

## SECTION 4

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### Alternatives

#### 4.1 Introduction

The NEPA process requires the identification of a reasonable range of alternatives that could meet the stated purpose and need<sup>1</sup>. A no action alternative is also required to be evaluated through the NEPA process. This section then provides information on the screening criteria developed to determine which alternative(s) should be carried forward for detailed analysis. Reasonable alternatives considered in the alternatives analysis, the Proposed Action, and the no action alternative are described within this section. The analysis explains the extent to which these alternatives meet the purpose and need and additional screening criteria. Reasonable alternative(s) remaining after the screening analysis are carried forward along with the no-action alternative for detailed environmental analysis later in the document.

The Sponsor, has submitted an application to the USACE for approval under Section 404, Clean Water Act (CWA), for the discharge of dredged or fill material to waters of the United States associated with the proposed project (Individual Permit application SAJ-2006-2640 IP-JSC submitted on September 18, 2006 ) and a revised application was submitted in November 2010. The alternatives analysis under Section 404(b)(1) of the Clean Water Act is specific to activities involving the discharge of dredge or fill material to waters of the U.S. (33 CFR 320.4) and is different from the broader alternatives analysis required under NEPA. Currently, the USACE permit application is under review. The scope of alternatives analysis under NEPA and the CWA Section 404 are different in scope. The NEPA alternatives analysis is provided in Sections 4.2 through 4.5 below. Section 4.6 provides a discussion of the CWA Section 404 alternatives analysis that was provided to the USACE application referenced above. The consistency of the EA alternatives analysis to that of the USACE permit alternatives analysis is provided in Section 4.6. SEE COMMENT IN FINAL SECTION OF THIS CHAPTER.

#### 4.2 Alternative Screening Criteria

~~Primary and secondary s~~creening criteria were developed as part of the alternative screening process. ~~Primary s~~creening criteria are based on the purpose and need of the Proposed Action, and include. The secondary screening criteria are comprised of a range of criteria that include environmental considerations and site area, development criteria, and location considerations.

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<sup>1</sup> 40 FAA Order 5050.4B Chapter 4 Section 405d

Following the alternative screening analysis, reasonable alternative(s) are carried forward to be further analyzed in the EA document.

### 4.2.1 Primary Screening Criteria

For the purpose of the EA analysis, the following criteria were used as ~~primary~~ screening criteria (section references from the Purpose and Need are included):

- ~~A large contiguous area capable of accommodating a single large scale, high intensity aviation use or multiple large scale aviation uses and aviation support uses, development parcels (single parcel size minimum of 150 acres for large scale aviation use) Parcel size of approximately 1,000 contiguous acres~~ (referenced in section 2.4.1.1).
- ~~If required, parcel has direct airfield access or future planned airfield (referenced in section 2.4.1.1).~~
- Parcel has ~~direct or future planned direct~~ access to ~~necessary airport infrastructure to support large scale aviation development a major air carrier runway~~ (a minimum of a 9,000 foot runway) (referenced in section 2.4.1.1).
- ~~Increases and diversifies OIA revenue~~
- ~~without Would not disrupt or impact existing or planned airport development areas (referenced in section 2.4.2) disrupting or impacting existing or future planned airport revenue generation areas (identified on the current ALP) (referenced in section 2.4.2).~~
- Consistency with local land use plans (designated for aviation uses) (referenced in sections ~~2.2 and~~ 2.4.1.2).
- ~~Meet FAA standards, provide for safe and efficient use of airport property (referenced in section 2.4.3), and~~
- ~~would not require significant development of supporting aviation infrastructure (referenced in section 2.4.3). Meet FAA standards and provide for safe and efficient use of airport property (referenced in section 2.4.3).~~

### 4.2.2 Secondary Screening Criteria

~~The following criteria were used in the secondary screening of the alternatives:~~

- ~~Use of existing airport property not identified for current or future passenger commercial service uses;~~
- ~~Parcel has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned).~~
- ~~Parcel would not impact existing environmental areas protected by dedicated conservation easements or restrictions or used as mitigation for prior airport projects;~~

**Comment [VL1]:** Combine into one set of screening criteria

**Comment [sbb2R1]:** Screening criteria have been combined.

**Comment [VL3]:** If this is the correct size, then need to explain somewhere in the document why this is reasonable. Perhaps add a footnote here and provide examples (as a follow on to the discussion in chap. 2) about the sizes of facilities similar to what is expected to come into the area.

**Comment [sbb4R3]:** Text has been revised

**Comment [VL5]:** What is this...taxiways, aprons?

Also, the aviation support areas would not necessary require direct airfield access or a 9,000 foot runway.

**Comment [sbb6R5]:** This item was deleted. "direct" access language was added to the next bullet.

**Comment [VL7]:** This number is based on the Airbus facility – do you believe that other types of facilities contemplated in the plan will need this runway length?

**Comment [sbb8]:** The envisioned large scale aviation uses could require a variety of different uses which would require accommodating a full range a air carrier aircraft. A runway length of approximately 9,000 would provide for a majority of these activities. Aircraft operations that could require longer runway lengths can taxi to the longer runways at the airport as required to meet the specific performance requirements of a particular aircraft/use.

Note - the 2<sup>nd</sup> bullet was deleted to remove duplicity once the word "direct" was added to this item.

**Comment [VL9]:** Should this be a separate criteria/bullet?

**Comment [sbb10R9]:** This text was deleted.

**Comment [VL11]:** Delete secondary screening criteria and combining into one set of screening criteria

**Comment [sbb12R11]:** Screening criteria have been combined. The two bullet items found here will be added to the list above.  
Note – GOAA has kept the screening criteria of "Use of existing airport property not identified for current or future passenger commercial service uses."

- ~~Environmental Constraints—Potential to adversely affect natural resources, fish and wildlife. This criterion was evaluated using the following scale:~~
  - ~~None—no potential to have an adverse affect, and no environmental permits would be expected to be required for the development.~~
  - ~~Low—a low potential to have an adverse affect, would be off set through best management practices and minimal mitigation efforts and would likely be able to obtain environmental permits on the federal, state, and local levels.~~
  - ~~Medium—a medium potential to have adverse affect, would be able to off set those adverse affects through mitigation and would likely be able to obtain federal, state, and local environmental permits.~~
  - ~~High—a high potential to adversely affect, would not likely be able to off set these impacts through mitigation efforts and would not likely be able to obtain environmental permits on the federal, state, and local levels.~~

### 4.3 Alternatives Considered

There were a range of ~~nine (9)~~ [eight \(8\)](#) alternatives, including the No Action alternative, evaluated in the analysis. Under NEPA, the No Action alternative must be carried through screening analysis. Both on-site and offsite alternatives ~~that were found to potentially be viable as described in section 4.2~~ were considered.

**Off-site alternatives considered:**

- Alternative Off (1) – Lake Nona Site
- Alternative Off (2) - Orlando Executive Airport

**Onsite alternatives considered:**

- Alternative 1 – No Action
- Alternative 2 – East Airfield Development Area ~~Concept A~~
- ~~Alternative 3 – East Airfield Development Area Concept B~~
- Alternative ~~4-3~~ – Tradeport Area
- Alternative ~~5-4~~ – South Terminal Area
- Alternative ~~6-5~~ – Heintzelman Boulevard Area
- Alternative ~~7-6~~ – Mud Lake Area

The following sections describe each of the alternatives listed above.

