

PDX 2045 Interagency Advisory Committee

Meeting #1

March 17, 2025

Meeting goals

- Introduce the PDX 2045 Master Plan Update project
- Discuss the airport master planning process
- Learn about our stakeholder engagement approach and the IAC
- Review aviation demand forecasts and subsequent preliminary facility requirements

Agenda

Time	Topic
1:00 PM	Welcome and Introductions
1:10 PM	What is PDX 2045?
1:15 PM	Airport Master Planning 101
1:30 PM	PDX 2045 Project Overview & Stakeholder Engagement
1:40 PM	Aviation Demand Forecasts
2:00 PM	Preliminary Facility Requirements: Airfield & Terminal
2:15 PM	Next Steps, Q&A, and Open Discussion
2:30 PM	Adjourn

PDX 2045 IAC Invited Participant Agencies

- City of Portland
 - Bureau of Environmental Services
 - Bureau of Planning & Sustainability
 - Bureau of Transportation
 - Parks & Recreation
 - Permitting & Development
- City of Vancouver
- Clackamas County
- Clark County
- C-TRAN
- Metro
- Multnomah County
- Oregon Air National Guard
- State of Oregon
 - Department of Aviation
 - Department of Environmental Quality
 - Department of Transportation
- TriMet
- Urban Flood Safety & Water Quality District
- Washington County

Airport Master Planning 101

What's an Airport Master Plan?



- **FAA definition:** A comprehensive study of an airport that usually describes the short-, medium-, and long-term development plans to meet future aviation demand.
- **Port definition:** A tool to guide development of the airport over the next 20 years.
 - Evaluates needs, priorities, and alternatives
 - Examines triggers and timing for development
 - Sets the stage for future studies and implementation
- **What it's not:** A specific blueprint for everything that will happen at the airport over the next 20 years.

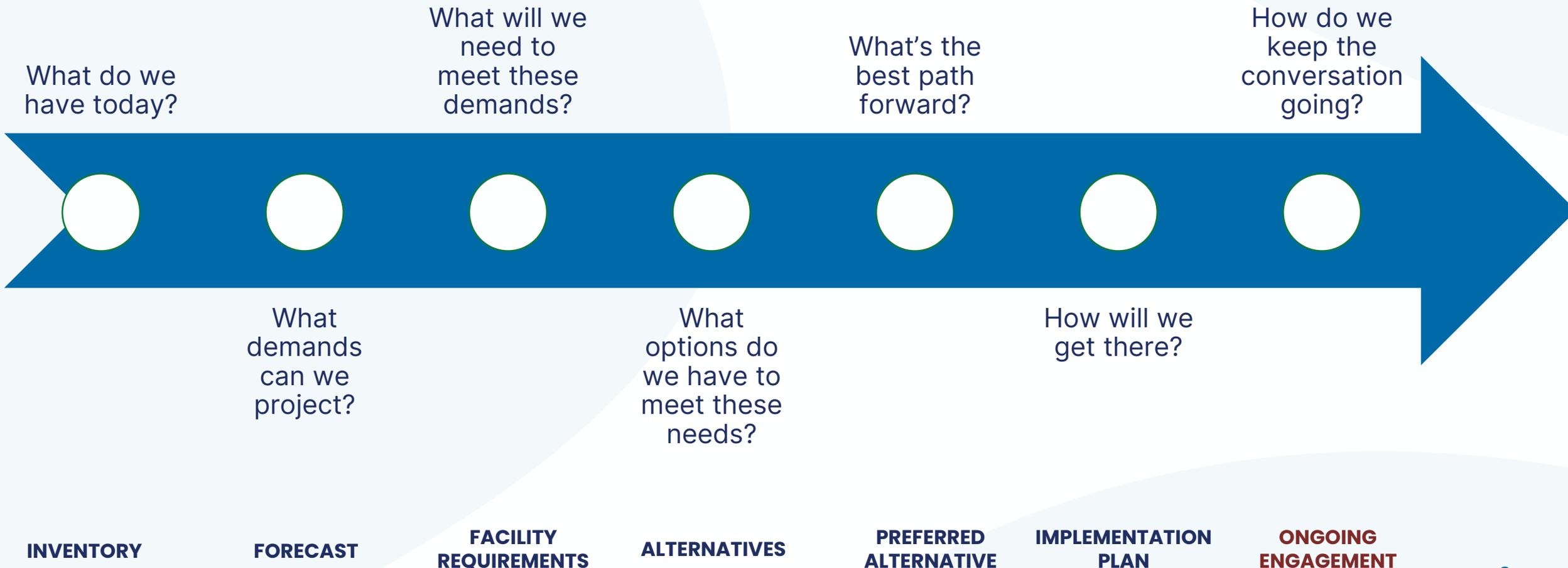
What does an Airport Master Plan focus on?

Example questions we'll consider: by no means a comprehensive list...

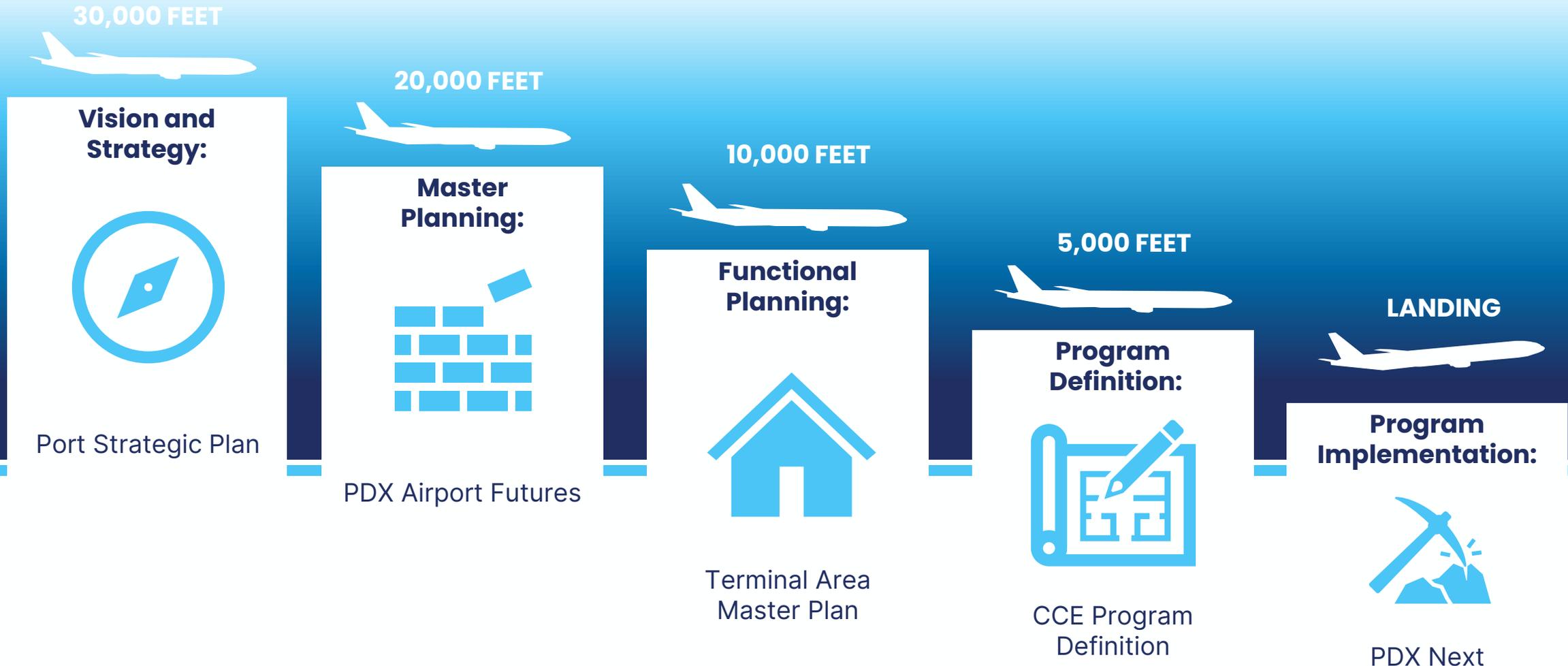
WHO	WHAT	WHERE	WHEN	WHY	HOW
<p>Who's* using the airport and what are their needs?</p> <p>(PEOPLE, AIRLINES, AIRCRAFT, EMERGING AVIATION TRENDS, ETC)</p>	<p>What will these users need?</p> <p>What aspects of their needs are we meeting?</p> <p>What do we need to build or implement to meet their needs?</p>	<p>Where can we accommodate these needs?</p> <p>Where can we logically build or expand facilities to make the best use of our land and manage impacts?</p>	<p>When will these needs arise?</p> <p>When will our existing capacity run out?</p> <p>When should we start planning for additional capacity?</p>	<p>Why are we planning for this need?</p> <p>Why are we developing in a particular location?</p> <p>Why did we decide to do it this way?</p>	

**Scope of plan is development focused, not operations or policy focused...
...but things aren't always so cut and dried.**

What's a typical Airport Master Plan process?



Different stages and levels of planning



Project focus areas



Renew or Replace

Invest in existing facilities to prolong useful life or develop new flexible facilities that consolidate functions.



Aircraft Gates

Determine the appropriate number of international and domestic gates needed to accommodate future demand.



Passenger & Baggage Facilities

Assess level of service and optimize terminal capacity.



Federal Facilities

Expand international facilities to accommodate anticipated demand and improve the passenger experience.



Landside Capacity

Explore multi-modal options to manage vehicular traffic and relieve congested roadway systems.



