DESCRIPTION OF THE PROPOSED PROJECT

2.1 Project Overview

LAWA proposes to implement airfield, terminal, and landside roadway improvements at LAX as part of LAWA's continuing commitment to maintain LAX as a world-class airport. The proposed Project consists of several primary elements, including airfield improvements that would enhance operational management and safety within the north airfield, new terminal facilities to upgrade passenger processing capabilities and enhance the passenger experience, and an improved system of roadways to better access the Central Terminal Area (CTA) and new facilities while reducing congestion.

The majority of the airfield improvements would occur within the north airfield and would include the westerly extension of Taxiway D in the western portion of the north airfield, the relocation and reconfiguration of runway exits from Runway 6L-24R, and "enabling projects" associated with these improvements.

The terminal improvements would include the construction of Concourse 0 as a new easterly extension of Terminal 1; construction of Terminal 9, a new passenger terminal located southeast of the Sepulveda Boulevard/Century Boulevard intersection; improvements and modifications to existing taxiways near Concourse 0 and Terminal 9 to facilitate aircraft access to and from the gates at those facilities; and enabling projects associated with these improvements.

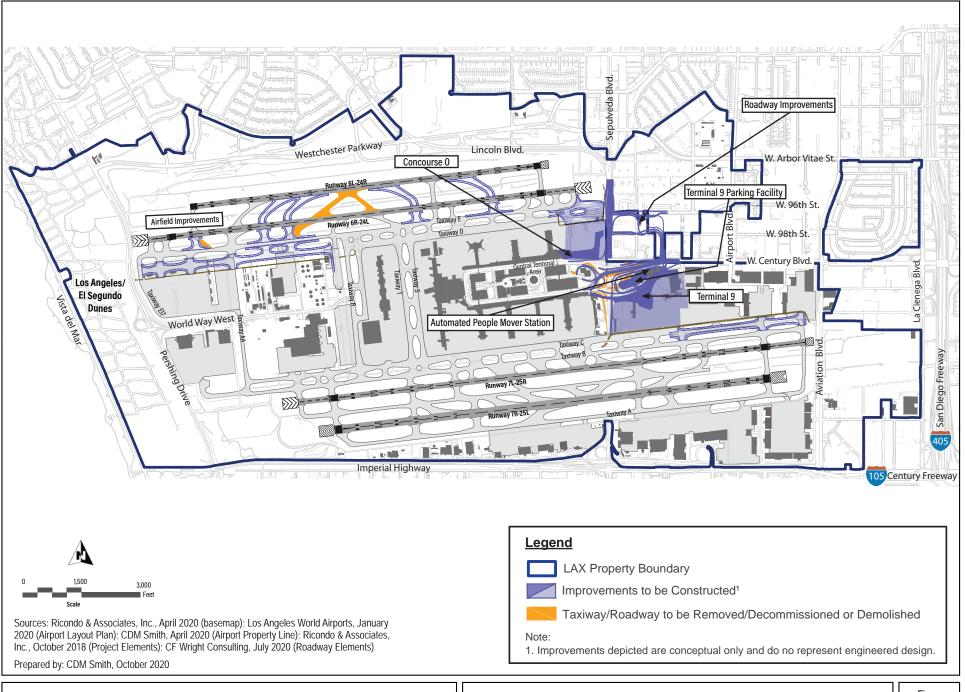
The landside improvements would be comprised of new arrival and departure roadways and a parking facility to support Terminal 9, an additional station on the previously-approved LAX Automated People Mover (APM) line with a pedestrian connection to Terminal 9, a pedestrian corridor between Terminals 8 and 9 that would bridge across Sepulveda Boulevard, new roadway segments that would further improve vehicle access into and out of the LAX CTA, and enabling projects related to these improvements. Figure 2-1 shows a high-level conceptual view of the proposed Project. Each of the Project elements is described in greater detail below.

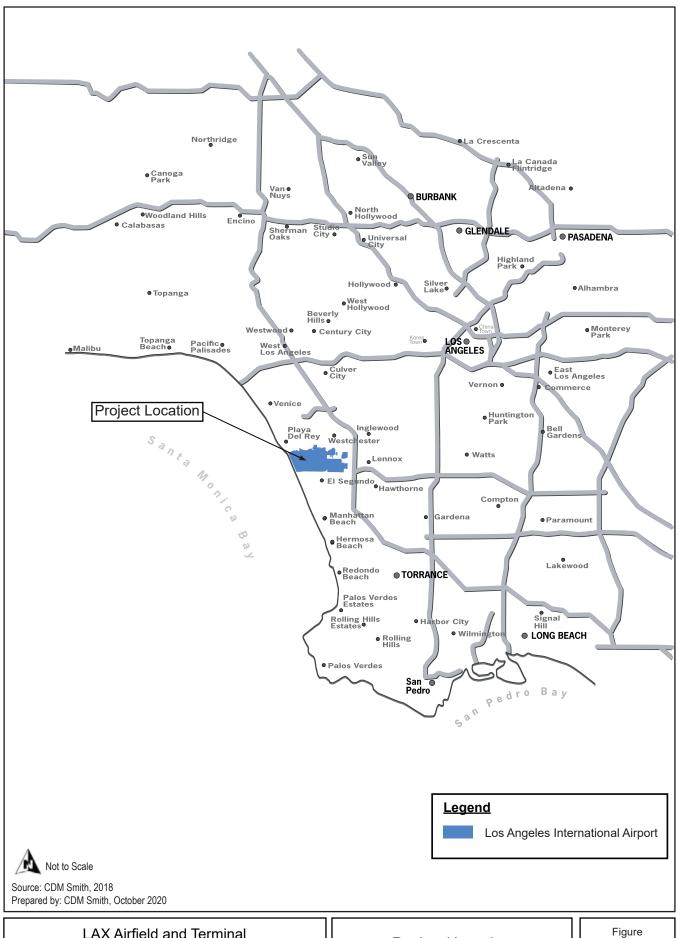
2.2 Project Location

2.2.1 Regional Setting

As shown in **Figure 2-2**, the Project is located within the City of Los Angeles, at LAX on LAWA property. The Project 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. Major roadways serving LAX include Sepulveda Boulevard, Century Boulevard, Imperial Highway, and Lincoln Boulevard.





Regional Location

2-2

2.2.2 Local Setting and Land Uses

The proposed Project improvement sites (hereafter referred to as the "Project improvement sites" or, collectively, the "Project site") are located within the northern and eastern portions of LAX (Figure 2-3). These sites consist of highly-developed land within and adjacent to a busy international airport. The land use setting around the Project improvement sites is characterized by airport operations with commercial uses along Sepulveda Boulevard and Century Boulevard. Land uses along 96th Street, 98th Street, and Vicksburg Avenue include a Los Angeles Community College District property,¹ vehicle parking (surface and structured parking), hotels, and an office building. West of the Project site (i.e., west of the western end of the airfield improvements) are Pershing Drive and the adjacent Los Angeles/El Segundo Dunes, a designated Ecologically Sensitive Habitat Area, and beyond the Dunes is the Pacific Ocean.

The proposed airfield improvements are situated within a portion of the airport that includes paved airfield areas, airfield access roadways, remote gates, and other aviation-related uses, such as maintenance facilities and fuel storage facilities. The Concourse 0 site is currently occupied by LAX-it, a temporary passenger pickup area for taxis and transportation network companies (TNCs) like Uber and Lyft.² The site also houses a groundwater remediation system and associated monitoring wells and equipment to address past contamination beneath the site. The Terminal 9 site encompasses existing cargo and maintenance facilities, the LAX Records Retention Building, and an American Eagle commuter terminal. The proposed landside improvements would be located in proximity to several hotels (Hyatt Regency Los Angeles, H Hotel/Homewood Suites, and Courtyard by Marriott), an office building, surface and structured parking facilities, and the Los Angeles Community College District property. Also within the vicinity of the Project site is the entrance to LAX, located at World Way and Sepulveda Boulevard.

2.3 Project Objectives

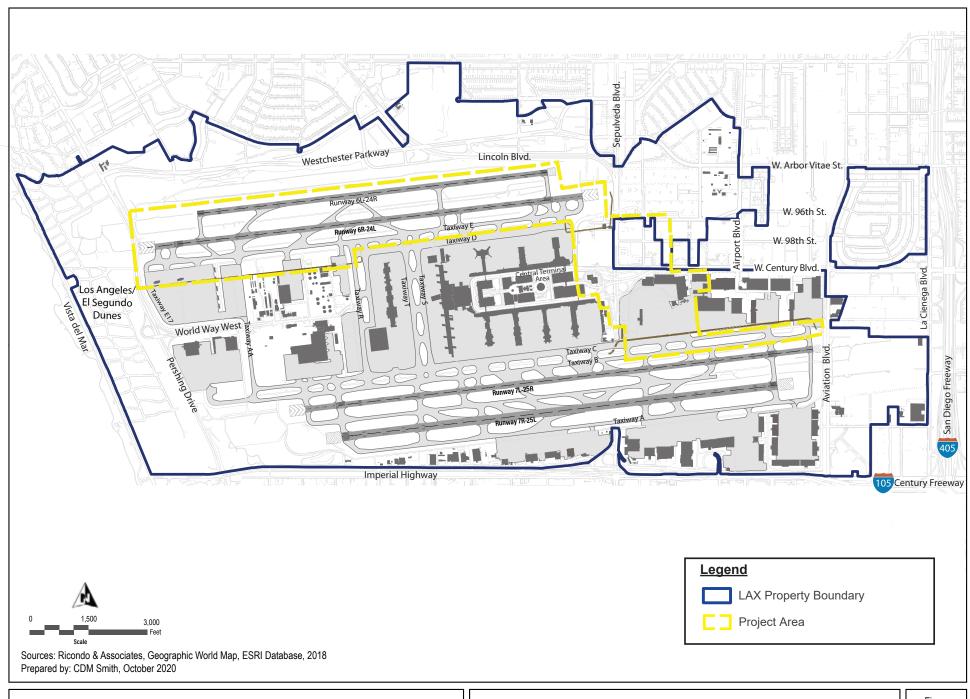
2.3.1 Background

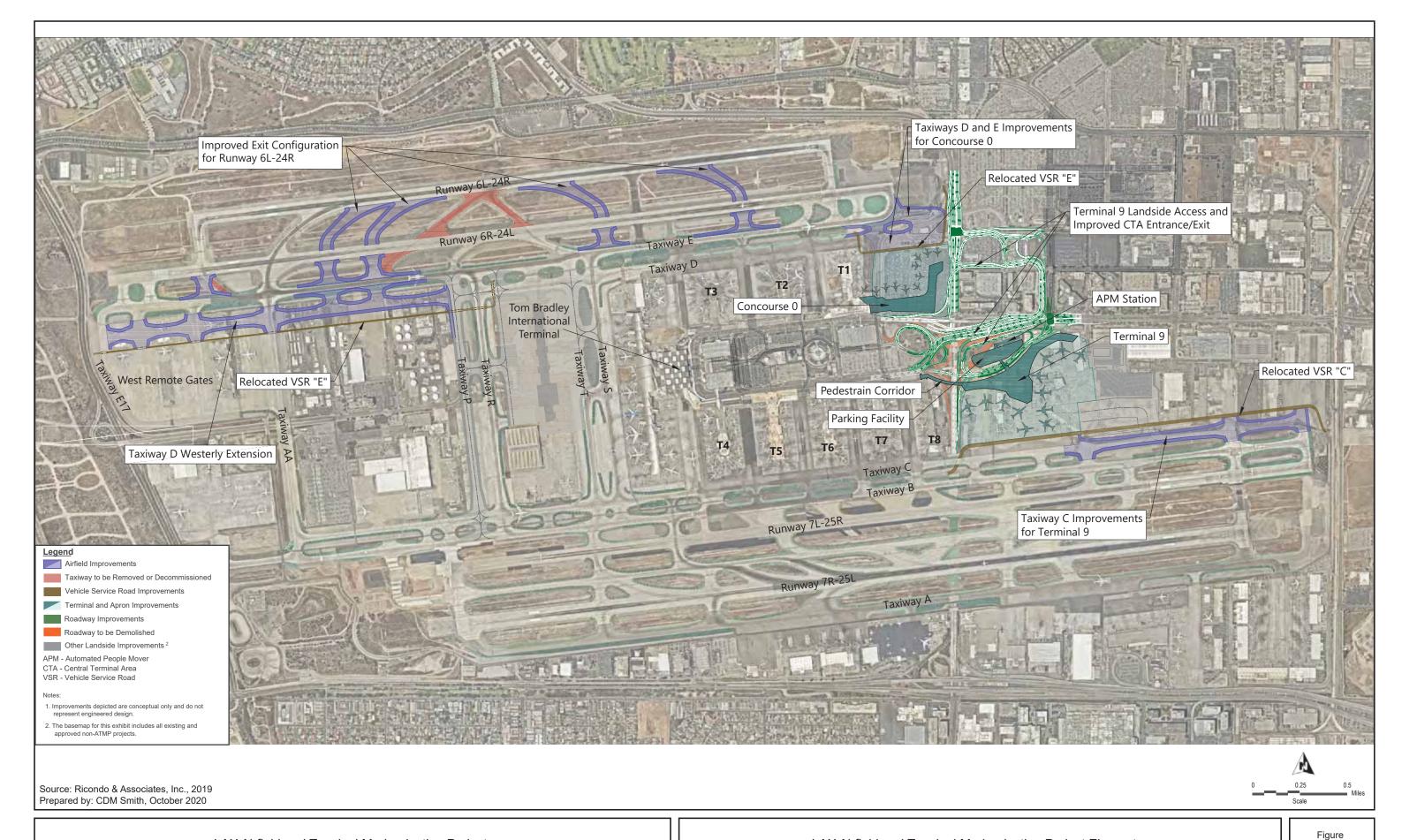
Over the past several decades, LAWA has continued to provide modernization-related improvements at LAX that enhance the safety and operational management of the airport, improve passenger quality-of-service, and serve to accommodate projected future growth. The following describes the background of, and need for, the improvements proposed as part of the LAX Airfield and Terminal Modernization Project, as related to objectives presented later in this section. The proposed improvements referred to in this section are illustrated in **Figure 2-4**.

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The Los Angeles Community College District property is improved with two airplane hangars that West Los Angeles College currently uses for the warehousing of movie set props and for periodic instruction to support its Film/Television Production Crafts program.

² LAX-it provides an auxiliary curb that reduces traffic congestion in the CTA by providing an alternative area for passenger pick-up during construction of the LAX Landside Access Modernization Program.





2-8

2.3.1.1 Background Related to Proposed Improvements

2.3.1.1.1 Airfield Improvements

Taxiway D Westerly Extension

As shown in Figure 2-4, the existing taxiway system in the north airfield includes Taxiway E, which is immediately south of, and parallel to, Runway 6R-24L and extends along the full length of the runway; and Taxiway D, which is south of Taxiway E and is also parallel to Runway 6R-24L, but only extends along the eastern two-thirds of the runway. Given the relationship between the two runways in the north airfield and existing Taxiways D and E, arriving and departing aircraft that are taxiing in an east-west direction are limited to a single taxiway (Taxiway E) while in the western portion of the airfield, which hinders the efficient movement of aircraft, particularly during peak times of aircraft activity. As shown in Figure 2-5, the airfield improvements proposed as part of the LAX Airfield and Terminal Modernization Project include the westerly extension of Taxiway D, which would improve the operational management of aircraft movements in the north airfield, particularly as related to large aircraft. The westerly extension of Taxiway D would be designed to FAA design standards for Airplane Design Group (ADG)³ VI aircraft, which would facilitate taxiing operations of large aircraft in the north airfield.

Runway 6L-24R Exits

Aircraft arriving at LAX typically land on the outboard runways, while departing aircraft typically use the inboard runways. As such, aircraft arriving on the outboard runway must cross the inboard runway in order to reach their gate. Presently there are two exits from Runway 6L-24R that cross the inboard runway (Runway 6R-24L) in areas defined as "high-energy zones," which is the portion of a runway where departing aircraft are still on the ground and moving at a high speed before lifting into the air and, therefore, should be avoided as a crossing point for taxiing aircraft.⁴ Additionally, the two exits from Runway 6L-24R intersect with Runway 6R-24L at acute angles, which limits a pilot's visibility to look down Runway 6R-24L for any departing aircraft. **Figure 2-6** shows the relationship between the existing Runway 6L-24R exits Z and Y and the Runway 6R-24L high-energy zones, as well as the acute angle at which those exits cross Runway 6R-24L. Figure 2-6 also shows the runway exit improvements proposed by the Project to address those issues, as further described below in Section 2.4.1.2.

2.3.1.1.2 Terminal Improvements

The LAX Airfield and Terminal Modernization Project proposes the development of Concourse 0 and Terminal 9. These facilities would provide replacement gates for the West Remote Gates located at the west end of the airport that would be removed in conjunction with the westerly extension of Taxiway D. As further described below in Section 2.4.2.3, Removal/Replacement of West Remote Gates, 15 of the existing 18 West Remote Gates would be removed as part of the proposed Project. The addition of six to nine net new gates at Concourse 0 and 12 to 18 new gates at Terminal 9 would result in 18 to 27 new gates, a net increase of three to 12 gates. Section 2.4.2.3 below provides additional discussion regarding

An Airplane Design Group is a grouping of airplanes based on wingspan or tail height. Airplanes are grouped into six groups, ranging from ADG I to ADG VI. At LAX, most aircraft range from ADG III to ADG VI. ADG III aircraft include the Boeing 737 and Airbus A320, ADG IV aircraft include the Boeing 757 and 767 and the Airbus A300, ADG V aircraft include the Boeing 777 and Airbus A340, and ADG VI aircraft include the Airbus A380 and the Boeing 747-8.

As discussed in Section 2.4.1.1, *Taxiway D Extension West*, below, high-energy zones are typically in the middle third of the runway. Per FAA Advisory Circular (AC) 150/5300-13A, the high-energy zone is "the portion of the runway where a pilot can least maneuver to avoid a collision." See U.S. Department of Transportation, Federal Aviation Administration, *Advisory Circular (AC) 150/5300-13A*, *Airport Design*, including errata, page 117, July 15, 2019. Available: https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5300-13.

the replacement of existing West Remote Gates with new gates at Concourse 0 and Terminal 9, and also discusses the use of gates by various types of aircraft.

In addition to eliminating the inconvenience and inefficiency of busing passengers to and from the West Remote Gates, the development of Concourse 0 and Terminal 9 would provide new facilities with direct access to passenger processing capabilities, including for international travel, and a high-quality of passenger service, which the West Remote Gates do not provide. Also, locating the new replacement gates within a new concourse or terminal that is connected to other existing terminals at LAX would allow passengers with connecting flights to more easily and more quickly move between gates. More specifically, Concourse 0 would connect directly with Terminal 1, which, in turn, will connect with Terminal 2⁵ as part of a future fully-linked terminal system within the CTA. Similarly, Terminal 9 would connect with Terminal 8 via the proposed pedestrian corridor over Sepulveda Boulevard. Terminal 8 currently connects directly with Terminal 7 as part of a connected terminal system on the south side of the CTA (i.e., a continuous passenger corridor between Terminal 8 and the Tom Bradley International Terminal). The complementary relationship between Concourse 0 and Terminal 9 to existing adjacent terminals within the CTA, as opposed to the disconnected isolated nature of the West Remote Gates, is illustrated in Figure 2-4.

