

# HIO MASTER PLAN UPDATE

Planning a Shared Future

Planning Advisory Committee #9  
December 13, 2018

# HILLSBORO AIRPORT MASTER PLAN UPDATE

Welcome and Meeting Introduction

Jerry Willey, Chair

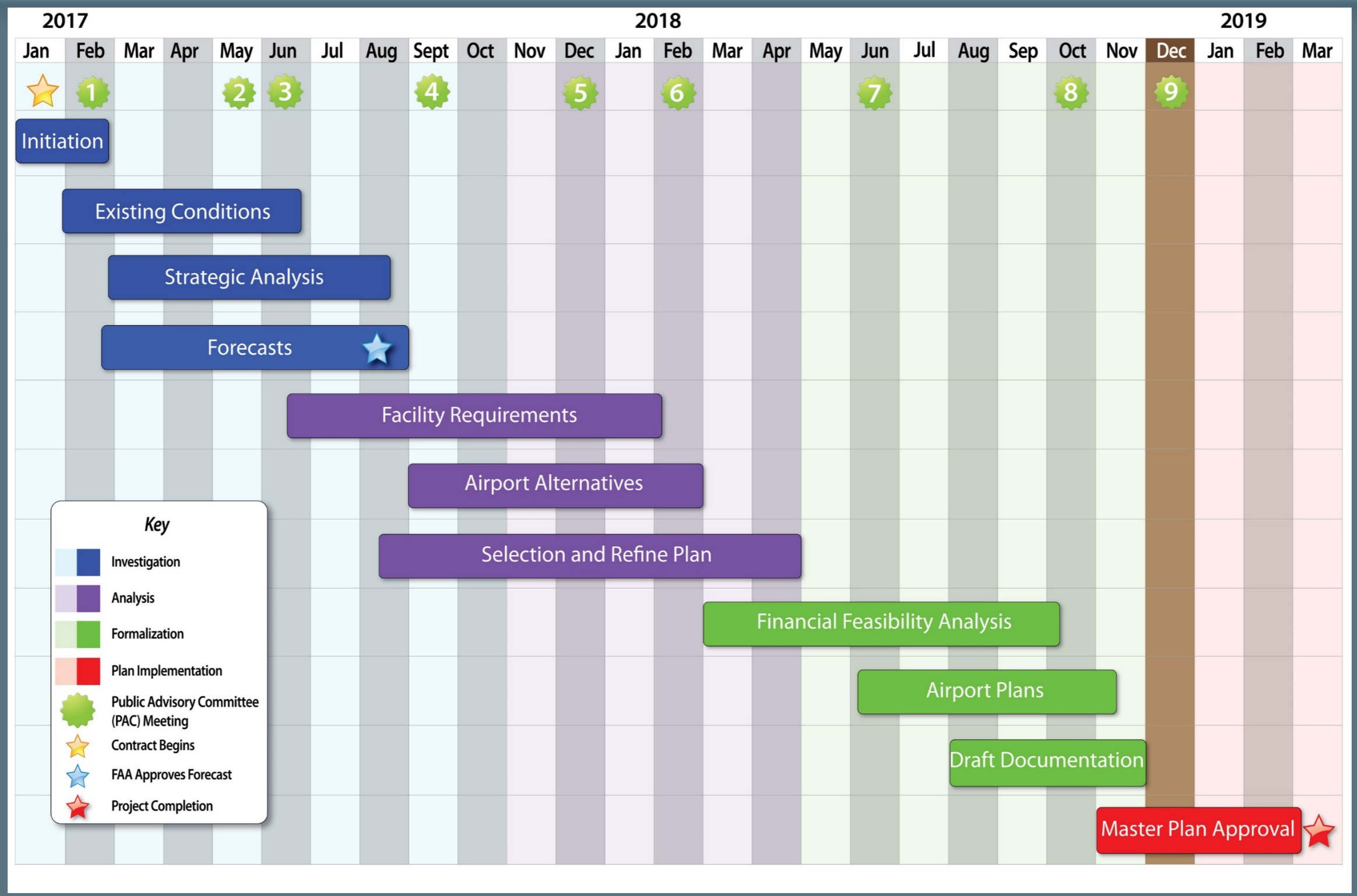
Anne Pressentin, Envirolssues



# Agenda

- Welcome and Meeting Introduction
- Airport Business Report
- Focus Topic: Comprehensive Master Plan Review
- Wrap Up : Master Plan in Totality
- Wrap Up: Ongoing Community Engagement Proposal
- Public Comment
- Continuing Engagement
- Member Recognition
- Adjourn

