevent seawater intrusion. As of 2005, LACDPW injects approximately a 50/50 combination of highly treated wastewater from the WBMWD's water recycling plant in El Segundo and imported Metropolitan water (both SWP and CRA water). Currently, to reduce dependence on imported water, WBMWD is expending the water recycling plant to allow up to 100 percent recycled water injection into the West Coast Basin Barrier Project. A similar project is under development for the Dominguez Gap Barrier Project, with increased injections of highly treated wastewater from the Terminal Island wastewater reclamation plant and decreased Metropolitan imported water injections.

Dry Utilities

Electricity

Southern California Edison (SCE) provides electrical service to the Project area, including the Project site. The Project site currently has easements for electrical power transmission lines and related appurtenances for the transmission and distribution of electricity on the site.

Natural Gas

The Southern California Gas Company (SCG) provides natural gas service to the Project area, including the Project site. There are existing SCG facilities serving the Project site.

Communication Systems

Communication services in the community of Del Aire are currently provided by AT&T and Time Warner Cable (Time Warner). There are existing AT&T facilities serving the Project site;

however, Time Warner is unable to provide the exact location of facilities in the right-of-way of the Project site at the time of preparation of this EIR.

Solid Waste

The California Integrated Waste Management Board (CIWMB) provides statewide oversight of all solid waste management. LACDPW provides regional oversight, and is responsible for permitting and reporting requirements for all 88 cities in the County and unincorporated portions of the County (LACPDPW 2007). The LACSD operates a solid waste management system serving 78 cities and unincorporated County areas encompassing approximately 820 square miles (Appendix J). In addition, privately owned and/or operated landfills and other solid waste management facilities also serve the County.

In 2008, the residents and businesses in the County disposed of 10.34 million tons of solid waste at in-County Class III landfills (76 percent), transformation facilities (5 percent), and exports to landfills outside Los Angeles County (19 percent), which translates into a 2008 average daily disposal rate of approximately 33,152 tons per day (6 days per week) (LACDPW 2009). However, the volume of solid waste disposal generated by Los Angeles County has remained relatively constant since 1990, despite continuing population and economic growth (LACDPW 2007). The most recent (2006) approved diversion rates for each jurisdiction within the County result in an estimated Countywide diversion rate of 58 percent; however, for purposes of long-term planning, the LACDPW has assumed a current (2008) diversion rate of 55 percent (LACDPW 2009).

Currently, the County manages its solid waste stream with the following in-county facilities: 11 Class III[8] landfills (7 major landfills)[9]; 2 inert waste landfills[10]; 2 waste-to-energy (transformation) facilities; 43 construction and demolition (C&D) debris recycling facilities; 28 large transfer stations/materials recovery facilities; and 350 recyclers (LACDPW 2007). The County's waste management strategy relies on a diversified mix of solid waste disposal options (e.g., in-county landfill expansions, continued out-of-county exports, waste-by-rail facilities), as well as the continued development of transformation facilities and alternative solid waste disposal technologies, in order to meet the future solid waste management needs, estimated to reach 15.3 million tons per year by the year 2023 (LACDPW 2009).

The County has determined that remote landfill capacity is necessary to meet long-term solid waste disposal volumes (LACDPW 2009). To this end, the LACSD is developing a regional Waste-by-Rail system that would utilize two landfills: the Mesquite Regional Landfill in southern Imperial County and the Eagle Mountain Landfill in Riverside County. Operation of both sites is estimated to be able to provide more than 100 years of disposal capacity for the County. Currently, the LACSD is designing and constructing the rail facilities necessary to begin Waste-by-Rail operation by 2011-2012. In June 2008, the City of Industry Planning Commission approved a Conditional Use Permit (CUP) for the Puente Hills Intermodal Facility (PHIMF), which will be used for loading and unloading rail-ready shipping containers that will then be transported to the Mesquite landfill. The Mesquite Regional Landfill Waste-by-Rail system would transport municipal solid waste approximately 210 miles to the landfill via the Union Pacific Railroad main line, which extends from metropolitan Los Angeles to Glamis, and then by a proposed 4.5-mile spur that would be built to the landfill site. The LACSD entered into

[8] Class III facilities are permitted to receive non-hazardous wastes only.

[9] Major landfills serve large geographic areas that are not necessarily limited to those areas in the immediate vicinity of the landfill.

[10] Inert wastes are materials that do not undergo physical or other changes after disposal, such as asphalt, concrete, dirt, and rock.

Purchase and Sale Agreements for these facilities, which represent the only two fully permitted rail haul landfills in California. LACSD closed escrow on the Mesquite landfill in December 2002. However, due in part to pending federal litigation, the LACSD has not yet closed escrow on the purchase of the Eagle Mountain landfill (Appendix J).

Of the 11 in-County landfills, three facilities have statutory limits on the service area from which they may accept solid waste that do not include the Project site. The closest landfill to the Project site is the Chiquita Canyon Landfill, located at 29201 Henry Mayo Drive, Valencia. This is a privately owned and operated landfill. The nearest LACSD disposal site that can accept waste generated by the Project is the Puente Hills Landfill (Puente Hills), located at 13130 Crossroads Parkway South in the City of Industry.

Puente Hills is located in unincorporated Los Angeles County, near the City of Whittier, south of the intersection of the Pomona Freeway (SR-60) and San Gabriel Freeway (I-605). The landfill accepts non-hazardous solid and inert waste. The current conditional use permit (CUP) for Puente Hills allows a maximum disposal rate of 13,200 tons per day (tpd), six days a week (79,200 tons per week). The current permit granted an expansion of Puente Hills, and disposal operations will continue under this permit until October 2013 (Appendix J).

Other solid waste management facilities operated by the LACSD that are available to the Project include the Commerce Refuse-to-Energy Facility (CREF) and the Puente Hills Materials Recovery Facility (PHMRF). CREF is a transformation facility that is permitted to accept up to 1,000 tons per day, not to exceed 2,800 tons per week; CREF currently receives approximately 420 tons per day. PHMRF is a materials recovery/transfer facility that is permitted to accept up to 4,400 tons per day, not to exceed 24,000 tons per week; PHMRF currently receives approximately 296 tons per day (Appendix J; LACDPW 2009).

5.5.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 5.5a: Is the project site in an area known to have an inadequate public water supply to meet domestic needs or to have an inadequate ground water supply and proposes water wells?

Threshold 5.5b: Is the project site in an area known to have an inadequate water supply and/or pressure to meet fire fighting needs?

Threshold 5.5c: Could the project create problems with providing utility services, such as electricity, gas, or propane?

Threshold 5.5d: Are there any other known service problem areas (e.g., solid waste)?

Threshold 5.5e: Would the project result in substantial adverse physical impacts associate with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service rations, response times, or other performance objectives for any of the public services or facilities (e.g. fire protection, police protection, schools, parks, roads)?

Threshold 5.5f: Would the project result in an inefficient use of energy resources? (Threshold from County Initial Study Section "Other Factors- General")

Regarding Threshold 5.5e, the need for new or physically altered governmental facilities for these public services as a result of the Project is addressed in the following sections of this EIR: fire protection (Section 5.4 Fire/Sheriff), police protection (Section 5.4 Fire/Sheriff), schools (Section 5.3 Education), parks (Section 6.3 Population, Housing, Employment and Recreation) and roads (Section 5.1 Traffic/Access). Therefore, this threshold contained in the Utilities/Other Services section of the County of Los Angeles Initial Study is not repeatedly addressed in this section.

5.5.4 PROJECT DESIGN FEATURES

The following PDFs repeated from Section 6.4, Greenhouse Gas Emissions and Climate Change, are also applicable to the analysis of utilities.

PDF 6.4-1 In accordance with the County of Los Angeles' Green Building ordinance (*Los Angeles County Code* Section 21.24.440 et. seq.), because the Project involves mixed-use buildings with a gross floor area of more than 25,000 square feet, all four proposed buildings on the Project site, including all commercial and residential land uses, would be designed and construction with features to achieve LEED™ Silver certification. The following are options for LEED credits applicable to the Project: (1) site selection (reduce environmental impact); (2) density development and community connectivity (channel development to urban areas); (3) public transportation (0.5-mile to commuter rail); (4) bike storage; (5) low-emission and fuel-efficient vehicles and stations; (6) parking capacity (shared parking); (7) heat island effect non-roof (50 percent parking spaces under cover); (8) heat island effect roof (SRI 78); (9) water efficient landscaping (reducing water demand by 50 percent); (10) water efficient landscaping (no potable water use); (11) innovative wastewater technologies (high efficiency fixtures); (12) water use reduction (high efficiency fixtures); (13) energy performance- ASHRAE/IESNA 90.1-2004; (14) enhanced commissioning; (15) enhanced refrigerant management; (16) measurements and verification; (17) construction waste management; (18) recycled content; (19) rapidly renewable materials; (20) certified wood; (21) construction IAQ management plan; (22) low emitting materials (sealants, paints, carpet, wood); and (23) thermal comfort (ASHRAE 55-2004).

PDF 6.4-2 All appliances in residential units shall be constructed with water efficient, low flow fixtures, such as showerheads, lavatory faucets and sink faucets that would comply with efficiency standards set forth in Title 20, California Administrative Code Section 1604(f), and all fixtures must be certified as compliant with the California Energy Conservation for flow rate standards, as set forth in Title 24 of the California Administrative Code Section 1606(b).

5.5.5 ENVIRONMENTAL IMPACTS

Threshold 5.5a: Is the project site in an area known to have an inadequate public water supply to meet domestic needs or to have an inadequate ground water supply and proposes water wells?

Threshold 5.5b: Is the project site in an area known to have an inadequate water supply and/or pressure to meet fire fighting needs?

On-Site Impacts

As shown in Table 5.5-5 below, the Project is estimated to require approximately 148.6 afy, which is a small portion of the water supplies available to GSWC; it would comprise approximately 0.04 percent of the 2010 demand projected in the 2005 UWMP. The 2005 UWMP indicates that there are ample supplies to serve projected growth in the Southwest System through 2035, which includes a 20 percent increase in population (from 256,159 to 306,138) and a 22 percent increase in employment. The projected demand in the Southwest System is estimated to be 45,134 afy, which is equal to the projected supplies. The population, housing, and employment projections for the Southwest System were developed through the use of data from the Southern California Association of Governments (SCAG) and do not include projected changes based on individual projects; thus, the Project was not specifically included in the 2005 UWMP. Nonetheless, the Project would not increase the population or employment in the GSWC service area beyond that which is projected in the 2005 UWMP.

TABLE 5.5-5
WATER USE ESTIMATE FOR AVIATION STATION

Land Use Categories	Water Use Factor (afy)	Size of Proposed Project	Estimated Water Use (afy)
Detached residential- Individually Metered Unit	0.35	390 units	136.5
Commercial/Retail[a]	1.53	5 units	7.7
Landscaping[b]	2.00	2.19 acres	4.4
		Total	**148.6**

[a] GSWC provides a commercial/retail water use factor based on commercial units, rather than square footage, based on the average water use of all commercial/retail users within their service area.
[b] GSWC provides a landscaping water use factor based on the average water use for all open space landscaped areas within their service area. This calculation of landscaping use assumes that all 2.19 acres of "open space" would be landscaped, although the majority of the open spaces would be concrete with landscaping generally located within pots. Therefore, this provides for a more conservative analysis for water usage.

Source: Insco 2009

There is uncertainty regarding the availability of imported water supplies from SWP as discussed in the 2007 SWP Delivery Reliability Report (DWR 2008b), and as a result of the new Biological Opinions (BOs) issued by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) and legal challenges to these BOs (refer to the discussion above). As noted above, DWR's 2009 projections for average deliveries are somewhat lower than those included in the 2007 SWP Reliability Report, but under some scenarios, deliveries would be similar or even greater.

In response to decreasing water deliveries, Metropolitan has implemented a number of measures intended to reduce water demand and increase the overall reliability of its supplies, thus lessening its dependence on imported supplies; these are discussed in above under "Existing Conditions." The local purveyors also have additional supplies, including groundwater and recycled water, and are developing additional supplies, including desalination. Thus, although there are uncertainties associated with SWP supplies, they are not the only supplies available to those agencies providing water to GSWC, and the agencies have proactively taken steps to reduce their dependence on these supplies.

In light of the measures being implemented to develop new water supplies and reduce overall demands in the affected service areas, and because the Project would not increase the population or employment in the GSWC service area beyond that which is projected in

the 2005 UWMP, water supplies are considered to be adequate to serve the Project. Impacts to water supply would be less than significant.

The reduction in SWP supply and County-wide drought conditions reinforces the need to conserve water to meet the goals in the 2005 UWMP and also comply with water conservation requirements of Los Angeles County (i.e., Board Resolution Declaring a Countywide Water Supply and Conservation Alert [August 5, 2008]; Water Conservation Requirements for the Unincorporated Los Angeles County Area [Los Angeles County Code, Title 11, Chapter 11.38, Part 4, readopted October 7, 2008]; Water Efficient Landscaping Requirements [Los Angeles County Code, Title 26, Chapter 71], and the Drought-Tolerant Landscaping and Green Building ordinances).

As stated in PDF 6.4-1 and MM 6.4-1 from Section 6.4, Climate Change of this EIR, the Project would comply with regulations as set forth in the Los Angeles County Code: Section 12.84.410 et seq., Low Impact Development; Section 21.52.2200 et seq., Drought Tolerant Landscaping; and Section 22.52.2100, Green Building, and would be designed and constructed with features to achieve LEED™ Silver certification. As stated in PDF 6.4-2, all appliances such as showerheads, lavatory faucets and sink faucets would comply with efficiency standards set forth in Title 20, California Administrative Code Section 1604(f), and all fixtures must be certified as compliant with the California Energy Conservation for flow rate standards, as set forth in Title 24 of the California Administrative Code Section 1606(b).

Lastly, MM 6.4-2 requires that educational materials regarding water conservation techniques and programs be provided to all future homeowners and residents of the Project through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs). Implementation of PDF 6.4-1 and PDF 6.4-2, and compliance with MM 6.4-1 and 6.4-2, would further reduce impacts to water supply.

Connection fees must be paid before a water connection permit is issued by the GSWC. Compliance with MM 5.5-1 would ensure that potential impacts to water service provision would be less than significant. The results of a fire flow test conducted by Golden State Water Company in April of 2009 indicated that the existing water system was not adequate for fire flows. In order to ensure the Project receives adequate fire flow pressure, the Project includes the construction of new water and fire protection infrastructure, including water lines, water laterals and fire hydrants, as described in MM 3.3-2, from Section 3.3, Fire. The location of proposed water line abandonment and installation of new infrastructure is illustrated in Exhibit 3.3-1, from Section 3.3, Fire. GWSC's 2007 Strategic Management Plan indicates that the Southwest Area, where the Project would be located, has adequate water supplies and water pressure to meet fire fighting needs, although the Project would require water infrastructure upgrades (MM 3.3-2) to accommodate the new demands from Project implementation.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

No water supply impacts would occur with implementation of the off-site Project components because no new habitable structures are proposed. The Metro bus terminal would involve the relocation of the existing bathroom and water fountain facilities from the existing on-site Metro bus terminal to the Caltrans Off-Site Project Area, but this relocation would not result new demands. Utility infrastructure improvements would have no impact on water supply. Water supply impacts associated with off-site Project components would be less than significant and no mitigation would be required.

Threshold 5.5c: Could the project create problems with providing utility services, such as electricity, gas, or propane?

Threshold 5.5f: Would the project result in an inefficient use of energy resources?

On-Site Impacts

Because the majority of the Project site would be subject to subterranean excavation in order to accommodate the underground parking structure, all existing utilities within the Project site would require relocation. The existing dry utility infrastructure (electrical, natural gas, telephone, and cable) serving the Project site is located both above and below ground. Overhead electrical and telephone/cable lines are located on-site within the existing commercial properties and between the backyards of the on-site single-family homes. These utilities would be relocated to underground facilities. Currently, all dry utility infrastructure is capable of adequately handling any increased demand on the system that would result from the Project. Other than relocating overhead utility infrastructure underground, no additional infrastructure would need to be built to handle the increased demand resulting from the Project.

Electricity

The Project is estimated to demand approximately 2.60 million kilowatt-hours (kWh) of electricity annually, as summarized in Table 5.5-6.

TABLE 5.5-6
ESTIMATED ANNUAL ELECTRICAL DEMAND

Land Use	Units	Electrical Demand Factor	Annual Demand (million kWh)
Residential	390 du	5,626.50 kWh/du/year	2.20
Commercial[a]	29,500 sf	13.55 kWh/sf/year	0.40
		Total Estimated Annual Demand	**2.60**

[a] A portion of the retail uses in the Project would be restaurants. The SCAQMD demand factors include a separate factor for restaurants, which is higher than the factor for retail. The factor for retail was applied for all proposed retail square footage because the proportion of restaurant uses that would ultimately be developed is unknown. Also, this estimate is presented as a gross "ballpark" estimate for the Project for informational purposes only, as SCE has determined there are adequate electrical supplies to serve the Project.

du – dwelling units
sf – square feet
kWh – kilowatt-hours

Source: SCAQMD 1993, Appendix 9, Table A9-11-A. Demand factors are based on SCE and Los Angeles Department of Water and Power average usage rates.

However, the actual electrical demand is expected to be lower than this estimate due to stricter Title 24 requirements, as well as advances in technology for energy-efficient building materials and appliances since the development of the SCAQMD demand estimates in 1993. As stated and PDF 6.4-1, in compliance with the County's Green Building ordinance, all four proposed buildings on the Project site, including all commercial and residential land uses, would be designed and construction with features to achieve LEED™ Silver certification. Also, MM 6.4-1 would require the Project to accomplish at least 15 percent more energy efficiency than the 2005 Title 24 California Energy Efficiency Standards. As such, the Project would not result in an inefficient use of electricity. In addition, this figure does not reflect the existing electrical demand from existing uses on the Project site. Therefore, this analysis is provided as an estimate for informational purposes, rather than an exact determination of anticipated demand.

According to SCE (Appendix A), the anticipated electrical demand of the Project is within the projected electrical load growth in the Project area that SCE is already planning to meet. Therefore, SCE would have adequate electrical supplies and distribution resources in the Project site to serve the Project. The impact of the Project related to additional demand for electrical service would be less than significant and no mitigation would be required. Physical impacts related to construction of on-site electrical infrastructure are discussed in Sections 3.1,Geotechnical, 3.3, Fire, 3.4, Noise, 4.1, Water Quality, 4.2, Air Quality, 4.3, Cultural Resources, 4.4, Visual Qualities, and 6.1 Environmental Safety of this EIR.

Natural Gas

The Project is estimated to demand approximately 32.23 million cubic feet of natural gas annually, as summarized in Table 5.5-7.

TABLE 5.5-7
ESTIMATED ANNUAL NATURAL GAS DEMAND

Land Use	Units	Natural Gas Demand Factor[a] (Cubic Feet [cf])	Annual Demand (million cf)
Residential	390 du	79,980.0 cf/du/year	31.20
Retail & Leasing	29,500 sf	34.8 cf/sf/year	1.03
		Total Annual Natural Gas Demand	**32.23**

[a] Natural gas demand factors are presented in monthly demand; factors are extrapolated to annual demand by multiplying by 12.
du – dwelling units
sf – square feet
Source: SCAQMD 1993, Appendix 9, Table A9-12-A.

As discussed above in the analysis of electricity, the actual natural gas demand is expected to be lower than this estimate due to stricter Title 24 requirements as well as advances in technology for energy-efficient building materials and appliances since the development of the SCAQMD demand estimates in 1993. As previously discussed, PDF 6.4-1 and MM 6.4-1 require compliance with the County's Green Building ordinance and achievement of LEED™ Silver certification, which accomplishes at least 15 percent more energy efficiency than the 2005 Title 24 California Energy Efficiency Standards. As such, the Project would not result in an inefficient use of natural gas. In addition, this figure does not reflect the existing natural gas demand on the Project site associated with existing land uses. Therefore, this figure is provided as an estimate for informational purposes, rather than an exact determination of anticipated demand.

According to SCG (Appendix A), there are natural gas facilities in the Project area and the Project could be provided natural gas service "without any significant impact on the environment". Therefore, SCG would have adequate natural gas supplies and distribution resources in the Project site to serve the Project. The impact of the Project related to additional demand for natural gas service would be less than significant and no mitigation would be required. Physical impacts related to the construction of on-site natural gas infrastructure are discussed in Sections 3.1,Geotechnical, 3.3, Fire, 3.4, Noise, 4.1, Water Quality, 4.2, Air Quality, 4.3, Cultural Resources, 4.4, Visual Qualities, and 6.1 Environmental Safety of this EIR.

Communication Systems

AT&T and Time Warner have both communicated their willingness and ability to serve the Project in accordance with rates and charges specified in its scheduled tariffs on file with the California Public Utilities Commission (Appendix A). Both AT&T and Time Warner can provide telephone, digital cable, and high-speed internet services. Time Warner has indicated that design and construction upgrades to existing facilities in the Project area would be necessary in order to provide service to the Project. The provision of any necessary upgrades to AT&T and Time Warner facilities would be performed either within the Project site or with existing AT&T and Time Warner easements. On-site impacts related to construction activities, which would include any upgrades or extension of communication systems, are discussed in Sections 3.1, Geotechnical, 3.3, Fire, 3.4, Noise, 4.1, Water Quality, 4.2, Air Quality, 4.3, Cultural Resources, 4.4, Visual Qualities, and 6.1 Environmental Safety of this EIR. Potential off-site AT&T and Time Warner improvements that may be required to serve the Project site and surrounding community would be accommodated through the utilities internal improvements program and in accordance with applicable state and local regulations. The Project's impact related to additional demand for communication systems is less than significant.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Implementation of the proposed off-site Project components would not require the use of natural gas, telephone or cable infrastructure because no habitable structures would be developed. The relocated Metro bus terminal would include a restroom and water fountain, and may require additional lighting. These improvements would be constructed as part of the relocation construction activities, which are addressed as part of the Project in Section 4.2, Air Quality and Section 3.4, Noise. As previously discussed, according to SCE (Appendix J), the anticipated electrical demand of the Project, including components within the Caltrans Off-Site Project Area, is within the projected electrical load growth in the Project area that SCE is already planning to meet. Therefore, SCE would have adequate electrical supplies and distribution resources in the Project site to serve the Project. The impact of the Project related to additional demand for electrical service would be less than significant and no mitigation would be required.

Threshold 5.5d: Are there any other known service problem areas (e.g., solid waste)?

On-Site Impacts

Construction

Construction of the Project would result in the generation of solid waste, which would be composed of excavated soils, green waste, demolition debris, and construction debris. Project development would require the removal of the limited existing vegetation on the Project site to be disposed of an appropriate permitted green waste facility.

A typical 2,000 sf house, when demolished can generate approximately 10,000 cubic feet of construction and demolition debris. The Project site currently contains 11 residences (7 single-family homes and 2 duplexes), a 4,568-square-foot business/commercial structure (Wild Goose Restaurant/Bar), an 8-room motel (Aviation Motel). Demolition of these structures could result in a need to dispose approximately 153,000 cubic feet, or 5,666 cubic yards of debris. Upon completion of demolition activities, Lot 1 and Lot 2 would be excavated for the subterranean parking garage, storm water infiltration system, and Dominguez Channel box structure, as well as the shallow excavation within the Metro bus terminal, and an estimated 61,000 cubic yards of soil would be exported off-site. The construction of the proposed

structures would also generate solid waste from several sources, including packaging, excess construction materials, and personal waste generated by the crew.

Any debris generated as part of construction would be short term, and therefore finite. The Project Applicant/Developer, per MM 5.5-2, is required to submit a Recycling and Reuse Plan (RRP) to the Department of Public Works, Environmental Programs Division for review and approval. Construction activities on the Project site would be conducted in compliance with Section 22.52.2100, Green Building of the Los Angeles County Code, which requires the recycling/reuse of at least 65 percent of non-hazardous construction/demolition debris by weight. MM 6.4-1 also sets forth the requirement to recycle/reuse at least 65 percent of non-hazardous construction/demolition debris by weight. Because solid waste from construction of the Project would be short term and waste would be reduced through the County Ordinance requirements, short-term construction impacts would be less than significant.

Operation

Implementation of the Project would generate a long-term stream of solid waste. The CIWMB publishes a list of various solid waste generation rates for different land uses for the express purpose of estimating impacts to the local waste stream. An estimation of waste generation includes all materials discarded, whether or not they are later recycled or disposed of in a landfill. Therefore, this figure does not take into account the solid waste diversion in compliance with AB 939, nor does it consider the existing solid waste generation from current land uses on the Project site.

The proposed Aviation Station Project is estimated to generate approximately 1.1 tons of solid waste per day without consideration of waste diversion, as summarized in Table 5.5-8.

TABLE 5.5-8
AVIATION STATION ESTIMATED SOLID WASTE GENERATION WITHOUT WASTE DIVERSION

Land Use	Dwelling Units	Generation Factor	Estimated Generation (lbs/day)
Residential	390 du	5.31 lbs/du/day[1]	2,070.5
Retail	29,500 sf	5lb/1,000 sf/day	147.5
Total Estimated Solid Waste Generation			**2,218 lbs/day (1.1 tons/day)**

[1] The generation rate of 5.31 lbs/du/day is the most recent, as well as the most conservative, of the rates provided by CIWMB for multi-family residential land uses.
du: dwelling units
sf: square feet
lbs: pounds

Source: California Integrated Waste Management Board (CIWMB). 2001 (February 1, last update). *California Estimated Solid Waste Generation Rates.* Sacramento, California: CIWMB. Available at: http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/default.htm.

Solid waste generated by the Project could be disposed of at any of the County facilities described above that accept municipal (non-hazardous) waste and do not have a restricted "wasteshed" that precludes the Project site. The ultimate disposal location of municipal waste is the decision of the waste hauler. In addition, the location of waste disposal would eventually change over time commensurate with changes to landfill capacities and permitting status. Therefore, this analysis focuses on the current and anticipated solid waste disposal capacity provided for the County as a whole.

The LACDPW's 2007 Annual Report on the County's Integrated Waste Management Plan, the most recent available, analyzes the County's long-term (i.e., a 15-year planning horizon) disposal needs under seven different scenarios. These scenarios assume compliance with AB 939. Scenario I (the worst case) assumes status quo with no new landfills or expansions. The County would be unable to provide adequate solid waste disposal, beginning with a shortfall in the year 2014. Under Scenarios II and III, which consider various combinations of existing in-county landfill capacity, utilization of out-of-county disposal facilities, and development of all in-county expansion sites, there would also be a disposal shortfall by different years within the planning horizon.

However, Scenarios IV "Alternative Technologies" and V "Alternative Technologies & Increased Diversion" demonstrated that the County would be able to provide for its disposal needs through the 15-year planning period by successfully permitting and developing all in-county landfill expansions and using out-of-county disposal facilities. In addition to the acquisition of the Mesquite Regional Landfill in Imperial County and the purchase agreement for Eagle Mountain Landfill (both with a lifespan of approximately 100 years) by the LACSD, the existing El Sobrante Landfill in Riverside County has a remaining permitted capacity of approximately 134 million tons and a lifespan of 36 years (LACDPW 2009). Therefore, these three landfills could accommodate the out-of-county disposal needs for the 15-year planning period.

The solid waste service providers contracted to the Project would be required to comply with AB 939, contributing to a reduction in the amount of solid waste generated by the residents of the Project that would reach a landfill. In accordance with County Code 20.72.170, all waste collectors operating in the unincorporated County of Los Angeles must provide recycling collection services as a part of their waste collector permits. The location of recycling facilities and standards for the design of the on-site waste/recycling receptacles will be in accordance with all applicable State and County requirements.

MM 6.4-2 requires that educational materials regarding waste reduction and recycling services to be provided to future homeowners and residents of the Project through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs). Although the solid waste generated by the moderately sized residential project would be considerable, the availability of on-site recycling receptacles and the dissemination of educational information required by MM 6.4-2 would ensure that waste generation would not individually exceed the capacity of the LACSD's available facilities. Therefore, the Project's contribution to the solid waste stream would be less than significant.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed off-site Project components, including the reconfiguration of existing land uses in the Caltrans Off-Site Project Area to the north of the Project site, would not result in increased long-term solid waste generation and there would be no impact. The Metro bus terminal would be relocated from on-site to off-site and would not result in additional solid waste generation. Construction of off-site Project components would result in a limited, and finite, solid waste stream; however, because this volume of solid waste would be short-term and of a minimal volume, and would be performed in compliance with applicable diversion requirements per MM 5.5-2, impacts to landfill capacity in the region would be less than significant.

5.5.6 CUMULATIVE IMPACTS

Water Supply

The water management agencies and purveyors supplying water to the proposed site have acquired water supplies and prepared water plans considering regional land use plans, including the relevant general plans. As the planned growth in the GSWC continues to occur, the demand on water resources will increase. However, the Project and other reasonably foreseeable projects were identified as being able to be served by the existing and future water supplies recognized as adequate in the analysis completed for the 2005 UWMP, which evaluated anticipated cumulative water demand against existing and planned supply and determined a sufficient water supply (including groundwater pumping that would not result in long-term depletion of groundwater resources) is available to serve anticipated demand, including the Project. As discussed above, there is uncertainty regarding imported water supplies from the Delta as discussed in the 2007 SWP Delivery Reliability Report (DWR 2008b) and Draft 2009 Draft SWP Reliability Report (DWR 2010).

SWP water comprises only a portion of Metropolitan's water supplies, however (the actual percentage varies annually depending on a number of factors; refer to Table 5.2-2 for an overview of supplies in recent years), and Metropolitan is implementing a number of measures to increase the reliability of its supplies. Based on the 2005 UWMP, there are sufficient water supplies available for pending and future residential and commercial developments within the GSWC service area for the foreseeable future through 2030 as set forth in the 2005 UWMP. Cumulative impacts to water supply are, therefore, less than significant. However, the reduction in SWP supply that affects Metropolitan's supplies reinforces the need to conserve water to meet the goals in the 2005 UWMP and comply with the Los Angeles County resolution and ordinances presented previously. Implementation of PDF 6.4-1 and PDF 6.4-2, and compliance with MM 6.4-1 and 6.4-2, would ensure that potential cumulative impacts to water supply would remain less than significant.

Fire Flows and Pressure

The results of a fire flow test conducted by Golden State Water Company in April of 2009 indicated that the existing water system at the Project site was not adequate for fire flows. The Project includes the construction of new water and fire protection infrastructure, including water lines, water laterals and fire hydrants, as described in MM 3.3-2, from Section 3.3, Fire. GWSC's 2007 Strategic Management Plan indicates that the Southwest Area, where the Project would be located, has adequate water supplies and water pressure to meet fire fighting needs. Therefore, with the water infrastructure improvements set forth in MM 3.3-2, the Project would not result in a cumulatively significant impact to fire flows or pressure for the GWSC's Southwest Area and impacts would be less than significant.

Electricity, Natural Gas, and Communication Systems

SCE, SCG, AT&T, and Time Warner have indicated that they would be able to serve the Project while maintaining existing and planned services within their respective service areas. Connections to existing facilities would occur within the Project site and no physical environmental impacts beyond those addressed in this EIR would occur. Additionally, all projects are required to comply with State and local regulations related to energy conservation, and ensure an efficient use of energy resources. Therefore, the Project would not have a cumulative impact related to electrical, natural gas, or communications systems.

Solid Waste

As described above, the County has insufficient landfill capacity, and will have to optimize available out-of-county options to continue to maintain adequate disposal capacity in the future. There is currently insufficient permitted disposal capacity within the existing system serving Los Angeles County to provide for long-term disposal needs. However, additional capacity will be available within Los Angeles County through the anticipated use of the regional Waste-by-Rail system, which would transfer waste to the remote landfills: Mesquite Regional Landfill in Imperial County and the Eagle Mountain Landfill in Riverside County. Therefore, while the Project would contribute to the cumulative generation of solid waste in the region, compliance with MM 6.4-2 and MM 5.5-2, and the planned facility expansions, would ensure that the impacts from the Project would not be cumulatively considerable.

5.5.7 MITIGATION MEASURES

MM 5.5-1 Prior to the issuance of building permits, the Project Applicant/Developer shall pay the applicable connection fees in accordance with the Golden State Water Company standards and requirements.

MM 5.5-2 Prior to commencement of construction activities, a Recycling and Reuse Plan must be submitted to the Los Angeles County Department of Public Works, Environmental Programs Division for review and approval. Construction activities on the Project site shall be conducted in compliance with Section 22.52.2100, Green Building of the Los Angeles County Code, which requires the recycling/reuse of at least 65 percent of non-hazardous construction/demolition debris by weight.

In addition, the following Mitigation Measure repeated from Section 3.3, Fire, is applicable to the analysis of utilities.

MM 3.3-2 Prior to issuance of building permits, the Project Applicant/Developer shall demonstrate to Los Angeles County Department of Public Works and the Los Angeles County Fire Department (LACFD) that the Project includes appropriate infrastructure to ensure adequate water and fire flow infrastructure and compliance with Los Angeles County Code Title 32 requirements. It is anticipated that segments of the existing four- and six-inch diameter water lines in Aviation Boulevard (between West 116th Street and West 117th Street), 116th Street (between Aviation Boulevard and Judah Avenue), West 117th Street (between Aviation Boulevard and Isis Avenue), and Judah Avenue (between West 117th Street and West 118th Street) shall be abandoned and three existing fire hydrants shall be removed. The Project shall include the following new water and fire flow infrastructure to the satisfaction of the LACFD:

- Twelve-inch diameter water line within West 117th Street between Aviation Boulevard and Isis Avenue turning south at Isis Avenue and immediately connecting with the existing 12-inch water line;

- Eight-inch-diameter water lines within Aviation Boulevard (between West 117th Street and the proposed Fire Lane along the northern property boundary), the proposed Fire Lane (between Aviation Boulevard and Judah Avenue), and Judah Avenue (between the proposed Fire Lane and West 118th Street). These lines will connect with the new 12-inch line in West 117th Street;

- A six-inch-diameter water lateral from Building 1A to the new water line in West 117th Street, eight-, six-, and two-inch-diameter water laterals from the Building 1B to the new water line in Judah Avenue, and from Building 2A t to the new water line in the Fire Lane. Building 2B would be served via the laterals extending to Building 2A; and

- Six new fire hydrants evenly distributed around the perimeter of the Project site.

In addition, the following Mitigation Measure repeated from Section 6.4, Greenhouse Gas Emissions and Climate Change, is applicable to the analysis of utilities.

MM 6.4-1 The Project shall be designed and constructed in accordance with the following regulations as set forth in the *Los Angeles County Code*: Section 12.84.410 et seq., Low Impact Development; Section 21.52.2200 et seq., Drought Tolerant Landscaping; and Section 22.52.2100, Green Building. The Green Building ordinance requires features/actions relative to the Project including, but not limited to, the following:

- Achievement of at least 15 percent more energy efficiency than the 2005 Title 24 California Energy Efficiency Standards;

- Installation of smart irrigation controllers, drought-tolerant vegetation (per Chapter 22.52 requirements), and high-efficiency toilets in all dwelling units and mixed-use buildings;

- Recycle/reuse of at least 65 percent of non-hazardous construction/demolition debris by weight; and

- Planting of at least one 15-gallon tree for every 5,000 sf of multi-family developed area with at least 50 percent of the trees being drought-tolerant, and plant at least three 15-gallon trees for every 10,000 sf of non-residential developed area with at least 65 percent of the trees being drought-tolerant.

MM 6.4-2 Educational materials regarding water conservation techniques and programs, waste reduction and recycling services, energy conservation, the benefits of mixed-use, transit-oriented developments in support of the reduction of vehicle trips, and information about public transportation options shall be provided to all future homeowners and residents of the Project through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs).

5.5.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of PDFs 6.4-1 and 6.4-2, and compliance with MM 6.4-1, MM 6.4-2, MM 3.3-2, MM 5.5-1 and MM 5.5-2, would ensure less than significant direct and cumulative impacts to water supply, dry utilities and solid waste.

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SECTION 6.0
OTHER ISSUES

6.1 ENVIRONMENTAL SAFETY

This section includes information obtained through an environmental assessment performed for the Project site and vicinity by Environmental Data Resources (EDR) on June 11, 2009, Inquiry Number 2516585.1s. The EDR Radius Map™ with GeoCheck® assessment was conducted to identify recognized environmental conditions located within the Project site or adjacent properties that could present material risk of harm to public health or to the environment.

Recognized environmental conditions (RECs) are defined by the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments (ASTM E1527-05) as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. The searched federal and State records are presented below and followed by a description of the purpose of each list/database.

6.1.1 RELEVANT POLICIES AND REGULATIONS

Federal

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act administered by the U.S. Department of Transportation governs the transport of hazardous materials, such as contaminated soil, asbestos, or lead-containing materials. The California Department of Transportation (Caltrans) implements the federal regulations published as Title 49 of the *Code of Federal Regulations* (CFR), which is known as the Hazardous Materials Transportation Act. These laws regulate the handling and transport of hazardous waste materials.

Federal Records for Hazardous Waste

The National Priorities List (NPL) is the U.S. Environmental Protection Agency's (USEPA's) database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund program. A site must meet or surpass a predetermined hazard ranking system score, be chosen as a state's top priority site, or meet three specific criteria set jointly by the U.S. Department of Health and Human Services and the USEPA in order to become an NPL site.

CERCLIS List: The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites that are proposed to be listed on the NPL and sites that are in the screening and assessment phase for possible inclusion on the NPL.

CERCLIS NFRAP Site List: These are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of the USEPA's knowledge, assessment at a site has been completed, and the USEPA has determined no further steps will be taken to list this site on the NPL unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

RCRA CORRACTS Facilities List: CORRACTS is a list of handlers that are undergoing "corrective action" under the Resource Conservation and Recovery Act (RCRA) of 1976. A "corrective action order" is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from an RCRA facility. Corrective actions may be required beyond the facility's boundary and may be required regardless of when the release occurred, even if it predated the RCRA. This report shows which nationally defined corrective action core events have occurred for every handler that has had corrective action activity.

RCRA Non-CORRACTS TSD Facilities List: RCRAInfo is the USEPA's comprehensive information system, providing access to data supporting the RCRA and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste, as defined by the RCRA. Transporters are individuals or entities that move hazardous waste from the generator off site to a facility that can recycle, treat, store, or dispose of the waste. Hazardous Waste Treatment, Storage and Disposal Facilities (TSDFs) treat, store, or dispose of the waste.

RCRA Generators List- Large Quantity Generators (LQGs): RCRAInfo is the USEPA's comprehensive information system, providing access to data supporting the RCRA of 1976 and the HSWA of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste, as defined by the RCRA. LQGs generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

RCRA Generators List- Small Quantity Generators (SQGs): RCRAInfo is the USEPA's comprehensive information system, providing access to data supporting the RCRA and the HSWA. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the RCRA. SQGs generate between 100 kg and 1,000 kg of hazardous waste per month.

ERNS List: The Emergency Response Notification System (ERNS) records and stores information on reported releases of oil and hazardous substances. The source of this database is the USEPA.

FTTS: FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Toxic Substances Control Act (TSCA) and the Emergency Planning and Community Right-to-Know Act (EPCRA) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

HIST FTTS: This is a complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten USEPA regions. The information was obtained from the National Compliance Database (NCDB), which supports the implementation of the FIFRA and the TSCA. Because some USEPA regions are now closing out records and because of the fact that some

USEPA regions are not providing the USEPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

PADS: The PCB (Polychlorinated Biphenyls) Activity Database identifies generators, transporters, commercial storers and/or brokers and disposers of PCBs who are required to notify the USEPA of such activities. The source of this database is the USEPA.

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include the Resource Conservation and Recovery Act Information System (RCRIS); the Permit Compliance System (PCS); the Aerometric Information Retrieval System (AIRS); the FATES (FIFRA and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); the Federal Underground Injection Control (FURS); the Federal Reporting Data System (FRDS); Surface Impoundments (SIA); the TSCA Chemicals in Commerce Information System (CICS); the PADS; the RCRA-J (medical waste transporters/disposers); the Transportation Research Information Services (TRIS); and the TSCA. The source of this database is the USEPA/NTIS.

RCRA-NonGen: RCRAInfo is the USEPA's comprehensive information system, providing access to data supporting the RCRA and the HSWA. The database includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste, as defined by the RCRA. Non-Generators do not presently generate hazardous waste.

FUDS: This listing includes locations of Formerly Used Defense Sites Properties where the U.S. Army Corps of Engineers is actively working or will take necessary clean-up actions.

State Records for Hazardous Waste

State- and Tribal-equivalent NPL (RESPONSE): Identifies confirmed release sites where the California Department of Toxic Substances Control (DTSC) is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high priority and high potential risk.

State- and Tribal-equivalent CERCLIS (ENVIROSTOR): The DTSC's Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (NPL); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, (1) identification of formerly contaminated properties that have been released for reuse; (2) properties where environmental deed restrictions have been recorded to prevent inappropriate land uses; and (3) risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

State and Tribal Leaking Underground Storage Tank Lists: The Leaking Underground Storage Tank (LUST) Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

SLIC: Spills, Leaks, Investigations and Cleanups Program (SLIC) is a database maintained by the Regional Water Quality Control Boards.

State and Tribal Registered Storage Tank Lists: The Underground Storage Tank (UST) database contains registered USTs. USTs are regulated under Subtitle I of the RCRA. The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database. The Aboveground Storage Tank (AST) database contains registered ASTs. The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

WMUDS/SWAT: The Waste Management Unit Database System (WMUDS) and Solid Waste Assessment Test (SWAT) is used for program tracking and inventory of waste management units (e.g., landfills, waste sites). The source is the State Water Resources Control Board.

CA FID UST: The California Facility Inventory Database (FID) contains active and inactive UST locations. The source is the State Water Resource Control Board.

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board for LUSTs, the Integrated Waste Board Solid Waste Facilities/Landfill Sites [SWF/LS], and the Department of Toxic Substances Control for CALSITES.

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000–1,000,000, representing approximately 350,000–500,000 shipments. Data from non-California manifests and continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

CHMIRS: The California Hazardous Material Incident Report System (CHMIRS) contains information on reported hazardous material incidents (i.e., accidental releases or spills). The source is the California Office of Emergency Services.

NPDES: A listing of National Pollutant Discharge Elimination System (NPDES) permits, including storm water.

CA WDS: A Waste Discharge System (WDS) database operated by the State Water Resources Control Board.

SWEEPS UST: The Statewide Environmental Evaluation and Planning System (SWEEPS) underground storage tank listing was updated and maintained by a company contacted by the State Water Resources Control Board in the early 1990s. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

HIST UST: This is the Historical UST Registered Database.

HMIRS: The Hazardous Materials Incident Report System (HMIRS) contains hazardous material spill incidents reported to Caltrans. The source of this database is the USEPA.

TRIS: The Toxic Chemical Release Inventory System (TRIS) identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313. The source of this database is the USEPA.

VCP [Voluntary Clean-up Program]: Contains low threat level properties with either confirmed or unconfirmed releases. Project proponents have requested that the DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for the DTSC's costs.

LDS: The Land Disposal program regulates waste discharge to land for treatment, storage, and disposal in waste management units.

EMI [Electro-magnetic interference]: This list includes toxics and criteria pollutant emissions data collected by the California Air Resources Board (CARB) and local air pollution agencies.

Local/County

Los Angeles County Certified Unified Program Agency

As set forth in Chapter 12.50, Unified Program, of the *Los Angeles County Code*, the Los Angeles County Certified Unified Program Agency (CUPA) includes the County Forester and Fire Warden and serves as the designated agency (certified by the Secretary of the California Environmental Protection Agency [CalEPA]) to implement the CUPA within the County of Los Angeles. Every business within the jurisdiction of the CUPA that is a hazardous waste generator or that is handling hazardous waste is required to obtain a facility permit and is regulated by the program elements, as set forth in (1) the Hazardous Waste Generator Program; (2) the Aboveground Storage Tank Program, Spill Prevention, Control and Countermeasures Plan; (3) the Underground Storage Tank Program; (4) the Hazardous Materials Release Response Plan and Inventory Program; (5) the Risk Management and Prevention Program; and (6) the Hazardous Materials Management Plan and Inventory Statement Program.

6.1.2 EXISTING CONDITIONS

Hazardous materials that may be commonly encountered in a typical urban environment generally include petroleum products (including oil and gasoline), automotive fluids (antifreeze, hydraulic fluid), paint, cleaners (dry-cleaning solvents and cleaning fluids), and pesticides from current or historical agricultural uses (if in significant concentrations). By-products generated as a result of activities using hazardous materials (such as dry-cleaning solvents, oil, and gasoline) are considered hazardous waste. Contamination, usually taking the form of a hazardous materials or waste spills in soil, can penetrate into the groundwater table, resulting in the pollution of shallow groundwater and/or a local water supply. Commercial uses, including those that have USTs and/or use hazardous materials in their operations can create such contamination.

As described in the EDR Radius Map™ with GeoCheck® Report and shown on Exhibit 6.1-1, the Project site is not included on a list of hazardous materials sites and does not contain any documented USTs or other hazardous materials. A full discussion of the EDR Radius Map™ with GeoCheck® Report is provided in the Impact Analysis below. Other hazardous materials of concern that may be present on the Project site due to the age of the structures include asbestos, lead-based paint, and PCBs, as described below.

Potential On-Site Contaminants

Asbestos

Asbestos, a naturally occurring fibrous material, was used for years in many building materials for its fire-proofing and insulating properties. Loose insulation, ceiling panels, and brittle plaster are potential sources of friable (easily crumbled) asbestos. Nonfriable asbestos is generally bound to other materials such that it does not become airborne under normal conditions. Any activity that involves cutting, grinding, or drilling during demolition can release friable asbestos fibers unless proper precautions are taken. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, which makes friable materials the greatest potential health risk.

Asbestos is a known human carcinogen, and there is no known threshold level of exposure at which adverse health effects are not anticipated. Given this, the USEPA and CalEPA have identified asbestos as a hazardous air pollutant pursuant to Section 12 of the Federal Clean Air Act. Further, CARB has identified asbestos as a Toxic Air Contaminant (TAC) pursuant to *California Health and Safety Code,* Section 39650 et seq. Asbestos is also regulated as a potential worker safety hazard under the authority of the California Occupational Safety and Health Administration (CalOSHA). These rules and regulations prohibit emissions of asbestos from asbestos-related demolition or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local government agencies prior to beginning renovation or demolition that could disturb asbestos.

In California, asbestos abatement must be performed and monitored by contractors with appropriate certifications from the California Department of Health Services (DHS). In addition, CalOSHA has regulations to protect worker safety during potential exposure to lead and asbestos under Title 8 of the *California Code of Regulations,* Section 1529 (Asbestos). All demolition that could result in the release of asbestos must be conducted according to CalOSHA standards. These standards were developed to protect the general population and construction workers from respiratory and other hazards associated with exposure to these materials. Young children, the elderly, and people in poor health may be more susceptible to adverse health effects from exposure to asbestos released to the environment.

Lead

Lead is a naturally occurring metallic element. Among its numerous uses and sources, lead can be found in paint; water pipes; solder in plumbing systems; and soils around buildings. In 1978, the federal government required the reduction of lead in house paint to less than 0.06 percent (600 parts per million). However, some paints manufactured after 1978 for industrial uses or marine uses legally contain more than 0.06 percent lead. Because of its toxic properties, lead is regulated as a hazardous material. Inorganic lead is also regulated as a toxic air contaminant.

