CHAPTER 5
AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES OF THE MAINTENANCE FACILITY

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5.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES OF THE MAINTENANCE FACILITY

Summary of Purpose and Need

A maintenance facility must be constructed to support the line's light rail vehicle (LRV) maintenance and storage, and the operational needs of this extension of the Metro light rail transit (LRT) system. The Crenshaw/ Los Angeles International Airport (LAX) Transit Corridor Project is an extension of the existing Metro LRT system. The existing system has maintenance facilities that potentially could be used for the proposed facilities; however, many are currently operating near or beyond their planned capacity. Therefore, additional capacity is required to operate the Crenshaw/LAX Transit Corridor Project. The north to south Crenshaw/ LAX line, which will operate on the 8.5 mile new construction associated with the Crenshaw/ LAX Transit Corridor Project and existing and planned southern extensions of the Metro Green Line, requires 33 LRVs operating on opening day in 2018, with anticipated operation of the maintenance facility beginning in 2015. In December 2010, the Metro Board adopted a consolidated development strategy for maintenance facilities associated with the expansions of the Metro Green Line and the three new transit extensions – the Crenshaw/LAX Transit Corridor, the South Bay Metro Green Line Extension, and the Metro Green Line Extension to LAX. Under the consolidated development strategy, the maintenance facility proposed as part of the Crenshaw/LAX Transit Corridor Project and other Metro Green Line extensions would service cars for the Crenshaw/LAX Transit Corridor. In order to accommodate future growth of all these lines, consideration is being made for the maintenance facility to have a base capacity of 45 LRVs and to eventually expand the maintenance facility to accommodate up to 70 LRVs.

Routine maintenance activities are necessary to ensure the daily, reliable operation of the LRVs, including preventative, corrective, overhaul, and warranty maintenance activities. When an LRV becomes disabled, it must be moved to the closest maintenance facility to be serviced quickly. In order to provide LRV service that is reliable, cost effective, and does not adversely affect the remainder of the LRT system, it is important that the maintenance facility be located in close proximity to the proposed alignment for the light rail tracks. This section summarizes the impacts that would occur for the preferred maintenance facility site selected for the Crenshaw/LAX LRT Project, the Site #14 – Arbor Vitae/Bellanca Alternative. The maintenance facility was assumed to include a main building for service and inspection, interior cleaning, and wheel truing and several other smaller facilities including, but not limited to a paint and body shop, a wash and blow down facility, storage yard, parking area, storage area, and several sets of track to allow LRVs to travel through these facilities and seamlessly return to the main line. A description of the existing environment that would be affected by the maintenance site is provided and the impacts associated with the preferred alternative are stated. Impacts for this site and three other sites were documented in a Supplemental Draft Environmental Impact Statement and Recirculated Draft Environmental Impact Report (SDEIS/RDEIR). On April 28, 2011 the Metro Board based on environmental evaluation, public comment, engineering constraints, and functional utility, selected the Site #14 – Arbor

Vitae/Bellanca as the preferred alternative for the Maintenance facility. For a description of the preferred maintenance site, refer to Section 2.7.1.5 of the Alternatives Considered Chapter. Although this chapter focuses only on the preferred maintenance site selected by the Metro Board, three other maintenance site alternatives were evaluated during the Supplemental Environmental Impact Statement/Recirculated Draft Environmental Impact Report (SEIS/RDEIR) recirculation period. These alternatives included: the Division 22 Northern Expansion Alternative located adjacent to the existing Metro Green Line Division 22 Maintenance Facility in the City of Hawthorne, the Site #15 – Manchester/Aviation Alternative, located to the east of the Harbor Subdivision between Manchester Avenue and Arbor Vitae Street in the City of Inglewood, and the Site #17 – Marine/Redondo Beach Alternative, located south of Marine Avenue and east of Redondo Beach Avenue in the City of Redondo Beach. The Board decision considered the environmental evaluation of the alternatives along with public comment, engineering constraints, and functional utility. For a complete discussion of regulatory framework, and California Environmental Quality Act (CEQA) thresholds used to evaluate impacts refer to Appendix F of this document, Regulatory Framework and CEQA Thresholds. Because the selection and operation of a maintenance facility and the Crenshaw/LAX Transit Corridor Project cannot function independently, the No Build Alternative for the Maintenance Facility Project would be the same as the No Build Alternative evaluated in Chapter 4.0, Affected Environment/Environmental Consequences for the Alignment and Stations.

5.1 Transportation

5.1.1 Affected Environment/Existing Conditions

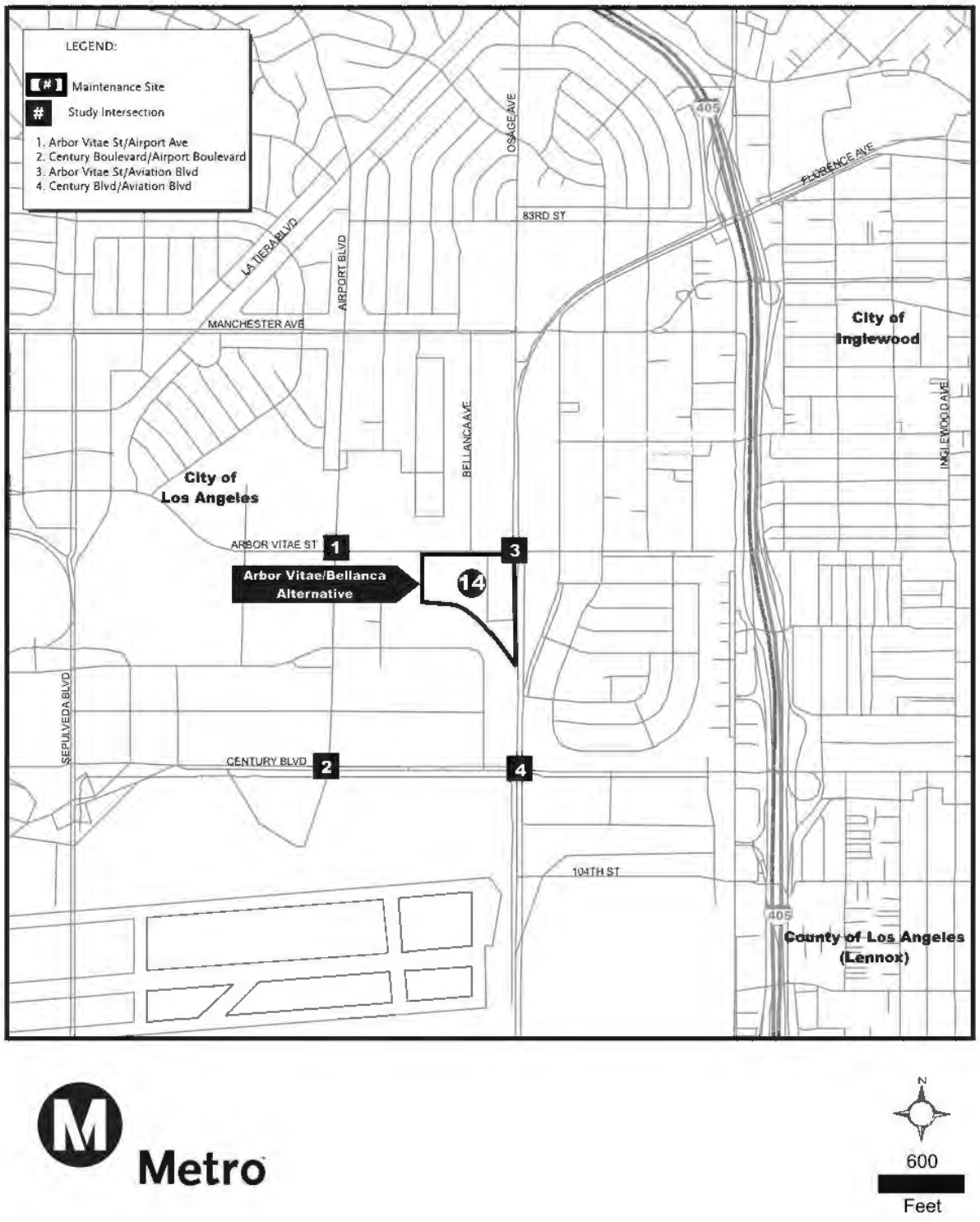
5.1.1.1 Bicycle and Pedestrian Circulation

The area surrounding the preferred maintenance site alternative are located in industrial areas and are not in close proximity to any activity centers, such as commercial/retail or entertainment centers. The area surrounding the preferred maintenance site alternative does not contain any designated bicycle lanes or high levels of pedestrian activity.

5.1.1.2 Existing Traffic Volumes

A total of six separate intersections surrounding the preferred maintenance site alternative were evaluated in order to assess current traffic operations. Traffic volumes at intersections are defined by a level of service (LOS) which ranges from A (free flow) to F (severely congested). The LOS is based on the volume of traffic and the capacity of a given intersection (V/C). For a more detailed description of traffic methodology refer to the Traffic Technical Report contained in Appendix G. The intersections are shown in Figure 5-1. The existing weekday morning and afternoon peak hour conditions at the study area intersections are summarized in Table 5-1.

Figure 5-1. Site #14 – Arbor Vitae/Bellanca Study Intersections



Source: Fehr & Peers, 2010.

Table 5-1. Existing Base Year (2010) Intersection Level of Service

Intersection	LOS	
	AM	PM
Site #14 – Arbor Vitae/Bellanca		
Arbor Vitae St/Airport Blvd	A	A
Century Blvd/Airport Blvd	A	A
Arbor Vitae St/Aviation Blvd	A	B
Century Blvd/Aviation Blvd	C	B

Source: Fehr & Peers, 2010.

5.1.2 Environmental Consequences

5.1.2.1 Project Trip Generation

The maintenance services provided by the preferred maintenance site alternative would be similar to the services provided by the existing Division 22 Metro Green Line Facility serving the Metro at 14724 Aviation Boulevard in Hawthorne. The preferred site alternative is located in close proximity and has similar surrounding uses to the existing facility. Therefore, the trip generation estimates for the project were prepared using empirical data collected at the Division 22 facility. Division 22 serves a total of 39 LRVs. The preferred maintenance facility site is expected to serve a total of 70 LRVs. Trip generation for the proposed facility was estimated by applying a factor proportional to the size of the facility in terms of number of LRVs served. The proposed project is estimated to generate a total of 21 trips during the morning peak hour (9 inbound/12 outbound) and 23 trips during the evening peak hours (13 inbound/10 outbound)

To evaluate the potential future impacts for the preferred maintenance site alternative, estimates of traffic growth were developed for the study area to forecast future conditions without the project. These forecasts included traffic increases due to general regional ambient traffic growth. These projected traffic volumes, the cumulative base conditions, represent the future study year conditions without the proposed project. The traffic generated by the proposed project was then estimated and assigned to the surrounding street system. The project traffic was added to the cumulative base to form the cumulative plus project traffic conditions, which were analyzed to determine the incremental traffic impacts attributable to the project itself. It was assumed that the existing uses on the analyzed sites will most likely relocate within the same sub-region. Therefore, to be conservative, no trip credit was taken for existing uses as part of project trip generation estimates. If the existing uses did relocate to outside the area, the traffic effects would be further reduced.

5.1.2.2 Level of Service Intersection Analysis

The proposed project traffic volumes were added to future (Year 2018) base traffic projections, resulting in a future (Year 2018) plus project morning and evening peak hour traffic volumes. The results of the analysis of future (Year 2018) base weekday morning and afternoon peak hour conditions at the study intersections for the preferred maintenance site alternative are summarized in Table 5-2. The proposed project would

Table 5-2. Future (Year 2018) Intersection Level of Service and Significant Impact Analysis

Intersection	Peak Hour	Future Base Without Project		Future Base With Project		Change in V/C	Adverse Effect?
		V/C or Delay	LOS	V/C or Delay	LOS		
Site #14 – Arbor Vitae/Bellanca Alternative							
Arbor Vitae St/Airport Blvd	AM	0.496	A	0.497	A	0.001	No
	PM	0.656	B	0.657	B	0.001	
Century Blvd/Airport Blvd	AM	0.587	A	0.587	A	0.000	No
	PM	0.509	A	0.509	A	0.000	
Arbor Vitae St/Aviation Blvd	AM	0.567	A	0.569	A	0.002	No
	PM	0.675	B	0.679	B	0.004	
Century Blvd/Aviation Blvd	AM	0.819	D	0.820	D	0.001	No
	PM	0.704	C	0.704	C	0.000	

Note: The v/c calculations are based on 60 LRVs. A 70-LRV build-out of the project would result in a maximum three additional vehicle trips during the peak hour. The increase in v/c would be negligible and would not change the effect determination.
Source: Fehr & Peers, 2010

not create adverse traffic effects at any of the study intersections during the morning or the evening peak hours for the preferred maintenance site alternative.

5.1.2.3 CMP Traffic Impact Analysis

Based on the project trip generation estimates previously presented and a review of the project traffic volumes, the proposed project is not expected to add more than 50 vehicles per hour (vph) at either of the two closest congestion management program (CMP) monitoring intersections at Manchester Avenue/Sepulveda Boulevard and Manchester Avenue/La Brea Avenue during the morning or afternoon peak hours. As a result, no further CMP arterial monitoring analysis is required. Based on the incremental project trip generation estimates and the project trip assignment, the proposed project would not add sufficient new traffic to exceed the freeway analysis criteria at these locations. Because incremental project-related traffic in any direction during either weekday peak hour is projected to be below the minimum criterion of 150 vph, no further CMP freeway analysis is required. Therefore, no adverse effects on CMP arterials and freeways would occur for the preferred maintenance site alternative.

5.1.2.4 Pedestrian and Bicycle Facilities

The preferred maintenance facility site alternative is located in an industrial area which does not have designated bicycle lanes or generate significant pedestrian activities. Therefore, no adverse effects to pedestrian and bicycle facilities would occur for the preferred maintenance site alternative.

5.1.3 Mitigation Measures

None required.

5.1.4 CEQA Determination

Under CEQA, the impact is explained as being the project contribution to a cumulative impact as compared to existing conditions. Therefore, less-than-significant traffic impacts would occur for the preferred maintenance site alternative.

5.2 Land Use and Development

This section examines the affected environment related to land use and development. Local policies for land use and development regulate the types of uses allowed, as well as the intensity of development permitted on public and private property. As new development results in changes to land use patterns, the character of an area can be affected and adverse physical effects to the environment may potentially occur.

The preferred maintenance facility sites include parcels that are in or in close proximity (0.25 miles) of two local jurisdictions, the Cities of Los Angeles and Inglewood. The local jurisdictions are shown in Figure 5-2. Local Jurisdictions.

5.2.1 Affected Environment/Existing Conditions

5.2.1.1 Existing Land Uses

The preferred maintenance facility site is located within an industrial area adjacent to the Harbor Subdivision railroad right-of-way. Currently, there are car rental facilities, parking lots, and industrial warehouses on the site. Figure 5-3 shows the existing land uses and zoning on and surrounding the maintenance site alternative. Table 5-3 summarizes the existing conditions of the maintenance site alternative.

Table 5-3. Existing Land Uses and Zoning for the Preferred Maintenance Facility Site Alternative

Existing Conditions	Size (acres)/a/	Planning Jurisdiction	Land Uses	Zoning	Nearby Uses
Site #14	17.6	City of Los Angeles Westchester-Playa Del Rey	Industrial;	M2-1, Light Industrial zoning	Limited industrial uses to the east and south; commercial adjacent to the north and airport parking uses adjacent to the west

Source: TAHA, 2010.

5.2.1.2 Sensitive Land Uses

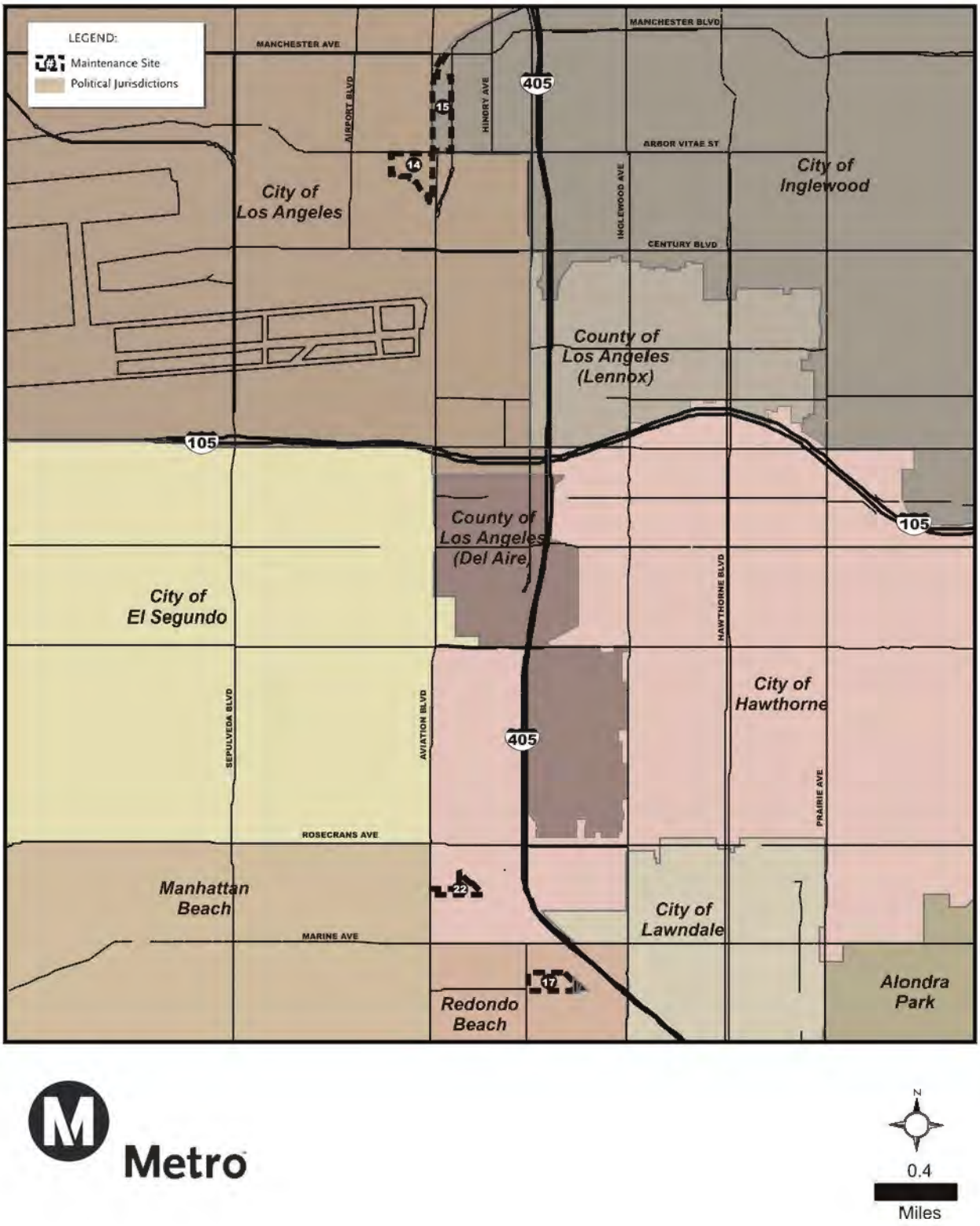
There are no sensitive land uses currently on the maintenance site alternative. Sensitive land uses located within 0.25 miles of the preferred maintenance site alternative are shown in Table 5-4. Sensitive land uses generally include residences, schools, churches, and parks. The populations that are most sensitive to land use effects include the elderly and children.

Table 5-4. Sensitive Land Uses Within 0.25 Miles of the Preferred Maintenance Site Alternative

Name	Location	Proximity to Site (feet)
Site #14 – Arbor Vitae/Bellanca Alternative		
Single- and Multi-family Residential Uses in Manchester Square		230
Single- and Multi-family Residential Uses in Westchester		280
Single- and Multi-family Residential Uses in Airport Noise Abatement Zone		320
Bright Star Secondary Charter Academy	5431 W 98th St, Los Angeles	600
Animo Leadership Charter High School	1155 W Arbor Vitae St, Inglewood	750
Crimson Technical College	9015 Aviation Blvd, Inglewood	925

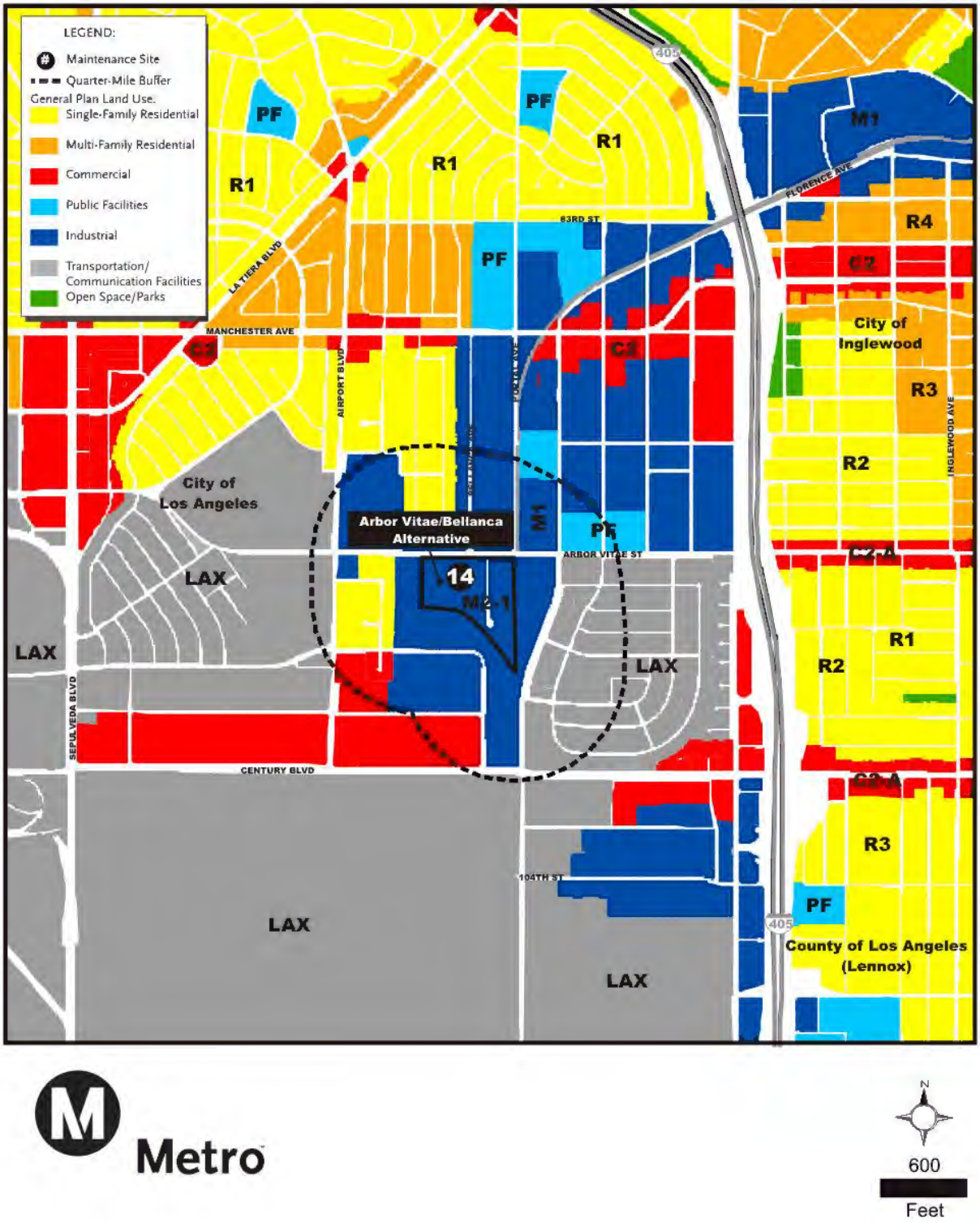
Source: TAHA, 2010

Figure 5-2. Local Jurisdictions



Source: Terry A. Hayes Associates LLC (TAHA) 2010.

Figure 5-3. Existing Land Uses and Zoning



Source: SCAG, 2010.

5.2.2 Environmental Impacts/Environmental Consequences

5.2.2.1 Direct Impacts

The selection and operation of a maintenance facility site is not likely to generate new regional growth, nor is it likely to significantly change land use and development patterns at a regional scale because it would be located near similar land uses and would not alter the composition of existing land uses. No substantial physical change to the regional environment would occur with the development of a maintenance facility. Therefore, no adverse effects associated with regional land use are anticipated.

Division of an Established Community

The preferred maintenance facility site alternative is located within an industrial area and does not contain residences or other uses that are characteristic of a community (neighborhood retail, etc.). The planned development of a maintenance facility would not alter or divide any existing communities. The nearest residential uses are located across Aviation Boulevard, an existing physical barrier, in an area designated as part of the airport noise abatement zone. This site would be compatible with surrounding land uses and would not restrict pedestrian and vehicular access. Surrounding residential communities would not be disrupted during operation at the preferred maintenance site alternative. Therefore, no adverse effects to the division of an established community are anticipated for the preferred maintenance facility site alternative.

Applicable Land Use Policies

Regional plans general plans, community plans, and specific land use policies for the preferred maintenance site alternative are described in Appendix F, Regulatory Framework and CEQA Thresholds. The preferred maintenance site alternative is located adjacent to a transit corridor with compatible land uses that minimize the cost of access. The preferred maintenance site alternative is part of the infrastructure for an improvement to the regional transportation system and supports regional growth policies.

SCAG Regional Transportation Plan and Regional Comprehensive Plan. The preferred maintenance site alternative is part of the infrastructure for an improvement to the regional transportation system and supports Southern California Association of Governments' (SCAG) regional growth policies. The maintenance site alternative is located adjacent to a transit corridor with compatible land uses that minimize the cost of access. This maintenance site alternative also supports the light rail system, which promotes increased development near mass transit, thus, reducing adverse environmental effects normally associated with growth. The maintenance site alternative is part of the planned regional transportation system, which contains provisions to ensure safety in design and operation. The preferred maintenance site alternative is consistent with the Cities of Los Angeles, Inglewood, and Los Angeles World Airports (LAWA) plans which support infill development. The proposed alternative is consistent with the policies and goals of the Regional Transportation Plan (RTP) and Regional Comprehensive Plan (RCP) that focus on the need to coordinate land use and transportation decisions to manage travel demand within the region.

City of Los Angeles General Plan. Development of an LRT maintenance facility on the preferred maintenance site alternative site would be consistent with the City of Los Angeles Framework Element transportation policies which seek to develop maintenance facilities that maximize transit service to activity centers. A maintenance facility at this site would improve transit linkages along Crenshaw Boulevard and establish a southern connection to the Metro Green Line, thereby facilitating regional access from activity centers to LAX. A maintenance facility at this site also would be consistent with the City's land use element policy of developing a public transit system that improves mobility with convenient alternatives to automobile travel, as it would support the Crenshaw/LAX Transit Corridor Project.

City of Inglewood General Plan. The preferred maintenance site alternative would enhance the transportation system of the community, by providing vital light rail infrastructure, while providing stable employment in an area that has a significant amount of unoccupied and/or underutilized land. As such, the preferred maintenance site alternative would be consistent with the City of Inglewood General Plan.

LAX Master Plan. The LAX Master Plan contains policies that seek to develop a connection point from the airport to the Metro Green Line and other mass transportation facilities, providing facilities that encourage transit ridership. The preferred maintenance site alternative is part of the Crenshaw/LAX Transit Corridor Project which would encourage transit ridership and support these policies.

Westchester-Playa Del Rey Community Plan. One of the goals of the Westchester-Playa Del Rey Community Plan is to provide sufficient land for limited and light industrial land uses, with employment opportunities that are safe for the environment and workers, with minimal adverse impacts on adjacent land uses. The preferred maintenance site alternative would provide the community with approximately 200 jobs that would be compatible with surrounding land uses. The preferred maintenance site alternative would be consistent with the Westchester-Playa Del Rey Community Plan.

The preferred maintenance site alternative is consistent with the plans and policies which support infill development. No adverse effects to consistency with land use policies would result under the preferred maintenance site alternative.

Adjacent or Surrounding Land Uses

Metro projects are not required to adhere to local zoning ordinances. The preferred maintenance site alternative would be compatible with the existing industrial land uses. Therefore, no adverse effects related to land use designation would occur under. Although there are residential neighborhoods within 1/4-mile of the preferred maintenance facility site alternative, there is a buffer of industrial and/or commercial uses between the maintenance site alternative and residential neighborhoods. Therefore, no adverse effects related to land use compatibility would occur for the preferred maintenance site alternative.

5.2.2.2 Indirect Impacts

The preferred maintenance site alternative would occur on primarily industrial land and would not indirectly alter or change the future use of any of the sites or surrounding land uses. Therefore, no adverse indirect effects related to land use and development would result for the preferred maintenance site alternative.

5.2.3 Mitigation Measures

None required.