# Project Schedule



# HILLSBORO AIRPORT MASTER PLAN UPDATE

## Hillsboro Airport Business Report

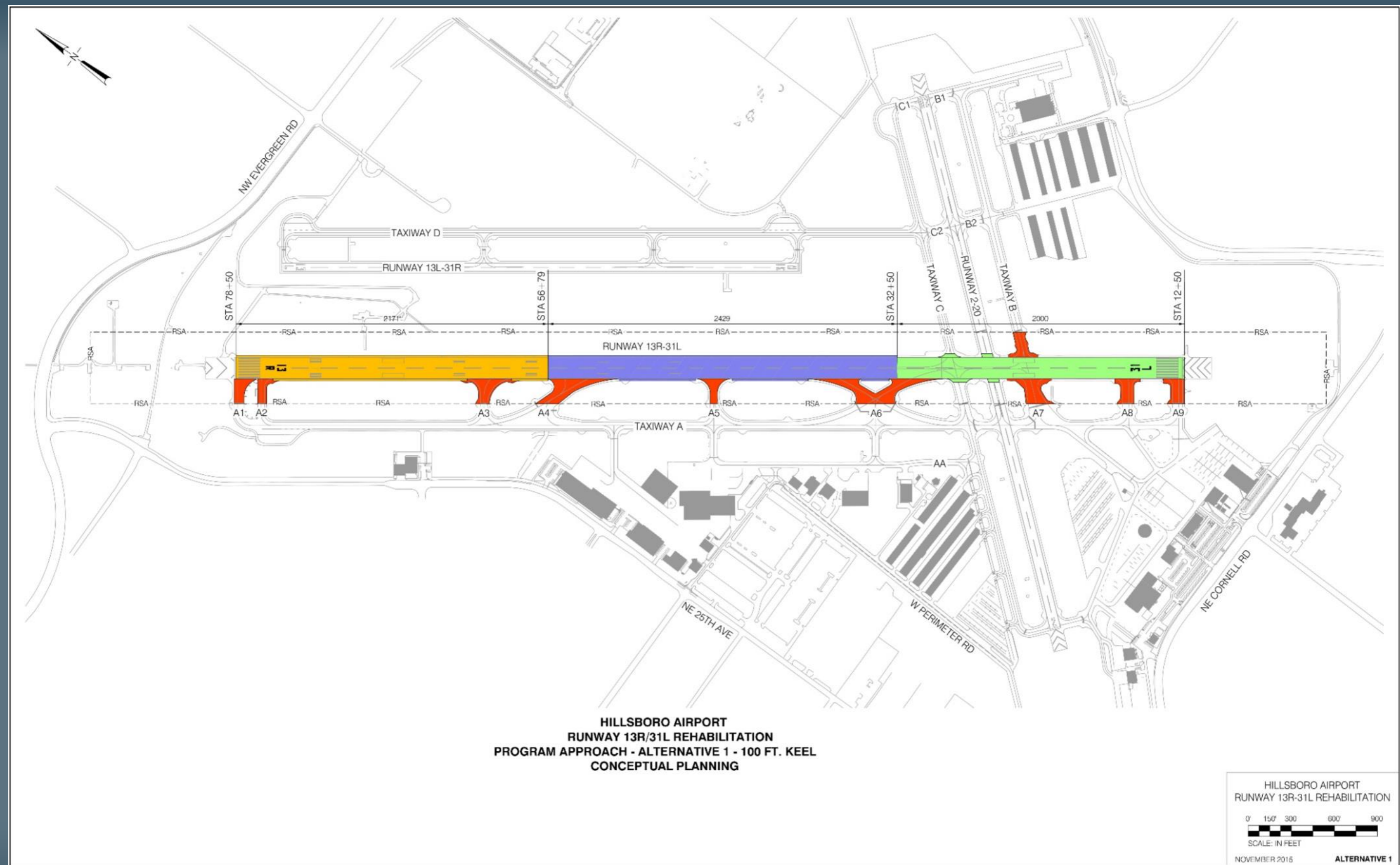
Steve Nagy, Port of Portland



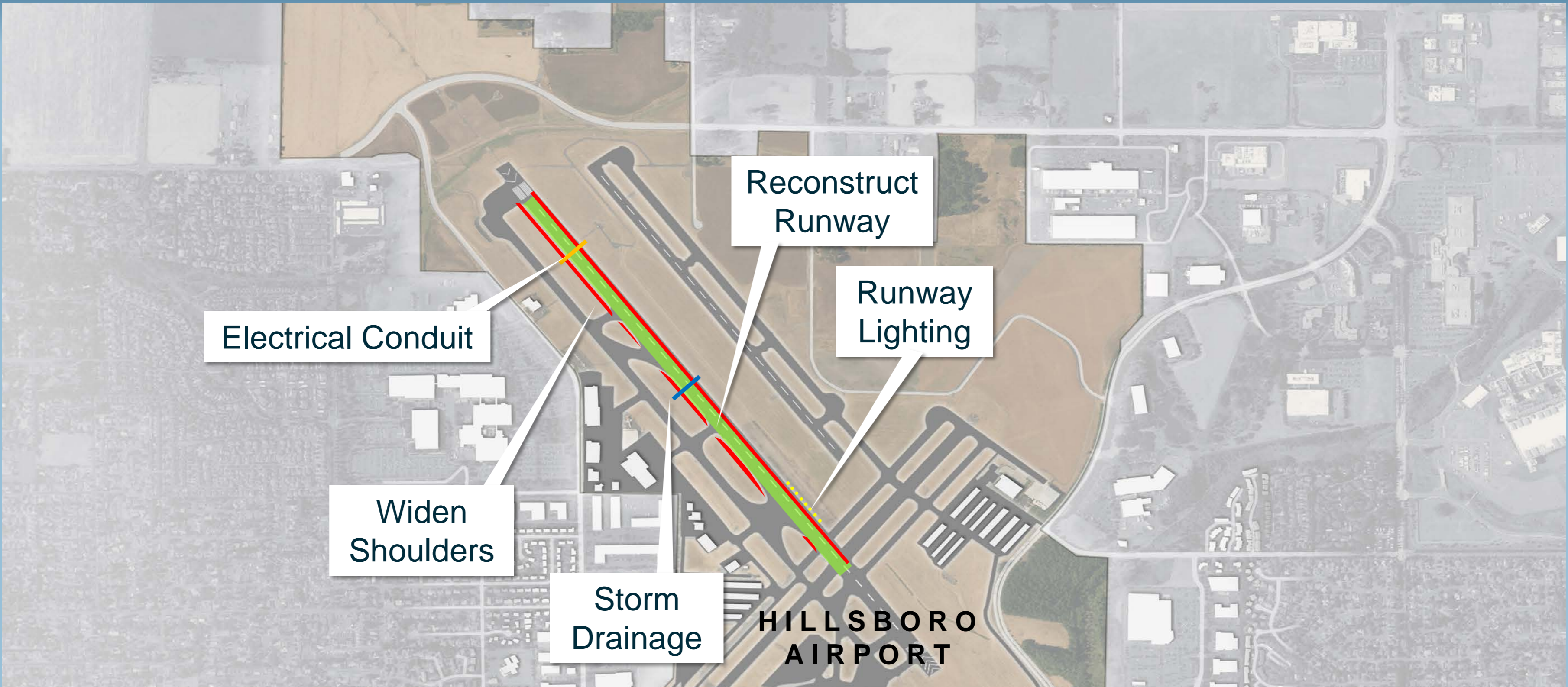
# HIO Runway 13R/31L Reconstruction Project

- Runway - 150' full-width reconstruction
  - FAA funding participation for only 100' width
- Runway rehabilitation phased over 3 years:
  - **2019:** Northern two-third's reconstruction
  - **2020:** Southern third rehabilitation (overlay)
  - **2021:** Taxiway exit connectors

# Program Phasing Approach



# Project Work Area





# HIO Runway Safety Area Environmental Assessment

## Project scope:

- FAA will conduct an Environmental Assessment (EA) in accordance with National Environmental Policy Act (NEPA) requirements:
  - EA will identify alternatives and analyze environmental consequences of:
    - Correcting the vertical curve at the end of the runway (raising it about 6 inches)
    - Bringing the Runway Safety Area (RSA) up to current FAA standards (addressing ditch in the RSA)

## Three public meetings during NEPA process—In-person and online

- Public Meeting 1 - Alternatives: **March 14, 2019 from 5:30 to 7:30 at Brookwood Library**
- Public Meeting 2 - Process Update: **Fall 2019**
- Public Meeting 3 - Draft EA issuance with formal public comment period: **Late Winter 2019/Spring 2020**

NEPA analysis projected to be complete in Summer 2020

# Project Work Area



WILDLIFE ATTRACTANT AREA



 **Jurisdictional Wetlands**



# HILLSBORO AIRPORT MASTER PLAN UPDATE

Wrap Up: Comprehensive Master Plan Review

Dave Nafie, Consultant Team PM



# Master Plan Goal – What a good plan will accomplish

“Provide the framework needed to guide future airport development that will **cost effectively** satisfy aviation demand, while considering potential **environmental** and **socioeconomic** impacts.”



# Key Project Phases

Foundation

2005  
Master Plan

2/17

## Investigation

- Existing Conditions
- Strategic Analysis/Role
- Forecasts

8/17

1

## Analysis

- Facility Requirements
- Airport Alternatives
- Costs
- Preferred Alternative

6/18

2

## Formalization

- Airport Layout Plan
- Capital Investment Plan
- Port Commission Approval
- FAA Submittal