### 4.3.1 Off-site Alternatives

#### **Alternative Off (1) – Lake Nona**

Alternative Off (1), the “Lake Nona” site, is located south of the eastern portion of airport property (see **Figure 4.3-1**). The Lake Nona site is approximately 6,917 acres. This site is contiguous to OIA property. However, the privately owned Lake Nona parcel that is described in this alternative is currently being developed under an approved DRI and includes a four-phase development plan with residential, retail, hotel/resorts, office and industrial uses. There are two areas that could have potential airfield access due to the adjacency of OIA property. First is the area north and east of Lake Nona. This area could be developed to have access to Runway 17L-35R if the airport acquired the private property and extended a taxiway to the area. The majority of the Lake Nona site closest to the airport, north and east of Lake Nona, has already been developed with residential uses and has existing conservation easements throughout the development. The only undeveloped area on the Lake Nona alternative is south of Lake Nona. However, this undeveloped area which encompasses approximately 960 acres has already been permitted for residential/commercial development as part of the DRI. In addition, aircraft access would need to be extended south of Runway 17L-35R to this area. Not only would this be distance prohibitive to taxi aircraft south of Lake Nona, the access infrastructure would be constrained by the presence of an existing conservation easements around that portion of Lake Nona, jurisdictional wetlands, and a major stormwater management system pond (see Figure 5.4.3 provides information on existing conservation easements around lake Nona). The privately owned Lake Nona parcel however, is currently being developed under an approved DRI and includes a four-phase development plan with residential, retail, hotel/resorts, office and industrial uses. A majority of the Lake Nona site closest to the airport has already been developed with

**Comment [VL13]:** Approximately how much developable vacant land located in the northern portion of Lake Nona remains?

**Comment [sbb14R13]:** See added text.

**Comment [VL15]:** Where would this be located?

**Comment [sbb16R15]:** This would be south and east of the existing airport property and the 4<sup>th</sup> runway. Basically, right through Lake Nona Estates.

~~residential uses. Areas further south in the property would be distance prohibitive to develop for aviation uses that were dependent on airfield access.~~

### Alternative Off (2) – Orlando Executive Airport

Orlando Executive Airport (OEA) is a general aviation airport located just east of downtown Orlando (see **Figure 4.3-2**). OEA encompasses approximately 1,000 acres and has two runways, the longest of which is 6,000 feet. There are approximately 100 acres of non-contiguous land available for development at OEA. ~~To develop the Proposed Action at OEA, most if not all, of the existing facilities would need to be replaced with the Proposed Action land uses. This area could only accommodate limited aviation development. Existing facilities would have to be demolished and replaced with new development in order to accommodate several parcels of large scale aviation use.~~ The Proposed Action's large scale aviation use areas have been planned to accommodate large aircraft that would need a runway with length's longer than the 6,000 feet currently available at OEA. OEA is constrained by physical boundaries which preclude longer runway development. Lake Barton is located directly northeast of the primary runway, Runway 7-25, and Maguire Boulevard and the East Central Park community is located directly southwest of the runway. The airport's 4,625 foot long crosswind runway, Runway 13/31, has limited expansion potential due to the location of Colonial Boulevard to the north and the East-West Expressway to the south. OEA is also a designated reliever airport within the National Plan of Integrated Airport Systems and its primary role is to accommodate general aviation aircraft thereby relieving commercial service airports such as OIA from these activities. Serving larger air carrier type aircraft which require larger separations due to wake vortex concerns could impact the ability of the airport to adequately serve GA aircraft.

- Comment [VL17]:** How many acres?
- Comment [sbb18R17]:** The area of undeveloped property south of Lake Nona is 960 acres. This information was added.
- Comment [VL19]:** Explain this.
- Comment [sbb20R19]:** See added text.

**Comment [VL21]:** Explain what this means.

**Comment [sbb22R21]:** Information added to describe the physical constraints (see added text).

**Comment [VL23]:** Explain the significance of this statement and how it relates to this Proposed Action.

**Comment [sbb24R23]:** Information added to explain the significance of the statement (see added text).

## 4.3.2 On-Site Alternatives

Figure 4.3-3 provides an overview of the locations of the on-site alternatives discussed in this section.

### **Alternative 1: No Action**

The No Action Alternative would result in no physical changes to any areas on the airport to accommodate major aviation development. Although the No Action Alternative does not meet the purpose and need criteria, it is retained for detailed environmental analysis and baseline comparative purposes to fulfill FAA's responsibility under NEPA and the CEQ Guidelines.

### **Alternative 2: East Airfield Development Area, Concept A**

#### Alternative 2: East Airfield Development Area<sup>2</sup>

Figure 4.3-4 reflects the location of Alternative 2, known as the East Airfield Development Area consists of 1,325 acres of airport property directly adjacent to Runway 17L/35R. Surface access to Alternative 2 is provided by Dowden and Narcoossee roads to the south and east and a roadway connection to Goldenrod Road to the north. Alternative 2 has direct airfield access to Runway 17L/35R along the west side of the site. Alternative 2 has historically been used for agriculture (cattle grazing and sod production) under lease to third parties. The Future Land Use designation under the City GMP for Alternative 2 includes both Airport Support District Medium Intensity and Airport Support District High Intensity (see Section 5.3 for zoning map). Presently, Alternative 2 is subject to a recent Hazardous Wildlife Assessment completed by the USDA (see Appendix P) and is subject to an Environmental Resource Permit Conceptual Approval issued by the South Florida Water Management District (See Section 6.19).

The alternative 2 site is included in currently, conditionally approved (10/26/05) ALP for OIA on sheet 10 (see Figure 4.3-5)<sup>3</sup>. The site plan depicted in Figure 4.3-5 has been revised since the time of the 2005 conditionally approved ALP. The plan for the site has undergone public review and input, further planning, and development which has resulted in further refinement of the planning for the site. The first refinement occurred through public input and further design/logistic input prior to the initiation of the EA process. GOAA made the following modifications to the 2005 ALP sheet 10 concept plan prior to the initiation of the EA process:

- the fuel farm was relocated to the north end of the site and

**Comment [sbb25]:** Please note that the FINAL EA Alternative 2: East Airfield Development Area provides a description of the site location and the planning progression that occurred for this site. The site concept plans described in DRAFT EA Alternative 2: East Airfield Development Area - Concept A and the DRAFT EA Alternative 3: East Airfield Development Area - Concept B are included in the FINAL EA Alternative 2 as revised. Please refer to the footnote for further details.

<sup>2</sup> Alternative 2 represents the site for the Proposed Action. The Draft EA included Alternative 2 East Airfield Development Area Concept A and Alternative 3 East Airfield Development Area Concept B which reflected a progression in the planning for the types of uses and location of certain uses within Alternative 2 that resulted from meetings with residents for adjacent neighborhoods and Draft EA comments. The Final EA alternative analysis will assess Alternative 2 with the land uses and locations of certain uses resulting from citizen meetings and Draft EA comments which the Airport Sponsor has concluded are reasonably foreseeable and consistent with the Purpose and Need.

<sup>3</sup> In the DRAFT EA Document (November 5, 2009) this concept plan was referred to as Alternative 2 East Airfield Development Area Concept A.

- a land use buffer consisting of Aviation Support development was identified along the southern portion of the Proposed Action site along the north side of Dowden Road.

The resulting concept plan was presented for review and comment as part of the Draft EA document in November 5, 2009 (see **Figure 4.3-6**)<sup>4</sup>.

Since the time of the Draft EA Public Hearing on November 5, 2009, two refinements have been made to the Draft EA East Airfield Development Area Concept Plan. In 2010, GOAA made the following two modifications to the Draft EA East Airfield Development Area Concept Plan (see **Figure 4.3-7**)<sup>5</sup>:

- The fuel farm location was shifted east to provide increased aircraft apron adjacent to the 4<sup>th</sup> runway.
- The storm water pond located south of the future Dowden Road extension was incorporated into an expanded stormwater pond on the north side of future Dowden Road extension, thereby avoiding the need to dredge/fill in the wetland south of future Dowden Road extension. Although this area will not be filled as part of this project, it may be necessary at some point in the future to undertake activities in this wetland to abate hazardous wildlife. The SFWMD conceptual ERP has accounted for the functional loss of this wetland in its permit. The area south of Dowden Road extension is now considered open space in the conceptual plan.