In California, lead abatement must be performed and monitored by contractors with appropriate certifications from the California DHS. In addition, CalOSHA has regulations to protect worker safety during potential exposure to lead and asbestos under Title 8 of the *California Code of Regulations,* Section 1532.1 (Lead). All demolition that could result in the release of lead must be conducted according to CalOSHA standards. These standards were developed to protect the general population and construction workers from respiratory and other hazards associated with exposure to these materials. Young children, the elderly, and people in poor health may be more susceptible to adverse health effects from exposure to lead released to the environment.

Polychlorinated Biphenyls

PCBs were widely used as a coolant in electrical equipment such as transformers from the 1920s to the 1970s. After it was determined that PCBs could cause adverse health effects if ingested and cause cancer after undergoing a chemical change as a result of fire or explosion, PCBs were banned for use in most electrical equipment in the latter part of the 1970s and 1980s.

Historic and Current Uses of the Project Site

The Los Angeles International Airport (LAX) was officially dedicated in 1930, when airplane hangars and passenger terminals were constructed on 640 acres of agricultural land in El Segundo. As Los Angeles and the surrounding suburbs grew, LAX expanded and attracted workers and their families to settle close by. The period between 1930 and 1940 represents the first wave of residential building in the area, attracting homeowners and renters. After World War II, large aeronautic firms moved into Southern California, and the expansion of the aircraft industry induced another wave of growth in the area (Daly 2009). The land uses surrounding the Project site are indicative of the changes that occurred over that period of economic growth.

The Project site is composed of 15 assessor parcel numbers that encompass approximately 5.9 acres. An aerial photograph of the Project site is provided in Exhibit 2-3 in Section 2.2, Environmental Setting. West 116th Street currently bisects Lot 1 and Lot 2 and ends in a cul-de-sac halfway through the property. Lot 1 contains 11 residences (7 single-family homes and 2 duplexes), the 4,568-square-foot Wild Goose Restaurant/Bar, a 8-room motel (i.e., Aviation Motel), and surface parking. Lot 2 contains the Metro bus staging area and terminal. The existing Metro Green Line Aviation/LAX Station for light rail is located off-site directly north of Lot 2, followed by surface parking for the Metro's Westchester Park and Ride lot located at 11500 Aviation Boulevard and the Caltrans Maintenance Facility parking. The single-family homes were all constructed between 1936 and 1947. Both the Wild Goose and the Aviation Motel were constructed in 1947 (Daly 2009). Table 6.1-1 provides the legal parcel numbers of each property, street addresses, dates of construction, and size of the buildings.

TABLE 6.1-1
EXISTING PROPERTY DATA SUMMARY

Assessor Parcel Number	Address	Use	Date of Construction	Building Size
4140-002-001 4140-002-002 4140-002-003 4140-002-004 4140-002-038	11604 Aviation Blvd	Commercial, Bar/Restaurant	1947/1950	4,548 sq ft
4140-002-039	11618 Aviation Blvd	Motel	1947	2,413 sq ft
4140-002-005	5512 W. 116th St	Single-family	1940	1,143 sq ft
4140-002-006	5508 W. 116th St	Single-family	1937/1959	2,240 sq ft
4140-002-007	5502 W. 116th St	Multi-family	1939/1939	1,836 sq ft
4140-002-030	5501 W. 117th St	Multi-family	1947/1947	845 sq ft each
4140-002-031	5507 W. 117th St	Single-family	1937	854 sq ft
4140-002-032	5511 W. 117th St	Single-family	1936	1,087 sq ft
4140-002-033	5519 W. 117th St	Single-family	1936	1,116 sq ft
4140-002-034	5527 W. 117th St	Single-family	1936/1940	1,091 sq ft
4140-002-035	5531 W. 117th St	Single-family	1939	788 sq ft

BLVD: boulevard; sq ft: square foot/feet; W.: West; St: Street
Source: Daly 2009

As shown in the aerial photograph (Exhibit 2-3), the Project site is surrounded by urban development, consisting of single-family residences immediately to the south and east, Northrop Grumman Integrated Systems campus to the west, LAX to the northwest, and transit/transportation infrastructure (i.e., Metro Park and Ride, Metro Green Line, Interstate 105) to the north.

Results of EDR Radius Map™ Report With GeoCheck®

The EDR Radius Map Report provides a listing of all properties that appear on the lists discussed above in Section 6.1.1. The search radius was provided for properties within a 0.25-mile, 0.5-mile, 1.0-mile, and 2.0-mile radius of the Project site. There are no listed properties within the boundaries of the Project site. All properties within the Project site or within 0.25-mile of the Project site are listed below. A listing of all properties within the 2-mile radius is provided in Appendix K-1, EDR Radius Map™ With GeoCheck® Report.

Exhibit 6.1-1 depicts the location of the Project site and all listed sites within 0.25-mile of the Project site. The map key differentiates between properties at higher or lower elevations than the Project site, manufacturing gas plants, sensitive receptors, NPL sites, Department of Defense sites, Indian Reservations, oil and gas pipelines, 100-year and 500-year floodplains, and "areas of concern". As shown in Exhibit 6.1-1, there are no manufacturing gas plants, sensitive receptors, NPL sites, Department of Defense sites, Indian Reservations, oil and gas pipelines, 100-year and 500-year floodplains, or "areas of concern" within 0.25-mile of the Project site. All listed properties located within 0.25-mile of the Project site are presented Table 6.1-2 below.

TABLE 6.1-2
EXISTING LISTED PROPERTIES WITHIN 0.25-MILE OF PROJECT SITE

Map #	Site Name	Environmental Recordation	Status	Comments
A1 (Site 1 of 2)	Northrop Grumman Systems- Air Combat Systems 827 Hornet Way	UST	Active	Motor Vehicle Fuel Tank Removed
A2 (Site 2 of 2)	Northrop Corporation-Electronic Division 815 Hornet Way	HMS	Not Reported	Comments not reported
B3 (Site 1 of 5)	Aviation Blvd and Imperial Highway	ERNS	Not Listed	Transformer on flat bed trailer began to leak in 1991.
B10 (Site 2 of 5)	Rockwell International 999 Hornet Way	HMS	Closed	No Information.
B11 (Site 3 of 5)	DHL Airways 5791 W. Imperial Hwy	HAZNET	Organic solids disposed in LA County Facility	Comments not reported.
B12 (Site 4 of 5)	Mexicana Airlines 5795 W. Imperial Hwy	HAZNET	Various wastes to LA Co Facility	Comments not reported.
B13 (Site 5 of 5)	Dept. of Airports 5623 W. Imperial Hwy	CA FID UST	Inactive	Comments not reported
		SWEEPS UST	0 Tanks	
C4 (Site 1 of 9)	Arco Products 5161 W. Imperial Hwy	HMS	Facility Removed	Comments not reported.
C5 (Site 2 of 9)	Arco Products Co. 5161 W. Imperial Hwy	HMS	Closed	Comments not reported.

TABLE 6.1-2 (Continued)
EXISTING LISTED PROPERTIES WITHIN 0.25-MILE OF PROJECT SITE

Map #	Site Name	Environmental Recordation	Status	Comments
C6 (Site 3 of 9)	Mike's Shell Service 5548 W. Imperial Hwy	CA FID UST	Inactive	Comments not reported.
		SWEEPS UST	Not Reported	
C7 (Site 4 of 9)	Shell Oil Co. 5548 W. Imperial Hwy	FINDS	Pertinent Activity Identified	Non-generators do not presently generate hazardous waste.
		RCRA- NonGen	No Violations	
C14 (Site 5,6,7 of 9)	5429 W. Imperial Hwy	HMRIS	Not Reported	Facility has reported hazardous waste incidents to Caltrans. All spillages have been cleaned up and site has been classified as safe.
C17 (Site 8 of 9)	Jay's Drive In 5143 W. Imperial Hwy	LA CO HMS	Closed	Comments not reported.
C18 (Site 9 of 9)	Sal's Automotive 5424 W. Imperial Hwy	CA FID UST	Active	4 tanks on-site. Comments not reported.
		SWEEPS UST	Not Reported	
D8 (Site 1 of 2)	N. American Aircraft 999 Lapham St.	HIST UST	No leak detections	61 tanks on-site with no leakage reported.
D9 (Site 2 of 2)	Rockwell International 999 Lapham St.	LUST	No further action	Comments not reported. Status listed as completed, case is closed.
		EMI	Hydrocarbon Gasses and ROGs	
		SWEEPS UST	Not Reported	
		HIST CORTESE	Not Reported	
E19 (Site 1 of 6)	Caltrans Century 5360 W. Imperial Hwy	RCRA-SQG	No Violations Found	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time.
		FINDS	Pertinent Activity Identified	
		HAZNET	Various wastes to disposal sites	
E20 (Site 2 of 6)	Tetra Tech, Inc. 5630 W. Imperial Hwy	EMI	0 emissions	Comments not reported.
E21 (Site 3 of 6)	Hankyo International 5353 W. Imperial Hwy	HAZNET	Lab wastes to LA Co facility	Comments not reported.
E22 (Site 4 of 6)	Rockwell Aid 5353 W. Imperial Hwy	HAZNET	Various wastes to disposal sites	Comments not reported.
E23 (Site 5 of 6)	Expeditors International 5343 W. Imperials Hwy	HAZNET	Various wastes to LA Co Facility	Comments not reported.
E24 (Site 6 of 6)	Bax Global Division of Pittston 5343 W. Imperial Hwy	HAZNET	Various wastes to LA Co Facility	Comments not reported.

TABLE 6.1-2 (Continued)
EXISTING LISTED PROPERTIES WITHIN 0.25-MILE OF PROJECT SITE

Map #	Site Name	Environmental Recordation	Status	Comments
F25 (Site 1 of 2)	Northrop Grumman Corp 815 Lapham St	HAZNET	Various wastes to LA Co Facility	Comments not reported.
		EMI	Hydrocarbon Gasses	
F26 (Site 2 of 2)	Rockwell International 815 Lapham St	PADS	Not Reported	Handler is engaged in the treatment, storage or disposal of hazardous waste.
		RCRA-SQG	Compliance in 1992	
		FINDS	Pertinent Activity Identified	
		RCRA-TSDF	Not Reported	
		CORRACTS	Completed	
		MANIFEST	Hydrogen Sulfide treatment	

UST: Underground Storage Tank; ERNS: Environmental Response Notification System; CA FID: California Facility Inventory Database; SWEEPS: Statewide Environmental Evaluation and Planning System; FINDS: Facility Index System; RCRA: Resource Conservation and Recovery Act; LA CO: Los Angeles County; LUST: Leaking Underground Storage Tank; SQG: Small Quantity Generator; PADS: Polychlorinated Biphenyls Activity Database; HWY: Highway; Blvd: Boulevard; W: West; Caltrans: California Department of Transportation; kg: kilograms, Co.: Company

Source: EDR 2009

6.1.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 6.1a: Are any hazardous materials used, transported, produced, handled, or stored on-site?

Threshold 6.1b: Are any pressurized tanks to be used or any hazardous wastes stored on-site?

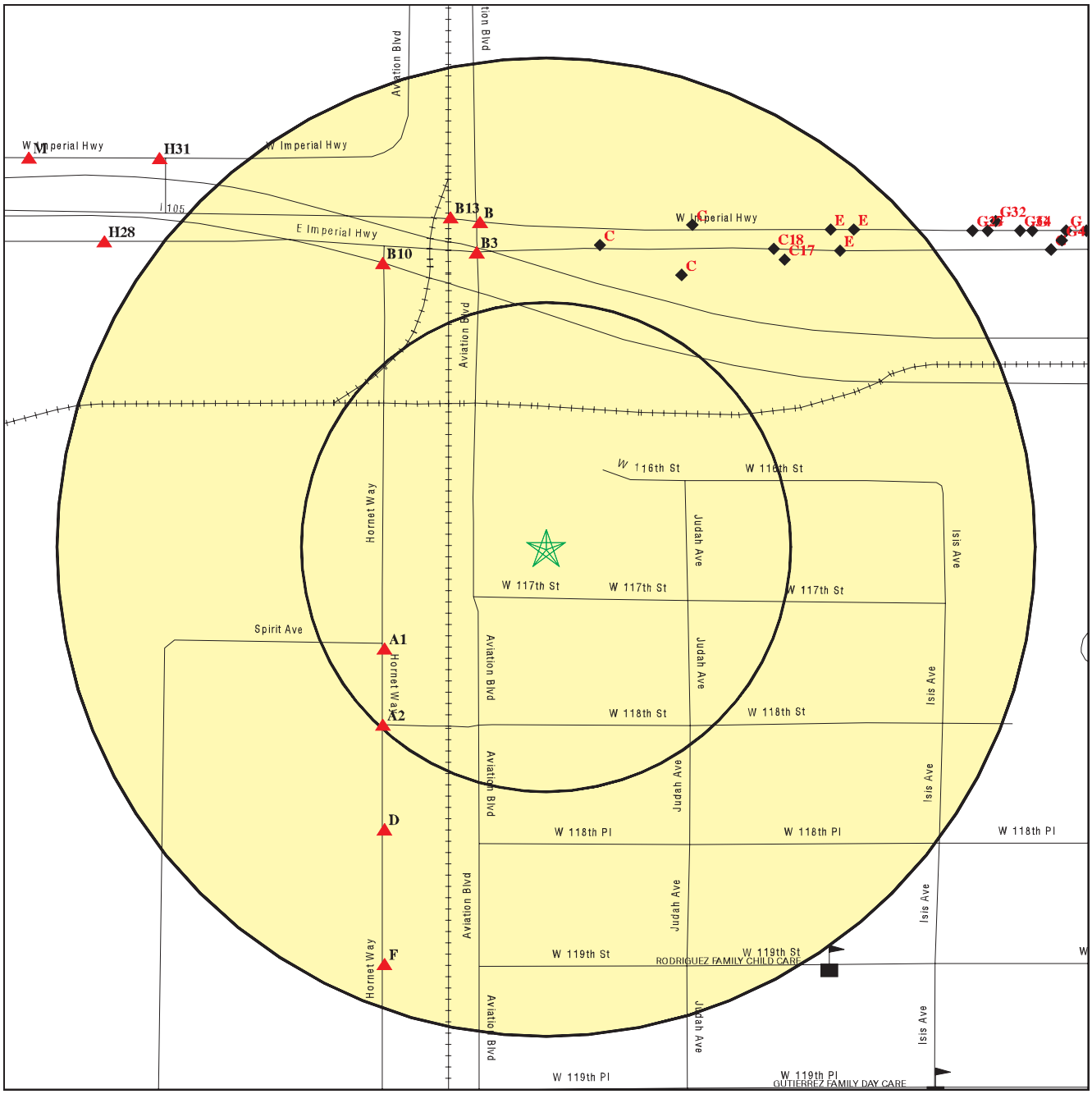
Threshold 6.1c: Are any residential units, schools, or hospitals located within 500 feet and potentially adversely affected?

Threshold 6.1d: Have there been previous uses that indicate residual soil toxicity of the site or is the site located within two miles downstream of a known groundwater contamination source within the same watershed?

Threshold 6.1e: Would the project create a significant hazard to the public or the environment involving the accidental release of hazardous materials into the environment?

Threshold 6.1f: Would the project emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Threshold 6.1g: Would the project be located on a site that is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and as a result, would create a significant hazard to the public or environment?



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

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Listed Sites Within 0.25 Mile of Project Site

Exhibit 6.1-1

Aviation Station Project

N W E S

BonTerra CONSULTING

PAS R:/Projects/Cox/J002/Graphics/Ex6.1-1_ListedSites_100209.pdf

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Threshold 6.1h: Would the project result in a safety hazard for people in a project area located within an airport land use plan, within two miles of a public or public use airport, or within the vicinity of a private airstrip?

Threshold 6.1i: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

6.1.4 PROJECT DESIGN FEATURES

No Project Design Features related to environmental safety (hazards) have been identified.

6.1.5 ENVIRONMENTAL IMPACTS

Threshold 6.1a: Are any hazardous materials used, transported, produced, handled, or stored on-site?

Threshold 6.1b: Are any pressurized tanks to be used or any hazardous wastes stored on-site?

Threshold 6.1d: Have there been previous uses that indicate residual soil toxicity of the site or is the site located within two miles downstream of a known groundwater contamination source within the same watershed?

Threshold 6.1g: Would the project be located on a site that is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and as a result, would create a significant hazard to the public or environment?

On-Site Impacts

As described in the EDR Radius MapTM with GeoCheck® Report and shown on Exhibit 6.1-1, the Project site is not included on a list of hazardous materials sites. The site has been developed with single-family and commercial land uses since the mid-1930s and was likely developed in support of workers at the LAX and/or associated aviation-related industries. The majority of properties within 0.25-mile of the Project site identified through the EDR Report are located along West Imperial Highway. There are also a few properties located west of Aviation Boulevard within the Northrop Grumman campus, which provides engineering and information technology services (see Table 6.1-2).

As shown on Table 6.1-2, there are no properties within 0.25-mile of the Project site that are current, proposed, or de-listed NPL sites, CERCLIS sites, or CERC-NFRAP sites. There are RCRA-listed sites including Site F26 (listed for CORRACTS, RCRA-TSDF, RCRA-SQG), Site E19 (listed for RCRA-SQG), and Site B3 (listed for ERNS).

Site F26 is located in cluster “F” on Exhibit 6.1-1, which is located approximately 0.23-mile southwest of the Project site across Aviation Boulevard in the City of El Segundo. Site F26 is engaged in the treatment, storage, or disposal of hazardous waste. This facility received a violation in November 1990 and achieved compliance with applicable regulations in December 1992. Site E19 is located in cluster “E” on Exhibit 6.1-1, which is approximately 0.21-mile northeast of the Project site across I-105 in the City of Los Angeles. Site E19 is a Small Quantity Generator of hazardous waste. No violations of waste handling were found. Site B3 is located in cluster “B” on Exhibit 6.1-1, which is approximately 0.16-mile northwest of the Project site near the intersection of W. Imperial Highway and Aviation Boulevard in the City of El Segundo. No information was provided about this site in the EDR Report.

Project would not involve construction or operation-related activities on any of these nearby properties and would therefore not disturb any ongoing activities at these sites. Implementation of the Project would not be affected by, or affect, listed properties in the vicinity of the Project site.

However, construction activities on any urban infill project may have the potential to discover unknown contamination through on-site grading and excavation activities. If such contamination is discovered, it could result in on-site worker exposure to hazardous materials. Mitigation Measure (MM) 6.1-1 requires that the County of Los Angeles Department of Public Works review and approve the final contractor specifications to verify that a contingency plan has been included that addresses the potential to encounter unknown subsurface anomalies and that includes the appointment of a Construction Monitor with a CalOSHA Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) certification.

The contingency plan must specify that if construction workers encounter any hazards or hazardous materials (including, but not limited to, pipes, USTs, stained soils, odors, gases, uncontained spills, and/or other unidentified substances), the Contractor must stop work, notify the Monitor, and cordon off the affected area. The Monitor must contact the Los Angeles County Certified Unified Program Agency (CUPA), which is the County Fire Department, Health Hazardous Materials Division, who would determine the next steps regarding possible site evacuations, notification of other oversight agencies, sampling, handling, and disposal of the material(s) consistent with federal, State, and local regulations. Incorporation of MM 6.1-1 would ensure that impacts associated with the potential for unknown subsurface contamination would be less than significant. Also, construction activities can involve the use and handling of limited volumes of commonly used hazardous materials, such as petroleum (fuel), paints, adhesives, and solvents. The handling, storage, and usage of these materials would be subject to applicable local, State, and/or federal regulations, including BMPs set forth in the NPDES Construction General Permit, as required in MM 4.1-1 in Section 4.1, Water Quality. Therefore, short-term impacts associated with the unlikely discovery of unknown contamination through on-site grading and excavation activities would be less than significant with implementation of MM 4.1-1.

The Project would not involve the long-term use, transport, production, handling, or storage of hazardous materials on-site. The Project site would be zoned for MXD-DP (Mixed-Use Development/Development Program) and would allow for residential and commercial land uses on site. The Project would not contain pressurized tanks or hazardous wastes on site. The proposed land uses are limited to commercial/retail and residential, and no industrial or manufacturing land uses would be developed. Residential household hazardous waste (HHW) would be handled through HHW/E-Waste Collection Events, operated by the County of Los Angeles Department of Public Works and the Sanitation Districts of Los Angeles County. These collections are free, one-day, drive-through collection events where residents can drive to a specific location to drop off their hazardous waste. Therefore, the Project would not generate hazards associated with hazardous wastes and impacts would be less than significant.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Construction and operation of off-site Project components would not involve Site F26 (listed for CORRACTS, RCRA-TSDF, RCRA-SQG), Site E19 (listed for RCRA-SQG), or Site B3 (listed for ERNS), and implementation of the Project would not be affected by, or affect, listed properties in the vicinity of the Project site. The Caltrans-owned off-site Project area is not a listed property and is not known to contain any previous land uses that indicate soil toxicity. As discussed above, construction activities can involve the use and handling of limited volumes of common hazardous materials; however, these would be handled in compliance with applicable local,

State and/or federal regulations. Grading and shallow excavations for the new Metro bus terminal and for off-site utility improvements have the potential to encounter unknown contamination. Compliance with MM 6.1-1 would ensure that impacts associated with potential unknown soil toxicity would be less than significant.

Threshold 6.1c: Are any residential units, schools, or hospitals located within 500 feet and potentially adversely affected?

Threshold 6.1f: Would the project emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

On-Site, Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

There are numerous residential, single-family homes located to the south and east of the Project site. Potential impacts to these sensitive receptors are accounted for and fully analyzed in all applicable sections of this EIR. The nearest school to the Project site is Juan de Anza Elementary School, which is located approximately 0.6-mile to the south of the Project site at 12110 Hindry Avenue in the City of Hawthorne. There are no schools located within 0.25 mile of the Project site.

As discussed above, construction of the Project, including off-site Project components, would result in less than significant impacts related to handling of common construction-related hazardous materials, and less than significant impacts related to potential encounter with unknown subsurface contamination with implementation of MM 6.1-1. Also, as stated above, the Project would not allow for manufacturing or industrial land uses on site and would not contain pressurized tanks or hazardous wastes on site. Therefore, impacts would be less than significant.

Threshold 6.1e: Would the project create a significant hazard to the public or the environment involving the accidental release of hazardous materials into the environment?

On-Site Impacts

There are potential short-term impacts regarding the accidental release of hazardous materials into the environment through the demolition of the existing on-site structures. The single-family homes currently located on the Project site were all constructed between 1936 and 1947. Both the Wild Goose and the Aviation Motel were constructed in 1947 (Daly 2009). Building standards, particularly regarding asbestos-containing materials (ACMs) and lead-based paint (LBP), were not applicable at the time the structures currently on the Project site were constructed.

Asbestos-containing Materials and Lead-based Paint

Given the age of the buildings on the Project site, ACMs and LBP may be present within interior and/or exterior materials and surfaces. Demolition of such buildings could expose construction personnel to ACMs and LBP unless proper precautions are taken to minimize exposure. The potential for the release of asbestos and lead during demolition would be considered a significant impact. Because exposure to such materials can result in adverse health effects in uncontrolled situations, several regulations and guidelines pertaining to abatement of and protection from exposure to asbestos have been developed for demolition activities.

As required in Mitigation Measure 6.1-2, a comprehensive pre-demolition survey for ACMs and LBP in on-site structures would be conducted where such surveys have not been conducted to date. Prior to or during demolition of the on-site structures, asbestos- and lead-containing materials would be removed and disposed of by qualified Contractors in accordance with State regulations, as described in MM 6.1-2 and MM 6.1-3. With adherence to applicable requirements discussed in MM 6.1-2 and MM 6.1-3 regarding the handling, transport and disposal of these materials, potential impacts related to the potential presence of ACMs and LBP on the Project site would be mitigated to a less than significant level.

PCB-containing Electrical Equipment

Pole-mounted electrical transformers were observed on the Project site. Based on the age of the buildings on the Project site, there is a potential for the transformers to use a dielectric fluid based on PCBs. These products, although having fire-resistant and other properties required for use in electrical equipment, have been shown to be toxic, non-biodegradable, and persistent in the environment; to accumulate in fatty tissues in the body; and are suspected of being carcinogenic (UNEP 2002).

Additionally, some of the on-site buildings have the potential to contain fluorescent lighting fixtures that may contain PCBs. Exposure to PCBs during demolition activities would be considered a significant impact. Therefore, MM 6.1-2 requires a pre-demolition survey for PCB-containing electrical equipment and the removal and disposal of any such equipment, if found, prior to or during demolition in accordance with regulatory requirements. With implementation of MM 6.1-2 and MM 6.1-3, impacts related to the potential release of PCBs due to Project implementation would be mitigated to a less than significant level.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The reconfiguration of existing uses within the Caltrans Off-Site Project Area and the off-site utility improvements would not involve the demolition of any structures that could contain ACMs, LBP, or PCBs. Therefore, there would be no impacts associated with off-site Project components related to the accidental release of hazardous materials into the environment.

Threshold 6.1h: Would the project result in a safety hazard for people in a project area located within an airport land use plan, within two miles of a public or public use airport, or within the vicinity of a private airstrip?

On-Site Impacts

Conformance with the requirements of 49 CFR, Part 77 (FAR Part 77- Objects Affecting Navigable Airspace) is required when tall structures are proposed that may affect aircraft airspace. A “structure” is defined by taking a Project site’s elevation above mean sea level (msl) and adding the physical height of the structure in question. Above ground level (agl) is used by the Airport Land Use Commission for the airport in their discussion of building height limitations. The Project site is flat, with site elevations ranging from 96 feet above msl to 97 feet above msl. The total building heights of the Project, including mechanical equipment, mechanical penthouses, and antennae, range from 67 feet agl to 72 feet agl. Therefore, the overall height of the Project ranges from 163 feet above msl to 168 feet above msl.

Subpart C (Obstruction Standards) of FAR Part 77 defines imaginary surfaces applied to an airport that are then used to determine which existing objects are, and what future objects would be, an obstruction to air navigation. Because the Project site is less than one mile from LAX, imaginary surfaces apply to the Project site. In order to determine whether a development

classifies as an obstruction, a comparison must be made between the structure's heights and the height of the imaginary surfaces. FAR Part 77 establishes standards and a process for determining obstructions in navigable airspace.

Based on FAR Part 77 Subpart B (Notice of Construction or Alteration) criteria, the Project site is included in the notification area and requires that the FAA be notified regarding potential obstructions in navigable airspace. Therefore, pursuant to FAR Part 77, the Project Applicant notified the FAA of the Project and subsequently received a Letter of Determination for the Project (Appendix K-2). Based on the heights of the four proposed structures, including antenna or other appurtenances that may be placed on rooftops, the FAA issued a "Determination of No Hazard to Air Navigation" on January 25, 2010 (FAA 2010).[1]

Based on this determination, the Project would have no short-term construction or long-term operation impacts to LAX operations or other aviation activity in the Project vicinity. This determination expires on July 25, 2011 unless it is extended, revised or terminated by the issuing office. A change in the Project's specifications that affect the FAA's determination (i.e. coordinates, heights, frequencies, and power) would require a new determination. Therefore, to ensure that the Project results no impacts to navigable airspace, MM 6.1-4 requires that proof of a current and valid FAA "Determination of No Hazard to Air Navigation" at the time of building permit issuance. With implementation of MM 6.1-4, the Project would comply with all FAR Part 77 regulations and would have no impacts to navigable airspace.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Implementation of off-site Project components would not create any above-ground habitable structures other than the proposed single-story restroom facility in the relocated Metro bus terminal. This structure would have no impact on aviation and would not result in a safety hazard for those in the vicinity of a public or private airport.

Threshold 6.1i: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

On-Site Impacts

Emergency response and emergency evacuation plans can be affected by temporary or permanent circulation changes, including road closures, lane reconfigurations, and other access changes associated with construction activities. The Project would require the reconfiguration of ingress/egress points to the Project site. During construction activities, all existing land uses would be demolished; therefore, no habitable structures would be located on-site during construction activities. The *County of Los Angeles General Plan* has a Public Safety Element that addresses emergency response and emergency evacuation procedures. Construction activities would be conducted in accordance with all applicable local, State, and federal laws and regulations governing emergency access and evacuation. Therefore, a less than significant impact associated with emergency response and evacuation would occur.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Off-site construction activities include the construction of new and/or replacement utilities within local streets, including Aviation Boulevard, West 116th Street, West 117th Street, and Judah Avenue. These construction activities have the potential to disrupt traffic through temporary lane

[1] FAA Aeronautical Study Nos. 2009-AWP-6442-OE, 2009-AWP-6443-OE, 2009-AWP-6444-OE, 2009-AWP-6445-OE, 2009-AWP-6446-OE, 2009-AWP-6447-OE, 2009-AWP-6448-OE, 2009-AWP-6449-OE, 2009-AWP-6450-OE, and 2009-AWP-6451-OE.

closures or traffic diversions. Implementation of the reconfiguration of land uses in the Caltrans Off-Site Project Area would not involve activities within local streets, except for the installation of one traffic signal at the existing Caltrans driveway on West Imperial Highway to accommodate access to the reconfigured Metro and Caltrans facilities. As required by MM 6.1-5, Worksite Traffic Control Plans (WTCP) and Traffic Circulation Plans, including identification of detour requirements, shall be prepared in cooperation with the County of Los Angeles, the City of Los Angeles, and other affected jurisdictions in accordance with the Work Area Traffic Control Handbook (WATCH) manual and Manual on Uniform Traffic Control Devices (MUTCD). Compliance with MM 6.1-5 would ensure that potential short-term impacts to emergency response plans or evacuation routes would be less than significant. Once construction activities within surrounding roadways are completed, the roads would be returned to the previous condition and there would be no impacts.

6.1.6 CUMULATIVE IMPACTS

Hazardous Materials

The cumulative study area associated with hazardous materials is typically within one or two miles of the Project site. A listing of all properties within the two-mile radius is provided in Appendix K-1, EDR Radius Map™ With GeoCheck® Report. As previously discussed, there are no known site-specific past, present, or Project uses that would impact off-site land uses or persons. Additionally, there are no known past, present, or foreseeable future developments in the surrounding area that would cumulatively expose a greater number of persons to hazards (e.g., hazardous materials and/or waste contamination). If unknown contamination is encountered during on-site or off-site construction activities, MM 6.1-1 through MM 6.1-3 would ensure that the hazards were dealt with appropriately and in accordance with local, State, and federal regulations.

Potential impacts related to hazards and hazardous materials include site-specific impacts related to the expected presence of ACMs, LBP, and/or PCBs within the structures and potential PCBs within the pole-mounted electrical transformers. These potential impacts would be reduced to a less than significant level with implementation of MM 6.1-1through MM 6.1-3. Therefore, the Project would not result in a cumulative exposure of greater numbers of persons to hazards. All related or potential future, off-site projects would be required to comply with applicable local, State, and federal requirements concerning hazardous materials as well. Therefore, the Project would not contribute to any potential significant cumulative hazardous materials impacts.

Aviation Hazards

For purposes of the Project, the cumulative study area for aviation hazards can be defined as the area surrounding the nearest airport or airstrip, extending out a reasonable distance to the areas which may be subject to potential aviation hazards. As previously discussed, the Project would not result in a significant impact related to aviation hazards with implementation of MM 6.1-4. Any proposed structures on site or within the cumulative study area for aviation hazards that may represent an aircraft navigation hazard would also be required to comply with FAA regulations and site design requirements under FAR Part 77. Therefore, the Project would not contribute to significant cumulative hazards related to aviation.

6.1.7 MITIGATION MEASURES

MM 6.1-1 Prior to the issuance of a grading permit(s), the Project Applicant/Developer shall submit the final contractor specifications that includes a contingency plan to

address the potential to encounter unknown subsurface anomalies during site grading and excavation to the satisfaction of the County. The specifications shall also include the appointment of a Construction Monitor with a CalOSHA Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) certification to identify and provide initial response to any hazard or hazardous material encountered during Project implementation. The contingency plan shall specify that, if construction workers encounter any hazards or hazardous materials (including, but not limited to, pipes, USTs, stained soils, odors, gases, uncontained spills, and/or other unidentified substances), the Contractor shall stop work, notify the Construction Monitor (if not already aware), and cordon off the affected area. The Construction Monitor shall contact the Los Angeles County Certified Unified Program Agency (CUPA), which is the Los Angeles County Fire Department, Health Hazardous Materials Division, who shall determine the next steps regarding possible site evacuations, notification of other oversight agencies, sampling, handling, and disposal of the material(s) consistent with federal, State, and local regulations. If required, the Project site shall be remediated to the satisfaction of the CUPA.

MM 6.1-2 Prior to the issuance of a demolition permit for any structure on the Project site, pre-demolition surveys for ACMs and LBP—including sampling and analysis of all suspected building materials—and inspections for PCB-containing electrical fixtures shall be performed for the structure(s) proposed for demolition. All surveys, inspections, and analyses shall be performed by fully licensed and qualified individuals in accordance with all applicable federal, State, and local regulations, including ASTM E 1527-05; 15 USC Chapter 15 (Toxic Substances Control); CalOSHA requirements; and SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities).

If the pre-demolition surveys/inspections do not identify ACMs, LBP, and/or PCB-containing fixtures, the Project Applicant/Developer shall provide documentation to the County of the survey/inspection showing that no further abatement actions are required as part of the application for a demolition permit.

If the pre-demolition surveys/inspections identify ACMs, LBP, and/or PCB-containing fixtures, all such materials shall be handled in accordance with SCAQMD Rule 1403. The Project Applicant/Developer shall provide documentation to the Los Angeles County Certified Unified Program Agency (CUPA) that appropriately qualified individuals have been retained to manage the identified materials as part of the application for a demolition permit. All demolition activities that may expose construction workers and/or the public to asbestos-containing materials, lead-based paint (LBP), and/or PCB-containing electrical fixtures shall be conducted in accordance with applicable regulations, including, but not limited to 15 *United States Code* (USC) Chapter 53 Toxic Substances Control; CalOSHA regulations (8 CCR Section 1529 [Asbestos] and Section 1532.1 [Lead]); and SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). The requirement to adhere to all applicable regulations shall be included in the contractor specifications, and such inclusion shall be approved by the Los Angeles County CUPA and verified by the County of Los Angeles County Department of Public Works prior to issuance of the demolition permit.

After demolition, the Project Applicant/Developer shall provide documentation (e.g., required waste manifests, air monitoring results, and laboratory analytical

results) to the County Department of Public Health (DPH) and CUPA illustrating that abatement of any ACMs, LBP, and/or PCB-containing fixtures identified in the demolished structure has been completed in full compliance with applicable regulations. The Los Angeles County Department of Public Works shall be copied on all materials submitted to the DPH and CUPA.

MM 6.1-3 Any contaminated soils or other hazardous materials removed from the Project site shall be transported only by a Licensed Hazardous Waste Hauler, who shall be in compliance with all applicable State and federal requirements, including U.S. Department of Transportation regulations under 49 CFR (Hazardous Materials Transportation Act), Caltrans standards, CalOSHA standards, and 40 CFR 263 (Subtitle C of Resource Conservation and Recovery Act).

MM 6.1-4 All structures shall comply with Federal Aviation Administration (FAA) height restrictions, pursuant to Federal Aviation Regulation (FAR) Part 77, Subpart C. The Project Applicant/Developer shall provide the County of Los Angeles Department of Regional Planning with proof of a current and valid FAA "Determination of No Hazard to Air Navigation" at the time of building permit issuance.

MM 6.1-5 Before the start of construction, Worksite Traffic Control Plans (WTCP) and Traffic Circulation Plans, including identification of detour requirements, shall be prepared in cooperation with the County of Los Angeles, the City of Los Angeles, and other affected jurisdictions in accordance with the Work Area Traffic Control Handbook (WATCH) manual and Manual on Uniform Traffic Control Devices (MUTCD), as required by the relevant jurisdiction. Construction activities shall comply with the approved WTCP to the satisfaction of the affected jurisdictions.

In addition, the following Mitigation Measure repeated from Section 4.1, Water Quality, is applicable to the analysis of environmental safety.

MM 4.1-1 Prior to the issuance of a grading permit, the Project Applicant/Developer shall file a Permit Registration Document (PRD) with the State Water Resources Control Board (SWRCB) in order to obtain coverage under NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities. The PRD shall consist of a Notice of Intent (NOI); Risk Assessment; Site Map; SWPPP; annual fee; and a signed certification statement. Pursuant to permit requirements, the Project Applicant/Developer shall develop and incorporate BMPs for reducing or eliminating construction-related pollutants in the site runoff to the satisfaction of Los Angeles County Department of Public Works.

6.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the Project would result in less than significant impacts related to environmental safety with implementation of MM 6.1-1 through MM 6.1-5, and MM 4.1-1.

6.2 LAND USE

This section describes the current land uses on the Aviation Station Project site and in the immediate vicinity and discusses potential land use impacts that could result from implementation of the Project; it also discusses consistency with relevant policies from the *County of Los Angeles General Plan,* the Southern California Association of Governments' (SCAG's) *Regional Transportation Plan,* the *Compass Growth Vision Report* and consistency with the County of Los Angeles Zoning Code. Information presented in this section is based on field reconnaissance, review of aerial photographs, and review of relevant planning documents referenced in this section. Regional and local planning documents were reviewed to determine relevant goals and policies for the site and surrounding land uses, and then compared to the Project to determine consistency with applicable land use plans.

6.2.1 RELEVANT POLICIES AND REGULATIONS

State

Local Agency Formation Commission

In California, the establishment and revision of local government boundaries is governed by the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Section 56000 et seq. of the *California Government Code).* It established the Local Agency Formation Commission (LAFCO) for the County of Los Angeles to discourage urban sprawl and encourage the orderly formation and development of local government agencies. LAFCO is responsible for coordinating the timely changes in local governmental boundaries, including annexations and detachments of territories, incorporations, consolidations, reorganizations, spheres of influence, and special district formations.

The authorities of LAFCO fall into five main categories, and their duties are to: (1) regulate boundary changes; (2) establish spheres of influence—the probable physical boundaries and service area of a city or special district; (3) conduct reviews of public services and special studies; (4) initiate special district consolidations or dissolutions; and (5) act on service agreements between public agencies and private parties. Implementation of the Project would involve the detachment of land from the City of Los Angeles into the County of Los Angeles and the decertification of land by Caltrans.

Senate Bill 375

SB 375 provides for a new planning process to coordinate land use planning, transportation, housing and greenhouse gas (GHG) reduction planning efforts. SB 375 is an air pollution law linking land use and transportation policies to meet target reductions in GHG emissions. The goal is to promote land use growth patterns that will help reduce GHG emissions by reducing driving.

SB 375 is a regionally based bill, and requires local implementation, which will occur over the next several years. California Air Resources Board (CARB) will set targets for GHG reduction via land use in each region, but it is up to each region's Metropolitan Planning Organization (MPO) and ultimately local planning agencies to implement the land use strategies needed to achieve the emissions reduction goals of AB 32. The Southern California Association of Governments (SCAG) is the MPO that encompasses Los Angeles County, and is discussed further below.

SB 375 requires CARB to set GHG emission reduction targets for the 18 MPOs throughout California. Prior to setting targets for a region, CARB is required to exchange technical information with each MPO and the affected air districts. In establishing the targets, CARB must

take into account GHG reductions to be achieved by improved vehicle emission standards, changes in the carbon-intensity of fuels and other measures it has approved that will reduce GHG emissions in affected regions. As these factors change, CARB may revise the targets every four years, and at a minimum, must update them every eight years. Additionally, each MPO may recommend a target for its region.

Once the targets are set, SB 375 requires MPOs to integrate their region's GHG emission reduction target into their next Regional Transportation Plan (RTP). Under federal and state law, each of the 18 California MPOs are required to develop an RTP. SB 375 adds a new state requirement to include a Sustainable Community Strategies (SCS), which includes an underlying land use allocation for the RTP tied to the regional transportation system and resulting GHG reduction. The SCS is a fourth element added to the three other existing elements that constitute a region's long range RTP.

RTPs are approved by an MPO's board, along with the certification of the an EIR supporting the RTP and a transportation conformity determination that ensures the region is on track to meet federal air quality requirements. The documents are then transmitted to the Federal Highway Administration, Federal Transit Administration, and U.S. Environmental Protection Agency for joint consideration. The RTP serves as one of the key documents used by the federal government to identify and fund transportation projects, programs, and services in a region.

SB 375 requires an additional document, the Alternative Planning Strategies (APS), to be created by an MPO that determines it will not reach its region's target through its SCS. The APS is meant to bridge the gap between GHG emission reductions an SCS can achieve and a region's target, set by CARB.

After assigning targets, CARB's role is to assure the accuracy of the methodology selected by each MPO and then to determine whether the SCS, or the APS, would achieve the target if implemented. Thus, the policy choices relating to how the MPO will achieve the target are left to the region.

Once the targets are in place and approved by CARB, SB 375 includes CEQA incentives, which allow for streamlined environmental review for infill, transit-oriented development projects meeting specified criteria that can help to achieve statewide GHG reduction goals.

SB 375 is similar to the Regional Blueprint Planning Program, established by the California Department of Transportation, which made $5 million in discretionary grants to fund available for regional transportation and land use plans voluntarily developed by MPOs working in cooperation with Council of Governments. The Southern California Association of Governments (SCAG) adopted Amendment #4 to the 2008 Regional Transportation Plan (RTP) in November 2010. The Amendment was developed as a response to changes to projects in the 2008 RTP. A total of 5 projects are being modified or added in these Amendments, with a majority of the changes being minor in nature, including changes to completion years, as well as minor modifications to project scopes, costs, and funding. The 2013 RTP will be its first plan subject to SB 375. The Scoping Plan adopted by CARB in December of 2008 relies on the requirements of SB 375 to implement the carbon emission reductions anticipated from land use decisions.

Regional

Southern California Association of Governments

SCAG is the Metropolitan Planning Organization (MPO) for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The region encompasses a population that exceeds 18 million persons in an area of more than 38,000 square miles. As the designated MPO, SCAG is mandated by the federal government to research and draw up plans for transportation, growth management, hazardous waste management, and air quality. Among the leading activities that SCAG undertakes are:

- Maintenance of a continuous, comprehensive, and coordinated planning process resulting in a Regional Transportation Plan (RTP) and a Regional Transportation Improvement Program (RTIP);
- Developing demographic projections plus the integrated land use, housing, employment, transportation programs, measures, and strategies for portions of the South Coast Air Quality Management Plan (AQMP), as well as serving as co-lead agency for air quality planning for the Central Coast and Southeast Desert air basin districts;
- Determining, pursuant to the federal Clean Air Act, projects', plans', and programs' conformity to the AQMP;
- Reviewing environmental impact reports for projects having regional significance for consistency with regional plans;
- Serving as the authorized area-wide waste treatment management planning agency, pursuant to federal water pollution control statutes; and
- Preparing the Regional Housing Needs Assessment pursuant to State law.

SCAG has developed a number of plans to achieve the regional objectives. The most applicable to the proposed Aviation Station project are the RTP and the *Compass Growth Vision Report*.

Regional Transportation Plan

Federal guidelines require all new regionally significant transportation projects to be included in the RTP before they can receive federal or State approvals or funds. The Metro submits Los Angeles County projects for inclusion in the RTP. The RTP must be updated and federally approved every three years. Federal approval requires a positive demonstration that the RTP projects will not generate travel emissions that exceed those assumed in the applicable AQMP; this requirement is known as transportation conformity.

SCAG adopted the current RTP, *Making the Connections, 2008 Regional Transportation Plan* (2008 RTP) on May 8, 2008. The 2008 RTP contains a plan to provide adequate highway, transit, rail, aviation, and goods movement infrastructure to meet the region's needs by 2035. The 2008 RTP is a $531.5 billion plan that emphasizes the importance of system management, goods movement, and innovative transportation financing. It strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that preserve and enhance the existing transportation system and integrate land use into transportation planning. The 2008 RTP is linked to Los Angeles County's transportation plans and models in the form of shared growth and travel projections. The 2008 RTP includes goals and policies applicable to transportation and, in some cases, land use projects. The analysis below discusses the consistency of the Project with the 2008 RTP.

Compass Growth Vision Report

The June 2004 Compass Growth Vision (CGV) Report sets forth a shared "Growth Vision" for the six-county SCAG region and presents the achievements of the Compass process. It details the evolution of the draft vision from the study of emerging growth trends to the effects of different growth patterns on transportation systems, land consumption, and other factors.

The CGV Report concentrates on the physical aspects of regional growth—where people and jobs locate, the type and quantity of buildings that may be constructed, and how people and goods move in the region. To address all of the growth visioning principles, SCAG, sub-regions, and cities continue to refine the social, economic, and other components that are also crucial to the Vision's success, including: workforce housing, job training and education, prosperity that reaches everyone, and protection of key open spaces.

SCAG's Compass Blueprint 2% Strategy is a guideline for how and where SCAG can implement the Growth Vision for Southern California's future. It calls for modest changes to current land use and transportation trends that make up approximately two percent of the land area of the region. SCAG's planning efforts and resources invested according to the 2% Strategy would help meet the SCAG region's goals of improved mobility, livability, prosperity, and sustainability for local neighborhoods and their residents.

The Project site is located within a Compass 2% Strategy Area, which traverses major arterial roadways through several jurisdictions, where development is intended to balance employment, housing, and services to reduce vehicle trips and emissions, enhance livability, expand prosperity, and increase sustainability. The analysis below discusses the consistency of the Project with the Compass Growth Vision Report.

Regional Housing Needs Assessment

The Regional Housing Needs Assessment (RHNA) is a key tool for SCAG and its member governments to plan for growth within its region. State law requires all MPOs to determine existing and future needs for its region (*California Government Code,* Section 65584.05[h]). SCAG is also required to determine the share of need allocated to each city and county within the SCAG region. The RHNA identifies the housing needs for the upcoming five-year period. The Final RHNA target allocation for the period of 2006 through 2014 was adopted by the SCAG Regional Council on July 12, 2007, and transmitted to the State of California Department of Housing and Community Development (HCD) on September 7, 2007, for final approval. Presently, the approved (but not yet built) units within the North Los Angeles County subregion comprise approximately 75 percent of the draft 2006–2014 RHNA target numbers. Refer to Section 6.3 Population, Housing, Employment and Recreation, for the RHNA analysis.

Los Angeles County Airport Land Use Plan

Under *California Public Utilities Code* Section 21670 et seq. (Aeronautics Act), each county in which there is an airport served by a scheduled airline and each county with an airport operated for the benefit of the general public, with certain exceptions, is required to establish an airport land use commission (ALUC). The ALUC's purpose is to coordinate planning for the area around public use airports to protect the public health, safety and welfare from land uses that do not minimize the public's exposure to excessive noise and safety hazards (*California Public Utilities Code* Section 21670(a)(2)). To that end, the ALUC has the power to prepare and adopt an airport land use compatibility plan, known as Airport Land Use Plan (ALUP), and to review plans, regulations, or actions by a local government to ensure compatibility with the ALUP.

The ALUP delineates areas of critical concern from an airport noise and safety standpoint, and sets forth policy recommendations for achieving compatibility between airport and the surrounding land uses. However, the authority of the ALUC is limited. The ALUC has no jurisdiction over existing land uses. Also, it does not have jurisdiction over airport operations, nor can it enact zoning requirements. Instead, the ALUC sets uniform standards to discourage development of new incompatible uses, but it is the responsibility of the local agencies, through their planning and zoning powers, to specify which uses are appropriate within their jurisdictions.