Customer Experience

Maintain the “best-in-class” reputation of PDX. Enhance services and offerings for customers.



Airfield Optimization

Identify and plan for the appropriate runway and taxiway facilities.



Support Functions

Identify opportunities for colocating critical functions and provide facilities for safe and efficient operations.

PDX at-a-glance



3

Runways

31

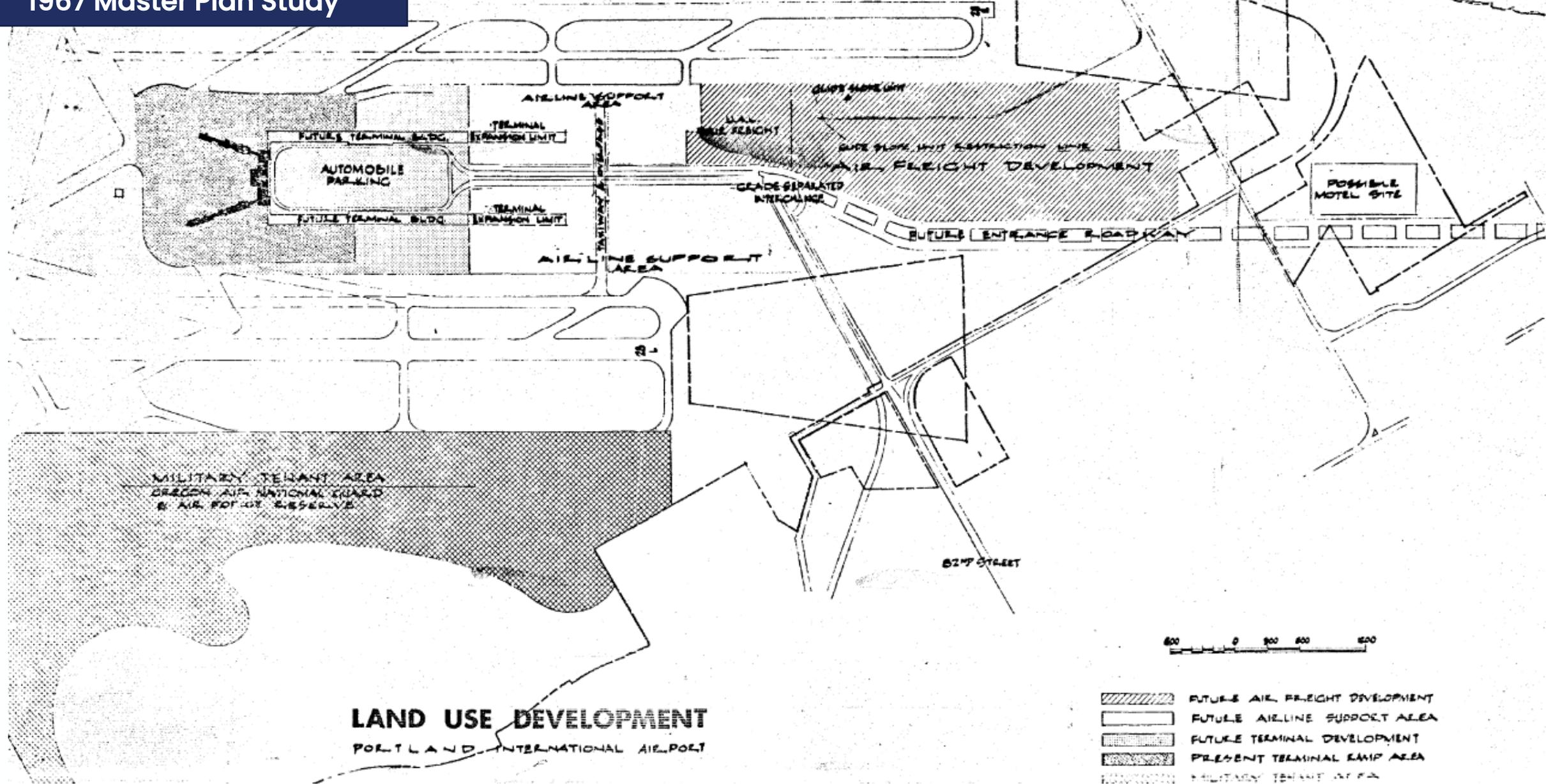
Airlines

59

Gates

3,360

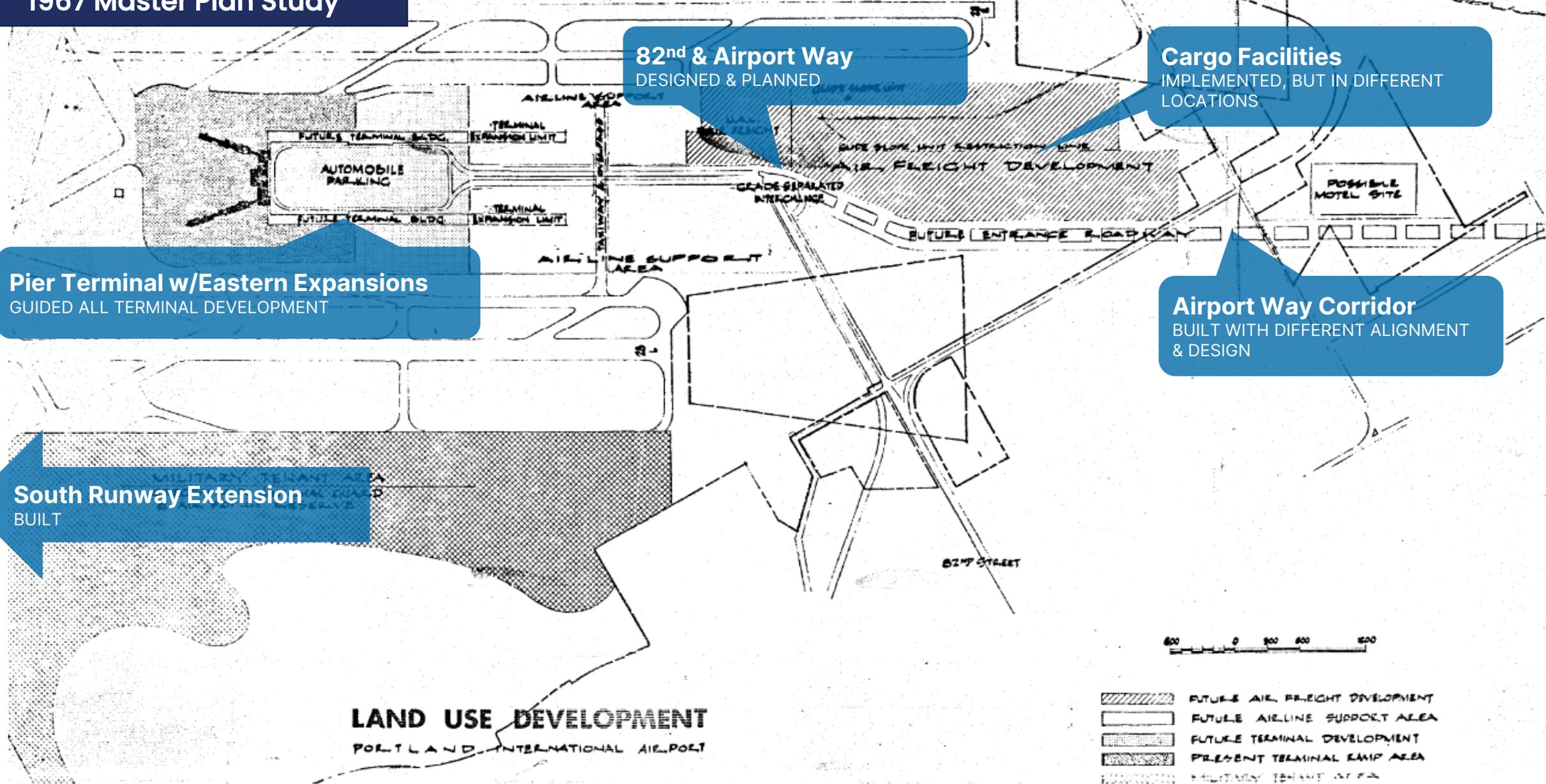
Acres



LAND USE DEVELOPMENT
 PORTLAND INTERNATIONAL AIRPORT

-  FUTURE AIR FREIGHT DEVELOPMENT
-  FUTURE AIRLINE SUPPORT AREA
-  FUTURE TERMINAL DEVELOPMENT
-  PRESENT TERMINAL CAMP AREA
-  MILITARY TENANT AREA