Figure 4.3-7 and reflects the modifications described above and represents the Airport's Proposed Action in the Final EA document.

**Figure 4.3-4** provides the location of Alternative 2. Alternative 2 is was a preliminary development concept prepared by GOAA depicting aviation development on the East Airfield area. It includes plans for development of major aviation related business and aviation support facilities on the 1,325 acre East Airfield site. The East Airfield Development Area Concept A plan is depicted in **Figure 4.3-5** and includes included construction of a fuel farm on the southern portion of the site, construction of a variety of large scale aviation related uses, designated infrastructure areas, and offsite mitigation of wetlands. Surface access is provided to Dowden and Narcoossee roads with a roadway connection at the north end of the site to Goldenrod Road. Direct airfield access is provided along the west side of the site adjacent to Runway 17L/35R. The perpendicular configuration of the apron areas to the runway maximizes the efficient use of airport land. Alternative 2, Concept A, is currently depicted on the FAA conditionally approved 2005 ALP for OIA.

<sup>4</sup> In the DRAFT EA Document (November 5, 2009) this concept plan was referred to as Alternative 3 East Airfield Development Area Concept B.

<sup>5</sup> In 2010 the Draft EA Alternative 3 concept was modified to shift the fuel farm location to the east and remove of a stormwater detention pond south of the future Dowden Rd. Extension (near Lake Nona). A letter from GOAA was sent to the Lake Nona Homeowners Association on April 1, 2010 to explain and graphically depict the two modifications. This letter and modified concept plan graphic were posted to the GOAA website in the East Airfield Development Area project folder at: [http://www.orlandoairports.net/east\\_airfield/index.htm](http://www.orlandoairports.net/east_airfield/index.htm). The 2010 modified conceptual site plan was also presented during a July 21, 2010 public meeting conducted by the South Florida Water Management District as part of its consideration of the Sponsor's application for a Environmental Resource Conceptual Approval Permit for the surface water management system to serve the Proposed Action.

### **Alternative 3: East Airfield Development Area, Concept B**

Figure 4.3-4 provides the location of Alternative 3 (the same location as Alternative 2). Alternative 3 is the Airport Sponsor's "Proposed Action" as presented in Section 3.0 of this EA and includes plans for development of large-scale Aviation Uses and Aviation support uses on the 1,325-acre East Airfield site. The East Airfield Development Area Concept B plan is depicted in Figure 4.3-6 and is a refinement of Alternative 2. Alternative 3 was developed through coordination and public input from interested citizens which were mainly comprised of residents from surrounding areas. The following changes were made to Alternative 2 and included in Alternative 3 as a result of that public input:

- the fuel farm was relocated to the north end of the site and

a land use buffer consisting of aviation-related office type development was identified along the southern portion of the Proposed Action site along the north side of Dowden Road.

Modifications were made to Alternative 3 following publishing the Draft EA for public and agency comment. The Alternative 3 East Airfield Development Area Concept B that was published within the Draft EA is depicted in Figure 4.3-7. The following two modifications were made to the Draft EA Alternative 3:

- The fuel farm location was shifted east to provide increased aircraft apron adjacent to the 4<sup>th</sup> runway.
- Through a wetland impact concept refinement analysis (discussed in Section 6.20), it was determined that impacts to wetlands bordering Lake Nona could be avoided. This analysis resulted in the elimination of a stormwater area (Area C) at the southern portion of the concept just north of Lake Nona. This modification resulted in the elimination of 11.79 acres of wetland impacts.

As a result of these modifications, GOAA has revised the Draft EA Alternative 3 (shown in Figure 4.3-7) and for the Final EA, Alternative 3 is depicted in Figure 4.3-6.

### **Alternative 4: Tradeport Area**

Alternative 4 consists of the Tradeport Drive area (see Figure 4.3-8). This 1,126-acre area currently serves numerous existing aviation support facilities including two Continental maintenance hangars, a Federal Express sort facility, a US Postal Service sort facility, Flight Safety facility, the Cessna maintenance facility and Signature and Galaxy Fixed Base Operators (FBO). There are three main areas of undeveloped airport property within this alternative. There is an approximate 60-48-acre site on the north end of Tradeport, an approximate 22-acre site in the central portion of Tradeport, and an approximately 65-75-acre site in the southern portion of the alternative area, a 15-acre site on the southern end of Tradeport (two separate locations). There is an approximate 15-acre area in the central portion of the site. All of the parcels could develop direct airfield access to the 12,000-foot Runway 18R-36L, but none of the undeveloped parcels are not contiguous to each other.

Future plans for this area are for infill aviation development on the scattered undeveloped areas along the Tradeport corridor. Given the layout of the existing facilities, this alternative would

**Comment [VL26]:** The Airport needs to discuss with the FAA the 2 ponds located at the south of the runway north of Dowden road. The design of these ponds does not appear to be in conformance with FAA criteria. Nor do the rest of the ponds on the East Airfield.

**Comment [sbb27R26]:** Noted. See Section 3.3.4 for requested added language regarding stormwater management facilities and the FAA criteria.

**Comment [VL28]:** You term this "aviation support" in other areas of the EA. Shouldn't it be consistent?

**Comment [sbb29R28]:** See text change.

**Comment [VL30]:** Foot note when this was.

**Comment [sbb31R30]:** Footnote added.

**Comment [VL32]:** It seems based on the discussion in Sec. 4.4.2 that this FEA is the first time the public will see Alternative 3 discussed in an EA? Please clarify and make sure the document is clear as to what alternatives were discussed in the draft.

**Comment [sbb33R32]:** Footnote was added to discuss when the modifications were made and when/where the information was posted for the public. Text was revised to explain the difference and timing of the Draft EA Alternative 3 and the Final EA Alternative 3.

**Comment [VL34]:** Does this mean it won't be developed? Will the Airport commit to that?

**Comment [sbb35R34]:** During the SFWMD process, the Applicant (GOAA) will commit to not developing Category A or B facilities in this area, however any actions required to abate hazardous wildlife will be implemented.

**Comment [VL36]:** Including access to a 9,000-foot runway? Describe this better. And I don't exactly see where the vacant sites are located on the figure.

**Comment [sbb37R36]:** See added text. Figure 4.3-8 has been updated to include the identification and acreages of undeveloped areas within this alternative area.

require demolition of numerous existing facilities as well as the relocation of a number of businesses to other parts of OIA, including the East Airfield area, to accommodate large scale aviation development. The impacts to existing businesses would be counter to the purpose and need of enhancing the OIA's revenue stream.

**Comment [VL38]:** Is this still true if the screening criteria shifts to looking at 150 acre parcels?

**Comment [sbb39R38]:** The largest undeveloped parcel is approximately 75 acres.

#### **Alternative 54: South Terminal Area**

**Comment [VL40]:** Provide discussion regarding when this complex would be built based on forecasts.

Alternative 54 is an approximate 981 acre area located to the south of the existing terminal complex (see Figure 4.3-9). Currently, the site is comprised of fallow agriculture areas, stormwater facilities, and natural areas. While this site could support major aviation related development with adequate access to the airfield and surface transportation, it has already been planned, designed, and permitted for the South Terminal Complex (see Figure 4.3-10). The South Terminal Complex has been identified in the OIA Master Plan since May 1988. The development of the South Terminal Complex is identified on the FAA approved 2005 ALP, has been subject to NEPA review (OIA South Terminal Complex Final EA FONSI/ROD August 4, 1998) and has been incorporated into the airport's local development order, known as the South Terminal Complex DRI approved by the Orlando City Council November 2, 1998. The South Terminal Complex has been permitted by the USACE and SFWMD and all wetland mitigation requirements associated with those permits have been completed off-site. Additionally, the site's location (immediately south of the existing passenger terminal) is more conducive to its current planned use which is to support future planned commercial passenger activities. The South Terminal Complex has been designed to 100 percent and is consistent with the local comprehensive land use plan and zoning.