Section 21676.5 of the *California Public Utilities Code* requires that projects within an airport planning boundary be reviewed by the ALUC when the local agency general plan has not been reviewed for consistency with the ALUP. If the ALUC finds the project inconsistent with the ALUP, the local agency, after a public hearing, may propose to overrule the ALUC by a two-thirds vote of its governing body, provided it makes specific findings that the proposed action is consistent with the purpose of the relevant statute, namely *California Public Utilities Code* Section 21670 et seq. (*California Public Utilities Code* Section 21656[b]).

The Project site is located partially within the Airport Influence Area for the Los Angeles International Airport (LAX). The proposed general plan amendment and zone change require an ALUC consistency determination pursuant to Section 21676(b) of the *California Public Utilities Code.* Project site As depicted in Exhibit 3.4-5 in Section 3.4, Noise, the area of the Project site within the Airport Influence Area is limited to the northerly portion of the site.

Real Estate Disclosure

Section 11010 of the Business and Professions Code and Sections 1102.6, 1103.4, and 1353 of the Civil Code require any person who intends to offer subdivided lands, common interest developments and residential properties for sale or lease within an Airport Influence Area to disclose that fact to the person buying the property.

County

County of Los Angeles General Plan

The Project site is located partially within the unincorporated Los Angeles County and therefore is under the purview of the *County of Los Angeles General Plan* (General Plan) (1980, as amended). The current County of Los Angeles General Plan land use designation for Lot 1 is "Low Density Residential". The County is currently in the process of completing its first comprehensive General Plan update since 1980. The following nine *County of Los Angeles General Plan* elements address countywide planning issues: Land Use; Circulation; Housing;[1] Conservation, Open Space and Recreation; Noise; Safety; Public Facilities; and Economic Development. A brief summary of these elements is provided below. A discussion of the Project's consistency with each of the applicable *General Plan* policies and goals can be found in Table 6.1-1 in the analysis below.

Land Use

Land use is the general location and intensity by which land is used. The goal of the Land Use Element is "to coordinate future development and revitalization plans of both the public and private sectors". The Element's policies support the countywide General Plan policy of encouraging a more concentrated urban pattern through the revitalization of deteriorating urban

[1] State law (Government Code Section 65583 et. seq.) requires that General Plan Housing Elements are updated every six years; the current County of Los Angeles Housing Element was adopted in 2008.

areas, infilling of bypassed lands, and focusing new urban development in the most suitable locations. The Land Use Element calls for a distribution of use intensities within urban areas necessary to carry out this policy.

Circulation

The Circulation Element sets the direction for the development of a comprehensive, coordinated and continuing transportation system for Los Angeles County. The element identifies the locations of major existing and future travel corridors based on existing and projected land use patterns. The Circulation Element is comprised of the following components: Transportation Element, Scenic Highways Element, and the Plan of Bikeways.

Housing

The current Housing Element 2008–2014 was adopted on August 5, 2008, by the County of Los Angeles Board of Supervisors. The Element was certified by the State Department of Housing and Community Development (HCD) on November 6, 2008. The Housing Element serves as a policy guide for addressing issues that may arise in meeting the housing needs of current and future residents. The purpose of the Housing Element is: (1) to determine the existing and projected housing needs of residents of the unincorporated area and (2) to take appropriate actions that encourage the private sector to build housing while making sure that the government does not limit housing production.

The Housing Element provides the following information: a review of the 1998–2005 Housing Element; an assessment of key factors that affect housing needs; constraints to meeting those needs; the RHNA; land inventory for housing; objectives and associated goals and policies for housing; and housing programs. It should also be noted that the County of Los Angeles Housing Element is required to be updated every six years.

Conservation, Open Space, and Recreation

This Element is comprised of the following two components: Conservation and Open Space and Regional Recreation. The Conservation and Open Space portion of this Element sets policy direction for the open space-related resources of the County. These resources include land and water areas devoted to recreation, scenic beauty, conservation and use of natural resources, agriculture, and mineral production. Existing uses of open space within Los Angeles County include outdoor recreation, natural areas and arboreta, water supply and conservation, military reservations, committed open lands, and national forests. The Element's policies are based on the need to conserve natural amenities, protect against natural hazards, and meet the public's desire for open space experiences.

Noise

The Noise Element notes that in some areas a past lack of land use and transportation planning, noise impacts have occurred near highways, airports, rail lines and other transportation facilities, and that future problems can be minimized through planning. The Noise Element discusses noise measurement methods; sources of transportation noise; effects of noise; the interrelationship between land use and transportation noise; transportation noise laws; the multiplicity of governmental jurisdictions; and the distribution of noise mitigation costs.

Safety

The Safety Element is designed to assess, inform, prevent, and mitigate threats to public health and safety from hazards such as seismic, geologic, flood and inundation, wildland and urban fires, and hazardous materials. The element establishes long-range response plans and emergency preparedness and seeks to reduce future losses of life, injuries, and socioeconomic disruption by designing safer environments and facilities.

Public Facilities

The purpose of the Public Facilities Element is to describe and formulate policies on the current water supply and distribution, flood protection, water conservation, sewage, water reclamation, and solid waste disposal. This section also discusses resource recovery, protection, and conservation.

Economic Development

The Economic Development Element represents economic vitality in an effort to prepare skills and resources for the future. Its goal is to examine the current Los Angeles County economy; identify and make recommendations; and implement programs to improve employment and income opportunities for county residents. The element focuses on two facets of economic development: (1) providing the labor force with needed job skills and (2) establishing the proper preconditions for maintaining and attracting new job opportunities.

County of Los Angeles Zoning Code

Land use, population density, lot coverage, and building sizes and locations for the portion of the Project site within the County of Los Angeles site are currently regulated through the *County of Los Angeles Planning and Zoning Code* (County of Los Angeles Municipal Code, Title 22, Zoning Ordinance). Lot 1 (within the County of Los Angeles) is currently zoned C-1 (Restricted Business Zone) and R-1 (Single-Family Residence).

City

City of Los Angeles General Plan

The Project site is located partially within the City of Los Angeles and therefore is partially under the purview of the *City of Los Angeles General Plan* (General Plan). The *City of Los Angeles General Plan* provides a framework for land use decisions. It is designed with comprehensive, long-term growth strategies, and thus provides a general direction for all new development. It contains seven California state mandated elements and other optional elements, as well as a land use plan for each of the city's 35 Community Planning Areas. The current *City of Los Angeles General Plan* land use designation for Lot 2 is "Public Facilities".

City of Los Angeles Zoning Ordinance

As discussed in Section 2.0, Environmental Setting and Project Description, Lot 2 of the Project is within the City of Los Angeles. Lot 2 is designated currently as PF (Public Facilities) on the official zoning maps of the City of Los Angeles.

6.2.2 EXISTING CONDITIONS

On-Site and Surrounding Land Uses

Land uses on and surrounding the Project site are shown on the aerial photograph presented in Exhibit 2-3 in Section 2.0, Environmental Setting and Project Description. The Project site is composed of multiple parcels that encompass 5.9 acres. The topography of the Project site and surrounding areas is essentially flat, with elevations ranging between 94 and 96 feet above mean sea level (msl).

The Project site is bound by Aviation Boulevard to the west; the Metro Green Line Station to the north; West 117th Street to the south; and Judah Avenue to the east. West 116th Street currently ends in a cul-de-sac halfway through the Project site. The southern portion of the Project site contains 11 residences (7 single-family homes and 2 duplexes), the 4,568 square foot Wild Goose Restaurant/Bar), a 8-room motel (i.e. Aviation Motel), and surface parking. The northern portion of the site contains the Metro bus staging area and terminal and a portion of 116th Street. The existing Metro Green Line Aviation/LAX Station for light-rail is located off-site directly north of the Project site and the Project would not involve any changes or alterations to the existing Metro Green Line Station. The Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility surface parking areas are located north of the Project site and the Metro Green Line Station, and are subject to off-site improvements for the Project.

The Project site is located in a highly urbanized area with a diverse mix of nearby land uses and is immediately southwest of two major regional freeways, including Interstate 405 (I-405) to the east and I-105 to the north. This portion of Los Angeles County can be characterized as a residential community with important regional employment centers. Specifically, surrounding areas to the north and west are largely comprised of commercial, office, and light industrial land uses, with a high concentration of aviation/aerospace-related facilities.

The Los Angeles International Airport (LAX) is located approximately 0.15-mile to the northwest of the Project site, and the Northrop Grumman Integrated Systems campus is located immediately to the west of the site in the City of El Segundo. The Northrop Grumman campus is designated and zoned as “Urban Mixed-Use North”, which allows for a mix of office, research and development, and retail uses, and allows for light industrial uses subject to a conditional use permit. The BNSF railroad line runs parallel with the west side of Aviation Boulevard. The east side of Aviation Boulevard south of the Project site is developed with commercial businesses, such as a liquor store, motel, check- cashing business, pawn shop, and restaurants.

Areas immediately to the south and east of the site are comprised predominately of single-family residences. These are considered sensitive land uses for the analysis of land use compatibility issues. The Los Angeles County *Airport Courthouse*, commercial office space, and the Windstar Pacific Place apartment complex are located further to the east of the site near the intersection of I-105 and I-405.

6.2.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning’s Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 6.2a: Can the project be found to be inconsistent with the plan designation(s) of the subject property?

Threshold 6.2b: Can the project be found to be inconsistent with the zoning designation of the subject property?

Threshold 6.2c: Can the project be found to be inconsistent with the following applicable land use criteria: Hillside Management Criteria; SEA Conformance Criteria; Other?

Threshold 6.2d: Would the project physically divide an established community?

Threshold 4.4e: Will the project result in a major change in the patterns, scale, or character of the general area or community? (Threshold from County Initial Study Section "Other Factors- General" and discussed in detail in Section 4.4, Visual Qualities)

6.2.4 PROJECT DESIGN FEATURES

PDF 6.2-1 Vehicular access from the Fire Lane to the intersection of West 116th Street and Judah Avenue would be gated and restricted for emergency vehicle access only.

6.2.5 ENVIRONMENTAL IMPACTS

Impact Analysis

Threshold 6.2a: Can the project be found to be inconsistent with the plan designation(s) of the subject property?

On-Site Impacts

As discussed in Section 2.0, Environmental Setting and Project Description, Lot 2 is currently within the City of Los Angeles. To implement the Project, a modification to the County of Los Angeles and City of Los Angeles boundaries would be required through the LAFCO, allowing the entire Project site to become part of the unincorporated County of Los Angeles. The Project would require the decertification of the Caltrans-owned portion of Lot 2 to allow the property to be sold to Metro. Once under Metro ownership, the property would then be leased to the Project Applicant/Developer.

As previously discussed, the Project is currently not consistent with the existing land use designation and zoning for the Project site. The Project, as planned, requires both a general plan amendment and a zone change. The following discretionary land use entitlements are required:

- **General Plan Amendment**. The current County of Los Angeles General Plan land use designation for Lot 1 is "Low Density Residential" and the current City of Los Angeles General Plan land use designation for Lot 2 is "Public Facilities". The Project requires a General Plan Amendment to change the land use designation for the property to "High Density Residential", which would be the ultimate land use designation for both Lot 1 and Lot 2.

- **Zone Change**. Lot 1 within the County of Los Angeles is currently zoned C-1 (Restricted Business Zone) and R-1 (Single-Family Residence) in the County of Los Angeles' Zoning Ordinance. Lot 2, excluding the West 116th Street, within the City of Los Angeles is currently zoned PF (Public Facilities) in the City of Los Angeles' Zoning Ordinance. That portion of West 116th Street would be vacated as a part of the VTTM approval process. The Project requires a zone change to MXD-DP, Mixed Use

Development/Development Program, to provide development standards to regulate development for both Lot 1 and Lot 2.

- **Conditional Use Permit**. A Conditional Use Permit (CUP) is required pursuant to County Code Section 22.40.520(B) to allow mixed use development in the MXD-DP zone. The CUP would also establish site-specific development standards for the Project.

- **Parking Permit**. A Parking Permit is required pursuant to County Code Section 22.56.990(C) to allow for the sharing of parking across Lot 1 and Lot 2.

- **Vesting Tentative Tract Map**. The Project Applicant is requesting a vesting tentative tract map to develop 278 residential units, 8,000 square feet (sf) of commercial and leasing office space within the 3.2-acre Lot 1, and 112 residential units and 21,500 sf of commercial within the 2.7-acre Lot 2. The residential units within Lot 1 would be developed as for-sale condominium units and townhouses, and the residential units within Lot 2 would be developed as rental apartments.

- **LAFCO Boundary Modification.** A modification to the County of Los Angeles and City of Los Angeles boundaries will be required through the Local Agency Formation Commission for the County of Los Angeles (LAFCO).

- **Water Service Area Boundary Adjustment**. The Project requires an adjustment of the respective service areas of the City of Los Angeles Department of Water and Power and the Golden State Water Company, which would serve the entire Project site.

- **Consolidated Sewer Maintenance District Annexation**. The County of Los Angeles Department of Public Works' Consolidated Sewer Maintenance District is responsible for the maintenance of the local sewers within the unincorporated County area. Therefore, sewer development within the entire Project area is required to be annexed into the Consolidated Sewer Maintenance District.

For the discretionary actions listed above, an analysis of the Project's compatibility with existing regional and local plans is required. There are a number of interrelated land use planning documents and programs that apply to the Project site and its surrounding area. The applicable regional and local plans were listed and described in Section 6.2.1 above, and the Project's consistency with each of these plans and policies is addressed below. It should be noted that some of the regional and local goals and policies can only be implemented by the local jurisdiction (i.e., County, City or agency), and are not at the discretion of an individual developer to implement. Therefore, the analysis below focuses on goals and policies that would be implementable or supportable by a private development.

<u>SCAG Regional Transportation Plan Goals and Compass Blueprint Principles</u>

The fundamental goals of SCAG's Regional Transportation Plan (RTP) and the Compass Blueprint effort is to make the SCAG region a better place to live, work and play for all residents regardless of race, ethnicity or income class. Thus, decisions regarding growth, transportation, land use, and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

The following RTP and Compass Blueprint goals and principles promote sustaining mobility with the goals of economic development, enhancing and preserving the environment, reducing energy consumption and promoting transportation friendly development patterns and fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. The Project's consistency with SCAG's Regional Housing Needs Assessment

(RHNA) is addressed in Section 6.3, Population, Housing, Employment, and Recreation. Table 6.2-1 provides an assessment of the Project's consistency with RTP and Compass Blueprint goals and principles applicable to the Project.

TABLE 6.2-1
SCAG RTP AND COMPASS BLUEPRINT CONSISTENCY ANALYSIS

Consistency Analysis		
2008 Regional Transportation Plan Goals		
RTP G1	Maximize mobility and accessibility for all people and goods in the region.	**Consistent**: The proposed development will provide a mix of residential and commercial uses easily accessible by bus, rail and auto transit, maximizing mobility.
RTP G2	Ensure travel safety and reliability for all people and goods in the region.	**Consistent**: Convenient accessibility to multiple safe travel modes (rail, bus, and auto) provides travel safety and reliability.
RTP G3	Preserve and ensure a sustainable regional transportation system.	**Consistent**: Because the Project is a transit-oriented development (TOD), it would contribute to a sustainable transportation system by reducing dependence on the automobile by providing convenient access to transit.
RTP G4	Maximize the productivity of our transportation system.	**Consistent**: The Project would provide residents and visitors with convenient accessibility to multiple travel modes, maximizing the productivity of the existing transportation system.
RTP G5	Protect the environment, improve air quality and promote energy efficiency.	**Consistent**: A TOD project encourages increased use of public transit and reduced dependence on the automobile, resulting in improved air quality and increased energy efficiency (less fuel consumption). As stated in Section 6.4 and PDF 6.4-1, the Project will be LEED Silver, constructed in accordance with the County's Green Building ordinance, and will incorporate drought tolerant landscaping and smart irrigation systems (PDF 6.4-1); water efficient fixtures and appliances (PDF 6.4-2); and preferred parking for low-emission/fuel-efficient vehicles, as well as bicycle storage (MM 6.4-3).
RTP G6	Encourage land use and growth patterns that complement our transportation investments.	**Consistent**: The Project would encourage increased use of public transit facilities through the placement of residential and commercial development directly adjacent to a transit node, complementing existing transportation investments.
Compass Blueprint Principles and Goals		
Principle 1: Improve mobility for all residents		
GV P1.1	Encourage transportation investments and land use decisions that are mutually supportive.	**Consistent**: The Project, being a TOD, would complement existing transportation investments, including rail, bus and auto.
GV P1.2	Locate new housing near existing jobs and new jobs near existing housing.	**Consistent**: The Project would provide a mix of housing and commercial (i.e., employment-generating) land uses and is near several regional employment centers, with a high concentration of aviation/aerospace-related facilities.
GV P1.3	Encourage transit-oriented development.	**Consistent**: The Project would be a transit-oriented development (TOD).
GV P1.4	Promote a variety of travel choices.	**Consistent**: The Project would provide residents and visitors with convenient accessibility to multiple travel modes, including rail, bus, bicycle, and auto.
Principle 2: Foster livability in all communities		
GV P2.1	Promote infill development and redevelopment to revitalize existing communities.	**Consistent**: The Project would be both an infill development and a redevelopment of existing land uses complementing the existing community.

TABLE 6.2-1 (Continued)
SCAG RTP AND COMPASS BLUEPRINT CONSISTENCY ANALYSIS

Consistency Analysis		
GV P2.2	Promote developments that provide a mix of uses.	**Consistent**: The Project would provide a mix of residential and commercial uses.
Compass Blueprint Principles and Goals (cont.)		
GV P2.3	Promote "people scaled," pedestrian-friendly (walkable) communities.	**Consistent**: The Project would have architectural features to provide a human/people scale at ground level as well as convenient pedestrian access through the site, particularly between the site and the adjacent transit facilities.
GV P2.4	Support the preservation of stable, single-family neighborhoods.	**Consistent**: The redevelopment of the Project site with a mixed-use TOD project would provide economic revitalization benefiting the single-family neighborhoods in the immediate area. The removal of the existing 11 rental residences on-site would be replaced by 20 for-sale townhomes, 278 for sale condominiums, and 112 rental units. The addition of more residences in the Project area, both renters and owners, will increase residential diversity in the area and further promoting a stable residential neighborhood through additional opportunities for property ownership.
Principle 3: Enable prosperity for all people		
GV P3.1	Provide, in each community, a variety of housing types in each community to meet the housing needs of all income levels.	**Consistent**: Although the Project would not meet the needs of all income levels, the Project would provide both for-sale condominiums and for-rent multi-family apartments in sizes ranging from 543 sf to 1,288 sf, providing additional diversity to the largely single-family housing stock available in the Project area. Rental and sale prices would vary according to the size and characteristics of the unit, allowing for a variety of income levels to be accommodated within the proposed development.
GV P3.2	Support educational opportunities that promote balanced growth.	**Consistent**: As stated in Section 6.4, the Project would provide educational materials to all future homeowners regarding water conservation techniques and programs, waste reduction and recycling services, the benefits of mixed-use transit-oriented developments in support of the reduction of vehicle trips, and information about public transportation options (MM 6.4-2).
GV P3.3	Ensure environmental justice regardless of race, ethnicity or income class.	**Consistent**: The Project provides housing and transit access opportunities for riders of all races, ethnicities, and income classes throughout the local community.
GV P3.4	Support local and state fiscal policies that encourage balanced growth.	**Consistent**: As evidenced by the policy consistency analysis presented in this section of the EIR, the Project would support local (County of Los Angeles) and state (SCAG, SB 375) policies to encourage balanced growth by providing a mixed-use, transit-oriented, infill redevelopment project.
GV P3.5	Encourage civic engagement.	**Consistent**: As stated in Section 6.4, the Project would provide educational materials to all future homeowners regarding water conservation techniques and programs, waste reduction and recycling services, the benefits of mixed-use transit-oriented development in support of the reduction of vehicle trips, and information about public transportation options (MM 6.4-2).

TABLE 6.2-1 (Continued)
SCAG RTP AND COMPASS BLUEPRINT CONSISTENCY ANALYSIS

Consistency Analysis		
Principle 4: Promote sustainability for future generations		
GV P4.1	Preserve rural, agricultural, recreational and environmentally sensitive areas.	**Consistent**: The Project is aiming to create a mixed use, urban development in an appropriate area where infrastructure is already in place, thereby potentially lessening future development in greenspace areas and preserving rural, agricultural, recreational and environmentally sensitive areas.
GV P4.2	Focus development in urban centers and existing cities.	**Consistent**: The Project is an infill development in an urban center.
GV P4.3	Develop strategies to accommodate growth that use resources efficiently, eliminate pollution and significantly reduce waste.	**Consistent**: Urban infill projects and TOD projects both result in growth that use resources efficiently by relying on existing infrastructure and, for TOD, providing convenient access to existing transportation resources.
GV P4.4	Utilize "green" development techniques.	**Consistent**: The Project would be LEED Silver compliant and constructed in compliance with the County's Green Building ordinance. Please refer to Sections 2.0 and 6.4 for a description of the Project's sustainability features.

In addition, the Project implements the policies promoted by SB 375, but within a faster timeframe than the new law can achieve. The goal of SB 375 is to promote land use growth patterns that will help reduce GHG emissions by reducing driving. It is intended to foster the implementation of infill and transit oriented development projects to reduce GHG emissions and meet the statewide goals of AB 32.

It is anticipated that CARB will set GHG emission reduction targets for the SCAG MPO region in September 2010. After the regional targets are set, the SCAG MPO will incorporate strategies within its new RTP to meet those established targets. If regions develop integrated land use, housing and transportation plans that meet the SB 375 targets, new projects in these regions can be relieved of certain environmental review requirements. In the meantime, the Project is a transit-oriented development that promotes state and local policies regarding the need for infill development near transit.

Los Angeles County Comprehensive Airport Land Use Plan

As discussed above, the northerly portion of the Project site is located within the Airport Influence Area for LAX. As such, the Project has been developed in a manner that is consistent with the land use compatibility standards of the ALUP. The area of the Project that falls within the LAX Airport Influence Area would be presented to the ALUC for a consistency determination, prior to final Project approval with the Board of Supervisors ensured via MM 6.2-1. The Project would be constructed in a manner that ensures adequate noise attenuation from aircraft noise and appropriate disclosures would be provided to prospective buyers and renters, as described in Section 3.4, Noise. A detailed analysis of the Project's consistency with the policies and objectives of the ALUP is presented below in Table 6.2-2.

TABLE 6.2-2
LOS ANGELES COUNTY AIRPORT LAND USE PLAN CONSISTENCY ANALYSIS

General Policies		
G-1	Require new uses to adhere to the Land Use Compatibility Chart.	**Consistent**. The Project has been designed in a manner that is consistent with the ALUP Land Use Compatibility Chart. All residences located within the 65 dBA CNEL would be developed in a manner that achieves a 45 dBA CNEL interior noise level.
G-2	Encourage the recycling of incompatible land uses to uses which are compatible with the airport, pursuant to the Land Use Compatibility Table.	**Consistent**. The Project has been designed in a manner that is consistent with the ALUP Land Use Compatibility Chart. All residences located within the Airport Influence Area's 65 dBA CNEL would be developed in a manner that achieves a 45 dBA CNEL interior noise level.
G-3	Consider requiring dedication of an aviation easement to the jurisdiction owning the airport as a condition of approval on any project within the designated planning boundaries.	**Consistent**. The conditions of approval for the Project would require dedication of a navigation easement to Los Angeles World Airports for the portion of the Project site within the Airport Influence Area. The easement would require that disclosures be provided to prospective buyers and renters to ensure they are informed of the noise levels and land use restrictions associated with the property's proximity to LAX.
G-4	Prohibit any uses which will negatively affect safe air navigation.	**Consistent**. A portion of the Project site is located within the Airport Influence Area for LAX. The Project would be developed in accordance with the development guidelines of the ALUP and applicable Federal Aviation Administration (FAA) regulations and would not negatively impact safe air navigation.
G-5	Airport proprietors should achieve airport/community land use compatibility by adhering to the guidelines of the California Noise Standards.	**Not Applicable**. The Project does not include any aviation-related uses and is not subject to this policy.
N-1	Use the Community Noise Equivalent Level (CNEL) method for measuring noise impacts near airports in determining suitability for various types of land uses.	**Consistent**. All proposed residences, including those located within the Airport Influence Area's 65 dBA CNEL, would be developed in a manner that achieves a 45 dBA interior noise level (per MM 3.4-6).
N-2	Require sound insulation to insure a maximum interior 45 db CNEL in new residential, educational, and health-related uses in areas subject to exterior noise levels of 65 CNEL or greater.	**Consistent**. All proposed residential land uses, including those within the Airport Influence Area and 65 db CNEL, would be designed and developed to achieve an interior 45 db CNEL (per MM 3.4-6).
N-3	Utilize the Table Listing Land Use Compatibility for Airport Noise Environments in evaluating projects within the planning boundaries.	**Consistent**. A portion of the Project site is located within the 65 dBA CNEL Noise Contour of the ALUP. All residences, including those located within the 65 dBA CNEL, would be developed in a manner that achieves a 45 dBA CNEL interior noise level (per MM 3.4-6).
N-4	Encourage local agencies to adopt procedures to ensure that prospective property owners in aircraft noise exposure areas above a current or anticipated 60 db CNEL are informed of these noise levels and of any land use restrictions associated with high noise exposure.	**Consistent**. In conformance with this policy and the requirements of Business and Professions Code Section 11010 and Civil Code Sections 1102.6, 1103.4, and 1353, appropriate airport noise and hazard disclosure forms would be provided to prospective buyers of residential units within the Project prior to the close of escrow.
S-1	Establish "runway protection zones" contiguous to the ends of each runway. These runway projection zones shall be identical to the FAA's runway protection zone (formally called clear zone).	**Not Applicable**. The Project site is not depicted within a runway protection zone and the Project is therefore not subject to this policy.

TABLE 6.2-2 (Continued)
LOS ANGELES COUNTY AIRPORT LAND USE PLAN CONSISTENCY ANALYSIS

General Policies		
S-2	Prohibit above ground storage of more than 100 gallons of flammable liquids or toxic materials on any one net acre in a designated runway protection zone. It is recommended that these materials be stored underground.	**Not Applicable**. The Project site is not depicted within a runway protection zone and the Project is therefore not subject to this policy.
S-3	Prohibit, within a runway protection zone, any use which would direct a steady light or flashing light of red, white, green or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following take-off or toward an aircraft.	**Not Applicable**. The Project site is not depicted within a runway protection zone and the Project is therefore not subject to this policy.
S-4	Prohibit, within a runway protection zone, the erection or growth of objects which rise above an approach surface unless supported by evidence that it does not create a safety hazard and is approved by the FAA.	**Not Applicable**. The Project site is not depicted within a runway protection zone and the Project is therefore not subject to this policy.
S-5	Prohibit uses which would attract large concentrations of birds, emit smoke, or which may otherwise affect safe air navigation.	**Consistent**. The Project does not propose any uses which would attract large concentrations of birds, emit smoke, or which may otherwise affect safe air navigation.
S-6	Prohibit uses which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.	**Consistent**. The Project includes the development of residential and commercial land uses and does not propose any land use that would generate electrical interference with aircraft instrumentation.
S-7	Comply with the height restriction standards and procedures set forth in FAR Part 77.	**Consistent**. Title 14, Code of Federal Regulations, Part 77 regulates proposed structures that may obstruct navigable airspace and requires the filing of a Notice of Proposed Construction or Alteration (Form 7460-1) for construction involving a height greater than an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway at LAX. Construction may be exempt from the Notice requirement if it is located within a congested area of a city and would be shielded by existing structures of equal or greater height. The Project site is located 3,000 feet from the approach end to Runway 25L and is located within a congested urban area. The proposed buildings are approximately 14 feet 1 inch taller than the adjacent 105 Freeway (without accounting for rooftop structures on the proposed building or cars and trucks on the freeway). Based on the heights of the four proposed structures, including antenna or other appurtenances that may be placed on rooftops, the FAA issued a “Determination of No Hazard to Air Navigation” on January 25, 2010 (FAA 2010). . Also, per MM 6.1-4, the Project Applicant/Development shall provide the County with proof of the current and valid FAA “Determination of No Hazard to Air Navigation”.

County of Los Angeles General Plan

The General Plan goals and policies represent the general course of action that should be followed to achieve the land use and development envisioned. General Plan goals are a link between needs, policies, and implementation. *County of Los Angeles General Plan* goals and policies that are applicable to the Project and an analysis of the Project's consistency with these policies are provided in Table 6.2-3.

TABLE 6.2-3
COUNTY OF LOS ANGELES GENERAL PLAN CONSISTENCY ANALYSIS

County of Los Angeles General Plan Goals and Policies	
General	
Goal: *Full and equal opportunity.*	
Policy 5: Promote a balanced mix of dwelling unit types to meet present and future needs, with emphasis on family owned, moderate density dwelling units (twinhomes, townhouses and garden condominiums at garden apartment densities).	**Consistent**: The Project would provide both for-sale townhomes/condominiums and for-rent multi-family units of in sizes ranging from 543 sf to 1,288 sf, providing diversity to the largely single-family housing stock available in the Project area. Lot 1 would be developed with 70.77 dwelling units per acre, and Lot 2 would be developed with 38.56 du/ac.
Goal*: Conservation of resources and environmental protection.*	
Policy 19: Restore and protect air quality through the control of industrial and vehicular emissions, improved land use management, energy conservation and transportation planning.	**Consistent**: The Project is a transit-oriented development (TOD), which encourages use of public transit and reduces dependence on the automobile, reducing vehicle emissions and improving air quality.
Policy 22: Promote the efficient use of land through a more concentrated pattern of urban development, including focusing on new urban growth into areas of suitable land.	**Consistent**: The Project would redevelop the existing land uses to provide more dense development in an urban area.
Goal*: Urban areas revitalized*	
Policy 28: Revitalize declining portions of existing urban development, with particular attention to deteriorated industrial and low income residential areas.	**Consistent**: The redevelopment of the Project site with the mixed-use TOD project would provide economic revitalization to the Project area.
Policy 34: Preserve sound residential areas and protect them from intrusion of incompatible uses.	**Consistent**: As discussed further below in the analysis of land use compatibility, the scale and design of the Project is intended to provide a transition between the transportation and commercial uses to the north and west and the single-family uses to the south and east. As stated in PDF 6.2-1, vehicular access from the Fire Lane to the intersection of West 116th Street and Judah Avenue would be gated and restricted for emergency vehicle access only.
Policy 41: Encourage the provision of adequate rental housing.	**Consistent**: The Project would provide 112 rental housing units.
Goal*: A strong, diversified economy and full employment.*	
Policy 51: Encourage the location of medium and high density housing in close proximity to regional multi-purpose centers	**Consistent**: The Project would provide medium- to high density housing near several regional employment centers within a fully developed urban area.

TABLE 6.2-3 (Continued)
COUNTY OF LOS ANGELES GENERAL PLAN CONSISTENCY ANALYSIS

County of Los Angeles General Plan Goals and Policies	
Policy 58: Provide for more efficient multi-modal use of the current freeway system.	**Consistent**: The Project is near two major freeways as well as rail and bus transit facilities and therefore would serve to relieve congestion on the local freeways through the increased use of the Metro Green Line and bus transfer station.
Policy 60: Promote the full use of existing service systems in order to gain maximum benefit from previous public investments.	**Consistent**: The Project would better incorporate the existing rail line into the fabric of the community, and encourage more individuals to utilize public transit, thereby increasing the benefits from previous public investments.
Policy 65: Promote jobs within commuting range of urban residential areas in order to reduce commuting time, save energy, reduce air pollution and improve public convenience.	**Consistent**: The Project would provide a mix of housing and commercial (i.e., employment-generating) land uses and is near several regional employment centers. The Project is a TOD, which encourages use of public transit and reduces dependence on the automobile, reducing vehicle emissions and improving air quality.
Land Use Element	
Goal: *To maintain and enhance the quality of existing residential neighborhoods.*	
Policy 3: Encourage development of well designed twinhomes, townhouses and garden apartments, particularly on by-passed parcels within existing urban communities.	**Consistent**: The Project would develop townhomes, condominiums and apartments within an existing urban community.
Policy 4: Promote neighborhood commercial facilities which provide convenience goods and services and complement community character through appropriate scale, design and locational controls.	**Consistent**: The Project includes 26,500 square feet of commercial space that would include retail and restaurant facilities serving the surrounding area and would be limited to the first floor/ground level of the development with architectural features to maintain a human scale.
Goal*: To situate commercial activities in viable clusters that conveniently serve their market areas.*	
Policy 6: Place major emphasis on channeling new intensive commercial development into multipurpose centers.	**Consistent**: The Project is a mixed use commercial and residential development that would serve as a multipurpose center.
Goal*: To encourage high quality design in all development projects, compatible with, and sensitive to, the natural and manmade environment.*	
Policy 12: Concentrate well designed high density housing in and adjacent to centers to provide convenient access to jobs and services without sacrificing livability of environmental quality.	**Consistent**: The Project provides medium- to high-density housing near multiple transportation modes and major employment centers.
Policy 15: Protect the character of residential neighborhoods by preventing the intrusion of incompatible uses that would cause environmental degradation such as excessive noise, noxious fumes, glare shadowing and traffic.	**Consistent**: The Project would result in less than significant impacts related to land use, noise, noxious fumes, glare and shadows, and traffic, as determined in the analyses presented in this EIR.

TABLE 6.2-3 (Continued)
COUNTY OF LOS ANGELES GENERAL PLAN CONSISTENCY ANALYSIS

County of Los Angeles General Plan Goals and Policies	
***Goal**: To foster compatible land use arrangements that contribute to reduced energy consumption and improved air quality.*	
Policy 22: Promote land use arrangements that will maximize energy conservation.	**Consistent**: A TOD project encourages increased use of public transit and reduced dependence on the automobile, resulting in improved air quality and increased energy efficiency (less fuel consumption). As stated in Section 6.4 and PDF 6.4-1, the Project will be LEED Silver, constructed in accordance with the County's Green Building ordinance, and will incorporate drought tolerant landscaping and storm water catchment systems (PDF 6.4-2); water efficient fixtures and appliances (PDF 6.4-3); and preferred parking for low-emission/fuel-efficient vehicles, as well as bicycle storage (MM 6.4-3).
***Goal**: To provide a land use decision-making process supported by adequate information and ongoing citizen participation.*	
Policy 23: Ensure that future land division activity within Los Angeles County occurs in strict compliance with State and local laws.	**Consistent once general plan and zoning amendments are adopted**: The Project is subject to review by LAFCO for the detachment of Lot 2 from the City of Los Angeles. All proposed entitlements are subject to review and approval by the County Board of Supervisors.
Policy 26: Ensure continuing opportunity for citizen involvement in the land use decision-making process.	**Consistent**: This Draft EIR would be circulated for a 45-day public review period and all public comments received on the adequacy of the EIR analysis would be responded to, consistent with CEQA requirements.
Policy 28: Promote improved interjurisdictional coordination of land use policy matters between the County, cities, adjacent counties, special districts, and regional and subregional agencies.	**Consistent**: Implementation of the Project would require continuing interjurisdictional coordination between the Project Applicant/Developer, the County of Los Angeles, the City of Los Angeles, City of El Segundo, the Metropolitan Transportation Authority (Metro), Caltrans, and LAFCO.
***Goal**: To encourage more efficient use of land, compatible with, and sensitive to, natural ecological, scenic, cultural and open space resources.*	
Policy 31: Promote compatible land use arrangements that reduce reliance on the private automobile in order to minimize related social, economic and environmental costs.	**Consistent**: A TOD project encourages increased use of public transit and reduced dependence on the automobile.
Policy 32: Provide a land use mix at the countywide, area wide and community levels based on projected need and supported by evaluation of social, economic and environmental impacts.	**Consistent**: The Project provides a scale, mix and volume of land uses reflecting the current market demands, as determined by the Project Applicant/Developer. This EIR provides an evaluation of environmental impacts of the Project; CEQA does not include evaluation of social and economic impacts. Information on these factors would be provided to the decision-making body by the Project Applicant/Developer prior to the County making a decision on the Project.
Circulation Element	
***Goal**: To achieve a transportation system that is consistent with the comprehensive objectives of the General Plan and the needs of the residents.*	
Policy 1: Provide transportation planning, services, and facilities that are coordinated with and support the County of Los Angeles General Plan.	**Consistent**: As shown in this General Plan consistency analysis, the Project would support the County's transportation goals.

TABLE 6.2-3 (Continued)
COUNTY OF LOS ANGELES GENERAL PLAN CONSISTENCY ANALYSIS

County of Los Angeles General Plan Goals and Policies	
Policy 2: Provide transportation planning, services, and facilities that provide access for equitable employment, educational, housing and recreational opportunities.	**Consistent**: The Project promotes the use of public transit, to access employment, educational, housing, and recreation opportunities.
Policy 5: Encourage compatible joint use and interfacing of transportation facilities while minimizing modal conflict.	**Consistent**: The Project's proposal to reconfigure the off-site Park-and-Ride Lot, as well as to relocate the bus terminal facility, would reduce modal conflict at the site. By integrating the Project site with the Metro Green Line station, multiple forms of transportation would be promoted.
Policy 8: Improve the compatibility between aviation facilities and their surroundings through improved land use control mechanisms and technological advancements.	**Consistent**: As discussed in Section 6.1 of this EIR, the Project would not adversely affect, or be adversely affected by, operations at LAX.
***Goal**: To achieve a transportation system that is responsive to economic, environmental, energy conservation and social needs at the local community, area, and countywide levels.*	
Policy 14: Plan and develop bicycle routes and pedestrian walkways.	**Consistent**: The Project provides convenient pedestrian access along Aviation Boulevard, adjacent to the Metro Green Line, and internally through the site and provides connectivity to the adjacent transit facilities. As stated in MM 6.4-3, the Project would provide preferred parking for low-emission/fuel-efficient vehicles, as well as bicycle storage.
Policy 18: Support use of non-vehicle improvements (e.g. improved signalization, parking management) to reduce peak hour congestion.	**Consistent**: The Project includes the reconfiguration of the Park-and-Ride Lot to allow for improved bus infrastructure (i.e. relocation of the bus turnout). Section 5.1 provides a discussion of all traffic improvements required for the Project.
Policy 19: Encourage greater use of public transit to special-purpose centers and recreational facilities.	**Consistent**: A TOD project encourages increased use of public transit.
Policy 21: Avoid or minimize the adverse impacts upon people, businesses and communities caused by the development of transportation facilities.	**Consistent**: The Project would relocate the existing Metro bus terminal to a site approximately 100 feet to the north. The existing Metro bus terminal would not be altered until the proposed Metro bus terminal is fully operational; thereby minimizing the adverse impacts upon the users of the transit facilities. The users of the Park-and-Ride Lot will be directed to existing Park-and-Ride Lots located in Hawthorne and/or El Segundo during the re-striping and reconfiguration of the parking stalls.
Policy 24: Encourage the efficient use and conservation of energy used in transportation.	**Consistent**: A TOD project encourages increased use of public transit and reduced dependence on the automobile, resulting increased energy efficiency (less fuel consumption).
***Goal**: To achieve an efficient, balanced, integrated, multimodal transportation system that will satisfy short and long-term travel needs for the movement of people and goods.*	
Policy 30: Coordinate land use and transportation policies.	**Consistent**: As shown in this General Plan consistency analysis, the Project would support the County's land use and transportation goals.
Policy 32: Support continued improvement and expansion of the present bus system as a public service.	**Consistent**: The proposed off-site reconfiguration of the Metro bus terminal and Park-and-Ride Lot would improve the operating efficiency of the bus system by eliminating bus and automobile use of some driveways.

TABLE 6.2-3 (Continued)
COUNTY OF LOS ANGELES GENERAL PLAN CONSISTENCY ANALYSIS

County of Los Angeles General Plan Goals and Policies	
Policy 33: Support a public transit system that provides accessible service, particularly to the transit dependent.	**Consistent**: A TOD project encourages increased use of, and increases accessibility to, public transit.
Policy 36: Develop parking management plans for application in selected areas of urban concentration.	**Consistent**: As described in Section 2.0, the Project would provide adequate on-site parking for all proposed land uses.
Policy 39: Encourage greater multimodal access to major airports and improve internal circulation within these facilities.	**Consistent**: The Project would result in improved access to LAX because the site is adjacent to bus and auto transportation serving LAX. The Project provides commercial land uses for transit users.
Housing Element (2008)	
***Goal 2**: Sustainable communities with access to employment opportunities, community facility and services, and other amenities.*	
Policy 2.1: Encourage mixed use developments along major commercial and transportation corridors.	**Consistent**: The Project is a mixed use development along major commercial and transportation corridors, in particular Aviation Boulevard, Imperial Highway, and the I-105.
***Goal 3**: A housing supply that ranges broadly in housing costs to enable all households, regardless of income, to secure adequate housing.*	
Policy 3.1: Promote mixed income neighborhoods and a diversity of housing types through the unincorporated areas to increase housing choices for all economic segments of the population.	**Consistent**: Although the Project would not increase housing choices for all income levels, the Project would provide both for-sale condominiums and for-rent multi-family apartments of in sizes ranging from 543 sf to 1,288 sf, providing additional diversity to the largely single-family housing stock available in the Project area. Rental and sale prices would vary according to the size and characteristics of the unit, allowing for a variety of income levels to be accommodated within the proposed development.
Policy 3.2: Incorporate advances in energy-saving technologies into housing design, construction, operation, and maintenance.	**Consistent**: As described in Section 6.4, the Project would be LEED Silver and constructed in compliance with the County's Green Building ordinance. Please refer to Sections 2.0 and 6.4 for a description of the Project's sustainability features.
Conservation, Open Space and Recreation Element	
***Goal**: To conserve water and protect water quality.*	
Policy 6: Encourage the maintenance of landscaped areas and pollution-tolerant plants in urban areas. Integrate landscaping and open space into housing, commercial and industrial developments especially in urban revitalization areas. Use drought-resistant vegetation.	**Consistent**: As stated in Section 6.4, the Project would be constructed in accordance with the County's Green Building ordinance and would incorporate drought tolerant landscaping and smart irrigation (PDF 6.4-1) and water efficient fixtures and appliances (PDF 6.4-2).
Noise Element	
***Goal**: Minimize noise levels of future transportation facilities.*	
Policy 8: Determine and evaluate the future noise levels associated with all major transportation facilities in the county.	**Consistent**: Section 3.4, Noise, of this EIR provides an evaluation of the Project's contribution to future traffic noise levels, which were determined to be less than significant.

TABLE 6.2-3 (Continued)
COUNTY OF LOS ANGELES GENERAL PLAN CONSISTENCY ANALYSIS

County of Los Angeles General Plan Goals and Policies	
***Goal**: Establish compatible land use adjacent to transportation facilities.*	
Policy 11: Reduce the present and future impact of excessive noise from transportation sources through judicious use of technology, planning and regulatory measures.	**Consistent**: Section 3.4, Noise, of this EIR provides an evaluation of the noise level from surrounding transportation sources on the Project. With compliance with noise insulation regulations, there would be a less than significant impact on the Project.
Safety Element	
***Goal**: Minimize injury and loss of life, property damage, and the social, cultural, and economic impacts caused by earthquake hazards.*	
Policy 3: Continue enforcement of stringent site investigations (such as seismic, geologic, hydrologic, and soils investigations) and implementation of adequate hazard mitigation measures for development projects in areas of high earthquake hazard, especially those involving critical facilities. Do not approve proposals and projects which cannot mitigate safety hazards to the satisfaction of responsible agencies.	**Consistent**: This EIR summarizes the results of geotechnical (Section 3.1) and hydrologic (3.2) site investigations, which demonstrate the Project is feasible with incorporation of all engineering recommendations from these investigations and compliance with the County Building Code and would not result in a hazard to the on-site or surrounding populations.
***Goal**: Reduce threats to public safety and protect property from wildland and urban fire hazards.*	
Policy 15: Maintain and strengthen the review of projects and development proposals; and upgrade County fire prevention standards and mitigation measures in areas of high wildland (mainly Fire Zone 40 and urban fire hazard).	**Consistent**: The Project is not located within a Fire Zone 40 or a High Fire Zone Hazard Severity Area and would be constructed in compliance with all applicable Building Code requirements related to fire safety.
Policy 16: Continue to coordinate firefighting efforts with State, Federal and local agencies in fire hazard areas; and review and update mutual and automatic aid agreements between the County and other fire protection agencies.	**Consistent**: The Project site is not within a fire hazard area.
Policy 17: Continue efforts to reduce all fire hazards, with special emphasis on reducing hazards associated with older buildings, multistory structures, and fire-prone industrial facilities; and maintain an adequate fire prevention capability in all areas.	**Consistent**: Section 5.5, Utilities/Other Services, of this EIR, addresses the Project's compliance with all conditions of approval regarding adequate fire flows required by LACFD prior to tract map approval.
***Goal**: Strengthen County short-term emergency response and long-tem recovery capability.*	
Policy 30: Upgrade interagency and multi-jurisdictional communications, planning and decision making to ensure efficient and integrated emergency response capability.	**Consistent**: The Project would not adversely affect emergency response or evacuation capabilities, as discussed in Section 5.4, Fire/Sheriff.
Public Facilities Element	
***Goal**: To protect the health and safety and welfare of all residents in providing water and waste services.*	
Policy 8: Design water and waste management systems which enhance the appearance of the neighborhoods in which they are located and minimize negative environmental impacts.	**Consistent**: All proposed water and waste management systems associated with the Project (pipelines, laterals, and water quality features) would be underground and would not negatively impact the visual quality of the Project area.
Source: Los Angeles County, 1993, as amended, and 2008.	

The current County of Los Angeles General Plan land use designation for Lot 1 is "Low Density Residential" and the City of Los Angeles General Plan land use designation for Lot 2 is "Public Facilities". The "Low Density Residential" allows for a maximum of six units per gross acre, which would allow for a 19 units within Lot 1. The Project would develop 278 units and 8,000 sf of commercial and leasing office space within Lot 1.

The "Public Facilities" designation provides for transportation facilities, utilities, public buildings, hospitals, and other facilities necessary to serve County residents, and does not allow for residential development. The Project would develop 112 units and 21,500 sf of commercial within Lot 2. These designations do not allow for the density or mixed-use development proposed by the Project. Therefore, the Project is inconsistent with these current land use designations and a General Plan Amendment is required to change the land use designations to "High Density Residential", the ultimate land use designation for both Lot 1 and Lot 2. "High Density Residential" allows for medium and high-rise multi-family land uses with densities that generally exceed 22 units per gross acre. The Project would be consistent with this proposed land use designation.

As identified through the consistency analysis presented in Tables 6.2-1 and 6.2-2, the Project would not conflict with applicable goals and policies of the SCAG RTP and Compass Blueprint goals or the goals and policies of the *County of Los Angeles General Plan*. Therefore, the proposed general plan amendment would not result in significant land use impacts. No mitigation would be required.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

There would be no change to the existing "Public Facilities" land use designation of the Caltrans Off-Site Project Area, or the areas of off-site utility improvements. The Park-and-Ride Lot and Caltrans maintenance facility would remain within the jurisdiction of the City of Los Angeles. The newly constructed Metro bus terminal would be a new land use introduced into the former Park-and-Ride Lot, although both land uses are transit oriented and support the existing Metro Green Line. The new Metro bus terminal would not negatively impact the existing Park-and-Ride Lot because at least the same number of parking spaces would be maintained for the transit users.

