

# HILLSBORO AIRPORT MASTER PLAN UPDATE



## Community Involvement Report

March 7, 2019

*Prepared for:*



*Prepared by:*



## Table of Contents

<b>Table of Contents.....</b>	<b>1</b>
<b>Project Team .....</b>	<b>2</b>
<b>Introduction .....</b>	<b>3</b>
<b>Investigation Phase.....</b>	<b>12</b>
Airport Inventory .....	12
Aviation Activity Forecasts.....	13
Airport Role.....	14
<b>Alternatives Analysis Phase.....</b>	<b>16</b>
Facility Requirements .....	16
Airport Development Alternatives Analysis.....	17
Development Alternatives .....	19
Subarea Alternatives.....	23
<b>Formalization Phase.....</b>	<b>30</b>
Capital Improvement Program .....	30
Ongoing Community Engagement .....	31
<b>Master Plan Adoption .....</b>	<b>33</b>
 <b>Appendix A: Community Involvement Activities</b>	
<b>Appendix B: Planning Advisory Committee Report</b>	

## Project Team

### **Port of Portland**

<b>Project Manager</b>	Ryan Parker
<b>Project Sponsor</b>	Steve Nagy
<b>Long Range Planning Manager</b>	Sean Loughran
<b>Senior Aviation Planner</b>	Aaron Ray
<b>Community Affairs Director</b>	Chris White
<b>Outreach Manager</b>	Jayson Shanafelt
<b>Environmental Planning</b>	Richard Vincent
<b>Business and Properties</b>	Steven Winkle

### **Project Consultants**

<b>WHPacific</b>	Dave Nafie, Consultant Project Manager
<b>Coffman Associates</b>	Patrick Taylor, Assistant Project Manager
<b>EnviroIssues</b>	Anne Pressentin, Planning Advisory Committee Facilitator
<b>Synergy Consultants</b>	Seth Baker, Community Involvement
<b>Mackenzie</b>	Mary Vigilante, Environmental Overview and Strategy
<b>Johnson Economics</b>	Brian Varricchione, Landside Planning
<b>Kittelson &amp; Associates</b>	Jerry Johnson, Commercial Development Analysis
<b>Salus Resilience</b>	Zachary Horowitz, Traffic Planning and Engineering
<b>Angelo Planning Group</b>	Allison Pyrch, Facility Evaluation and Resilience
<b>Martinez Geospatial</b>	Frank Angelo, Community Land Use Planning
	Ryan Flicek, Airport GIS

### **Contact Information**

**Jayson Shanafelt**  
Port of Portland  
Community Affairs Outreach Manager  
503-415-6853  
Jayson.Shanafelt@portofportland.com

**Ryan Parker**  
Port of Portland  
Development Manager  
503-415-6077  
Ryan.Parker@portofportland.com

**Project Website**  
<https://www.portofportland.com/HIO/MasterPlan>

## Introduction

### Purpose of this Report

This Community Involvement Report documents the work of the Port of Portland (Port) to engage stakeholders and community members on the development of the Hillsboro Airport Master Plan Update. This report documents community involvement activities completed and describes how the community's input affected outcomes of the master plan process.

### Background

As the second busiest airport in Oregon, Hillsboro Airport plays a vital role in the region's economy. Although it does not provide commercial passenger service, Hillsboro Airport is an important place for general aviation activities. Many people know Hillsboro Airport as the host of the Oregon International Air Show.

More than 25 businesses and services operate at Hillsboro Airport, including:

- Aircraft charter services for business travel
- Local corporate flight departments and a corporate shuttle service
- Air ambulance services
- TV news helicopters
- Flight schools
- Aircraft sales, maintenance and repair operations
- Youth science program
- U.S. Customs and Border Protection office for international flights



Established in 1928, Hillsboro Airport was privately operated and later purchased by the City of Hillsboro. The Port of Portland purchased and began operating the airport in 1966. As the city of Hillsboro grew to encompass the airport, the city government and the Port worked together to ensure that compatible land use policies were put in place, with the goal of separating the airport from residential communities as much as possible. The Port also initiated a Fly Quiet program, which encourages pilots to operate aircraft in ways that reduce noise impacts on airport neighbors.

### Master Plan Update

In early 2017, the Port of Portland (Port) initiated an update to the Hillsboro Airport Master Plan, which had guided airport development since 2005. A periodically updated airport master plan provides a framework or "blue print" to guide future airport development over the next 20 years. It includes a forecast of the many ways the airport will be used in the future and lists the types of development



needed to meet airport activity forecasts. The Port assembled a project team to collect and analyze high quality information to provide Port staff with an informed understanding of how the airport is likely to be used in the future and identify priority land use and development projects to meet regional needs.

The project team used the 2005 Hillsboro Airport Master Plan as the foundation of the study.



## **Project Objective and Desired Outcomes**

The objective of the Hillsboro Airport Master Plan Update was to provide the Port with guidance, informed by community involvement, detailed analysis and state of the art forecasting, for future investment in the infrastructure of Hillsboro Airport. Desired outcomes included:

- A shared understanding of local and regional interests between the Port staff and airport stakeholders
- A clear and actionable plan that guides future investments and development of Hillsboro Airport
- An ongoing community involvement strategy that continues to inform and engage community members after the master plan process is finished

## **Port of Portland Commission**

The Port of Portland Commission adopts the final master plan document to be submitted to the Federal Aviation Administration (FAA) for review and acceptance. The Commission considers the project's community involvement process as it reviews and prepares to adopt the master plan.

## **Community Involvement Plan**

The project team developed a community involvement plan that identified a variety of opportunities for the broader community to provide input on key elements of the master plan and a schedule of outreach activities. The community involvement process was designed to share information about Hillsboro Airport and collect input on master plan elements that the community could affect. Some elements were more technical or regulatory in nature and were shared primarily for informational purposes.

The project team provided a variety of options for community members to engage in the master plan process. Tools and strategies focused on engaging community members in places they normally spend time, culturally specific engagement with the Latinx community of Washington County, and online engagement.

The following table describes the master plan phases and elements that were the focus of community involvement activities.

Phase	Master Plan Element	Community Involvement Objective
<b>Investigation</b>	Airport inventory	<ul style="list-style-type: none"> <li>• Share information</li> </ul>
	Airport activity forecast	<ul style="list-style-type: none"> <li>• Share information</li> </ul>
	Airport role	<ul style="list-style-type: none"> <li>• Share information</li> <li>• Collect input on airport role strategic analysis</li> </ul>
<b>Alternatives Analysis</b>	Facility requirements	<ul style="list-style-type: none"> <li>• Share information</li> <li>• Collect input on community uses of airport property</li> </ul>
	Development alternatives	<ul style="list-style-type: none"> <li>• Collect input on possible locations of future airport facilities and arrangement of land uses</li> </ul>
<b>Formalization</b>	Capital improvement program	<ul style="list-style-type: none"> <li>• Share information</li> </ul>
	Ongoing community involvement	<ul style="list-style-type: none"> <li>• Collect input on how the community should be involved in projects as the master plan is implemented</li> </ul>

The project team used a range of digital, in-person and culturally specific strategies to share information, gather input and bring people together to discuss ideas for the master plan process. A description of each tool used is listed below.

### **Tools to Share Information**

- **Email:** Emails were distributed to the Port's email notification list to announce PAC meetings, community involvement activities and public input opportunities.
- **Project website:** Project information was posted to a web page dedicated to the master plan process on the Port's website. The web page included general project information, PAC meeting materials and notes and project staff contact information.
- **Social media:** Project activities were promoted using Port of Portland's Twitter and Facebook accounts. Sponsored Facebook posts were distributed to Facebook users within 13 miles of Hillsboro Airport. PAC members shared project posts using their own social media channels. Centro Cultural promoted project activities for Spanish speaking audiences.
- **Fact sheet:** Basic project information was provided on a bilingual fact sheet distributed at outreach events.
- **Postcards, bookmarks and fliers:** A bilingual postcard (English and Spanish) was distributed to about 12,000 residences within two miles of Hillsboro Airport to raise awareness of the master



plan process and promote the online open house in January 2018. The same promotional content was used to create fliers and bookmarks that were passed out at outreach events and left in community locations such as Centro Cultural de Washington County and the Portland Balaji Temple.