5.2.4 CEQA Determination

The preferred maintenance site alternative would be compatible with surrounding land uses and would not restrict pedestrian and vehicular access. Therefore, no significant impact would occur related to the physical division of an established community, under the preferred maintenance site alternative. The preferred maintenance site alternative would be consistent with the applicable plans and policies. The preferred maintenance site alternative would occur in an industrial area on primarily industrial zoned parcels. The operation of a maintenance facility would be compatible with the adjacent and surrounding land uses. Therefore, no significant impacts to land use and development would occur for the preferred maintenance site alternative.

The preferred maintenance site alternative would occur on primarily industrial land uses and would not indirectly alter or change the future use of the sites or surrounding land uses. Therefore, no adverse indirect effects related to land use and development would result for the preferred maintenance site alternative.

5.3 Displacement and Relocation of Existing Uses

This section addresses the potential for land acquisition and the displacement and relocation of existing uses. Land acquisition usually takes the form of either a partial or full parcel take. Land required for the facility site, off-site access connections and improvements, as well as spoil and staging areas are typically the basis for a take.

A partial take would occur if only a portion of the parcel was required to accommodate the project. This would occur if, for example, a portion of a property fronting the access to the site were required but would not affect the functional use of the property.

Easements are often required and constitute a partial take of property. Generally, they are required during construction for staging and access, called a temporary construction easement (TCE); or underground, for example in relocating utilities, called a permanent underground easement (PUE).

A full take could occur under two circumstances: (1) when the majority or pivotal piece of the property is required for the construction of the facilities, or (2) when a severe loss of access reduces the useful operation (e.g., driveway access or property parking that is eliminated or reduced due to construction) such that it affects the successful operation of the property or business).

5.3.1 Affected Environment/Existing Conditions

For purposes of the discussion of potential land acquisition impacts, the affected environment is limited to parcels encompassed by the boundaries of the preferred maintenance facility alternative site. Within the maintenance facility site boundaries, industrial properties are the predominant use, however there are instances of commercial use as discussed below.

5.3.2 Environmental Impacts/Environmental Consequences

The preferred maintenance site alternative would result in the full acquisition of 12 parcels. No partial takes, temporary construction easements, or permanent underground easements would be required for the preferred maintenance site alternative. Two of the twelve parcels are occupied by rental car uses, two are occupied by industrial uses, and eight are occupied by parking lots.

5.3.2.1 Direct Impacts

Table 5-5 and Figure 5-4 show the acquisitions required to accommodate the physical maintenance facility buildings, access, and track for the Crenshaw/LAX Transit Corridor Project. Interviews with owners and tenants located on these sites revealed that many have long term leases, were seeking to sublet property, or had either completed recent improvements or had plans for investments to expand or improve the properties.

Table 5-5. Site #14 – Arbor Vitae/Bellanca Alternative: Parcels Potentially Displaced

Figure 5-4#	APN	Address	Owner	Tenant	Year Built	Parcel Size (Sq.ft.)	Total Size of Structures (Sq.ft).	Current Use
1	4125-020-001	5740 Arbor Vitae St	Weiner Investment Properties	Avis Rent A Car	1954	68,136	30,960	Industrial
2	4125-020-002	5730 Arbor Vitae St	Arbor Vitae Industrial Development	Avis Rent A Car	---	102,019	N/A	Parking Lot
3	4125-020-012	5630 Arbor Vitae St	9323 Bellanca Associates Lp	Barthco	1987	182,071	43,160	Commercial-Automotive
4	4125-020-016	9323 Bellanca Ave	Socal Partners I	Dollar Rent A Car	1958	82,320	36,157	Commercial-Office Building
5	4125-021-029	N/A	Blitzer,Nathan Co Tr Et Al Blitzer Family Trust And	None	N/A	10,512	N/A	Vacant
6	4125-020-015	N/A	9323 Bellanca Associates	None	N/A	8,308	N/A	Vacant
7	4125-020-005	5600 Arbor Vitae St	5600 Arbor Vitae LLC	Dollar Rent A Car	N/A	36,239	N/A	Parking Lot
8	4125-020-006	9320 Bellanca Ave	Nshe Lebanon LLC	Dollar Rent A Car	N/A	127,814	N/A	Parking Lot
9	4125-020-007	9400 Bellanca Ave	Nshe Lebanon LLC	Dollar Rent A Car	N/A	36,366	N/A	Parking Lot
10	4125-020-008	9430 Bellanca Ave	Nshe Lebanon LLC	Dollar Rent A Car	N/A	26,591	N/A	Parking Lot
11	4125-021-007	9432 Bellanca Ave	Weinstein,Tessie Tr Weinstein Trust	Gourmet Logistics CO	1969	70,095	33,120	Industrial
12	4125-021-023	N/A	Goeske,Freddy	None	N/A	11,971	N/A	Vacant
13	4125-021-028	N/A	Goeske, Freddy	None	N/A	<1	N/A	Vacant
Totals						**762,442**	**143,397**	

Source: Los Angeles County Assessor, 2010, Metro Real Estate, and TAHA, 2010.

Figure 5-4. Site #14 – Arbor Vitae/Bellanca Alternative Parcels Potentially Displaced

Source: Los Angeles County Assessor, 2010, Metro Real Estate, and TAHA, 2010.

A trading company on the site has a unique refrigeration system that would not be able to be relocated. There are two car rental facilities, one of which has acquired adjacent property for added capacity. Depending upon the update to the *LAX Master Plan*, the proposed consolidated rental car facility may be able to accommodate any displaced car rental facilities. The displacement of businesses within this site could result in loss of approximately 390 employees which would be an adverse effect without the implementation of mitigation measures.

5.3.2.2 Indirect Impacts

Indirect impacts are not applicable to displacement, as displacement is a physical and direct impact on a particular structure on a site. However, relocation of an existing use to another location can have indirect impacts to either the business or residence that is relocated and/or to the community in which the business or residence is relocated.

Indirect Relocation Impacts to the Displaced

Typically displacement is considered a direct environmental impact of a proposed project. The process dictates the property owners will be fairly compensated and tenants will be relocated to comparable facilities. In the case of the preferred maintenance site alternative, however, there are unique circumstances that may have indirect impact implications.

As discussed above, the preferred maintenance site alternative under consideration is in close proximity to LAX. Over the years, specific businesses have located around LAX, including rental car agencies, freight forwarders, warehousing, aircraft mechanics training, etc. A number of these airport related businesses are located on and considered as part of the maintenance site alternative. The success of many of these potentially affected businesses depends on their proximity to the airport. However, the airport vicinity is highly urbanized and developed. As a result, relocation sites with proximity to the airport are scarce. The displacement of businesses from the maintenance site could be disruptive to the airport business environment and create competitive pressures for land in the airport vicinity or land use change in immediately adjacent areas. These circumstances could suggest some role for Metro to facilitate replacement facilities and to coordinate with LAWA regarding its plan for facilities within its Master Plan, particularly the LAWA proposed consolidated rental car facility.

5.3.3 Mitigation Measures

S-DR1 Metro shall provide relocation assistance and compensation, per the Uniform Relocation Assistance and Real Property Acquisition Policies Act and the California Relocation Act, to those who are displaced or whose property is acquired as a result of a maintenance facility for the Crenshaw/LAX Transit Corridor Project.

S-DR2 Metro shall set up a business relocation process to oversee the relocation needs of the businesses that would be displaced as a result of a maintenance facility for the Crenshaw/LAX Transit Corridor. In addition, Metro shall attempt to minimize

disruption to overall production of businesses that are connected with airport activities by relocating in as close proximity to LAX as possible.

S-DR3 Metro shall work with LAWA to ensure that potential displacement and relocation of rental car businesses are compatible with the long term implementation of the LAX Master Plan consolidated rental car center.

Impacts Remaining After Mitigation

While adherence to the provisions of the Uniform Act and coordination with LAWA regarding the *LAX Master Plan* (Mitigation Measures **S-DR1**through **S-DR3**) may lessen acquisition and relocation impacts for the preferred maintenance site alternative. There is no certainty that all displaced businesses can be relocated in areas that ensure that there is no adverse effect on their competitive position. Nor is there certainty that the time frames for the Crenshaw/LAX Transit Project and implementation of the *LAX Master Plan* will be in sync to facilitate a seamless relocation of affected businesses in comparable facilities. With implementation of Mitigation **S-DR1** through **S-DR3**, potentially adverse impacts to displacement and relocation would remain for these businesses with the preferred maintenance facility site alternative.

5.3.4 CEQA Determination

According to CEQA, displacement and relocation impacts would be considered significant if the preferred maintenance site alternative would:

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and/or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The preferred maintenance site alternative would not result in the displacement of any housing or populations. No significant direct impacts to residential displacement are anticipated with this alternative. However, the displacement of businesses may result in the loss of 390 employees which could necessitate replacement housing if not relocated in the vicinity; and therefore a potential significant indirect impact would occur without the implementation of mitigation measures.

As discussed in the National Environmental Policy Act (NEPA) analysis, there is no certainty that all displaced businesses can be relocated in areas that ensure that there is no adverse effect on their competitive position. Therefore, the potential for indirect significant impacts from the displacement of businesses would remain after implementation of mitigation if they are relocated at a substantial distance from LAX.

5.4 Community and Neighborhood Impacts

5.4.1 Affected Environment/Existing Conditions

Figure 5-5 illustrates the existing neighborhoods and community facilities in the vicinity of the preferred maintenance site alternative.

5.4.2 Study Area Communities and Neighborhoods

City of Los Angeles. The largest residential area is the Westchester Community Planning Area located within the City of Los Angeles and approximately 0.2 miles northwest of the preferred maintenance facility site. Westchester has a population density consistent with a highly populated urban area and is comprised of mostly owner-occupied single-family homes, with some complexes and high rise apartment buildings. There are two schools located within the community of Westchester: Cowan Avenue Elementary and Orville Wright Middle School. The bulk of the housing as well as community facilities, parks, shopping areas are located north of Manchester Avenue. Community shopping areas are located at:

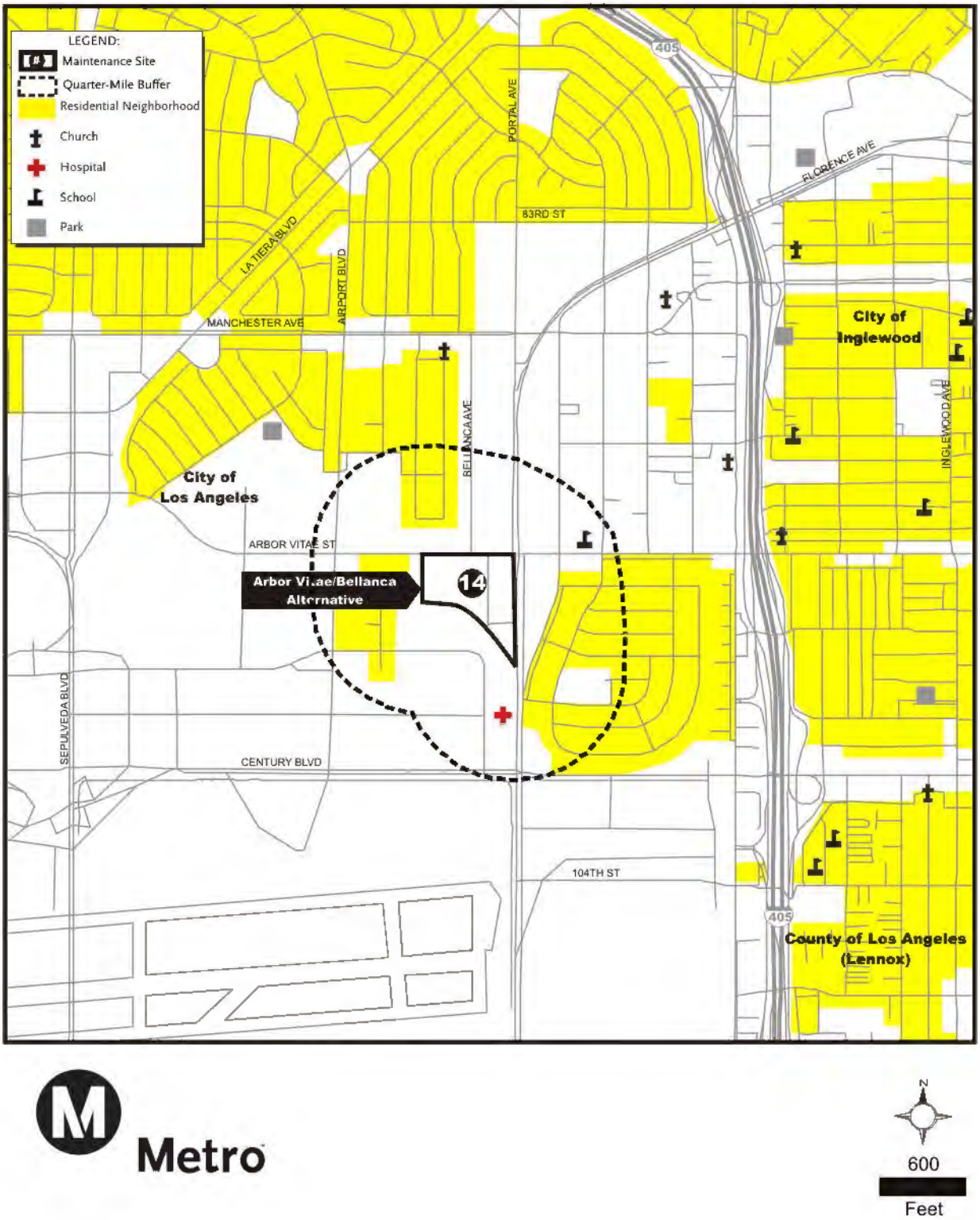
- Howard Hughes Center (Sepulveda Boulevard and Centinela Avenue)
- Sepulveda Boulevard between Manchester and Westchester Parkway
- Manchester Avenue between Airport Boulevard and Aviation Boulevard
- Lincoln Boulevard between Loyola Avenue and West 83rd Street

The residences of Westchester extend south of Manchester Avenue and represent the nearest residential areas to the maintenance site alternative. These southern-most single family neighborhoods are located in the area generally bounded by Reading Avenue on the east, Morely Street, Interceptor Street, Yorktown Avenue, Wiley Post Avenue, Westchester Parkway on the south, La Tijera Boulevard on the west and Manchester Avenue on the north (Figure 5-5). No schools serving the neighborhood are located south of Manchester Avenue. The primary community facility in the area is the Carl Nielson Youth Park located west of Airport Boulevard.

In addition, there is an isolated Westchester residential neighborhood located in the area bounded by Arbor Vitae on the north, La Cienega Boulevard on the east, Century Boulevard on the south and Aviation Boulevard on the west. This area is densely urban in population and is comprised of mostly renter- occupied complexes and apartments as well as small single-family homes. This neighborhood over the past ten plus years has been undergoing significant change due to land acquisition as part of the LAX land use compatibility and noise abatement program for over ten years. As part of this program, LAWA has been completing voluntary purchases of residences within the airport runway zone to eliminate the noise incompatibility that exists for residences within this zone.

Most of the neighborhood lies directly under the flight path to the LAX northern runway and falls within the loudest noise impact area for airport operations. Although Bright Star Secondary Charter Academy continues to operate in the neighborhood, about 75 percent of land in the neighborhood has been cleared of homes and apartments. As

Figure 5-5. Neighborhoods and Community Facilities



Source: TAHA, 2010.

discussed in the Land Use section of this report, this area is not part of the Westchester/Playa Del Rey Community Plan and is shown on the LAX Master Plan as an airport-related use.

City of Inglewood. The City of Inglewood has a population of over 112,000 residents and is made up of 28 constituent neighborhoods. As shown in Figure 5-5, there are no residential areas in the City of Inglewood that extend west of the I-405 Freeway. Thus, there are no neighborhoods within the City that are proximate to maintenance site alternative. As discussed in the Land Use section of this report, the City of Inglewood has designated the area west of the I-405 Freeway as the La Cienega Redevelopment Area and the primary emphasis in the area is airport-related industrial development.

County of Los Angeles. The Los Angeles County residential community of Lennox is located within a mile of the preferred maintenance site alternative, south of Century Boulevard and west of the I-405 Freeway. The Lennox neighborhood is dense in population and consists predominantly of small renter-occupied single-family homes mixed with complexes and apartments. The focal points of the neighborhood are Inglewood Avenue and Lennox Boulevard. The area is located east of the elevated the I-405 Freeway structure and has no direct physical connection to the project site.

5.4.2.1 Neighborhood Councils

The preferred maintenance site alternative is located within the Westchester-Playa del Rey Neighborhood Council (NC).

5.4.3 Environmental Impacts/Environmental Consequences

Table 5-6. Summary Comparison of Impacts to Communities and Neighborhoods

Impact Criteria	Site #14 – Arbor Vitae/Bellanca
Distance to Nearest Residential Area	0.05 miles
Adjacent to Community Facility	No
Affects access or Operation of a Community Facility	No
Pre-empts or Disrupts a Community Designated Land-Use	No

Source: TAHA, 2010

5.4.3.1 Direct Impacts

The preferred maintenance site alternative is located on industrial parcels and is not located within an established community where community cohesion could be disrupted. The site is located in an isolated area that does not represent a significant change from the existing uses. A maintenance facility would not result in changes to the existing population since it is located in a fully developed area and does not include any housing. Therefore, no adverse effects to communities and neighborhoods are anticipated to result from the preferred maintenance site alternative.

5.4.3.2 Indirect Impacts

The land required for the maintenance facility would replace existing industrial land and would not affect the surrounding neighborhoods. No indirect effects to communities and neighborhoods would result for the preferred maintenance site alternative.

5.4.4 Mitigation Measures

None required.

5.4.5 CEQA Determination

The preferred maintenance site alternative is located on industrial parcels adjacent to the Harbor Subdivision, an existing physical barrier. This site is not located within an established community or neighborhood and would not alter or divide the existing communities. The preferred maintenance facility site alternative would result in a less-than-significant impact to neighborhoods and communities.

The preferred maintenance facility site would not indirectly contribute to altering or dividing any existing communities. The site would not spur new growth in the surrounding residential neighborhoods. The preferred maintenance facility site alternative would result in a less-than-significant indirect impact to neighborhoods and communities.

5.5 Visual Quality

5.5.1 Affected Environment /Existing Conditions

5.5.1.1 Visual Character

Land uses along this portion of the Crenshaw/LAX LRT alignment include airport and industrial uses, with a few residential neighborhoods located primarily east of Aviation Boulevard and south of Manhattan Beach Boulevard. Views along Aviation Boulevard are primarily restricted to the roadway with the exception of north-facing views, which extend to the Santa Monica Mountains on clear days, and south-facing views, which include views of airplanes taking off and landing at LAX.

This 17.5-acre preferred maintenance site alternative is occupied by four large-scale industrial buildings, which include two car rental uses, a customs brokerage facility and a gourmet food distributor. There is a Neutrogena manufacturing facility located adjacent to the west and a primarily vacant area which is located in the airport noise abatement zone that extends west until Airport Boulevard. There are additional parking related uses, including Lot C, further west of the site. Car rental facilities, a post office, and a cosmetics facility are located to the north of the site.

Figure 5-6. View of Dollar Rent-A-Car in the northeast portion of the site

Figure 5-7. View of isolated residences west of Aviation Boulevard

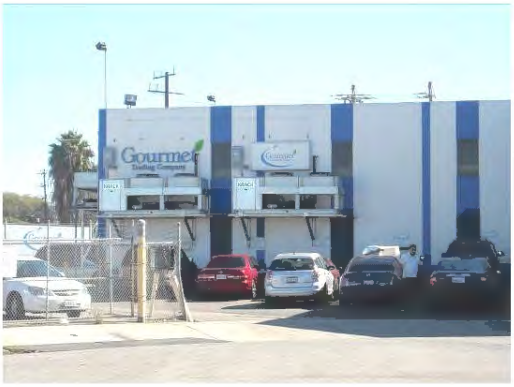


Figure 5-8. View of industrial food company in the southeast portion of the site

Figure 5-9. View of the Neutrogena Corporation located to east and south of the site

A large parking area and Manchester Square, a residential neighborhood that is also part of the airport noise abatement zone, are located to the east of the site. Additional large-scale industrial buildings are located to the west and south of the site, including additional Neutrogena cosmetic manufacturing facilities.

5.5.1.2 Aesthetic Resources

Figure 5-10 shows the surrounding aesthetic resources and their relationship to the maintenance site alternative. There are four visual resources within the project area; however, none of these resources are located within ¼-mile of the maintenance site.

5.5.2 Environmental Impacts / Environmental Consequences

Table 5-7. Summary of Impacts to Aesthetic Resources

Criteria	Impact
Incompatibility with existing visual character	No
Creates inconsistent scale and massing	No
Contrast in height and setback	No
Change in major street view or corridor	No
Affect views and vistas	No
Substantial new source of light, shadow, or glare	No
Adverse effect after mitigation	No

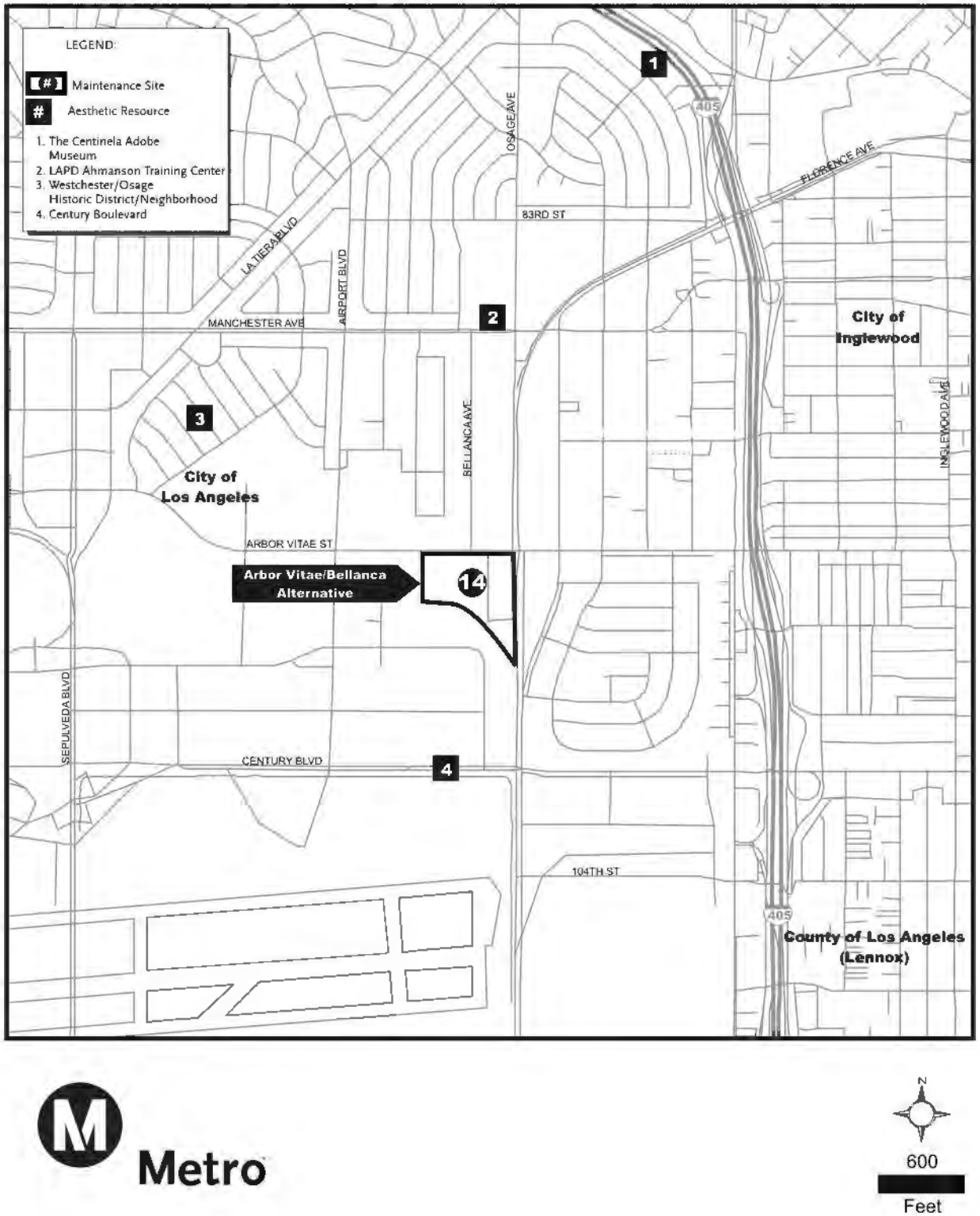
Source: TAHA, 2010.

5.5.2.1 Direct Impacts

The Crenshaw/LAX Transit Corridor Project would require a new maintenance facility that would store vehicles and serve as a service and maintenance location. A maintenance facility would generally represent the same or less intense use as the existing industrial uses. The site plan for the preferred maintenance site alternative locates the main service building in the middle of the site with ancillary facilities, such as security, parking areas, and storage buildings, on the periphery of the sites. The contrast in scale, massing and open space would be consistent with the existing buildings and open space surrounding the preferred maintenance site alternative. There are no scenic resources, including, but not limited to historic buildings or designated scenic highways, that are near the preferred maintenance site alternative. No particularly unique visual elements, landforms, or topographic features exist on or immediately surrounding the preferred maintenance site alternative.

The project would include security lighting for all buildings and facilities. Additional ornamental lighting may also be installed to accent buildings. Lighting fixtures would typically be mounted on low scale poles or on the facades of buildings. It is expected that this lighting (which typically is at the level of 1 to 2 foot-candles) would not spillover outside the site boundaries nor would it create glare that could adversely affect any adjacent residences. The maintenance facility buildings would be up to two stories or an estimated 35 feet in height. The longest shadows cast by a 35-foot building would occur during the Winter Solstice at 9:00 a.m. and 3:00 p.m. This shadow length would not affect residences near any of the four sites.

Figure 5-10. Aesthetic Resources



Source: TAHA, 2010.

Utility poles exist along all the arterials adjacent to the preferred maintenance site alternative. Overhead wires would be present as part of the maintenance facility; they would generally be consistent with the surrounding utility poles and transmission lines. Development of a maintenance facility at the preferred maintenance site alternative would not have a negative effect on the visual environment as it would fit within the context of the existing uses, would not obstruct views or vistas, or any of the aesthetic resources shown in Figure 5-10. The preferred maintenance site alternative would result in no adverse effects to visual resources.

5.5.2.2 Indirect Impacts

The maintenance facility would occur in a generally industrial area and would not indirectly alter the character or development of land in the surrounding area. Therefore, no indirect visual impacts are anticipated to result for the preferred maintenance site alternative.

5.5.3 Mitigation Measures

None required.

5.5.4 CEQA Determination

Visual impacts from a maintenance facility would be as described in the NEPA analysis. There are no scenic resources located on or in close proximity to the maintenance site that would be affected. The area on and surrounding the maintenance site facility is industrial in character and would not degrade the visual character or quality of the site or surrounding area. Therefore, no significant visual impacts would occur to the visual environment and/or resources from the preferred maintenance site alternative.

5.6 Air Quality

This section examines the affected environment related to air quality. A complete discussion of criteria air pollutants with established federal and State standards, relevant regulatory framework is provided in Appendix F.