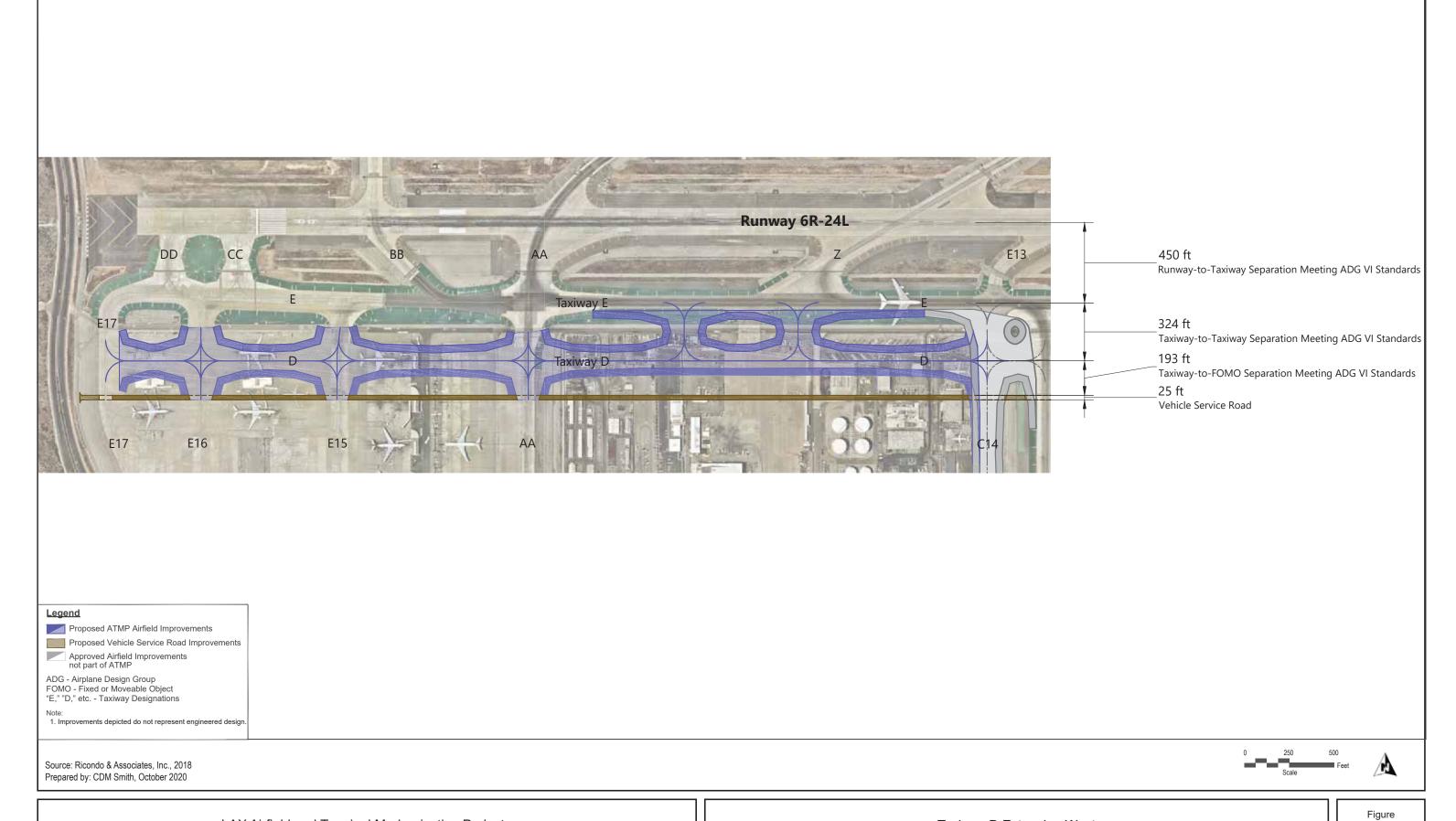
2.3.1.1.3 Landside Improvements

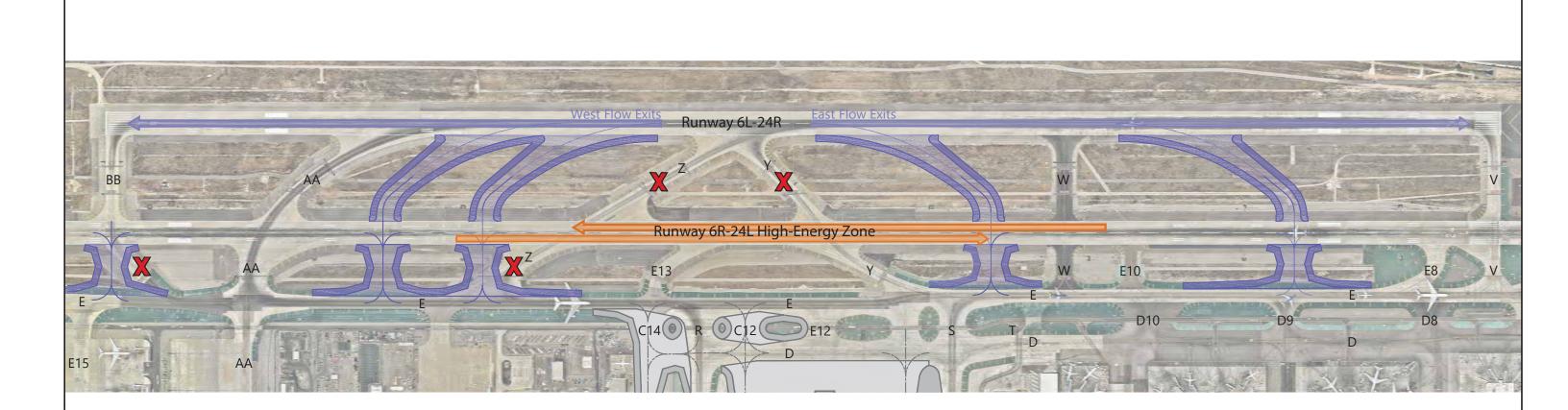
The proposed LAX Airfield and Terminal Modernization Project landside improvements include facilities associated with the development of the new Terminal 9, as well as refinements to landside improvements approved as part of the LAX Landside Access Modernization Program. The proposed Project landside improvements would be integrated with the previously-approved LAX Landside Access Modernization Program elements and include refinements to certain aspects of the Program. The refinements would account for Terminal 9, which was not contemplated as part of the LAX Landside Access Modernization Program. The refinements would also provide for improved access and driver wayfinding to and from the CTA. The proposed access improvements would help keep airport-related traffic congestion and back-up off public streets, thereby facilitating the flow of non-airport traffic on main roadways near the main entrance to the CTA. More specifically, the proposed Project roadway system includes modifications to the LAX Landside Access Modernization Program Phase 2 roadway improvements proposed at, and just east of, the Sepulveda Boulevard/Century Boulevard intersection, including:

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Ultimately, all of the terminals at LAX will be linked with secure connections. On the north side of the CTA, Terminal 1 will connect with Terminal 2 when the Terminal 1.5 Project is completed in approximately December 2020. Future projects will connect Terminal 2 with Terminal 3, and will provide a secure connector between Terminal 3 and the Tom Bradley International Terminal.

The LAX Landside Access Modernization Program, approved by the Los Angeles City Council in June 2017, consists of two phases. Phase 1, currently under construction, includes development of the APM operating system and fixed facilities, the Consolidated Rental Car Facility (CONRAC), the Intermodal Transportation Facility (ITF) West and ITF East, and a portion of roadway improvements. Phase 2 consists of the remainder of the roadway improvements, located near the entrance to the CTA at/near Sepulveda Boulevard and Century Boulevard. Additional description of the LAX Landside Access Modernization Program, including Phase 1 and Phase 2 roadway improvements, is provided in Chapter 2, Description of the Proposed Project, of the LAX Landside Access Modernization Program EIR available online at: https://www.lawa.org/en/connectinglax/automated-people-mover/documents.





Legend

Proposed ATMP Airfield Improvement



Runway 6R-24L High-Energy Zone
(Approximate location of the West Flow and East Flow middle-third of the runway based on departure declared distances.)

Approved Airfield Improvement not part of ATMP

Note

1. Improvements depicted do not represent engineered design.

Source: Ricondo & Associates, Inc., 2018 Prepared by: CDM Smith, October 2020



- The addition of new roads, integrated into the LAX Landside Access Modernization Program Phase
 2 roadway system, that would provide access to the arrivals level and the departures level of
 Terminal 9, as well as access to the Terminal 9 parking facility
- Roadway improvements that would shift the concentration of airport-related traffic movements away from the Sepulveda Boulevard/Century Boulevard/CTA interchange area, and towards the northeast, which would serve to reduce airport-related traffic congestion along Sepulveda Boulevard, especially near Lincoln Boulevard and near the Sepulveda Tunnel
- A roadway system configuration that would better centralize the entrance to the CTA, thereby simplifying and facilitating driver wayfinding
- Roadway segments dedicated to airport-related traffic such that airport-related traffic congestion at the CTA would not back-up onto nearby public streets, especially Sepulveda Boulevard

In addition, the development of Terminal 9 would also include a new pedestrian corridor over Sepulveda Boulevard and connection to Terminal 8 that would allow for convenient pedestrian and baggage movement between Terminal 9 and Terminal 8; a new parking facility near Terminal 9; a new APM station near Terminal 9 on the already-approved APM system (currently under construction as part of Phase 1 of the LAX Landside Access Modernization Program); and new roadways comprised of arrival and departure roadways at Terminal 9 and a roadway for the new parking facility.

2.3.1.2 Projected Future Growth at LAX

In conjunction with continued growth in population, housing, employment, and the economy within the Southern California region, growth in regional aviation activity will also occur, including at LAX. The following describes the draft regional aviation activity growth forecast recently completed by the Southern California Association of Governments (SCAG), which includes a passenger level forecast for LAX, as well as for other commercial airports in the region, and an aviation activity forecast specific to LAX that was completed for LAWA in 2019.

2.3.1.2.1 SCAG Regional Aviation Activity Forecast

As part of the 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for Southern California, also referred to as "Connect SoCal," SCAG completed a regional aviation activity forecast for the planning period of 2020 to 2045 to assist in the evaluation and planning of regional surface transportation system improvements, as may be affected by, or be related to, growth in regional aviation activity. That forecast is presented in the Aviation and Airport Ground Access Technical Report⁷ of the Connect SoCal plan adopted by SCAG in September 2020.⁸

For the 2020-2045 regional passenger demand forecast, SCAG used the 2017 regional passenger activity level at the seven commercial service airports in the SCAG region of 110.17 million annual passengers (MAP) for the base year and the FAA 2018 Terminal Area Forecast projected annual growth rate of 2.1 percent to estimate the regional passenger level in 2045. In order to ensure that the overall regional forecast number was consistent with the planning efforts of the individual airports, SCAG Aviation Program staff worked with the region's airports, including LAX, to incorporate individual airport

Southern California Association of Governments, Connect SoCal Technical Report: Transportation System - Aviation and Airport Ground Access, adopted September 3, 2020. Available: https://www.connectsocal.org/Documents/Adopted/0903f ConnectSoCal Aviation-And-Airport-Ground-Access.pdf.

Southern California Association of Governments, Connect SoCal: The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments, adopted September 3, 2020. Available: https://www.connectsocal.org/Documents/Adopted/0903fConnectSoCal-Plan.pdf.

forecasts. ⁹ **Table 2-1** presents the SCAG regional passenger forecast for 2045, as projected to occur at each of the seven major commercial airports in the Southern California region and the five key reliever airports in the region.

The SCAG forecast presented in Table 2-1 indicates that passenger activity at LAX will grow from 84.56 MAP in 2017 to 127 MAP in 2045.

Table 2-1 SCAG Regional Airport Passenger Forecast for 2020-2045 RTP/SCS				
	2017 (Base Year) Actual		2045 (Horizon Year) Projection	
Airport	MAP	% of Total	MAP	% of Total
Major Commercial Airports				
Hollywood Burbank Airport (BUR)	4.74	4.30%	9	4.57%
Imperial County Airport (IPL)	0.012	0.01%	0.3	0.15%
Long Beach Airport (LGB)	3.783	3.43%	5.5	2.79%
Los Angeles International Airport (LAX)	84.56	76.75%	127	64.42%
Ontario International Airport (ONT)	4.552	4.13%	33	16.74%
Palm Springs International Airport (PSP)	2.1	1.91%	5	2.54%
Santa Ana John Wayne/Orange County Airport (SNA)	10.423	9.46%	12.5	6.34%
Reliever Airports				
Oxnard Airport (OXR)	0	0.00%	0.3	0.15%
Palmdale Regional Airport (USAF Plant 42) (PMD)	0	0.00%	1.82	0.92%
March Air Reserve Base (RIV)	0	0.00%	0.61	0.31%
San Bernardino International Airport (SBD)	0	0.00%	1.81	0.92%
Southern California Logistics Airport (VCV)	0	0.00%	0.3	0.15%
Total	110.17	100.00%	197.14	100.00%

Source: Southern California Association of Governments, *Connect SoCal Technical Report: Transportation System - Aviation and Airport Ground Access*, adopted September 3, 2020. Available:

https://www.connectsocal.org/Documents/Adopted/0903fConnectSoCal Aviation-And-Airport-Ground-Access.pdf.

As further described below in the discussion of the aviation forecast specific to LAX, future growth in aircraft operations at LAX is anticipated to be constrained by the operational limitations of LAX's four-runway airfield system; in turn, those operational constraints would also constrain future passenger growth at LAX. As indicated in Table 2-1, SCAG projects that LAX's share of future passenger activity levels at commercial airports within the region will decrease by over 12 percent compared to base year (2017) conditions, reflecting the assumption that the constrained airfield system at LAX will result in a shift of some of the future demand to other airports in the region.

In addition to the regional aviation forecast developed by SCAG, which included LAX along with other commercial airports in the region for the 2020 RTP/SCS updates, LAWA developed a more detailed forecast for LAX for use in the planning and evaluation of the LAX Airfield and Terminal Modernization Project. That aviation forecast is described below.

Southern California Association of Governments, Connect SoCal: The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments, page 22, adopted September 3, 2020. Available: https://www.connectsocal.org/Documents/Adopted/0903fConnectSoCal-Plan.pdf.

2.3.1.2.2 LAX Aviation Activity Forecast

Forecasts of annual aircraft operations and passenger activity at LAX were developed in 2019 on behalf of LAWA to support the planning efforts for the LAX Airfield and Terminal Modernization Project facilities and are documented in **Appendix B.1** of this EIR. The LAX annual activity forecasts were used to derive Design Day Flight Schedules (DDFSs), which served as the basis for the technical analyses conducted to evaluate the operational characteristics of the Project including impacts to airfield operations.

Annual activity forecasts were developed for passengers and their associated aircraft operations, which are referred to as scheduled passenger operations. Annual activity forecasts were also developed for unscheduled operations, which comprise all-cargo, other air taxi, general aviation (GA), and military aircraft operations. Similar to the SCAG aviation forecast described above, the LAX aviation activity forecast developed for LAWA projected future passenger levels out to a horizon year of 2045. Although the forecast for LAWA estimated passenger levels at LAX for each year between 2018 and 2045, the SCAG forecast projected future passenger levels for only 2045; both forecasts had essentially the same projection for LAX in 2045, with SCAG's projection being 127 MAP and LAWA's projection being 127.9 MAP.

The passenger and operation forecasts developed for the proposed Project represent an estimate of future activity levels at LAX; however, many factors affect aviation demand, such as international, national, and local economic activity; geopolitical considerations; and cost of aviation fuel. Therefore, actual activity may vary from the forecasts, as further discussed in **Appendix B.1**.

A socioeconomic regression analysis that correlated origin and destination (O&D) passengers (i.e., those beginning or ending their trip in the Los Angeles Basin) to socioeconomic factors, such as population, employment, and per capita personal income, was selected as the forecasting method to estimate the annual growth rates for regional passengers and scheduled passenger operations. The use of a regression analysis to forecast passenger activity levels is consistent with industry standards for complex airports such as LAX and follows FAA guidance on forecasting methods.¹⁰

Based on the annual activity forecast and regression analysis results, passenger activity at LAX is forecasted to increase from 86.1 MAP in fiscal year (FY) 2018, the baseline year for most of the EIR's environmental analysis, to 110.8 MAP in FY 2028, the horizon year assumed for buildout of the proposed Project, (resulting in a compounded annual growth rate [CAGR] of 2.6. percent), while total annual aircraft operations are forecasted to increase from 715,000 annual operations in FY 2018 to 800,000 annual operations in FY 2028 (resulting in a CAGR of 1.1. percent).

The FY 2018 through FY 2028 period considered in this EIR is a subset of the overall forecast timeframe (FY 2018 through FY 2045) documented in **Appendix B.1** of this EIR. As further discussed in **Appendix B.1**, the forecasting process identified two forecast scenarios: an unconstrained activity forecast scenario (in which no existing or future operational or regulatory constraints were applied that would limit the ability of LAX to accommodate the projected demand for air travel); and a constrained forecast demand scenario (which was developed based on anticipated slowdown in the projected growth rate of aircraft operations as a result of future airfield congestion and delays). The forecast results for FY 2028 are identical under both scenarios, as documented in **Appendix B.1** of this EIR. Thus, airfield congestion is not projected to be a constraint on growth until after 2028. For this reason, through 2028, the

U.S. Department of Transportation, Federal Aviation Administration, *Forecasting Aviation Activity by Airport*, April 2001, p. 11. Available: https://www.faa.gov/airports/planning_capacity/.

The FY 2045 annual passenger forecast results of the constrained forecast demand scenario are presented in **Appendix B.1** of this EIR are consistent with the SCAG Regional Aviation Activity Forecast discussed above (127.9 MAP and 127.0 MAP, respectively).

unconstrained and constrained forecasts are the same; in 2029 and thereafter, however, airport congestion is expected to constrain growth, and the unconstrained and constrained forecasts differ.

2.3.2 Objectives

Section 15124(b) of the State CEQA Guidelines states that the Project Description shall contain "[a] statement of the objectives sought by the proposed project." In addition, Section 15124(b) of the State CEQA Guidelines further states, "[t]he statement of objectives should include the underlying purpose of the project and may discuss the project benefits."

2.3.2.1 Underlying Purpose of the Project

The LAX Airfield and Terminal Modernization Project would support the ongoing modernization of LAX, to provide excellent passenger service, to support the economic growth and prosperity of the Los Angeles region, and to work closely with neighboring communities to reduce airport-related impacts. The proposed Project would support the ongoing modernization of LAX by enhancing the safety and operational management of the airfield, particularly as related to runway exits as further described below in Section 2.4.1.2; providing a new concourse and terminal to improve the quality of the passenger experience and efficiency of passenger processing; and improving the roadway system to better route airport-related traffic away from the public roads that serve the community. These improvements would help LAX to prepare early for the continued aviation growth that is projected by LAWA, SCAG, and the FAA to occur at LAX over the next several decades. Additionally, the nature and timing of improvements included in the proposed Project are integral to Los Angeles' plans to host the 2028 Olympic and Paralympic Games, with LAX serving as the main portal for athletes, dignitaries, and visitors from around the world.

2.3.2.2 Specific Objectives of the Project

In light of the underlying purpose of the LAX Airfield and Terminal Modernization Project, the Project objectives include the following:

- Airfield Improvements Enhance the safety and operational management of the LAX airfield while working within the limits of the existing 4-runway system (i.e., do not add or relocate runways).
 Specifically, the proposed airfield improvements seek to:
 - Enhance safety of the north airfield complex
 - Reconfigure north airfield taxiway and runway exits and intersections to meet current FAA design standards
 - Maintain or enhance airfield operational management
 - Provide additional flexibility for management of aircraft movements on the airfield
- Terminal Improvements Provide for new modern, spacious, and efficient terminal facilities that support the ability to accommodate the projected future growth in passenger levels at LAX and do so in a manner that offers high-quality passenger service and operational flexibility. Specifically, the proposed terminal improvements seek to:
 - Improve passenger experience, increase airlines' efficiency, and reduce busing activity on the airfield through the removal and replacement of most of the West Remote Gates and the elimination of the associated busing of passengers
 - Improve international and domestic passenger processing capabilities
 - Improve immigration and customs processes for international passengers arriving at LAX

- Provide additional connections to the previously-approved APM system currently under construction
- Provide connections to adjacent terminals that will allow passengers to move between terminals without having to go back through security screening
- Roadway System Improvements In conjunction with providing landside (vehicle) access to the proposed new Terminal 9, develop a comprehensive network of roadway system improvements that will help separate and remove airport-related traffic from the local roadway system. Specifically, the proposed roadway system improvements seek to:
 - Reduce airport traffic back-ups onto public streets and surrounding neighborhoods, including, but not limited to, existing airport-related traffic congestion on Sepulveda Boulevard, especially near the entrance to the tunnel
 - Integrate the proposed roadway system improvements, including landside access to Terminal
 9, with the approved LAX Landside Access Modernization Program improvements
 - Simplify driver wayfinding, reduce decision points, and provide more distance for maneuvering
 - Reduce concentration of traffic and roadway facilities at and around the Century Boulevard/Sepulveda Boulevard/CTA interchange area
 - Support access to the Intermodal Transportation Facility (ITF) West that is linked with the APM system, which will encourage use of those facilities and reduce vehicle miles traveled (VMT)
 - Develop an APM station to provide access to the future APM system for passengers and employees of the proposed Terminal 9, as well as other LAX passengers and employees (e.g., flight crews) that utilize hotel facilities nearby, which can help to reduce VMT
- Additional Objectives
 - Generate business development, employment opportunities, and economic activity that draws from the local workforce and benefits the communities located around LAX and the City of Los Angeles
 - Maintain airport operations during construction
 - Implement airport improvements in a sustainable manner that considers the total cost of ownership, including financial, environmental, and social costs
 - Complete construction of the proposed Project prior to the 2028 Olympic and Paralympic Games to be held in Los Angeles

2.4 Project Elements

The main elements of the proposed Project include airfield improvements, concourse and terminal improvements, and landside roadway improvements. Figure 2-1 shows a general overview of the proposed Project. Figure 2-4 and **Figure 2-7** delineate the nature and locations of the specific improvements, and the following sections provide details regarding each of the main elements. The associated enabling projects for each of the main elements are identified and discussed in Section 2.5, *Enabling Projects*, below.

The proposed airfield, terminal, and landside elements described herein are currently at a preliminary design level of planning, and are subject to refinement in conjunction with more detailed engineering and design that occurs during the normal course of project implementation, subject to receipt of applicable project approvals. The information presented in this section regarding the characteristics of the various

project elements provides a sufficient basis for evaluating the potential environmental impacts of the proposed Project.

2.4.1 Airfield Elements

The improvements associated with the airfield elements of the proposed Project include the westerly extension of Taxiway D in the western portion of the north airfield, and the reconfiguration of runway exits from Runway 6L-24R in the north airfield. Details of these improvements are provided below. (Additional airfield improvements would be required to accommodate the terminal improvements. These airfield improvements are described in Section 2.4.2, *Terminal Area Elements*.)

