



Ted Stevens
Anchorage International Airport

ANC Master Plan

TED STEVENS ANCHORAGE INTERNATIONAL AIRPORT

SEPTEMBER 2023

WELCOME TO THE ANC MASTER PLAN!

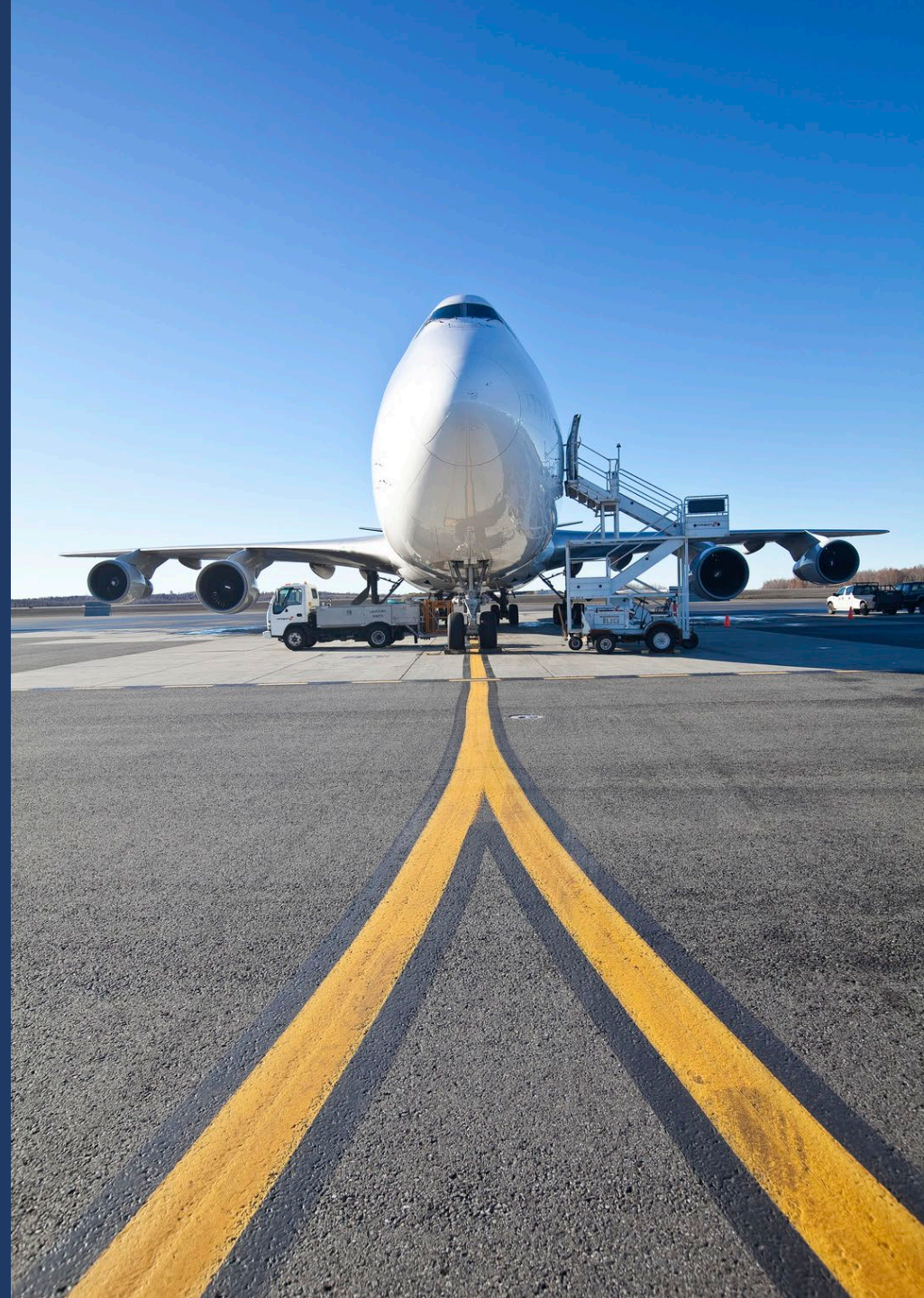
- What is an Airport Master Plan
- Master Plan Process and Schedule Overview
- Goals and Objectives Update
- Forecast of Aviation Activity
- Facility Requirements
- Next Steps / Meetings



WELCOME TO THE ANC MASTER PLAN!

– **What is an Airport Master Plan**

- Master Plan Process and Schedule Overview
- Public Involvement Plan Overview
- Goals and Objectives Update
- Forecast of Aviation Activity
- Facility Requirements
- Next Steps / Meetings



ANC MASTER PLAN

WHAT IS AN AIRPORT MASTER PLAN?

“An airport master plan is a comprehensive study of an airport and usually describes the short-, medium-, and long-term development plans to meet future aviation demand.”

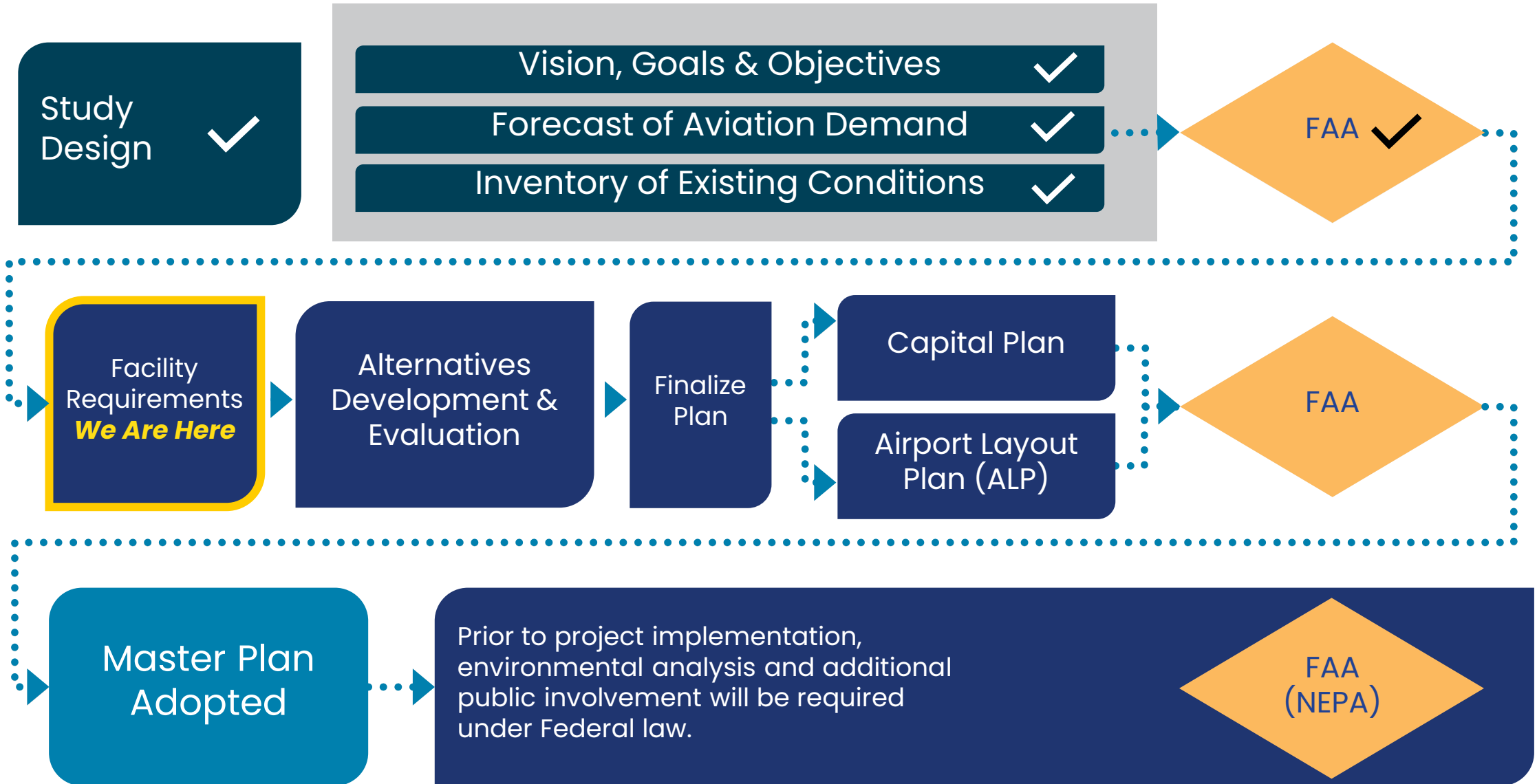
-FAA Advisory Circular 150/5070-6B Airport Master Plans

WELCOME TO THE ANC MASTER PLAN!

