



FRESNO YOSEMITE
INTERNATIONAL AIRPORT

Master Plan Update 2018



INTRODUCTION

Fresno Yosemite International International Airport (the Airport) is a vital transportation hub connecting the people and businesses of Central California to the world. The Airport plays a crucial role in the regional transportation system, accommodating commercial airline passenger activity, transporting millions of tons of air cargo, and serving over 100,000 annual operations by commercial, military, emergency services, business, and general aviation aircraft.

To ensure the Airport continues serving the air transportation and economic development needs of Central California, the City of Fresno Airports Department commissioned an Airport Master Plan Update. This Master Plan provides a strategic vision for the growth and operation of the Airport over the next 20 years and guidance for land use and development decisions on and near the Airport.

Over the past decade, many regional changes have occurred including area population growth, a different business community make-up, and increased international air travel demand. In addition, there were many aviation industry changes affecting the habits of regional commercial and general aviation users. The Master Plan Update addresses these changes to ensure the region's aviation needs continue to be met in a feasible and fiscally responsible manner. The Master Plan Update also ensures ongoing Airport development maintains the safe and efficient movement of passengers and products, while being compatible with the surrounding community and environment.



MISSION AND VISION STATEMENT

To guide the ongoing operation and management of the Airport, and to provide context for the preparation of the Master Plan Update, the following vision and mission were identified for Fresno Yosemite International Airport:

: VISION :

Be an exemplary regional transportation hub that provides access to the world.

: MISSION :

Provide safe, sustainable, and secure facilities that meet the transportation needs of Central California while enabling regional economic growth and providing excellent service.

SPECIFIC GOALS AND OBJECTIVES

The following specific objectives were established for this Master Plan Update:

- **INTEGRATE** recent and related local area studies into the airport master planning process
- **PREPARE** realistic and FAA-approvable activity forecasts that include a regional system perspective of aviation demands
- **ENGAGE** stakeholders, tenants, customers, and the public in the planning process to ensure their interests and concerns are taken into consideration
- **IDENTIFY** an airport land use strategy that promotes safety and compatibility while balancing aviation and non-aviation uses
- **DEVELOP** a comprehensive and implementable development plan that satisfies future aviation needs

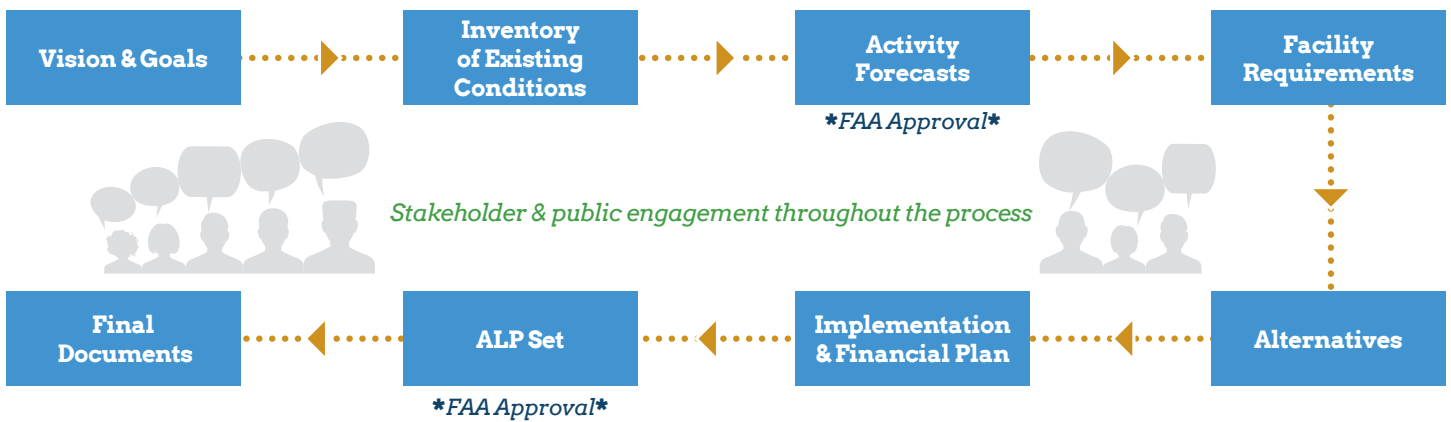


MASTER PLANNING PROCESS

The planning process is a series of technical analyses supported by input and engagement that follows FAA-prescribed guidance as depicted in the diagram. Study results are documented in a technical report and a set of Airport Layout Plan (ALP) drawings that depict existing facilities and proposed improvements. Activity forecasts and ALP drawings are officially approved by the FAA and used to justify and support funding assistance for eligible projects under the FAA’s Airport Improvement Program (AIP).