**Comment [sbb41R40]:** The South Terminal Complex will be developed incrementally over time based on actual airline demand. The initial construction is anticipated to begin in the northwest portion of the South terminal Complex area and will include a 24 gate airside, connecting taxiways, access roadways, infrastructure and related support facilities necessary to support the initial complex. In 2007, GOAA prepared a capacity analysis of the North Terminal Complex which analyzed the capacity of various elements of the existing terminal. Examples of these elements included, roadways, gates, ticket counters, baggage systems, security, Automated People Movers etc. The results of this study indicated that the effective capacity of the North Terminal Complex is approximately 45 Million Annual Passengers (MAP). It is anticipated...

**Comment [VL42]:** Discuss the large areas on the south site of the terminal complex that are

**Comment [sbb43R42]:** The "south terminal support" area identified as part of the South

#### **Alternative 65: Heintzelman Boulevard Area**

Heintzelman Boulevard is the north-south access roadway located between the third and fourth runways (see Figure 4.3-11). The Jet Blue University facility and Live TV maintenance hangars are located just north of this roughly 620 acre area of land. This alternative has approximately 440 acres that is currently undeveloped but designated and permitted for the South Terminal Support Area. Due to its location between the two runways, this site has significant development constraints. First, buildings and parked aircraft on the site would be limited in height by the 7:1 transitional surfaces for both runways as outlined in Federal Aviation Regulation (FAR) Part 77, "Object Affecting Navigable Airspace." While the transitional surfaces have the potential to limit heights for a number of the other alternatives, no other alternative would be adversely affected by the airspace constraints of two runways.

**Comment [VL44]:** Has there been any construction? This would make the dismissal of the

**Comment [sbb45R44]:** Yes. Portions of the site has undergone clearing, grubbing, and fill

**Comment [VL46]:** Provide reference.

**Comment [sbb47R46]:** Reference provided.

**Comment [VL48]:** Provide reference.

**Comment [sbb49R48]:** Reference provided.

**Comment [VL50]:** What does this mean?

**Comment [sbb51R50]:** Architectural and Engineering plans have been completed for the

**Comment [VL52]:** What is planned for this area, identified as South Terminal Support Area? Figure

**Comment [sbb53R52]:** The "south terminal support" area identified as part of the South

**Comment [VL54]:** There is no discussion in P&N or Proposed Project regarding the height of

Second, buildings or parked aircraft located east of Heintzelman Boulevard would be significantly limited in height so as not to impact air traffic control tower line of sight to the easternmost runway or its adjacent taxiway. In order for air traffic control to safely manage the movement of aircraft on the ground, it must be able to view all areas of the airfield. This is the only a concern for alternatives with development between the tower and the location of a runway.

**Comment [sbb55R54]:** Section 3.3 Proposed Action, the following text was added: "The plan

**Comment [VL56]:** What "number of other alternatives"?

**Comment [sbb57R56]:** Text deleted.

Appendix D provides a number of exhibits that graphically depict the height limitations between Runway 17R-35L and Runway 17L-35R. West of Heintzelman Road, structures of 70 feet along the road to more than 100 feet near Runway 17R-35L could be configured so as to not obstruct line of sight to Runway 17L-35R or its parallel taxiways. However, to the east of Heintzelman

**Comment [VL58]:** Why isn't this being looked at for other alternatives?

**Comment [sbb59R58]:** See added text.

Road the heights are much more restricted. This area is limited to only 10 feet in the near proximity of the parallel taxiways located to the east and just over 40 feet closer to the road. Potential line of sight problems include building structures, antennas, cooling units or other appurtenances located on top of buildings, parked aircraft, light poles, etc. To ensure adequate line of sight, much of the area to the east of the roadway would be limited to a single story or automobile parking.

### Alternative 7-6 - Mud Lake Area

Alternative 7-6 is an approximate ~~1,513+505~~ acre site located to the south of the Runway 17R-35L (see Figure 4.3-12). This site is undeveloped and consists of natural areas (including uplands and wetlands) and Mud Lake which is approximately 240 acres in size. Currently, the site has a conservation easement recorded in the public records of Orange County that restricts the use approximately 1083 acres of more than 1,000 acres, leaving approximately 430 acres available for development, however, the 430 acres is not in one contiguous parcel. [of the property. The conservation easement is recorded in favor of ~~deeded to~~ the South Florida Water Management District. This conservation easement was required in partial fulfillment of mitigation requirements for wetland impacts associated with the 4<sup>th</sup> Runway/Midfield Project (1990). Direct airfield access from this site is more restricted than any of the other on-site alternatives, but could be provided by extending southward the taxiways adjacent either of the easternmost runways.

**Comment [VL60]:** Discuss how many vacant acres are east of Heintzelman Road and how many west and what could reasonable be developed.

**Comment [sbb61R60]:** See added acreage information above for undeveloped areas for this alternative. "Reasonable" development would depend on heights calculated for types of development.

**Comment [VL62]:** What is the acreage of the area that is unrestricted and is this considered developable?

**Comment [sbb63R62]:** See added acreage information and added graphic. Developable but not contiguous.

**Comment [VL64]:** Explain why this is more "restricted".

**Comment [sbb65R64]:** Statement deleted.

## 4.4 Alternatives Screening Analysis

### 4.4.1 Screening Criteria

~~Primary~~ Screening criteria were developed as described in section 4.2.1 and are being restated below for ease of review. An alternative was only considered reasonable if it met the purpose and need for the project. The following ~~primary~~ screening criteria were used to determine if the alternative would meet the purpose and need. ~~(Alternatives were considered reasonable if they meet all of the primary screening criteria).~~

- ~~A~~ Large contiguous area capable of accommodating a single large scale aviation use with supporting Aviation Support development or multiple large scale aviation and Aviation Support development parcels (single parcel size minimum of 150 acres for large scale aviation use) (referenced in section 2.4.1.1).
- ~~If required, parcel has direct or future planned airfield access (referenced in section 2.4.1.1).~~
- ~~If required, parcel has direct or future planned direct access to a major air carrier runway (a minimum of a 9,000 foot runway) (referenced in section 2.4.1.1).~~
- Increases and diversifies OIA revenue
- Would not disrupt or impact existing or planned airport development areas (referenced in section 2.4.2).
- Consistency with local land use plans (designated for aviation uses) (referenced in section 2.4.1.2).
- Meet FAA standards, provide for safe and efficient use of airport property (referenced in section 2.4.3), ~~and~~  
~~would not require significant development of supporting infrastructure (referenced in section 2.4.3).~~
- Use of existing of airport property not identified for current or future passenger commercial service uses.
- Parcel has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned).
- Parcel would not impact existing environmental areas protected by dedicated conservation easements or restrictions or used as mitigation for prior airport projects
- ~~Parcel size of approximately 1,000 contiguous acres.~~
- ~~Parcel has direct or future planned airfield access.~~
- ~~Parcel has access to necessary infrastructure to support large scale aviation development (a minimum of a 9,000 foot runway)~~

**Comment [VL66]:** The alternatives analysis will need to be revised to address these specific criteria. – Check with VL before proceeding.

**Comment [sbb67R66]:** Screening criteria have been merged into one list. This list is consistent with the changes made in Section 4.2.