5.6.1 Affected Environment/ Existing Conditions

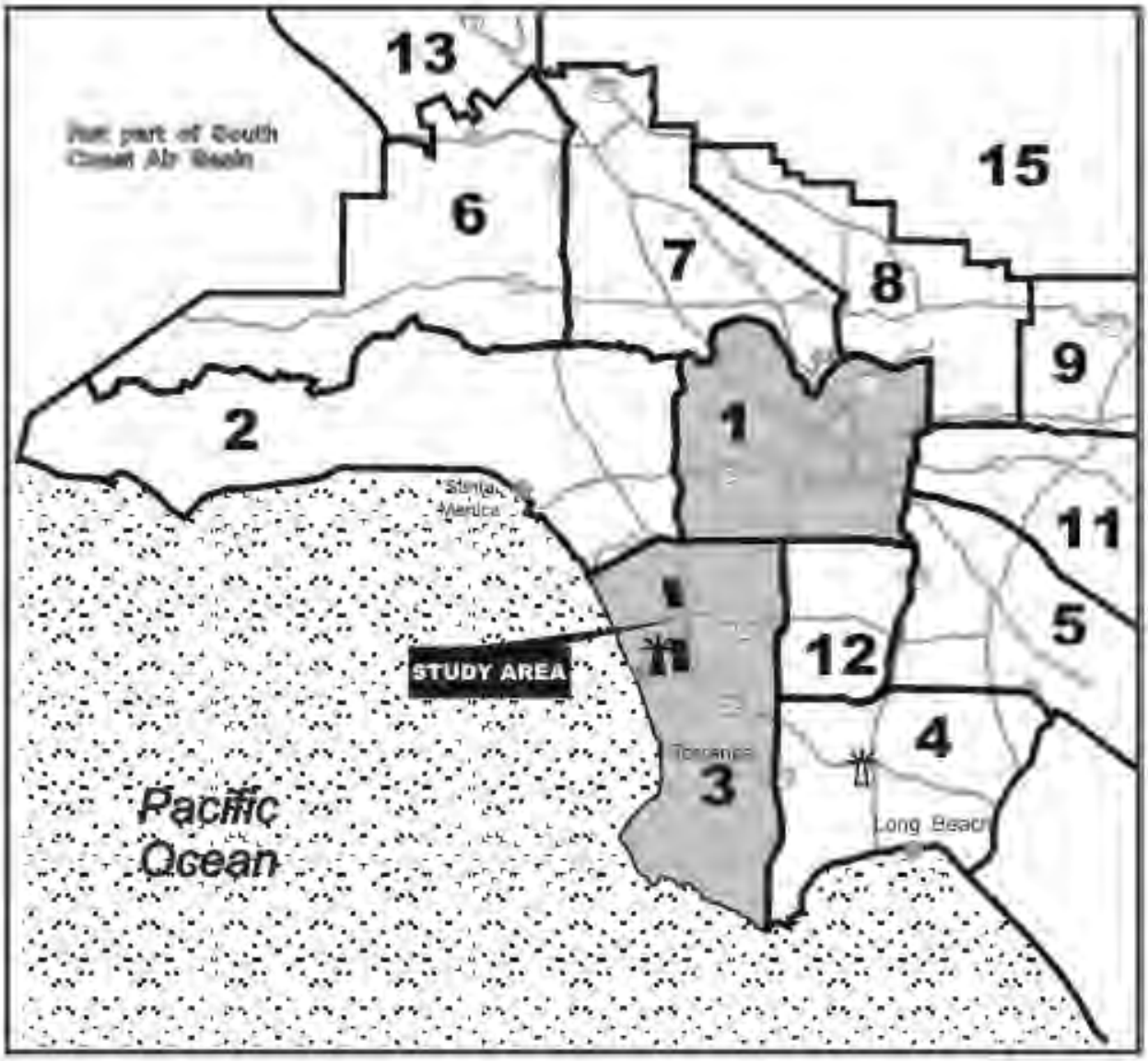
The preferred maintenance site alternative is located within the Los Angeles County portion of the South Coast Air Basin (SCAB). Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising SCAB. SCAB is an area of high air pollution potential due to its climate and topography. SCAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. In addition, the mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region. The region experiences frequent temperature inversions. Under inversion conditions, temperature increases as altitude increases and prevents air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and lower layer of the atmosphere, which creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward.

In addition, hydrocarbons and nitrogen dioxide (NO_2) react under strong sunlight creating pollution, commonly referred to as "smog." Light, daytime winds predominantly from the west further aggravate the condition by driving the air pollutants inland toward the mountains.

During the fall and winter, air quality problems are created due to carbon monoxide (CO) and NO_2 emissions. High NO_2 levels usually occur during autumn or winter on days with summer-like conditions. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SCAB are associated with heavy traffic.

The South Coast Air Quality Management District (SCAQMD) monitors air quality conditions at 38 locations throughout SCAB. The preferred maintenance site alternative is located within the Southwest Coastal Source Receptor Area, which is served by the LAX-Hastings Monitoring Station located at 7201 West Westchester Parkway in the City of Los Angeles (Figure 5-11). Historical data from the LAX-Hastings Monitoring Station were used to characterize existing conditions. Criteria pollutants monitored at the LAX-Hastings Monitoring Station include ozone (O_3), CO, particulate matter ten microns or less in diameter (PM_{10}), sulfur dioxide (SO_2), and nitrogen dioxide (NO_2). The next most representative monitoring station for $PM_{2.5}$ is the Long Beach Monitoring Station. A summary of the data recorded at these stations is presented in Table 5-8. SCAQMD-approved 2009 data was not available when this analysis was completed.

Figure 5-11. Air Monitoring Areas



LEGEND:

■ Maintenance Sites

LAX Hastings Monitoring Station Long Beach Monitoring Station

Air Monitoring Areas in Los Angeles County

1. Central Los Angeles
2. Northwest Coastal
3. Southwest Coastal
4. South Coastal
5. Southeast Los Angeles County
6. West San Fernando Valley
7. East San Fernando Valley
8. West San Gabriel Valley
9. East San Gabriel Valley
10. Pomona/Walnut Valley (not shown)
11. South San Gabriel Valley
12. South Central Los Angeles
13. Santa Clarita Valley
15. San Gabriel Mountains

SOURCE: South Coast Air Quality Management District Air Monitoring Areas Map, 1998

Table 5-8. 2006 to 2008 Ambient Air Quality Data

Air Pollutant	Federal Standard	2006	2007	2008
Carbon Monoxide (CO)	Maximum 1-hr concentration (ppm)	3	3	4
	Maximum 8-hr concentration (ppm)	2.3	2.4	2.5
	Days > 35 ppm (1-hr standard)	0	0	0
	Days > 9 ppm (8-hr standard)	0	0	0
Ozone (O_3)	Maximum 8-hr Concentration (ppm)	0.066	0.074	0.075
	Days > 0.075 ppm (8-hr standard)	0	0	0
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean (ppm)	0.016	0.014	0.014
	Maximum 24-hr Concentration (ppm)	0.05	0.08	0.09
	Exceed Annual Standard (0.053 ppm)	No	No	No
	Days > 0.100 ppm (1-hr standard)	0	0	0
Sulfur Dioxide (SO_2)	Maximum 24-hr Concentration (ppm)	0.01	0.01	0.01
	Days > 0.14 ppm (24-hr standard)	0	0	0
Suspended Particulate (PM_{10})	Maximum 24-hr Concentration ($\mu g/m^3$)	45	96	50
	Days > 150 $\mu g/m^3$ (24-hr standard)	0	2	0
Suspended Particulate ($PM_{2.5}$)	Annual Arithmetic Mean ($\mu g/m^3$)	14.5	14.6	14.2
	Maximum 24-hr Concentration ($\mu g/m^3$)	54	83	57
	Exceed Annual Standard (15 $\mu g/m^3$)	No	No	No
	Days > 35 $\mu g/m^3$ (24-hr standard)	6	12	8

ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter
Source: SCAQMD, http://www.aqmd.gov/smog/historicaldata.htm, 2010.

5.6.2 Environmental Impacts/Environmental Consequences

Table 5-9. Summary Comparison of Impacts to Air Quality

Criteria	Impact
Produce Localized CO Concentrations exceeding Federal Standards	No
Produce Substantial Amounts of Toxic Air Contaminants	No
Result in Adverse Odors	No
Adversely Affect Global Climate Change	No
Inconsistent with CAAA Regional Conformity Guidance	No
Inconsistent with CAAA Project-level Conformity Guidance	No

Source: TAHA, 2010.

5.6.2.1 Localized Operational Concentrations

Direct Impacts

The operation of a maintenance facility would not be a substantial source of on-site criteria pollutant emissions. Off-site criteria pollutant emissions would result from truck trips and employee commute trips. Substantial particulate matter emissions would be generated by truck trips and not employee trips. Operation of the maintenance facility would result in approximately seven truck trips per day. Seven trips would not generate enough emissions to adversely affect localized particulate matter concentrations.

None of the analyzed intersections under each alternative would exceed the SCAQMD screening thresholds for CO concentrations. In addition, the project is listed in a conforming Regional Transportation Plan. A detailed localized CO analysis is not necessary. Localized CO concentrations would not exceed federal standards. Therefore, the operation of the maintenance facility would not result in an adverse impact related to localized CO concentrations for the preferred maintenance site alternative.

Indirect Impacts

No indirect impacts related to localized concentrations are anticipated to result from the operation of the maintenance facility.

5.6.2.2 Toxic Air Contaminants

Direct Impacts

The greatest source of transit-related toxic air contaminant emissions is diesel vehicles. The maintenance facility would service electrically powered LRT vehicles and would result in approximately seven truck trips per day. Therefore, the proposed project would not generate substantial particulate matter or mobile source air toxic emissions. Therefore, operation of the maintenance facility would not result in an adverse impact related to toxic air contaminants for the preferred site alternative.

Indirect Impacts

No indirect impacts related to toxic air contaminants are anticipated to result from the operation of the maintenance facility.

5.6.2.3 Odors

Direct Impacts

The project would not include any land use or activity that typically generates adverse odors. Therefore, the operation of the maintenance facility would not result in an adverse impact related to odors.

Indirect Impacts

No indirect impacts related to odors are anticipated to result from the operation of the maintenance facility.

5.6.2.4 Global Warming and Greenhouse Gases

Direct Impacts

Greenhouse Gas (GHG) emissions were estimated for construction and operational activity. Construction activity would generate 1,754 metric tons per year of GHG emissions for up to two years. Operational activity would generate a maximum of 4,529 metric tons per year of GHG emissions, including 2,755 metric tons per year from electricity use. The SCAQMD recommends that construction emissions be annualized over a 30-year project lifetime to estimate total project emissions. Therefore, the maintenance facility would generate a maximum of 4,587 metric tons per year of GHG emissions. The 4,587 metric tons per year of GHG emissions generated by the

maintenance facility would not exceed the 10,000 metric tons per year threshold.[1] Therefore, the preferred maintenance site alternative would not result in an adverse impact related to GHG emissions.

Indirect Impacts

No indirect impacts related to GHG emissions and climate change are anticipated to result from the preferred maintenance site alternative.

5.6.2.5 Transportation Conformity

The project is included in Metro's current Long Range Transportation Plan (LRTP) and in the SCAG's 2008 *Regional Transportation Plan* (RTP). The same design concept and scope that was used for the regional conformity analysis is not substantially changed. The project would be consistent with regional conformity guidance.

Project level conformity is demonstrated by showing that it will not cause localized exceedances of CO, $PM_{2.5}$, and/or PM_{10} standards. Based on the analysis contained in the Localized Operational Concentrations analysis, the preferred maintenance site alternative would not result in a CO hotspot associated with on-road vehicles (i.e., employee vehicles and truck trips). The maintenance facility would service electrically-powered light rail cars. These vehicles would not be a substantial source of particulate emissions. In addition, similar to the on-road analysis, employee vehicles and truck trips would not generate substantial localized emissions at the facility. The maintenance facility would not result in a PM_{10} or $PM_{2.5}$ hotspot. The operation of the maintenance facility would be consistent with project-level conformity guidance.

5.6.3 Mitigation Measures

Impacts associated with operational air quality would not be adverse. No mitigation measures are required.

5.6.4 CEQA Determination

The above analysis demonstrated compliance with NEPA. The following analysis demonstrates compliance with CEQA. The analysis is based on guidance provided by the SCAQMD.

5.6.4.1 Regional Emissions

The main source of regional pollutant emissions associated with the operation of the maintenance facility would be mobile sources. The preferred maintenance site alternative would generate a maximum of 442 employee trips and seven truck trips per day. It was assumed that the maintenance site alternative would operate three pieces of construction-type equipment simultaneously each day. As shown in Table 5-10, regional emissions would not exceed the SCAQMD significance thresholds.

[1]California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, January 2008.

Table 5-10. Regional Operational Emissions

	Pounds per Day				
	VOC (volatile organic compounds)	NO_x	CO	$PM_{2.5}$	PM_{10}
Regional Emissions	5	36	62	2	2
Significance Thresholds	55	55	550	55	150
Exceed Threshold?	No	No	No	No	No

Air quality calculations are provided in Appendix H of this report
Source: TAHA, 2010.

Therefore, the preferred maintenance site alternative would result in a less-than-significant impact related to regional emissions. No indirect impacts related to regional emissions are anticipated to result from the preferred maintenance site alternative.

5.6.4.2 Localized Carbon Monoxide Concentrations

According to the traffic study, all analyzed intersections under each alternative would operate at an acceptable level of service according to the SCAQMD screening guidance, and further analysis is not necessary. Therefore, the preferred maintenance site alternative would result in a less-than-significant impact related to localized CO concentrations.

No indirect impacts related to localized CO concentrations are anticipated to result from the maintenance site alternative.

5.6.4.3 Toxic Air Contaminants

The main source of toxic air contaminant (TAC) emissions would be a spray booth used for maintaining the rail cars. Similar to the Division 11 Blue Line Maintenance Facility, the preferred maintenance site alternative would be required by the SCAQMD to install an air pollution control system to reduce exhaust emissions. The control system would potentially include six blowers for venting grinding, sanding, and painting rooms and a baghouse for collecting dust. The air pollution control system would substantially reduce emissions. Therefore, the preferred maintenance site alternative would result in a less-than-significant impact related to TAC emissions.

No indirect impacts related to toxic air contaminants are anticipated to result from the maintenance site alternative.

5.6.4.4 Odors

The maintenance facility would not include any land use or activity. Therefore, preferred maintenance site alternative would result in a less-than-significant impact related to odors.

No indirect impacts related to odors are anticipated to result from the maintenance site alternative.

5.6.4.5 Air Quality Management Plan

The Crenshaw/LAX Transit Corridor Project would support a transit project designed to facilitate regional access. It would link unconnected areas of the Crenshaw/LAX Transit Corridor to the regional transportation system. This would increase transit ridership and result in reduced growth in vehicle miles of travel (VMT) along with associated criteria pollutant emissions. Therefore, the preferred maintenance site alternative would be consistent with the Air Quality Management Plan (AQMP).

No indirect impacts related to consistency with the AQMP are anticipated to result from the maintenance site alternative.

5.6.4.6 Global Warming and Greenhouse Gases

GHG emissions were estimated for construction and operational activity. Construction activity would generate 1,754 tons per year of GHG emissions.[2] Operational activity would generate 5,798 tons per of GHG emissions, including 2,755 tons from electricity use. The SCAQMD recommends that construction emissions be annualized over a 30-year project lifetime to estimate total project emissions. As shown in Table 5-11, the maintenance facility would generate 5,856 tons of GHG emissions.

Table 5-11. Estimated GHG Emissions

Source	Carbon Dioxide Equivalent (Tons per Year)
Construction /a/	58
Operations	5,798
Total	**5,856**
Significance Threshold	10,000
Exceed Threshold?	No

/a/ Total construction emissions amortized over 30 years.
Source: TAHA, 2010.

This conservative analysis did not account for the removal of existing land uses. Because many of these uses rely on their proximity to the airport, it is assumed these uses would most likely relocate within the same sub-region and would continue to generate GHG emissions. Based on the Metro standards and the above analysis, the impact of the preferred maintenance site alternative on the cumulative effect of global climate change is not cumulatively considerable and considered to be less than significant.

No indirect impacts related to GHG emissions and climate change are anticipated to result from maintenance site alternative.

[2]This number is averaged over a 30-year period to provide a yearly total 58 metric tons per year.

5.7 Noise and Vibration

This section examines the affected environment related to noise. The ambient noise conditions are defined, as well as potential impacts resulting from operations of the maintenance facility.

5.7.1 Affected Environment/Existing Conditions

5.7.1.1 General Noise Setting

The Federal Transit Administration (FTA) screening guidance is designed to identify locations where a project may cause a noise impact. If no sensitive land uses are present within a defined area of project influence, then no further assessment is necessary. The screening guidance for rail yards and shops requires analysis for land uses with an obstructed view of the project site and within 650 feet of the property line. The distance is 1,000 feet for land uses with an unobstructed view of the project site. Figure 5-12 shows the identified sensitive land uses. Table 5-12 shows the existing noise levels at identified sensitive land uses. The existing noise levels were characterized using a combination of short-term (15-minute) measurements and 24-hour noise levels obtained from the LAWA monitoring network. Short-term sound measurements were taken using a SoundPro DL Sound Level Meter on July 7, 2010 and October 28, 2010. The latest LAX noise contour map is shown in Figure 5-13 and was used to characterize existing 24-hour noise levels. The 24-hour data is published as Community Noise Equivalent Levels (CNEL). The CNEL and L_{dn} are similar, generally within 1 dBA of each other, and were assumed to be identical in this analysis.

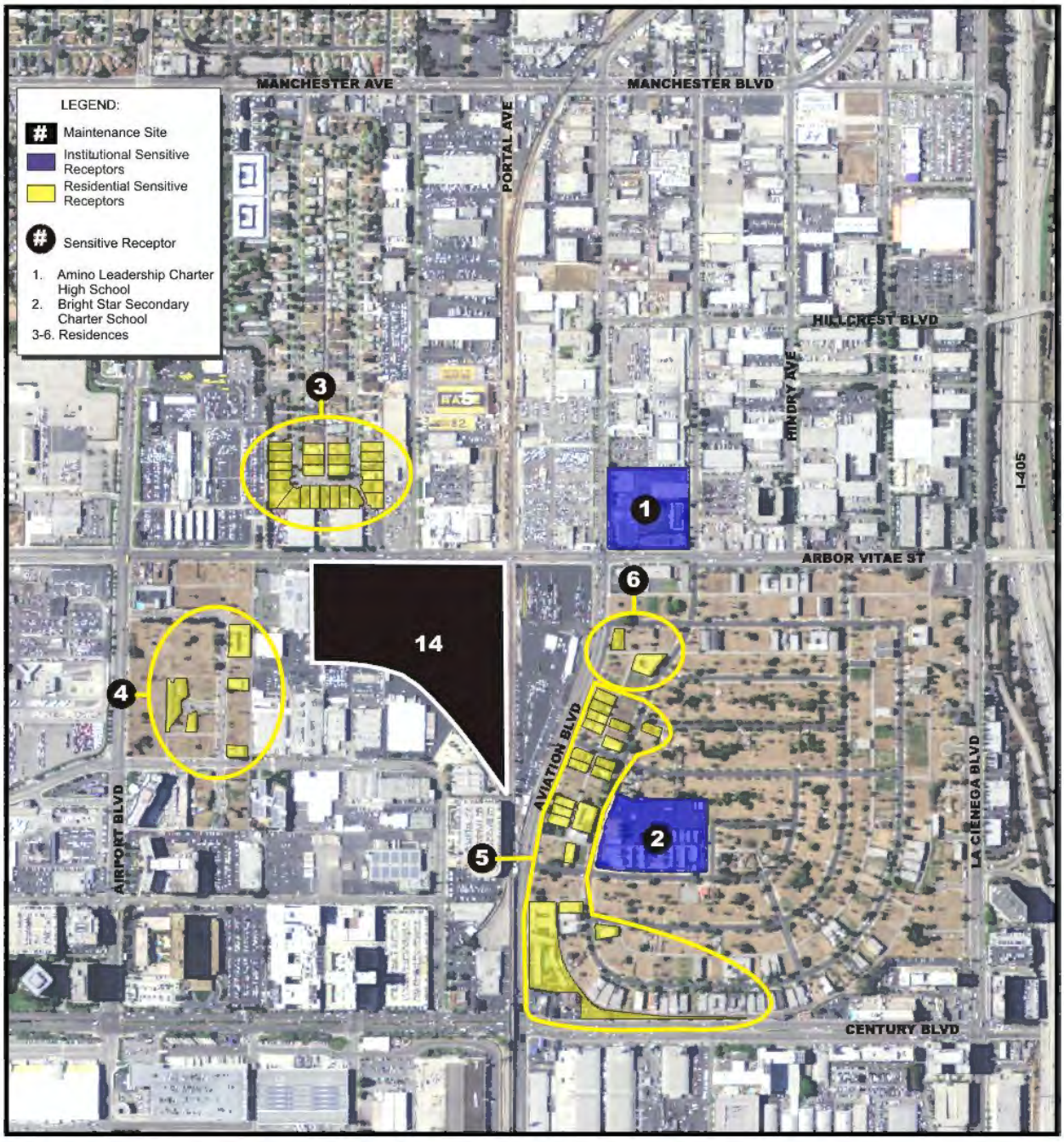
Table 5-12. Existing Noise Levels at Sensitive Receptors

Receptor ID	Receptor Description	Number of Buildings	FTA Land Use Category	Distance from Sensitive Receptor to Nearest Maintenance Facility Noise Source (Feet)	Existing Noise Level, L_{dn} or L_{eq}
Site #14 – Arbor Vitae/Bellanca Alternative					
Figure 5-12 ID No. 3	Residences North of Project Site	22	2	300 – 650 (obstructed view)	70[1]
Figure 5-12 ID No. 4	Residences West of Project Site	4	2	350 – 730 (unobstructed and obstructed views)	65[1]
Figure 5-12 ID No. 5	Residences East of Project Site	26	2	400 – 1,000 (unobstructed and obstructed views)	65[1]
Figure 5-12 ID No. 2	Bright Star Secondary Charter Academy	1	3	750 (unobstructed view)	55[2]
Figure 5-12 ID No. 1	Animo Leadership Charter High School	1	3	800 (unobstructed view)	69[1]

Source: TAHA, 2010.
Notes: [1]Based on LAX noise contour.
[2]Based on monitored noise level.

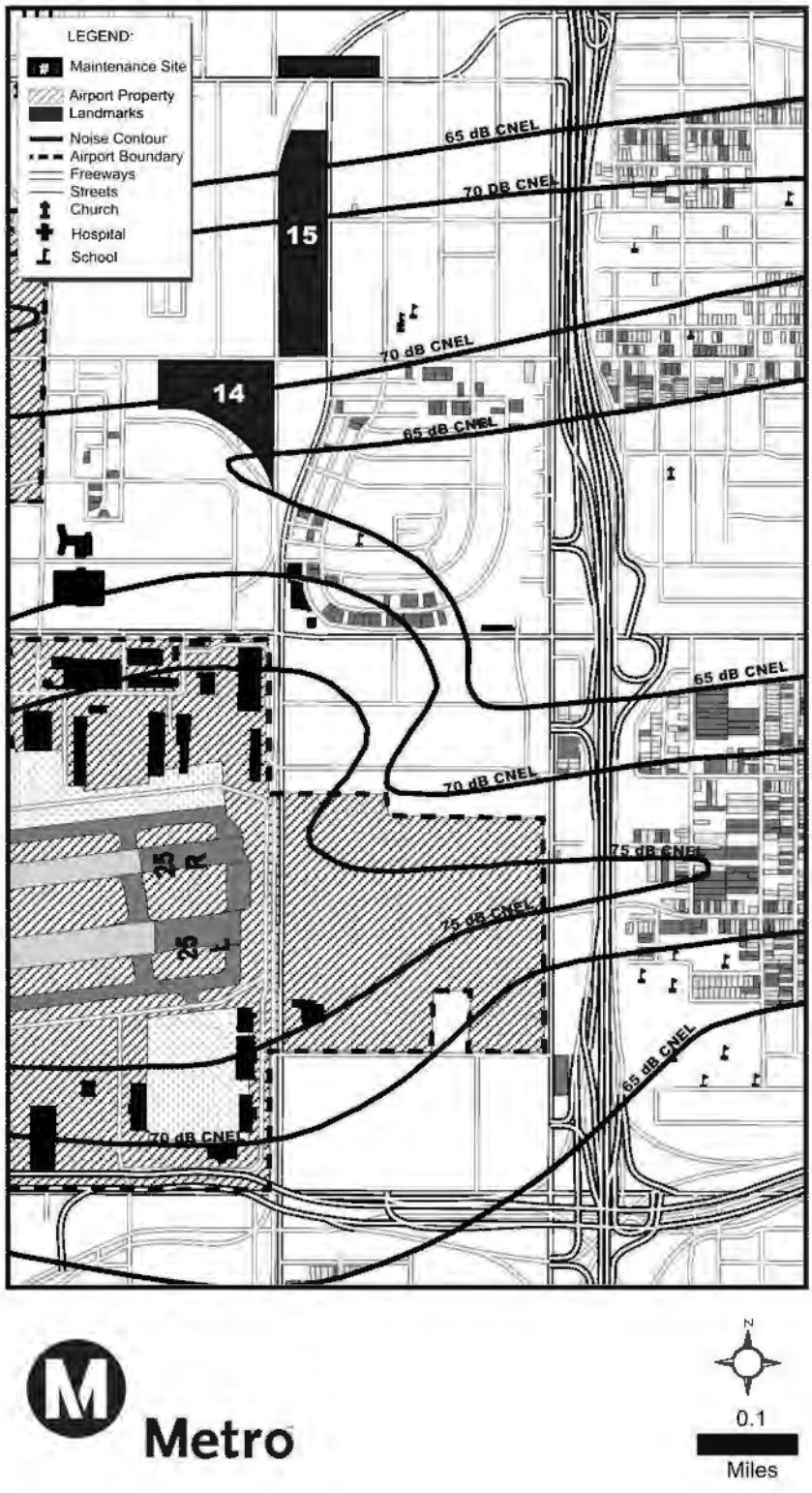
In addition, a 24-hour noise measurement was taken at the existing Division 22 Maintenance Facility on October 28, 2010. The 24-hour noise level was 61.1 dBA L_{dn} with a maximum 15-minute L_{eq} of 59 dBA.

Figure 5-12. Noise-Sensitive Receptors within 0.25 miles of the Preferred Maintenance Site Alternative



Source: TAHA 2010.

Figure 5-13. LAX Noise Contours



Source: LAWA, 2010.

5.7.1.2 General Vibration Setting

Ambient vibration levels were not measured as part of this study. FTA Vibration Impact Criteria were used to identify locations where potential impacts may occur based on existing land use activities.

The FTA screening guidance is designed to identify locations where a project may cause a vibration impact. The screening distances are 150 feet for Category 2 land uses such as residences and buildings where people sleep and 100 feet for Category 3 land use such as institutional land uses with primarily daytime and evening use. There are no Category 1 land uses near the project sites (e.g., recording studios).

5.7.2 Environmental Impacts/Environmental Consequences

Table 5-13. Summary of Impacts to Noise and Vibration

Criteria	Impact
Exceeds operational noise (NEPA) thresholds	No
Exceeds operational on-site noise (CEQA) thresholds	No
Exceeds operational on-road mobile noise (CEQA) thresholds	No
Exceeds operational vibration (CEQA and NEPA) thresholds	No

Source: TAHA, 2010.

5.7.2.1 Operational Noise

Direct Impacts

The majority of noise sources would be located within the maintenance and storage facility buildings. The main building would house the wheel truing machine, and the service and inspection area. Additional sources of noise include safety alarms for heavy equipment, such as hoists and cranes. The blow down/exterior cleaning building would house the car wash. The painting shop/body repair shop would house the paint compressors and the body repair work equipment. If openings are necessary, building shell and openings would be designed and oriented to control noise at nearby noise sensitive land uses. The remaining exterior noise sources at the maintenance and storage facility include outdoor inspections (e.g., train horn tests), special track work (e.g., noise generated from wheel contact with rail), and crossovers and switches.

Table 5-14 presents the operational noise levels associated with the preferred maintenance site alternative.

The noise levels presented below are based on the distance from the center of the work area to the sensitive receptors. The estimated noise levels were calculated from the monitored maintenance facility noise level of 61 dBA L_{dn} at 100 feet and maximum 15-minute L_{eq} of 59 dBA at 100 feet. As shown in Table 5-14, operational activity associated with all of the preferred maintenance site alternative would not substantially increase noise levels at the identified receptors. Therefore, no adverse effects related to operational noise would occur for the preferred maintenance site alternative.

Table 5-14. Noise Levels at Sensitive Receptors

Receptor ID[1]	Type of Building	Number of Buildings	FTA Land Use Category[2]	Distance from Center of Activity to Receptor (Feet)[3]	Existing Noise Level (dBA)	Noise Exposure With Project (dBA)[4]	FTA Level of Noise Impact
Site #14 – Arbor Vitae/Bellanca Alternative							
Figure 5-12 ID No. 3	Single-Family Residences	22	2	750	70	70	No Impact
Figure 5-12 ID No. 4	Single-and Multi-Family Residences	4	2	1,000	65	65	No Impact
Figure 5-12 ID No. 5	Single-and Multi-Family Residences	26	2	950	65	65	No Impact
Figure 5-12 ID No. 2	Bright Star Secondary Charter Academy	1	3	1,350	55	55	No Impact
Figure 5-12 ID No. 1	Animo Leadership Charter High School	1	3	1,250	69	69	No Impact

Source: TAHA, 2010.

Notes: [1]Refer to Figure 5-12 for receptor locations.

[2]Land Use Category 2 includes residences and buildings where people sleep. Land Use Category 3 includes institutional land uses with primarily daytime and evening use.

[3]The screening distances discussed earlier are based on the distance from the property line of the maintenance facility to the receptor. The analysis is based on the distance from the center of noise-generating activity to the receptor. Therefore, some of this distances presented in the table are outside of the screening distance but still analyzed in this detailed assessment.

[4]Project noise levels were based on the monitored maintenance facility noise level of 61 dBA L_{dn} or 59 dBA L_{eq}.

Indirect Impacts

No indirect impacts related to operational noise are anticipated to result from the selection of the maintenance facility for the Crenshaw/LAX Transit Corridor Project.

5.7.2.2 Operational Vibration

Direct Impacts

Light Rail movements would be the greatest source of operational vibration. Based on the FTA *Transit Noise and Vibration Impact Assessment* (May 2006), the vibration level was estimated to be 67.0 VdB at 40 feet. This assumed that trains would not travel faster than 20 miles per hour within the maintenance facility.

The screening analysis completed per FTA guidance did not identify receptors that require a detailed vibration analysis for the preferred maintenance facility alternative. No adverse impact related to operational vibration would result for the preferred maintenance site alternative.

No indirect impacts related to operational vibration are anticipated to result from the selection of the maintenance facility for the Crenshaw/LAX Transit Corridor Project.