This Master Plan Update was developed in cooperation with the FAA, and is consistent with guidance provided in FAA Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*.

PROCESS DIAGRAM



STAKEHOLDER AND PUBLIC INVOLVEMENT

Outreach and public involvement were utilized during the study process to ensure future development is in concert with community and surrounding regional initiatives. A Planning Advisory Committee was established to provide insight into Airport operational matters and local/regional activities and concerns. The Committee membership (shown below) met five times during the study to review and comment on material and functioned as an information conduit to their respective organizations’ constituencies.

In addition, three public informational workshops were held to present the study and gain public input.

AGENCIES AND GOVERNMENT ENTITIES	AIRPORT TENANTS AND USERS
FAA San Francisco Airports District Office and FAA Air Traffic Control	Domestic and international airlines serving the Airport
California Department of Transportation (Caltrans)	Cargo airlines serving the Airport (FedEx and UPS)
U.S. Transportation Security Administration (TSA)	Fixed Base Operators (Signature Flight Support and Ross Aviation)
U.S. Customs and Border Protection (CBP)	On-airport rental car providers
Cities of Fresno and Clovis	SP+ Parking
Fresno County Council of Governments (Fresno COG)	California Air National Guard (144 th Fighter Wing)
Fresno County Economic Development Corporation	California Army National Guard
California State University - Fresno	U.S. Forest Service (Fresno Air Attack Base)

EXISTING FACILITIES AND USERS



AIRPORT FACTS

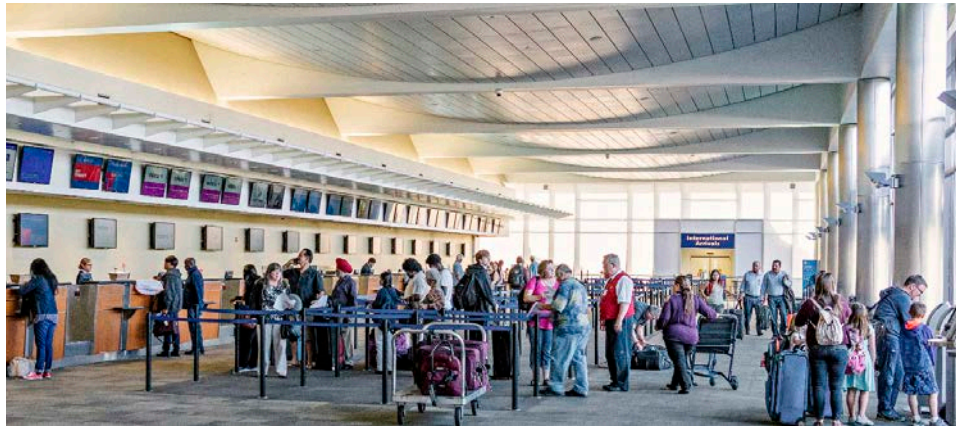
<p>Airport Size: 2,159 ACRES</p>	<p>Runway Sizes: WIDTH X LENGTH</p> <p>RUNWAY 11L - 29R 150' X 9,539'</p> <p>RUNWAY 11R - 29L 150' X 8,008'</p>	<p>Number of Automobile Parking Spaces:</p> <p>2,162 PUBLIC</p> <p>434 EMPLOYEE</p> <p>47 CELL PHONE LOT</p>	<p>Economic Impact</p> <p>9,800 JOBS</p> <p>\$844M ANNUAL BUSINESS ACTIVITY <i>As of 2018</i></p>
<p>Passenger Airlines</p>	<p>AeroMexico • Alaska Airlines • Allegiant Air • American Airlines • Delta Air Lines • SkyWest • United • Frontier • Volaris</p>		
<p>All Cargo Airlines</p>	<p>UPS • FedEx</p>		
<p>Passenger Markets Served</p>	<p>Non-stop service to 11 domestic and two international (<i>Guadalajara and Morelia</i>) destinations</p>		
<p>Terminal Concessions</p>	<p>Hometown Grill & Sports Bar • Starbucks • John Muir Tavern • Flight Service Systems • Hudson Group</p>		
<p>Rental Cars</p>	<p>Avis (<i>Avis, Budget, Payless, and ZipCar</i>) • Enterprise (<i>Enterprise, Alamo, and National</i>) • Hertz (<i>Hertz, Dollar, and Thrifty</i>)</p>		
<p>Fixed Base Operators</p>	<p>Signature Flight Support • Ross Aviation</p>		
<p>Government Tenants</p>	<p>California Air National Guard 144th Fighter Wing • California Army National Guard 1106th Aviation Sustainment Maintenance Group • California Highway Patrol Aviation Division • U.S. Forest Service and California Department of Forestry • County of Fresno • City of Fresno</p>		
<p>On-Airport Businesses</p>	<p>Rogers Helicopters (<i>charter and contract flight operations</i>) • Air Methods (<i>air ambulance service</i>) • Airways Golf Course • SkyWest Aircraft Maintenance • Alliant International University</p>		