1967 Master Plan Study



82nd & Airport Way
DESIGNED & PLANNED

Cargo Facilities
IMPLEMENTED, BUT IN DIFFERENT LOCATIONS

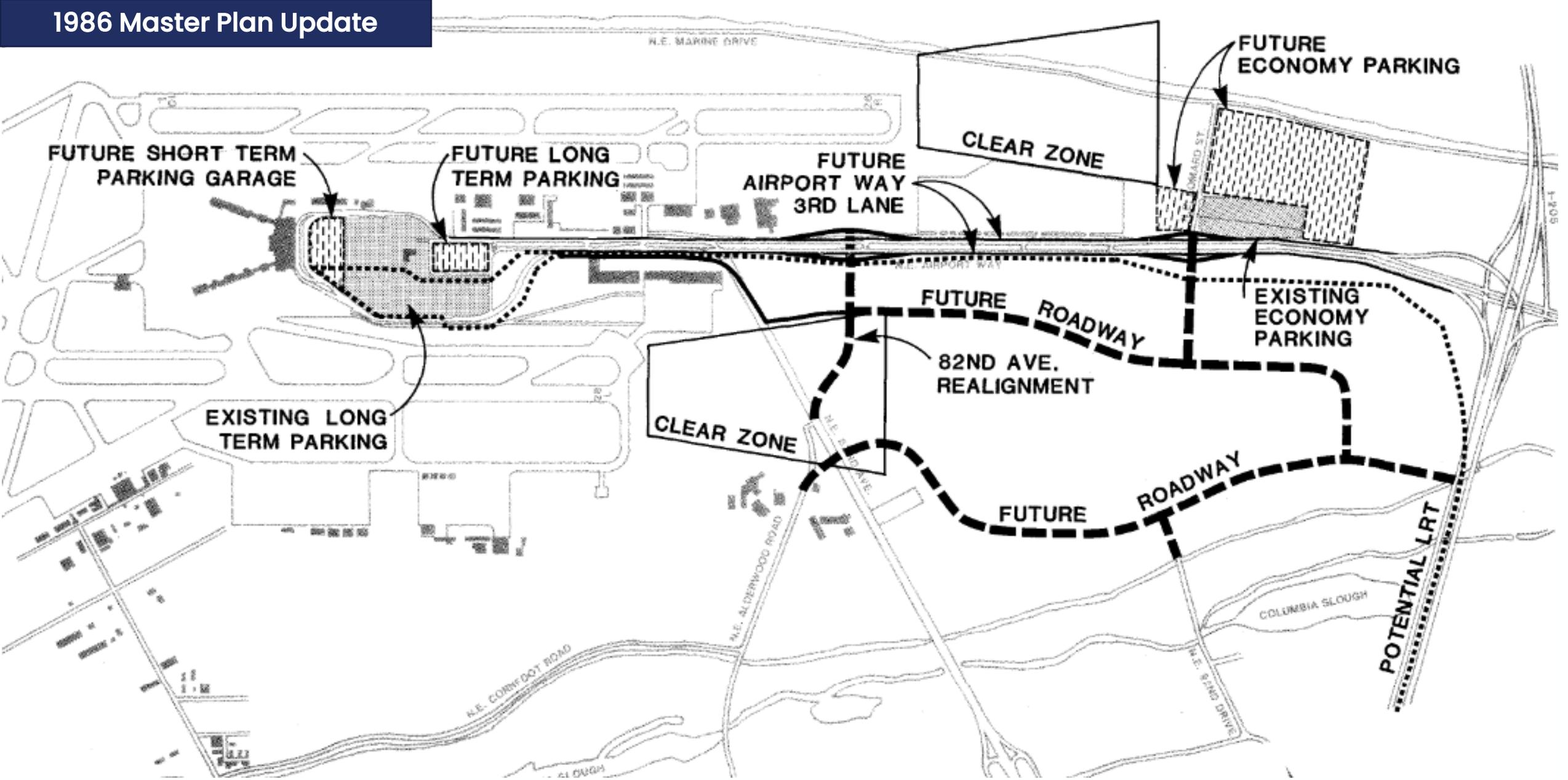
Pier Terminal w/Eastern Expansions
GUIDED ALL TERMINAL DEVELOPMENT

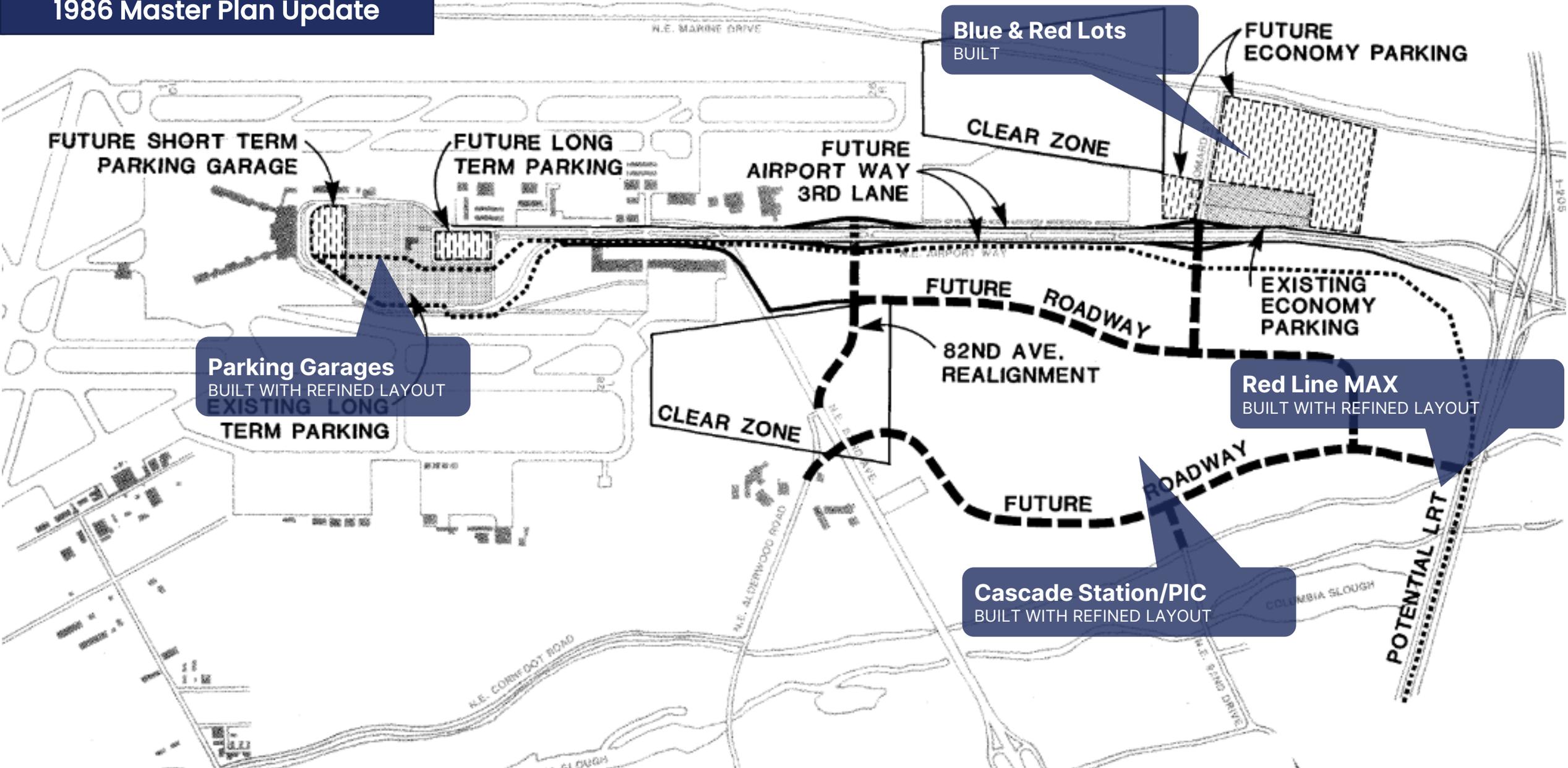
Airport Way Corridor
BUILT WITH DIFFERENT ALIGNMENT & DESIGN

South Runway Extension
BUILT

LAND USE DEVELOPMENT
PORTLAND INTERNATIONAL AIRPORT

- FUTURE AIR FREIGHT DEVELOPMENT
- FUTURE AIRLINE SUPPORT AREA
- FUTURE TERMINAL DEVELOPMENT
- PRESENT TERMINAL CAMP AREA
- MILITARY TENANT AREA