- What is an Airport Master Plan
 - **Master Plan Process and Schedule Overview**
- Public Involvement Plan Overview
- Goals and Objectives Update
- Forecast of Aviation Activity
- Facility Requirements
- Next Steps / Meetings

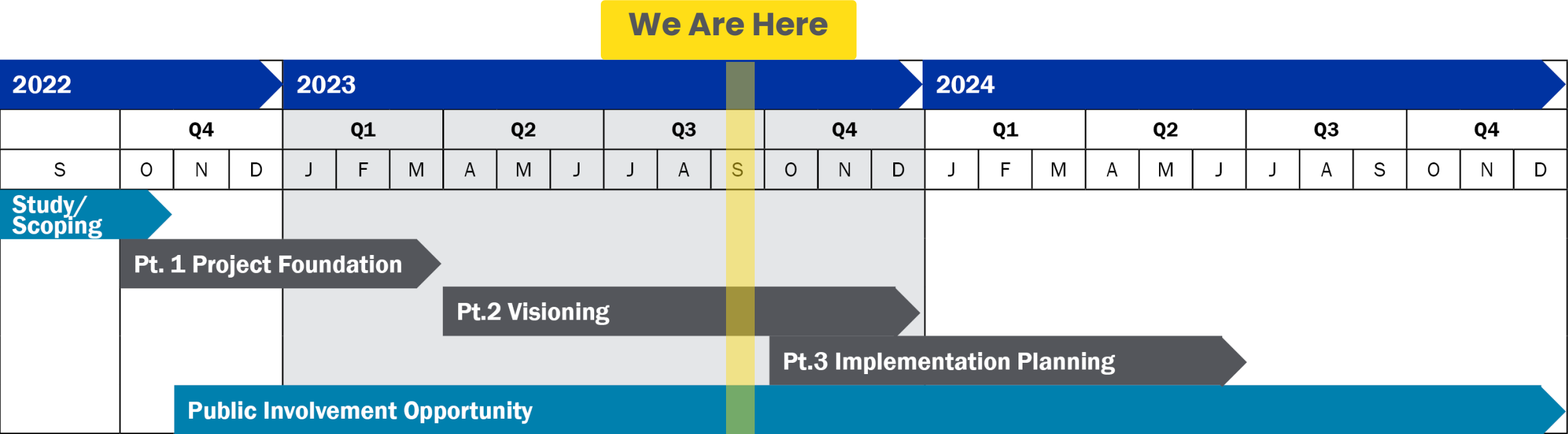


MASTER PLAN PROCESS OVERVIEW



✓ Indicates task complete

PROJECT SCHEDULE OVERVIEW



The Master Plan Update will take about 28 months to complete, from September 2022 to December 2024.

GOALS AND OBJECTIVES

- **Safety**
Maintain or enhance the safe operation of the Airport
- **Efficiency**
Maintain or enhance the efficient operation of the Airport
- **Environmental Sustainability**
Minimize the impact of airport development through environmental awareness
- **Fiscal Sustainability**
Maintain the long-term fiscal sustainability of the Airport
- **Land Management**
Facilitate long-term Airport development through strategic land management planning
- **Communication**
Engage stakeholders through open communication
- **Resilience**
Minimize impact of operational interruptions and disruptions



Comment Highlights To Date



Things to Consider

- Noise
- Smell
- Air quality
- Nearby neighbors
- Accommodate freight growth
- Flight path management
- Transportation options to/from airport
- Improved IT solutions to track carbon emissions
- Development close to residential areas, schools, and parks
- Need for additional runway capacity either at ANC or another location

Ideas

- On-site hotel
- Quiet hours at the airport
- Mini movie theatre similar to Portland's Airport
- Rail connection
- Cargo airport on Fire Island (or new airport elsewhere)
- Roundabout at Sand Lake Road & Raspberry

In support of

- Refrigeration building
- Updating master plan in general
- Growth/expansion (facility improvements)
- Bringing in more airlines
- Improve NAVAIDs & Air Traffic sequencing to use existing runways

WELCOME TO THE ANC MASTER PLAN!

-
- What is an Airport Master Plan
 - Master Plan Process and Schedule Overview
 - Goals and Objectives Update
 - **Forecast of Aviation Activity**
 - Facility Requirements
 - Next Steps / Meetings



WHAT IS A FORECAST?

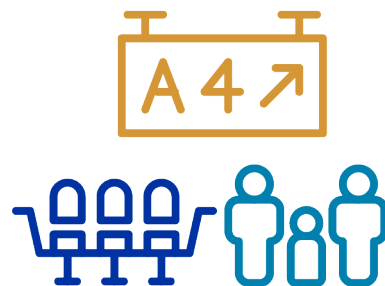
- **Projections of future levels of aviation activity**
How will future activity change?
- **Determine the need for future facilities**
What facility changes would be needed to meet future activity?

Forecast Focus

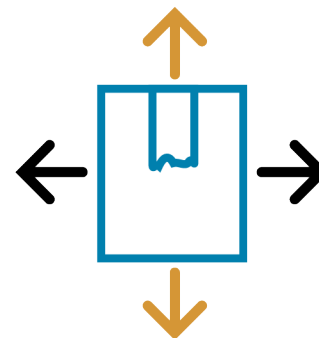
Aircraft Operations



Passengers



Cargo



General Aviation



METHODOLOGY

1. Alaska Economics

- State and Anchorage population growth
- State and Anchorage economic and job growth



2. U.S. Economics

- Alaska as a tourist destination



3. Global Economics and Trade Asia-Americas trade



4. FAA Terminal Area Forecast (TAF) Benchmark

- FAA produces an annual forecast of passenger enplanements and operations for all U.S. Airports



Aircraft Operations

Anticipated Growth

226K Operations in 2022

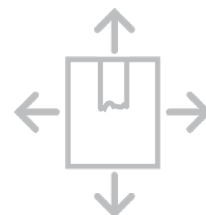
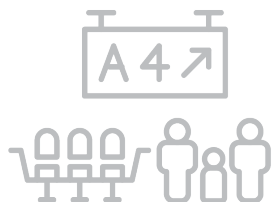
276K Operations in 2032

326K Operations in 2042

ANC MASTER PLAN

Operations

- **Forecast of Operations**
One plane landing or taking off is an operation
- **Drivers of Operations Growth**
International trade and economics (cargo)
Changes in aircraft types (airplane size)
Changes in airplane use (load factors)
- **Anticipated Rate of Growth:**
1.8% per year over the 20-year planning period

