
2. PROJECT DESCRIPTION

The project description is intended, among other things, to serve as a general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals and the supporting public service facilities (such as utilities). (State CEQA Guidelines Section 15124(c)). The proposed project's technical and engineering characteristics are detailed below in Section 2.4, Project Characteristics. The objectives, purpose, and economic characteristics of the proposed project are detailed in Section 2.3, Project Objectives, below.

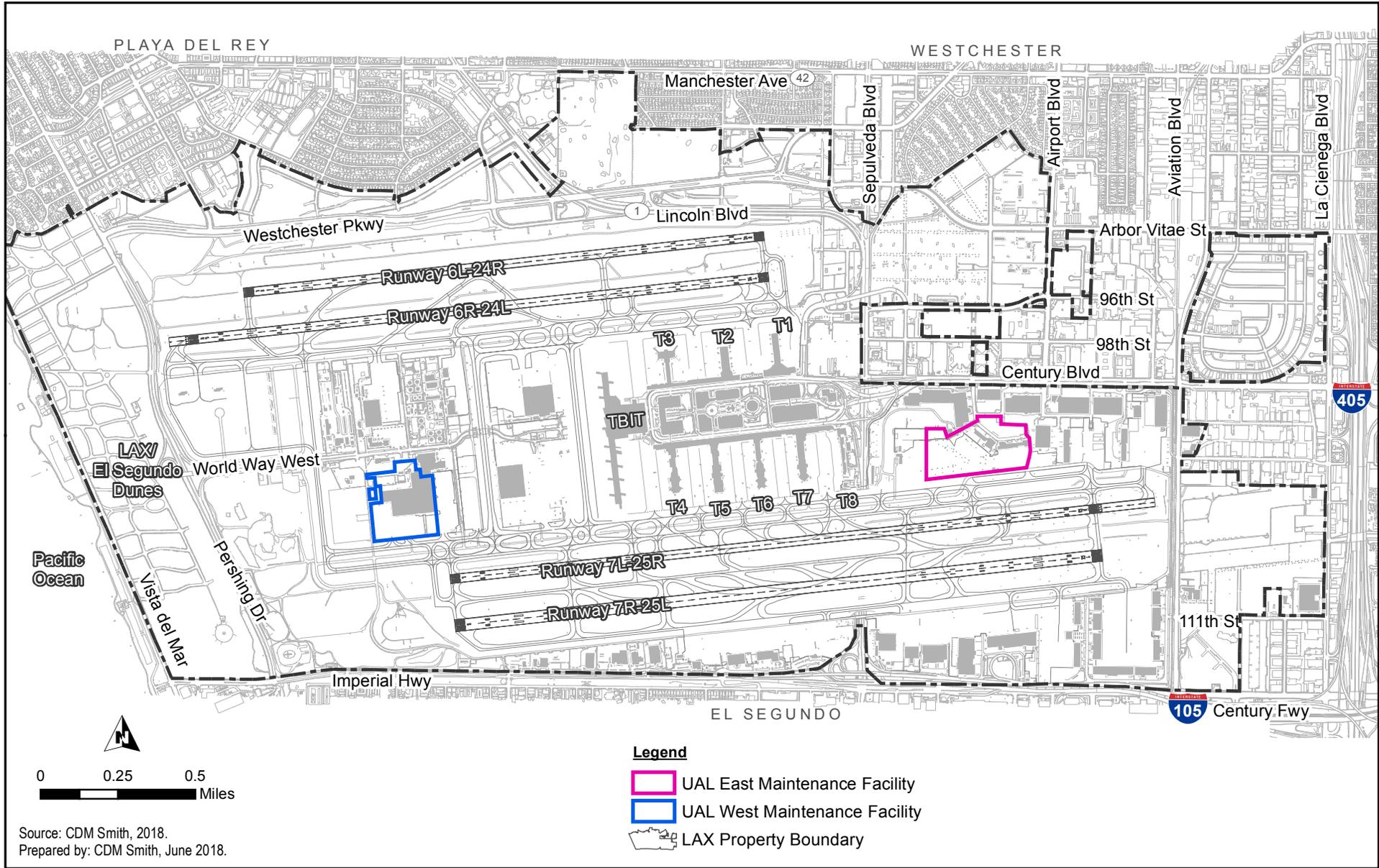
The environmental and engineering characteristics of the proposed project specific to each environmental resource analyzed within this Draft EIR are further detailed in the individual subsections (i.e., Sections 4.1, 4.2, 4.3, and 4.4) of Chapter 4, *Environmental Impact Analysis*. Supporting public services facilities associated with the proposed project are discussed in Appendix A, *Notice of Preparation/Scoping*.

2.1 Project Overview

The proposed project would consolidate and modernize existing United Airlines' (UAL) aircraft maintenance and ground support equipment (GSE) facilities at LAX, which, in turn, would allow for more efficient and effective maintenance of existing aircraft and GSE at the airport. Currently UAL performs maintenance in two areas at LAX: West Maintenance Facility (also known as the United Airlines Maintenance Facility, and formerly known as the Continental Airlines [CAL] Aircraft Maintenance Hangar) and East Maintenance Facility (also known as the United Airlines Maintenance Operations Center or MOC). The location of these facilities is shown in **Figure 2-1**. The West Maintenance Facility is located in the western portion of LAX, south of World Way West approximately 0.7 mile east of Pershing Drive, and the East Maintenance Facility is located south of Century Boulevard, approximately 0.45 mile east of Sepulveda Boulevard. The distance between the two maintenance facilities is approximately 1.6 miles. Both facilities have aircraft service areas, which include enclosed hangars at the West Maintenance Facility, aircraft parking spots, GSE bays and shops, maintenance and inspection rooms and functions, and office and storage space.

UAL proposes to redevelop its existing eastern facility to consolidate all of UAL's aircraft and GSE maintenance activities. Following implementation of the proposed project, the West Maintenance Facility would remain vacant until such time as LAWA leases the facility to a tenant or proposes redevelopment of the site, which may be subject to its own environmental review and documentation, as appropriate. Reasonably foreseeable uses of the West Maintenance Facility are discussed in Chapter 3, *Overview of Project Setting*, and the cumulative impacts of the proposed project, reasonably foreseeable future use of the West Maintenance Facility, and other development projects at and adjacent to LAX are addressed in Chapter 4, *Environmental Impact Analysis*.

The proposed project would redevelop an approximately 35-acre site in the eastern portion of the airport operations area (AOA). With the exception of a Quonset Hut located near the northern boundary of the project site and Avion Drive (south of Century Boulevard), all the buildings associated with the existing East Maintenance Facility would be demolished. LAWA is planning to relocate the Quonset Hut. This relocation is planned as part of LAWA's ongoing management of historic resources at LAX. The relocation will occur independently of the proposed project.



LAX UAL East Aircraft Maintenance and GSE Project

Existing UAL Maintenance Facilities at LAX

Figure 2-1

Although the portion of UAL's current aircraft and GSE maintenance operations that occurs at the West Maintenance Facility would be consolidated with operations located on the east side of the airport, the volume and basic nature of UAL's existing maintenance operations at LAX would not change or increase. Implementation of the project would simply combine/consolidate existing maintenance operations from two areas into one. The consolidation would alter on- and off-airport vehicular movements, as well as aircraft movements on the airfield. Specifically, employees that currently use the surrounding roadway network to drive to the West Maintenance Facility, including Imperial Highway, Pershing Drive, and Westchester Parkway, would instead drive to the East Maintenance Facility, which would be accessed via Century Boulevard or a generally parallel network of side roads located south of Century Boulevard. Similarly, on the airfield, GSE and aircraft that currently travel on taxiways and taxilanes to access the West Maintenance Facility would instead travel to the East Maintenance Facility. The proposed project would not increase flights and/or aircraft operations at LAX compared to existing airfield conditions and would not affect terminals, the number of gates at LAX, gate frontage, taxiways, or runways. Construction of the proposed project would be phased over approximately 22 months (one year and ten months), beginning with the demolition of existing facilities in the East Maintenance Facility lease area, projected to commence in the fourth quarter of 2018; new construction would extend to late 2020.