5.7.3 Mitigation Measures

Impacts associated with operational noise would not be adverse. No mitigation measures are required.

5.7.4 CEQA Determination

5.7.4.1 Operational Noise – On-Site

On-site operational noise was calculated using the same methodology used for the NEPA analysis that was previously presented. The operational noise levels presented for the NEPA analysis also apply to this CEQA analysis. Operational noise associated with the preferred maintenance site alternative would not exceed the 3-dBA significance threshold. Therefore, the preferred maintenance site alternative would result in a less-than-significant impact related to operational noise.

No indirect impacts related to on-site operational noise are anticipated to result from the preferred maintenance site alternative.

5.7.4.2 Operational Noise – On-Road Mobile Source Noise

The preferred maintenance site alternative is estimated to generate a total of 21 trips during the morning peak hour (9 inbound/12 outbound) and 23 trips during the evening peak hours (13 inbound/10 outbound). A doubling of traffic volumes is typically required to increase noise levels by audible 3 dbA. The roadway network surrounding the project site supports hundreds to thousands of vehicles during the peak hour traffic periods. The estimated 21 a.m. and 23 p.m. peak hour trips would not double the traffic volumes along any of the studied roadway segments. On-road mobile source noise would result in a less-than-significant impact for the preferred maintenance site alternative.

No indirect impacts related to off-site operational noise are anticipated to result from the preferred maintenance site alternative.

5.7.4.3 Operational Vibration

Based on the FTA *Transit Noise and Vibration Impact Assessment* (May 2006), it was estimated that maintenance facility light rail activity would generate a vibration level of 67.0 VdB at 40 feet.

The nearest sensitive receptor would be 275 feet east of the maintenance facility site, and would experience a vibration level of 49.9 VdB. This would be less than the most stringent threshold of 65 VdB. Therefore, the preferred maintenance site alternative would result in a less-than-significant impact related to operational vibration.

No indirect impacts related to operational vibration are anticipated to result from the preferred maintenance site alternative.

5.8 Ecosystems/Biological Resources

5.8.1 Affected Environment/Existing Conditions

Table 5-15 presents rare wildlife and plant species and ecosystems (plant communities) listed on the California Natural Diversity Database (CNDDB) as having the potential to occur within the three 7.5-minute quadrants associated with the preferred maintenance site alternative. Sensitive animal and plant species and vegetation communities identified by the CNDDB as having the potential to occur within 0.25 miles of either side of the preferred maintenance site alternative are largely absent.[3] Due to their mobility, some sensitive bird species may utilize existing mature trees during migration, but would not be supported as residents within this urbanized setting. There are no wetland areas within 0.25 miles of either side of the preferred maintenance site alternative.

There are no significant ecological areas (SEA) located within 0.25 miles of either side of the preferred maintenance site alternative. There are no parks and open space areas within 0.25 miles of either side of the preferred maintenance site alternative. There are no designated or sensitive biological resources (identified in Table 5-15) located within 0.25 miles of the preferred maintenance site alternative.

East of Aviation Boulevard, between approximately Century Boulevard and Arbor Vitae Street, is an area known as Manchester Square. This area includes several parcels that LAWA has purchased over the years as part of a voluntary residential relocation program (in lieu of sound-proofing) associated with the operation of LAX. Although no buildings remain on these vacant parcels, which vary in size from one lot to multiple lots, they have grassy vegetation and trees. Although these lots could provide food and cover for urban wildlife, no vegetation exists that would support sensitive biological resources.

Table 5-15. Ecosystems and Special Status Wildlife and Plant Species within the Maintenance Site Alternative Biological Area

Common Name	Scientific Name	Status
Ecosystems (Vegetation Communities)		
Southern Dune Scrub	Southern Dune Scrub	None
Southern Coastal Salt Marsh	Southern Coastal Salt Marsh	None
Birds		
California Brown Pelican	Pelecanus Occidentalis Californicus	FE[1]/CE[2]
California Black Rail	Laterallus jamaicensis coturniculus	CE[2]
Western Snowy Plover	Charadrius AlexanDrinus Nivosus	FT[3]/SC[4]
California Least Tern	Sternula Antillarum Browni	FE[1]/CE[2]
Burrowing Owl	Athene Cunicularia	SC[4]
Southwestern Willow Flycatcher	Empidonax Traillii Extimus	CE
Coastal California Gnatcatcher	Polioptila Californica	FT[3]/SC[4]
Belding's Savannah Sparrow	Passerculus Sandwichensis Beldingi	CE[2]

[3]Based on field observations conducted between summer and fall of 2010.

Table 5-15. Ecosystems and Special Status Wildlife and Plant Species within the Maintenance Site Alternative Biological Area (continued)

Common Name	Scientific Name	Status
Mammals		
Western Mastiff Bat	Eumops Perotis Californicus	SC[4]
Pocketed Free-tailed Bat	Nyctinomops Femorosaccus	SC[4]
Southern California Saltmarsh Shrew	Sorex Ornatus Salicornicus	SC[4]
Pacific Pocket Mouse	Perognathus Longimembris Pacificus	FE[1]/SC[4]
South Coast Marsh Vole	Microtus Californicus Stephensi	SC[4]
American Badger	Taxidea Taxus	SC[4]
Reptiles		
Western Pond Turtle	Actinemys Marmorata	SC[4]
Coast (San Diego) Horned Lizard	Phrynosoma Coronatum (Blainvillii Population)	SC[4]
Invertebrates		
Sandy Beach Tiger Beetle	Cicindela Hirticollis Gravida	None
Senile Tiger Beetle	Cicindela Senilis Frosti	None
Globose Dune Beetle	Coelus Globosus	None
Lange's El Segundo Dune Weevil	Onychobaris Langei	None
Dorothy's El Segundo Dune Weevil	Trigonoscuta Dorothea	None
Belkin's Dune Tabanid Fly	Brennania Belkini	None
Henne's Eucosman Moth	Eucosma Hennei	None
Busck's Gallmoth	Carolella Busckana	None
Wandering Skipper	Panoquina Errans	None
El Segundo Blue Butterfly	Euphilotes Battoides Allyni	FE[1]
Monarch Butterfly	Danaus Plexippus	None
Mimic Tryonia	Tryonia Imitator	None
Orcutt's Pincushion	Chaenactis Glabriuscula Var. Orcuttiana	SEC[6]
Southern Tarplant	Centromadia Parryi Ssp. Australis	SEC[6]
Coulter's Goldfields	Lasthenia Glabrata Ssp. Coulteri	SEC[6]
Beach Spectaclepod	Dithyrea Maritima	CT[5]/SEC[6]
Ventura Marsh Milk-Vetch	Astragalus Pycnostachyus Var. Lanosissimus	FE[1]/CE[2]/SEC[6]
Coastal Dunes Milk-Vetch	Astragalus Tener Var. Titi	FE[1]/CE[2]/SEC[6]
Brand's Star Phacelia	Phacelia Stellaris	FC[7]/SEC[6]
San Fernando Valley Spineflower	Chorizanthe Parryi Var. Fernandina	FC[7]/CE[2]/SEC[6]
Prostrate Navarretia	Navarretia Prostrata	SEC[6]
Navarretia fossalis	Moran's Nosegay	FT[3]
California Orcutt Grass	Orcuttia Californica	FE[1]/CE[2]/SEC[6]
Ballona Cinquefoil	Potentilla Multijuga	PEC[8]

Source: California Natural Diversity Database, April 26, 2010
[1]FE - Federally Endangered (U.S. Fish and Wildlife Service).
[2]CE - California Endangered (California Department of Fish and Game).
[3]FT - Federally Threatened (U.S. Fish and Wildlife Service).
[4]SC - Species of Concern in California (California Department of Fish and Game).
[5]CT - California Threatened (California Department of Fish and Game).
[6]SEC - Seriously Endangered in California (California Native Plant Society).
[7]FC - Candidate for Federal Listing (U.S. Fish and Wildlife Service).
[8]PEC - Presumed Extinct in California (California Native Plant Society).

5.8.2 Environmental Impacts/Environmental Consequences

Table 5-16. Summary of Impacts to Ecosystems and Biological Resources

Criteria	Impact
Contains or adjacent to an SEA	No
Jurisdictional wetland	No
Forested	No
Vacant or undeveloped with vegetation	No
Contains endangered or Sensitive Species	No
Adverse effect after mitigation	No

Source: TAHA, 2010.

5.8.2.1 Direct Impacts

The preferred maintenance site alternative is located in an industrial area that does not contain wetlands, rivers, coastal zones, native and non-native shrubs, grasses, mature trees. No removal or disturbance of native shrubs, grasses, or mature trees would be required. In addition, operation of the facility would be constructed within a developed site located in an urbanized area. The maintenance facility is located on a developed site with an impervious surface that does not contain open fields, vacant land, or areas suitable for habitats of species of concern identified previously. Because the site is fully developed and does not contain areas that would serve as suitable habitats for threatened or endangered species, the possibility of the preferred maintenance site alternative affecting significant biological resources is remote and highly unlikely. Therefore, the preferred maintenance site alternative would not result in adverse effects to biological resources.

5.8.2.2 Indirect Impacts

Any indirect effect would occur from the overall loss of habitat or creation of a deterrent to the movement or existence of a sensitive species. The site is fully developed and would not result in the removal of areas that would serve as suitable habitats for threatened or endangered species. The preferred maintenance site alternative would not result in the creation of any new barriers or deter the movement or existence of species compared to the development that currently exist. Therefore, no indirect impacts to ecological or biological resources are anticipated to result from the selection of the preferred maintenance site alternative.

5.8.3 Mitigation Measures

None required.

5.8.4 CEQA Determination

There are no wildlife corridors or wetlands that exist within the preferred maintenance site alternative. However, because species of concern have the potential to occur within 0.25

miles of the preferred maintenance site alternative, potential impacts to these biological resources were evaluated for the preferred maintenance site alternative.

The preferred maintenance site alternative would be within a fully developed site in an urbanized area and is not anticipated to have a significant impact on biological resources.

No indirect impacts to ecological or biological resources are anticipated to result for the preferred maintenance site alternative.

5.9 Geotechnical/Subsurface/Seismic/Hazardous Materials

5.9.1 Affected Environment/Existing Conditions

5.9.1.1 Regional Setting

The study area has an elevation of approximately 100 feet above mean sea level (amsl). A review of the Hollywood and Inglewood, California 7.5 Minute Quadrangle Topographic Maps indicates that local surface-water sheet flow is generally toward the south-southeast along the portion of the alignment north of Florence Avenue. South of Florence Avenue, sheet flow is generally toward the south, as indicated on the Venice, California 7.5 Minute Quadrangle Topographic Map (U.S. Geological Survey [USGS], 1964).

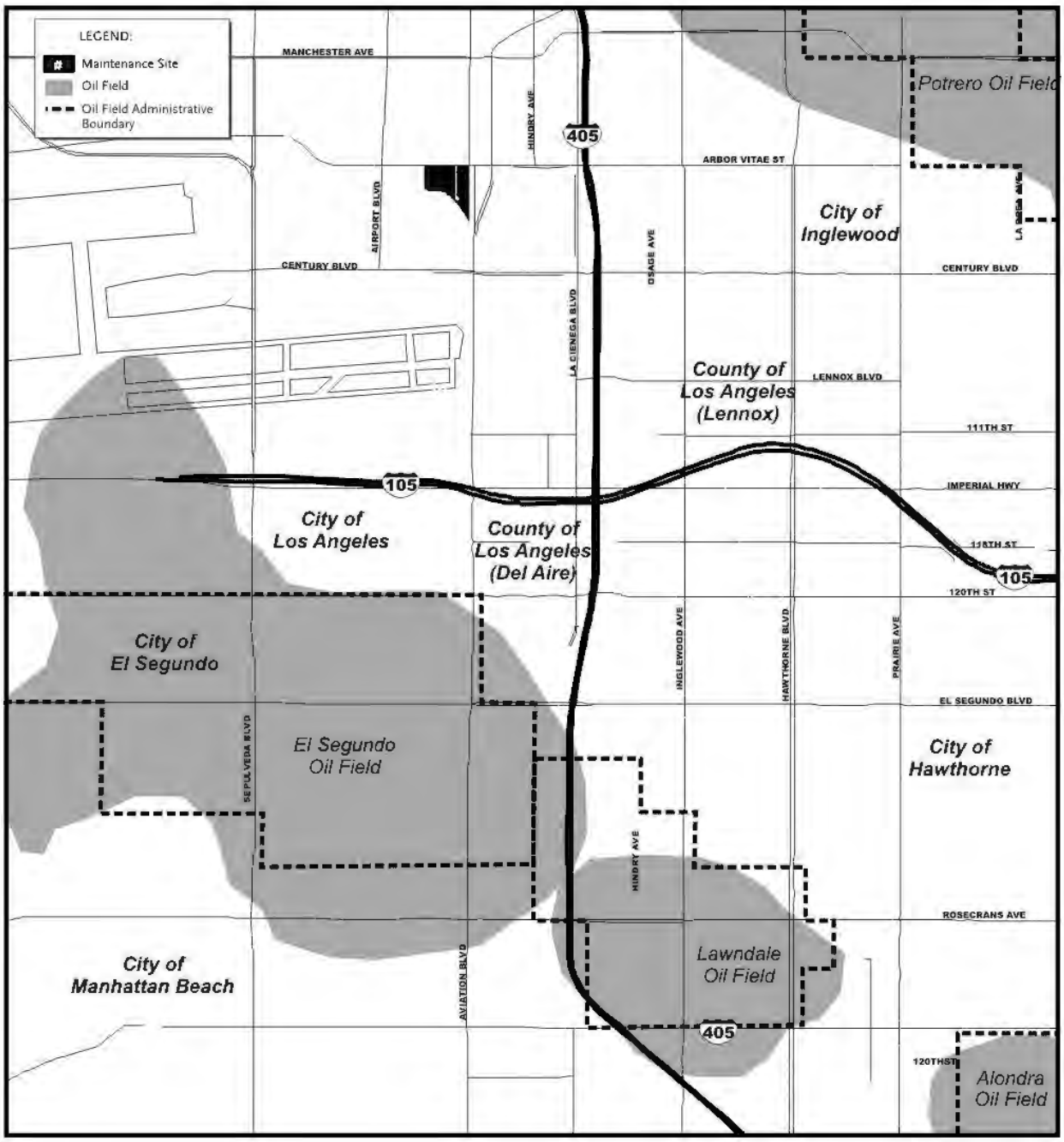
5.9.1.2 Geology

The preferred maintenance site alternative is within the Los Angeles Basin. The Los Angeles Basin, a structural trough, is a northwest-trending, alluvium lowland plain that is approximately 50 miles long and 20 miles wide. Mountains and hills that generally expose Late Cretaceous to Late Pleistocene-age sedimentary and igneous rocks bound the basin along the north, northeast, east, and southeast. The Los Angeles Basin is part of the Peninsular Ranges geomorphic province of California, which is characterized primarily by four sub-parallel structural blocks: the Northeastern, Northwestern, Southwestern, and Central Blocks, and is sliced longitudinally by young, steeply dipping northwest-trending fault zones. The Los Angeles Basin, located at the northerly terminus of the Peninsular Ranges, is the site of active sedimentation and the strata is interpreted to be as much as 31,000 feet thick in the center of the synclinal trough of the Central Block of the Los Angeles Basin. The preferred maintenance site alternative is located within the southern portion of the Central Block of the Los Angeles Basin. The geologic materials in the area of the preferred maintenance site alternative generally consists of artificial fill derived from local geologic units, pre-development landslides, and colluvium and alluvium overlying mainly unconsolidated bedded sand, gravel, clay, and silt. Floodplain deposits bordering the west sides of the Baldwin Hills were mostly deposited by the ancestral Los Angeles river system and its recent descendant, Ballona Creek, and generally consist of alluvium comprised of varying proportions of gravel, sand, silt, and clay. The area immediately west of the Baldwin Hills, overlain by floodplain deposits, was named the Ballona Plain by Tieje (1926), who described deposits of peat, clayey sand, and boulder gravel overlying tilted Pleistocene beds. The peat is a component of marshy areas observed in older aerial photographs and maps, including early soil maps of the area.

5.9.1.3 Subsurface Gases

The preferred maintenance site alternative is not located within an oil field. However, there are three oil fields in the surrounding area, La Cienega, El Segundo, and Inglewood. The Petrerol oil field (in Inglewood) is the closest oil field to the maintenance site alternative and is located approximately one mile to the northeast. Common problems associated with oil field properties include the release of methane and hydrogen sulfide soil gas, oil seepage, contaminated soils, leaking wells, and wells not plugged and abandoned to current standards. The location of the maintenance site alternative in relation to oil fields and the City of Los Angeles Methane and Methane Buffer Zones is presented in Figure 5-14, Oil Field Hazard Map.

Figure 5-14. Oil Fields Map



5.9.1.4 Faults and Seismicity

The nearest known regional active faults that could produce significant ground shaking near the preferred maintenance site alternative is the Newport-Inglewood fault, with a surface projection of potential rupture area located approximately 1.4 miles to the northeast. The location of the maintenance site alternative in relation to known faults is shown in Figure 5-15. A mapped trace of the Charnock fault is located near the intersection of Aviation Boulevard and Imperial Highway, southwest of the Site preferred maintenance alternative site. The Charnock fault is Pre-Holocene and does not meet the State's definition of an active fault based on currently available information.

5.9.1.5 Liquefaction

A review of the Seismic Hazard Zones Map for the Inglewood, Hollywood, and Venice 7.5 Minute Quadrangles (California Division of Mines and Geology [CDMG], 1999) indicates that the preferred maintenance site alternative is not located within an area mapped as being susceptible to liquefaction (Figure 5-15).

5.9.1.6 Landslides

According to the Los Angeles County Seismic Safety Element (1990) and the City of Los Angeles Safety Element (1996), the preferred maintenance site alternative is not within an area identified as having a potential for slope instability. Additionally, the study area is not located within an area identified as having a potential for seismic slope instability (CDMG, 1999). There are no known landslides near the preferred maintenance site alternative, nor are they in the path of any known or potential landslides. The topography of the preferred maintenance site alternative is relatively flat; therefore, the potential of landslides is considered low.

5.9.1.7 Flooding

Earthquake-induced flooding can be caused by the failure of dams or other water-retaining structures, as a result of an earthquake. Due to the absence of such structures near the preferred maintenance site alternative, the potential for earthquake-induced flooding is considered low.

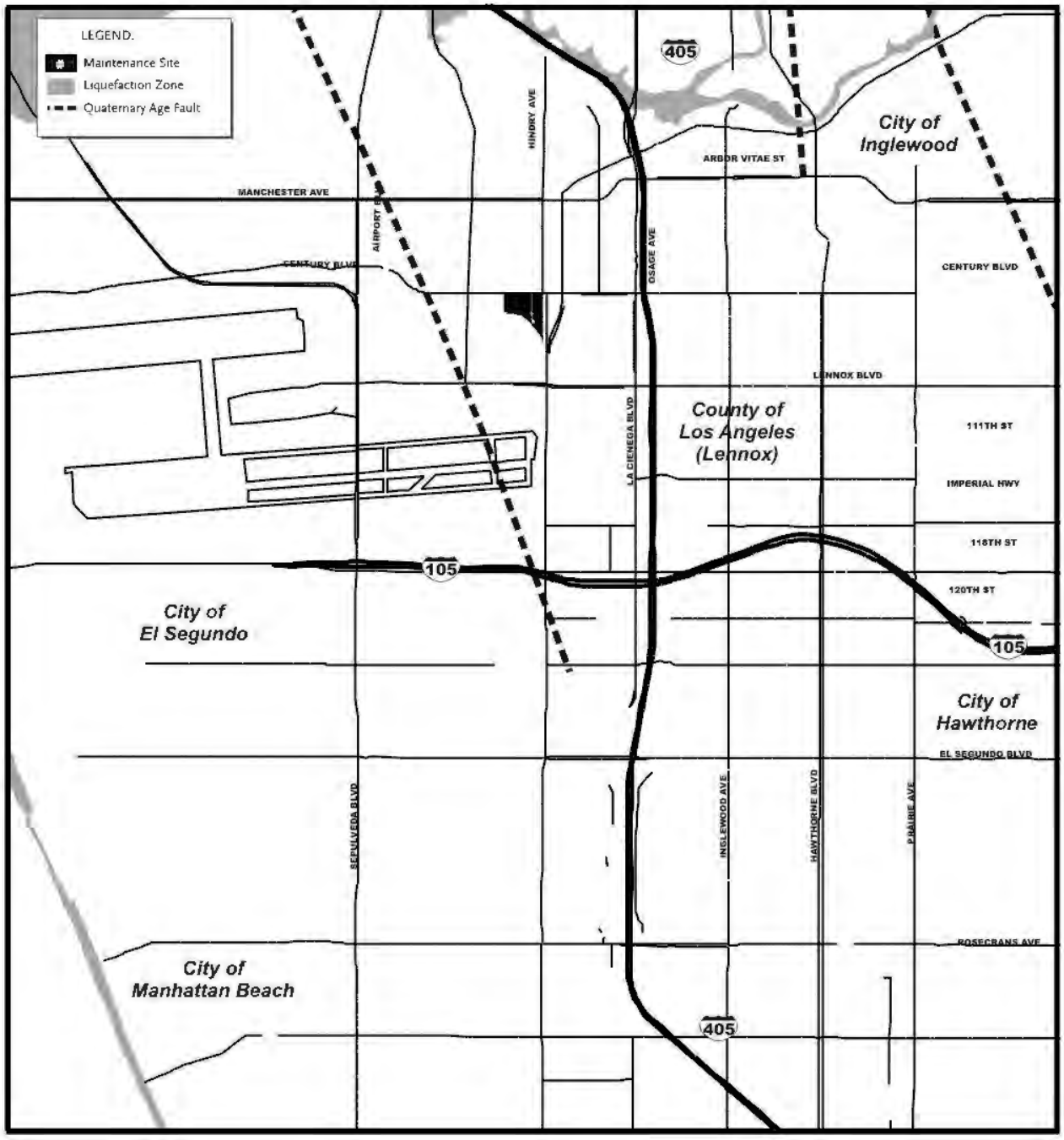
5.9.1.8 Seiches and Tsunamis

According to the City of Los Angeles Safety Element (1996) and the Los Angeles Seismic Safety Element (1990), the preferred maintenance site alternative is not within a potential inundation area (potential flood area) for an earthquake-induced dam failure from nearby dams.

5.9.1.9 Mineral Resources

Regarding loss of mineral resources, the study area traverses areas underlain by geologic materials, such as sand and gravel, that may be considered mineral resources and which could be used as construction aggregate. However, these materials have not been previously mined in the area. Therefore, mining the material is considered uneconomical. There is a potential for re-use of the excavated materials for fills.

Figure 5-15. Geologic and Seismic Hazards Map



5.9.1.10 Hazardous Materials

A Phase I Environmental Site Assessments (ESA) was completed for the preferred maintenance site alternative. The purpose of the ESA was to identify, to the extent feasible pursuant to the processes prescribed in American Society for Testing and Materials International (ASTM), recognized environmental conditions (RECs) in connection with the subject properties. Table 5-17 summarizes the environmental concerns identified onsite, or associated with the affected parcels, that have a classification criterion of Low to High. Table 5-18 summarizes the off-site environmental concerns adjacent to the preferred maintenance site alternative.

Table 5-17. On-Site Identified Areas of Concern and Potential Hazardous Materials

Facility Name/Location	Concern Observed	Hazard
Site #14 - Arbor Vitae/Bellanca Alternative		
Avis Rent-A-Car Inc – 5740 Arbor Vitae St	Unreported waste disposed of at landfill	Low
Western Federal Credit Union – 9223-Bellanca St	Potential tanks, waste oil disposed-unknown method	**Moderate**
Dollar Rent-A-Car – 5630 Arbor Vitae St	Oil tank spill, active hazardous waste- tetrachloroethylene, hydrocarbon solvents, aqueous solutions <10% total organics, waste oil and mixed oil, and other organic solids disposed by recycler, transfer station, disposal (landfill)	**Moderate to High**
King Delivery, Inc – 5600 Arbor Vitae St	Diesel in the aquifer used for drinking water, unknown number of tanks	**High**
NSHE Lebanon LLC – 9220 Bellanca Ave	Asbestos-containing waster was disposed of in a manner not reported	Low
Dollar/Thrifty Auto – 9310 Bellanca Ave	Active stormwater construction permit	Low
Allan Jonas – 9320 Bellanca Ave	Unknown number of tanks, unspecified organic liquid mixture sent to a recycler	**Moderate**
Blanca Air Freight LTD Partner – 9326 Bellanca Ave	Inactive, zero tanks	Low to Moderate
Glenborough Prop, Inc – 9400 Bellanca Ave	Asbestos-containing waste disposed at a landfill	Low
Products Engineering Corp – 9430 Bellanca Ave	Waste categories include unspecified aqueous solution and hydrocarbon solvents	Low to Moderate

Source: Leighton and Andersen, 2010.

Table 5-18. Off-Site Identified Areas of Concern and Potential Hazardous Materials

Facility Name/Location	Location in Relation to Property	Concern Observed	Hazard
Site #14 - Arbor Vitae/Bellanca Alternative			
Honeywell International Corp [Allied Signal Inc. Turbocharging Systems] [Garrett Airesearch-Arbor Vitae] - 9225 Aviation	Adjacent south of Site #15; adjacent east of Site #14	USTs; soil contamination was found in the western, northwestern, and northeastern portions of the facility; elevated groundwater concentrations of PCE, TCE, dichloroethylene (DCE), and dioxane	**High**
Hertz Corporation 9000 Airport Blvd -	0.15 miles north of Site #14	LUST, elevated levels of methyl tertbutyl ether (MTBE)	Low
Hertz Rent-A-Car 9029 Airport Blvd	0.07 miles north of Site #14	LUST	Low
Avis Rent-A-Car 9217 Airport Blvd. -	Adjacent to Site #14 west across Airport Blvd.	LUST, -prior remediation, elevated DCE concentrations	Low - Moderate
National Car Rental Systems Inc. 9419 Airport Blvd.	0.01 west of Site #14	LUST	Low
Budget Rent-A-Car 9775 Airport Blvd -	0.2 miles south of Site #14	LUST, prior remediation	Low
Neutrogena Corporation 5755 West 96th Street	Adjacent south of Site #14	Generator of ignitable and corrosive hazardous wastes, lead, chromium, mercury, pyridine, spent non-halogenated solvents and several USTs;	Low - Moderate
National Car Rental System – 9204 Airport Blvd	0.2 miles west of Site #14	Active USTs, gasoline in soil, remediation	**High**
LAX Residential Acquisition Division – 5826 Arbor Vitae St	0.09 miles west of Site #14	Off-specification, aged, or surplus inorganics was disposed	Low
LAWA - 5838 Arbor Vitae St	0.11 miles west of Site #14	Asbestos-containing waster was disposed	Low
LAWA Residence Acquisition – 5860, 5866, 5880, 5870 93rd St	0.09 – 0.19 miles west of Site #14	Asbestos-containing waste were disposed of at a landfill	Low
Flying Tiger Line, Inc	0.25 miles southwest of Site #14	Inactive, zero tanks	Low - Moderate

Source: Leighton and Andersen, 2010.

5.9.2 Environmental Impacts/Environmental Consequences

Table 5-19. Summary of Impacts to Geotechnical/Subsurface/Seismic/Hazardous Materials

Criteria	Impact
Traversed by fault or fault zone	No
Contains hazardous materials or hazardous sites	**Yes**
Located within a floodplain	No
Located within a designated oil field or other mineral resources	No
Located within tsunami inundation area	No
Potential for soil erosion	**Yes**
Unstable soils	No
Located within a liquefaction zone/high water table	No
Located within a land slide zone	No
Federal or State-listed site contamination	No
Distance from airport/runway (in miles)	0.56
Affect an emergency response plan	No
Located near wildlands	No

Source: TAHA, 2010.

5.9.2.1 Hazardous Materials

A search of environmental databases with the potential for hazardous materials indicated that five of the properties on the preferred maintenance alternative have a moderate- or high-potential hazard ranking. The hazard risk for six of the ten properties was determined to be low to low-moderate. The hazard risk for the remaining four of the ten properties was determined to be moderate to high. There is a potential for asbestos containing materials and lead based paint to be present in the buildings on the maintenance site alternative. All structures on the preferred maintenance site alternative would require demolition prior to construction of the maintenance facility. The hazardous assessment recommended that Phase II ESAs be conducted for all properties on the selected site prior to construction of the maintenance facility.

The maintenance facility site will require storing hazardous materials/waste primarily for cleaning on-site and consist of a storage facility for approximately 70 LRT vehicles, a maintenance area, a paint shop and prep shop with associated sheet metal, welding, and paint storage areas, a car wash building, and a traction power substation for the facility and shop. There is the potential for hazardous materials/waste spills to occur; however, the storage and disposal of hazardous materials/waste would be conducted in accordance with all federal and State regulatory requirements that are intended to prevent or manage hazards, as well as remediate spills. Periodic site inspections are also performed by regulatory agencies, to ensure that hazardous materials are being handled and disposed of in compliance with all regulatory requirements. No long-term hazardous material impacts are anticipated. Table 5-20 discusses the remaining impacts to subsurface gases, geotechnical, and seismic hazards.