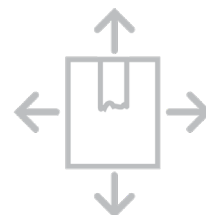
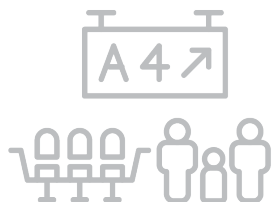
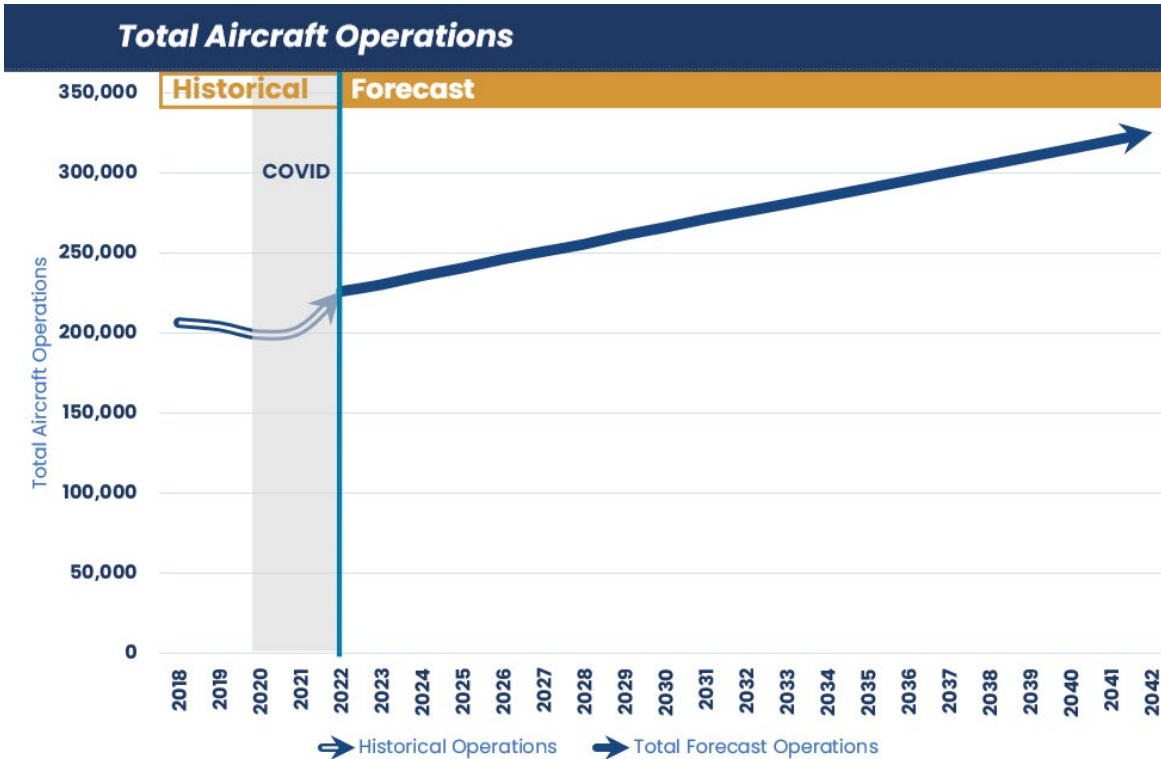


Aircraft Operations

ANC MASTER PLAN

What Does This Mean?

- How busy is ANC today?**
 2022 was ANC's busiest recent year
 226,346 operations
 26th Busiest US Airport (Source: ACI-NA)
- Who is the busiest?**
 Atlanta ranks 1st – 707,000 ops
 Seattle ranks 11th – 375,000 ops
- Who are ANC's peer airports (in 2022)?**
 A little smaller – MEM (Memphis, TN) – 215,000 ops
 A little larger – SFO (San Francisco, CA) – 266,000 ops
- How busy might ANC be in 10 years?**
 About as busy as SFO is today



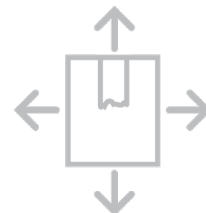
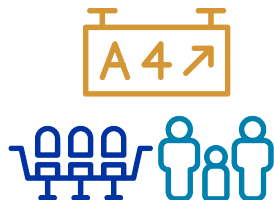
Passengers

Anticipated Growth

2.6 million
enplanements in 2022

3.4 million enplanements
in 2032

4.1 million enplanements
in 2042



ANC MASTER PLAN

Passenger Activity

- **Forecast of Enplanements**

One person boarding a plane at ANC is a passenger enplanement

- **Drivers of Passenger Growth**

Alaska population and job growth

U.S. tourism demand for Alaska

International tourism demand for Alaska

- **Anticipated Rate of Growth**

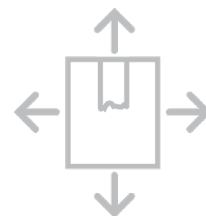
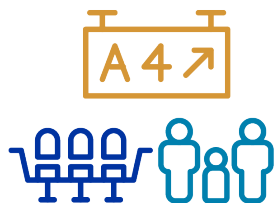
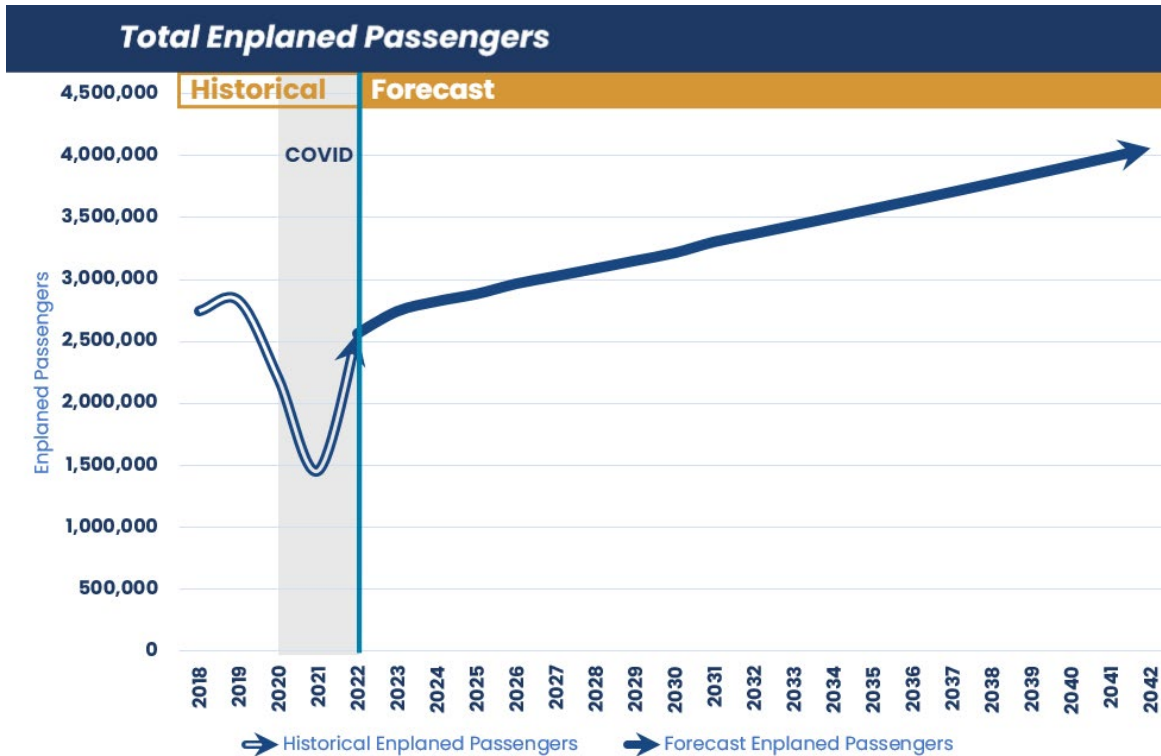
2.3% per year over the 20-year planning period

Passengers

ANC MASTER PLAN

What does this mean?