The introduction of the High Density Residential land use designation, and proposed mixed-use development project, adjacent to the "Public Facilities" land use designation and transit amenities, would not present a land use compatibility conflict, as discussed in Section 4.4, Visual Qualities and summarized in Threshold 4.4e below. There would be no conflict with applicable land use policies, and the impact would be less than significant.

Threshold 6.2b: Can the project be found to be inconsistent with the zoning designation of the subject property?

On-Site Impacts

Lot 1 within the County of Los Angeles is currently zoned C-1 (Restricted Business Zone) and R-1 (Single-Family Residence), and Lot 2, within the City of Los Angeles, is designated as PF (Public Facilities). Property zoned as C-1 allows for general commercial and retail development, but does not allow for mixed use developments. Property zoned as R-1 allows for a minimum 5,000 sf per single-family lot. Lot 2 includes 139,392 sf, which would allow for 27 lots to be developed. However, the Project would not develop single-family homes or other land uses currently allowed under the R-1 zone; therefore, the Project would not be permitted within this zone and a zone change is required.

Current County zoning regulations do not accommodate transit oriented development projects. Although the County zoning regulations include a few transit oriented districts at specific Green and Blue Line stations, none of these districts have resulted in development of transit-oriented projects. In addition, Aviation Station and the subject property are not included within an existing transit-oriented district. The current County zoning regulations include a zoning classification, the Mixed Use Development (MXD) zone, which is intended to integrate housing and services to reduce transportation costs, energy consumption and air pollution and to implement the land use and special management area policies of the General Plan. The requested zone change for the Project also includes a –DP (Development Program) combining zone.

The Project furthers the goals of the MXD zone by providing housing and commercial services at a light rail station and major bus terminal, thereby reducing transportation costs, energy consumption, and air pollution. Accordingly, the Project is a planned mixed-use development as envisioned by the MXD zone.

The MXD zone promotes flexibility in the design of mixed-use developments by establishing unique design standards through the conditional use permit process (County Code Section 22.40.510A). Although the MXD prescribes certain development standards, each of those standards may be waived or modified by the Regional Planning Commission through the conditional use permit process (County Code Section 22.40.520B). Therefore, the zone change to the MXD-DP zone is appropriate for the Project because of the allowable flexibility in design in the MXD zone to accommodate an appropriate transit-oriented development at a major light rail station and bus terminal.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

There would be no change to the existing “Public Facilities” zoning of the Caltrans Off-Site Project Area or the areas of off-site utility improvements. The Park-and-Ride Lot and Caltrans maintenance facility would remain within the jurisdiction of the City of Los Angeles. The newly constructed Metro bus terminal would be a new land use introduced into the former Park-and-Ride Lot, although both land uses are transit oriented and support the existing Metro Green Line. The new Metro bus terminal would not negatively impact the existing Park-and-Ride Lot because at least the same number of parking spaces would be maintained for the transit users.

The introduction of the MXD-DP zone, and proposed mixed-use development project, adjacent to the “Public Facilities” zone and transit amenities, would not present a land use compatibility conflict, as discussed in Section 4.4, Visual Qualities and summarized in Threshold 4.4e below. There would be no conflict with applicable land use policies, and the impact would be less than significant.

Threshold 6.2c: Can the project be found to be inconsistent with the following applicable land use criteria: Hillside Management Criteria; SEA Conformance Criteria; Other?

Threshold 4.4e: Will the project result in a major change in the patterns, scale, or character of the general area or community? (Threshold from County Initial Study Section “Other Factors- General” and discussed in detail in Section 4.4, Visual Qualities)

On-Site, Caltrans Off-Site Project Area, and Off-Site Utility Improvements Impacts

The Project site is fully developed with urban land uses within an urban portion of the County and is not located within a Significant Ecological Area (SEA), SEA Buffer, coastal Sensitive Environmental Resource Area (ESHA) or in a hillside management area. The Project requires a zone change to MXD-DP, the ultimate zoning for both Lot 1 and Lot 2.

The proposed zoning of MXD-DP has the potential to be incompatible with the adjacent single-story residential homes located to the south and east of the Project. The total building height of the Project, including mechanical equipment, mechanical penthouses, and antenna, ranges from 67 feet above ground level (agl) to 72 feet agl, while adjacent single-family homes are approximately 18 feet high (including roof peaks).

The issue of land use compatibility involves several interrelated topics that relate to a project's effect on surrounding land uses, in particular air quality and odors (Section 4.2), noise (Section 3.4), visual qualities (Section 4.4), traffic/access and parking (Section 5.1). This discussion focuses on the compatibility of the Project with the adjacent single-family residential uses to the south and east of the Project site and larger Del Aire residential community, and also addresses the compatibility of the Project with the Northrop Grumman campus and other land uses in the City of El Segundo immediately to the west, and the Metro and Caltrans facilities to the north. The analysis of these topics in this EIR determined there would be less than significant impacts to nearby sensitive receptors and other surrounding land uses with implementation of Project design features and/or mitigation measures, with the exception of short-term air quality impacts associated with construction activities.

Surface parking would be internal to the Project site and provided in both subterranean and street level parking. Therefore, there would be no views of parking lots from the adjacent single-family neighborhood. The commercial land uses would be accessed from the street level along Aviation Boulevard and along the Metro Transit Plaza just south of the Metro Green Line and would not be located adjacent to the single-family homes along West 117th Street and Judah Avenue. Therefore, the pedestrian activity associated with the proposed commercial development would not be visible from the adjacent single-family neighborhood.

The proposed residential units have been classified according to type and all structures are graphically depicted in Section 2.0, Environmental Setting and Project Description on Exhibit 2-5, Floor Plans. A total of 20 two-story townhomes would be developed along West 117th Street and Judah Avenue, facing the existing single-family homes adjacent to the Project site, while the commercial uses would be developed to face Aviation Boulevard to the west and the Metro Green Line to the north. Therefore, only the for-sale townhomes would directly interface at street-level with the existing single-family homes, thereby providing compatibility between land uses across the street. There would be no development on top of the 20 townhome units located along West 117th Street and Judah Avenue. All remaining residential units would be located within four buildings, each four stories tall, built upon a podium level (i.e. Level 1).

The townhomes along West 117th Street and Judah Avenue are located at the street level and have a height of 16 feet 6 inches to accommodate the two stories. The townhomes along West 117th Street are setback 25 feet from the curb and townhomes along Judah Avenue are setback 20 feet from the curb. Levels 1, 2, 3, and 4 would be further setback from the street by an additional 25 feet to allow for a transition in building massing between the Project and the existing off-site single-family residences (see PDF 4.4-1). Therefore, the remaining 278 for-sale condominiums and 112 rental units that would be developed on Levels 1, 2, 3, and 4 would be set back and located further away from the single-family homes along West 117th Street and Judah Avenue. This tapering of height and density along the Project site's southern and

eastern boundaries would provide for a more gradual visual transition from the adjacent single-family residential land uses to the Project land uses.

Each front yard of the proposed townhomes along West 117th Street will have a tree, grass, and landscaping shrubs/plants/flowers. Additionally, a tree will be planted in the right-of-way in front of each townhome. The townhomes along Judah Avenue will have slightly smaller yards than the townhomes along West 117th Street, which would be landscaped with grass and shrubs/plants/flowers, as well as a tree in the right-of-way in front of each townhome. Exhibit 2-11 also illustrates the proposed hardscape features incorporated into the Project design along West 117th Street and Judah Avenue. The townhomes will have low walls with gates that encompass the tiled patios. The Project will also provide paved sidewalks and decorative paving entryways into the residential/fire access lobby entrances.

As shown in Exhibit 2-12, in Section 2.0, Environmental Setting and Project Description, the Project is divided into seven outdoor private use areas, including: a pool forecourt, a pool terrace, a “park” terrace, a conversation terrace, a courtyard and a “quiet” courtyard, and a “hide-away” courtyard. These use areas are for the Project residents and represent separate outdoor rooms connected by paved pathways lined with landscaping. Outdoor areas would include amenities such as a 22-foot by 60-foot pool, a 9-foot by 16-foot spa, community barbeque areas, a tot lot, water features, outdoor fireplace, a fire pit, large-scale pottery and in-ground landscaping, and outdoor furniture.

Exhibit 2-14 in Section 2.0, Environmental Setting and Project Description, shows the distribution and amount of proposed landscape area and open space within the Project site for both the Street Level and Level 1, which totals 66,060 sf of open space areas within Lot 1 and 65,790 sf of open space areas within Lot 2. In total, the Project includes 131,850 sf of open space, inclusive of public and private outdoor use areas at the Street Level and Level 1.

All of the 112 rental units would be located within Lot 2, which is adjacent to the existing Metro Green Line. Also, as stated in PDF 6.2-1, vehicular access from the Fire Lane to the intersection of West 116th Street and Judah Avenue would be gated and restricted for emergency vehicle access only, thereby reducing potential vehicular traffic along the adjacent residential streets. Pedestrian access may be prohibited from the Fire Lane to the intersection of Judah Avenue and West 116th Street.

As discussed further in Section 4.4, the Project’s five-story height and massing would be compatible with the urban and automobile/bus intensive land uses to the north and west, including the Caltrans Park-and-Ride Lot, elevated Metro Green Line Aviation/LAX station, Metro bus terminal, and I-105 freeway immediately to the north, as well as the urban land uses in the City of El Segundo to the west across Aviation Boulevard, including the Northrop Grumman campus, which permits a mix of uses, including office and research and development, as well as light industrial uses subject to a conditional use permit.

The Project would provide a mix of residential and commercial land uses at a scale and density that would provide a transition between the elevated transit facilities and automobile/bus intense land uses to the north and the single-family residential to the south. The Project has been specifically designed to provide transitional land uses that offer the density required to support a transit-oriented development, and associated land use benefits as discussed in Table 6.2-1 and 6.2-2 above, while buffering the single-family residential land uses from the urbanized land uses near the intersection of Aviation Boulevard and West Imperial Highway. The Project incorporates a combination of site planning and design considerations, as well as architectural and landscape/hardscape features, as summarized in PDF 4.4-1 in Section 4.4 Visual Qualities, to provide an aesthetically pleasing development and assist in preserving the integrity and

residential character of the single-family community to the south and east. These include the use of varying street setbacks dependent on the adjacent land uses, variations in building height, architectural design and fenestration intended to "break up" the building mass and provide a human scale at ground level, and convenient pedestrian circulation throughout the site.[2]

The Project would improve mobility for residents and visitors to the Project and would foster employment and shopping next to housing and mass transit. As previously discussed in Tables 6.2-1 and 6.2-2, by virtue of being a TOD and redevelopment project and incorporating green development standards, the Project would promote sustainability for future generations and would be compatible with the applicable goals and policies of the SCAG RTP and Compass Blueprint goals and the *County of Los Angeles General Plan*. Therefore, for the reasons discussed above, the Project is considered compatible with the surrounding land uses and there would be a less than significant impact related to the change in zoning to MXD-DP.

The Project and improvements within the Caltrans Off-Site Project Area have been designed with the intention of maintaining pedestrian-friendly circulation within and across the Project site to connect to the off-site transit facilities, as shown in Exhibit 2-7, Vehicle and Pedestrian Circulation in Section 2.0 of this EIR. The proposed Street Level landscape plan is depicted in Exhibit 2-11, the Podium Level landscape plan is depicted in Exhibit 2-12, and the preliminary plant palette is depicted on Exhibit 2-13 located in Section 2.0, Environmental Setting and Project Description. Exhibit 2-11 and 2-12 show the anticipated spacing and foliage coverage for the trees to be planted along the commercial promenades along Aviation Boulevard and the Fire Lane that separates the Project site from the Green Line station to the north.

In addition to the landscaping, which will provide shade and visual appeal for residents and visitors to the Project site, the Project will incorporate various hardscape features to enhance the pedestrian experience. The commercial promenade will include enhanced paving, benches, seat walls, and a double row of palms to buffer the promenade from traffic along Aviation Boulevard. The "retail plaza", which is located adjacent to the main lobby entrance adjacent to the Fire Lane, will include a seating area, an alley of trees, seat walls, and a water feature. The proposed Fire Lane would be accommodated within the overall landscape concept with the installation of varying pavers whose placement and patterns would blend into the surrounding open space areas without creating one broad, straight path that would visually divide the space. Finally, paved areas would be strategically placed along the northern perimeter to allow convenient and visible pedestrian connections to the Metro transit uses to the north.

There would be no change to the existing zoning of the off-site property. The Park-and-Ride Lot and Caltrans maintenance facility would remain within the jurisdiction of the City of Los Angeles and would not require a zone change. The newly constructed Metro bus terminal and Park-and-Ride Lot are compatible with and supportive of the proposed TOD Project and the existing Metro Green Line. The off-site Project components would have no impact related to land use compatibility to the existing Caltrans building to the east or the adjacent freeways and thoroughfares (i.e., Aviation Boulevard, West Imperial Highway, I-105). There would be no conflict with the existing PF (Public Facilities) zoning, impacts would be less than significant, and no mitigation would be required.

[2] Fenestration is the design and disposition of windows and other exterior openings of a building.

Threshold 6.2d: Would the project physically divide an established community?

On-Site Impacts

The Project site currently contains various land uses (i.e. restaurant, motel, single-family residential, duplex). To the north of the Project site are various transit-oriented amenities, including, the Caltrans Park-and-Ride Lot, Metro Green Line, Caltrans maintenance facility, surface parking, West Imperial Highway, and I-105. To the west of the Project site is Aviation Boulevard, the BNSF railroad, and the Northrop Grumman campus. Los Angeles International Airport (LAX) is located approximately 0.15 miles northwest of the Project site. Aviation-related industrial land uses surround the airport. The Project site currently serves as a transition point between these urban transit/industrial land uses to the north and west, and the existing single-family land uses to the south and east.

The proposed mixed-use Project would also serve as a transitional land use that buffers the single-family neighborhood to the south and east from the transit oriented land uses to the north and Northrop Grumman campus and BNSF railroad to the west.

The Project site currently includes 11 residences (7 single-family homes and 2 duplexes), a 4,568-sf commercial structure (Wild Goose Restaurant/Bar), an 8-room motel (Aviation Motel), and surface parking. The Project would remove these existing land uses and develop 390 residential units and 29,600 sf of commercial. The townhomes are located at the street level and subsequent residential stories are setback to allow for a transition in building massing between the Project and the existing single-family residences on the southern side of West 117th Street and the eastern side of Judah Avenue. In terms of size, scale, and land use types, there is currently no transitional development between the office/transit facilities in the area (such as the Northrop Grumman campus and the Metro and Caltrans facilities) and the largely single-family residential uses located to the south and east of the site. The Project would provide a mix of residential and commercial land uses at a scale and density that would provide a transition between the elevated transit facilities to the north and the single-family residential uses to the south. The demolition of the existing land uses would not divide an established community and impacts would be less than significant.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The Caltrans Off-Site Project area is currently developed with a Park-and-Ride Lot and a portion of the Caltrans Maintenance Facility parking lot. The relocated Metro bus terminal would not result in the physical division of an established community. The proposed off-site utility improvements would involve solely underground abandonment, removal and installation of new pipelines and other infrastructure. There would be no impacts.

6.2.6 CUMULATIVE IMPACTS

The Project is compatible and supportive of the goals and policies of the SCAG's RTP, Compass Blueprint, and County General Plan. Additionally, the Project presents an opportunity to implement the policies promoted by SB 375, but within a faster timeframe than the new law can achieve. SB 375 is an air pollution law linking land use and transportation policies to meet target reductions in GHG emissions. The goal is to promote land use growth patterns that will help reduce GHG emissions by reducing driving. It is intended to foster the implementation of infill and transit oriented development projects to reduce GHG emissions and meet the statewide goals of AB 32. Therefore, the Project is setting forth a land use proposal that is in line with state and local policies regarding the need for efficient land use.

As shown on Exhibit 2-4 in Section 2.0, Environmental Setting and Project Description, there are several projects in the vicinity of the Project. However, none of these cumulative projects are within the immediate residential Del Aire neighborhood and would not directly impact land uses in the area. All cumulative projects are separated from the Project site by major roadways (I-105, I-405, Aviation Boulevard, or Sepulveda Boulevard) and are not within the viewshed of the adjacent community. Impacts to land use would be less than significant and would not be cumulatively considerable.

6.2.7 MITIGATION MEASURES

No mitigation is required.

6.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

There are no significant impacts associated with land use and no mitigation is required.

6.3 POPULATION, HOUSING, EMPLOYMENT, AND RECREATION

This section addresses existing and projected population, housing, and employment on the Project site in the unincorporated portions of the City of Los Angeles (City), Los Angeles County, and the Southern California Association of Governments (SCAG) region, as well as estimated population growth and trends related to future housing and employment. This analysis focuses on the Project's consistency with adopted regional and local population, housing, and employment projections. The environmental effects of increased population, housing, and employment on factors such as traffic, air quality, and noise are addressed in their respective sections of this EIR. Also, the determination of the Project's consistency with local and regional plans and policies that address population, housing, and employment (including the County's General Plan and SCAG's Compass Growth Vision Report), is discussed in Section 6.2, Land Use.

The analysis of population focuses on the Project's context in and consistency with adopted regional and local population projections. Demographic information used in this analysis has been gathered from SCAG and the California Department of Finance. The adopted *2008 Regional Transportation Plan Growth Forecast* was used for SCAG's regional, County, and unincorporated County subregional data in five-year increments between 2010 and 2035. The California Department of Finance, Demographic Research Unit develops annual updates to population and housing projections for all counties and cities in California. The current Department of Finance projections were published in May 2009 and reflect estimated population and housing as of January 1, 2009.

The analysis of recreation describes the availability of, and anticipated demand for, recreation facilities in the immediate area and the region, including County of Los Angeles Department of Parks and Recreation (DPR), federal, State, and City of Los Angeles facilities. Information presented in this section related to recreation is derived in part from written correspondence received from the DPR dated June 16, 2009 (Appendix A) and September 2, 2010 (Appendix J). The determination of the Project's consistency with recreation-related local and regional plans and policies is discussed in Section 6.2, Land Use.

6.3.1 RELEVANT POLICIES AND REGULATIONS

State

Quimby Act

California allows a City or County to pass an ordinance that requires, as a condition of approval of a subdivision, either the dedication of land, the payment of a fee in lieu of dedication, or a combination of both for park or recreational purposes (*California Government Code* §66477). This legislation, commonly called the "Quimby Act", establishes a maximum parkland dedication standard of 3 acres of parkland per 1,000 residents for new subdivision development unless the amount of existing neighborhood and community parkland exceeds that limit. The Project would be subject to this legislative mandate in accordance with the County-adopted ordinance, as described below.

Regional

SCAG is a Joint Powers Agency established under *California Government Code,* Section 6502 et seq. and is designated as a Council of Governments (COG), a Regional Transportation Planning Agency, and a Metropolitan Planning Organization for the six-county region

of Los Angeles, Orange, Ventura, San Bernardino, Riverside, and Imperial Counties. Applicable SCAG planning documents and policies related to population and housing projections are described in Section 6.2, Land Use.

County

County of Los Angeles General Plan

The *County of Los Angeles General Plan* (LACDRP 1980) addresses population-related issues that affect the County. In addition, the County of Los Angeles recently updated the Los Angeles County Housing Element, a State-required element of the *County of Los Angeles General Plan.* The Element was certified by the State Department of Housing and Community Development (HCD) on November 6, 2008 (LACDRP 2008a). A consistency analysis of the Project's specific goals and policies with the County's relevant plans, policies, and regulations is provided in Section 6.2, Land Use.

County of Los Angeles Parkland Dedication Ordinance

Consistent with the Quimby Act, the County of Los Angeles adopted a Parkland Dedication Ordinance (*Los Angeles County Code* §§21.24.340, 21.24.350, 21.28.130, and 21.28.140). Specifically, the ordinance requires that the Project Applicant/Developer for a residential subdivision "provide local park space to serve the subdivision, pay a fee in lieu of the provisions of such park land…provide local park space containing less than the required obligation but developed with amenities equal in value to the park fee, or do a combination of the above" (*Los Angeles County Code* §21.24.340 et seq.).

Based on the *Los Angeles County Code*, the County's Parkland Dedication Ordinance requires 3.0 acres of parkland per 1,000 persons. The population to be served is based on the formula contained in Section 21.24.340 of the Parkland Dedication Ordinance. The County DPR calculates the park obligation (which would be fulfilled by land dedications, fee payments, improvements, or a combination of these) for each residential subdivision prior to its tentative map approval. The current in lieu fee established for Park Planning Area 18B (Del Aire/Marina del Rey), which includes the Project site, is based on a Representative Land Value of $390,325 per acre (*Los Angeles County Code* §21.28.130).[1]

6.3.2 EXISTING CONDITIONS

The following is a discussion of existing and projected population, housing, and employment information relevant to the Project area. The community of Del Aire is not an incorporated city; therefore, information on the local demographics was obtained using a "subregion" as defined by SCAG. SCAG is made up of 14 subregions, or Councils of Government (COG), 7 of which are located within Los Angeles County. The applicable subregion for the Project site is the City of Los Angeles Subregion, which is further broken down into 3 categories: Unincorporated, City of Los Angeles, and City of San Fernando. For purposes of this analysis, the Project site is considered to be within the "Unincorporated" portion of the City of Los Angeles Subregion (Subregion).

[1] This is the current in lieu fee Representative Land Value amount (effective July 1, 2010), and reflects the increase authorized by the DPR Director of Planning to reflect the Consumer Price Index (*County of Los Angeles Code* §21.28.130). The Representative Land Values are adjusted annually based on changes in the Consumer Price Index.

Existing and Projected Population

As identified in Table 6.3-1, between 2003 and 2005 the population within the SCAG region increased by 183,052 persons with an average annual increase of 1.0 percent, and Los Angeles County increased by 57,143 persons with an average annual increase of 0.6 percent. During this same period, population in the Subregion increased by 556 persons, with an average annual increase of 1.0 percent. In 2005, the population within the Subregion was 0.56 percent of the population within Los Angeles County. The County has an estimated population of 10,393,185 as of January 1, 2009 (DOF 2009). The California Department of Finance does not generate demographic data equating to the geographic area contained within SCAG's Subregion. Therefore, existing (i.e., 2009) population estimates for the Subregion are not available.

TABLE 6.3-1
SCAG POPULATION: 2003–2005

	2003	2005
SCAG Region	17,597,608	18,146,764
Average Annual Change-Persons	N/A	183,052
Average Annual Change-Percent	N/A	1.0%
LA County	10,034,571	10,206,001
Average Annual Change-Persons	N/A	57,143
Average Annual Change-Percent	N/A	0.6%
Subregion	55,566	57,235
Average Annual Change-Persons	N/A	556
Average Annual Change-Percent	N/A	1.0%

SCAG: Southern California Association of Governments; LA: Los Angeles; N/A: Not Applicable
Source: SCAG 2008b

As presented in Table 6.3-2, SCAG forecasts for the SCAG region, Los Angeles County, and the Subregion indicate that the population will continue to increase through 2035 although the average annual rate of growth is projected to incrementally decrease. The SCAG region is projected to have a 23.9 percent increase in population between 2010 and 2035, with the average annual rate of growth between each 5-year increment slightly decreasing from a 1.1 percent rate of growth to a 0.7 percent rate of growth. Los Angeles County is projected to have a 16.2 percent increase in population between 2010 and 2035, with the average annual rate of growth between each 5-year increment slightly decreasing from a 0.7 percent rate of growth to a 0.5 percent rate of growth. The Subregion is projected to have a 15.4 percent increase in population between 2010 and 2035, with the average annual rate of growth between each 5-year increment slightly decreasing from a 0.7 percent rate of growth to a 0.5 percent rate of growth.

TABLE 6.3-2
SCAG POPULATION PROJECTIONS: 2010–2035

	2010	2015	2020	2025	2030	2035	Total Change 2010 to 2035
SCAG Region	19,418,349	20,465,819	21,468,934	22,395,124	23,255,378	24,057,292	**N/A**
Average Annual Change-Persons	N/A	209,494	200,623	185,238	172,051	160,383	**4,638,943**
Average Annual Change-Percent	N/A	1.1%	1.0%	0.9%	0.8%	0.7%	**23.9%**
LA County	10,615,730	10,971,602	11,329,829	11,678,552	12,015,889	12,338,620	**N/A**
Average Annual Change-Persons	N/A	71,174	71,645	69,745	67,467	64,546	**1,722,890**
Average Annual Change-Percent	N/A	0.7%	0.7%	0.6%	0.6%	0.5%	**16.2%**
Subregion	57,580	60,160	61,631	63,259	64,837	66,427	**N/A**
Average Annual Change-Persons	N/A	516	294	326	316	318	**8,847**
Average Annual Change-Percent	N/A	0.9%	0.5%	0.5%	0.5%	0.5%	**15.4%**

SCAG: Southern California Association of Governments; LA: Los Angeles; N/A: Not Applicable
Sources: SCAG 2008b

At the time the Initial Study/Notice of Preparation (IS/NOP) for this EIR was distributed, the Project site included 11 residences total (7 single-family residences and 2 duplex units) and the Aviation Motel with 8 units available for long-term rentals. Based on an average household size of 2.965 for the City of Los Angeles[2] as of January 1, 2009 (DOF 2009), the Project site has an estimated permanent population of approximately 33 persons. Based on a residential generation factor of 0.8[3] for the 8-room Aviation Motel (assuming 90 percent occupancy), a total of approximately 6 residents could reside at the Aviation Motel (Urban Crossroads 2001).

Existing and Projected Housing

As identified in Table 6.3-3, the SCAG region had a total increase of 45,560 dwelling units (du) between 2003 and 2005, with an average annual increase of 0.8 percent, and Los Angeles County had a total increase of 11,665 du, with an average annual increase of 0.4 percent. The Subregion had a total increase of 107 du between 2003 and 2005, resulting in an average annual increase of 0.8 percent. In 2005, the number of housing units within the Subregion was 0.43 percent of the number of housing units within Los Angeles County.

[2] The City of Los Angeles is the nearest geographic area within the SCAG City of Los Angeles Subregion for which average household size is estimated by the California Department of Finance.

[3] The Irvine Traffic Analysis Model (ITAM) 3.01 is a vehicle trip modeling tool intended to evaluate traffic generated by various land uses by the City of Irvine. The Model includes employment generation factors for various land uses, including Extended Stay Hotels and Retail TOD (transit-oriented development).

TABLE 6.3-3
SCAG HOUSING: 2003–2005

	2003	2005
SCAG Region	5,550,516	5,687,196
Average Annual Change-Housing	N/A	45,560
Average Annual Change-Percent	N/A	0.8%
LA County	3,177,439	3,212,434
Average Annual Change- Housing	N/A	11,665
Average Annual Change-Percent	N/A	0.4%
Subregion	13,365	13,685
Average Annual Change- Housing	N/A	107
Average Annual Change-Percent	N/A	0.8%

SCAG: Southern California Association of Governments; LA: Los Angeles; N/A: Not Applicable
Source: SCAG 2008b

As indicated in Table 6.3-4, the SCAG forecasts for the SCAG region, Los Angeles County, and the Subregion indicate that the number of dwelling units is projected to continue to increase through 2035, although the average annual rate of growth is projected to incrementally decrease over this time. The SCAG region is projected to have a 26.7 percent increase in units between 2010 and 2035, with the average annual rate of growth between each 5-year increment decreasing from a 1.3 percent rate of growth to a 0.7 percent rate of growth. Los Angeles County is projected to have a 19.2 percent increase in units between 2010 and 2035, with the average annual rate of growth between each 5-year increment slightly decreasing from a 0.9 percent rate of growth to a 0.5 percent rate of growth. The Subregion is projected to have a 14.6 percent increase in units between 2010 and 2035, with the average annual rate of growth between each 5-year increment decreasing from a 1.0 percent rate of growth to a 0.3 percent rate of growth.

TABLE 6.3-4
SCAG HOUSING PROJECTIONS: 2010–2035

	2010	2015	2020	2025	2030	2035	Total Change 2010 to 2035
SCAG Region	6,086,983	6,474,074	6,840,331	7,156,635	7,449,484	7,710,716	**N/A**
Average Annual Change-Housing	N/A	77,418	73,251	63,261	58,570	52,246	**1,623,733**
Average Annual Change- Percent	N/A	1.3%	1.1%	0.9%	0.8%	0.7%	**26.7%**
LA County	3,357,798	3,509,580	3,666,631	3,788,732	3,906,851	4,003,501	**N/A**
Average Annual Change-Housing	N/A	30,356	31,410	24,420	23,624	19,330	**645,703**
Average Annual Change- Percent	N/A	0.9%	0.9%	0.7%	0.6%	0.5%	**19.2%**
Subregion	13,698	14,369	14,799	15,126	15,446	15,699	**N/A**
Average Annual Change-Housing	N/A	134	86	65	64	51	**2,001**
Average Annual Change- Percent	N/A	1.0%	0.6%	0.4%	0.4%	0.3%	**14.6%**

SCAG: Southern California Association of Governments; LA: Los Angeles; N/A: Not Applicable
Source: SCAG 2008b

State law requires all COGs, including SCAG, to determine the existing and future housing needs for its region (*California Government Code* §65580 et seq.). SCAG is also required to determine the allocation of housing that must be accommodated within each city and county in the SCAG region. This is called the Regional Housing Needs Assessment (RHNA). The RHNA identifies the housing needs for the upcoming multi-year period. For RHNA purposes, the HCD, the federal Department of Housing and Urban Development (HUD), and SCAG have defined "future needs" as the number of additional housing units by income level that will have to be created, or the share of the region's housing needs that have been allocated to a community. SCAG calculates future housing needs based upon its household growth forecast, plus an appropriate level of vacancies, and the replacement of units that are normally lost to conversion or demolition. The HCD categorizes households into five income groups based on County Area Median Incomes (AMI):

- Extremely Low Income: 0–30 percent AMI
- Very Low Income: 31–50 percent of the AMI
- Low Income: 51–80 percent of the AMI
- Moderate Income: 81–120 percent of the AMI
- Above Moderate Income: above 120 percent of the AMI

According to the *Los Angeles County General Plan* Housing Element, the County of Los Angeles has an RHNA allocation of 57,176 units, including 7,212 Extremely Low; 7,213 Very Low; 9,073 Lower; 9,876 Moderate; and 23,862 Above Moderate.

Existing and Projected Employment

As identified on Table 6.3-5, the SCAG region had an increase in the number of jobs by an average annual of 77,842 jobs (1.0 percent) between 2003 and 2005. Both Los Angeles County and the Subregion realized more modest growth rates, at 0.3 percent and 0.1 percent respectively.

TABLE 6.3-5
SCAG EMPLOYMENT: 2003–2005

	2003	2005
SCAG Region	7,537,353	7,770,880
Average Annual Change-Housing	N/A	77,842
Average Annual Change-Percent	N/A	1.0%
LA County	4,353,490	4,397,025
Average Annual Change-Housing	N/A	14,512
Average Annual Change-Percent	N/A	0.3%
Subregion	24,725	24,820
Average Annual Change-Housing	N/A	32
Average Annual Change-Percent	N/A	0.1%

SCAG: Southern California Association of Governments; LA: Los Angeles; N/A: Not Applicable
Source: SCAG 2008b

As identified on Table 6.3-6, the SCAG regional job growth is projected to grow by 1,937,671 employment positions between 2010 and 2035, for an overall rate of growth of 23.2 percent, with the average annual rate of growth between each 5-year increment slightly decreasing from a 1.1 percent rate of growth to a 0.8 percent rate of growth by 2035.

Los Angeles County's job growth is projected to increase by 488,774 jobs (10.7 percent) between 2010 and 2035, with the average annual rate of growth between each 5-year increment remaining stable, with only a slight decrease from a 0.5 percent rate of growth to a 0.4 percent rate of growth by 2035. The Subregion's job growth is projected to increase by 1,748 jobs (6.9 percent) between 2010 and 2035, with the average annual rate of growth between each 5-year increment remaining stable at a 0.3 percent rate of growth. This average annual rate of job growth is projected to be steady for the SCAG region as a whole (ranging between 1.1 percent and 0.8 percent) between 2010 and 2035, as is the average annual rate of job growth for Los Angeles County and the Subregion.

TABLE 6.3-6
SCAG EMPLOYMENT PROJECTIONS: 2010–2035

	2010	2015	2020	2025	2030	2035	Total Change 2010 to 2035
SCAG Region	8,349,454	8,811,402	9,183,026	9,546,782	9,913,372	10,287,122	**N/A**
Average Annual Change-Housing	N/A	92,390	74,325	72,751	73,318	74,750	**1,937,668**
Average Annual Change-Percent	N/A	1.1%	0.8%	0.8%	0.8%	0.8%	**23.2%**
LA County	4,552,398	4,675,875	4,754,731	4,847,436	4,946,420	5,041,172	**N/A**
Average Annual Change-Housing	N/A	24,695	15,771	18,541	19,797	18,950	**488,774**
Average Annual Change-Percent	N/A	0.5%	0.3%	0.4%	0.4%	0.4%	**10.7%**
Subregion	25,376	25,817	26,099	26,431	26,785	27,124	**N/A**
Average Annual Change-Housing	N/A	88	56	66	71	68	**1,748**
Average Annual Change-Percent	N/A	0.3%	0.2%	0.3%	0.3%	0.3%	**6.9%**

SCAG: Southern California Association of Governments; LA: Los Angeles; N/A: Not Applicable
Source: SCAG 2008b

Jobs to Housing Balance

SCAG states that "…a balance between jobs and housing in a metropolitan region can be defined as a provision of an adequate supply of housing to house workers employed in a defined area (i.e., community or sub-region). Alternatively, a jobs/housing balance can be defined as an adequate provision of employment in a defined area that generates enough local workers to fill the housing supply" (SCAG 2001). Jobs and housing are considered in balance when a sub-region has enough employment opportunities for most people who live there and enough housing opportunities for most of the people who work there. The jobs/housing balance is one indicator of a project's effect on growth and quality of life. SCAG uses the jobs/housing ratio to assess the relationship between housing and employment growth.

The 2001 average ratio of jobs to households for the SCAG region was 1.27[4] jobs per household (a "household" is defined as an occupied housing unit) (SCAG 2001). Jobs-rich areas are located in the highly urbanized areas in the western portion of the region, primarily in southern and western Los Angeles County, and in central and northern Orange County.

[4] Rather than using a typical ratio (#:#) where the number of jobs is listed first, followed by the number of housing units, SCAG divides the number of jobs by the number of housing units.

By 2025, the SCAG region's jobs/housing ratio is projected to be 1.33 jobs per household (SCAG 2001). Table 6.3-7 identifies the projected jobs per household ratio for both the County and the Subregion between 2010 and 2035, excluding the Project.

TABLE 6.3-7
COUNTY AND SUBREGION JOBS TO HOUSING RATIOS: 2010–2035

LA County	2010	2015	2020	2025	2030	2035
Population	10,615,730	10,971,602	11,329,829	11,678,552	12,015,889	12,338,620
Household (du)	3,357,798	3,509,580	3,666,631	3,788,732	3,906,851	4,003,501
Employment	4,552,398	4,675,875	4,754,731	4,847,436	4,946,420	5,041,172
Jobs/Housing Ratio	1.36	1.33	1.30	1.28	1.27	1.26
Subregion	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Population	57,580	60,160	61,631	63,259	64,837	66,427
Household (du)	13,698	14,369	14,799	15,126	15,446	15,699
Employment	25,376	25,817	26,099	26,431	26,785	27,124
Jobs/Housing Ratio	1.85	1.80	1.76	1.75	1.73	1.73

LA: Los Angeles; du: dwelling unit
Source: SCAG 2008b

As shown in Table 6.3-7, the County's 2010 jobs/housing ratio is 1.36 and is projected to be 1.26 in 2035, while the Subegion's 2010 jobs/housing ratio is 1.85 and is projected to be 1.73 in 2035. Therefore, the County is projected to be slightly "housing-rich", while the Subregion is projected to be slightly "jobs-rich". The projected jobs/housing ratios and other data listed in Table 6.3-7 exclude the project.

Recreation

Although the Project site is within a dense urban environment, the Los Angeles metropolitan area affords residents convenient access to a variety of open space, parks, and other recreational resources managed by several different jurisdictions.

The County of Los Angeles Department of Regional Planning reports that the County contains over 821,000 acres of recreational areas, including National Forests; State, County, and City parkland, recreational areas, and/or sports facilities; golf courses; beaches; trails; arboreta and botanical gardens; nature preserves; conservancy lands; and inland water bodies (e.g., lakes, reservoirs, lagoons, and other types of water bodies). The U.S. Forest Service and the U.S. Bureau of Land Management (BLM) manage one million acres of primarily forestland within the County. The California State Parks Department manages over 100,000 acres of mostly wildlife and wildflower preserves, and the Los Angeles County Department of Beaches and Harbors operates 1,500 acres of public beaches along the County coastline. However, the County DPR has the primary responsibility of providing local and regional recreational areas to County residents (LACDRP 2008b).

Recreation Facilities in the Project Area

The County DPR as well as the surrounding Cities of Los Angeles, Inglewood, Hawthorne, and El Segundo provide numerous public parks and other recreational facilities in the Project area, and the greater Southern California area provides numerous additional recreational opportunities including beaches; National Forests; and State- and County-owned or operated open space areas, off-highway vehicle facilities, wildlife and wildflower preserves, and other types of recreation.

The County DPR identifies 27 recreational facilities within approximately 10 miles of the Del Aire community. These facilities include 18 neighborhood and community parks, 4 golf courses, 2 parkways, the Kenneth Hahn State Recreation Area, the Earvin Magic Johnson Recreation Area, and the Virginia Robinson Gardens (County DPR 2009a). Of these, the following two parks are within approximately one aerial mile (i.e., a comfortable walking and/or riding distance) of the Project site:

Del Aire County Park: 12601 South Isis Avenue, Hawthorne (0.5 mile to the south)

Lennox County Park: 10828 South Condon Avenue, Lennox (1.15 miles to the northeast)

In addition to these County DPR facilities, the following city parks are also within approximately one aerial mile of the Project site:

Eucalyptus Park: 12100 South Inglewood Avenue, Hawthorne (1.0 mile to the southeast)

Glasgow Place: 13500 Glasgow Place, Hawthorne (1.0 mile to the south)

Holly Glen Park: 5255 West 137th Street, Hawthorne (1.3 miles to the south)

El Segundo Athletic Fields: 2201 East Mariposa Avenue, El Segundo (0.5 mile to the southwest)

Freedom Park: Illinois Street and Mariposa Avenue, El Segundo (1.3 miles to the west)

Sycamore Park: Sycamore Avenue and California Street, El Segundo (1.3 miles to the west)

Independence Park, ***Constitution Park***, and ***Washington Park:*** adjacent parks along Washington Street, El Segundo (approximately 1.2 miles to the west)

Residents of the Del Aire community have access to these local parks as well as the range of other recreational facilities within the County of Los Angeles, as described above.

6.3.3 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are derived from the County of Los Angeles Department of Regional Planning's Initial Study checklist, which is based on Appendix G of the CEQA Guidelines and located in Appendix A of this EIR. The Project was determined to have a potentially significant impact for the following thresholds of significance and further analysis in this Draft EIR was determined to be necessary.

Threshold 6.3a: Could the project cumulatively exceed official regional or local population projections?

Threshold 6.3b: Could the project induce substantial direct or indirect growth in an area (e.g. through projects in an undeveloped area or extension of major infrastructure)?

Threshold 6.3c: Could the project displace existing housing, especially affordable housing?

Threshold 6.3d: Could the project result in substantial job/housing imbalance or substantial increase in Vehicle Miles Traveled (VMT)?

Threshold 6.3e: Could the project require new or expanded recreational facilities for future residents?

Threshold 6.3f: Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

6.3.4 PROJECT DESIGN FEATURES

No Project Design Features related to population, housing, employment or recreation has been identified.

6.3.5 ENVIRONMENTAL IMPACTS

Threshold 6.3a: Could the project cumulatively exceed official regional or local population projections?

On-Site Impacts

As previously discussed, the projected population of the Project site was based on a rate of 2.965 persons per dwelling unit. An average household size is based on an aggregate of all types of housing: single-family, multi-family, and other types. The Project proposes only multi-family housing, which tends to have a slightly smaller household size than single-family and other lower density types of housing. Therefore, the application of the 2.965 persons per household for 390 dwelling units is considered a worst-case estimate of the projected population that may be generated by the Project.

Using this generation factor, the Project is estimated to generate a permanent population of approximately 1,156 persons. As noted above, the Project site currently has a permanent population of approximately 33 persons residing in the single-family and duplex units, and approximately 6 residents reside at the Aviation Motel. Therefore, the Project would result in a projected net increase of 1,117 persons residing on the Project site.

As shown in Table 6.3-2 above, the SCAG projections indicate that between 2010 and 2035, the Subregion is projected to have a total population increase of 8,847 total persons. The population of the Subregion is projected to increase by 2,580 persons between 2010 and 2015, which is the closest year to the anticipated Project build out of 2012. As such, the Project would represent approximately 43.3 percent of the Subregion's projected population growth through the year 2015, and 12.6 percent of the Subregion's projected population growth through 2035. When considered in a regional context, the Project would represent approximately 0.32 percent of the Los Angeles County projected population growth between 2010 and 2015, and 0.07 percent of the Los Angeles County projected population growth through the year 2035.

SCAG projections are based on numerous factors, including U.S. Census Bureau and state-level data, and take into consideration the fact that jurisdictions will have an obligation to meet their RHNA allocations, etc. Therefore, the fact that the Project requires a General Plan Amendment and zone change does not necessarily conflict with the SCAG projections, which are not solely based on land use designations. The population generated by the Project would be within the SCAG projections for both the County and the Subregion. Impacts would be less than significant, and no mitigation would be required.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed off-site Project components would not include housing or otherwise generate population and would therefore have no impact.

Threshold 6.3b: Could the project induce substantial direct or indirect growth in an area (e.g. through projects in an undeveloped area or extension of major infrastructure)?

On-Site Impacts

The Project is an urban infill, transit-oriented development that is, by definition, designed to fully utilize existing urban infrastructure. The Project would be located adjacent to the Metro Green Line Aviation/LAX Station and the Metro bus terminal, which provides the opportunity for future residents to minimize dependence upon the automobile, thereby reducing demands on local thoroughfares and freeways. Utility infrastructure improvements are discussed in Section 5.5, Utilities, and would be limited to improvements required to serve the Project site. Therefore, the Project would not induce substantial direct or indirect growth associated with placement of a project in an undeveloped area or extensions of major infrastructure, and impacts would be less than significant. No mitigation would be required. As discussed above, the population generated by the Project would be within the SCAG projections for both the County and the Subregion and would not result in significant population growth that would conflict with regional or local projections. Impacts related to the jobs/housing balance are discussed under Threshold 6.3d below.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed off-site Project components would not directly or indirectly generate population growth. The off-site utility improvements would be located and sized solely to serve the Project, and would not extend infrastructure that would serve additional population growth. Similarly, the reconfiguration of uses within the Caltrans Off-Site Project Area is proposed to accommodate the Project. There would be no impact.

Threshold 6.3c: Could the project displace existing housing, especially affordable housing?

Threshold 6.3f: Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

On-Site Impacts

The HUD defines affordable housing as "housing for which the occupant is paying no more than 30 percent of his or her income for gross housing costs, including utilities".[5] In order to estimate the gross income for residents currently living within the 7 single-family homes and 2 duplexes (11 residences) on the Project site, the median household income for Los Angeles County and the City of Hawthorne were obtained from Census data. Table 6.3-8 below shows the Median Household Income in 2007 for the County and the City.

TABLE 6.3-8
2007 MEDIAN HOUSEHOLD INCOME FOR THE COUNTY OF LOS ANGELES AND CITY OF HAWTHORNE

County of Los Angeles		City of Hawthorne[6]	
$53,494	Median Household Income 2007	$42,082	Median Household Income 2007
$16,048	30% of Median Household Income	$12,625	30% of Median Household Income
$1,337	Monthly rent based on 30%	$1,052	Monthly rent based on 30%
Source: FedStats 2009			

5 http://www.hud.gov/offices/cpd/library/glossary/a/

6 The City of Hawthorne was used because it is adjacent to the Del Aire community, shares similar demographic characteristics, and would therefore be an appropriate source of comparison for median household income, along with the County of Los Angeles as a whole.

The current rents for the properties within the Project site range from $800.00 per month to $1,500.00 per month, with an average of $1,098.00 per month (Patricio 2009). Therefore, the average rent in the existing single-family homes is higher than what would be considered "affordable" in the adjacent City of Hawthorne. However, it can be assumed that some of the rental properties currently on the Project site would be considered "affordable" according to the HUD definition.

The Project site does not contain any government-sponsored affordable housing units, such as Section 8 Rental Assistance from the Housing Authority. All units are currently rented at market rates and are not subsidized. Therefore, implementation of the Project would not adversely impact the County's RHNA ability to meet its obligations for affordable housing units or to implement affordable housing programs. Although the Project would involve the demolition of existing housing units (some of which would be considered "affordable" according to the HUD definition), these homes would be replaced by 390 residential units that would be sold or rented at market rates. The Project includes 278 for-sale attached residential units in Lot 1 and 112 rental residential units in Lot 2, which would more than compensate for the loss of the 11 rental properties currently on the Project site. Impacts to affordable housing would be less than significant, and no mitigation would be required.

The creation of 390 rental and for-sale residential units would offset the loss of the existing 11 residential units in terms of available housing stock, resulting in a total of 379 new residential units. Therefore, the Project would not displace substantial numbers of people or necessitate the construction of replacement housing in another location. Impacts would be less than significant, and no mitigation would be required.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The off-site Project components would not displace existing housing or people and there would be no impact.

Threshold 6.3d: Could the project result in substantial job/housing imbalance or substantial increase in Vehicle Miles Traveled (VMT)?

On-Site Impacts

In addition to the absolute numbers analyzed in the previous subsections, jobs/housing balance is another indicator of a Project's effect on growth and quality of life in the Project area. An area with a ratio between 1.0 and 1.29 is considered to be "balanced" (SCAG 2001). As shown in Table 6.3-7, Los Angeles County is expected to have a jobs/housing ratio of 1.36 in 2010 and 1.26 in 2035, which depicts a current "jobs-rich" ratio, transitioning to being in balance. The Subregion is expected to have a jobs/housing ratio of 1.85 in 2010 and 1.73 in 2035, which is considered "jobs-rich".

The Project's 29,500 square feet (sf) of commercial land use would generate approximately 68 employees based on an employment generation factor of 2.3 employees per 1,000 sf of Transit-Oriented Development (TOD) Retail uses. Table 6.3-9 identifies the jobs/housing ratio for both the County and the Subregion between 2010 and 2035, with the addition of the Project's net increase of 1,117 persons, 379 dwelling units, and 68 employees beginning in 2015. As shown in Table 6.3-9, the Project has no effect on the County's jobs/housing ratio. Implementation of the Project would slightly decrease the Region's jobs/housing ratio, thereby slightly improving the ratio and bringing the City closer to the 1.5 goal.

