



DRAFT MASTER PLAN UPDATE - INVENTORY

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1.1 INTRODUCTION AND AIRPORT OVERVIEW

In accordance with Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5070-6B, Airport Master Plans, this chapter summarizes the first task of the update to the 2007 Sacramento International Airport (the Airport or SMF) Master Plan for the Sacramento County Department of Airports (SCDA or the Department). The SCDA owns and/or operates SMF, Sacramento Mather Airport (MHR), Sacramento Executive Airport (SAC), and Franklin Field (F72). The purpose of this Master Plan Update is to provide guidance for the continued improvement of SMF over a 20-year planning horizon (2018 through 2038) and beyond. This chapter provides an inventory of the following airport components:

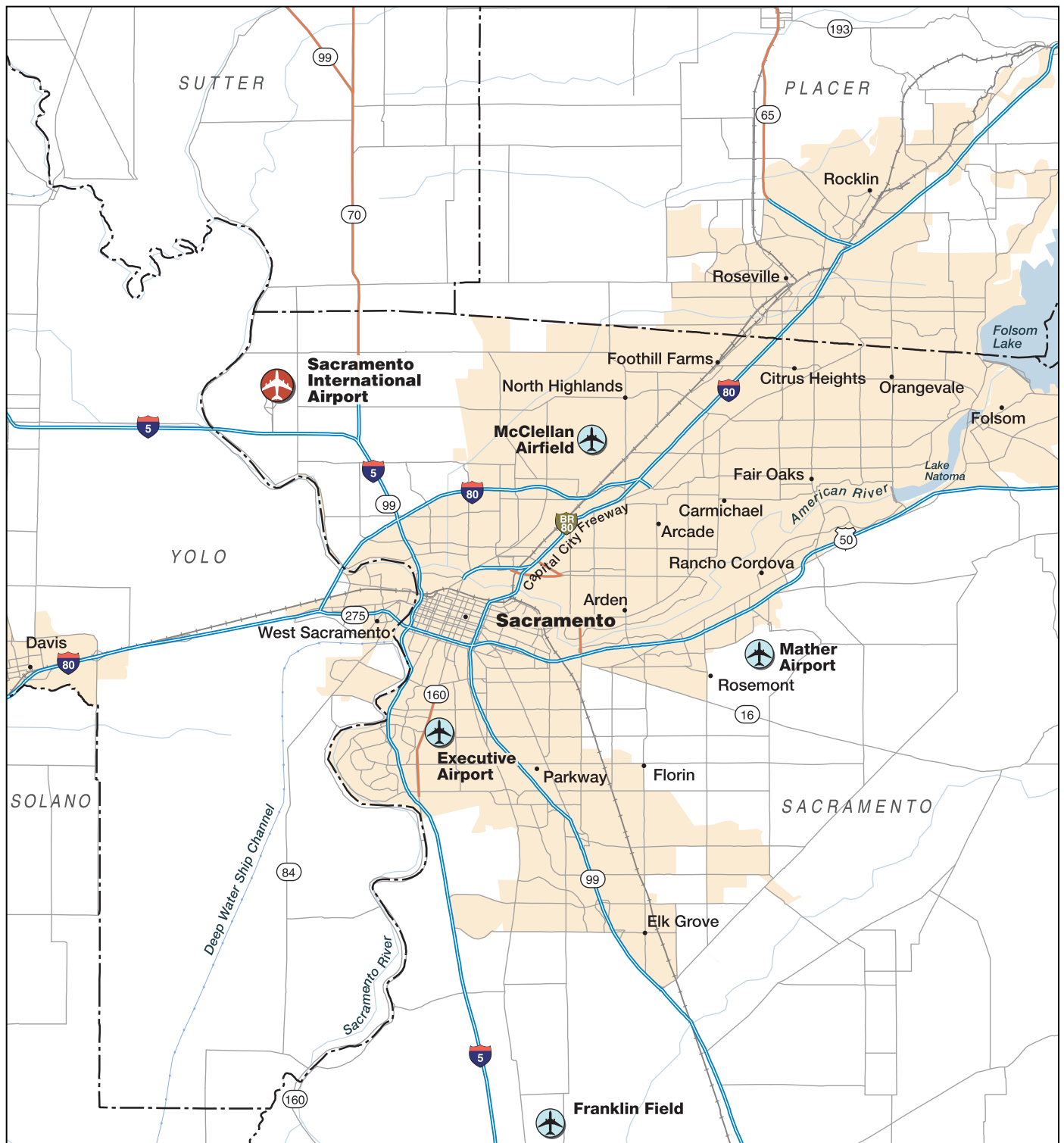
- Airfield and Airspace
- Passenger Terminal Complex
- Ground Access and Parking
- Air Cargo
- General Aviation (GA) and FAA Facilities
- Aviation Support
- Utilities

This chapter summarizes relevant background information, existing airport facilities and conditions, and provides the basis for assessing future facility requirements at the Airport. The information contained in this chapter is current as of the completion of this master plan update.

1.1.1 AIRPORT SETTING

As shown on Figure 1-1, the Airport is located in unincorporated Sacramento County, approximately 10 miles northwest of downtown Sacramento. In 2018, the U.S. Department of Commerce, Bureau of the Census, estimated the population of the Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area (the Sacramento MSA) to be 2.3 million. The population of the Sacramento MSA is highly concentrated in Sacramento County, where both the Airport and the City of Sacramento are located. The Sacramento MSA is the largest MSA in the Central Valley, and is the fifth largest MSA in California, after the Los Angeles-Long Beach-Anaheim MSA, the San Francisco-Oakland-Hayward MSA, the Riverside-San Bernardino-Ontario MSA, and the San Diego-Carlsbad-San Marcos MSA. The City of Sacramento has an estimated population of 500,000.

The Airport is classified in the National Plan of Integrated Airport Systems (NPIAS) as a Commercial Service Primary Airport, serving mostly origin-destination (O&D) passengers (i.e., passengers beginning or ending their air journeys in Sacramento), and some connecting passengers transferring from one flight to another. The Airport is further classified by the FAA as a medium-hub airport (medium-hub airports each accommodate at least 0.25% but less than 1.00% of the nation's annual enplaned passengers).



LEGEND

-  Passenger airline airport
-  Other airport
-  Urban areas
-  County boundary
-  Major highway
-  Other multilane highway

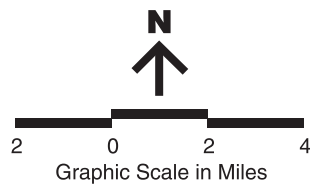


Figure 1-1
VICINITY MAP
 Master Plan Update
 Sacramento International Airport
 August 2019

According to 2017 data published by Airports Council International-North America (ACI-NA), SMF is the nation's 45th busiest airport in terms of passenger traffic and the 79th busiest in terms of total aircraft operations.

The following airlines currently serve the Airport: AeroMexico, Alaska Airlines, American Airlines, Air Canada, Boutique Air, Contour Airlines, Delta Air Lines, Frontier Airlines, Hawaiian Airlines, Horizon Air, JetBlue Airways, Spirit Airlines, Southwest Airlines, Sun Country Airlines, United Airlines, and Volaris.

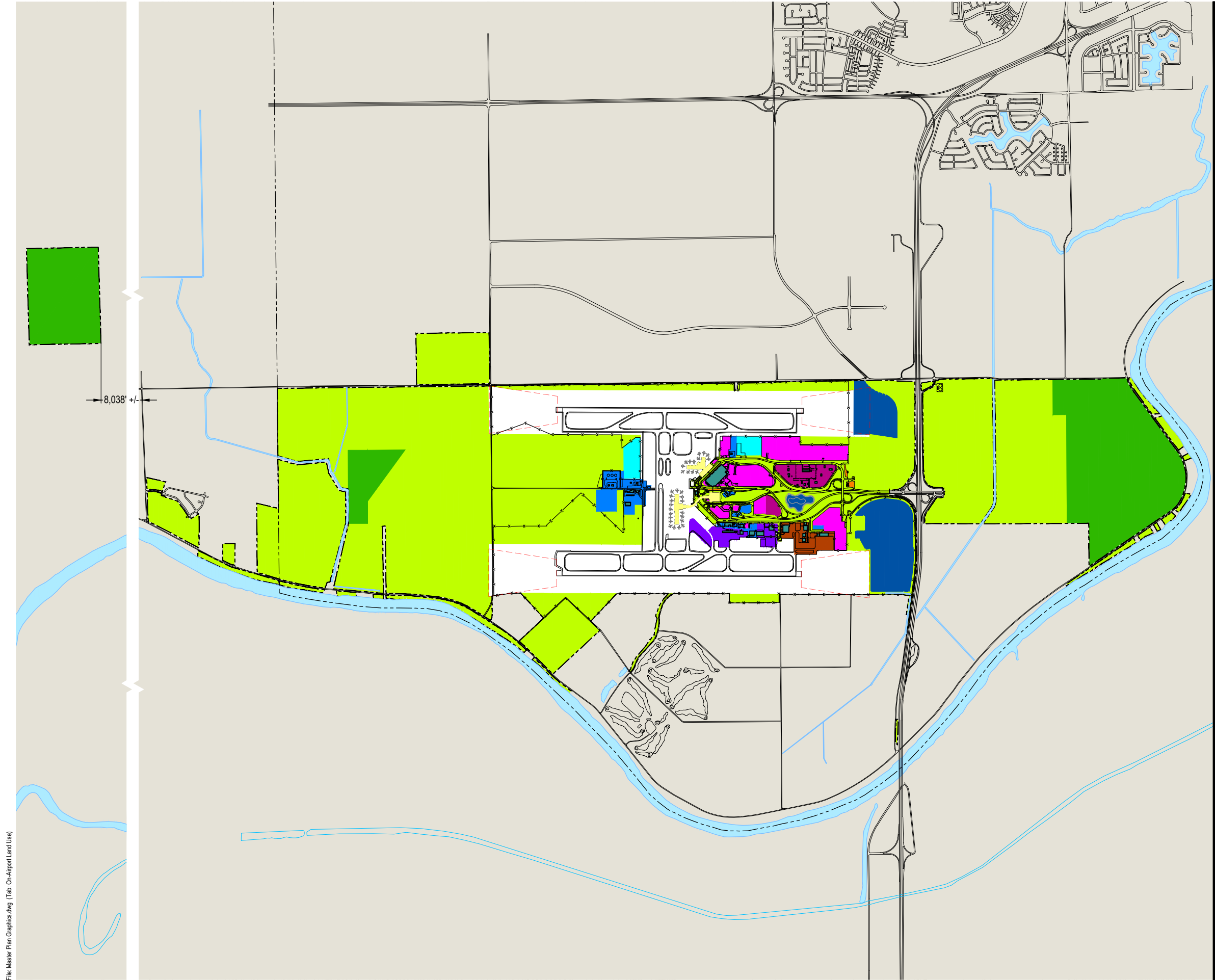
1.1.2 AIRPORT SITE

The Airport occupies an approximately 5,900-acre site that is generally bounded by Power Line Road to the east, Garden Highway to the west, the Sacramento River to the west and south, and West Riego Road to the north. Primary access to the Airport is provided via Interstate 5 (I-5).

Figures 1-2, 1-3, and 1-4 identify primary on-Airport land uses, key areas on the Airport site, and specific Airport facilities, respectively. The following are primary components of the Airport:

- **Airfield** – The airfield occupies approximately one quarter of the total Airport land area and consists of two runways (parallel Runways 16L-34R and 16R-34L) and associated taxiways, aprons, hold pads, and other safety-related protection zones.
- **Passenger Terminals** – Two passenger terminal buildings (Terminals A and B) and associated concourses provide 31 contact aircraft gates and passenger processing facilities that include ticketing, baggage claim, passenger and baggage security screening functions, and concessions.
- **Air Cargo** – Air cargo aprons and sort facilities serving FedEx, ABX Air, ATI, Atlas Air, and Westair Industries are located on the southwest side of the Airport.
- **General Aviation** – One fixed base operator (FBO), the Sacramento Jet Center (SACjet), is located on the southwest side of the terminal area and provides a range of services to general aviation and corporate users. The Cessna Citation Service Center, also located on the southwest side of the terminal area, offers specialized Citation aircraft maintenance and repair services.
- **Rental Car Facilities** – Rental car storage, customer processing, and ready/return facilities are in a consolidated location on the southeast side of the Airport, north of Crossfield Drive and east of Airport Boulevard. Customers are bused between the rental car facilities and the terminal buildings via SCDA-owned vehicles operated by the SCDA parking contractor.
- **Aviation Support Facilities** – Primary aviation support facilities include the jet fuel storage and dispensing facility ("fuel farm") located north of the terminal complex, FAA air traffic control (ATC) facilities, employee parking, aircraft rescue and firefighting (ARFF) facilities, and airfield maintenance and support facilities located throughout the Airport.
- **Parking Facilities** – Seven public parking facilities are located within the terminal area, accommodating both short- and long-term parking. The Airport also provides parking for Airport and tenant employees in eight parking facilities, also located within the terminal area.

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LEGEND

- Airport Property Line
- x-x- Airfield Fencing
- Buildings
- Off-Airport Property
- Airfield
- Passenger Terminal
- Parking
- Rent-A-Car
- Air Cargo
- Aviation Support
- Commercial
- General Aviation
- Strategic Reserve
- Airport Habitat Mitigation Area
- Stormwater Detention
- Energy Production

0 1800' 3600'
 GRAPHIC SCALE IN FEET

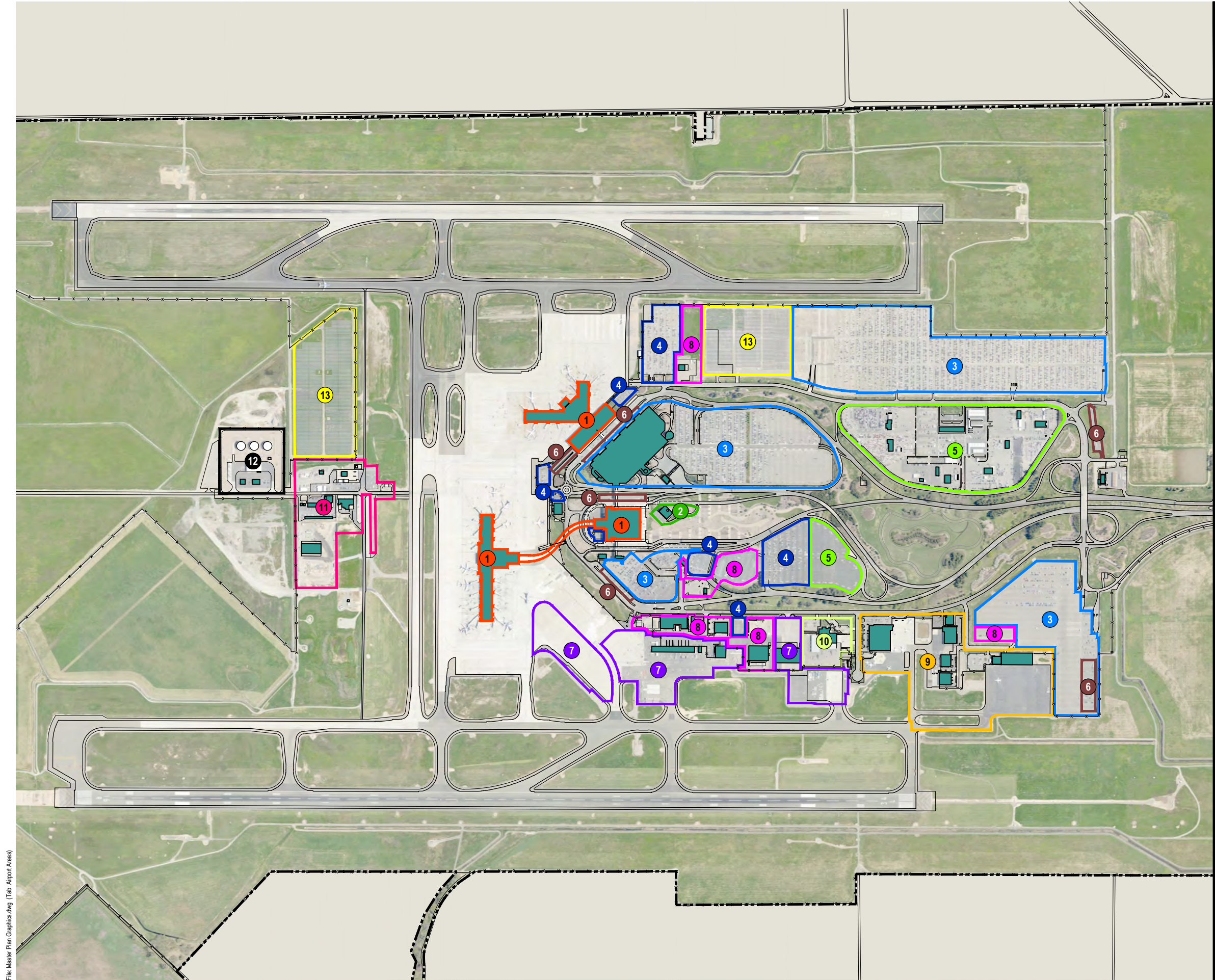
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FIGURE 1-2

ON-AIRPORT LAND USE

Sacramento International Airport Master Plan
August 2019

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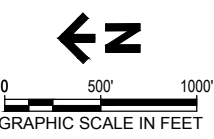


LEGEND

- Airport Property Line
- x-x- Airfield Fencing
- █ Buildings
- █ Off-Airport Property

KEY AIRPORT AREAS

- 1 Passenger Terminal / Concourse
- 2 Air Traffic Control Tower
- 3 Public Parking
- 4 Employee Parking
- 5 Rent-A-Car Facilities
- 6 Ground Transportation Sites
- 7 Air Cargo Facilities
- 8 Airport / Aviation Support Facilities
- 9 General Aviation
- 10 U.S. Postal Service
- 11 Airfield Maintenance and ARFF Facilities
- 12 Fuel Farm
- 13 Solar Array Fields



File: Master Plan Graphics.dwg (Tab: Airport Areas)

FIGURE 1-3
**KEY AREAS ON THE
 AIRPORT SITE**
 Sacramento International Airport Master Plan
 August 2019

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LEGEND

FACILITIES INDEX

1	Air Traffic Control Tower	--- Airport Property Line
2	Terminal A	--- Airfield Fencing
3	Terminal A - Concourse One	Buildings
4	Terminal A - Concourse Two	Off-Airport Property
5	Terminal B	
6	Concourse B	
7	Parking Garage	
8	Parking Toll Plaza A	
9	Parking Toll Plaza B	
10	Central Warehouse	
11	Air Cargo Building	
12	Trash Compactor Station	
13	West Electrical Vault	
14	CNG Fuel Facility	
15	Facility Management	
16	United Airlines Freight Building	
17	Airline Catering Building	
18	United States Post Office	
19	Cessna Citation Service Center	
20	Corporate Hangar	
21	Corporate Hangar	
22	Flight Inspection Field Office Hangar	
23	Flight Inspection Field Office	
24	FBO Office/Hangar	
25	ARCO Station	
26	Taxi Service Trailer	
27	Hertz Rent-A-Car Building	
28	Enterprise Rent-A-Car Building	
29	Enterprise Rent-A-Car Building	
30	Rental Car Terminal	
31	Enterprise Rent-A-Car Building	
32	Advantage Rent-A-Car Building	
33	Avis/Budget Rent-A-Car Building	
34	Avis/Budget Rent-A-Car Building	
35	East Electrical Vault	
36	Airport Operations Building	
37	Biffy Dump Station	
38	Aircraft Rescue and Firefighting (ARFF)	
39	Airport Beacon	
40	Airfield Maintenance Building	
41	North Electrical Vault	
42	Vehicle Fuel / Wash Facility	
43	Trailers (2)	
44	Testing Lab	
45	Electrician and Painters' Trailer	
46	Fuel Farm	
47	Airport Water Storage Tanks	
48	Solar Field Arrays	
49	Landscape Maintenance Buildings	
50	Cooling Tower	
51	Aeroterm Cargo Facility	

0 600' 1200'

GRAPHIC SCALE IN FEET

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FIGURE 1-4

AIRPORT FACILITIES

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1.1.3 AIRPORT ACCESS

Access to the Airport terminals and other Airport facilities south of Taxiway W is provided via I-5 and Airport Boulevard, with an alternate route provided via Bayou Way. Access to Airport facilities north of Taxiway W is provided via West Elverta Road and Earhart Drive. Information on ground access is provided in *Section 1.4*.

1.1.4 ON-AIRPORT LAND USE

On-Airport land use is depicted on Figure 1-2. The use and acreage of Airport land is presented in Table 1-1. The functional designations are defined as follows:

- Airfield – runways, taxiways, aprons, navigational aids, runway protection zones, and safety areas directly related to the movement of aircraft
- Passenger Terminal – passenger terminal/concourse buildings, ground support equipment (GSE) areas, and other landside facilities, including terminal curbside lanes
- Parking – public parking lots, public parking garage, and employee/tenant parking lots
- Rental Car – areas used by rental car facilities
- Air Cargo – areas dedicated to the movement, distribution, and delivery of cargo
- General Aviation (and FAA) – FBO, Specialized Aviation Service Operator (SASO), other GA aircraft service areas, hangars, aircraft parking aprons, and offices. FAA facilities refer to the FAA Flight Inspection Field Office (FIFO) on the Airport and in vicinity of the GA facilities
- Aviation Support – facilities associated with, but not part of, the passenger terminal facilities, including, airline catering, maintenance facilities, aircraft fuel storage, and employee parking areas
- Commercial – non-aviation-related properties leased to private entities for office, warehouse, and other business functions, and rental car facilities
- Strategic Reserve – areas owned by the Airport, including Airport buffer lands, defined as Airport Management Area on the Airport Layout Plan (ALP), or areas reserved for future Airport development
- Airport Habitat Mitigation Area (AHMAs) – areas reserved for habitat mitigation
- Stormwater detention – areas used to temporarily manage stormwater runoff to prevent flooding

Table 1-1: On-Airport Land Uses

Land Use Area	Acres	Percent of Total
Airfield	1,417.4	23.6%
Passenger Terminal	12.4	0.2%
Parking	138.1	2.3%
Rental Car	42.9	0.7%
Air Cargo	36.8	0.6%
General Aviation (and FAA)	36.9	0.6%
Aviation Support	67.6	1.1%
Commercial	3.7	0.1%
Strategic Reserve	3,248.2	54.1%
Habitat Mitigation Area	786.4	13.1%
Stormwater Detention	209.6	3.5%
Total	6,000	100.0%

Source: Sacramento County Department of Airports, 2019

1.1.5 ENVIRONMENTAL CONSIDERATIONS

An Environmental Impact Report (EIR) was completed in 2007 for the 2004 SMF Master Plan (adopted in 2007). An addendum to the EIR was completed in 2018 that reviewed proposed projects and projected growth at SMF over the near- and medium-term timeline of the Master Plan. Appendix A is a list of projects from that Addendum that have been completed, removed, or not changed since the completion of the 2004 Master Plan. Potential significant effects documented in the 2007 EIR included: impacts to land use plans and policies, traffic and circulation, air quality, hydrology, biological, and cultural resources.

Any further minor technical changes to the 2007 EIR, based on minor project modifications resulting from this master plan update, will be noted in a subsequent addendum.

When considering additional development at the Airport, several potential environmental constraints must be considered, as described below:

- **Wildlife habitats** – These are areas inhabited by a particular species of animal, plant, or other type of organism. Suitable habitats exist on Airport property for several species, including the Swainson’s hawk, the pond turtle, and the valley elderberry longhorn beetle. Development affecting habitat of sensitive species may require mitigation.
- **AHMAs** – These are areas on Airport property (depicted on Figure 1-2) that have been set aside to mitigate the impacts of previous Airport actions and development. The sites are off limits to future development pursuant to conservation easements, deed restrictions, and Mitigation Monitoring and Reporting Programs (MMRPs) adopted by the County Board of Supervisors pursuant to the California Environmental Quality Act (CEQA).
- **Waters of the U.S.** – This term refers to navigable waters and their tributaries, all interstate waters and their tributaries, and wetlands. Water features located on Airport property currently include Prichard Lake Reserve, Jacobs Slough, and several ditches under the jurisdiction of the U.S. Army Corps of Engineers (USACE). Sanford’s arrowhead is one of three special plants that grow in the wetland habitats, as identified by the 2007 EIR. They reside in standing or slow-moving freshwater ponds, marshes and ditches below 1,983 feet. If development is likely to affect wetlands or other waters of the U.S., consultation with the USACE, along with the necessary permits, may be required.
- **Floodplains** – Areas of low-lying ground adjacent to a river, floodplains consist primarily of river sediments and are subject to flooding. All Airport property is located within a Zone AE floodplain. Zone AE is defined by Federal Emergency Management Agency (FEMA) as an area that has a 1% probability of flooding annually and for which predicted flood water elevations above mean sea level have been established. An additional flood zone area surrounding the Reclamation District West Drainage Canal south of I-5 is separate from the status of the Sacramento River levees.
- **Stormwater detention basins** – These are designed to protect against flooding and downstream erosion by storing water for a limited period. As defined by the FAA, detention basins must completely drain within 48 hours after cessation of a rainstorm. Three stormwater detention basins located on Airport property are depicted on Figure 1-2. Development in those areas would require replacing the floodwater storage capacity eliminated by the development.

1.1.6 GEOPOLITICAL SETTING

The Airport represents a significant investment of both public and private funds and is a major regional economic asset. The following sections describe aspects of City and County urban planning initiatives that will affect development and operation of the Airport.

1.1.6.1 Regional Blueprint

The Sacramento Area Council of Governments (SACOG) Board of Directors adopted the Preferred Blueprint Scenario (Blueprint) in December, 2004. The Blueprint is part of SACOG's Metropolitan Transportation Plan/Sustainable Communities Strategy for 2035; the long-range transportation plan for the six-county region (El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties).

The Blueprint provides a vision for the region's growth through 2050, which promotes compact, mixed-use development and more transit choices as alternatives to low-density development. It provides a conceptual plan generally consistent with growth principles comprising transportation choices, mixed-use developments, compact development, housing choice and diversity, use of existing assets, quality design, and natural-resource conservation. It also serves as a framework for guiding local government in growth and transportation planning through 2050.

The Metropolitan Transportation Plan for 2035 links land use and transportation planning, with \$42 billion in transportation investments in the six-county Sacramento region over the next 23 years. With strategic investments in the current transportation system, growth in traffic congestion experienced by each household can be curtailed. Goals of the Blueprint plan are to create opportunities for residents of the region to spend less time in their cars, while protecting the region's air quality and improving quality of life.

The Airport serves its role in the Blueprint strategy as a component of transportation choices for the region. Ultimately, in the Blueprint plan, the Airport will be connected via the Regional Transit Green Line to the major residential population and employment centers located east of the Airport. Present master planning of facilities, as shown on the 2019 ALP, depict accommodation of the Green Line light rail and station at the Airport, with direct connection to passenger Terminal B.

The Airport under Blueprint land use is designated as Public/Quasi Public, with Open Space land use designated on the north, south, and west boundaries of the Airport.

The City of Sacramento 2035 General Plan was adopted in compliance with the requirements of California Government Code Section 65300 et seq. The General Plan is a legal document and many City actions and programs are required to be consistent with the General Plan. The 2035 General Plan's goals, policies, and implementation programs define a roadmap to achieving Sacramento's vision to be the most livable city in America.

SMF is located within the Natomas Joint Vision Study Area (NJVSA) of the General Plan. NJVSA is an unincorporated portion of Sacramento County that encompasses approximately 18,424 acres and is located north and west of the City of Sacramento.

The Airport is zoned a public utility and is generally surrounded by industrial, recreational, agricultural, and open space land uses.

1.1.6.2 Airport Land Use Commission

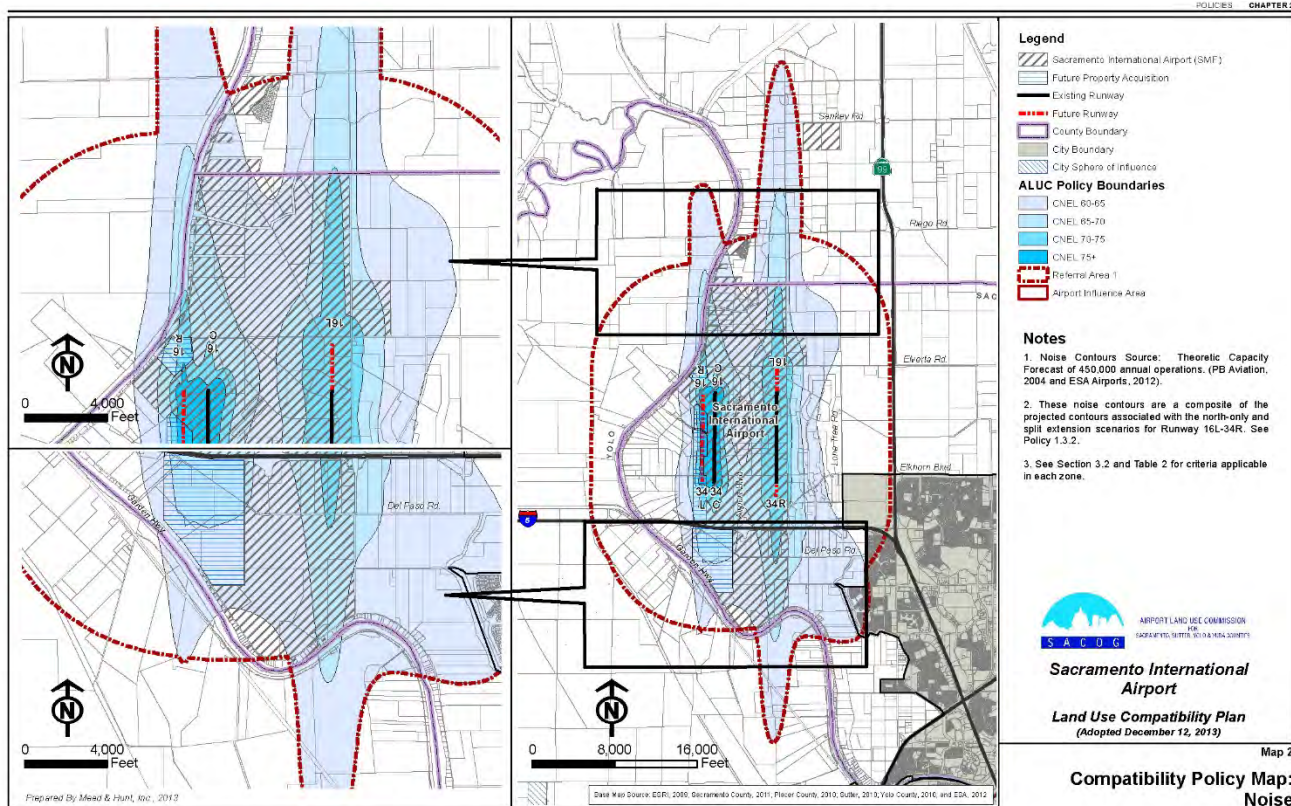
On December 12, 2013, the SACOG Board, serving as the Airport Land Use Commission (ALUC), adopted the Airport Land Use Compatibility Plan (ALUCP) for SMF and the corresponding Initial Study/Negative Declaration.

