2.0 PROJECT DESCRIPTION

2.1 Introduction

The Los Angeles World Airports (LAWA) proposes to construct and implement the Los Angeles International Airport (LAX) West Aircraft Maintenance Area Project (referred to hereafter as the proposed Project). The intent of the proposed Project is to consolidate, relocate, and modernize some of the existing aircraft maintenance facilities at LAX consistent with the LAX Master Plan. The consolidation, relocation, and modernization of these facilities would allow for more efficient and effective maintenance of existing aircraft at the airport, including Airplane Design Group (ADG) VI aircraft (Airbus A380s and Boeing 747-8s). The proposed Project would also include the provision of aircraft parking positions adjacent to the new aircraft maintenance facilities and apron space for remain overnight/remain all day (RON/RAD) aircraft parking, which provides extended layover space for aircraft that cannot be remain parked at terminal area contact gates. Routine aircraft maintenance and RON/RAD aircraft parking are regular functions at a major airport such as LAX. Currently these functions occur in multiple areas of the airport where routine aircraft maintenance can be performed, including low power engine run-up testing, when required.

The proposed Project would grade approximately 84 acres in the southwestern portion of the airfield (hereafter referred to as the Project site) and develop approximately 68 acres of the 84 acres with taxiways and aircraft parking apron areas, maintenance hangars, employee parking, service roads, and ancillary facilities (i.e., related storage, equipment and facilities).[1] The proposed Project would be able to accommodate up to 10 ADG VI aircraft, or a mix of smaller aircraft on the site. The proposed Project would not increase passenger or gate capacity and would not increase flights and/or aircraft operations at LAX.

2.2 Location and Surrounding Uses

LAX encompasses approximately 3,650 acres and is situated at the western edge of the City of Los Angeles (**Figure 2-1**). The Project site is located within the southwest portion of LAX immediately south of World Way West between Taxiway AA and Pershing Drive (**Figure 2-2)**. Existing adjacent uses include the West Remote Pads/Gates and aircraft aprons to the north; an airport employee parking lot and vacant airport property to the south; Taxiway AA, an American Airlines employee parking lot and the United (formerly Continental) Airlines maintenance hangars to the east; and Pershing Drive followed by the Los Angeles/El Segundo Dunes to the west. The Los Angeles/El Segundo Dunes is a former residential area that consists of open space/coastal dunes, with navigational aids, minor ancillary airport and utility improvements, abandoned residential streets, and the El Segundo Blue Butterfly Habitat Restoration Area. To the north of LAX is the community of Westchester (part of the City of Los Angeles), to the south

[1] Within the Project site, 68 acres would be paved while approximately 16 acres would be unpaved islands between taxiways and other unpaved areas.

is the City of El Segundo, to the east is the City of Inglewood and the unincorporated Los Angeles County community of Lennox, and to the west is the Pacific Ocean (**Figure 2-3)**.