2/19

3

## Plan Implementation

- Follow-on Studies
- Ongoing Community Engagement
- Development

### Special Areas of Interest

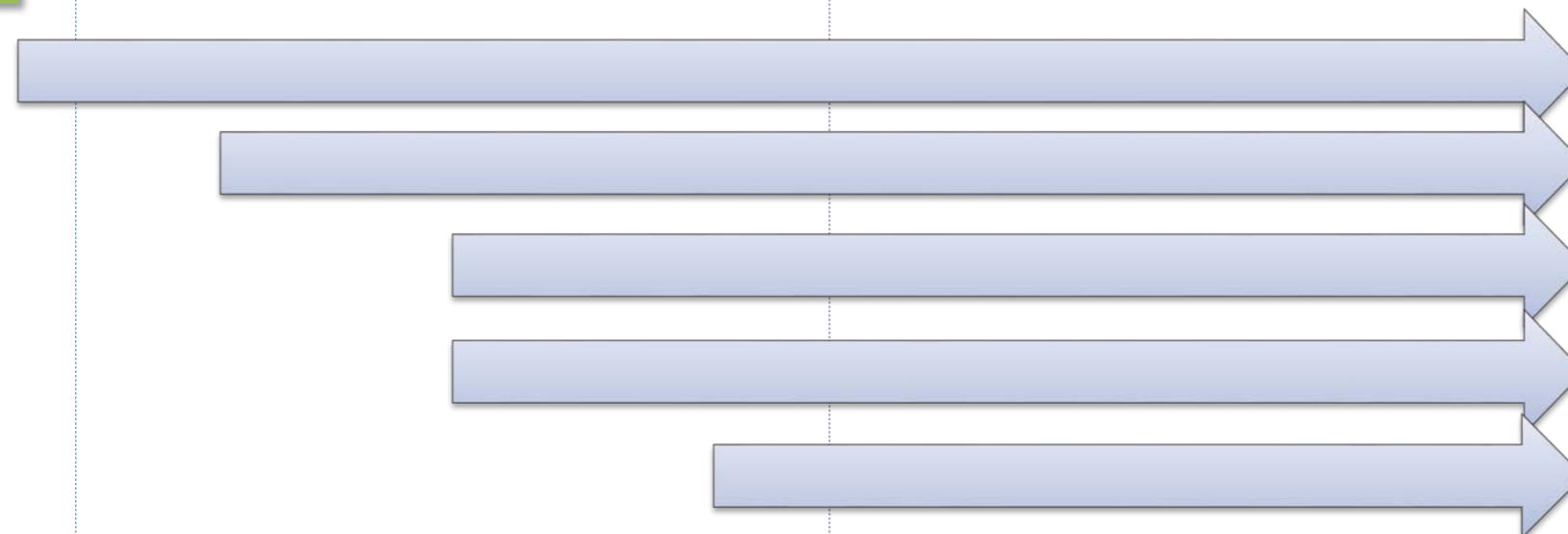
Seismic

Stormwater

Community Access

Noise/Air Quality

Focused Site Planning



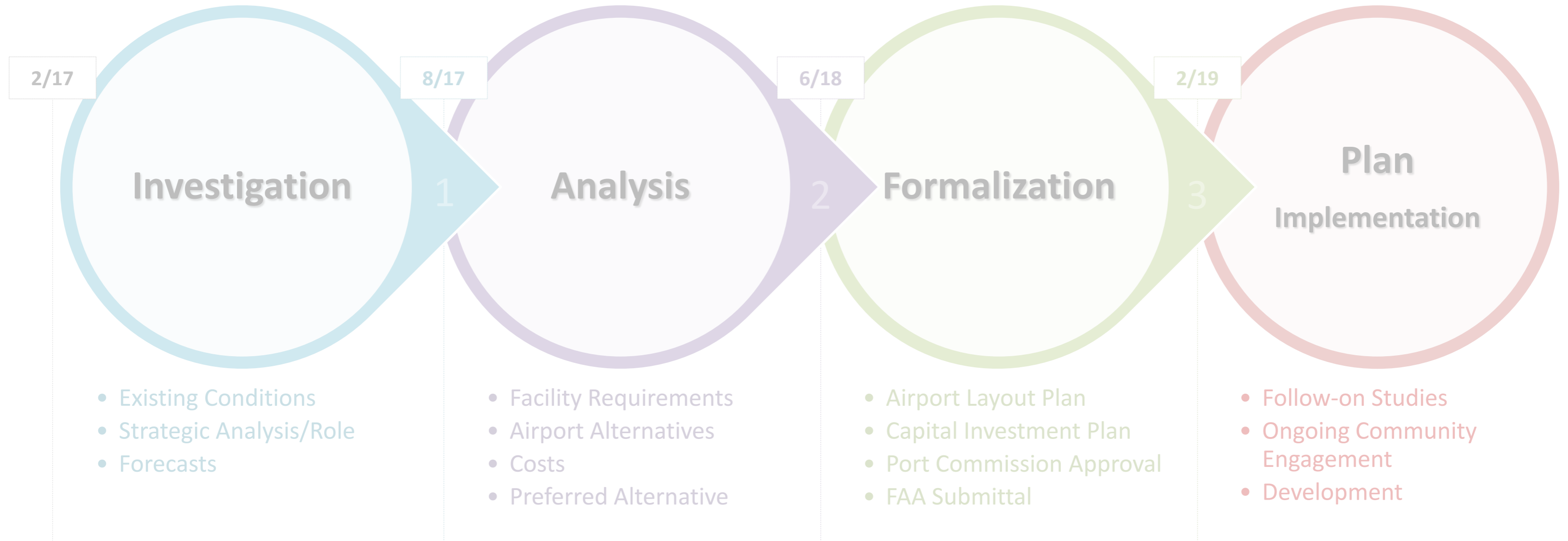
# Key Project Phases – Special Areas of Interest

## Accomplishments

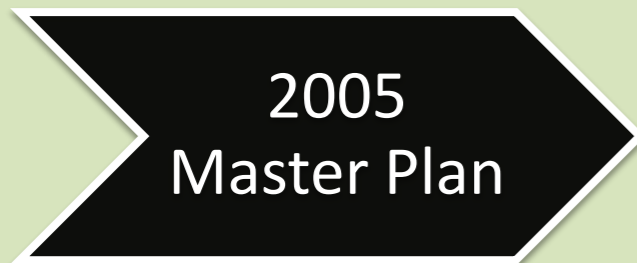
- **Seismic Considerations** - Meetings with regional stakeholders, Seismic Assessment
- **Stormwater** – Considered in all CIP projects, SW Master Plan follows this study
- **Community Access** - Incorporated into Cornell subarea plans, plus viewing area
- **Noise and Air Quality** - Held workshop, analysis used new AEDT model and metrics
- **Focused Site Planning** - Subarea planning, focused coordination during Alternatives



# Key Project Phases – The Foundation and Initiation



Foundation



- The successful 2005 MP as foundation
- HARE meetings and retreat
- Pre-scoping public workshop
- Two HARE members included in consultant selection

# The 2005 Master Plan Foundation

2005

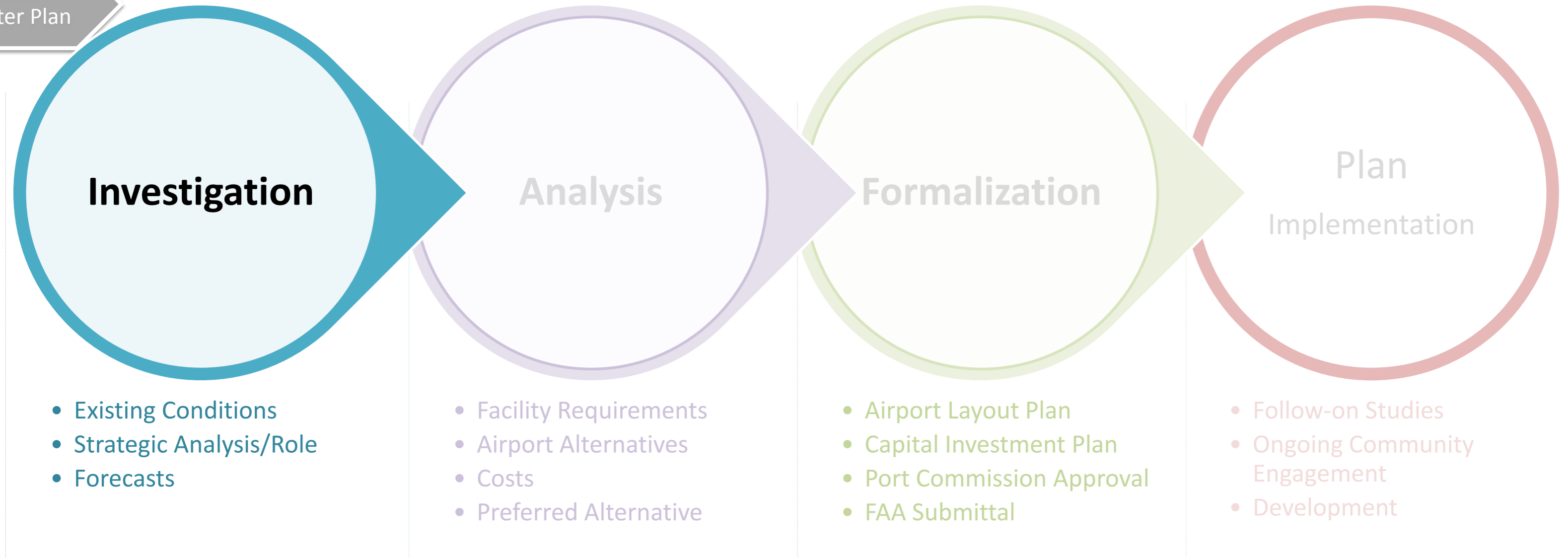
- Hillsboro Airport will remain a general aviation facility
- Long term potential for small commercial service
- Based aircraft and general aviation operations expected to grow 1% on average every year through year 2025
- New infrastructure and facilities are necessary to meet demand – current airfield runways and taxiways at capacity
- Airport has *inadequate* airfield capacity to meet 20-year forecast demand