The SACOG Board of Directors serves as the ALUC for Sacramento, Sutter, Yolo and Yuba counties. California's State Aeronautics Act (Public Utilities Code, Chapter 4, Article 3.5), identifies the role and responsibilities of the ALUC in land use planning. The Act's ALUC requirements are intended to ensure that proposed land uses near public-use airports are compatible with airport uses in terms of safety, noise, and airspace.

Noise contours prepared for the ALUCP considered airfield configuration, fleet mix, and activity levels (Figure 1-5). The noise contours reflected a future airfield configuration that extended Runway 16L/34R in both a north-only and split extension scenario, plus a future parallel runway on the west side of the airfield. The noise contours also considered a theoretic capacity of 450,000 annual operations based on a full build-out of all airfield facilities.

These noise contours represent an airport buildout and airport activity levels that exceed those anticipated during this master plan update. Therefore, the current noise contours sufficiently account for the implementation of the master plan projects through the 20-year planning horizon.

Figure 1-5: ALUCP Noise Contours



Source: SMF ALUCP, 2013

1.1.6.3 Metro Air Park

Immediately to the east of the Airport is the Metro Air Park, an approximately 1,900-acre business park along I-5. Metro Air Park is roughly nine miles from downtown Sacramento and has been entitled and zoned as a mixed-use commercial/industrial business park with an adopted Special Planning Area, state and federal environmental permits, and an accompanying habitat conservation plan. Permitted uses include warehouse, light manufacturing, distribution, Airport-related research and development, corporate and professional offices, support services, automotive-related, retail, hotels, golf course, and open space areas. To the Airport, the park represents both a synergistic business development opportunity for aviation-related business development and a potential competitive challenge to its non-aviation commercial-property development. SCDA will closely monitor land use attributes such as open space, golf courses, and stormwater detention and retention features with the potential to attract wildlife, and will work closely with the Metro Air Park developers and tenants to ensure that those facilities and operations are compatible with airport operations.

1.1.7 SOCIOECONOMIC SETTING

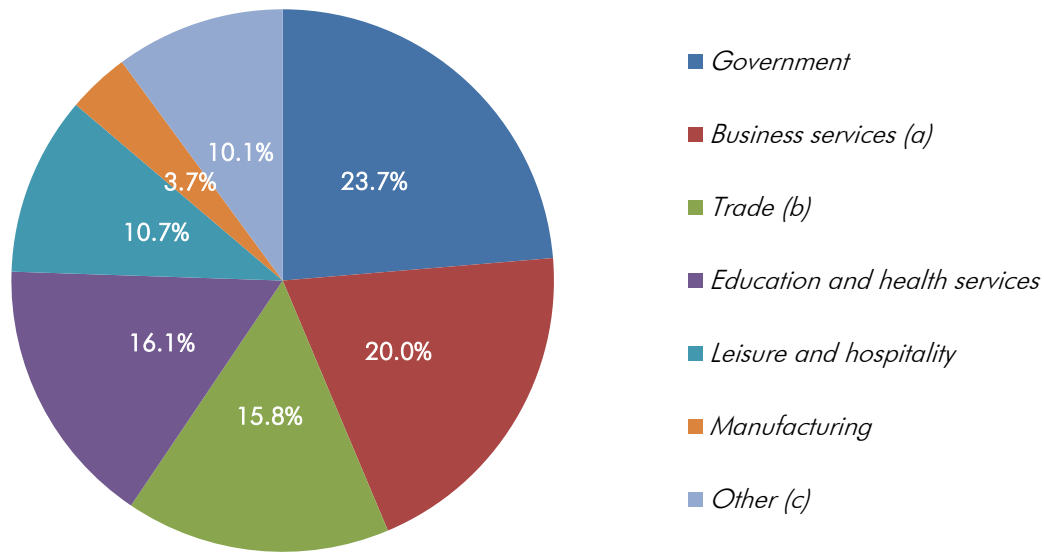
The economy of the Sacramento MSA is an important determinant of long-term passenger and cargo demand at the Airport and therefore, a basis for future facilities requirements and development plans. Generally, regions with large populations, high levels of employment, and high average per capita incomes will generate strong demand for air travel. The demographics and economy of the region—as measured by changes in population, employment, and per capita income—as well as airline service and airfares are typically the most important factors affecting O&D passenger demand. Approximately 95% of the Airport’s passengers are O&D passengers; the remaining 5% are connecting passengers.

The following two subsections summarize the socioeconomic basis for airline traffic at the Airport and the economic outlook for the United States, California, and the Sacramento Region. *Section 2 - Forecasts* provides additional analysis of socioeconomic trends and the economic outlook.

1.1.7.1 Socioeconomic Trends

- **Population** – From 2011 through 2019, population in the SACOG region increased an average of 1.2% per year, while population in the State and the nation increased an average of 0.8% per year. Population growth in the SACOG region is projected to increase an average of 1.1% per year between 2019 and 2035.
- **Employment** – From 2009 through 2019, nonagricultural employment in the Sacramento MSA increased an average of 1.7% per year, faster than in the State and the nation (average increases of 1.1% and 1.0% per year, respectively). Between 2014 and 2019, nonagricultural employment in the Airport service region increased each year, reflecting a recovery from the effects of the 2008-2009 economic recession, the financial credit crisis, and a slow economic recovery.
- **Income** – From 2008 through 2017, per capita personal income in the Sacramento MSA increased an average of 2.6% per year, slower than that in the State (an average increase of 3.2% per year) but consistent with the nation (an average increase of 2.6% per year). In 2017, median household income in the Sacramento MSA was \$67,902, less than that in the State (\$71,805), but more than the national average (\$60,336). Per capita personal income in the Sacramento Region is projected to increase an average of 1.4% per year between 2019 and 2035.
- **Unemployment Rate** – In addition to employment trends, the unemployment rate is also indicative of general economic conditions. Unemployment rates in the primary area of the Airport and in the State have exceeded the unemployment rate in the nation as a whole since 2009.
- **Nonagricultural Employment by Industry Sector** – Figure 1-6 shows the distribution of nonagricultural employment by industry sector for the Airport service region in 2018.

Figure 1-6 Nonagricultural Employment in the Sacramento MSA in 2018



(a) Includes professional and business services, finance, and information. (b) Includes wholesale and retail trade. (c) Includes mining, insurance, real estate, construction, transportation, and public utilities.

Source: U.S. Department of Labor, Bureau of Labor Statistics, www.bls.gov, accessed August 2019

- **Sacramento Industry Clusters** – Sacramento’s economy is driven by companies that export goods and services nationally and globally, bringing in new investment and jobs that support economic growth, as well as air service development. Companies in specific industry clusters tend to agglomerate because they draw competitive advantage from their proximity to competitors, a skilled workforce, specialized suppliers, and a shared base of sophisticated knowledge about their industries. The Center for Strategic Economic Research identified six industry clusters as part of the Next Economy Capital Region Prosperity Plan: agriculture and food, advanced manufacturing, information and communications technology, life sciences and health services, education and knowledge creation, and knowledge-intensive business and financial services. Based on previous research specific to the Sacramento Region, clean energy technology has been included as an industry cluster.
- **Sacramento Exports** – Foreign trade is important in establishing links to the global economy. In 2016, the Sacramento economy created \$7.0 billion in export activity. Computer and electronic product manufacturing (60%) and crop production (18%) together accounted for 77.8% of export value the Sacramento MSA. In 2016, the Sacramento MSA accounted for nearly 4.2% of total exports in the State.
- **Major Employers** –The State of California was the largest employer in the Sacramento Region in 2019, reflecting its role as the State capital. Education and health services together accounted for nearly half (12 of the 25) of the major employers, reflecting the importance of these industry sectors to the economy of the Sacramento Region.
- **Regional Housing Market** – Home prices in the Sacramento Region reached peak levels between 2004 and 2006 and began to decrease before the start of the economic recession in December 2007 to a peak loss of 36%. However, according to Sacramento Region real estate brokers and market analysts, home prices in the Sacramento Region have increased each month since June 2012, consistent with home prices in San Francisco. In general, the housing market in the Sacramento Region has been characterized by fewer foreclosures, less home inventory, and continuing interest in the Sacramento Region from investors, which together have led and continue to lead to increases in home prices. The

current economic recovery is tapering off and may soon be followed by another recession. The next construction boom will occur in the years following the recession.

- Tourism – Tourism represents an increasingly important source of economic activity in the Sacramento Region. According to the California Travel and Tourism Commission, visitor spending in the eight-county primary area of the Airport service region increased an average of 3.1% per year between 1992 and 2010 (the most recent data available), from \$3.0 billion to \$5.2 billion. In 2018, spending by international visitors traveling to the Sacramento MSA, according to a study conducted by CIC Research Inc. for Visit California, increased by 5.8%.¹

1.1.7.2 Economic Outlook

Economic activity in the Sacramento Region and the State is directly linked to the production of goods and services in the world and the rest of the United States. Both airline travel and the movement of cargo through the Airport depend on the economic linkages between and among the global, national, State, and regional economies.

- Global Economy – Globalization of the world economy has created linkages between national economies that relate not only to trade but also to airline travel. The Sacramento Region and the State have strong linkages to the global economy through a number of industry sectors and the world regions currently served by the airlines serving the Airport. Growth or contraction in the economies of the world regions most closely aligned with the Sacramento economy and airline service at the Airport will contribute to growth or contraction in passenger and cargo traffic at the Airport.
- U.S. Economy – The U.S. economy was recovering slowly, but on pace from the financial crisis and global recession of 2008. The consensus among economists is that downturns following financial crises tend to be more prolonged than other downturns. In addition, such recessions raise the level and duration of unemployment, reduce the number of hours that employees work, and dampen investment. The coronavirus pandemic, starting in early 2020, has created conditions for the start of another global recession. The University of California at Los Angeles (UCLA) Anderson Forecast has updated its forecast, noting that it is expected real GDP will decline in the second quarter of 2020 by 7.5% from the previous quarter (an annual rate of -30%), and decline by an additional 1.25% in the third quarter (an annual rate of -5%). This contraction will drive the official unemployment rate to a peak of around 13% in the fourth quarter, and total job loss to approximately 17 million. The economy is forecast to rebound by 1% in the fourth quarter (an annual rate of 4%). The rate of growth is expected to accelerate in early 2021; however, a recovery to an employment level equivalent to the last months of 2019 will not occur until late 2022.²
- California Economy – California was experiencing a strong economic recovery from the 2008 recession, with some sectors of the economy, such as technology and exports, reporting growth offset by a weaker real estate market and continued volatility in equity markets. Recent economic projections prepared by the UCLA Anderson Forecast, as a result of the coronavirus pandemic, expect that the state's unemployment rate will be higher than for the U.S., predicting that it will peak at more than 16% with 2.2 million jobs lost in the state. A sharp contraction in income and taxable sales will cause increased stress for state and local government at a time when the demands on them are increasing. As with the U.S., employment in California will not return to its previous peak levels until late 2022.
- Sacramento Region Economy – The Center for Continuing Study of the California Economy (CCSCE) develops growth projections for the six-county SACOG region. The CCSCE projects that job growth in the SACOG region will again begin to outpace national job growth in the coming decades. Despite slower growth in the short term, the CCSCE projects continued economic growth in the SACOG region

¹ Visit California is a nonprofit organization with a mission to develop and maintain marketing programs in partnership with the State's travel industry.

² <https://www.anderson.ucla.edu/centers/ucla-anderson-forecast/march-2020-economic-outlook>

in the long term, with the region expected to capture an increasing share of California jobs, particularly between 2020 and 2035.

The economic outlook for world regions, the United States, the State of California, and the Sacramento Region forms a basis for forecast growth in aviation demand at the Airport. Employment and income projections for the Sacramento Region and the State of California generally support gradual but continued growth, particularly in biotechnology and pharmaceuticals, health care services, education, and leisure and hospitality services. Factors expected to contribute to economic growth in the Sacramento Region and associated increases in air travel at the Airport include: (1) the diversity of the economic base, which lessens its vulnerability to weaknesses in particular industry sectors, (2) growth in existing and emerging Sacramento industry sectors, as described earlier, (3) an educated labor force able to support the development of knowledge-based and service industries, and (4) continued reinvestment to support the development of tourism, conventions, and other businesses.

Recessions, such as those caused by the financial crisis of 2008 and the coronavirus pandemic of 2020 are expected, and will continue to impact airport activity. Because airport development is tied to planning activity levels (PALs) and not specific forecast years, the impact of the coronavirus pandemic on development will be an approximate five to 10-year delay.

1.1.8 FINANCIAL SETTING

The Airport's revenues, operating expenses, and senior lien bond debt service coverage for the Airport enterprise fund is published annually on the Airport's website. An in-depth financial analysis of the preferred capital development program for the Airport is provided in *Section 5 – Proposed Development Plan*.

1.2 AIRFIELD AND AIRSPACE

This section presents an overview of airfield facilities, the airspace structure surrounding SMF, and ATC procedures at the Airport.

1.2.1 AIRFIELD

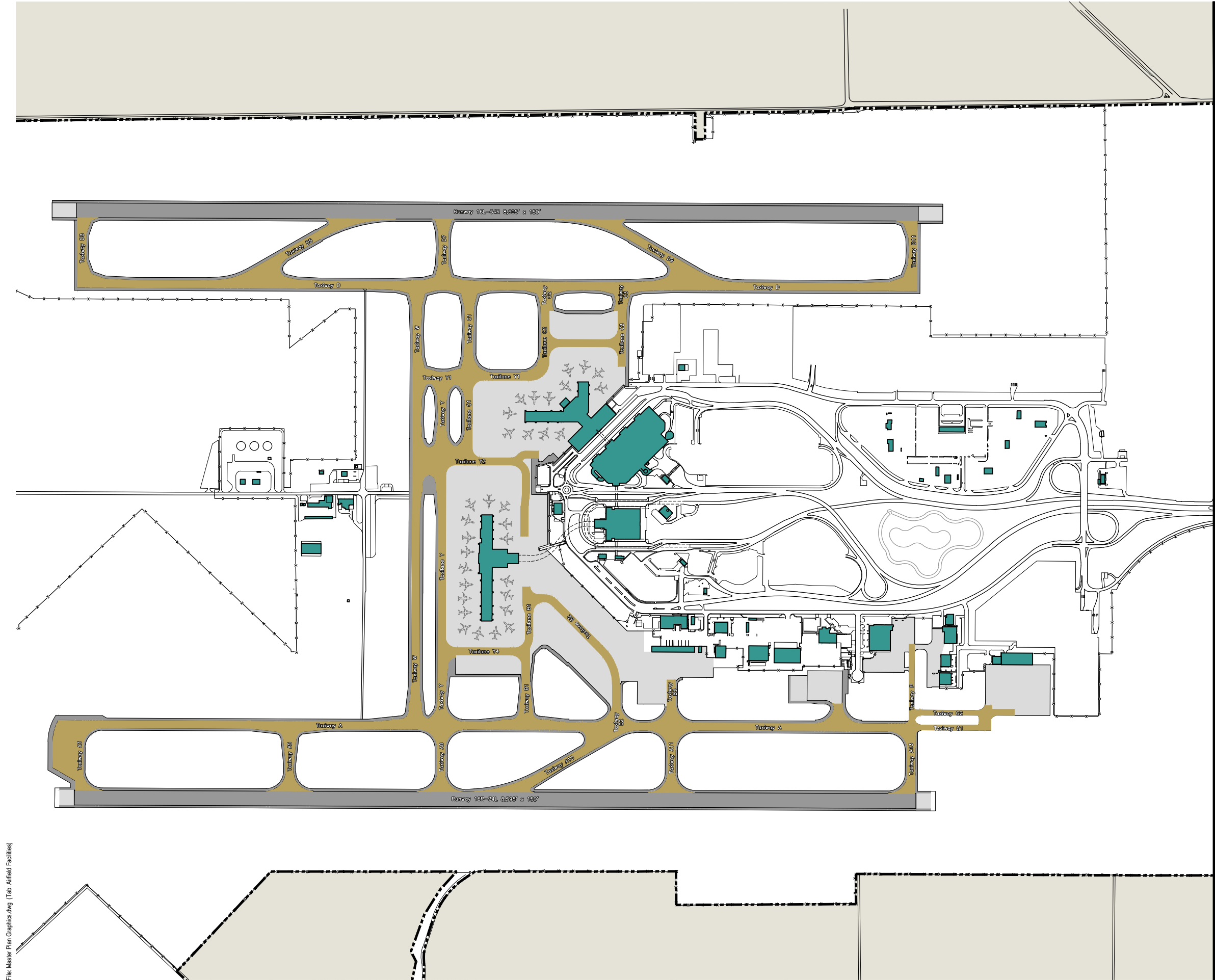
The airfield, depicted on Figure 1-7, consists of runways, taxiways, and apron areas, as well as lighting and navigational aids, as discussed below.

1.2.1.1 *Runways*

The Airport has two parallel runways, Runway 16L-34R and Runway 16R-34L, separated by 6,000 feet centerline to centerline. The characteristics of the runways, including their dimensions, lighting and navigational aids, and pavement strength, are summarized in Table 1-2.

The FAA uses three characteristics to designate the design criteria that apply to runways, referred to as the Runway Design Code (RDC). The first component of the RDC—indicated with a letter ranging from A to E—is the Aircraft Approach Category (AAC), which indicates the maximum approach speed of the aircraft that the runway can accommodate. The second part of an RDC—indicated with a roman numeral ranging from I to VI—denotes the Airplane Design Group (ADG), which indicates the maximum aircraft wingspan a runway can accommodate. The third component of the RDC—expressed by Runway Visual Range (RVR) values in feet—relates to the approach visibility minimums for runway use.

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LEGEND

- Airport Property Line
- x-x- Airfield Fencing
- █ Buildings
- █ Runway Pavement
- █ Taxiway / Taxilane Pavement
- █ Off-Airport Property

0 500' 1000'

 GRAPHIC SCALE IN FEET

File: Master Plan Graphics.dwg (Tab: Airfield Facilities)

FIGURE 1-7

AIRFIELD FACILITIES

Sacramento International Airport Master Plan
August 2019

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Table 1-2 Runway Characteristics

Runway	16L	34R	16R	34L
Runway pavement length (feet)	8,605	8,605	8,598	8,598
Runway pavement width (feet)	150	150	150	150
Effective gradient	0.06%	0.06%	0.03%	0.03%
Pavement type/friction	Concrete/ grooved	Concrete/ grooved	Concrete/ grooved	Concrete/ grooved
Runway end elevation (feet above mean sea level)	26.8	21.9	25.9	23.3
Runway markings	Precision	Nonprecision	Precision	Precision
Runway lighting	HIRL, CL, TDZ	HIRL, CL	HIRL, CL, TDZ	HIRL, CL
Approach aids	MALSR PAPI (P4L) LOC GS	PAPI (P4L)	ALSF-2 PAPI (P4R) LOC GS	MALSR VASI (V4L) LOC GS
Instrument runway status	Instrument	Nonprecision	Instrument	Instrument
Instrument approach procedures	ILS (SA Category II) RNAV (GPS)	RNAV (GPS)	ILS (Category I, II, III) RNAV (GPS)	ILS (Category I) RNAV (GPS)
Minimum approach decision height (feet above mean sea level)	100	292	0	200
Minimum approach visibility	1,200' RVR	7/8 mile	600' RVR	1,800' RVR
Pavement strength (pounds)				
Single gear	100,000	100,000	100,000	100,000
Dual gear	209,000	209,000	209,000	209,000
Dual tandem gear	407,000	407,000	407,000	407,000
Double dual tandem gear	850,000	850,000	850,000	850,000

ALSF-2	= High-intensity approach light system with centerline sequenced flashers
CL	= Centerline
GPS	= Global positioning system
GS	= Glide slope
HIRL	= High-intensity runway lights
ILS	= Instrument landing system
LOC	= Localizer
MALSR	= Medium-intensity approach light system with runway alignment indicator lights
N/A	= Not applicable
PAPI (P4L)	= Precision approach path indicator (four identical light units placed on left side of runway)
PAPI (P4R)	= Precision approach path indicator (four identical light units placed on right side of runway)
RNAV	= Area navigation
RVR	= Runway visual range
TDZ	= Touchdown zone
VASI (P=V4L)	= Visual approach slope indicator (four identical light units placed on left side of runway)

Sources: *Airport Layout Plan, Sacramento International Airport, 2019*
Federal Aviation Administration, Airport Master Record, 2019
Federal Aviation Administration, Digital Terminal Procedures Publication (Version 1212), December 2012

Table 1-3 summarizes the components of the RDC and design standards applicable to each runway.

Table 1-3: Runway Design Standards

	Runways	
	16L-34R	16R-34L
Runway Design Code	D-IV-2400	D-IV-1200
Approach Reference Code	D-V-2400	D-VI-1200
Departure Reference Code	D-V	D-VI
Maximum aircraft wingspan (feet)	213	261
Maximum aircraft approach speed (knots)	165	165
Approach visibility minimums	Lower than 3/4 mile (2400' RVR)	Lower than 1/4 mile (1200' RVR)
Standard runway width (feet)	150	150
Standard runway shoulder width (feet)	25	25
Standard runway to taxiway separation (feet)	400	400

Source: Federal Aviation Administration Advisory Circular 150/5300-13A, Airport Design, February 26, 2014

1.2.1.2 Taxiways

Figure 1-7 shows the locations of the taxiways that connect the runways with the aircraft parking areas. Each runway has a full-length parallel taxiway, Taxiway A for Runway 16R-34L and Taxiway D for Runway 16L-34R. Taxiways A3, A5, A8, A10, A11, and A13 connect Runway 16R-34L with Taxiway A. Taxiways D3, D5, D7, D9, and D11 connect Runway 16L-34R with Taxiway D. Taxiways W and Y are crossfield taxiways that connect Taxiways A and D. Taxiways A9, Y2, Y1, C1, C2, and C3 connect the passenger terminal area with Taxiways A, Y, and D. Taxiways G1, G2, and P connect Taxiway A with the general aviation ramp areas.

FAA criteria for taxiway width and taxiway shoulder width are defined in terms of the Taxiway Design Group (TDG), expressed in numerals 1 through 7, which is a function of aircraft undercarriage dimensions. The Airport regularly accommodates TDG 5 aircraft (e.g., B-767) and TDG 6 aircraft (e.g., MD-11).

Taxiway B1 is 85 feet wide, Taxiway Y1 is 160 feet wide, Taxiway Y2 is 275 feet wide, and Taxiways G1, G2, and Taxiway P are 50 feet wide. All other taxiways at the Airport are 75 feet wide. A taxiway width of 75 feet satisfies the dimensional requirement for accommodating TDG 5 or TDG 6 aircraft. However, the shoulder widths of Taxiways D and Y east of Taxiway Y2 lack the 30 feet required for TDG 5 aircraft and the 30 feet required for TDG 6 aircraft. Additionally, improvements to taxiway fillets are needed throughout the airfield to accommodate the MD-11 under requirements recommended in the recently revised FAA AC 150/5300-13A, Airport Design.

1.2.1.3 Airfield Facilities Restrictions

There are no modifications of design standards at the Airport. The following is a list of restrictions in place because of the physical limitations of the airfield.

- Because of their width and pavement strength, Taxiways G1 and G2 are limited to aircraft with a wingspan of 118 feet or less and a wheelbase of less than 60 feet.
- Taxiway Y4 is limited to aircraft with a wingspan less than 118 feet because of its proximity to Concourse B.

1.2.1.4 Apron Areas

As shown on Figure 1-7, the primary aircraft aprons at the Airport include the passenger terminal apron, the air cargo apron to the east of Taxiway A and south of the passenger terminal, and the general aviation apron southeast of the end of Runway 34L. The apron to the north of the general aviation apron, east of Taxiway A, is also used for air cargo.

1.2.2 NAVIGATIONAL AIDS

Navigational aids enable the Airport to accommodate air traffic, especially during periods of low cloud cover and reduced visibility. The navigational aids installed at the Airport enable aircraft to operate in most weather conditions. In addition to these navigational aids, an FAA Airport Traffic Control Tower (ATCT) is located south of the passenger terminal complex between the runways. The navigational aids and lighting systems that support aircraft operations at the Airport are listed in Table 1-2 and summarized below.

1.2.2.1 Precision Instrument Approaches

Precision instrument approach procedures to the Airport's runways allow continuous aircraft operations during periods of low visibility. A precision approach relies upon ground- or satellite-based navigational aids to provide pilots with definitive guidance on the horizontal and vertical position of the aircraft. Approaches available at the Airport include:

- Area Navigation (RNAV) – All runway ends have RNAV approaches that use predetermined waypoints and global positioning system (GPS) guidance to enable pilots to fly point-to-point until reaching the runway. RNAV approaches at the Airport allow pilots to descend to a minimum of 225 feet above the threshold elevation and 0.5 miles visibility before visual contact with the runway must be established (varies by runway end).
- Category I Instrument Landing System (ILS) – Runway ends at the Airport equipped with a Category I ILS allow aircraft approaches to a decision height of 200 feet above ground level (AGL) in a visibility minimum of 1,800 feet RVR.
- Special Authorization Category II ILS – Instrument approaches use the sophisticated technology of the aircraft and the information from the ILS to help the aircraft land with the use of an automated landing system. The special authorization approach can be used by operators granted approval to hand-fly the approach using a heads-up display (HUD). The SA CAT II approach on Runway 16L allows aircraft approaches to a decision height of 100 feet AGL in a visibility minimum of 1,200 feet RVR.
- Category III ILS – Runway 16R is equipped with a Category III ILS approach to enable pilots to land in even the most challenging visibility conditions. Execution of this approach requires aircraft to be equipped with specific avionics and pilots to receive additional training. Pilots flying the Category IIIb ILS approach are able to land with a zero-foot cloud ceiling and visibility as low as 600 feet RVR.

1.2.2.2 Approach and Runway Lighting

All runway ends except Runway 34R are equipped with approach lighting systems that assist pilots in visually recognizing the orientation and touchdown point of the runway during descent. As presented in Table 1-2, Runways 16L and 34L are equipped with medium-intensity approach light systems with runway alignment indicator lights (MALSR) to support Category I and SA Category II ILS approaches. Runway 16R is equipped with a more sophisticated high-intensity approach light system with sequenced flashing lights (ALSF-2) to allow Category II and III ILS approaches during extremely poor weather and visibility conditions.

In addition, all runways are equipped with centerline lights and high-intensity runway lights to display the edges of runway pavements during nighttime and low visibility conditions.

1.2.2.3 Approach Aids

Additional visual and instrument approach aids at the Airport include the following:

- Precision Approach Path Indicator (PAPI) – A PAPI that provides visual guidance to the pilot during aircraft descent, using red and white lights, is located beside the Runway 16R, 16L, and 34R ends.
- Visual Approach Slope Indicator (VASI) – A VASI that provides visual guidance during descent using red and white lights, is located beside the Runway 34L end.
- Very-high Frequency Omnidirectional Range/Tactical Air Navigation Facility (VORTAC) – The Sacramento VORTAC is located approximately 15 nautical miles south of the Airport and is used for both en route navigation and approach procedures.
- Rotating Beacon – A rotating beacon is located between the runways to the north of Taxiway W and northwest of the intersection of Cy Homer Road and Earhart Drive. The beacon flashes alternating green and white lights to help pilots locate the airfield during nighttime hours and during low cloud ceiling and visibility conditions.

1.2.2.4 Surface Detection

Airport Surface Detection Equipment, Model X (ASDE-X), is used to identify vehicles and aircraft movements on the airfield. This system uses surface radar and multi-lateration sensors to detect aircraft and surface vehicles on the airfield and displays position and identification information to the air traffic controllers in the ATCT. The ASDE-X radar antenna is located on top of the ATCT.

1.2.3 AIRFIELD OPERATIONS

The typical runway and taxiway uses at the Airport are summarized below. These uses and related operating procedures were confirmed in a meeting with SMF ATCT staff.

1.2.3.1 Runway Use

The direction of air traffic flow is largely dictated by prevailing wind and weather conditions, as well as noise abatement and airspace considerations. The two primary runway operational configurations at the Airport are north flow and south flow. North flow (i.e., departures and arrivals on Runways 34L and 34R) is the preferred configuration during periods of calm winds because of the Airport's voluntary noise abatement policy. However, the Airport is operated predominantly in a south flow configuration (i.e., departures and arrivals on Runways 16L and 16R) because of prevailing winds.