FORECASTS OF AVIATION DEMAND

Forecasts of aviation demand, prepared in 2016, were developed and approved by the FAA for enplaned passengers, air cargo volumes, aircraft operations, and aircraft fleet mix through 2036. These forecasts provide the basis for determining facility requirements and performing financial and other analyses for the Master Plan Update.

Activity projections are based on aviation activity assumptions in the Fresno market area and other factors that may affect future aviation demand at the Airport, such as:

- National aviation industry trends
- Historical activity levels and trends in air service at the Airport
- Local socioeconomic and demographic trends



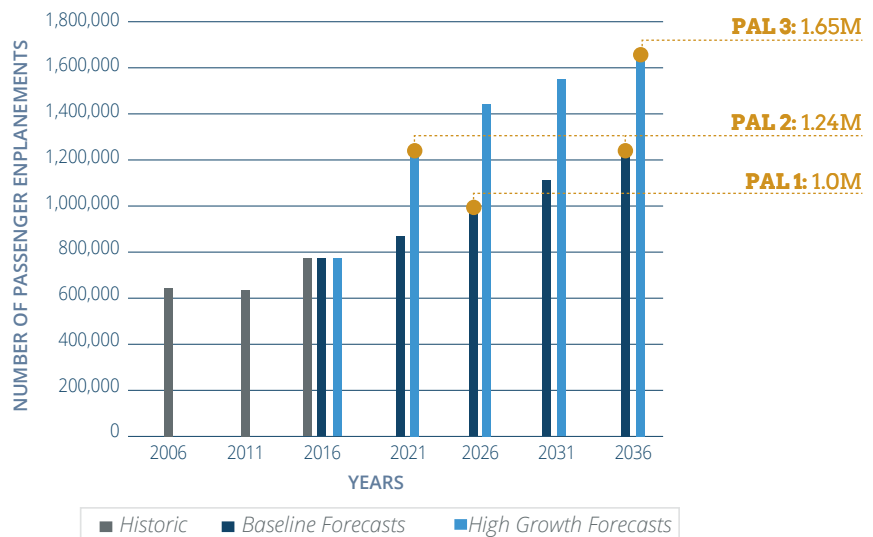
PASSENGER ENPLANEMENTS

Enplaned passenger forecasts considered airline flight schedule filings and expected changes to air service for the near-term forecast. The long-term forecast (beyond the first five years) was based upon the relationship between passenger demand and regional socioeconomic projections. The following assumptions were made to inform the passenger enplanements forecasts:

- The U.S. economy and Fresno’s local economy will experience moderate to steady growth throughout the planning period
- Airfares and jet fuel prices will remain largely unchanged during the forecast period
- The U.S. air traffic control system will be able to absorb incremental capacity throughout the forecast period
- The Airport’s facilities will be adequate to meet demand

The chart (below) shows historical and forecast passenger enplanements at the Airport from 2006 to 2036. The Master Plan’s baseline forecasts of annual enplaned passengers average 2.4% annually, reaching approximately 1.24 million by 2036. In addition, an alternative “High Growth” forecast was prepared to evaluate what facilities might be required compared to the baseline forecast. Under this “High Growth” scenario, activity would reach approximately 1.65 million annual enplanements in 2036.