The Project's jobs/housing ratio supports SCAG regional growth policies (see Section 6.2, Land Use). SCAG policies encourage development in activity centers and areas served by transportation corridors. The Project would serve to facilitate the land use dynamics of mixed-use areas set adjacent to and within a transportation node. The Project site is also adjacent to I-105 and I-405, which have High Occupancy Vehicle lanes. The provision of a housing-rich project in the Subregion would support alternative transit modes and ridesharing programs that can reduce congestion and air pollution; impacts to the Subregion and County jobs/housing ratio would be less than significant.

TABLE 6.3-9
COUNTY AND SUBREGION JOBS TO HOUSING RATIOS PLUS PROJECT
2010–2035

LA County	2010	2015	2020	2025	2030	2035
Population	10,615,730	10,973,846	11,332,073	11,680,796	12,018,133	12,340,864
Household (du)	3,357,798	3,510,341	3,667,392	3,789,493	3,907,612	4,004,262
Employment	4,552,398	4,676,004	4,754,860	4,847,565	4,946,549	5,041,301
LA County Jobs/Housing Ratio						
No Project	1.36	1.33	1.30	1.28	1.27	1.26
With Project	N/A	1.33	1.30	1.28	1.27	1.26
Change	N/A	0	0	0	0	0
Subregion	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Population	57,580	62,404	63,875	65,503	67,081	68,671
Household	13,698	15,130	15,560	15,887	16,207	16,460
Employment	25,376	25,946	26,228	26,560	26,914	27,253
Subregion Jobs/Housing Ratio						
No Project	1.85	1.80	1.76	1.75	1.73	1.73
With Project	N/A	1.71	1.69	1.67	1.66	1.66
Change	N/A	-0.09	-0.07	-0.08	-0.07	-0.07

LA: Los Angeles; du: dwelling unit; N/A: Not Applicable
Source: SCAG 2008b

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

Implementation of the off-site Project components would not involve either housing or additional employment; therefore, there would be no impact related to jobs/housing balance.

Threshold 6.3e: Could the project require new or expanded recreational facilities for future residents?

On-Site Impacts The Project would generate population growth that would result in additional demand for recreational facilities in the Project area. The County DPR has the primary responsibility of providing local and regional recreational areas to County residents (LACDRP 2008b), such as the potential future residents of the Project. As identified, the County's Parkland Dedication Ordinance would apply to the Project, and would be ensured via MM 6.3-1. The County DPR has reviewed the proposed tract map and, based on the local park space obligation formula and associated household sizes for Park Planning Area (PPA) 18B as provided in the Parkland Dedication Ordinance (*Los Angeles County Code* §21.24.340) as well as consideration of existing land uses to be demolished, the County DPR has calculated the Project's park obligation at 1.83 acres (County DPR 2009b). According to the Parkland Dedication Ordinance, this requirement can be met either through dedication of 1.83 acres of

land for public park development, payment of an in lieu fee (currently $714,295) based on the RLV of $390,325 per acre for PPA 18B, provision of recreational amenities, or a combination of these.

The Project would be developed in four buildings (Buildings 1A, 1B, 2A, and 2B), which would be separated from each other by community open space areas and pedestrian corridors. Exhibit 2-14 in Section 2.0, Environmental Setting and Project Description, shows the distribution and amount of proposed landscape area and open space within the Project site for both the Street Level and Level 1, which totals 66,060 sf of open space areas within Lot 1 and 65,790 sf of open space areas within Lot 2. In total, the Project includes 131,850 sf of open space, inclusive of public and private outdoor use areas.

As shown in Exhibit 2-9, the private (for residents only) internal open space areas are divided into seven outdoor use areas (labeled 1 through 7), including: a pool forecourt, a pool terrace, a "park" terrace, a conversation terrace, a courtyard and a "quiet" courtyard, and a "hide-away" courtyard. These use areas represent separate outdoor rooms connected by paved pathways lined with landscaping. Outdoor areas would include amenities such as a 22-foot by 60-foot pool, a 9-foot by 16-foot spa, community barbeque areas, a tot lot, water features, outdoor fireplace, a fire pit, large-scale pottery and in-ground landscaping, and outdoor furniture.

However, based on consultation with the DPR, the entirety of the County's parkland requirement would be met through payment of the in lieu fee based on the Representative Land Value in place at the time of clearance of the final tract map. The Project would be required to remit the appropriate fee, as calculated by the County DPR, in order to meet the requirements of the County's Parkland Dedication Ordinance, as described in MM.3-1. Therefore, with compliance with the County's Parkland Dedication Ordinance, there would be a less than significant impact related to the Project's demand for new or expanded recreation facilities.

Caltrans Off-Site Project Area and Off-Site Utility Improvements Impacts

The proposed off-site Project components would not involve housing or otherwise generate population growth that would demand additional recreation facilities. There would be no impact.

6.3.6 CUMULATIVE IMPACTS

Population, Housing, and Employment

The cumulative study area for population, housing, and employment is defined as Los Angeles County. As previously discussed, the assessment of the Project's net population growth compared to the SCAG population projections is inherently a cumulative analysis because the SCAG projections are intended to reflect anticipated growth in the SCAG region.

On a cumulative basis, the Project's population, housing, and employment growth are within the overall SCAG projections for Los Angeles County and the Subregion, and no significant impacts would result from implementation of the Project. As previously discussed, SCAG projections are based on numerous factors, including U.S. Census Bureau and state-level data, and take into consideration the fact that jurisdictions will have an obligation to meet their RHNA allocations, etc. Therefore, the fact that the Project requires a General Plan Amendment and zone change does not necessarily conflict with the SCAG projections, which are not solely based on land use designations. The population generated by the Project would be within the SCAG projections for both the County and the Subregion.

The Project would provide new jobs with the development of the proposed transit-oriented commercial uses. It is assumed that the housing demand generated by these new jobs would be met by (1) existing units in the Subregion; (2) projected future units in the Subregion; (3) the proposed 390 multi-family residential units associated with the Project; or (4) by housing units located elsewhere in Los Angeles County and the larger SCAG region. Given the mobility of workers within the SCAG region, it is not possible to accurately estimate the housing demand jobs would generate in other parts of the region. However, the Project would have no substantive impact on the County's job/housing ratio and would slightly improve the Subregion's jobs/housing ratio.

The Project would also result in a temporary increase in job creation during the development phases of the Project (e.g., construction jobs). These jobs are typically filled by existing residents of the region and do not induce substantial housing demand. Therefore, the potential growth associated with Project-generated jobs (construction and operation) would not be significant. These increases in population, households, and employment would not be growth-inducing or cumulatively significant.

It should also be noted that population and employment growth associated with the Project would increase the demand for public services and utilities and traffic in the Project area. The traffic generated by the Project would also result in increased air quality emissions and noise. Impacts related to these factors are analyzed in their respective sections in this EIR.

Recreation

Like the Project, other County residential subdivision projects would also be required to comply with the County's Parkland Dedication Ordinance, which provides a vehicle for the County to mitigate potential impacts to recreation facilities on a project-by-project basis. Related projects located within incorporated cities surrounding the Project site would be subject to each city's applicable parkland requirements. Compliance of each related project with either the County's Parkland Dedication Ordinance or the applicable city parkland requirements would mitigate each project's direct impacts to recreational facilities to a less than significant level. Therefore, because of this and because the Project would have a less than significant impact to County DPR recreational facilities, the Project would not result in a cumulatively considerable impact to recreational facilities.

6.3.7 MITIGATION MEASURES

MM 6.3-1 Prior to the clearance of the final map by the Los Angeles County Department of Parks and Recreation (DPR), the Project Applicant/Developer shall provide the DPR with in-lieu fee payment to meet the parkland obligation calculated by the DPR for the Project in accordance with the County Parkland Dedication Ordinance.

6.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the Project would result in less than significant impacts related to population, housing and employment, and less than significant impacts to recreation with implementation of MM 6.3-1.

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SECTION 7.0
PROJECT ALTERNATIVES

7.1 INTRODUCTION

Pursuant to Section 15126.6 of the CEQA Guidelines, the purpose of this section is to describe "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." An EIR is not required to consider every conceivable alternative to a project nor consider alternatives that are infeasible.

CEQA requires that the level of analysis presented for the various alternatives should provide enough information to allow for a meaningful evaluation, analysis, and comparison of the alternatives with the Project. Based on the comparative analysis, environmental impact reports (EIRs) are required to identify the "environmentally superior" alternative among these alternatives. CEQA also requires the evaluation of a "no project" alternative to "allow decision makers to compare the impacts of approving the Project with the impacts of not approving the project". Although the "no project" alternative may be identified as the environmentally superior alternative, the CEQA Guidelines require identification of the environmentally superior alternative among the other "build" alternatives as well.

Section 15126.6(c) of the CEQA Guidelines specifies that an EIR should identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process, and briefly explain the reasons underlying the lead agency's determination. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are (1) failure to meet most of the basic Project objectives; (2) infeasibility; or (3) inability to avoid significant environmental impacts.

7.2 PROJECT OBJECTIVES

Section 15124 of the CEQA Guidelines requires an EIR to include a statement of objectives sought by the Project. This disclosure assists in developing the range of project alternatives to be investigated in the EIR and provides a rationale for the adoption of a Statement of Overriding Considerations if one is in fact adopted. The Project's compliance with the *County of Los Angeles General Plan's* Goals and Policies is presented in Section 6.2, Land Use. Identified below are goals and objectives related to the Project, as set forth by the County of Los Angeles and the objectives of the Project Applicant.

Objective 1: To minimize the County's future "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Objective 2: To provide a diverse housing stock of various sizes, including rental units and for-sale properties, located in close proximity to major regional employers.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Objective 5: To design an aesthetically pleasing project with visual continuity through the careful and consistent application of high-quality building, landscape, and hardscape design and materials.

Objective 6: To incorporate project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emission reductions.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Objective 8: To implement the goals and policies of the *County of Los Angeles General Plan* in order to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

7.3 ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with CEQA Guidelines Section 15126.6(a), the discussion in this section focuses on a reasonable range of alternatives. Alternatives considered and eliminated are discussed below in Section 7.3.1 and include the following:

- Alternative Project Location
- Surface Parking Lot or Parking Structure
- Cul-de-sac on 117th Street

Project alternatives that are under consideration and analyzed in Section 7.2 below include the following:

- Alternative 1: No Project/No Development
- Alternative 2: Existing General Plan and Zoning
- Alternative 3: Reduced Scale/Reduced Density
- Alternative 4: No Subterranean Parking

7.3.1 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION

Alternative Project Location

Section 15126.6(f)(2) of the CEQA Guidelines requires an analysis of an alternative location(s) to the Project site and notes that “only locations that would avoid or substantially lessen any of the significant effects of the Project need to be considered for inclusion in the EIR”. CEQA further states that “an EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative”.

The Project involves the construction of 390 multi-family residential units and 29,500 square feet (sf) of commercial development on 5.9 acres adjacent to various transit facilities, including the Metro Green Line, Metro bus terminal, and California

Department of Transportation (Caltrans)-owned Park-and-Ride lot. An alternative location for this Project would require:

1. A comparable-sized property capable of accommodating commercial and residential land uses;
2. Site(s) located adjacent to a transit node with comparable transit options;
3. Site(s) located in a central city/urban environment in proximity to major local/regional employment center(s); and
4. A site that would reduce the significant impacts of the Project.

Based on a preliminary search for property in the surrounding area, it was determined that there is one location that satisfies these criteria: a large, vacant, graded, and undeveloped property at the corner of Aviation Boulevard and 111th Street north of Interstate 105 (I-105). This site is approximately 24 acres in size and located across West Imperial Highway from the Project site. However, according to the Los Angeles International Airport (LAX) Master Plan, that site is included in the 2015 Alternative D Enhanced Safety and Security Plan as "Intermodal Transportation Centre (ITC)" and "APM Maintenance Service Facility in ITC Basement" (LAWA 2002). Therefore, the site appears to be unavailable for private development. Additionally, this property would not provide a feasible location for a mixed-use, transit-oriented development. The site is closer to the LAX runways, and therefore would potentially result in increased hazards for residential properties due to the proximity to the airport and increased noise impacts.

Transit nodes (e.g., light rail stations and bus terminals) must generally be located within urban and fully developed areas in order to attract the ridership necessary to support the transit operations. Therefore, vacant land available for development adjacent to an existing transit node is uncommon in an urban center. There may be other properties throughout Los Angeles County that provide opportunities for the redevelopment of existing land uses and conversion to a transit-oriented development near existing transit facilities. However, unless such a property is under the ownership of a Redevelopment Agency, it is difficult to locate a single property owner in an urban area with enough contiguous acreage to develop a mixed-use, transit-oriented development.

The Project site is fairly unique in that the site is being developed through a public-private partnership wherein both entities share a common vision about the best and highest use for the property. Additionally, if an alternative site were found, it is highly likely that the environmental impacts associated with alternative location would be substantively similar to the impacts of the Project, thereby undermining the purpose of the alternative location. For these reasons, it was determined that an alternative location would be infeasible and was therefore eliminated as an alternative under consideration.

Surface Parking Lot or Parking Structure

The creation of a surface parking lot was considered as a potential land use for the Project site. A surface parking lot would provide an opportunity to quickly generate revenues, as construction requirements would be minimal. The option of developing a surface parking lot was considered due to the property's proximity to the existing transit facilities, LAX, and LAX-related employment centers. Alternatively, a parking structure could be built on the site. Ultimately, it was determined that the development of a parking lot or parking structure would not be an efficient use of urban land or infrastructure and that the development of a transit-oriented development would be the best and highest use for the property.

Cul-de-sac on West 117th Street

Full street closure of West 117th Street near Aviation Boulevard was considered as a potential roadway circulation design component of the Project. (LLG Report, August 27, 2010) The full street closure would involve vacating a portion of West 117th Street and constructing a private Project driveway along Aviation Boulevard. The Project would be allowed access from Aviation Boulevard, but a standard residential cul-de-sac would be constructed just east of the Project driveway, which would eliminate all vehicular access from the existing single-family neighborhood to and from Aviation Boulevard via West 117th Street. The purpose of this design feature would be to alleviate neighborhood concerns about potential future cut-through traffic from Aviation Boulevard.

According to Section 21101a, Regulation of Highways, of the 2010 California Vehicle Code, any roadway may be closed to vehicular traffic if the legislative body having jurisdiction determines that the roadway is no longer needed for vehicular traffic and the closure is in the interest of public safety. Several requirements must be met, including (1) the street must have an unsafe volume of traffic and a significant incidence of crime, and (2) the local authority must find that closure of the street likely would result in a reduced rate of crime. A public hearing is required on the proposed street closure.

Upon review of existing conditions at West 117th Street, the Vehicle Code requirements cannot be met. There is no current pattern of serious crime in the neighborhood that would be alleviated by a cul-de-sac. Based on review of the traffic count data for the intersection, (i.e., 23 vehicles during the AM peak hour, 31 during the PM peak hour, and 388 daily traffic volumes), West 117th Street is currently carrying less traffic than what would otherwise be expected based on the number of homes that take access to the street. Therefore, there is currently very limited regional or cut-through traffic and no unsafe traffic volumes on West 117th Street.

Future proposed conditions would also not meet the requirements for street closure. The Project driveway on West 117th Street will allow only left-turn ingress and right-turn egress movements so as to direct Project-related traffic to and from Aviation Boulevard and discourage cut-through traffic on West 117th Street. Additionally, the Project would demolish and replace the existing adult entertainment facility and motel on the site, which may have contributed historically to local crime, with a new mixed-use development. The change in land uses and addition of new residents associated with the Project is anticipated to decrease rather than increase local rates of crime.

In addition, full street closure would reduce the efficiency of the circulation system in the neighborhood. The number of turning maneuvers or U-turns on local streets would increase, thereby increasing the potential for accidents as motorists try to familiarize themselves with the new access options. Existing residents who currently utilize West 117th Street for access to and from their residences would be inconvenienced. Instead of having direct access to Aviation Boulevard from West 117th Street, these residents would need to use other local residential streets. Full closure of West 117th Street would therefore cause a considerable increase in traffic to other local residential streets such as West 118th Street and Judah Avenue. Closure of West 117th Street would also impede access to the immediate and surrounding neighborhoods by police, fire, ambulance and other emergency vehicles. The County Fire Department expressed concerns about full closure of West 117th Street. For these reasons, this alternative was eliminated from further consideration.

7.4 ALTERNATIVES UNDER CONSIDERATION

The analysis for each of the Project alternatives identified below includes:

- A description of the alternative;
- An analysis of the environmental impacts and comparison to the Project; and
- An analysis of the alternative's ability to meet the Project objectives.

7.4.1 ALTERNATIVE 1: NO PROJECT/NO DEVELOPMENT

Description of the Alternative

The alternatives analysis set forth in this EIR provides two "No Project" Alternatives. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the Project with the impacts of not approving the Project. Consistent with CEQA Guidelines Section 15126.6(e)(3)(B), the No Project/No Development Alternative is the circumstance under which the Project does not proceed. Under this alternative scenario, the property remains in its existing state and no development occurs. CEQA Guidelines Section 15126.6(e)(3)(A) identifies the No Project Alternative as the continuation of the existing plan, policy, or operation into the future. Therefore, Alternative 1 addresses the Project in comparison to the existing condition, assuming no new development. Alternative 2 (discussed in Section 7.4.2), addresses the projected impacts of the Project compared to the impacts that would occur under the maximum development scenario allowed by the existing zoning and General Plan land use designation.

Comparative Analysis of Environmental Impacts

Geotechnical

Alternative 1 would **reduce impacts** from geotechnical hazards when compared to the Project. Alternative 1 would not involve demolition, grading, or excavation activities that would be required to develop the Project. With the retention of the Project site with limited commercial and residential uses, fewer people would be exposed to seismic activity at the Project site with the alternative than with the Project. As discussed in Section 3.1, geotechnical impacts from the Project were determined to be less than significant with incorporation of the mitigation program.

Flood

Alternative 1 would **reduce impacts** from flood hazards when compared to the Project. Under Alternative 1, the existing hydrology patterns and hydrologic characteristics of the Project site would remain. There would be no change in the amount, pattern, or velocity of surface storm water runoff, and there would be no increase in impervious surfaces. However, redevelopment of the Project site would include compliance with County regulations regarding Standard Urban Stormwater Mitigation Plan (SUSMP) and Low-Impact Development (LID) standards through the construction and operation of Best Management Practices (BMPs), which are not currently on the Project site. Therefore, under Alternative 1, no on-site storm water retention, treatment, or infiltration would occur. As discussed in Section 3.2, flood impacts from the Project were determined to be less than significant with incorporation of the mitigation program.

Fire

Alternative 1 would **reduce impacts** to fire flows when compared to the Project. Under Alternative 1, the requirements for increased fire flow capacity and pressure would be

eliminated, and no water infrastructure improvements would be required. As discussed in Section 3.3, fire flow impacts from the Project were determined to be less than significant with incorporation of the mitigation program.

Noise

Alternative 1 would **reduce impacts** related to noise when compared to the Project. Alternative 1 would not involve any demolition or construction activities; therefore, noise and vibration effects associated with the Project construction and operation would not occur. Additionally, the incremental increase in long-term, traffic-related, and operational noise levels associated with the Project would not occur. As discussed in Section 3.4, all impacts to off-site uses and the Project's interior areas associated with short-term construction and long-term operation would be less than significant with incorporation of the mitigation program, and impacts to the Project's exterior residential use areas during long-term operation would be significant and unavoidable with mitigation.

Water Quality

Alternative 1 would **increase impacts** to water quality when compared to the Project. This alternative would not include any demolition, grading or construction, the potential increase for construction-related soil erosion that would result from the Project would not occur. The Project would increase the amount of impervious surface and density of development on the site, potentially increasing the amount of automobile-related pollutants from the Project. However, redevelopment of the Project site would include compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site. Additionally, the elimination of the single-family homes and associated lawns would reduce the amount of pesticides/fertilizers used on-site. Since implementation of the Project would introduce water quality BMPs (i.e., on-site storm water retention, treatment, or infiltration) that are not currently on-site, Alternative 1 would not result in associated water quality improvements. As discussed in Section 4.1, water quality impacts from the Project were determined to be less than significant.

Air Quality

Alternative 1 would **reduce impacts** to air quality when compared to the Project. Alternative 1 would not involve any construction activities (including demolition, grading, and excavation). Therefore, this alternative would avoid short-term significant and unavoidable construction-related air quality impacts (i.e., exceedance of South Coast Air Quality Management District [SCAQMD] local emissions thresholds for PM10 and PM2.5) that would occur with the Project. This impact would be eliminated with Alternative 1. Both the existing condition under Alternative 1 and the Project would generate long-term air quality emissions associated with vehicular and operational activities; however, implementation of the Project would substantially increase vehicular traffic over existing levels associated with on-site land uses, thereby increasing air pollutant emissions. As such, the air quality impacts of Alternative 1 would be substantially less than those of the Project.

Cultural Resources

Alternative 1 would **reduce impacts** to cultural resources when compared to the Project. No new site development would occur under this alternative; therefore, no earthwork or grading would be required. Although on-site structures are not historically or architecturally significant, they would remain on site. The Project would require subsurface excavation; as such, there is the potential for subsurface cultural deposits (archaeological and paleontological) to be

discovered during grading activities. Alternative 1 would avoid any potentially significant impacts to known or unknown archaeological and/or paleontological resources. As discussed in Section 4.3, impacts to historic, archaeological, and paleontological resources from the Project were determined to be less than significant with implementation of the mitigation program.

Visual Qualities

Alternative 1 would **reduce impacts** to visual qualities and aesthetics when compared to the Project. Alternative 1 does not involve any development or change in current uses. There would be no change to the visual quality or character of the Project site or surrounding areas. It should be noted, however, that while the development pursuant to the Project would alter the visual character of the site, it is intended to provide an aesthetically pleasing development with high-quality materials that unify the development within the Project site. As discussed in Section 4.4, impacts to visual qualities from the Project were determined to be less than significant with implementation of the mitigation program.

Traffic/Access

Alternative 1 would **reduce impacts** to traffic when compared to the Project. Alternative 1 would not change the existing traffic conditions because no new development would occur, and no short-term (construction) or long-term (operational) traffic trips would be generated. Existing land uses on the Project site, which would remain under Alternative 1, generating approximately 1,886 one-way daily trips, the majority of which are generated by the existing Wild Goose Restaurant/Bar. All ingress and egress points on the Project site would remain, and there would be no alterations to the existing Metro bus terminal. As discussed in Section 5.1, impacts to traffic and access from the Project were determined to be less than significant with implementation of the mitigation program.

Sewage Disposal

Alternative 1 would **reduce impacts** to sewage disposal when compared to the Project. Alternative 1 would not place new demands on the sewage infrastructure or the Los Angeles County Sanitation Districts for treatment because no new development would occur on the Project site. Under this alternative, no utility upgrades would occur, and no physical impacts would result. As discussed in Section 5.2, impacts to sewage disposal from the Project were determined to be less than significant.

Education

Alternative 1 would **reduce impacts** to education and libraries when compared to the Project. Alternative 1 would not place any new demands on public schools or libraries because no new development would occur. As discussed in Section 5.3, impacts to education and libraries from the Project were determined to be less than significant.

Fire/Sheriff Services

Alternative 1 would **reduce impacts** to fire/sheriff services when compared to the Project. Alternative 1 would not place any new demands on fire or sheriff services because no new development would occur. As discussed in Section 5.4, impacts to fire/sheriff services from the Project were determined to be less than significant.

Utilities

Alternative 1 would **reduce impacts** to utilities when compared to the Project. Alternative 1 would not place new demands on utilities or water supply because no new development would occur on the Project site. Under this alternative, no utility upgrades would occur, and no physical impacts would result. As discussed in Section 5.5, impacts to utilities from the Project were determined to be less than significant with implementation of the mitigation program.

Environmental Safety

Alternative 1 would **reduce impacts** to environmental safety when compared to the Project. Implementation of the Project may expose construction workers to lead and asbestos-containing materials (ACM) or polychlorinated biphenyls (PCBs) during the demolition of on-site structures; however, this impact was determined to be less than significant with mitigation. Under Alternative 1, all on-site structures would remain intact and as long as materials are not disturbed, no impacts related to lead or asbestos exposure to occupants or workers would occur. Neither the Project nor Alternative 1 would result in the development of new structures with the potential to exceed height restrictions associated with LAX or involve the long-term use, transportation, production, handling, or storage of hazardous materials on site. As discussed in Section 6.1, impacts related to hazards or hazardous materials from the Project were determined to be less than significant with implementation of the mitigation program.

Land Use

Alternative 1 would **reduce impacts** to land use when compared to the Project. Under Alternative 1, the existing land uses would be retained. A change in land use would not occur, nor would a general plan amendment, zone change, or conditional use permit be needed. As discussed in Section 6.2, impacts related to land use from the Project were determined to be less than significant.

Population, Housing, Employment, and Recreation

Alternative 1 would **increase impacts** to population, housing, employment, and recreation when compared to the Project because the existing condition does not provide the benefits to the community associated with increased housing and employment opportunities. Under Alternative 1, there would be no change in the amount or rate of growth expected in the Project area or in the County's jobs to housing ratio. Alternative 1 would not place any new demands on recreational facilities because no new residents would be generated; however, no park fees would be paid to offset increased usage associated with the Project. As discussed in Section 6.3, impacts related to population and recreation from the Project were determined to be less than significant.

Greenhouse Gas Emissions and Climate Change

Alternative 1 would **reduce impacts** to greenhouse gas (GHG) emissions when compared to the Project because no construction emissions would occur. Alternative 1 would not change or increase the amount or type of GHG emissions generated by on-site uses and occupants. As discussed in Section 6.4, impacts related to climate change from the Project were determined to be less than significant.

Ability to Meet Project Objectives

Objective 1: To minimize the County's future "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Alternative 1 would **not satisfy** this objective. The Project site does currently include commercial and residential land uses, but does not include the higher density development required to constitute a transit-oriented community. Although existing residents are adjacent to the transit facilities, they are few in number and do not provide the number of transit users as would be provided by a transit-oriented community. Additionally, the Project would attract future residents that would perhaps otherwise live in areas not adjacent to a transit node, thereby minimizing the County's future "carbon footprint".

Objective 2: To provide a housing stock of various sizes, including rental units and for-sale properties, located in close proximity to major regional employers.

Alternative 1 would **not satisfy** this objective. The Project site currently includes only for-rent, single-family residential units and 2 duplex units and does not provide a housing stock of various sizes or for-sale properties.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Alternative 1 would **partially satisfy** this objective. The Project site does currently include commercial and residential land uses in proximity to transit, but does not provide an urban, pedestrian-oriented community that connects the commercial and transit amenities. The Project would create a pedestrian plaza north of the commercial uses that face the Metro Green Line. Pedestrians would be able to walk between the Metro Green Line and the Project site's commercial amenities and through the plaza and fire lane, which would prohibit parking and be designed to encourage the safe and convenient movement of pedestrians.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Alternative 1 would **not satisfy** this objective. This alternative would not create an urban infill development that would attract future residents, which would perhaps otherwise live in areas not adjacent to a transit node, thereby potentially increasing green space development in other portions of the County.

Objective 5: To design an aesthetically pleasing project with visual continuity through the careful and consistent application of high-quality building, landscape, and hardscape design and materials.

Alternative 1 would **not satisfy** this objective. The existing commercial, motel, transit, and residential land uses were not developed in such a way that provides visual continuity with high-quality building, landscape, and hardscape design and materials among the various land uses.

Objective 6: Incorporate project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emissions reductions.

Alternative 1 would **not satisfy** this objective. The existing commercial, motel, and residential land uses were not developed in such a way that promotes sustainability, energy efficiency, water conservation, and GHG emissions reductions. The Project would be constructed to comply with County Green Building Standards and would achieve LEED™ Silver certification.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Alternative 1 would **partially satisfy** this objective in that the existing land uses include single-story commercial and motel land uses that buffer the single-family homes from the transit facilities to the north. However, the Project would provide a mix of residential and commercial land uses at a scale and density that would provide a more effective visual and pedestrian-friendly transition between the elevated transit facilities and automobile/bus intense land uses to the north and the single-family residential area to the south.

Objective 8: To implement the goals and policies of the *County of Los Angeles General Plan* to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

Alternative 1 would **satisfy** this objective because existing land uses are consistent with the *County of Los Angeles General Plan*.

Alternative 1 Analysis Conclusion

Alternative 1 would avoid the short-term significant and unavoidable construction-related air quality impact (i.e., exceedance of SCAQMD local emissions thresholds for PM10 and PM2.5) and exterior operational noise that would occur with the Project. For the remaining topical issues, the Project has less than significant impacts or potentially significant impacts that can be mitigated to a level considered less than significant. Despite this finding, this alternative would not meet the majority of the Project objectives identified in Section 7.2 above.

7.4.2 ALTERNATIVE 2: EXISTING GENERAL PLAN AND ZONING

Description of the Alternative

Section 15126.6(e)(2) of the CEQA Guidelines specifies that the “No Project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, as well as what would be reasonably expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services”. Therefore, Alternative 2 assumes that existing land uses would be demolished and the site would be redeveloped pursuant to the existing zoning and General Plan land use designations, as discussed further below.

The current zoning and land use designations for the Project site involve two separate jurisdictions: the County of Los Angeles and the City of Los Angeles. The current *County of Los Angeles General Plan* land use designation for Lot 1 (3.2 acres) is “Low Density

Residential", and Lot 1 is currently zoned C-1 (Restricted Business Zone) and R-1 (Single-Family Residence) in the County of Los Angeles Zoning Ordinance. The current *City of Los Angeles General Plan* land use designation for Lot 2 (2.7 acres) is "Public Facilities", and Lot 2 is currently zoned PF (Public Facilities) in the City of Los Angeles Zoning Ordinance.

As depicted on Exhibit 2-11, Proposed Detachment, in Section 2.0, Project Description, the Project would require a modification to the County of Los Angeles and City of Los Angeles boundaries (involving the Local Agency Formation Commission for the County of Los Angeles [LAFCO]) in order to allow the entire Project site to become part of unincorporated Los Angeles County. For Alternative 2, it must be assumed that this modification does not occur.

Lot 1 Development- C-1 and R-1 Zones

According to Section 22.20 of the *Los Angeles County Code* (Planning and Zoning), the Zone R-1 (Single-Family Residence) permits the development of single-family residences with a minimum required area of 5,000 sf per lot, unless otherwise specified. Currently, approximately 2.3 acres within the Project site are zoned R-1. Therefore, the maximum redevelopment within the R-1 zone of Lot 1 would include 20 single-family residences.[1] Based on an average household size of 2.965 for the City of Los Angeles as of January 1, 2009 (DOF 2009),[2] Alternative 2 would generate an estimated permanent population of approximately 59 persons, with a net population increase of 20 persons.[3]

According to Section 22.28 of the *Los Angeles County Code* (Planning and Zoning), the Zone C-1 (Restricted Business) permits (1) the development of a wide range of commercial uses provided all sales are retail and all goods sold except genuine antiques are new; (2) services including auto service stations, beauty shops, banks, and other types of businesses; (3) "recreation and amusement" including swimming pools, parks, and other types of recreation; and (4) agricultural uses, specifically selected crops and greenhouses. Additional land uses are permitted with either review/approval by the Director of the County of Los Angeles Regional Planning Department or receipt of a conditional use permit. These additional uses are highly varied and include, but are not limited to, homeless shelters; convents and monasteries; miniature golf courses; motels; oil wells; veterinary clinics; drive-in theaters; and residences (e.g., townhomes, single, and two-family).

Currently, approximately 0.9 acre within the Project site is zoned C-1. The C-1 zone defines development standards, particularly that no more than 90 percent of the net area of each development be occupied by buildings and no less than a minimum 10 percent of the net area be occupied with landscaping, and that adequate parking facilities are provided, as defined in the *Los Angeles County Code* Chapter 22.52 Part 11. The amount and type of parking and loading areas required varies depending on the specific commercial land use.

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1 2.3 acres x 43,560 sf per acre = 100,188 sf. 100,188 sf / 5,000 sf minimum lot size = 20.04 lots.

2 The City of Los Angeles is the nearest geographic area within the Southern California Association of Governments (SCAG) City of Los Angeles subregion for which average household size is estimated by the California Department of Finance.

3 This number is derived by taking the estimated population (59 persons) and subtracting the existing population (39 persons) on the Project site.

To determine the maximum for redevelopment in the C-1 zone, this alternative assumes that this 0.9-acre area would have 40 percent coverage with commercial development with a two-story structure(s)[4] and 60 percent cover with landscaping (minimum 10 percent coverage), surface parking, driveways/walkways, loading areas, and other features. According to these assumptions, the maximum development within the C-1 zone of Lot 1 would include 31,363 sf of C-1 zoning permitted commercial uses.[5] Therefore, Alternative 2 would generate approximately 72 employees, based on an employment generation factor of 2.3 employees per 1,000 sf of Transit-Oriented Development (TOD) retail uses.

Lot 2 Development- Public Facilities Zone

According to Section 12.04.09 of the City of Los Angeles Zoning Ordinance, the following regulations apply to publicly owned land classified in the "PF" Public Facilities Zone. No building, structure or land shall be used and no building or structure shall be erected, moved onto a site, structurally altered, enlarged or maintained, except for:

1. Agricultural uses, including field crops, gardens, and nurseries under power transmission rights-of-way.
2. Public parking facilities located under freeway rights-of-way.
3. Fire stations and police stations.
4. Government buildings, structures, offices, and service facilities (including maintenance yards) provided that those uses identified in Section 12.24 U 21 require conditional use approval pursuant to that section (amended by Ord. No. 173,492, Eff. 10/10/00).
5. Public libraries not located inside public parks.
6. Post offices and related facilities.
7. Public health facilities, including clinics and hospitals.
8. Public elementary and secondary schools.
9. Any joint public and private development uses permitted in the most restrictive adjoining zones if approved by the Director utilizing the procedures described in Section 16.05E to H.[6]
10. Conditional uses, as allowed pursuant to Section 12.24 U 21 and Section 12.24 W 49 of this Code when the location is approved pursuant to the provisions of the applicable section (amended by Ord. No. 174,132, Eff. 9/3/01).

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4 *Los Angeles County Code* Section 22.28.120 defines that structures in zone C-1 may not exceed 35 feet in height, exclusive of signs, chimneys, and rooftop antennas.

5 0.9 acre x 43,560 sf per acre = 39,204 sf. 39,204 sf x 0.4 (40 percent) = 15,682 sf. 15,682 sf x 2 (two stories) = 31,363 sf.

6 The phrase "adjoining zones" refers to the zones on properties abutting, across the street or alley from, or having a common corner with the subject property. If there are two or more different adjoining zones, then only the uses permitted by the most restrictive zone shall be permitted.

The range of potential development opportunities for a site zoned as PF ranges greatly from low-intensity development (e.g., agricultural uses and maintenance yards) to high-intensity uses (e.g., fire station, post office, health clinic). Due to the amount of allowed variation, it is difficult to determine a maximum buildout for the site in accordance with the existing zoning. Additionally, since Lot 2 is currently occupied with the Metro bus terminal, which was constructed within the past decade, it is unlikely that it would be redeveloped in the near future. Therefore, in order to analyze Alternative 2, it is assumed that Lot 2 would remain in its current condition (i.e., the Metro bus terminal) for the foreseeable future.

Comparative Analysis of Environmental Impacts

Geotechnical

Alternative 2 would **reduce impacts** to geotechnical hazards when compared to the Project. Alternative 2 would involve demolition and grading activities similar to that required to develop the Project; however, this alternative would not require excavation for subterranean parking. This alternative would result in a substantially smaller on-site population than the Project (i.e., 1,156 residents generated by the Project compared to 59 residents generated by Alternative 2), and as such, fewer people would be exposed to seismic activity at the Project site with the alternative than with the Project. As discussed in Section 3.1 of this EIR, geotechnical impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Flood

Alternative 2 would **slightly reduce impacts** to hydrology and flood hazards when compared to the Project. For long-term operations, Alternative 2 would result in similar hydrology and flood impacts as the Project in that there would be more intensive (i.e., higher density) site development than in the existing condition, resulting in a change in the site's drainage patterns and a potential increase in the volume and velocity of storm water runoff due to a slight increase in impervious surfaces. However, Alternative 2 does not include the development of subterranean parking; therefore, a sump facility to capture runoff from the subterranean structure and deliver it to the storm drain system would not be required.

Just as with the Project, redevelopment of the Project site under Alternative 2 would require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site. As discussed in Section 3.2, flood impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Fire

Alternative 2 would **similarly impact** fire hazards when compared to the Project. As with the Project, Alternative 2 may require water infrastructure improvements within and immediately surrounding the site to ensure adequate fire flows and pressures to the new structures, as there would be a higher density of development than the existing condition, similar to the Project. As discussed in Section 3.3, fire flow impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Noise

Alternative 2 would **reduce impacts** related to noise when compared to the Project. Alternative 2 would involve demolition of all existing site uses as well as construction activities, although no subterranean excavation would be necessary. Therefore, short-term noise impacts would be reduced when compared to the Project due to the shortened timeframe for construction activities due to the elimination of the subterranean parking garage. This alternative would also involve a smaller scope of construction for new buildings when compared to the Project due to the substantially reduced density of the residential land uses (i.e., 20 single-family homes proposed by Alternative 2 compared to the 390 multi-family units from the Project) and would not involve the relocation of the Metro bus terminal. Therefore, the duration of noise and vibration effects during demolition and construction would be reduced compared to the Project, while the estimated noise and vibration levels during the reduced construction period would be similar to the Project.

The incremental increase in long-term, traffic-related, and operational noise levels associated with the Project would be reduced under Alternative 2. Additionally, the smaller on-site population (i.e., 1,156 residents generated by the Project compared to 59 residents generated by Alternative 2) would result in fewer individuals exposed to existing ambient noise associated with the adjacent roadways, freeway, and LAX flights. As discussed in Section 3.4, all impacts to off-site uses and the Project's interior areas associated with short-term construction and long-term operation would be less than significant with incorporation of the mitigation program, and impacts to the Project's exterior residential use areas during long-term operation would be significant and unavoidable with mitigation. Therefore, Alternative 2 would also result in less than significant impacts with mitigation related to construction activities and interior areas, and significant and unavoidable impacts related to exterior residential use areas, although, as noted, fewer individuals would be exposed to the exterior noise levels related to LAX flights above 65 dBA CNEL.

Water Quality

Alternative 2 would **slightly reduce impacts** to water quality when compared to the Project. Alternative 2 would result in less impervious surface due to the R-1 single-family zoning that would maintain grass/yards on site, allowing for on-site storm water percolation. However, the Project would develop an on-site infiltration system that would also allow for storm water infiltration. The redevelopment of 20 single-family homes would generate more fertilizer/pesticide pollutants when compared to the Project, but would generate less automobile-related pollutants due to the decreased density of development. Alternative 2 would have reduced short-term, construction-related water quality impacts due to the elimination of the subterranean parking garage and subsequent reduction in sediment runoff from the Project site. However, redevelopment of the Project site under both the Project and Alternative 2 would require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site. As discussed in Section 4.1, water quality impacts from the Project were determined to be less than significant. Therefore, Alternative 2 would also result in less than significant impacts.

Air Quality

Alternative 2 would **reduce impacts** to air quality when compared to the Project. Alternative 2 would involve demolition of all existing site uses, same as the Project, as well as construction activities. However, this alternative would involve a smaller scope of construction for new buildings and would not involve the relocation of the Metro bus terminal or excavation for subterranean parking. Because earthmoving (which is the primary source of particular matter

[PM10 and PM2.5]) would be substantially reduced with the elimination of excavation, emissions of PM10 and PM2.5 would also be substantially reduced. The Project would result in short-term significant and unavoidable construction-related air quality impacts (i.e., exceedance of SCAQMD local emissions thresholds for PM10 and PM2.5). It would be expected that elimination of subterranean excavation would adequately reduce PM10 and PM2.5 emissions to below the SCAQMD local emissions thresholds, thereby avoiding this impact. Therefore, this alternative would avoid the significant and unavoidable impacts of the Project.

Cultural Resources

Alternative 2 would **reduce impacts** to cultural resources when compared to the Project. Alternative 2 would require surface grading, but would not require excavation for subterranean parking. Therefore, this alternative would result in a reduced likelihood of encountering subsurface cultural deposits (archaeological and paleontological) during grading activities. As discussed in Section 4.3, impacts to historic, archaeological, and paleontological resources from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Visual Qualities

Alternative 2 would **reduce impacts** to visual qualities and aesthetics when compared to the Project. Just as with the Project, Alternative 2 would alter the visual quality and character of the site through the demolition of existing uses and the development of residential and commercial land uses. The proposed land uses developed pursuant to the existing General Plan and zoning would be no more than two stories in height, shorter than the Project's five-story structures. As discussed in Section 4.4, impacts to visual qualities from the Project were determined to be less than significant with implementation of the mitigation program. While neither Alternative 2 nor the Project would result in significant impacts to visual qualities, preference for the aesthetic character of a project is an individual and subjective determination.

Traffic/Access

Alternative 2 would **reduce impacts** to traffic/access when compared to the Project. Alternative 2 would generate fewer short-term (construction) and long-term (operational) traffic trips. The scope and duration of construction under this alternative would be less than that under the Project due to the elimination of the subterranean parking and the reduced density of the on-site buildings, thereby reducing construction traffic. Long-term traffic impacts would also be reduced when compared to the Project. Specifically, Alternative 2 would result in approximately 852 total daily trips with a negative net trip generation of -1,034 trips when considering the elimination of trips from existing land uses, as shown in Table 7-1. This calculation is based on the same trip generation rates; assumes the same trip reductions for internal capture, pass-by, and transit; and is based on the same existing trip generation as applied for the Project, as this alternative provides both residential and commercial land uses. This is a substantial reduction from the Project's 1,114 net total daily trips (see Table 5.1-3 in Section 5.1 Traffic/Access of this EIR).

TABLE 7-1
ALTERNATIVE 2 ESTIMATED TRIP GENERATION

ITE Code[a]	Land Use	Amount	Daily Trip Volumes[b]
Alternative 2 Trip Generation			
210	Single-family Residential	20 du	189
820	Shopping Center	31,363 gsf	1,347
		Less 5% Walk-in / Internal Capture[c]	(67)
		Less 30% Pass-by[d]	(404)
		Less 20% Transit[e]	(213)
		Alternative 2 Subtotals	**852**
Existing Conditions and Proposed Project Trip Generation			
		Less Existing Trip Generation[f]	*(1,886)*
		Alternative 2 Net Trip Generation	**(1,034)**
		Proposed Project Net Trip Generation[f]	***1,114***

du: dwelling unit; room: hotel room; gsf: gross square feet
Notes:
[a] ITE Codes comes from ITE 2008. Trip generation rates for condominiums/townhomes obtained from the Los Angeles County Department of Public Works' *Traffic Impact Analysis Guidelines* (January 1, 1997), and there is no ITE Code.
[b] "Trips" are one-way traffic movements, entering or leaving.
[c] The walk-in/internal capture reduction for the commercial use is based on (1) the synergy between the residential and commercial uses provided within the Project site; (2) project characteristics; and (3) characteristics of the surrounding project area. The walk-in trip reduction accounts for the walk-in patronage both from within the project as well as other surrounding uses.
[d] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. The trip reduction for pass-by trips has been applied to the commercial component of the project based on (1) a review of the recommended practice in the ITE *Trip Generation Handbook* (June 2004); (2) project characteristics; (3) characteristics of the surrounding project area; and (4) existing traffic volumes on Aviation Boulevard.
[e] The transit reduction is based on (1) a review of the 2004 Los Angeles County Congestion Management Program; (2) the site's proximity to the adjacent Aviation/LAX Metro Green Line station and associated bus transfer center and Caltrans' Park-and-Ride lot; and (3) land use characteristics of the Project.
[f] Refer to Table 5.1-3 in Section 5.1, Traffic/Access, of this EIR for Existing and Proposed Project trip generation.

Ingress and egress points on the Project site would be altered from the existing condition, as necessary, to accommodate the new configuration of land uses. As discussed in Section 5.1, impacts to traffic and access from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Sewage Disposal

Alternative 2 would **reduce impacts** to sewage disposal when compared to the Project. Alternative 2 would result in a net daily wastewater generation of approximately 7,381 gallons per day (gpd), as shown in Table 7-2.

TABLE 7-2
ALTERNATIVE 2 WASTEWATER GENERATION

LACSD Land Use Category	Units	Wastewater Generation per Unit (gallons per day)	Total Flow (gallons per day)
Single Family Residential	20 du	260	5,200
Shopping Mall	31,363 sf	325 (per 1,000 sf)	10,193
Total Proposed Land Use Wastewater Generation			15,393
Less Existing Wastewater Generation[a]			*8,012*
Alternative 2 Net Wastewater Generation			**7,381**
Proposed Project Net Wastewater Generation[b]			***77,626***

du: dwelling units; sf: square feet
[a] Refer to Table 5.2-1 in Section 5.2, Sewage Disposal, of this EIR for existing wastewater generation.
[b] Refer to Table 5.2-2 in Section 5.2, Sewage Disposal, of this EIR for the Project wastewater generation.
Source of wastewater generation factors: LACSD 2009 (EIR Appendix J)

This would be a substantial reduction from the Project's estimated net wastewater generation of 77,626 gpd. Therefore, Alternative 2 would result in an overall reduced sewage generation of 70,245 gpd due to the reduction in residential units, thereby reducing the need for increased sewage infrastructure and treatment requirements. As discussed in Section 5.2, impacts to sewage disposal from the Project were determined to be less than significant. Therefore, Alternative 2 would also result in less than significant impacts.

Education

Alternative 2 would **reduce impacts** to education when compared to the Project. Alternative 2 would include 20 residential units that would generate school-aged children served by Wiseburn School District (WSD) and Centinela Valley Union High School District (CVUHSD). This would be a substantial reduction from the Project's 390 total residential units. Like the Project, Alternative 2 would be required to pay statutory fees under Senate Bill (SB) 50. Regarding library services, Alternative 2's estimated net population increase of 20 persons would require a minimum of 10 gross sf of library space, 55 library materials, and less than 1 public access computer to meet the County Library's planning guidelines. This would be a substantial reduction from the Project's demands, which would generate the need for a minimum of 558.5 gsf of library facility space, 3,072 library materials, and 1 computer. As with the Project, Alternative 2 would be required to pay the Library Facilities Mitigation Fee for each residential unit. As discussed in Section 5.3, impacts to education and libraries from the Project would be less than significant. Therefore, Alternative 2 would also result in less than significant impacts.

Fire/Sheriff Services

Alternative 2 would **reduce impacts** to fire and sheriff services when compared to the Project. Alternative 2 would place additional demands on fire or sheriff services commensurate with the 20 residences and 31,363 sf of C-1 zoning permitted commercial uses, which is proportionally reduced when compared to the Project. As discussed in Section 5.4, the Los Angeles County Fire Department (LACFD) and County of Los Angeles Sheriff's Department both determined that the Project would not require the construction of new fire or sheriff's facilities and would result in a less than significant impact on fire and sheriff services. Therefore, because Alternative 2 is substantially smaller in scale than the Project, Alternative 2 would also result in less than significant impacts.