The FAA Aviation System Performance Metrics (ASPM) is a database with historical records on the occurrence of runway use configurations. The ASPM records for 2013 through 2018 were reviewed to determine historical runway use. Each distinct configuration was re-categorized more generally to either north flow or south flow. During this 5-year period, the Airport operated in south flow approximately 67% of the time and in north flow approximately 33% of the time.

1.2.3.2 Taxiway Use

Runway use dictates the use of the taxiway system. In general, the full-length parallel taxiways operate in the opposite direction of the runway configuration. For example, in north flow, Taxiways A and D operate mainly southbound, and in south flow, these taxiways operate mainly northbound. Taxiway Y is mainly used to transition aircraft between runways and aircraft parking positions. Most often, aircraft are assigned to the runway closest to their parking position.

There are three FAA-designated runway incursion hot spots on the airfield. The FAA identifies a "hot spot" as a location on the airport movement area with a risk of potential collision or unintentional entry onto a runway. Pilots are instructed to maintain heightened attention in areas designated as hot spots to ensure aircraft movements are properly coordinated with air traffic controllers. The first hot spot (HS 1) refers to portions of the

ramp not being visible to the ATCT. Aircraft departing the southeast Concourse B gates sometimes conflict with inbound aircraft. The second hot spot (HS 2) states that pilots should use caution at the intersection of Taxiway W and Taxiway Y at Y2. There is concentrated north/south ground vehicle traffic at these taxiway intersections. The last hot spot (HS 3) states that pilots taxiing south on Taxiway A sometimes miss the turn onto Taxiway A13 incurring weight and size restricted complications to Taxiway G1.

1.2.4 AIRSPACE AND AIR TRAFFIC CONTROL

The airspace and ATC procedures that affect aircraft operations are described in this section, along with descriptions of terminal routes and ATC jurisdictions. ATC procedures were confirmed with staff from the SMF ATCT and from the Northern California Terminal Radar Approach Control (TRACON). It should be noted that the airspace and ATC procedures are under the authority and discretion of FAA.

1.2.4.1 Air Traffic Control Jurisdictions

Sacramento area airspace is under the jurisdiction of two entities: (1) the Oakland Air Route Traffic Control Center (ARTCC) and (2) the Northern California Terminal Radar Control Facility (TRACON). The jurisdictions of these entities are described below.

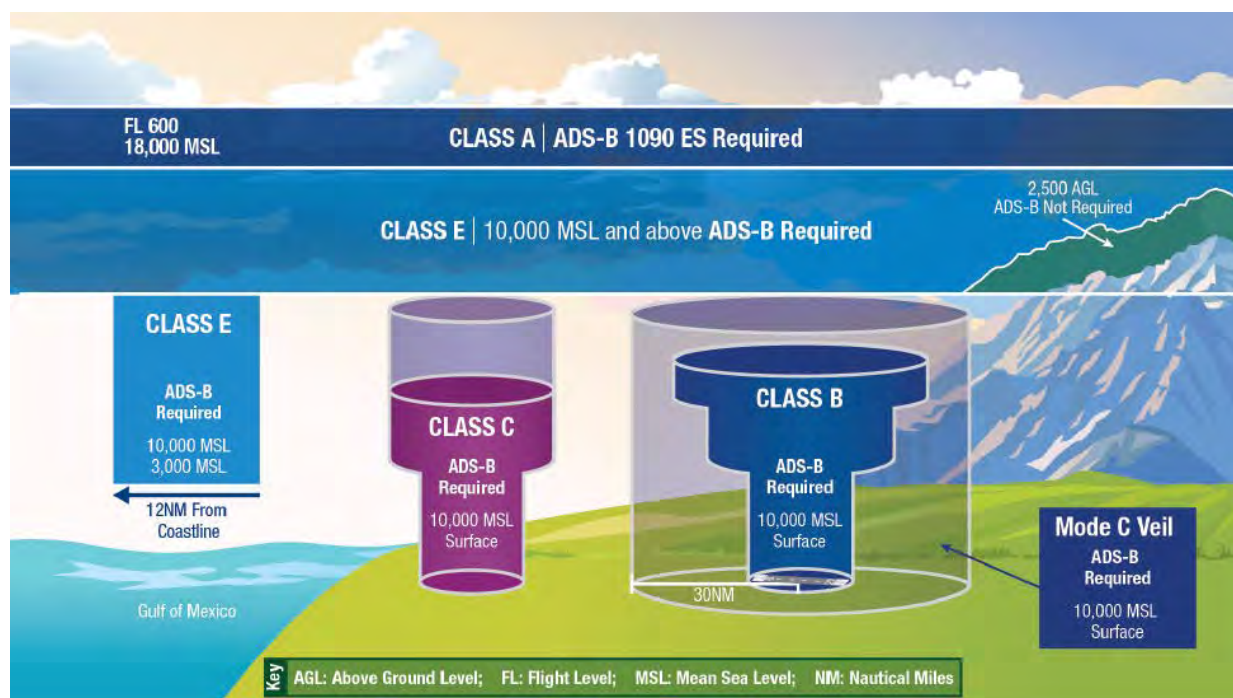
The airspace over the continental United States is divided into 20 geographically defined ATC jurisdictions based on ARTCCs. The primary purpose of an ARTCC is to provide radar service and other ATC services to en route aircraft (i.e., aircraft transitioning through the jurisdiction's airspace). The Oakland ARTCC (ZOA), or Oakland Center, that has jurisdiction over the Airport is located in Fremont, California.

The TRACON provides radar approach and departure control as well as other ATC services to aircraft flying in the terminal area airspace. The Oakland Center has delegated control over certain airspace in the Sacramento area to the Northern California (NorCal) TRACON, located in Mather, California. In radio communications, pilots refer to the NorCal TRACON as either NorCal approach control or NorCal departure control, depending on the phase of flight.

1.2.4.2 Controlled Airspace

Controlled airspace has defined dimensions within which ATC service is provided to pilots in accordance with the airspace classifications established by the FAA. As illustrated on Figure 1-8, the United States has five classes of controlled airspace. Class G airspace is uncontrolled.

Figure 1-8: Controlled Airspace Classifications



Source: FAA

Class C airspace surrounds the Airport (Figure 1-9). Class C airspace is generally airspace from the ground to 4,000 feet above the airport elevation surrounding airports that have both an operational ATCT and a certain number of instrument flight rule (IFR) operations or enplaned passengers. Control responsibilities within Class C airspace are typically assumed by either a TRACON or an ATCT. Although the configuration of each Airport's Class C airspace is individually defined by the FAA, the airspace usually consists of a first tier with a 5-nautical-mile radius and a second tier with a 10-nautical-mile radius that extends from 1,200 feet to 4,000 feet above the airport's elevation. Pilots must establish two-way communications with the facility providing ATC services prior to entering Class C airspace and must maintain these communications while within the airspace.

The inner portion of the Class C airspace circle surrounding SMF is irregular because of the Riego Flight Strip to the northeast, Rio Linda Airport to the east, and the former Natomas Airport to the southeast.

Several other airports and restricted areas affect the use of airspace surrounding the Airport. Southwest of the Airport, Alert Area A-682 surrounds Travis Air Force Base. Civil air traffic in this area is allowed, but pilots are advised to remain "particularly alert" during hours of military flight activities. McClellan Airfield is located approximately 9 nautical miles east of the Airport, MHR is located approximately 16 nautical miles southeast of the Airport, and SAC is located approximately 12 nautical miles south of the Airport. Air traffic for MHR and SAC south of SMF interacts with the traffic pattern for the Airport while operating in north flow, particularly approaches to Runways 34L and 34R. Consequently, south flow is a more operationally efficient option from an airspace perspective.

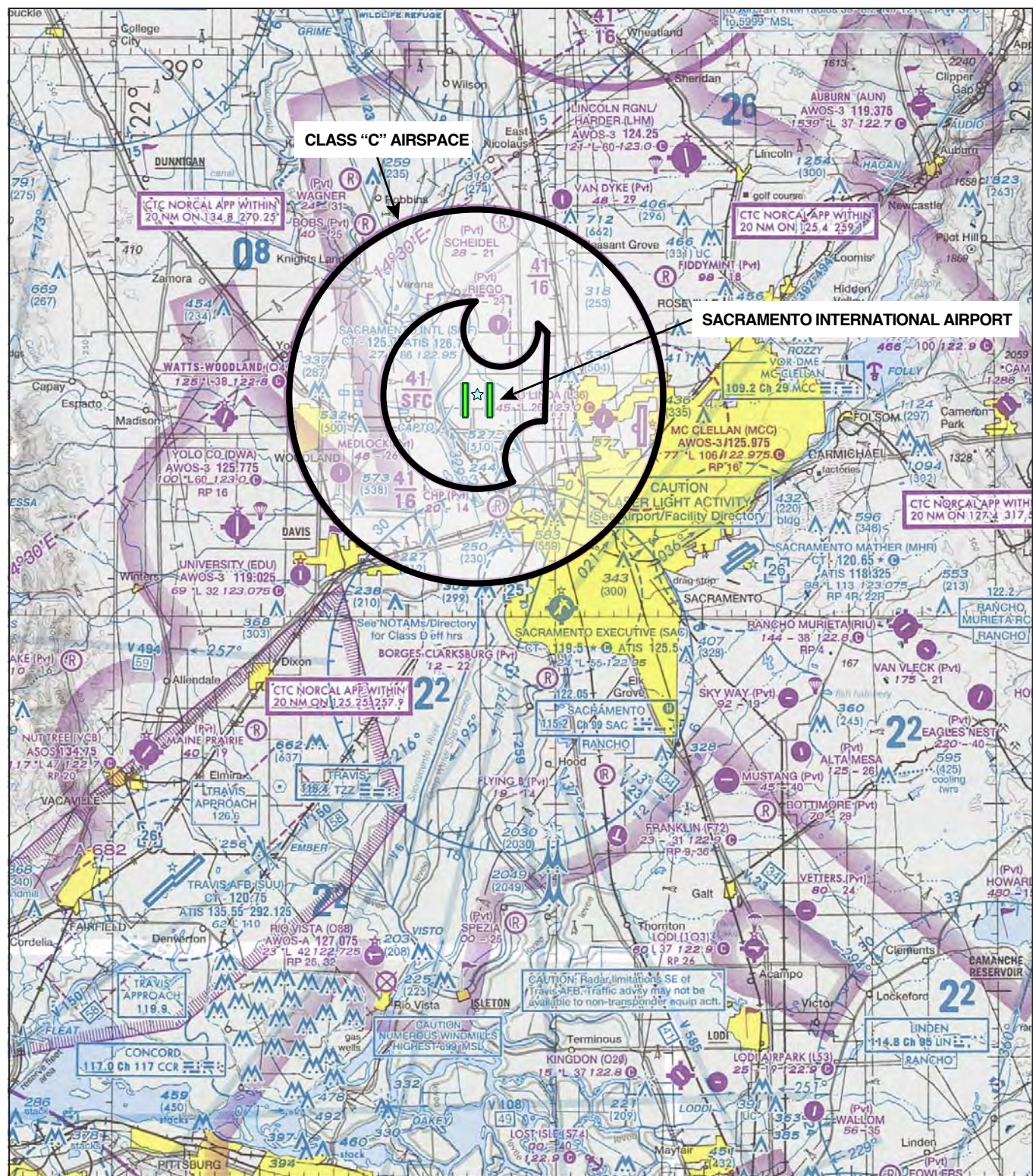
1.2.4.3 Optimization of Airspace and Procedures in the Northern California Metroplex

The FAA Optimization of Airspace and Procedures in the Metroplex (OAPM) initiative was completed at 21 metroplexes across the country with the goal of improving airspace procedures and developing opportunities to relieve existing constraints and operational challenges between and among airports. SMF was included in the Northern California Metroplex study area, along with a number of other airports, including San Francisco, Oakland, and San Jose international airports. The FAA study team focused on optimizing aircraft routes and the supporting airspace management structure for aircraft arrival and departure procedures in the Northern California Metroplex.

1.2.4.4 Airport Traffic Control Tower

The SMF ATCT provides ATC services to aircraft at, and in the immediate vicinity of, the Airport, ensuring the safe, orderly, and expeditious flow of traffic. Controllers are responsible for separating aircraft on the ground and in the traffic pattern, giving arrival and departure clearance to aircraft, and providing weather information to pilots. The ATCT at the Airport is located immediately south of Terminal B and west of Terminal A, between the runways. The ATCT was built in 1967 and stands 175 feet AGL.

According to the FAA's schedule for tower replacements, a new ATCT is to be constructed. A siting study, completed in 2009, recommended a new ATCT location site on the north side of the Airport. The location is nearly centered between the two runways and northwest of the intersection of Cy Homer Road and Earhart Drive. The structure height is proposed to be 180 feet AGL. Design of the facility was under way as of the latter part of 2012. Construction of the ATCT is delayed until federal funding is received.



Source: Federal Aviation Administration.

Figure 1-9
SACRAMENTO TERMINAL AREA AIRSPACE
Master Plan Update
Sacramento International Airport
August 2019

1.3 PASSENGER TERMINAL COMPLEX

The Airport passenger terminal complex is located between Runways 16R-34L and 16L-34R, south of crossfield Taxiway Y. The passenger terminal complex is defined as the two terminal buildings and associated concourses, which provide slightly more than 1,000,000 square feet of space. Terminal A consists of a single building, a terminal with a two-pier, airside concourse. Terminal B consists of two buildings—a landside terminal and a separate airside concourse connected by an automated people mover (APM) train. Facilities within the passenger terminal complex accommodate 16 airlines and their regional affiliates: Air Canada, American Airlines, Delta Air Lines, and United Airlines in Terminal A; Aeromexico, Alaska Airlines, Boutique Air, Contour Airlines, Frontier Airlines, Hawaiian Airlines, Horizon Air, JetBlue Airways, Southwest Airlines, Spirit Airlines, Sun Country Airlines, and Volaris in Terminal B. Aircraft parking positions and gates are shown on Figure 1-10.

This section describes the passenger terminal complex, focusing on the terminal buildings and concourses and terminal apron. Utility systems within the passenger terminals are discussed in *Section 1.8*.

1.3.1 PASSENGER TERMINALS

When originally constructed in 1998, Terminal A provided 12 aircraft gates (also referred to as contact gates). Subsequently, an additional gate was added, but has since been taken off line. The Airport is in process of re-activating this 13th gate.

Each gate has a passenger loading bridge (PLB), which provides direct contact between the aircraft and the terminal. These gates are often referred to as contact gates. Recent renovations to Terminal A include improvements to the ticket counter area, food court, gate area, a passenger lounge, and passenger meet and greet locations, as well as construction of checked baggage screening and conveyor facilities, and an expanded security checkpoint with modern finishes.

Terminal B opened in late 2011 as part of “The Big Build” and provides 19 contact gates. A passenger lounge was recently added to the Concourse B concession area. The two Terminal B buildings (airside and landside) are connected by an APM system. Landside Terminal B can be expanded to the south to provide additional landside facilities. The Terminal B structure is architecturally significant, with multistory curtainwalls, and curving architectural roof and ceiling forms constructed with bold materials.

The following subsections describe the functional elements of the two passenger terminals. The gross areas provided in the terminal buildings (and the concourses), calculated by level, are presented in Table 1-4.

Table 1-4: Passenger Terminal Building Gross Area (square feet)

	Basement	1st Level	2nd Level	3rd Level	4th Level	Total
Terminal Buildings						
Terminal A and Concourse	5,893	176,234	155,857	--	--	337,984
Terminal B and Concourse	126,583	253,459	271,632	53,133	19,038	723,845
Total	132,476	429,693	427,489	53,133	19,038	1,061,829

Source: Sacramento County Department of Airports, 2019

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File: Master Plan Graphics.dwg (Tab: Gates and RON)



LEGEND

- Airport Property Line
- x- Airfield Fencing
- Buildings
- De-icing Locations
- Passenger Boarding Gates
- Air Cargo Gates
- ADG-III RON Positions
- Gate A13 at Terminal A will be added back to the Terminal in 2021 as part of the jet bridge replacement program; all equipment paid for. It is shown as a blank gate due to not being in service during the publication of this document.

- PARKING FACILITY INDEX**
- ① Terminal A - 12 Gates
 - ② Terminal A East RON - 4 Positions
 - ③ Terminal A North RON - 3 Positions
 - ④ Concourse B - 19 Gates
 - ⑤ Concourse B Southeast RON - 3 Positions
 - ⑥ Concourse B West RON - 4 Positions
 - ⑦ Concourse B Southwest RON - 6 Positions
 - ⑧ Air Cargo North - 4 Gates
 - ⑨ Air Cargo South - 3 Gates
 - ⑩ Air Cargo Feeder Ramp - 9 Positions

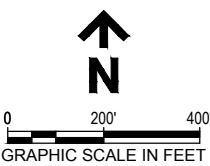


FIGURE 1-10

AIRCRAFT PARKING POSITIONS AND GATES

Sacramento International Airport Master Plan
August 2019

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1.3.2 AIRCRAFT PARKING APRON

Approximately 108 acres of apron are available for aircraft maneuvering and parking at the passenger terminals. The apron is currently configured to accommodate aircraft ranging from small turboprop aircraft to large wide body aircraft during normal operations. There are currently 31 contact gates and 20 RON parking positions. Gate A13 in Terminal A is currently unavailable due to a jet bridge issue. The largest aircraft that can be accommodated at each parking position is identified in Tables 1-5 and 1-6, for Concourse A and Concourse B, respectively.

Figure 1-10 shows the locations of contact gates, as well as RON positions at, or adjacent to, Terminal A and Concourse B. In the past, up to four RON aircraft were parked on Taxiway C1.

Presently, all passenger loading and unloading occurs at the contact or ground loaded gates at the terminals. Gates A5, A17, B8, and B10 are all equipped with the ability to convey passengers to the apron, where they can board buses and be transported to aircraft parked at remote locations; however, none of these gates are used in this manner as of summer 2019.

Aircraft deicing occurs at 12 designated deicing pads adjacent to Terminal A and Concourse B, where deicing fluid can be captured and prevented from entering the stormwater drainage system. The designated deicing pads are also shown on Figure 1-10.

Table 1-5: Summary of Concourse A Passenger Gates

Gate	Assignment (a)	Gate type	Largest aircraft
A1	Delta	Bridge	B752-200W
A2	American	Bridge	B752-200W
A3	Delta	Bridge	B767-300
A4	American	Bridge	B767-300
A5	American	Bridge/Ground	B767-300ER
A6-A9	NUMBERS RESERVED FOR FUTURE USE		
A10	Delta	Bridge	B737 MAX10 / A321
A11	(b)	Bridge	B752-200W
A12	Delta	Bridge	B737 MAX10 / A321
A13	(b)	Bridge	B737 MAX10 / A321
A14	United	Bridge	B737 MAX10 / A321
A15	United	Bridge	B767-300W
A16	United	Bridge	B737 MAX10 / A321
A17	United	Bridge/Ground	B777-200ER

Note: Gate 13 currently unavailable

(a) Gates are not exclusive use, but are preferentially used by the airlines indicated and their regional affiliates.

(b) Unassigned common use.

Source: Sacramento County Department of Airports, 2019

Table 1-6: Summary of Concourse B Passenger Gates

Gate	Assignment (a)	Gate type	Largest aircraft
B1-B3	NUMBERS RESERVED FOR FUTURE USE		
B4	(b)	Bridge	A330-200
B5	Alaska	Bridge/Ground	B777-300ER
B6	(b)	Bridge	B737 MAX10 / A321
B7	Alaska	Bridge	B737 MAX10 / A321
B8	(b)(c)	Bridge/Ground	B787-8
B9	Alaska	Bridge	B737 MAX10 / A321
B10	(b)(c)	Bridge/Ground	B737 MAX10 / A321
B11	Spirit	Bridge	B737 MAX10 / A321
B12	Southwest	Bridge	B737 MAX 9
B14	Southwest	Bridge	B737 MAX10 / A321
B15	Southwest	Bridge	B737 MAX10 / A321
B16	Southwest	Bridge	B737 MAX 8
B17	Southwest	Bridge	B737 MAX10 / A321
B18	Southwest	Bridge	B737 MAX 9
B19	Southwest	Bridge	B737 MAX10 / A321
B20	Southwest	Bridge	B737 MAX 8
B21	Southwest	Bridge	B737 MAX 9
B22	(b)	Bridge	B737 MAX 8
B23	Southwest	Bridge	B737 MAX 8

(a) Gates are not exclusive use, but are preferentially used by the airlines indicated and their regional affiliates.

(b) Unassigned common use.

(c) International gate.

Source: Sacramento County Department of Airports, 2019

1.3.3 TERMINAL A

Terminal A provides 337,984 square feet of space on three levels, including a basement. A six-level parking garage connects to the second level of the terminal building via a pedestrian bridge (Level 3 of the garage). Access between the garage and Terminal A is also provided at ground level via pedestrian walkways. The garage also serves Terminal B.

SCDA administration space and mechanical, electrical, and plumbing systems are provided throughout Terminal A. The allocation of space among the various functions is presented in Table 1-7. The locations of the spaces on Levels 00 (basement), 01 (ground), and 02 (second level), are shown on Figures 1-11, 1-12, and 1-13, respectively. Space categories for airlines, concessions, customs and border protection (CBP), and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

Level 01 of the terminal contains the passenger baggage claim devices and the baggage handling and sorting areas used by airline personnel. Additionally, airline office spaces, ground transportation, SCDA building maintenance office space, and storage and mechanical spaces are provided on Level 01. This level also contains ticket counter check-in positions, electronic kiosks for passenger check-in, airline office space, and Transportation Security Administration (TSA) checked baggage screening facilities.

Level 02 contains the TSA passenger security screening checkpoint (SSCP), several concession spaces, SCDA offices, and building mechanical rooms.

Table 1-7: Terminal/Concourse A Space Allocation (square feet)

Space Category	Total
Airline space (a)	43,417
Airport administration	25,522
Baggage claim	23,766
Baggage handling (b)	1,656
Concessions	47,379
Open/vacant	49,497
Other	45,236
Public space	82,852
Security screening (c)	18,659
Total	337,984

Note: Calculations are based on gross areas measured to the outside edge of exterior walls and the center of interior walls.

(a) Includes ticket counters, outbound baggage devices, and holdrooms.

(b) Includes inbound and outbound baggage processing area, but not baggage claim or makeup devices.

(c) Includes TSA leased space within the terminal building.

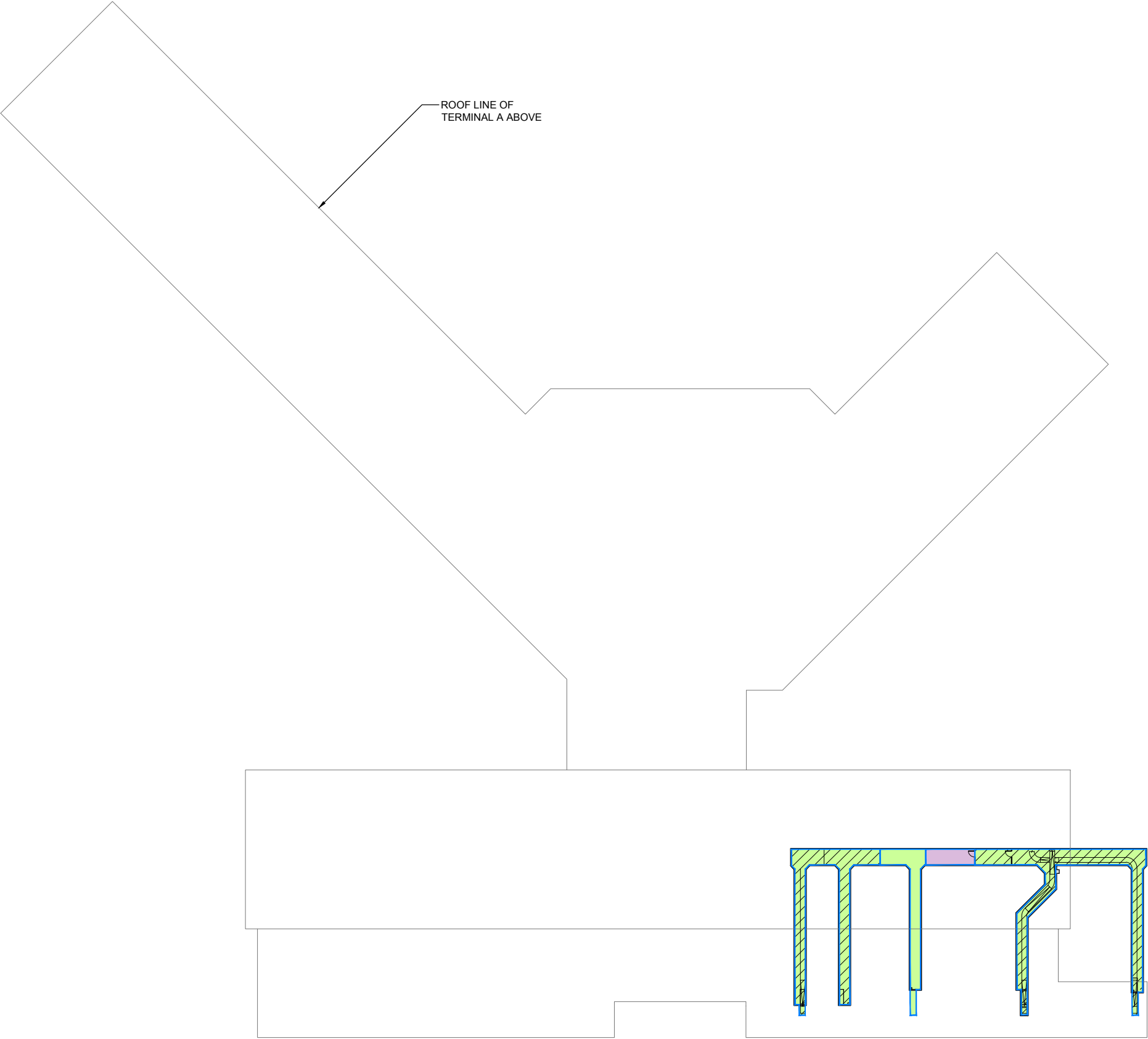
Source: Sacramento County Department of Airports, 2019

1.3.3.1 Terminal A Baggage System

Baggage claim facilities are located on Level 01 of the terminal building. Three, 165-linear-foot claim devices and two, 20-linear-foot oversized baggage slides are located in Terminal A for use by Delta Air Lines, United Airlines, and American Airlines. Each airline maintains a baggage resolution office on the southeast side of the baggage claim area.

Inbound baggage is manually transferred from carts to conveyor belt systems that transport bags to the claim devices. Outbound baggage (i.e., baggage entering the system at the ticketing facilities) is located on Levels 00 and 01 and bags are transported via conveyor belts onto baggage carousels or linear piers, around which carts are staged. Baggage is manually loaded into the carts after screening by TSA personnel, and then transported to the appropriate aircraft. All airlines have access to an automated “in line” system for Explosive Detection System (EDS) baggage screening.