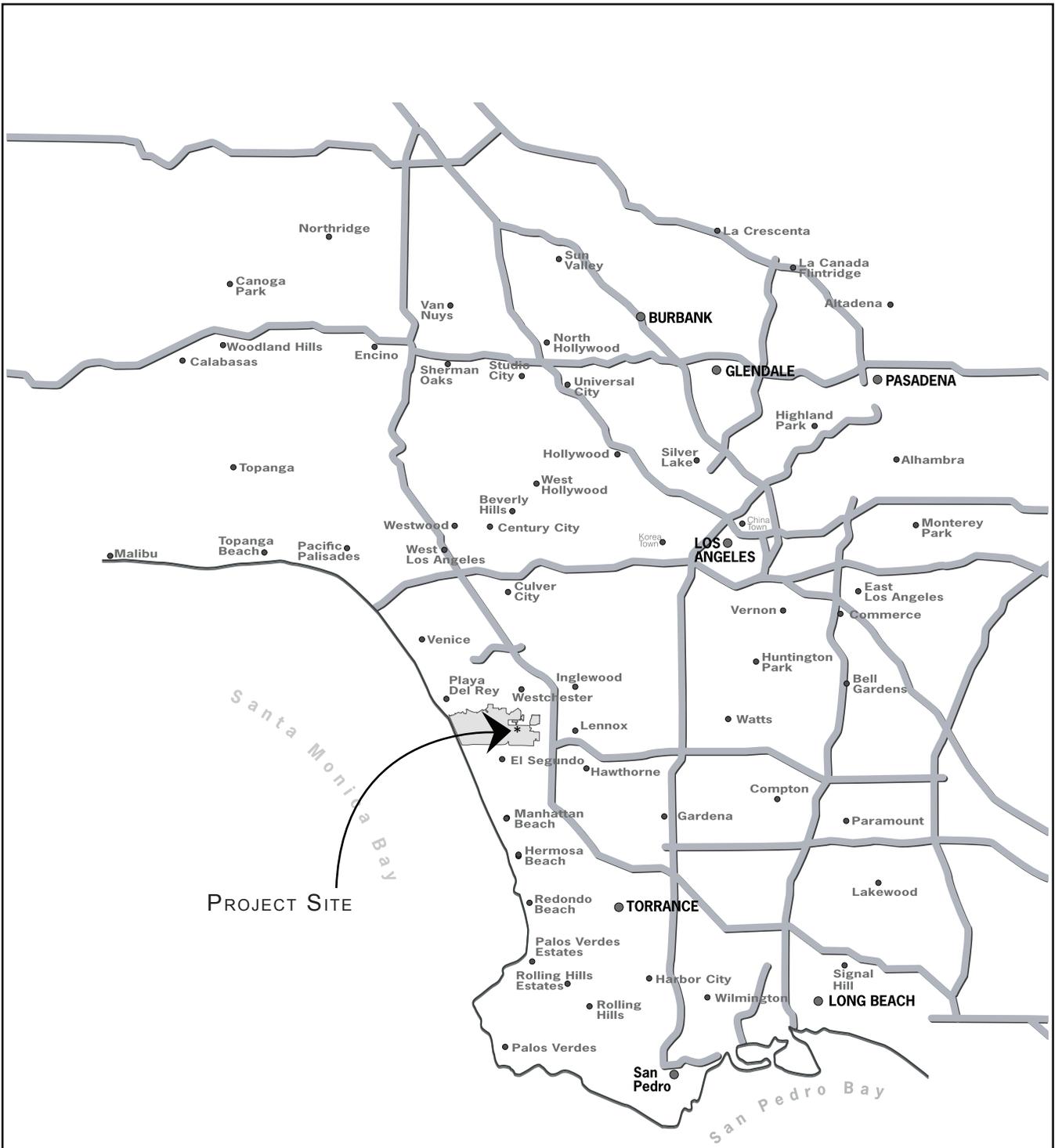
2.2 Project Location

As shown in **Figure 2-2**, the project site is located within the City of Los Angeles, at LAX on LAWA property. The project site is located within the LAX Plan area of the City of Los Angeles, which is in the County of Los Angeles. LAX is the primary airport for the greater Los Angeles area, encompassing approximately 3,800 acres, and is situated at the western edge of the City of Los Angeles.

In the LAX vicinity, the community of Westchester is located to the north, the City of El Segundo is to the south, the City of Inglewood and unincorporated portions of Los Angeles County are to the east, and the Pacific Ocean lies to the west. Regional access to LAX is provided by Interstate 105 (I-105), which runs east-west and is located adjacent to LAX on the south, and the San Diego Freeway (Interstate 405 or I-405), which runs north-south and is located east of LAX. Access to the west side of the airport is via Imperial Highway and Pershing Drive.

The 35-acre project site is located within the eastern portion of LAX, parallel to and south of Century Boulevard (see **Figure 2-3**). The project site includes UAL's existing 32-acre maintenance leasehold, which consists of paved areas currently used for UAL aircraft and GSE maintenance, with two large maintenance bays (referred to as Hangar 1 and Hangar 2 and located at 6020-6024 Avion Drive and 6000-6016 Avion Drive, respectively), apron areas, maintenance areas, storage, office space, and surface parking (Parking Lot H). UAL's cargo building is adjacent to the project site to the northeast. As described in Section 2.4.2, a small portion of the cargo leasehold would be used for electrical equipment for the proposed maintenance facility. The project site also includes a 3-acre parcel to the north of UAL's existing facility, which is currently used as a shared-ride vehicle holding lot by Super Shuttle. Super Shuttle plans to relocate its vehicles in the fourth quarter of 2018. This relocation is occurring independently of the proposed project.

The land use setting around the project site is characterized by airport operations, aircraft maintenance facilities, and cargo facilities. Existing adjacent uses include the LAWA Records Building and American Eagle commuter facility to the west; air cargo facilities and Delta Air Lines aircraft maintenance facility to the northwest; a shared-ride vehicle holding lot and an employee parking structure (referred to as Parking Garage F) to the north; the UAL Cargo building to the northeast; American Airlines Cargo and GSE facility to the east; and the LAX south airfield to the south, specifically Taxiway C, followed by Taxiway B, Runway 7L-25R, Taxiway H (centerline taxiway), Runway 7R-25L, and Taxiway A. Surrounding land uses are identified in **Figure 2-4**.



north

NOT TO SCALE

Source: CDM Smith, 2018.

Prepared by: CDM Smith, March 2018.

Legend



Los Angeles International Airport

LAX UAL East Aircraft Maintenance and GSE Project

Regional Location Map

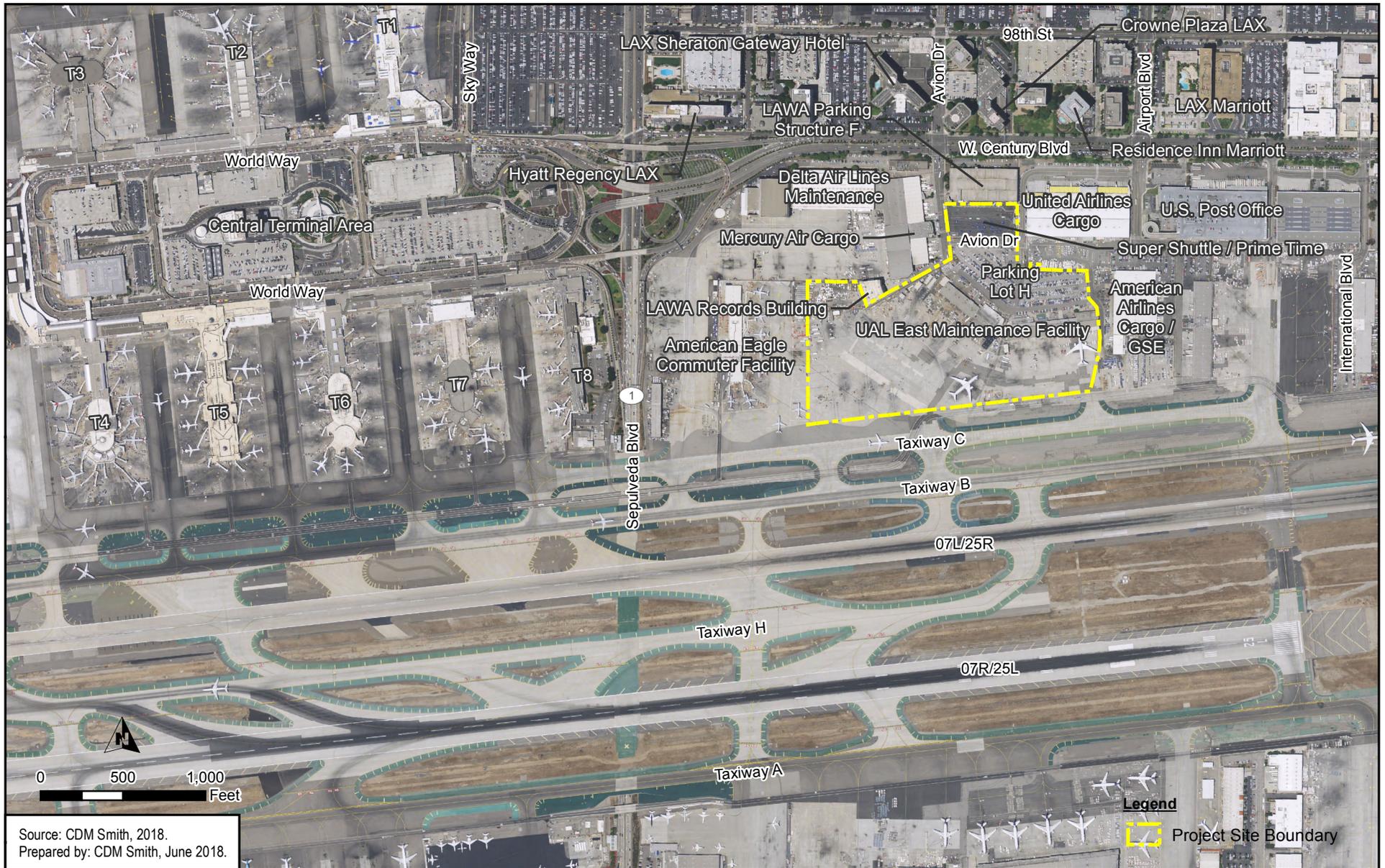
Figure 2-2



LAX UAL East Aircraft Maintenance and GSE Project

Project Site

Figure 2-3



LAX UAL East Aircraft Maintenance and GSE Project

Project Vicinity and Surrounding Land Uses

Figure 2-4

The Los Angeles International Airport Plan (LAX Plan), the City of Los Angeles General Plan Land Use Element that governs uses on LAX, designates the project site as Airport Airside.¹ The corresponding LAX Specific Plan designates this area as LAX Zone: Airport Airside Subarea.²