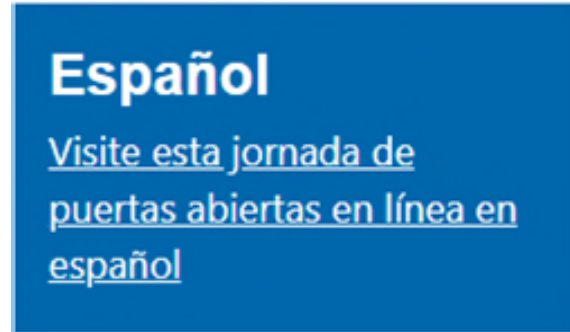
- *Airport banner:* A banner was placed on the fence facing Cornell Road on Hillsboro Airport to raise awareness of the master plan process and promote project online open houses.
- *Traveling display:* Basic project information was shared in English and Spanish on a standing display banner and put up in areas trafficked by community members that live and work near Hillsboro Airport. Display locations included the Hillsboro Airport terminal building and the Hillsboro Brookwood Community Library. Project staff brought a third banner to community involvement activities.
- *Videos:* Two short informational videos were made to share information about Hillsboro Airport and explain the master plan process. The videos were posted to online open houses and used in Port of Portland social media posts.
- *Partner channels:* Project staff asked community and project partners to help distribute project information and announcements through their existing communication channels. Partners included the City of Hillsboro, Washington County, Washington County Community Planning Organizations, Centro Cultural de Washington County, and the Portland Balaji Temple. Project staff also asked PAC members to share information with their networks.
- *News releases:* Information about project activities was distributed to local media outlets.



- *Translation:* Key project informational materials were translated into Spanish, including the project fact sheet, traveling display banner, postcards, bookmarks, fliers, project maps and online open houses.

### ***Tools to Collect and Compile Input***

- *Stakeholder interviews:* The project team conducted interviews with planning advisory committee members to identify key topics of community interest to focus on during the master plan process.
- *Online surveys:* The project team used online surveys to collect detailed input on key components of the master plan.
- *Online open houses:* The project team used an online engagement tool to explain project information and solicit input at key project milestones. The tool hosted the project's online surveys.
- *Stakeholder briefings:* Project staff kept stakeholders apprised of project developments and provided opportunity for input on master plan elements. These stakeholders included the Federal Aviation Administration, Washington County and the City of Hillsboro.
- *Community group briefings:* Project staff attended meetings hosted by interested community groups to provide status reports on the master plan process.
- *Tabling at fairs and festivals:* Project staff hosted an information booth at community events to increase awareness of the master plan process and collect public input.
- *Comment summaries:* Comments collected on key project components were compiled and summarized for consideration by project staff.



### ***Tools to Bring People Together***

- *Planning Advisory Committee meetings:* The Port of Portland with community consultation formed a committee to gain advice from informed stakeholders. Staff presented project information for committee members to discuss, react to and make recommendations. All committee meetings were open to the public. Public comments were collected verbally and in writing at each committee meeting.



- *Joint outreach events:* The project team identified established events such as the Hillsboro Air Fair and Centro Cultural events that were used as opportunities to share project information with community members and solicit input.
- *Public workshops:* The project team hosted one public workshop focused on air quality and noise management to present new modeling techniques, answer questions and gain feedback.
- *Public open house:* The project team hosted a public open house to give community members an opportunity to talk with project staff about master plan information and provide input on the alternatives considered for the master plan.





## Culturally specific outreach to Latinx communities

The Port of Portland partnered with Centro Cultural de Washington County to help Washington County's Latinx community members engage in the master plan process and learn more about Hillsboro Airport and the Port of Portland. Centro Cultural played an essential role by:

- Hosting master plan events
- Promoting master plan outreach activities using their existing communication channels such as social media, email and word-of-mouth
- Organizing Spanish-speaking tours of Hillsboro Airport
- Translating print materials and online open house content into Spanish
- Providing Spanish interpreters at master plan outreach events

This was the first time the Port of Portland partnered with a community organization like Centro Cultural to conduct culturally specific outreach in Washington County. The project team noted several lessons to remember for future culturally specific outreach activities.

- Conversations need to start with basic information about the Port's role in the community before talking about specific projects
- Most community organizations have limited resources – identify ways to help them build capacity or be flexible about how to accomplish project goals
- Culturally specific outreach has provided fresh perspectives on the Port's work and should be integrated into future outreach efforts as much as possible



A complete list of community involvement activities and outcome summaries is provided in Appendix A of this report.

## Special Interest Topics

The Port took opportunities to discuss topics of special interest to community members that are not typically included in an airport master plan. The project team discussed these topics during PAC meetings and at community involvement events.

Special interest topics included:

- Hillsboro Airport's effect on air quality
- Noise management associated with Hillsboro Airport activity
- Seismic resilience of Hillsboro Airport facilities

### ***Noise and Air Quality Information Session***

The project team hosted an information session in October 2017 to share information about factors that affect noise and air quality surrounding Hillsboro Airport, report on the Port of Portland's previous work related to noise and air quality management, and answer questions from community members. An event summary from the information session including comments and questions heard is available in Appendix A.

### ***Agency Coordination Meetings on Seismic Resilience***

In response to comments from community members asking the Port of Portland to explore opportunities to make its facilities more resilient to a significant seismic event in the Portland metropolitan region, the Port convened two meetings with several government agencies responsible for disaster preparedness at local, state and federal levels in Oregon. The purpose of the meeting was to clarify roles and responsibilities of each agency following a significant seismic event and discuss assumptions related to the capabilities of facilities managed by the Port of Portland during a seismic event, including Hillsboro Airport. The Port of Portland continues to coordinate with agencies to define the role of Hillsboro Airport in regional resilience and recovery plans in order to guide planning and investment decisions. (More information is included in Appendix K.)

### **Planning Advisory Committee**

The Port formed a Planning Advisory Committee (PAC) to meet publicly throughout the master plan process to advise the project team on key inputs for the master plan analysis and help the Port engage communities affected by and interested in Hillsboro Airport and the master plan update.



The PAC included 18 members. The Port worked with local governments and organizations to appoint members who represent a balance of different perspectives. Three community members were selected in an open application process conducted by representatives from the Port, Washington County, City of Hillsboro and the former Hillsboro Airport Roundtable Exchange.

PAC members met nine times to provide input on the following master plan elements:

- Community Involvement Plan
- Airport Inventory
- Aviation Activity Forecasts
- Airport Role
- Evaluation Criteria
- Airport Facility Requirements
- Development Alternatives
- Implementation Plan
- Ongoing Community Involvement

All PAC meetings were open to the public. Community members were invited to speak with project staff and submit comments in writing. Time was reserved on agendas for community members to provide verbal comments to the PAC.

A detailed report of PAC activities and outcomes is documented in Appendix B.

## Policy Advisory Committee Members

- Airport Business: *Dirk Wittig*
- Airport Business: *Ryan McCartney*
- Airport Equity Business: *Jackie Murphy*
- Aviation Industry Professional: *Scott Gratsinger*
- Citizen at Large: *Alison Elmer*
- Citizen at Large: *Charles Hagele*
- Citizen at Large: *Juan Carlos González*
- Citizen at Large: *Keyanus Jacobo*
- City of Hillsboro: *Colin Cooper*
- CPO<sup>1</sup> 8: *Henry Oberhelman*
- CPO 9: *Kimberly Culbertson*
- Environmental / Regulatory: *Jadene Stensland*
- FAA<sup>2</sup> Local Air Traffic Control: *Casey Sherwood*
- Local Business: *Deanna Palm*
- Washington County: *Andrew Singelakis*
- Youth Citizen at Large: *Trent Robinson*

<sup>1</sup> Washington County Community Participation Organization

<sup>2</sup> Federal Aviation Administration

## Investigation Phase

During the investigation phase, the project team gathered information that would help determine the number and types of facilities the airport will need to meet the communities needs over the next 20 years. This included collecting an inventory of current facilities and aircraft, completing forecasts of future airport activity, and identifying the role of Hillsboro Airport. Project staff engaged the community using an online open house and survey, information booths, and PAC meetings.