2.3 Existing Conditions

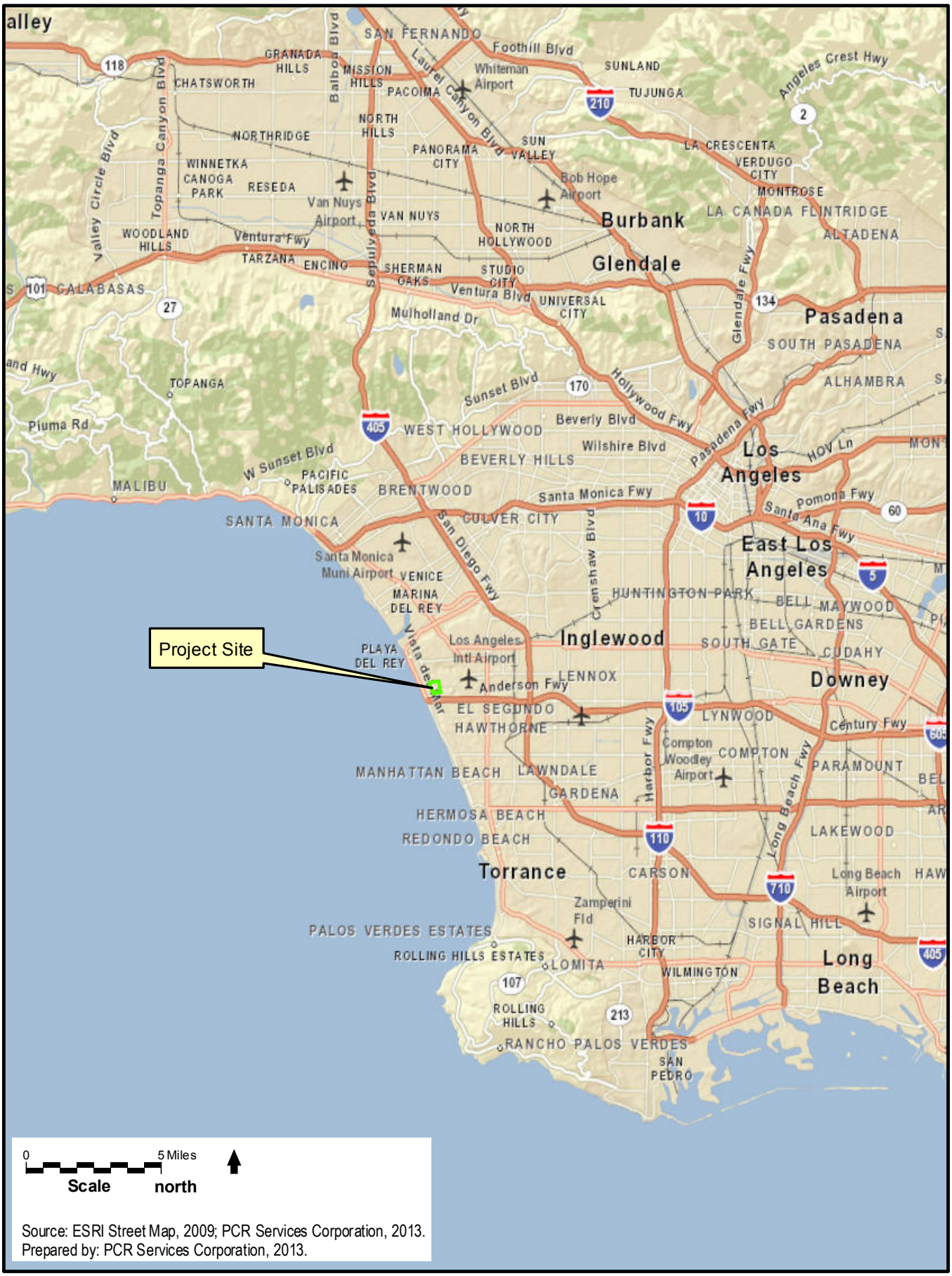
The Project site is currently used primarily as a staging area for airport construction projects, and includes: modular construction trailers/offices and an associated surface parking area, several paved roads, and several paved and unpaved outdoor loading and storage areas. In addition, stockpiled material consisting of soil and construction rubble is located within and immediately adjacent to the Project site. The Project site is permitted by the South Coast Air Quality Management District (SCAQMD) to accommodate and has at various times supported a concrete batch (production) plant and a rock/concrete crusher, although such facilities are not currently located on the Project site. In addition to construction-related uses, the Project site supports certain airport operations-related uses such as an airfield access security post (Guard Post 21) and a small LAWA Police Department/Transportation Security Administration (LAWAPD/TSA) canine "walk" area.

The Project site is located entirely within the City of Los Angeles LAX Plan area, as well as the LAX Specific Plan area, and is designated in the LAX Plan as "Airport Airside." Permitted uses include, but are not limited to, runways, taxiways, aircraft gates, maintenance areas, airfield operation areas, air cargo areas, passenger handling facilities, fire protection facilities, and other ancillary airport facilities. The LAX Specific Plan establishes the zoning and development regulations and standards consistent with the LAX Plan for the airport. Existing zoning within the LAX Specific Plan is Airport Airside (LAX-A Zone). Permitted uses in LAX-A Zone include, but are not limited to: surface and structured parking lots; aircraft under power; airline maintenance and support; air cargo facilities; commercial passenger vehicle staging and holding area; helicopter operations; navigational aids; runways, taxiways, aircraft parking aprons, and service roads; passenger handling facilities; run-up enclosures; and other ancillary airport facilities. The proposed Project is consistent with existing land use designations.

2.4 Project Objectives

The objectives of the proposed Project include the following:

- Consolidate, relocate, and modernize some of the existing aircraft maintenance facilities at LAX consistent with the LAX Master Plan.
- Provide for more efficient and effective maintenance of existing aircraft at the airport, including ADG VI aircraft (i.e., Airbus A380 and Boeing 747-8).
- Provide aircraft maintenance hangars and aircraft parking areas that are all sized to accommodate ADG VI aircraft and other aircraft in one location.
- Provide an area for RON/RAD aircraft parking that can also support routine servicing and maintenance of aircraft.
- Support consistency with the LAX Master Plan by providing an aircraft maintenance area in the southwest portion of the airport**.**