Foundation

2005  
Master Plan

# Key Project Phases - Investigation



## ***Highlights:***

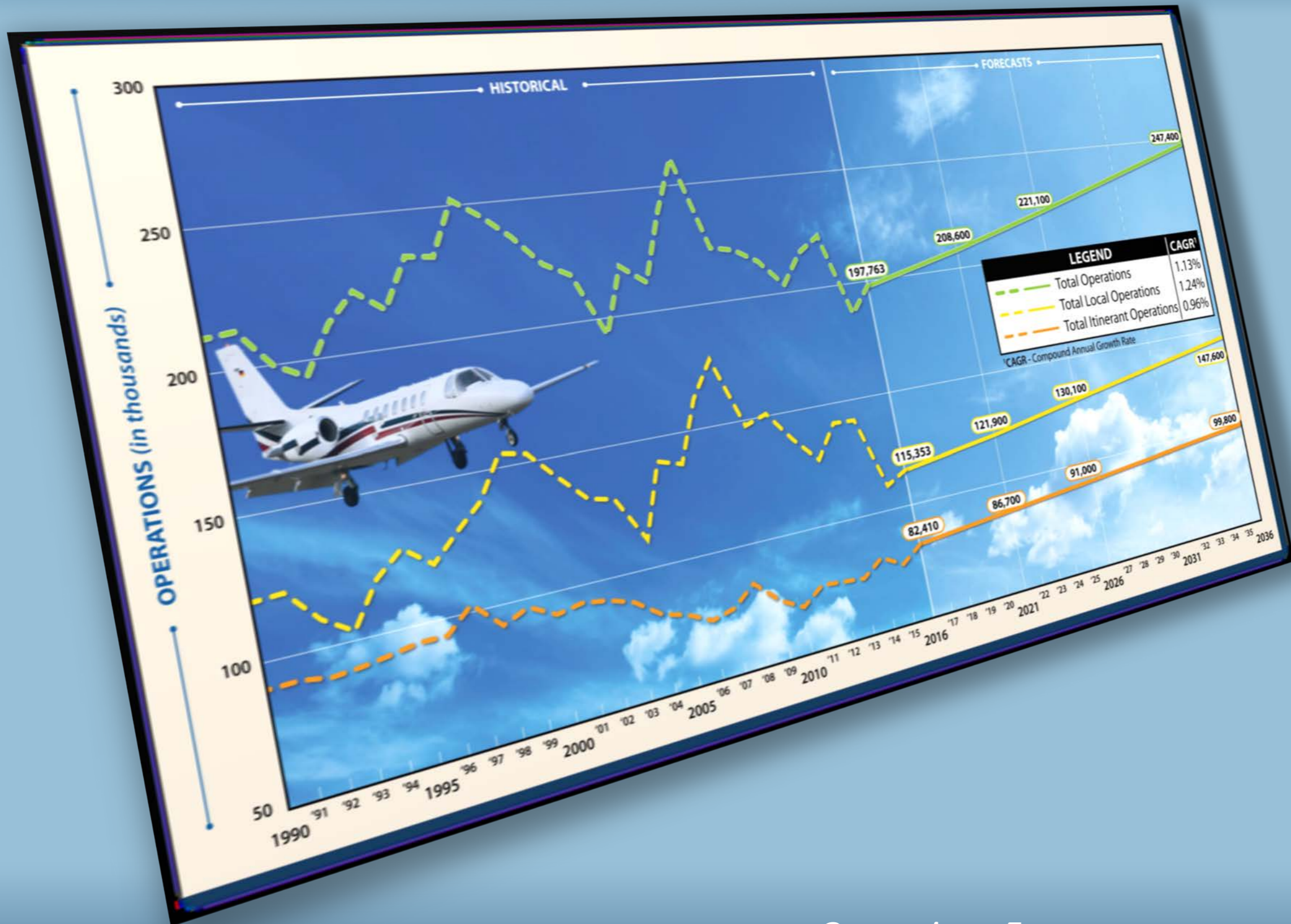
- New aerial imagery and data collection
- Affirmed role of HIO as GA Airport with ability to meet future commuter and/or cargo needs as the region grows – but not in forecast horizon
- The largest and most demanding airplane that operates regularly is the Gulfstream G-650

# Future Role Options/Recommendation

1. **General Aviation/Reliever: Recommended to Maintain this Role**
2. General Aviation/Reliever/Commuter with less than 10 passenger seats
3. General Aviation/Reliever/Commercial Service
4. General Aviation/Reliever/Air Cargo



# Hillsboro Forecast Summary



## Expected by 2036:

- Net increase of **91** aircraft based at HIO
- An additional **50,000** annual takeoffs and landings
- Just over 1% growth

# Critical Design Aircraft

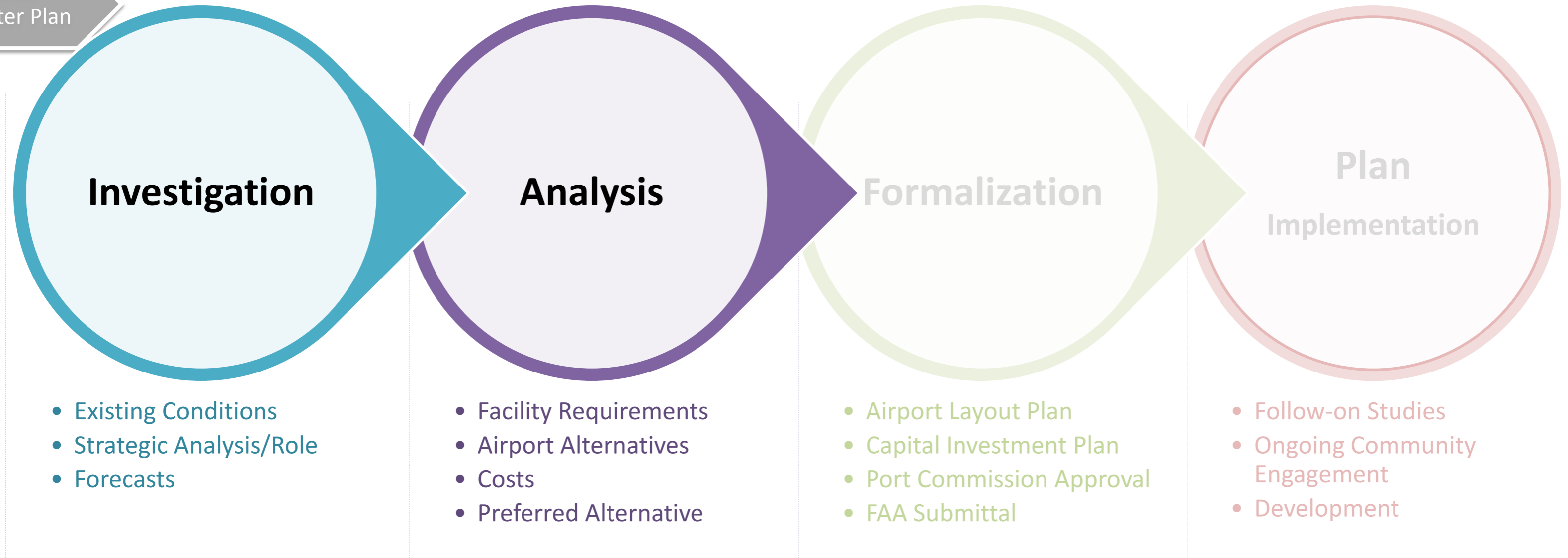
- ✈ Determines applicable design standards
- ✈ 500 or more annual operations
- ✈ Each runway has a critical design aircraft