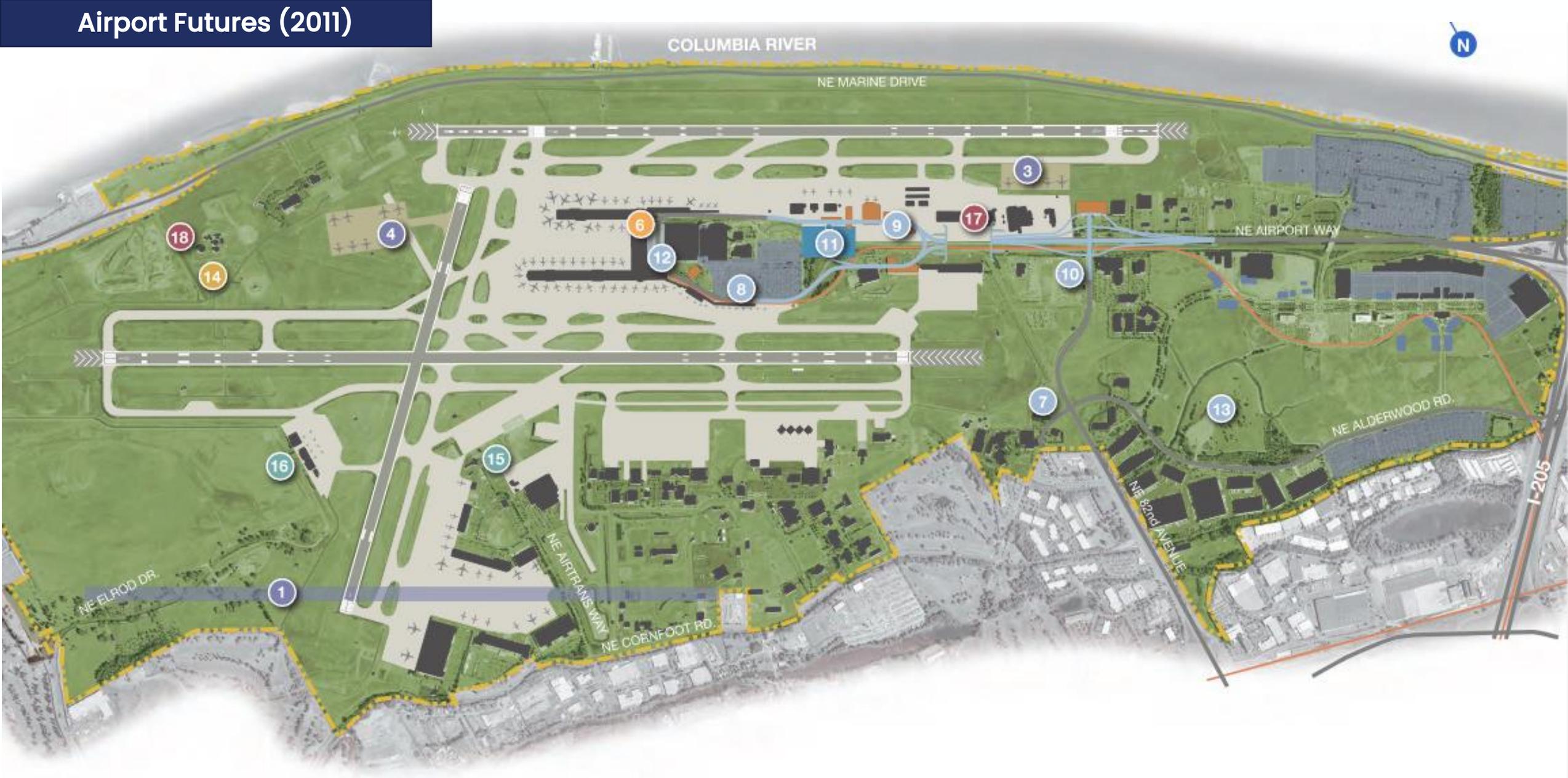


Parking Garages
BUILT WITH REFINED LAYOUT
EXISTING LONG TERM PARKING

Blue & Red Lots
BUILT

Red Line MAX
BUILT WITH REFINED LAYOUT

Cascade Station/PIC
BUILT WITH REFINED LAYOUT



COLUMBIA RIVER



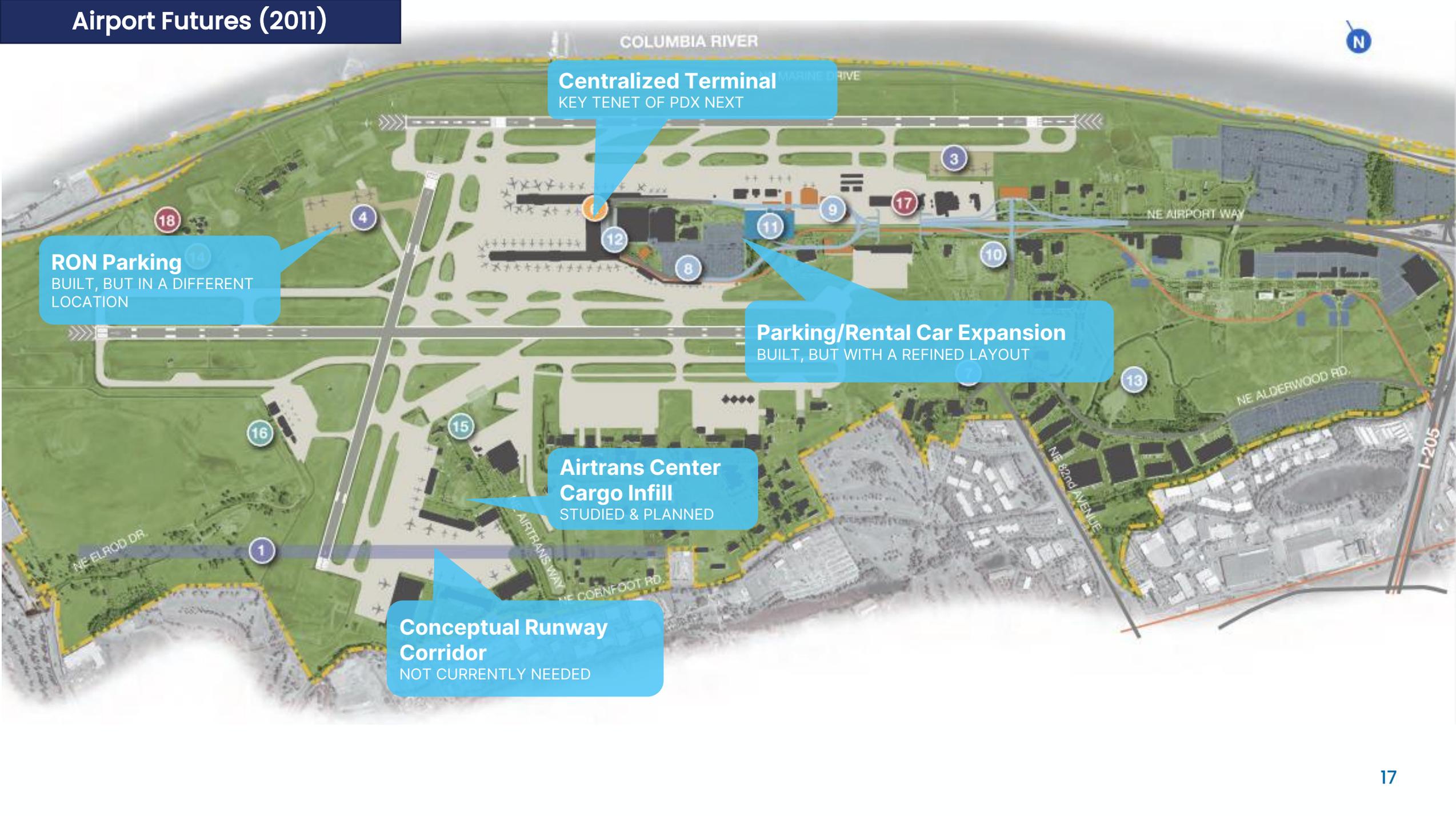
Centralized Terminal
KEY TENET OF PDX NEXT

RON Parking
BUILT, BUT IN A DIFFERENT LOCATION

Parking/Rental Car Expansion
BUILT, BUT WITH A REFINED LAYOUT

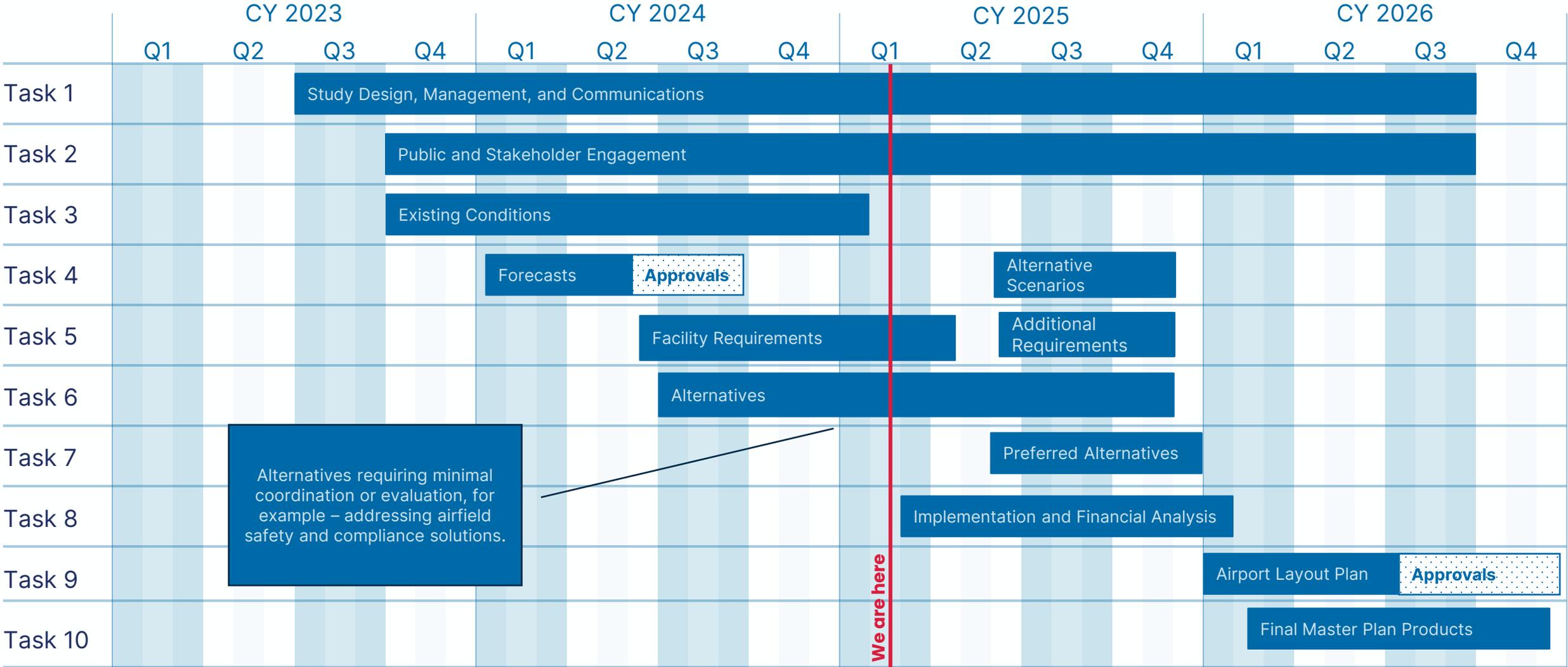
Airtrans Center Cargo Infill
STUDIED & PLANNED