West Aircraft Maintenance Area Project Draft EIR	Regional Map	Figure 2-1

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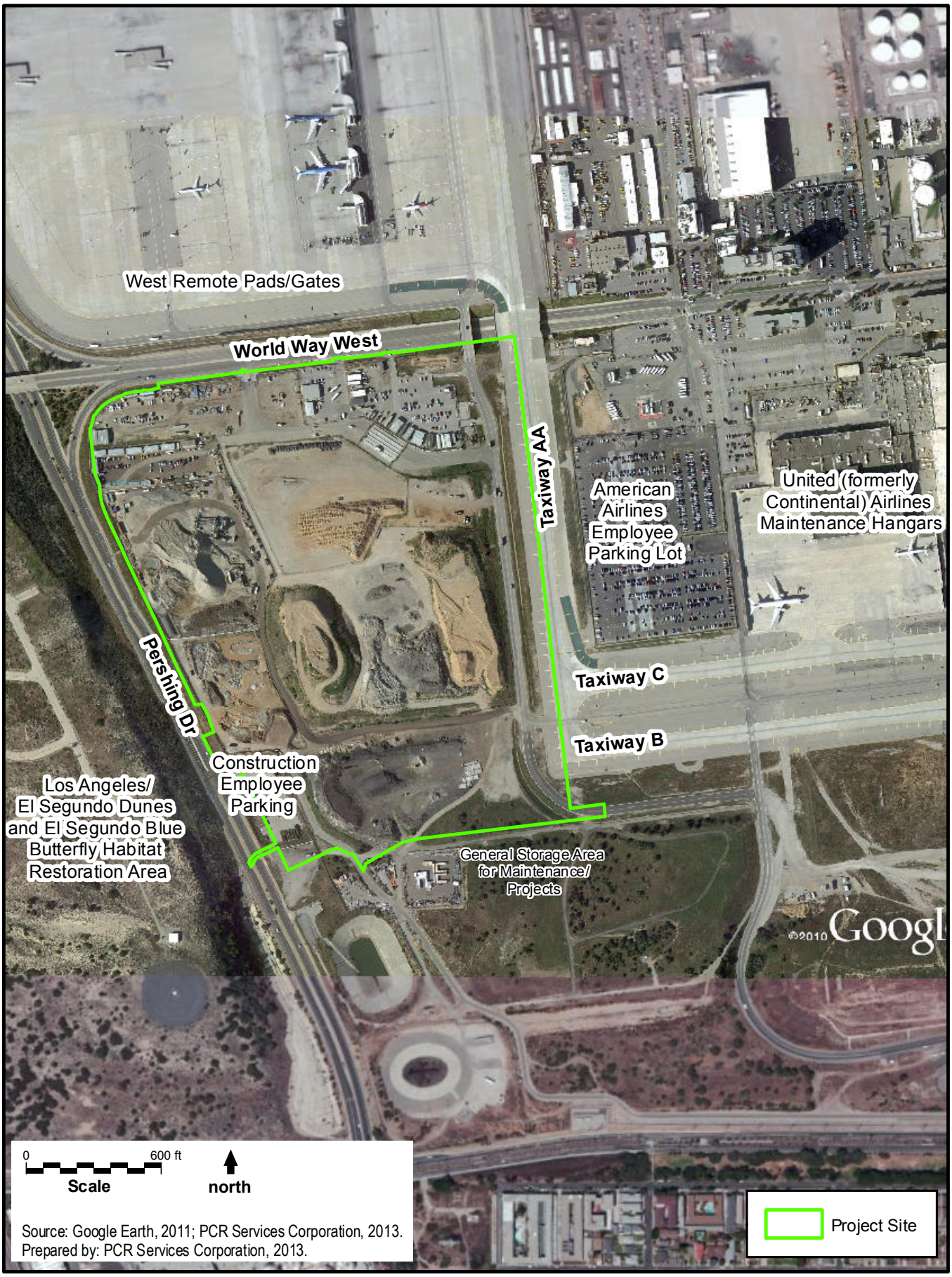

West Aircraft Maintenance Area Project Draft EIR	Aerial Photograph of Project Site	Figure 2-2

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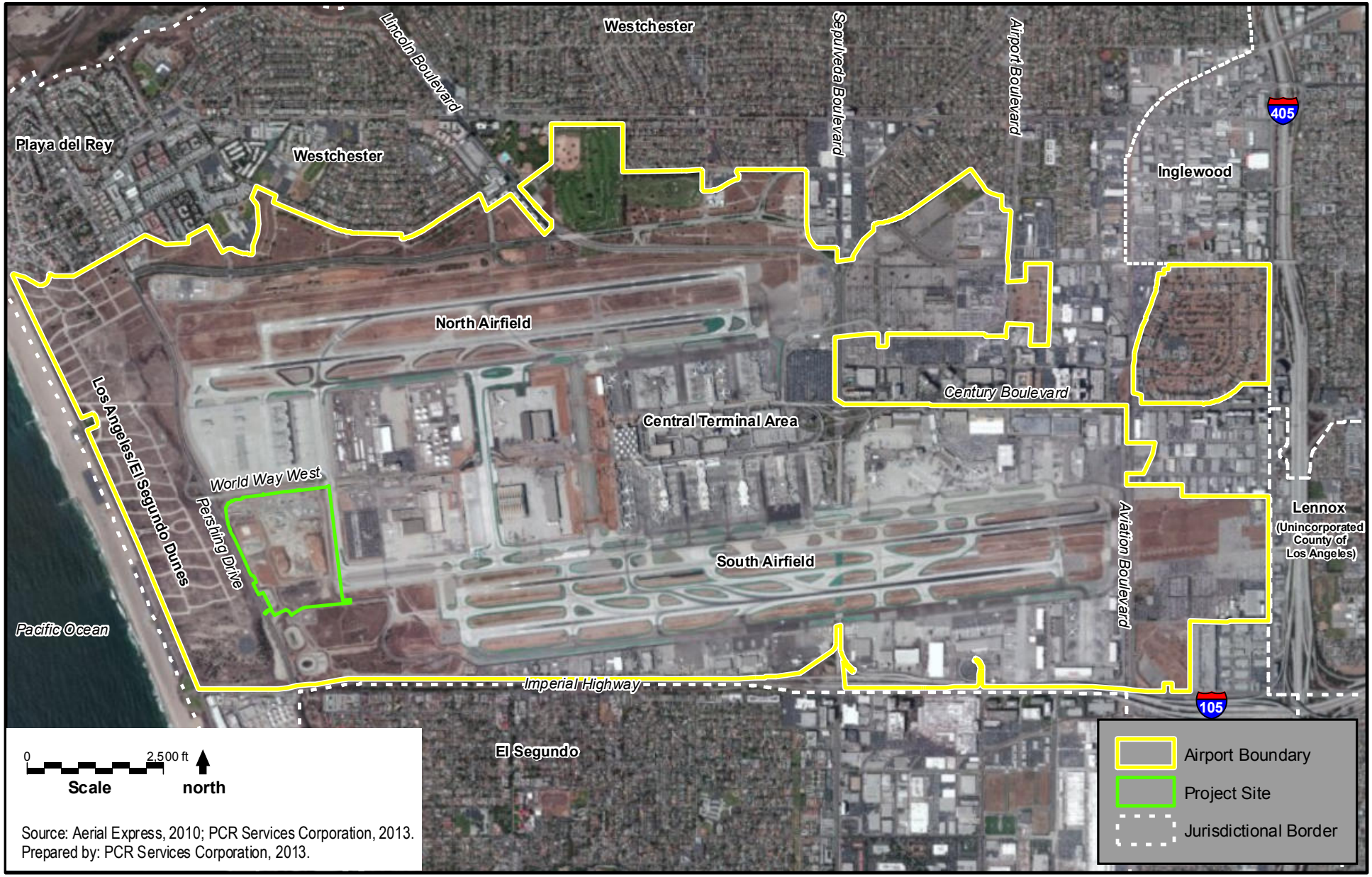