The Baseline and High Growth forecasts were aligned with three Planning Activity Levels (PALs), which were used to evaluate terminal improvement needs associated with certain activity levels.

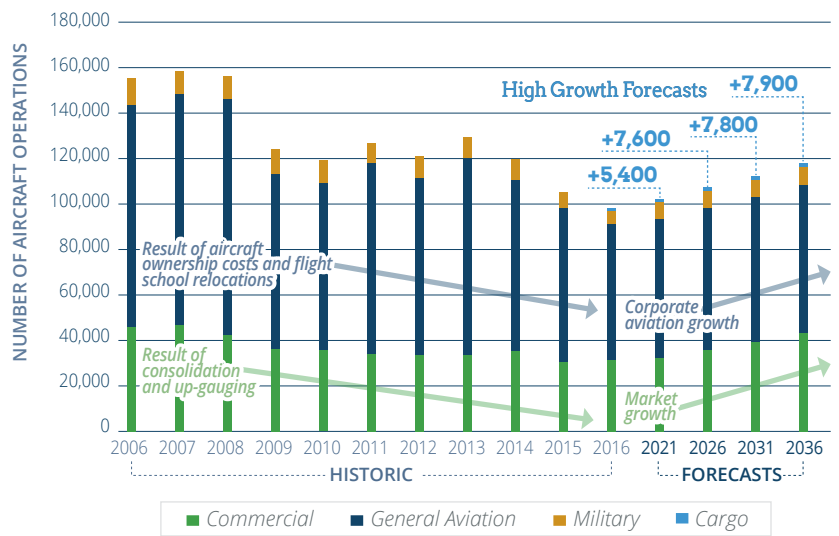




AIRCRAFT OPERATIONS

The chart (right) presents historical and forecast aircraft operations. Decreases in commercial aircraft operations between 2006 and 2016 were the result of airline consolidations and aircraft with greater seat capacities. Decreases in general aviation operations during this same period reflect national trends related to the increased cost of aircraft ownership and relocation of flight schools from the Airport.

Forecasts of future commercial aircraft operations consider passenger demand, potential service improvements, changes to airline fleets, and aircraft load factors. Total commercial aircraft operations (all-cargo, passenger, and international aircraft) are forecast to increase to 44,572 in 2036. In the longer term, airlines are expected to upgrade their aircraft size, and low-cost carriers are expected to deploy additional aircraft in the Fresno market. A growing local population and strong local economy are expected to contribute to a recovery in general aviation activity over the long term. General aviation aircraft operations are forecast to increase to 65,360 in 2036.



FORECAST SUMMARY

A summary of the FAA-approved forecast is provided below. As presented, growth is anticipated in the air carrier and air cargo segments of commercial activity, while general aviation is projected to grow at a slower pace. Commuter/air taxi operations are projected to decline, as commuter carriers move to larger aircraft. Military operations are forecast to increase slightly. Overall, total operations are projected to grow to almost 117,600 in 2036.

	HISTORIC			FORECASTS				AVERAGE ANNUAL GROWTH	
	2014	2015	2016	2021	2026	2031	2036	2016-2021	2016-2036
Passenger Enplanements	721,602	704,667	772,850	896,068	993,926	1,111,189	1,243,478	3.0%	2.4%
Aircraft Operations	119,626	105,126	97,827	102,240	107,182	112,053	117,555	0.9%	0.9%
<i>Air Carrier</i>	12,124	12,644	14,753	22,349	26,052	29,091	32,893	8.7%	4.1%
<i>Commuter</i>	22,603	17,057	16,663	9,998	9,732	10,084	10,298	0.6%	1.6%
<i>Air Cargo</i>	921	943	981	1,127	1,239	1,314	1,381	2.8%	1.7%
<i>General Aviation</i>	74,999	67,698	59,767	61,143	62,536	63,941	65,360	0.7%	1.6%
<i>Military</i>	8,979	6,784	5,663	7,623	7,623	7,623	7,623	6.1%	1.5%
Based Aircraft	155	152	187	190	195	200	206	0.3%	0.5%