Utilities

Alternative 2 would **reduce impacts** to utilities when compared to the Project. Alternative 2 would have a reduced demand for water supply and dry utilities (electricity, natural gas, and communication systems) and a reduced generation of solid wastes due to the substantial reduction of on-site residences when compared to the Project. However, Alternative 2 may still generate a demand for water supply and dry utility infrastructure improvements, similar to the Project. As discussed in Section 5.5, impacts to utilities from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Environmental Safety

Alternative 2 would **similarly impact** environmental safety when compared to the Project. Just as with the Project, implementation of Alternative 2 may expose construction workers to lead and asbestos-containing materials (ACM) or polychlorinated biphenyls (PCBs) during the demolition of on-site structures. However, this impact was determined to be less than significant with mitigation. Neither the Project nor Alternative 2 would result in the development of new structures with the potential to exceed height restrictions associated with LAX or involve the long-term use, transportation, production, handling, or storage of hazardous materials on site. As discussed in Section 6.1, impacts related to hazards or hazardous materials from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Land Use

Alternative 2 would **reduce impacts** related to land use when compared to the Project. Alternative 2 would not require a general plan amendment, zone change, or conditional use permit because Alternative 2 would be consistent with the existing General Plan and zoning. However, as discussed in Section 6.2, impacts related to land use from the Project were determined to be less than significant. Alternative 2 would also result in less than significant impacts.

Population, Housing, Employment, and Recreation

Alternative 2 would **similarly impact** population, housing, employment, and recreation when compared to the Project. Alternative 2 would result in an estimated population of 59 persons and 20 housing units, which is a substantial reduction from the Project's estimated population of 1,156 persons and 390 housing units. Alternative 2 would generate 72 jobs, while the Project would generate 68 jobs. Alternative 2 would place limited additional demands on recreational facilities. However, as discussed in Section 6.3, the Project's impact on the County's and Subregion's jobs-to-housing ratio is negligible. Therefore, the minor differences between the Project and Alternative 2 would also result in a negligible impact to the jobs-to-housing ratio. As discussed in Section 6.3, the Project would have a less than significant impact on population, housing, employment, and recreation. Therefore, Alternative 2 would also result in less than significant impacts.

Greenhouse Gas Emissions and Climate Change

Alternative 2 would **reduce impacts** to climate change when compared to the Project. Construction and operation of Alternative 2 would result in reduced GHG (GHG) emissions compared to the Project, though the type of GHG emissions generated by proposed on-site uses and occupants would be similar. As discussed under Air Quality above, Alternative 2 would

involve a smaller scope of construction for new buildings and would not involve the relocation of the Metro bus terminal or excavation for subterranean parking. Because earthmoving (which is the primary source of PM10 and PM2.5) and the use of diesel equipment would be substantially reduced under Alternative 2, GHG emissions would also be reduced. Similarly, Alternative 2 would substantively reduce GHG emissions associated with long-term operations on the site when compared to the Project due to the reduced intensity of the proposed residential land uses. As discussed in Section 6.4, impacts related to climate change from the Project were determined to be less than significant. Therefore, Alternative 2 would also result in less than significant impacts.

Ability to Meet Project Objectives

Objective 1: To minimize the County's future "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Alternative 2 would **not satisfy** this objective. Alternative 2 would include commercial and residential land uses, but not at the higher density development required to constitute an effective transit-oriented community. Although the future residents of Alternative 2 would be adjacent to the transit facilities, they would be few in number and would not provide the amount of transit users as would be provided by a transit-oriented community. The Project would attract future residents that would perhaps otherwise live in areas not adjacent to a transit node, thereby minimizing the County's future "carbon footprint". Alternative 2 would not supply enough on-site housing to fully benefit from the Project site's proximity to transit facilities.

Objective 2: To provide a housing stock of various sizes, including rental units and for-sale properties, located in close proximity to major regional employers.

Alternative 2 would **not satisfy** this objective. Alternative 2 would provide only single-family residential units.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Alternative 2 would **partially satisfy** this objective. As with the existing uses, redevelopment of the site with single-family residences and separated commercial land uses would include internal pedestrian walkways in proximity to transit. However, Alternative 2 would not provide an urban, pedestrian-oriented community that connects the commercial and transit amenities like the Project. The Project would create a pedestrian plaza north of the commercial uses that face the Metro Green Line Station. Pedestrians would be able to walk between the Metro Green Line Station, Metro bus transfer area and terminal, and the Project site's commercial amenities through the plaza and fire lane, which would prohibit parking and be designed to encourage the safe and convenient movement of pedestrians. Alternative 2 would not change the existing access to the transit amenities.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Alternative 2 would **partially satisfy** this objective. Alternative 2 would result in slightly more dense development than the existing uses, thereby attracting a slight increase in future on-site residents and business owners that would perhaps otherwise live and develop in areas not adjacent to a transit node, thereby potentially increasing green space development in other portions of the County. However, Alternative 2 would not develop the site in such a way that captures the density required to efficiently utilize the available existing infrastructure. The Project site provides a unique opportunity to develop a transit-oriented infill development in an area that would require minimal traffic/access improvements and that has the potential to increase transit ridership. Alternative 2 would minimally increase density and would not fully utilize the development potential of the site.

Objective 5: To design an aesthetically pleasing project with visual continuity through the careful and consistent application of high-quality building, landscape, and hardscape design and materials.

Alternative 2 would **partially satisfy** this objective. Alternative 2 would also be a redevelopment of the site with individual single-family residences separated from the commercial development. Although Alternative 2 would provide for the possibility of improved visual quality on the site, visual continuity through consistent building and hardscape and landscape design across the various structures would not be possible or would be very limited, as Alternative 2 is not a cohesive, mixed-use development.

Objective 6: Incorporate project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emission reductions.

Alternative 2 would **partially satisfy** this objective. The commercial component of Alternative 2 would be constructed to comply with County Green Building Standards, which were not adopted and were not applied during construction of the existing structures. However, the residential component would not be required to be constructed according to LEED Silver certification.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Alternative 2 would **not satisfy** this objective. The minimal site development would provide two-story commercial buildings that would buffer the single-family homes from Aviation Boulevard, but would not substantively buffer the single-family residences from the transit facilities (i.e., Metro Green Line Station, Metro bus transfer area and terminal, and I-105) to the north. Alternative 2 would not develop a mix of condominiums and townhomes that transitions between the southern and northern land uses. The Project would provide a mix of residential and commercial land uses at a scale and density that would provide a more effective visual and pedestrian-friendly transition between the elevated transit facilities and automobile/bus intense land uses to the north and the single-family residential uses to the south.

Objective 8: To implement the goals and policies of the *County of Los Angeles General Plan* to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

Alternative 2 would **satisfy** this objective because Alternative 2 would be consistent with the *County of Los Angeles General Plan* and zoning.

Alternative 2 Analysis Conclusion

Alternative 2 would reduce the short-term significant and unavoidable construction-related air quality impact (i.e., exceedance of SCAQMD local emissions thresholds for PM10 and PM2.5) that would occur with the Project. Alternative 2 would result in a reduced scope of construction, a substantially reduced project size, and related decrease in net population increase. However, for the remaining topical issues, the Project has less than significant impacts or potentially significant impacts that can be mitigated to a level considered less than significant. Alternative 2 would not meet or would only partially meet the Project objectives identified in Section 7.2 above.

7.4.3 ALTERNATIVE 3: REDUCED SCALE/REDUCED DENSITY

Description of the Alternative

Alternative 3 assumes development of the Project with the same land uses, but at a reduced density. The Project would develop all commercial uses on the ground floor along Aviation Boulevard and adjacent to the Metro Green Line Station. This configuration of 29,500 sf of commercial would remain under Alternative 3, as well as the townhome units located on the ground floor. Alternative 3 would reduce the size of the subterranean parking garage to account for the reduction in residential units. Therefore, the land uses and configuration of buildings as depicted in Exhibit 2-4, Site Plan, in Section 2.0, Project Description, would remain applicable to Alternative 3, although the subterranean parking would be reduced.

In order to reduce the density and the height of the Project, Alternative 3 assumes the elimination of the upper two stories of for-rent and for-sale residential units, leaving a total of 205 residential units located within the street level and Levels 1 and 2. Table 7-3 provides a development summary for Alternative 3 in comparison to the Project.

TABLE 7-3
ALTERNATIVE 3 DEVELOPMENT SUMMARY

Site Summary	Bldg 1A	Bldg 1B	Bldg 2A	Bldg 2B	*Total*
Alternative 2					
Commercial (sf)	**8,000**	**0**	**12,200**	**9,300**	***29,500***
Residential Total Units	**47 du**	**102 du**	**28 du**	**28 du**	***205***
A- Studio (546 sf)	2 du	6 du	0	0	*8*
B- 1BR/1BA (718 sf)	22 du	38 du	16 du	16 du	*92*
C- 2BR/2BA (998 sf)	2 du	6 du	0	0	*8*
D- 2BR/2BA (1,040 sf)	17 du	26 du	10 du	10 du	*63*
E- 2BR/2BA (1,145 sf)	2 du	6 du	0	0	*8*
F- 2BR/2BA (Townhouse- 1,149 sf)	0	20 du	0	0	*20*
G- 3BR/2BA (1,275 sf)	2 du	0	2 du	2 du	*6*
Proposed Project[a]					
Commercial (sf)	**8,000**	**0**	**12,200**	**9,300**	***29,500***
Residential Total Units	**94 du**	**184 du**	**56 du**	**56 du**	***390***

sq: square feet; bldg: building; BR: bedroom; BA: bathroom; du: dwelling unit
[a] Refer to Table 2.3-2 in Section 2.0, Environmental Setting and Project Description, of this EIR for Project development.

Based on an average household size of 2.965, Alternative 3 would generate an estimated permanent population of approximately 608 persons, with a net population of 569 persons.[7] Alternative 3 would generate approximately 68 employees, based on an employment generation factor of 2.3 employees per 1,000 sf of Transit-Oriented Development (TOD) retail uses.

Parking requirements are set forth in Table 7-4, which shows the Project would be required to provide approximately 362 residential parking stalls and 118 commercial parking stalls, for a total of 480 (317 fewer stalls than in the Project).

TABLE 7-4
ALTERNATIVE 3 PARKING SUMMARY

Land Use		Parking Ratio	Parking Spaces Provided
Residential	1 BR (100 du)	1.25 per du	125
	2 & 3 BR (105 du)	2.25 per du	237
		Residential Parking Subtotal	*362*
Commercial (29,500 sf)		1 per 250 sf	118
		Total Parking for On-Site Land Uses	***480***
sf = square feet; du = dwelling units			

Comparative Analysis of Environmental Impacts

Geotechnical

Alternative 3 would **slightly reduce impacts** to geotechnical hazards when compared to the Project. Alternative 3 would involve demolition, grading and excavation activities similar to that required to develop the Project. Because the subterranean parking level would be reduced commensurate with the reduced need for residential parking, this alternative would have reduced excavation. This alternative would result in a smaller on-site population (i.e., 1,156 residents generated by the Project compared to 608 residents generated by Alternative 3), and as such, fewer people would be exposed to seismic activity at the Project site with Alternative 3 than with the Project. As discussed in Section 3.1, geotechnical impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

Flood

Alternative 3 would **similarly impact** flood hazards when compared to the Project. For long-term operations, Alternative 3 would result in the same hydrology and flood impacts as the Project. The proposed building footprints and associated storm water management features (e.g., on-site storm water retention, treatment, and infiltration) would be the same under Alternative 3 as under the Project.

Just as with the Project, Alternative 3 would require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site. As discussed in Section 3.2, flood impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

[7] This number is derived by taking the estimated population (608 persons) and subtracting the existing population (39 persons) on the Project site.

Fire

Alternative 3 would **similarly impact** fire hazards when compared to the Project. Alternative 3 may also require water infrastructure improvements within and immediately surrounding the site to ensure adequate fire flows and pressures to the new structures, as there would be a higher density of development than the existing condition, similar to the Project. As discussed in Section 3.3, fire flow impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

Noise

Alternative 3 would **reduce impacts** to noise when compared to the Project. Alternative 3 would involve demolition, grading and excavation activities similar to that required to develop the Project. Because the subterranean parking level would be reduced commensurate with the reduced need for residential parking, this alternative would have slightly reduced excavation and associated construction noise. However, the overall noise and vibration effects during construction of Alternative 3 would be similar to the Project. The incremental increase in long-term, traffic-related, and operational noise levels associated with the Project would be slightly reduced under Alternative 3 commensurate with the reduction in residential units. Additionally, the smaller on-site population (i.e., 1,156 residents generated by the Project compared to 608 residents generated by Alternative 3), would result in fewer individuals exposed to existing ambient noise associated with the adjacent roadways, freeway, and LAX flights. As discussed in Section 3.4, all impacts to off-site uses and the Project's interior areas associated with short-term construction and long-term operation would be less than significant with incorporation of the mitigation program, and impacts to the Project's exterior residential use areas during long-term operation would be significant and unavoidable with mitigation. Therefore, Alternative 3 would also result in less than significant noise impacts with mitigation related to construction activities and interior areas, and significant and unavoidable impacts related to exterior residential use areas, although, as noted, fewer individuals would be exposed to the exterior noise levels related to LAX flights above 65 dBA CNEL.

Water Quality

Alternative 3 would **slightly reduce impacts** to water quality when compared to the Project. Short-term construction activities would require reduced excavation throughout the construction period due to the smaller subterranean parking garage and reduced density of development, thereby slightly reducing the potential for construction-related water quality impacts. Additionally, fewer on-site residents would generate fewer pollutants. However, the proposed building footprints and associated storm water management features (on-site storm water retention, treatment, and infiltration) would be the same under Alternative 3 as the Project. Alternative 3 would also require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site, same as the Project. As discussed in Section 4.1, water quality impacts from the Project were determined to be less than significant. Therefore, Alternative 3 would also result in less than significant impacts.

Air Quality

Alternative 3 would **slightly reduce impacts** to air quality when compared to the Project. Alternative 3 would involve demolition of all existing site uses, same as the Project, and construction activities. Because earthmoving (which is the primary source of PM10 and PM2.5)

would be reduced under this alternative, emissions of PM10 and PM2.5 would also be reduced. Specifically, this alternative assumes that the total off-haul and daily excavation quantity for subterranean parking would be reduced by approximately 45 percent. Based on this reduction, and assuming the same construction schedule, Alternative 3's maximum daily (Table 7-5) and local (Table 7-6) emissions of criteria air pollutants were modeled using URBEMIS and are summarized below and are provided in EIR Appendix E-2.

TABLE 7-5
ALTERNATIVE 3 ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS

Year	VOC	NOx	CO	SOx	PM10	PM2.5
	Emissions (lbs/day)					
Alternative 3						
2011	7	66	42	<1	40	10
2012	36	40	44	<1	3	3
Maximum day for construction	36	66	44	<1	40	10
SCAQMD Thresholds	***75***	***100***	***550***	***150***	***150***	***55***
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**
Proposed Project						
Maximum day for construction[a]	54	96	60	<1	70	18
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

lbs: pounds; SCAQMD: South Coast Air Quality Management District
[a] Refer to Table 4.2-5 in Section 4.2, Air Quality, of this EIR for Proposed Project maximum daily construction emissions.

TABLE 7-6
ALTERNATIVE 3 LOCAL SIGNIFICANCE THRESHOLD EMISSIONS

	NOx	CO	PM10	PM2.5
	Emissions (lbs/day)			
Alternative 3				
Maximum daily local emissions	30	21	**38**	**9**
LST Thresholds	100[a]	550[a]	15	8
Exceed threshold?	**No**	**No**	**Yes**	**Yes**
Proposed Project				
Maximum daily local emissions[b]	37	21	**67**	**15**
Exceed threshold?	**No**	**No**	**Yes**	**Yes**

Bold and underlined values are greater than threshold
lbs: pounds; SCAQMD: South Coast Air Quality Management District
[a] Mass daily emissions thresholds are shown because the LST table values for NOx and CO are greater than the mass emissions thresholds.
[b] Refer to Table 4.2-6 in Section 4.2, Air Quality, of this EIR for Proposed Project maximum daily local emissions.

As shown, with implementation of SC 4.2-1 (SCAQMD Rule 403), Alternative 3 construction maximum regional daily emissions would be less than the SCAQMD thresholds, and impacts would be less than significant, same as the Project. Regarding local emissions, while Alternative 3 would result in a slight reduction in PM10 and PM2.5 emissions, the reduction would not be sufficient to eliminate the impact. Therefore, this alternative would result in short-term local significant and unavoidable construction-related air quality impacts (i.e., exceedance of SCAQMD local emissions thresholds for PM10 and PM2.5), which would also occur with the Project. Long-term operational emissions would be reduced with this alternative due to the reduction of on-site residents and automobile usage associated with the reduced dwelling units, and impacts would be less than significant, as with the Project.

Cultural Resources

Alternative 3 would **slightly reduce impacts** to cultural resources when compared to the Project. Alternative 3 would require grading and excavation similar to the Project, with reduced excavation for subterranean parking. Therefore, this alternative would result in a reduced likelihood of encountering subsurface cultural deposits (archaeological and paleontological) during grading activities. As discussed in Section 4.3, impacts to historic, archaeological, and paleontological resources from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

Visual Qualities

Alternative 3 would **reduce impacts** to visual qualities when compared to the Project. Alternative 3 would alter the visual quality and character of the site and surrounding area similar to the Project. This alternative would be smaller in scale (approximately 45 feet above mean sea level [msl]) than the Project (approximately 65 feet above msl) and therefore more compatible with the adjacent single-family homes. As discussed in Section 4.4, impacts to visual qualities from the Project were determined to be less than significant with implementation of the mitigation program. Neither Alternative 3 nor the Project would result in significant impacts to visual qualities.

Traffic/Access

Alternative 3 would **reduce impacts** to traffic when compared to the Project. Alternative 3 would generate short-term (construction) or long-term (operational) traffic trips. The scope and duration of construction and associated traffic under this alternative would be reduced from the Project, largely due to the alternative's reduction in excavation for subterranean parking. Long-term traffic would be reduced as compared to the Project. Specifically, Alternative 3 would result in approximately 1,911 total daily trips, with a negative net trip generation of -25 trips when considering the elimination of trips from existing land uses, as shown in Table 7-7. This calculation is based on the same trip generation rates, assumes the same trip reductions for internal capture, pass-by and transit; and is based on the same existing trip generation as applied for the Project, as this alternative provides both residential and commercial land uses. This is a substantial reduction from the Project's 1,114 net total daily trips.

Ingress and egress points on the Project site would be the same under the alternative as under the Project. As discussed in Section 5.1, impacts to traffic and access from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

TABLE 7-7
ALTERNATIVE 3 ESTIMATED TRIP GENERATION

ITE Code[a]	Land Use	Amount	Daily Trip Volumes[b]
Alternative 3 Trip Generation			
N/A	Condominium/Townhome	149 du	1,192
220	Apartment	56 du	372
820	Shopping Center	29,500 gsf	1,269
		Less 5% Walk-in / Internal Capture[c]	*(63)*
		Less 30% Pass-by[d]	*(381)*
		Less 20% Transit[e]	*(478)*
		Alternative 3 Subtotals	**1,911**
Existing Conditions and Proposed Project Trip Generation			
		Less Existing Trip Generation[f]	*(1,886)*
		Alternative 3 Net Trip Generation	***(25)***
		Proposed Project Net Trip Generation[f]	***1,114***

N/A: not applicable; du: dwelling unit; room: hotel room; gsf: gross square feet

Notes:

[a] ITE Codes comes from ITE 2008. Trip generation rates for condominiums/townhomes obtained from the Los Angeles County Department of Public Works' *Traffic Impact Analysis Guidelines* (January 1, 1997), and there is no ITE Code.

[b] "Trips" are one-way traffic movements, entering or leaving.

[c] The walk-in/internal capture reduction for the commercial use is based on (1) the synergy between the residential and commercial uses provided within the Project site; (2) project characteristics; and (3) characteristics of the surrounding project area. The walk-in trip reduction accounts for the walk-in patronage both from within the Project as well as other surrounding uses.

[d] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. The trip reduction for pass-by trips has been applied to the commercial component of the Project based on a review of (1) the recommended practice in the ITE *Trip Generation Handbook* (June 2004); (2) project characteristics; (3) characteristics of the surrounding project area; and (4) existing traffic volumes on Aviation Boulevard.

[e] The transit reduction is based on (1) a review of the 2004 Los Angeles County Congestion Management Program; (2) the site's proximity to the adjacent Aviation/LAX Metro Green Line station and associated bus transfer center and Caltrans' Park-and-Ride lot; and (3) land use characteristics of the Project.

[f] Refer to Table 5.1-3 in Section 5.1, Traffic/Access, of this EIR for Existing and Proposed Project trip generation.

Sewage Disposal

Alternative 3 would **reduce impacts** to sewage disposal when compared to the Project. Alternative 3 would result in a net daily wastewater generation of approximately 40,631 gallons per day (gpd), as shown in Table 7-8.

This would be a substantial reduction from the Project's estimated net wastewater generation of 77,626 gpd. Alternative 3 would result in an overall reduced sewage generation of 41,551 gpd due to the reduction in residential units, thereby reducing the need for increased sewage infrastructure and treatment requirements. Therefore, as with the Project (discussed in Section 5.2), impacts to sewage disposal from Alternative 3 would be less than significant.

TABLE 7-8
ALTERNATIVE 3 WASTEWATER GENERATION

LACSD Land Use Category	Units	Wastewater Generation per Unit (gallons per day)	Total Flow (gallons per day)
Condominium	205 du	195	39,975
Shopping Mall	29,500 sf	325 (per 1,000 sf)	9,588
Total Proposed Land Use Wastewater Generation			49,563
Less Existing Wastewater Generation[a]			*8,012*
Net Wastewater Generation			**41,551**
Proposed Project Net Wastewater Generation[b]			***77,626***

du: dwelling units; sf: square feet; LACSD: Sanitation Districts of Los Angeles County

[a] Refer to Table 5.2-1 in Section 5.2, Sewage Disposal, of this EIR for existing wastewater generation.
[b] Refer to Table 5.2-2 in Section 5.2, Sewage Disposal, of this EIR for the Project wastewater generation.

Source of wastewater generation factors: LACSD 2009 (EIR Appendix J)

Education

Alternative 3 would **reduce impacts** to education when compared to the Project. Alternative 3 would include 205 residential units, 185 fewer units than the Project, which would generate school-aged children that would be served by Wiseburn School District (WSD) and Centinela Valley Union High School District (CVUHSD). Like the Project, Alternative 3 would be required to pay statutory fees under SB 50. This would be a substantial reduction (48 percent) from the Project's 390 total residential units. Regarding library services, Alternative 3's estimated net population increase of 569 persons,[8] a decrease of 548 persons compared to the Project, would require a minimum of 285 gross sf of library space, 1,565 library materials, and less than 1 public access computer to meet the County Library's planning guidelines. This would be a substantial reduction from the Project's demands, which would generate the need for a minimum of 558.5 gsf of library facility space and 3,072 library materials, and 1 computer. As with the Project, Alternative 3 would be required to pay the Library Facilities Mitigation Fee for each residential unit. Therefore, as with the Project (discussed in Section 5.3), impacts to education and libraries from Alternative 3 would be less than significant.

Fire/Sheriff Services

Alternative 3 would **reduce impacts** to fire and sheriff's services when compared to the Project. Alternative 3 would place additional demands on fire or sheriff services commensurate with the new development on the site. As discussed in Section 5.4, the LACFD and County of Los Angeles Sheriff's Department both determined that the Project would not require the construction of new fire or sheriff's facilities and would result in a less than significant impact on fire and sheriff services. Therefore, because Alternative 3 is smaller in scale than the Project, Alternative 3 would also result in less than significant impacts.

Utilities

Alternative 3 would **reduce impacts** to utilities when compared to the Project. Alternative 3 would have a reduced demand for water supply and dry utilities (electricity, natural gas, and communication systems) and a reduced generation of solid waste compared to the Project commensurate with the 48 percent reduction in residential units. Alternative 3 would require

[8] This number is based on a rate of 2.965 persons per dwelling unit minus the Project site's estimated current population of 39 persons.

water supply and dry utility infrastructure improvements within and immediately surrounding the site to serve the increased density of land uses on the site similar to the Project. As discussed in Section 5.5, impacts to utilities from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

Environmental Safety

Alternative 3 would **similarly impact** environmental safety when compared to the Project. Implementation of Alternative 3 may expose construction workers to lead and ACMs or PCBs during the demolition of on-site structures, as with the Project. However, this impact was determined to be less than significant with mitigation. Neither the Project nor Alternative 3 would result in the development of new structures with the potential to exceed height restrictions associated with LAX or involve the long-term use, transportation, production, handling, or storage of hazardous materials on site. As discussed in Section 6.1, impacts related to hazards or hazardous materials from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts.

Land Use

Alternative 3 would **similarly impact** land use when compared to the Project. Alternative 3 would require a general plan amendment, zone change, and conditional use permit, same as the Project. As discussed in Section 6.2, impacts related to land use from the Project were determined to be less than significant because the Project was consistent with the goals and policies of the *County of Los Angeles General Plan*. Therefore, Alternative 3 would also result in less than significant impacts.

Population and Recreation

Alternative 3 would **similarly impact** population and recreation when compared to the Project. Alternative 3 would result in an estimated population of 608 persons and 205 housing units, which is a substantial reduction from the Project's estimated population of 1,156 persons and 390 dwelling units. Alternative 3 would generate the same number of jobs as the Project because 29,500 sf of commercial uses would be developed. Alternative 3 would place additional demands on recreational facilities, although less than the Project due to the reduced population generated under Alternative 3. However, as discussed in Section 6.3, the Project's impact on the County's and Subregion's jobs-to-housing ratio is negligible. Therefore, the minor differences between the Project and Alternative 3 would also result in a negligible impact to the jobs-to-housing ratio. As discussed in Section 6.3, the Project would have a less than significant impact on population, housing, employment, and recreation. Therefore, Alternative 3 would also result in less than significant impacts.

Greenhouse Gas Emissions and Climate Change

Alternative 3 would **reduce impacts** to climate change when compared to the Project. Construction and operation of Alternative 3 would result in reduced GHG emissions compared to the Project, though the type of GHG emissions generated by proposed on-site uses and occupants would be similar. As discussed under Air Quality above, Alternative 3 would involve a smaller scope of construction for new buildings and would require less excavation for subterranean parking. Because earthmoving (which is the primary source of PM10 and PM2.5) and use of diesel equipment would be reduced under Alternative 3, GHG emissions would also be reduced. Similarly, Alternative 3 would reduce GHG emissions associated with long-term

operations on the site when compared to the Project due to the reduced intensity of the proposed residential land uses. As discussed in Section 6.4, impacts related to climate change from the Project were determined to be less than significant. Therefore, Alternative 3 would also result in less than significant impacts.

Ability to Meet Project Objectives

Objective 1: To minimize the County's future "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Alternative 3 would **partially satisfy** this objective. Alternative 3 would include commercial and residential land uses as a mixed-use development, but not at a density that would maximize the benefits of the Project's proximity to the transit facilities. Alternative 3 would attract future residents that would perhaps otherwise live in areas not adjacent to a transit node, thereby minimizing the County's future "carbon footprint". However, Alternative 2 does not provide enough on-site housing to fully utilize the site's potential for encouraging the use of the adjacent transit facilities by on-site residents.

Objective 2: To provide a housing stock of various sizes, including rental units and for-sale properties located in close proximity to major regional employers.

Alternative 3 would **satisfy** this objective. Alternative 3 would provide both for-sale and rental units with a variety of sizes and types, including studios, condominiums, and townhouses.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Alternative 3 would **satisfy** this objective. Alternative 3 would provide the same opportunities for pedestrian movement within the site and would connect the commercial and transit amenities. As with the Project, Alternative 3 would create a pedestrian plaza north of the commercial uses that face the Metro Green Line Station.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Alternative 3 would **satisfy** this objective. Alternative 3 would be an infill redevelopment that maximizes utilization of existing urban infrastructure, though to a lesser degree than the Project. Alternative 3 would attract an increase in future on-site residents and business owners that would perhaps otherwise live and develop in areas not adjacent to a transit node; thereby potentially increasing green-space development in other portions of the County.

Objective 5: To design an aesthetically pleasing project with visual continuity through the careful and consistent application of high-quality building, landscape, and hardscape design and materials.

Alternative 3 would **satisfy** this objective. Alternative 3 would have a very same visual character to the Project in terms of building, landscape, and hardscape design and materials.

Objective 6: To incorporate project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emission reductions.

Alternative 3 would **satisfy** this objective. Alternative 3 would be constructed to comply with County Green Building Standards and would achieve LEED™ Silver certification, same as the Project.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Alternative 3 would **satisfy** this objective in that it would orient these proposed land uses as described in this objective.

Objective 8: To implement the goals and policies of the County of Los Angeles General Plan to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

Alternative 3 would **satisfy** this objective. A general plan amendment, zone change, and conditional use permit would be required, just as with the Project. Because the Project was found to be consistent with the goals and policies of the *County of Los Angeles General Plan*, Alternative 3 would also be consistent with the goals and policies the *County of Los Angeles General Plan*.

Alternative 3 Analysis Conclusion

Alternative 3 would result in a reduced scope of construction, particularly related to excavation for subterranean parking, and a 48 percent reduction in residential units and related decrease in net population gain as compared to the Project (548 persons). Regarding local emissions, while Alternative 3 would result in a reduction in PM10 and PM2.5 emissions, the reduction would not be sufficient to eliminate the impact. Therefore, this alternative would result in short-term significant and unavoidable construction-related air quality impacts (i.e., exceedance SCAQMD local emissions thresholds for PM10 and PM2.5), which would also occur with the Project. Exterior noise would remain a significant impact, as with the Project. For the remaining topical issues, the Project has less than significant impacts or potentially significant impacts that can be mitigated to a level considered less than significant. This alternative would meet or partially meet all of the Project objectives identified in Section 7.2 above.

7.4.4 ALTERNATIVE 4: NO SUBTERRANEAN PARKING

Description of the Alternative

Alternative 4 assumes that the Project site is developed with the same number of residential units (390) and commercial space (29,500 sf) as the Project. However, the subterranean parking garage is eliminated and a multi-level aboveground parking structure is developed instead. This scenario would increase the height of the podium level by an additional 16 feet to accommodate an extra level of above-ground parking, thereby increasing the overall building heights, including mechanical equipment and antennae, to approximately 83 feet above ground level (agl) to 88 feet agl.

Comparative Analysis of Environmental Impacts

Geotechnical

Alternative 4 would **reduce impacts** to geotechnical hazards when compared to the Project. Alternative 4 would eliminate the subterranean parking structure, thereby substantially reducing the amount of excavation required, which would be limited to utility trenching. This alternative would result in the same permanent population on the Project site and would therefore not expose more people to seismic activity at the Project site with this alternative than with the Project. As discussed in Section 3.1, geotechnical impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Alternative 4 would also result in less than significant impacts with mitigation.

Flood

Alternative 4 would result in **similar impacts** associated with flood hazards when compared to the Project. For long-term operations, Alternative 4 would result in the same hydrology and flood impacts as the Project. The proposed building footprints and associated storm water management features (on-site storm water retention, treatment, and infiltration) would be the same under Alternative 4 as under the Project. Just as with the Project, Alternative 4 would require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site. As discussed in Section 3.2, flood impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 4 would also result in less than significant impacts with mitigation.

Fire

Alternative 4 would **increase impacts** related to fire hazards when compared to the Project due to the increased height of the buildings, which could complicate fire fighting services in the event of a building fire. Alternative 4 would require the same water infrastructure improvements as the Project to ensure adequate fire flows and pressures to the new structures. As discussed in Section 3.3, fire flow impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 4 would also result in less than significant impacts with mitigation.

Noise

Alternative 4 would **slightly reduce impacts** to noise when compared to the Project. Alternative 4 would substantially reduce the amount of excavation activities, which would reduce the duration of construction activities. However, a two-level parking garage would still need to be constructed to accommodate the 797 parking stalls. Therefore, the overall noise and vibration effects during construction of Alternative 4 would be the similar to the Project. There would be no changes to the amount of traffic noise or on-site noise generated by the Project. The number of individuals exposed to existing ambient noise associated with the adjacent roadways, freeway, and LAX flights would also be unchanged. As discussed in Section 3.4, all impacts associated with short-term construction and long-term operation from the Project were determined to be less than significant with incorporation of the mitigation program. As discussed in Section 3.4, all impacts to off-site uses and the Project's interior areas associated with short-term construction and long-term operation would be less than significant with incorporation of the mitigation program, and impacts to the Project's exterior residential use areas during long-term operation would be significant and unavoidable with mitigation.

Therefore, Alternative 4 would also result in less than significant noise impacts with mitigation related to construction activities and interior areas, and significant and unavoidable impacts related to exterior residential use areas.

Water Quality

Alternative 4 would result in **similar impacts** to water quality when compared to the Project. The proposed building footprints and associated storm water management features (on-site storm water retention, treatment, and infiltration) would be the same under Alternative 4 as under the Project. Alternative 4 would also require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site, same as the Project. As discussed in Section 4.1, water quality impacts from the Project were determined to be less than significant. Therefore, Alternative 4 would also result in less than significant impacts.

Air Quality

Alternative 4 would **reduce impacts** to air quality when compared to the Project. Alternative 4 would substantially reduce excavation activities by eliminating the subterranean parking garage. It would be expected that elimination of subterranean excavation would adequately reduce PM10 and PM2.5 emissions to below the SCAQMD local emissions thresholds, thereby avoiding this impact. However, operational air quality emissions would remain unchanged from the Project.

Cultural Resources

Alternative 4 would **reduce impacts** to cultural resources when compared to the Project due to the elimination of the subterranean parking. Alternative 4 still has a potential of encountering subsurface cultural deposits (archaeological and paleontological) during grading activities, although this potential would be substantially reduced. As discussed in Section 4.3, impacts to historic, archaeological, and paleontological resources from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 4 would also result in less than significant impacts with mitigation.

Visual Qualities

Alternative 4 would **increase impacts** to visual qualities when compared to the Project. Alternative 4 would alter the visual quality or character of the site and surrounding area by increasing the height of the structure by approximately 16 feet. The proposed building locations, footprints, and overall architectural design would be the same as the Project, and would result in the same general visual character. However, the increased height could negatively impact compatibility with the adjacent single-family residential homes. Additionally, the increased height would further extend the shadows cast upon adjacent land uses. As discussed in Section 4.4, impacts to visual qualities from the Project were determined to be less than significant with implementation of the mitigation program. However, increased impacts due to increased-shadows on adjacent land uses, as well as potential compatibility conflicts with adjacent single-family homes, could result in significant unavoidable impacts.

Traffic/Access

Alternative 4 would result in **similar impacts** to traffic when compared to the Project. Alternative 4 would reduce short-term (construction) traffic due to the elimination of the subterranean parking garage. Long-term (operational) traffic trips would remain unchanged.

Ingress and egress points on the Project site would be the same as the Project. As discussed in Section 5.1, impacts to traffic and access from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 4 would also result in less than significant impacts with mitigation.

Sewage Disposal

Alternative 4 would result in **similar impacts** to sewage disposal because the same number of residential units and same amount of commercial space are proposed. Therefore, there would be no change in sewage generation. As with the Project (discussed in Section 5.2), impacts to sewage disposal from Alternative 4 would be less than significant. Therefore, Alternative 4 would also result in less than significant impacts.

Education

Alternative 4 would result in **similar impacts** to education when compared to the Project because the number of residential units would remain unchanged. Therefore, there would be no change in demand for education services. As with the Project (discussed in Section 5.3), impacts to education and libraries from Alternative 4 would be less than significant.

Fire/Sheriff Services

Alternative 4 would result in **increased impacts** fire services when compared to the Project due to the increase in the height of the structures and potential complications associated with fire equipment access to upper floors. Because the same number of residential units and same amount of commercial space are proposed, impacts to sheriff services would remain unchanged. As discussed in Section 5.4, the LACFD and County of Los Angeles Sheriff's Department both determined that the Project would not require the construction of new fire or sheriff's facilities and would result in a less than significant impact on fire and sheriff services. Therefore, Alternative 4 would also result in less than significant impacts.

Utilities

Alternative 4 would result in **similar impacts** utilities when compared to the Project because the same number of residential units and same amount of commercial space are proposed. Therefore, there would be no change in demand for these services. As discussed in Section 5.5, impacts to utilities from the Project were determined to be less than significant with implementation of the mitigation program. Alternative 4 would also result in less than significant impacts with mitigation.

Environmental Safety

Alternative 4 would **increase impacts** to environmental safety when compared to the Project. Implementation of Alternative 4 may expose construction workers to lead and ACMs or PCBs during the demolition of on-site structures, same as the Project, which was determined to be less than significant with mitigation. Neither Alternative 4 nor the Project involves the long-term use, transportation, production, handling, or storage of hazardous materials on site. However, Alternative 4 would result in the development of structures with the potential to exceed height restrictions associated with LAX and would be subject to review by the Federal Aviation Administration (FAA) pursuant to Title 14 of the CFR, Part 77. As discussed in Section 6.1, impacts related to hazards or hazardous materials from the Project were determined to be less than significant with implementation of the mitigation program. Assuming the Project design would be in conformance with FAA height requirements, Alternative 4 would also result in less than significant impacts with mitigation.

Land Use

Alternative 4 would **increase impacts** to land use when compared to the Project due to the increased height and potential land use compatibility conflicts with the adjacent single-family residences. Alternative 4 would still require a general plan amendment and a zone change. As discussed in Section 6.2, impacts related to land use from the Project were determined to be less than significant because the Project is consistent with the goals and policies of the *County of Los Angeles General Plan*. Because Alternative 4 includes the same mix of land uses, and would still be a transit oriented development, it is anticipated that Alternative 4 would remain consistent with the goals and policies set forth in the County's General Plan.

Population, Housing, Employment, and Recreation

Alternative 4 would **similarly impact** population, housing, employment and recreation when compared to the Project because the same number of residential units and same amount of commercial space are proposed. Therefore, there would be no change in the jobs/housing ratio or demands for recreation amenities. As discussed in Section 6.3, the Project would have a less than significant impact on population, housing, employment, and recreation. Therefore, Alternative 4 would also result in less than significant impacts.

Greenhouse Gas Emissions and Climate Change

Alternative 4 would **reduce impacts** to climate change when compared to the Project due to the elimination of the subterranean parking and associated emissions from excavation. Operation of both residential and commercial land uses would generate the same amount of GHG emissions as the Project. As discussed in Section 6.4, impacts related to climate change from the Project were determined to be less than significant. Therefore, Alternative 4 would also result in less than significant impacts.

Ability to Meet Project Objectives

Objective 1: To minimize the County's future "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Alternative 4 would **satisfy** this objective. The Project would be developed as set forth in Section 2.0, Project Description, with the exception of the elimination of the subterranean parking and the increased height of the buildings.

Objective 2: To provide a housing stock of various sizes, including rental units and for-sale properties located in close proximity to major regional employers.

Alternative 4 would **satisfy** this objective. The Project would be developed as set forth in Section 2.0, Project Description, with the exception of the elimination of the subterranean parking and the increased height of the buildings.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Alternative 4 would **satisfy** this objective. The Project would be developed as set forth in Section 2.0, Project Description, with the exception of the elimination of the subterranean parking and the increased height of the buildings.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Alternative 4 would **satisfy** this objective. The Project would be developed as set forth in Section 2.0, Project Description, with the exception of the elimination of the subterranean parking and the increased height of the buildings.

Objective 5: To design an aesthetically pleasing project with visual continuity through the careful and consistent application of high-quality building, landscape, and hardscape design and materials.

Alternative 4 would **partially satisfy** this objective. Alternative 4 would develop a taller structure that could negatively impact the visual continuity and compatibility with the adjacent single-family land uses. Alternative 4 would also increase shadows cast upon adjacent land uses. However, the same visual continuity as the Project would be maintained in terms of building design, architectural details, landscape, and hardscape design and materials.

Objective 6: Incorporate project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emission reductions.

Alternative 4 would **satisfy** this objective. Alternative 4 would be constructed to comply with County Green Building Standards and would achieve LEED™ Silver certification, same as the Project.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Alternative 4 would **partially satisfy** this objective in that it would provide the same orientation of land uses on the site towards the transit land uses to the north and single-family homes to the south. The Project would maintain the same architectural design features, setbacks and landscaping plans; but the height of the buildings would be increased. The increased height could make the Project less compatible with the adjacent single-family homes along West 117th Street and Judah Avenue.

Objective 8: To implement the goals and policies of the *County of Los Angeles General Plan* to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

Alternative 4 would **satisfy** this objective. The Project would be developed as set forth in Section 2.0, Project Description, with the exception of the elimination of the subterranean parking and the increased height of the buildings, and would be consistent with the goals and policies of the General Plan, as described in Section 6.2, Land Use.

Alternative 4 Analysis Conclusion

Alternative 4 would result in the same land uses and density as the Project, with the inclusion of 390 units and 29,500 sf of commercial uses. Due to the elimination of the subterranean parking, excavation would be significantly reduced, thereby reducing the short-term significant and unavoidable construction-related air quality impacts (i.e., exceedance of SCAQMD local

emissions thresholds for PM10 and PM2.5). However, impacts to land use and aesthetics would be increased due to the additional height of the buildings. Development costs would also increase due to different and more expensive construction standards for taller buildings. For the remaining topical issues, the Project has less than significant impacts or potentially significant impacts that can be mitigated to a level considered less than significant. This alternative would satisfy all of the Project objectives identified in Section 7.2 above, with the exception of one that is only partially satisfied.

7.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 7-9 provides a tabular summary of each alternative's impacts relative to the Project.

TABLE 7-9
ALTERNATIVE ANALYSIS SUMMARY

Resource Area	Alternative 1: No Project/No Development	Alternative 2: Existing General Plan and Zoning	Alternative 3: Reduced Scale/Reduced Density	Alternative 4: No Subterranean Parking
Geotechnical	–	<	= / <	<
Flood	–	= / <	=	=
Fire	–	=	=	+
Noise	–	<	<	= / <
Water Quality	>	= / <	= / <	=
Air Quality	–	<	= / <	<
Cultural Resources	–	<	= / <	<
Visual Qualities	–	<	<	+
Traffic/Access	–	<	<	=
Sewage Disposal	–	<	<	=
Education	–	<	<	=
Fire/Sheriff	–	<	<	<
Utilities	–	<	<	=
Environmental Safety	–	=	=	>
Land Use	–	<	=	>
Population, Housing, Employment and Recreation	>	=	=	=
Greenhouse Gas Emissions	–	<	<	= / <

Legend:
= Alternative's impacts are comparable to Project impacts
< Alternative would reduce Project impacts
– Alternative would avoid Project impacts
> Alternative's impacts are greater than Project impacts

A combination of these marks is used where the comparison of some impacts for a topic varies from the comparison of other impacts on the same topic, such as construction impacts versus operational impacts.

Alternative 1 No Project/No Development would be the environmentally superior alternative because it would eliminate the significant and unavoidable impact (i.e., local emissions of PM10 and PM2.5 during construction) of the Project. However, this alternative would satisfy only one Project objective, and only partially satisfy two others and would not result in the creation of a transit-oriented development. Therefore, this alternative would be considered infeasible. Section 15126.6(2) of the CEQA Guidelines states that, "if the environmentally superior

alternative is the 'No Project' Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives".

The determination of the environmentally superior alternative from among the "action" alternatives (i.e., other than the No Project/No Development Alternative) focuses on the potential to reduce or eliminate the significant and unavoidable impacts of the Project, described above, which are related to air quality (short-term local emissions of PM10 and PM2.5) and noise (long-term exterior noise levels). All other impacts identified for the Project would be less than significant with implementation of the mitigation program.

None of the alternatives would eliminate the significant and unavoidable noise impact, because Alternatives 2, 3 and 4 would introduce an additional residential population onto the Project site that would be within the 65 dBA CNEL LAX noise contour. However, Alternatives 2 and 3 would result in a lower on-site population than the Project and Alternative 4 (which would be the same as the Project), and therefore fewer individuals exposed to exterior noise levels that can exceed 65 dBA CNEL. Among the other alternatives, only Alternative 2, Existing General Plan and Zoning, would eliminate the significant and unavoidable air quality impact, because of the elimination of excavation for subterranean parking (reducing PM10 and PM2.5 emissions) and because this alternative would not require a general plan amendment or zone change. However, like Alternative 1, Alternative 2 would satisfy only one Project objective, and would partially satisfy two others and would not develop the density to result in an effective transit-oriented development.

Alternative 3 would result in a slight reduction in the local PM10 and PM2.5 emissions, although estimated emissions would remain above the SCAQMD local emissions threshold during the construction period. Additionally, Alternative 3 would satisfy or only partially satisfy all Project objectives.

Alternative 4 would eliminate the significant and unavoidable construction air quality impacts because of the elimination of excavation for subterranean parking (reducing PM10 and PM2.5 emissions), although impacts to land use compatibility (building height and shadows) would be increased. Regarding consistency with the Project objectives, Alternative 4 would satisfy or partially satisfy the Project objectives.

In light of the analysis of the Alternatives presented above, the Project would be considered the environmentally superior alternative. As discussed above and summarized in Table 7-9 above, Alternatives 2 and 3 would reduce some environmental impacts, but would not fully satisfy the Project objectives. Alternative 4 would reduce air quality impacts, but would generate potentially significant impacts, although most of the Project objectives would be met. Therefore, each alternative has benefits; however, none of the alternatives is superior to the Project.

When determining the "environmentally superior alternative" strictly by the amount of reduction in environmental impacts, Alternative 2, Existing General Plan and Zoning would be less impactful to the environment than the Project because it would eliminate the significant and unavoidable impact to air quality and would not generate new potentially significant impacts. Alternative 2 would reduce, but not eliminate, the significant and unavoidable impact to noise.

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SECTION 7.0
PROJECT ALTERNATIVES

7.1 INTRODUCTION

Pursuant to Section 15126.6 of the CEQA Guidelines, the purpose of this section is to describe "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." An EIR is not required to consider every conceivable alternative to a project nor consider alternatives that are infeasible.

CEQA requires that the level of analysis presented for the various alternatives should provide enough information to allow for a meaningful evaluation, analysis, and comparison of the alternatives with the Project. Based on the comparative analysis, environmental impact reports (EIRs) are required to identify the "environmentally superior" alternative among these alternatives. CEQA also requires the evaluation of a "no project" alternative to "allow decision makers to compare the impacts of approving the Project with the impacts of not approving the project". Although the "no project" alternative may be identified as the environmentally superior alternative, the CEQA Guidelines require identification of the environmentally superior alternative among the other "build" alternatives as well.

Section 15126.6(c) of the CEQA Guidelines specifies that an EIR should identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process, and briefly explain the reasons underlying the lead agency's determination. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are (1) failure to meet most of the basic Project objectives; (2) infeasibility; or (3) inability to avoid significant environmental impacts.

7.2 PROJECT OBJECTIVES

Section 15124 of the CEQA Guidelines requires an EIR to include a statement of objectives sought by the Project. This disclosure assists in developing the range of project alternatives to be investigated in the EIR and provides a rationale for the adoption of a Statement of Overriding Considerations if one is in fact adopted. The Project's compliance with the *County of Los Angeles General Plan's* Goals and Policies is presented in Section 6.2, Land Use. Identified below are goals and objectives related to the Project, as set forth by the County of Los Angeles and the objectives of the Project Applicant.