### Airport Inventory

The airport inventory included the current number of facilities and aircraft based at Hillsboro Airport. The project team conducted an inventory of facilities to confirm the existing conditions of the airport that inform the forecasts, as well as the need for additional facilities.

The inventory included:

- Capital projects completed from the previous master plan
- Existing airside facilities such as runways and taxiways
- Instrument approach data
- The number and types of aircraft that use the airport
- Existing facilities such as hangars and businesses
- Relevant socioeconomic data
- Environmental data
- Financial data



### Community Involvement

The community involvement objective for the airport inventory was to share information and help community members understand its relevance to the master plan as a whole. The project team made inventory information available for community members to review using an online open house and presented information at the June 2017 PAC meeting. The project team encouraged participation in the online open house at four community events and promoted the event through Port of Portland emails and social media tools. Community partners also promoted the online open house through their existing communication channels.

## Aviation Activity Forecasts

The forecasts estimate the level of activity expected at Hillsboro Airport in the future, including the number of aircraft based at the airport and the anticipated number of takeoffs and landings from different types and sizes of aircraft.

Forecasts have four components:

- **Based Aircraft:** The number and type of aircraft housed at Hillsboro Airport
- **Operations Forecast:** The number of takeoffs and landings expected at Hillsboro Airport
- **Operations Fleet Mix:** The variety of aircraft expected to take off and land at Hillsboro Airport
- **Critical Design Aircraft:** The aircraft used to determine design of airside facilities such as runways and taxiways

### Forecast Inputs and Method

Forecasting is both an analytical and judgmental process. The project team considered several forecast scenarios using different methods and identified trends.

Several factors are considered during the forecast process:

- National trends in aviation activity
- Social and economic data of the region
- Aircraft ownership trends in the region
- Local historical trends
- Stakeholder input

### Forecast Findings

- Hillsboro Airport can expect modest growth in the number of based aircraft and operations over the planning period
  - **Based aircraft:** 91 additional aircraft by 2036
  - **Operations:** 1.13% growth annually
- Expected airport activity is similar to historical peak levels of activity at Hillsboro Airport
- The critical design aircraft is a Gulfstream G650 and does not require changes to existing airside facilities

## Critical Design Aircraft

The critical design aircraft determines the design standards of airside facilities based on aircraft size and speed. For example, a large jet will require a longer runway than a small propeller plane.

For Hillsboro Airport, the critical design aircraft is a Gulfstream G650 – a jet that seats up to 19 passengers typically used in business aviation.



*Gulfstream G650*



### **Community Involvement**

The community involvement objective for the aviation activity forecasts was to share information and help community members understand its relevance to the master plan as a whole. The project team made the forecast information available for community members to review using an online open house and presented the aviation activity forecasts for PAC members to review at the June 2017 PAC meeting. Community members at the PAC meeting commented that the forecasts completed for the previous master plan predicted more activity than what actually occurred. The project team explained that forecast numbers may change as conditions change over time, such as economic activity. The forecasts are reviewed and approved by the FAA for the purposes of the master plan, and forecasts will be updated continually to ensure airport investments are made at appropriate times to reflect real conditions. No further comments called for changes to the forecasts.

### **Airport Role**

The airport role describes the types of users and activities served by Hillsboro Airport (recreational flying, business aviation, flight training, maintenance, etc.) and its relationship to other airports.

Four airport role options were considered:

- **General Aviation/Reliever (current role)**  
Recreational flying, business aviation and flight training; relieves Portland International Airport of smaller planes and training activity
- **General Aviation/Reliever + Limited Commercial Service**  
Adds commercial service for aircraft that seat less than 10 passengers
- **General Aviation/Reliever + Commercial Service**  
Adds commercial service for aircraft with 10 passenger seats or more; requires commercial airport operating certificate and significant capital and operations investments
- **General Aviation/Reliever + Air Cargo**  
Adds air cargo service by aircraft with payload capacity greater than 7,500 pounds; requires commercial airport operating certificate and significant capital and operations investments

### **Proposed Role: Continue as General Aviation/Reliever Airport**

The project team recommended Hillsboro Airport should continue its current role as a general aviation/reliever airport and host similar types of aircraft, activities and services that we see today. The project team's technical analysis determined current and future conditions are not right for Hillsboro Airport to grow into a new role over the next 20 years for the following reasons.

- The cost of gaining certification required for commercial or air cargo airports is substantial
- Portland International Airport (PDX) satisfies the region's needs for commercial and air cargo services
  - The Portland region does not have population or tourist attractions that justify the need for a second commercial airport
  - Aside from limited feeder service with payloads under 7,500 pounds, PDX will remain the focus airport for air cargo in the Portland area.
- The market for limited or full commercial service is competitive and difficult to break into
- Hillsboro Airport will continue to serve an important role as the most capable general aviation reliever airport serving the greater Portland region



### **Community Involvement**

Project staff shared information and collected community input on the airport role using information booths at fairs and festivals and using an online open house. Community members shared a range of opinions regarding airport role:

- People who wanted the airport role to remain the same expressed concerns that expanding Hillsboro Airport may elevate noise levels and lead emissions, making the airport less compatible with the surrounding community.
- People who wanted commercial passenger service added to Hillsboro Airport said the Portland metro region may need a second commercial airport in the near future to serve the region's growing population and tourism industry.

The project team acknowledged the aspiration of many community members for Hillsboro Airport to grow into a commercial passenger service airport and the concern that growth could have negative effects to airport neighbors. The project team addressed this input by retaining the ability for Hillsboro Airport to grow into a new role in the future, should conditions change.

### **Outcomes – Investigation Phase**

The master plan update maintains Hillsboro Airport's current role as a general aviation/reliever airport. The master plan will retain the ability of Hillsboro Airport to expand its role, should conditions call for a new role in the future. The Port of Portland will continually revisit the airport activity forecasts to ensure airport investments are made at appropriate times.

## Alternatives Analysis Phase

During the Alternatives Analysis Phase, the project team identified the types of facilities Hillsboro Airport will need in the future and evaluated several development possibilities, or “alternatives”, showing where new facilities may be located.

### Facility Requirements

Facility requirements refers to the number and types of facilities an airport will need to meet the demand of future airport activity safely and efficiently. The list below identifies major facilities needed to meet the aviation needs during the 20-year planning period.

#### *Aviation facility requirement findings*

- **Airfield capacity:** Expected to reach 50 percent capacity within planning period
- **Runway length:** Adequate for this planning period, but a longer runway could be considered in future master plans
- **Runway design standards:** Some modifications required to comply with current standards for runway safety areas (RSA), object free areas (ROFA), runway protection zones (RPZ) and obstacle free zone (OFZ)
- **Taxiway standards:** Some modifications recommended for safety and efficiency
- **Instrument approaches:** Consider improvements
- **Hangar needs:** Add 98,800 square feet
- **Apron:** Add 13,000 square yards
- **Automobile parking:** Add 431 new parking spaces
- **Terminal building:** 23,000 square feet needed

### ***Community Involvement***

During the summer of 2017, the project team collected comments on the types of uses and facilities community members would like to see at Hillsboro Airport using information booths at fairs and festivals and an online open house.

#### ***Community Connection***

- Create public observation areas
- Increase other community uses of airport property such as educational facilities, restaurants, and shops
- Improve pedestrian, bicycle and public transit access to and around airport property
- Integrate the terminal area with Washington County Fair Complex
- Find ways to increase community compatibility
- Add facilities like dog parks or community gardens on airport property

#### ***Economic Development***

- Preserve the possibility of future commercial passenger service or air cargo
- Increase economic opportunities on airport property
- Ensure adequate parking for employees and travelers

#### ***Development Strategies***

- Preserve natural resource areas and reduce impervious surface area
- Consider alternative locations for a new terminal building
- Close or relocate Hillsboro Airport

The project team used the facility requirements and ideas from community members to develop different layout alternatives for Hillsboro Airport.

The project team summarized public input at the December 2017 PAC meeting and said some of the uses and facilities requested by community members were not compatible with airport property due to safety and regulatory concerns, such as parks and dog run facilities. Port of Portland staff shared these comments with its partners at the City of Hillsboro and Washington County to make them aware of the community desire for these facilities in the area.

## **Airport Development Alternatives Analysis**

The airport development alternatives analysis is the process used by the project team to consider the location of future uses and facilities needed at Hillsboro Airport.