Foundation

2005  
Master Plan

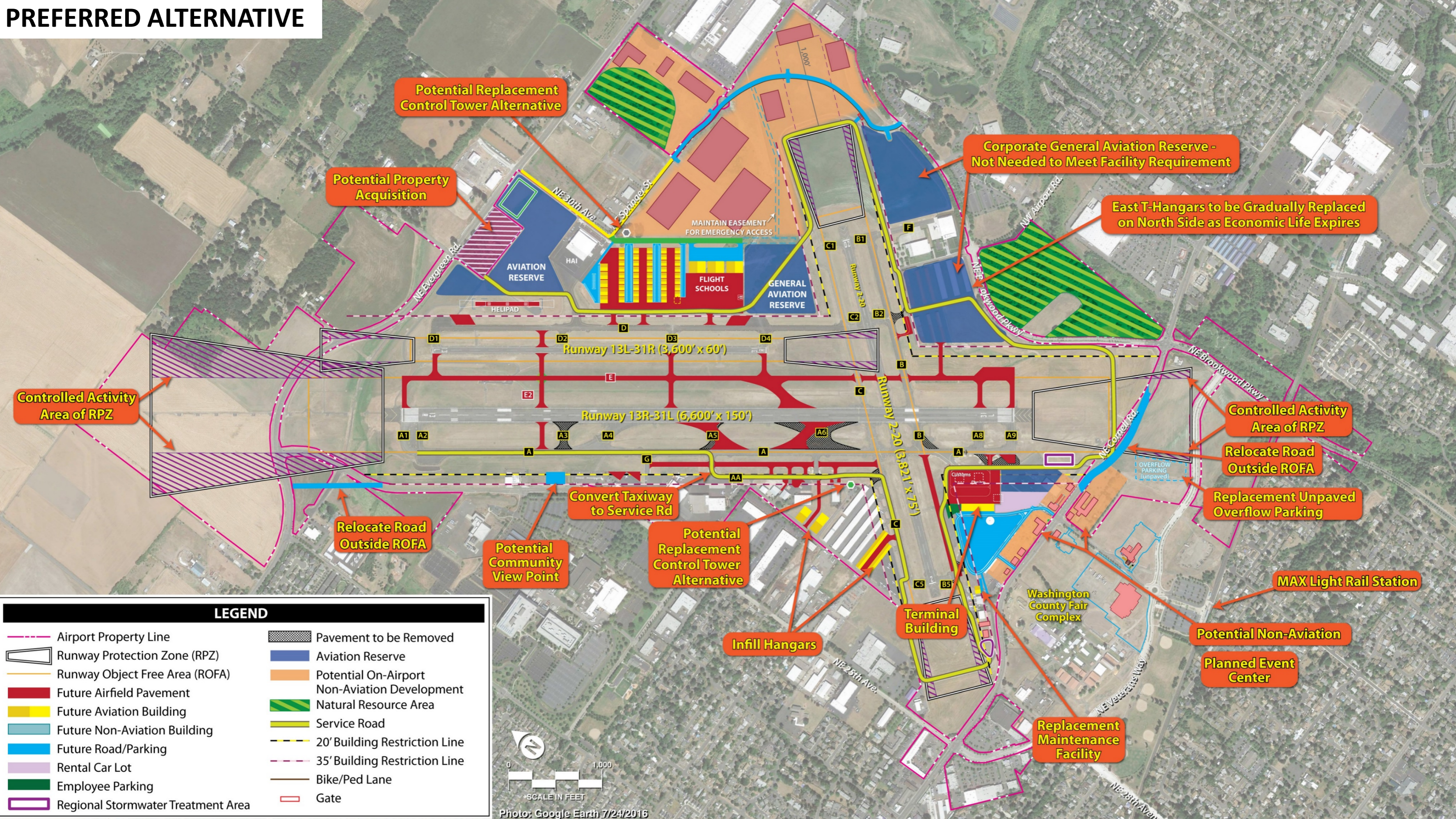
# Key Project Phases - Analysis



## ***Highlights:***

- Confirmed that the capacity shortfalls have been met
- Some FAA standards now receiving attention that must be addressed
- Multiple opportunities to examine alternative concepts with public input
- Preferred alternative addresses all master plan objectives and reflects what we heard

# PREFERRED ALTERNATIVE



## LEGEND

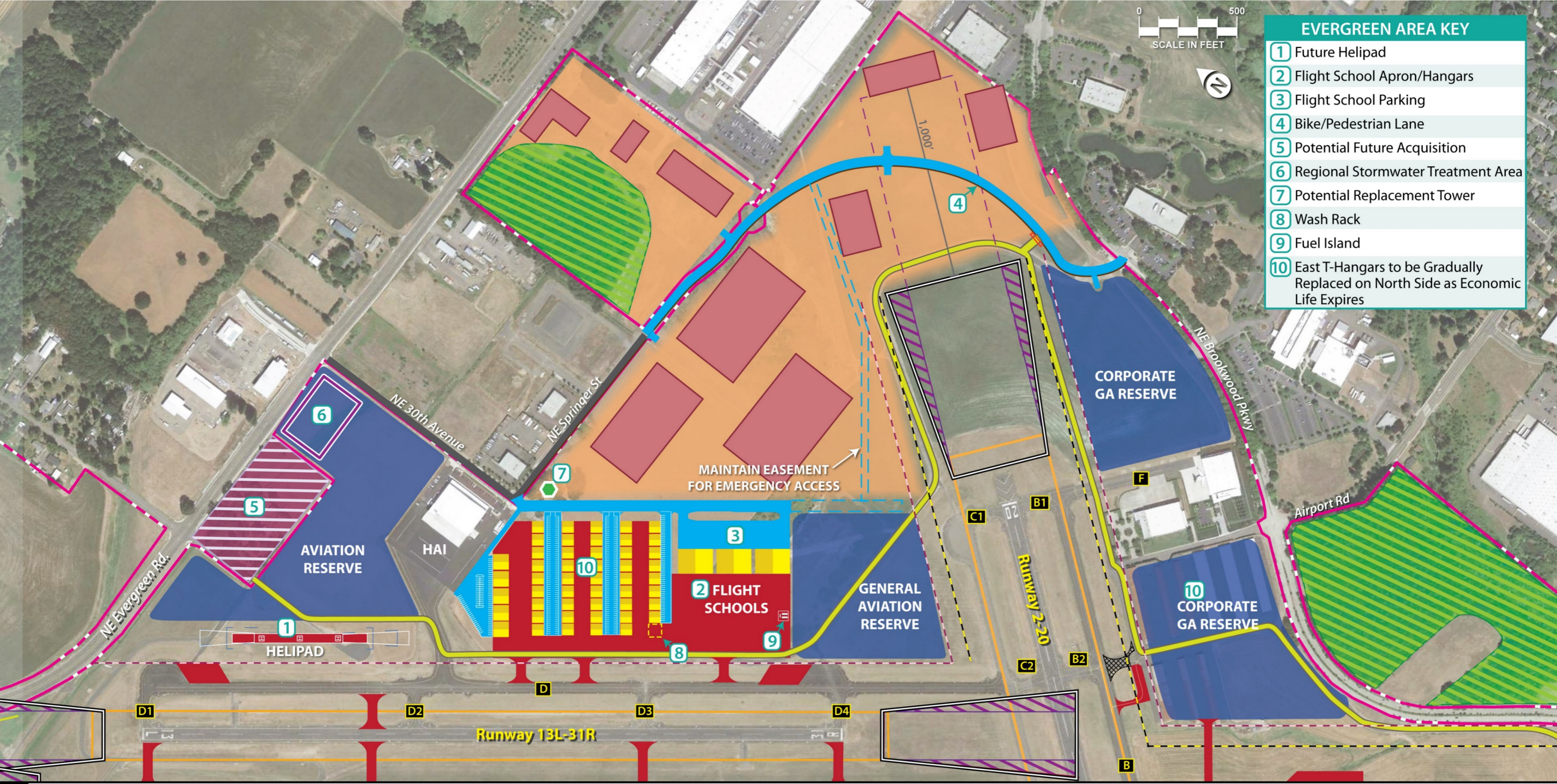
- Airport Property Line
- Runway Protection Zone (RPZ)
- Runway Object Free Area (ROFA)
- Future Airfield Pavement
- Future Aviation Building
- Future Non-Aviation Building
- Future Road/Parking
- Rental Car Lot
- Employee Parking
- Regional Stormwater Treatment Area
- Pavement to be Removed
- Aviation Reserve
- Potential On-Airport Non-Aviation Development
- Natural Resource Area
- Service Road
- 20' Building Restriction Line
- 35' Building Restriction Line
- Bike/Ped Lane
- Gate