2.4.1.1 Taxiway D Extension West

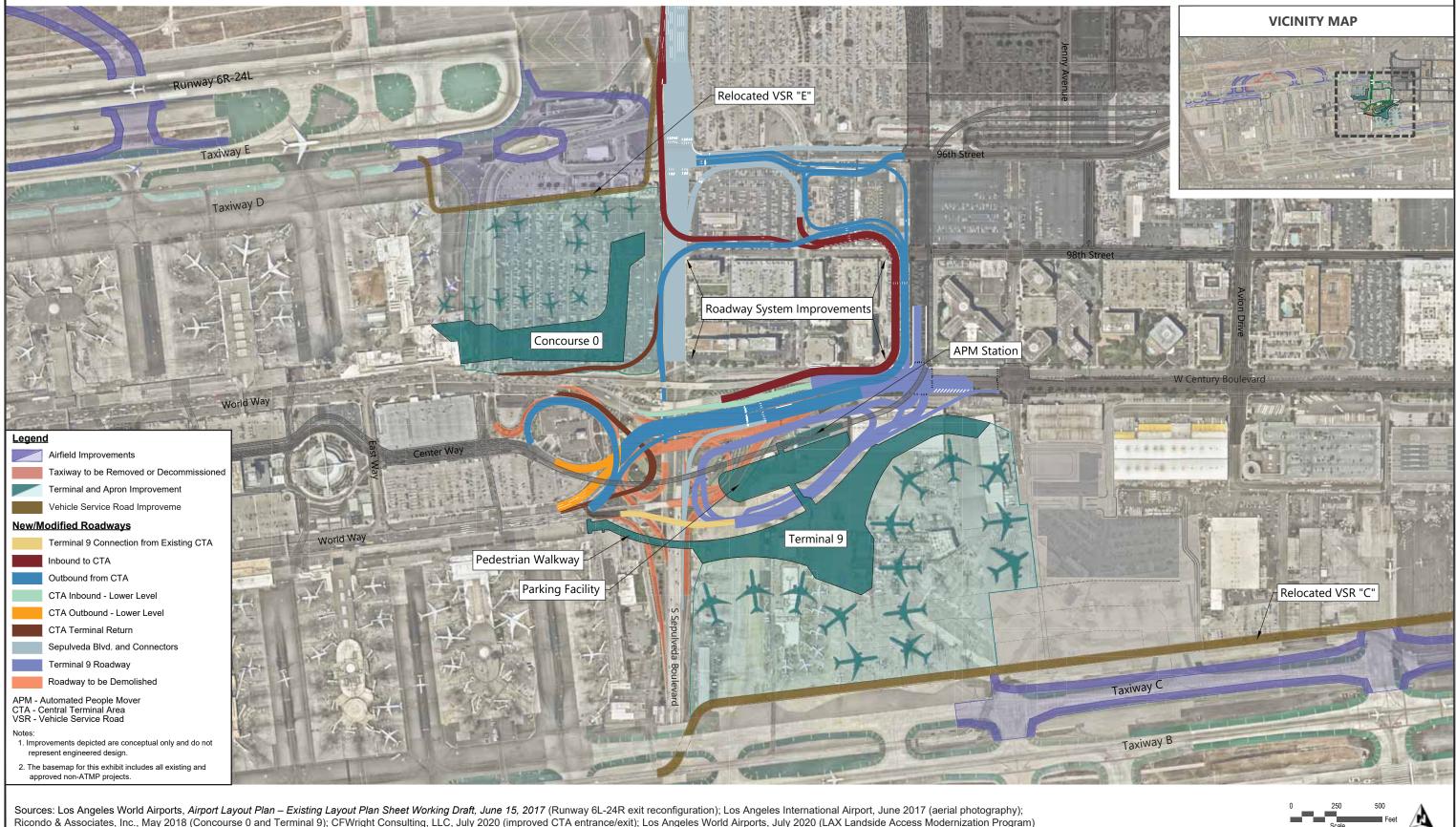
The north airfield has two runways: Runway 6L-24R, which is the outboard runway (i.e., farthest from the CTA) and Runway 6R-24L, which is the inboard runway (i.e., closest to the CTA). There are two parallel taxiways south of Runway 6R-24L, including Taxiway E, which is immediately south of Runway 6R-24L, and Taxiway D, which is south of Taxiway E. Taxiway E extends the full length of the Runway 6R-24L; however, Taxiway D only extends along the eastern two-thirds of Runway 6R-24L. As such, arriving and departing aircraft on the north airfield that are taxiing in an east-west direction are limited to a single taxiway (Taxiway E) while in the western portion of the airfield, which hinders the orderly movement of aircraft, particularly during peak times of aircraft activity.

As shown on Figure 2-5, the proposed Taxiway D Extension West includes an extension of Taxiway D from Taxiway P to Taxiway E17, and the associated relocation of the westerly portion of Vehicle Service Road E. FAA design standards for airport runways and taxiways take into consideration the size of aircraft that may be operating on the runway or taxiway relative to providing adequate distance from other aircraft and other movement activity occurring nearby. Aircraft size is defined by the FAA in terms of Airplane Design Group (ADG). Examples of ADG sizes of aircraft that are common to LAX include the Boeing 737 and Airbus A320, which are ADG III; the Boeing 757 and 767, which are ADG IV; the Boeing 747, 777, and 787, which are ADG V; and the Airbus A380, which is ADG VI. The proposed westerly extension of Taxiway D is designed with ADG VI separation from Taxiway E, and the accompanying new vehicle service road proposed south of the Taxiway D extension is designed at ADG VI separation from Taxiway D. The location and design of the proposed taxiway extension would improve airfield operational management by segregating eastbound and westbound taxiing aircraft on Taxiways D and E. With the proposed improvements, ADG VI aircraft could use the Taxiway D extension instead of Taxiway E to avoid operational restrictions during ADG VI arrival and departure operations on Runway 6R-24L.

As further described in Section 2.5, *Enabling Projects*, below, the extension of Taxiway D to the west would require the removal of nine existing West Remote Gates. As further described below in Section 2.4.2.3, an additional six West Remote Gates would be decommissioned (i.e., would no longer be used for regularly-scheduled commercial flights) as part of the proposed Project, even though those six gates are not within the area required for the extension of Taxiway D. The 15 West Remote Gates that would be decommissioned as part of the proposed Project would be replaced by new passenger gates and holding areas associated with development of Concourse 0 and Terminal 9, as discussed in Section 2.4.2.3, *Removal/Replacement of West Remote Gates*, below.

2.4.1.2 Runway 6L-24R Exits

Aircraft arriving at LAX typically land on the outboard runways, while departing aircraft typically use the inboard runways. These practices reduce noise impacts on communities to the north and south of LAX (aircraft takeoffs are noisier than landings and, therefore, are directed to the inboard runways where they are farther away from the communities than would otherwise occur with use of the outboard runways).



Ricondo & Associates, Inc., May 2018 (Concourse 0 and Terminal 9); CFWright Consulting, LLC, July 2020 (improved CTA entrance/exit); Los Angeles World Airports, July 2020 (LAX Landside Access Modernization Program) Prepared by: CDM Smith, October 2020



As such, aircraft arriving on the outboard runway must cross the inboard runway in order to reach their gates. Presently there are two exits from Runway 6L-24R that cross the inboard runway (6R-24L) in areas defined as "high-energy zones," which is the portion of a runway where departing aircraft are still on the ground and moving at a high speed before lifting into the air. These high-energy zones are typically in the middle third of the runway. As explained in FAA Advisory Circular (AC) 150/5300-13A, the high-energy zone is "the portion of the runway where a pilot can least maneuver to avoid a collision." Thus, removing or avoiding the placement of taxiway intersections in high-energy zones reduces the possibility of an accidental crossing occurring in the area where a departing aircraft is least able to take action to avoid a collision. By limiting runway crossings to the outer thirds of the runway, the portion of the runway where a pilot can least maneuver to avoid a collision is kept clear.

As shown on Figure 2-6, the proposed Project includes the construction of new acute-angled exits on Runway 6L-24R that would cross Runway 6R-24L outside the high-energy zones. The improvements include two new exits for West Flow conditions (i.e., for Runway 24R when aircraft are arriving in a westward direction, which is the majority of time at LAX) and two new exits for East Flow conditions (i.e., for Runway 6L when aircraft are arriving in an eastward direction). The construction of new exits that would cross outside the high-energy zones would be accompanied by the removal or decommissioning of the existing exits that cross the high-energy zones (i.e., existing Taxiways Y and Z). The new West Flow exits on Runway 24R would be located between Taxiways AA and the to-be-demolished Taxiway Z, and the new East Flow exits on Runway 6L would be located east and west of Taxiway W. In conjunction with the safety benefits of relocating runway exits outside of the high-energy zones, the new acute-angled exits would curve to provide crossings that are perpendicular to Runway 6R-24L, as opposed to the existing exits that cross Runway 6R-24L at an acute angle. Perpendicular crossings have safety benefits by providing pilots in arriving aircraft a better line of vision, allowing them to look down Runway 6R-24L for possible departing aircraft.

Overall, implementation of the new Runway 6L-24R exits would have the following effects on airfield safety and operational management:

- The Taxiway Z and Y runway crossings would be removed from the Runway 6R-24L high-energy zones
- The proposed runway exit geometry would facilitate pilot visibility (with standard angle [i.e., 90-degree] intersections) when crossing Runway 6R-24L
- The locations of the new acute-angled taxiways would better support the fleet operating at LAX (i.e., the additional exits would provide better opportunities for aircraft to exit after landing on Runway 6L-24R, as compared to current conditions where there are fewer exits and greater distances between those exits)
- The proximity of the West Flow exits to one another would provide operational flexibility and redundancy when exits are occupied during peak arrival or departure periods (i.e., the increase in the number of runway exits and the positioning of the new and relocated exits would provide the ability to hold more aircraft between the runways during peak arrival and departure periods)

With regard to runway safety systems in the north airfield, LAWA has installed runway status lights.^{12a} Design and construction of the north airfield improvements described above would include integration with the existing runway status lights system, as required by the FAA.

U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5300-13A, Airport Design, including errata, page 117, July 15, 2019. Available: http://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150 5300-13.

Runway Status Lights are a fully automatic advisory system designed to reduce the number and severity of runway incursions and prevent runway accidents while not interfering with airport operations. The system is designed to be compatible with existing procedures and is comprised of Runway Entrance Lights (RELs) and Takeoff Hold Lights (THLs). Source: U.S. Department of Transportation, Federal Aviation Administration, Runway Status Lights. Available: https://www.faa.gov/air_traffic/technology/rwsl/, accessed October 21, 2020.

2.4.2 Terminal Area Elements

The proposed terminal area elements consist of the following:

- Construction of Concourse 0, which would be an easterly extension of existing Terminal 1
- Construction of Terminal 9, which would be a new passenger terminal located southeast of the Sepulveda Boulevard/Century Boulevard intersection
- Improvements and modifications to existing taxiways located near Concourse 0 and Terminal 9 that would facilitate aircraft access to and from the gates at those facilities

Development of Terminal 9 would include landside access improvements (i.e., arrival and departure curbs for drop-off and pick-up of passengers, a parking facility, an added station on the previously-approved LAX APM line, and improvements to nearby roadways), which are described later in this section under Landside Elements. No landside access is proposed for Concourse 0; instead, access to Concourse 0 would be provided via existing Terminal 1.

2.4.2.1 Concourse 0

As shown on **Figure 2-8**, Concourse 0 is planned as a concourse facility with up to 11 narrowbody aircraft gates that would attach to, and extend to the east of, Terminal 1. The two westernmost gates at Concourse 0 would replace the two easternmost existing gates at Terminal 1. The resulting net increase of up to nine new narrowbody gates, along with the new gates associated with Terminal 9, would serve to replace existing remote gates that would be eliminated by the proposed westerly extension of Taxiway D or otherwise decommissioned (see Section 2.4.2.3, *Removal/Replacement of West Remote Gates*, below). As further described below in Section 2.4.2.3, Concourse 0 could accommodate up to five widebody aircraft and three narrowbody aircraft, instead of 11 narrowbody aircraft, using the same gates and passenger boarding bridges available for 11 narrowbody aircraft; however, because the primary operator at Concourse 0 is expected to be Southwest Airlines, which currently only has narrowbody aircraft in its fleet, the primary use of the subject facility is anticipated to be for narrowbody aircraft.

Concourse 0 would consist of up to seven levels, including four levels for the proposed concourse/passenger operations and potentially three additional levels of office space that LAWA is considering as an option. There would be a total floor area of up to 745,000 square feet for concourse/passenger operations, and potentially up to an additional 318,000 square feet of office space used for administrative purposes. In accordance with Federal Aviation Regulation (FAR) Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace, the total height of Concourse 0 would not penetrate the horizontal surface 150 feet above the established airport elevation. 13 (Part 77 surfaces are described in Section 2.4.3.2.) Concourse 0 and the potential office levels have been designed at a preliminary, conceptual level and the total building area requirement may be refined during more detailed project design development. To account for the possibility that such design refinements may lead to additional building floor area, and in order to provide a conservative impacts analysis that includes such additional area, a 20 percent increase in building area was assumed for the proposed concourse (i.e., 745,000 square feet plus 20 percent contingency is 894,000 square feet) and the potential option for office levels (i.e., 318,000 square feet plus 20 percent contingency is 381,600 square feet), for a total building area size of up to 1,275,600 square feet. Although the final design has not been determined, the preliminary design provides sufficient information to determine the maximum size of the total building area, and to provide information on the massing, scale, appearance, and proposed uses of the building.

U.S. Department of Transportation, Federal Aviation Administration, 14 Code of Federal Regulations (CFR) Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace, July 21, 2010. Available: https://www.govinfo.gov/content/pkg/FR-2010-07-21/pdf/2010-17767.pdf.

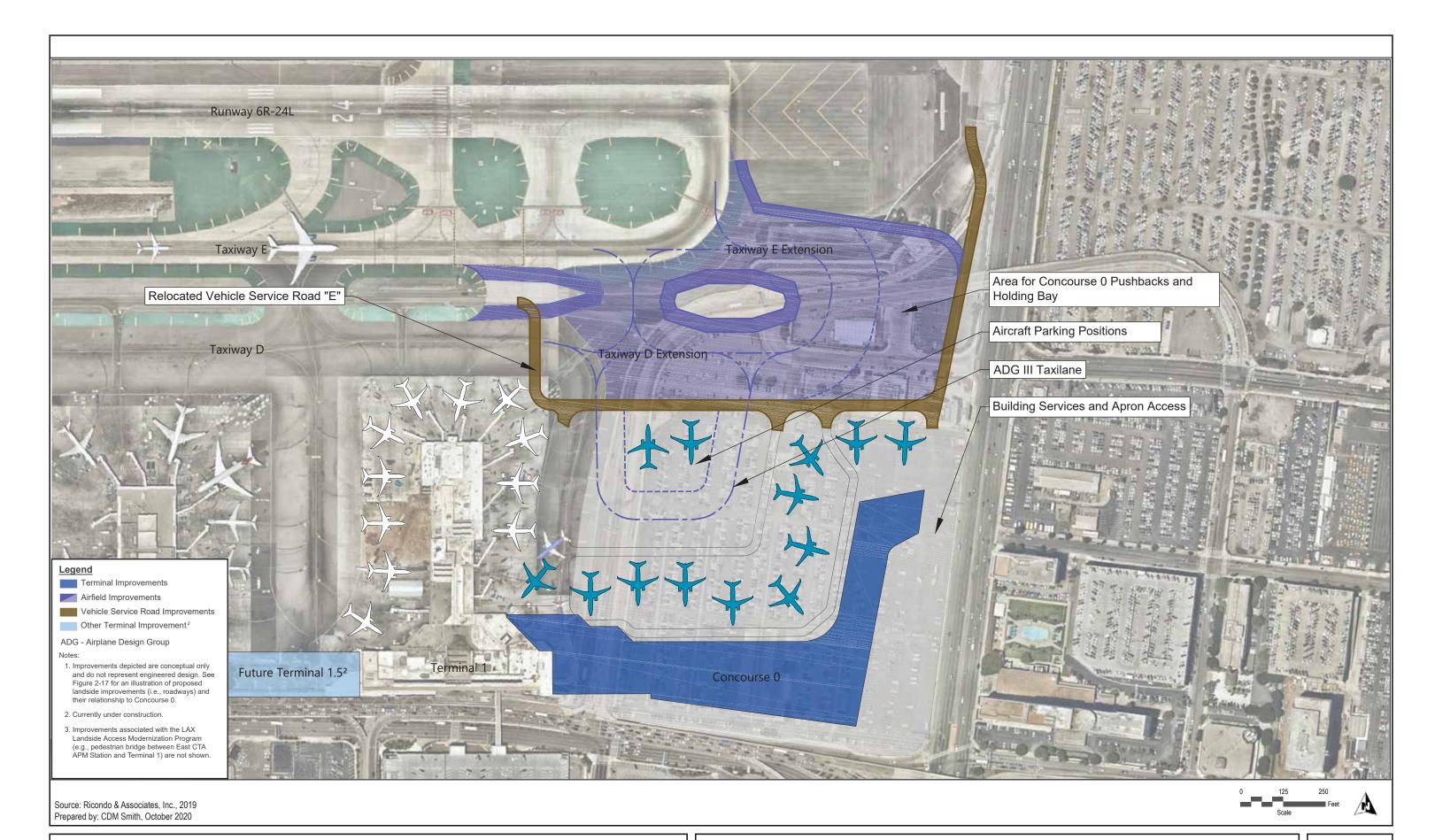


Figure 2-9 and **Figure 2-10** provide conceptual views of the proposed Concourse 0 from the landside and airside, respectively (the conceptual views do not include the potential office levels). The conceptual views provided in those figures are for illustrative purposes to show the basic siting, size, and mass of Concourse 0, and are not intended to represent the architectural style or exterior building materials treatment, as such features would be defined in conjunction with more detailed planning and design. **Figure 2-11** and **Figure 2-12** provide section views of Concourse 0 that illustrate passenger flows.

Concourse 0 would serve both domestic and international flights. International operations would be supported with sterile¹⁴ circulation for international arrivals, a fully contained U.S. Customs and Border Protection (CBP) Federal Inspection Services (FIS) area, international baggage claim, and a sterile bus drop-off platform for passenger busing operations, if needed. Passengers arriving at or departing from Concourse 0 would process or transfer through Terminal 1 and/or the future Terminal 1.5.¹⁵ There would be no curbside access at Concourse 0 (i.e., no drop-off or pick-up curb for passengers). Pedestrian access at Concourse 0 would be provided through Terminal 1 on both the arrivals level and the departures level and through a vertical circulation core (i.e., multi-level elevator/escalator/stairway system) at the interface between Concourse 0 and Terminal 1 that would connect to an APM station – specifically, the East CTA APM Station – via an elevated pedestrian walkway (see Figures 2-11 and 2-12). The subject APM station, as well as the associated vertical circulation core and elevated pedestrian walkway, were previously approved as part of the LAX Landside Access Modernization Program;¹⁶ however, construction of the vertical circulation core and elevated pedestrian walkway would occur in conjunction with development of Concourse 0.

In conjunction with construction of the passenger building and aircraft gates, development of Concourse 0 would include construction of an aircraft parking apron, including two non-contact aircraft parking positions; the easterly extension of Taxiway D as an ADG V taxiway; the easterly extension of Taxiway E as an unrestricted ADG V/restricted ADG VI taxiway; and the relocation of the easternmost portion of Vehicle Service Road E. A paved area would be located at the eastern ends of Taxiways D and E that could be used for aircraft pushbacks for the northeastern gate at Concourse 0 and could also be used to temporarily hold departing aircraft waiting to access Runway 6R-24L for takeoff.

2.4.2.2 Terminal 9

As shown on **Figure 2-13**, Terminal 9 is planned as an international and domestic terminal facility with up to 12 to 18 gates and the capability to support ADG VI operations. The new gates associated with Terminal 9, along with the gates associated with Concourse 0, would serve to replace existing West Remote Gates that would be eliminated by the proposed westerly extension of Taxiway D or otherwise decommissioned (see Section 2.4.2.3, *Removal/Replacement of West Remote Gates*, below). The range of 12 to 18 gates is based on aircraft size, with Terminal 9 being able to accommodate up to 12 widebody aircraft or up to 18 narrowbody aircraft. Given that Terminal 9 would primarily serve international flights that tend to use widebody aircraft, the primary use of the subject facility is anticipated to be for widebody aircraft.

[&]quot;Sterile" areas are circulation (i.e., corridors) or holding areas that are restricted to cleared passengers. Sterile areas may be secured with access control solutions that include automatic alarms, closed-circuit television (CCTV) cameras, staffed personnel, and directional signage. CBP maintains sterility to prevent mixing of cleared and uncleared passengers, as well as the potential for contraband exchange.

Terminal 1.5 is a facility currently under construction west of Terminal 1 and east of Terminal 2. Terminal 1.5 will include passenger and baggage screening, ticketing, and baggage claim facilities in support of existing operations within Terminals 1 and 2; a secure passenger connection (i.e., enclosed/controlled corridor) between existing Terminals 1 and 2; and office and support space.

¹⁶ City of Los Angeles, Los Angeles World Airports, *Final Environmental Impact Report for Los Angeles International Airport (LAX) Landside Access Modernization Program*, (SCH 2015021014), Section 2.4.1.2.2 - Stations, Pedestrian Walkways, and Vertical Circulation Cores, February 2017. Available: https://www.lawa.org/en/connectinglax/automated-people-mover/documents.

Terminal 9 would be a 1,178,000-square-foot, independently operating, four-level facility with a central passenger processing core, a concourse that extends to the west of the core, a concourse that extends to the east of the core, and a pedestrian connector to Terminal 8. All of the necessary passenger processing functions would be provided within Terminal 9. As with Concourse 0 described above, Terminal 9 has been designed at a preliminary, conceptual level and the total building area requirement may be refined during more detailed project design development. To account for the possibility that such design refinements may lead to additional building floor area, and to provide a conservative impacts analysis that includes such additional area, a 20 percent contingency was added to the building area, resulting in an assumed total building area of 1,413,600 square feet. This preliminary design provides sufficient information to determine the maximum size of the total building area, and to provide information on the massing, scale, appearance, and proposed uses of the building. In addition to the 1.4 million-square-foot terminal, the Terminal 9 improvements include development of a parking facility of up to 700,000 square feet.