### ***Evaluation Process***

The project team worked with the PAC to design a process to evaluate several development alternatives using community input collected previously. The process included opportunity for community members to review the development alternatives and provide feedback.

PAC members helped the project team develop evaluation criteria based on community input and industry best practices. The project team used the evaluation criteria to guide conversations comparing

the development alternatives. After considering comments and completing an initial evaluation, the project team used the most promising ideas to advance and refine one alternative for further study.

### ***Evaluation Criteria***

The following evaluation criteria were shared with community members using an online open house. Community members were encouraged to consider the criteria while reviewing and commenting on development alternatives.

#### *Community Planning Compatibility*

- Conformance with community plans
- Flexible to adapt with changing circumstances
- Preserves opportunities for different roles
- Proposes socially feasible development
- Meets needs of multiple stakeholders

#### *Environmental Factors*

- Increases the compatibility with neighboring uses with typical airport operations
- Includes natural resources, air quality, stormwater, noise, airport-induced traffic, etc.

#### *Financial Factors*

- Considers the financial sustainability of the airport
- Balances costs with expected benefits
- Opportunity for new/increased revenues and business success on and around the airport

#### *Operational Safety and Efficiency*

- Increasing the overall operational safety and efficiency of the airport as it grows to meet future traffic levels
- Includes meeting all applicable FAA regulations

#### *Seismic Resilience*

- Enhancement of facilities to be better capable of recovery following a major earthquake
- Prioritizes infrastructure investments prior to a major earthquake to allow for a quicker recovery

#### *Social Equity*

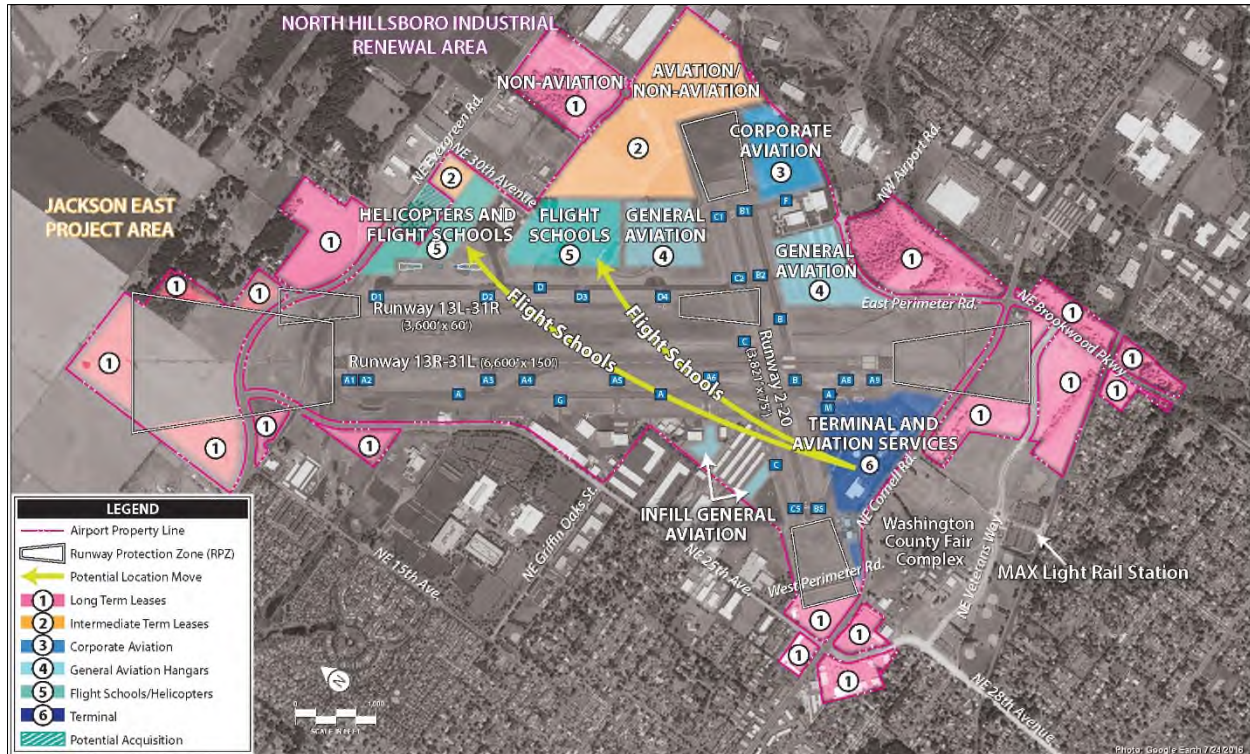
- Aimed at the equitable distribution of community and economic benefits while seeking a proportional distribution of any airport impacts



## Development Alternatives

The project team considered input from the community and PAC members to create three development alternatives showing how Hillsboro Airport could change to meet airport facility needs for the 20-year planning period, provide for non-aviation development and address community comments in different ways. A description of the initial three alternatives considered begins below.

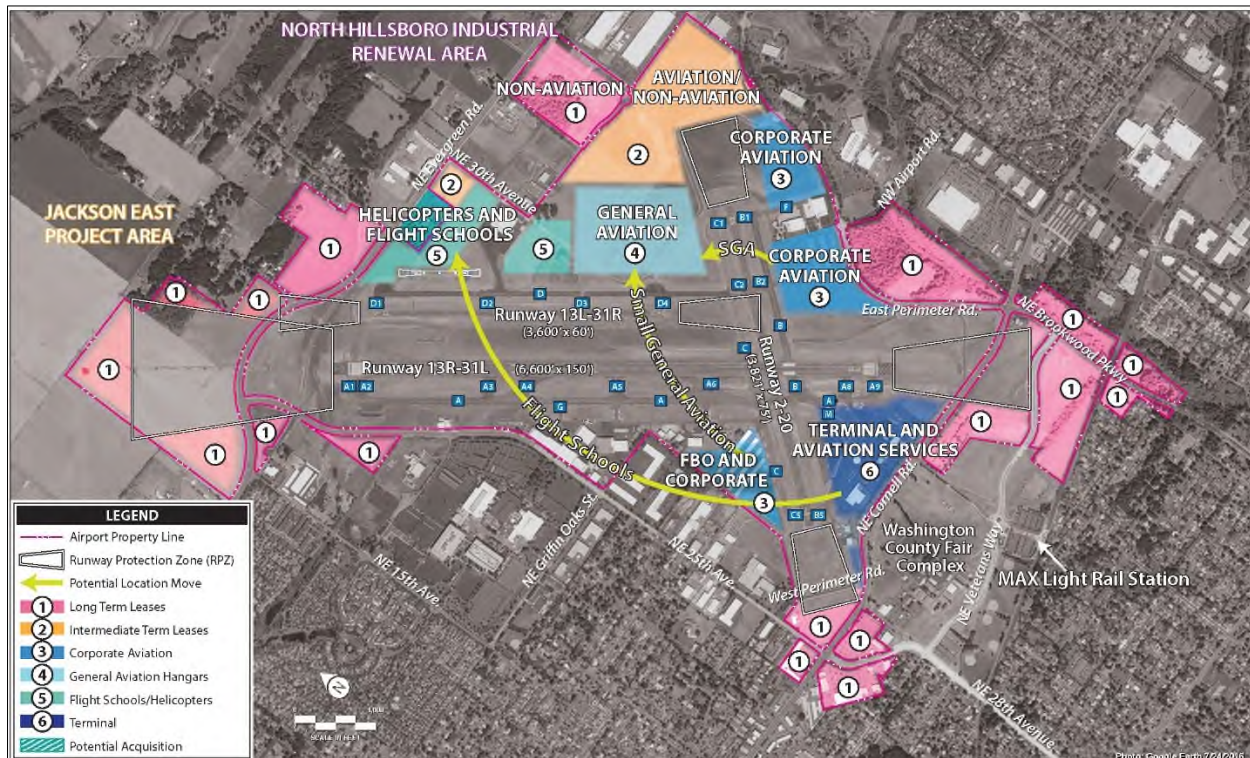
### Alternative 1: Consistency with 2005 Airport Master Plan