Photo: Google Earth 7/24/2016

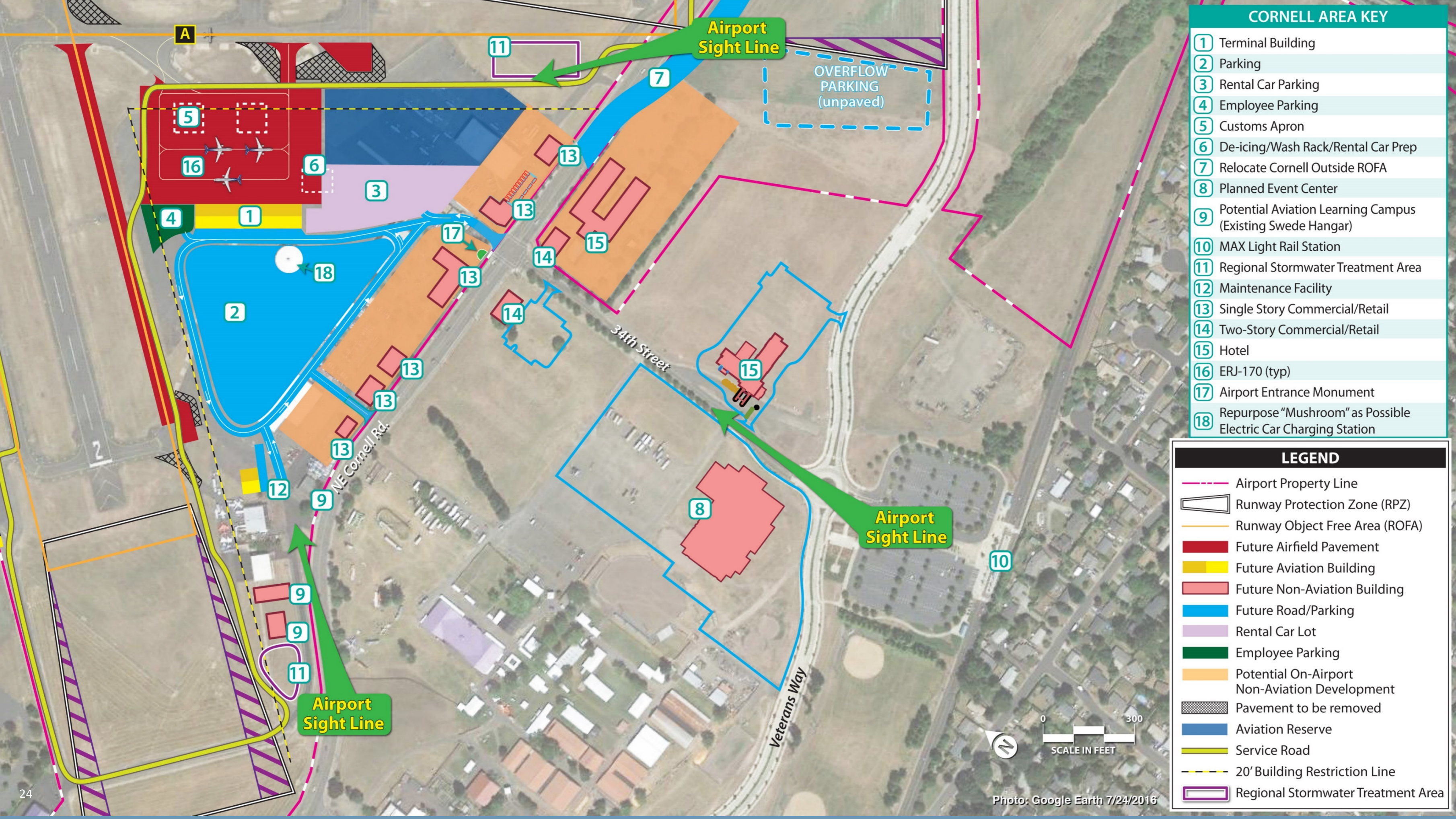


EVERGREEN AREA KEY	
1	Future Helipad
2	Flight School Apron/Hangars
3	Flight School Parking
4	Bike/Pedestrian Lane
5	Potential Future Acquisition
6	Regional Stormwater Treatment Area
7	Potential Replacement Tower
8	Wash Rack
9	Fuel Island
10	East T-Hangars to be Gradually Replaced on North Side as Economic Life Expires



LEGEND

<ul style="list-style-type: none"> <li> Airport Property Line</li> <li> Runway Protection Zone (RPZ)</li> <li> Runway Object Free Area (ROFA)</li> </ul>	<ul style="list-style-type: none"> <li> 20' Building Restriction Line (BRL)</li> <li> 35' Building Restriction Line</li> <li> RPZ Controlled Activity Area</li> </ul>	<ul style="list-style-type: none"> <li> Future Airfield Pavement</li> <li> Future Aviation Building</li> <li> Future Non-Aviation Building</li> <li> Gate</li> </ul>	<ul style="list-style-type: none"> <li> Future Road/Parking</li> <li> Service Road</li> <li> Pavement to be removed</li> <li> Bike/Pedestrian Lane</li> </ul>	<ul style="list-style-type: none"> <li> Aviation Reserve</li> <li> Potential On-Airport Non-Aviation Development</li> <li> Natural Resource Area</li> </ul>
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**CORNELL AREA KEY**

- 1 Terminal Building
- 2 Parking
- 3 Rental Car Parking
- 4 Employee Parking
- 5 Customs Apron
- 6 De-icing/Wash Rack/Rental Car Prep
- 7 Relocate Cornell Outside ROFA
- 8 Planned Event Center
- 9 Potential Aviation Learning Campus (Existing Swede Hangar)
- 10 MAX Light Rail Station
- 11 Regional Stormwater Treatment Area
- 12 Maintenance Facility
- 13 Single Story Commercial/Retail
- 14 Two-Story Commercial/Retail
- 15 Hotel
- 16 ERJ-170 (typ)
- 17 Airport Entrance Monument
- 18 Repurpose "Mushroom" as Possible Electric Car Charging Station

**LEGEND**

- Airport Property Line
- Runway Protection Zone (RPZ)
- Runway Object Free Area (ROFA)
- Future Airfield Pavement
- Future Aviation Building
- Future Non-Aviation Building
- Future Road/Parking
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- Employee Parking
- Potential On-Airport Non-Aviation Development
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- Service Road
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- Regional Stormwater Treatment Area

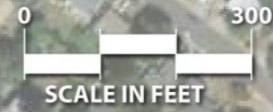


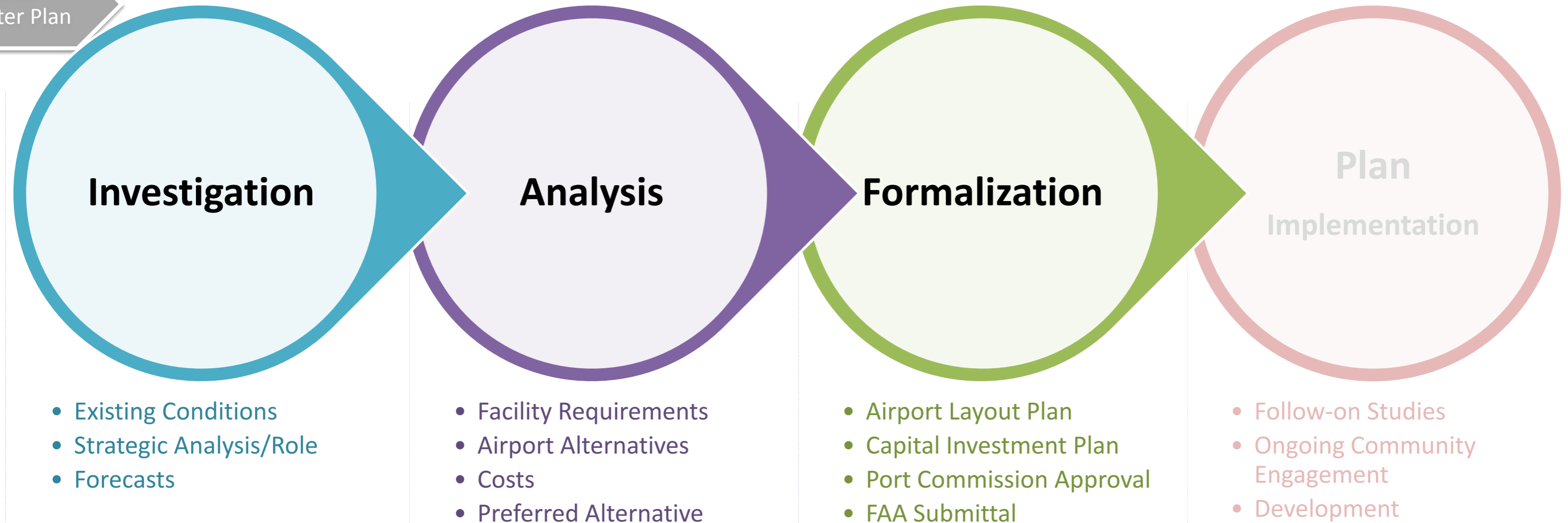
Photo: Google Earth 7/24/2016



Foundation

2005  
Master Plan

# Key Project Phases - Formalization



## ***Highlights:***

- Capital Improvement Program (CIP) - Sustainable and feasible
- New documents prepared for approval by Port Commission and accepted by FAA
- Expected in March 2019
- Additional Wrap Up in the following slides:

# Capital Improvement Program - Funding Sources

## HIO Operating Revenues

- Terminal Building Leases
- On-Airport Land Leases
- Non-Aviation Commercial Revenues

## Port Cost Center

- Covering Balance of Capital Project Investment
- Creating Opportunity for 3<sup>rd</sup> Party Investment

## Grant Funding

- FAA
- State of Oregon
- Other Agency Funding Sources

## 3rd Party Investment

- Airport Business Investment
- Non-Aviation Development

# Capital Improvement Program and Project Phasing

1-5 Years

6-10 Years

11-20 Years

## Key Phase I Elements

- Hotel redevelopment
- Evergreen – First phase of Industrial park development
  - Roadway widening and extension
  - Site preparation
- Crossfield taxiway

**Estimated Funding Requirement:**  
**\$14.3M**

## Key Phase II Elements

- Phase I of Cornell Subarea redevelopment
  - Terminal replacement
  - Commercial uses
- Realignment of high-speed taxiways
- Realignment of roadways to meet Runway Object Free Area (ROFA) standard

**Estimated Funding Requirement:**  
**\$39.4M**

## Key Phase III Elements

- Evergreen – Extension of Springer Rd to Brookwood Pkwy
- Flight school move to north quadrant
- Phase II of Cornell Subarea redevelopment
- Center parallel taxiway