Table 5-20. Discussion of Direct and Indirect Impacts to Geotechnical/Subsurface/Seismic Hazards

Direct Impacts	Indirect Impacts
Subsurface Gases	
The preferred maintenance site alternative is not located within any designated oil fields which could include the release of methane and hydrogen sulfide soil gas, oil seepage, contaminated soils, and leaking or abandoned wells. Therefore, no adverse effects are anticipated to subsurface gases.	No indirect adverse effects to subsurface gases are anticipated.
Faults, Seismicity and Ground Shaking	
The preferred maintenance site alternative is located two miles from the Newport-Inglewood Fault. In addition, the project would be subject to the California Building Standards Code that requires structures be designed to minimize the damage from potential fault activity. Therefore, the potential for ground deformation would be minimal and no adverse effects would occur.	No indirect adverse effects from faults, seismicity, and ground shaking are anticipated.
Liquefaction	
The preferred maintenance site alternative is not located in an area susceptible to liquefaction. Therefore no adverse effects related to liquefaction are anticipated for the selection of a maintenance facility.	No indirect adverse effects to liquefaction are anticipated.
Seismically-Induced Settlement	
The preferred maintenance site alternative is not located in areas susceptible to seismically-induced settlement. Therefore, no adverse effects are anticipated for the selection of a maintenance facility.	No indirect adverse effects to seismically-induced settlement are anticipated.
Landslides	
The preferred maintenance site alternative is not located in an area susceptible to landslides. Therefore, no adverse effects are anticipated.	No indirect adverse effects to landslides are anticipated.
Flooding	
The preferred maintenance site alternative is not located in an area susceptible to flooding. Therefore, no adverse effects are anticipated for the selection of a maintenance facility.	No indirect adverse effects to flooding are anticipated.
Seiches and Tsunamis	
The preferred maintenance site alternative is not located in an area susceptible to seiches and tsunamis. Therefore, no adverse effects are anticipated for the selection of a maintenance facility.	No indirect adverse effects to seiches and tsunamis are anticipated.

Source: TAHA, 2010.

5.9.3 Mitigation Measures

S-GEO1 All hazardous materials, drums, trash, and debris shall be removed and disposed of in accordance with regulatory guidelines set forth by the Department of Toxic Substances Control in Title 22 Division 4.5 of the California Code of Regulations.

S-GEO2 A health and safety plan shall be developed for persons with potential exposure to the constituents of concern, prior to construction of the proposed project.

S-GEO3 Historical and present site usage along the many areas of the proposed alignment includes businesses that stored hazardous materials and/or waste and used USTs, from at least the 1920s to the present. It is possible that areas with soil and/or groundwater impacts may be present that were not

identified in this report, or were considered a low potential to adversely impact the subject property. In general, observations should be made during any future development activities for features of concern or areas of possible contamination such as, but not limited to, the presence of underground facilities, buried debris, waste drums, tanks, soil staining or odorous soils. Phase II assessments shall be conducted for the properties within the selected site and any contaminated sites shall be remediated to a level suitable for industrial development.

S-GEO4 There is a potential for lead based paint and asbestos containing building materials to be present at the maintenance facility sites. An asbestos survey and lead based paint survey shall be conducted on all sites where on-site structures would be demolished or significantly renovated.

S-GEO5 Best Management Practices (BMPs), required as part of the National Pollutant Discharge Elimination System (NPDES) permit and application of SCAQMD Rule 403, shall be implemented for the proposed project to not only reduce potential soil erosion, but also to maintain soil stability and integrity during grading, excavation, below grade construction, and installation of foundations for aerial structures, and maintenance facilities. BMPs would comply with applicable Uniform Building Codes and include, but are not limited to, scheduling excavation and grading activities during dry weather, covering stockpiles of excavated soils with tarps or plastic sheeting, and debris traps on drains.

5.9.4 Impacts Remaining After Mitigation

Implementation of the Mitigation Measures **S-GEO1** through **S-GEO5** would ensure that the impacts related to geologic hazards and hazardous materials are less than significant for the preferred maintenance site alternative.

5.9.5 CEQA Determination

5.9.5.1 Hazards and Hazardous Materials

The maintenance facility would not be located on a State-listed contaminated site and would use a limited amount of hazardous materials, primarily from cleaning and painting. These materials would be used in controlled situations, such as a spray booth, and would be transported and disposed in accordance with DTSC guidelines. Therefore, a less-than-significant impact would occur to hazards and hazardous materials. Two schools are located near the preferred maintenance site alternative; however, the potential for exposure to contaminated materials would be limited to the confines of the project site in a controlled environment. LAX is also located near the maintenance site alternative; however, the potential for a safety hazard to people working on the site would be remote and therefore, less-than-significant.

Implementation of Mitigation Measure S-GEO1 would require the appropriate methods for handling hazardous materials and Mitigation S-GEO2 would establish a plan to safely

approach any potentially hazardous situations. These mitigation measures would ensure that impacts from exposure of hazardous materials would remain less than significant.

The preferred maintenance site alternative would not prohibit emergency responsiveness and may potentially increase response time and evacuation efforts should it be necessary provide a way to efficiently move people in the case of emergency evacuation situations. Therefore, a less-than-significant impact is anticipated related to an emergency response plan.

The preferred maintenance site alternative is not located within an entirely developed area and there are no wildlands in the vicinity that could increase exposure to fires. Therefore, a less-than-significant impact is anticipated related to wildfires.

5.9.5.2 Geology and Soils

The preferred maintenance site alternative is located two miles from the Newport-Inglewood Fault Zone. The use of this site would not result in an increased exposure to the risk associated with fault lines, nor would it exacerbate pre-existing seismic conditions. The site would be vulnerable to damage from ground shaking during an earthquake. However, the project would be subject to the California Building Standards Code that requires structures be designed to minimize the damage from potential fault activity. Therefore, the potential for ground deformation would be minimal and a less-than-significant impact would occur.

The preferred maintenance site alternative is not located in areas mapped as susceptible to landslides. The alignment is relatively flat, and the potential for landslides along the alignment is remote. Therefore, no significant impacts related to landslides are anticipated.

The preferred maintenance site alternative is in a flat, highly urbanized area, with an extensive drainage system and impervious surfaces. The sites are not subject to high levels of wind or rain, factors that may contribute to soil erosion. Construction and operation of the maintenance facility would not affect the existing drainage system and would not contribute to the loss of topsoil during operation. The preferred maintenance site alternative is not located on expansive soils, which would create substantial risks to life or property. In addition, the use of septic tanks or alternative wastewater disposal systems is not anticipated due to the location of the site in a developed area, where existing sewer lines would be utilized. Therefore, a less-than-significant impact would occur related to the loss of topsoil, erosion, expansive soils, and the support of the use of septic tanks or alternative wastewater disposal systems. Implementation of Mitigation Measure **S-GEO5** would ensure that the potential for soil erosion and soil instability would remain at less-than-significant levels.

5.10 Water Resources

5.10.1 Existing Conditions/Affected Environment

Figure 5-16 shows the water resources within the vicinity of the maintenance preferred maintenance site alternative. These resources are discussed further below.

5.10.1.1 Flooding

A Federal Emergency Management Agency (FEMA) 100-year floodplain is not located within or in proximity of the maintenance site alternative. In addition, a FEMA 500-year floodplain is not located within or in proximity of the preferred maintenance site alternative.

5.10.1.2 Local Surface Water Bodies

The preferred maintenance site alternative is primarily developed and there are few natural areas or natural drainage features. The nearest streams to the maintenance facility sites are the Inglewood Cemetery (2 miles east) and Ballona Creek (2.4 miles northwest). There is also a manmade water body within Hollywood Park located 2.2 miles east of Aviation Boulevard. The Pacific Ocean is located approximately four miles from the maintenance site alternative. There are no other waters of the U.S. or natural drainage features that are near the preferred maintenance site alternative.

5.10.1.3 Groundwater

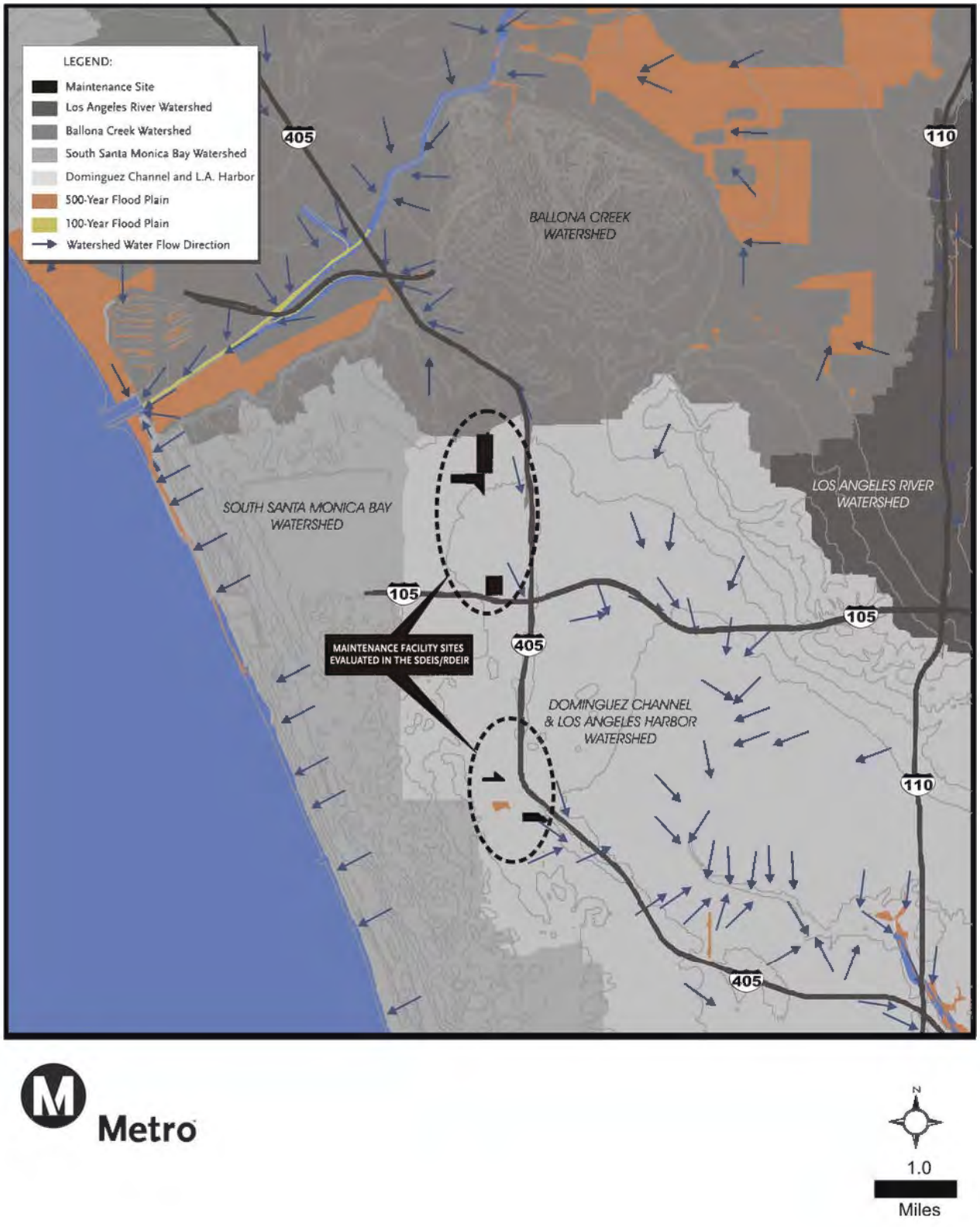
Average annual precipitation in the area is approximately 11 to 14 inches. According to the Los Angeles Department of Water and Power (DPW) and Los Angeles Regional Water Quality Control Boards (RWQCB), the groundwater level is approximately 10 feet below the ground surface between Airport Boulevard and Aviation Boulevard and between Arbor Vitae Street and Manchester Avenue. Between the I-405 and La Brea Avenue north of Florence Avenue, groundwater is estimated to be 2.4 to 2.8 feet below the ground surface.[4]

5.10.1.4 Local Drainage Basins

The preferred maintenance site alternative is along major arterials with curb and gutter features. The maintenance site alternative is not within any major drainage features that are above ground. The maintenance site alternative drains indirectly to Ballona Creek and Dominguez Creek through the Municipal Separate Storm Sewer System (MS4). Areas north of Manchester Boulevard drain to Ballona Creek Watershed, and southern areas drain to the Dominguez Creek Watershed.

[4]Los Angeles County Department of Public Works, Groundwater well measurements, located at http://gis.dpw.lacounty.gov/wells, 2010.

Figure 5-16. Water Resources



Source: TAHA 2010

5.10.1.5 Water Quality

The Ballona Creek Watershed has a total maximum daily loads (TMDL) for trash and metals. Ballona Creek is a 303(d) listed impaired water body for, coliform bacteria, dissolved copper, cyanide, lead, selenium, sediment toxicity, trash, viruses (enteric), and zinc. Dominguez Creek Watershed has a TMDL for trash at Machado Lake. Dominguez Creek (lined portion above Vermont Avenue) is a 303(d) listed impaired waterbody for ammonia, copper, diazinon, indicator bacteria, lead, sediment toxicity, and zinc.

5.10.2 Environmental Impacts/Environmental Consequences

Table 5-21. Summary of Impacts to Water Resources

Criteria	Impact
Adversely affects water supply	No
Potential to degrade groundwater	No
Alter existing drainage patterns to cause flooding, erosion, or siltation	No
Create or contribute runoff that exceeds existing capacity	No
Located within flood areas	No

Source: TAHA, 2010.

5.10.2.1 Direct Impacts

The operation of a maintenance facility would require water supply. The preferred maintenance site alternative may include restroom facilities or irrigation systems for landscaping. Since much of the site would be occupied with light rail tracks, the building square footage and amount of landscaping would be less than what currently exists. The water demand would be equal or less than the existing uses, which include a food distribution warehouse and a car rental facility requiring car washes. With the implementation of standard water conservation measures, such as water saving devices for irrigation, lavatories, and other water-using facilities, the effect of the project on the municipal water supply would be negligible. Therefore, no adverse impacts are anticipated related to water supply for the preferred maintenance site alternative.

There are no local surface water bodies located in the immediate vicinity of the preferred maintenance site alternative. Therefore, no adverse effects to local surface water bodies are anticipated for the preferred maintenance site alternative.

The preferred maintenance site alternative is located in highly urbanized areas, consisting of mostly impervious surfaces with drainage structures. Operation of the maintenance facility is not anticipated to result in adverse effects to groundwater resources.

The preferred maintenance site alternative is not located within designated 100-year floodplains. Drainage would be properly conveyed away from the site so as not to induce ponding or flooding on the selected sites or adjacent properties. With the implementation of a drainage control plan, no adverse effects to flooding would occur. During operation of this maintenance facility site, storm runoff would be conveyed to treat storm water runoff

before it is discharged off-site. No long term adverse effects to water quality are anticipated for the preferred maintenance site alternative.

5.10.2.2 Indirect Impacts

No indirect impacts to water resources are anticipated to result from the selection of the preferred maintenance site alternative.

5.10.3 Mitigation Measures

The preferred maintenance site alternative must comply with Title III and Title IV of the Clean Water Act (CWA) and NPDES standards during and following construction. To comply with the NPDES General Construction Permit, a Notice of Initiation would be filed with the Los Angeles RWQCB prior to construction. The preferred maintenance site alternative would include preparation of a Storm Water Pollution Prevention Plan (SWPPP) that includes the identification and implementation of applicable BMPs to control erosion and to ensure that dirt, construction materials, pollutants or other human-associated materials are not discharged from the project area into surface waters or into areas that would eventually drain to storm drains. BMPs would be monitored to ensure effectiveness. Upon completion of construction, a Notice of Termination would be filed with the Los Angeles RWQCB. The construction and permanent BMPs included as part of the proposed project shall be developed and implemented in compliance with the Los Angeles RWRCB, Metro storm water standards and shall be developed in cooperation with the Cities of Los Angeles and Inglewood. Prior to approval of grading permits, an appropriate drainage control plan, such as a Standard Urban Storm Water Mitigation Plan (SUSMP) in accordance with City of Los Angeles standards, that controls construction and operational on-site and off-site runoff and drainage in a manner acceptable to Metro and Los Angeles RWQCB for the specific project site shall be implemented.

No substantial water quality or resource related impacts would result from the preferred maintenance site alternative. In addition to the standard BMPs required for compliance with NPDES to be included as part of the maintenance site alternative, the following mitigation measures are recommended for incorporation into the project:

S-WQ1 During project construction and operation, remediation will be required at maintenance facilities and vehicle storage areas, where a potential exists for grease and oil contamination to flow into storm drains. Various types of ditch structures, including grease traps, sediment traps, detention basins, and/or temporary dikes may be used to control possible pollutants. These facilities shall be constructed pursuant to guidance published in Section 402 of the CWA and shall follow the most current guidance within the NPDES program.

S-WQ2 The flood capacity of existing drainage or water conveyance features within the project study corridor shall not be reduced in a way that causes ponding or flooding during storm events. A drainage control plan shall be developed during project design to ensure that drainage is properly conveyed from the study area and does not induce ponding on adjacent properties.

S-WQ3 A dewatering permit shall be required if groundwater is encountered during operations. The preferred maintenance site alternative is located in an urbanized area where potential groundwater contamination may exist. If contaminated groundwater is encountered during construction, the contractor shall stop work in the vicinity of the suspect find, cordon off the area, and contact the appropriate hazardous waste coordinator and maintenance hazardous spill coordinator at Metro and immediately notify the Certified Unified Program Agencies (City of Los Angeles Fire Department, County of Los Angeles Fire Department, and Los Angeles RWQCB) responsible for hazardous materials or waste incidents. Coordination with the Los Angeles RWQCB shall be initiated immediately to develop an investigation plan and remediation plan for expedited protection of public health and environment. Contaminated groundwater is prohibited from being discharged to the storm drain system. The contractor shall properly treat or dispose of any hazardous or toxic materials, according to local, state, and federal regulations.

S-WQ4 The study area currently drains indirectly to Ballona Creek and Dominguez Creek through the Municipal Separate Storm Sewer System (MS4). Treatment control BMPs shall be incorporated into the project design. The project shall consider placing the treatment BMPs in series or in a complimentary system to increase the control of pollutants to the maximum extent practicable. The systems shall be designed to efficiently and effectively handle and treat dry and wet weather flows to the maximum extent practicable. A SUSMP and appropriate drainage control plan shall be implemented to select and place appropriate permanent treatment BMPs.

S-WQ5 During construction of the project, on-site integrated management strategies that employ green infrastructure strategies to capture runoff and remove pollutants shall be used. Green infrastructure strategies combine a variety of physical, chemical, and biological processes that focus on conveying runoff to bioretention areas, swales, or vegetated open spaces.

5.10.4 Impacts Remaining After Mitigation

With the implementation of Mitigation Measures **S-WQ1** through **S-WQ4**, adverse effects to water resources and water quality would be reduced to less-than-significant levels for the preferred maintenance site alternative.

5.10.5 CEQA Determination

The preferred maintenance site alternative would not significantly impact water resources. Although, the maintenance facility would require the use of water, the facility would have less than 500,000 square feet of floor space and would not require a water supply assessment. Existing supplies would be adequate to serve the project. The preferred maintenance site alternative would be required to comply with NPDES permit requirements during construction. These permitting requirements would ensure that the site would not violate state water quality standards or waste discharge requirements. Prior to approval of grading permits, an appropriate drainage control plan, such as a

Standard Urban Storm Water Mitigation Plan (SUSMP) in accordance with City of Los Angeles standards, that controls construction and operational on-site and off-site runoff and drainage in a manner acceptable to Metro and Los Angeles RWQCB for the specific project site shall be implemented. The project is not located in an area susceptible to floods, or other water-related hazards, subsidence, or where high groundwater tables exist that could affect water quality. Therefore a less-than-significant impact to water resources is anticipated. In addition, Mitigation Measures **S-WQ1** through **S-WQ4** would ensure that no significant long term impacts to drainage patterns or surface water or groundwater quality would occur. The development of a drainage control plan and SUSMP as prescribed in Mitigation Measures **S-WQ2** and **S-WQ4** would ensure that drainage flows are properly treated and conveyed. Therefore, with implementation of the proposed mitigation measures, a less-than-significant impact would remain on water resources for the preferred maintenance site alternative.

No indirect impacts to water resources are anticipated to result from the preferred maintenance site alternative.

5.11 Energy

This chapter describes the affected environment for energy consumption, as well as the impacts on energy resources that would result from the preferred maintenance site alternative.

5.11.1 Affected Environment/Existing Conditions

The preferred maintenance site alternative energy needs are measured in petroleum and equivalent British thermal units (BTU). A BTU is the quantity of heat required to raise the temperature of water one degree Fahrenheit at sea level. Other units of energy can all be converted into equivalent BTU units and thus, the BTU is used as the basis for comparing energy consumption associated with different resources. Table 5-22 shows comparisons of various types of energy and their equivalent BTU units.

Table 5-22. Summary of Impacts to Energy

Energy Type	Energy Unit	Equivalent BTU Units
Electrical	Kilowatt-Hour (kWh)	3,412
Natural Gas	Cubic Foot	1,034
Crude Oil	Barrel (42 Gallons)	5,800,000
Gasoline	Gallon	125,000

Source: California Energy Commission, 2007.

Energy consumption in California continues to be dominated by growth in passenger vehicles, where 40 percent of all energy consumed in the State is used for transportation. California is the second largest consumer of transportation fuels in the world (behind the United States as a whole); more than 16 billion gallons of gasoline and four billion gallons of diesel fuels are consumed each year. California's population is estimated to exceed 44 million by 2020, which would result in substantial increases in fuel demand. Table 5-23 shows the anticipated 149 million barrel increase in demand through 2020.

Table 5-23. California Transportation Fuel Demand

Year	Barrels (Million/year)	Daily Energy Consumption (Billions BTU)
2005	553	8,787
2010	617	9,804
2015	661	10,504
2020	702	11,155

Source: California Energy Commission, *2007 Integrated Energy Policy Report*, 2007.

Energy use for the preferred maintenance site alternative was calculated based on the 2009 annual energy consumption from the Metro Division 22 maintenance facility. Table 5-24 shows the energy requirements for the operation of a light rail maintenance facility.

Table 5-24. Estimated Daily Energy Consumption

Energy Use	Daily Energy Consumption (BTU)
Operation of Maintenance Facility	88,625,726 /a/

/a/Energy consumption was obtained using 2009 annual energy consumption from the Metro Division 22 maintenance facility which services 39 LRVs. This energy consumption for the alternative sites was generated using a proportional factor of 1.79 to account for the operation of 70 LRVs.
Source: TAHA, 2010.

Table 5-25 shows the regional energy consumption by existing Metro facilities. Metro's energy usage has been steadily increasing as the Metro regional transit system has continued to expand.

Table 5-25. Metro Facilities Regional Energy Consumption

Daily Energy Consumption (KWH)	Daily Energy Consumption (BTU)
189,041	645,008,219

Source: Metro Baseline Sustainability Report, 2009.

5.11.2 Environmental Impacts/Environmental Consequences

5.11.2.1 Direct Impacts

The two largest demands on energy would be from the movement of the light rail vehicles and the operation of the buildings on the site. Combined, these two activities would result in a per day energy usage of approximately 88,625,726 BTUs. There would also be some additional energy consumption from the approximately 200 workers traveling to and from the site. Considering the data and information presented regarding the existing energy conditions, the implementation of public transit projects (of which maintenance facilities are a key part) would help to remove excess vehicles from roadways and freeways, easing the increase in VMT and the usage of fuels. Lower VMT would also result in a reduction of vehicle emissions. Therefore, no adverse effects from energy usage are anticipated from the preferred maintenance site alternative.

5.11.2.2 Indirect Impacts

No indirect adverse effects from energy usage are anticipated from the preferred maintenance site alternative.

5.11.3 Mitigation Measures

No mitigation measures are required.

5.11.4 CEQA Determination

The above analysis demonstrated compliance with NEPA. The operation of a maintenance facility would result in a nominal increase (0.0008 percent) in California energy consumption. When combined with the energy savings from the operation of the

Crenshaw/LAX Transit Corridor Project, the preferred maintenance site alternative would result in a less-than-significant energy impact.

5.12 Historic, Archaeological, and Paleontological Resources

5.12.1 The Area of Potential Effects

The area of potential effects (APE) for the preferred maintenance site alternative was delineated to ensure inclusion of significant cultural resources that may be directly or indirectly affected by the project, and are listed in or eligible for listing in the National Register of Historic Places (NRHP) or the California Register. The direct APE for the preferred maintenance site alternative includes areas of direct ground disturbance, as well as areas with permanent site improvements and areas for staging and temporary construction activities (Figure 5-17).

5.12.1.1 Identify Consulting and Interested Parties

The Section 106 regulations require that a federal agency evaluate all properties within the APE and identify historic properties by gathering information from consulting parties, applying the NRHP Criteria, and seeking concurrence from the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer, as appropriate. During the preparation of the Crenshaw/LAX Transit Corridor Project DEIS/DEIR, FTA identified 23 consulting parties for historic properties within the APE. FTA sent a letter to the California SHPO on May 22, 2008, initiating Section 106 consultation. In a meeting on July 23, 2008, Metro consulted with the SHPO to discuss the entire Crenshaw/LAX Transit Corridor Project, which includes the selection of a maintenance facility to determine the Section 106 identification effort.

5.12.1.2 National Register Criteria for Evaluation

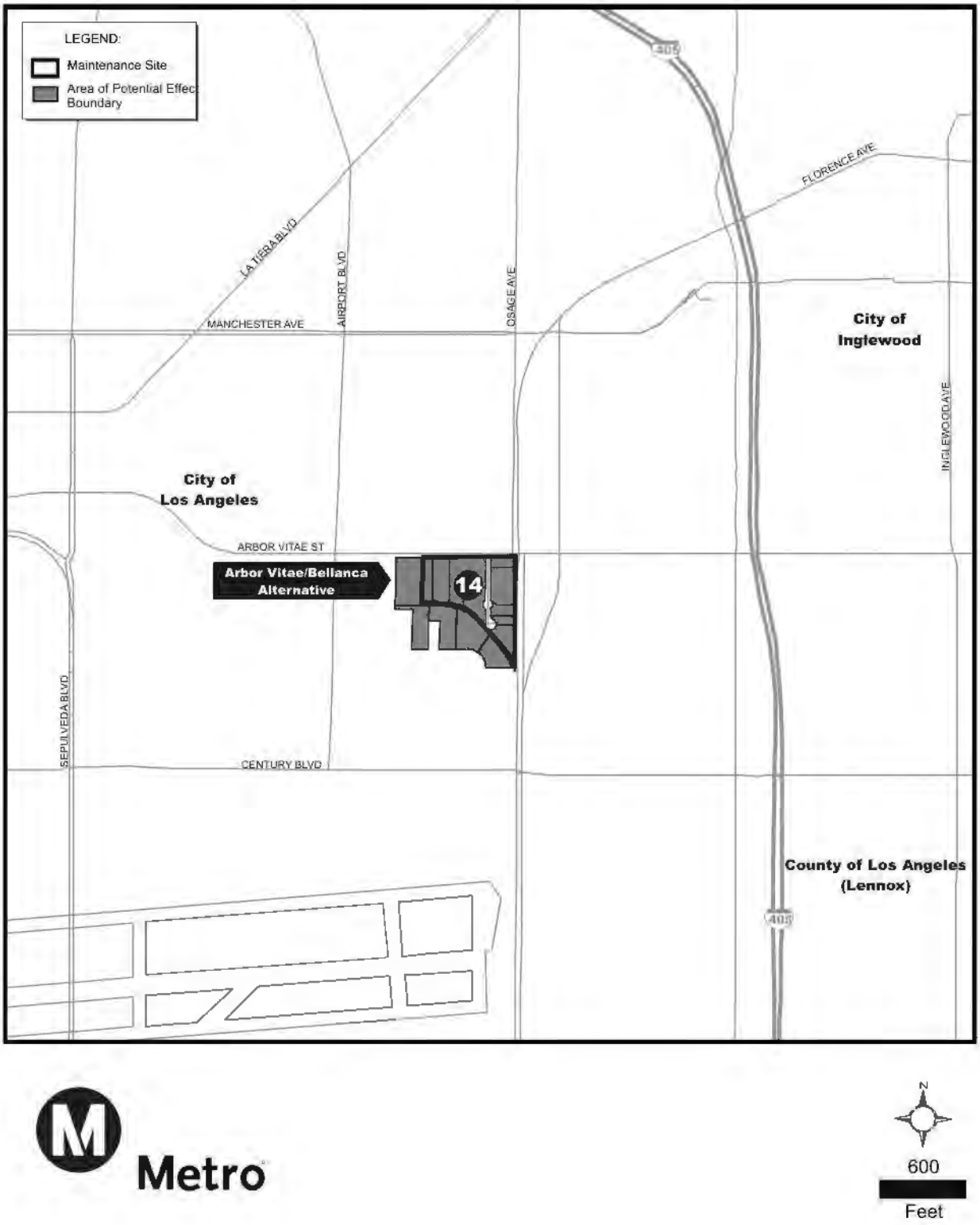
In order for a property to be considered for inclusion in the NRHP it must meet the criteria for evaluation set forth in 36 *Code of Federal Regulations* (CFR) Part 60.4, as follows:

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 design, setting, materials, workmanship, feeling, and association and

- are associated with events that have made a significant contribution to the broad patterns of our history (A); or
- are associated with the lives of persons significant in our past (B); or
- embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (C); or
- have yielded, or may be likely to yield, information important in prehistory or history (D).