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LEGEND

Tenant Boundary

SPACE CATEGORY

- Airline Space
- Airport Administration
- Baggage Claim
- Baggage Handling
- Concessions
- Customs and Border Protection
- Open/Vacant
- Other
- Public Space
- Security Screening
- Utility Space

Space categories for airlines, concessions, CBP, and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

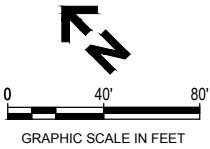


FIGURE 1-11

SPACE ALLOCATION

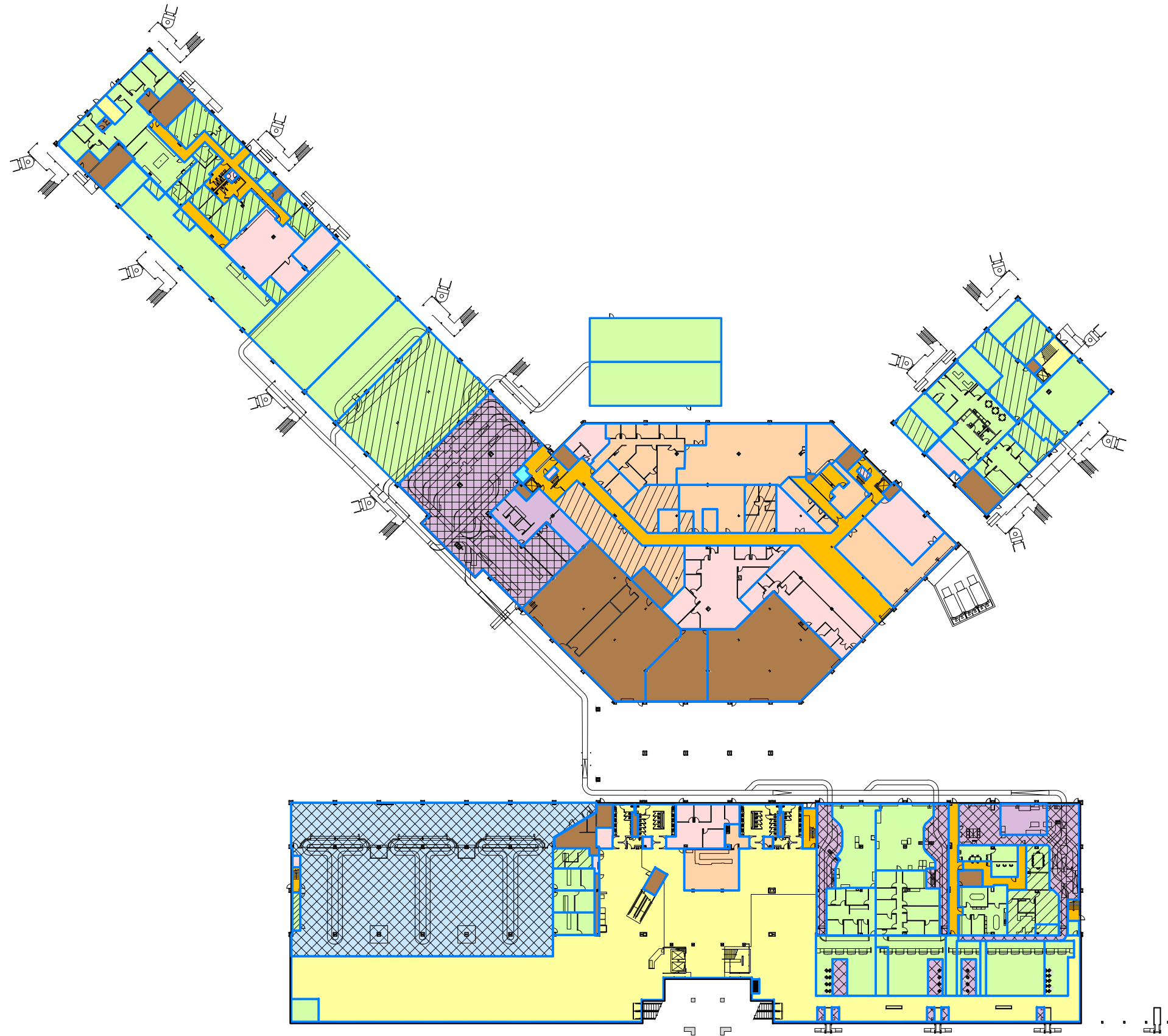
TERMINAL A-CONCOURSE A

LEVEL 00

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LEGEND

Tenant Boundary

SPACE CATEGORY

Airline Space

Airport Administration

Baggage Claim

Baggage Handling

Concessions

Customs and Border Protection

Open/Vacant

Other

Public Space

Security Screening

Utility Space

Space categories for airlines, concessions, CBP, and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

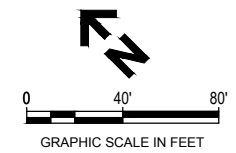
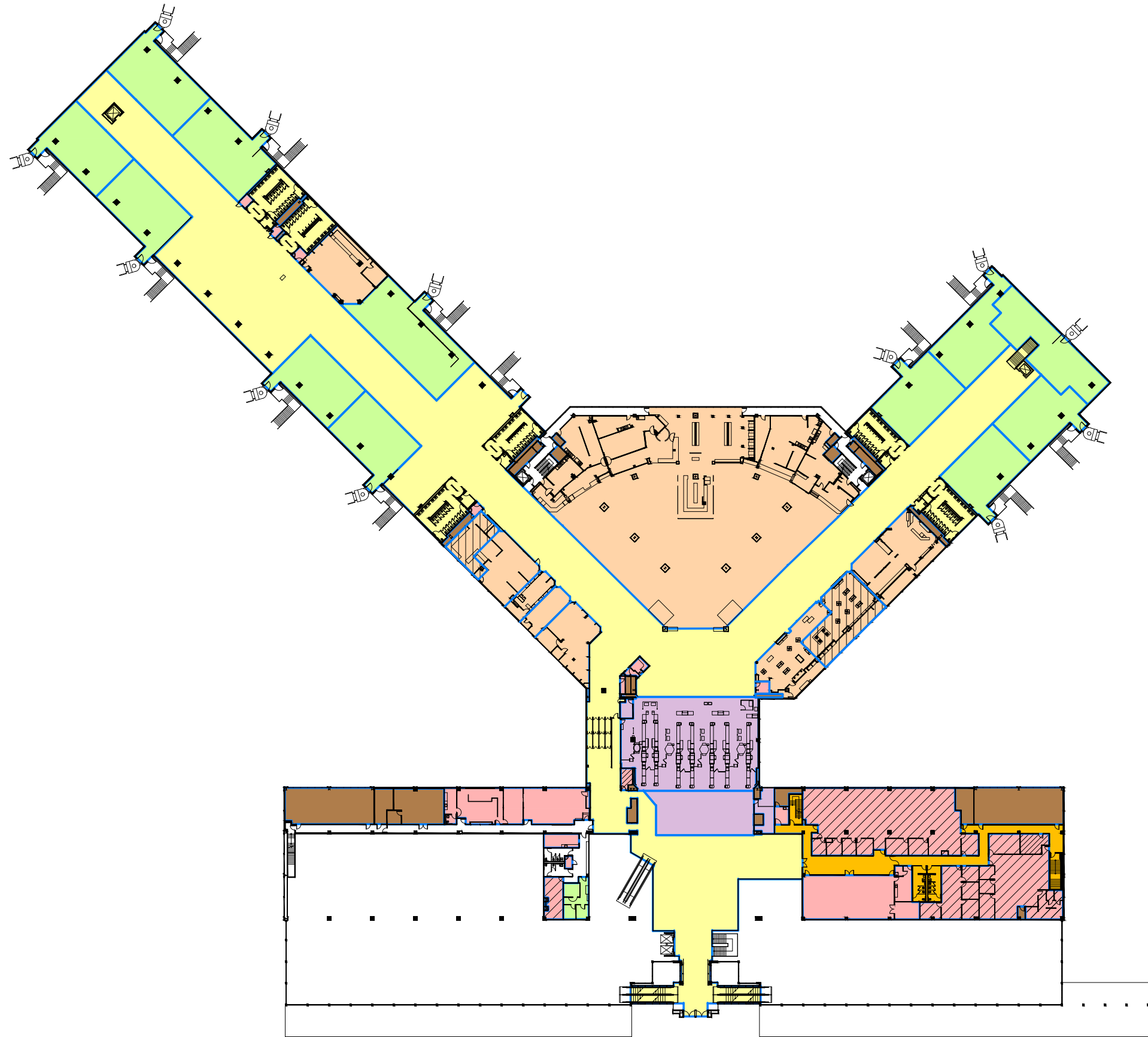


FIGURE 1-12
SPACE ALLOCATION
TERMINAL A-CONCOURSE A
LEVEL 01
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LEGEND

Tenant Boundary

SPACE CATEGORY

Airline Space

Airport Administration

Baggage Claim

Baggage Handling

Concessions

Customs and Border Protection

Open/Vacant

Other

Public Space

Security Screening

Utility Space

Space categories for airlines, concessions, CBP, and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

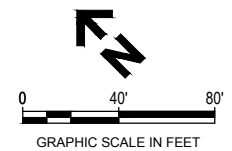


FIGURE 1-13
SPACE ALLOCATION
TERMINAL A-CONCOURSE A
LEVEL 02

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1.3.3.2 Terminal A Ticketing

The Terminal A ticketing lobby provides positions for airline agents and electronic kiosks to support the check-in of airline passengers and baggage. All positions are considered common use and, although the ticket counter positions are staffed by a particular airline, 16 kiosks are available for use by any passenger of any airline. The number of positions occupied by each airline are summarized in Table 1-8. There are three vacant ticketing/check-in positions open at the time of this inventory. Three kiosks are located outside of the ticketing lobby (two are near TSA and one is at the passenger walkway from the parking garage).

Table 1-8: Terminal A Airline Check-In and Ticketing Positions

Airline	Agent Positions	Kiosk Positions	Skycap Positions	Total
Air Canada	4	4	--	8
American Airlines	8	8	2	18
Delta Air Lines	10	4	2	16
United Airlines	12	10	--	22
Common Use	--	13	--	13
Vacant	4	--	3	7
Total	38	39	7	84

Source: Sacramento County Department of Airports, 2019

In addition to the passenger and baggage check-in positions provided in the terminal lobby, skycap service is available to passengers of Terminal A airlines at the curbside in front of the terminal. Passengers can obtain a boarding pass and check in baggage at the curbside. The seven skycap positions are located along the exterior of the building, with desks for the associated airline located outside its respective terminal lobby area as well as baggage chute positions. There are three vacant curbside check-in positions.

1.3.3.3 Terminal A Passenger Security Screening Checkpoint

The TSA passenger SSCP is located on Level 02 of Terminal A, in the corridor that connects the terminal and the concourse. Access and egress between the Level 01 lobby areas and the Level 02 concourse is via elevators, escalators, and a stairway. The passenger SSCPs provide for a metal detector, millimeter wave, and x-ray screening of passengers and carry-on baggage to facilitate access to the sterile concourse areas. Seven SSCP lanes are provided in Terminal A. Separate queues are provided for employees, TSA Pre-check passengers, premium passengers and elite members of frequent flyer programs, and Known Crew Members.

1.3.4 TERMINAL B

The landside portion of Terminal B provides 723,845 square feet of space on five levels, including a basement (Level 00). A six-level terminal parking garage, shared between Terminals A and B, connects to Terminal B on Level 03 (Level 05 of the parking garage) and a surface parking lot connects with Terminal B on Level 01 (west of Terminal B). SCDA administration space and mechanical, electrical, and plumbing systems are provided throughout the facility. The allocation of space among the various functional uses in Terminal B is presented in Table 1-9. The allocation of spaces on Levels 00 (basement), 01 (ground), 02 (second level), 03 (third level), and 04 (fourth level) are shown on Figures 1-14, 1-15, 1-16, 1-17, and 1-18, respectively. Space categories for airlines, concessions, CBP, and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

Table 1-9: Terminal/Concourse B Space Allocation (square feet)

Space Category	Total
Airline space (a)	107,885
Airport administration	38,672
Baggage claim	92,761
Baggage handling (b)	1,784
Concessions	53,134
Customs and Border Protection (c)	37,657
Open/vacant	48,233
Other	113,907
Public space	189,979
Security screening (d)	39,833
Total	723,845

Note: Calculations are based on gross areas measured to the outside edge of exterior walls and the center of interior walls.

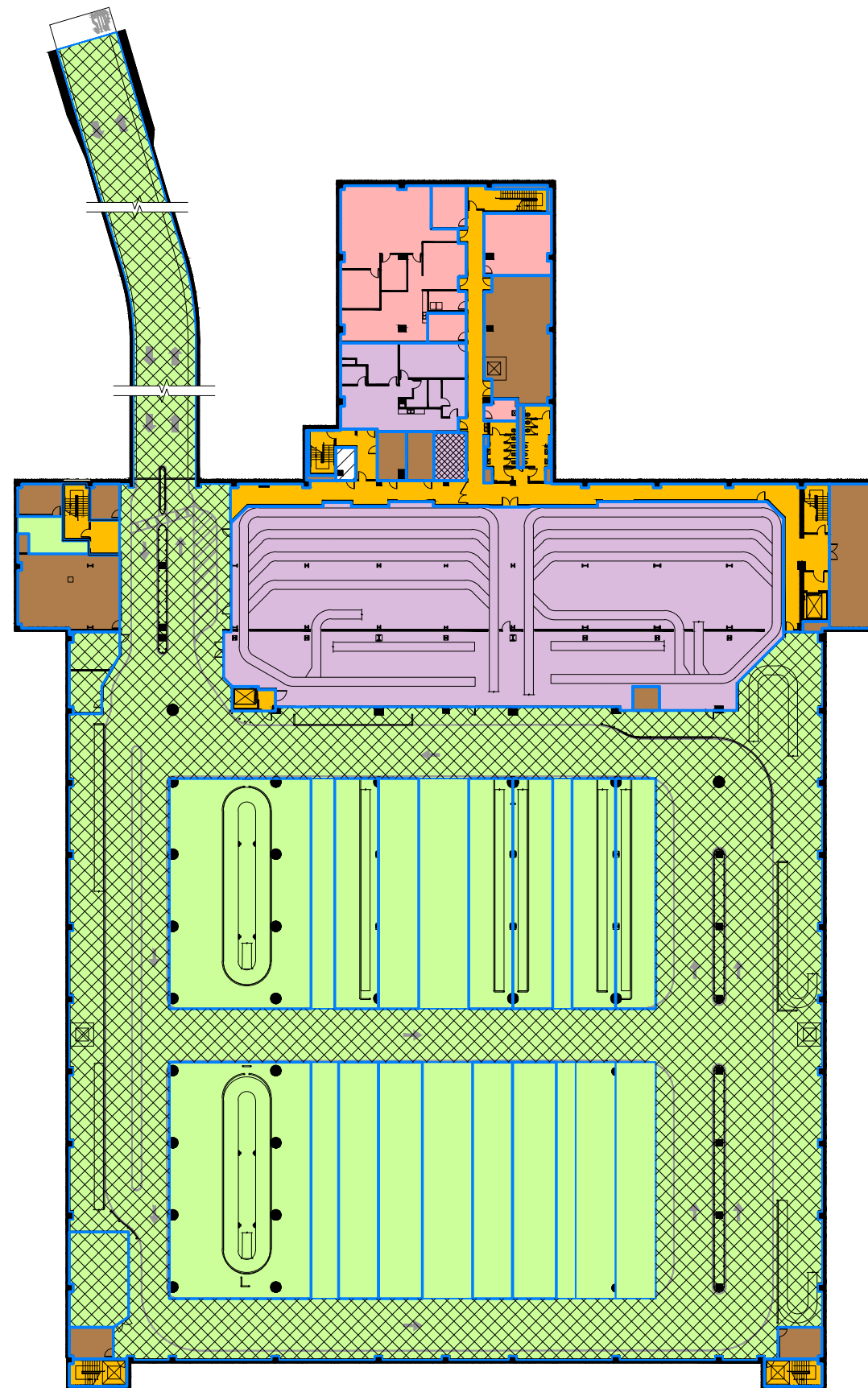
(a) Includes ticket counters, outbound baggage devices, and holdrooms.

(b) Includes inbound and outbound baggage processing area, but not baggage claim or makeup devices.

(c) Includes all space allocated for Customs and Border Protection and dual-use sterile corridor.

(d) Includes TSA leased space within the terminal building.

Source: Sacramento County Department of Airports, 2019



LEGEND

Tenant Boundary

SPACE CATEGORY

Airline Space

Airport Administration

Baggage Claim

Baggage Handling

Concessions

Customs and Border Protection

Open/Vacant

Other

Public Space

Security Screening

Utility Space

Space categories for airlines, concessions, CBP, and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

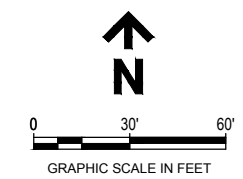
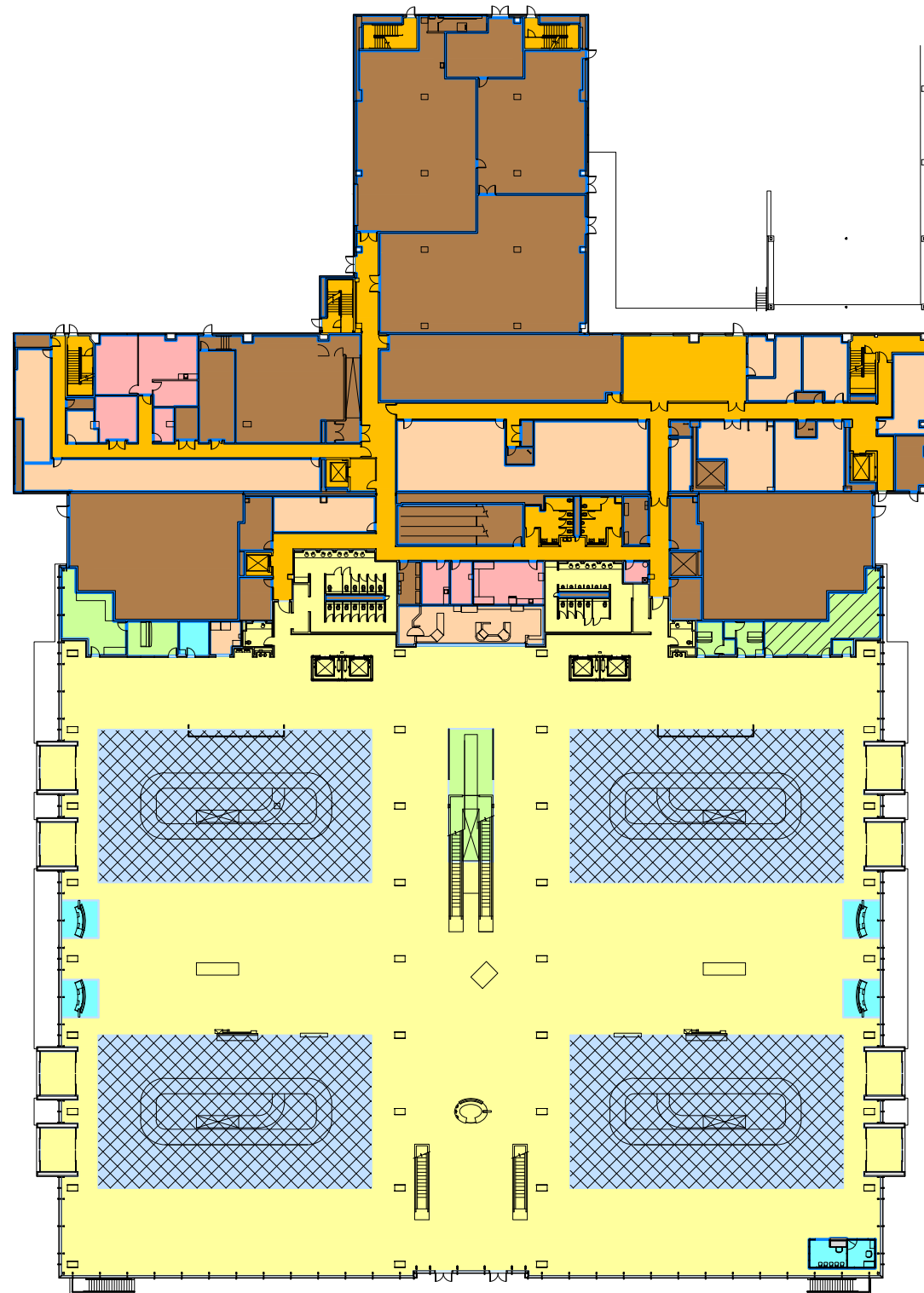


FIGURE 1-14

SPACE ALLOCATION TERMINAL B LEVEL 00

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LEGEND

Tenant Boundary

SPACE CATEGORY

Airline Space

Airport Administration

Baggage Claim

Baggage Handling

Concessions

Customs and Border Protection

Open/Vacant

Other

Public Space

Security Screening

Utility Space

Space categories for airlines, concessions, CBP, and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

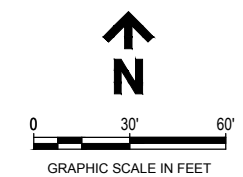


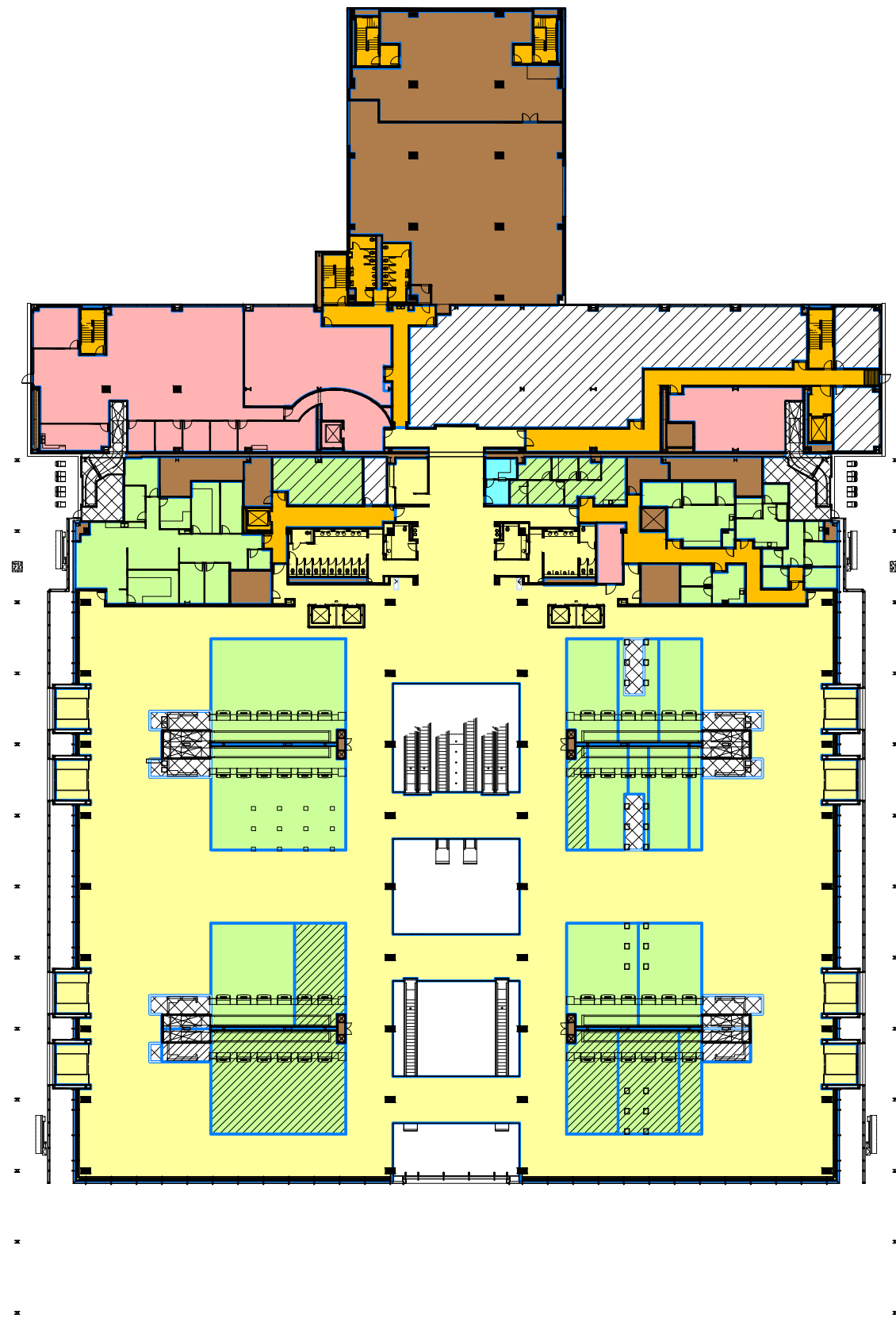
FIGURE 1-15

SPACE ALLOCATION TERMINAL B LEVEL 01

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LEGEND

— Tenant Boundary

SPACE CATEGORY

- Airline Space
- Airport Administration
- Baggage Claim
- Baggage Handling
- Concessions
- Customs and Border Protection
- Open/Vacant
- Other
- Public Space
- Security Screening
- Utility Space

Space categories for airlines, concessions, CBP, and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

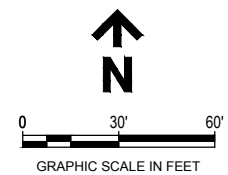
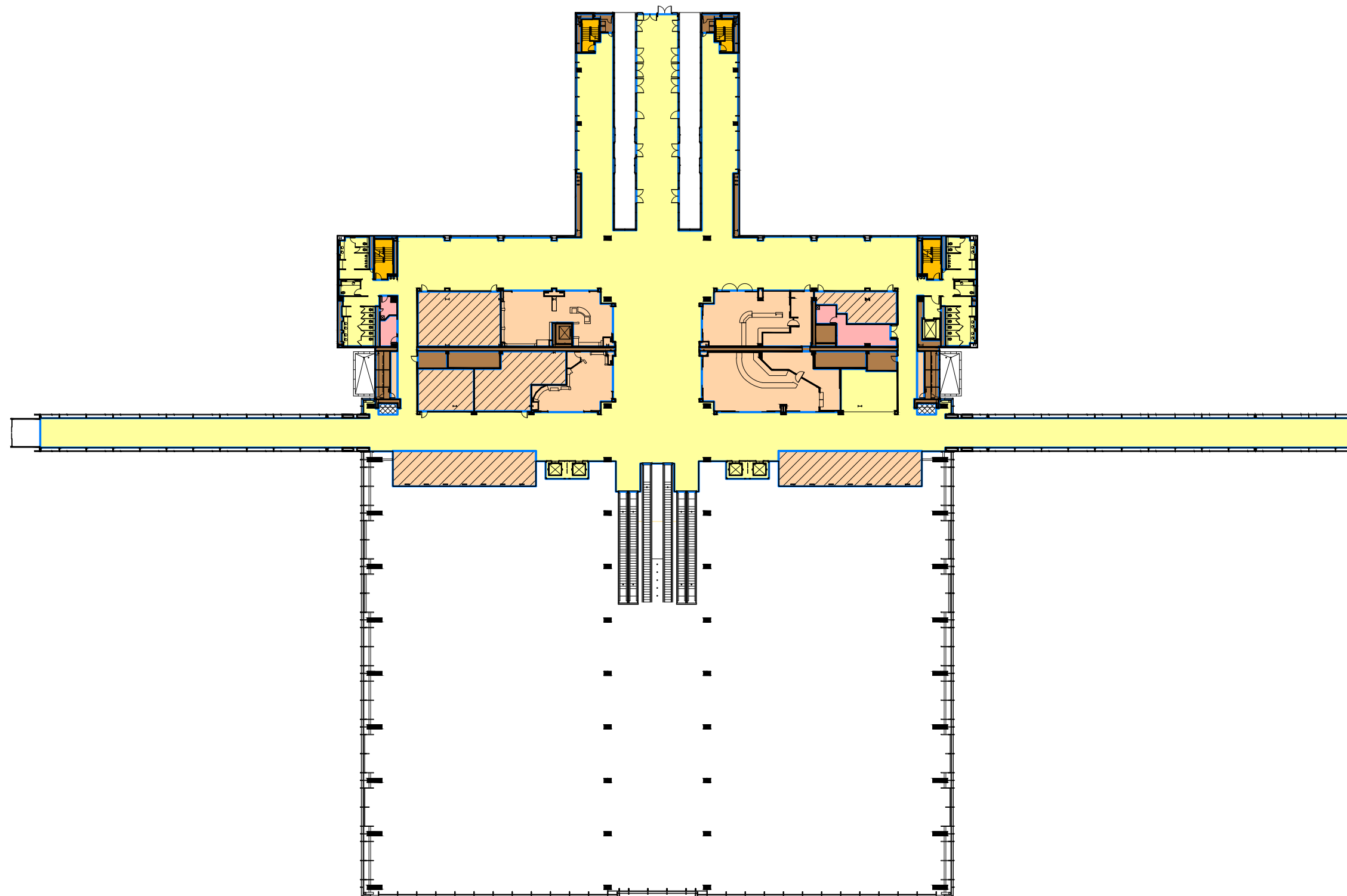


FIGURE 1-16

**SPACE ALLOCATION
TERMINAL B LEVEL 02**

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LEGEND

Tenant Boundary

SPACE CATEGORY

Airline Space

Airport Administration

Baggage Claim

Baggage Handling

Concessions

Customs and Border Protection

Open/Vacant

Other

Public Space

Security Screening

Utility Space

Space categories for airlines, concessions, CBP, and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

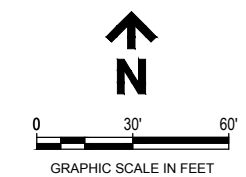
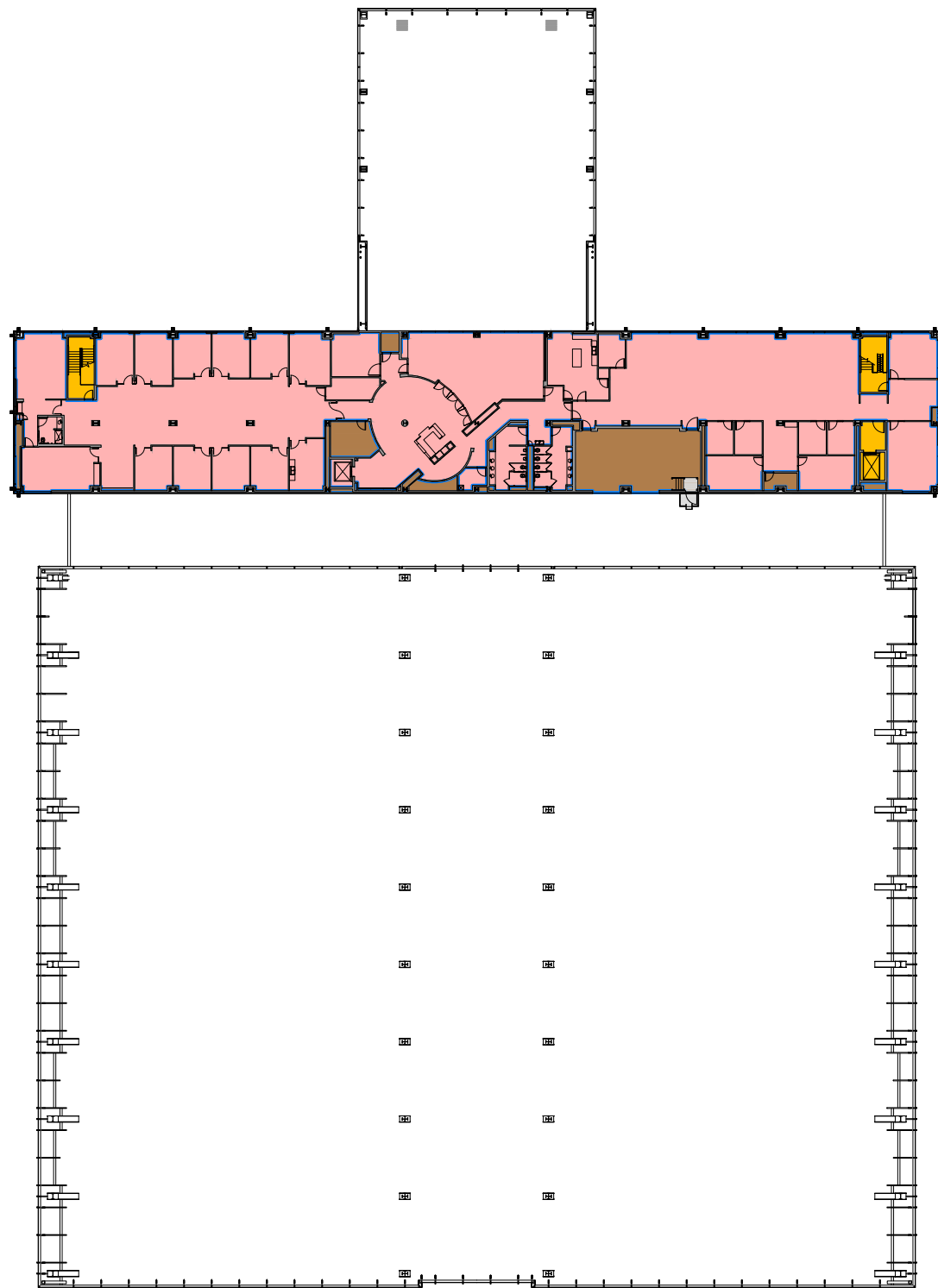


FIGURE 1-17

SPACE ALLOCATION TERMINAL B LEVEL 03

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LEGEND

Tenant Boundary

SPACE CATEGORY

Airline Space

Airport Administration

Baggage Claim

Baggage Handling

Concessions

Customs and Border Protection

Open/Vacant

Other

Public Space

Security Screening

Utility Space

Space categories for airlines, concessions, CBP, and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

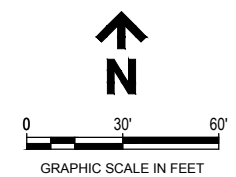


FIGURE 1-18

SPACE ALLOCATION TERMINAL B LEVEL 04

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Level 00 contains baggage sortation and screening facilities, TSA offices and break rooms, maintenance space for building and baggage handling systems contractors, airline and baggage handling operator break areas, and mechanical and electrical rooms.

