May 22, 2019

Airport Master Plan Update
The Broward County Airport System
Discussion Outline

- Introduction & Overview
- Recap of Prior Stakeholder Meetings
- Airport Activity Demand Forecasts
- Preliminary Master Plan Recommendations
Introduction & Overview
Sequence of Master Planning Tasks

- **MASTER PLAN INITIATION**
  - October 13, 2016
  - What are HWO’s current facilities and infrastructure assets?
  - What are the existing conditions?

- **INVENTORY**
  - What is the projected future growth for HWO’s traffic and activity levels?

- **FORECASTS**
  - April 28, 2017
  - FAA FORECAST APPROVAL
  - How much capacity does HWO have? Are there capacity gaps in the future?
  - How should the capacity gaps be addressed?
  - How can the Airport be improved?
  - Environmental implications of the proposed improvements?

- **DEMAND/CAPACITY & REQUIREMENTS**
  - SUMMER 2019
  - How can the Airport be improved?

- **ALTERNATIVES ANALYSIS**
  - SUMMER 2019
  - What projects are needed to fulfill HWO’s future needs?

- **ENVIRONMENTAL OVERVIEW**
  - SUMMER 2019
  - What is the future vision for HWO based on the Master Plan recommendations?

- **CAPITAL IMPROVEMENT PROGRAM**
  - SUMMER 2019
  - What is the future vision for HWO based on the Master Plan recommendations?
  - What projects are needed to fulfill HWO’s future needs?

- **AIRPORT LAYOUT PLAN (ALP)**
  - FALL 2019
  - What is the future vision for HWO based on the Master Plan recommendations?

- **FINAL REPORT**
  - FALL 2019
  - Successful Completion of the Master Planning Process

  - FAA/FDOT CONDITIONAL APPROVAL OF ALP
  - TBD
Master Plan Stakeholder Committees

**POLICY ADVISORY COMMITTEE (PAC)**

- **Role:**
  - Input on macro level policy issues
  - Provide comments relative to aviation goals of Broward County
  - Community and Regulatory Perspectives

  **Meeting Dates**
  - September 22, 2016
  - June 21, 2018
  - May 22, 2019

**TECHNICAL ADVISORY COMMITTEE (TAC)**

- **Role:**
  - Review master planning technical analysis
  - Input on operational perspectives
  - In addition, Tenant Briefings were held on August 22, 2018 and May 22, 2019 to present and receive input on the Master Plan Update’s progress to date.

  **Meeting Dates**
  - September 28, 2016
  - June 21, 2018
  - May 22, 2019
Proposed HWO Airport Community Advisory Group

RECOMMENDED MEMBERS

- City of Pembroke Pines representative (Airport’s District)
- City of Miramar representative (Adjacent to Airport)
- City of Hollywood representative (Closest to Airport)
- Local Civic/HOA President
- City of Pembroke Pines Planning
- Pilot Association member
- Airport Tenant Association member
- Air Traffic Control Tower Manager
- Broward County at large member

Anticipated to meet once quarterly

Will allow dialogue pertaining to development, improvement, maintenance, operation, protection of airport, and compatibility with surrounding community
Existing Tenant Base and Users

• Approximately 45 aviation businesses and 8 flight schools

• 4 Fixed Base Operators (FBO)

  - North Perry Central
  - Hollywood Aviation
  - Bobby’s Landing
  - Pelican Flight Training

• Emil Buehler Aviation Institute at Broward College uses HWO

• HWO also supports the following aviation activities and jobs:
  - Aerial advertising
  - Aircraft detailing
  - Aircraft fueling
  - Aircraft maintenance
  - Aircraft parking
  - Airship mooring
  - Avionics repair and training
  - Charter
  - Civil Air Patrol
  - Flight training
  - Florida Aero Club
  - Helicopter tours
  - Metro helicopter services
  - Mosquito control
Economic Benefits of North Perry Airport

DIRECT IMPACTS

ON-AIRPORT
Airport administration, airport tenants, and capital investments

VISITOR
Goods and services at hospitality businesses and the jobs and payroll supported by those expenditures

MULTIPLIER EFFECT
Supplier purchases (indirect impacts) and employee spending (induced impacts)

TOTAL IMPACTS

Output
$119.1 MILLION

Payroll
$40.3 MILLION

Jobs
1,163

Recap of Previous Stakeholder Meetings
Physical Characteristics

North Perry Airport includes:

• 522 acres\(^1\)

• 4 runways
  – 1L/19R (3,350 x 100 ft.)
  – 1R/19L (3,260 x 100 ft.)
  – 10L/28R (3,240 x 100 ft.)
  – 10R/28L (3,255 x 100 ft.)