**Comment [VL68]:** Comment for Legal – These are now consistent.

**Comment [sbb69R68]:** No response necessary.

- ~~• Increases and diversifies OIA revenue without disrupting or impacting existing or future planned airport revenue generation areas (identified on the current ALP).~~
- ~~• Consistency with local land use plans (designated for aviation uses)~~
- ~~• Meet FAA standards and provide for safe and efficient use of airport property.~~

~~The following criteria were used in the secondary screening of the alternatives. These criteria outline other factors or considerations beyond the purpose and need associated with the selection of a preferred alternative.~~

- ~~• Use of existing airport property not identified for current or future passenger commercial service uses.~~
- ~~• Parcel has access to major transportation infrastructure, including state and interstate highways and rail facilities (existing or planned);~~
- ~~• Environmental Constraints—Potential to adversely affect natural resources, fish and wildlife. This criterion was evaluated using the following scale:~~
  - ~~○ None—no potential to have an adverse affect, and no environmental permits would be expected to be required for the development.~~
  - ~~○ Low—a low potential to have an adverse affect, would be off set through best management practices and minimal mitigation efforts and would likely be able to obtain environmental permits on the federal, state, and local levels.~~
  - ~~○ Medium—a medium potential to have adverse affect, would be able to off set those adverse affects through mitigation and would likely be able to obtain federal, state, and local environmental permits.~~
  - ~~○ High—a high potential to adversely affect, would not likely be able to off set these impacts through mitigation efforts and would not likely be able to obtain environmental permits on the federal, state, and local levels.~~

#### 4.4.2 Alternatives Considered but Not Retained

#### 4.4.2 Alternatives Considered but Not Retained

During the alternatives screening analysis, seven (7) of the eight (8) alternatives were removed from further consideration because they were found to be not reasonable based on the project's purpose and need. In this section, the screening criteria stated in Section 4.2 are discussed for each alternative that was considered but not retained. Table 4.4-1 provides a summary of the screening analysis.

**Comment [sbb70]:** Please note that this section has been revised as discussed with FAA. Discussion regarding each screening criteria has been added for each alternative that was not retained. The original text and FAA comments in track changes follow this new section.

**TABLE 4.4-1  
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS**

Screening Item	Alt Off 1 Lake Nona	Alt Off 2 OEA	Alt 1 No Action	Alt 2 East Airfield Development Area	Alt 3 Tradeport	Alt 4 South Terminal	Alt 5 Heintze Iman Blvd	Alt 6 Mud Lake
A large contiguous area capable of accommodating a single large scale, high intensity aviation use or multiple large scale aviation uses.	X	O	O	X	X	X	O	X
Parcel has direct or future planned direct access to a major air carrier runway (a minimum of a 9,000 foot runway)	O	O	O	X	X	X	X	O
Increases and diversifies OIA revenue	O	O	O	X	O	O	O	O
Would not disrupt or impact existing or planned airport development areas	X	O	O	X	O	O	O	X
Consistency with local land use plans (designated for aviation uses)	O	X	O	X	X	X	X	O
Meet FAA standards, provide for safe and efficient use of airport property	O	O	O	X	O	X	O	X
Use of existing airport property not identified for current or future passenger commercial service uses	X	X	O	X	X	O	O	X
Parcel has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned).	X	O	O	X	X	X	X	X
Parcel would not impact existing environmental areas protected by dedicated conservation easements or restrictions or used as mitigation for prior airport projects	X	X	O	X	X	X	X	O

An "X" indicates that the alternative meets the screening criteria.  
 An "O" indicates that the alternative does not meet the screening criteria.  
 SOURCE: ESA Airports, 2009

#### **4.4.2.1 Alternative Off (1) "Lake Nona"**

*A large contiguous area capable of accommodating a single large scale, high intensity aviation use or multiple large scale aviation uses.*

*This alternative comprises approximately 6,917 acres of privately owned property. A majority of the site is developed with residential area and conservation areas. Of those 6,917 acres, there are 960 contiguous acres of undeveloped land south of Lake Nona. This area is*

located south of Lake Nona (see Figure 4.3-1). This alternative meets this screening criterion.

**Parcel has direct or future planned direct access to a major air carrier runway (a minimum of a 9,000 foot runway)**

This alternative does not have direct or future planned direct access to a major air carrier runway. This alternative is adjacent to OIA property. The closest runway to Alternative Off (1) is Runway 17L-35R. This alternative does not meet this screening criterion.

**Increases and diversifies OIA revenue**

In order for GOAA to pursue the development of this property for aviation uses, GOAA would need to purchase numerous built residential areas and planned residential/mixed use areas. The purchase of this area would be costly and would not increase revenue at OIA. This alternative does not meet this screening criterion.

**Would not disrupt or impact existing or planned airport development areas**

This alternative would not impact existing or planned airport development areas. This alternative meets this screening criterion.

**Consistency with local land use plans (designated for aviation uses)**

The development of Alternative Off (1) for aviation uses is not consistent with local land use plans. The Lake Nona alternative is currently zoned as PD / AN (Planned Development / Aircraft Noise) west of the 65 DNL, PD (Planned Development) east of the 65 DNL, and C (Conservation). The Future Land Use Map (FLUM) designation is Urban Village and Conservation. This alternative does not meet this screening criterion.

**Meet FAA standards, provide for safe and efficient use of airport property**

Any development at OIA or in the nearby vicinity will need to comply with FAA safety and design standards to avoid the potential to negatively impact the safe and efficient operation of the airport. Specific to safety, the following items were analyzed for each alternative (see Section 2.4.3 for details on the listed items):

- FAR Part 77, Objects Affecting Navigable Airspace.
- FAA Order 8260 Terminal Instrument Procedures or TERPS
- Air Traffic Control line-of-sight
- Aircraft movement areas include runways, taxiways and apron areas that facilitate the movement of aircraft. These areas have specific design criteria defined by the FAA to ensure the safe and efficient movement of aircraft while arriving/departing or transiting the airfield.
- Protection of NAVAID critical areas
- Development of facilities with airfield access at a commercial service airport requires that a secure airside operation can be maintained.

Related to efficient use of airport property, each alternative was evaluated to ensure that development could support aircraft aprons that would be developed perpendicular to the airfield. This strategy offers the opportunity for more apron frontage in support of aviation uses (see Section 2.4.3).

This alternative does not have a negative impact on FAR Part 77, TERPS, Air Traffic Control line-of-sight, or aircraft movement areas. This alternative does not meet this screening criterion because the development of aviation uses on this site would not occur in a secure airside operation area nor does it provide for the development of perpendicular aircraft apron development to a runway at OIA.

*Use of existing airport property not identified for current or future passenger commercial service uses*

This alternative does not utilize existing airport property. This alternative does not meet this screening criterion.

*Parcel has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned).*

This alternative has access to existing or planned state and interstate highways and planned access to rail facilities. This alternative meets this screening criterion.

*Parcel would not impact existing environmental areas protected by dedicated conservation easements or restrictions or used as mitigation for prior airport projects*

This alternative includes existing environmental areas protected by dedicated conservation easements. This alternative does not meet this screening criterion.

#### **4.4.2.2 Alternative Off (2) “Orlando Executive Airport”**

*A large contiguous area capable of accommodating a single large scale, high intensity aviation use or multiple large scale aviation uses.*

This alternative has approximately 100 acres of non-contiguous land available for development. This area could only accommodate limited aviation development. Existing facilities would have to be demolished and replaced with new development in order to accommodate large scale aviation uses. This alternative does not meet this screening criterion.

*Parcel has direct or future planned direct access to a major air carrier runway (a minimum of a 9,000 foot runway)*

This alternative does not have direct or future planned access to a major air carrier runway. The Proposed Action’s large scale aviation use areas have been planned to accommodate large aircraft that would need a runway with length’s longer than the 6,000 feet currently available at OEA. OEA is constrained by physical boundaries which preclude longer runway development. Lake Barton is located directly northeast of the primary runway, Runway 7-25, and Maguire Boulevard and the East Central Park community is located directly southwest of

the runway. The airport's 4,625 foot long crosswind runway, Runway 13/31, has limited expansion potential due to the location of Colonial Boulevard to the north and the East-West Expressway to the south. This alternative does not meet this screening criterion.

**Increases and diversifies OIA revenue**

This alternative is located at OEA and any revenue generation from development of aviation uses on this property would be for OEA use and would not increase or diversity OIA revenue. This alternative does not meet this screening criterion.