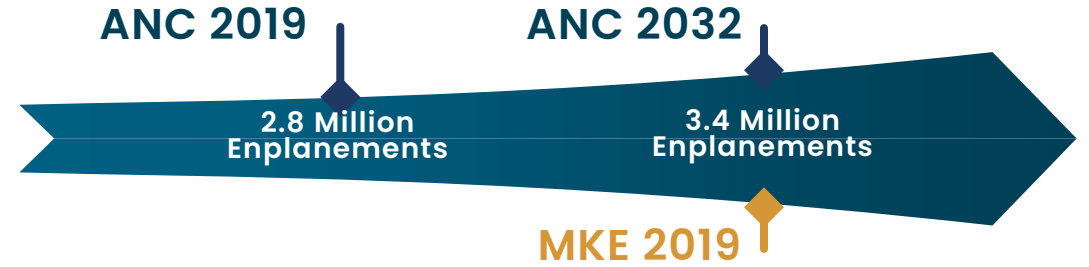
- **How busy is ANC today?**
2019 was ANC's busiest year
2.8 million enplanements
59th Busiest US Airport
- **Who is the busiest?**
Atlanta ranks 1st – 54 million enplanements (2019)
Seattle ranks 11th – 25 million enplanements (2019)
- **Who are ANC's peer airports?**
MKE in Milwaukee, WI is a little busier than ANC



Passengers

ANC MASTER PLAN

Comparing ANC to MKE



MSA Population Comparison

Milwaukee:
1,560,000

Milwaukee
MSA

Anchorage:
400,000

Anchorage
MSA



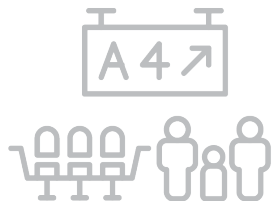
Cargo

Anticipated Growth

3.6 million tonnes in 2022

4.9 million tonnes in 2032

6.2 million tonnes in 2042



ANC MASTER PLAN

Cargo

- **Forecast of Air Cargo (Tonnes)**

The forecast considers cargo that is moving to and from Alaska and within Alaska

International cargo moves between Asia and the Americas but transits through ANC

- **Drivers of Cargo Growth:**

Alaska's economy and international economics

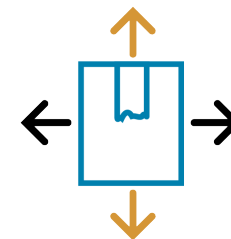
Alaska has a high demand for air cargo

ANC is a key stop for Asia-America air cargo trade

Cargo growth at ANC is primarily driven by global economic forces, not local or state economics

- **Anticipated Rate of Growth:**

2.8% per year over the 20-year planning period



Cargo

ANC MASTER PLAN

What does this mean?

- **How busy is ANC today?**

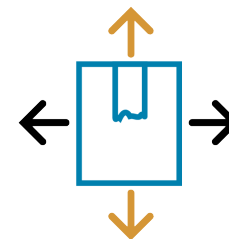
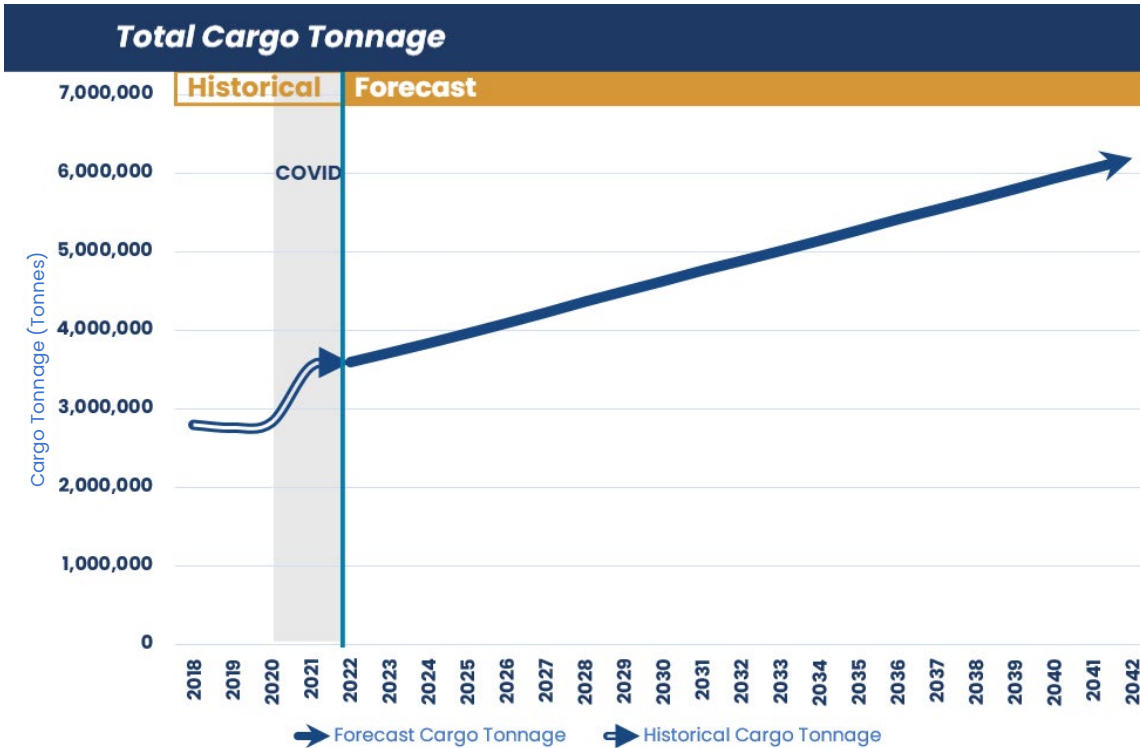
ANC was the world's 3rd busiest cargo airport in 2022 at 3.6 million tonnes

- **Who is the busiest?**

Hong Kong – 1st globally at 4.2 million tonnes
Memphis – 2nd globally at 4.1 million tonnes

- **Who are ANC's peer airports (in 2022)?**

ANC does not have a cargo peer – ANC is a unique cargo facility with significant landed weight but relatively limited cargo handling and processing.



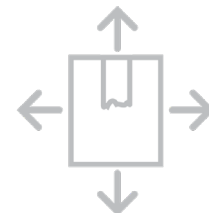
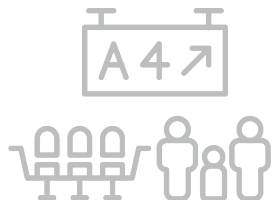
General Aviation

Anticipated Growth

29,000 operations in 2022

32,000 operations in 2032

35,000 operations in 2042



ANC MASTER PLAN

General Aviation

- **General Aviation Operations**
Includes business jets and other small aircraft
GA is about 13% of all ANC operations
Lake Hood activity is not included in the forecast
- **Drivers of General Aviation Growth:**
Local, state, and national economic forecasts
- **Anticipated Rate of Growth**
1.0% per year over the 20-year planning period
ANC GA activity will grow slightly and follow U.S. trends
GA operations are expected to decrease to about 11% of operations in 2042.