• Per Broward County Ordinance, aircraft over 12,500 pounds Maximum Certified Takeoff Weight (MTOW) are prohibited

NOTE:
1/ HWO acreage from Exhibit A Property Map, Broward County Aviation Department (BCAD), August 2008.
Physical Airport Attributes and Land Availability

SOURCES: Broward County Aviation Department, September 2018 (aerial photography); Ricondo & Associates, Inc, May 2019.
# Key Stakeholder Concerns

<table>
<thead>
<tr>
<th>Stakeholder Concerns</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy Advisory Committee:</strong></td>
<td></td>
</tr>
<tr>
<td>Future plans for Park &amp; Ride operation</td>
<td>Operation may be relocated, but would remain at HWO</td>
</tr>
<tr>
<td><strong>Technical Advisory Committee:</strong></td>
<td></td>
</tr>
<tr>
<td>Operational challenges associated with dedicated helipad</td>
<td>Eliminated from further consideration</td>
</tr>
<tr>
<td><strong>Tenants:</strong></td>
<td></td>
</tr>
<tr>
<td>Aircraft maintenance hangar requirements should be increased</td>
<td>Future hangar requirements increased accordingly</td>
</tr>
<tr>
<td>Preservation of banner towing operation</td>
<td>Operations to be preserved at current location</td>
</tr>
<tr>
<td>Potential extension of Runway 10R-28L (4,000 feet)</td>
<td>Eliminated from further consideration</td>
</tr>
<tr>
<td>Consideration for an aircraft wash rack</td>
<td>Initiative will not be undertaken by BCAD; may be undertaken by tenant(s)</td>
</tr>
<tr>
<td>Potential GA customs facility</td>
<td>Initiative will not be undertaken by BCAD</td>
</tr>
</tbody>
</table>
Airport Activity Demand Forecasts
Historical Based Aircraft

2017 Approved Forecast

FAA Approved Growth Rate Applied to Historical Based Aircraft

NOTES:
1. CAGR = Compound Annual Growth Rate
2. 2017 Based aircraft estimate provided by Broward County Aviation Department (BCAD)
3. Historical and forecast based aircraft based upon calendar year (CY)

SOURCES: Broward County Aviation Department (historical data); Kimley Horn and Associates, Inc., April 2017 (forecast data); Ricondo & Associates, Inc., July 2018.
Aircraft Operations Projections

NOTES:
1. CAGR = Compound Annual Growth Rate
2. Historical and forecast operations are based upon calendar year (CY)

Preliminary Master Plan Recommendations
## Requirements Analysis Summary

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Existing (Acres)</th>
<th>2035 Estimate (Acres)</th>
<th>Deficiency (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Aviation (GA) / Fixed Base Operator (FBO)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aircraft Storage</td>
<td>41.3</td>
<td>54.6</td>
<td>13.3</td>
</tr>
<tr>
<td>Tenant Facilities</td>
<td>27.8</td>
<td>36.2</td>
<td>8.5</td>
</tr>
<tr>
<td><strong>Subtotal GA/FBO</strong></td>
<td>69.1</td>
<td>90.8</td>
<td>21.7</td>
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<tr>
<td><strong>Support Facilities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Traffic Control Tower</td>
<td>0.9</td>
<td>0.9</td>
<td>None</td>
</tr>
<tr>
<td>Airport Administration and Maintenance</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Subtotal Support Facilities</strong></td>
<td>1.0</td>
<td>1.1</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>70.1</td>
<td>91.9</td>
<td>21.8</td>
</tr>
</tbody>
</table>

1/ 2035 estimate based upon Sensitivity Level 2 developed in the Airport Master Plan Update.