**Would not disrupt or impact existing or planned airport development areas**

The site currently has non-commercial service aviation and aviation support structures and operations that would have to be demolished to accommodate the proposed project. This would disrupt and impact existing and planned airport development areas at OEA. This alternative does not meet this screening criterion.

**Consistency with local land use plans (designated for aviation uses)**

This alternative is currently zoned and planned for aviation uses. This alternative meets this screening criterion.

**Meet FAA standards, provide for safe and efficient use of airport property**

Any development at OIA or in the nearby vicinity will need to comply with FAA safety and design standards to avoid the potential to negatively impact the safe and efficient operation of the airport. Specific to safety, the following items were analyzed for each alternative (see Section 2.4.3 for details on the listed items):

- FAR Part 77, Objects Affecting Navigable Airspace,
- FAA Order 8260 Terminal Instrument Procedures or TERPS
- Air Traffic Control line-of-sight
- Aircraft movement areas include runways, taxiways and apron areas that facilitate the movement of aircraft. These areas have specific design criteria defined by the FAA to ensure the safe and efficient movement of aircraft while arriving/departing or transiting the airfield.
- Protection of NAVAID critical areas
- Development of facilities with airfield access at a commercial service airport requires that a secure airside operation can be maintained.

Related to efficient use of airport property, each alternative was evaluated to ensure that development could support aircraft aprons that would be developed perpendicular to the airfield. This strategy offers the opportunity for more apron frontage in support of aviation uses (see Section 2.4.3).

This alternative does not have a negative impact on FAR Part 77, TERPS, Air Traffic Control line-of-sight, or aircraft movement areas. This alternative does not meet this screening criterion because the development of aviation uses on this site would not occur in a secure

airside operation area nor does it provide for the development of perpendicular aircraft apron development to a runway at OIA.

*Use of existing airport property not identified for current or future passenger commercial service uses*

This alternative does utilize existing airport property at OEA. However, OEA is a designated reliever airport within the National Plan of Integrated Airport Systems and its primary role is to accommodate general aviation aircraft thereby relieving commercial service airports such as OIA from these activities. This alternative meets this screening criterion.

*Parcel has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned).*

This alternative has access to existing or planned state and interstate highways but does not have existing or planned access to rail facilities. This alternative does not meet this screening criterion.

*Parcel would not impact existing environmental areas protected by dedicated conservation easements or restrictions or used as mitigation for prior airport projects*

This alternative site does not include existing environmental areas protected by dedicated conservation easements or restriction. There are no mitigation areas associated with prior airport projects located within this alternative site. This alternative meets this screening criterion.

#### **4.4.2.3 Alternative 3, Tradeport Area**

*A large contiguous area capable of accommodating a single large scale, high intensity aviation use or multiple large scale aviation uses.*

This alternative site currently has aviation uses and support use facilities adjacent to Runway 18R/36L at OIA. While the site comprises approximately 1,126 acres, the majority of the site is developed. The undeveloped areas on this site consist predominately of infill parcels that are non-contiguous (see Figure in Section 4.3.2). This site does consist of approximately 1,000 acres capable of accommodating aviation uses. However, a majority of the site and current uses (buildings, businesses, and infrastructure) would need to be demolished and relocated elsewhere on the airport adjacent to the airfield. This alternative meets this screening criterion.

*Parcel has direct or future planned direct access to a major air carrier runway (a minimum of a 9,000 foot runway)*

This alternative currently has direct access to the 12,004 foot Runway 18R/36L at OIA. This alternative meets this screening criterion.

*Increases and diversifies OIA revenue*

Due to the cost to demolish and relocate current business and operations that have been developed on the majority of this site, there would not be an increase and diversification of OIA revenue if the proposed project was developed on this site. This alternative does not meet this screening criterion.

*Would not disrupt or impact existing or planned airport development areas*

The development of the proposed action would disrupt and impact existing airport development areas. The existing aviation support facilities include two Continental maintenance hangars, a Federal Express sort facility, a US Postal Service sort facility, Flight Safety facility, the Cessna maintenance facility and Signature and Galaxy Fixed Base Operators (FBO). This alternative does not meet this screening criterion.

*Consistency with local land use plans (designated for aviation uses)*

This alternative site area is designated for aviation uses. This alternative meets this screening criterion.

*Meet FAA standards, provide for safe and efficient use of airport property*

Any development at OIA or in the nearby vicinity will need to comply with FAA safety and design standards to avoid the potential to negatively impact the safe and efficient operation of the airport. Specific to safety, the following items were analyzed for each alternative (see Section 2.4.3 for details on the listed items):

- FAR Part 77, Objects Affecting Navigable Airspace,
- FAA Order 8260 Terminal Instrument Procedures or TERPS
- Air Traffic Control line-of-sight
- Aircraft movement areas include runways, taxiways and apron areas that facilitate the movement of aircraft. These areas have specific design criteria defined by the FAA to ensure the safe and efficient movement of aircraft while arriving/departing or transiting the airfield.
- Protection of NAVAID critical areas
- Development of facilities with airfield access at a commercial service airport requires that a secure airside operation can be maintained.

Related to efficient use of airport property, each alternative was evaluated to ensure that development could support aircraft aprons that would be developed perpendicular to the airfield. This strategy offers the opportunity for more apron frontage in support of aviation uses (see Section 2.4.3).

This alternative does not have a negative impact on FAR Part 77, TERPS, Air Traffic Control line-of-sight, or aircraft movement areas. This alternative could be developed with airfield access that provides secure airside operations. However, this alternative does not meet this criteria because the existing airside infrastructure (apron) is not considered an efficient use of airport property since it cannot accommodate large scale aviation development with

perpendicular aircraft apron development (the alternative configuration is too narrow and cannot accommodate perpendicular development due to the location of Tradeport Drive.)

*Use of existing airport property not identified for current or future passenger commercial service uses*

This alternative site area is not identified for current or future passenger commercial service uses. This alternative meets this screening criterion.

*Parcel has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned).*

This alternative has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned). This alternative meets this screening criterion.

*Parcel would not impact existing environmental areas protected by dedicated conservation easements or restrictions or used as mitigation for prior airport projects*

This alternative site does not include existing environmental areas protected by dedicated conservation easements or restriction. There are no mitigation areas associated with prior airport projects located within this alternative site. This alternative meets this screening criterion.

#### **4.4.2.4 Alternative 4, South Terminal Area**

*A large contiguous area capable of accommodating a single large scale, high intensity aviation use or multiple large scale aviation uses.*

This alternative site comprises approximately 981 contiguous acres. While this site is capable of accommodating large scale aviation uses, it should be noted that this site has been planned, designed, and permitted for the South Terminal Complex. This alternative meets this screening criterion.

*Parcel has direct or future planned direct access to a major air carrier runway (a minimum of a 9,000 foot runway)*

This alternative has planned direct access to the airfield at OIA as part of the planning and design for the South Terminal Complex. This alternative meets this screening criterion.

*Increases and diversifies OIA revenue*

The development of the proposed action on this site would necessitate the relocation of the South Terminal Complex. Due to the investment, planning, design, and permitting elements completed to establish this area as the location for commercial passenger service uses, the cost to relocate (plan, design, engineer, and permit) the planned South Terminal Complex would be significant. This cost would not increase and diversity OIA revenue. This alternative does not meet this screening criterion.

*Would not disrupt or impact existing or planned airport development areas*

This alternative site has been planned, designed, and permitted for the South Terminal Complex. The South Terminal Complex has been identified in the OIA Master Plan since May 1988. The development of the South Terminal Complex is identified on the FAA approved 2005 ALP, has been subject to NEPA review (OIA South Terminal Complex Final EA FONSI/ROD August 4, 1998) and has been incorporated into the airport's local development order (known as the South Terminal Complex DRI approved by the Orlando City Council November 2, 1998. The South Terminal Complex has been permitted by the USACE and SFWMD and all wetland mitigation requirements associated with those permits have been completed off-site. This alternative does not meet this screening criterion.