2.3 Project Objectives

2.3.1 Background

The proposed project would consolidate and modernize existing UAL aircraft maintenance and GSE facilities at LAX, which, in turn, would allow for more efficient and effective maintenance of existing aircraft and GSE at the airport. Consolidation of the maintenance facilities on the proposed project site would eliminate duplicate maintenance facilities and operations and would place all of UAL's maintenance activities in closer proximity to its gates in Terminals 7 and 8. The proposed project would reduce the total distance that UAL aircraft currently travel between the gates and the maintenance facilities and would eliminate vehicle trips between the two maintenance facilities.

As noted above, the proposed project would modernize UAL's maintenance facilities. The current West Maintenance Facility was constructed in the 1960s and 1970s as part of CAL's Corporate Headquarters facility and the East Maintenance Facility was constructed in the mid to late 1940s for use as interim airline offices and hangars. The buildings were constructed in accordance with building codes in place at the time of construction, which at the time did not include requirements contained in current building codes, including seismic standards or California Title 24 energy standards pertaining to energy efficiency. All air conditioning is provided by window units, which are less efficient than central heating, ventilation, and air conditioning (HVAC) systems. Building systems, particularly those at the East Maintenance Facility, were not constructed to accommodate modern equipment or building needs. Both the building systems and the buildings themselves have exceeded their useful life spans. The East Maintenance Facility does not have sufficient power to adequately meet current electrical demands, including demands for building systems such as air conditioners and air compressors as well as demands associated with modern airline fleets, such as electric Ground Power Units (GPUs) and other electric GSE (eGSE). In addition, the facilities, particularly the East Maintenance Facility, do not have modern fire and life safety systems and would require extensive modifications to meet modern accessible design standards. Moreover, the buildings were constructed when aircraft and GSE equipment were much smaller than they are today. The aircraft hangar at the East Maintenance Facility is not tall enough to accommodate modern aircraft; all aircraft maintenance at the East Maintenance Facility is conducted out-of-doors on the apron area. The equipment bays at the GSE hangar are similarly unable to accommodate large GSE equipment (the doors are not wide enough). Some of the equipment storage areas are located in building spaces that are too small, making it difficult to stack equipment or accommodate forklifts. The East Maintenance Facility lacks sufficient GSE yard space, and the West Maintenance Facility lacks adequate remain overnight/remain all day (RON/RAD) aircraft parking spaces.

2.3.2 Objectives

The specific objectives of the proposed project are to:

- Consolidate/relocate UAL's existing aircraft and GSE maintenance facilities at LAX in a single location to provide for more efficient and effective maintenance of UAL aircraft and equipment at the airport that eliminates duplicate facilities;

¹ City of Los Angeles, Department of City Planning, *LAX Plan*, adopted December 14, 2004, last amended June 7, 2017. Available: <https://www.lawa.org/en/lawa-our-lax/plan-and-ordinances>.

² City of Los Angeles, Department of City Planning, *Los Angeles International Airport (LAX) Specific Plan*, adopted December 14, 2004, last amended September 8, 2017. Available: <https://www.lawa.org/en/lawa-our-lax/plan-and-ordinances>.

2. Project Description

- Locate UAL’s aircraft and GSE maintenance facilities closer to UAL’s gates to increase efficiency by reducing the distance between the gates and maintenance area, consistent with the mission of LAX Airfield Operations of providing a safe and efficient airport operating environment;³
- Modernize UAL’s maintenance facilities, which were constructed between the mid-1940s and early 1970s when aircraft and GSE equipment were much smaller than they are today, in a manner that is consistent with LAWA’s Sustainable Design and Construction Policy⁴ and that fulfills LAWA’s strategic goal of innovating to enhance efficiency and effectiveness;⁵
- Provide sufficient enclosed aircraft maintenance space and RON/RAD aircraft parking spaces on UAL’s leasehold to support routine servicing and maintenance of aircraft and meet overnight parking requirements;
- Provide facilities to support the maintenance requirements of UAL’s operations at LAX; and
- Fulfill LAWA’s strategic goal of sustaining a strong business that recognizes the fiscal impact the airport makes on the regional economy.⁶

2.4 Project Characteristics

2.4.1 Existing Facilities

The proposed project would consolidate and modernize UAL’s existing aircraft and GSE maintenance, storage, and office functions from two existing locations into a single location. Following is a description of the existing facilities under lease to UAL at the two locations.

2.4.1.1 West Maintenance Facility

The West Maintenance Facility is situated on approximately 28 acres in the western airfield (see Figure 2-1). The facility consists of a four- to five-bay hangar; GSE storage and maintenance area, including 9 service bays, 1 paint bay and 1 wash bay; apron area (with a total of 15 aircraft parking positions under baseline conditions and 6 blast fences⁷); and maintenance support stores and equipment. The total building area associated with the West Maintenance Facility is approximately 593,050 square feet. The current building area contains more building space than currently needed by UAL. Aircraft maintenance activities conducted at the West Maintenance Facility include routine scheduled maintenance checks (referred to as A-checks), and other maintenance activities. Employee parking for the West Maintenance Facility is provided in lots in the vicinity of the hangar, with access provided via World Way West. The apron area located to the south and west of the hangar is bordered by blast fences. Other surrounding land uses include the LAX south airfield to the south; American Airlines operations facilities

³ City of Los Angeles, Los Angeles World Airports, *Airfield Operations Mission Statement*, 2017. Available: <http://www.losangelesinternationalairport.org/airops.aspx?id=850>.

⁴ City of Los Angeles, Los Angeles World Airports, *LAWA Sustainable Design and Construction Policy*, September 7, 2017. Available: <https://lawa.org/-/media/lawa-web/tenants411/file/lawa-sustainable-design-and-construction-policy.ashx?la=en&hash=943CF9EB68DA44DB4209F5832242C38BEA4E3289>.

⁵ City of Los Angeles, Los Angeles World Airports, *Aerogramme: LAWA Unveils New Strategic Plan*, November 2016. Available: https://www.lawa.org/-/media/lawa-web/lawa-newsletter/aerogramme/aero_newsletter_2016_nov.ashx?la=en&hash=A7A17C484C82046DC6CC323D2CACBB211F48422.

⁶ City of Los Angeles, Los Angeles World Airports, *Aerogramme: LAWA Unveils New Strategic Plan*, November 2016. Available: https://www.lawa.org/-/media/lawa-web/lawa-newsletter/aerogramme/aero_newsletter_2016_nov.ashx?la=en&hash=A7A17C484C82046DC6CC323D2CACBB211F48422.

⁷ A jet blast deflector, or blast fence, is a safety barrier that is used to substantially reduce or eliminate the damaging effects of jet blast or propeller wash from run-up areas (U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular AC 150/5300-13A, *Airport Design*, September 28, 2012, updated February 26, 2014).

and Compass Airlines aircraft maintenance facilities to the north and east; a building formerly occupied by Chelsea Food Services kitchen to the northeast; and the former CAL General Office (GO) and Training Center buildings, which are vacant, farther north.