Level 01 contains the passenger baggage claim devices and baggage resolution offices used by airline personnel. Additionally, office spaces adjacent to the claim areas to support ground transportation, SCDA building maintenance office spaces, concession storage spaces, and building mechanical and electrical spaces are on this level. The facility's Central Utility Plant and loading dock are also located on this level.

Level 02 contains the airline ticket counters and offices, a "quiet room," SCDA offices, and building mechanical and electrical rooms.

Level 03 is the primary public circulation level of the building and contains concession areas, a small museum/exhibit area, a vacant concession area, and the APM station, which connects the terminal to the concourse. Pedestrian bridges connecting the terminal to the parking garage and the hourly surface parking lot are also located at this level.

Level 04 consists of SCDA offices, a public lobby/meeting room, and mechanical and electrical rooms.

1.3.4.1 Terminal B Baggage System

Four, 180-linear-foot baggage claim carousels and one, 20-linear-foot oversized baggage claim device, used by all 12 airlines operating in Terminal B, are located on Level 01 of Terminal B. Space is available to accommodate two additional baggage claim carousels. Some airlines maintain baggage resolution offices to handle passenger baggage inquiries. Inbound baggage is manually transferred from carts (located on Level 00) to conveyor belt systems that feed the baggage claim devices. Outbound baggage facilities are located on Levels 00 and 02 of Terminal B. Outbound baggage (i.e., baggage entering the system at the ticketing and curbside check-in facilities) is transported via conveyor belts onto baggage carousels or linear piers, around which carts are staged. Baggage is manually loaded onto the carts after screening by TSA personnel, and then transported to appropriate aircraft and loaded aboard. All outbound baggage in Terminal B is processed through an automated in-line EDS or via an elevator for oversized baggage. The baggage systems are owned and maintained by SCDA (not the individual airlines).

1.3.4.2 Terminal B Ticketing

The Terminal B ticketing lobby provides positions for airline agents and electronic kiosks to support the check-in of airline passengers and baggage. All positions are considered common use and, although the ticket counter positions are staffed by a particular airline, the kiosks are available for use by any passenger of any airline. The number of positions occupied by each airline are summarized in Table 1-10. Three kiosks are located outside of the ticketing lobby (Level 03 near the passenger walkway from the parking garage).

Table 1-10: Terminal B Airline Check-in and Ticketing Positions

Airline	Agent Positions	Dedicated Kiosk Positions	Skycap Positions	Total
Aeromexico	6	--	--	6
Alaska Airlines/Horizon Air	6	6	--	12
Boutique Air	1	--	--	1
Contour Airlines	2	--	--	2
Frontier Airlines	6	--	--	6
Hawaiian Airlines	6	6	--	12
JetBlue Airways	6	--	--	6
Southwest Airlines	22	12	6	40
Spirit Airlines	6	6	--	12
Sun Country Airlines	2	--	--	2
Volaris	6	6	--	12
Common Use	--	11	--	11
Vacant	27	--	4	31
Total	96	47	10	153

Source: Sacramento County Department of Airports, 2019

In addition to the baggage and passenger check-in positions provided in the ticketing lobbies, skycap service is available on the curbside to passengers of Southwest Airlines. The eight skycap check-in positions are located along the exterior of the building, with desks located outside of the terminal lobby. Southwest Airlines is located on the west curbside.

The vacant ticket counter, kiosk, and curbside positions are not currently used by any carriers, but are available should the need arise either as a scheduled or off-schedule operation and are listed as “Vacant” in Table 1-10. They are equipped with computer equipment, printers, and overhead monitors and can be put into service almost immediately.

1.3.4.3 Terminal B Passenger Security Screening Checkpoint

Airside Concourse B is accessed via an APM. Passengers disembark the APM and enter a large SSCP lobby where they are screened and processed into the secure passenger environment. Located at the SSCP are metal detectors, millimeter wave, and x-ray facilities for screening passengers and carry-on baggage. Ten SSCP lanes are provided in Terminal B. Separate queues are provided for employees, TSA Pre-Check passengers, premium passengers and elite members of frequent flyer programs, and Known Crew Members.

1.3.5 PASSENGER CONCOURSES

Double-loaded concourses (i.e., concourses with aircraft gates on both sides) at both terminals accommodate a mix of mainline and regional aircraft. Ground loading capability is also provided at most gates, either with the use of dedicated vertical transportation cores (VTCs) or stairs adjacent to each PLB. Terminal A is used only for domestic operations and Terminal B has two “swing gates” that can be used for either domestic or international arrivals operations, as described in *Section 1.3.6*.

Service roadways circumnavigate the concourses to provide for the safe and efficient movement of GSE and other motorized vehicles on the aircraft apron. These roadways are separated from the aircraft movement area by white lines on the pavement. There are several locations beneath the concourses that are raised above apron level, through which low-clearance GSE can pass.

1.3.5.1 Concourse A

Concourse A provides 12 contact gates and facilities on two levels. A 13th contact gate is scheduled to come back on-line in the near future. Airline, concession, and building maintenance space, as well as mechanical, electrical, and plumbing systems are provided throughout the facility.

Level 01 contains airline operations offices and spaces for airline personnel, building, and baggage maintenance functions. Additionally, concession storage and building mechanical and electrical spaces are available.

Level 02 contains the TSA SSCP, a concession mall/food court, lounge, and holdrooms for airline passengers.

The allocation of spaces in Concourse A are shown on Figures 1-12 and 1-13.

1.3.5.2 Concourse B

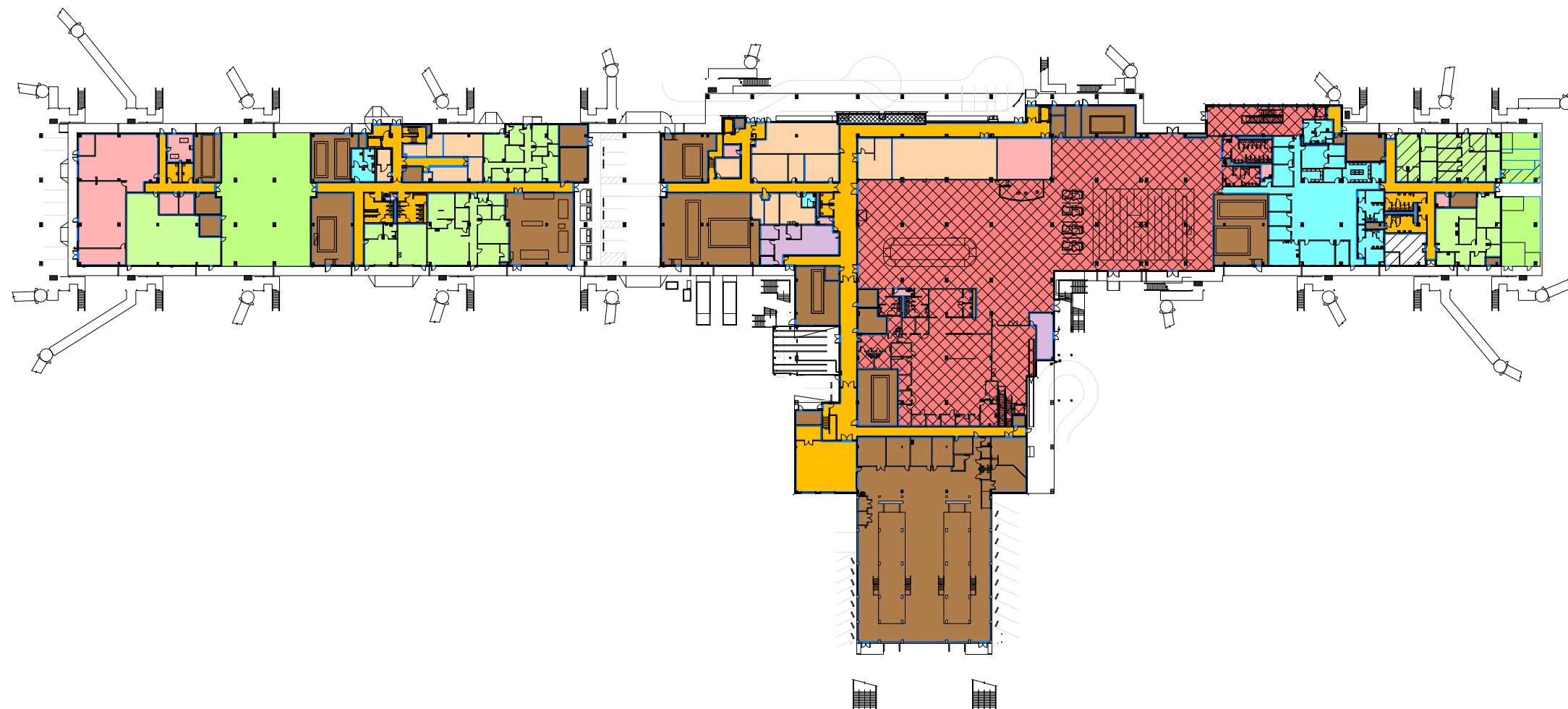
Concourse B provides 19 contact gates and approximately 300,000 square feet of space on two levels. An APM connects the concourse with Terminal B on Level 02. Airline, concession, and building maintenance space, as well as mechanical, electrical, and plumbing systems, are provided throughout the concourse.

Level 01 contains the main FIS facility used by CBP to process incoming passengers and baggage for international flights, as described in *Section 1.3.5*. Airline operations offices and spaces for airline personnel are also located on this level, as well as building and APM maintenance functions. Additionally, concession storage and building mechanical and electrical spaces are provided. Bags belonging to international passengers are transferred by tugs to a belt that feeds onto the FIS baggage carousel.

Level 02 contains the TSA SSCP, a concession mall/food court, lounge, and holdrooms for airline passengers. Gates B8 and B10 are connected to a VTC to accommodate ground loading operations.

The allocation of spaces in Concourse B are shown on Figures 1-19 and 1-20. Space categories for airlines, concessions, CBP, and security screening on the figures are based on “enclosed leased space”; entities use these spaces and infrastructure exclusively.

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LEGEND

— Tenant Boundary

SPACE CATEGORY

— Airline Space

— Airport Administration

— Baggage Claim

— Baggage Handling

— Concessions

— Customs and Border Protection

— Open/Vacant

— Other

— Public Space

— Security Screening

— Utility Space

Space categories for airlines, concessions, CBP, and security screening on the figures are based on "enclosed leased space"; entities use these spaces and infrastructure exclusively.

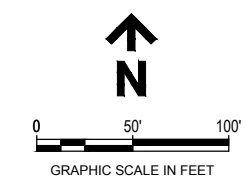


FIGURE 1-19

SPACE ALLOCATION CONCOURSE B LEVEL 01

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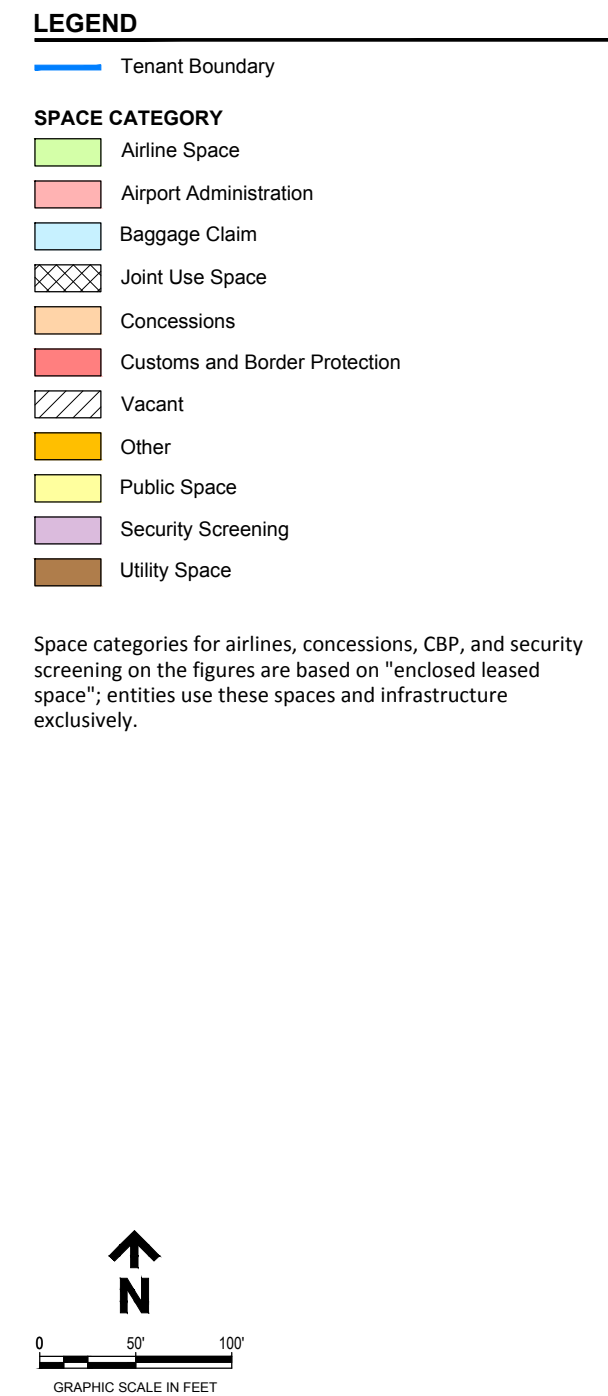
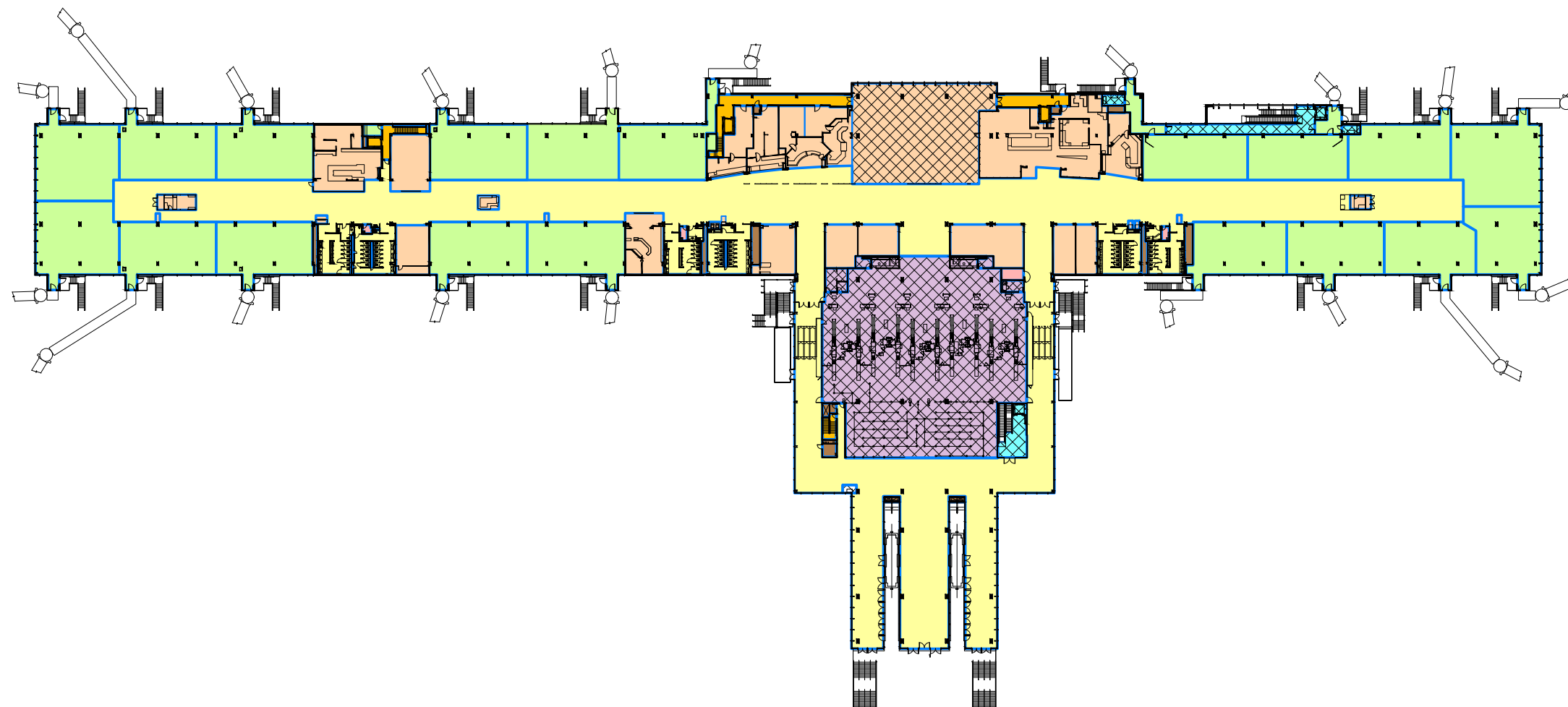


FIGURE 1-20

**SPACE ALLOCATION
CONCOURSE B LEVEL 02**

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1.3.6 U.S. CUSTOMS AND BORDER PROTECTION SCREENING

Gates B8 and B10, located along the north side of Concourse B, operate as “swing gates” and have secure corridors that connect the PLBs to the Airport’s CBP screening facility. The CBP facility occupies approximately 40,000 square feet at Level 01 of Concourse B. The CBP facility provides for customs and immigration processing for international arriving passengers, baggage claim devices, customs screening, office space for the CBP, and a baggage recheck facility. After arriving passengers and their bags have been processed, they are transported by escalator to the passenger concourse level that contains the SSCP for reintroduction into the sterile passenger environment.

The CBP facility has four, double booths for eight personnel, and has a single baggage claim device. Because of the single baggage claim, current capacity is at 400 passengers per hour. Expansion space is available for the addition of a second device to bring the capacity to approximately 800 passengers per hour.

Additional gates and holdrooms can be attached to the secure corridor on Level 02, if and when they are needed.

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1.4 GROUND ACCESS AND PARKING

This section summarizes the capacities and locations of key ground access, parking facilities, and related operations at the Airport. This includes access and circulation roadways, terminal area and curbside roadways, public and employee parking facilities, rental car facilities, shuttle bus operations, commercial vehicle facilities and operations, and public transit services.

Recent activity data for select roadways and public parking facilities is included, along with references to relevant reports, traffic data, and surveys of on-Airport traffic. This information has been reviewed to assess existing levels of activity at the Airport's ground transportation and parking facilities. Information reviewed includes:

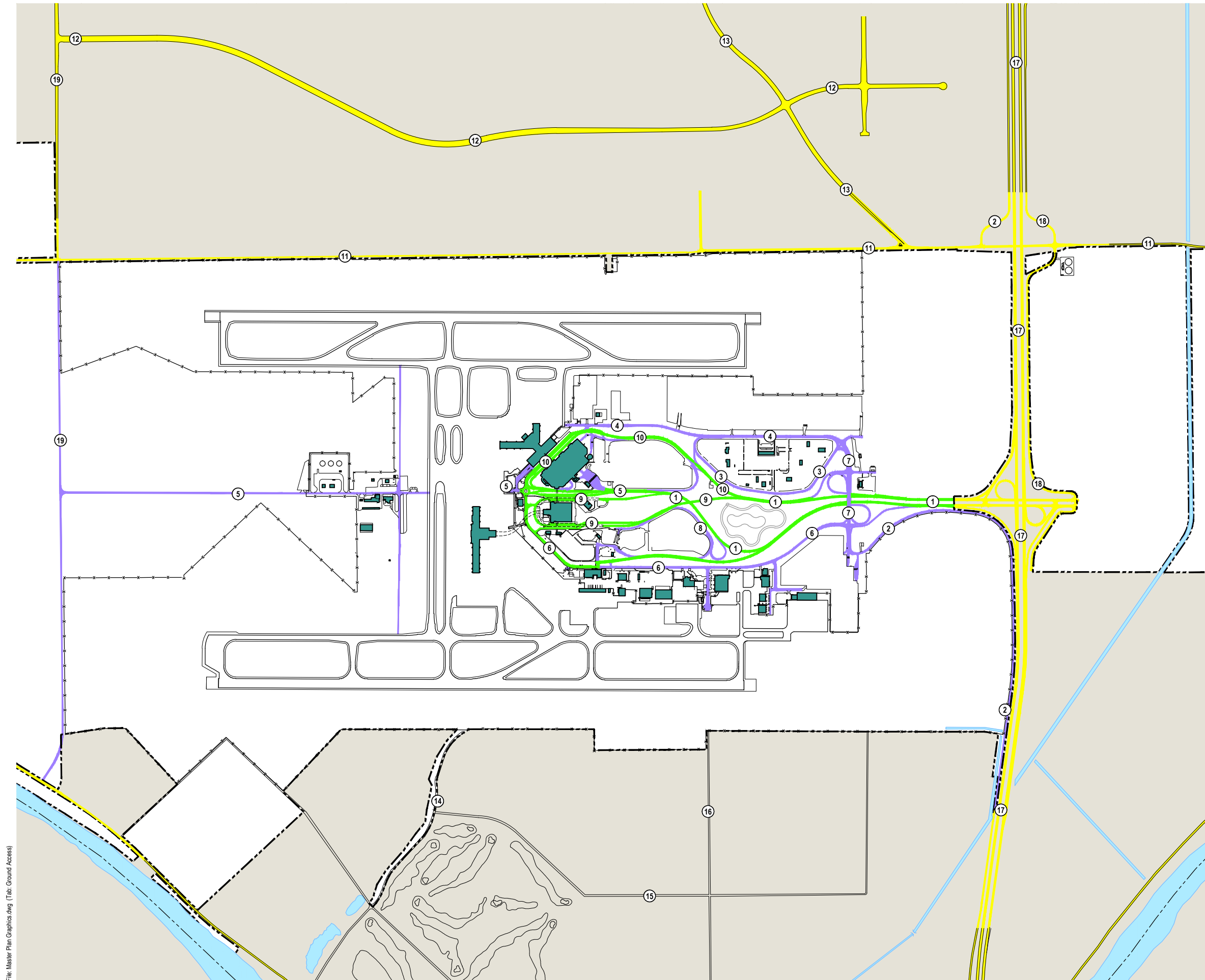
- Automatic traffic recorder counts conducted from July 19 through August 3, 2017, on Airport Boulevard.
- Public parking transaction, occupancy, and revenue reports, by facility, for each month of 2018.

1.4.1 ACCESS AND CIRCULATION ROADWAYS

Primary access to the Airport is provided from the south via I-5 and Airport Boulevard. Airport Boulevard, which is two lanes wide with both lanes heading in the same direction, provides access to the passenger terminals and all other Airport facilities located south of Taxiway W. Alternative south access is also provided via North Bayou Road, which is two lanes wide, with one lane per direction of travel. Access from the north to the Airport facilities located north of Taxiway Y (including the fuel farm, the ARFF station, and various maintenance facilities) is via West Elverta Road, which is an off-airport roadway, and Earhart Drive, which varies between two and three lanes, with travel in both directions. These access roadways are shown on Figure 1-21.

Inbound Airport Boulevard is divided into two independent loops, both are two lanes wide and in the same direction of travel. One loop (Airport Boulevard East) provides access to curbside facilities serving Terminal A, the garage, and Surface Parking Lot A. The other loop (Airport Boulevard West) provides access to curbside facilities serving Terminal B, Hourly Parking Lot B, and (when operational) the Daily Parking Lot B. The loops rejoin to form outbound Airport Boulevard via Earhart Drive, which varies between two and three lanes with the same direction of travel. From Airport Boulevard, vehicles can use Crossfield Drive, which is four lanes wide (two eastbound, two westbound) to access the East and West Economy Parking Lots, free waiting area, transportation network company (TNC) parking, as well as the roadways serving the non-terminal-area facilities. Lindbergh Drive, which is two lanes wide with one lane per direction of travel, serves the cargo and general aviation facilities. Aviation Drive, which is two lanes wide with one lane per direction of travel, provides access to and from the East Economy Parking Lot, rental car facilities, and maintenance facilities.

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LEGEND

- Airport Property Line
- x-x- Airfield Fencing
- █ Buildings
- █ Off-Airport Property
- █ On-Airport Primary Roadways
- █ On-Airport Secondary Roadways
- █ Off-Airport Roadways

PARKING FACILITY INDEX

- ① Airport Blvd.
- ② N. Bayou Way
- ③ McNair Cir.
- ④ Aviation Dr.
- ⑤ Earhart Dr.
- ⑥ Lindbergh Dr.
- ⑦ Crossfield Dr.
- ⑧ Alan Boyd Dr.
- ⑨ Airport Blvd. W.
- ⑩ Airport Blvd. E.
- ⑪ Powerline Rd.
- ⑫ Metro Air Parkway
- ⑬ W. Elkhorn Blvd.
- ⑭ Reservoir Rd.
- ⑮ Schoolhouse Rd.
- ⑯ E. Elkhorn Blvd.
- ⑰ Interstate 5
- ⑱ Bayou Way
- ⑲ Elverta Rd.

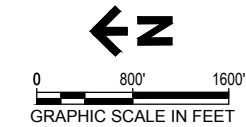


FIGURE 1-21

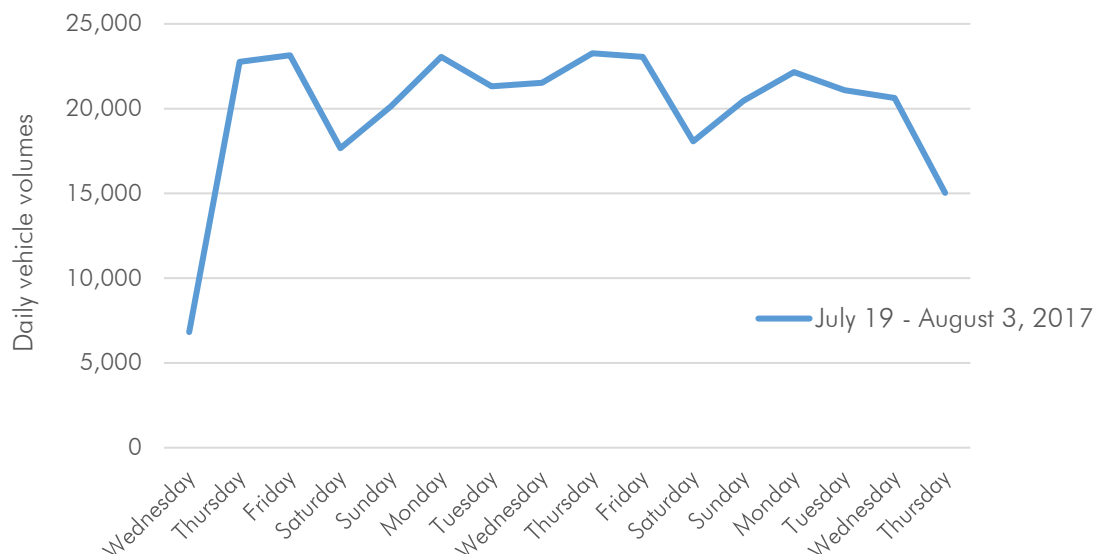
GROUND ACCESS

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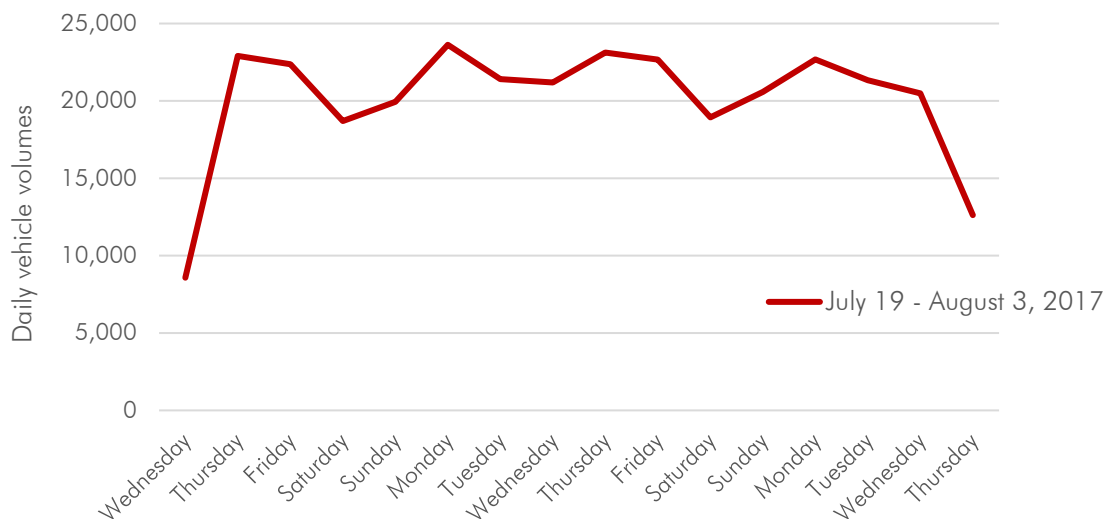
Figures 1-22 and 1-23 summarize daily traffic volumes recorded on Airport Boulevard during a two-week observation period between July 19th and August 3rd, 2017 for inbound (northbound) and outbound (southbound) traffic, respectively.