#### Key considerations:

- **Consistency:** Represents the least change compared to previous plans
- **Terminal stays:** The terminal complex remains in its current location and leverages opportunities for complementary uses at the Washington County Fair Complex and MAX light rail station
- **Development is incremental:** Focuses on the benefits of infill development before considering new development
- **Most non-aviation opportunity:** Infill strategy creates the most potential space for non-aviation development in north quadrant
- **Brookwood Parkway – incremental expansion:** Increases existing uses including more corporate aviation and box hangars for smaller aircraft
- **Least expensive:** Lowest relative development costs compared to other alternatives due to use of existing infrastructure
- Shifts airport noise patterns slightly north (similar for all alternatives)

**Alternative 2: Co-Locate Like Facilities**

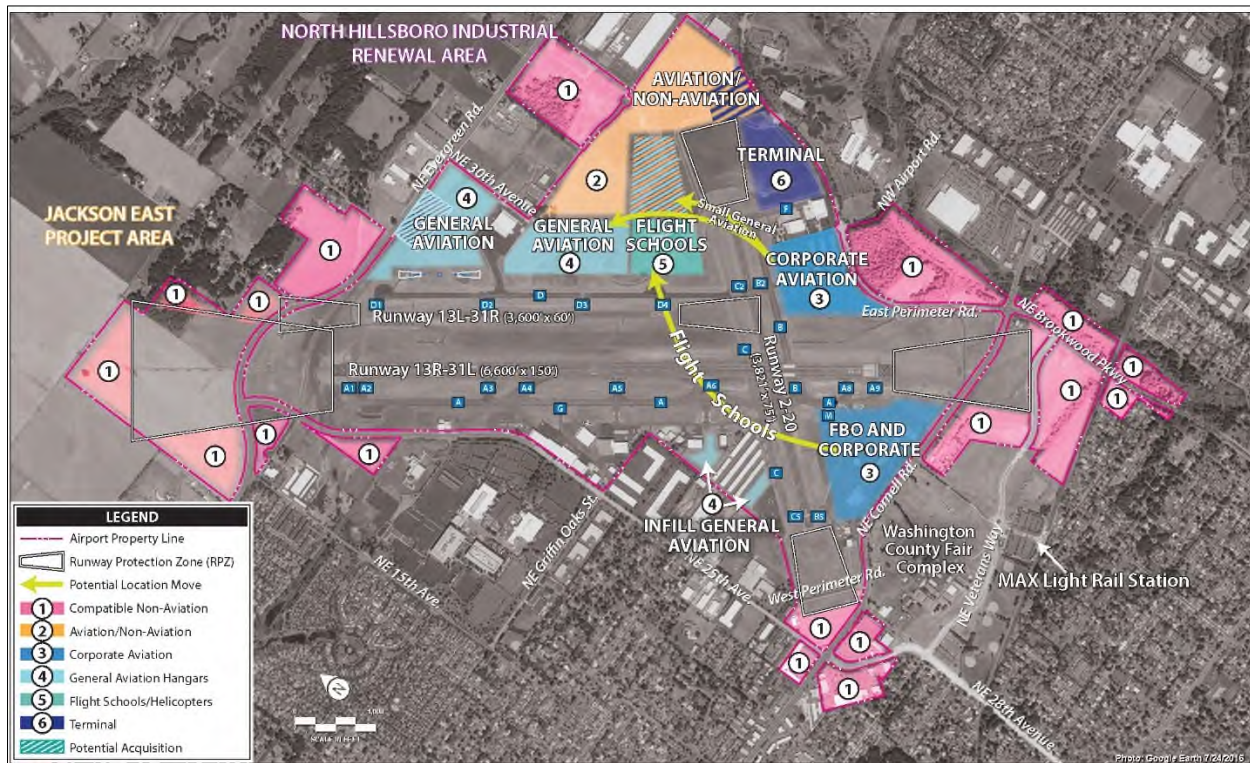


**Key considerations:**

- **Terminal stays:** The terminal complex remains in its current location and leverages opportunities for complementary uses at Washington County Fair Complex and MAX light rail station
- **Groups complementary uses:** Expands on previous plans to group uses such as small general aviation and flight training near the smaller training runway
- **Brookwood Parkway – more corporate aviation:** Add corporate aviation near existing corporate uses
- **More non-aviation opportunity:** Slightly less space for non-aviation development in north quadrant compared to Alternative 1
- **Higher costs than Alternative 1:** Relocation of some uses causes higher relative development costs
- Shifts airport noise patterns slightly north (similar for all alternatives)



**Alternative 3: Relocate Terminal to Brookwood**



**Key considerations:**

- **Terminal moves:** Terminal building relocated to greenfield in east quadrant, along Brookwood Parkway
- **Redevelop south quadrant:** Quadrant along Cornell Road redeveloped with fixed base operators (aircraft service providers) and corporate aviation uses
- **Proximity to Washington County Fair Complex and MAX less leveraged:** Terminal building would be farther from complementary uses at the Fair Complex and MAX light rail station
- **New infill of small aircraft storage:** Provides new small aircraft storage in west quadrant in addition to storage shown in other alternatives within north quadrant
- **Least non-aviation opportunity:** Least space available for non-aviation development in north quadrant compared to other alternatives
- **Most expensive:** Significant relocation and redevelopment presents the highest relative development costs, compared to other alternatives
- Shifts airport noise patterns slightly north (similar for all alternatives)

### **Community Involvement**

The project team collected input on the development alternatives using an online open house and a Spanish speaking partner event with Centro Cultural de Washington County. The project team encouraged community members to visit the online open house by mailing a postcard to residents within two miles of Hillsboro Airport, distributing flyers and bookmarks with the online open house, using Port of Portland emails and social media tools, and asking community partners to share the online open house through their existing communication channels. A summary of the comments received is below.

- Specific to development alternatives:
  - Most commenters preferred keeping the terminal building location on the Cornell parcel to maintain connection to Washington County Fair Complex and MAX light rail station.
  - Some people supported options that would be the least disruptive to the current airport layout and require minimal costs, similar to Alternative 1.
  - Some people supported investments in aviation facilities that would improve airport efficiency and attract users, similar to Alternative 2.
  - People indicated they liked that noise patterns are expected to shift north away from denser residential areas.
- Other comments:
  - Increases in community benefits of Hillsboro Airport need to be balanced against any negative effects the airport may have on nearby residents.
  - More action is needed to reduce negative effects of airport activity and increase the range of community members who directly benefit from the airport.
  - Consideration of non-aviation uses that increase community use of airport property should continue.
  - Airport property should be reserved for aviation uses.
  - An alternative that retains the ability to add commercial passenger service to Hillsboro Airport in the future should be selected.
  - Do not change Hillsboro Airport's role if it would increase negative effects to nearby residents.

The project team used comments collected on the development alternatives when refining one alternative for more detailed analysis. The following ideas were advanced for the alternatives analysis:

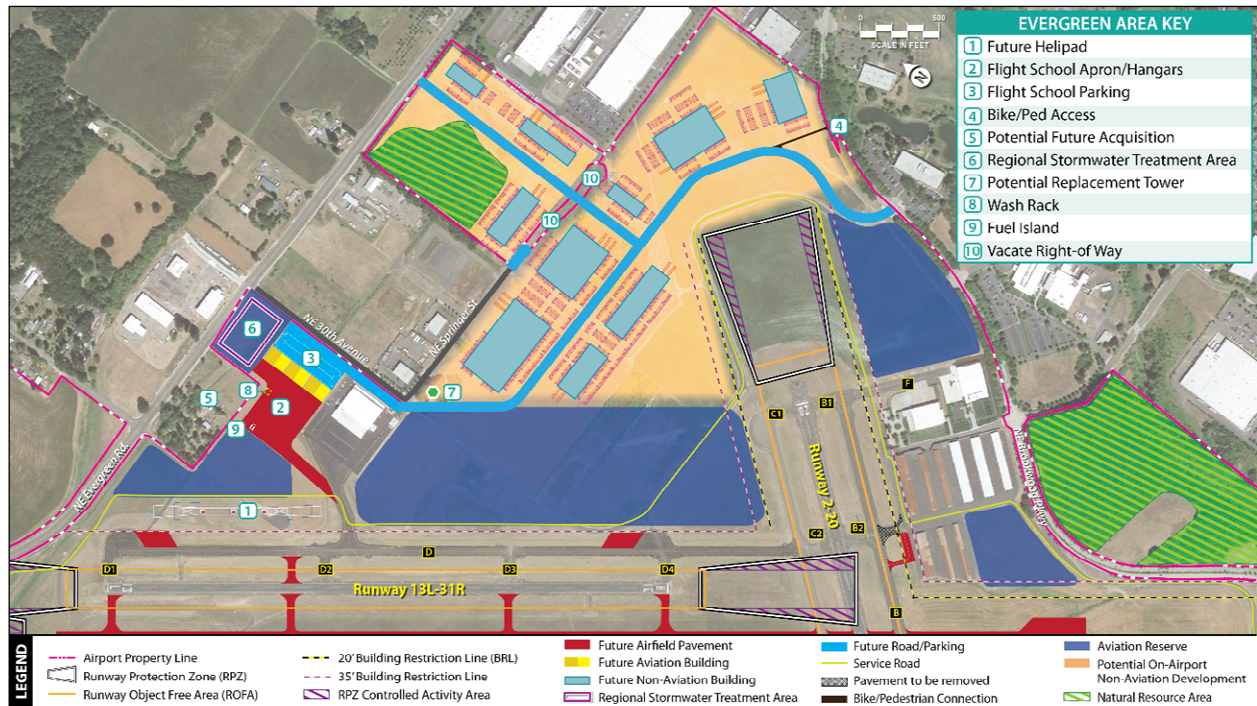
- Keep terminal building in southern quadrant
- Relocate flight schools near the training runway and shift noise patterns north
- Add non-aviation uses to airport property for community members such as commercial and industrial uses
- Use design to reinforce connection between terminal building, Washington County Fair Complex and MAX light rail station
- Retain the ability of Hillsboro Airport to expand its aviation capabilities in the future

## Subarea Alternatives

The term “subarea” refers to two smaller focus areas of Hillsboro Airport where the project team produced more detailed alternatives for consideration. The project team produced subarea alternatives for the northern and southern quadrants of the airport, called Evergreen Subarea and Cornell Subarea respectively, because most development was expected to occur in these areas during the planning period.

Using comments collected on the initial development alternatives, the project team drafted subarea alternatives showing where specific facilities could be located. The alternatives focused on the north and south quadrants of the airport, named the Evergreen Subarea and the Cornell Subarea, respectively. The project team developed three alternatives for each subarea for evaluation. A description of each subarea alternative begins below.

### Evergreen Alternative 1

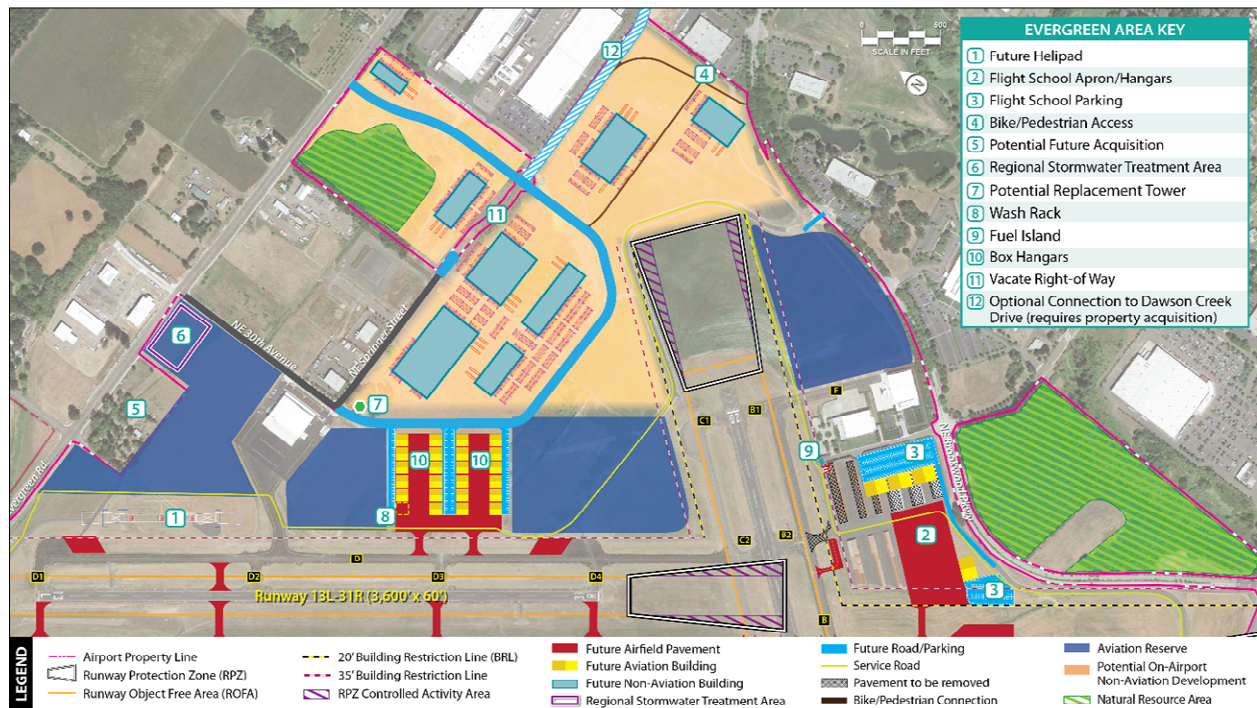


#### Key considerations:

- Efficient operational placement of flight school with lowest infrastructure costs
- Significant area for future expansion
- New non-aviation roads would help support future aviation development
- Brookwood Parkway access has existing traffic signal
- New road includes bike/ped facilities



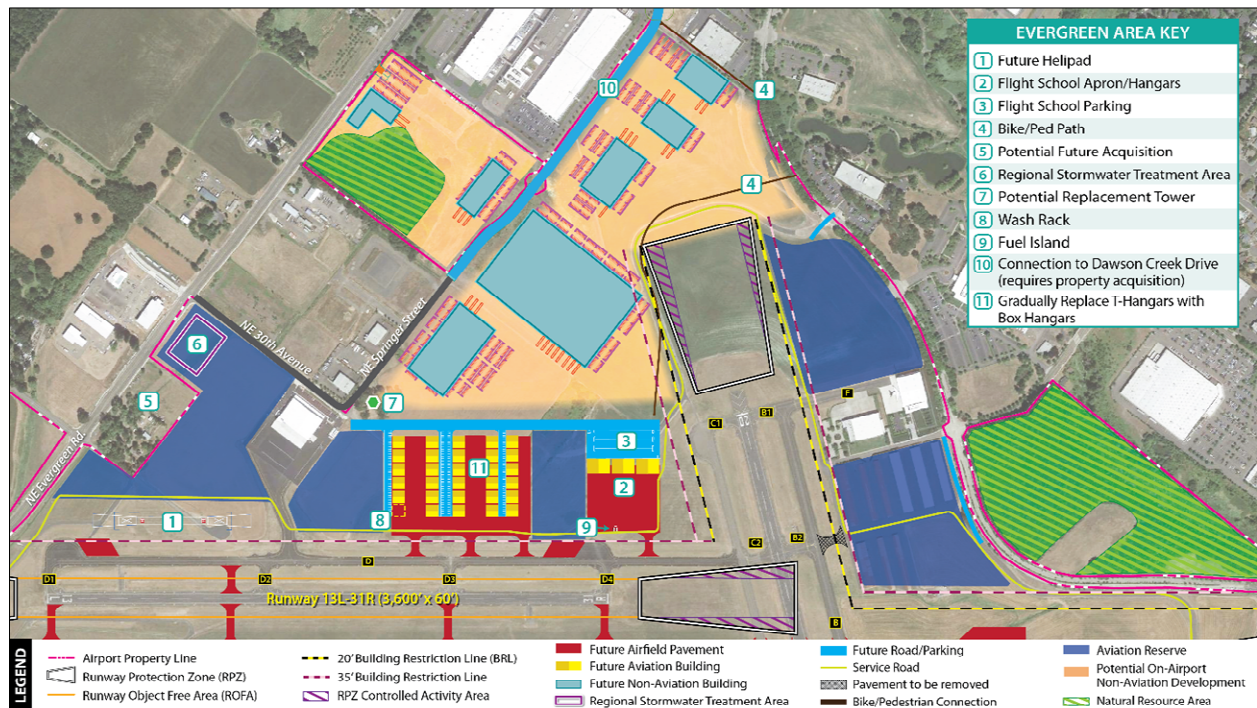
## Evergreen Alternative 2



### Key considerations:

- Partial redevelopment and relocation of T-hangar area required to accommodate flight school
- Large areas for future expansion
- Efficient access to the training runway for new general aviation hangars
- New roads would help support both aviation and non-aviation development
- Circulation may complicate future aviation expansion
- Optional connection to Dawson Creek Drive to improve connectivity
- Bike/Ped trail connects Brookwood Parkway to new road