2.4.1.2 East Maintenance Facility

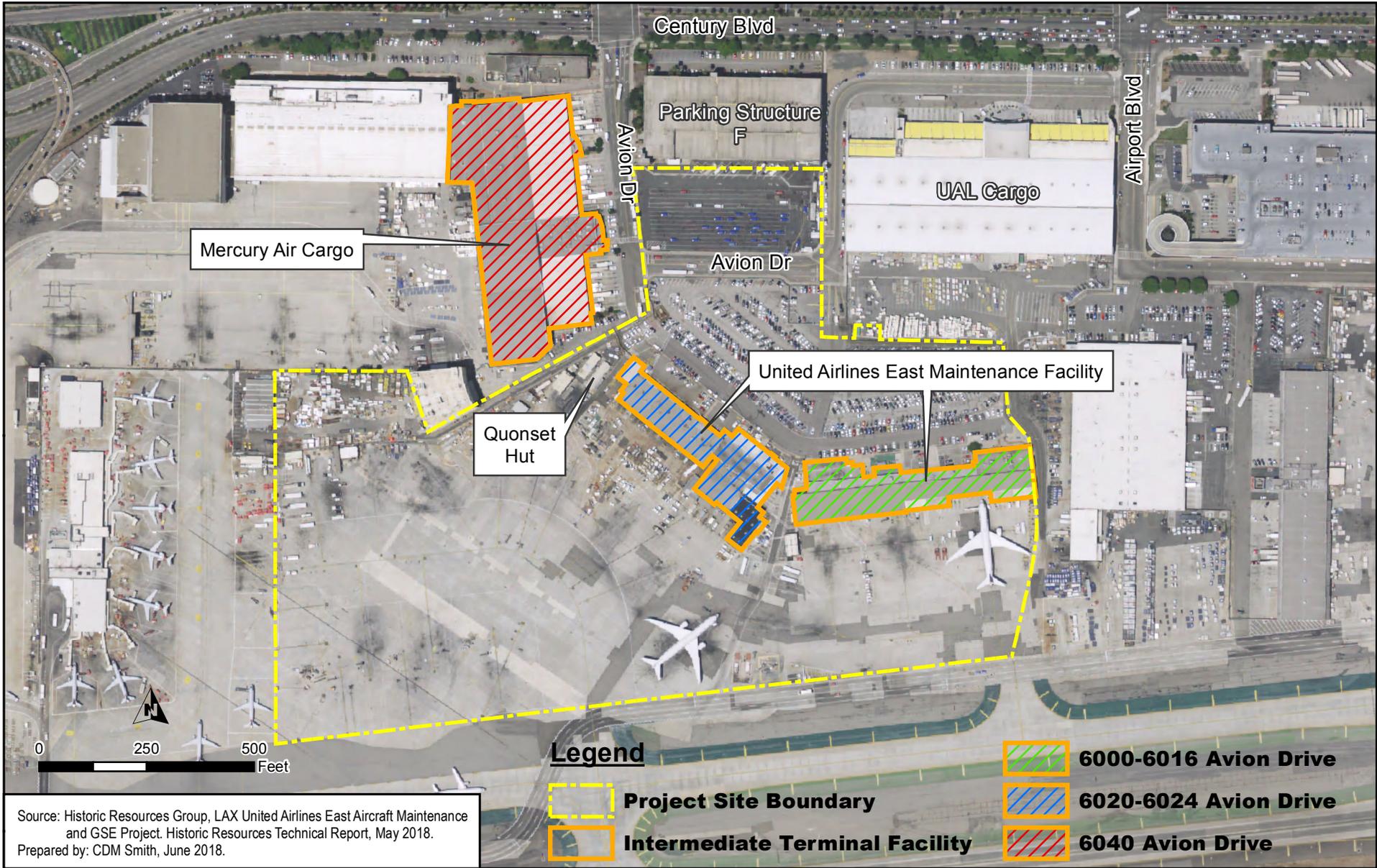
The East Maintenance Facility consists of two large structures designated “Hangar 1” and “Hangar 2” (although neither is an enclosed hangar capable of holding an aircraft, as further described below), an apron area providing 19 individual aircraft parking positions, maintenance areas, stores, and office space, on approximately 32 acres in the eastern airfield. Hangar 2 was constructed in 1944 and Hangar 1 was constructed in 1946. Hangar 1 is a two-story building that is used for GSE storage and maintenance, including support functions on the ground level, and offices on the second floor. Hangar 1 includes 10 GSE service bays and 2 paint bays. Hangar 2 is a tall, wide, open-faced structure that contains equipment and facilities used for various aircraft maintenance functions performed on aircraft parked outside on the adjacent apron. Such aircraft maintenance functions include routine repair, inspection, and modification of aircraft and aircraft components; cabin checks; and engine wash. Hangar 2 also contains offices and support rooms that serve employees (locker facilities and break room/shower facility), as well as a training facility. The total building area of the East Maintenance Facility is approximately 135,750 square feet. Also in the vicinity of Hangar 2 are RON/RAD hold areas for aircraft. Employee parking associated with the East Maintenance Facility is located north of the project site (immediately north of Hangars 1 and 2), in Lot H, which is accessed from Avion Drive via Century Boulevard.

As discussed further in Section 4.2, *Cultural Resources*, and Appendix C, *Historic Resources Technical Report*, of this Draft EIR, Hangars 1 and 2 comprise two of the three remaining buildings associated with the Intermediate Terminal Facility, which is located east of the existing LAX Central Terminal Area (CTA) on the western and southern sides of Avion Drive. (The third building, which is located adjacent to the project site to the northwest, is currently occupied by Mercury Air Cargo.) The buildings that comprise the Intermediate Terminal Facility are shown in **Figure 2-5**. The Intermediate Terminal Facility was constructed between 1945 and 1947 to temporarily house airport administration and airline offices, passenger terminals, hangars, and aircraft service facilities.⁸

Due to past demolition of the majority of the buildings, and alterations to the remaining buildings, the surviving three buildings do not retain sufficient integrity for listing in the National Register of Historic Places (National Register). However, the two intact buildings referred to as Hangars 1 and 2 retain sufficient integrity to be eligible (as a single resource) for listing in the California Register of Historical Resources (California Register) and for designation as a City of Los Angeles Historic-Cultural Monument.⁹

⁸ City of Los Angeles, Los Angeles World Airports, *Final Environmental Impact Report for Los Angeles International Airport (LAX) Landside Access Modernization Program, (SCH 2015021014)*, Appendix J, LAX Preservation Plan, February 2017. Available: <https://cloud1lawa.app.box.com/s/ia03fbbop9u07dek6u8jxdr2hua33sdh>.

⁹ City of Los Angeles, Los Angeles World Airports, *Final Environmental Impact Report for Los Angeles International Airport (LAX) Landside Access Modernization Program, (SCH 2015021014)*, Appendix H, Historic Resources Technical Report, Prepared by Historic Resources Group, February 2017. Available: <https://cloud1lawa.app.box.com/s/7ggkdv7n7nbzvesasxnb6a6kr4ytew7d>.



LAX UAL East Aircraft Maintenance and GSE Project

Historical Resources On and Adjacent to the Project Site

Figure 2-5

The East Maintenance Facility also includes several smaller buildings. One of these is a Quonset hut, which is located northwest of Hangar 1. The Quonset Hut is a semi-cylindrical structure constructed of corrugated steel sheeting placed atop arched metal rib framing. The Quonset Hut at the project site was constructed for UAL in 1947. It is eligible for listing in the National Register and California Register, and for designation as a City of Los Angeles Historic-Cultural Monument.¹⁰ As noted previously, LAWA is planning to relocate the Quonset Hut. The relocation will occur independently of the proposed project.

2.4.2 Project Components

The intent of the proposed project is to consolidate and modernize existing UAL aircraft maintenance and GSE facilities at LAX. Most of the buildings that comprise the existing East Maintenance Facility were constructed in the mid to late 1940s to house airline offices and hangars. These buildings were part of the Intermediate Terminal Facility, which was built to temporarily house airport administration and airline offices, passenger terminals, hangars, and air service facilities, until the permanent airport facilities were opened in the early 1960s. Notwithstanding their original design intent, the building systems have not been significantly upgraded, are inefficient, and are at or beyond their useful lives. In addition, the size of the existing hangars and layout of the apron area do not match current aircraft or GSE fleet requirements.

The main elements of the proposed project are:

- Demolish the existing buildings associated with the East Maintenance Facility (including Hangars 1 and 2), with the exception of the Quonset Hut, which is planned for relocation by LAWA independent of the proposed project.
- Construct and operate a new aircraft and GSE maintenance facility, totaling approximately 411,000 square feet, and consisting of the following elements:
 - Two wide body aircraft hangar bays with approximately 160,000 square feet of floor area and a height of approximately 110 feet, able to serve both narrow-body and wide-body aircraft
 - Aircraft maintenance shops with approximately 74,000 square feet of floor area
 - Aircraft parts/supplies stores with approximately 60,000 to 75,000 square feet of floor area, and an associated storage yard
 - A GSE maintenance facility with approximately 45,000 to 50,500 square feet of floor area, 15 GSE bays, 2 paint bays, 1 wash bay, eGSE charging stations, and an associated storage yard
 - Facility maintenance area with approximately 2,000 square feet of floor area
 - Approximately 10,000 square feet of dock and skywalk support areas
 - Approximately 40,000 to 60,000 square feet of building circulation and support
- Replace/resurface a portion of the apron area and restripe aircraft parking positions.
- Reconfigure the apron and include aircraft parking positions in the hangar for a total of 22 aircraft parking positions on the leasehold, including 6 in the hangar, 6 on the south side of the project site, and 10 within the western portion of the leasehold.
- Provide an aircraft wash pad in a contained area for conducting dry washes of aircraft.¹¹

¹⁰ City of Los Angeles, Los Angeles World Airports, *Final Environmental Impact Report for Los Angeles International Airport (LAX) Landside Access Modernization Program, (SCH 2015021014)*, Appendix H, Historic Resources Technical Report, Prepared by Historic Resources Group, February 2017. Available: <https://cloud1lawa.app.box.com/s/7ggkdv7n7nbzvesasxnb6a6kr4ytew7d>.