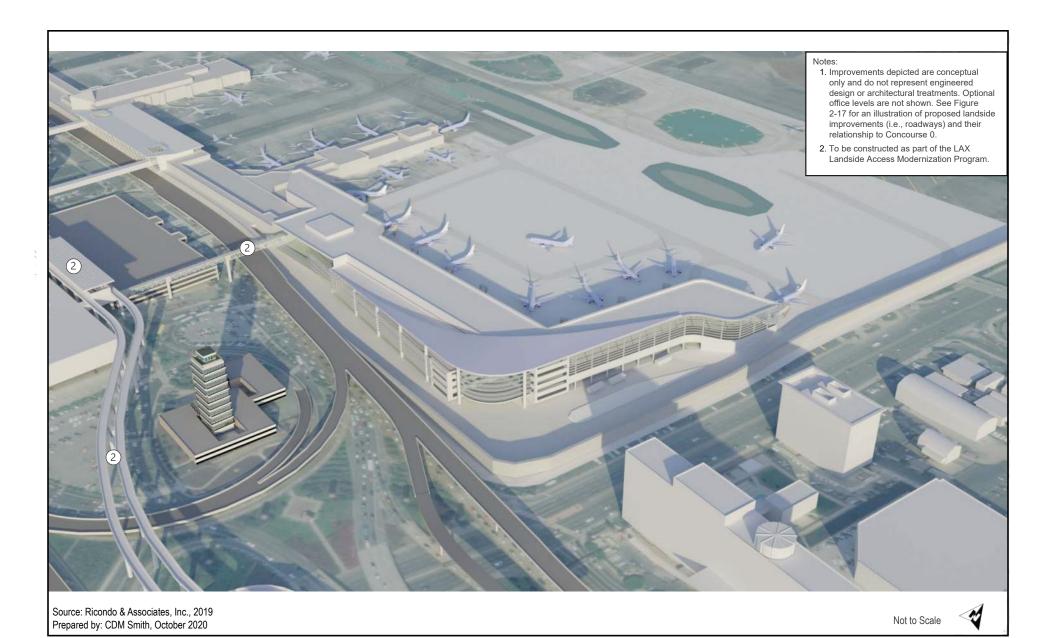
Figure 2-14 and **Figure 2-15** provide conceptual views of the proposed Terminal 9 from the landside and airside, respectively. The conceptual views provided in those figures are for illustrative purposes to show the basic siting, size, and mass of Terminal 9, and are not intended to represent the architectural style or exterior building materials treatment, as such features would be defined in conjunction with more detailed planning and design. In conjunction with development of these facilities, other related improvements would include construction of the Terminal 9 APM station (platform) and pedestrian corridors connecting the terminal, the APM station, and the parking facility, as well as construction of the pedestrian corridor over Sepulveda Boulevard between Terminal 9 and Terminal 8.

Figure 2-16 provides a section view of Terminal 9 that illustrates passenger flows. International operations would be supported by a fully contained CBP FIS area with international baggage claim.

Terminal 9 would serve both domestic and international flights. International operations would be supported with sterile circulation for international arrivals, a fully contained CBP FIS area, international baggage claim, and both a secure (domestic) and a sterile (international) bus curb for passenger busing operations, if needed. Development of the connector between Terminals 8 and 9 would require construction of a vertical circulation core at the westerly end of the connector, which would require some modifications within Terminal 8 at the interface with the new vertical circulation core (specifically, a portion of the face of Terminal 8 would be opened so that various interior levels of the vertical core can be connected with the respective interior levels of Terminal 8).

In addition to the passenger building, Terminal 9 would also include an aircraft parking apron and a taxilane connecting the terminal to the airfield. Other related airfield improvements that would support Terminal 9 include the relocation of Vehicle Service Road C and the relocation and easterly extension of Taxilane C from Taxiway C3 to Taxiway B1. The relocated vehicle service road would be designed at ADG VI separation from Taxiway C and the relocated/extended Taxilane C would be designed at ADG VI separation from Taxiway B.

Landside access to Terminal 9 would be provided by new roadway segments north of the terminal, construction of a nearby station on the previously-approved LAX APM and, as noted previously, construction of a pedestrian corridor over Sepulveda Boulevard that would connect Terminals 8 and 9. An elevated pedestrian walkway would link the APM station and the new terminal; access to a new parking facility would be provided by an elevated pedestrian walkway, a tunnel, or a combination of both. These improvements are further described below under Landside Elements.



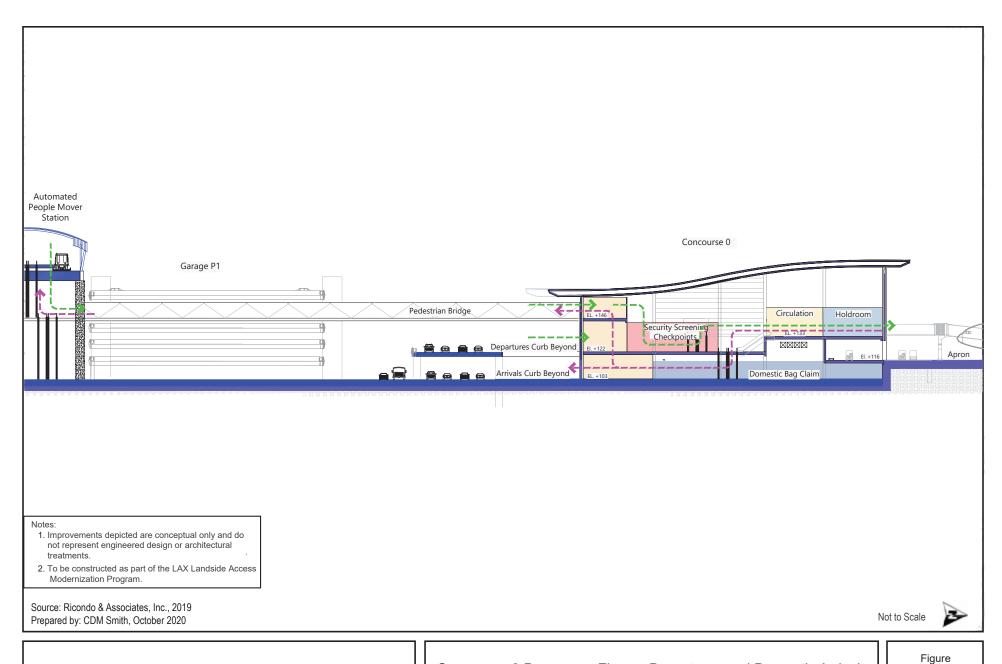
Concourse 0 Conceptual View - Landside

Figure **2-9**



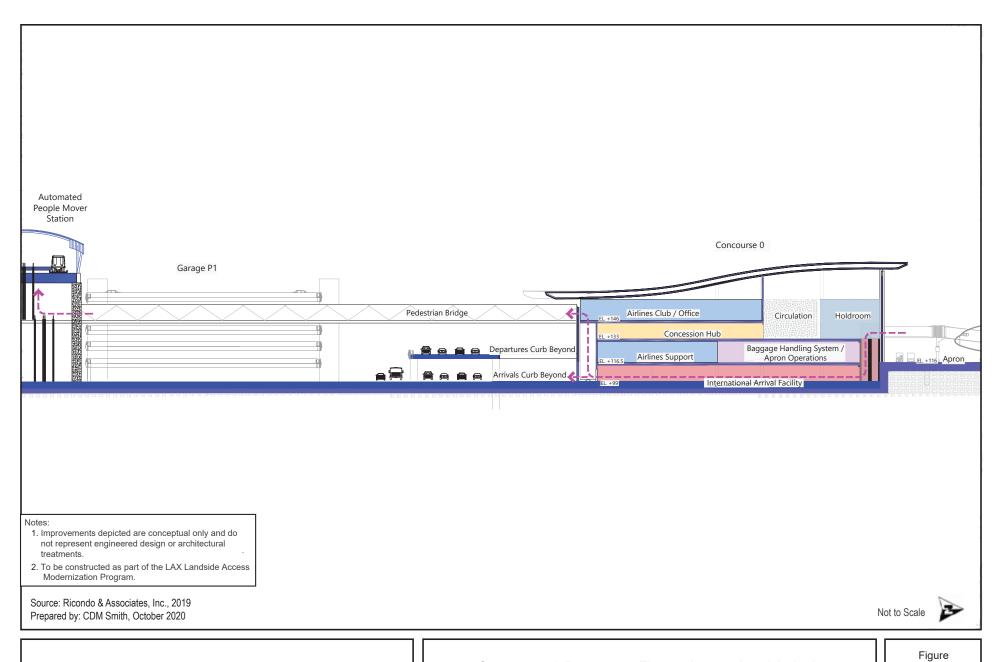
Concourse 0 Conceptual View - Airside

Figure **2-10**



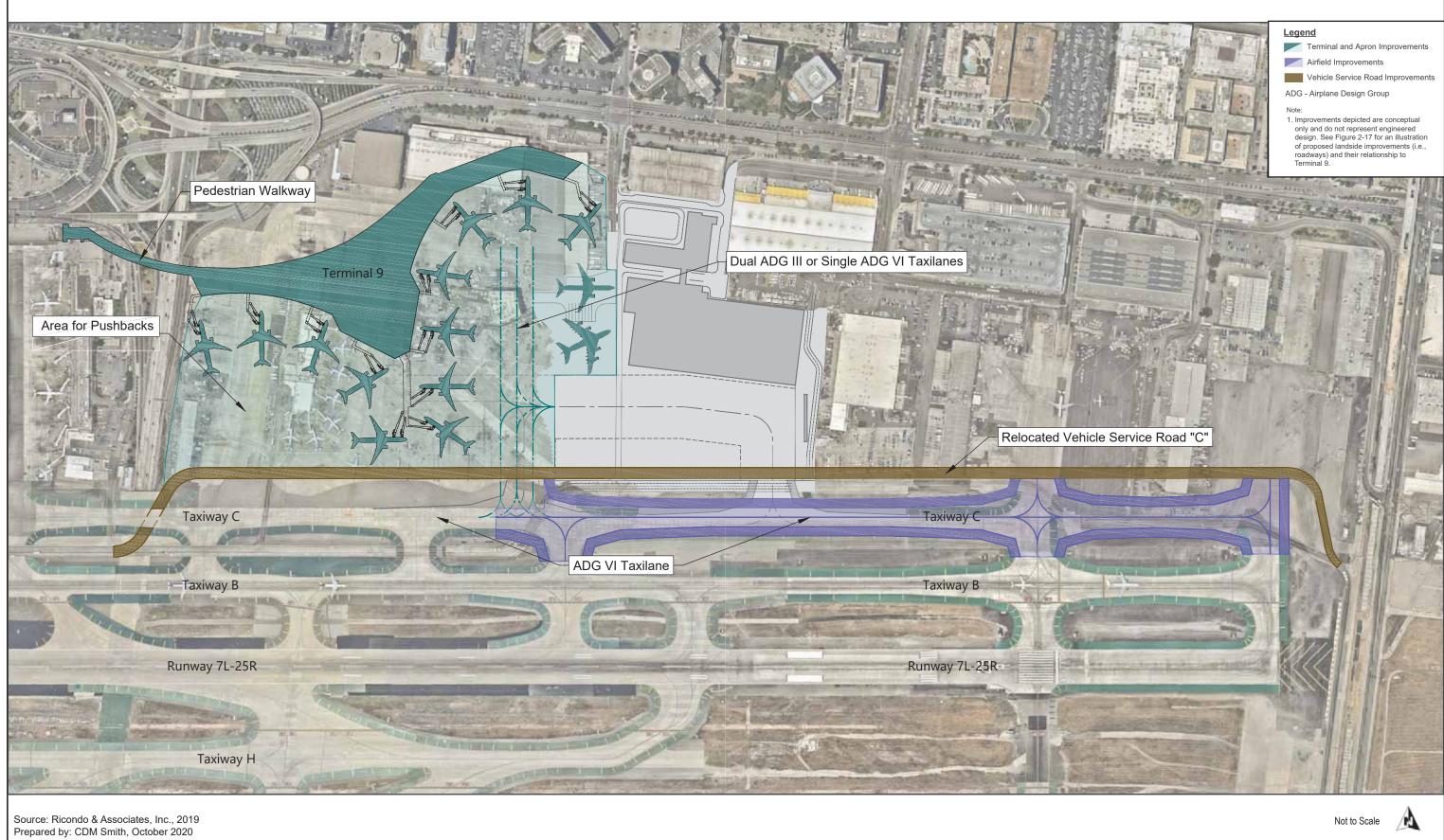
Concourse 0 Passenger Flows - Departures and Domestic Arrivals

2-11



Concourse 0 Passenger Flows - International Arrivals

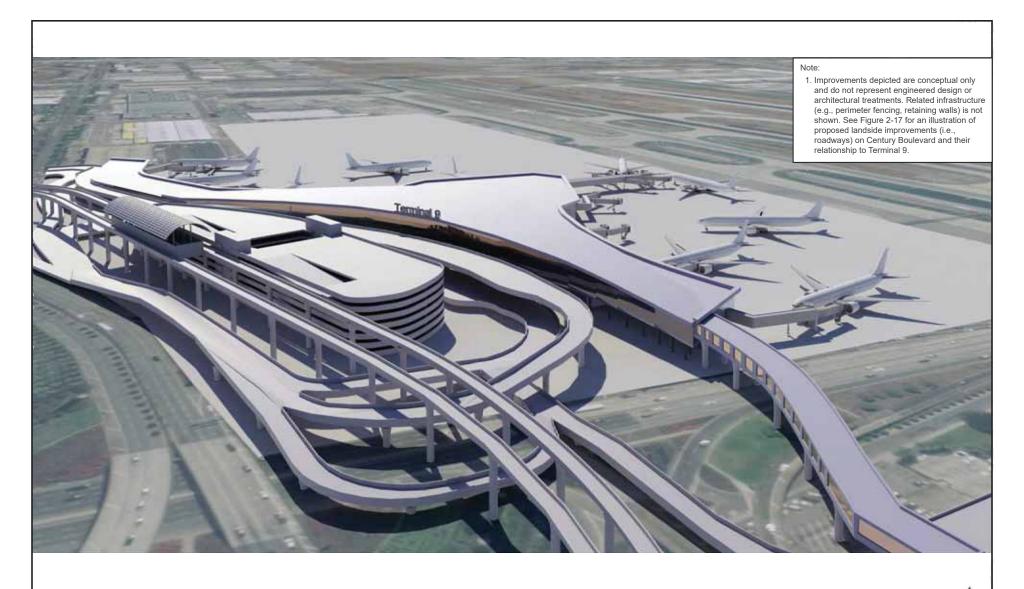
2-12



Not to Scale



2-34

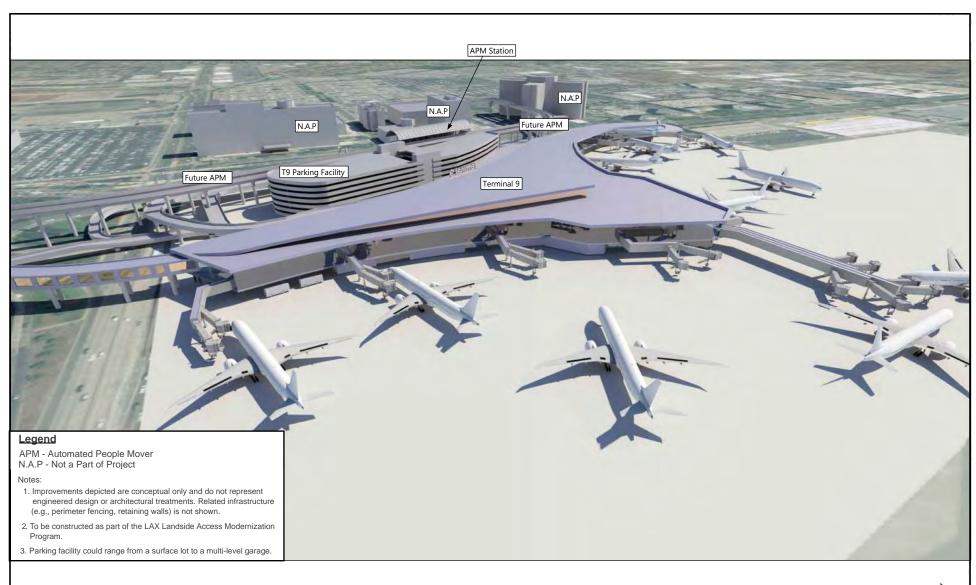


Source: Ricondo & Associates, Inc., 2018 Prepared by: CDM Smith, October 2020 Not to Scale

LAX Airfield and Terminal Modernization Project

Terminal 9 Conceptual View - Landside

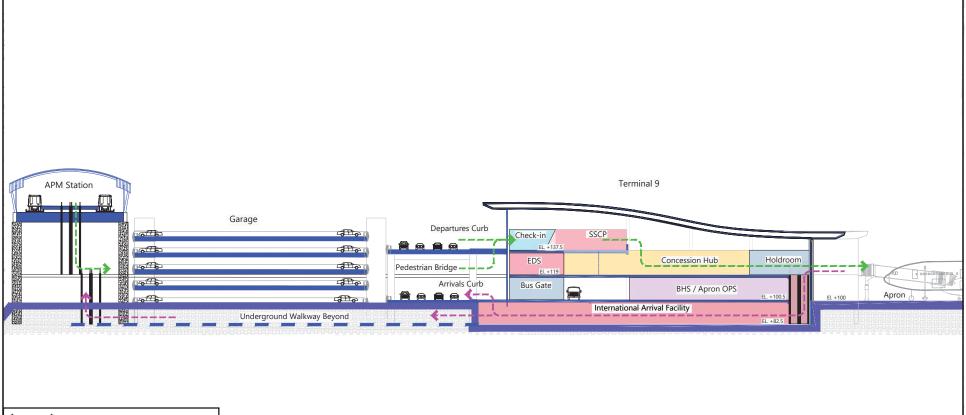
Figure 2-14



Source: Ricondo & Associates, Inc., 2018 Prepared by: CDM Smith, October 2020







Legend

- APM Automated People Mover
- BHS Baggage Handling System
- EDS Explosive Detection System
- OPS Operations
- SSCP Security Screening Checkpoint

1. Improvements depicted are conceptual only and do not represent engineered design or architectural treatments.

Source: Ricondo & Associates, Inc., 2018 Prepared by: CDM Smith, October 2020



LAX Airfield and Terminal Modernization Project

Terminal 9 Passenger Flows

Figure 2-16

2.4.2.3 Removal/Replacement of West Remote Gates

As indicated above in Section 2.4.1.1, *Taxiway D Extension West*, the westward extension of Taxiway D would result in the removal of nine West Remote Gates. As part of the proposed Project, although not required due to the extension of Taxiway D, an additional six West Remote Gates would be decommissioned. These 15 West Remote Gates would be replaced by the new gates associated with Concourse 0 and Terminal 9. With implementation of the proposed Project, 15 of the existing 18 West Remote Gates would no longer be used for regularly-scheduled commercial flights. The three remaining West Remote Gates would be retained to provide operational flexibility, such as for intermittent use if needed during peak surges in activity, if several CTA gates are out of service for maintenance, or for special flights requiring additional security and special logistics (e.g., Air Force One). The number of gates associated with the West Remote Gates area, Concourse 0, and Terminal 9 under existing conditions and with implementation of the proposed Project is provided in **Table 2-2**.

			Table 2-2				
West Remote	Gates and Pa	assenger Ga	ates with Imp	lementation	of Concou	rse 0 and Te	rminal 9
	Exi	sting Condit	ions			nditions witl sed Project	n
Location	Remote Gates	Contact Gates	Total Gates	Remote Gates	Contact Gates	Total Gates	Net Change in Gates
	4.0	_		_	_	_	

Location	Gates	Gates	Gates	Gates	Gates	Gates	in Gates
West Remote Gates	18	0	18	3	0	3	-15
Concourse 0 ^{1, 2}	0	0	0	0	6 - 9	6 - 9	6 - 9
Terminal 9 ³	0	0	0	0	12 - 18	12 - 18	12 - 18
Total	18	0	18	3	18 - 27	21 - 30	3 - 12

Source: LAWA, 2019.

Notes:

Passenger gates at Concourse 0 reflect net new gates. As described in Section 2.4.2.1, two of the new gates at Concourse 0 would replace two existing gates at Terminal 1 that would be removed as a result of Concourse 0.

As described above in Section 2.4.2.1, Concourse 0 is proposed primarily as an 11-gate concourse facility, at which 11 narrowbody aircraft could utilize all of those gates at the same time. Concourse 0 could also accommodate up to five widebody aircraft and three narrowbody aircraft at the same time, utilizing the same gates and passenger boarding bridges as otherwise available for 11 narrowbody aircraft. It is anticipated that Southwest Airlines would be the primary operator of Concourse 0 for the foreseeable future, and Southwest Airlines currently only has narrowbody aircraft in its fleet.

As described above in Section 2.4.2.2, Terminal 9 is proposed primarily as a 12-gate terminal facility, at which 12 widebody aircraft could utilize all of those gates at the same time. Alternatively, Terminal 9 could also accommodate up to 18 narrowbody aircraft at the same time, utilizing the same gates and passenger boarding bridges as otherwise available for 12 widebody aircraft.¹⁷ Terminal 9 would primarily serve international flights, with capabilities to also serve domestic flights. In light of current and anticipated

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² As described in Section 2.4.2.1, Concourse 0 could accommodate up to 11 narrowbody aircraft or up to five widebody aircraft along with three narrowbody aircraft. As such, the number of net new gates, with the loss of two existing gates at Terminal 1, would be between six and nine.

As described in Section 2.4.2.2, Terminal 9 could accommodate up to 12 widebody aircraft or up to 18 narrowbody aircraft. As such, the number of new gates would be between 12 and 18.

Terminal 9 is proposed to include a Multiple Aircraft Ramp System (MARS) to provide LAWA with the operational flexibility to serve multiple aircraft fleet-mixes over time. The gates at Terminal 9 could accommodate up to 12 wide-body aircraft, or up to 18 narrowbody aircraft, or various combinations thereof.

future growth in international flights to and from LAX, it is anticipated that Terminal 9 would be utilized primarily by widebody aircraft.

Similar to the descriptions above of Concourse 0 and Terminal 9, the existing West Remote Gates currently can be used by a combination of narrowbody and widebody aircraft, depending on needs at the time.

In summary, the accounting of gates associated with Concourse 0, Terminal 9, and the West Remote Gates depends on their utilization by aircraft type, in terms of narrowbody aircraft or widebody aircraft, which can vary over time, even during the course of the day.