Among other criteria considerations, a property that has achieved significance within the last 50 years is not considered eligible for inclusion in the NRHP unless certain exceptional conditions are met.

Figure 5-17. Area of Potential Effects Boundary Map



Source: TAHA 2010.

5.12.1.3 Section 4(f)

The evaluation of 4(f) resources identified within the APE for the project is located in Chapter 6.0 of this document.

5.12.1.4 Identifying Historic Properties

For the preferred maintenance site alternative, preliminary research and surveys have been undertaken to identify previously recorded historic properties and potentially eligible historic properties. Preliminary studies have been conducted in accordance with the Secretary of Interior's Standards and Guidelines for Identification of Historic Properties (48 *Federal Register* [FR] 44716), using personnel who meet the Secretary of Interior's Professional Standards (48 FR 22716) in the fields of pre-historic archaeology, historic archaeology, architectural history, and history.

5.12.1.5 Native American Consultation

The Native American Heritage Commission (NAHC) was contacted regarding the entire Crenshaw/LAX Transit Corridor Project on June 15, 2010. The NAHC responded on June 28, 2010 and stated that the Sacred Lands File search did indicate the presence of sacred lands within one mile of the Crenshaw/LAX Transit Corridor Project area. The NAHC also provided a list of Native American groups and individuals who might have knowledge of cultural resources in the project area. Letters describing the Crenshaw/LAX Transit Corridor Project were sent on July 7, 2010 to the nine Native American contacts provided by the NAHC. Additional letters to Native American contacts were sent on January 11, 2011. One group recommended a monitor be present, one group expressed concern about sites in the project area and wanted updates, and the remainder did not have comments or said they would get call back if they had any questions.

The following Native American groups/tribes were contacted in the written communication:

- Gabrielino-Tongya Tribe
- Ti'At Society
- Los Angeles Native American Indian Commission
- Gabrielino-Tongya Indians of California Tribal Council
- Gabrielino-Tongya Nation
- Gabrielino-Tongya San Gabriel Band of Mission Indians
- Tongya Ancestrial Territorial Tribal Nation
- Shoshoneon Gabrielino Band of Mission Indians

5.12.2 Affected Environment/Existing Conditions

The preferred maintenance site alternative and surrounding area are paved and developed with primarily industrial and commercial structures. The preferred maintenance site alternative contains industrial land uses, with several parcels containing large parking areas for a rental car facility.

5.12.2.1 Historic and Archaeological Resources Identified

An archaeological records search was conducted by W. H. Bonner Associates at the South Central Coastal Information Center (SSCIC) located at California State University, Fullerton on June 17 and November 4, 2010. The records search included a review of all recorded cultural resources within a 0.5-mile radius of the preferred maintenance site alternative. A review of historic registers was conducted that included the NRHP, the CR, the California Historic Landmarks (CHL), and the California Points of Historic Interest (CPHI). The preferred maintenance site alternative and surrounding area has experienced substantial surface disturbance as a result of past construction activities. No known archaeological resources have been recorded near the any of the sites and no surficial archaeological resources were identified.

5.12.2.2 Built Environment Resources Identified

In accordance with Section 106, all properties within the preferred maintenance site alternative constructed before 1965 will require formal evaluation for historic significance. A formal evaluation was conducted of all properties with the APE for the Crenshaw/LAX Transit Corridor Project, which includes the preferred maintenance facility site. No parcels that are located within the APE for the preferred maintenance site alternative were determined to be eligible for the National Register of Historic Places or for the California Register.

5.12.2.3 Paleontological Resources Identified

Paleontological Review

A paleontological review was conducted in June 2010 and October 2010 for the preferred maintenance site alternative. The results of the paleontological records search indicate that no paleontological sites/specimens have been recorded at or within 0.5 miles of the preferred maintenance site alternative.

5.12.3 Environmental Impacts/Environmental Consequences

Table 5-26. Summary of Impacts to Historical, Paleontological, and Archaeological Resources

Criteria	Impact
Site #14 – Arbor Vitae/Bellanca Alternative	
Archaeological Resources	
Located within 0.5 miles of archaeological resources	No
Historical and Architectural Resources	
Contains previously documented historic properties	No
Properties within the APE contain nationally-eligible resources	No
Paleontological Resources	
Located within 0.5 miles of paleontological sites/specimens	No

Source: TAHA, 2010.

5.12.3.1 Archaeological Resources

Direct Impacts

No new surficial archaeological resources were identified within the proposed study area. The locations of the pre-recorded sites within the boundaries of the preferred maintenance site alternative have been developed and no surficial evidence of the sites were observed during the archaeological reconnaissance survey. The majority of the study area is developed (residential, retail, industrial) and disturbed from existing roads, railroad alignments and landscape vegetation. No known archaeological resources listed in or eligible for listing in the NRHP would be affected. Therefore, no direct adverse effects to archaeological resources are anticipated for the preferred maintenance site alternative.

Indirect Impacts

No indirect adverse effects to archaeological resources are anticipated from the preferred maintenance site alternative.

5.12.3.2 Historic and Architectural Resources

Direct Impacts

There are no eligible historic or architectural resources within the APE for the preferred maintenance site alternative. Therefore, no adverse effects to historic and architectural resources would occur.

Indirect Impacts

No indirect adverse effects to historical resources are anticipated from the preferred maintenance site alternative.

5.12.3.3 Paleontological Resources

Direct Impacts

The results of the paleontological records search indicate that no paleontological sites/specimens have been recorded at or within 0.25 miles of the preferred maintenance site alternative. Therefore, no adverse effects to paleontological resources would occur from the preferred maintenance alternative.

Indirect Impacts

No indirect adverse effects to paleontological resources are anticipated from preferred maintenance site alternative.

5.12.4 Mitigation Measures

No adverse effects to archaeological, historical, or paleontological resources are anticipated for the preferred maintenance site alternative.

5.12.5 CEQA Determination

There are no properties that are eligible for the California Register within the APE for the maintenance facility. Similar to the discussion of impacts above, the construction and

operation of a maintenance facility is not anticipated to disturb or alter any archaeological, historical, or paleontological resources. Therefore, less-than-significant impacts are anticipated for the preferred maintenance site alternative.

5.13 Parklands and Community Facilities

5.13.1 Affected Environment/Existing Conditions

Table 5-27 lists the parkland and community facilities near the preferred maintenance site alternative and whether they are within a 0.25-mile distance of the preferred maintenance site alternative.

Table 5-27. Public Services Serving the Project Area

Figure #/ Map ID #	Parkland or Community Facility	Street Address/City	Within ¼ Mile of Preferred Maintenance Site (Yes/No)
Police Stations			
Figure 5-18/1	LAPD Ahmanson Training Center	5651 W. Manchester Blvd.	No
Figure 5-18/4	Los Angeles World Airports Police Station	6320 West 96th St./Los Angeles	No
Fire Stations			
Figure 5-18/2	LAFD Fire Station #95	10010 International Rd./Los Angeles	No
Figure 5-18/3	LAFD Fire Station #51	10435 S. Sepulveda Blvd./Los Angeles	No
Figure 5-18/5	LAFD Fire Station #5	8900 S. Emerson Ave./Los Angeles	No
Schools			
Figure 5-18/1	Crimson Technical College	8911 Aviation Blvd./ Inglewood	**Yes**
Figure 5-18/2	Amino Leadership Charter High School	1155 W. Arbor Vitae St./Inglewood	**Yes**
Figure 5-18/3	Bright Star Learning Academy	5431 W. 98th St./Los Angeles	**Yes**
Religious or Other Community Facilities			
Figure 5-18/1	Westchester Playhouse	8301 Hindry Ave./Inglewood	No
Hospitals			
Figure 5-18/1	Airport Urgent Care	1117 W. Manchester Blvd./Inglewood	No

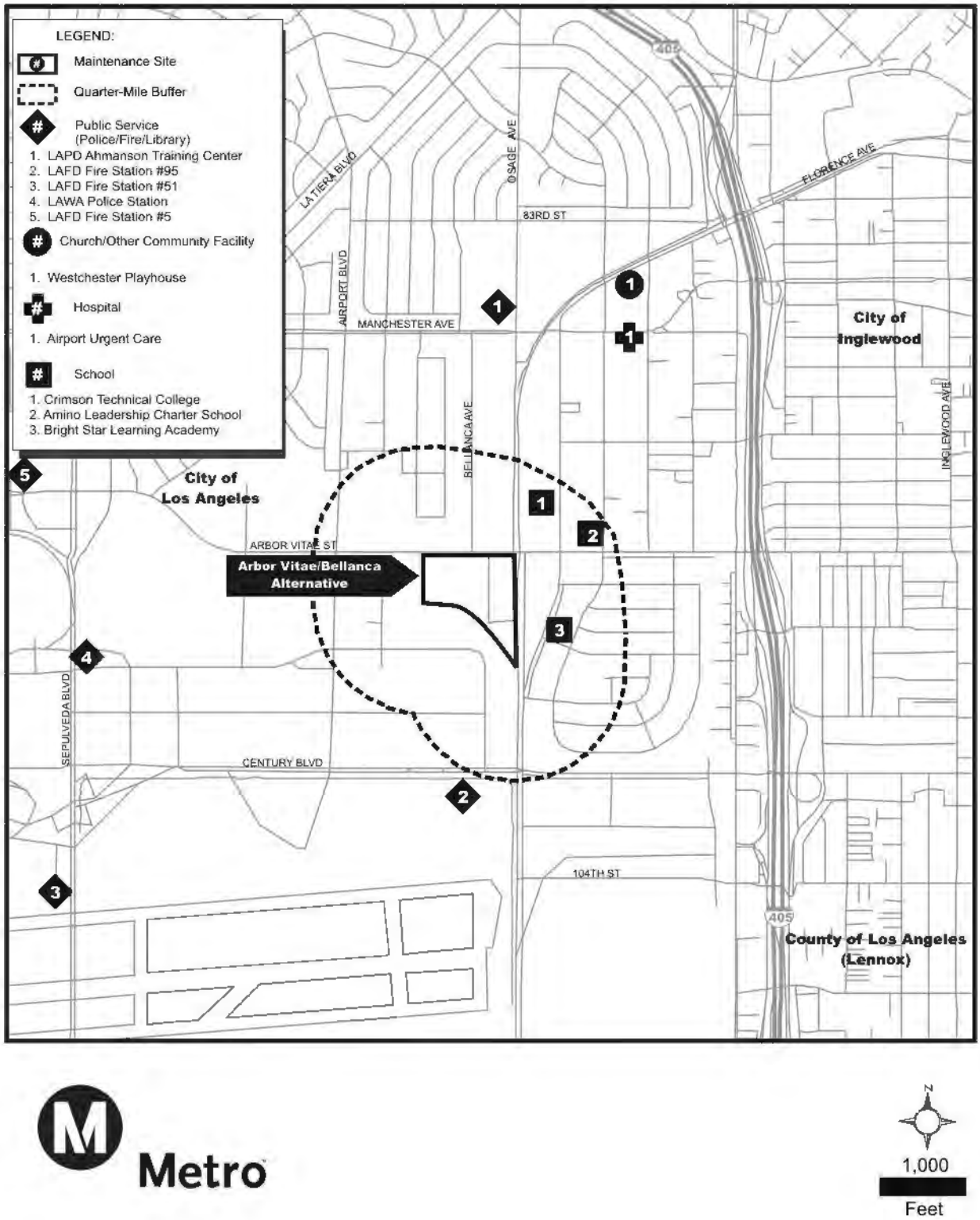
Source: TAHA, 2010.

5.13.1.1 Police Services

The preferred maintenance site alternative is within the vicinity of the Los Angeles Police Department (LAPD), LAWA Airport Police Division, and the Inglewood Police Department (IPD) patrol areas.

The LAPD provides police protection services to an area of approximately 473 square miles, with 19 communities representing approximately four million residents (LAPD, July 2005). The LAPD Pacific Community Police Station has a patrol area of 24.1 square miles and serves communities of Del Rey, Manchester Square, Mar Vista, Oakwood, Palms, Playa Del Rey, Playa Vista, Venice, and Westchester. The preferred maintenance site alternative is within the patrol area of the Pacific Community Police Station.

Figure 5-18. Parks and Community Facilities



Source: TAHA, 2010.

The LAWA Airport Police Division provides police protection services to the Los Angeles International Airport (LAX), Ontario Airport, Van Nuys Airport, and Palmdale Airport. The LAWA operates a police facility within the vicinity of LAX. The LAX police facility is located at 6320 West 96th Street and is approximately one mile west of the preferred maintenance site alternative.

The IPD provides police patrol services to the City of Inglewood, an area of approximately nine square miles. The IPD operates one police station that is located at One West Manchester Boulevard. The preferred maintenance site alternative is located approximately 1.5 miles west of the IPD police station.

5.13.1.2 Fire Services

The preferred maintenance site alternative is within the vicinity of the City of Los Angeles Fire Department (LAFD) and the Los Angeles County Fire Department (LACoFD) service areas

The LAFD provides fire protection and paramedic services to the City of Los Angeles. The LAFD operates 106 fire stations throughout the City which are grouped into three divisions and 16 battalions. The preferred maintenance site alternative is within the service area of the LAFD.

The LACoFD provides fire protection and paramedic services to unincorporated areas and many incorporated cities of Los Angeles County, including the Cities of Inglewood, Lawndale and Hawthorne. The LACoFD operates over 100 fire stations which are organized into 21 battalions. The preferred maintenance site alternative is adjacent to the Inglewood service area of the LACoFD.

5.13.1.3 Libraries

The preferred maintenance site alternative is near the Los Angeles Public Library (LAPL), City of Inglewood Public Library (IPL), and the Los Angeles County Public Library (LACPL) service areas.

5.13.1.4 Parks

The preferred maintenance site alternative is not located in the vicinity of any parks operated by the surrounding jurisdictions.

5.13.1.5 Educational Facilities

The preferred maintenance site alternative is near three are private or charter school educational facilities.

5.13.1.6 Religious Facilities

The preferred maintenance site alternative is not located near any religious facilities.

5.13.1.7 Hospital Facilities

The preferred maintenance site alternative is located near one hospital facility, the Airport Urgent Care Center.

5.13.2 Environmental Impacts/Environmental Consequences

5.13.2.1 Direct Impacts

The operation of a maintenance facility would not affect the access or disrupt the services provided by parklands or community facilities for the preferred maintenance site alternative. The maintenance facility sites would not result in a population increase that would increase the demand for public services. No Section 4(f) lands would be affected by the preferred maintenance site alternative. No adverse impact on parklands, public services and community facilities would result.

5.13.2.2 Indirect Impacts

Development of a maintenance facility on the preferred maintenance site alternative would not impede access, parking or the daily operations of any parklands, public services and community facilities. Therefore, no indirect adverse effects to parklands public services or community facilities are anticipated.

5.13.3 Mitigation Measures

No adverse impacts have been identified to parklands and other community facilities, and the project would comply with all applicable regulations; therefore, no mitigation measures are required.

5.13.4 CEQA Determination

The preferred maintenance site alternative is not within 0.25 miles of parkland. As places of employment, the maintenance site alternative would not add population and would not increase the demand on parklands or community facilities. Therefore, the operation of the preferred maintenance site alternative would not cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for parks. The operation of a maintenance facility would employ approximately 200 employees and result in the displacement of approximately 390 employees. This would not result in an increase in residents or workers that would increase demand for the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The preferred maintenance facility sites would not impact airports, physically interfere with an adopted emergency response plan or evacuation plan, nor would it expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Therefore, less-than-significant impacts on parks and community facilities are anticipated.

The preferred maintenance site alternative would not impede access, parking or the daily operations of any parklands, public services and community facilities. There are three schools located within ¼-mile of the site. The maintenance facility would not result in a high number of truck trips, generate on-site emissions, or result in noise impacts which could potentially affect these schools. The operation of the facility would not affect the surrounding traffic in a way that would affect access to these schools. Therefore, no

indirect adverse effects to parklands public services or community facilities are anticipated.

5.14 Economic and Fiscal Impacts

This section discusses the economic and fiscal impacts of the preferred maintenance site alternative. Specific emphasis is placed on jobs created during construction and long-term operations of the maintenance facility, as well as jobs potentially displaced. Indirect economic multipliers and impacts to property tax revenues are also discussed.

5.14.1 Affected Environment/Existing Conditions

The preferred maintenance site alternative is located in close proximity to LAX. Activities at LAX, including business travel, tourist travel and goods movement, contribute to LAX's importance as a key element of the Southern California economy. According to SCAG, there are currently more than 73,000 jobs in the airport vicinity (8.5 square miles). As shown in Table 5-28, 40 percent of all jobs in the area are related to the transportation industry. Within the LAX vicinity, there are more than 8,700 jobs per square mile (approximately 14 jobs per acre on average). Many of the industries located near the airport include hotels, motels, rental car agencies, trucking companies, freight forwarders, warehousing and cold storage facilities. There also a number of manufacturing industries that have taken advantage of the industrial land available as a means to optimize shipping.

Table 5-28. Airport Vicinity Jobs

Industry	Employees	Percent
Transportation	29,432	40.0
Professional	10,633	14.5
Arts/Entertainment	7,793	10.6
Education	4,975	6.8
Manufacturing	4,609	6.3
Retail	3,468	4.7
Finance/Real Estate	3,442	4.7
Public Administration	2,336	3.2
Construction	2,156	2.9
Wholesale	1,759	2.4
Other Services	1,497	2.0
Information	1,402	1.9
Agriculture	78	0.1
Total	73,582	100.0

Source: SCAG, 2003.

As discussed in Section 3.3, Displacement and Relocation, the preferred maintenance site alternative is occupied with commercial and industrial businesses. The total estimated employment for this site is approximately 390 jobs.

Table 5-29 shows the existing property tax revenue for the preferred maintenance site alternative. Property taxes are important revenue sources to all of the jurisdictions. Economic conditions affect the Los Angeles County assessed valuations that are the basis for the property taxes. Recent down turns in the national and State economy have influenced these property tax revenues, as well as actions by the State of California to balance the State budget have also adversely affected the property tax share received by the four jurisdictions. In fiscal year 2008-2009, approximately 16 percent of general revenue of the City of Los Angeles came from property taxes.

Table 5-29. Existing Property Tax Revenue (2009)

Proposed Site	Jurisdiction	Revenue
Site #14: Arbor Vitae/Bellanca Alternative	Los Angeles	$464,622

Source: Los Angeles County Assessor, 2010.

5.14.2 Environmental Impact/Environmental Consequences

Table 5-30. Summary of Impacts to Economics and Fiscal Effects

Criteria	Impact
Direct construction jobs	249
Total construction jobs (direct, indirect, induced)	4,536
Existing jobs displaced	390
Jobs created by operation of proposed alternative	200
Property tax loss	$464,622

/a/Uses Factor or 24,000 jobs per billion for construction which is a blend of IMPLAN and REMI modeling systems.
/b/Direct jobs are calculated using a ratio 18.25 Total/Direct jobs obtained from BEA, RIMS II.
Source: US Department of Commerce, Los Angeles County Assessor, Bureau of Economic Analysis, *2005 RIM II Modeling System,* and TAHA, 2010.

Direct Impacts

Table 5-30 summarizes the economic and fiscal effects of the preferred maintenance site alternative. Acquisition of property necessary for the maintenance facility would result in the displacement of a substantial number of employees working in a variety of businesses, each with their own unique relocation needs. The displacement of this number of jobs and loss of property tax revenue would result in an adverse effect to the regional economy. While the creation of total jobs by the facility would lessen the extent of the jobs lost through displacement, an adverse impact is anticipated without the implementation of mitigation measures. Should these businesses be able to be relocated in the surrounding area, a beneficial effect would result to local and regional employment and the economy.

Indirect Impacts

The relocation of a majority of these businesses would be anticipated to occur in proximity to LAX. However, because the area is largely built out, the relocation of businesses would likely be dispersed and would only occur to the extent that adequate property is vacant

and/or for sale or lease. Should these businesses be able to be relocated in the surrounding area, a beneficial indirect effect would result to employment and the economy.

5.14.3 Mitigation Measures

The preferred maintenance facility site alternative would result in adverse effects to the regional economy from the loss of jobs and government revenue. Refer to Mitigation Measures **S-DR1** through **S-DR3** identified Section 3.3, Displacement and Relocation.

5.14.4 Impacts Remaining After Mitigation

The effects of the preferred maintenance site alternative discussed above address regional economic activity, long-term operations employment, government revenues, and the potential contribution to the long-term effects on businesses. The economic and fiscal effects are anticipated to be adverse from the loss of government revenue and impact to the regional economy. Implementation of Mitigation Measure **S-DR1** through **S-DR3** identified in the Displacement and Relocation section would reduce the severity of the economic and fiscal impacts; however, impacts would remain adverse for the preferred maintenance site alternative.

5.14.5 CEQA Determination

The economic and fiscal effects discussed above address regional economic activity, long-term operations employment, government revenues, and likely long-term effects on adjacent businesses and business districts. A significant impact would occur for the preferred maintenance site alternative if a physical change occurred as a result of economic activity or if a physical change created a significant effect on economic conditions. The operation of a maintenance facility would result in a physical change that would affect job loss on the regional economy and the loss of government revenues if the displaced businesses do not relocate to comparable sites in the vicinity. Therefore, a significant economic and fiscal effect would remain after implementation of mitigation.

5.15 Safety and Security

5.15.1 Affected Environment/Existing Conditions

Security within and around the selected maintenance facility site would be conducted by the policing authorities whose jurisdictions apply to the surrounding areas. The LAPD has policing responsibilities for the neighborhoods surrounding the preferred maintenance site alternative southwest of Manchester (Westchester Community) and in the vicinity of the LAX.

Table 5-31 identifies the Part I crimes in the vicinity of the preferred maintenance site alternative. Part I crimes include violent crimes, such as homicide, rape, and robbery, and property crimes, such as burglary and grand theft auto. Data is shown for the various divisions of LAPD and other jurisdictions. In general, the data indicate that the crime rate (measured in offences per each 10,000 persons of population) for Part I crimes near the preferred maintenance site alternative is higher than the overall crime rate for LAPD.

Table 5-31. Crime Statistics within the Vicinity of the Preferred Maintenance Site Alternative

Jurisdiction / Area	Total Population	Part I Crime Rate per 10,000 Persons/a/
City of Los Angeles (2008)		
Southwest Area	189,723	89.66
LAPD Jurisdiction (Total) [2]	4,003,694	66.29

/a/City of Los Angeles population totals based on LAPD 2007 Statistical Digest.
Source: Los Angeles Police Department.

5.15.2 Environmental Impacts/Environmental Consequences

5.15.2.1 Direct Impacts

The preferred maintenance site would have either two or three access points for vehicles where employees, service trucks and other visitors could enter. The maximum estimated number of hourly vehicle trips entering and exiting the facility would be 45 vehicles. This would result in an approximate average of one vehicle entering or exiting every three minutes assuming the trips are split between two access points. All of the light rail vehicle access points for the maintenance site alternative would be located along the Harbor Subdivision Railroad Right-of-way. None of these rail access points would introduce a threat to safety or security. There would also be an on-site sheriff/security building for the selected site. Entrance into the maintenance site would require passing through security to enter the buildings and/or gate. The operation of the maintenance facility would not increase any other potential risks to safety. Crimes that would likely take place include vandalism and auto theft. The maintenance facility site would be lighted and patrolled to prevent crime. The preferred maintenance site alternative would not have any adverse effects to safety or security.

5.15.2.2 Indirect Impacts

No indirect adverse effects to safety and security are anticipated to occur for the preferred maintenance site alternative.

5.15.3 Mitigation Measures

S-SS1 The maintenance facility shall be well-lit to standards that minimize shadows and all pedestrian pathways leading to/from sidewalks and parking shall be well illuminated.

S-SS2 Metro shall coordinate and consult with the LAPD to develop safety and security plans for the alignment, parking facilities, and station areas.

Impacts Remaining After Mitigation

Implementation of Mitigation Measures **S-SS1** and **S-SS2** would ensure that safety and security impacts remain at less-than-significant levels.

5.15.4 CEQA Determination

The preferred maintenance site alternative would be located within a city block with multiple and separate access points for motor vehicles and LRVs. A sheriff/security facility would provide adequate security for the maintenance yard. The preferred maintenance site alternative would not create the potential for adverse safety conditions by limiting the provision of police, fire, or emergency services. The preferred maintenance site alternative would have a less-than-significant impact on safety and security.

Implementation of Mitigation Measures **S-SS1** and **S-SS2** would ensure that safety and security impacts remain at less-than-significant levels for the preferred maintenance site alternative.

The preferred maintenance site alternative would have no indirect impacts on safety and security.

5.16 Construction Impacts

5.16.1 Affected Environment/Existing Conditions

The construction of a maintenance facility for the Crenshaw/LAX LRT Line would involve the following construction phases:

- Demolition
- Site preparation and grading
- Installation of foundations
- Erection of buildings
- Installation of track work and pavements
- Site aesthetic improvements such as landscaping

The construction process would occur over an approximate 24-month period and would employ conventional construction techniques and equipment typically used in the Southern California region would follow all applicable local, State and federal laws for building and safety. Typical equipment could include excavators, loaders, lifts, backhoes, bulldozers, compactors, cranes, pavers, and graders. For security and safety purposes the facility would be fenced during construction. During the construction period, adjoining property owners would be experience increases in noise, dust, construction traffic and visual degradation. These issues would be comparatively minor because the surrounding land uses are industrial and rail oriented. These construction vehicles may temporarily impede traffic mobility in areas of construction and truck routes would be required during construction. Construction of the facility would be limited to the site, lane closures would be minimal and nighttime construction would not be required.

5.16.2 Environmental Impacts/Environmental Consequences

Table 5-32. Summary of Impacts During Construction

Criteria	Impact
Adverse Effect to Traffic, Circulation and Parking	No
Adverse Effects to Land Use and Development	No
Adverse Effects to Displacement and Relocation of Existing Uses	No
Adverse Effects to Community and Neighborhood	No
Adverse Effects to Visual and Aesthetic	No
Adverse Effects to Localized Air Quality	**Yes**
Adverse Effects to Regional Air Quality	**Yes**
Adverse Effects to Noise and Vibration	**Yes**
Adverse Effects to Ecosystems/Biological Resources	No
Adverse Effects to Geotechnical/Subsurface/Seismic/Hazardous Materials	No
Adverse Effects to Water Resources	No
Adverse Effects to Energy	No
Adverse Effects to Historic, Archaeological and Paleontological	No

Table 5-32. Summary of Impacts During Construction (continued)

Criteria	Impact
Adverse Effects to Parklands and Community Facilities	No
Adverse Effects to Economic and Fiscal	No
Adverse Effects to Safety and Security	No
Adverse Effects to Environmental Justice	No

Source: TAHA, 2010

5.16.2.1 Traffic

Construction of the maintenance facility would be limited to the site and would only require limited and temporary lane closures and/or reductions in parking. Because the site is located in the airport area, there is limited on-street parking available and the existing uses on the site would be removed, eliminating the existing parking demand. The number of truck trips and construction equipment needed to construct the facility would not adversely affect the surrounding traffic circulation patterns. Truck trips during construction are not anticipated to exceed eight per hour and would not degrade the level of service at surrounding intersections. A traffic management plan to assure access to local roads and businesses would be implemented and these effects would be temporary and no adverse effects to traffic, circulation, and parking are anticipated.

5.16.2.2 Land Use and Development

Construction of the maintenance facility would be located adjacent to the industrial-zoned areas adjacent to the Harbor Subdivision right-of-way. While these activities may require temporary easements, zoning and land use compatibility would not be altered and no adverse effects are anticipated.

5.16.2.3 Displacement and Relocation of Existing Uses

Displacement and relocation of existing uses would occur prior to any construction activity for the preferred maintenance site alternative, and, therefore, no adverse construction effects are anticipated.

5.16.2.4 Community and Neighborhoods

The preferred maintenance site alternative would not alter or block access to any community assets, displace on- or off-street parking spaces for community facilities during construction. Therefore, no adverse environmental effects are anticipated.

5.16.2.5 Visual Resources

Construction of a maintenance facility would result in construction-related signage, the stockpiling of dirt and materials, construction staging areas, and heavy equipment which would all be visible in the vicinity of construction sites. These visual elements would temporarily degrade the physical character of the area and would result in an adverse effect without mitigation.