¹¹ U.S. Department of Transportation, Federal Aviation Administration, *Aviation Maintenance Technician Handbook – General (FAA-H-8083-30A)*, Chapter 8, 2018. Available: https://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/media/amt_general_handbook.pdf. According to this Handbook, aircraft dry washing is a process that removes airport film, dust, and small accumulations of dirt and soil

2. Project Description

- Construct a jet blast deflector, also referred to as a blast fence, on the eastern portion of the project site for the purpose of conducting aircraft engine run-ups.¹² With this blast fence, the proposed project would accommodate aircraft engine run-up activities that would be conducted at the East Aircraft Maintenance Facility approximately 90 percent of the time; the remaining run-ups would occur at other facilities within the airfield).¹³
- Relocate and/or remove utilities, including water and wastewater pipelines, storm drain facilities, clarifiers, fuel lines, and an onsite triturator.¹⁴
- Replace existing paint booths with a new spray booth that would be required to meet Best Available Control Technology (BACT).¹⁵
- Install a diesel-powered backup generator to provide emergency power and transformer equipment on a small portion of the adjacent UAL cargo yard.
- Vacate the east-west portion of Avion Drive that abuts Parking Lot H to the north, and relocate Avion Drive south of Parking Garage F, which is located north of the existing shared-ride van lot on the south side of Century Boulevard, as a one-way street with travel from east to west.
- Relocate employee parking from Parking Lot H to Parking Garage F.

Table 2-1 identifies existing and proposed building sizes and aircraft parking positions. **Figure 2-6** illustrates a conceptual site plan for the proposed project. Conceptual floor plans are provided in **Figure 2-7** and **Figure 2-8**.

Facility	Baseline Facilities		Proposed Facilities	
	Approximate Building Area (square feet)	Aircraft Parking Positions	Approximate Building Area (square feet)	Aircraft Parking Positions
West Maintenance Facility	593,050	15	NA	NA
East Maintenance Facility	135,750	19	411,000	22
Total	728,800	34	411,000	22

Source: United Airlines, FSB, 2017, 2018.

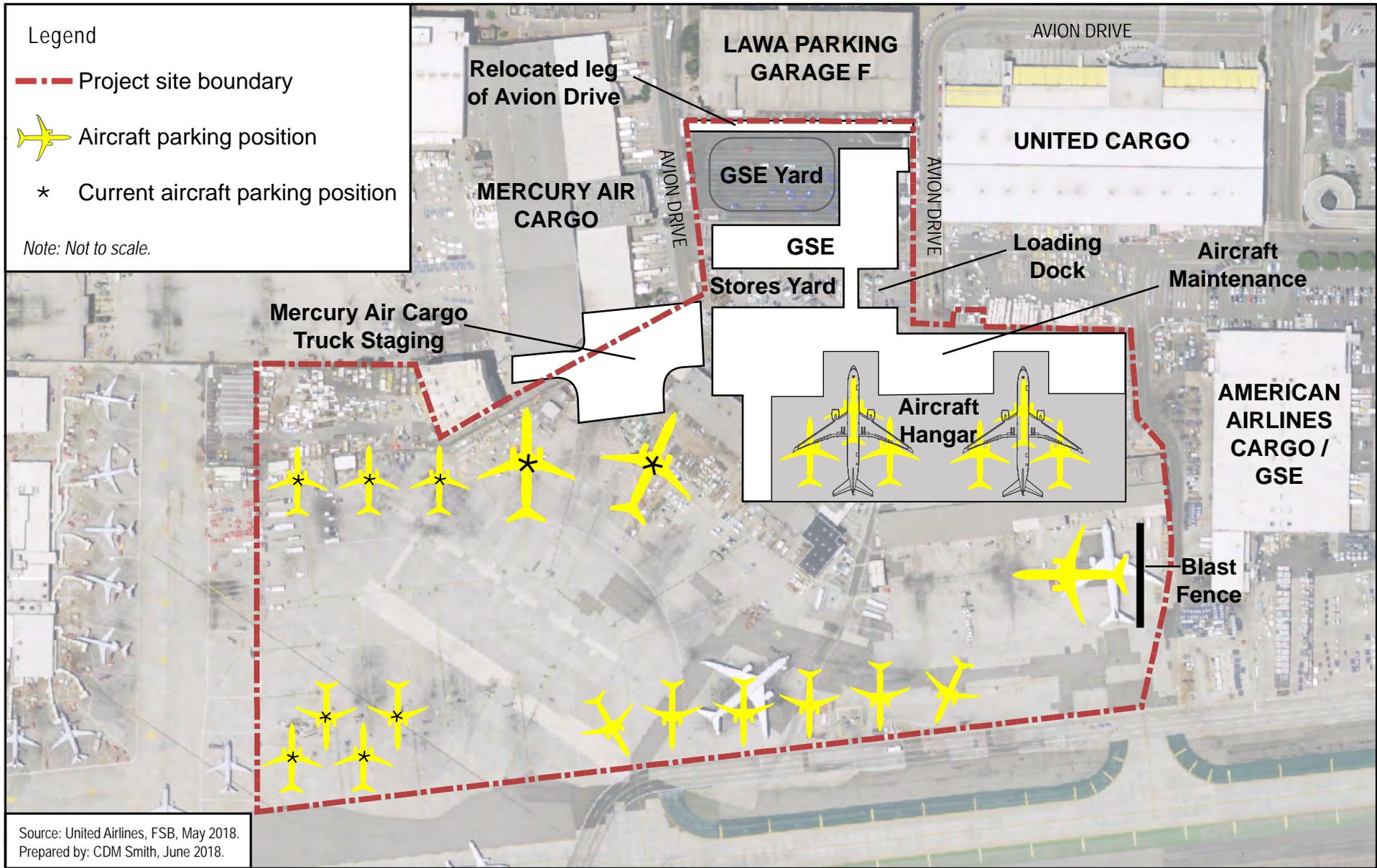
without the use of water. The dry washing process involves applying a cleaning compound that meets international aviation standards to the exterior of the aircraft with sprays, mops, or cloths. Once the compound has dried, the material is removed by dry mopping or wiping with clean, dry cloths.

¹² 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 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.

¹³ Aircraft engine ground run-ups normally require that the aircraft be positioned facing into the wind. At LAX, the predominant wind direction is from west to east, and the proposed blast fence would be positioned to accommodate aircraft engine run-ups in these wind conditions. When UAL aircraft engine ground run-ups are required during conditions where the wind direction is not from west to east, the run-ups would occur at another location at LAX where there is a blast fence available for the non-standard wind conditions.

¹⁴ A triturator is a below-grade automated facility that accepts aircraft lavatory sewage (transported from the aircraft via lavatory vehicles) and conveys the material to the sanitary sewer system.