Figure 1-22 Airport Boulevard Daily Inbound Traffic Volumes - Two Week Period, Summer 2017



Source: Sacramento County Department of Airports, 2019

Figure 1-23 Airport Boulevard Daily Outbound Traffic Volumes - Two Week Period, Summer 2017

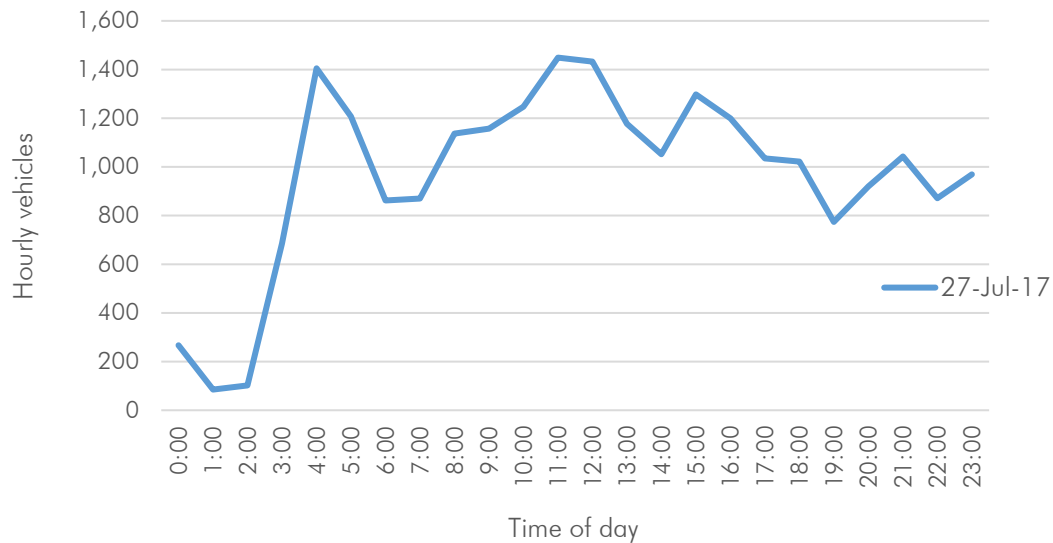


Source: Sacramento County Department of Airports, 2019

While the highest daily inbound volume of the two-week observation period occurred on a Thursday, the highest daily outbound volume occurred on a Monday. Figures 1-24 and 1-25 depict rolling hourly traffic volumes recorded on Thursday, July 27, 2017 (inbound) and Monday, July 24, 2017 (outbound). As can be seen in Figure 1-24, the highest inbound hourly volumes occurred between 4:00 a.m. and 5:00 a.m. and again

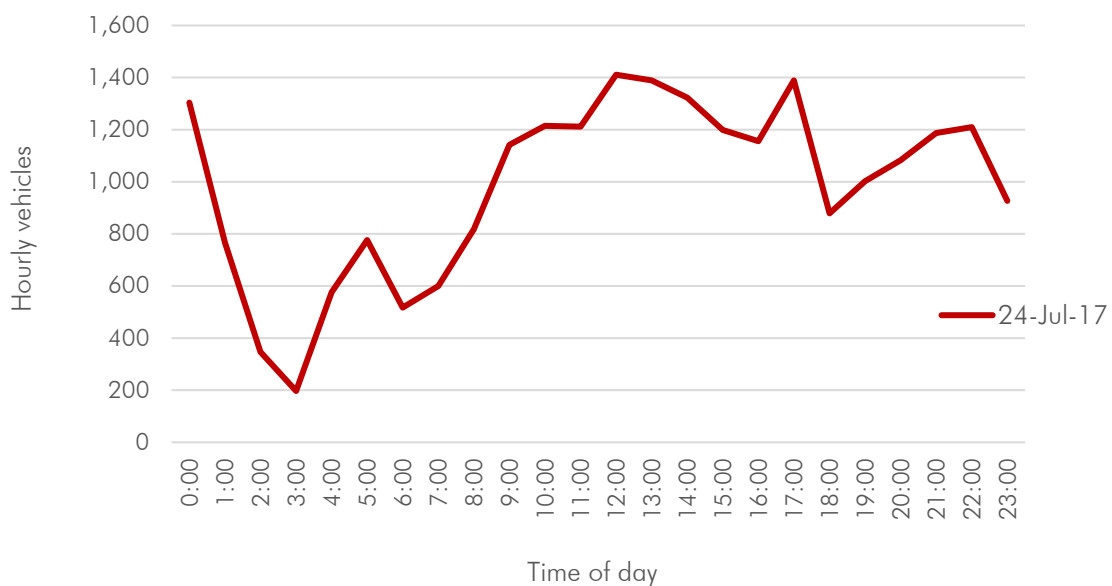
between 11:00 a.m. and 12:00 p.m., with approximately 1,400 vehicles and 1,500 vehicles, respectively. Referring to Figure 1-25, it was recorded that the peak volume for rolling hourly outbound traffic was between 12:00 p.m. and 1:00 p.m., at approximately 1,400 vehicles.

Figure 1-24 Airport Boulevard Rolling Hourly Inbound Traffic Volumes - Busiest Day of Two-Week Period



Source: Sacramento County Department of Airports, 2019

Figure 1-25 Airport Boulevard Rolling Hourly Outbound Traffic Volumes - Busiest Day of Two-Week Observation Period



Source: Sacramento County Department of Airports, 2019

1.4.2 TERMINAL AREA AND CURBSIDE ROADWAYS

As depicted on Figure 1-21, the terminal areas are served by a one-way roadway system with each terminal served by an independent loop roadway. Vehicles may travel directly from Terminal A to Terminal B via a roundabout at the intersection of Earhart Drive, Lindbergh Drive, and Airport Boulevard. Vehicles traveling from Terminal B to Terminal A may do so via Crossfield Drive near the entrance of the Airport.

1.4.2.1 *Terminal A*

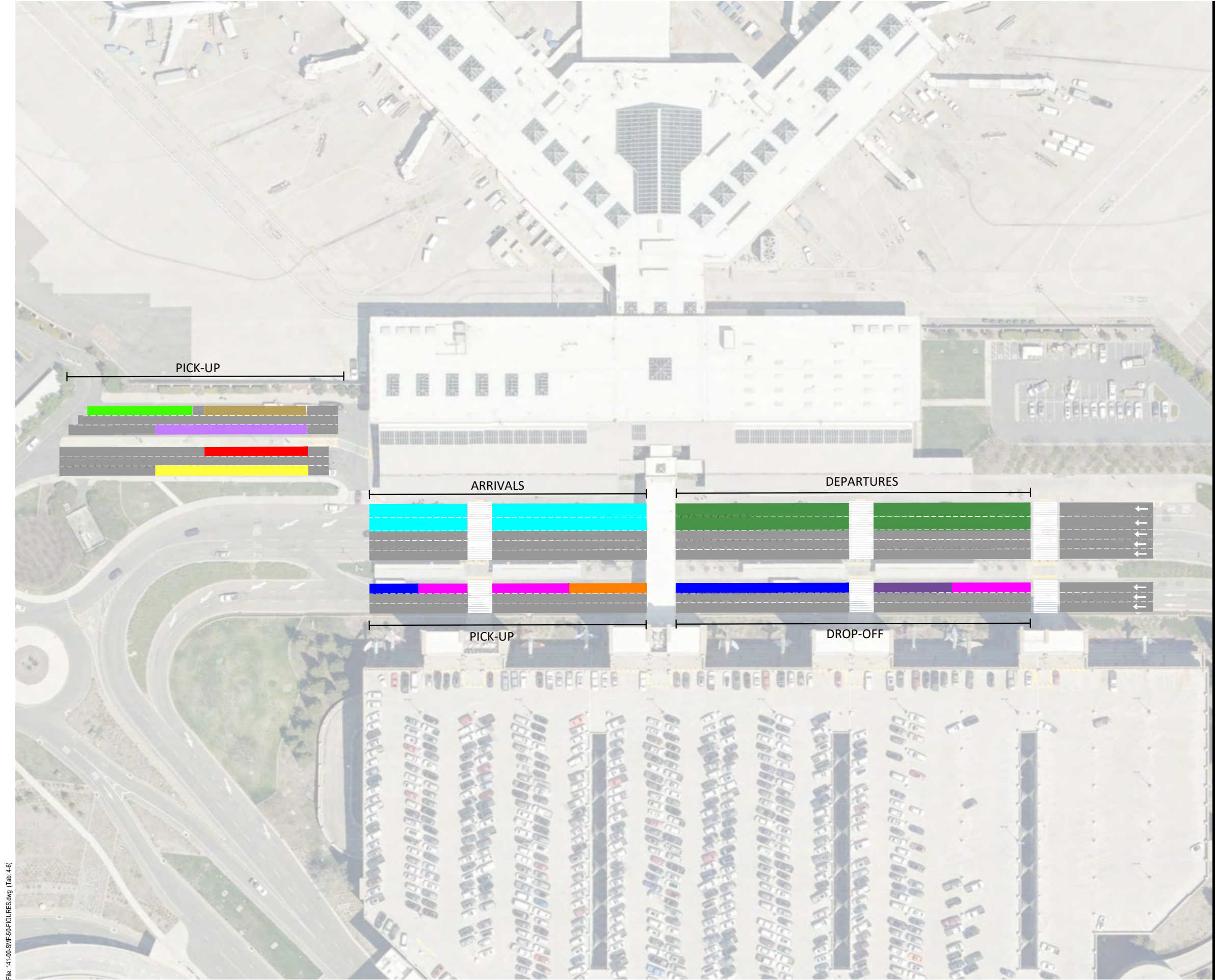
The one-way loop roadway serving Terminal A proceeds counter-clockwise through the terminal area. The loop road provides access to the Terminal A curbside, garage, Daily Parking Lot, employee parking lots located on each side of Terminal A, and the commercial vehicle plaza located at the west end of Terminal A. Drivers departing from Terminal A generally join outbound Airport Boulevard to access I-5 and also have the opportunity to return to the terminal via a return-to-terminal road or to access other Airport facilities via Crossfield Drive.

The Terminal A curbside is a single-level roadway serving the ticketing areas on the east side of the terminal and baggage claim areas on the west side of the terminal. The inner curbside roadway, which is located immediately adjacent to the terminal, consists of five lanes, with two lanes reserved for active loading and unloading of passengers and three travel lanes. The outer curbside roadway, which is located adjacent to Garage A, consists of three lanes, with one lane reserved for active loading and unloading of shuttle buses and two travel lanes.

The commercial vehicle plaza located at the west end of Terminal A, immediately outside of baggage claim, provides reserved loading areas for taxicabs, shared-ride vans, limousines, TNCs, and courtesy vehicles operated by hotels and motels.

The outer curbside is reserved for Yolo Transit buses and Airport-operated shuttle buses serving the Economy Parking Lot, Surface Parking Lot A, and the rental car facility. The inner curbside serves all other vehicles dropping off passengers, as well as private vehicles picking up passengers. The curbside roadways have four pedestrian crosswalks providing access between the terminal building, the outer curbside, and the garage. These crosswalks effectively divide the outer curbside roadways into four distinct areas. Figure 1-26 identifies these commercial vehicle zones and their locations. The total curbside is approximately 650 feet.

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LEGEND	
	All Vehicles (no bus)
	Rental Car Shuttle
	Limousine
	Private Vehicles Only
	Special Events Bus
	Thru Lane
	Taxi
	Hotel Shuttle
	TNC Pick-Up
	Super Shuttle
	Parking Shuttle
	Public Transit

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Figure 1-26

TERMINAL A **CURBSIDE ALLOCATIONS**

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1.4.2.2 Terminal B

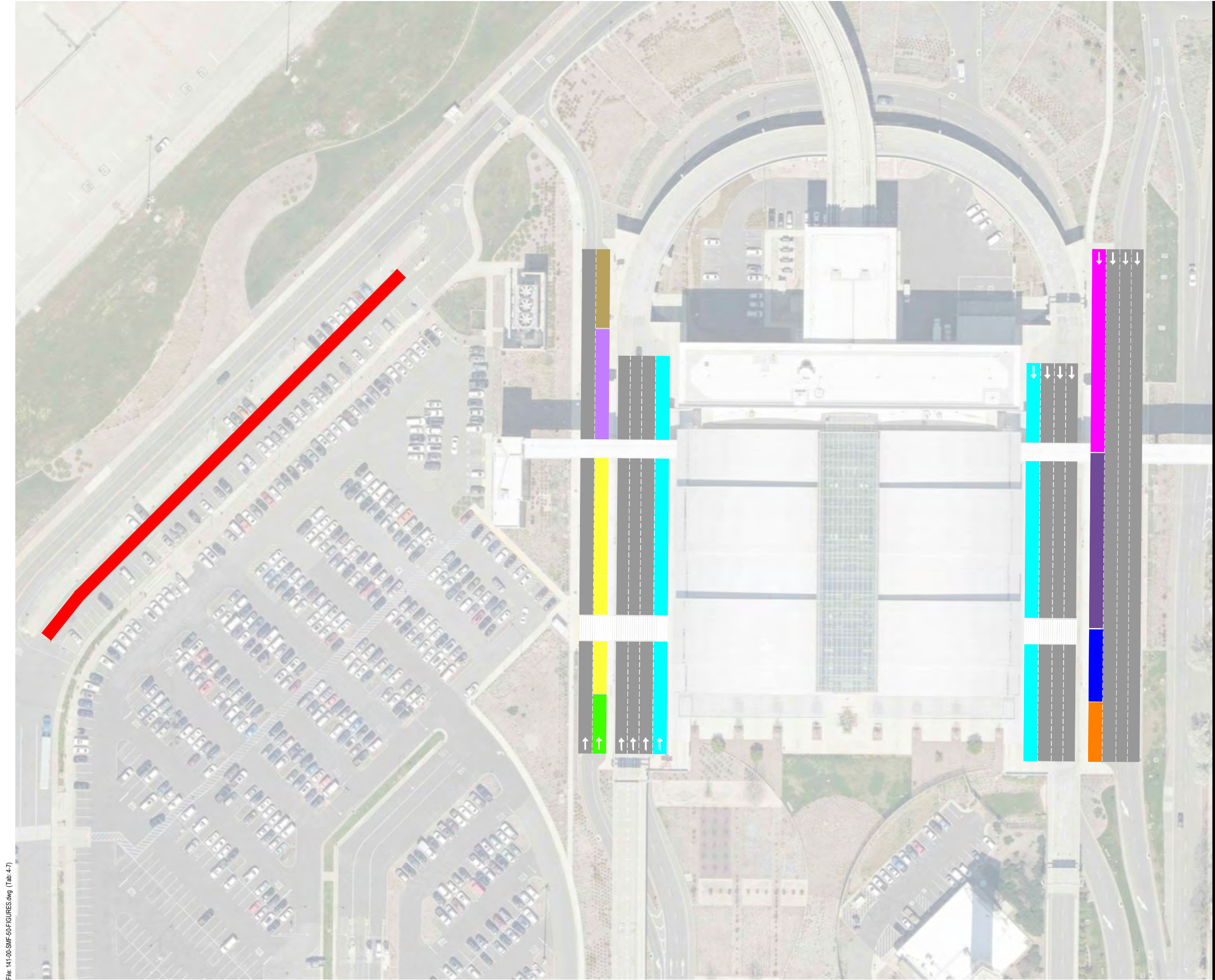
The one-way loop roadway serving Terminal B proceeds clockwise through the terminal area. The loop road provides access to the Terminal B curbsides, the Hourly Parking Lot B and the ATCT. Drivers departing from Terminal B generally take outbound Airport Boulevard to access I-5 and also have the opportunity to return to the terminal via a return-to-terminal road or to access other Airport facilities via Crossfield Drive.

The Terminal B curbside is a two-level loop roadway. The upper level loop consists of a west side drop-off curbside serving Southwest Airlines, followed by an east side drop-off curbside serving all other Terminal B airlines. The upper level loop roadway consists of four lanes with two lanes reserved for active unloading of passengers and two travel lanes.

The lower level loop consists of two parallel roadways, an inner curbside (located adjacent to the building) serving private vehicles, and an outer curbside reserved for commercial vehicles. The lower level inner curbside consists of a west side pickup curbside serving Southwest Airlines, followed by an east side pickup curbside serving all other Terminal B airlines.

The lower level outer curbside consists of a west side pickup curbside reserved for taxicabs, limousines, shared-ride vans, and courtesy vehicles operated by hotels and motels. The east side pickup curbside is reserved for Yolo Transit buses, the inter-terminal shuttle bus, Airport-operated shuttle buses serving the Economy Parking Lot, Surface Parking Lot A, and the rental car facilities. There is also a path to the TNC pickup area north of the Hourly B Parking Lot. Figures 1-27 and 1-28 provide details on the curbside locations for Terminal B. The total curb length for the upper level (departures) of Terminal B is approximately 920 feet; the total curb length for the lower level (arrivals) of Terminal B is approximately 1,063 feet.

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- LEGEND**
- All Vehicles (no bus)
 - Rental Car Shuttle
 - Limousine
 - Private Vehicles Only
 - Special Events Bus
 - Thru Lane
 - Taxi
 - Hotel Shuttle
 - TNC Pick-Up
 - Super Shuttle
 - Parking Shuttle
 - Public Transit

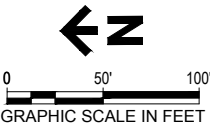
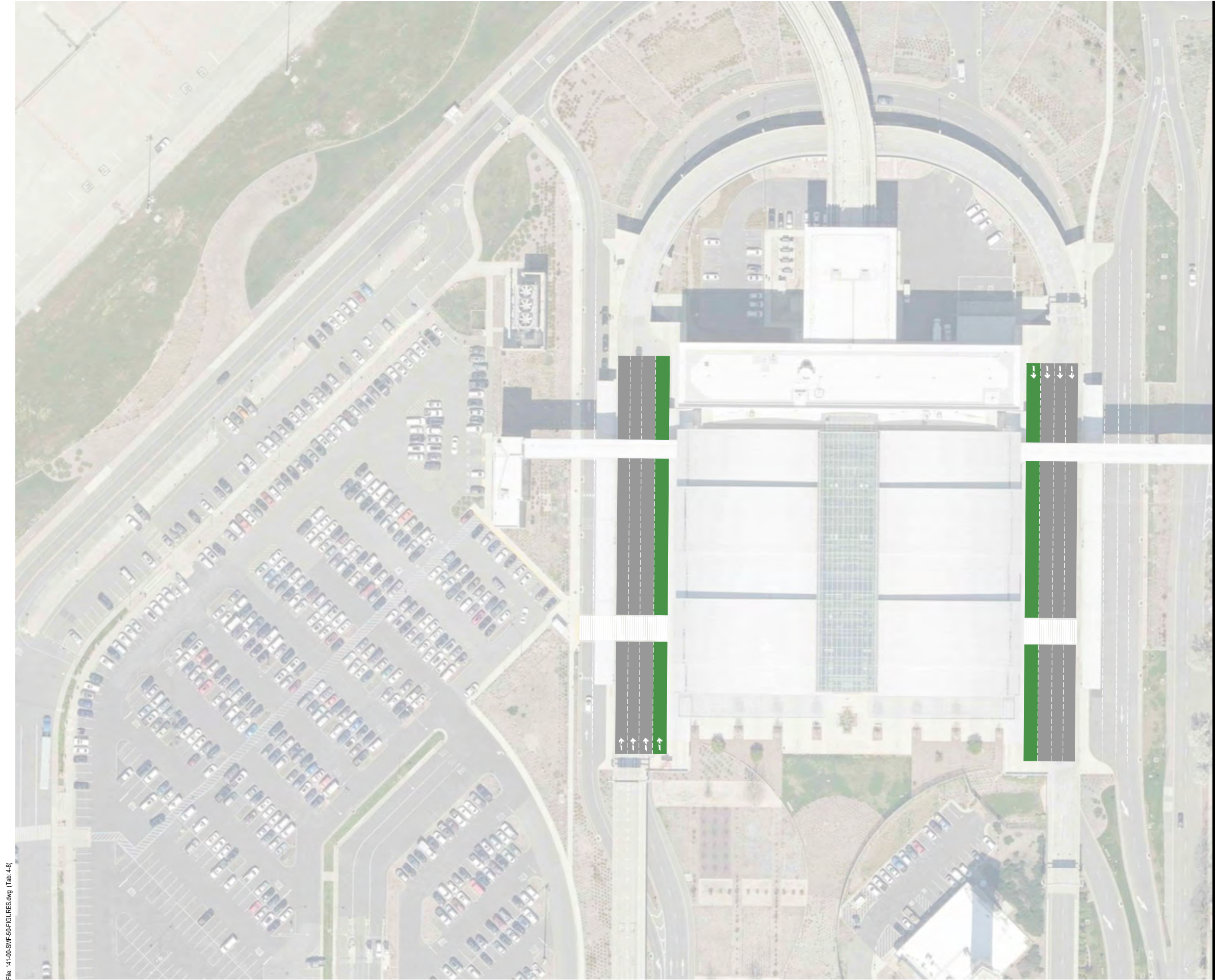


Figure 1-27

**TERMINAL B LOWER LEVEL
CURBSIDE ALLOCATIONS**

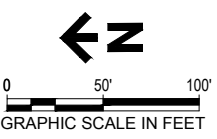
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LEGEND

	All Vehicles (no bus)
	Rental Car Shuttle
	Limousine
	Private Vehicles Only
	Special Events Bus
	Thru Lane
	Taxi
	Hotel Shuttle
	TNC Pick-Up
	Super Shuttle
	Parking Shuttle
	Public Transit



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Figure 1-28

**TERMINAL B UPPER LEVEL
CURBSIDE ALLOCATIONS**

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1.4.3 EXISTING PARKING FACILITIES

Existing public parking facilities at SMF are shown on Figure 1-29. Most parking facilities at SMF are clearly identified as “close-in” or “remote”. For the purposes of this report, the portion of the daily lot closest to the passenger terminals is considered by Airport staff to be walkable, while the southern portion of the daily lot requires a shuttle bus and is considered a remote parking facility. In total, the Airport provides approximately 7,400 “close-in” public parking spaces out of approximately 18,500 total public parking spaces, or approximately 40%, with the balance considered remote. Prior to the renaming of the overflow parking lot as the West Economy Lot, approximately 45% of total airport parking demand was accommodated by close-in facilities.

1.4.3.1 Capacities

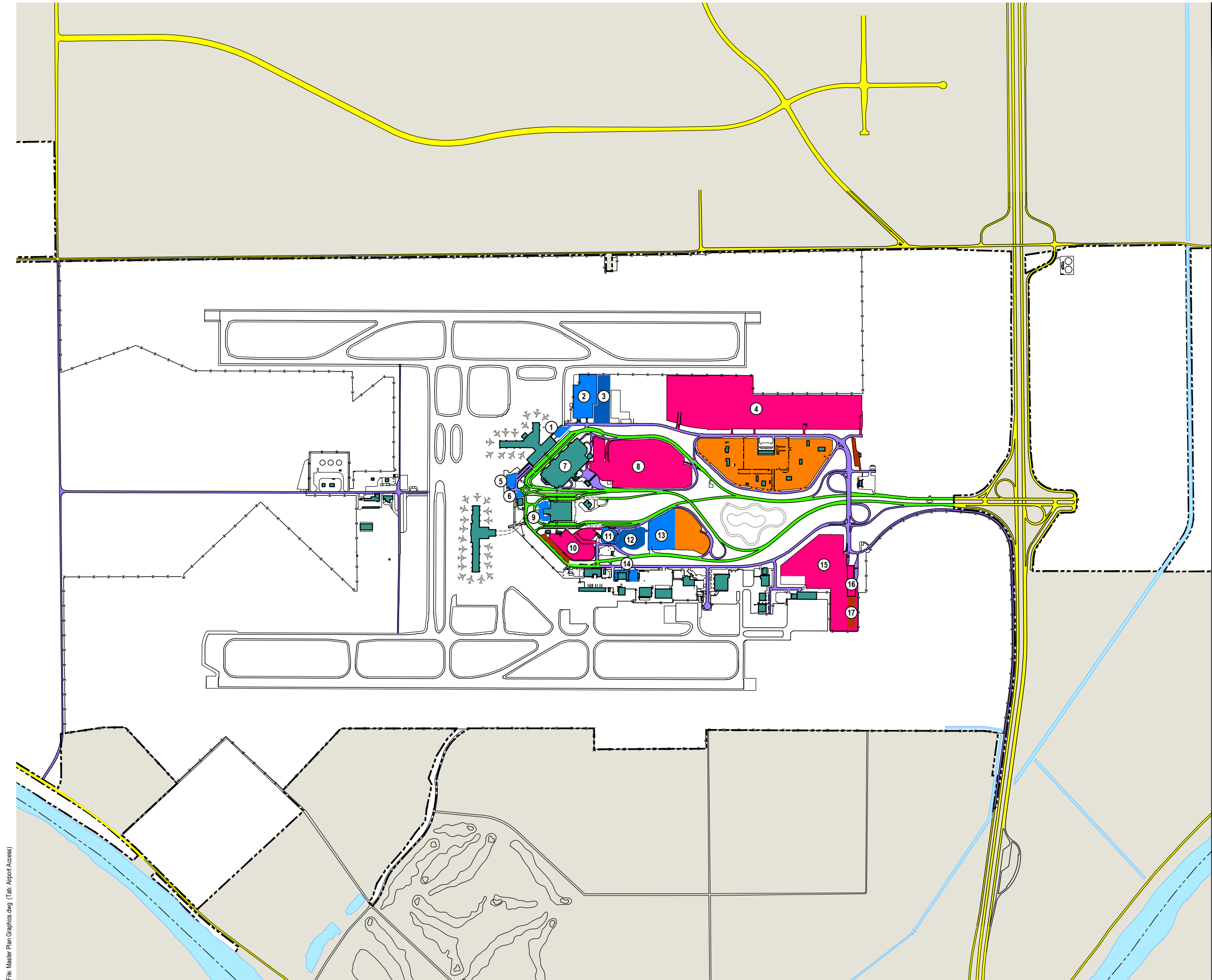
Table 1-11 summarizes the capacities of the public parking facilities.

Table 1-11: Public Parking Facilities

Parking facility	Capacity (spaces)	Notes
Garage (six levels)	5,255	<i>Includes hourly and daily parking areas</i>
Surface Parking Lot A	3,052	
Hourly Parking Lot B	618	
Daily Parking Lot B	1,668	
Economy Parking Lot	6,585	<i>Currently closed to the public</i>
West Economy Parking Lot	2,370	
Cell Phone Parking Lot	147	
Total spaces	19,695	
Total spaces in operation (August 2019)	18,027	<i>Excludes Daily Parking Lot B</i>

Source: Sacramento County Department of Airports, 2019

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- LEGEND**
- Airport Property Line
 - x-x- Airfield Fencing
 - Buildings
 - Off-Airport Property
 - Public Parking - Surface
 - Public Parking - Structure
 - Employee Parking - Surface
 - Bus Parking
 - TNC / Taxi Facilities
 - Rent-A-Car Facilities
 - On-Airport Primary Roadways
 - On-Airport Secondary Roadways
 - Off-Airport Roadways
- PARKING FACILITY INDEX**
- ① Employee Parking Lot (50)
 - ② Employee Parking Lot (51)
 - ③ Bus Parking Lot
 - ④ Economy Parking Lot (40-43)
 - ⑤ Employee Parking Lot (32)
 - ⑥ Employee Parking Lot (2)
 - ⑦ Parking Garage
 - ⑧ Daily A Parking Lot (20-21)
 - ⑨ Employee Parking Lot (1)
 - ⑩ Hourly B Parking Lot
 - ⑪ Employee Parking Lot (5)
 - ⑫ Bus Parking Lot (9)
 - ⑬ Employee Parking Lot (11 - North)
 - ⑭ Employee Parking Lot (53)
 - ⑮ West Economy Parking Lot (44)
 - ⑯ Cell Phone Waiting Lot
 - ⑰ TNC Parking Lot (45)

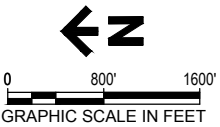


FIGURE 1-29

GROUND ACCESS AND PARKING FACILITIES

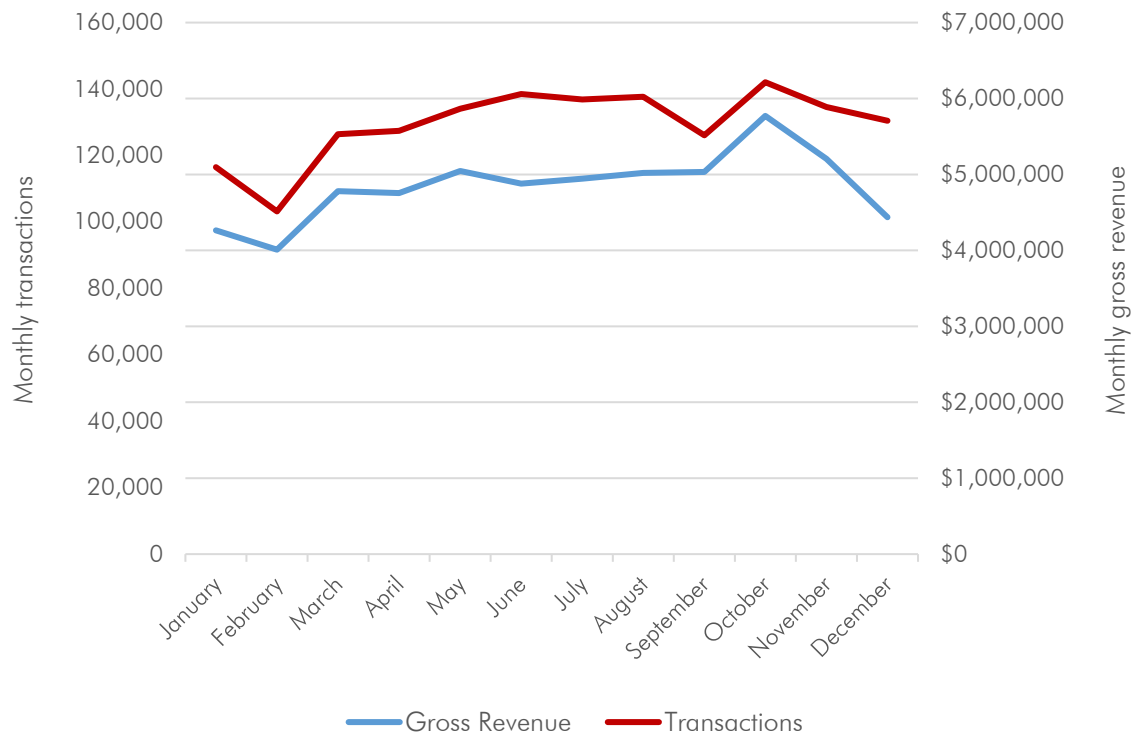
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1.4.3.2 Activity

In 2017, the Airport public parking facilities generated approximately \$58,142,000 in gross revenues. Figure 1-30 presents the monthly transactions and revenues for all public parking facilities combined.