*Consistency with local land use plans (designated for aviation uses)*

This alternative site is designated for aviation uses for City of Orlando zoning and FLUM designation. This alternative meets this screening criterion.

*Meet FAA standards, provide for safe and efficient use of airport property*

Any development at OIA or in the nearby vicinity will need to comply with FAA safety and design standards to avoid the potential to negatively impact the safe and efficient operation of the airport. Specific to safety, the following items were analyzed for each alternative (see Section 2.4.3 for details on the listed items):

- FAR Part 77, Objects Affecting Navigable Airspace,
- FAA Order 8260 Terminal Instrument Procedures or TERPS
- Air Traffic Control line-of-sight
- Aircraft movement areas include runways, taxiways and apron areas that facilitate the movement of aircraft. These areas have specific design criteria defined by the FAA to ensure the safe and efficient movement of aircraft while arriving/departing or transiting the airfield.
- Protection of NAVAID critical areas
- Development of facilities with airfield access at a commercial service airport requires that a secure airside operation can be maintained.

Related to efficient use of airport property, each alternative was evaluated to ensure that development could support aircraft aprons that would be developed perpendicular to the airfield. This strategy offers the opportunity for more apron frontage in support of aviation uses (see Section 2.4.3).

This alternative does not have a negative impact on FAR Part 77, TERPS, Air Traffic Control line-of-sight, or aircraft movement areas. This alternative could be developed with airfield access that provides secure airside operations. This alternative site could be developed utilizing perpendicular aprons to the airfield. This alternative meets this screening criterion.

*Use of existing airport property not identified for current or future passenger commercial service uses*

This alternative site has been planned, designed, and permitted for the South Terminal Complex. The South Terminal Complex has been identified in the OIA Master Plan since May 1988. The development of the South Terminal Complex is identified on the FAA approved 2005 ALP, has been subject to NEPA review (OIA South Terminal Complex Final EA FONSI/ROD August 4, 1998) and has been incorporated into the airport's local development order (known as the South Terminal Complex DRI approved by the Orlando City Council November 2, 1998. The South Terminal Complex has been permitted by the USACE and SFWMD and all wetland mitigation requirements associated with those permits have been completed off-site. This alternative does not meet this screening criterion.

*Parcel has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned).*

This alternative has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned). This alternative meets this screening criterion.

*Parcel would not impact existing environmental areas protected by dedicated conservation easements or restrictions or used as mitigation for prior airport projects*

This alternative site does not include existing environmental areas protected by dedicated conservation easements or restriction. There are no mitigation areas associated with prior airport projects located within this alternative site. This alternative meets this screening criterion.

#### **4.4.2.5 Alternative 5, Heintzelman Boulevard Area**

*A large contiguous area capable of accommodating a single large scale, high intensity aviation use or multiple large scale aviation uses.*

This site comprises approximately 620 acres of non-contiguous acres. This alternative site is bisected north to west by Heintzelman Boulevard (a public road). This alternative does not meet this screening criterion.

*Parcel has direct or future planned direct access to a major air carrier runway (a minimum of a 9,000 foot runway)*

This alternative site has future planned direct access to Runway 17L/35R (9,000 feet in length) and Runway 17R/35L (10,000 feet in length). This alternative meets this screening criterion.

*Increases and diversifies OIA revenue*

The development of this site with the proposed action would require relocation of planned commercial passenger service support uses (see "would not disrupt or impact existing or

planned airport development areas” screening criteria discussion below), possible relocation of Runway 17L/35R, or limited building development due to ATCT line-of-site and FAR Part 77 surfaces (see “meet FAA standards, provide for safe and efficient use of airport property” screening criteria discussion below). The cost to relocate planned uses, possibly relocate a runway or restrain development potential of this site would not increase and diversify OIA revenue. This alternative does not meet this screening criterion.

*Would not disrupt or impact existing or planned airport development areas*

This alternative has approximately 440 acres that is currently undeveloped. The southern half of this alternative’s undeveloped area (south of Taxiway F) has been designated and permitted for the South Terminal Support Area. This area was identified in the South Terminal Complex EA (approved in 1998). This southern portion of the alternative has also been included in the South Terminal Complex DRI (approved by the Orlando City Council November 2, 1998) as “Midfield Area” and “South Midfield Area” with designated uses for commercial passenger service support. These uses include support facilities for cargo, food preparation and flight kitchens, as well as GOAA support facilities, aviation related support uses for OIA employees, rental car facilities offices, warehouse and distribution, future employee parking facilities and aircraft maintenance, and repair facilities. This alternative does not meet this screening criterion.

*Consistency with local land use plans (designated for aviation uses)*

This alternative site is designated for aviation uses for City of Orlando zoning and FLUM designation. This alternative meets this screening criterion.

*Meet FAA standards, provide for safe and efficient use of airport property*

Any development at OIA or in the nearby vicinity will need to comply with FAA safety and design standards to avoid the potential to negatively impact the safe and efficient operation of the airport. Specific to safety, the following items were analyzed for each alternative (see Section 2.4.3 for details on the listed items):

- FAR Part 77, Objects Affecting Navigable Airspace,
- FAA Order 8260 Terminal Instrument Procedures or TERPS
- Air Traffic Control line-of-sight
- Aircraft movement areas include runways, taxiways and apron areas that facilitate the movement of aircraft. These areas have specific design criteria defined by the FAA to ensure the safe and efficient movement of aircraft while arriving/departing or transiting the airfield.
- Protection of NAVAID critical areas
- Development of facilities with airfield access at a commercial service airport requires that a secure airside operation can be maintained.

Related to efficient use of airport property, each alternative was evaluated to ensure that development could support aircraft aprons that would be developed perpendicular to the airfield.

This strategy offers the opportunity for more apron frontage in support of aviation uses (see Section 2.4.3).

Due to its location between the two runways, this site has significant development constraints. First, buildings and parked aircraft on the site would be limited in height by the 7:1 transitional surfaces for both runways as outlined in Federal Aviation Regulation (FAR) Part 77, "Object Affecting Navigable Airspace."

Second, buildings or parked aircraft located east of Heintzelman Boulevard would be significantly limited in height so as not to impact air traffic control tower line of sight to the easternmost runway or its adjacent taxiway. In order for air traffic control to safely manage the movement of aircraft on the ground, it must be able to view all areas of the airfield. This is only a concern for alternatives with development between the tower and the location of a runway.

Appendix D provides a number of exhibits that graphically depict the height limitations between Runway 17R-35L and Runway 17L-35R. West of Heintzelman Road, structures of 70 feet along the road to more than 100 feet near Runway 17R-35L could be configured so as to not obstruct line of sight to Runway 17L-35R or its parallel taxiways. However, to the east of Heintzelman Road the heights are much more restricted. This area is limited to only 10 feet in the near proximity of the parallel taxiways located to the east and just over 40 feet closer to the road. Potential line of sight problems include building structures, antennas, cooling units or other appurtenances located on top of buildings, parked aircraft, light poles, etc. To ensure adequate line of sight, much of the area to the east of the roadway would be limited to a single story or automobile parking.

This alternative could be developed with airfield access that provides secure airside operations. For efficient use of airport property, this alternative cannot accommodate perpendicular development due to narrow shape of the alternative area and the fact that it is bisected north to south by a public road, Heintzelman Boulevard. This alternative does not meet this screening criterion.

*Use of existing airport property not identified for current or future passenger commercial service uses*

As described above, the southern portion of this alternative site has been identified for future passenger commercial service support uses. This area was identified in the South Terminal Complex EA (approved in 1998). This southern portion of the alternative has also been included in the South Terminal Complex DRI (approved by the Orlando City Council November 2, 1998) as "Midfield Area" and "South Midfield Area" with designated uses for commercial passenger service support. These uses include support facilities for cargo, food preparation and flight kitchens, as well as GOAA support facilities, aviation related support uses for OIA employees, rental car facilities offices, warehouse and distribution, future employee parking facilities and aircraft maintenance, and repair facilities. This alternative does not meet this screening criterion.