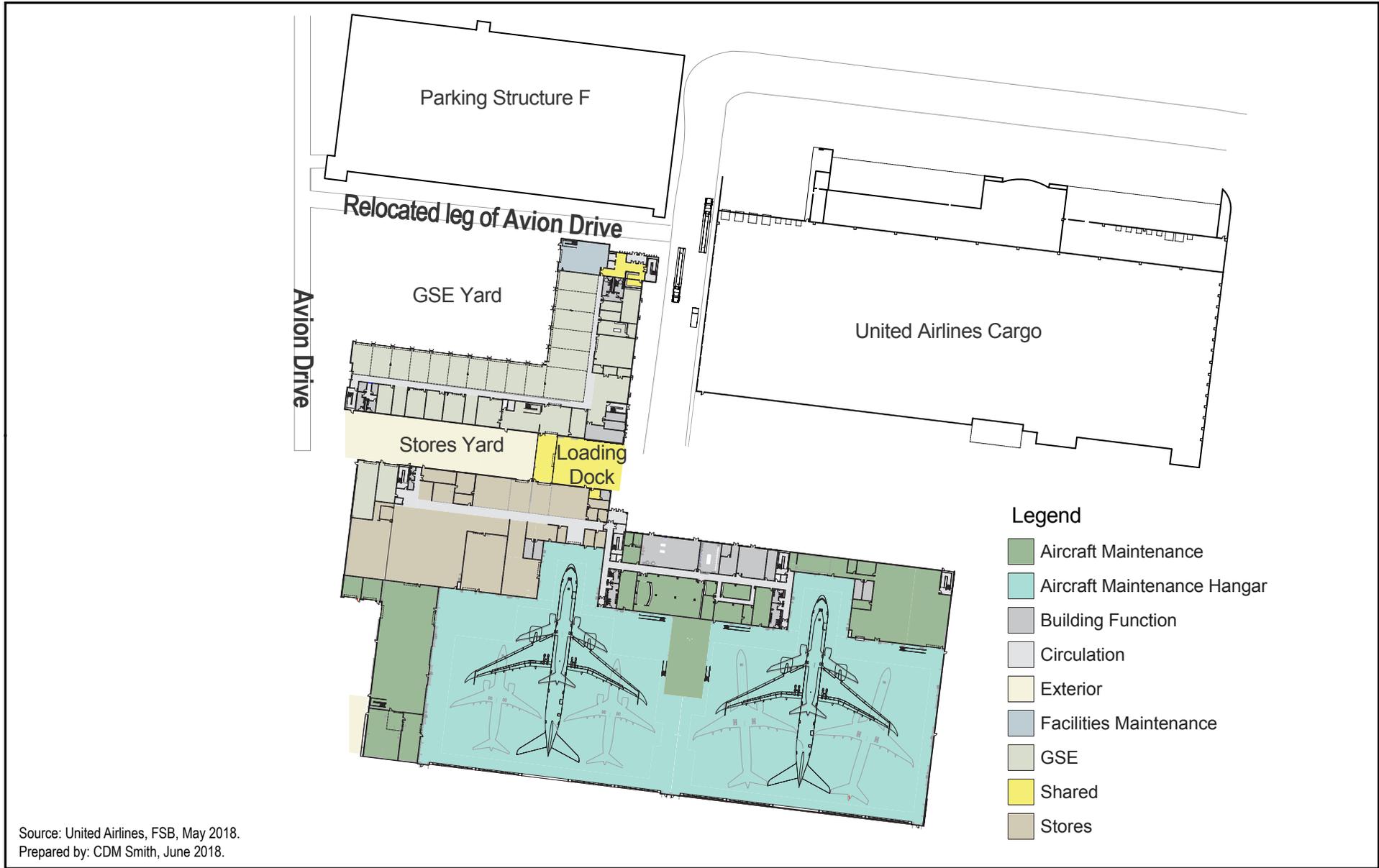
¹⁵ The existing spray booths at the West Maintenance Facility would be taken out of operation. It is anticipated that the Permit to Operate for the new spray booth at the proposed project site would be structured to reduce allowable paint and solvent usage below current permitted levels.



LAX UAL East Aircraft Maintenance and GSE Project

Project Site Plan

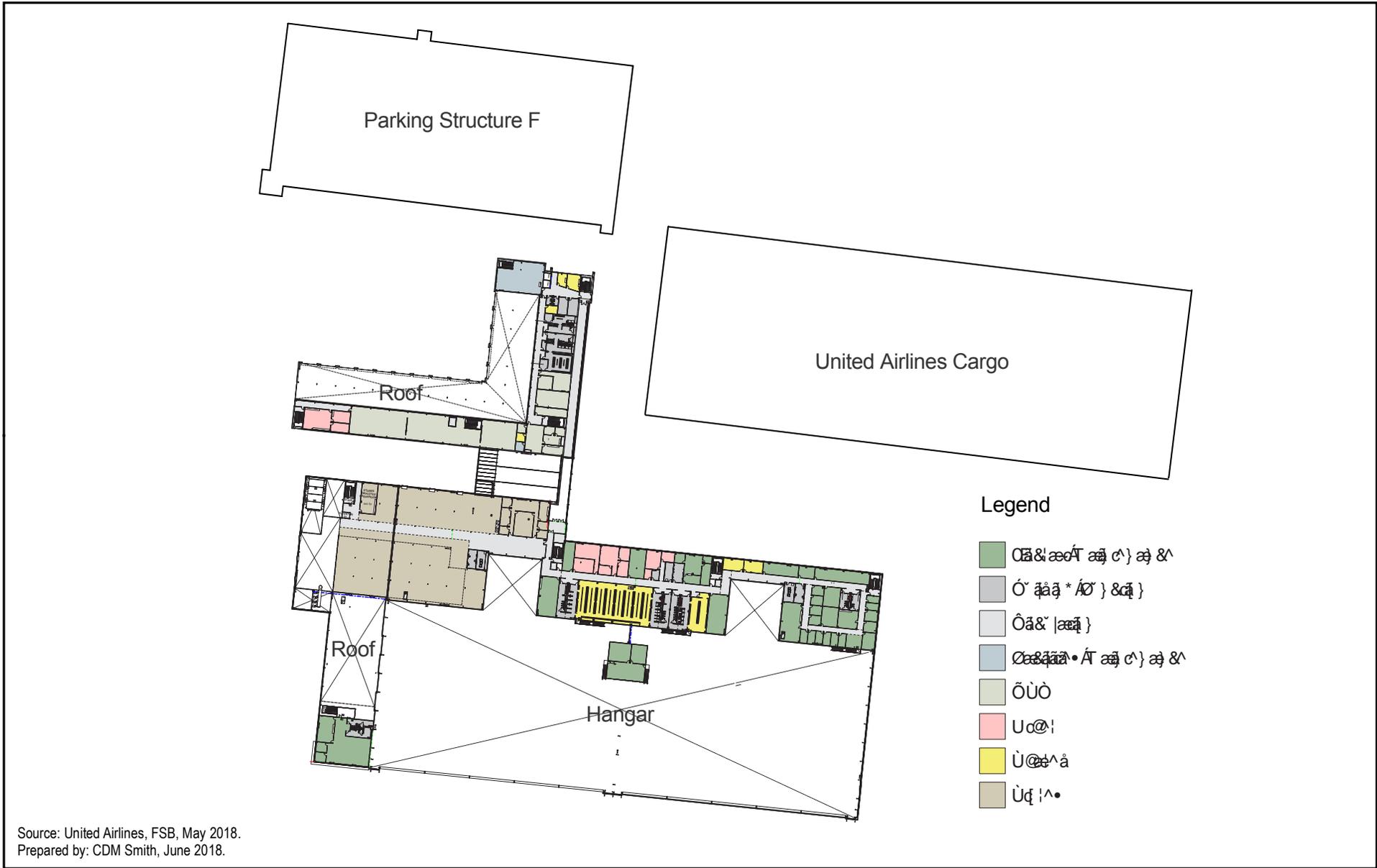
Figure 2-6



LAX UAL East Aircraft Maintenance and GSE Project

Proposed Floor Plan - Level 1

Figure 2-7



LAX UAL East Aircraft Maintenance and GSE Project

Proposed Floor Plan - Level 2

Figure 2-8

2. Project Description

With project implementation, the square footage of the maintenance buildings occupied by UAL would be substantially lower than the total square footage of the current east and west maintenance facilities. In addition, UAL would have fewer aircraft parking positions at LAX. Despite these changes, current maintenance activities would not be substantially reduced with project implementation. Rather, building space and ramp areas would be used more efficiently. (A discussion of potential future uses of the West Maintenance Facility is provided in Chapter 3, *Overview of Project Setting*.)

As with the existing facilities, the proposed project would include eGSE charging stations within the GSE maintenance facility. The number of eGSE charging stations would be the same as the current number of stations. In addition, the hangar and aircraft apron would be designed as a “Pad-of-the-Future,” with dual 400 hertz (Hz) electric power for all aircraft parking positions, and using stationary or portable GPUs, stationary or portable pre-conditioned air (PCA) units, and/or electrification of GSE maintenance activities. The portable GPUs and PCA units to be used at the facility would include existing diesel, gasoline, and electric-powered units.¹⁶

As noted above, a small portion of the current UAL cargo yard would be used for project-related electrical equipment. The project site would also incorporate an approximately 3-acre site that is currently used by Super Shuttle as a commercial shared-ride vehicle holding lot. Super Shuttle plans to relocate its vehicles in the fourth quarter of 2018. This relocation is occurring independently of the proposed project.

2.4.3 Parking

As described in Section 2.4.2, as part of the proposed project, employee parking would be relocated from Parking Lot H to Parking Garage F both during and after construction (these parking facilities are identified on Figure 2-4). Parking Lot H is located on the current East Maintenance Facility leasehold, directly north of Hangars 1 and 2, and is used by UAL employees. The parking lot includes a small visitor parking area. There are a total of approximately 760 parking spaces in Parking Lot H. A recent parking survey found that the maximum number of occupied parking spaces over a 24-hour period was 664.¹⁷

The total number of parking spaces in Parking Garage F is approximately 1,850 spaces. The parking survey found that the maximum number of occupied parking spaces in Parking Garage F over a 24-hour period was 720. Parking Garage F is owned by LAWA. Parking passes to the garage are available for purchase. Approximately 2,250 parking passes have been purchased for the garage. Using an occupancy factor of 2.7 (which is the number regularly used by LAWA) yields an average occupancy of approximately 835 vehicles. Using the calculated occupancy of 835, Parking Garage F has an available capacity of approximately 1,015 spaces.