5.16.2.6 Air Quality

Emissions would be generated during excavation, grading, hauling, and various other activities related to construction activities. The main sources of emissions would be exhaust from heavy-duty equipment and trucks. Commuting by construction workers would also generate greenhouse gas emissions.

Localized Construction Concentrations

Table 5-33 shows the maximum off-site pollutant concentrations. Localized concentrations would exceed the standards for $PM_{2.5}$ and PM_{10}. Therefore, construction activity would result in an adverse impact related to localized concentrations without mitigation.

Table 5-33. Localized Construction Concentrations - NEPA

Pollutant	Concentration	Standard/a/	Impact?
Site # 14 –Arbor Vitae/Bellanca Alternative			
PM_{10} – 24-Hour ($\mu g/m^3$)	177	150	**Yes**
$PM_{2.5}$ – 24-Hour ($\mu g/m^3$)	38	35	**Yes**
CO – 1-Hour (ppm)	0.27	35	No
CO – 8-Hour (ppm)	0.1	9	No
NO_2 – Annual (ppm)	0.004	0.053	No

Source: TAHA, 2010.
/a/Threshold established by the National Ambient Air Quality Standards..

Toxic Air Contaminants

The greatest potential for TAC emissions during construction would be diesel particulate emissions associated with heavy equipment operations.[5] According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person continuously exposed to concentrations of TACs over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. Given the short-term construction schedule of approximately two years, construction activity would not result in a long-term (i.e., 70 years) source of TAC emissions. No residual emissions and corresponding individual cancer risk are anticipated after construction. Therefore, construction activity would not result in an adverse impact related to toxic air contaminants.

Odors

Potential sources that may emit odors during construction activities include equipment exhaust and architectural coatings. Odors from these sources would be localized and generally confined to the immediate area surrounding the construction site. Construction activity would utilize typical construction techniques, and the odors would

[5]SCAQMD, *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions*, December 2002.

be typical of most construction sites and temporary in nature. Therefore, construction activity would not result in an adverse impact related to odors.

5.16.2.7 Noise and Vibration

The noise levels generated by construction equipment will vary greatly depending on factors such as the type of equipment, the specific model, the operation being performed, and the condition of the equipment. The equivalent sound level (L_{eq}) of the construction activity also depends on the fraction of time that the equipment is operated over the time period of construction. The dominant source of noise from most construction equipment is the engine, usually a diesel, often without sufficient muffling. Table 5-34 lists typical noise levels associated with equipment that would be used during the construction process. No other detailed information (e.g., equipment duration) was available when this analysis was completed.

Table 5-34. Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source
Excavator	82
Loader	85
Backhoe	80
Crane	83
Compactor	82
Paver	89
Grader	85
Truck	88
Pneumatic Tool	85

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

The FTA has published construction noise criteria in *Transit Noise and Vibration Impact Assessment* (May 2006). Based on daytime construction activity, the FTA guidance states that residential locations should be identified where residential exposure would exceed 90 dBA L_{eq} and commercial/industrial exposure would exceed 100 dBA L_{eq}.

Construction activity would generate a noise level of 91.5 dBA at 50 feet. The nearest residential land use to the preferred maintenance site alternative is located approximately 280 feet. At this distance, the construction noise level would be 76.5 dBA, which would be less than the 90-dBA significance threshold.

The preferred maintenance site alternative is located adjacent to commercial and/or industrial land uses. Construction activity may occur within 25 feet of these land uses. At this distance, the construction noise level would be 97.5 dBA, which would be less than the 100-dBA significance threshold. Construction activity would not result in an adverse noise impact at residential, commercial, or industrial land uses under any alternative.

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground

vibrations that spread through the ground and diminish in strength with distance. Buildings founded on the soil in the vicinity of the construction site respond to these vibrations, with varying results ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and slight damage at the highest levels. Table 5-35 lists typical vibration levels associated with equipment that would be used during the construction process.

Table 5-35. Construction Equipment Vibration Levels

Equipment	Typical Vibration Level (PPV) at 25 feet from Source
Roller	0.210
Large Bulldozer	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

The FTA has published construction vibration criteria in *Transit Noise and Vibration Impact Assessment* (May 2006). The FTA guidance states that typically constructed buildings (i.e., engineered concrete and masonry) can be exposed to a vibration level of 0.3 PPV (inches per second) without experiencing damage.

The preferred maintenance site alternative is located adjacent to commercial and/or industrial land uses and construction activity may occur within 25 feet of these land uses. This would generate a vibration level of 0.210 inches per second peak particle velocity (PPV), which would be less than the 0.3 inches per second PPV significance threshold. Construction activity would not result in an adverse vibration impact.

5.16.2.8 Ecosystems/Biological Resources

The construction of the maintenance site alternative would not take place on any undisturbed land or areas that contain sensitive species or habitats. Therefore no adverse effects would occur.

5.16.2.9 Geotechnical/Subsurface/Seismic/Hazardous Materials

Construction of the preferred maintenance site alternative may potentially encounter subsurface gases in the areas where grading and/or excavation would occur which may include the release of methane and hydrogen sulfide soil gas, oil seepage, contaminated soils, leaking wells, and wells not plugged and abandoned to current standards. The possibility of discovering subsurface gases would increase relative to the depth of construction.

Construction of the preferred maintenance site alternative is not anticipated to result in a significant amount of subsurface excavation. However, discovery of any subsurface gases would potentially result in an adverse effect.

Construction of a maintenance facility is not anticipated to result in exposure to hazardous materials. The previous mitigation measures identified in Section 3.10 provide the

appropriate methods for safely approaching the potentially hazardous situations and reducing this potential impact to less-than-adverse levels. The maintenance site alternative would be implemented in accordance with all federal and State requirements and permits during the construction process. It is anticipated that no adverse effects would occur to geotechnical, seismic, or hazardous materials during construction.

5.16.2.10 Water Resources

The construction of a maintenance facility would potentially include increased sediment and erosion in or near disturbed areas for the preferred maintenance site alternative. The preferred maintenance site alternative is required to comply with the NPDES General Construction Permit to discharge stormwater associated with construction activity. To address and reduce water quality adverse effects, a SWPPP will be prepared in accordance with the General Construction Stormwater Permit requirements. BMPs will be identified in the SWPPP to reduce or eliminate pollutants in stormwater discharges from the construction site. Implementation of temporary and permanent treatment BMPs would minimize adverse effects to water quality during construction for the preferred maintenance site alternative. Therefore no adverse effects would occur.

5.16.2.11 Energy

The highest daily energy consumption for the preferred maintenance site alternative would occur during the two year construction from construction equipment and workers. The demand for energy during construction of the project is anticipated to be met by the available supply. Impacts on energy resources would be temporary and not be considered adverse.

5.16.2.12 Historic, Archaeological, and Paleontological Resources

Archaeological Resources

No known archaeological resources listed or eligible for listing in the National Register would be affected by the construction of a maintenance facility. No adverse impacts are anticipated during construction.

Historic and Architectural Resources

A preconstruction survey of the adjacent structures and all historical buildings in the vicinity would be conducted to establish a baseline for measuring potential construction-induced damage. Construction monitoring would be required to ensure that ground movement does not exceed threshold values. No adverse impacts are anticipated during construction.

Paleontological Resources

Excavation during the construction of a maintenance facility would not be anticipated to exceed five feet in depth for the preferred maintenance site alternative and the potential discovery of a paleontological resource would be remote. No adverse impacts are anticipated during construction.

5.16.2.13 Parklands and Other Community Facilities

For all sites, construction would occur within the maintenance facility site and would not affect access or use of any parklands or community facilities. Therefore, no adverse impact on parklands or community facilities would occur.

5.16.2.14 Economic and Fiscal Effects

The preliminary capital cost for a maintenance facility is estimated to be $282.5 million ($2010). Total direct, indirect, and induced jobs would create a demand for 4,536 new workers during construction. The 249 direct jobs created is a very small proportion of the 2010 average annual employment in the regional construction sector. The demand for workers would be expected to be met by the available work force. The construction of the maintenance facility would involve expenditures for labor as well as materials and supplies. The construction of a maintenance facility is not anticipated to adversely affect the regional economy.

Again, it is expected that the construction labor force would be from the region. The magnitude of the construction project is relatively small, the construction duration is one to two years, and the regional construction work force is very large. State and local governments would theoretically benefit from income taxes paid on the project construction force wages. However, the magnitude of the construction activities associated with the site is relatively small compared to all construction activities in the region and the available construction work force. As such, it is not expected that the labor expenditures would result in substantial net new expenditures for construction labor in the region. Therefore, it is unlikely that state and local governments would actually benefit from increased income tax revenues.

The purchase of materials and supplies include routine construction purchases. They would include gravel, asphalt, concrete, architectural materials. Most of these materials and supplies would be expected to be purchased within the region, if not a substantial portion in Los Angeles County. The purchase of these materials and supplies by the selected contractor would include the payment of sales tax, which would be revenue distributed to the state and local governments in the region. The amount of materials and supplies required for the maintenance facility, however, is relatively small compared to all construction projects that would be ongoing in the region. As such, it is unlikely that the State or local governments would see a substantial increase in sales tax revenues.

Construction activities would inconvenience and disturb area employees, business operations, and business customers. Temporary construction effects would include:

- Presence of construction workers, heavy construction equipment, and materials
- Increase in airborne dust
- Increase in noise and vibration from construction equipment and vehicles

These effects would occur during the short-term one to two year construction process and are not anticipated to adversely affect the regional economy.

5.16.2.15 Safety and Security

During the construction of the site, concrete barriers with fencing would be placed around the perimeter of the site to restrict access and eliminate the threat to safety and security of anyone not directly involved in construction activity. Security lighting could be used during the construction of a maintenance facility. Lighting would be focused on potential access points to the site to deter access. It is assumed that all additional related activity would be implemented in accordance with all federal and State requirements and permits during the construction process. Therefore, the construction of a maintenance facility would have no adverse effects related to safety and security.

5.16.2.16 Environmental Justice

The preferred maintenance site alternative is not located in areas with significant elderly or limited English Proficiency (LEP) populations. The preferred maintenance site alternative is located in a low-income and minority area. One of the goals of the light rail line is to provide transit to minority and low-income communities. The construction of a maintenance facility would temporarily affect the minority and low-income communities listed above. Construction would not result in the displacement of any residences. Access to surrounding businesses would be maintained throughout the duration of construction. Therefore, these effects would be temporary and not considered adverse.

5.16.2.17 Mitigation Measures

Mitigation measures are proposed for the preferred maintenance site alternative to avoid, minimize, and mitigate adverse effects that would occur during construction.

Visual Quality

S-CON1 Visually obtrusive erosion control devices, such as silt fences, plastic ground cover, and straw bales shall be removed as soon as the area is stabilized.

S-CON2 Stockpile areas shall be located in less visibly sensitive areas and, whenever possible, not be visible from the road or to residents and businesses.

S-CON3 For security lighting during construction, lighting shall be aimed at the downward and away from residential and other sensitive uses adjacent the maintenance site alternative, to the extent feasible.

Air Quality

S-CON4 Contractor shall maintain a clean and neat work environment at all times.

S-CON5 Water or a stabilizing agent shall be applied to exposed surfaces in sufficient quantity to prevent generation of dust plumes.

S-CON6 Track-out shall not extend 25 feet or more from an active operation and track-out shall be removed at the conclusion of each workday.

S-CON7 Contractors shall be required to utilize at least one of the measures set forth in SCAQMD Rule 403 section (d)(5) to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site.

S-CON8 All haul trucks hauling soil, sand, and other loose materials shall maintain at least 6 inches of freeboard in accordance with California Vehicle Code Section 23114.

S-CON9 All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).

S-CON10 Traffic speeds on unpaved roads shall be limited to 15 miles per hour (mph).

S-CON11 Operations on unpaved surfaces shall be suspended when winds exceed 25 mph.

S-CON12 Heavy equipment operations shall be suspended during first and second stage smog alerts.

S-CON13 On-site stockpiles of debris, dirt, or rusty materials shall be covered or watered at least two times per day.

S-CON14 Contractors shall maintain equipment and vehicle engines in good condition and in proper tune per manufacturers' specifications.

S-CON15 Contractors shall utilize electricity from power poles rather than temporary diesel or gasoline generators, as feasible.

S-CON16 Heavy-duty trucks shall be prohibited from idling in excess of five minutes, both on- and off-site.

S-CON17 Construction parking shall be configured to minimize traffic interference.

S-CON18 Construction activity that affects traffic flow on the arterial system shall be limited to off-peak hours, as feasible.

Water Quality

S-CON19 During project construction, remediation shall be required at maintenance facilities and vehicle storage areas, where a potential exists for grease and oil contamination to flow into storm drains. Various types of ditch structures, including grease traps, sediment traps, detention basins, and/or temporary dikes shall be used to control possible pollutants. These facilities shall be constructed pursuant to guidance published in Section 402 of the CWA and shall follow the most current guidance within the NPDES program.

S-CON20 The preferred maintenance site alternative currently drains indirectly to Ballona Creek and Dominguez Channel through the MS4. Treatment control

BMPs shall be incorporated into the project design. The project shall consider placing the treatment BMPs in series or in a complimentary system to increase the control of pollutants to the maximum extent practicable. The systems shall be designed to efficiently and effectively handle and treat dry and wet weather flows to the maximum extent practicable. A SUSMP and appropriate drainage control plan shall be implemented to select and place appropriate permanent treatment BMPs.

Environmental Justice

S-CON21 Nearby business owners and commercial property owners shall be notified of the schedule for specific planned construction activities, changes in traffic flow, and required short-term modifications to property access.

5.16.3 Impacts Remaining After Mitigation

The implementation of Mitigation Measures **S-CON1** through **S-CON3** would reduce the effect of visual elements from construction that would temporarily degrade the physical character of the area to not adverse. With the implementation of Mitigation Measures **S-CON4** through **S-CON18**, the construction effects to air quality would remain adverse for localized concentrations. With the implementation of Mitigation Measures **S-CON19** and **S-CON21**, would endure that construction effects that could affect water quality from runoff would remain not adverse. With the implementation of Mitigation Measure **S-CON21**, access to local businesses would be maintained to the greatest extent feasible and effects would not be adverse.

5.16.4 CEQA Determination

The CEQA Guidelines implicitly acknowledge that construction-related changes may be the source of significant impacts to the physical environment even though these effects may be short-term in duration. The preceding discussion has addressed all topic areas of environmental effects as required by CEQA except for air quality and noise, which use separate significance thresholds under CEQA than under NEPA. Typically significant construction effects are identified in CEQA as changes to the physical environment that are particularly disruptive or that have specific health and safety considerations. The construction effects identified above by in large require the development and implementation of a comprehensive array of construction management and abatement measures as described previously under the Mitigation Measures heading. Those environmental changes requiring mitigation would be considered significant for purposes of CEQA and include:

- Air Quality
- Noise and Vibration

5.16.4.1 Significance Criteria

5.16.4.2 Air Quality

Based on SCAQMD guidance, the maintenance site alternative would have a significant impact if:

- Regional construction emissions were to exceed SCAQMD emissions thresholds for VOC, NO_X, CO, SO_X, $PM_{2.5}$, or PM_{10}, as presented in Table 5-36;
- Localized concentrations of CO exceed the one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm;
- Localized concentrations of NO_2 exceed the one-hour standard of 0.18 ppm;
- Localized concentrations of $PM_{2.5}$ or PM_{10} exceed 10.4 ug/m^3;
- The maintenance site alternative would generate significant emissions of TACs; and/or
- The maintenance site alternative would create an odor nuisance.

Table 5-36. SCAQMD Daily Construction Emissions Thresholds

Criteria Pollutant	Pounds Per Day
Volatile Organic Compounds (VOC)	75
Nitrogen Oxides (NO_X)	100
Carbon Monoxide (CO)	550
Sulfur Oxides (SO_X)	150
Fine Particulates ($PM_{2.5}$)	55
Particulates (PM_{10})	150

Source: SCAQMD, 2010

Noise and Vibration

The prior NEPA analysis discusses construction equipment and associated noise levels. CEQA noise impacts are often based on the noise ordinance for the project locations. The preferred maintenance site alternative occurs within the City of Los Angeles jurisdiction. A widely-used, acceptable industry standard within the southern California region was used as a CEQA significance threshold. Based on this threshold, a significant construction noise impact would result if:

- The preferred maintenance site alternative causes the ambient noise level measured at the property line of the affected uses to increase by 3 decibels CNEL to or within the "normally unacceptable" or "clearly unacceptable" categories, as show in State Land Use Noise Compatibility Guidelines, or any 5-dBA or more increase in noise level.

The Cities of Los Angeles has not developed specific CEQA vibration significance thresholds for transportation projects. Therefore, refer to the previous NEPA analysis for a discussion of vibration effects.

5.16.4.3 Air Quality

Regional Emissions

Regional emissions would be generated by construction equipment, haul trucks, worker commute trips, earthwork activity, and architectural coating activity. Site grading and preparation would result in the highest worst case day emissions. It was assumed that most intense day of construction activity would occur generate a maximum of 75 truck trips per day.

As shown in Table 5-37, regional emissions would exceed the SCAQMD significance thresholds for VOC and PM_{10}, and would result in a significant impact without mitigation.

Localized Concentrations

Table 5-37 shows the maximum off-site pollutant concentrations for the most impacted sensitive receptor for the preferred maintenance site alternative. Localized particulate matter concentrations would exceed the SCAQMD standards and would result in a significant impact related to localized concentrations without mitigation.

Table 5-37. Construction Emissions and Concentrations - CEQA

Site #14 – Arbor Vitae/Bellanca Alternative					
Regional Construction Emissions					
Emissions	**Pounds Per Day**				
	ROG	**NO_x**	**CO**	**$PM_{2.5}$**	**PM_{10}**
Regional Emissions	148	82	57	36	160
Significance Thresholds	75	100	550	55	150
Exceed Threshold?	Yes	No	No	No	Yes
Localized Construction Concentrations					
Pollutant	**Concentration**		**Standard/a/**		**Impact?**
PM_{10} ($\mu g/m^3$)	177		10.4		Yes
$PM_{2.5}$ ($\mu g/m^3$)	38		10.4		Yes
CO – 1-Hour (ppm)	0.27		20		No
CO – 8-Hour (ppm)	0.1		9.0		No
NO_2 (ppm)	0.10		0.18		No

/a/Threshold established by the South Coast Air Quality Management District.
Air Quality calculations are provided in Appendix H of this report
Source: TAHA, 2010.

5.16.4.4 Noise and Vibration

The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level. Vibration levels are also provided in the guidance document, and were estimated using a similar methodology. Table 5-38 shows the construction noise levels associated with the preferred maintenance alternative. Construction activity would exceed the

Table 5-38. Construction Noise Levels – Site #14 – Arbor Vitae/Bellanca Alternative

Receptor	Distance to Source (Feet)	Existing Noise Level (dBA, Leq)	Project Noise Level (dBA, Leq)	Noise Exposure (dBA, Leq)	Increase	Impact?
Residential – North	280	65.2	69.0	70.5	5.3	Yes
Residential – East	350	68.8	72.1	73.8	5.0	Yes
Residential - West	375	57.9	71.5	71.7	13.8	Yes
Bright Star School	600	55.0	57.4	59.4	4.4	No
Animo School	750	68.8	65.5	70.5	1.7	No
Residential – South	850	57.9	54.4	59.5	1.6	No

Source: TAHA, 2010.

5-dBA significance threshold at multiple sensitive receptors. Therefore, construction activity would result in a significant impact related to noise without mitigation.

5.16.4.5 Additional Mitigation Measures

S-CON22 Architectural coatings shall be purchased from a compliant architectural coating manufacturer as identified by the SCAQMD.

S-CON23 Contractors shall comply with SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). The requirements for demolition activities include asbestos surveying, notification, Asbestos-containing materials (ACM) removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials.

S-CON24 Noise barriers (e.g., sound attenuation blankets or solid walls) shall be placed such that the line-of-sight is blocked between sensitive receptors (e.g., residential and institutional land uses) and the project site, as feasible.

S-CON25 During the early stages of construction plan development, natural and artificial barriers, such as ground elevation changes and existing buildings, shall be considered for use as shielding against construction noise.

S-CON26 The contractor shall comply with Standard Specification 1565, FTA noise criteria and all local sound control and noise level rules, regulations, and ordinances that apply to any work performed pursuant to the contract. Each internal combustion engine used for any purpose on the job or related to the job shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated without a muffler.

S-CON27 Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than metal-tracked equipment) as much as possible.

S-CON28 The contractor shall submit a noise plan for construction activity associated with the preferred maintenance site alternative. The plan shall be prepared by a qualified acoustical engineer and should be approved by the resident engineer before construction is initiated. The noise control plan shall include

an inventory of the equipment, the estimated noise level at 50 feet for each major piece of equipment, calculations of the noise levels at impacted sensitive receptors, and noise reduction measures for sensitive receptor locations where the predicted noise levels exceed the ambient noise level by 5 dBA. Impacted receptors include, but may not be limited to, residences to the west of the preferred maintenance site alternative.

5.16.5 Impacts Remaining After Mitigation

Air Quality

Mitigation Measures **S-CON5** through **S-CON13** would ensure compliance with Rule 403. Mitigation Measures **S-CON14** through **S-CON18**, although difficult to quantify, would also control construction emissions. Theses mitigation measures would reduce fugitive dust emissions to the greatest extent feasible. Mitigation Measure **S-CON22** would reduce architectural coating emissions by 96 percent and Mitigation Measure **S-CON23** would control asbestos exposure. The mitigation measures would not reduce fugitive dust emissions beyond the 61 percent achieved with SCAQMD Rule 403 compliance. VOC emissions under construction activity would be reduced to 16 pounds per day, which is less than the 75 pounds per day regional significance threshold. Regional construction emissions would still result in a regional PM_{10} impact.

Localized particulate matter concentrations would still exceed the SCAQMD particulate matter thresholds. Therefore, construction activity would result in a significant and unavoidable adverse impact related to localized concentrations. Mitigation Measure **S-CON24** would reduce construction noise levels by at least 5 dBA at sensitive receptors.

Noise

While difficult to quantify, Mitigation Measures **S-CON25** through **S-CON28** would also reduce construction noise levels. However, construction noise level associated with the preferred maintenance site alternative would still be significant. Therefore, construction activity would result in a significant and unavoidable adverse impact related to noise.

5.17 Growth-Inducing Impacts

5.17.1 Existing Conditions/Affected Environment

The preferred maintenance site alternative is located in the vicinity of LAX, and has been designated for industrial use. The existing area contains a fully developed network of roads and highways, and all areas are within serviced by utilities and infrastructure.

5.17.2 Environmental Impacts/Environmental Consequences

5.17.2.1 Direct Impacts

The preferred maintenance site alternative is within a densely developed urban setting and would not extend into previously undeveloped areas that may induce changes in such areas. The operation of a maintenance facility on this site would not create housing or a change in population. The industrial-designated areas surrounding the airport are located in fully developed areas with extensive infrastructure, including roads, highways and utilities. The land required for the operation of a maintenance facility would not create the opportunity for additional growth or development. Therefore, no adverse growth inducing effects with occur for the preferred maintenance site alternative.

5.17.2.2 Indirect Impacts

The preferred maintenance site alternative would not remove a barrier to growth or otherwise create the opportunity for significant indirect growth. Therefore, no adverse indirect impacts are anticipated related to growth inducement.

5.17.3 Mitigation Measures

No mitigation measures are required.

5.17.4 CEQA Determination

According to CEQA, growth inducing impacts would be considered significant if the preferred maintenance site alternative has the potential to induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). The preferred maintenance site alternative would be located within a densely developed urban setting and would not extend into previously undeveloped areas that may induce changes in such areas. No direct or indirect growth-inducing impacts are anticipated.

5.18 Cumulative Impacts

"Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects, whereas the cumulative impact is the change in the environment from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time.

An adequate discussion of significant cumulative impacts involves analyzing either (1) "a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency", or (2) "a summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emission. A summary of projections may also be contained in an adopted or certified environmental document for such a plan. Such projections may be supplemented with additional information such a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency."

This cumulative impact analysis relies on method (2) described above. This cumulative impact analysis incorporates the regional projections from the RTP. The preferred maintenance site alternative is within one of the 14 Subregions in SCAG's planning area that consist of the City of Los Angeles and the South Bay Cities Council of Governments subregions. The RTP reflects transportation, population, employment, and land use data for the six-county SCAG area through the year 2035, and is, thus, an appropriate basis for the analysis of cumulative impacts.

The region wide impact analysis conducted in the RTP Program Environmental Impact Report (PEIR) (SCH No. 2007061126, May 2008), serves as the basis for this analysis of cumulative impacts, per Section 15150 of the CEQA guidelines. SCAG states that lead agencies, such as the Los Angeles County Metropolitan Transportation Authority (Metro), may use the region-wide impact analysis contained in the RTP PEIR as the basis of their cumulative impact analysis. The RTP PEIR contains a thorough analysis of environmental impacts resulting from implementation of various transportation projects throughout SCAG's six county region that encompasses approximately 38,000 square miles. Therefore, the RTP PEIR is used as the basis of this cumulative impact analysis and is hereby incorporated by reference per Section 15150 of CEQA guidelines. The SCAG RTP PEIR found that there would be significant cumulative impacts in the following areas:

- Traffic, Circulation, and Parking
- Land Use and Development
- Open Space
- Public Services and Utilities
- Water Resources
- Energy
- Noise and Vibration
- Air Quality

- Visual and Aesthetic
- Population, Housing, and Employment
- Historic, Archaeological and Paleontological
- Ecosystems/Biological Resources
- Geotechnical/Subsurface/Seismic
- Hazards and Hazardous Materials

5.18.1 Impact Assessment

The SCAG RTP PEIR found that there would be significant cumulative impacts region wide in a multitude of environmental areas, as summarized above. The cumulative effects of the transit project have been disclosed in the Crenshaw Transit Corridor DEIS/DEIR circulated in the Fall of 2009. This supplement addresses the cumulative impacts described in the *LAX Master Plan* and whether the maintenance site would add a cumulatively considerable contribution to the surrounding region. All of the candidate sites are within the general vicinity of LAX. The greatest impetus for change within the area is the implementation of the LAX Facilities Master Plan that encompasses areas beyond the specific limits of airport property, but includes properties owned by LAWA.

The actual timing of the implementation of the *LAX Master Plan* is uncertain, as LAWA is currently considering revisions to the Master Plan in an Amendment study. It reasonably foreseeable, as a worst case scenario, that the construction of the maintenance facility in 2018 could occur simultaneously with other *LAX Master Plan* improvements. As such, there could be traffic disruptions from construction associated with detours and land closures for streets and arterials within the LAX vicinity. These effects would be considered cumulative impacts.

When compared to the current *LAX Master Plan*, the preferred maintenance site alternative would be located north of the area proposed for LAX Consolidated Rental Car Facility, as well as north of the proposed LAX Ground Transportation Center.

In the event that all proposed LAX facilities would be constructed in the same time frame as the maintenance facility, there would be cumulative air emissions from construction equipment, as well as traffic disruption from haul trucks, detours and lane closures. Over the long term , the *LAX Master Plan* Final EIS/EIR has disclosed the changes that would occur in the area encompassing the effects of air traffic growth to approximately 98,000,000 annual passengers as well as the creation of ancillary facilities for LAX.[6]

Cumulative Impacts

Cumulative impacts described in the *LAX Master Plan* would occur to land use, displacement, air quality, noise, water quality, and energy. Key changes to the surrounding area disclosed in the *LAX Master Plan* Final EIS/EIR include:

- The intensification of development in the area with expansion of the airport property and subsequent land use impacts due largely to incompatible land use from aircraft noise;

[6]Los Angeles World Airports. *LAX Master Plan Final EIR*. April 2004.

- Office, retail, hotel and light industrial space would need to be relocated to off-airport areas. There may be increased demand for cargo-related space in the surrounding area, thereby increasing competition with displaced uses for the limited supply of light industrial space. Consequently, the ability for displaced airport-dependent businesses to find suitable relocation sites in proximity to LAX may be constrained. Acquired air-freight businesses would have limited readily available relocation sites and therefore may incur operational and/or financial hardships as a result of relocation to locations far-removed from the airport;
- Cumulative impacts to air quality, including GHG emissions, may occur as operational and construction emissions in conjunction with emission from past, present and foreseeable future development projects in the vicinity would be significant;
- Impacts to water quality may result as increased surface water runoff and peak flows in conjunction with runoff and peak flows from past, present and foreseeable future projects in the vicinity may not be accommodated by the regional drainage infrastructure. Airport related development would directly increase water demand and wastewater production in the region; and
- Energy – demand for electricity, natural gas and transportation-related fuels would increase due to new development within Master Plan boundaries, increases in passenger activity, aircraft operations and development of LAX Northside.

Evaluation of Maintenance Facility Contribution to Cumulative Impacts

It is not anticipated that the contribution of impacts from the preferred maintenance site alternative would be cumulatively considerable to the areas of impact described above (land use, displacement, air quality, noise, water quality, and energy) due to low intensity use, small peak hour trip generation, and the industrial character of the use.