Objective 1: To minimize the County's future "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Objective 2: To provide a diverse housing stock of various sizes, including rental units and for-sale properties, located in close proximity to major regional employers.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Objective 5: To design an aesthetically pleasing project with visual continuity through the careful and consistent application of high-quality building, landscape, and hardscape design and materials.

Objective 6: To incorporate project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emission reductions.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Objective 8: To implement the goals and policies of the *County of Los Angeles General Plan* in order to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

7.3 ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with CEQA Guidelines Section 15126.6(a), the discussion in this section focuses on a reasonable range of alternatives. Alternatives considered and eliminated are discussed below in Section 7.3.1 and include the following:

- Alternative Project Location
- Surface Parking Lot or Parking Structure
- Cul-de-sac on 117th Street

Project alternatives that are under consideration and analyzed in Section 7.2 below include the following:

- Alternative 1: No Project/No Development
- Alternative 2: Existing General Plan and Zoning
- Alternative 3: Reduced Scale/Reduced Density
- Alternative 4: No Subterranean Parking

7.3.1 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION

Alternative Project Location

Section 15126.6(f)(2) of the CEQA Guidelines requires an analysis of an alternative location(s) to the Project site and notes that “only locations that would avoid or substantially lessen any of the significant effects of the Project need to be considered for inclusion in the EIR”. CEQA further states that “an EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative”.

The Project involves the construction of 390 multi-family residential units and 29,500 square feet (sf) of commercial development on 5.9 acres adjacent to various transit facilities, including the Metro Green Line, Metro bus terminal, and California

Department of Transportation (Caltrans)-owned Park-and-Ride lot. An alternative location for this Project would require:

1. A comparable-sized property capable of accommodating commercial and residential land uses;
2. Site(s) located adjacent to a transit node with comparable transit options;
3. Site(s) located in a central city/urban environment in proximity to major local/regional employment center(s); and
4. A site that would reduce the significant impacts of the Project.

Based on a preliminary search for property in the surrounding area, it was determined that there is one location that satisfies these criteria: a large, vacant, graded, and undeveloped property at the corner of Aviation Boulevard and 111th Street north of Interstate 105 (I-105). This site is approximately 24 acres in size and located across West Imperial Highway from the Project site. However, according to the Los Angeles International Airport (LAX) Master Plan, that site is included in the 2015 Alternative D Enhanced Safety and Security Plan as "Intermodal Transportation Centre (ITC)" and "APM Maintenance Service Facility in ITC Basement" (LAWA 2002). Therefore, the site appears to be unavailable for private development. Additionally, this property would not provide a feasible location for a mixed-use, transit-oriented development. The site is closer to the LAX runways, and therefore would potentially result in increased hazards for residential properties due to the proximity to the airport and increased noise impacts.

Transit nodes (e.g., light rail stations and bus terminals) must generally be located within urban and fully developed areas in order to attract the ridership necessary to support the transit operations. Therefore, vacant land available for development adjacent to an existing transit node is uncommon in an urban center. There may be other properties throughout Los Angeles County that provide opportunities for the redevelopment of existing land uses and conversion to a transit-oriented development near existing transit facilities. However, unless such a property is under the ownership of a Redevelopment Agency, it is difficult to locate a single property owner in an urban area with enough contiguous acreage to develop a mixed-use, transit-oriented development.

The Project site is fairly unique in that the site is being developed through a public-private partnership wherein both entities share a common vision about the best and highest use for the property. Additionally, if an alternative site were found, it is highly likely that the environmental impacts associated with alternative location would be substantively similar to the impacts of the Project, thereby undermining the purpose of the alternative location. For these reasons, it was determined that an alternative location would be infeasible and was therefore eliminated as an alternative under consideration.

Surface Parking Lot or Parking Structure

The creation of a surface parking lot was considered as a potential land use for the Project site. A surface parking lot would provide an opportunity to quickly generate revenues, as construction requirements would be minimal. The option of developing a surface parking lot was considered due to the property's proximity to the existing transit facilities, LAX, and LAX-related employment centers. Alternatively, a parking structure could be built on the site. Ultimately, it was determined that the development of a parking lot or parking structure would not be an efficient use of urban land or infrastructure and that the development of a transit-oriented development would be the best and highest use for the property.

Cul-de-sac on West 117th Street

Full street closure of West 117th Street near Aviation Boulevard was considered as a potential roadway circulation design component of the Project. (LLG Report, August 27, 2010) The full street closure would involve vacating a portion of West 117th Street and constructing a private Project driveway along Aviation Boulevard. The Project would be allowed access from Aviation Boulevard, but a standard residential cul-de-sac would be constructed just east of the Project driveway, which would eliminate all vehicular access from the existing single-family neighborhood to and from Aviation Boulevard via West 117th Street. The purpose of this design feature would be to alleviate neighborhood concerns about potential future cut-through traffic from Aviation Boulevard.

According to Section 21101a, Regulation of Highways, of the 2010 California Vehicle Code, any roadway may be closed to vehicular traffic if the legislative body having jurisdiction determines that the roadway is no longer needed for vehicular traffic and the closure is in the interest of public safety. Several requirements must be met, including (1) the street must have an unsafe volume of traffic and a significant incidence of crime, and (2) the local authority must find that closure of the street likely would result in a reduced rate of crime. A public hearing is required on the proposed street closure.

Upon review of existing conditions at West 117th Street, the Vehicle Code requirements cannot be met. There is no current pattern of serious crime in the neighborhood that would be alleviated by a cul-de-sac. Based on review of the traffic count data for the intersection, (i.e., 23 vehicles during the AM peak hour, 31 during the PM peak hour, and 388 daily traffic volumes), West 117th Street is currently carrying less traffic than what would otherwise be expected based on the number of homes that take access to the street. Therefore, there is currently very limited regional or cut-through traffic and no unsafe traffic volumes on West 117th Street.

Future proposed conditions would also not meet the requirements for street closure. The Project driveway on West 117th Street will allow only left-turn ingress and right-turn egress movements so as to direct Project-related traffic to and from Aviation Boulevard and discourage cut-through traffic on West 117th Street. Additionally, the Project would demolish and replace the existing adult entertainment facility and motel on the site, which may have contributed historically to local crime, with a new mixed-use development. The change in land uses and addition of new residents associated with the Project is anticipated to decrease rather than increase local rates of crime.

In addition, full street closure would reduce the efficiency of the circulation system in the neighborhood. The number of turning maneuvers or U-turns on local streets would increase, thereby increasing the potential for accidents as motorists try to familiarize themselves with the new access options. Existing residents who currently utilize West 117th Street for access to and from their residences would be inconvenienced. Instead of having direct access to Aviation Boulevard from West 117th Street, these residents would need to use other local residential streets. Full closure of West 117th Street would therefore cause a considerable increase in traffic to other local residential streets such as West 118th Street and Judah Avenue. Closure of West 117th Street would also impede access to the immediate and surrounding neighborhoods by police, fire, ambulance and other emergency vehicles. The County Fire Department expressed concerns about full closure of West 117th Street. For these reasons, this alternative was eliminated from further consideration.

7.4 ALTERNATIVES UNDER CONSIDERATION

The analysis for each of the Project alternatives identified below includes:

- A description of the alternative;
- An analysis of the environmental impacts and comparison to the Project; and
- An analysis of the alternative's ability to meet the Project objectives.

7.4.1 ALTERNATIVE 1: NO PROJECT/NO DEVELOPMENT

Description of the Alternative

The alternatives analysis set forth in this EIR provides two "No Project" Alternatives. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the Project with the impacts of not approving the Project. Consistent with CEQA Guidelines Section 15126.6(e)(3)(B), the No Project/No Development Alternative is the circumstance under which the Project does not proceed. Under this alternative scenario, the property remains in its existing state and no development occurs. CEQA Guidelines Section 15126.6(e)(3)(A) identifies the No Project Alternative as the continuation of the existing plan, policy, or operation into the future. Therefore, Alternative 1 addresses the Project in comparison to the existing condition, assuming no new development. Alternative 2 (discussed in Section 7.4.2), addresses the projected impacts of the Project compared to the impacts that would occur under the maximum development scenario allowed by the existing zoning and General Plan land use designation.

Comparative Analysis of Environmental Impacts

Geotechnical

Alternative 1 would **reduce impacts** from geotechnical hazards when compared to the Project. Alternative 1 would not involve demolition, grading, or excavation activities that would be required to develop the Project. With the retention of the Project site with limited commercial and residential uses, fewer people would be exposed to seismic activity at the Project site with the alternative than with the Project. As discussed in Section 3.1, geotechnical impacts from the Project were determined to be less than significant with incorporation of the mitigation program.

Flood

Alternative 1 would **reduce impacts** from flood hazards when compared to the Project. Under Alternative 1, the existing hydrology patterns and hydrologic characteristics of the Project site would remain. There would be no change in the amount, pattern, or velocity of surface storm water runoff, and there would be no increase in impervious surfaces. However, redevelopment of the Project site would include compliance with County regulations regarding Standard Urban Stormwater Mitigation Plan (SUSMP) and Low-Impact Development (LID) standards through the construction and operation of Best Management Practices (BMPs), which are not currently on the Project site. Therefore, under Alternative 1, no on-site storm water retention, treatment, or infiltration would occur. As discussed in Section 3.2, flood impacts from the Project were determined to be less than significant with incorporation of the mitigation program.

Fire

Alternative 1 would **reduce impacts** to fire flows when compared to the Project. Under Alternative 1, the requirements for increased fire flow capacity and pressure would be

eliminated, and no water infrastructure improvements would be required. As discussed in Section 3.3, fire flow impacts from the Project were determined to be less than significant with incorporation of the mitigation program.

Noise

Alternative 1 would **reduce impacts** related to noise when compared to the Project. Alternative 1 would not involve any demolition or construction activities; therefore, noise and vibration effects associated with the Project construction and operation would not occur. Additionally, the incremental increase in long-term, traffic-related, and operational noise levels associated with the Project would not occur. As discussed in Section 3.4, all impacts to off-site uses and the Project's interior areas associated with short-term construction and long-term operation would be less than significant with incorporation of the mitigation program, and impacts to the Project's exterior residential use areas during long-term operation would be significant and unavoidable with mitigation.

Water Quality

Alternative 1 would **increase impacts** to water quality when compared to the Project. This alternative would not include any demolition, grading or construction, the potential increase for construction-related soil erosion that would result from the Project would not occur. The Project would increase the amount of impervious surface and density of development on the site, potentially increasing the amount of automobile-related pollutants from the Project. However, redevelopment of the Project site would include compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site. Additionally, the elimination of the single-family homes and associated lawns would reduce the amount of pesticides/fertilizers used on-site. Since implementation of the Project would introduce water quality BMPs (i.e., on-site storm water retention, treatment, or infiltration) that are not currently on-site, Alternative 1 would not result in associated water quality improvements. As discussed in Section 4.1, water quality impacts from the Project were determined to be less than significant.

Air Quality

Alternative 1 would **reduce impacts** to air quality when compared to the Project. Alternative 1 would not involve any construction activities (including demolition, grading, and excavation). Therefore, this alternative would avoid short-term significant and unavoidable construction-related air quality impacts (i.e., exceedance of South Coast Air Quality Management District [SCAQMD] local emissions thresholds for PM10 and PM2.5) that would occur with the Project. This impact would be eliminated with Alternative 1. Both the existing condition under Alternative 1 and the Project would generate long-term air quality emissions associated with vehicular and operational activities; however, implementation of the Project would substantially increase vehicular traffic over existing levels associated with on-site land uses, thereby increasing air pollutant emissions. As such, the air quality impacts of Alternative 1 would be substantially less than those of the Project.

Cultural Resources

Alternative 1 would **reduce impacts** to cultural resources when compared to the Project. No new site development would occur under this alternative; therefore, no earthwork or grading would be required. Although on-site structures are not historically or architecturally significant, they would remain on site. The Project would require subsurface excavation; as such, there is the potential for subsurface cultural deposits (archaeological and paleontological) to be

discovered during grading activities. Alternative 1 would avoid any potentially significant impacts to known or unknown archaeological and/or paleontological resources. As discussed in Section 4.3, impacts to historic, archaeological, and paleontological resources from the Project were determined to be less than significant with implementation of the mitigation program.

Visual Qualities

Alternative 1 would **reduce impacts** to visual qualities and aesthetics when compared to the Project. Alternative 1 does not involve any development or change in current uses. There would be no change to the visual quality or character of the Project site or surrounding areas. It should be noted, however, that while the development pursuant to the Project would alter the visual character of the site, it is intended to provide an aesthetically pleasing development with high-quality materials that unify the development within the Project site. As discussed in Section 4.4, impacts to visual qualities from the Project were determined to be less than significant with implementation of the mitigation program.

Traffic/Access

Alternative 1 would **reduce impacts** to traffic when compared to the Project. Alternative 1 would not change the existing traffic conditions because no new development would occur, and no short-term (construction) or long-term (operational) traffic trips would be generated. Existing land uses on the Project site, which would remain under Alternative 1, generating approximately 1,886 one-way daily trips, the majority of which are generated by the existing Wild Goose Restaurant/Bar. All ingress and egress points on the Project site would remain, and there would be no alterations to the existing Metro bus terminal. As discussed in Section 5.1, impacts to traffic and access from the Project were determined to be less than significant with implementation of the mitigation program.

Sewage Disposal

Alternative 1 would **reduce impacts** to sewage disposal when compared to the Project. Alternative 1 would not place new demands on the sewage infrastructure or the Los Angeles County Sanitation Districts for treatment because no new development would occur on the Project site. Under this alternative, no utility upgrades would occur, and no physical impacts would result. As discussed in Section 5.2, impacts to sewage disposal from the Project were determined to be less than significant.

Education

Alternative 1 would **reduce impacts** to education and libraries when compared to the Project. Alternative 1 would not place any new demands on public schools or libraries because no new development would occur. As discussed in Section 5.3, impacts to education and libraries from the Project were determined to be less than significant.

Fire/Sheriff Services

Alternative 1 would **reduce impacts** to fire/sheriff services when compared to the Project. Alternative 1 would not place any new demands on fire or sheriff services because no new development would occur. As discussed in Section 5.4, impacts to fire/sheriff services from the Project were determined to be less than significant.

Utilities

Alternative 1 would **reduce impacts** to utilities when compared to the Project. Alternative 1 would not place new demands on utilities or water supply because no new development would occur on the Project site. Under this alternative, no utility upgrades would occur, and no physical impacts would result. As discussed in Section 5.5, impacts to utilities from the Project were determined to be less than significant with implementation of the mitigation program.

Environmental Safety

Alternative 1 would **reduce impacts** to environmental safety when compared to the Project. Implementation of the Project may expose construction workers to lead and asbestos-containing materials (ACM) or polychlorinated biphenyls (PCBs) during the demolition of on-site structures; however, this impact was determined to be less than significant with mitigation. Under Alternative 1, all on-site structures would remain intact and as long as materials are not disturbed, no impacts related to lead or asbestos exposure to occupants or workers would occur. Neither the Project nor Alternative 1 would result in the development of new structures with the potential to exceed height restrictions associated with LAX or involve the long-term use, transportation, production, handling, or storage of hazardous materials on site. As discussed in Section 6.1, impacts related to hazards or hazardous materials from the Project were determined to be less than significant with implementation of the mitigation program.

Land Use

Alternative 1 would **reduce impacts** to land use when compared to the Project. Under Alternative 1, the existing land uses would be retained. A change in land use would not occur, nor would a general plan amendment, zone change, or conditional use permit be needed. As discussed in Section 6.2, impacts related to land use from the Project were determined to be less than significant.

Population, Housing, Employment, and Recreation

Alternative 1 would **increase impacts** to population, housing, employment, and recreation when compared to the Project because the existing condition does not provide the benefits to the community associated with increased housing and employment opportunities. Under Alternative 1, there would be no change in the amount or rate of growth expected in the Project area or in the County's jobs to housing ratio. Alternative 1 would not place any new demands on recreational facilities because no new residents would be generated; however, no park fees would be paid to offset increased usage associated with the Project. As discussed in Section 6.3, impacts related to population and recreation from the Project were determined to be less than significant.

Greenhouse Gas Emissions and Climate Change

Alternative 1 would **reduce impacts** to greenhouse gas (GHG) emissions when compared to the Project because no construction emissions would occur. Alternative 1 would not change or increase the amount or type of GHG emissions generated by on-site uses and occupants. As discussed in Section 6.4, impacts related to climate change from the Project were determined to be less than significant.

Ability to Meet Project Objectives

Objective 1: To minimize the County's future "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Alternative 1 would **not satisfy** this objective. The Project site does currently include commercial and residential land uses, but does not include the higher density development required to constitute a transit-oriented community. Although existing residents are adjacent to the transit facilities, they are few in number and do not provide the number of transit users as would be provided by a transit-oriented community. Additionally, the Project would attract future residents that would perhaps otherwise live in areas not adjacent to a transit node, thereby minimizing the County's future "carbon footprint".

Objective 2: To provide a housing stock of various sizes, including rental units and for-sale properties, located in close proximity to major regional employers.

Alternative 1 would **not satisfy** this objective. The Project site currently includes only for-rent, single-family residential units and 2 duplex units and does not provide a housing stock of various sizes or for-sale properties.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Alternative 1 would **partially satisfy** this objective. The Project site does currently include commercial and residential land uses in proximity to transit, but does not provide an urban, pedestrian-oriented community that connects the commercial and transit amenities. The Project would create a pedestrian plaza north of the commercial uses that face the Metro Green Line. Pedestrians would be able to walk between the Metro Green Line and the Project site's commercial amenities and through the plaza and fire lane, which would prohibit parking and be designed to encourage the safe and convenient movement of pedestrians.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Alternative 1 would **not satisfy** this objective. This alternative would not create an urban infill development that would attract future residents, which would perhaps otherwise live in areas not adjacent to a transit node, thereby potentially increasing green space development in other portions of the County.

Objective 5: To design an aesthetically pleasing project with visual continuity through the careful and consistent application of high-quality building, landscape, and hardscape design and materials.

Alternative 1 would **not satisfy** this objective. The existing commercial, motel, transit, and residential land uses were not developed in such a way that provides visual continuity with high-quality building, landscape, and hardscape design and materials among the various land uses.

Objective 6: Incorporate project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emissions reductions.

Alternative 1 would **not satisfy** this objective. The existing commercial, motel, and residential land uses were not developed in such a way that promotes sustainability, energy efficiency, water conservation, and GHG emissions reductions. The Project would be constructed to comply with County Green Building Standards and would achieve LEED™ Silver certification.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Alternative 1 would **partially satisfy** this objective in that the existing land uses include single-story commercial and motel land uses that buffer the single-family homes from the transit facilities to the north. However, the Project would provide a mix of residential and commercial land uses at a scale and density that would provide a more effective visual and pedestrian-friendly transition between the elevated transit facilities and automobile/bus intense land uses to the north and the single-family residential area to the south.

Objective 8: To implement the goals and policies of the *County of Los Angeles General Plan* to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

Alternative 1 would **satisfy** this objective because existing land uses are consistent with the *County of Los Angeles General Plan*.

Alternative 1 Analysis Conclusion

Alternative 1 would avoid the short-term significant and unavoidable construction-related air quality impact (i.e., exceedance of SCAQMD local emissions thresholds for PM10 and PM2.5) and exterior operational noise that would occur with the Project. For the remaining topical issues, the Project has less than significant impacts or potentially significant impacts that can be mitigated to a level considered less than significant. Despite this finding, this alternative would not meet the majority of the Project objectives identified in Section 7.2 above.

7.4.2 ALTERNATIVE 2: EXISTING GENERAL PLAN AND ZONING

Description of the Alternative

Section 15126.6(e)(2) of the CEQA Guidelines specifies that the “No Project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, as well as what would be reasonably expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services”. Therefore, Alternative 2 assumes that existing land uses would be demolished and the site would be redeveloped pursuant to the existing zoning and General Plan land use designations, as discussed further below.

The current zoning and land use designations for the Project site involve two separate jurisdictions: the County of Los Angeles and the City of Los Angeles. The current *County of Los Angeles General Plan* land use designation for Lot 1 (3.2 acres) is “Low Density

Residential", and Lot 1 is currently zoned C-1 (Restricted Business Zone) and R-1 (Single-Family Residence) in the County of Los Angeles Zoning Ordinance. The current *City of Los Angeles General Plan* land use designation for Lot 2 (2.7 acres) is "Public Facilities", and Lot 2 is currently zoned PF (Public Facilities) in the City of Los Angeles Zoning Ordinance.

As depicted on Exhibit 2-11, Proposed Detachment, in Section 2.0, Project Description, the Project would require a modification to the County of Los Angeles and City of Los Angeles boundaries (involving the Local Agency Formation Commission for the County of Los Angeles [LAFCO]) in order to allow the entire Project site to become part of unincorporated Los Angeles County. For Alternative 2, it must be assumed that this modification does not occur.

Lot 1 Development- C-1 and R-1 Zones

According to Section 22.20 of the *Los Angeles County Code* (Planning and Zoning), the Zone R-1 (Single-Family Residence) permits the development of single-family residences with a minimum required area of 5,000 sf per lot, unless otherwise specified. Currently, approximately 2.3 acres within the Project site are zoned R-1. Therefore, the maximum redevelopment within the R-1 zone of Lot 1 would include 20 single-family residences.[1] Based on an average household size of 2.965 for the City of Los Angeles as of January 1, 2009 (DOF 2009),[2] Alternative 2 would generate an estimated permanent population of approximately 59 persons, with a net population increase of 20 persons.[3]

According to Section 22.28 of the *Los Angeles County Code* (Planning and Zoning), the Zone C-1 (Restricted Business) permits (1) the development of a wide range of commercial uses provided all sales are retail and all goods sold except genuine antiques are new; (2) services including auto service stations, beauty shops, banks, and other types of businesses; (3) "recreation and amusement" including swimming pools, parks, and other types of recreation; and (4) agricultural uses, specifically selected crops and greenhouses. Additional land uses are permitted with either review/approval by the Director of the County of Los Angeles Regional Planning Department or receipt of a conditional use permit. These additional uses are highly varied and include, but are not limited to, homeless shelters; convents and monasteries; miniature golf courses; motels; oil wells; veterinary clinics; drive-in theaters; and residences (e.g., townhomes, single, and two-family).

Currently, approximately 0.9 acre within the Project site is zoned C-1. The C-1 zone defines development standards, particularly that no more than 90 percent of the net area of each development be occupied by buildings and no less than a minimum 10 percent of the net area be occupied with landscaping, and that adequate parking facilities are provided, as defined in the *Los Angeles County Code* Chapter 22.52 Part 11. The amount and type of parking and loading areas required varies depending on the specific commercial land use.

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1 2.3 acres x 43,560 sf per acre = 100,188 sf. 100,188 sf / 5,000 sf minimum lot size = 20.04 lots.

2 The City of Los Angeles is the nearest geographic area within the Southern California Association of Governments (SCAG) City of Los Angeles subregion for which average household size is estimated by the California Department of Finance.

3 This number is derived by taking the estimated population (59 persons) and subtracting the existing population (39 persons) on the Project site.

To determine the maximum for redevelopment in the C-1 zone, this alternative assumes that this 0.9-acre area would have 40 percent coverage with commercial development with a two-story structure(s)[4] and 60 percent cover with landscaping (minimum 10 percent coverage), surface parking, driveways/walkways, loading areas, and other features. According to these assumptions, the maximum development within the C-1 zone of Lot 1 would include 31,363 sf of C-1 zoning permitted commercial uses.[5] Therefore, Alternative 2 would generate approximately 72 employees, based on an employment generation factor of 2.3 employees per 1,000 sf of Transit-Oriented Development (TOD) retail uses.

Lot 2 Development- Public Facilities Zone

According to Section 12.04.09 of the City of Los Angeles Zoning Ordinance, the following regulations apply to publicly owned land classified in the "PF" Public Facilities Zone. No building, structure or land shall be used and no building or structure shall be erected, moved onto a site, structurally altered, enlarged or maintained, except for:

1. Agricultural uses, including field crops, gardens, and nurseries under power transmission rights-of-way.
2. Public parking facilities located under freeway rights-of-way.
3. Fire stations and police stations.
4. Government buildings, structures, offices, and service facilities (including maintenance yards) provided that those uses identified in Section 12.24 U 21 require conditional use approval pursuant to that section (amended by Ord. No. 173,492, Eff. 10/10/00).
5. Public libraries not located inside public parks.
6. Post offices and related facilities.
7. Public health facilities, including clinics and hospitals.
8. Public elementary and secondary schools.
9. Any joint public and private development uses permitted in the most restrictive adjoining zones if approved by the Director utilizing the procedures described in Section 16.05E to H.[6]
10. Conditional uses, as allowed pursuant to Section 12.24 U 21 and Section 12.24 W 49 of this Code when the location is approved pursuant to the provisions of the applicable section (amended by Ord. No. 174,132, Eff. 9/3/01).

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4 *Los Angeles County Code* Section 22.28.120 defines that structures in zone C-1 may not exceed 35 feet in height, exclusive of signs, chimneys, and rooftop antennas.

5 0.9 acre x 43,560 sf per acre = 39,204 sf. 39,204 sf x 0.4 (40 percent) = 15,682 sf. 15,682 sf x 2 (two stories) = 31,363 sf.

6 The phrase "adjoining zones" refers to the zones on properties abutting, across the street or alley from, or having a common corner with the subject property. If there are two or more different adjoining zones, then only the uses permitted by the most restrictive zone shall be permitted.

The range of potential development opportunities for a site zoned as PF ranges greatly from low-intensity development (e.g., agricultural uses and maintenance yards) to high-intensity uses (e.g., fire station, post office, health clinic). Due to the amount of allowed variation, it is difficult to determine a maximum buildout for the site in accordance with the existing zoning. Additionally, since Lot 2 is currently occupied with the Metro bus terminal, which was constructed within the past decade, it is unlikely that it would be redeveloped in the near future. Therefore, in order to analyze Alternative 2, it is assumed that Lot 2 would remain in its current condition (i.e., the Metro bus terminal) for the foreseeable future.

Comparative Analysis of Environmental Impacts

Geotechnical

Alternative 2 would **reduce impacts** to geotechnical hazards when compared to the Project. Alternative 2 would involve demolition and grading activities similar to that required to develop the Project; however, this alternative would not require excavation for subterranean parking. This alternative would result in a substantially smaller on-site population than the Project (i.e., 1,156 residents generated by the Project compared to 59 residents generated by Alternative 2), and as such, fewer people would be exposed to seismic activity at the Project site with the alternative than with the Project. As discussed in Section 3.1 of this EIR, geotechnical impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Flood

Alternative 2 would **slightly reduce impacts** to hydrology and flood hazards when compared to the Project. For long-term operations, Alternative 2 would result in similar hydrology and flood impacts as the Project in that there would be more intensive (i.e., higher density) site development than in the existing condition, resulting in a change in the site's drainage patterns and a potential increase in the volume and velocity of storm water runoff due to a slight increase in impervious surfaces. However, Alternative 2 does not include the development of subterranean parking; therefore, a sump facility to capture runoff from the subterranean structure and deliver it to the storm drain system would not be required.

Just as with the Project, redevelopment of the Project site under Alternative 2 would require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site. As discussed in Section 3.2, flood impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Fire

Alternative 2 would **similarly impact** fire hazards when compared to the Project. As with the Project, Alternative 2 may require water infrastructure improvements within and immediately surrounding the site to ensure adequate fire flows and pressures to the new structures, as there would be a higher density of development than the existing condition, similar to the Project. As discussed in Section 3.3, fire flow impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Noise

Alternative 2 would **reduce impacts** related to noise when compared to the Project. Alternative 2 would involve demolition of all existing site uses as well as construction activities, although no subterranean excavation would be necessary. Therefore, short-term noise impacts would be reduced when compared to the Project due to the shortened timeframe for construction activities due to the elimination of the subterranean parking garage. This alternative would also involve a smaller scope of construction for new buildings when compared to the Project due to the substantially reduced density of the residential land uses (i.e., 20 single-family homes proposed by Alternative 2 compared to the 390 multi-family units from the Project) and would not involve the relocation of the Metro bus terminal. Therefore, the duration of noise and vibration effects during demolition and construction would be reduced compared to the Project, while the estimated noise and vibration levels during the reduced construction period would be similar to the Project.

The incremental increase in long-term, traffic-related, and operational noise levels associated with the Project would be reduced under Alternative 2. Additionally, the smaller on-site population (i.e., 1,156 residents generated by the Project compared to 59 residents generated by Alternative 2) would result in fewer individuals exposed to existing ambient noise associated with the adjacent roadways, freeway, and LAX flights. As discussed in Section 3.4, all impacts to off-site uses and the Project's interior areas associated with short-term construction and long-term operation would be less than significant with incorporation of the mitigation program, and impacts to the Project's exterior residential use areas during long-term operation would be significant and unavoidable with mitigation. Therefore, Alternative 2 would also result in less than significant impacts with mitigation related to construction activities and interior areas, and significant and unavoidable impacts related to exterior residential use areas, although, as noted, fewer individuals would be exposed to the exterior noise levels related to LAX flights above 65 dBA CNEL.

Water Quality

Alternative 2 would **slightly reduce impacts** to water quality when compared to the Project. Alternative 2 would result in less impervious surface due to the R-1 single-family zoning that would maintain grass/yards on site, allowing for on-site storm water percolation. However, the Project would develop an on-site infiltration system that would also allow for storm water infiltration. The redevelopment of 20 single-family homes would generate more fertilizer/pesticide pollutants when compared to the Project, but would generate less automobile-related pollutants due to the decreased density of development. Alternative 2 would have reduced short-term, construction-related water quality impacts due to the elimination of the subterranean parking garage and subsequent reduction in sediment runoff from the Project site. However, redevelopment of the Project site under both the Project and Alternative 2 would require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site. As discussed in Section 4.1, water quality impacts from the Project were determined to be less than significant. Therefore, Alternative 2 would also result in less than significant impacts.

Air Quality

Alternative 2 would **reduce impacts** to air quality when compared to the Project. Alternative 2 would involve demolition of all existing site uses, same as the Project, as well as construction activities. However, this alternative would involve a smaller scope of construction for new buildings and would not involve the relocation of the Metro bus terminal or excavation for subterranean parking. Because earthmoving (which is the primary source of particular matter

[PM10 and PM2.5]) would be substantially reduced with the elimination of excavation, emissions of PM10 and PM2.5 would also be substantially reduced. The Project would result in short-term significant and unavoidable construction-related air quality impacts (i.e., exceedance of SCAQMD local emissions thresholds for PM10 and PM2.5). It would be expected that elimination of subterranean excavation would adequately reduce PM10 and PM2.5 emissions to below the SCAQMD local emissions thresholds, thereby avoiding this impact. Therefore, this alternative would avoid the significant and unavoidable impacts of the Project.

Cultural Resources

Alternative 2 would **reduce impacts** to cultural resources when compared to the Project. Alternative 2 would require surface grading, but would not require excavation for subterranean parking. Therefore, this alternative would result in a reduced likelihood of encountering subsurface cultural deposits (archaeological and paleontological) during grading activities. As discussed in Section 4.3, impacts to historic, archaeological, and paleontological resources from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Visual Qualities

Alternative 2 would **reduce impacts** to visual qualities and aesthetics when compared to the Project. Just as with the Project, Alternative 2 would alter the visual quality and character of the site through the demolition of existing uses and the development of residential and commercial land uses. The proposed land uses developed pursuant to the existing General Plan and zoning would be no more than two stories in height, shorter than the Project's five-story structures. As discussed in Section 4.4, impacts to visual qualities from the Project were determined to be less than significant with implementation of the mitigation program. While neither Alternative 2 nor the Project would result in significant impacts to visual qualities, preference for the aesthetic character of a project is an individual and subjective determination.

Traffic/Access

Alternative 2 would **reduce impacts** to traffic/access when compared to the Project. Alternative 2 would generate fewer short-term (construction) and long-term (operational) traffic trips. The scope and duration of construction under this alternative would be less than that under the Project due to the elimination of the subterranean parking and the reduced density of the on-site buildings, thereby reducing construction traffic. Long-term traffic impacts would also be reduced when compared to the Project. Specifically, Alternative 2 would result in approximately 852 total daily trips with a negative net trip generation of -1,034 trips when considering the elimination of trips from existing land uses, as shown in Table 7-1. This calculation is based on the same trip generation rates; assumes the same trip reductions for internal capture, pass-by, and transit; and is based on the same existing trip generation as applied for the Project, as this alternative provides both residential and commercial land uses. This is a substantial reduction from the Project's 1,114 net total daily trips (see Table 5.1-3 in Section 5.1 Traffic/Access of this EIR).

TABLE 7-1
ALTERNATIVE 2 ESTIMATED TRIP GENERATION

ITE Code[a]	Land Use	Amount	Daily Trip Volumes[b]
Alternative 2 Trip Generation			
210	Single-family Residential	20 du	189
820	Shopping Center	31,363 gsf	1,347
		Less 5% Walk-in / Internal Capture[c]	(67)
		Less 30% Pass-by[d]	(404)
		Less 20% Transit[e]	(213)
		Alternative 2 Subtotals	**852**
Existing Conditions and Proposed Project Trip Generation			
		Less Existing Trip Generation[f]	*(1,886)*
		Alternative 2 Net Trip Generation	**(1,034)**
		Proposed Project Net Trip Generation[f]	***1,114***

du: dwelling unit; room: hotel room; gsf: gross square feet
Notes:
[a] ITE Codes comes from ITE 2008. Trip generation rates for condominiums/townhomes obtained from the Los Angeles County Department of Public Works' *Traffic Impact Analysis Guidelines* (January 1, 1997), and there is no ITE Code.
[b] "Trips" are one-way traffic movements, entering or leaving.
[c] The walk-in/internal capture reduction for the commercial use is based on (1) the synergy between the residential and commercial uses provided within the Project site; (2) project characteristics; and (3) characteristics of the surrounding project area. The walk-in trip reduction accounts for the walk-in patronage both from within the project as well as other surrounding uses.
[d] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. The trip reduction for pass-by trips has been applied to the commercial component of the project based on (1) a review of the recommended practice in the ITE *Trip Generation Handbook* (June 2004); (2) project characteristics; (3) characteristics of the surrounding project area; and (4) existing traffic volumes on Aviation Boulevard.
[e] The transit reduction is based on (1) a review of the 2004 Los Angeles County Congestion Management Program; (2) the site's proximity to the adjacent Aviation/LAX Metro Green Line station and associated bus transfer center and Caltrans' Park-and-Ride lot; and (3) land use characteristics of the Project.
[f] Refer to Table 5.1-3 in Section 5.1, Traffic/Access, of this EIR for Existing and Proposed Project trip generation.

Ingress and egress points on the Project site would be altered from the existing condition, as necessary, to accommodate the new configuration of land uses. As discussed in Section 5.1, impacts to traffic and access from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Sewage Disposal

Alternative 2 would **reduce impacts** to sewage disposal when compared to the Project. Alternative 2 would result in a net daily wastewater generation of approximately 7,381 gallons per day (gpd), as shown in Table 7-2.

TABLE 7-2
ALTERNATIVE 2 WASTEWATER GENERATION

LACSD Land Use Category	Units	Wastewater Generation per Unit (gallons per day)	Total Flow (gallons per day)
Single Family Residential	20 du	260	5,200
Shopping Mall	31,363 sf	325 (per 1,000 sf)	10,193
Total Proposed Land Use Wastewater Generation			15,393
Less Existing Wastewater Generation[a]			*8,012*
Alternative 2 Net Wastewater Generation			**7,381**
Proposed Project Net Wastewater Generation[b]			***77,626***

du: dwelling units; sf: square feet
[a] Refer to Table 5.2-1 in Section 5.2, Sewage Disposal, of this EIR for existing wastewater generation.
[b] Refer to Table 5.2-2 in Section 5.2, Sewage Disposal, of this EIR for the Project wastewater generation.
Source of wastewater generation factors: LACSD 2009 (EIR Appendix J)

This would be a substantial reduction from the Project's estimated net wastewater generation of 77,626 gpd. Therefore, Alternative 2 would result in an overall reduced sewage generation of 70,245 gpd due to the reduction in residential units, thereby reducing the need for increased sewage infrastructure and treatment requirements. As discussed in Section 5.2, impacts to sewage disposal from the Project were determined to be less than significant. Therefore, Alternative 2 would also result in less than significant impacts.

Education

Alternative 2 would **reduce impacts** to education when compared to the Project. Alternative 2 would include 20 residential units that would generate school-aged children served by Wiseburn School District (WSD) and Centinela Valley Union High School District (CVUHSD). This would be a substantial reduction from the Project's 390 total residential units. Like the Project, Alternative 2 would be required to pay statutory fees under Senate Bill (SB) 50. Regarding library services, Alternative 2's estimated net population increase of 20 persons would require a minimum of 10 gross sf of library space, 55 library materials, and less than 1 public access computer to meet the County Library's planning guidelines. This would be a substantial reduction from the Project's demands, which would generate the need for a minimum of 558.5 gsf of library facility space, 3,072 library materials, and 1 computer. As with the Project, Alternative 2 would be required to pay the Library Facilities Mitigation Fee for each residential unit. As discussed in Section 5.3, impacts to education and libraries from the Project would be less than significant. Therefore, Alternative 2 would also result in less than significant impacts.

Fire/Sheriff Services

Alternative 2 would **reduce impacts** to fire and sheriff services when compared to the Project. Alternative 2 would place additional demands on fire or sheriff services commensurate with the 20 residences and 31,363 sf of C-1 zoning permitted commercial uses, which is proportionally reduced when compared to the Project. As discussed in Section 5.4, the Los Angeles County Fire Department (LACFD) and County of Los Angeles Sheriff's Department both determined that the Project would not require the construction of new fire or sheriff's facilities and would result in a less than significant impact on fire and sheriff services. Therefore, because Alternative 2 is substantially smaller in scale than the Project, Alternative 2 would also result in less than significant impacts.

Utilities

Alternative 2 would **reduce impacts** to utilities when compared to the Project. Alternative 2 would have a reduced demand for water supply and dry utilities (electricity, natural gas, and communication systems) and a reduced generation of solid wastes due to the substantial reduction of on-site residences when compared to the Project. However, Alternative 2 may still generate a demand for water supply and dry utility infrastructure improvements, similar to the Project. As discussed in Section 5.5, impacts to utilities from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Environmental Safety

Alternative 2 would **similarly impact** environmental safety when compared to the Project. Just as with the Project, implementation of Alternative 2 may expose construction workers to lead and asbestos-containing materials (ACM) or polychlorinated biphenyls (PCBs) during the demolition of on-site structures. However, this impact was determined to be less than significant with mitigation. Neither the Project nor Alternative 2 would result in the development of new structures with the potential to exceed height restrictions associated with LAX or involve the long-term use, transportation, production, handling, or storage of hazardous materials on site. As discussed in Section 6.1, impacts related to hazards or hazardous materials from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 2 would also result in less than significant impacts with mitigation.

Land Use

Alternative 2 would **reduce impacts** related to land use when compared to the Project. Alternative 2 would not require a general plan amendment, zone change, or conditional use permit because Alternative 2 would be consistent with the existing General Plan and zoning. However, as discussed in Section 6.2, impacts related to land use from the Project were determined to be less than significant. Alternative 2 would also result in less than significant impacts.

Population, Housing, Employment, and Recreation

Alternative 2 would **similarly impact** population, housing, employment, and recreation when compared to the Project. Alternative 2 would result in an estimated population of 59 persons and 20 housing units, which is a substantial reduction from the Project's estimated population of 1,156 persons and 390 housing units. Alternative 2 would generate 72 jobs, while the Project would generate 68 jobs. Alternative 2 would place limited additional demands on recreational facilities. However, as discussed in Section 6.3, the Project's impact on the County's and Subregion's jobs-to-housing ratio is negligible. Therefore, the minor differences between the Project and Alternative 2 would also result in a negligible impact to the jobs-to-housing ratio. As discussed in Section 6.3, the Project would have a less than significant impact on population, housing, employment, and recreation. Therefore, Alternative 2 would also result in less than significant impacts.

Greenhouse Gas Emissions and Climate Change

Alternative 2 would **reduce impacts** to climate change when compared to the Project. Construction and operation of Alternative 2 would result in reduced GHG (GHG) emissions compared to the Project, though the type of GHG emissions generated by proposed on-site uses and occupants would be similar. As discussed under Air Quality above, Alternative 2 would

involve a smaller scope of construction for new buildings and would not involve the relocation of the Metro bus terminal or excavation for subterranean parking. Because earthmoving (which is the primary source of PM10 and PM2.5) and the use of diesel equipment would be substantially reduced under Alternative 2, GHG emissions would also be reduced. Similarly, Alternative 2 would substantively reduce GHG emissions associated with long-term operations on the site when compared to the Project due to the reduced intensity of the proposed residential land uses. As discussed in Section 6.4, impacts related to climate change from the Project were determined to be less than significant. Therefore, Alternative 2 would also result in less than significant impacts.

Ability to Meet Project Objectives

Objective 1: To minimize the County's future "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Alternative 2 would **not satisfy** this objective. Alternative 2 would include commercial and residential land uses, but not at the higher density development required to constitute an effective transit-oriented community. Although the future residents of Alternative 2 would be adjacent to the transit facilities, they would be few in number and would not provide the amount of transit users as would be provided by a transit-oriented community. The Project would attract future residents that would perhaps otherwise live in areas not adjacent to a transit node, thereby minimizing the County's future "carbon footprint". Alternative 2 would not supply enough on-site housing to fully benefit from the Project site's proximity to transit facilities.

Objective 2: To provide a housing stock of various sizes, including rental units and for-sale properties, located in close proximity to major regional employers.

Alternative 2 would **not satisfy** this objective. Alternative 2 would provide only single-family residential units.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Alternative 2 would **partially satisfy** this objective. As with the existing uses, redevelopment of the site with single-family residences and separated commercial land uses would include internal pedestrian walkways in proximity to transit. However, Alternative 2 would not provide an urban, pedestrian-oriented community that connects the commercial and transit amenities like the Project. The Project would create a pedestrian plaza north of the commercial uses that face the Metro Green Line Station. Pedestrians would be able to walk between the Metro Green Line Station, Metro bus transfer area and terminal, and the Project site's commercial amenities through the plaza and fire lane, which would prohibit parking and be designed to encourage the safe and convenient movement of pedestrians. Alternative 2 would not change the existing access to the transit amenities.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Alternative 2 would **partially satisfy** this objective. Alternative 2 would result in slightly more dense development than the existing uses, thereby attracting a slight increase in future on-site residents and business owners that would perhaps otherwise live and develop in areas not adjacent to a transit node, thereby potentially increasing green space development in other portions of the County. However, Alternative 2 would not develop the site in such a way that captures the density required to efficiently utilize the available existing infrastructure. The Project site provides a unique opportunity to develop a transit-oriented infill development in an area that would require minimal traffic/access improvements and that has the potential to increase transit ridership. Alternative 2 would minimally increase density and would not fully utilize the development potential of the site.

Objective 5: To design an aesthetically pleasing project with visual continuity through the careful and consistent application of high-quality building, landscape, and hardscape design and materials.

Alternative 2 would **partially satisfy** this objective. Alternative 2 would also be a redevelopment of the site with individual single-family residences separated from the commercial development. Although Alternative 2 would provide for the possibility of improved visual quality on the site, visual continuity through consistent building and hardscape and landscape design across the various structures would not be possible or would be very limited, as Alternative 2 is not a cohesive, mixed-use development.

Objective 6: Incorporate project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emission reductions.

Alternative 2 would **partially satisfy** this objective. The commercial component of Alternative 2 would be constructed to comply with County Green Building Standards, which were not adopted and were not applied during construction of the existing structures. However, the residential component would not be required to be constructed according to LEED Silver certification.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Alternative 2 would **not satisfy** this objective. The minimal site development would provide two-story commercial buildings that would buffer the single-family homes from Aviation Boulevard, but would not substantively buffer the single-family residences from the transit facilities (i.e., Metro Green Line Station, Metro bus transfer area and terminal, and I-105) to the north. Alternative 2 would not develop a mix of condominiums and townhomes that transitions between the southern and northern land uses. The Project would provide a mix of residential and commercial land uses at a scale and density that would provide a more effective visual and pedestrian-friendly transition between the elevated transit facilities and automobile/bus intense land uses to the north and the single-family residential uses to the south.

Objective 8: To implement the goals and policies of the *County of Los Angeles General Plan* to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

Alternative 2 would **satisfy** this objective because Alternative 2 would be consistent with the *County of Los Angeles General Plan* and zoning.

Alternative 2 Analysis Conclusion

Alternative 2 would reduce the short-term significant and unavoidable construction-related air quality impact (i.e., exceedance of SCAQMD local emissions thresholds for PM10 and PM2.5) that would occur with the Project. Alternative 2 would result in a reduced scope of construction, a substantially reduced project size, and related decrease in net population increase. However, for the remaining topical issues, the Project has less than significant impacts or potentially significant impacts that can be mitigated to a level considered less than significant. Alternative 2 would not meet or would only partially meet the Project objectives identified in Section 7.2 above.

7.4.3 ALTERNATIVE 3: REDUCED SCALE/REDUCED DENSITY

Description of the Alternative

Alternative 3 assumes development of the Project with the same land uses, but at a reduced density. The Project would develop all commercial uses on the ground floor along Aviation Boulevard and adjacent to the Metro Green Line Station. This configuration of 29,500 sf of commercial would remain under Alternative 3, as well as the townhome units located on the ground floor. Alternative 3 would reduce the size of the subterranean parking garage to account for the reduction in residential units. Therefore, the land uses and configuration of buildings as depicted in Exhibit 2-4, Site Plan, in Section 2.0, Project Description, would remain applicable to Alternative 3, although the subterranean parking would be reduced.

In order to reduce the density and the height of the Project, Alternative 3 assumes the elimination of the upper two stories of for-rent and for-sale residential units, leaving a total of 205 residential units located within the street level and Levels 1 and 2. Table 7-3 provides a development summary for Alternative 3 in comparison to the Project.

TABLE 7-3
ALTERNATIVE 3 DEVELOPMENT SUMMARY

Site Summary	Bldg 1A	Bldg 1B	Bldg 2A	Bldg 2B	*Total*
Alternative 2					
Commercial (sf)	**8,000**	**0**	**12,200**	**9,300**	***29,500***
Residential Total Units	**47 du**	**102 du**	**28 du**	**28 du**	***205***
A- Studio (546 sf)	2 du	6 du	0	0	*8*
B- 1BR/1BA (718 sf)	22 du	38 du	16 du	16 du	*92*
C- 2BR/2BA (998 sf)	2 du	6 du	0	0	*8*
D- 2BR/2BA (1,040 sf)	17 du	26 du	10 du	10 du	*63*
E- 2BR/2BA (1,145 sf)	2 du	6 du	0	0	*8*
F- 2BR/2BA (Townhouse- 1,149 sf)	0	20 du	0	0	*20*
G- 3BR/2BA (1,275 sf)	2 du	0	2 du	2 du	*6*
Proposed Project[a]					
Commercial (sf)	**8,000**	**0**	**12,200**	**9,300**	***29,500***
Residential Total Units	**94 du**	**184 du**	**56 du**	**56 du**	***390***

sq: square feet; bldg: building; BR: bedroom; BA: bathroom; du: dwelling unit
[a] Refer to Table 2.3-2 in Section 2.0, Environmental Setting and Project Description, of this EIR for Project development.