With implementation of the proposed project, all of the employees that currently park in Parking Lot H would be relocated to Parking Garage F. In addition, following completion of construction, a maximum of approximately 235 employees who currently park at the West Maintenance Facility at any one time would be relocated to the proposed new maintenance facility and would also park in Parking Garage F. In total, with implementation of the proposed project, a maximum of approximately 900 UAL employees would park in Parking Garage F at any one time.¹⁸ If 100 percent occupancy of Parking Lot H were assumed (i.e., 760 vehicles), the total number of parking spaces required to accommodate the relocated UAL employees would be 995.

¹⁶ Although the proposed project would provide infrastructure for electric equipment, the GSE fleet would not change as a result of the proposed project. Rather, any future changes to UAL’s GSE fleet, including the addition of new eGSE equipment, would occur independently of the proposed project.

¹⁷ The parking survey was conducted by Wiltec, Inc. on February 22, 2018.

¹⁸ This is a very conservative estimate, as the employee parking peak at the West Maintenance Facility does not overlap with the employee parking peak at the East Maintenance Facility.

As noted above, Parking Garage F has an available capacity of approximately 1,015 spaces. There is availability and sufficient room in the parking garage to accommodate the UAL employees during project operations.

As stated in Section 2.5.1, the greatest number of construction employee vehicles at any one time during the peak month of construction would be 135.¹⁹ Construction employees would park in Parking Garage F, along with relocated vehicles from Parking Lot H. If 100 percent occupancy of Parking Lot H were assumed (i.e., 760 vehicles), the total number of parking spaces required to accommodate the relocated UAL East Maintenance Facility employees and the construction employees during construction would be 895. There is available and sufficient room in the parking garage to accommodate UAL employees and project-related construction employees during project construction.

2.5 Project Construction

2.5.1 Construction Schedule and Activities

Construction of the proposed project would be phased over approximately 22 months (one year and ten months), beginning with the demolition of existing facilities in the East Maintenance Facility lease area. During construction, some of the existing activities that currently occur at the East Maintenance Facility, including administration and GSE maintenance, would be conducted at the West Maintenance Facility. This would require the relocation of up to 70 employees from the East Maintenance Facility to the West Maintenance Facility during construction. Aircraft maintenance would continue to be conducted at both the West Maintenance Facility and on the ramp area at the East Maintenance Facility during construction, with offices, equipment, and tools in temporary trailers.

Employees who would continue to work on the east side of the airport during construction and who currently park in Parking Lot H would park in Parking Garage F during construction. Employees whose work location would shift to the West Maintenance Facility during construction would park in existing UAL parking lots at the West Maintenance Facility during construction.

Prior to the initiation of demolition activities, abatement of hazardous building materials within the East Maintenance Facility would be conducted to remove any asbestos-containing materials (ACM), lead-containing surfaces (LCS), and other hazardous materials that may be present inside the buildings due to their age. Abatement and disposal of hazardous building materials would be done in accordance with local, state, and federal regulations which govern the removal and disposal of hazardous building materials.

¹⁹ A total of 155 construction employees are estimated to work in the morning shift during the peak month of construction. (August 2019). Using a vehicle occupancy of 1.15 employees per vehicle, 135 vehicles would be expected to require parking during the peak construction method. For additional discussion of vehicle occupancy, see Section 2.5.1.

2. Project Description

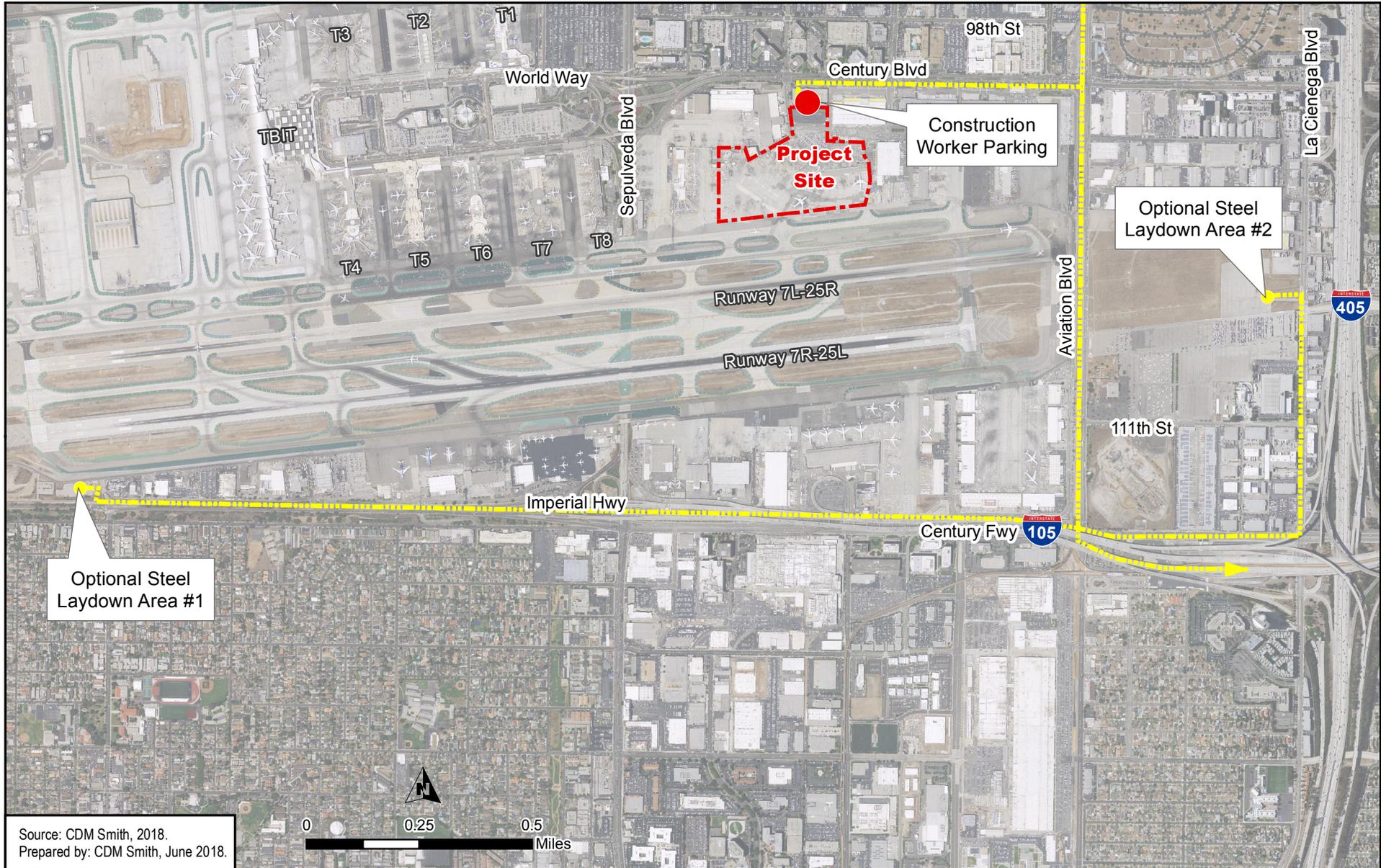
Demolition is projected to commence in the fourth quarter of 2018 and new construction is anticipated to extend to late 2020. The peak construction month for the proposed project is anticipated to occur during August 2019. Construction staging would primarily occur onsite, although steel laydown would occur at an offsite location. Two optional on-airport sites are currently under consideration for steel laydown; only one of these sites would be used during construction. One site is located on the north side of Imperial Highway, east of the LAWA pistol range. The other site is located west of La Cienega Boulevard between W. 104th Street and W. 111th Street. The steel laydown areas are shown on **Figure 2-9**. Trucks leaving the project site would travel north on Avion Drive, east on Century Boulevard, and either north on Aviation Boulevard to Manchester Boulevard, or south on Aviation Boulevard, connecting to I-105, La Cienega Boulevard, or I-405. The haul route for the proposed project is shown on Figure 2-9. Once a secure perimeter is established for the construction site, all demolition and construction activities would occur on the landside and no entry to the AOA would be required. No lane or road closures of public roadways would be required for construction.

Construction worker parking is anticipated to be provided at Parking Garage F, which is located north of the current East Maintenance Facility on the south side of Century Boulevard. Construction shifts would be scheduled to avoid peak commuter periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.). Specifically, the construction schedule is based on a double-shift work schedule with shift times anticipated to occur from 6:00 a.m. to 2:30 p.m. and 3:00 p.m. to 11:30 p.m.; the second shift would only be required periodically. It is estimated that 278 construction employees would access the proposed project construction site on a daily basis during the peak month of construction. A total of 155 construction employees are estimated to work in the morning shift, with 123 employees in the afternoon shift. Vehicle occupancy was assumed to be 1.15 employees per vehicle.²⁰ By applying the assumed vehicle occupancy factor, it was projected that 242 construction employee vehicles per day during the proposed project construction peak month would access and egress the construction traffic study area in support of proposed project construction, including 135 vehicles in the morning shift and 107 vehicles in the afternoon shift.