Forecast Summary

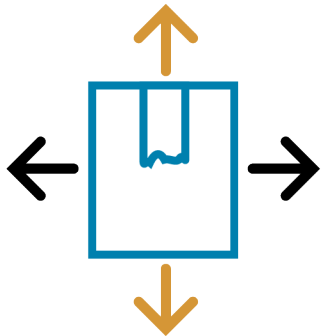
1



2



3



4



ANC MASTER PLAN

Forecast Summary

1. More takeoffs and landings:

ANC is a busy airport with about 226,000 operations per year.

The forecast anticipates 100,000 additional operations in 20 years.

2. More passengers:

ANC is expected to grow from 2.6 million enplanements in 2022 to 4.1 million enplanements in 2042.

3. ANC will continue to be critical cargo stop:

ANC has an essential role in the Asia-America air cargo market that is unlikely to change in the future.

4. General Aviation will grow slowly:

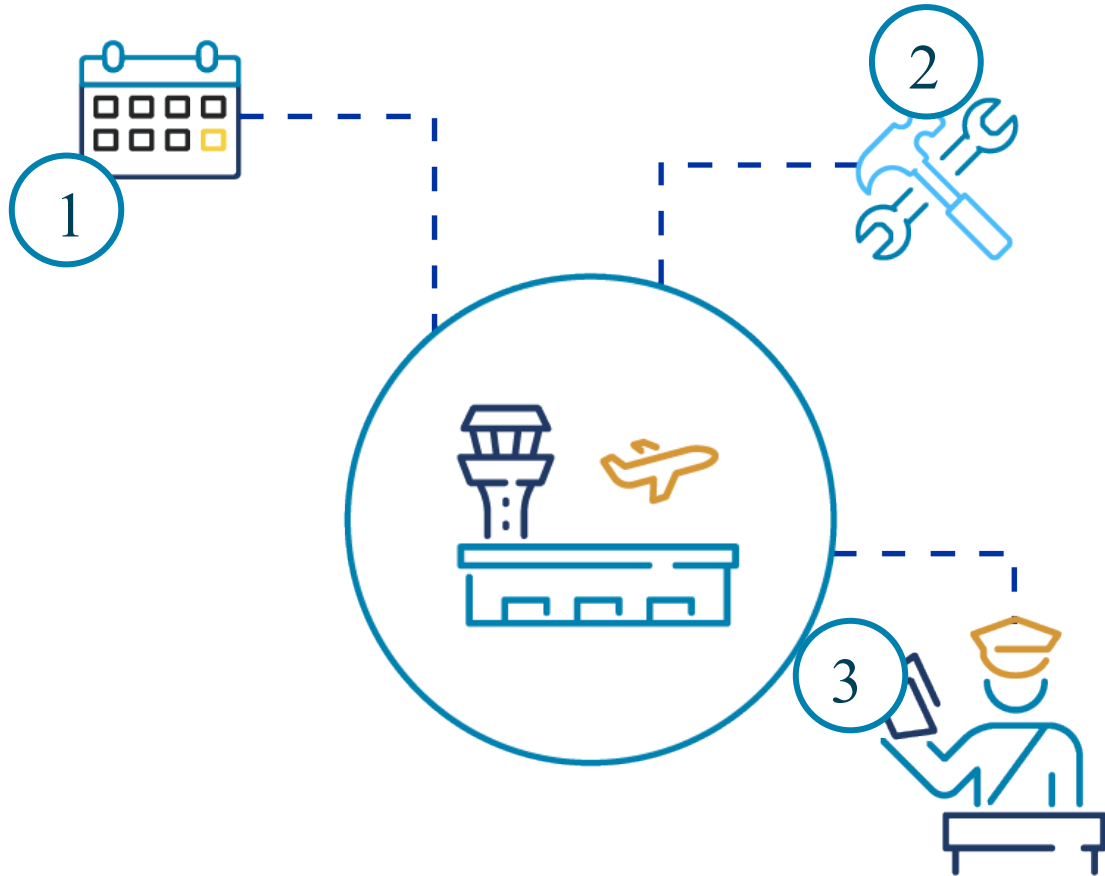
ANC is expected to see modest general aviation growth in line with other U.S. airports.

WELCOME TO THE ANC MASTER PLAN!

-
- What is an Airport Master Plan
 - Master Plan Process and Schedule Overview
 - Goals and Objectives Update
 - Forecast of Aviation Activity
 - **Facility Requirements**
 - Next Steps / Meetings



Facility Requirements



ANC MASTER PLAN

Facility Requirements

1. Projections of future facility needs

- What facility improvements are needed for ANC to accommodate forecast growth

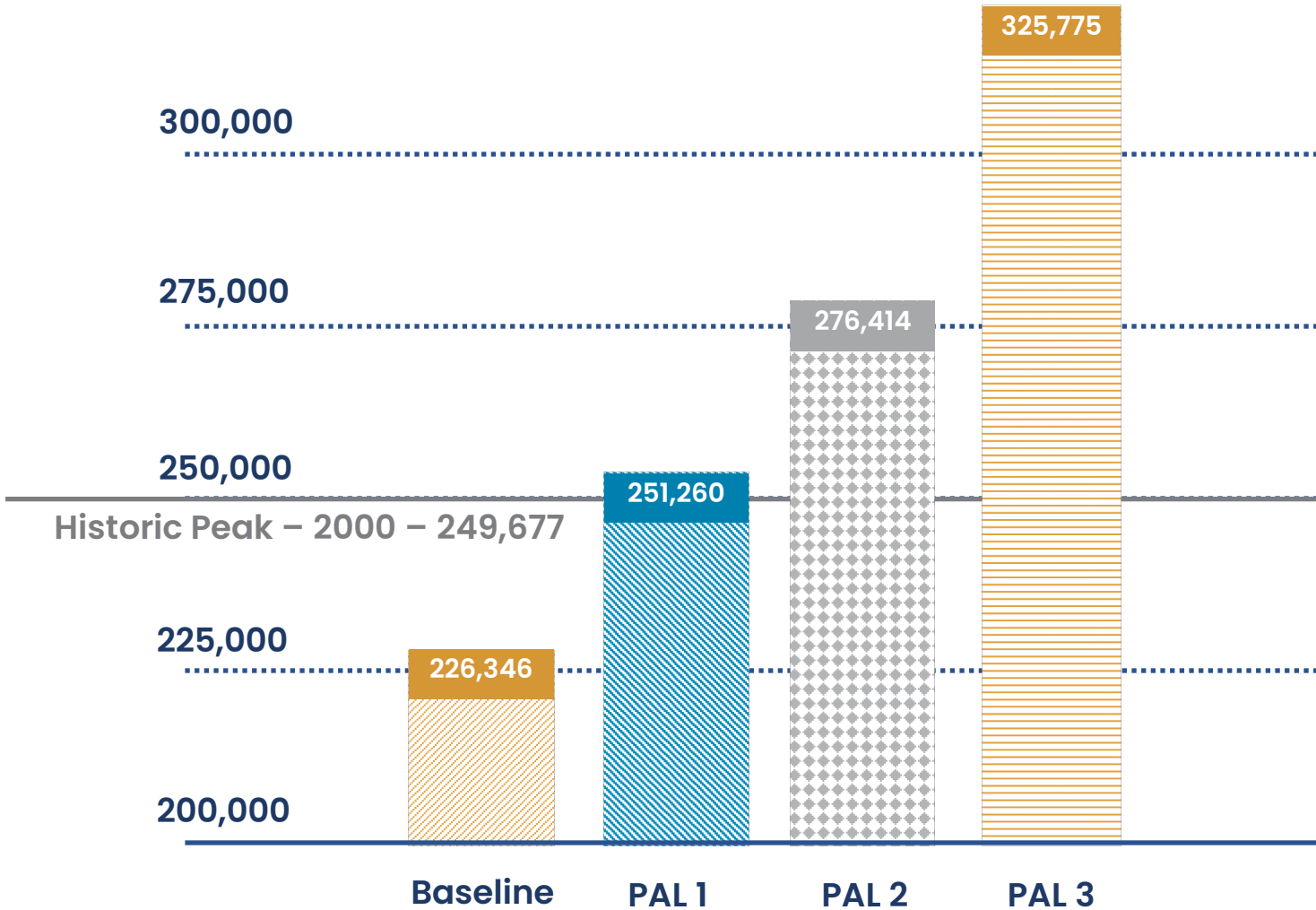
2. How Are Facility Requirements Derived?