Conceptual Runway Corridor
NOT CURRENTLY NEEDED



Project Overview & Stakeholder Engagement

Overall project timeline



Consultant Team

Overarching Priorities



Shared Prosperity



General Support



Transit and
implementation



Stakeholder Engagement



Ground Transportation

Management



Overall Project Lead



Local Planning Lead

Specialized Support



Airport Layout Plan



Cost Estimates



Graphic Support



Architecture Support

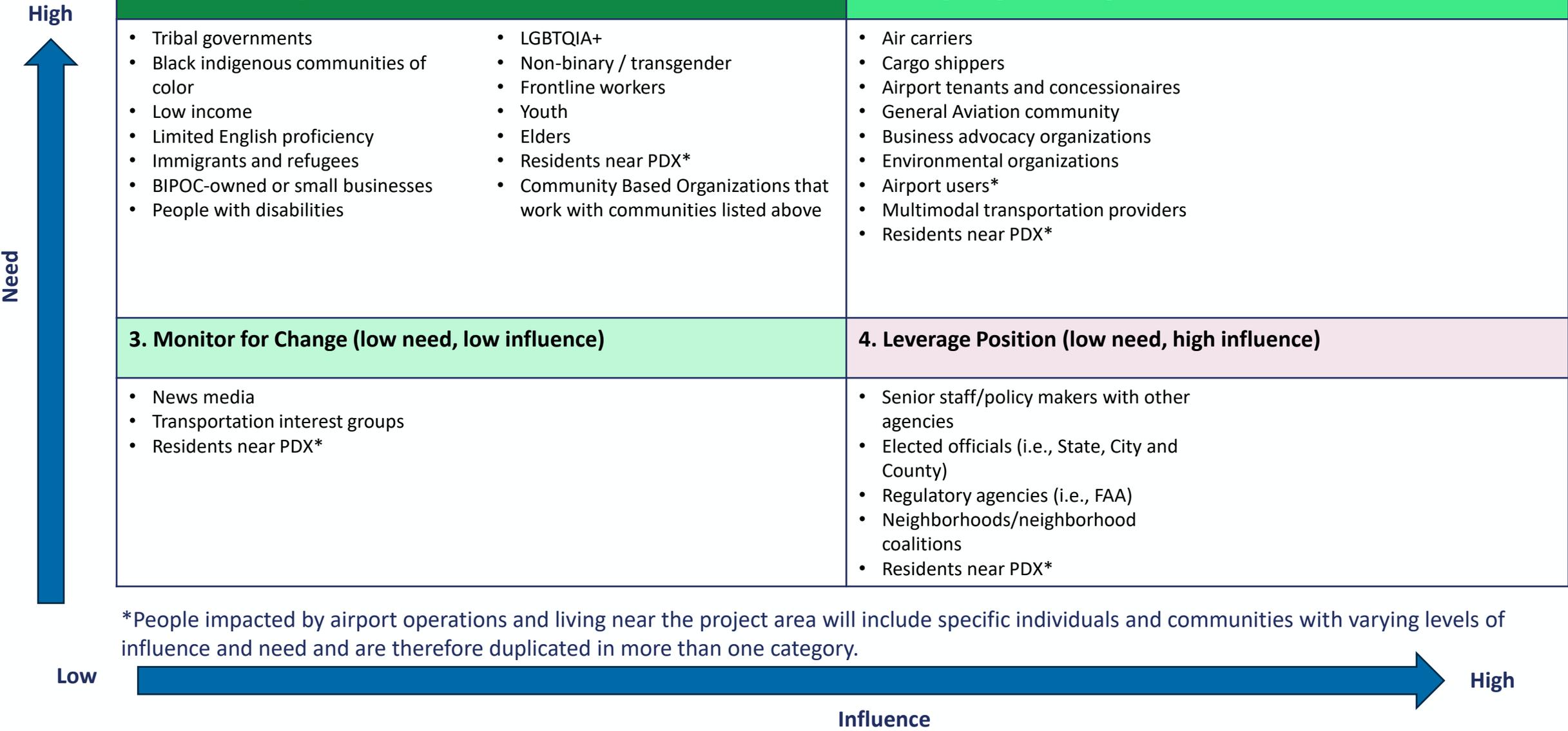


Safety Risk Assessment

Stakeholder Engagement Approach

- Updated existing practices to embrace our Shared Prosperity mission.
- Focused on creating multiple venues for engagement: different tables for different sorts of questions & dialog.
- Centered on prioritizing knowledge, skills, and experiences that sometimes haven't been heard, while allowing anyone to engage and provide input.
- Tailored to demographic research that helps us understand beneficial approaches to reach those that are most impacted yet not often involved.

Preliminary Power Analysis



*People impacted by airport operations and living near the project area will include specific individuals and communities with varying levels of influence and need and are therefore duplicated in more than one category.

PDX 2045 Advisory Committees

Planning Advisory Committee

Residents & Business Owners

Airport Users & Employees

Sustainability & Community Development Experts

Master Planning Enthusiasts of many sorts

PDX CAC Representation

Interagency Advisory Committee

Local, regional, and state governmental partners

Infrastructure providers (utilities, etc.)

Operations Technical Advisors Group

Airlines

Key Airport Tenants

On-airport agencies such as CBP, TSA

PDX 2045 Planning Advisory Committee

- 100+ applications received, 25 members selected.
- Successfully recruited a diverse, community-centered and group.
- Collective K/S/E includes folks from various neighborhoods, cultural backgrounds, occupational roles, ages, ways of experiencing.



Community Engagement

Public Open Houses

- March 19 + April TBD:
Introduction & Forecast
- Early Summer:
Alternatives
- Early Autumn:
Preferred Alternative
- Winter:
Implementation and
Ongoing Engagement

- Planning Advisory Committee:
Meeting #6
March 17, 2025
- Interagency Advisory Committee:
March 17 kickoff
- Project news, events, and
updates available at
pdx2045.org

Aviation Demand Forecasts

What activity do we forecast?



Passengers

- Domestic and International
- Origin and Destination (O&D) and Connecting
- Additional Breakdown As Needed:
 - Airline
 - Terminal
 - Point of Origin



Operations

- Mainline and Regional Passenger Operations
- Cargo
- Air Taxi
- General Aviation
- Military
- Additional Detail as Needed
 - Fleet mix
 - Itinerant / Local
 - IFR / VFR



Other Activity and Metrics

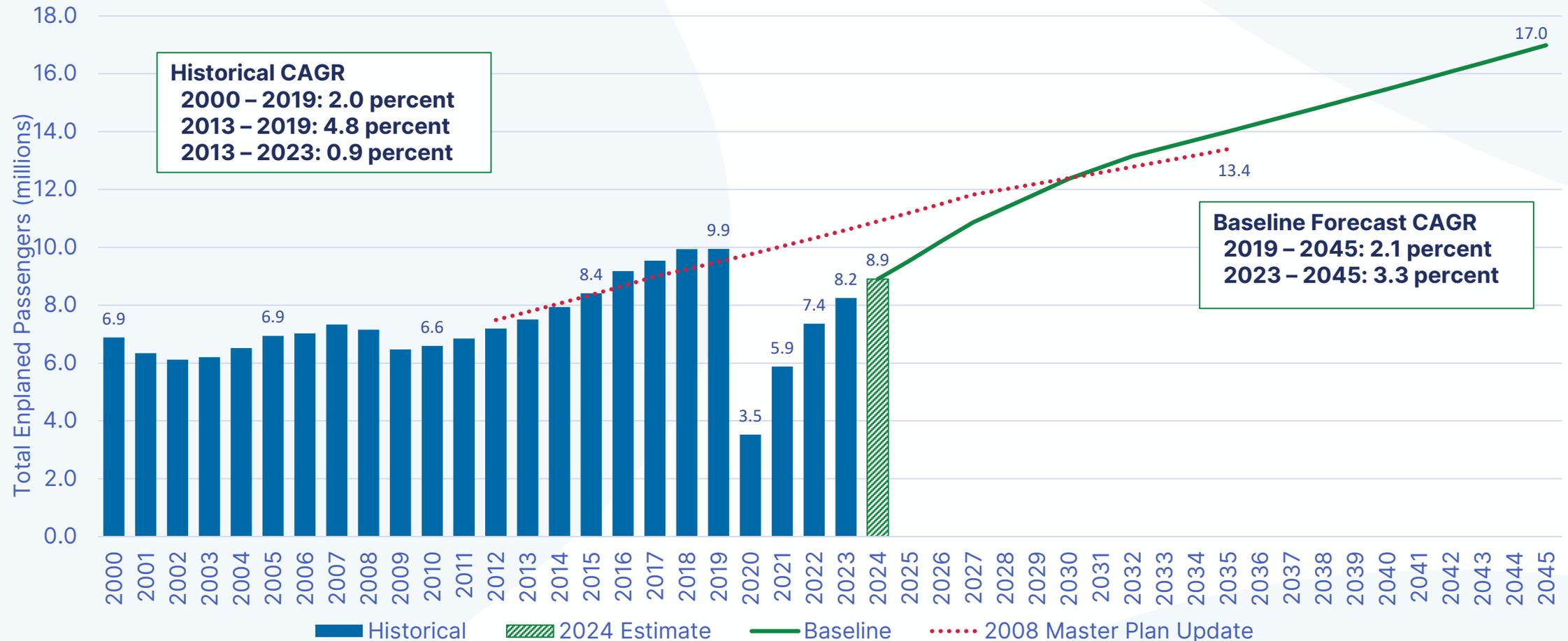
- Cargo Volume
- Landed Weight
- Based Aircraft
- Peaking Characteristics (seasonal, daily and hourly)

Forecast Headlines

- **Slower but steady COVID Recovery:** 19 MAP in 2026, 21 MAP in 2027.
- **Long-Term Growth Eventually Resumes:** Return to “new normal” annual growth surpassing Airport Futures forecast in 2030.
- **Ample Airfield Capacity:** Operations growth remains below Airport Futures projections through 2045.
- **Today’s Role Persists:** Mainly origin & destination traffic (89%) with about 91% domestic/9% international passenger split.
- **Cargo Growth Remains Volatile:** Fresh look at cargo assumptions resets prior forecasts, projects modest growth.