### Evergreen Alternative 3

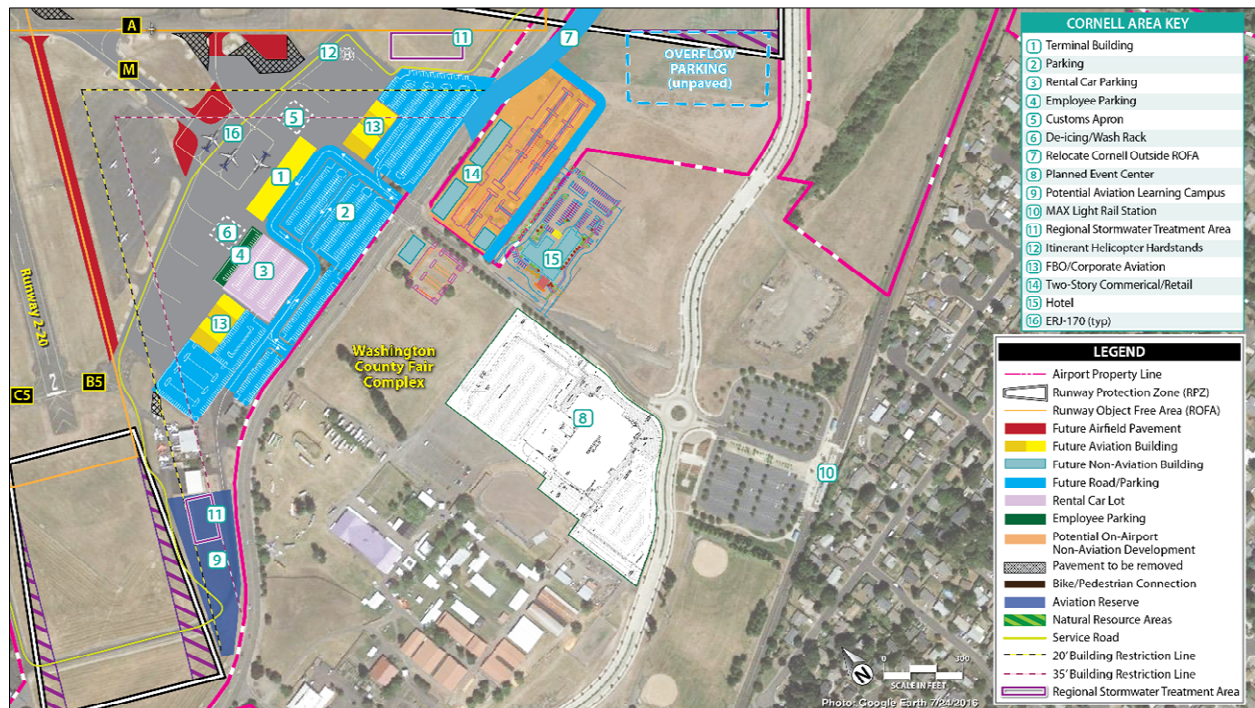


#### Key considerations:

- Efficient operational placement of flight school
- Significant relocation and redevelopment of T-hangars
- Efficient access to the training runway for new general aviation hangars
- Creates infill opportunities for general aviation
- Large areas for future corporate expansion
- New roads are single purpose
- Optional connection to Dawson Creek Drive improves connectivity
- Bike/Ped trail connects to flight school via Brookwood Parkway undercrossing (30th Avenue extension)



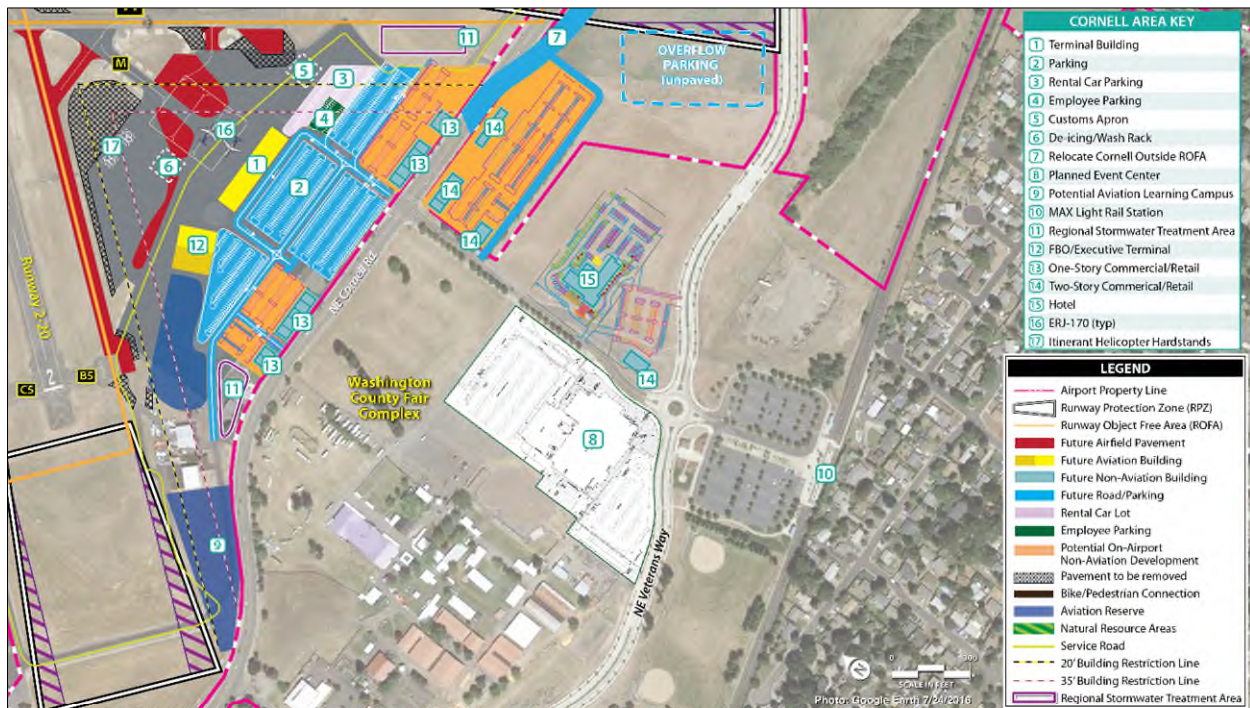
### Cornell Alternative 1



#### Key considerations:

- North of Cornell Road: Only aviation services
- Fixed-base operators (aircraft service providers) and corporate aviation uses support terminal development
- Least efficient airside configuration
- Inefficient circulation and parking layout
- Limited options for efficient future expansion
- Includes event center type hotel with commercial development
- Includes sit-down restaurant along Cornell Road
- Commercial development south of Cornell Road is two stories. Hotels will go higher. Commercial development north of Cornell Road is assumed to be one story