- Analysis based on projected growth in operations, passengers, cargo, and general aviation
- Input from airport staff, tenants, and FAA
- Input from airline personnel and operators
- Facility observations by the technical team
- Consultant analysis based on experience at similar airports

3. Projects when improvements are needed

- Need for future facilities are tied to Planning Activity Levels, not years

PALs – Operations

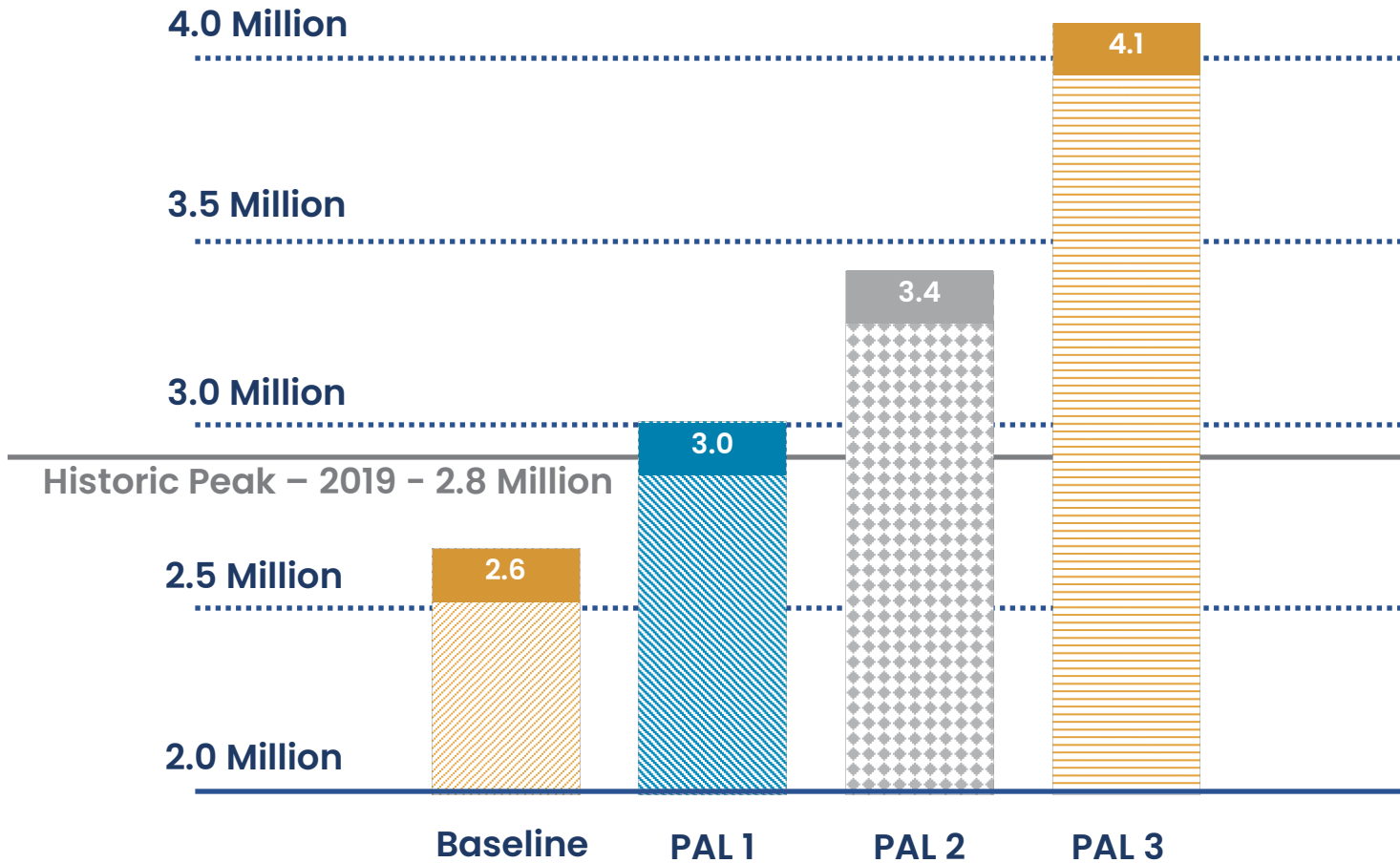


Future Aviation Activity

- Annual Operations 1.8% Average Annual Growth Rate



PALs – Enplaned Passengers

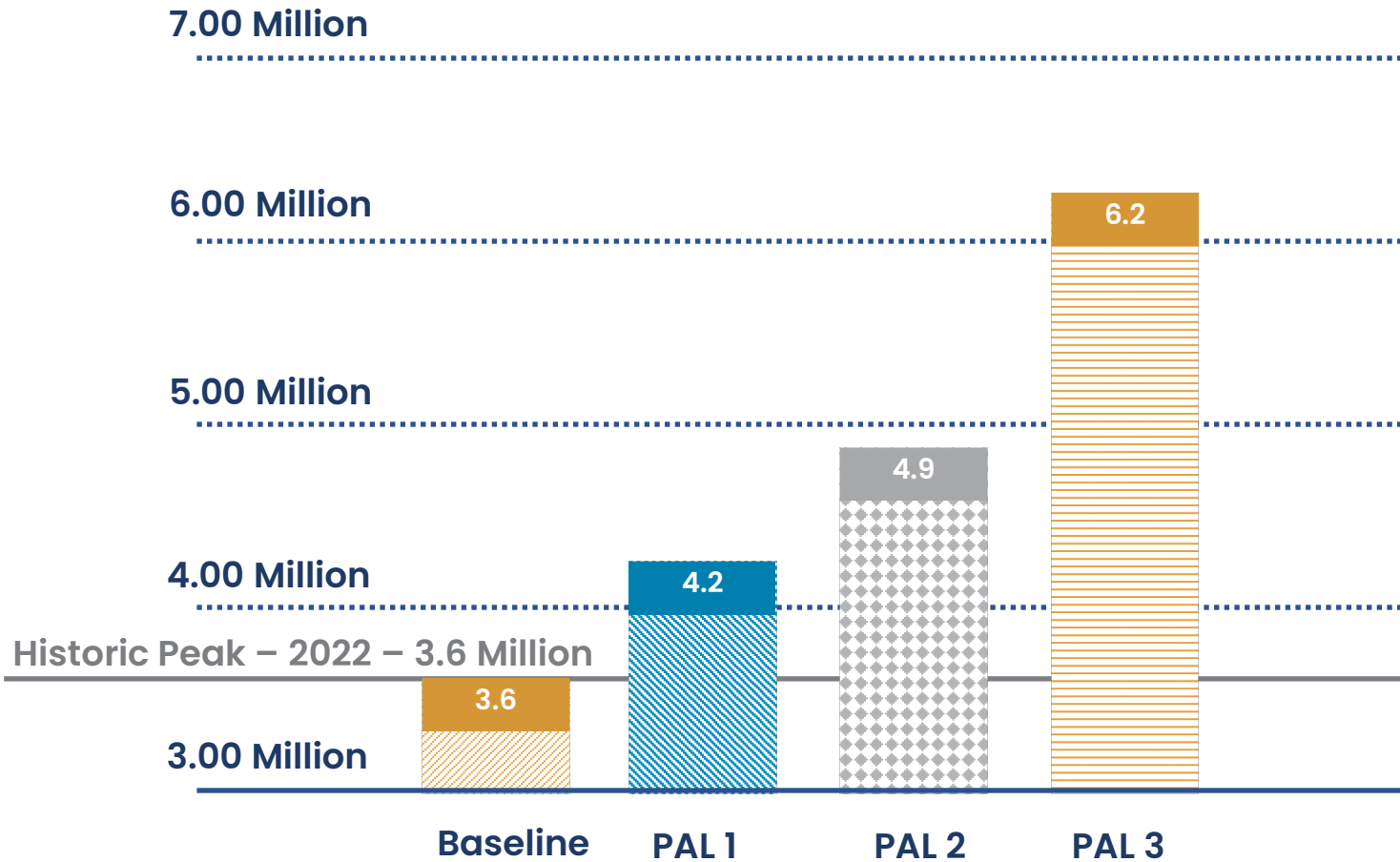