HWO’s airfield has adequate capacity to serve the operational demand levels projected through the Master Plan’s 20-year planning horizon.

Proposed Airfield Enhancements

- Airfield Electrical Upgrades 1/
- Taxiway Geometry Modifications

Note:
1/ Airfield electrical upgrades include:
- Lighting and signage for:
  - Runway 1R-19L
  - Taxiway E
- Replacement of the airfield electrical vault

Recommended Land Use Option Plan

Tenant facility development to be funded by lessees

Legend:
- Existing Airport Property Line
- Tenant Lease Limits
- Existing Apron and Taxiway Pavement
- Future Pavement
- Future Pavement Removal
- Existing Buildings
- Aeronautical Development Land
- Non-Aeronautical Development Land
- Surplus Demand Driven Land
- Airfield Operations Area (Banner Towing)

Land Use Data Table

<table>
<thead>
<tr>
<th>Land Use Type</th>
<th>Size (AC)</th>
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<tbody>
<tr>
<td>Non-Aeronautical Development</td>
<td></td>
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<tr>
<td>Parcel 8</td>
<td>8.7</td>
</tr>
<tr>
<td>Subtotal</td>
<td>8.7</td>
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<tr>
<td>Aeronautical Development</td>
<td></td>
</tr>
<tr>
<td>Parcel 1B</td>
<td>5.8</td>
</tr>
<tr>
<td>Parcel 2</td>
<td>10.7</td>
</tr>
<tr>
<td>Parcel 3</td>
<td>9.1</td>
</tr>
<tr>
<td>Parcel 7</td>
<td>1.7</td>
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<tr>
<td>Parcel 10 and Parcel 11</td>
<td>4.5</td>
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<tr>
<td>Subtotal</td>
<td>31.8</td>
</tr>
<tr>
<td>Surplus Demand Driven</td>
<td></td>
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<tr>
<td>Parcel 4</td>
<td>6.8</td>
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<tr>
<td>Parcel 5</td>
<td>14.7</td>
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<tr>
<td>Parcel 6</td>
<td>5.8</td>
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<td>Parcel 9</td>
<td>3.2</td>
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<td>Parcel 12</td>
<td>2.9</td>
</tr>
<tr>
<td>Subtotal</td>
<td>33.4</td>
</tr>
<tr>
<td>Airfield Operations Area</td>
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</tr>
<tr>
<td>Parcel 1A</td>
<td>17.9</td>
</tr>
<tr>
<td>Subtotal</td>
<td>17.9</td>
</tr>
<tr>
<td>Total Area For Development</td>
<td>91.8</td>
</tr>
</tbody>
</table>

Other Airport Development Initiatives

- BCAD Administration and Maintenance Facility Expansion
- Separated Shared Use Path and Landscaping Along Airport Road
- Potential Realignment of Airport Road Around Parcel 6
- Replacement Air Traffic Control Tower

Projects may be partially funded with FAA and FDOT grants.

**LEGEND**
- Existing Airport Property Line
- Tenant Lease Limits
- Existing Apron and Taxiway Pavement
- Future Pavement
- Future Pavement Removal
- Existing Buildings
- Aeronautical Development Land
- Non-Aeronautical Development Land
- Surplus Demand Driven Land
- Airfield Operations Area (Banner Towing)

Master Plan Update Conceptual Rendering

- BCAD Administrative & Maintenance Facilities
- Aircraft Storage Hangars & Parking Apron (by Others)
- Construct Westside Parallel Taxiway A
- Separated Shared Use Path and Landscaping Improvements
- Airfield Electrical Upgrades
- Aircraft Storage Hangars & Parking Apron (by Others)
- Air Traffic Control Tower Replacement
- Aircraft Parking Apron
Representative Separated Shared-Use Path and Landscaping Improvements*

- Up to 12 to 16 feet wide paved surface
- Landscaped buffer between roadway
- Connects SW 77th Way to Island Drive
- Amenities, including lighting, designed for walkers, joggers, and bicyclists

*Development of shared use path is dependent on funding availability.