Passenger Forecast Summary

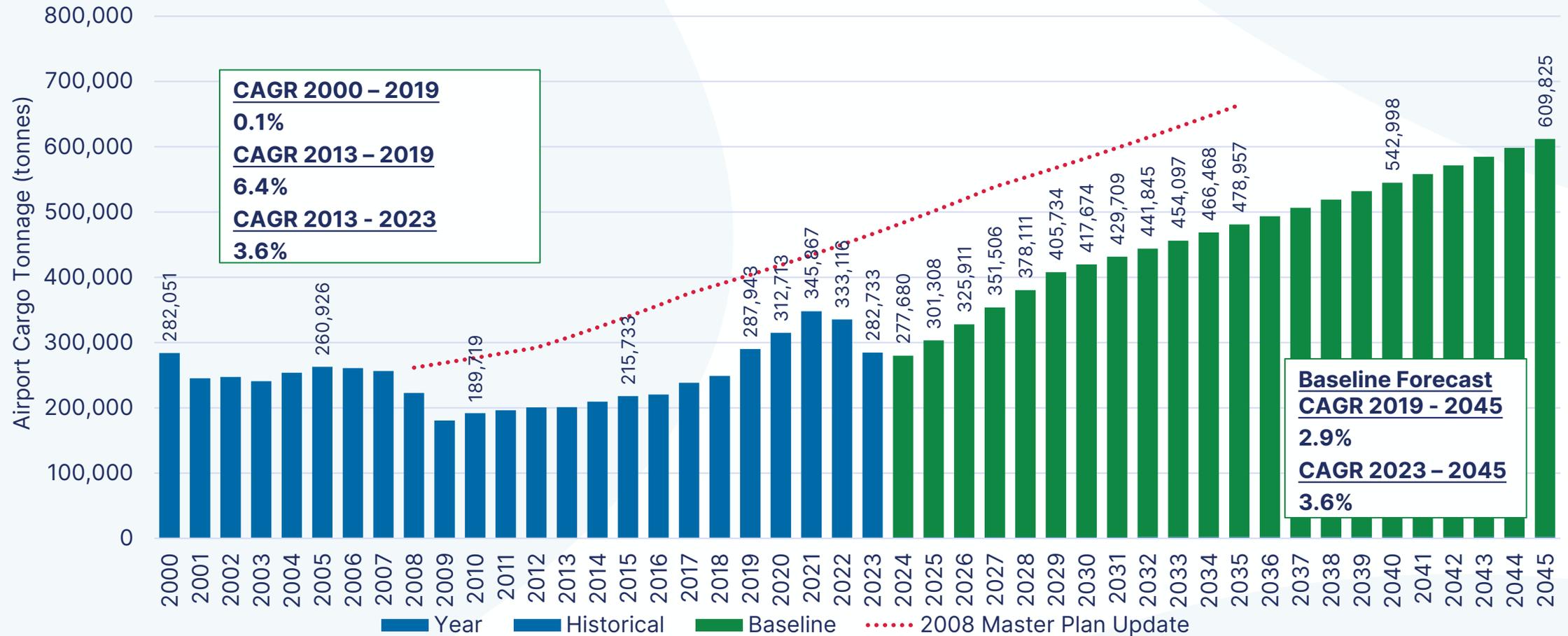
- Enplaned passengers are forecast to increase to 17 million in 2045



Sources: Port of Portland, March 2024; Cirium Diio, April 2024; Jacobs Consultancy, Master Plan Update, technical Memorandum No. 2 – Aviation Demand Forecast, September 2008; Ricondo & Associates, Inc., April 2024.

Cargo Forecast Summary

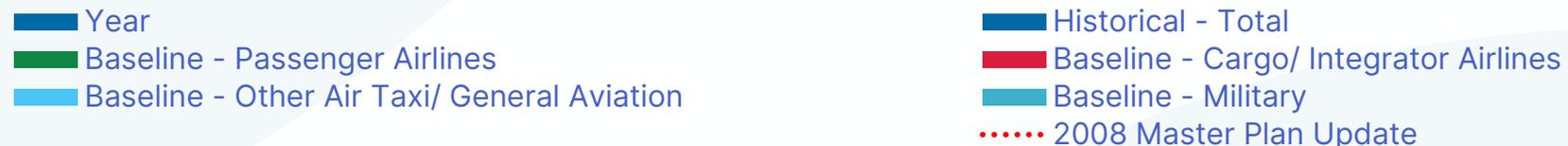
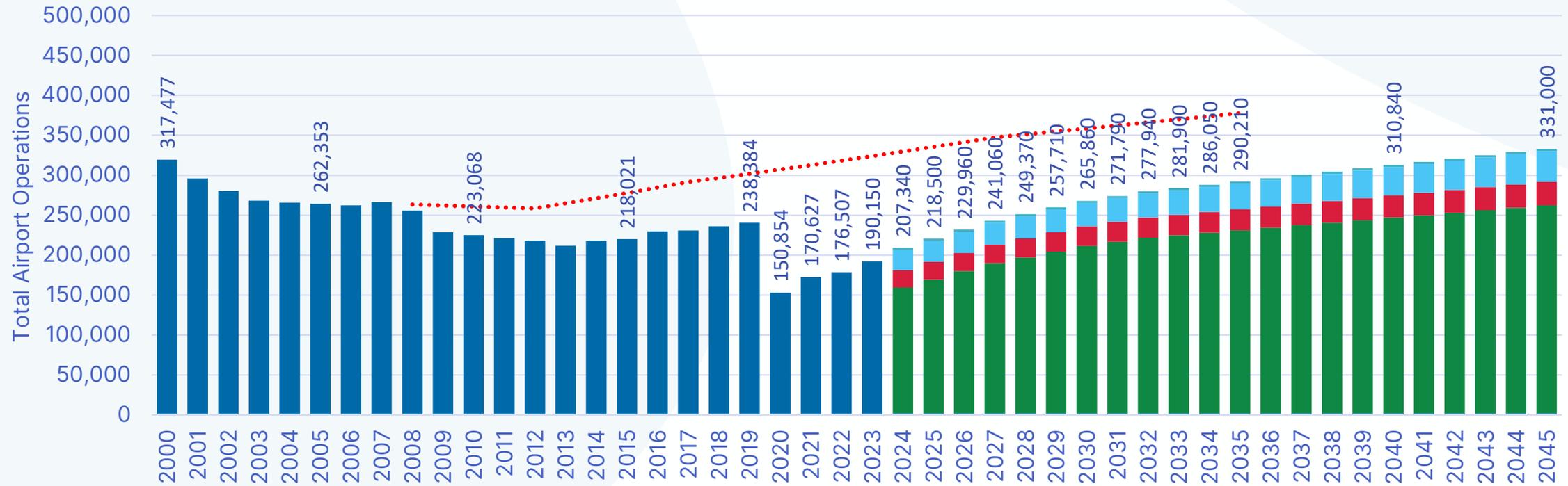
- Cargo tonnage is forecast to approximately 610,000 metric tonnes in 2045



Sources: Port of Portland, March 2024; Boeing World Air Cargo Forecast 2022 – 2041 & Commercial Market Outlook 2023 - 2042; Jacobs Consultancy, Master Plan Update, technical Memorandum No. 2 – Aviation Demand Forecast, September 2008;Ricondo & Associates, Inc., April 2024.