5.19 Environmental Justice

5.19.1 Affected Environment/Existing Conditions

The United States Department of Transportation Order 5610.2 and subsequent agency guidance defines the following groups in Title IV of the Civil Rights Act of 1964 to be considered "minorities":

- Black
- Hispanic
- Asian
- American Indian
- Native Hawaiian or other Pacific Islander

The United States Department of Transportation Order 5610.2 uses the following definition given in Title IV of the Civil Rights Act of 1964 to define "low-income":

Low-income a person whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines.

The HHS poverty guidelines are simplifications of the poverty thresholds as established annually by the U.S. Census Bureau that are used for administrative purposes. The U.S. Census Bureau poverty thresholds are used primarily in statistical analyses and will be used in this environmental justice analysis as the basis for determining low-income and poverty characteristics.

The Department of Human Health Services uses the following thresholds to determine poverty (Table 5-39).

Table 5-39. 2000 U.S. Census Poverty Thresholds

Household Size	Income Threshold
One-Person	$8,794.00
Two-Person	$11,239.00
Three-Person	$13,738.00
Four-Person	$17,603.00
Five-Person	$20,819.00
Six-Person	$23,528.00

Source: U.S. Census Bureau, Housing and Household Economic Statistics Division, 2000.

5.19.1.1 Regional Demographic and Socioeconomic Existing Settings

The preferred maintenance site alternative is located in the City of Los Angeles. The following sections present the existing demographic and socioeconomic characteristics of the region and of the Census tract block groups wherein the maintenance facility is located. Any analysis of potential disproportionate adverse effects on individuals should

be conducted with relatively current data. The most current and comprehensive data available for small subareas such as Census tract block groups is from the 2000 U.S. Census. For consistency, the data for all the larger geographies discussed in this report is from the 2000 U.S. Census. The Census data was compared with socioeconomic data from surrounding schools to ensure that the compositions within the census block groups have not significantly changed from 2000 to 2010. The school data showed that these neighborhoods were relatively stable over this time period. The demographic and socioeconomic characteristics are shown in Table 5-40.

Table 5-40. Summary of Regional Demographic and Socioeconomic Characteristics

Characteristic	Los Angeles County	City of Los Angeles	City of Inglewood
Total Population (persons)	9,519,338	3,694,820	112,580
Total Housing Units	3,270,909	1,337,706	38,648
Percent Minority	69%	71%	96%
Percent population low-income /a/	18%	22%	23%
Median Household income (1999 dollars)	$42,189	$39,942	$34,269
Percent of Population over 65 years of Age	10%	10%	7%
Percent Limited English Proficiency	16%	18%	27%

/a/Percent population low-income is population that is below the poverty level defined in Table 5-39.
Source: U.S. Census Bureau, 2000.

5.19.1.2 Site-Specific Demographic and Socioeconomic Existing Settings

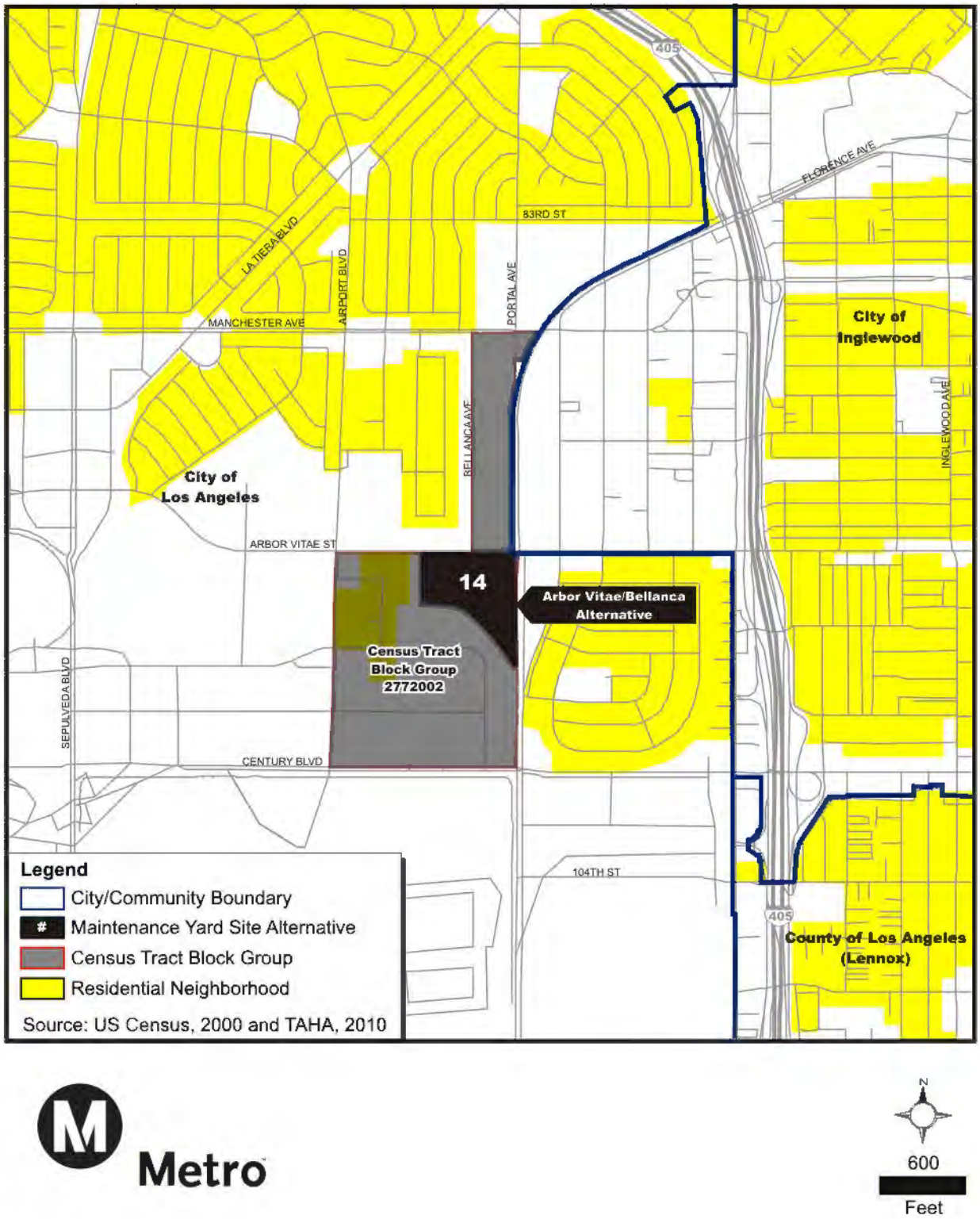
The preferred maintenance site alternative is located within Census tract block group 2772002.

Figure 5-19 shows the outline of the Census tract block group and the residential communities located within them. The demographic and socioeconomic characteristics for the preferred maintenance site alternative are detailed below. Since the minority population of Los Angeles is 69 percent, a minority threshold of 69 percent was chosen to determine whether the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population (Executive Order 12898).

5.19.1.3 Demographic Characteristics

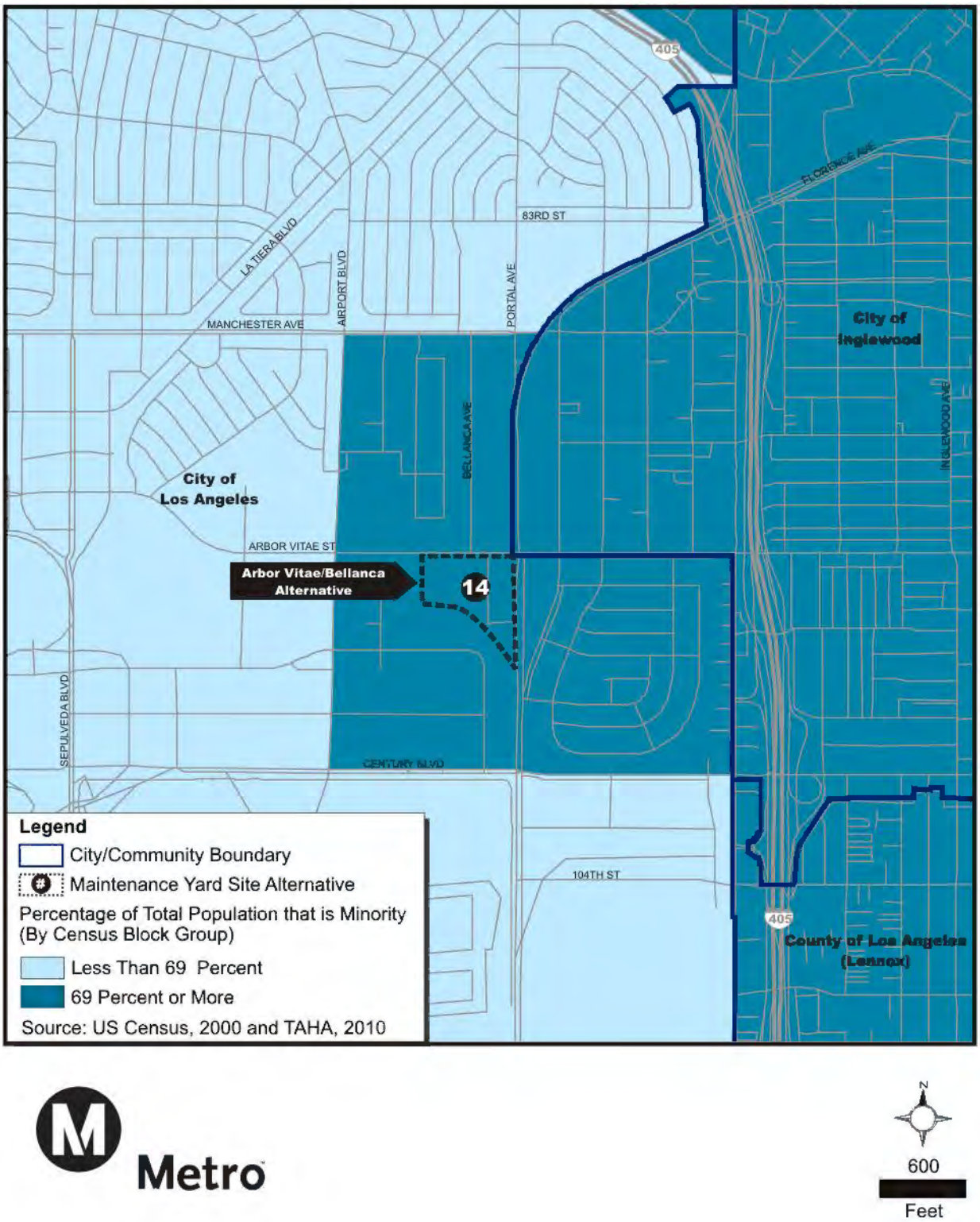
The demographic characteristics of the preferred maintenance site alternative is summarized in Table 5-41 and shown in and Figure 5-20. According to the 2000 U.S. Census, the percent of the population within the Census Tract Block Group that is minority is 83 percent. Hispanic is the minority group with the largest representation within the Census tract block group for the preferred maintenance site alternative. The preferred maintenance facility site alternative is in an area above the 69 percent threshold.

Figure 5-19. Census Track Block Groups and Residential Communities



Source: US Census 2000.

Figure 5-20. Demographic Distribution



Source: US Census 2000.

Table 5-41. Demographic Characteristics

Maintenance Site (Census Tract Block Group/ Jurisdiction)	Race/Ethnicity in Census Tract/Project Area (Persons)					
	White	Black or African American	Asian	Other Race	Hispanic or Latino	Total Minority
Maintenance Site #14 (2772002/Los Angeles)	259	298	102	141	721	**1,521**
	17%	20%	7%	9%	47%	
Percent of Census Tract Population that is Minority						**83%**

Source: U.S. Census Bureau, 2000.

5.19.1.4 Socioeconomic Characteristics

The socioeconomic characteristics of the Census Tract Block Groups associated with the preferred maintenance site alternative are summarized in Table 5-42 and shown in Figure 5-21.

Table 5-42. Socioeconomic Characteristics

Maintenance Site (Census Tract Block Group/ Jurisdiction)	Total Number of Housing Units	Median Household Income	Percentage Population Living Below Poverty Level /a/	Percent of Total Population that is Transit-Dependent
2772002/Los Angeles	538	$33,657	21%	15%

/a/Poverty status is based on thresholds defined in Table 5-39.
Source: U.S. Census Bureau, 2000.

5.19.1.5 Elderly Population

The age characteristics of the Census Tract Block Group associated with the preferred maintenance site alternative are summarized in Table 5-43 and shown in Figure 5-22.

Table 5-43. Age Characteristics

Maintenance Site (Census Tract Block Group/ Jurisdiction)	Ages 0-17		Ages 18-64		Ages 65 and Over	
	Persons	% of Total Population	Persons	% of Total Population	Persons	% of Total Population
Site #14 (2772002/Los Angeles)	443	29%	1054	69%	24	2%

Source: U.S. Census Bureau, 2000.

5.19.1.6 Limited English Proficiency Population

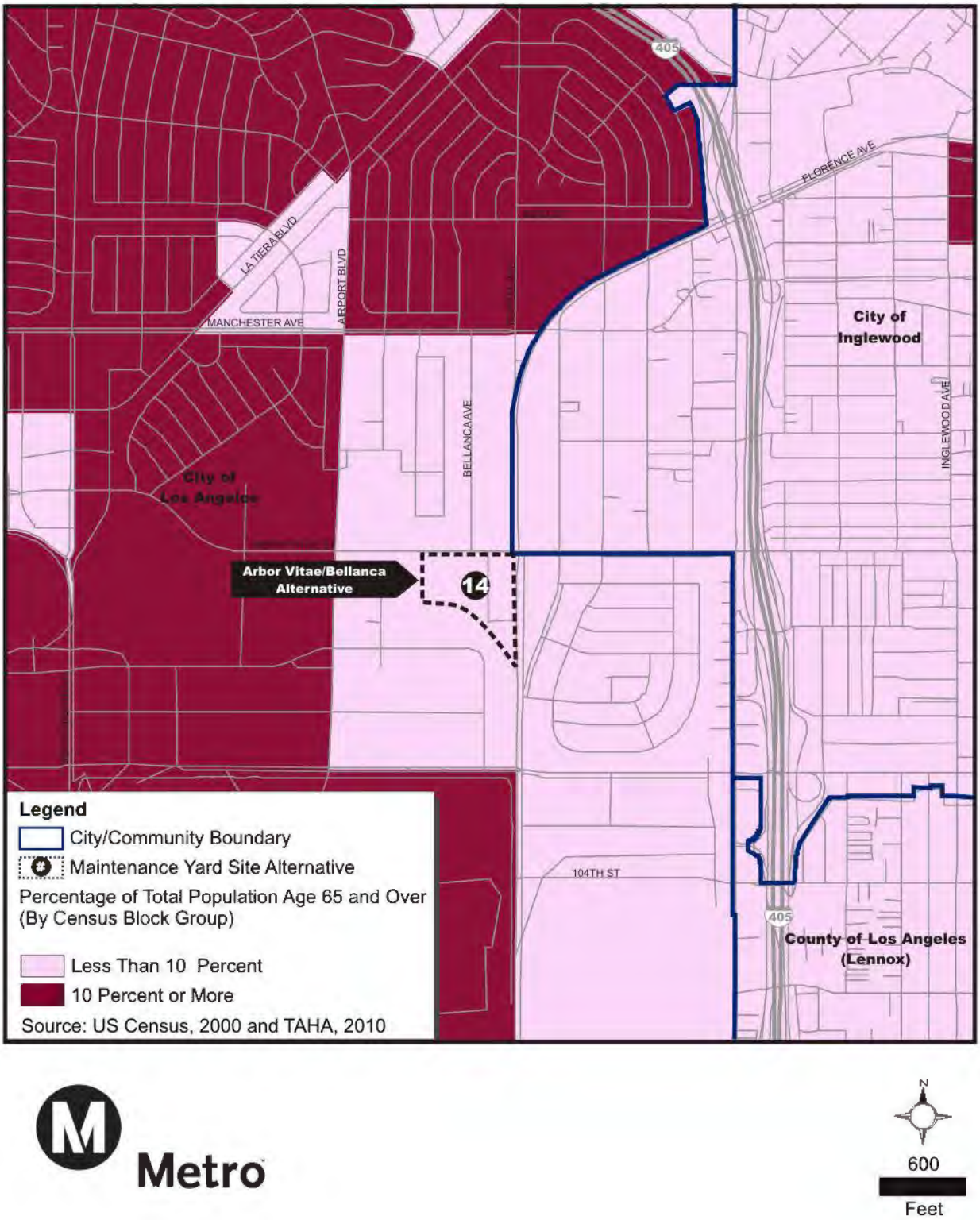
The limited English-proficiency (LEP) characteristics of the Census Tract Block Groups associated with the preferred maintenance site alternative are summarized in Table 5-44.

The percentage of LEP population of the Census tract block group associated with the preferred maintenance site alternative is 13 percent. This percentage is not considered to be a significant LEP population compared to the County of Los Angeles LEP population percentage (16 percent).

Figure 5-21. Poverty Distribution

Source: US Census 2000.

Figure 5-22. Elderly Population Distribution



Source: US Census 2000.

Table 5-44. LEP Characteristics

Maintenance Site (Census Tract Block Group/Jurisdiction)	Not Linguistically Isolated		Linguistically Isolated							
			Spanish		Asian		Other Languages		Total	
	Persons	%	Persons	%	Persons	%	Persons	%	Persons	%
Maintenance Site #14 (2772002/Los Angeles)	1,230	87%	141	10%	17	1%	33	2%	191	13%

Source: U.S. Census Bureau, 2000.

5.19.2 Public Participation

5.19.2.1 Presentation of Potential Sites

The supplemental analysis for the Crenshaw/LAX LRT Corridor maintenance facility was initiated at a public workshop on February 24, 2010. Spanish translation services were available but not required. Approximately 3,060 flyers were distributed to notice this workshop, as well as e-mail blasts to stakeholders. Flyers were distributed to elected officials, agencies, local jurisdictions, community organizations, churches, and schools. At the end of March 2010, four additional public workshops were held to display the 16 initial sites that the public had identified at the February public workshop, as well as the criteria that would be used to screen the potential sites (in which the public also had previous input in the selection process). Approximately 15,080 flyers were distributed to notice these workshops. Similarly, flyers included community organizations, churches, and schools.

The format of the public workshops allowed attendees the opportunity to review project information prior to the start of the presentation. Project team members were present at the display boards to address public questions and/or comments related to the project. Spanish translators were made available, as appropriate. Following the open house period, a presentation was made to provide attendees with information regarding the purpose of the workshops, and to provide a presentation of the maintenance site alternatives. No formal comment period followed. Instead, attendees were encouraged to interact with staff to present their views and comments.

In addition to the foregoing outreach, Metro contacted all potentially affected major property owners and tenants in an effort to disclose information about the maintenance site alternatives and the evaluation process. Metro conducted briefings and presentations with more than 40 potentially affected owners and tenants. Typically, the briefing included an overview of the project and the process for selecting a maintenance facility, which included the timeline involved, and how any potential real estate acquisitions would occur. Owners and tenants were also asked to contribute any information about their property or business, which could help characterize the extent of the potential displacement and relocation efforts.

5.19.2.2 Public Comments Related to Environmental Justice

No specific comments regarding environmental justice were received during the public workshops. Although the required screening process of alternatives primarily takes into

account environmental, engineering, and technical considerations, it also takes into account the comments and input from the public at these meetings. The public expressed a general interest in keeping the maintenance facility away from residential neighborhoods and commercial areas. They also preferred vacant or underutilized land as the best location for a facility. As a result, several alternatives were eliminated that could have had adverse and disproportionately adverse impacts on minority and low-income populations.

5.19.3 Environmental Impacts/Environmental Consequences

5.19.3.1 Direct Impacts

Table 5-45 summarizes the populations of environmental justice concern that are located in the Census tract block group where the preferred maintenance site alternative is located.

Table 5-45. Summary of EJ Communities in the Census Block Groups for the Preferred Maintenance Site Alternative Compared to Los Angeles County Percentages

Maintenance Site (Census Tract Block Group/ Jurisdiction)	Compared to Los Angeles County			
	Predominately Minority (Over 69%)	Predominately Low-Income (Over 18%)	Predominately Elderly (Over 10%)	Predominately LEP (Over 16%)
(2772002/Los Angeles)	Yes (83%)	Yes (21%)	No (2%)	No (13%)

Source: U.S. Census Bureau, 2000.

Minority Populations. One of the goals of the light rail line is to provide transit to minority communities. Elements of the light rail line, such as the operation of a maintenance facility would affect the minority communities for the preferred maintenance site alternative.

Low-Income Populations. One of the goals of the light rail line is to provide transit to low-income communities. Elements of the light rail line, such as the operation of a maintenance facility would affect the low-income communities for the preferred maintenance site alternative.

Elderly Populations. There are no predominantly elderly populations located near the preferred maintenance facility site alternative. Therefore, the operation of a maintenance facility would not adversely affect elderly communities.

LEP Populations. The preferred maintenance site alternative is not located in a Census tract block group that has a large percentage of LEP population when compared to the Los Angeles County minority percentage, 16 percent. Despite this, outreach has targeted Spanish speakers in the area to allow comprehensive public participation of residents nearby the preferred maintenance site alternative. In addition, the preferred maintenance site alternative would not displace services that cater to LEP populations. The operation of a maintenance facility would not adversely affect LEP communities.

5.19.3.2 Indirect Impacts

The construction of the preferred maintenance site alternative could have the potential to reduce access to local businesses adjacent to the proposed sites. Some of these local businesses may be minority-owned. These businesses may also see an increase in sales due to the jobs generated during construction. In order to minimize potential loss of revenue due to restricted access or visibility of a business in a predominately minority area, Mitigation Measure **S-CON20** is included. Upon implementation of this mitigation measure, no indirect disproportionate adverse impacts associated with environmental justice are anticipated during construction of the preferred maintenance site alternative.

5.19.4 Measures to Minimize Harm

None required.

5.19.5 CEQA Determination

CEQA does not have any thresholds of significance specific to environmental justice. Based on the only CEQA thresholds specifically applicable to low-income communities, the preferred maintenance site alternative would not displace affordable housing necessitating the construction of replacement housing elsewhere. No significant impacts are anticipated and, therefore, no mitigation measures are required under CEQA.

5.20 Additional Federal Requirements and NEPA Considerations

5.20.1 Affected Environment/Existing Conditions

Refer to Sections 3.1 through 3.19 for a description of existing conditions for the preferred maintenance site alternative.

5.20.2 Environmental Impacts/Environmental Consequences

5.20.2.1 Short Term Uses vs Long Term Productivity

NEPA requires analysis of the relationship between a project's short-term impacts on the environment and the effects those impacts may have on the maintenance and enhancement of the long-term productivity of the affected environment. The preferred maintenance site alternative would result in both short- and long-term environmental effects, however, they would provide valuable infrastructure to the regional transit system and are not expected to alter long-term productivity or result in inefficient use of designated land, or pose long-term risks to public health and safety. The preferred maintenance site alternative is located in an already highly urbanized area and consists primarily of commercial and industrial uses. A maintenance facility would be consistent with the existing uses and related productivity of the sites. The short-term impacts of the project would be primarily localized, construction related impacts. Short-term economic and displacement impacts would result at the preferred maintenance site alternative, as tenants and businesses on these sites would require relocation. Although this represents an impact to the affected environment, it is not one that would have an effect on the long-term productivity of the affected environment. The maintenance facility will be a beneficial long-term public use, as it will enhance the public transportation system in the area, thereby reducing the dependency on personal vehicles for transportation.

5.20.2.2 Irreversible and Irretrievable Resources

The maintenance facility would require the commitment of irreversible and irretrievable resources. Irreversible resources would occur from the use of land, fill and gravel resources, electrical energy, fuel, and labor. The commitment of energy and labor for construction is considered irretrievable and irreversible. These resources are not in short supply, and resource use would not have an adverse effect on continued availability of these resources. Construction of the preferred maintenance site alternative would require an expenditure of both State and/or federal funds, which are not retrievable. The land acquired for the maintenance site alternative would be considered an irreversible commitment of resources. However, the land required for the maintenance facility represents a small portion of land in the surrounding region and is consistent with the industrial uses in the area. The commitment of these non-renewable resources is based on the premise that area residents would benefit from the improved quality of the transportation system, which would result in a reduction of VMT. The commitment of these resources would not be adverse.

5.20.3 Mitigation Measures

None required.

5.21 Significant and Irreversible Changes and Unavoidable Significant Impacts

5.21.1 Significant and Irreversible Changes

Section 15126(c) of the CEQA Guidelines requires that an EIR describe any significant irreversible environmental changes that would be caused by the preferred maintenance site alternative should it be implemented. In the case of the preferred maintenance site alternative, implementation would convert the existing primarily industrial land to public transit infrastructure for a maintenance facility. No additional access to a previously inaccessible area would occur. Implementation of the project would allow construction activities that would entail the commitment of nonrenewable and/or slowly renewable energy resources, human resources, and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, and water. The resulting consumption of fossil fuels would incrementally reduce existing supplies of fuel oil, natural gas and gasoline. An incremental increase in energy demand would also occur during post-construction activities including lighting and maintenance activities. This commitment of resources would be representative of resource commitments normally associated with urban development that would occur within the region. Development of a maintenance facility is a long-term irreversible commitment of the land and it is improbable that the site would revert to its existing use due to the large capital investment that would already have been committed.

5.21.1.1 Significant and Unavoidable Impacts

As indicated in Chapter 3.0, most of the significant and/or potentially significant impacts can be mitigated to less-than-significant levels. The significant and unavoidable environmental impacts that would result from the preferred maintenance site alternative are listed below.

Displacements and Relocations. A significant and unavoidable impact would occur related to displacement and relocation for the preferred maintenance site alternative. The preferred maintenance site alternative would require 12 full parcel acquisitions to accommodate a maintenance facility on this site. These parcels include industrial land uses. Many of the owners and tenants on this site have long term leases, were seeking to sublet property, or had either planned or completed recent improvements to their properties. A trading company on the site also has a one of a kind refrigeration system that would not be able to be relocated. There are two car rental facilities, one of which has acquired adjacent property for added capacity. The displacement of businesses within this site could result in loss of approximately 390 employees.

The preferred maintenance site alternative is in close proximity to LAX and the success of many of these affected businesses depends on their proximity to the airport. The airport vicinity is highly urbanized and developed and as a result, relocation sites with proximity to the airport are scarce. Relocating all of the owners and tenants on the preferred maintenance site alternative, according to their individual needs, especially with proximity to the airport and available land, would be challenging. While adherence to the provisions of the Uniform Act and coordination with LAWA regarding the *LAX Master*

Plan (Mitigation Measures **S-DR1**through **S-DR3**) may lessen acquisition and relocation impacts from the preferred maintenance site alternative, there is no certainty that all displaced businesses can be relocated in areas that ensure that there is no adverse effect on their competitive position. Nor is there certainty that the time frames for the Crenshaw/LAX Transit Project and implementation of the *LAX Master Plan* will be totally in sync to facilitate a seamless relocation of affected businesses in comparable facilities. Under these circumstances a significant and unavoidable s effect would remain.

Economic. A significant and unavoidable economic impact would occur if the preferred maintenance site alternative were selected as a location for the maintenance facility. This maintenance site alternative is located in an area within two miles of LAX. The activities at LAX, including business travel, tourist travel and goods movement each contribute to LAX's importance as a key element of the Southern California economy. Acquisition of property necessary for the maintenance facility would result in the displacement of a substantial number of employees working in a variety of businesses, each with their own unique relocation needs. The total estimated employment for this site is approximately 390 jobs. The displacement of this number of jobs and loss of property tax revenue would result in an adverse effect to the regional economy. The ability to relocate these owners and tenants would be pivotal in determining the extent of the impact to the regional economy, however, as discussed above, there is no certainty that all displaced businesses can be relocated in areas that ensure that there is no adverse effect on their competitive position. Nor is there certainty that the time frames for the Crenshaw/LAX Transit Project and implementation of the *LAX Master Plan* will be totally in sync to facilitate a seamless relocation of affected businesses in comparable facilities. Under these circumstances a significant and unavoidable effect would remain.

Air Quality. A significant localized impact would occur during construction of the preferred maintenance site alternative. Regional emissions would be generated by construction equipment, haul trucks, worker commute trips, earthwork activity, and architectural coating activity. Mitigation measures will be implemented to reduce regional air quality impacts to the greatest extent feasible. Mitigated regional construction emissions would result in a significant and unavoidable PM_{10} impact for the preferred maintenance site alternative.

Noise. A significant noise impact would occur during construction of the preferred maintenance site alternative. Construction activity would exceed the 5-dBA significance threshold at multiple sensitive receptors for the preferred maintenance site alternative. Mitigation measures would reduce construction noise levels by at least 5 dBA at sensitive receptors. However, construction noise level associated with the preferred maintenance site alternative would still be significant. Therefore, construction activity would result in a significant and unavoidable adverse impact related to noise for the preferred maintenance site alternative.