Source: Aerial Express, 2010; PCR Services Corporation, 2013.
Prepared by: PCR Services Corporation, 2013.

West Aircraft Maintenance Area Project Draft EIR	**Aerial View of Airport and Surrounding Land Uses**	Figure **2-3**

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2.5 Project Characteristics

2.5.1 Overview

The proposed Project would provide facilities and areas for aircraft maintenance and maintenance hangars, as well as parking areas for existing aircraft and employees. Refer to **Figure 2-4** for the conceptual site plan associated with the proposed Project. As described in detail below, proposed facilities would include: (1) an apron area; (2) aircraft maintenance hangars; and (3) ancillary facilities. Approximately 68 acres of the 84-acre Project site would be paved/developed, with the remaining 16 acres being unpaved islands adjacent to the proposed taxiways within the site. The proposed Project would not increase passenger or gate capacity and would not increase flights and/or aircraft operations at LAX. The proposed facilities are anticipated to serve aircraft that would be at LAX in conjunction with regularly scheduled flights or other business matters, whereby aircraft maintenance and/or parking would be ancillary to the primary reason why the aircraft is at the airport. Similarly, the proposed Project would consolidate functions and services that already occur elsewhere at the airport. This consolidation of existing RON/RAD and aircraft maintenance activities is not anticipated to result in an increase in such activities at LAX nor is it projected to result in an increased number of employees associated with such activities.

2.5.2 Apron Area

An aircraft parking apron area is a large flat paved surface where aircraft can either be maintained or parked until their next scheduled flight at which time they would be moved to their appropriate aircraft parking departure gate. Such apron areas occur at many locations at LAX including, but not limited to, airline maintenance areas, the West Remote Pads/Gates, the RON/RAD spaces along the west side of Taxiway R, and at air cargo areas when needed. Portions of the proposed aircraft apron not associated with access and circulation at the Project site would serve as aircraft parking areas (i.e., RON/RAD) for aircraft awaiting maintenance and/or placement at a terminal gate for departure. The proposed Project includes the construction of an aircraft RON/RAD parking apron on approximately 29 acres of the Project site south of the proposed hangars. The footprint for the proposed aircraft hangars and employee parking are not included in the 29 acres, and represent additional area to be developed as part of the proposed Project (see description below). Unlike certain existing maintenance areas that do not fully accommodate all aircraft types operating at LAX, the proposed Project would fully accommodate ADG VI aircraft, as well as smaller commercial aircraft.

Access to the apron area would be via the westerly extension of Taxiway B and the extension of Taxiway C (as Taxilane C), which is part of the proposed Project and would add approximately seven (7) acres of taxiway pavement and approximately 10 acres of paved shoulder area within the Project site.[2] In addition, approximately 2.5 acres of service road area would extend into and adjacent to the apron area.

[2] The aircraft apron area would be located outside of the Runway Protection Zone restricted development area associated with the nearest runway - Runway 7L.