**Estimated Funding Requirement:**  
**\$81.8M**

**SHORT TERM PROJECTS (1-5 YEARS)**

- 1 Comprehensive Environmental Assessment (EA) -NP
- 2 Widen NE 30th Avenue
- 3 Widen/Extend NE Springer Street
- 4 Intersection Improvements at 30th & Evergreen
- 5 Industrial Development - Enabling Infrastructure (S of Springer St)
- 6 Industrial Development - Enabling Infrastructure (N of Springer St)
- 7 Infill Hangar - South
- 8 Redevelop Hotel
- 9 Construct Crossfield Twy A3/E2 and Remove Existing Twy A3

**INTERMEDIATE TERM PROJECTS (6-10 YEARS)**

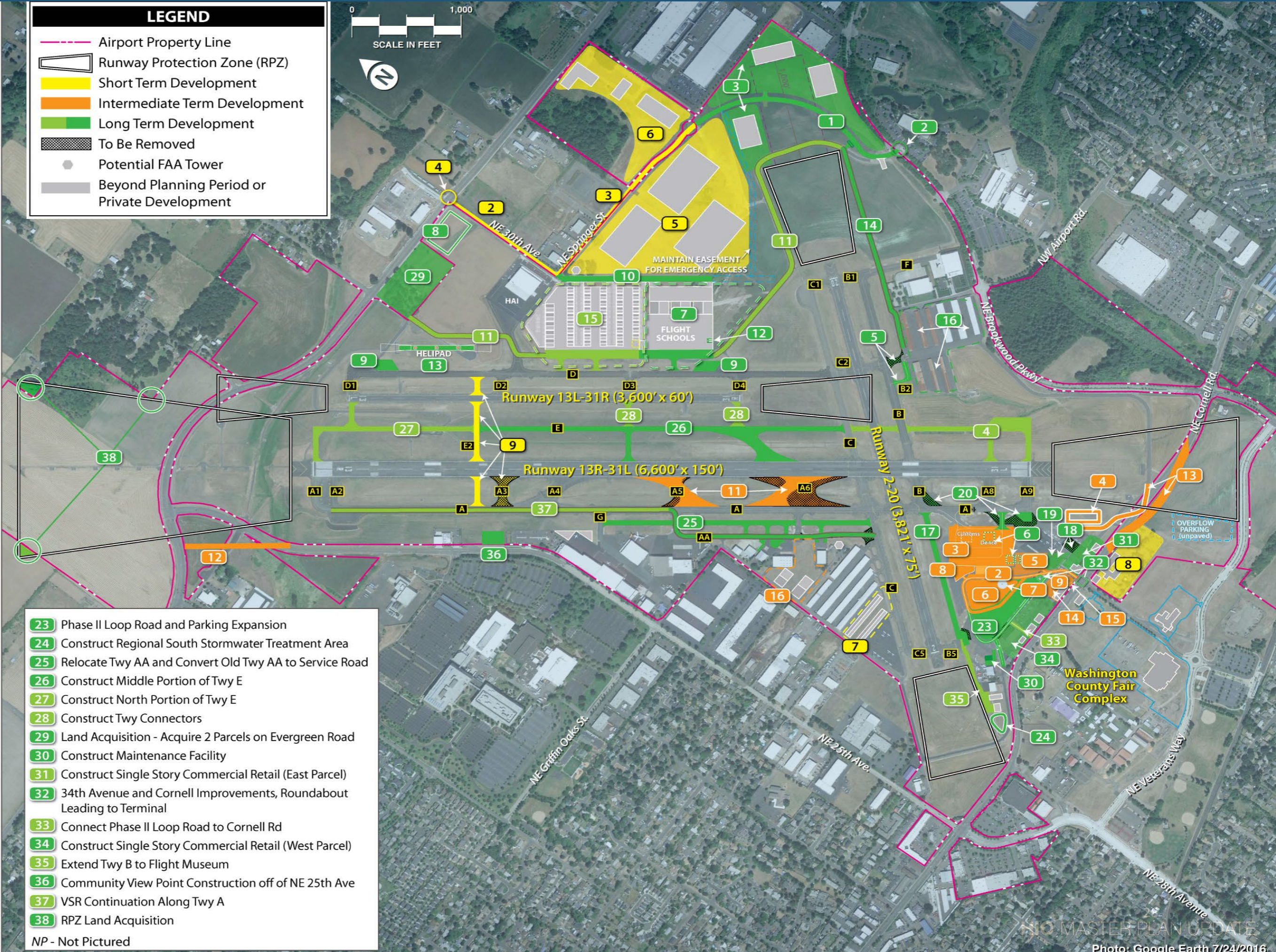
- 1 Comprehensive Environmental Assessment (EA) -NP
- 2 Terminal Building Construction with Phase I Loop Road from 34th Avenue
- 3 Construct Terminal Apron
- 4 Construct Regional South Stormwater Treatment Area
- 5 Construct Rental Car Parking (Phase I)
- 6 Construct Phase I Parking for New Terminal Building
- 7 Re-purpose "Mushroom" Building as Possible Electric Car Charging Station
- 8 Construct Employee Parking
- 9 Relocate Existing Beacon
- 10 Remove Existing Terminal - NP
- 11 Twy A5 & A6 Improvements
- 12 Relocate NE 25th Including Right-Of-Way Swaps and Acquisition
- 13 Relocate Cornell Road
- 14 Construct Single Story Commercial Retail (Middle Parcel)
- 15 Airport Entrance Monument
- 16 Infill Hangars - North

**LONG TERM PROJECTS (11-20 YEARS)**

- 1 Extend Springer Street to Brookwood Pkwy
- 2 Intersection Improvements at Springer St & Brookwood Pkwy
- 3 Industrial Development - Enabling Infrastructure (East Toward Brookwood)
- 4 Construct South Portion of Twy E
- 5 Twy B2 Relocation
- 6 De-icing/Wash Rack/Rental Car Prep
- 7 Construct North Side Taxilane and Enabling Infrastructure (Phase I)
- 8 Construct Regional Northeast Water Quality Facility
- 9 Runup Pad Construction on Twy D
- 10 NE 30th Extension to Flight School
- 11 Vehicle Service Road (VSR) Construction
- 12 Flight School Apron Fuel Island
- 13 Helipad Construction
- 14 Construct VSR from Springer to T-hangars and Add Gate
- 15 Construct North Side Taxilane and Enabling Infrastructure (Phase II)
- 16 Remove T-Hangars
- 17 Extend Twy B and Remove Pavement
- 18 Remove Hillsboro Aero Academy Hangars and Ramp
- 19 Construct Rental Car Parking (Phase II)
- 20 Apron Connectors and Pavement Removal
- 21 Remove 3301 Hangar - NP
- 22 Remove Sheepspen Hangar (3301-A) - NP

**LEGEND**

- Airport Property Line
- Runway Protection Zone (RPZ)
- Short Term Development
- Intermediate Term Development
- Long Term Development
- To Be Removed
- Potential FAA Tower
- Beyond Planning Period or Private Development