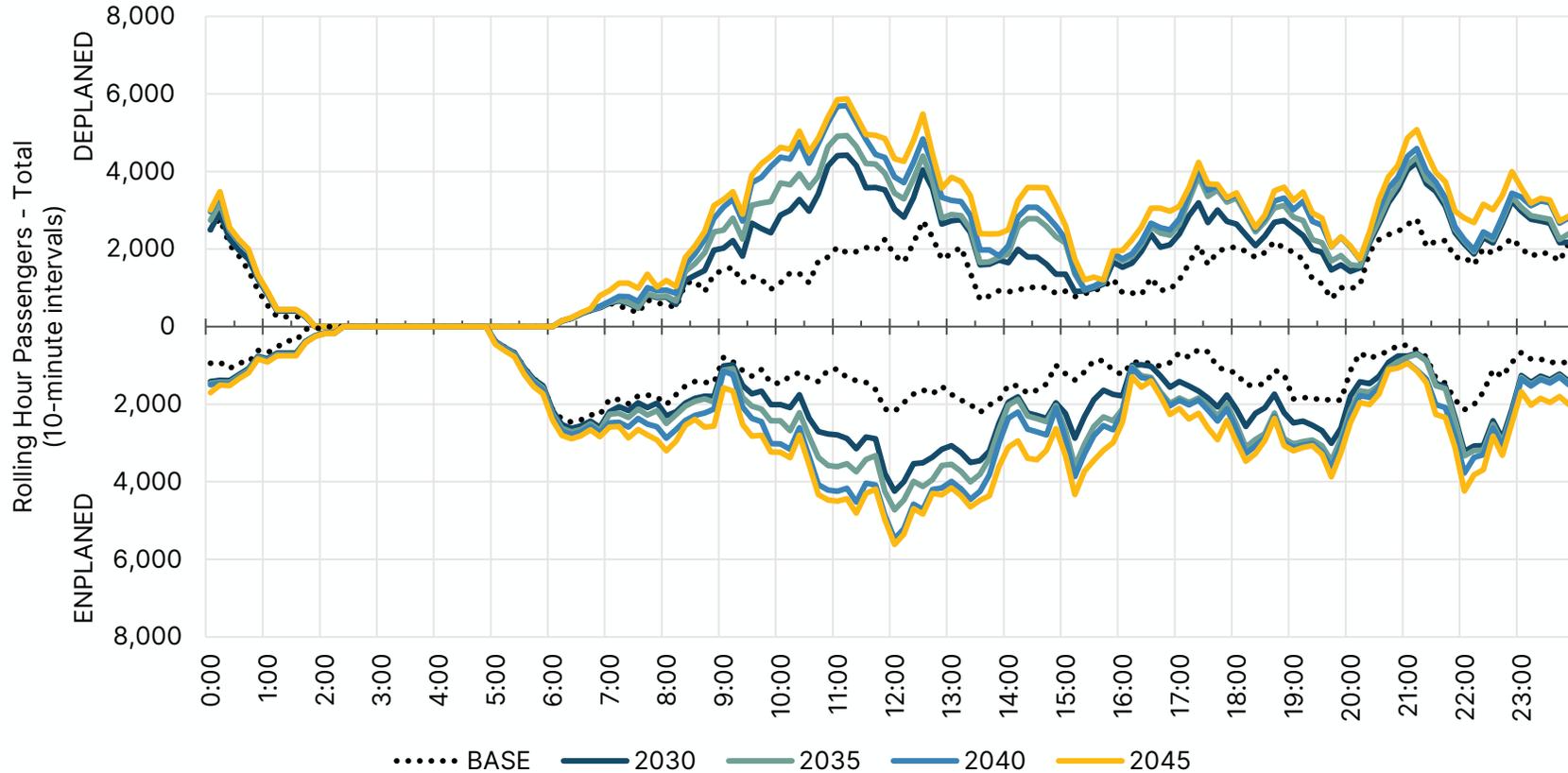
Operations Forecast Summary

- Total airport operations are forecast to 331,000 operations in 2045



Sources: : Port of Portland, March 2024; Federal Aviation Operations Network, *Air Traffic Activity Data System and Traffic Flow Management System Counts*, March 2024; Jacobs Consultancy, Master Plan Update, technical Memorandum No. 2 – Aviation Demand Forecast, September 2008; Ricondo & Associates, Inc., April 2024.

Rolling Hour Passengers - Total

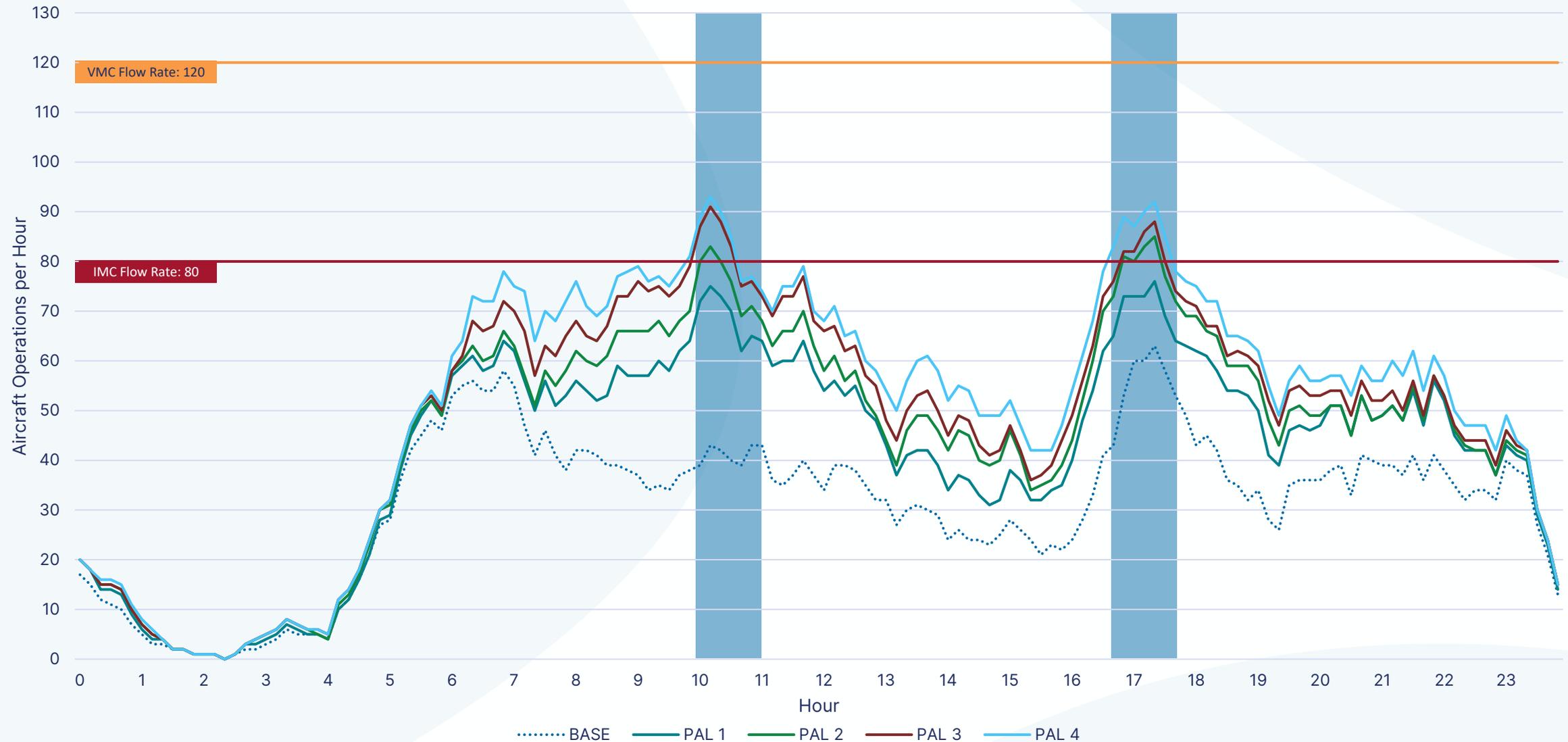


DEPLANED PASSENGERS			
YEAR	PEAK HOUR	DDFS	PEAK HOUR %
2023	2,787	27,843	10.0%
2030	4,422	42,431	10.4%
2035	4,924	47,988	10.3%
2040	5,695	53,019	10.7%
2045	5,874	58,140	10.1%

ENPLANED PASSENGERS			
YEAR	PEAK HOUR	DDFS	PEAK HOUR %
2023	2,463	27,428	9.0%
2030	4,243	41,620	10.2%
2035	4,725	47,103	10.0%
2040	5,473	52,007	10.5%
2045	5,616	57,080	9.8%

Preliminary Airfield & Terminal Facility Requirements

Design Day Hourly Runway Demand/Capacity



Annual Service Volume

- FAA Advisory Circular 150/5060-5 – *Airport Capacity and Delay* capacity benchmarks:
 - 60% of ASV – begin planning for additional capacity
 - 80% of ASV – begin implementing additional capacity
- Potential capacity enhancements
 - Additional airfield facilities (taxiways, runways)
 - Airspace improvements
 - Better navigation technology

	Base	2030	2035	2040	2045
Weighted Hourly Capacity	114	114	114	114	114
Annual Operations	190,150	264,740	288,270	308,780	328,930
Average Daily Ops (Peak Month)	603	850	924	990	1,060
Average Peak Hour Ops (Peak Month)	48	71	78	86	88
ASV	452,000	426,000	422,000	410,000	427,000
Percent ASV	42%	62%	68%	75%	77%

Airfield Summary

Conclusions:

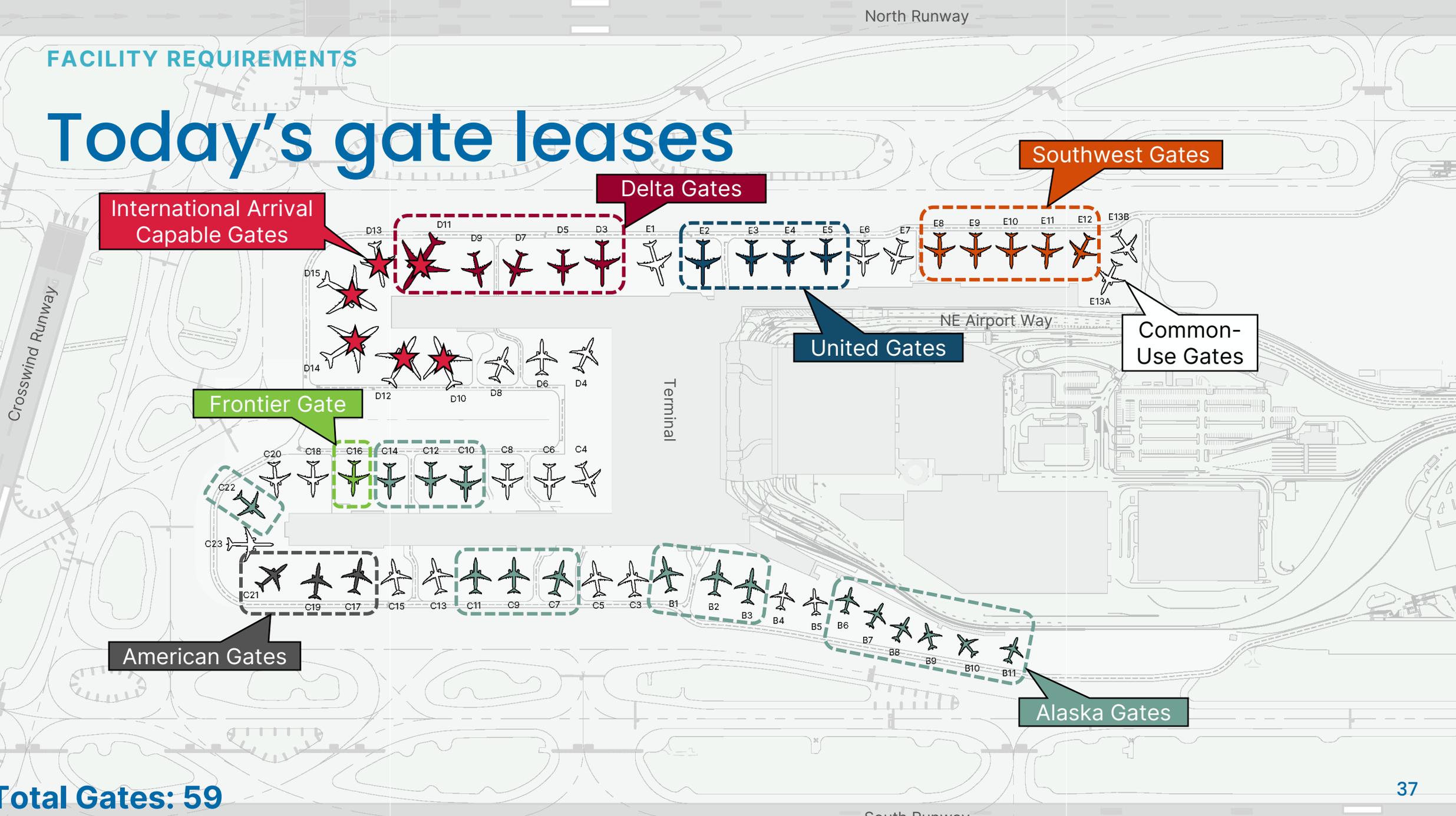
- PDX is well positioned regarding airfield/airspace capacity through the planning period (2045)
- PDX 2045 will explore capacity enhancements – specifically exit taxiways
- **Runway 3-21 is not needed for capacity purposes**
- **The third parallel runway is not needed for capacity purposes within the planning period**

Next steps:

- Identify taxiway capacity enhancements
- Consider opportunities to shorten or remove crosswind runway
- Revisit the location currently reserved for the third parallel runway

FACILITY REQUIREMENTS

Today's gate leases



International Arrival Capable Gates

Delta Gates

Southwest Gates

United Gates

Common-Use Gates

Frontier Gate

American Gates

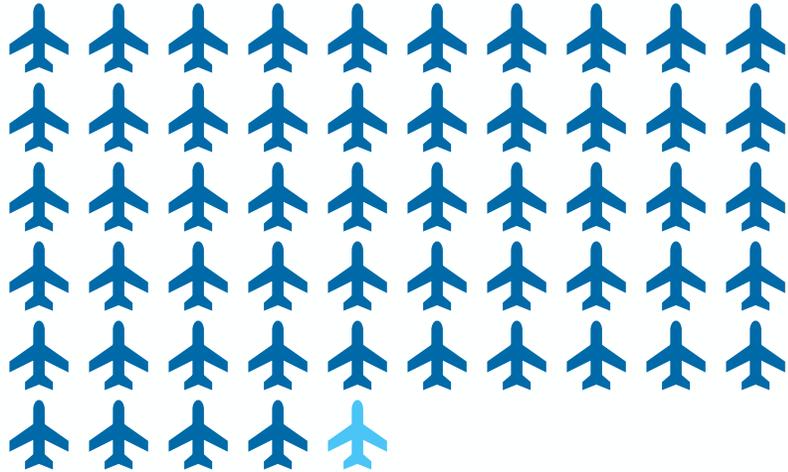
Alaska Gates

Total Gates: 59

2045 gate requirements

Common-Use

55 gates



9 international gates



5.8
average operations per gate

64
total gates required (+5 gates)

Airline 1

5 gates



Airline 2

6 gates



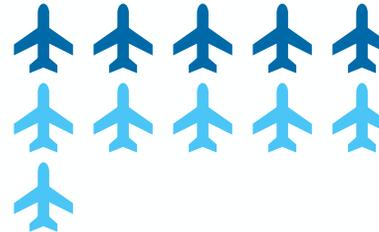
Airline 3

10 gates



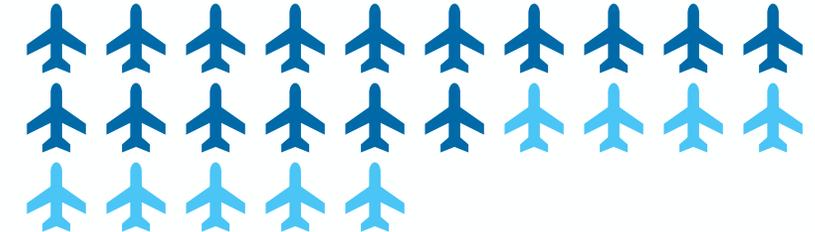
Airline 4

11 gates



Airline 5

25 gates



9 international gates



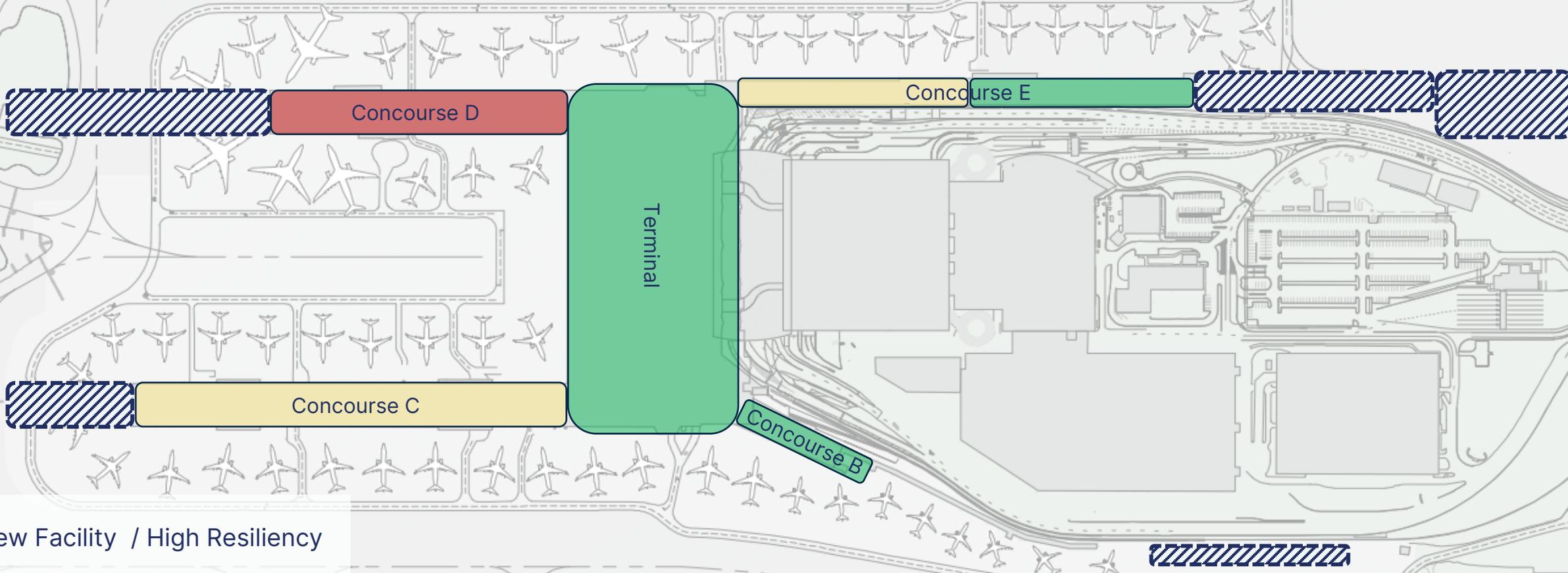
8 ultra low-cost carriers gates



4.8
average operations per gate

75
total gates required (+16 gates)

Development Opportunities



-  New Facility / High Resiliency
-  Aging Facility / Less Resilient
-  Old Facility / No Resiliency
-  Area of Opportunity

Upcoming Steps

IAC Next Steps

Upcoming engagement opportunities:

- Community Open House: Wed. 3/19, 5pm-8pm, McDaniel High School
- Additional open house opportunities to be announced for early/mid April

Today's meeting followups:

- Annotated agenda and meeting slides to be posted to pdx2045.org (link will be e-mailed)
- Aviation Demand Forecast and Existing Conditions reports at pdx2045.org

Next meeting (early/mid May):

- Landside facility requirements
- Update & input on refined alternatives
- Summary of stakeholder input received thus far

Q&A and Thank You!

For more information: pdx2045.org

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