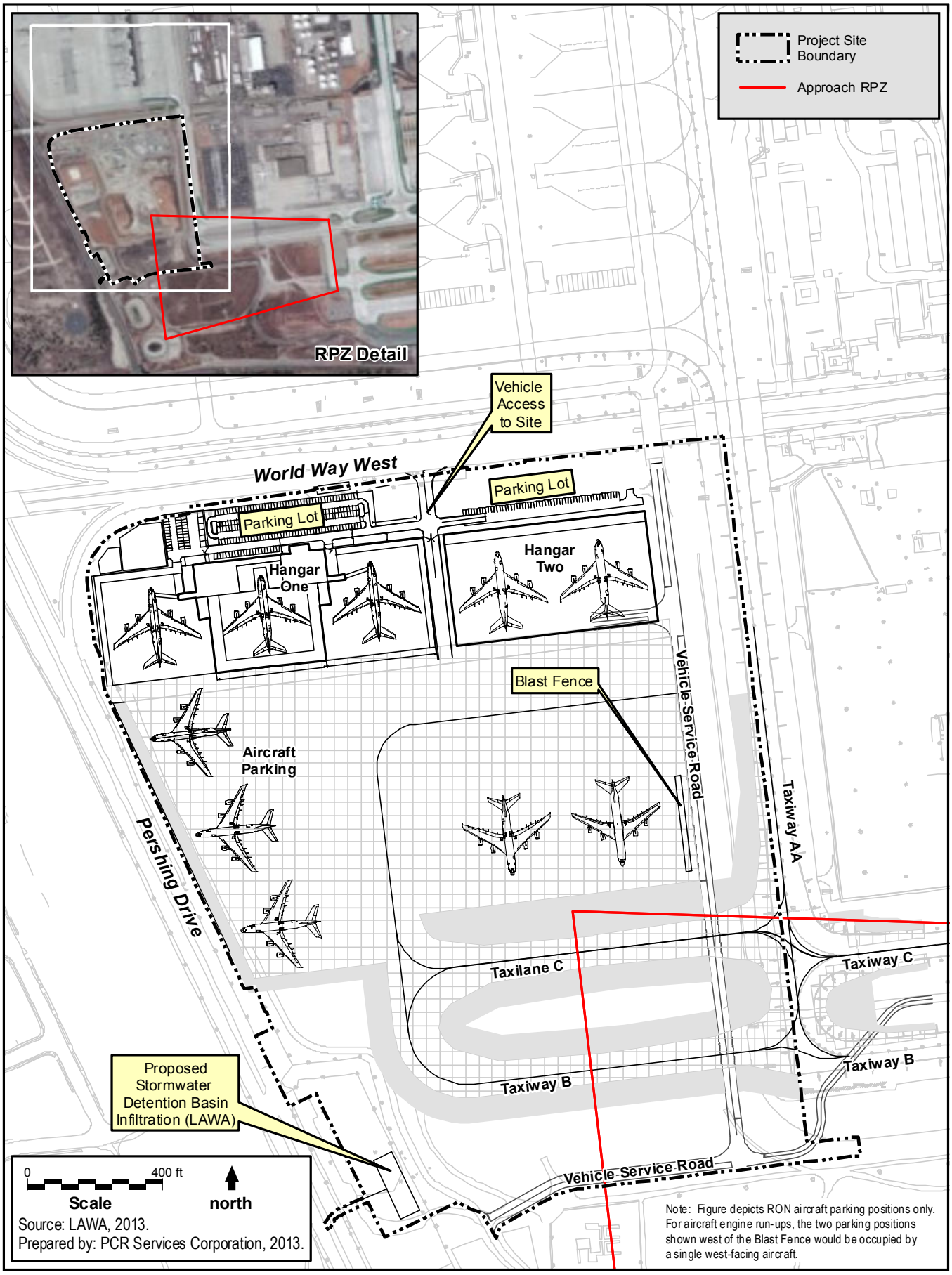
Aircraft traveling to and from the Project site would mostly be towed with high-speed tugs, but some aircraft may be under power (taxi). Once leaving the Project site, aircraft would be towed back or taxi to a passenger gate or cargo ramp area to resume normal operation.

2.5.3 Aircraft Maintenance Hangars

The proposed Project includes construction of aircraft maintenance hangars capable of accommodating a wide range of existing aircraft up to and including ADG VI aircraft. The proposed hangar area, including employee parking and other associated paved areas, in addition to aircraft apron areas described previously that may overlap, is estimated to encompass approximately 19 acres of the Project site. The purpose of the aircraft hangars would be to provide an area for routine aircraft maintenance when aircraft are not at a contact terminal gate, scheduled line maintenance, and other higher levels of scheduled and unscheduled aircraft maintenance. Unlike the existing aircraft maintenance hangars, the new hangars would be fully capable of servicing the largest aircraft that regularly operate at LAX – the Airbus A380 - and would contain state of the art features to enable the effective servicing of other aircraft types as well.

Approximately 290,000 square feet of hangar bay space (floor area) with a maximum estimated height of up to approximately 150 feet could be accommodated on the Project site. Hangars also include a maintenance shop and supporting office space. Hangars would typically have a sliding hangar door to fully enclose aircraft within the hangar. Typical equipment (subject to user requirements of the eventual tenant) may include an internal crane to hoist aircraft or parts, 400 Hertz (Hz) power and pre-conditioned air, a compressed air system to include drop down reels and/or floor mounted receptacles that are retractable, explosion proof outlets and/or plugs installed in drop down reels and/or floor mounted that are retractable, foundation able to handle point loading for jacks, trench drain to include oil/water separators and grease traps, foam fire protection system, water sprinkler or deluge system, test bed for testing equipment and parts, ground water storage tank, phone, intercom, and internet installed throughout the entire hangar, lighting in both (hangar and office) to include 3-phase power, auxiliary back-up power, office support space for administrative functions, conference rooms, kitchen, break and restrooms, warehouse shipping/receiving, vehicle service bays, tool storage, welding shop, and flammable/hazardous materials storage. The proposed aircraft hangars would provide areas for routine and unscheduled aircraft maintenance.

