



May 2024

Seattle Paine Field International Airport

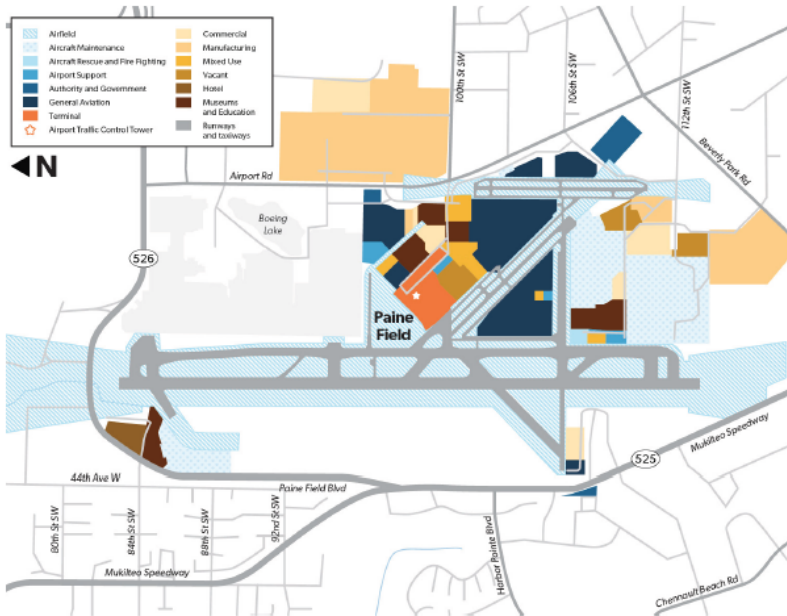
Master Plan 2040



Introduction

An airport master plan is a comprehensive study of an airport, describing the short-, mid-, and long-term development plans to meet future aviation demand at an airport; it is a tool which provides the framework necessary to guide potential airport development, while considering both internal and external impacts. The last Master Plan developed for Paine Field (PAE) was adopted by the Snohomish County Council on December 4, 2002, and accepted by the FAA on November 13, 2003.

Snohomish County and the Federal Aviation Administration (FAA) officials have identified the need to update the Master Plan to address current FAA requirements and account for the implementation of commercial passenger service at the airport. The PAE Master Plan 2040 outlines a framework for the development of airport facilities and will guide future long-term on-Airport land use and development decisions to 2040. The Master Plan evaluates many elements of the airport to help determine the necessary safety, maintenance, and capacity improvements to help plan the future PAE.



Existing Land Use Areas

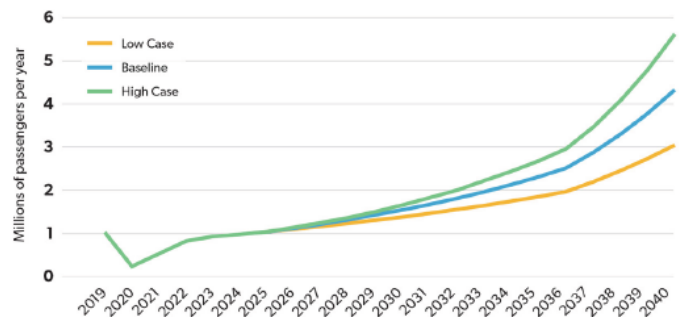
Existing Inventory

PAE consists of two parallel runways on Runway 16L-34R and Runway 16R-34L and a diverse range of airport facilities. The passenger terminal (operated by Propeller Aero Services) offers three gates, more than 290 hangars serve the General Aviation community, home to aircraft maintenance facilities, air cargo facilities, and other educational institutions and museums. The Boeing Company operates its wide-body aircraft assembly plant on 1,100 acres adjacent to Paine Field and leases significant portions of the airport for its operations.



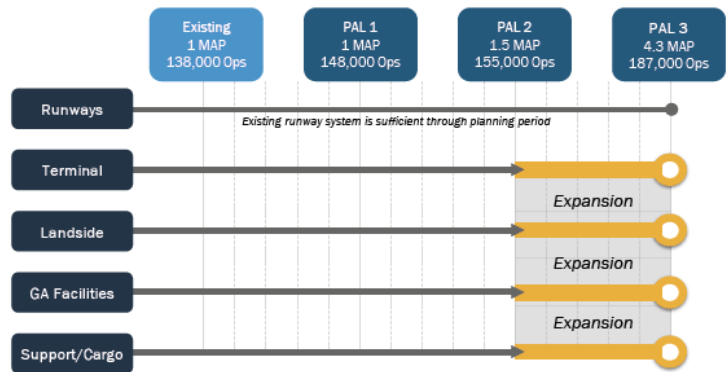
Aviation Forecast

Forecasts traffic projections of all forms of aviation activity over a certain period of time. The projections are used to adequately plan, size, and phase the development of future facilities to meet future projected growth. The Master Plan forecasts passenger growth to exceed 4 million annual passengers (MAP) by 2040. Forecast projections for passenger operations indicate that passenger aircraft are expected to increase by approximately 41,506 annual operations (4.4 percent) in the same time period. The Master Plan also identified growth in Air Cargo and General Aviation operations during the planning period. The graph to the right presents a summary of the annual projected passenger forecast and the range presented in the Master Plan. The baseline forecast was used to calculate future airport needs.