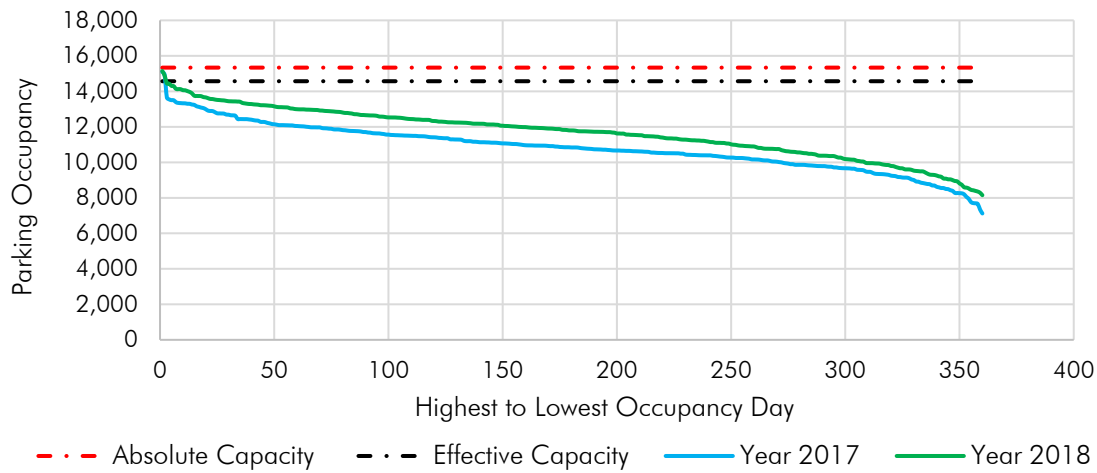
Figure 1-30: Public Parking Gross Revenues and Transactions - 2017



Source: Sacramento County Department of Airports, 2019

Figure 1-31 depicts the parking occupancy for all public parking facilities at the Airport in 2017 and 2018. On about 10 days of the year, which typically occurs near major holidays, the peak occupancy exceeds the effective capacity —14,571 occupied parking spots (i.e. 95% of the absolute capacity). Airport staff report several occurrences of lot/garage closures throughout the year due to capacity constraint. Therefore, recorded occupancies of individual parking products have been examined.

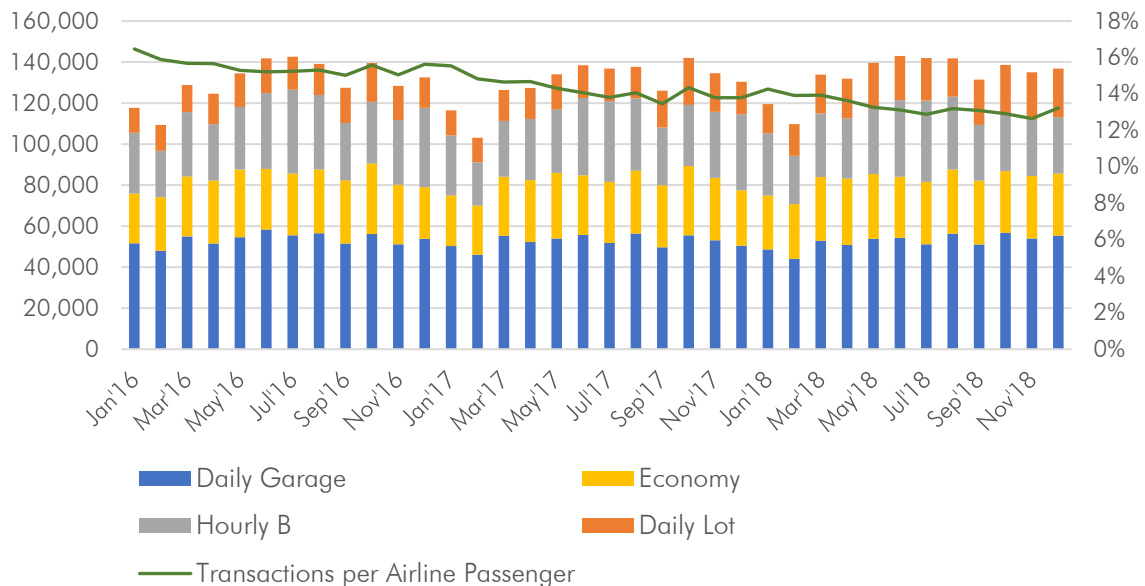
Figure 1-31: Parking Occupancy



Source: Sacramento County Department of Airports, 2019

Figure 1-32 depicts the historical parking trend at SMF. While the total annual parking transactions increased by 2.4% in the last three years (2016-2018), transactions per airline passenger decreased during the same time period. The monthly average transactions per 100 airline passengers were 15.5 in year 2016, which dropped to 13.3 in year 2018. This decrease is also reflected in gross revenue earned from public parking. Figure 1-32 depicts that the parking revenue per passengers is slowly declining over time. However, the gross revenue from public parking experiences a steady growth over the same time period primarily due to an increased parking fee.

Figure 1-32: Historical Parking Transactions



Source: Sacramento County Department of Airports, 2019

1.4.4 EMPLOYEE PARKING FACILITIES

SCDA provides parking for Airport and tenant employees in eight parking facilities at the Airport with a total capacity of 1,784 spaces. Employee Parking Lot 51, located east of Terminal A, has a capacity of 796 spaces and Employee Parking Lot 11, located south of Terminal B, has a capacity of 588 spaces. All other employee parking facilities have 100 or fewer spaces. In addition to these facilities, parking for a small number of employees is provided within the leased areas for general aviation and cargo operators.

1.4.5 RENTAL CAR FACILITIES

The rental car facilities, as shown on Figure 1-33, accommodate 10 rental car brands using seven facilities. Payless, Zip Car, and Thrifty share facilities with other brands. The facilities consist of customer areas, a customer service building, ready/return parking areas, and service centers that each rental car company uses for fueling, washing, and light maintenance of rental cars. Periodically, the rental car companies request space for vehicle storage. Storage needs can extend for periods of up to a week. Space requirements depend upon company operations and whether these needs coincide with one or more companies simultaneously.

Table 1-12 summarizes the areas within the rental car facilities.

Table 1-12: Rental Car Facilities

Facility	Capacity	
	Units (if applicable)	Area (square feet)
Customer service building	--	12,941
Ready/return areas	848 spaces	329,377
Service centers/rental car storage	--	1,252,238
Total		1,594,556

Source: Sacramento County Department of Airports, 2019

In addition to the areas included in Table 1-12, the rental car facilities have a curbside for shuttle bus loading and unloading, and a limited number of visitor parking spaces.

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LEGEND

- Airport Property Line
- x-x- Airfield Fencing
- █ Buildings

EXISTING FACILITIES

- ① Customer Service Building
- ② Avis Rent-A-Car Buildings
- ③ Budget Rent-A-Car Buildings
- ④ Dollar Rent-A-Car Buildings
- ⑤ Enterprise Rent-A-Car Buildings
- ⑥ Alamo Rent-A-Car Buildings
- ⑦ National Rent-A-Car Buildings
- ⑧ Hertz Rent-A-Car Buildings

KEY PLAN

Area Shown

GRAPHIC SCALE IN FEET

0 200' 400'

N

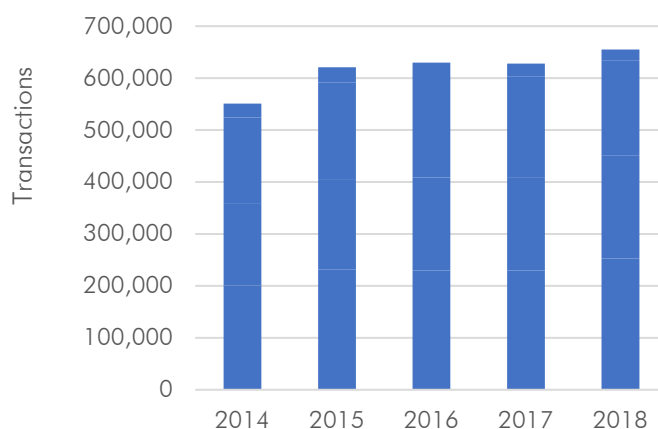
FIGURE 1-33

RENTAL CAR FACILITIES

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Figure 1-34 exhibits total annual rental car (RAC) transactions for the last five years (2014-2018). Total annual transactions reflect a 18.9% growth over that time period. Annual transactions increased significantly (12.7%) from 2014 to 2015, while transactions in 2017 were reduced to a small degree (0.3%) from 2016 transactions. 2018 transactions were revived with an increase of 4.3% from the previous year.

Figure 1-34: Annual Rental Car Transactions



Source: SMF Rental Car Transaction/Transaction Day Questionnaire, January 2019

1.4.6 SHUTTLE BUS OPERATIONS

The SCDA currently operates four shuttle bus routes serving passengers and employees. Table 1-13 summarizes the routes, areas served, and typical frequency. When not in use, shuttle buses are stored in the Shuttle Bus Lot and a portion of Parking Lot 9, as well as a section of the Daily Parking Lot B not accessible by the public (Figure 1-29).

Table 1-13: Shuttle Buses

Shuttle Route	Terminal-Area Stop Locations	Typical Frequency	Loop Time and Length
Daily A	Terminal A (check-in) Terminal A (baggage claim) Terminal B (East Commercial Curb) Daily A Lot	15 to 20 minutes	8 to 10 minutes, 1.3 miles
West and East Economy Lots (2 routes)	Terminal A (check-in) Terminal A (baggage claim) Terminal B (East Commercial Curb) Economy Lot	25 to 30 minutes	Up to 60 minutes, 3.5 miles
Rental Car	Terminal A (check-in) Terminal A (baggage claim) Terminal B (East Commercial Curb) Rental Car Center	5 to 10 minutes	10 to 12 minutes, 2.8 miles

Source: Sacramento County Department of Airports, 2019

1.4.7 COMMERCIAL VEHICLE FACILITIES

In addition to the commercial vehicle facilities located within the terminal area, the Airport provides a staging area located east of the gas station (at the south end of Airport Boulevard) for taxicabs and shared-ride vans awaiting dispatch to the terminal area. The staging area is currently striped to accommodate 46 vehicles and has a 720-square-foot lounge and restroom facility for the commercial operators.

Table 1-14 presents the monthly transactions of different commercial vehicles at SMF. While TNC, shuttle, and limo transactions have increased significantly, transactions for taxi and transportation charter part (TCP) have decreased at the same time. Transactions for other commercial vehicles such as freight and charter buses remain steady.

Table 1-14: Monthly Commerical Vehicle Transactions

Date	Freight & Charter Bus	STA	Limo	Shuttle	TCP	Taxi	TNC
Jul '17	82	211	40	6,093	8,098	10,305	26,812
Aug '17	85	259	31	6,360	8,540	11,197	30,110
Sep '17	90	279	20	6,486	8,651	11,334	32,041
Oct '17	96	267	35	6,789	8,680	12,414	34,731
Nov '17	56	200	25	5,965	8,327	10,603	34,079
Dec '17	96	169	36	5,604	7,494	9,128	33,701
Jan '18	70	242	35	5,585	7,026	10,114	28,548
Feb '18	54	219	142	5,175	6,874	10,193	30,616
Mar '18	6	301	198	5,504	8,521	12,796	38,886
Apr '18	30	308	271	5,899	7,986	12,267	38,221
May '18	98	276	287	6,044	7,889	11,572	40,945
Jun '18	87	265	1,213	5,869	6,218	10,265	40,201
Jul '18	48	178	1,128	8,968	3,059	8,965	37,280
Aug '18	58	181	1,439	9,631	2,899	9,467	41,543
Sep '18	45	226	1,725	9,176	2,716	9,306	41,735
Oct '18	72	209	1,922	9,031	2,867	10,034	46,766
Nov '18	78	193	1,896	8,164	2,446	9,522	46,908
Dec '18	56	192	1,944	7,675	2,051	7,940	45,622

Source: Sacramento County Department of Airports, 2019

The Airport signed an agreement to allow TNCs to serve airline passengers in September 2015. Since then, the transactions of TNCs have increased annually, reaching 3.4% of the total ground transportation mode share in January 2016, and over 11% at the end of year 2018. Due to the higher volume of TNCs, the Airport has allocated two designated pick-up locations for TNC passengers. For Terminal A passengers, TNC loadings are allowed from the ground transportation center located near baggage claim areas. A pick-up location on the north-west side of Hourly Lot B is solely dedicated for Terminal-B passengers.

1.4.8 PUBLIC TRANSIT SERVICES

Public transit service to the Airport is provided by Yolo Transit, which operates two routes serving the Airport. Route 42A travels in a clockwise loop connecting the Airport, downtown Sacramento, Davis, and Woodland. Route 42B travels the same loop, but in a counterclockwise direction. Route 42A provides hourly service at the Airport between 5:30 a.m. and 10:30 p.m. during weekdays and between 8:30 a.m. and 10:30 p.m. on Saturdays, Sundays, and holidays. Route 42B provides hourly service at the Airport between 5:30 a.m. and 10:30 p.m. during weekdays and between 5:30 a.m. and 10:30 p.m. on Saturdays, Sundays, and holidays. Yolo transit buses pick up and drop off riders on the outer curb at Terminal A and on the lower level eastern outer curb at Terminal B.

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1.5 AIR CARGO

Air cargo facilities are depicted on Figure 1-35, and include the air cargo building on the east side of the Airport that supports several cargo operations, the United Air Freight building, and the United States Postal Service (USPS) facility. Six cargo airlines serve the Airport: ABX Air, Amerijet, Air Transport International (ATI), Atlas Air, FedEx, and Westair Industries. Worldwide Flight Services, a ground handling company, loads and unloads cargo for ABX Air, ATI, and Atlas Air. Cargo carried in the belly compartments of passenger aircraft, particularly U.S. mail, is also accommodated at the USPS facility on the Airport. SMF is eligible for Cargo Entitlements as more than 100 million pounds of cargo from cargo-only aircraft lands at the Airport. These cargo facilities are aging and require substantial improvements to be able to effectively accommodate cargo operations and growth.

1.5.1 FEDEX

FedEx occupies approximately 4,500 square feet of office space (2,700 sq.ft. on the ground floor and 1,800 sq.ft. on the mezzanine), 735 square feet of storage space, and 9,700 square feet of warehouse space in the northern portion of the air cargo building, which was built in 1985 (shown on Figure 1-35 as #4). FedEx aircraft park at three designated aircraft parking positions near the air cargo building. FedEx also leases approximately 101,000 square feet of apron/paved space for loading and unloading of aircraft and for equipment storage. This apron area is located immediately west of the air cargo building and includes space for FedEx feeder aircraft operated by Westair Industries. There are nine positions available for Westair's Cessna Caravan aircraft.

1.5.2 OTHER AIR CARGO

Worldwide Flight Services delivers air cargo for other cargo companies at the Airport. Their aircraft currently lease former RON positions north of the cargo building across Taxilane B2. The new Aeroterm cargo facility built in former Parking Lot 54 is also used by Worldwide Flight Services and other cargo companies. (Building 10 on Figure 1-35).

1.5.3 PASSENGER AIRLINES

United Air Freight occupies approximately 1,700 square feet of office space and 10,000 square feet of warehouse space in the United Air Freight building (Building #9 on Figure 1-35), which was built in 1967. United Air Freight also leases approximately 22,400 square feet of apron/paved space adjacent to this building.

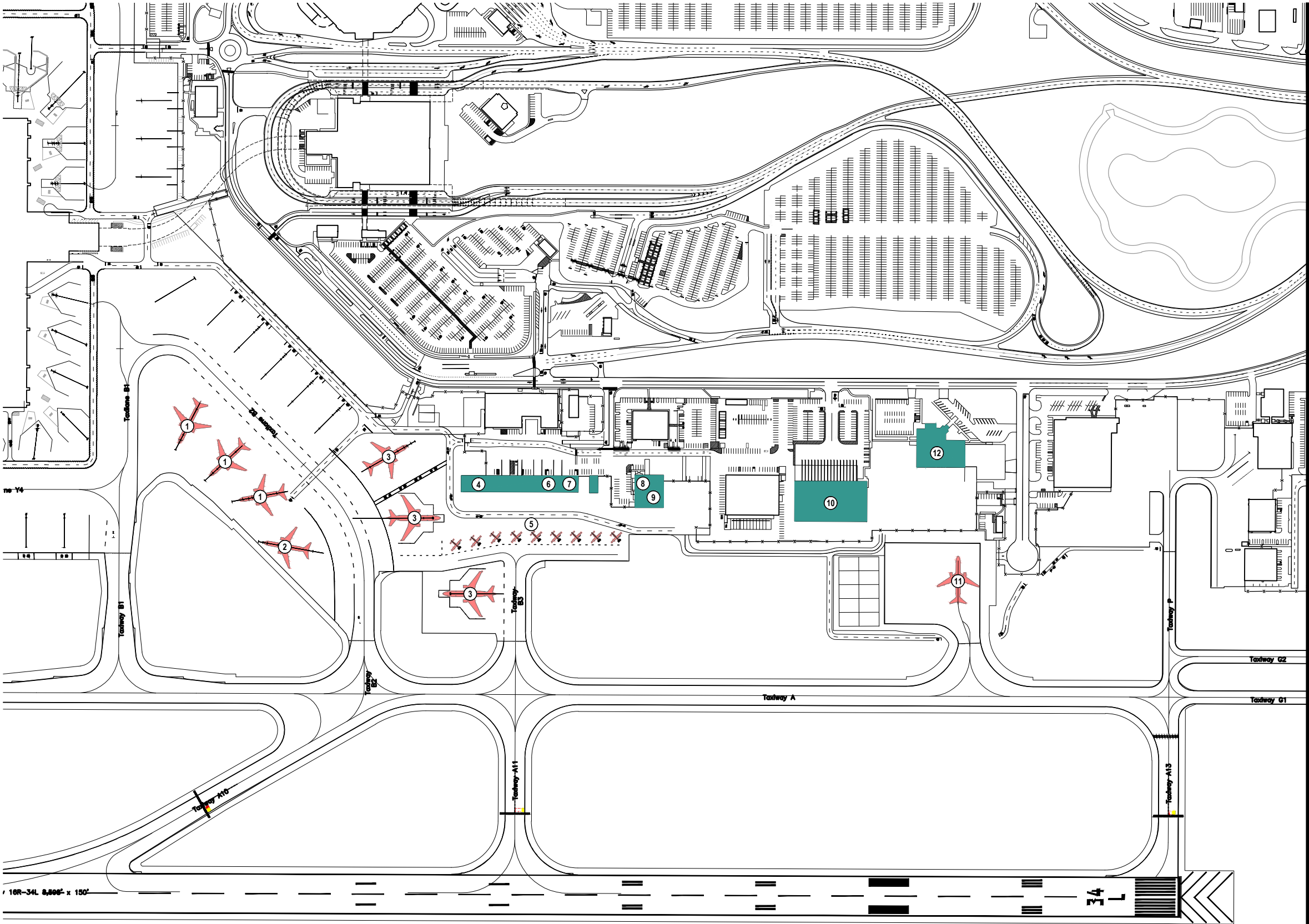
Delta Air Lines occupies space in the air cargo building (Building #6 on Figure 1-35) and approximately 500 square feet of office space and 2,200 square feet of warehouse space in the United Air Freight building (Building #8 on Figure 1-35). Delta Air Lines also leases 3,300 square feet of apron area in front of the facility for storage of GSE.

Southwest Airlines occupies approximately 3,900 square feet of office space (3,000 sq.ft. on the ground floor and 900 sq.ft. on the mezzanine), 2,000 square feet of storage space on the mezzanine, and 7,600 square feet of warehouse space in the southern portion of the air cargo building (shown on Figure 1-35 as #7). Southwest Airlines leases approximately 13,400 square feet of apron area adjacent to its assigned spaces in the air cargo building.

1.5.4 UNITED STATES POST OFFICE

The USPS Airport Mail Facility is located on Lindbergh Drive adjacent to the employee parking lot, and was built in the late 1980s (Building #12 on Figure 1-35). This 19,000-square-foot facility includes a public service (vending) center and mail sort/transfer operation. Secure access via a tug road links this facility to the Airport terminal aprons for pickup/deliveries to and from aircraft. USPS is currently served by Amerijet.

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LEGEND

- Airport Property Line
- x- Airfield Fencing
- █ Buildings

AIR CARGO FACILITIES

- ① Worldwide Flight Services Gate
- ② Amerijet Gate
- ③ FedEx Express Gate
- ④ FedEx Express Cargo Facility
- ⑤ Westair Industries (FedEx Feeders)
- ⑥ Delta Air Cargo Facility
- ⑦ Southwest Air Cargo Facility
- ⑧ Delta Air Cargo Lease from United
- ⑨ United Air Cargo Building
- ⑩ Aeroterm Cargo Facility
- ⑪ Worldwide Flight Services Gate
- ⑫ Untied States Postal Service Facility

KEY PLAN

Area Shown

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0 200' 400'

GRAPHIC SCALE IN FEET

FIGURE 1-35

AIR CARGO FACILITIES

Sacramento International Airport Master Plan
August 2019

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1.6 GENERAL AVIATION AND FAA FACILITIES

The Airport is home to a FBO serving the general aviation community, a SASO, and a FAA FIFO, all of which are described below. Figure 1-36 shows the GA and FAA facilities. Table 1-15 summarizes the apron and hangar space associated with each facility. Aging facilities require investment and improvement to accommodate growing operations.

1.6.1 SACRAMENTO JET CENTER

The Airport's FBO, SACjet, is located immediately west of Lear Drive and east of Taxiways G-1 and G-2 (Buildings #6 and #7 on Figure 1-36). SACjet provides a complete range of general aviation services, including fueling (both JetA and 100LL), onsite rental car, customs, ground handling, hangar storage, oxygen and potable water, concierge, and catering services, as well as lounge and office space and an on-call avionics and maintenance technician.

The SACjet site consists of a 40,000-square-foot hangar used for aircraft storage and maintenance and a 6,500-square-foot building that accommodates the FBO's administrative offices, a pilots' lounge, and other crew and passenger amenities. The facilities were built in 2010. SACjet also operates and maintains 12,000 square feet of hangar space and 15,000 square feet of apron space west of the FAA FIFO hangar (Building #3 on Figure 1-36). Approximately eight aircraft are based at SACjet, ranging in size from single-engine piston aircraft to corporate jets. In total, the SACjet apron encompasses 340,000 square feet. Airfield access is provided via Taxiways G-1 and G 2. Vehicular access to the SACjet sites is from Lear Drive, via Lindbergh Drive.

1.6.2 TEXTRON AVIATION SACRAMENTO SERVICE CENTER

The Airport's SASO, the Textron Aviation Sacramento Service Center (Sacramento Service Center), is located immediately south of Citation Way, north of Taxiway P and east of Taxiway A (Building #1 on Figure 1-36). The service center site consists of a 57,362-square-foot hangar, apron space with a compass calibration pad, a 20,000-gallon fuel tank, and a 5,000-gallon refuel/defuel tank. A 78,000-square-foot apron is adjacent to, and south of, the hangar. Airfield access is provided via Taxiway P. Vehicular access is from Citation Way, via Lindbergh Drive.

Sacramento Service Center staff are capable of serving all Citation, Caravan, Beechcraft, and Hawker products. Their services include airframe inspections and maintenance, avionics troubleshooting and modifications, and inspections and coordination of overhauls. The Sacramento Service Center employs approximately 100 personnel.

1.6.3 CORPORATE HANGAR

One hangar located immediately south of Taxiway P (Building #2 Figure 1-36) has been used in various capacities; as a corporate hanger and cargo facility, and has approximately 14,540 square feet of hangar space and 10,000 square feet of apron space. Vehicular access is from Flightline Circle, via Lindbergh Drive.

1.6.4 FAA FLIGHT INSPECTION FIELD OFFICE

The FAA FIFO performs flight inspection activities to certify navigational aids and instrument flight procedures for the Sacramento region. As shown on Figure 1-36, the FIFO hangar and office facilities are located immediately west of Lindbergh Drive and south of Taxiway P, east of the corporate hangar described in the preceding section. The FIFO facilities consist of approximately 22,339 square feet of hangar space (Building #4) and 24,000 square feet of apron space. Within the hangar space, facilities include approximately 4,500 square feet of office area, 7,000 square feet of shop area, and 3,000 square feet of vacant space. The FIFO also has

additional office space in a building next to the hangar (Building #5 on Figure 1-36). Airfield access is provided via Taxiway P and vehicular access is from Flightline Circle, via Lindbergh Drive.

Table 1-15: General Aviation and FAA Facilities

Facility	Hangar space (sq.ft.)	Apron area (sq.ft.)
Sacramento Jet Center	40,000	340,000
Textron Aviation Sacramento Service Center	57,362	78,000
Corporate Hangar (west)	14,540	10,000
Corporate Hangar (east) (a)	12,000	15,000
FAA Flight Inspection Field Office Hangar and Building	31,016	24,000

(a) This facility is leased by SACjet.

Source: Sacramento County Department of Airports records, 2019



LEGEND

- Airport Property Line
- x- Airfield Fencing
- █ Buildings

EXISTING FACILITIES

- ① Textron Aviation Sacramento Service Center
- ② Corporate Hangar
- ③ Corporate Hangar
- ④ Flight Inspection Field Office Hangar
- ⑤ Flight Inspection Field Office
- ⑥ FBO Office
- ⑦ FBO Hangar

KEY PLAN

Area Shown

GRAPHIC SCALE IN FEET

0 100' 200'

N

FIGURE 1-36

**GENERAL AVIATION AND
FAA FACILITIES**

Sacramento International Airport Master Plan
August 2019

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1.7 AVIATION SUPPORT

Aviation support facilities at the ARFF, in-flight catering, Airport administration, aircraft fuel storage, and airline support facilities, as well as Airport equipment storage and maintenance areas, as described below. Similar to other airport support facilities, a majority of the infrastructure is aging and will require improvements as Airport activity grows and places additional demand on these facilities. These support facilities are highlighted with a pale orange color on Figure 1-37.

1.7.1 AIRCRAFT RESCUE AND FIRE FIGHTING STATION

Sacramento County Airport Fire currently has 33 members providing ARFF, structural and wildland fire suppression, and emergency medical services IT. The ARFF station was originally constructed in 1967. The facility is about 10,000 square-feet and located north of the terminal buildings on Earhart Drive (Building #38 on Figure 1-37). The station includes equipment pursuant to FAA guidelines and regulations for ARFF Index C, and is staffed 24 hours a day.

The ARFF had an interior remodel completed in 2006 and was partially re-roofed in 2012. Within the facility there are: six vehicle bays, two equipment and materials bays, administrative and staff offices, kitchen and lounge areas, a training room, an exercise room, sleeping areas, and restrooms and showers. Approximately 20 parking spaces are provided for ARFF employees, with an additional six spaces provided for administrative and visitor parking. Equipment stored at the facility includes:

- Bay 1 – 3,000-gallon water, 405-gallon Aqueous Film Forming Foam (AFFF) Vehicle
- Bay 2 – 1,500-gallon water, 205-gallon AFFF Vehicle
- Bay 3 – Command Vehicle
- Bay 4 – 350-gallon water, 40-gallon AFFF Vehicle
- Bay 5 – 750-gallon water, 20-gallon Class A Foam Type I Engine
- Bay 6 – 1,500-gallon water, 205-gallon AFFF Vehicle
- Bays 7 and 8 – Equipment and Materials Storage

1.7.2 IN-FLIGHT CATERING

LSG Sky Chefs provides in-flight catering services to the passenger airlines serving the Airport. It leases a 104,000-square-foot site with a 30,000-square-foot building in the area southwest of Terminal B, between the United Air Freight building and the air cargo facility (Building #17 on Figure 1-37).