2.4.3 Landside Elements

2.4.3.1 Characteristics

As shown on **Figure 2-17**, the landside improvement conceptual plan includes arrival and departure roadways and a parking facility to support the Terminal 9 passenger facility, along with new roadway segments that would improve vehicle access to, and egress from, the existing CTA. As part of these improvements, certain segments of existing roadways near Century Boulevard and Sepulveda Boulevard would be demolished, as shown in Figure 2-17. The landside improvement plan would also include construction of a seventh APM station at Terminal 9 on the previously-approved LAX APM line, as well as construction of a pedestrian corridor between Terminals 8 and 9 that would bridge across Sepulveda Boulevard.

The roadway system concept for Terminal 9 envisions an upper level roadway for departures and a lower level roadway for arrivals, or possibly a single level for both arrivals and departures. The proposed design would also provide connections to the proposed Terminal 9 parking facility and would be integrated with the previously-approved LAX Landside Access Modernization Program roadway improvements. Figure 2-18 and Figure 2-19 delineate the routes that would provide CTA and Terminal 9 access to and from areas north, south, and west of the airport. The types of improvements anticipated as part of the roadway system concept for the proposed Project would build upon improvements approved as part of the LAX Landside Access Modernization Program and provide the following additional benefits for traffic related to the CTA:

- Rerouting of exiting CTA vehicles to Sepulveda Boulevard via new grade-separated ramps north of Century Boulevard to extend the merging zones and vehicle queuing areas
- Rerouting of entering CTA vehicles on Sepulveda Boulevard via a new at-grade ramp for northbound traffic and a new grade-separated ramp for southbound traffic, all of which would tie into a new elevated roadway system that includes vehicle queuing areas
- Creation of a common entry point east of Sepulveda Boulevard for all vehicles entering the CTA
- Improvement to traffic flow into and out of the CTA
- Simplified roadway configuration and maximized distances for driver wayfinding and decision-making to multiple destinations
- Improvement of through-traffic flow for surrounding communities (i.e., vehicles on Sepulveda Boulevard that are not accessing the airport) by reducing traffic congestion on Sepulveda Boulevard

The proposed roadway system would improve overall access to and from the CTA, and would serve Terminal 9, with a combination of segments that are elevated or at-grade, with connecting ramps.

Figure 2-20 through **Figure 2-23** provide 3D visualizations of various areas of the roadway system to illustrate these physical relationships.

2.4.3.2 Relationship to Airspace/Airfield Surfaces

2.4.3.2.1 Part 77 Surfaces

FAR Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace, serves as a means of identifying the airspace required for safe operation of aircraft at or near an airport. This regulation establishes imaginary surfaces extending outward from the runways within which it is required that the FAA be notified of any proposed development or structural changes that could obstruct the path of operating aircraft. These "imaginary surfaces" are three dimensional, starting at ground level around each runway and sloping upward and outward at various angles for various distances. The standards that define these imaginary surfaces provide guidance to state and local governments in their efforts to control land use around airports so as to protect aircraft in flight and people on the ground. Figure 2-24 illustrates the various imaginary surfaces associated with FAR Part 77.

The FAR Part 77 imaginary surfaces are primarily intended to serve as a means of identifying objects that require more detailed analyses specific to the types of airspace operations and related safety requirements that occur within those surfaces. It is not unusual for there to be objects near an airfield that penetrate the runway Part 77 Surfaces, including natural elevations, vegetation (i.e., trees and bushes), signs, street lights on nearby roadways, antennas, and buildings/structures and appurtenances. Based on the nature, location, and extent of a penetration into a Part 77 surface and its relationship to specific airspace operations and safety requirements, there are various means of dealing with the object. Options can range from doing nothing (i.e., for low-risk objects), to placing high-visibility markings and lighting on the object to make it highly visible to pilots and indicating such objects on avigation maps, to lowering, reducing, or removing the object. In some cases, an approach or departure procedure will be modified to allow aircraft to safely navigate around or above an object that penetrates a Part 77 surface.

There are numerous objects that currently penetrate the Part 77 Surfaces at LAX, including around the north airfield, mostly consisting of streetlight poles, signs, antennas, natural topography (i.e., Dunes area), and vegetation. Buildings within the Part 77 Surfaces for the north airfield currently include, but are not limited to, multi-story structures to the southeast, including hotels and offices on Century Boulevard and Sepulveda Boulevard, and a multi-story parking structure and office to the northeast.

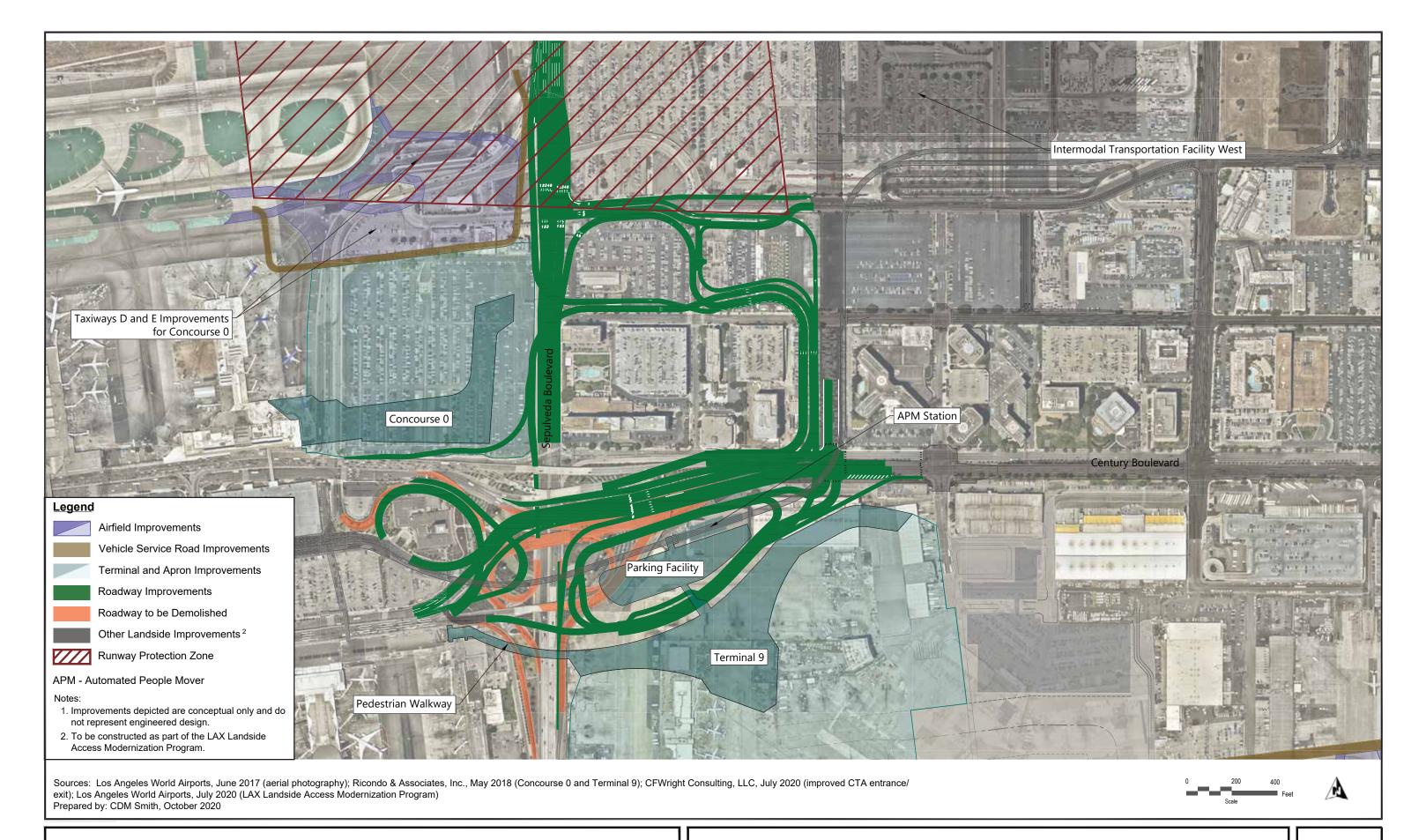
The airfield, terminal, and landside improvements proposed by the Project would not penetrate Part 77 Surfaces.

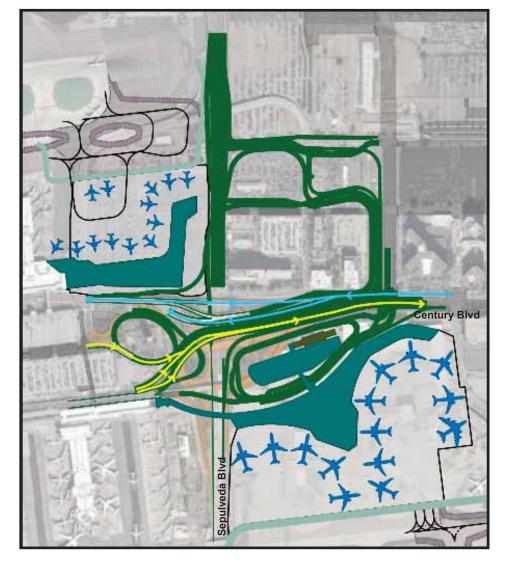
2.4.3.2.2 Runway Protection Zones

Runway Protection Zones (RPZs) are trapezoidal-shaped areas located at ground level beyond each end of a runway and are designed to enhance the protection of people and property on the ground. FAA takes the position that it is desirable to keep the entire RPZ clear of all objects but that where this is impractical, airport sponsors, at a minimum, should maintain the RPZ clear of all facilities supporting incompatible activities. As shown on Figure 2-17, a portion of the proposed improvements to roadways are located within the eastern RPZ for Runway 6R-24L; however, although parts of the proposed roadways would be within the RPZ, these roads would be at-grade (i.e., would not penetrate Part 77 Surfaces) and would primarily replace and/or alter existing roadways.

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U.S. Department of Transportation, Federal Aviation Administration, 14 Code of Federal Regulations (CFR) Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace, July 21, 2010. Available: https://www.govinfo.gov/content/pkg/FR-2010-07-21/pdf/2010-17767.pdf.





Central Terminal Area Access to and from the East



Central Terminal Area Access to and from the North



Central Terminal Area Access to and from the South

0 450 900 Feet

Sources: Ricondo & Associates, Inc., August 2020 Prepared by: CDM Smith, October 2020

<u>Legend</u>

→ Inbound to the Central Terminal Area

Outbound from the Central Terminal Area

Roadway Improvements

Roadways to be Demolished

Terminal and Related Improvements

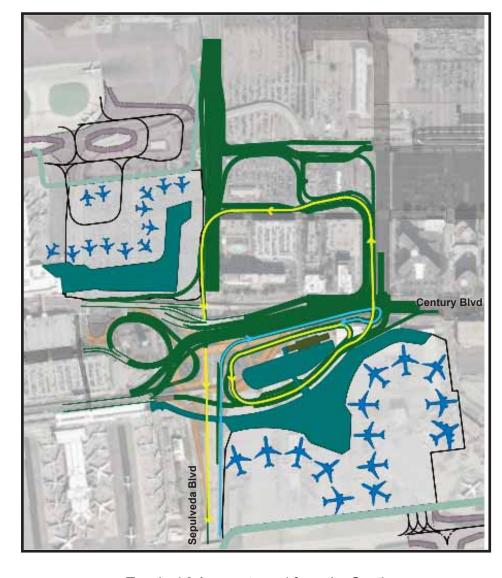
Figure

2-18

2-44





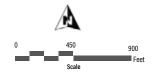


Terminal 9 Access to and from the East

LAX Airfield and Terminal Modernization Project

Terminal 9 Access to and from the North

Terminal 9 Access to and from the South



Sources: Ricondo & Associates, Inc., August 2020 Prepared by: CDM Smith, October 2020

<u>Legend</u>

→ Inbound to Terminal 9

Outbound from Terminal 9

Roadway Improvements

Roadways to be Demolished

Terminal and Related Improvements





Source: CDM Smith, 2019 Prepared by: CDM Smith, October 2020



Not to scale

Source: CDM Smith, 2019 Prepared by: CDM Smith, October 2020



Source: CDM Smith, 2019

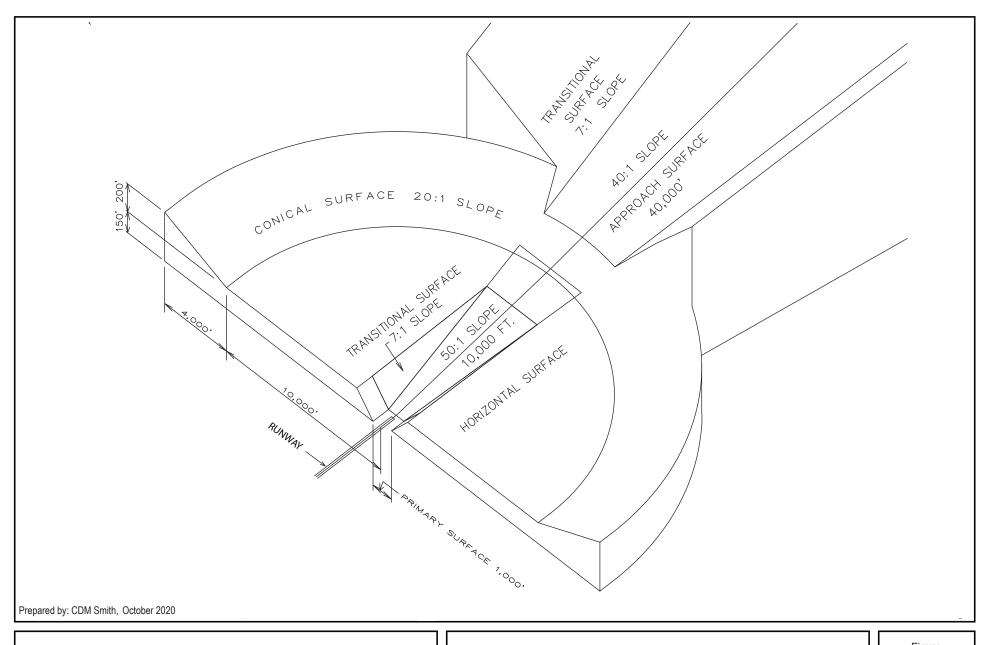
LAX Airfield and Terminal Modernization Project

View Looking South along Sepulveda Boulevard





Source: CDM Smith, 2019 Prepared by: CDM Smith, October 2020



LAX Airfield and Terminal Modernization Project

Part 77 Imaginary Surfaces

Figure **2-24**

2.4.4 Utilities

Implementation of the proposed Project would include the provision of utilities to serve the proposed facilities, including domestic water, fire water, reclaimed water, electrical and communication systems, natural gas and fuel systems, and stormwater and wastewater systems.

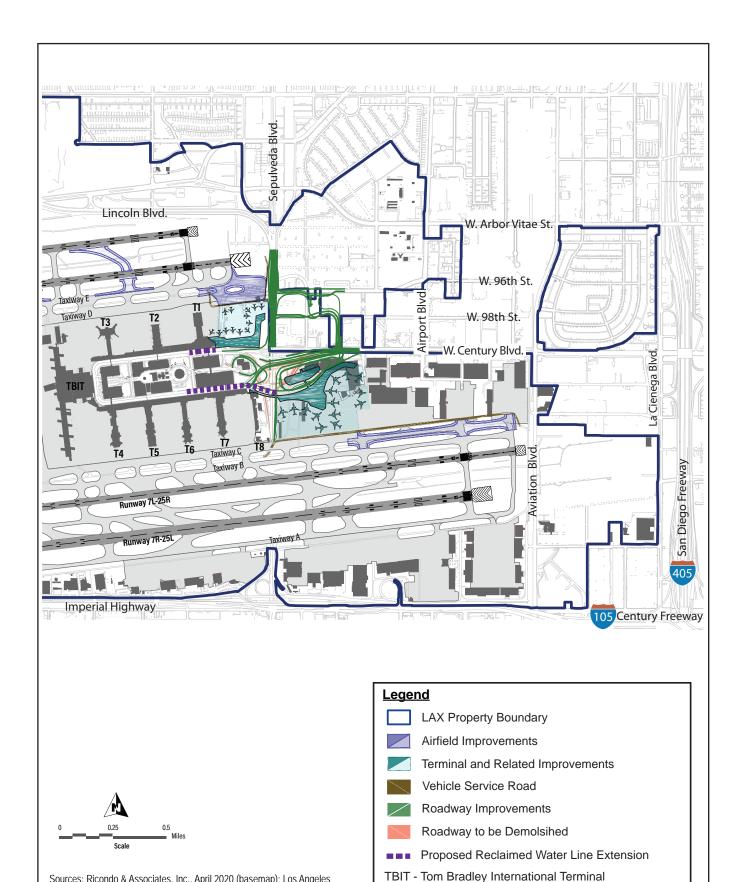
Construction of the proposed Project would include demolition, reconstruction, and construction of new roadways or facilities within and near the CTA. The majority of utilities would be extended to serve the proposed buildings and would be sized for the anticipated demand loads and expected lifetimes of the facilities. Most of the existing utility main lines are located within roadway rights-of-way, providing relatively free access for maintenance, repair, or upgrades to service. Within the CTA, however, the major drainage facilities that provide direct connections from the buildings to the city storm drains and sewer systems lie under the airfield and are not located within the roadways. Some of the utilities are private facilities owned by LAWA and some are provided by the respective public utility services. LAWA typically provides the physical infrastructure for utilities (conduits, pipe, duct banks, etc.) whether they are private or public. The operating authority typically provides the supply infrastructure (such as high voltage or low voltage cable), or the utility commodity (such as water and gas, etc.). LAWA provides drainage infrastructure from LAWA properties in the CTA to the appropriate public main infrastructure such as major storm drains or wastewater sewers.

The Los Angeles Department of Water and Power (LADWP) supplies water and power to the airport. This service also includes fire water and reclaimed water (provided by separate systems). Sempra Energy supplies natural gas. Telephone and internet services in the airport area are supplied by a variety of technology providers.

LAWA recently entered into an agreement with LADWP to provide reclaimed water to LAX from a new facility to be constructed at the Hyperion Water Reclamation Plant (HWRP). Under this agreement, the City of Los Angeles Department of Public Works, Bureau of Sanitation, will design and construct a 1.5 million gallon per day (mgd) Advanced Water Purification Facility (AWPF) at HWRP that will be expandable to 5 mgd. The Hyperion AWPF will produce advanced-treated recycled water for non-potable use at LAX and other facilities and is expected to be in operation in 2022. ¹⁹ In order to use this reclaimed water at LAX, LAWA will construct reclaimed water lines from LADWP's facilities into the CTA. These pipelines will extend from Pershing Drive east along World Way West and continue east to the CTA where the south branch of the water line system would terminate near Terminal 6 and the north branch of the water line system would terminate near the future Terminal 1.5, which is currently under construction. As part of the proposed Project, reclaimed water lines would be extended from these termini to Terminal 9 and Concourse 0, respectively (see **Figure 2-25**).

Also as part of the proposed Project, potable water lines would be extended or upgraded to serve Terminal 9. Specifically, existing potable water lines located west of the Terminal 9 site would be extended to the proposed facility (via Sepulveda Boulevard/Century Boulevard or 98th Street/Jetway Boulevard) or existing lines in Century Boulevard would be upgraded to ensure sufficient water pressure and capacity. Similarly, new or upgraded wastewater distribution lines would be installed to serve Concourse 0. These lines would consist of a new pipeline that would connect Concourse 0 to the main outfall sewer, or upgrades to existing nearby local collector pipelines that would be up-gauged to serve the proposed Project.

Memorandum of Agreement No. WR-17-3002 Between the Los Angeles Department of Public Works – Bureau of Sanitation, the Los Angeles Department of Water and Power, and the Los Angeles World Airports Relative to the Hyperion Advanced Water Purification Facility, May 30, 2018.



Sources: Ricondo & Associates, Inc., April 2020 (basemap); Los Angeles World Airports, January 2020 (Airport Layout Plan); CDM Smith, April 2020 (Airport Property Line); Ricondo & Associates, Inc., October 2018 (Project Elements); CF Wright Consulting, July 2020 (Roadway Elements) Prepared by: CDM Smith, October 2020

Note: 1. Improvements depicted are conceptual only

 Improvements depicted are conceptual only and do not represent engineered design

LAX Airfield and Terminal Modernization Project Reclaimed Water Pipeline Extension Figure **2-25**

2.4.5 Sustainability

The proposed Project would be designed and constructed in accordance with LAWA's Sustainable Design and Construction Policy, which requires that new buildings be designed to achieve a minimum of the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED®) Silver certification. 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. The LEED® Silver certification requirement would apply to Concourse 0 and Terminal 9. In addition, Concourse 0 and Terminal 9 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). The proposed airfield and roadway improvements are not eligible for LEED® certification, which applies to buildings. In accordance with LAWA's Sustainable Design and Construction Policy, these improvements would be required to adhere to LAWA's Sustainable Design and Construction Requirements, which incorporate sustainability concepts from the LEED® system, LAGBC, Institute for Sustainable Infrastructure's Envision framework, and other airport sustainability guidelines. Envision framework and other airport sustainability guidelines.

The Project would also comply with LAWA's Design and Construction Handbook (DCH),²⁴ which includes policies and requirements aimed at reducing environmental impacts associated with construction projects at LAX, including air pollutant emissions, noise, and potable water use, among others. Key provisions in the DCH that pertain to the environmental topics addressed in this EIR include the following:

- Contractors shall post a publicly-visible sign(s) with contact person and telephone number for dust complaints to ensure implementation of fugitive dust control measures. This person shall respond and take corrective action, if necessary, within 24 hours.
- Contractors shall provide vehicle tracking control at construction staging area access road entrances to reduce entrained dust.
- Contractors shall be responsible for continuous cleanup of all construction-related dirt on approach routes to the construction site and, when requested by LAWA, contractors shall furnish and operate a self-loading motor sweeper with spray nozzles at once each working day for the purpose of keeping paved areas acceptably clean wherever construction is incomplete.
- During construction, contractor shall demonstrate that all unpaved ground surfaces are covered or treated sufficiently to minimize fugitive dust emissions.
- During construction, contractor shall use adequate watering techniques to alleviate accumulation of construction-generated dust and shall comply with South Coast Air Quality Management District (SCAQMD) Rule 403 – Fugitive Dust.
- Idling or queuing of diesel-fueled vehicles and equipment shall be limited to five minutes.
- Every effort shall be made to utilize grid-based electric power at any construction site, where feasible. Grid-based power can be from a direct hookup or a tie in to electricity from power poles.