Airport Facility Triggers

To provide sufficient capacity to meet the projected demand throughout the planning period at PAE, future planning requirements for airport facilities were established. The requirements are broken down into three Planning Activity Levels (PAL). Each PAL provides the County with flexibility to plan for the implementation of future projects based on growth in traffic, rather than a specific timeline. The associated activity levels for each PAL are shown in the diagram to the right.



Development Alternatives

The Master Plan identified a series of improvements and development alternatives to meet the projected demand for each PAL. The alternatives were evaluated against a set of specific criteria, and input was received from the County and the public to help guide the list of recommended development alternatives.

The following list outlines the recommended development projects identified in the Master Plan.

Terminal

The purpose of the passenger terminal alternatives is to define the amount of land needed to satisfy the future terminal area requirements. At the appropriate time the terminal will be designed and phased including the actual configuration and design of the passenger terminal and the associated apron area.

- Preserve space for a 200,000 sf (or a two-story 100,000 sq. ft. footprint) of additional terminal building space. It is also assumed that the passenger terminal will be a two-level structure.
- Preserve space for a total of seven contact gates
- Preserve space for a total of 15 aircraft parking positions (seven contact plus eight remote positions)
- Accommodate deicing capabilities (four off-Stand, or seven on-Stand)

Airfield

- Provide two high speed exits for Runway 16R arrivals (removes Taxiway A6 and A9)
- Provide one high speed exits for Runway 34L arrivals (removes Taxiway A2 and A4/A5)
- Implement Airport preferred alternative to resolved Hot Spot 2
- ADG-V new parking positions
- Construct flexible airside ramp in decommissioned runway site
- Realign Taxiway Intersection of C1, C, J, and D (3-Node Concept)
- Shift Taxiway A7 and K7
- Reconfigure Intersection - Taxiway G5 and Runway 34R end

Landside

- Expand Signalized Intersection (Airport Road and 100th St SW Intersection)
- Expand Entrance Road (100 St SW)
- Expand Terminal Loop Road (100 St SW)
- Expand Terminal Curb Front
- Preserve space for a Parking Structure
- Expand Premier Surface Lot
- Convert Economy Lot 4 into Staging Lot for Ride-Share/Valet
- Reserve/Construct Rental Car Facilities

Support Facilities

- Identify areas to expand Air Cargo
- Develop consolidated Aircraft Deicing apron
- Expand Aircraft Fuel
- Expand Aircraft Maintenance (MRO)
- Expand Aircraft Rescue and Firefighting (ARFF)
- Expand Airport Administration
- Expand Airport Maintenance
- Reserve space for Flight Catering
- Expand General Aviation (GA)
- Expand Ground Support Equipment (GSE) Maintenance Area
- Identify areas to enable Urban Air Mobility (UAM)

Recommended Development Plan

The recommended projects are phased based on the corresponding PALs, and annual passenger and operations levels. Future airport improvement projects will be undertaken only when demand warrants and actual funding is available. Factors that can also trigger the need to proceed with a particular airport development project can range from tenant demands for landside and support facilities, to airside and terminal capacity requirements (passenger demand) and operational improvements. FAA planning criteria and the need to enhance safety on the airfield must also be considered.

The recommended development plan includes a total of 30 projects that are estimated to take 20+ years to reach completion. In the plan, there are five main project elements of focus: airfield improvements, passenger terminal expansion, parking expansion, roadway expansion, and general aviation opportunities, summarize below:

- PAL 1 – projects focus on providing additional capacity for the ground transportation elements of the passenger terminal building, airside safety enhancements, and flexibility for parking aircraft in the near term.
- PAL 2 – the theme of the projects anticipated to meet the 1.5 MAP demand level are terminal focused. PAL 2 represents the opportunity to expand the passenger terminal building and develop a consolidated deicing apron.
- PAL 3 – Identifies several projects to meet the projected demand beyond 1.5 MAP to the end of the planning period. Projects will include improvements to the access roads, parking facilities, airside taxiways, general aviation hangars, and may others.

Additional information about the Paine Field Master Plan 2040 can be found on at www.paineairport.com.

3 Implementation in
3 PHASES

30 Recommended
PROJECTS

Estimated Project Costs

Implementing and funding PAE's Master Plan Capital Improvement Projects (CIP) will largely be a function of federal, Passenger Facility Charges (PFC), and local funding sources available at the time of specific project implementation. Implementation of these capital projects will occur after further design development. Total Master Plan CIP costs are estimated to total \$297 million. Of this total, approximately 65% is estimated to be eligible for federal investment through the FAA's AIP Program, 8% from private 3rd party sources, and the remaining 27% are estimated to be covered through local Airport funds, which include PFCs.