### Cornell Alternative 2

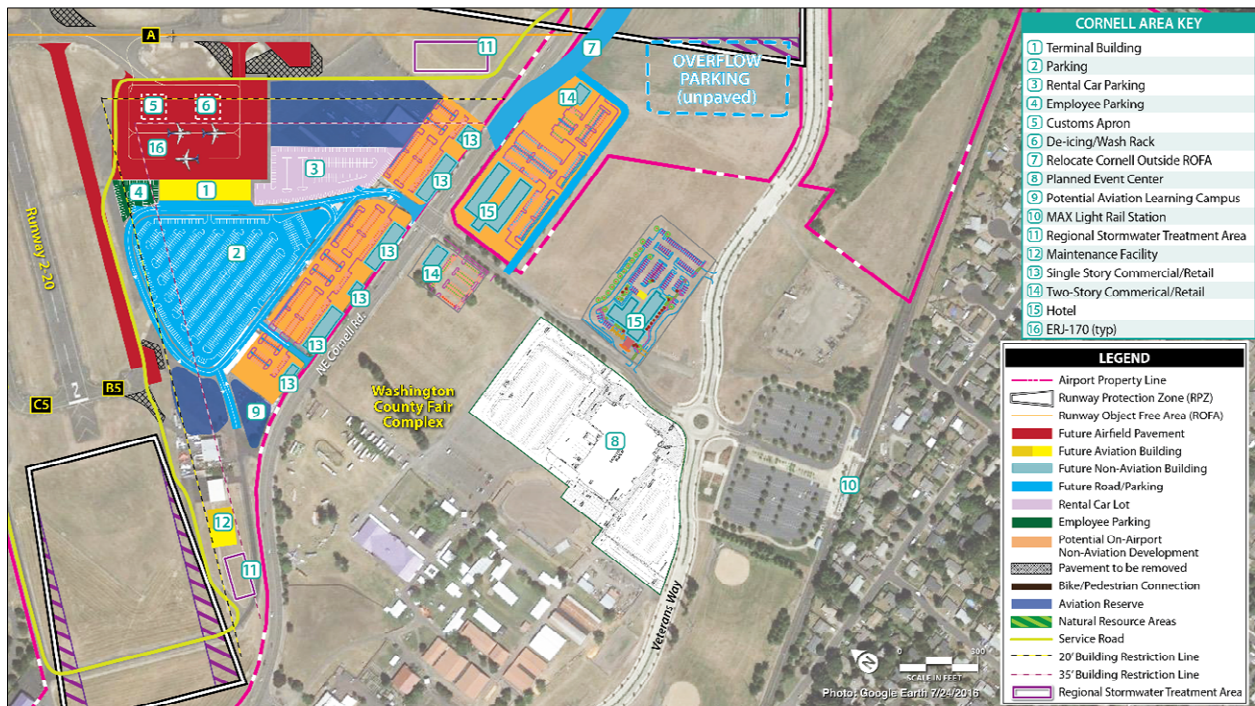


#### Key considerations:

- North of Cornell Road - Mix of aviation and non-aviation uses
- Fixed-base operators (aircraft service providers) or corporate aviation uses support terminal development
- Inefficient airside configuration
- Inefficient circulation and parking layout
- Options for efficient future expansion
- Includes Event Center type hotel and a sit-down restaurant across from Event Center
- Commercial development south of Cornell Road is two stories. Hotels will go higher. Commercial development north of Cornell Road is assumed to be one story



### Cornell Alternative 3



#### Key considerations:

- New terminal orientation, aligned with the primary runway
- Most efficient airside and landside configuration
- Most flexible for future expansion
- North of Cornell Road - Mix of aviation and non-aviation uses
- Commercial buildings on both the north and south sides of Cornell Road
- Could include two hotels serving different customers (short stay and extended stay as examples)
- Commercial development south of Cornell Road is two stories. Hotels will go higher. Commercial development north of Cornell Road is assumed to be one story



### **Community Involvement**

The project team presented the refined subarea alternatives for review and comment at two public open houses hosted at the Hillsboro Brookwood Public Library and Centro Cultural de Washington County and at two PAC meetings. The project team collected the following comments on the subarea alternatives.



- There was general support for the layout of Evergreen Alternative 3 and Cornell Alternative 3
  - Participants liked the plans for mixed commercial development along Cornell Road and the integration with the Washington County Fair Complex and MAX light rail station
  - Participants liked the proposed flight school locations closer to the center of the airport in the north quadrant due to the proximity to the training runway and shifts in noise patterns
- Participants asked for observation areas where they could view airport activity
- Participants wanted to know how development in the area would affect road congestion. They shared that congestion is already a problem in the area and said roadway improvements would be needed to accommodate growth
- Participants were curious about whether Hillsboro Airport could grow into a commercial passenger service airport in the future

### **Outcomes – Alternatives Analysis Phase**

Based on feedback received from PAC and community members, the project team further advanced Evergreen Alternative 3 and Cornell Alternative 3 (collectively referred to as Alternative 3) to be considered for the preferred alternative of the master plan. The project team worked with agency stakeholders and PAC members to finalize the preferred alternative.

## Formalization Phase

### Capital Improvement Program

The capital improvement program describes the framework the Port will use to pay for and implement projects in the master plan, including an expected schedule of when costs will be incurred by year.

Most airfield, roadway and utility improvements and environmental requirements will be funded by the Hillsboro Airport operating revenues, the Port of Portland cost center (from sources such as parking fees, rental car fees and air cargo fees) and grant funds. Other development on airport property such as hangars, buildings, etc., will be market-driven, and development will occur when private developers come forward with investment funds.

Development will occur in three phases to make the projects affordable over time.



### Community Involvement

The community involvement objective for the capital improvement program was to share information and help community members understand when development is expected to occur. The project team shared capital improvement program information during summer and fall 2018 using information booths at fairs and festivals and the Hillsboro Airport Air Fair. The project team presented elements of the capital improvement program at the October 2018 PAC meeting.

### Outcomes – Capital Improvement Program

The project team included the capital improvement program in the master plan as depicted at the October 2018 PAC meeting.

## Ongoing Community Engagement

The project team continually asked community members throughout the master plan process how they would like to learn about and engage with Hillsboro Airport on an ongoing basis. Port staff used this information to draft an ongoing community engagement plan identifying goals and methods for engaging the community.

### *Ongoing engagement considerations suggested by community members*

- Communicate with the community before decisions are made
- Give people a voice in Hillsboro Airport activities
- Inform the community about Hillsboro Airport activities
- Provide more information in other languages

### *Ongoing engagement tools and techniques suggested by community members*

- Social media
- Email
- Community events
- Online engagement tools

Port staff drafted the following goals for ongoing community engagement.

- **Build on momentum of the master plan process.** Continue using tools that have been effective, such as online engagement, work with community groups and attending community events.
- **Create an inclusive and informative venue for Hillsboro Airport discussions.** Promote diversity and social equity in outreach activities. Enable two-way conversations between Port of Portland staff and community members.
- **Broaden the reach of engagement.** Try new outreach tools and tactics to engage different audiences. Be more innovative with technology to make information convenient to access. Increase culturally specific engagement. Strengthen relationships with local government.
- **Match discussion topics with appropriate methods and tools.** Evaluate the effectiveness of tools and make appropriate adjustments. Be flexible and adaptable to have better conversations.

Port staff proposed the following tools and techniques for ongoing community engagement:

- **Hillsboro Airport Community Advisors:** A 8-12 member committee that meets regularly to discuss key projects, airport operations and outreach strategies. The committee would represent interests for local government, culturally-specific groups, community members, education, business, sustainability and the Port of Portland.
  - Meets four times per year
  - Informed by Port digital and in-person engagement activities
  - Prioritizes inclusive participation
  - Focused on learning and listening

- Includes public comment and pre-meeting “office hours” to ensure comments are heard and questions answered
- **Annual online survey:** A regular survey to collect comments from community members on Hillsboro Airport and evaluate recent outreach activities, beginning in the second year.
- **In-person community events:** Maintain a presence at community events, such as Celebrate Hillsboro, to talk with community members and increase education about Hillsboro Airport.
- **Hillsboro Airport Air Fair:** Continue to use this popular event to talk to community members about Hillsboro Airport operations.

### ***Community Involvement***

The project team used community input collected throughout the master plan process to develop the ongoing engagement proposal, and asked PAC members to review the proposal in detail.

### ***Outcomes – Ongoing Community Engagement***

The project team used input collected from the community and at the October 2018 PAC meeting to draft the *Hillsboro Airport Future Engagement Strategy*. PAC members reviewed and endorsed the strategy at the December 2018 PAC meeting.



## **Master Plan Adoption**

The project team completed the formalization of documents for the Hillsboro Airport Master Plan Update and submitted the final document to the Port of Portland Commission at the March 13, 2018 Commission Meeting at the Hillsboro Civic Center. Former PAC members attended the meeting and expressed support for the master plan update. The Port of Portland Commission unanimously adopted the master plan to be submitted to the Federal Aviation Administration for review and acceptance.