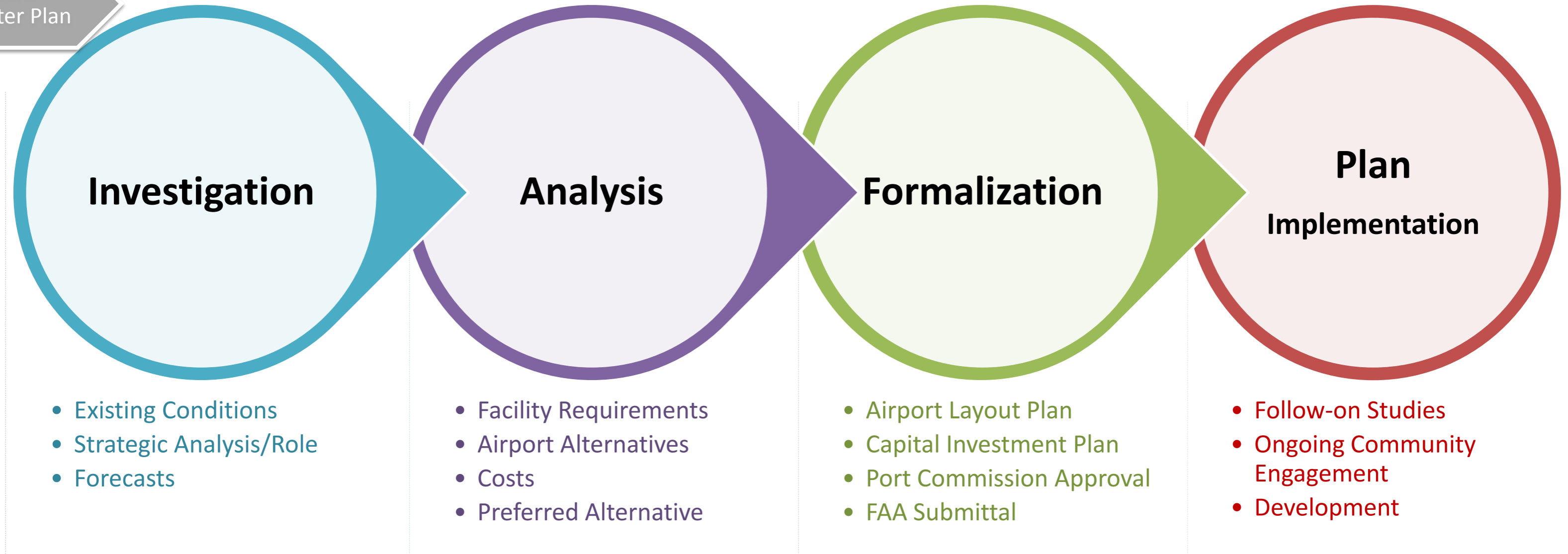
- 23 Phase II Loop Road and Parking Expansion
- 24 Construct Regional South Stormwater Treatment Area
- 25 Relocate Twy AA and Convert Old Twy AA to Service Road
- 26 Construct Middle Portion of Twy E
- 27 Construct North Portion of Twy E
- 28 Construct Twy Connectors
- 29 Land Acquisition - Acquire 2 Parcels on Evergreen Road
- 30 Construct Maintenance Facility
- 31 Construct Single Story Commercial Retail (East Parcel)
- 32 34th Avenue and Cornell Improvements, Roundabout Leading to Terminal
- 33 Connect Phase II Loop Road to Cornell Rd
- 34 Construct Single Story Commercial Retail (West Parcel)
- 35 Extend Twy B to Flight Museum
- 36 Community View Point Construction off of NE 25th Ave
- 37 VSR Continuation Along Twy A
- 38 RPZ Land Acquisition

NP - Not Pictured

Foundation

2005  
Master Plan

# Key Project Phases – Plan Implementation



## ***Highlights:***

- Upcoming studies
- Engagement Opportunities (next presentation)
- Projects in the CIP

# The Updated Master Plan - 2018

2018

- Hillsboro Airport will remain a general aviation facility
- Long term potential for small commercial service
- General aviation facilities will be located near the parallel runway
- Adequate airfield capacity to meet 20-year forecast demand with aviation reserves beyond 50 years
- Redevelopment in Cornell Subarea and industrial development in Evergreen Subarea provide new revenue, business opportunities, and sense of place
- There will be numerous opportunities for ongoing community engagement and access

# HILLSBORO AIRPORT MASTER PLAN UPDATE

Wrap Up: Master Plan in Totality

Anne Pressentin, EnviroIssues/Facilitator



# HILLSBORO AIRPORT MASTER PLAN UPDATE

## Wrap Up: Future Community Engagement Proposal

Chris White, Port of Portland





# Community Comments: What We Heard

- Inform us about significant projects
- Provide more information about HIO
- Give us an opportunity to share our thoughts, influence planning and have meaningful dialogue
- Engage us digitally and in-person



# Community Engagement Update

## We asked:

“What should be our primary goals as we stay involved with the community?”

## We heard:

- Announcements before significant decisions are made
- Give people a voice
- Inform community
- Provide more bilingual information

## We asked:

“What communication and outreach methods should we use?”

## We heard:

- Digital methods (internet/online)
- Social media (Facebook, Instagram)
- Email
- Events



# Port Goals for Future Engagement at Hillsboro Airport

## Goal 1:

Build on momentum of master plan update community engagement process

## Goal 2:

Create inclusive and informative venue for HIO discussions

## Goal 3:

Broaden the reach of engagement

## Goal 4:

Match discussion topics with appropriate public engagement methods and timeline

# Proposal: Hillsboro Airport Community Advisors

- Meets four times a year (including Air Fair)
- Grounded by digital engagement
- Advises on HIO annual outreach strategy
- Discusses key projects and operations
- Prioritizes inclusive participation with diverse audiences
- Focuses on Learning and Listening
- Includes public comment and pre-meeting “office hours”
- Supplemented by event participation and in-person engagement



# Proposal Strategy

Allows for:

- Community-guided outreach strategy
- Adaptability
- Broader outreach
- Different learning styles and schedules
- Prioritizing education



# Proposal Timeline

## January:

- Annual digital survey

## March: Meeting 1

- State of the Airport Report
- Review of digital survey results
- Evaluate prior year's outreach
- Every meeting: discuss operational topics, roundtable comments, pre-meeting office hours, public comment

*Caveat: First year of committee will start in June*

# Proposal Timeline

## April/May:

- Draft plan of events/ outreach for year

## June: Meeting 2: Learning

- Speaker: topics such as environment, culturally-specific community, aviation or real estate development
- Review and advise on outreach plan
- Every meeting: discuss operational topics, roundtable comments, pre-meeting office hours, public comment



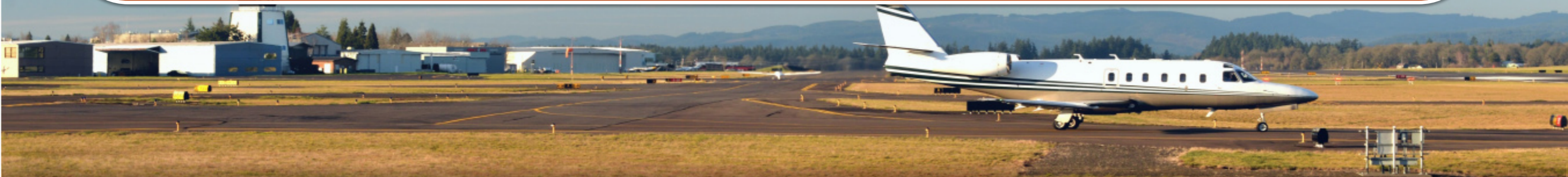
# Proposal Timeline

## October: Air Fair

- Members participate, seek information from attendees

## October: Meeting 3: Listening

- Members debrief on Air Fair conversations, using feedback to inform next year's digital survey
- Every meeting: discuss operational topics, roundtable comments, pre-meeting office hours, public comment





# Hillsboro Airport Community Advisors

## Nine members:

- City of Hillsboro
- Washington County
- Culturally- specific organization
- Two at-large community members
- Education representative (school district, PCC)
- Chamber/Real estate
- Sustainability interest
- Port of Portland



# Supporting Public Engagement

- Meetings managed by bilingual facilitator
- Office hour
- HIO Air Fair – multi-cultural content and organizations
- Ongoing bilingual HIO tours
- Displays/attendance at community events
- Local presentations at community organizations



# Questions?



# HILLSBORO AIRPORT MASTER PLAN UPDATE

## Wrap Up: Future Community Engagement Proposal

Anne Presentin, Envirolssues/Facilitator



# HILLSBORO AIRPORT MASTER PLAN UPDATE

## Public Comment

Anne Pressentin, EnviroIssues/Facilitator



# HILLSBORO AIRPORT MASTER PLAN UPDATE

## Continuing Engagement

Steve Nagy, Port of Portland



# NEPA Compliance

## 2021: Comprehensive EA

- Examines environmental impacts from Master Plan Projects in first 5-7 years: industrial development, new terminal
- Kicks off 2021

## Ongoing NEPA Compliance

- NEPA analysis will be completed on projects as dictated by FAA requirements



# Follow-on Studies

- **Zoning Updates: Base Zoning & Overlay Zone**
  - Collaboration with the City of Hillsboro
  - Examines zoning for Airport property and safety/compatibility overlay for surrounding properties
- **Airport Stormwater Master Plan**
  - Collaboration with the City of Hillsboro and Clean Water Services
- **Port of Portland General Aviation Design Standards Update**
  - Architectural and site design standards for development on airport property
  - Intended to balance tenant needs while providing for attractive and quality appearance







## ***PAC Member Recognition***



Alison Elmer  
Deanna Palm  
Juan Carlos González

Andrew Singelakis  
Dirk Wittig  
Keyanus Jacobo  
Scott Gratsinger

Casey Sherwood  
Henry Oberhelman  
Kimberly Culbertson  
Steve Nagy

Charles Hagele  
Jadene Stensland  
Monika Johnson  
Trent Robinson

Colin Cooper  
Jerry Willey  
Ryan McCartney

# HILLSBORO AIRPORT MASTER PLAN UPDATE

## Close Out and Meeting Evaluation

Anne Presentin, Envirolssues