Future Aviation Activity

- Annual Enplaned Passengers
2.3% Average Annual Growth Rate



PALs – Cargo Tonnes



Future Aviation Activity

- Annual Cargo Tonnes 2.8% Average Annual Growth Rate

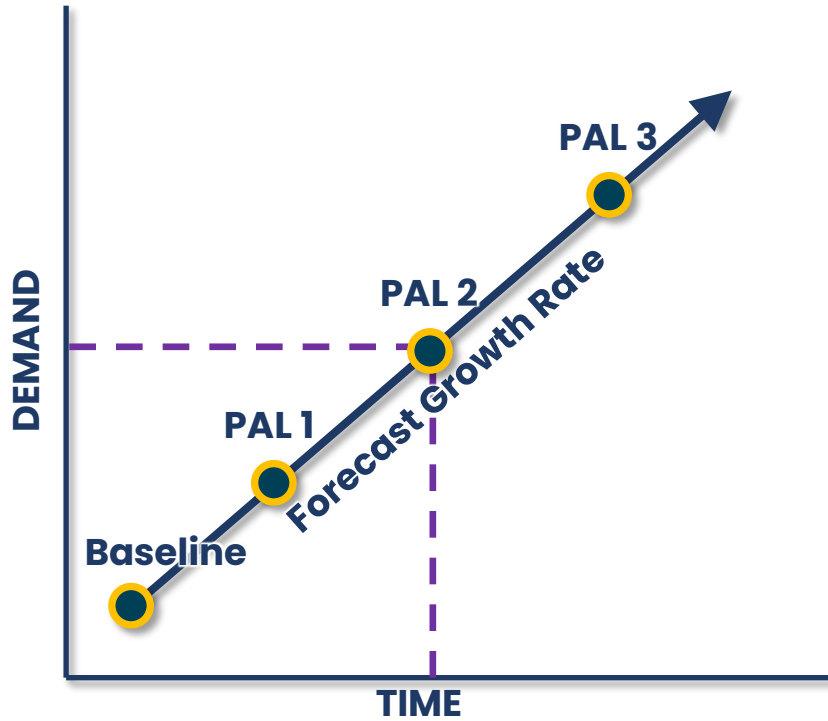


Facility Requirements

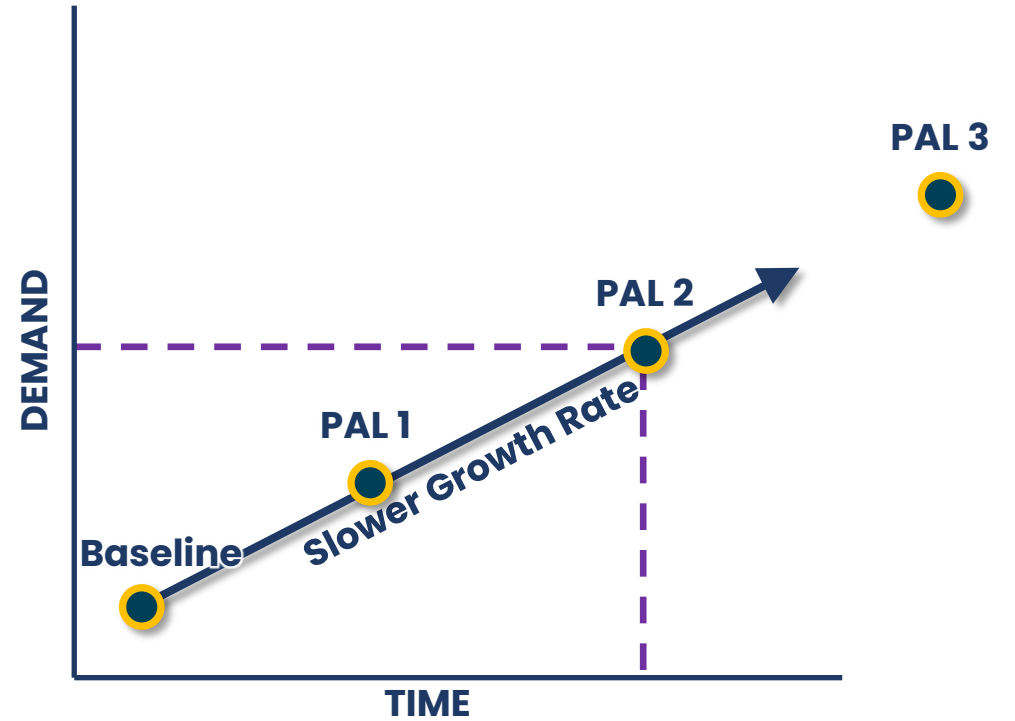
ANC MASTER PLAN

Planning Activity Levels (PALs)

Forecast Growth



Slower Growth



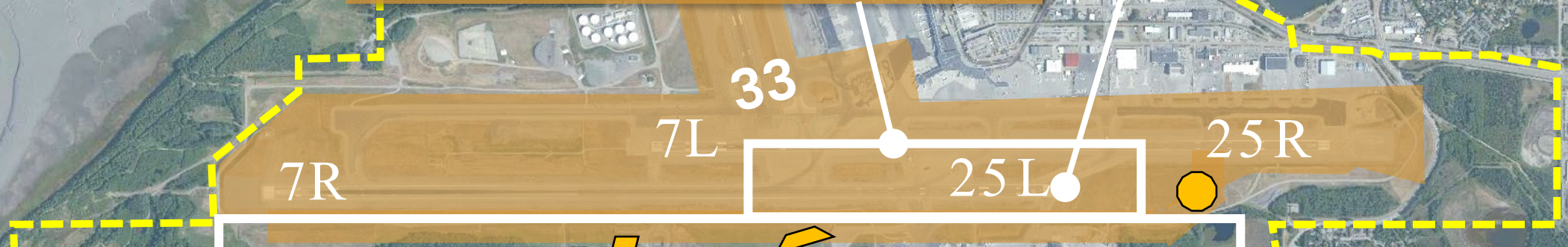
Airfield Facility Requirements



Angled Crossfield Taxiway Geometry Does Not Meet Current FAA Standards



Runway 25L Blast Pad Does Not Meet Current FAA Standards (length)