FACILITY REQUIREMENTS

Demand/capacity analyses indicate that peak-hour volume and type of activity forecast through 2036 will require expanding various facilities as well as adding new ones.

FUNCTIONAL AREA	EXISTING FACILITIES	PAL 1 REQUIREMENT	PAL 2 REQUIREMENT	PAL 3 REQUIREMENT	TOTAL ADDITIONAL NEEDED
Enplanements	772,850 (2016)	1.0 M	1.24 M	1.65 M	
Parking Positions - Number of positions					
Peak Aircraft Parking Positions	11	9	10	12	1 position
International Arrival Positions	2	2	2	2	0 positions
Remote Aircraft Parking Positions	2	2	3	4	2 positions
Passenger Terminal - Size in square feet (sf)					
International Arrivals Facility (FIS)	10,500	16,000	16,000	16,000	5,500 sf
Passenger Hold Room	19,900	14,600	17,400	22,900	3,000 sf
Concessions (pre and post security)	9,400	8,500	9,000	14,850	5,450 sf
Security Screening Checkpoint	4,300	3,300	5,300	8,800	4,500 sf
Baggage Makeup	2,900	6,800	8,400	9,900	7,000 sf
Parking/Rental Car - Number of parking spaces					
Public Parking	2,050	2,460	3,050	4,050	2,000 spaces
Rental Car Ready Return	570	410	500	670	100 spaces
Rental Car Storage	580	1,220	1,520	2,020	1,440 spaces

The requirements evaluation of the existing airfield verified that the runway system is sufficient to accommodate long-term demand. Several airfield improvements such as replacement of certain runway exit taxiways and reconfiguration of the passenger terminal apron are required to meet current FAA design standards. Additional airfield improvements including upgrading a primary parallel taxiway and construction of a new hold pad were recommended for operational efficiency.

Requirements for passenger terminal facilities focused on the number of aircraft gates and aircraft parking positions, the passenger terminal building (and its functional areas), and parking/rental car needs. PALs were used to indicate needs to serve baseline and high growth scenarios, providing flexibility to the Airport. Areas such as the international arrivals facility (or Federal Inspection Services [FIS]), baggage makeup, public parking, and rental car storage are deficient to meet PAL 1 requirements. Three additional aircraft parking positions, more passenger terminal space, and greater parking/rental car spaces are needed to accommodate PAL 3 demands.

Requirements for general aviation facilities include additional hangar facilities to meet existing unmet demand, as well as expansion of aircraft parking aprons. Per FAA guidance, the existing Aircraft Rescue and Fire Fighting (ARFF) facility is substantially undersized and located in a constrained site. Similarly, the existing Airport FAA air traffic control tower (ATCT), commissioned in 1961, is outdated and in need of nearly \$10M in improvements and upgrades. Potential new sites for both facilities were considered in the Master Plan Update.

KEY COMPONENTS OF AIRPORT FACILITIES:

AIRFIELD

runways, taxiways, apron, and aircraft parking areas

PASSENGER TERMINAL

ticketing, baggage handling, and gates

AIRPORT SUPPORT

ARFF, ATCT, etc.

LANDSIDE FACILITIES

access roadways and parking

AIR CARGO AND

GENERAL AVIATION

hangars and apron areas

RECOMMENDED PLAN

The recommended Airport Development Plan conceptually represents all development that should be implemented if forecasted growth occurs.