Airlines routinely inspect and maintain their aircraft to ensure the safety of the traveling public, and each aircraft is on a stringent maintenance schedule based on its number of hours in operation. As part of this regularly scheduled maintenance, the U.S. Department of Transportation Federal Aviation Administration (FAA) requires that aircraft engines be tested at various power levels to ensure their proper operation. These tests are called engine run-ups and occur when aircraft are stationary, causing what can be a substantial amount of noise. Both low-power and high-power engine run-ups occur at LAX. Two types of low-power engine checks include: (1) checks when an engine is only idling, which can be performed on a parking ramp when an aircraft is at the gate and does not require any installed safety devices; and (2) low-power engine checks that occur above engine idle and are monitored and performed away from concourse/gate areas. High-power engine checks require engine run-ups at or near maximum thrust settings, as well as safety devices referred to as blast fences, which are open one-sided structures that redirect high energy exhaust (jet blast) from a jet engine to prevent



West Aircraft Maintenance Area Project Draft EIR

Conceptual Site Plan

Figure **2-4**

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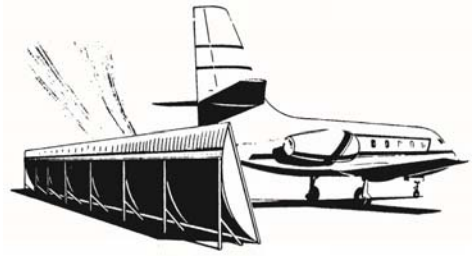
damage and injury in the downstream area. They are designed to withstand heat and high speed air streams, and to control dust and debris carried by the turbulent air from engine run-ups. As part of the proposed Project, a blast fence that would accommodate ADG VI aircraft and other aircraft is proposed on the apron area parallel to Taxiway AA (see Figure 2-4). Based on assumptions associated with the proposed maintenance operations, an estimated 60 run-ups annually (five monthly) may occur at the Project site.



Typical Blast Fence

Assumptions associated with aircraft movement to and from the Project site are based on the number of spaces available at the site (i.e., either parked on the apron or within hangars) to accommodate aircraft, which is up to 10 ADG VI aircraft, or a mix of smaller aircraft. In addition, assumptions related to aircraft movement are also based on typical airline operations at LAX, with consideration given to the airlines within the western area of LAX whose maintenance operations and RON/RAD aircraft parking are being consolidated. Additionally, the assumptions take into consideration other existing RON/RAD aircraft parking activities at LAX, such as those that occur at the West Remote Pads/Gates and at the Central Terminal Area (CTA), which can become crowded during overnight periods, and RON/RAD in other areas such as on the west side of Taxiway R. Following are the operational aircraft assumptions associated with the proposed Project:

Morning (a.m.) – 13 total aircraft movements

- Seven aircraft arrive at the Project site from early arrival flights and remain all day awaiting their return to gates for same day p.m. departure flights; servicing/light maintenance checks may occur while aircraft are parked. These aircraft are assumed to include the four wide-body aircraft that currently use the aircraft parking area at the former TWA Hangar area, and three wide-body aircraft that might typically park at the RON/RAD positions adjacent to Taxiway R.
- Four aircraft that arrived at the Project site the prior p.m. leave to go to gates for a.m. departure flights. These include three narrow-body aircraft that might otherwise park overnight at one of the northern concourses in the CTA and one narrow-body aircraft that might otherwise park overnight at one of the southern concourses in the CTA.
- On average, one aircraft arrives each a.m. for maintenance that will last more than one day (i.e., would go to a maintenance hangar/bay and stay there for several days - assumes that between the total hangar positions (3) and adjacent bays (2), one position/bay would, on average, be available each day).

- On average, one aircraft leaves each a.m. after having completed maintenance. This includes the departure of aircraft that have been at the Project site for several days of maintenance, or the departure of aircraft that arrived at the site the previous p.m.

Afternoon/Evening (p.m. – 13 total aircraft movements

- Seven aircraft that arrived at the Project site in the a.m. return to gates for same day p.m. departure flights.
- Four aircraft arrive at the Project site and stay overnight (until next a.m., awaiting a.m. departure flights); servicing/light maintenance checks may occur while the aircraft are parked.
- On average, one aircraft leaves each p.m. after having completed maintenance that occurred at the Project site over an extended period (i.e., more than one day).
- On average, one aircraft arrives each p.m. for maintenance that will last more than one day.

Based on the above, it is estimated that a maximum of 26 aircraft would travel to or from the Project site on a daily basis.

The proposed Project also includes construction of employee vehicle parking areas to accommodate aircraft maintenance technicians and management staff. Such parking is planned to occur immediately north of the hangar area. The size of the employee parking lot would be based on tenant requirements, but is not expected to exceed 300 spaces. Access to and from the parking lot would be via World Way West. The employee parking area would include lighting, paint/stripes for vehicle stalls, and an Air Operations Area security fence with a personnel gate to separate airside and landside activities.