Based on an average household size of 2.965, Alternative 3 would generate an estimated permanent population of approximately 608 persons, with a net population of 569 persons.[7] Alternative 3 would generate approximately 68 employees, based on an employment generation factor of 2.3 employees per 1,000 sf of Transit-Oriented Development (TOD) retail uses.

Parking requirements are set forth in Table 7-4, which shows the Project would be required to provide approximately 362 residential parking stalls and 118 commercial parking stalls, for a total of 480 (317 fewer stalls than in the Project).

TABLE 7-4
ALTERNATIVE 3 PARKING SUMMARY

Land Use		Parking Ratio	Parking Spaces Provided
Residential	1 BR (100 du)	1.25 per du	125
	2 & 3 BR (105 du)	2.25 per du	237
		Residential Parking Subtotal	*362*
Commercial (29,500 sf)		1 per 250 sf	118
		Total Parking for On-Site Land Uses	***480***
sf = square feet; du = dwelling units			

Comparative Analysis of Environmental Impacts

Geotechnical

Alternative 3 would **slightly reduce impacts** to geotechnical hazards when compared to the Project. Alternative 3 would involve demolition, grading and excavation activities similar to that required to develop the Project. Because the subterranean parking level would be reduced commensurate with the reduced need for residential parking, this alternative would have reduced excavation. This alternative would result in a smaller on-site population (i.e., 1,156 residents generated by the Project compared to 608 residents generated by Alternative 3), and as such, fewer people would be exposed to seismic activity at the Project site with Alternative 3 than with the Project. As discussed in Section 3.1, geotechnical impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

Flood

Alternative 3 would **similarly impact** flood hazards when compared to the Project. For long-term operations, Alternative 3 would result in the same hydrology and flood impacts as the Project. The proposed building footprints and associated storm water management features (e.g., on-site storm water retention, treatment, and infiltration) would be the same under Alternative 3 as under the Project.

Just as with the Project, Alternative 3 would require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site. As discussed in Section 3.2, flood impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

[7] This number is derived by taking the estimated population (608 persons) and subtracting the existing population (39 persons) on the Project site.

Fire

Alternative 3 would **similarly impact** fire hazards when compared to the Project. Alternative 3 may also require water infrastructure improvements within and immediately surrounding the site to ensure adequate fire flows and pressures to the new structures, as there would be a higher density of development than the existing condition, similar to the Project. As discussed in Section 3.3, fire flow impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

Noise

Alternative 3 would **reduce impacts** to noise when compared to the Project. Alternative 3 would involve demolition, grading and excavation activities similar to that required to develop the Project. Because the subterranean parking level would be reduced commensurate with the reduced need for residential parking, this alternative would have slightly reduced excavation and associated construction noise. However, the overall noise and vibration effects during construction of Alternative 3 would be similar to the Project. The incremental increase in long-term, traffic-related, and operational noise levels associated with the Project would be slightly reduced under Alternative 3 commensurate with the reduction in residential units. Additionally, the smaller on-site population (i.e., 1,156 residents generated by the Project compared to 608 residents generated by Alternative 3), would result in fewer individuals exposed to existing ambient noise associated with the adjacent roadways, freeway, and LAX flights. As discussed in Section 3.4, all impacts to off-site uses and the Project's interior areas associated with short-term construction and long-term operation would be less than significant with incorporation of the mitigation program, and impacts to the Project's exterior residential use areas during long-term operation would be significant and unavoidable with mitigation. Therefore, Alternative 3 would also result in less than significant noise impacts with mitigation related to construction activities and interior areas, and significant and unavoidable impacts related to exterior residential use areas, although, as noted, fewer individuals would be exposed to the exterior noise levels related to LAX flights above 65 dBA CNEL.

Water Quality

Alternative 3 would **slightly reduce impacts** to water quality when compared to the Project. Short-term construction activities would require reduced excavation throughout the construction period due to the smaller subterranean parking garage and reduced density of development, thereby slightly reducing the potential for construction-related water quality impacts. Additionally, fewer on-site residents would generate fewer pollutants. However, the proposed building footprints and associated storm water management features (on-site storm water retention, treatment, and infiltration) would be the same under Alternative 3 as the Project. Alternative 3 would also require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site, same as the Project. As discussed in Section 4.1, water quality impacts from the Project were determined to be less than significant. Therefore, Alternative 3 would also result in less than significant impacts.

Air Quality

Alternative 3 would **slightly reduce impacts** to air quality when compared to the Project. Alternative 3 would involve demolition of all existing site uses, same as the Project, and construction activities. Because earthmoving (which is the primary source of PM10 and PM2.5)

would be reduced under this alternative, emissions of PM10 and PM2.5 would also be reduced. Specifically, this alternative assumes that the total off-haul and daily excavation quantity for subterranean parking would be reduced by approximately 45 percent. Based on this reduction, and assuming the same construction schedule, Alternative 3's maximum daily (Table 7-5) and local (Table 7-6) emissions of criteria air pollutants were modeled using URBEMIS and are summarized below and are provided in EIR Appendix E-2.

TABLE 7-5
ALTERNATIVE 3 ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS

Year	VOC	NOx	CO	SOx	PM10	PM2.5
	Emissions (lbs/day)					
Alternative 3						
2011	7	66	42	<1	40	10
2012	36	40	44	<1	3	3
Maximum day for construction	36	66	44	<1	40	10
SCAQMD Thresholds	***75***	***100***	***550***	***150***	***150***	***55***
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**
Proposed Project						
Maximum day for construction[a]	54	96	60	<1	70	18
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

lbs: pounds; SCAQMD: South Coast Air Quality Management District
[a] Refer to Table 4.2-5 in Section 4.2, Air Quality, of this EIR for Proposed Project maximum daily construction emissions.

TABLE 7-6
ALTERNATIVE 3 LOCAL SIGNIFICANCE THRESHOLD EMISSIONS

	NOx	CO	PM10	PM2.5
	Emissions (lbs/day)			
Alternative 3				
Maximum daily local emissions	30	21	**38**	**9**
LST Thresholds	100[a]	550[a]	15	8
Exceed threshold?	**No**	**No**	**Yes**	**Yes**
Proposed Project				
Maximum daily local emissions[b]	37	21	**67**	**15**
Exceed threshold?	**No**	**No**	**Yes**	**Yes**

Bold and underlined values are greater than threshold
lbs: pounds; SCAQMD: South Coast Air Quality Management District
[a] Mass daily emissions thresholds are shown because the LST table values for NOx and CO are greater than the mass emissions thresholds.
[b] Refer to Table 4.2-6 in Section 4.2, Air Quality, of this EIR for Proposed Project maximum daily local emissions.

As shown, with implementation of SC 4.2-1 (SCAQMD Rule 403), Alternative 3 construction maximum regional daily emissions would be less than the SCAQMD thresholds, and impacts would be less than significant, same as the Project. Regarding local emissions, while Alternative 3 would result in a slight reduction in PM10 and PM2.5 emissions, the reduction would not be sufficient to eliminate the impact. Therefore, this alternative would result in short-term local significant and unavoidable construction-related air quality impacts (i.e., exceedance of SCAQMD local emissions thresholds for PM10 and PM2.5), which would also occur with the Project. Long-term operational emissions would be reduced with this alternative due to the reduction of on-site residents and automobile usage associated with the reduced dwelling units, and impacts would be less than significant, as with the Project.

Cultural Resources

Alternative 3 would **slightly reduce impacts** to cultural resources when compared to the Project. Alternative 3 would require grading and excavation similar to the Project, with reduced excavation for subterranean parking. Therefore, this alternative would result in a reduced likelihood of encountering subsurface cultural deposits (archaeological and paleontological) during grading activities. As discussed in Section 4.3, impacts to historic, archaeological, and paleontological resources from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

Visual Qualities

Alternative 3 would **reduce impacts** to visual qualities when compared to the Project. Alternative 3 would alter the visual quality and character of the site and surrounding area similar to the Project. This alternative would be smaller in scale (approximately 45 feet above mean sea level [msl]) than the Project (approximately 65 feet above msl) and therefore more compatible with the adjacent single-family homes. As discussed in Section 4.4, impacts to visual qualities from the Project were determined to be less than significant with implementation of the mitigation program. Neither Alternative 3 nor the Project would result in significant impacts to visual qualities.

Traffic/Access

Alternative 3 would **reduce impacts** to traffic when compared to the Project. Alternative 3 would generate short-term (construction) or long-term (operational) traffic trips. The scope and duration of construction and associated traffic under this alternative would be reduced from the Project, largely due to the alternative's reduction in excavation for subterranean parking. Long-term traffic would be reduced as compared to the Project. Specifically, Alternative 3 would result in approximately 1,911 total daily trips, with a negative net trip generation of -25 trips when considering the elimination of trips from existing land uses, as shown in Table 7-7. This calculation is based on the same trip generation rates, assumes the same trip reductions for internal capture, pass-by and transit; and is based on the same existing trip generation as applied for the Project, as this alternative provides both residential and commercial land uses. This is a substantial reduction from the Project's 1,114 net total daily trips.

Ingress and egress points on the Project site would be the same under the alternative as under the Project. As discussed in Section 5.1, impacts to traffic and access from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

TABLE 7-7
ALTERNATIVE 3 ESTIMATED TRIP GENERATION

ITE Code[a]	Land Use	Amount	Daily Trip Volumes[b]
Alternative 3 Trip Generation			
N/A	Condominium/Townhome	149 du	1,192
220	Apartment	56 du	372
820	Shopping Center	29,500 gsf	1,269
		Less 5% Walk-in / Internal Capture[c]	*(63)*
		Less 30% Pass-by[d]	*(381)*
		Less 20% Transit[e]	*(478)*
		Alternative 3 Subtotals	**1,911**
Existing Conditions and Proposed Project Trip Generation			
		Less Existing Trip Generation[f]	*(1,886)*
		Alternative 3 Net Trip Generation	***(25)***
		Proposed Project Net Trip Generation[f]	***1,114***

N/A: not applicable; du: dwelling unit; room: hotel room; gsf: gross square feet

Notes:

[a] ITE Codes comes from ITE 2008. Trip generation rates for condominiums/townhomes obtained from the Los Angeles County Department of Public Works' *Traffic Impact Analysis Guidelines* (January 1, 1997), and there is no ITE Code.

[b] "Trips" are one-way traffic movements, entering or leaving.

[c] The walk-in/internal capture reduction for the commercial use is based on (1) the synergy between the residential and commercial uses provided within the Project site; (2) project characteristics; and (3) characteristics of the surrounding project area. The walk-in trip reduction accounts for the walk-in patronage both from within the Project as well as other surrounding uses.

[d] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. The trip reduction for pass-by trips has been applied to the commercial component of the Project based on a review of (1) the recommended practice in the ITE *Trip Generation Handbook* (June 2004); (2) project characteristics; (3) characteristics of the surrounding project area; and (4) existing traffic volumes on Aviation Boulevard.

[e] The transit reduction is based on (1) a review of the 2004 Los Angeles County Congestion Management Program; (2) the site's proximity to the adjacent Aviation/LAX Metro Green Line station and associated bus transfer center and Caltrans' Park-and-Ride lot; and (3) land use characteristics of the Project.

[f] Refer to Table 5.1-3 in Section 5.1, Traffic/Access, of this EIR for Existing and Proposed Project trip generation.

Sewage Disposal

Alternative 3 would **reduce impacts** to sewage disposal when compared to the Project. Alternative 3 would result in a net daily wastewater generation of approximately 40,631 gallons per day (gpd), as shown in Table 7-8.

This would be a substantial reduction from the Project's estimated net wastewater generation of 77,626 gpd. Alternative 3 would result in an overall reduced sewage generation of 41,551 gpd due to the reduction in residential units, thereby reducing the need for increased sewage infrastructure and treatment requirements. Therefore, as with the Project (discussed in Section 5.2), impacts to sewage disposal from Alternative 3 would be less than significant.

TABLE 7-8
ALTERNATIVE 3 WASTEWATER GENERATION

LACSD Land Use Category	Units	Wastewater Generation per Unit (gallons per day)	Total Flow (gallons per day)
Condominium	205 du	195	39,975
Shopping Mall	29,500 sf	325 (per 1,000 sf)	9,588
Total Proposed Land Use Wastewater Generation			49,563
Less Existing Wastewater Generation[a]			*8,012*
Net Wastewater Generation			**41,551**
Proposed Project Net Wastewater Generation[b]			***77,626***

du: dwelling units; sf: square feet; LACSD: Sanitation Districts of Los Angeles County

[a] Refer to Table 5.2-1 in Section 5.2, Sewage Disposal, of this EIR for existing wastewater generation.
[b] Refer to Table 5.2-2 in Section 5.2, Sewage Disposal, of this EIR for the Project wastewater generation.

Source of wastewater generation factors: LACSD 2009 (EIR Appendix J)

Education

Alternative 3 would **reduce impacts** to education when compared to the Project. Alternative 3 would include 205 residential units, 185 fewer units than the Project, which would generate school-aged children that would be served by Wiseburn School District (WSD) and Centinela Valley Union High School District (CVUHSD). Like the Project, Alternative 3 would be required to pay statutory fees under SB 50. This would be a substantial reduction (48 percent) from the Project's 390 total residential units. Regarding library services, Alternative 3's estimated net population increase of 569 persons,[8] a decrease of 548 persons compared to the Project, would require a minimum of 285 gross sf of library space, 1,565 library materials, and less than 1 public access computer to meet the County Library's planning guidelines. This would be a substantial reduction from the Project's demands, which would generate the need for a minimum of 558.5 gsf of library facility space and 3,072 library materials, and 1 computer. As with the Project, Alternative 3 would be required to pay the Library Facilities Mitigation Fee for each residential unit. Therefore, as with the Project (discussed in Section 5.3), impacts to education and libraries from Alternative 3 would be less than significant.

Fire/Sheriff Services

Alternative 3 would **reduce impacts** to fire and sheriff's services when compared to the Project. Alternative 3 would place additional demands on fire or sheriff services commensurate with the new development on the site. As discussed in Section 5.4, the LACFD and County of Los Angeles Sheriff's Department both determined that the Project would not require the construction of new fire or sheriff's facilities and would result in a less than significant impact on fire and sheriff services. Therefore, because Alternative 3 is smaller in scale than the Project, Alternative 3 would also result in less than significant impacts.

Utilities

Alternative 3 would **reduce impacts** to utilities when compared to the Project. Alternative 3 would have a reduced demand for water supply and dry utilities (electricity, natural gas, and communication systems) and a reduced generation of solid waste compared to the Project commensurate with the 48 percent reduction in residential units. Alternative 3 would require

[8] This number is based on a rate of 2.965 persons per dwelling unit minus the Project site's estimated current population of 39 persons.

water supply and dry utility infrastructure improvements within and immediately surrounding the site to serve the increased density of land uses on the site similar to the Project. As discussed in Section 5.5, impacts to utilities from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts with mitigation.

Environmental Safety

Alternative 3 would **similarly impact** environmental safety when compared to the Project. Implementation of Alternative 3 may expose construction workers to lead and ACMs or PCBs during the demolition of on-site structures, as with the Project. However, this impact was determined to be less than significant with mitigation. Neither the Project nor Alternative 3 would result in the development of new structures with the potential to exceed height restrictions associated with LAX or involve the long-term use, transportation, production, handling, or storage of hazardous materials on site. As discussed in Section 6.1, impacts related to hazards or hazardous materials from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 3 would also result in less than significant impacts.

Land Use

Alternative 3 would **similarly impact** land use when compared to the Project. Alternative 3 would require a general plan amendment, zone change, and conditional use permit, same as the Project. As discussed in Section 6.2, impacts related to land use from the Project were determined to be less than significant because the Project was consistent with the goals and policies of the *County of Los Angeles General Plan*. Therefore, Alternative 3 would also result in less than significant impacts.

Population and Recreation

Alternative 3 would **similarly impact** population and recreation when compared to the Project. Alternative 3 would result in an estimated population of 608 persons and 205 housing units, which is a substantial reduction from the Project's estimated population of 1,156 persons and 390 dwelling units. Alternative 3 would generate the same number of jobs as the Project because 29,500 sf of commercial uses would be developed. Alternative 3 would place additional demands on recreational facilities, although less than the Project due to the reduced population generated under Alternative 3. However, as discussed in Section 6.3, the Project's impact on the County's and Subregion's jobs-to-housing ratio is negligible. Therefore, the minor differences between the Project and Alternative 3 would also result in a negligible impact to the jobs-to-housing ratio. As discussed in Section 6.3, the Project would have a less than significant impact on population, housing, employment, and recreation. Therefore, Alternative 3 would also result in less than significant impacts.

Greenhouse Gas Emissions and Climate Change

Alternative 3 would **reduce impacts** to climate change when compared to the Project. Construction and operation of Alternative 3 would result in reduced GHG emissions compared to the Project, though the type of GHG emissions generated by proposed on-site uses and occupants would be similar. As discussed under Air Quality above, Alternative 3 would involve a smaller scope of construction for new buildings and would require less excavation for subterranean parking. Because earthmoving (which is the primary source of PM10 and PM2.5) and use of diesel equipment would be reduced under Alternative 3, GHG emissions would also be reduced. Similarly, Alternative 3 would reduce GHG emissions associated with long-term

operations on the site when compared to the Project due to the reduced intensity of the proposed residential land uses. As discussed in Section 6.4, impacts related to climate change from the Project were determined to be less than significant. Therefore, Alternative 3 would also result in less than significant impacts.

Ability to Meet Project Objectives

Objective 1: To minimize the County's future "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Alternative 3 would **partially satisfy** this objective. Alternative 3 would include commercial and residential land uses as a mixed-use development, but not at a density that would maximize the benefits of the Project's proximity to the transit facilities. Alternative 3 would attract future residents that would perhaps otherwise live in areas not adjacent to a transit node, thereby minimizing the County's future "carbon footprint". However, Alternative 2 does not provide enough on-site housing to fully utilize the site's potential for encouraging the use of the adjacent transit facilities by on-site residents.

Objective 2: To provide a housing stock of various sizes, including rental units and for-sale properties located in close proximity to major regional employers.

Alternative 3 would **satisfy** this objective. Alternative 3 would provide both for-sale and rental units with a variety of sizes and types, including studios, condominiums, and townhouses.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Alternative 3 would **satisfy** this objective. Alternative 3 would provide the same opportunities for pedestrian movement within the site and would connect the commercial and transit amenities. As with the Project, Alternative 3 would create a pedestrian plaza north of the commercial uses that face the Metro Green Line Station.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Alternative 3 would **satisfy** this objective. Alternative 3 would be an infill redevelopment that maximizes utilization of existing urban infrastructure, though to a lesser degree than the Project. Alternative 3 would attract an increase in future on-site residents and business owners that would perhaps otherwise live and develop in areas not adjacent to a transit node; thereby potentially increasing green-space development in other portions of the County.

Objective 5: To design an aesthetically pleasing project with visual continuity through the careful and consistent application of high-quality building, landscape, and hardscape design and materials.

Alternative 3 would **satisfy** this objective. Alternative 3 would have a very same visual character to the Project in terms of building, landscape, and hardscape design and materials.

Objective 6: To incorporate project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emission reductions.

Alternative 3 would **satisfy** this objective. Alternative 3 would be constructed to comply with County Green Building Standards and would achieve LEED™ Silver certification, same as the Project.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Alternative 3 would **satisfy** this objective in that it would orient these proposed land uses as described in this objective.

Objective 8: To implement the goals and policies of the County of Los Angeles General Plan to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

Alternative 3 would **satisfy** this objective. A general plan amendment, zone change, and conditional use permit would be required, just as with the Project. Because the Project was found to be consistent with the goals and policies of the *County of Los Angeles General Plan*, Alternative 3 would also be consistent with the goals and policies the *County of Los Angeles General Plan*.

Alternative 3 Analysis Conclusion

Alternative 3 would result in a reduced scope of construction, particularly related to excavation for subterranean parking, and a 48 percent reduction in residential units and related decrease in net population gain as compared to the Project (548 persons). Regarding local emissions, while Alternative 3 would result in a reduction in PM10 and PM2.5 emissions, the reduction would not be sufficient to eliminate the impact. Therefore, this alternative would result in short-term significant and unavoidable construction-related air quality impacts (i.e., exceedance SCAQMD local emissions thresholds for PM10 and PM2.5), which would also occur with the Project. Exterior noise would remain a significant impact, as with the Project. For the remaining topical issues, the Project has less than significant impacts or potentially significant impacts that can be mitigated to a level considered less than significant. This alternative would meet or partially meet all of the Project objectives identified in Section 7.2 above.

7.4.4 ALTERNATIVE 4: NO SUBTERRANEAN PARKING

Description of the Alternative

Alternative 4 assumes that the Project site is developed with the same number of residential units (390) and commercial space (29,500 sf) as the Project. However, the subterranean parking garage is eliminated and a multi-level aboveground parking structure is developed instead. This scenario would increase the height of the podium level by an additional 16 feet to accommodate an extra level of above-ground parking, thereby increasing the overall building heights, including mechanical equipment and antennae, to approximately 83 feet above ground level (agl) to 88 feet agl.

Comparative Analysis of Environmental Impacts

Geotechnical

Alternative 4 would **reduce impacts** to geotechnical hazards when compared to the Project. Alternative 4 would eliminate the subterranean parking structure, thereby substantially reducing the amount of excavation required, which would be limited to utility trenching. This alternative would result in the same permanent population on the Project site and would therefore not expose more people to seismic activity at the Project site with this alternative than with the Project. As discussed in Section 3.1, geotechnical impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Alternative 4 would also result in less than significant impacts with mitigation.

Flood

Alternative 4 would result in **similar impacts** associated with flood hazards when compared to the Project. For long-term operations, Alternative 4 would result in the same hydrology and flood impacts as the Project. The proposed building footprints and associated storm water management features (on-site storm water retention, treatment, and infiltration) would be the same under Alternative 4 as under the Project. Just as with the Project, Alternative 4 would require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site. As discussed in Section 3.2, flood impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 4 would also result in less than significant impacts with mitigation.

Fire

Alternative 4 would **increase impacts** related to fire hazards when compared to the Project due to the increased height of the buildings, which could complicate fire fighting services in the event of a building fire. Alternative 4 would require the same water infrastructure improvements as the Project to ensure adequate fire flows and pressures to the new structures. As discussed in Section 3.3, fire flow impacts from the Project were determined to be less than significant with incorporation of the mitigation program. Therefore, Alternative 4 would also result in less than significant impacts with mitigation.

Noise

Alternative 4 would **slightly reduce impacts** to noise when compared to the Project. Alternative 4 would substantially reduce the amount of excavation activities, which would reduce the duration of construction activities. However, a two-level parking garage would still need to be constructed to accommodate the 797 parking stalls. Therefore, the overall noise and vibration effects during construction of Alternative 4 would be the similar to the Project. There would be no changes to the amount of traffic noise or on-site noise generated by the Project. The number of individuals exposed to existing ambient noise associated with the adjacent roadways, freeway, and LAX flights would also be unchanged. As discussed in Section 3.4, all impacts associated with short-term construction and long-term operation from the Project were determined to be less than significant with incorporation of the mitigation program. As discussed in Section 3.4, all impacts to off-site uses and the Project's interior areas associated with short-term construction and long-term operation would be less than significant with incorporation of the mitigation program, and impacts to the Project's exterior residential use areas during long-term operation would be significant and unavoidable with mitigation.

Therefore, Alternative 4 would also result in less than significant noise impacts with mitigation related to construction activities and interior areas, and significant and unavoidable impacts related to exterior residential use areas.

Water Quality

Alternative 4 would result in **similar impacts** to water quality when compared to the Project. The proposed building footprints and associated storm water management features (on-site storm water retention, treatment, and infiltration) would be the same under Alternative 4 as under the Project. Alternative 4 would also require compliance with County regulations regarding SUSMP and LID standards through the construction and operation of BMPs, which are not currently on the Project site, same as the Project. As discussed in Section 4.1, water quality impacts from the Project were determined to be less than significant. Therefore, Alternative 4 would also result in less than significant impacts.

Air Quality

Alternative 4 would **reduce impacts** to air quality when compared to the Project. Alternative 4 would substantially reduce excavation activities by eliminating the subterranean parking garage. It would be expected that elimination of subterranean excavation would adequately reduce PM10 and PM2.5 emissions to below the SCAQMD local emissions thresholds, thereby avoiding this impact. However, operational air quality emissions would remain unchanged from the Project.

Cultural Resources

Alternative 4 would **reduce impacts** to cultural resources when compared to the Project due to the elimination of the subterranean parking. Alternative 4 still has a potential of encountering subsurface cultural deposits (archaeological and paleontological) during grading activities, although this potential would be substantially reduced. As discussed in Section 4.3, impacts to historic, archaeological, and paleontological resources from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 4 would also result in less than significant impacts with mitigation.

Visual Qualities

Alternative 4 would **increase impacts** to visual qualities when compared to the Project. Alternative 4 would alter the visual quality or character of the site and surrounding area by increasing the height of the structure by approximately 16 feet. The proposed building locations, footprints, and overall architectural design would be the same as the Project, and would result in the same general visual character. However, the increased height could negatively impact compatibility with the adjacent single-family residential homes. Additionally, the increased height would further extend the shadows cast upon adjacent land uses. As discussed in Section 4.4, impacts to visual qualities from the Project were determined to be less than significant with implementation of the mitigation program. However, increased impacts due to increased-shadows on adjacent land uses, as well as potential compatibility conflicts with adjacent single-family homes, could result in significant unavoidable impacts.

Traffic/Access

Alternative 4 would result in **similar impacts** to traffic when compared to the Project. Alternative 4 would reduce short-term (construction) traffic due to the elimination of the subterranean parking garage. Long-term (operational) traffic trips would remain unchanged.

Ingress and egress points on the Project site would be the same as the Project. As discussed in Section 5.1, impacts to traffic and access from the Project were determined to be less than significant with implementation of the mitigation program. Therefore, Alternative 4 would also result in less than significant impacts with mitigation.

Sewage Disposal

Alternative 4 would result in **similar impacts** to sewage disposal because the same number of residential units and same amount of commercial space are proposed. Therefore, there would be no change in sewage generation. As with the Project (discussed in Section 5.2), impacts to sewage disposal from Alternative 4 would be less than significant. Therefore, Alternative 4 would also result in less than significant impacts.

Education

Alternative 4 would result in **similar impacts** to education when compared to the Project because the number of residential units would remain unchanged. Therefore, there would be no change in demand for education services. As with the Project (discussed in Section 5.3), impacts to education and libraries from Alternative 4 would be less than significant.

Fire/Sheriff Services

Alternative 4 would result in **increased impacts** fire services when compared to the Project due to the increase in the height of the structures and potential complications associated with fire equipment access to upper floors. Because the same number of residential units and same amount of commercial space are proposed, impacts to sheriff services would remain unchanged. As discussed in Section 5.4, the LACFD and County of Los Angeles Sheriff's Department both determined that the Project would not require the construction of new fire or sheriff's facilities and would result in a less than significant impact on fire and sheriff services. Therefore, Alternative 4 would also result in less than significant impacts.

Utilities

Alternative 4 would result in **similar impacts** utilities when compared to the Project because the same number of residential units and same amount of commercial space are proposed. Therefore, there would be no change in demand for these services. As discussed in Section 5.5, impacts to utilities from the Project were determined to be less than significant with implementation of the mitigation program. Alternative 4 would also result in less than significant impacts with mitigation.

Environmental Safety

Alternative 4 would **increase impacts** to environmental safety when compared to the Project. Implementation of Alternative 4 may expose construction workers to lead and ACMs or PCBs during the demolition of on-site structures, same as the Project, which was determined to be less than significant with mitigation. Neither Alternative 4 nor the Project involves the long-term use, transportation, production, handling, or storage of hazardous materials on site. However, Alternative 4 would result in the development of structures with the potential to exceed height restrictions associated with LAX and would be subject to review by the Federal Aviation Administration (FAA) pursuant to Title 14 of the CFR, Part 77. As discussed in Section 6.1, impacts related to hazards or hazardous materials from the Project were determined to be less than significant with implementation of the mitigation program. Assuming the Project design would be in conformance with FAA height requirements, Alternative 4 would also result in less than significant impacts with mitigation.

Land Use

Alternative 4 would **increase impacts** to land use when compared to the Project due to the increased height and potential land use compatibility conflicts with the adjacent single-family residences. Alternative 4 would still require a general plan amendment and a zone change. As discussed in Section 6.2, impacts related to land use from the Project were determined to be less than significant because the Project is consistent with the goals and policies of the *County of Los Angeles General Plan*. Because Alternative 4 includes the same mix of land uses, and would still be a transit oriented development, it is anticipated that Alternative 4 would remain consistent with the goals and policies set forth in the County's General Plan.

Population, Housing, Employment, and Recreation

Alternative 4 would **similarly impact** population, housing, employment and recreation when compared to the Project because the same number of residential units and same amount of commercial space are proposed. Therefore, there would be no change in the jobs/housing ratio or demands for recreation amenities. As discussed in Section 6.3, the Project would have a less than significant impact on population, housing, employment, and recreation. Therefore, Alternative 4 would also result in less than significant impacts.

Greenhouse Gas Emissions and Climate Change

Alternative 4 would **reduce impacts** to climate change when compared to the Project due to the elimination of the subterranean parking and associated emissions from excavation. Operation of both residential and commercial land uses would generate the same amount of GHG emissions as the Project. As discussed in Section 6.4, impacts related to climate change from the Project were determined to be less than significant. Therefore, Alternative 4 would also result in less than significant impacts.

Ability to Meet Project Objectives

Objective 1: To minimize the County's future "carbon footprint" through the development of a mixed-use, transit-oriented community that encourages residents to work and shop in close proximity to their homes and/or use alternative forms of transportation, thereby reducing their need for automobile trips.

Alternative 4 would **satisfy** this objective. The Project would be developed as set forth in Section 2.0, Project Description, with the exception of the elimination of the subterranean parking and the increased height of the buildings.

Objective 2: To provide a housing stock of various sizes, including rental units and for-sale properties located in close proximity to major regional employers.

Alternative 4 would **satisfy** this objective. The Project would be developed as set forth in Section 2.0, Project Description, with the exception of the elimination of the subterranean parking and the increased height of the buildings.

Objective 3: To develop a walkable community that provides for safe and convenient pedestrian movement and opportunities for residents, employees, and visitors to interact.

Alternative 4 would **satisfy** this objective. The Project would be developed as set forth in Section 2.0, Project Description, with the exception of the elimination of the subterranean parking and the increased height of the buildings.

Objective 4: To utilize the existing urban infrastructure, such as existing wet and dry utilities and roadways, through the construction of urban infill development, thereby assisting to preserve existing rural open green spaces and associated biological resources.

Alternative 4 would **satisfy** this objective. The Project would be developed as set forth in Section 2.0, Project Description, with the exception of the elimination of the subterranean parking and the increased height of the buildings.

Objective 5: To design an aesthetically pleasing project with visual continuity through the careful and consistent application of high-quality building, landscape, and hardscape design and materials.

Alternative 4 would **partially satisfy** this objective. Alternative 4 would develop a taller structure that could negatively impact the visual continuity and compatibility with the adjacent single-family land uses. Alternative 4 would also increase shadows cast upon adjacent land uses. However, the same visual continuity as the Project would be maintained in terms of building design, architectural details, landscape, and hardscape design and materials.

Objective 6: Incorporate project design features and building specifications that promote sustainability, energy efficiency, water conservation, and greenhouse gas emission reductions.

Alternative 4 would **satisfy** this objective. Alternative 4 would be constructed to comply with County Green Building Standards and would achieve LEED™ Silver certification, same as the Project.

Objective 7: Primarily orient the residential condominium and townhomes toward the existing single-family residential neighborhood and the commercial businesses toward the existing transit facilities and Aviation Boulevard in order to provide a transition between the residential neighborhood and nearby transit-related and industrial land uses.

Alternative 4 would **partially satisfy** this objective in that it would provide the same orientation of land uses on the site towards the transit land uses to the north and single-family homes to the south. The Project would maintain the same architectural design features, setbacks and landscaping plans; but the height of the buildings would be increased. The increased height could make the Project less compatible with the adjacent single-family homes along West 117th Street and Judah Avenue.

Objective 8: To implement the goals and policies of the *County of Los Angeles General Plan* to ensure that development of the site is accomplished consistent with these applicable goals and objectives.

Alternative 4 would **satisfy** this objective. The Project would be developed as set forth in Section 2.0, Project Description, with the exception of the elimination of the subterranean parking and the increased height of the buildings, and would be consistent with the goals and policies of the General Plan, as described in Section 6.2, Land Use.

Alternative 4 Analysis Conclusion

Alternative 4 would result in the same land uses and density as the Project, with the inclusion of 390 units and 29,500 sf of commercial uses. Due to the elimination of the subterranean parking, excavation would be significantly reduced, thereby reducing the short-term significant and unavoidable construction-related air quality impacts (i.e., exceedance of SCAQMD local

emissions thresholds for PM10 and PM2.5). However, impacts to land use and aesthetics would be increased due to the additional height of the buildings. Development costs would also increase due to different and more expensive construction standards for taller buildings. For the remaining topical issues, the Project has less than significant impacts or potentially significant impacts that can be mitigated to a level considered less than significant. This alternative would satisfy all of the Project objectives identified in Section 7.2 above, with the exception of one that is only partially satisfied.

7.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 7-9 provides a tabular summary of each alternative's impacts relative to the Project.

TABLE 7-9
ALTERNATIVE ANALYSIS SUMMARY

Resource Area	Alternative 1: No Project/No Development	Alternative 2: Existing General Plan and Zoning	Alternative 3: Reduced Scale/Reduced Density	Alternative 4: No Subterranean Parking
Geotechnical	–	<	= / <	<
Flood	–	= / <	=	=
Fire	–	=	=	+
Noise	–	<	<	= / <
Water Quality	>	= / <	= / <	=
Air Quality	–	<	= / <	<
Cultural Resources	–	<	= / <	<
Visual Qualities	–	<	<	+
Traffic/Access	–	<	<	=
Sewage Disposal	–	<	<	=
Education	–	<	<	=
Fire/Sheriff	–	<	<	<
Utilities	–	<	<	=
Environmental Safety	–	=	=	>
Land Use	–	<	=	>
Population, Housing, Employment and Recreation	>	=	=	=
Greenhouse Gas Emissions	–	<	<	= / <

Legend:
= Alternative's impacts are comparable to Project impacts
< Alternative would reduce Project impacts
– Alternative would avoid Project impacts
> Alternative's impacts are greater than Project impacts

A combination of these marks is used where the comparison of some impacts for a topic varies from the comparison of other impacts on the same topic, such as construction impacts versus operational impacts.

Alternative 1 No Project/No Development would be the environmentally superior alternative because it would eliminate the significant and unavoidable impact (i.e., local emissions of PM10 and PM2.5 during construction) of the Project. However, this alternative would satisfy only one Project objective, and only partially satisfy two others and would not result in the creation of a transit-oriented development. Therefore, this alternative would be considered infeasible. Section 15126.6(2) of the CEQA Guidelines states that, "if the environmentally superior

alternative is the 'No Project' Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives".

The determination of the environmentally superior alternative from among the "action" alternatives (i.e., other than the No Project/No Development Alternative) focuses on the potential to reduce or eliminate the significant and unavoidable impacts of the Project, described above, which are related to air quality (short-term local emissions of PM10 and PM2.5) and noise (long-term exterior noise levels). All other impacts identified for the Project would be less than significant with implementation of the mitigation program.

None of the alternatives would eliminate the significant and unavoidable noise impact, because Alternatives 2, 3 and 4 would introduce an additional residential population onto the Project site that would be within the 65 dBA CNEL LAX noise contour. However, Alternatives 2 and 3 would result in a lower on-site population than the Project and Alternative 4 (which would be the same as the Project), and therefore fewer individuals exposed to exterior noise levels that can exceed 65 dBA CNEL. Among the other alternatives, only Alternative 2, Existing General Plan and Zoning, would eliminate the significant and unavoidable air quality impact, because of the elimination of excavation for subterranean parking (reducing PM10 and PM2.5 emissions) and because this alternative would not require a general plan amendment or zone change. However, like Alternative 1, Alternative 2 would satisfy only one Project objective, and would partially satisfy two others and would not develop the density to result in an effective transit-oriented development.

Alternative 3 would result in a slight reduction in the local PM10 and PM2.5 emissions, although estimated emissions would remain above the SCAQMD local emissions threshold during the construction period. Additionally, Alternative 3 would satisfy or only partially satisfy all Project objectives.

Alternative 4 would eliminate the significant and unavoidable construction air quality impacts because of the elimination of excavation for subterranean parking (reducing PM10 and PM2.5 emissions), although impacts to land use compatibility (building height and shadows) would be increased. Regarding consistency with the Project objectives, Alternative 4 would satisfy or partially satisfy the Project objectives.

In light of the analysis of the Alternatives presented above, the Project would be considered the environmentally superior alternative. As discussed above and summarized in Table 7-9 above, Alternatives 2 and 3 would reduce some environmental impacts, but would not fully satisfy the Project objectives. Alternative 4 would reduce air quality impacts, but would generate potentially significant impacts, although most of the Project objectives would be met. Therefore, each alternative has benefits; however, none of the alternatives is superior to the Project.

When determining the "environmentally superior alternative" strictly by the amount of reduction in environmental impacts, Alternative 2, Existing General Plan and Zoning would be less impactful to the environment than the Project because it would eliminate the significant and unavoidable impact to air quality and would not generate new potentially significant impacts. Alternative 2 would reduce, but not eliminate, the significant and unavoidable impact to noise.

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SECTION 8.0
IMPACTS FOUND NOT TO BE SIGNIFICANT

This section is a summary of the environmental issues that were determined to have no impact, as presented in the County's Initial Study Checklist distributed on May 20, 2009, and were not carried forward for additional analysis in this EIR. The Initial Study Checklist is provided in Appendix A.

8.1 BIOTA

The Project site and off-site Project areas (Caltrans Off-Site Project Area and off-site utility improvements) are fully developed with urban land uses within an urban portion of the County and is not located within a Significant Ecological Area (SEA), SEA Buffer, or coastal Sensitive Environmental Resource Area (ESHA). The Project site and off-site Project areas contain no native habitat or open space areas that could support native wildlife or sensitive species. There are no drainages, woodlands, wetlands, other special status, or otherwise sensitive biological resources on the Project site and off-site Project areas. In addition, there are no oak trees or unique native trees on the Project site and off-site Project areas. There would be no impact associated with biota and no further analysis of this issue in the Draft EIR is required.

8.2 MINERAL RESOURCES

According to the Special Management Areas map in the County General Plan, no known mineral resources are located in the vicinity of the Project site. The Project site and off-site Project areas are currently fully developed with urban land uses (i.e., single family residential, commercial, public facilities), and the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. The project would not result in the loss of availability of a locally important mineral resource discovery site delineated on a local general plan, specific plan, or other land use plan. There would be no impact associated with mineral resources and no further analysis of this issue in the Draft EIR is required.

8.3 AGRICULTURE RESOURCES

The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. There is no agricultural activity on the Project site or off-site Project areas, nor is the site zoned for agricultural use. The project would not involve other changes in the existing environment that could result in conversion of Farmland to non-agricultural use. There would be no impacts associated with agriculture resources and no further analysis of this issue in the Draft EIR is required.

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SECTION 9.0
LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

9.1 ANY SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

The environmental impacts of the proposed Aviation Station Transit-Oriented Development Project are discussed in Sections 3.0 through 6.0 of this Environmental Impact Report (EIR). Prior to mitigation, implementation of the Project would result in potentially significant impacts for the following topical issues: Geotechnical Hazards, Flood Hazards, Fire Hazards, Noise Hazards, Water Quality, Air Quality, Cultural Resources, Visual Qualities, Traffic/Access, Utilities, Sewage Disposal, Education, Fire/Sheriff Services, Environmental Safety, Land Use, Population, Housing, Employment and Recreation, and Climate Change. Implementation of the mitigation measures provided for each of the above topical areas would reduce these impacts to less than significant levels, with the exception of short-term local (not regional) Air Quality impacts for PM10 and PM2.5, and long-term Noise (exterior noise levels).

As currently proposed, implementation of the Project would result in the following significant impacts after implementation of the mitigation program, and would require adoption of a Statement of Overriding Considerations:

Impact: Construction activities would result in a significant and unavoidable impacts related to the exceedance of the PM10 and PM2.5 local emissions thresholds for a period of approximately 28 days after implementation of MM 4.2-1 (Rule 403). Construction of the Project would result in short-term significant cumulative local impacts of PM10 and PM2.5.

Impact: Long-term significant noise impacts for developing residential land uses in an exterior noise environment that exceeds 65 CNEL.

9.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

The environmental effects related to the implementation of the Project are discussed in Sections 3.0 through 6.0 of this EIR. Implementation of the Project would require the long-term commitment of natural resources and land. Development of the Project would result in the continued commitment of land resources for residential, commercial, and transit facilities, as well as improved existing utilities.

Construction and long-term operation of the Project would require the commitment and reduction of nonrenewable and slowly renewable resources, including petroleum fuels and natural gas (for vehicle emissions, construction, lighting, heating, and cooling of structures) and lumber, sand/gravel, steel, copper, and other metals (for use in building construction, piping, and roadway infrastructure). Other resources that are slow to renew and/or recover from environmental stressors would also be impacted by Project implementation, such as air quality through the combustion of fossil fuels and production of greenhouse gases, and water supply through the increased potable water demands for drinking, cooking, cleaning, landscaping, and general maintenance needs.

However, these irreversible changes and incremental commitments of non-renewable resources are neither unusual nor unexpected and must be weighed against the benefits of the Project. The Project's irreversible changes and use of non-renewable resources are not considered significant or excessive.

9.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED ACTION

Pursuant to Sections 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine ways in which the Project could foster economic or population growth, or the construction of additional development, either directly or indirectly, in the surrounding environment. To address this issue, potential growth-inducing effects are examined through analysis of the following questions:

1. Would this project remove obstacles to growth (e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area or through changes in existing regulations pertaining to land development)?

2. Would this project result in the need to expand one or more public services to maintain desired levels of service?

3. Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

4. Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Per Section 15126.2 (d) of the CEQA Guidelines, it should be noted that growth-inducing effects are not necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which this Project could contribute to significant changes in the environment beyond the direct consequences of Project implementation.

1. ***Would this project remove obstacles to growth (e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development)?*** As discussed in Section 3.2, Flood, Section 5.1, Traffic/Access, Section 5.2, Sewage Disposal and Section 5.5, Utilities, no major new infrastructure facilities are required to develop this Project, as proposed. Existing transportation infrastructure and utility facilities are available adjacent to the Project site. However, some facilities (including water, sewer, and storm drain lines) would need to be upgraded to serve the level of development anticipated with the Project. Development pursuant to the Project allows for the construction of 390 multi-family residential dwelling units, 29,500 square feet (sf) of commercial uses, and the relocation of the Metro bus terminal and associated reconfiguration of the existing Caltrans Park-and-Ride Lot. As discussed in Section 7.0, Alternatives to the Proposed Project, under the current General Plan and zoning designation, the Project would result in an increase in the density and intensity of the land uses when compared to the current existing conditions. Although the Project would develop higher density land uses than currently anticipated for the site, the Project would not exceed official (i.e., Southern California Association of Governments [SCAG]) projections for the unincorporated City of Los Angeles subregion (local), County, or regional population projections (refer to Section 6.3, Population, Housing, Employment and Recreation). Therefore, the Project would not directly or indirectly induce growth that is not consistent with planning projections.

   As depicted in Figures 2-2 (Adjacent Jurisdictions) and 2-3 (Aerial View of the Project Site) in Section 2.0, Environmental Setting and Project Description, the Project site is surrounded by existing urban development. There are no undeveloped greenfield

areas near the Project site that could be subjected to development such that sprawl would be facilitated. Also, construction of additional housing in the Project area is expected regardless of implementation of the Project, as urban cores are redeveloped continually over time. The Project itself is a reflection of a recent and growing trend towards increasing urban infill with mixed-use development, and the Project is also a transit-oriented development. The reasons for this trend are largely related to land use planning decisions to encourage infill near transit nodes in an effort to reduce urban sprawl, encourage the efficient use of urban infrastructure, and ultimately minimize additional greenhouse gas emissions that contribute to climate change. In addition, Los Angeles County is experiencing a shortage of all housing types, and the Project would accommodate an existing housing demand rather than providing a surplus, which could invite more growth. For these reasons, current or future projects in the surrounding area that include additional housing would not be indirectly impacted by the Project.

2. ***Would this project result in the need to expand one or more public services to maintain desired levels of service?*** As discussed in Section 5.2, Sewage Disposal, Section 5.3, Education and Section 5.4, Fire/Sheriff, none of the public service agencies consulted during the preparation of this EIR have indicated that this Project would necessitate the immediate expansion of their existing resources in order to maintain desired levels of service. In the event that their resources do need to be expanded, funding mechanisms are in place through existing regulations and standard practices to accommodate such growth. This Project would not, therefore, have significant growth-inducing consequences with respect to public services.

3. ***Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?*** During Project construction, a number of design, engineering, and construction-related jobs would be created. This would be a temporary situation, lasting until Project construction is completed. This would be an indirect, growth-inducing effect of the Project. As new residential and retail/commercial uses are developed and occupied, residents and employees of the Project are expected to seek shopping, entertainment, employment, home improvement, auto maintenance and other economic opportunities in the surrounding area, both on site and off site. This would represent an increased demand for such economic goods and services and could, therefore, encourage the creation of new businesses and/or the expansion of existing businesses that address these economic needs. However, the Project is balanced in that it provides not only residential uses, but also new retail/commercial uses. The new commercial uses are intended to provide commercial amenities for future residents as well as transit users. Therefore, although the Project will have a growth-inducing effect (refer to Section 6.3, Population, Housing, Employment and Recreation), indirect growth-inducing effects would be minimized due to the mix of land uses and the transit-oriented nature of the Project.

4. ***Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?*** As discussed previously, the Project involves a General Plan Amendment and zone change. As discussed in Section 6.3 Land Use, the Project would introduce a new mixed-use development into the area. As discussed in Tables 6.3-1 and 6.3-2 of that section, the Project is in compliance with applicable SCAG (regional) and County of Los Angeles General Plan (local) goals and/or policies. No changes to any of the County's building safety standards (i.e., building, grading, plumbing, mechanical, electrical, or fire codes) are proposed or required to implement this Project. Standard conditions and mitigation measures have been identified in

Sections 3.0 through 6.0 of this EIR to ensure that the Project complies with all applicable County plans, policies, and ordinances to ensure that there are no conflicts with adopted land development regulations and that environmental impacts are minimized.

Pressures to redevelop other land in the surrounding area may derive from regional economic conditions and market demands for housing, commercial, office, and industrial land uses that may be indirectly influenced by the Project. However, the Project is intended to fulfill existing demands in the Project area for transit-oriented development amenities and is not intended to encourage or facilitate other development activities. Proposals may arise to further amend the General Plan and zoning to allow for additional development in the Project area. Any new proposed developments would require a full environmental analysis of the impacts of such actions. Therefore, although the Project may be considered a precedent-setting action, the impacts of potential future similar actions would require environmental analysis and associated mitigation to reduce potential impacts to the environment.

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