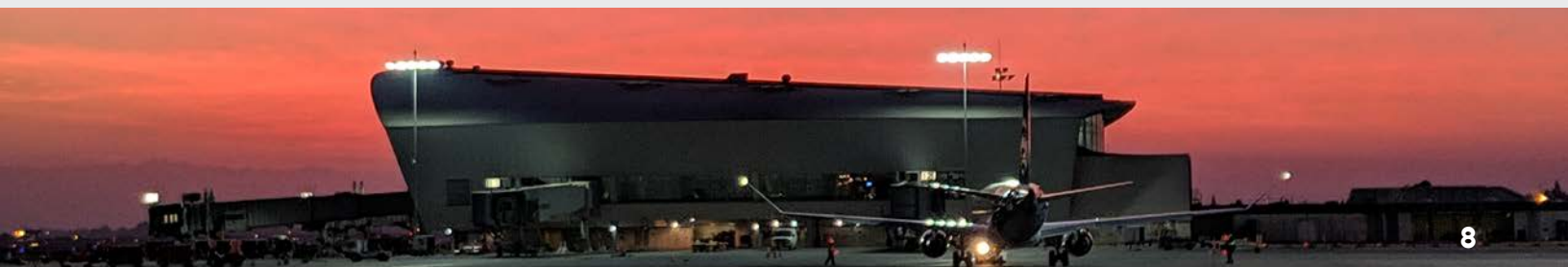
The Airport Development Plan can be considered a complete conceptual picture of the Airport at the end of the 20-year planning period. Actual development may not mirror the Plan due to changing demand, funding availability, or future environmental constraints. However, the Plan serves as a roadmap for future development.

The Airport Development Plan was prepared in concert with Airport staff, with input from the Master Plan's Planning Advisory Committee and the public through project workshops. The recommended Airport Development Plan depicted in the Master Plan was conceived through examination of the timing of project needs and evaluation of the financial capability of the Airport.

AIRFIELD

The recommended airfield improvements are shown on the graphic above. While most of the airfield meets current FAA design standards, several areas do not meet FAA standards or guidance, or could be enhanced to improve safety and operational flexibility:

- Improve taxiway layouts and geometry to mitigate potential runway incursions, maintain taxiway circulation, and provide operational flexibility
- Provide sufficient runway exits to minimize runway occupancy time
- Upgrade Taxiway A to better accommodate the growing fleet of large corporate jet aircraft