²⁰ City of Los Angeles, Los Angeles World Airports, *LAWA Sustainable Design and Construction Policy*, September 7, 2017. Available: https://www.lawa.org/-/media/lawa-web/tenants411/file/lawa-sustainable-design-and-construction-policy.ashx.

²¹ City of Los Angeles, Los Angeles Municipal Code, Chapter IX, Article 9, Green Building Code, as amended.

²⁴ California Code of Regulations, Part 11, California Building Standards Commission, 2019 California Green Building Standards Code (CALGreen). Available: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen.

²³ City of Los Angeles, Los Angeles World Airports, Los Angeles International Airport Sustainable Design & Construction Requirements, August 4, 2017. Available: https://www.lawa.org/-/media/lawa-web/tenants411/file/sustainable-design-construction-requirements.ashx.

²⁴ City of Los Angeles, Los Angeles World Airports, 2020 Design and Construction Handbook (DCH), Version 1.0, June 30, 2020. Available: https://www.lawa.org/en/lawa-businesses/lawa-documents-and-guidelines/lawa-design-and-construction-handbook.

- Trucks with a gross vehicle weight rating of 14,001 pounds shall be required to comply with U.S. Environmental Protection Agency (USEPA) 2010 emissions standards or next cleanest vehicle available, as approved by LAWA. In addition, off-road diesel-powered equipment shall be required to meet USEPA Tier 4(final) standards or the next cleanest equipment available, as approved by LAWA, with some exceptions.
- Material and debris haul trucks shall be constructed, or contents covered, such that the material
 or debris does not sift, blow, leak, spill, or otherwise escape from the vehicle.
- Speed limits on unpaved construction sites shall be limited to 15 miles per hour and haul vehicles shall maintain at least six inches of freeboard.
- Construction staging (including loading/unloading of heavy construction materials and parking of construction vehicles) shall be prohibited on streets adjacent to schools, daycare centers, and hospitals.
- Haul routes shall be located away from residential areas (and from noise-sensitive receptors, to the extent feasible).
- Contractors shall use reclaimed water for construction activities, as feasible, when those activities are located in proximity to reclaimed water sources.
- Coating and paving material shall be formulations with low volatile organic compound (VOC) levels.
- All new aircraft parking positions shall be installed with ground power and pre-conditioned air, where applicable.
- New LAWA or tenant building construction or renovation projects shall meet one of the following:
 - LEED® Silver certification if the project meets the U.S. Green Building Code (USGBC) and LAWA
 LEED® Eligibility Criteria, unless exempted by LAWA's Sustainability Review Committee
 - Los Angeles Green Building Code (LAGBC) Tier 1 requirements if not eligible for LEED[®] certification
 - LAWA Sustainable Design and Construction requirements if not eligible for LEED® certification and not able to meet LAGBC Tier 1 requirements
- LAWA or tenant non-building projects shall meet LAWA Sustainable Design and Construction requirements if not eligible for or exempted from LEED® certification. Typical airport non-building projects include: runways, taxiways, and other airfield flatwork; roadways, bridges and tunnels; pavement rehabilitation; civil infrastructure/site utility work; exterior lighting; and landscaping.
- New large buildings shall be designed to be compatible with the use of reclaimed water in accordance with LAWA design direction.

In addition to, and/or in accordance with, the policies and requirements listed above, LAWA would incorporate sustainability features into the proposed Project. **Table 2-3** provides a summary of the sustainability features that would be implemented as part of the proposed Project and identifies which resource areas would be affected by the features. These features are either already required by code or by LAWA policy, or would serve to reduce environmental impacts that would be less than significant and, therefore, would not require mitigation under CEQA. Additional features may be identified and included in the proposed Project during the design process.

Table 2-3 Proposed Project Sustainability Features					
Sustainability Feature	Feature Description	Resources Affected			
LEED® Certification	Concourse 0 and Terminal 9 would achieve LEED® Silver requirements at a minimum to improve energy efficiency and reduce air pollutant emissions and water consumption (among other resource benefits). LEED® Silver designation could be met in a variety of ways, which could include the incorporation of solar power or other alternative energy sources, enhanced water conservation measures, Campus LEED® credits, and other options.	Air Quality, Human Health Risk, Energy, Greenhouse Gas Emissions, Water Supply, Wastewater Generation			
Gate Electrification	Concourse 0 and Terminal 9 would have electrified gates to reduce air pollutant emissions associated with Auxiliary Power Units (APUs).	Air Quality, Human Health Risk, Energy, Greenhouse Gas Emissions			
Energy Meters	Concourse 0 and Terminal 9 would have building-level smart energy meters and submeters that would be implemented throughout the proposed Project in accordance with LAWA's DCH and the City's Existing Building Energy and Water Efficiency (EBEWE) Ordinance to promote energy efficiency.	Air Quality, Human Health Risk, Energy, Greenhouse Gas Emissions			
Operational Reclaimed Water	Concourse 0 and Terminal 9 would be capable of using reclaimed water from pipelines (i.e., "purple pipe" or similar reclaimed water solutions) as feasible and permitted, and in accordance with the commitments incorporated into the Water Supply Assessment prepared by LADWP for the proposed Project.	Water Supply, Wastewater Generation			
Electric Vehicle (EV) Charging Stations	The Terminal 9 parking facility would have electric vehicle charging stations for plug-in hybrid and Zero Emission Vehicles (ZEV) in compliance with City code to encourage sustainable transportation options that will reduce air pollutant emissions.	Air Quality, Human Health Risk, Energy, Greenhouse Gas Emissions, Transportation			
Smart Parking System	The Terminal 9 parking facility, if designed as a structure, would be equipped with a Smart Parking System to reduce vehicle emissions, in compliance with the LAX Air Quality Improvement Measures (AQIM).	Air Quality, Human Health Risk, Energy, Greenhouse Gas Emissions, Transportation			
Ground Support Equipment Operations	LAWA would require that all GSE operators comply with LAWA's GSE Emissions Policy, including the requirement to achieve fleet average Nitrogen Oxides (NO _X) + Hydrocarbon emission factors in accordance with the Policy and the SCAQMD Memorandum of Understanding Memorandum of Understanding (MOU) with LAWA in order to reduce air pollutant emissions.	Air Quality, Human Health Risk, Energy, Greenhouse Gas Emissions			
Transportation Programs	Participate in a transportation management organization and transportation demand management strategies for employees	Air Quality, Human Health Risk, Energy, Greenhouse Gas Emissions, Transportation			
Construction Equipment	Use final Tier 4 diesel construction equipment or better where feasible	Air Quality, Human Health Risk, Energy, Greenhouse Gas Emissions			
Construction Reclaimed Water	Reclaimed water would be used to control dust during airfield construction to reduce potable water use, as feasible	Water Supply, Wastewater Generation			

	Table 2-3 Proposed Project Sustainability Features						
Sustainability Feature	Feature Description	Resources Affected					
Water Meters	Concourse 0 and Terminal 9 would have building-level water meters and submeters throughout the proposed Project in accordance with the commitments incorporated into the Water Supply Assessment, LAWA's DCH, and the City's EBEWE Ordinance, to promote water efficiency	Water Supply, Wastewater Generation					
Sustainable Landscaping	Drought-tolerant landscaping and micro-irrigation would be installed for all project-related landscaping to reduce potable water consumption	Water Supply, Wastewater Generation					
Efficient Toilets	High-efficiency dual-flush toilets with a flush volume of 1.12 gallons or less would be installed to reduce potable water consumption	Water Supply, Wastewater Generation					
Efficient Urinals	High-efficiency urinals with a flush volume of 0.11 gallons or less would be installed to reduce potable water consumption	Water Supply, Wastewater Generation					
Efficient Dishwashers	ENERGY STAR-certified residential dishwashers (standard or compact) that use 3.5 gallons per cycle or less would be installed where feasible to reduce potable water consumption	Water Supply, Wastewater Generation					
Source: LAWA, CDM Smith, 2	2020.						

2.5 Enabling Projects

2.5.1 Enabling Projects, Facilities, and/or Activities

Enabling projects refer to existing uses located in or near the proposed improvement sites that would need to be removed and/or relocated to accommodate the proposed improvements. **Table 2-4** provides an overview of the enabling projects associated with the proposed Project, including the name, size, and disposition of each facility. **Figure 2-26a** and **Figure 2-26b** delineate the locations of the affected facilities. In the case of one enabling project, the Southwest Airlines GSE Facility (identified as #7 in Table 2-4 and on Figure 2-26a), the facility would be relocated to a new location at LAX. As described in Table 2-4, several relocation sites are under consideration for the new facility. No decision has been made regarding which of these options would be used to relocate this facility; one of the four locations, however, would be used. These four relocation site options are identified in **Figure 2-27**.

Table 2-4 Description of Enabling Projects, Facilities, and/or Activities

		Description of	Enabling Projects, Facilities, an	d/or Activities		
Map ID#	Affected Facility	Facility Description	Approximate Building Size/Footprint Area of Affected Facility	Current Use	Disposition of Facility/Use	Project Component
1	Vehicle Service Road E (between Taxiway E17 and Taxiway R)	This portion of Vehicle Service Road E provides a route for airport vehicles to access the western portion of the north airfield.	386,000 square feet	Airfield road used by service vehicles	The westerly portion of the existing vehicle service road would be removed and would be replaced by a new vehicle service road located south of the Taxiway D extension.	Taxiway D Extension West
2	West remote passenger gates	The area situated south of Runway 6R-24L, north of World Way West, west of Taxiway AA, and east of Pershing Drive contains remote passenger gates. The West Remote Gates accommodate flights that cannot be handled in the CTA. Passengers are transported to and from the gates on buses from the CTA.	700,000 square feet	Aircraft passenger gates	Nine existing West Remote Gates would be required to be removed in order to accommodate the westerly extension of Taxiway D. In addition, an additional six West Remote Gates would be decommissioned (i.e., would no longer be used for regularly-scheduled commercial flights) as part of the proposed Project, even though those six gates are not within the area required for the extension of Taxiway D. The affected remote gates would be replaced by new passenger gates at Concourse 0 and Terminal 9.	Taxiway D Extension West
3	GSE staging areas	Several GSE staging areas are located within the western portion of LAX, including west of Taxiway AA between aircraft parking positions and West Remote Gates, and in two areas immediately south of Vehicle Service Road E, one located north of the FedEx maintenance facility and the other located west of the airfield busing facility. These outdoor areas are used by various airlines and aviation services companies to store GSE and related equipment when not in use.	Total area for the three GSE staging areas is approximately 56,000 square feet	GSE staging areas	Existing uses would be accommodated on nearby available on-airport property.	Taxiway D Extension West
4	LAWA maintenance facilities 7407 World Way West	LAWA's maintenance yard is located within the western portion of LAX north of World Way West. The overall facility occupies approximately 965,0000 square feet and includes over 20 buildings, sheds, and storage areas that include Fleet Maintenance; Paint Shop, Carpentry and Plumbing; Electrical, Mechanical, Upholstery, AC, and other trades; Welding; Spray Booth; and various storage buildings and offices. Employee parking is located in a parking lot on the east side of the facility.	187,000 square feet	Maintenance facilities	Maintenance facilities in the northern portion of the LAWA maintenance yard would be affected by the westerly extension of Taxiway D, including two buildings, maintenance service areas, maintenance storage areas, and a portion of the vehicle parking area. The displaced facilities would be moved south of World Way West, occupying the parking lot in and around a liquefied natural gas (LNG)/compressed natural gas (CNG) facility whose use is planned to be discontinued. No buildings would be required to be constructed to accommodate the relocation.	Taxiway D Extension West
5	FedEx maintenance facilities 7401 World Way West	FedEx operates a 950,000-square-foot (22.5-acre) maintenance facility on the western side of LAX that performs routine maintenance, safety checks, and major and minor unscheduled repairs. The facility includes a maintenance hangar, workshops, storage buildings, apron area and aircraft parking positions, and a blast fence. The total building area on the leasehold is approximately 423,000 square feet.	The area directly affected by the proposed Project is approximately 297,500 square feet. However, the proposed Project would require removal of the entire 8,750-square-foot component repair building, only a portion of which lies in the footprint. The total area affected is approximately 308,000 square feet.	Aircraft maintenance facilities	The westerly extension of Taxiway D would require the removal of some of FedEx's facilities in the northern portion of the site, including an aircraft parking position, aircraft apron area, component repair building, and hazardous materials storage shed. The affected uses would be consolidated within the remaining FedEx maintenance area. The blast fence on the eastern edge of the leasehold would be modified/ shortened by approximately 10 feet.	Taxiway D Extension West
6	Aircraft fueling system infrastructure	LAXFUEL Corporation operates an on-airport Jet A fuel storage facility (fuel farm) located north of World Way West and south of the north airfield. The fuel farm is an above-ground fuel storage facility that is integrated with fuel hydrant systems that deliver fuel to aircraft gates. The facility houses 19 large storage tanks, a state-of-the-art filtration system, a pumping system, an electronic monitoring system, and related facilities.	Approximately 40,000 square feet	Aircraft fueling facility truck loading rack	A truck loading rack at the LAXFUEL facility would be removed and relocated nearby.	Taxiway D Extension West

Table 2-4
Description of Enabling Projects, Facilities, and/or Activities

	Description of Enabling Projects, Facilities, and/or Activities								
Map ID#	Affected Facility	Facility Description	Approximate Building Size/Footprint Area of Affected Facility	Current Use	Disposition of Facility/Use	Project Component			
7	Southwest Airlines' GSE/vehicle maintenance facility and garage 9601 Coast Guard Road	A Southwest Airlines GSE/vehicle maintenance facility is located on the west side of the airport. The leasehold is 26,252 square feet, and includes a 7,972-square-foot building.	26,252 square feet	GSE/vehicle maintenance facility and garage	The existing maintenance facility and garage would be removed and relocated. Four sites are currently under consideration: (1) A 124,940-square-foot undeveloped parcel adjacent to the Police Firing Range, at 7117 W. Imperial Highway. (2) A 124,234-square-foot site housing the current Flying Food operation, which is located in a 32,090-square-foot building on California Street, at 6751 W. Imperial Highway. The Flying Food lease will expire in 2021. Flying Food is currently constructing an off-airport facility. (3) A 23,131-square-foot portion of the future Concourse 0. (4) A new building on a 28,907-square-foot site located west of the future LAX ITF West. See Figure 2-27 for relocation site options.	Taxiway D Extension West			
8	Airfield Bus Yard Facility 7285 World Way West	The existing Bus Yard Facility is located northeast of the LAX fuel farm at 7285 World Way West. It has the capacity for 35 airfield buses and support vehicles to transport passengers between airside access points and the CTA and the West Remote Gates, and between airside terminal facilities and US Customs and Border Protection processing areas. The facility is not sufficient to accommodate LAWA's transition to an electric bus fleet. Development of a new Bus Yard is currently in progress. The new facility is independent from the proposed Project (see Table 3-1).	126,000 square feet	Facilities for airfield busing and parking	Construction of a new Bus Yard Facility at a different site has been approved and is occurring independently from the proposed Project (see Table 3-1). As part of the proposed Project, the existing airfield Bus Yard Facility and related infrastructure would be removed.	Taxiway D Extension West			
9 thru 12	Navigation aids within the North Airfield	Existing navigational aids to be relocated include: the Automated Surface Observing System (i.e., weather station) - Map ID #9; Runway 24R Precision Approach Path Indicator for Runway 24R - Map ID #10; Runway 24L Precision Approach Path Indicator for Runway 24R - Map ID #11; and wind sock - Map ID #12.	NA	Navigational aid	These existing navigational aids would each be relocated to a suitable location in the north airfield.	Runway 6L-24R Exits			
13	"LAX-it" passenger pickup lot 6351 W. Century Boulevard	The "LAX-it" pickup lot is located on a 20-acre site formerly occupied by the Park One privately-operated surface parking lot. LAX-it is a centralized area for airport passengers and guests to pickup a taxi and ride app service. The pickup lot will remain in service until the APM opens in 2023. Decommissioning of the pickup lot will occur independently from the proposed Project.	40 acres	LAX taxi/ride share pickup facility	The taxi/ride share pickup lot will be decommissioned independently from the proposed Project. The remaining infrastructure on the site would be demolished as part of the proposed Project.	Concourse 0			
14	Allied Signal/Honeywell monitoring wells and remediation equipment	The LAX-it pickup lot/former Park One parking facility was previously occupied by an Allied Signal facility whose operation resulted in contamination of soil and groundwater beneath the site. Monitoring wells and remediation equipment is currently located on the site.	NA	Soil/groundwater remediation	Construction of Concourse 0 could result in the decommissioning and/or relocation of monitoring wells and remediation equipment located on the Project site. (See Section 4.5, <i>Hazardous Materials</i> , for additional discussion.)	Concourse 0			
15	LAWA Airport Police Division Headquarters and vehicle parking 6320 W. 96 th Street	The LAWA Airport Police Division (APD) has a 47,840-square-foot facility located at 6320 W. 96 th Street, as well as nearby parking and ancillary facilities. The main facility is located east of Sepulveda Boulevard between Park One and the 96 th Street Bridge. An ancillary APD building and parking area are located on a 1.17-acre parcel located on the west side of Alverstone Avenue between W. 96 th Street and an unnamed road that lies to the south of the airfield perimeter fence. Additional APD parking is located on the northeast corner of W. 96 th Street and Alverstone Avenue on a 1.65-acre parcel. LAWA is currently constructing a new Airport Police Facility that will co-locate many of APD's functions onto one site, including the facility on W. 96 th Street. The new Airport Police Facility is independent from the proposed Project (see Table 3-1).	240,000 square feet	Police headquarters and vehicle parking area	Construction of a new LAWA APD Facility at a different site has been approved and is occurring independently from the proposed Project (see Table 3-1). As part of the proposed Project, the existing LAWA APD facility and related surface parking would be removed.	Concourse 0			
16	Security Post 3 and Vehicle Service Road E (between Taxiway E7 and Security Post 3)	Security Post 3 provides an access point to the eastern portion of the north airfield for authorized vehicles. The affected portion of the vehicle service road provides a route for airport vehicles to access the easternmost portion of the north airfield.	42,000 square feet	Security post and airfield road used by service vehicles	The easternmost portion of the existing airside vehicle service road would be removed and relocated to the south of the proposed Taxiway D extension. Security Post 3 would be removed.	Concourse 0			

Table 2-4 Description of Enabling Projects, Facilities, and/or Activities

		2 - 5 - 6 - 7 - 6 - 7 - 7 - 7 - 7 - 7 - 7 - 7		u, 0. / tot. / title		
Map ID#	Affected Facility	Facility Description	Approximate Building Size/Footprint Area of Affected Facility	Current Use	Disposition of Facility/Use	Project Component
17	96 th Street, Alverstone Avenue, and unnamed street	Surface streets located west of Sepulveda Boulevard and north of the Airport Police Facility provide access to/from Sky Way/ 96 th Street Bridge, the existing Airport Police Facility, and Security Post 3.	96 th Street – approximately 665 feet; Alverstone Ave – approximately 300 feet Unnamed Street – approximately 420 feet	Roadways providing access to Sky Way/96 th Street Bridge, Airport Police Facility, Security Post 3, and Sepulveda Boulevard	Portions of W. 96 th Street, Alverstone Avenue, and an adjacent, unnamed access road would be closed and removed.	Concourse 0
18	LAX Gateway Pylons	Eleven Gateway pylons line 1.5 miles of Century Boulevard, growing in height from 25 feet to 60 feet before culminating in a ring of 15, 100-foot columns at the entrance to LAX.	NA	Aesthetic enhancement	Construction of the roadway improvements would require the relocation, reconfiguration, and removal of some of the pylons.	Landside improvements
19	Delta Air Lines GSE building	This facility houses Delta Air Lines' GSE storage and maintenance facility.	18,583 square feet	GSE maintenance	GSE maintenance activities have been relocated to the new Delta Air Lines Maintenance facility recently constructed within the West Aircraft Maintenance Area. The remaining infrastructure on the site would be demolished as part of the proposed Project.	Terminal 9
20	Aircraft parking areas	Aircraft parking areas associated with the American and United Airlines' leaseholds are located within the central and western portions of the Terminal 9 site, east of Sepulveda Boulevard. Three small aircraft maintenance support buildings (ranging from 180 to 275 square feet in size) are located within the westernmost aircraft parking area along the western edge of the Terminal 9 site.	272,000 square feet	Aircraft parking areas/storage	The existing aircraft parking areas and nearby buildings would be removed.	Terminal 9
21	American Eagle Commuter Terminal 6002 Avion Drive	The American Eagle Commuter Terminal services American Airlines' regional aircraft (i.e., commuter) operations. The facility includes a 33,165-square-foot passenger terminal with administrative support space; a 9,963-square-foot building used for baggage handling, office space, and storage for cabin services and light aircraft maintenance activities; and 10 aircraft gates.	43,128 square feet	Commuter Terminal	Commuter operations at this facility will be relocated to the Midfield Satellite Concourse as part of a separate, previously-approved, independent project. Demolition of the vacated facility would be required as an enabling project.	Terminal 9
22	Ground equipment maintenance/storage area	The central portion of the Terminal 9 site is used by United Airlines, Delta Air Lines, and American Eagle for ground equipment storage and maintenance.	135,000 square feet	GSE/equipment storage	The existing equipment maintenance/storage areas would be removed and the storage/ maintenance activities would be consolidated within existing facilities.	Terminal 9
23	LAWA Records Retention Building	The six-story LAWA Records Retention Building houses LAWA records and IT equipment. One floor of the building is leased by Delta Air Lines.	100,053 square feet	Records retention, IT operations, airline support operations	The existing building would be removed. LAWA records would be consolidated and relocated to existing LAWA office space or to an off-site storage facility. The LAWA IT equipment would be relocated to an existing LAWA office space (such as the administration building on World Way West or LAWA's Skyview office buildings). The Delta Air Lines use would be consolidated into existing airline facilities or relocated off of the airport.	Terminal 9
24	Mercury Air Cargo facility 6040 Avion Drive	A Mercury Air Cargo facility is located on the eastern end of the Terminal 9 site, at 6040 Avion Drive on a 235,826-acre site. The facility handles international and domestic airline cargo. Mercury Air Cargo's lease at this location will expire in 2021; a lease extension is currently underway. Relocation of the Mercury operation following expiration of the lease will occur independently from the proposed Project.	171,787 square feet	Cargo handling	Relocation of the cargo operation will occur independently from the proposed Project upon expiration of Mercury's lease. As part of the proposed Project, the existing facility and related infrastructure would be removed.	Terminal 9
25	American Airlines cargo staging area 5950/5970 Avion Drive	The 98,036-square-foot American Airlines Cargo and GSE Facility is located within the southern portion of the Century Cargo Complex.	40,000 square feet	Cargo handling/storage	A portion of the cargo staging area within the southeast corner of the parcel would be removed. Existing cargo handling/ storage would be consolidated within the leasehold.	Terminal 9