As detailed below in Section 2.7, Construction Schedule, the initial phase of the proposed Project would involve construction of a portion of the proposed hangar area along with associated employee parking. The remainder of the hangar area and additional employee parking is anticipated to be constructed by the end of the proposed Project's planned five (5) year development program. It is possible that, based on the construction timing of the LAX Master Plan improvements, a relocatable structure(s) may be constructed prior to a permanent hangar to provide covered maintenance space until such time as the permanent hangar(s) is/are developed.[3]

2.5.4 Ancillary Facilities

The proposed Project includes ancillary (supplemental) facilities and equipment to support the primary function of the proposed Project, which is aircraft maintenance. Ancillary facilities and support includes areas for equipment (such as site-specific ground support equipment [GSE]) and maintenance areas/facilities, including electrical charging stations. A combination of diesel-fueled and alternative fuels, such as electric power and compressed natural gas or liquefied natural gas, would fuel cars, trucks and related equipment in use on the site.

[3] A relocatable structure is a temporary structure that would typically feature a high strength polyvinyl chloride (i.e., PVC) coated polyester membrane cladding that is tensioned over an engineered structural steel frame system. If used, the relocatable structure would be removed once a permanent hangar is developed.

RON/RAD kits (large cabinet type structures that provide hook-ups for 400 Hz ground power, GSE charging stations, preconditioned air, and potable water) are proposed at the aircraft parking positions at the west end of the apron (along Pershing) and will allow full aircraft functionality without running auxiliary power units, as well as a wash rack for aircraft washing operations that would include a recycling system to minimize flows to the sewer system. The hangars described above would require provisions for fire protection, including possibly water storage for a deluge system. Deluge systems are used for fire protection and have the ability to deliver large volumes of water under high pressure. This delivery is accomplished by storing large volumes of water in storage tanks that would be located near the hangars.

The proposed Project would connect to existing water, sanitary sewer, storm drain, electricity, natural gas, and communications lines located within the World Way West and Pershing Drive right-of-ways. Multiple existing utility lines also bisect the Project site, and would either be preserved, adjusted/strengthened, or abandoned/removed. In addition, to safely convey runoff from the Project site, an on-site system of 18-inch, 24-inch, 36-inch, and 42-inch reinforced concrete pipes would be constructed. A detention/infiltration basin with connections to the existing storm drains in World Way West and Pershing Drive is proposed in the southwest corner of the Project site (within an existing LAX employee surface parking lot) to treat stormwater runoff. The proposed Project also includes other on-site water quality improvements (e.g., wash rack recycling system, oil-water separator, use of porous pavement or media filters, etc.) to reduce urban pollutants in Project stormwater runoff.

2.6 Relocation and Demolition of Existing On-Site Uses

Development of the Project site would include removal or relocation of existing on-site uses. Existing construction staging yards and associated equipment would either be phased out or relocated if necessary to other areas at LAX such as the existing staging areas located to the south of Westchester Parkway and west of Lincoln Boulevard. These areas are undeveloped and have been in use for several years as construction staging areas for various improvement projects at LAX. If the construction staging activities currently occurring on the Project site are not completely phased out well in advance of site clearing and need to be relocated, the shift in activities would not materially change the general pattern and type of activities that have occurred in these construction staging areas over the last several years. Construction staging for the proposed Project would occur on-site. The existing small fenced area used by LAWAPD/TSA as a canine “walk” area would be relocated in an area in the southern area of the airport, west of Runway 7R. Guard Post 21 would be demolished prior to the construction of the second hangar. Existing utility lines serving the site would either be preserved, adjusted/strengthened, or removed. Stockpiled soil and construction rubble stockpiles existing within and immediately adjacent to the site would be re-used on-site as backfill material and/or exported for off-site re-use and/or disposal.

2.7 Construction Schedule

The proposed Project would be sequenced in a manner that would provide an efficient construction approach while supporting LAWA's need to meet the demands for hangar facilities over the next five years. The following summarizes the anticipated construction sequencing and associated schedule:

Sequence No. 1: Site Clearing and Infrastructure Development

This initial construction activity is comprised of site clearing and infrastructure development. This activity would involve mass grading of 84 acres, placement of major underground utilities, preparation of platforms for the construction of the hangar facilities, and construction of the full depth aircraft apron area, taxiway/taxilane extensions, site access, and vehicle parking.[4] Implementation of this first development phase is expected to commence in 2014 and take approximately 18 to 20 months, reaching completion by 2015. During this period, the existing on-site construction staging areas would either be phased out or relocated if/as necessary to other suitable construction staging areas at the airport.

LAX is permitted by the SCAQMD to operate a concrete batch plant and a rock crusher at the airport. It is anticipated that a temporary concrete batch plant would be installed on the site and utilized for construction of the proposed Project. While the concrete batch plant would be utilized during the proposed Project's development period, it may be removed prior to full buildout of the site.

Construction staging for this activity would be largely self-staged (including a required concrete batch plant) and/or located immediately adjacent to the work area, including the potential use of the existing parking lot located at the southwest corner of the site. The existing parking lot is currently used for construction worker parking for the Bradley West project. Those functions that cannot be self-staged and/or located on the sites adjacent to the work area, primarily trailers and associated parking would be located in other LAX designated staging areas, such as those south of Westchester Parkway and west of Lincoln Boulevard.