Construction activities and staging for the proposed project would be coordinated with LAWA's Coordination and Logistics Management (CALM) Team. The CALM Team helps monitor and coordinate the construction logistics of development projects at LAX in the interest of avoiding conflicts between ongoing airport operations and construction activities. In accordance with standard LAWA practice, construction would be coordinated with the LAWA CALM Team to ensure that occupancy and operation of adjacent and surrounding facilities would be maintained throughout demolition and construction activities.²¹

²⁰ According to a study published by the Southern California Association of Governments (Southern California Association of Governments, *Regional High-Occupancy Vehicle Lane System Performance Study*, November 4, 2004), the average vehicle occupancy on several regional roadways in the Los Angeles region ranged from approximately 1.15 to 1.30. Provided the temporary nature of construction employment and the lower likelihood of rideshare opportunities, a conservative estimate of vehicle occupancy of 1.15 employees per vehicle was assumed for the proposed project.

²¹ City of Los Angeles, Los Angeles World Airports, *Los Angeles World Airports Design and Construction Handbook: CALM Review Procedures*, July 2017. Available: <https://www.lawa.org/-/media/lawa-web/tenants411/file/calm-review-procedures-tiap-process-july-2017.ashx?la=en&hash=8860839120E2785BBABB24D56C2463F073759290>.



LAX UAL East Aircraft Maintenance and GSE Project

Proposed Construction Haul Routes and Steel Laydown Areas

Figure
2-9

2. Project Description

As required by the Los Angeles Department of Building and Safety, LAWA would submit a Haul Route Form and Haul Route Map, as shown on Figure 2-9, identifying routes to be used by trucks to export soil or demolition debris offsite. In addition, in accordance with LAWA procedures, a Site Logistics Plan that identifies construction access and ingress/egress, staging/laydown, etc. would be submitted to the CALM Team.²²

2.5.2 LAWA Design and Construction Practices

The proposed project would be designed and constructed in accordance with LAWA's Sustainable Design and Construction Policy, which requires that the new building be designed to achieve the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED®) Silver certification.²³ LEED® Silver certification requires a project to be designed in a manner to save energy, water, and other resources, and to generate less waste and support human health. In addition, the proposed project would be required to be constructed in accordance with the Los Angeles Green Building Code (LAGBC), which is based on the California Green Building Code (CALGreen).^{24,25}

In addition to the measures required to obtain LEED® Silver certification, LAWA has implemented a wide range of actions designed to reduce temporary, construction-related air pollutant and greenhouse gas emissions from its ongoing construction program and has established aggressive construction emissions reduction measures, including having contractors use newer model construction equipment and heavy duty trucks with low-emission engines or emissions control devices.²⁶ With respect to the proposed project, mitigation measures have been included in this EIR to address the project's air quality impacts (as described in Section 4.1, *Air Quality and Human Health Risk*). In accordance with the proposed mitigation measure, on-road haul trucks with a gross vehicle weight rating of at least 14,001 pounds would comply with U.S. Environmental Protection Agency (USEPA) 2010 on-road emissions standards for particulate matter up to 10 micrometers in size (PM₁₀) and nitrogen oxides (NO_x). Contractors for the proposed project would be required to use compatible on-road haul trucks or the next cleanest burning vehicle available. Also in accordance with the proposed mitigation measure, off-road diesel-powered construction equipment greater than 50 horsepower would meet new USEPA Tier 4 (final) off-road emissions standards or the next cleanest equipment available.

The impacts of the proposed project on air quality and greenhouse gas emissions addressed by these measures are discussed in Sections 4.1 and 4.3 of this EIR, respectively. The impacts of the proposed project on water supply addressed by these measures are discussed in Chapter 6 of this EIR and in Attachment A of the Initial Study (included in Appendix A of this Draft EIR). The impacts of the proposed project on solid waste addressed by these measures are discussed in Attachment A of the Initial Study (included in Appendix A of this Draft EIR). The energy implications of the proposed project, including its design and construction practices, are addressed in Section 6.5 of this Draft EIR, with emphasis on avoiding

²² City of Los Angeles, Los Angeles World Airports, *Los Angeles World Airports Design and Construction Handbook: CALM Review Procedures*, July 2017. Available: <https://www.lawa.org/-/media/lawa-web/tenants411/file/calm-review-procedures-tiap-process-july-2017.ashx?la=en&hash=8860839120E2785BBABB24D56C2463F073759290>.

²³ City of Los Angeles, Los Angeles World Airports, *LAWA Sustainable Design and Construction Policy*, September 7, 2017. Available: <https://lawa.org/-/media/lawa-web/tenants411/file/lawa-sustainable-design-and-construction-policy.ashx?la=en&hash=943CF9EB68DA44DB4209F5832242C38BEA4E3289>.

²⁴ City of Los Angeles, Los Angeles Municipal Code, Chapter IX, Article 9, *Green Building Code*, as amended.

²⁵ 24 California Code of Regulations, Part 11, California Building Standards Commission, *2016 California Green Building Standards Code (CALGreen)*.

²⁶ City of Los Angeles, Los Angeles World Airports, *Los Angeles World Airports Design and Construction Handbook: Design Standards and Guide Specifications, Division I – General Requirements*, July 2017. Available: <https://www.lawa.org/-/media/lawa-web/tenants411/file/division-01-july-2017.ashx?la=en&hash=573DEC6E2A9501A7831B7D636A1BAB2F1D639AD3>.

or reducing inefficient, wasteful, and unnecessary consumption of energy pursuant to State CEQA Guidelines Appendix F.

2.6 Project Operations

UAL currently conducts line maintenance (as opposed to heavy maintenance) at both the East and West Maintenance facilities at LAX. Line maintenance consists of routine, scheduled maintenance checks (referred to as A-checks and B-checks) and other routine maintenance activities. These types of checks normally occur over the course of a few hours, usually overnight when the aircraft is not in service. During some line checks, situations may be discovered that require the aircraft to undergo additional maintenance over a longer period of time. The reduction in the total building square footage and leasehold acreage associated with the proposed project would not alter the nature and type of aircraft maintenance, or the number of aircraft undergoing maintenance, at LAX. Rather, the consolidation would increase operational efficiency and would “right-size” the space to match the business operations.

2.7 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 agencies identified below 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.

This Draft EIR will be used primarily to (1) inform decision-makers and the public about the potentially significant environmental effects of the proposed project and the ways to avoid or reduce the significant environmental effects to the extent feasible; (2) demonstrate to the public that the environment is being protected; and (3) ensure that the planning and decision-making processes reflect an understanding of the environmental effects of the proposed project.

In addition to use of this EIR by LAWA and the City of Los Angeles City Council and Planning Commission, the proposed project requires various federal, state, and local agency approvals. CEQA requires that all state and local agencies consider the environmental consequences of projects over which they have discretionary authority. These agencies may use this EIR in their respective decision-making and approval processes, and federal agencies may use information in this EIR when conducting NEPA reviews. CEQA further requires that the EIR project description include a list of agencies that are expected to use the EIR in their decision making, a list of permits and other approvals required to implement the project, and a list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies. (State CEQA Guidelines Section 15124(d)(1)) This list of federal, state, and local permits, approvals, and reviews that may be needed to implement the proposed project includes, but is not necessarily limited to, the following:

2. Project Description

2.7.1 Federal Actions

- U.S. Department of Transportation, Federal Aviation Administration (FAA) – Approval of the Airport Layout Plan (ALP) for the airport depicting the proposed improvements.²⁷
- FAA approval of Form 7460-1 (Notice of Proposed Construction or Alteration) in consideration of Part 77 requirements.²⁸

2.7.2 Regional Actions

- South Coast Air Quality Management District (SCAQMD) – Approval of permits required under the Clean Air Act for stationary sources.

2.7.3 Local Actions

- LAWA Board of Airport Commissioners – Project approval and LAX Specific Plan Compliance determination pursuant to LAX Specific Plan Section 7;
- City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division – Approval of a project-specific Storm Water Management Plan or Standard Urban Storm Water Mitigation Plan;
- City of Los Angeles Department of Cultural Affairs – Permit application clearance;
- City of Los Angeles Department of City Planning, Office of Historic Resources – Historical Resource documentation plan review;
- City of Los Angeles Department of Building and Safety – Grading, foundation, and building permits; and
- City of Los Angeles Department of Public Works – Permits for infrastructure improvements, as needed.

²⁷ Approval of the ALP would require separate environmental analysis pursuant to the National Environmental Policy Act.

²⁸ Although FAA is not a state agency regarding CEQA review, the proposed project would require approval of Form 7460 (Notice of Proposed Construction or Alteration) in consideration of Part 77 requirements.