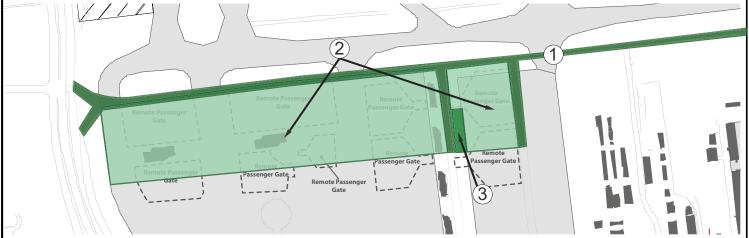
Table 2-4
Description of Enabling Projects, Facilities, and/or Activities

		- 555.	Enabling 1 rojects, 1 delities, dir	,		
Map ID#	Affected Facility	Facility Description	Approximate Building Size/Footprint Area of Affected Facility	Current Use	Disposition of Facility/Use	Project Component
26	Air Freight Building #10 5908 Avion Drive	The 57,377-square-foot building and adjacent area is used for cargo operations.	The area directly affected by the proposed Project is approximately 55,000 square feet, of which approximately 10,000 square feet is the southernmost portion of the building. A slightly greater portion of the building may be required to be demolished to preserve the building's integrity (i.e., preserve load-bearing walls/components of the building); however, it is anticipated that the majority of the building would remain.	Cargo handling	A portion of the Air Freight #10 building and the adjacent ramp and vehicle access areas would be removed. Existing cargo handling would be consolidated within the remaining portion of the building.	Terminal 9
27	LAWA Operations aircraft parking areas	Aircraft parking areas are located between Air Freight Building #10 and Air Freight Building #8, and to the east of Air Freight Building #8.	250,000 square feet	Aircraft parking areas	The southerly portion of the aircraft parking areas would be removed.	Terminal 9
28	Air Freight Building #8 5720 Avion Drive	The 70,891-square-foot building and adjacent area is used by various tenants for cargo operations, GSE support, hazardous materials storage, and aircraft/maintenance/overhaul (MRO) support.	The area directly affected by the proposed Project is approximately 85,000 square feet, of which approximately 15,000 square feet is the southern portion of the building. A slightly greater portion of the building may be required to be demolished to preserve the building's integrity (i.e., preserve load-bearing walls/components of the building); however, it is anticipated that the majority of the building would remain.	Cargo handling, GSE, hazardous materials storage, and aircraft MRO support	A portion of the Air Freight #8 building, including the vehicle parking area to the west of the building and the equipment storage area to the east of the building, would be removed. Existing uses would be consolidated within the remaining portion of the building or relocated to other facilities at LAX.	Terminal 9
29	Vehicle Service Road C (between Taxiway C5 and east of Taxiway B1)	This portion of Vehicle Service Road C provides a route for airport vehicles to access the eastern portion of the south airfield.	280,000 square feet	Airfield road used by service vehicles	The easterly portion of the existing vehicle service road would be removed and would be replaced by a new vehicle service road located north of the proposed Taxiway C extension.	Terminal 9
30	Los Angeles Community College District property 9700 S. Sepulveda Boulevard	A Los Angeles Community College District property is located east of Sepulveda Boulevard between W. 96 th Street and W. 98 th Street. The property is improved with two airplane hangars that West Los Angeles College currently uses for the warehousing of movie set props and for instruction to support its Film/Television Production Crafts program. One course per quarter currently takes place at this facility. The majority of the site is leased to a private parking operator, which is operated in conjunction with the property located at 9600 S. Sepulveda Boulevard (see below).	2.06 acres	Community College, privately-operated public parking lot	The edges of the Los Angeles Community College District property would be acquired outright or through permanent or temporary construction easements. The existing structures along the southern edge of the property would be removed for the proposed roadway improvements. The main warehouse facility in the middle of the site would not be acquired and access to 96 th Street would be maintained, allowing the facility to continue to be used for its current purposes.	Landside
31	Commercial parking lot 9600 S. Sepulveda Boulevard	WallyPark Express operates a commercial parking lot located north of Los Angeles Community College District property and south of 96 th Street.	1.47 acres	Privately-operated public parking lot	The existing parking lot would be acquired and the structure at the northwest corner of the property would be removed.	Landside
32	LADWP parcel 9750 S. Vicksburg Avenue	The property located on the east side of Vicksburg Avenue north of W. 96 th Street is owned by LADWP. The southern portion of the property is leased for private parking.	0.62 acres	Parking	The southern two-thirds (approximately) of the parcel, located north of 96 th Street and south of the electrical substation, would be acquired and the parking lot would be removed.	Landside

Table 2-4 Description of Enabling Projects, Facilities, and/or Activities

Map ID#	Affected Facility	Facility Description	Approximate Building Size/Footprint Area of Affected Facility	Current Use	Disposition of Facility/Use	Project Component
33	Commercial parking lot 6155 W. 98 th Street	Sunrise LAX Airport Parking operates a parking lot and shuttle operation located between W. 96 th Street and W. 98 th Street, east of the LADWP parcel.	1.26 acres	Privately-operated public parking lot	The existing property would be acquired and the small structure on the southern edge of the site would be removed.	Landside
34	LAX Taxi Staging Lot	A taxi staging lot is located east of the Sunrise parking lot, between the W. 96 th Street and W. 98 th Street. The taxi staging lot is located on LAWA-owned property. The facility operates under a lease that will expire in 2021.	Approximately 1.3 acres	Taxi staging	The existing staging lot would be relocated or reconfigured. Relocation, if required, would occur on a nearby parcel, which could be on a LAWA-owned site or other location in the area.	Landside





Sources: Ricondo & Associates, Inc., April 2020 (basemap); Los Angeles World Airports, January 2020 (Airport Layout Plan); CDM Smith, April 2020 (Airport Property Line and enabling projects)

Prepared by: CDM Smith, October 2020

Enabling Projects

- 1 Vehicle Service Road "E"
- 2 West Remote Passenger Gates
- (3) GSE Staging Areas
- (4) LAWA Maintenance Facilties
- 5 FedEx Maintenance Facilites
- 6 Aircraft Fueling System Infrastructure
- 7 Southwest Airlines GSE Facility

Facilities to be Relocated Independently

A Airfield Bus Yard Facility Relocation

<u>Legend</u>

LAX Property Boundary



Enabling Projects¹

ASOS - Automated Surface Observing System GSE - Ground Support Equipment LAWA - Los Angeles World Airports PAPI - Precision Approach Path Indicator

1. Various colors used only to differentiate between enabling project sites.



8 Airfield Bus Yard Facility Demolition

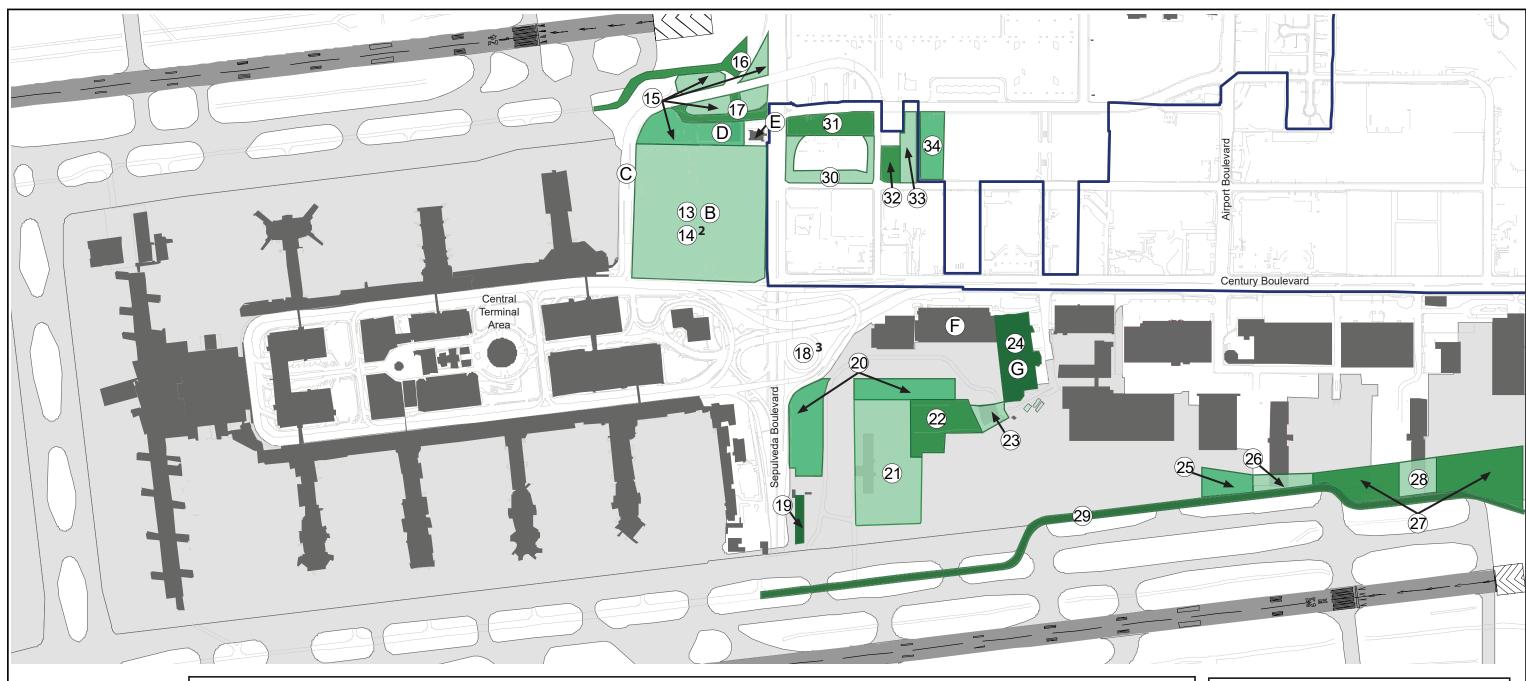
9 ASOS

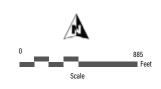
(10) Runway 24R PAPI

(11) Runway 24L PAPI

(12) Wind Sock

2-70





Sources: Ricondo & Associates, Inc., April 2020 (basemap); Los Angeles World Airports, January 2020 (Airport Layout Plan); CDM Smith, April 2020 (Airport Property Line and enabling projects)

Prepared by: CDM Smith, October 2020

Enabling Projects

- (13) "LAX-it" Passenger Pickup Lot Site Demolition
- Allied Signal/Honeywell Monitoring Wells/ Remediation Equipment
- 15 LAWA Airport Police Headquarters Demolition
- (16) Vehicle Service Road "E" & Security Post 3
- (17) 96th Street & Alverstone Avenue
- (18) LAX Gateway Pylons
- (19) Delta Air Lines GSE Building
- 20 Aircraft Parking Areas

- 21) American Eagle Commuter Terminal
- 22) Equipment Maintenance & Storage
- 23 LAWA Records Retention Building
- 24) Mercury Air Cargo Facility Demolition
- 25 American Airlines Cargo Staging Area
- 26 Air Freight Building #10
- (27) LAWA Operations Aircraft Parking Areas
- (28) Air Freight Building #8

- 29 Vehicle Service Road "C"
- Los Angeles Community College District Property
- (31) Commercial Parking Lot
- 32 LADWP Parcel/Parking Lot
- (33) Commercial Parking Lot
- (34) LAX Taxi Staging Area

Facilities to be Removed or Relocated Independently

- (B) "LAX-it" Passenger Pickup Lot Relocation
- C Sky Way/96th Street Bridge Demolition
- (D) LAWA Airport Police Headquarters Relocation
- Reliant Medical Facility Demolition
- Pulta Air Lines Hangar Complex Relocation/Demolition
- **G** Mercury Air Cargo Relocation

<u>Legend</u>

LAX Property Boundary



Enabling Projects¹

GSE - Ground Support Equipment LAWA - Los Angeles World Airports

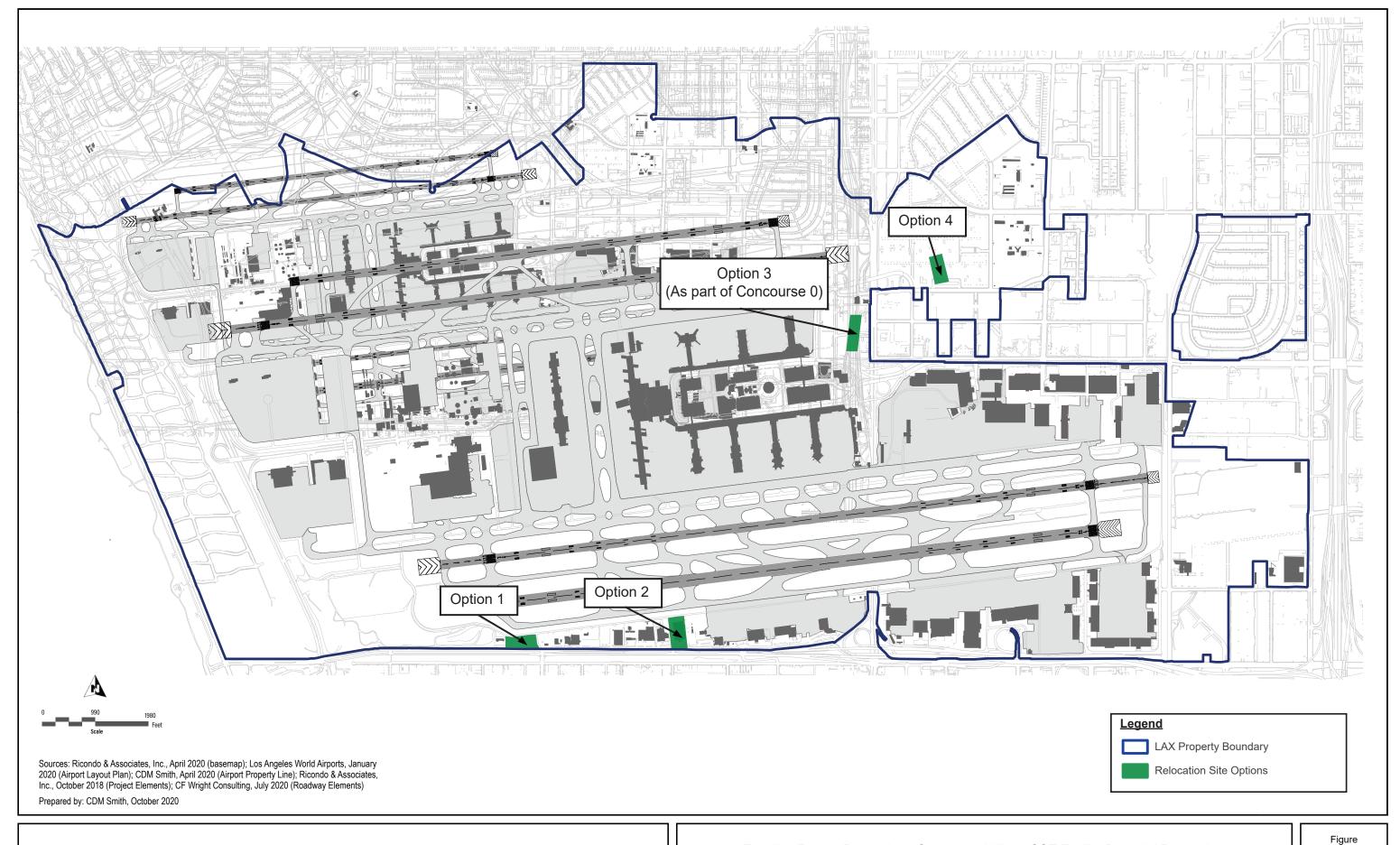
Votes:

- Various colors used only to differentiate between enabling project sites.
- 2. Monitoring wells and/or remediation equipment are located throughout the site.
- 3. Only a portion of the entryway pylons would be relocated. Individual pylons are not identified on the figure.

LAX Airfield and Terminal Modernization Project

Enabling Projects for Concourse 0, Terminal 9, and Landslide Improvements

Figure **2-26b**



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2-74

In some cases, the removal or relocation of uses that currently exist within the Project footprint is already planned and/or approved to occur independently from the proposed Project; these removals and relocations would occur prior to and/or separately from the proposed Project. The projects that have independent utility from the proposed Project include the following and are identified on Figures 2-26a and 2-26b with a numeric, rather than alpha, designation:

- Relocation of LAWA Airfield Bus Facility (relocation of operation is an approved, independent project; facility demolition is part of the proposed Project, as identified on Table 2-4)
- Decommissioning of the LAX-it pickup lot (site demolition is part of the proposed Project, as identified on Table 2-4; decommissioning does not require approval as the lot was intended to be a temporary operation during construction activity in the CTA)
- Demolition of Sky Way/96th Street Bridge and Vicksburg Avenue (demolition approved as part of the LAX Landside Access Modernization Program)
- Relocation of LAWA Airport Police Department facilities (relocation of operation is an approved, independent project; facility demolition is part of the proposed Project, as identified on Table 2-4)
- Demolition of former Reliant Medical Facility (demolition approved as part of the LAX Landside Access Modernization Program)
- Relocation of Delta Air Lines Hangar Complex (relocation of operation and demolition of facility approved as part of the LAX Landside Access Modernization Program; construction of replacement facility approved as part of the LAX West Aircraft Maintenance Area Project)
- Relocation of Mercury Air Cargo Facility (relocation of operation would occur upon expiration
 of lease and is an independent project; facility demolition is part of the proposed Project, as
 identified on Table 2-4)
- Acquisition and/or displacement of several billboards (approved as part of the LAX Landside Access Modernization Program)
- Relocation of operations currently at the American Eagle Commuter Facility to the approved Midfield Satellite Concourse, which would occur in conjunction with completion of the south concourse (relocation of operations is an independent project; facility demolition is part of the proposed Project, as identified on Table 2-4)

2.5.2 Property Acquisition

As described in **Table 2-5** and identified on Figure 2-26b, a number of properties would need to be acquired to enable development of the proposed landside (roadway) improvements:

Los Angeles Community College District Property - A Los Angeles Community College District property is located east of Sepulveda Boulevard between 96th Street and 98th Street. The property is improved with two airplane hangars that West Los Angeles College currently uses for the warehousing of movie set props and for instruction to support its Film/Television Production Crafts program. One course per quarter currently takes place at this facility. The majority of the site is leased to a private parking operator. As part of the proposed Project, the edges of the Los Angeles Community College District property would be acquired outright or through permanent or temporary construction easements. The existing structures along the southern edge of the property would be removed for the proposed roadway improvements. The main warehouse facility in the middle of the site would not be acquired and access to 96th Street would be maintained, allowing the facility to continue to be used for its current purposes.

- Commercial Parking Lot WallyPark Express operates a commercial parking lot located north of the Los Angeles Community College District property and south of 96th Street. As part of the proposed Project, the existing parking lot would be acquired and the structure at the northwest corner of the property would be removed.
- <u>LADWP Parcel</u> The property located on the east side of Vicksburg Avenue north of 96th Street is owned by LADWP. The southern two-thirds (approximately) of the property (i.e., the area south of the electrical substation) is leased for private parking. As part of the proposed Project, this portion of the property would be acquired.
- Commercial Parking Lot Sunrise LAX Airport Parking operates a parking lot and shuttle operation that is located between 96th Street and 98th Street and east of the LADWP parcel. As part of the proposed Project, the existing property would be acquired and the small structure on the southern edge of the site would be removed.

Details regarding these acquisition properties are provided in Table 2-5.

Table 2-5 Properties to be Acquired									
Reference Number ¹	Primary Use	Address(es)	Lot Area (Acres)	Zoning	Assessor's Parcel Number	Full or Partial Acquisition			
30	Los Angeles Community College District - site houses airplane hangars used for warehouse/ instructional purposes	9700 S. Sepulveda Boulevard	2.06 ²	Commercial C2-2	4124026900	Partial			
31	Commercial parking lot	9600 S. Sepulveda Boulevard ³	1.47	LAX	4124025049	Full			
32	LADWP parcel used for commercial parking	9750 S. Vicksburg Avenue ⁴	0.625	LAX	4124027900	Partial			
33	Commercial parking lot	6155 W. 98 th Street	1.00	LAX	4124027029	Full			
		6206 W. 96 th Street	0.13	LAX	4124027032	Full			
		6200 W. 96 th Street	0.13	LAX	4124027031	Full			

Source: City of Los Angeles, ZIMAS, 2019, CF Wright and CDM Smith, 2020.