Sequence No. 2: First Hangar Development

Sequence No. 2 consists of the development of the first of the aircraft maintenance hangars. The first hangar to be constructed is anticipated to be a single bay hangar located in the northwest quadrant of the site. The hangar may be constructed by LAWA or a third party developer, such as an airline company, aircraft maintenance company, or other party as determined in the future through a separate lease/procurement process.

For the purposes of the Environmental Impact Report (EIR) analysis, it is assumed that the total floor area of the one-bay hangar would be approximately 125,000 square feet. The hangar would be a single hangar building designed to accommodate up to an ADG VI aircraft with adjacent hardstands (one on each side of the hangar building) where aircraft can be parked and undergo various maintenance activities that do not require being within a hangar (i.e., such as maintenance to the interior/cabin areas). Basic construction would generally include: installation

[4] Although the proposed Project would develop and operate on approximately 68 acres of new paved area, due to the use of the site for construction staging (which currently includes several stockpiles), and line-of-sight requirements, a larger area (i.e., 84 acres) would be graded.

of foundations; installation of full depth paving within the hangar extending to, and connecting, as necessary, with the primary apron areas constructed under Sequence No. 1; installation of exterior covering and roof; interior/appurtenant, and all appropriate safety and fire protection appurtenances. Construction of the first hangar area is anticipated to commence within several weeks following the start of Sequence No. 1. For purposes of this EIR, it is assumed that the construction of this first hangar would commence in 2014 and take 18 to 20 months to complete (ending approximately mid- to late-2015).

Sequence No. 3: Additional Hangar Development

The schedule for construction of the additional maintenance hangar would be dictated by market conditions; however for purposes of this EIR it is assumed it would be completed prior to 2019. The additional maintenance hangar to be constructed is assumed to include at a minimum a two-bay hangar located in the northeast quadrant of the site. The hangar may be constructed by LAWA or a third party developer, such as an airline company, aircraft maintenance company, or other party as would be determined in the future through a separate lease/procurement process.

For the purposes of the EIR analysis, it is assumed that the total floor area of the additional maintenance hangar would be approximately 165,000 square feet. The hangar would be designed to accommodate up to two ADG VI aircraft. Basic construction would generally include: installation of foundations along the perimeter of the proposed hangar; installation of full depth paving within the hangar extending to, and connecting, with the primary apron areas constructed in Sequence No. 1; installation of exterior covering and roof; interior/appurtenant, and all appropriate safety and fire protection appurtenances. Construction of the additional hangar is estimated to take approximately 16 to 24 months and is anticipated to commence in the last quarter of 2016.

2.8 Grading

The Project site has been used as a construction staging area for multiple LAX projects for a number of years and has at various times supported a batch plant. As such, the amount of stockpiled material consisting of soil and construction rubble that exists within and immediately adjacent to the Project site fluctuates frequently as some projects have deposited and utilized stockpiled materials on the Project site for grading, cut, and fill such as the Crossfield Taxiway Project and the South Airfield Improvement Project. Of the existing stockpiled material, an estimated 295,000 cubic yards would be exported for off-site re-use or disposal.

2.9 Intended Use of this EIR

Implementation of the proposed Project would require approvals from and consultation with federal, state, and regional/local agencies. The EIR will be used by the following agencies in connection with permits and approvals necessary for the construction and operation of the proposed Project. Federal, state, and regional/local agency actions required for the construction and operation of the proposed Project may include, but are not limited to, those described below. This EIR may also be used in connection with other federal, state, or

regional/local approvals, permits, or actions that may be deemed necessary for the proposed Project, but which are not specifically identified below.

2.9.1 Federal Actions

- FAA approval of an FAA Notice of Construction or Alteration, to ensure safe and efficient use of navigable airspace with consideration of the proposed Project and during the construction of the West Aircraft Maintenance Area Project. LAWA has submitted a FAA Form 7460-1 "Notice of Proposed Construction or Alteration" for the proposed Project to engage FAA on airspace issues.
- FAA approval of an amended/updated Airport Layout Plan for LAX, which will reflect the improvements associated with the proposed Project.
- The FAA may use information from this EIR in their completion of the appropriate environmental review under the National Environmental Policy Act for the federal approvals identified above.

2.9.2 State Actions

- SCAQMD review of any permits required under the Clean Air Act for stationary sources;
- Consultation with the California Department of Fish and Wildlife.

2.9.3 Local and Regional Actions

- LAWA Certification of the Final EIR for the LAX West Aircraft Maintenance Area Project;
- LAX Specific Plan Compliance Review in accordance with Section 7 of the LAX Specific Plan;
- Preparation of a Project-specific Storm Water Management Plan or Standard Urban Storm Water Mitigation Plan for approval by the City of Los Angeles Bureau of Sanitation, Watershed Protection Division;
- Los Angeles Fire Department approval;
- Grading permits, building permits, and other permits issued by the City of Los Angeles Department of Building and Safety for the proposed Project and any associated City of Los Angeles Department of Public Works permits for infrastructure improvements.