1.7.3 AIRPORT ADMINISTRATION FACILITIES

SCDA occupies office space in both terminals. Approximately 40,000 square feet of office space is provided on Level 02 of Terminal A for administrative facilities, as well as a large meeting room (the Media Room). Approximately 8,000 square feet of additional administrative facilities are located on Level 01 of Terminal A.

SCDA executive offices are located on Level 04 of Terminal B, which occupy approximately 17,000 square feet. Other administrative spaces in Terminal B occupy approximately 3,300 square feet on Level 00, 7,400 square feet on Level 01, 6,200 square feet on Level 02, and 400 square feet on Level 03.

1.7.3.1 Operations Building

The Operations Building (Building #36 on Figure 1-37) was constructed in 1982 and functioned until recently as the Airport's administration building. Airport administration offices are now housed on Level 04 of the Terminal B landside building. The Operations Building provides approximately 10,000 square feet of space on

two floors. The building was remodeled in early 2013, and again in 2018, and houses operations, badging and security functions, and the Sheriff's Department.

1.7.3.2 Physical Plant Maintenance Building

The Physical Plant Maintenance Building (Building #40 on Figure 1-37) is a 14,000-square-foot facility, constructed in 2008, and contains offices, shops, and storage. The interior is partitioned to allow for the office and conference facilities to be isolated from the maintenance facilities. The building has a public access and security facility to limit access, and a dedicated parking lot. The Physical Plant Maintenance Building has a roll-up door for vehicular access to a high bay area, which allows use of the space for light maintenance of rolling mechanical equipment or vehicles.

1.7.3.3 Central Warehouse Building

The Central Warehouse Building (Building #10 on Figure 1-38) was constructed in 2009 and consists of warehouse space, support offices, and the Airport's Information Technology * department. The building accommodates approximately 32,000 square feet of office and warehouse space on the first floor and 1,300 square feet of storage space on the mezzanine. Outside the warehouse, there is a sunken loading dock sized to accommodate three full-size delivery trucks as well as light, surface-loaded vehicles. The building has the capability of being segregated into airside and landside facilities with the appropriate EDS screening equipment and Security Identification Display Area (SIDA) control access.

Currently, the building is used by the Airport as a shipping, receiving, storage, and distribution facility, with landside-only access.

1.7.4 AIRCRAFT FUEL STORAGE

The Airport's fuel farm is located northeast of the ARFF station, on the east side of Earhart Drive (Facility #46 on Figure 1-37). The fuel farm is supplied with a 12-inch diameter pipeline owned and operated by Wickland Oil Company and is connected to the Kinder Morgan pipeline in the City of West Sacramento. The fuel farm includes one horizontal 2,000-gallon waste fuel storage tank, one self-contained 12,000-gallon AvGas storage tank, and three vertical 1,764,000-gallon jet fuel storage tanks. Jet fuel is stored "in series," meaning that fuel is received in the first tank for initial filtering, then moved to the second tank for additional filtering, and then finally dispensed to aircraft fueling trucks from the third tank. The fuel farm is owned by an airline consortium led by Southwest Airlines and is operated by Allied Aviation under contract with Southwest.

1.7.5 AIRLINE SUPPORT FACILITIES

As of December 2019, operators providing support services (ground handling, maintenance, aircraft cleaning) to the airlines serving the Airport include:

- Aviation Port Services
- Flying Food Group
- GAT Airline Ground Support
- Global Aviation
- Jett Pro Line Maintenance
- Matrix Aviation
- PrimeFlight Aviation Services
- U.S. Aviation Services Corp.
- Certified Aviation Services (CAS)

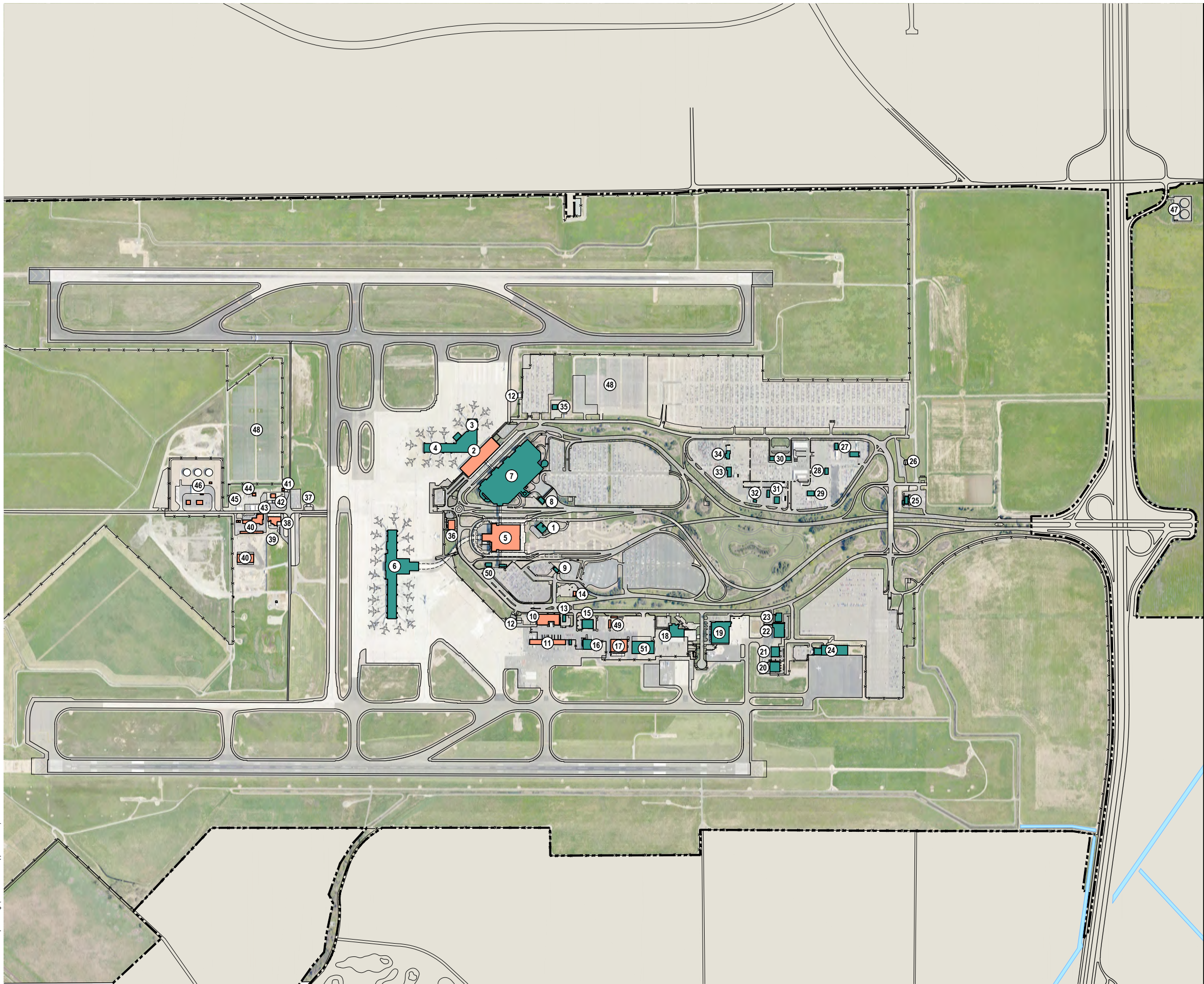
The passenger airlines lease space in the air cargo building and assign the space to their respective ground service and maintenance providers. Southwest Airlines leases approximately 13,500 square feet of the air cargo building, and 13,400 square feet of paved space in front of the building. Other airlines lease a total of 4,300 square feet of the air cargo building, and 5,300 square feet of pavement in front of the building.

1.7.6 AIRPORT EQUIPMENT STORAGE AND MAINTENANCE AREAS

Facilities for the storage of Airport maintenance equipment are located in the north airfield area adjacent to the ARFF station. There is 44,974 square feet of maintenance building space at SMF. Some of that space is used for storage, some is used for repair activities, administrative, and other office space.

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LEGEND

FACILITIES INDEX

1

Air Traffic Control Tower

2

Terminal A

3

Terminal A - Concourse One

4

Terminal A - Concourse Two

5

Terminal B

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Concourse B

7

Parking Garage

8

Parking Toll Plaza A

9

Parking Toll Plaza B

10

Central Warehouse

11

Air Cargo Building

12

Trash Compactor Station

13

West Electrical Vault

14

CNG Fuel Facility

15

Facility Management

16

United Airlines Freight Building

17

Airline Catering Building

18

United States Post Office

19

Cessna Citation Service Center

20

Corporate Hangar

21

Corporate Hangar

22

Flight Inspection Field Office Hangar

23

Flight Inspection Field Office

24

FBO Office/Hangar

25

ARCO Station

26

Taxi Service Trailer

27

Hertz Rent-A-Car Building

28

Enterprise Rent-A-Car Building

29

Enterprise Rent-A-Car Building

30

Rental Car Terminal

31

Enterprise Rent-A-Car Building

32

Advantage Rent-A-Car Building

33

Avis/Budget Rent-A-Car Building

34

Avis/Budget Rent-A-Car Building

35

East Electrical Vault

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Airport Operations Building

37

Biffy Dump Station

38

Aircraft Rescue and Firefighting (ARFF)

39

Airport Beacon

40

Airfield Maintenance Building

41

North Electrical Vault

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Vehicle Fuel / Wash Facility

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Trailers (2)

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Testing Lab

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Electrician and Painters' Trailer

46

Fuel Farm

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Airport Water Storage Tanks

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Solar Field Arrays

49

Landscape Maintenance Buildings

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Cooling Tower

51

Aeroterm Cargo Facility

Airport Property Line

Airfield Fencing

Buildings

Off-Airport Property

←

→

0

600'

1200'

GRAPHIC SCALE IN FEET

FIGURE 1-37

AVIATION SUPPORT FACILITIES

Sacramento International Airport Master Plan
August 2019

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1.8 UTILITIES

Utilities at the Airport consist of water, storm drainage, sanitary sewer, jet fuel, electrical and communications, and natural gas systems. Water, storm drainage, sanitary sewer, and jet fuel systems are referred to as wet utilities and are shown on Figure 1-38. Electrical and communications and natural gas systems are referred to as dry utilities and are shown on Figure 1-39.

1.8.1 WATER

The City of Sacramento provides water service to the Airport. The water for domestic use and fire protection demand is supplied by a water storage and pumping facility located at the intersection of Power Line Road and Bayou Way, on the south side of I-5. The water storage and pumping facility is supplied with water by an incoming 24-inch source, which in turn, supplies a 12-inch distribution loop located at the Airport. The distribution loop increases the capability of the water system to supply adequate flows and pressures throughout the system. The water utility routing is shown on Figure 1-38.

On-Airport water service is provided by a 12-inch-diameter main loop that runs along Lindbergh Drive on the west side of the Airport and Aviation Drive along the east side of the Airport. The east and west loops are connected by a main running along the north portion of Airport Boulevard. Another main runs from the fuel storage facility to the south along Earhart Drive. The south end of the Earhart Drive main is connected to the west loop near the Sacramento Service Center. A cross main connects to the loop on the west side near the Physical Plant Maintenance Building, to the Earhart Drive main on the east side near the ATCT.

During a 2013 inventory, four wells were located on, or in the vicinity of, Airport property. These wells are used for irrigation purposes and occasionally may be used for dust control when in proximity to construction.

There are many surface water distribution channels on the Airport. The Airport coordinates with Reclamation District 1000 (RD 1000) and the Natomas Central Mutual Water Company (NCMWC) on the use of these right-of-ways.

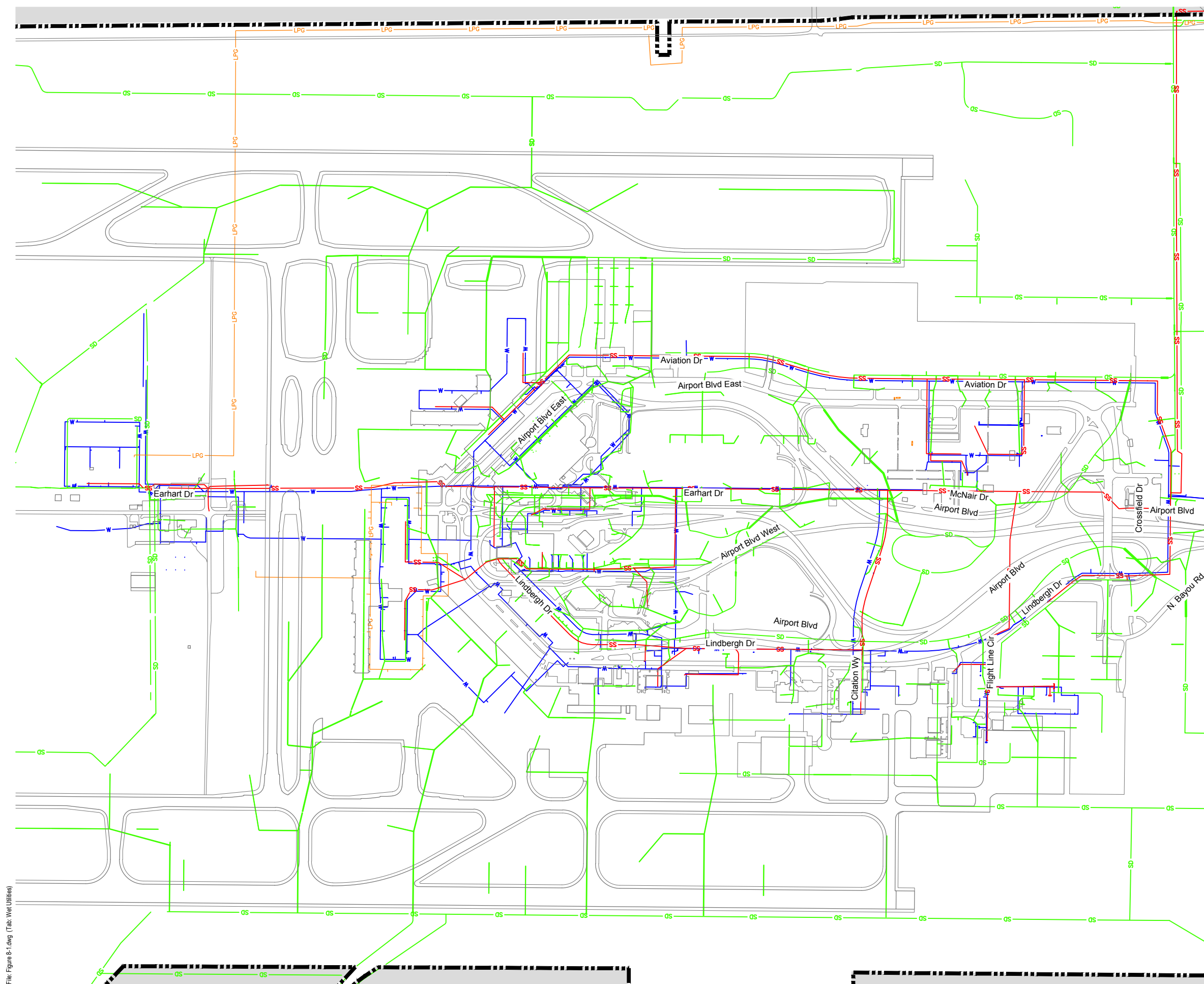
1.8.2 STORM DRAINAGE

The Airport's storm drainage system is a gravity flow system. Stormwater surface runoff is captured by a series of open channels and pipes, directed through water quality facilities, such as oil/water separators and sand filters, and then transported toward the southwest of the property to the Airport West Ditch. Once in the Airport West Ditch, the water is then transported via gravity flow to the RD 1000 West Drainage Canal to an existing RD 1000 pumping plant (Number 5), where it is discharged to the Sacramento River. The storm drainage utility routing is shown on Figure 1-38.

1.8.3 SANITARY SEWER

The Sacramento Area Sewer District (SASD) provides wastewater collection services at the Airport. The sanitary sewer system is relatively shallow, and primarily a gravity flow system. The only area from which wastewater is not transported solely by gravity flow is near the fuel storage and ARFF facility. Wastewater from the north airfield is transported by gravity flow to a point north of the Biffy Station. The sanitary sewer system then transports the waste by a force main down to the sanitary sewer gravity main located at Airport Boulevard, west of the parking garage.

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LEGEND

- Airport Property Line
- LPG Jet Fuel Utility
- W Water Utility
- SD Storm Drainage Utility
- SS Sanitary Sewer Utility
- Off-Airport Property

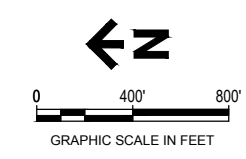
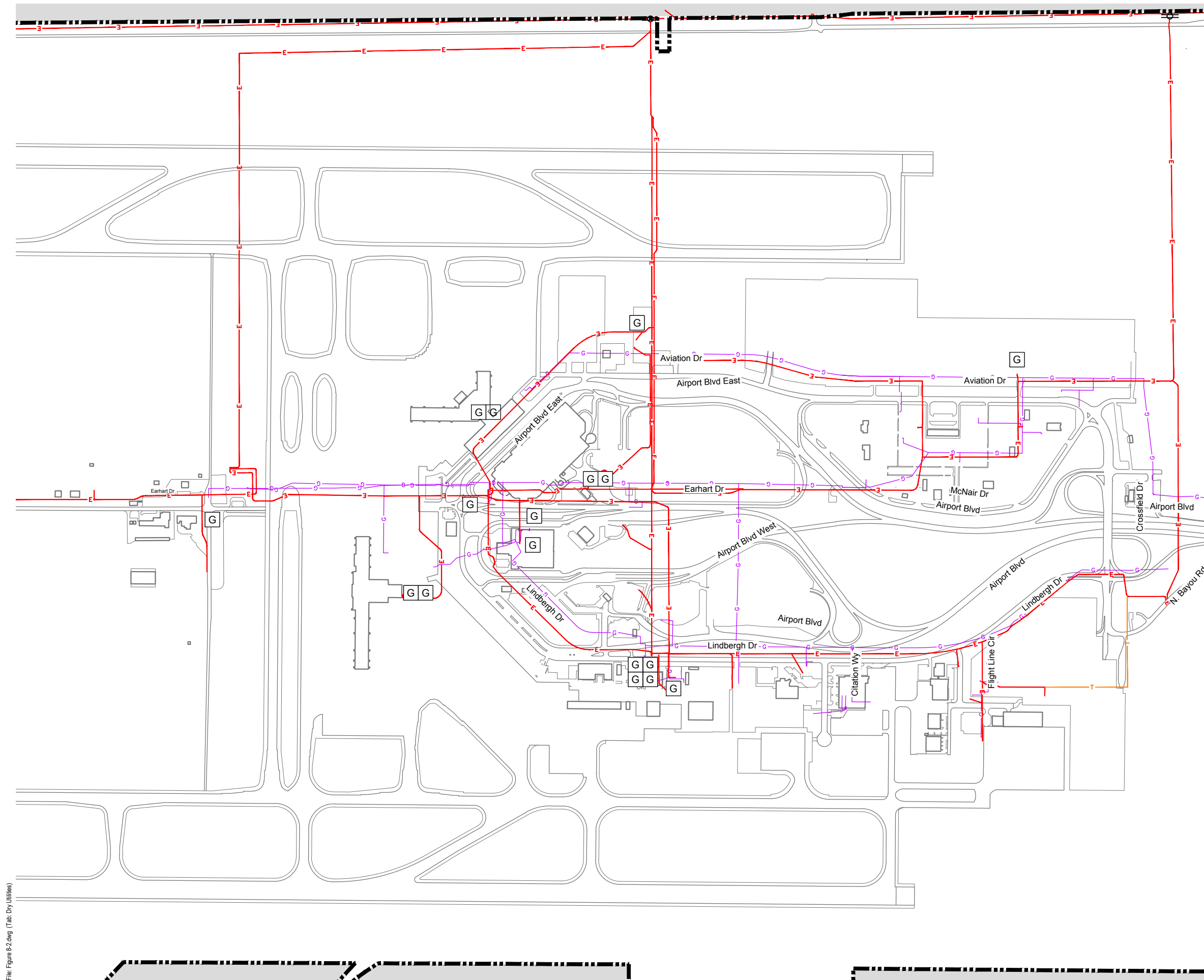


FIGURE 1-38

WET UTILITIES

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File: Figure 6-2.dwg (Tab: Dry Utilities)

FIGURE 1-39

DRY UTILITIES

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The sanitary sewer system consists of two mains that run along Earhart Drive and Aviation Drive. The Aviation Drive gravity main transports wastewater from Terminal A and picks up wastewater from the rental car facilities. The Earhart Drive gravity main transports waste from multiple locations: the north airfield, Concourse B, Terminal B, and all buildings located along Lindbergh Drive. The two mains then converge and connect into the SASD'S 18-inch Meister Way connection. The sanitary sewer utility routing is shown on Figure 1-38.

1.8.4 JET FUEL

Multiple suppliers provide jet fuel to the Airport via a pipeline owned by Kinder Morgan Inc. The Airport fuel farm is located in the north airfield along the east side of Earhart Drive. Fuel is delivered to the Airport by a 12-inch underground fuel line that runs along Power Line Road. The fuel line then enters the Airport heading west from Power Line Road along Cy Homer Road before heading north into the fuel farm, approximately 500 feet east of Earhart Drive. Fuel is dispensed to aircraft via fuel trucks.

During the Big Build, a 10-inch underground loop fuel delivery system around Concourse B was constructed with in-ground fuel pits at each aircraft gate. The fuel pits were placed so that they could service a variety of aircraft around Concourse B. The system is not currently connected to the fuel farm. To complete the system, a 14-inch jet fuel line from the Concourse B underground loop to the fuel farm, hydrant pit valves, and larger double block and bleed valves in the isolation pits must be installed. The jet fuel system routing is shown on Figure 1-38. Accommodations have not been made at the fuel farm to construct an underground fuel line to Terminal A.

1.8.5 ELECTRICAL AND COMMUNICATIONS

The Sacramento Municipal Utility District (SMUD) provides electrical service to the Airport from two 69kv lines (one line that follows Elverta Road and one line that follows Del Paso Road) and both connect into a SMUD substation (which has automatic transfer capability). They are located in the vicinity of Power Line Road and north of Elkhorn Road. The substation is connected to three primary facilities: the North Vault, East Vault, and West Vault. All three electrical vaults provide a looped power distribution system, with redundant paths to critical facilities.

The Airport also has a cogeneration plant that consists of a natural gas-powered generator, which uses the waste heat produced to generate cooling for buildings elsewhere on the Airport. The cogeneration plant cannot be used for backup power; all electricity generated at the plant is sold to SMUD. Emergency backup power is provided to individual buildings by local emergency generators. A total of 18 generators are maintained by County staff. The generators range in size with fuel capacity (75-2,000 gallons) and horse power (50-2,876 hp). The smallest generator supplies emergency power to the Public Safety Building, while the largest generator supplies emergency power to Terminal A. The electrical utility routing is shown on Figure 1-39. Emergency power generator data is provided in Table 1-16.

The communications main follows the power distribution system. The communications network enhances Airport security, provides an effective interface between central control operators and passengers, and facilities. SureWest, AT&T, and T-Mobile provide communication services to the Airport. Free wireless internet service is provided throughout the Airport. The communications utility routing is also shown on Figure 1-39.

Integrity Data & Fiber is the primary contracted vendor that provides cabling and fiber optics at the Airport. Fiber optics are used at the Airport for automated vehicle identification and parking access revenue control. Airport IT staff maintain the equipment.

Table 1-16: Emergency Power Generators

Generator name	Unit #	Capacity (kW)	Output Power (hp)
Aircraft Rescue and Fire Fighting Building	409-01	150	277
Airside Concourse B - East	409-43	1500	2346
Airside Concourse B - West	409-44	1500	2346
Central Warehouse	409-42	300	470
East Toll Plaza	409-19	400	643
East Vault	409-16	275	474
Landside Terminal B - East	409-38	1500	2253
Landside Terminal B - West	409-39	1500	2253
Parking Garage - Terminal A	409-32	800	1200
Public Safety Building	409-17	25	50
Rental Car Terminal	409-12	400	600
Terminal A - No. 1	409-20	2000	2876
Terminal A - No. 2	409-21	2000	2876
United Air Cargo	409-31	125	188
Water Tanks	409-36	500	750
West Vault	409-14	275	474
West Vault	409-15	450	750
West Vault	409-37	800	1239

Source: Hatch Mott MacDonald, 2013

1.8.6 NATURAL GAS

Pacific Gas and Electric Company provides natural gas service to the Airport. Three main underground pipelines transport gas throughout the Airport, all at under 60 pounds per square inch of pressure. One main runs north-south along Aviation Drive and terminates at Terminal A. The second main runs north-south along Earhart Drive to the north airfield area where it terminates. The third main branches off from the second main, runs westerly between Terminal B and the Air Operations Area perimeter, and continues along Lindbergh Drive until it terminates at Flight Line Circle. The natural gas utility routing is shown on Figure 1-39.

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APPENDIX A

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Table AD-1: Master Plan Project List

Location	Master Plan Element	Notes
Phase 1 (2007-2013)		
Passenger Terminal	New landside passenger terminal (Terminal B), airside concourse (Concourse B; accommodating a total of 23 aircraft gates), aircraft completed apron, and associated on-airport roadway modifications.	Completed
	Hotel	No Change
	Parking Garage	No Change
Airside (including support facilities)	New Taxiway Y (Taxiway W) parallel to existing Taxiway Y and south of Cy Homer Road	Completed
	New full-length parallel Taxiway A	Removed
	Taxiway A, holdpads, and high-speed taxiway exits for Runway 16R/34L (west runway)	No Change
	New Airport Traffic Control Tower (ATCT) north of Cy Homer Road and west of Earhart Drive	No Change
	New airport, airfield, and equipment maintenance buildings north of Cy Homer Road	No Change
	General aviation area including corporate hangars, fixed base operator facility, and apron	No Change
Landside	Expanded rental car parking surface lot between Airport Boulevard and Earhart Drive, and expanded rental car terminal facility east of Airport Boulevard and McNair Circle	No Change
	Elkhorn Boulevard extension from Metro Air Park to Crossfield Drive	No Change
	Employee parking surface lot north of I-5 and west of Airport Boulevard to accommodate 1,500 automobile parking spaces	No Change
	Landscape maintenance area south of the General Aviation area and employee parking lot	No Change
	New remote economy parking and rental car overflow facility to accommodate 13,800 automobile parking spaces south of I-5. Access to I-5 and SMF would be provided with an extension of Airport Boulevard to the parking facility.	Changed to Industrial Uses and moved to Phase 3
	New ground service equipment maintenance building east of Aviation Drive	Removed
	New community fire station at northwestern corner of Lindbergh Drive and Crossfield Drive. The fire station is to be built by the City of Sacramento Fire Department on County-owned land.	No Change
	Expanded flight kitchen facility	No Change
	New shuttle bus maintenance and staging facility east of Aviation Drive	No Change
	Strengthen and overlay Earhart Drive to the existing	Removed

	Elverta Road intersection	
	Widen Cy Homer Road to two lanes	No Change
	Acquire two areas (48 acres and 313 acres) north of I-5 for buffer area and one area (442-460 acres) south of I-5 for aircraft approach protection	No Change
Phase 2 (2014-202)		
Passenger Terminal	Expand landside Terminal B to create a centralized landside terminal	No Change
	Expand Concourse B to add four gates	Changed to 6 Gates
	Expand Terminal B parking garage	No Change
	Extend Terminal A Concourse piers to accommodate four additional aircraft gates	No Change
Airside (including support facilities)	2,400-foot extension of Runway 16L/34R (east runway) to provide a total runway length of 11,000 feet	Changed (length to be determined)
	New localizer, Instrument Landing System (ILS) glide slope, and High Intensity Approach Lighting System with Sequenced Flashing Lights (ALSF-2) for new ILS approach to Runway 34R	No Change
	New perpendicular taxiway exits for parallel Taxiway A	No Change
	New full-length parallel Taxiway E and holding pads	Removed
	Runway 16L/34R high-speed taxiway exits	Completed
	New north crossfield Taxiway Z (north of Taxiway W)	No Change
	Additional terminal apron in proximity to Terminal A concourse	No Change
	New air cargo building and air cargo apron with a taxiway connector to the Runway 34R end	No Change
	New Aircraft Rescue & Fire Fighting (ARFF) building north of CY Homer Road and west of Earhart Drive	No Change
	Extension of Cy Homer Road to both existing runways	No Change
Landside	Relocate Elverta Road to avoid Runway 16L Runway Protection Zone (RPZ) and extend Earhart Drive to the relocated Elverta Road	Removed
	Clearer signage on Bayou Way between Airport Boulevard and Power Line Road	Removed
	Commercial development on approximately 79 acres south of I-5	Changed (increase to 97 acres)
Ditch Modifications	Place ditches within culverts and pipes in RPZ and road areas	No Change
Phase 3 (After 2020)		
Passenger Terminal	New Concourse to serve third runway	Removed
Airside	New 8,600-foot runway parallel to and 1,200 feet west of	Removed

	existing Runway 16R/34L	
Landside	Light rail and/or bus rapid transit service to SMF passenger terminal	No Change
	Commercial development on approximately 77 acres north of I-5 and east of Airport Boulevard, and approximately 135 acres north of existing Elverta Road	Changed (increase to 98.5 acres north of I-5)
	Commercial development on approximately 46.5 acres south of I-5	Changed (18 acres moved to Phase 2 and 28.5 acres now proposed for light industrial uses)