Notes:

- ¹ Reference numbers correspond to enabling project numbers on Figure 2-26b.
- ² Area of full parcel is 4.82 acres; only partial acquisition would be required.
- ³ Other addresses associated with this property are 6250 6286 W. 96th Street.
- ⁴ Other address associated with this property is 6175 W. 98th Street.
- ⁵ Area of full parcel is 0.98 acre; only partial acquisition would be required.

2.5.3 Easements and Acquisition for Roadway Improvements

The proposed roadway improvements identified in Section 2.4.3 would require the construction of new driveways, curb cuts, and ramps. These improvements would require easements or property

acquisition. LAWA would utilize easements and partial takes to the extent feasible to minimize any acquisition required. **Table 2-6** identifies properties that may be affected.

Table 2-6 Property Acquisition and/or Easements Related to Roadway Improvements								
Property Address	Lot Area (acres)	Zoning	APN					
9600 S. Sepulveda Boulevard ^{1,2}	1.47	LAX	4124025049					
9700 S. Sepulveda Boulevard ¹	4.82	C2-2	4124026900					
9800/9808 S. Sepulveda Boulevard	0.62	C2-2	4124026002					
9860 S. Sepulveda Boulevard ³	4.68	[Q]C2-2	4124026011					
9750 S. Vicksburg Avenue ^{1,4}	0.62	LAX	4124027900					
6206 W. 96 th Street ¹	0.13	LAX	4124027032					
6200 W. 96 th Street ¹	0.13	LAX	4124027031					
6144 W. 98 th Street	1.44	C2-2	4124030023					
6155 W. 98 th Street ¹	1.00	LAX	4124027029					
6200 W. 98 th Street	2.47	[Q]C2-2	4124026010					
6101 W. Century Boulevard	5.71	C2-2	4124030036					
6151 W. Century Boulevard	1.81	C2-2	4124030029					
6161 W. Century Boulevard⁵	1.76	C2-2	4124030034					
6171 W. Century Boulevard	0.79	C2-2	4124030035					

Source: City of Los Angeles, ZIMAS, 2019.

Notes:

- ¹ Also identified as an acquisition property in Table 2-5.
- ² Other addresses associated with this property are 6250 6286 W. 96th Street.
- ³ Other addresses associated with this property are 6211-6255 W. Century Boulevard.
- ⁴ Other address associated with this property is 6175 W. 98th Street.
- Other addresses associated with this property are 6180 W. 98th Street, 6176 W. 98th Street, 9800 S. Vicksburg Avenue, 9850 S. Vicksburg Avenue.

2.6 Construction

2.6.1 Phasing

Figure 2-28 shows the development phasing for the proposed Project, broken down into the four major elements: North Airfield Improvements, Concourse 0, Terminal 9, and Roadways System (Landside) Improvements.

As shown in Figure 2-28, development of the North Airfield improvements would begin around late-2021 with initiation of the enabling projects for the Taxiway D westerly extension. As each enabling project is completed, construction of the taxiway improvements would occur along those segments and would generally continue in that manner through completion in mid-2026.

Development of Concourse 0 would begin around late-2022 with initiation of enabling projects and construction activities for the eastern portion of the concourse and apron, followed by completion of enabling projects in late-2024, and completion of Concourse 0 construction around late-2026.

Terminal 9 development activities would begin around late-2021 or early-2022 within initiation of the enabling projects that would continue through approximately mid-2024. Construction of Terminal 9 and the associated apron would begin approximately late-2023 and is anticipated to be completed around late-2027. Construction of the Taxiway C extension and relocation of the vehicle service road would begin in approximately late-2024 and be completed around late-2026.

Construction of the roadway system improvements would begin around early-2022 with initiation of improvements to/along Sepulveda Boulevard and continue on an on-going basis through the different areas of the roadway system to completion in early 2028. In conjunction with construction of the proposed roadway system improvements, there would be some temporary detours and rerouting of traffic onto other existing streets nearby or onto newly construction temporary access roads. The details of such temporary rerouting of traffic would be determined in conjunction with development of Maintenance of Traffic (MOT) plans as part of construction plans for the individual roadway segments.

It is anticipated that the majority of construction activities within each phase of development would occur during daytime hours (i.e., typically between 7:00 a.m. and 3:30 p.m.). It is likely that there could be some limited periods when construction activities are scheduled to occur both during the daytime and nighttime hours, as second and third shifts, in order to conduct work activities that cannot normally be accomplished during the daytime shift (e.g., during large-scale pours of concrete when it would be necessary to maintain a continuous stream of concrete deliveries through multiple shifts, or when it is safer and more efficient to complete airfield improvement work late at night when aircraft activity levels are very low).

2.6.2 Construction Staging and Contractor Parking

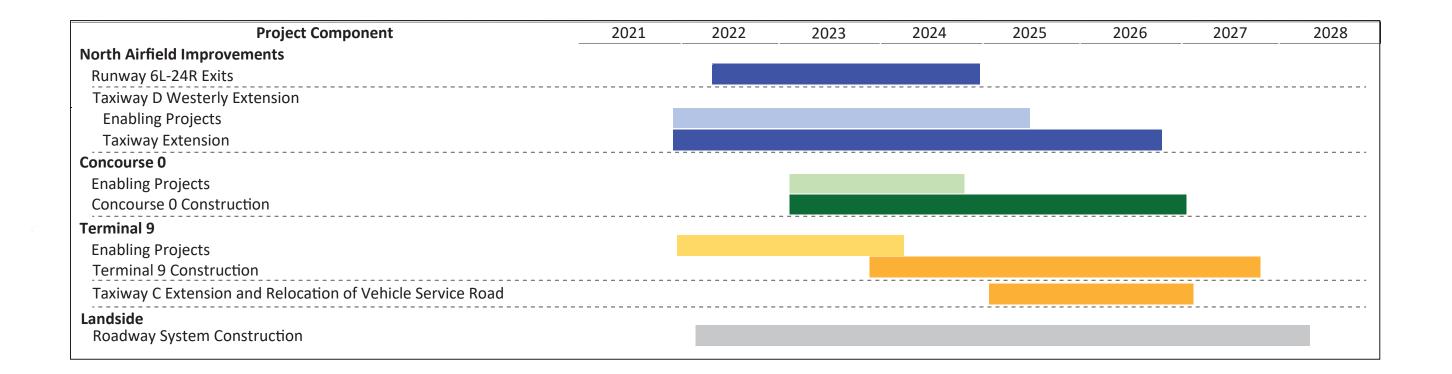
Construction staging areas are identified in **Figure 2-29**. To the extent possible, construction laydown, staging areas, and employee contractor parking for the proposed Project would be located adjacent to or within the construction sites for the proposed facilities.

At each construction staging area, LAWA would implement, as necessary, security fencing, surveillance cameras, security personnel, and the locking and securing of equipment. Additionally, the proposed Project would incorporate various temporary construction fencing features to screen much of the construction activities along major public approach and perimeter roadways. Construction employees could be shuttled between construction sites and construction employee staging/parking areas, if/as warranted.

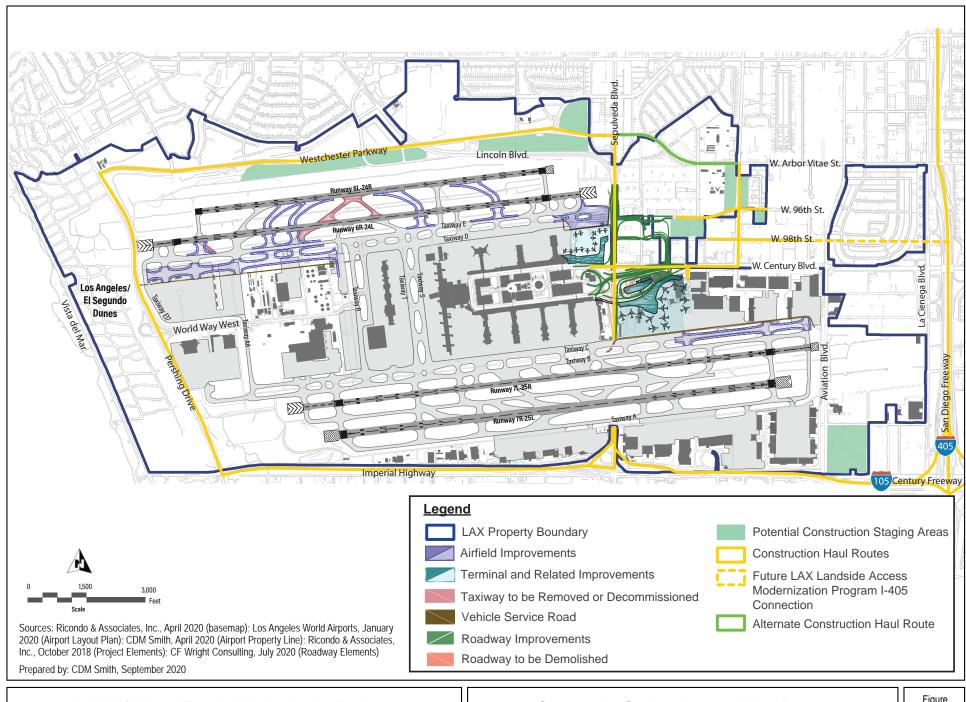
Construction activities and staging for the proposed Project would be coordinated with LAWA's Coordination and Logistics Management (CALM) Team. The CALM Team helps monitor and coordinate the construction logistics of development projects at LAX in the interest of avoiding conflicts between ongoing airport operations and construction activities. In accordance with standard LAWA practice, the CALM Team would ensure that occupancy and operation of adjacent and surrounding facilities would be maintained throughout demolition and construction activities. ²⁵

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City of Los Angeles, Los Angeles World Airports, 2020 Design and Construction Handbook (DCH), Version 1.0, June 30, 2020. Available: https://www.lawa.org/en/lawa-businesses/lawa-documents-and-guidelines/lawa-design-and-construction-handbook.



Source: Connico, Inc., 2019; CDM Smith, October 2020 Prepared by: CDM Smith, October 2020 This page intentionally left blank.



LAX Airfield and Terminal Modernization Project

Construction Staging Areas and Haul Routes

Figure **2-29**

2.6.3 Construction Haul Routes

Designated delivery and haul routes would be established for the proposed Project consistent with the haul routes currently used for LAX projects. Figure 2-29 delineates the delivery and haul routes proposed to be used during construction of the proposed Project. As shown, the primary delivery routes would utilize I-405, I-105, Sepulveda Boulevard, Pershing Drive, and Westchester Parkway. For materials delivered to, and stored at, designated construction staging areas, the contractor haul routes to and from the Project site would generally be on public streets.

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 2-29, identifying routes to be used by trucks to export soil or demolition debris off-site. 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.²⁶

2.6.4 Temporary Runway Closures During Construction

Construction of the proposed airfield improvements would require a temporary short-term closure of each runway in the north airfield (i.e., Runway 6L-24R and Runway 6R-24L), which would be staggered to allow one runway to remain operational while the other is closed. Each of the two runway closures would be for approximately 4.5 months and occur between January and May, when the travel season is typically light and aircraft activity levels are generally lower than during the rest of the year. It is anticipated that temporary closure of Runway 6L-24R would occur in 2023 and temporary closure of Runway 6R-24L would occur in 2024. During the time of each runway closure, flights would be redistributed among the three runways that remain in operation (i.e., the two runways in the south airfield and the runway in the north airfield that is not closed).

2.6.5 Temporary Access During Construction

During construction of the proposed roadway system improvements described above in Section 2.4.3, provisions would be made for temporary access to the CTA and to Terminal 9, as described below.

2.6.5.1 CTA Access

Demolition/removal of the Sky Way/96th Street Bridge roadway system, which is an enabling project associated with the LAX Landside Access Modernization Program, would occur in the early phases of Project construction, in a timeframe similar to the development of the Concourse 0 site and construction of the new flyover ramp from southbound Sepulveda Boulevard to the new elevated roadway system that leads to the CTA. The demolition would include removal of the Sky Way bridge from 96th Street to the CTA and removal of the remaining portions of Sky Way including the southbound ramps from Sepulveda Boulevard into the CTA and the northbound lanes out of the CTA to 96th Street. Other existing access routes to and from the CTA would remain in operation during Project construction, including those on Century Boulevard and Sepulveda Boulevard. Such existing access routes on Sepulveda Boulevard include the CTA entrance ramps from northbound Sepulveda Boulevard just north of the Sepulveda Tunnel, the CTA entrance point from southbound Sepulveda Boulevard at "Little Century" (i.e., the westerly continuation of Century Boulevard past Sepulveda Boulevard), and the CTA exit ramps onto southbound Sepulveda Boulevard near the Sepulveda Tunnel.

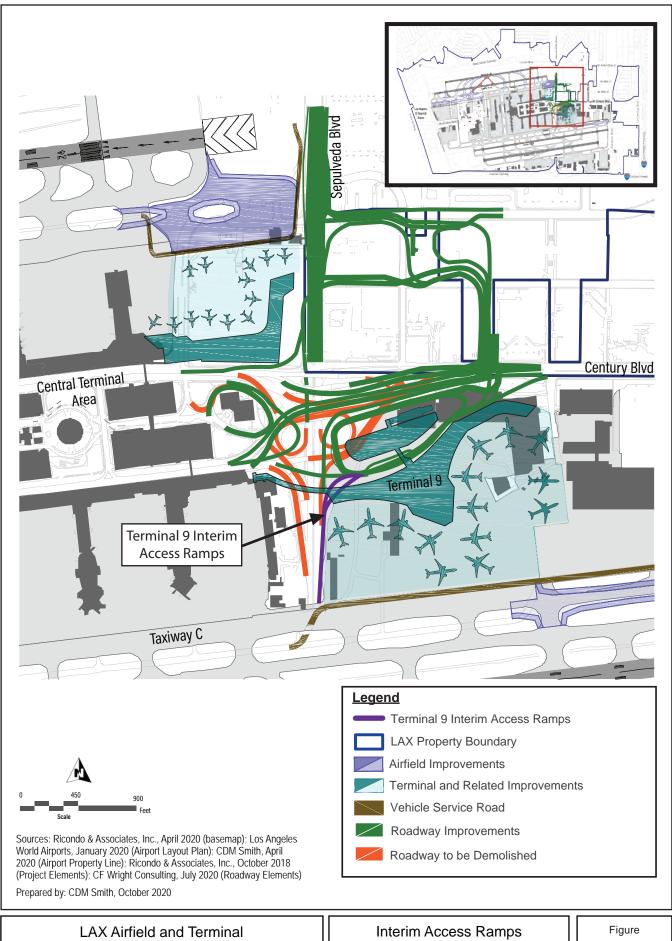
City of Los Angeles, Los Angeles World Airports, 2020 Design and Construction Handbook (DCH), Version 1.0, Section 4 – Guide Specifications, Division 01 – General Requirements, June 30, 2020. Available: https://www.lawa.org/en/lawa-businesses/lawa-documents-and-guidelines/lawa-design-and-construction-handbook.

Following demolition of the Sky Way roadway system, the primary focus would be on rerouting inbound traffic, as that represents the majority of traffic using the Sky Way roadway system. Following demolition of the Sky Way bridge and the Sky Way ramps from southbound Sepulveda Boulevard, motorists that would normally use those routes to come into the CTA would instead be assigned to, or encouraged to utilize, the ITF West and ITF East and take the APM into the CTA. The ITFs, along with the related roadway network improvements, and the APM would be completed and operational before demolition of the Sky Way roadway system. This would also include the reassignment of certain transportation modes (e.g., TNCs such as Uber and Lyft, shuttles, buses) from the CTA to the ITFs. Privately-owned vehicles that would normally travel on southbound Sepulveda Boulevard to access the CTA, the majority of which use the Howard Hughes Parkway exit from southbound I-405 to get onto Sepulveda Boulevard, would be redirected to use other exits such as La Tijera, La Cienega (Manchester Parkway), 98th Street (at La Cienega), and Century Boulevard. The rerouting of traffic would be assisted by the use of real-time/dynamic Traffic Access Management Systems including permanent and portable changeable message signs and a signage program. The redirected traffic would be routed to the ITFs, including primarily the ITF West, via the local roadway system including, but not limited to, Westchester Parkway/Arbor Vitae, Jetway Boulevard, Jenny Avenue, Airport Boulevard, 94th Street, 96th Street, and 98th Street. Improvements made to the local roadway system to help route and distribute that traffic would include some restriping of roads to provide necessary lane controls and signalization improvements at some intersections.

For outbound traffic that normally uses the Sky Way roadway system when exiting the CTA, such traffic would be redirected to other existing exit routes from the CTA. Specifically, such outbound traffic would be routed within the CTA to either Center Way or World Way South, which provide the ability to continue east onto Century Boulevard and to ramps connecting to northbound Sepulveda Boulevard and southbound Sepulveda Boulevard.

2.6.5.2 Terminal 9 Access

Landside access proposed for Terminal 9 includes various ramps and roadway segments that integrate into the overall proposed LAX Airfield and Terminal Modernization Program Phase 1 roadway system. Construction of certain of those ramps and segments is anticipated to occur in the latter phases of developing the overall LAX Airfield and Terminal Modernization Program roadway system, which would be subsequent to the anticipated completion of Terminal 9. As such, temporary roadway improvements are proposed to provide interim access to Terminal 9. Specifically, two ramps are proposed to be developed from northbound Sepulveda Boulevard, just north of the Sepulveda Tunnel, with one ramp going to the departures level curb outside Terminal 9 and the other ramp going to the arrivals level curb outside Terminal 9. **Figure 2-30** depicts the location of the subject ramps.



LAX Airfield and Termina Modernization Project to Terminal 9

2-30

2.7 Entitlements

As further discussed in Section 4.6, Land Use and Planning, the primary land use plans applicable to the proposed Project include the LAX Plan, LAX Specific Plan, SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal), the Los Angeles County Airport Land Use Plan, and the City of Los Angeles' Mobility Plan 2035. In addition, the proposed landside access improvements are located within an area governed by the Westchester-Playa del Rey Community Plan and the Coastal Transportation Corridor Specific Plan. Improvements on and adjacent to Century Boulevard would also be governed by the Century Boulevard Streetscape Plan.

The proposed Project components are consistent with the City of Los Angeles General Plan, including the LAX Plan and the Westchester-Playa del Rey Community Plan, and LAX Specific Plan zoning regulations. Therefore, no plan amendments or discretionary zoning actions are required to permit development of the proposed airside, landside, or terminal improvements. Additionally, some of the landside improvements would require approval to effect public street vacations and public street easements. LAWA would be required to satisfy specific conditions tied to these public street approvals, including but not limited to, the construction of curbs, gutters, sidewalks, and stormwater drainage.

2.8 Intended Uses 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 will include those described below.

This 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)). The federal, state, and local permits, approvals, and reviews that may be needed to implement the proposed Project include:

2.8.1 Federal Actions²⁷

 FAA determinations under 49 U.S.C. §§ 47106 and 47107 relating to the potential eligibility of the Proposed Action for federal funding under the Airport Improvement Program (AIP)

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Although FAA is not a state agency regarding CEQA review, the proposed Project would require various approvals in consideration of FAA requirements.

- and/or under 49 U.S.C. § 40117, as implemented by 14 CFR § 158.25, to impose and use passenger facility charges (PFCs) collected at LAX for the proposed Project to assist with construction of potentially eligible development items shown on the ALP
- FAA approval of a construction safety and phasing plan to maintain aviation and airfield safety during construction pursuant to FAA Advisory Circular 150-5370-2G, Operational Safety on Airports During Construction, 28 under 14 CFR 139 (49 U.S.C. § 44706)
- FAA determinations under 14 C.F.R. Part 77 regarding the safe and efficient use of airspace

2.8.2 State and Regional Actions

- Caltrans review and approval for Sepulveda Boulevard-area improvements, and crossing of Sepulveda Boulevard by the proposed pedestrian corridor
- Caltrans review and approval of an Airport Permit, required by California Public Utilities Code Section 21661.6(a), for any expansion of an existing airport
- SCAQMD and SCAG review for proposed Project conformity with the State Implementation
 Plan under the Clean Air Act
- SCAQMD authorities to construct and permits to operate for stationary sources
- State Water Resources Control Board (SWRCB) and/or Los Angeles Regional Water Quality Control Board (LARWQCB)²⁹ permits or approvals, which may include: (1) General Construction Stormwater Permit, (2) Standard Urban Stormwater Mitigation Plan, (3) Industrial Stormwater General Permit, and (4) approval of a Recycled Water Report for the use of recycled water as a dust control measure for construction

2.8.3 Local Actions

- LAWA Board of Airport Commissioners Certification of EIR, Project approval, and LAX Plan Compliance determination pursuant to LAX Specific Plan Section 7
- City of Los Angeles Department of Building & Safety (LADBS) Grading permits, building permits, and other permits issued by LADBS for the Project and any associated Department of Public Works permits for infrastructure improvements
- Los Angeles Department of Transportation compliance with the Coastal Transportation Corridor Specific Plan
- City of Los Angeles Department of City Planning Compliance with the Century Boulevard Streetscape Plan; land acquisition, reconfiguration of parcels, and zoning change approvals
- City of Los Angeles Department of Public Works, Bureau of Engineering Street and public easement approvals and conditions, including vacations of public rights-of-way
- County of Los Angeles Airport Land Use Commission review to determine whether the Project is consistent with the County's Airport Land Use Plan
- City Council Approval of Project
- Other local approvals, permits, or actions that may be deemed necessary for the Project

U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150-5370-2G, Operational Safety on Airports During Construction, December 13, 2017. Available: https://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5370-2G.pdf.

²⁹ The SWRCB and nine RWQCBs administer regulations regarding water quality in the State.