Taxiway Z Development Impacts

- VOR Navigational Aid
- Runway 15 Localizer
- Police Training Facility



DRAFT

Terminal Facility Requirements

South Terminal Building

- Near-term capacity enhancement required for airline **ticketing, security screening checkpoint, and baggage make-up**
- Capacity enhancement required for **baggage screening** in long-term

Apron

- Passenger growth will require **new gates** at the South Terminal or increased use of the North Terminal
- Additional **commuter capacity** needed





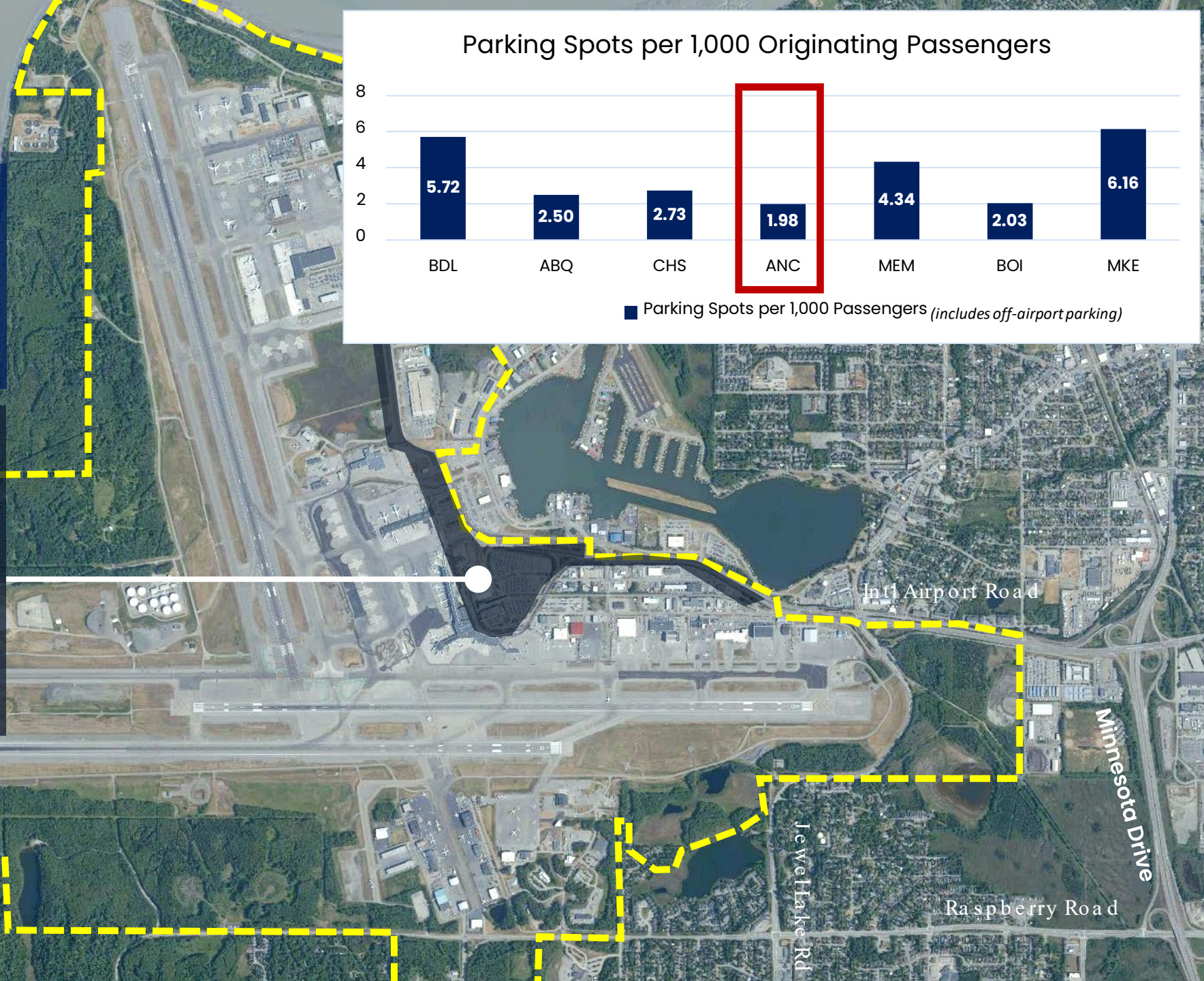
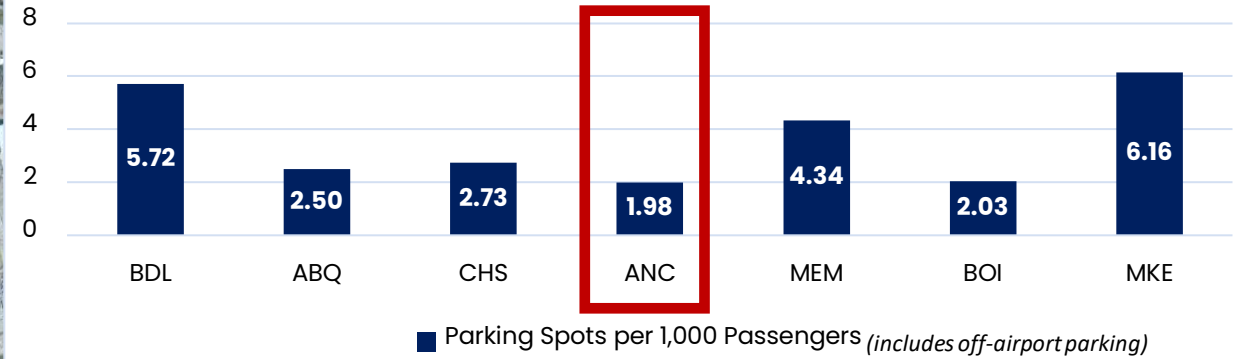
DRAFT

Landside Facility Requirements

Parking

- ANC is below peers in parking spots available per originating passenger
- About 44% of vehicle parking is located off-airport
- Additional parking capacity is required in the near-term

Parking Spots per 1,000 Originating Passengers





DRAFT

Support Facility Requirements

Air Cargo Buildings

- Cargo processing buildings are congested
- Additional **cargo building space** required in near-term

Air Cargo Parking

- Planned cargo parking will meet cargo aircraft parking demand

General Aviation

- Additional **building & landside capacity** may be required in near-term
- Additional **apron area** may be required in mid-term

Aircraft Rescue and Fire Fighting (ARFF) & Police Facilities

- Main station undersized; **expand or relocate** in near-term
- Police training facility **relocation** required in near-term
- Auxiliary ARFF station undersized



Facility Requirements

ANC MASTER PLAN

Facility Requirements Summary



- **Airside**

Modest taxiway and runway improvements are required to meet FAA airfield design standards.

- **Terminal**

Expand the South Terminal or increase use of the North Terminal to meet future demand for passenger flights and add gates.

- **Landside**

Airport parking supply does not meet demand and should be increased to provide more on-airport parking.

- **Cargo handling**

Additional warehousing and cargo processing infrastructure is anticipated. Cargo plane parking currently in development will meet projected demand.

- **Support Facilities**

Aircraft Rescue and Fire Fighting (ARFF) expansion and modernization will be required.

WELCOME TO THE ANC MASTER PLAN!

-
- What is an Airport Master Plan
 - Master Plan Process and Schedule Overview
 - Goals and Objectives Update
 - Forecast of Aviation Activity
 - Facility Requirements
 - **Next Steps / Meetings**



Next Steps:

TED STEVENS ANCHORAGE INTERNATIONAL AIRPORT

- Meeting No. 3: December 2023 / Alternatives for Development Consideration

Q&A

TED STEVENS ANCHORAGE INTERNATIONAL AIRPORT