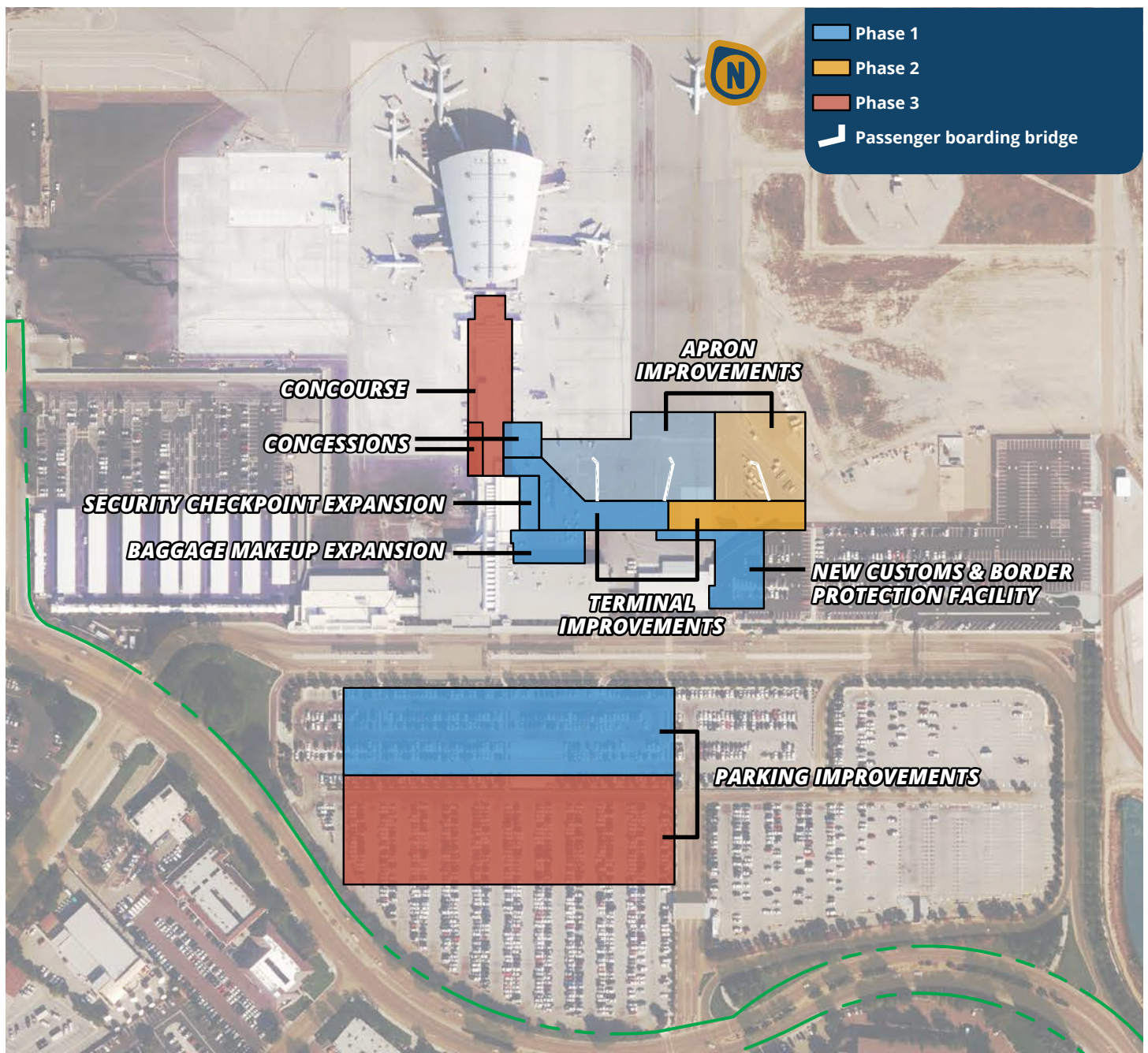


TERMINAL AREA

The recommended Terminal Area Plan is shown below and proposed to be implemented in two phases, with a third, longer term phase also identified. The first phase includes construction of a new parking garage (900 spaces) in the location of the existing surface parking. In the terminal, two new gates with passenger boarding bridges and associated holdrooms will be constructed; a new and expanded international arrivals facility is planned; and upgraded ticketing, holdroom areas, and baggage claim facilities will be developed. The east concourse will be expanded to provide upgraded ticketing, holdroom areas, and baggage claim.

These improvements will accommodate demand through PAL 2 or 1.24M total annual enplaned passengers. A third phase is identified for beyond the planning horizon and calls for an upgrade and expansion of the concourse “spine” for passenger circulation, new concessions, additional gates, and expansion of the parking garage.

Determining how to meet facility needs and prepare the recommended Airport Development Plan was an iterative process considering costs, timing, and availability of funding.



CAPITAL IMPROVEMENT PROGRAM AND FINANCIAL CONSIDERATIONS

Project cost estimates were prepared and financial analyses were conducted to determine the Airport's ability to fund and implement the recommended Airport Development Plan. The analyses included estimating individual project costs, identifying potential funding sources, estimating the Airport's funding capacity, and developing a project phasing plan.

The total cost, including inflation and typical increases, is estimated to be approximately \$113M in the first phase (five years), and an additional \$40.5M for the remainder of the 20-year planning horizon. The Airport Development is financially feasible and within the Airport's financing capacity, assuming appropriate grants from other funding sources are made available to implement the recommended developments. The Airport is fully financially self-sufficient through the imposition of various user fees. The local communities provide no financial assistance for the operation, maintenance, or development of the Airport.

Funding for the Airport's projects are anticipated to come from the following sources:

- FAA
- Transportation Security Administration (TSA)
- Passenger Facility Charges
- Fresno County Measure C Funds
- Customer Facility Charges
- Airport Revenue Bonds
- Airline Revenues
- Airport-generated Funds (non-airline revenues)

While the Master Plan Update included a detailed financial analysis, the Airport will continue monitoring its key financial metrics to ensure its position is maintained as a well-managed, self-sustaining enterprise fund while continuing to meet the air transportation needs of the Central Valley.



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