*Parcel has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned).*

This alternative has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned). This alternative meets this screening criterion.

*Parcel would not impact existing environmental areas protected by dedicated conservation easements or restrictions or used as mitigation for prior airport projects*

This alternative site does not include existing environmental areas protected by dedicated conservation easements or restriction. There are no mitigation areas associated with prior airport projects located within this alternative site. This alternative meets this screening criterion.

#### **4.4.2.6 Alternative 6, Mud Lake**

*A large contiguous area capable of accommodating a single large scale, high intensity aviation use or multiple large scale aviation uses.*

This alternative site is approximately 1,505 contiguous acres. It should be noted that this site includes undeveloped areas including wetlands, Mud Lake (in its entirety), and uplands. This alternative meets this screening criterion.

*Parcel has direct or future planned direct access to a major air carrier runway (a minimum of a 9,000 foot runway)*

This alternative site is on OIA property approximately ½ mile south of Runway 17R-35L (10,000 feet in length). This site is south of Heintzelman Blvd (a public road). There is no direct or future planned direct access from this alternative site to Runway 17R-35L. This alternative does not meet this screening criterion.

*Increases and diversifies OIA revenue*

In order to develop this site for the proposed project, GOAA would need to vacate and mitigate impacts to the existing 1,083 acres of area under conservation easement (SFWM) (see Figure 4.3-12 for location of conservation easements). The cost of mitigating the removal of this conservation easement and to fill the site to make it developable makes the development of this alternative impracticable. This alternative does not meet this screening criterion.

*Would not disrupt or impact existing or planned airport development areas*

The development of the proposed action on this site would not disrupt or impact existing or planned airport development areas. This alternative meets this screening criterion.

*Consistency with local land use plans (designated for aviation uses)*

As stated above, the majority of this site (1,083 acres) is designated as conservation easement. The development of the proposed project on this site would not be consistent with local land use plans. This alternative does not meet this screening criterion.

**Meet FAA standards, provide for safe and efficient use of airport property**

Any development at OIA or in the nearby vicinity will need to comply with FAA safety and design standards to avoid the potential to negatively impact the safe and efficient operation of the airport. Specific to safety, the following items were analyzed for each alternative (see Section 2.4.3 for details on the listed items):

- FAR Part 77, Objects Affecting Navigable Airspace,
- FAA Order 8260 Terminal Instrument Procedures or TERPS
- Air Traffic Control line-of-sight
- Aircraft movement areas include runways, taxiways and apron areas that facilitate the movement of aircraft. These areas have specific design criteria defined by the FAA to ensure the safe and efficient movement of aircraft while arriving/departing or transiting the airfield.
- Protection of NAVAID critical areas
- Development of facilities with airfield access at a commercial service airport requires that a secure airside operation can be maintained.

Related to efficient use of airport property, each alternative was evaluated to ensure that development could support aircraft aprons that would be developed perpendicular to the airfield. This strategy offers the opportunity for more apron frontage in support of aviation uses (see Section 2.4.3).

This alternative does not have a negative impact on FAR Part 77, TERPS, Air Traffic Control line-of-sight, or aircraft movement areas. This alternative could be developed with airfield access that provides secure airside operations. For efficient use of airport property, this alternative could be designed to accommodate the development of aircraft aprons perpendicular to the airfield. This alternative meets this screening criterion.

**Use of existing airport property not identified for current or future passenger commercial service uses**

This alternative site is not identified for current or future passenger commercial service uses. This alternative meets this screening criterion.

**Parcel has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned).**

This alternative has access to major regional transportation infrastructure, including state and interstate highways and rail facilities (existing or planned). This alternative meets this screening criterion.

**Parcel would not impact existing environmental areas protected by dedicated conservation easements or restrictions or used as mitigation for prior airport projects**

The development of the proposed project on this alternative site would impact existing environmental areas protected by dedicated conservation easements that were utilized as mitigation for prior airport projects. Currently, the site has a conservation easement recorded in the public records of Orange County that restricts the use approximately 1,083 acres leaving approximately 422 acres available for development. The conservation easement is recorded in favor of deeded to the South Florida Water Management District. This conservation easement was required in partial fulfillment of mitigation requirements for wetland impacts associated with the 4th Runway/Midfield Project (1990).

During the alternatives screening analysis, seven (7) of the nine (9) alternatives were removed from further consideration because they were found to be not reasonable based on the project's purpose and need, feasible, or did not achieve the project's purpose. Table 4.4-1 provides a summary of the screening analysis (see section 4.4.3).

Alternative Off (1) "Lake Nona" only met one of the primary screening criteria which was that it had a large contiguous area capable of accommodating multiple large scale aviation and aviation support development parcels (Lake Nona has approximately 1,000 acres of contiguous land area). This alternative did not meet the primary screening criteria listed below:

- Does not have feasible airfield access;
- Does not have access to a 9,000 foot runway (minimum length);
- Would not only increase and diversify revenue at OIA after significant expenditure for purchase of privately held property;
- Would not be consistent with local land use plans;
- Would not provide for safe and efficient use of airport property and would require significant development of supporting infrastructure. Would not meet FAA safety and efficiency requirements.

In addition, this alternative is privately owned, has existing development (including residential), and would be costly to purchase. This alternative is not considered reasonable and was eliminated from further consideration.

Alternative Off (2) "Orlando Executive Airport" was included in the alternatives investigation because the parcel undeveloped areas at the airport could have direct airfield access and is are designated as aviation use in local land use plans. However, this alternative was eliminated from further consideration due to the unavailability of contiguous acreage of a size to accommodate multiple parcels of large scale Aviation Uses (there is approximately 100 acres of non-contiguous land available). Additionally, due to physical barriers, runway lengths could not be extended to accommodate larger aircraft that could be associated with the Aviation Use development. This alternative did not meet the primary screening criteria listed below:

- Does not have a parcel size of approximately 1,000 contiguous acres large contiguous area for development of large scale aviation use.

Comment [VL71]: Revise.

Comment [sbb72R71]: Table has been revised to reflect the revised screening criteria.

Comment [VL73]: Not exactly per the 4.3.1 description. Need to explain why it is not feasible.

Comment [sbb74R73]:

Comment [VL75]: DITTO above

Comment [sbb76R75]:

Comment [VL77]: It would if per 4.3.1 the airport acquired the property and extended a taxiway to the area.

Comment [sbb78R77]:

Comment [VL79]: Why? Is it because the parcel is too far apart from the airfield? Please explain or provide more information in earlier discussion of alternative.

Comment [sbb80R79]:

Comment [VL81]: This is not explained in 4.3.1.

Comment [sbb82R81]:

- Does not have access to a 9,000 foot runway (minimum length);
- Would not increase and diversify revenue at OIA;
- Would disrupt existing airport development areas
- Would not meet FAA safety and efficiency requirements require significant development of supporting infrastructure (runway and taxiway development).

Finally, the site currently has non-commercial service aviation and aviation support structures and operations that would be displaced have to be demolished to accommodate several parcels of large scale Aviation Uses. This alternative is not considered reasonable and was eliminated from further consideration. This alternative was eliminated from further consideration.

Alternative 2, East Airfield Development Area Concept A, has the same impact footprint as Alternative 3, East Airfield Development Area Concept B. However, Alternative 2 was eliminated from further consideration after public input was received regarding the location of the fuel farm in close proximity to the residential areas and the desire to establish a land use buffer to residential areas south of the site. Alternative 3 was developed to specifically address these changes. Because all other impacts would be identical relative to the two alternatives and Alternative 3 was superior relative to the community concerns, Alternative 2 was eliminated from further consideration.

Comment [VL83]: Provide a discussion of this.

Comment [sbb84R83]:

Comment [VL85]: Need to include a discussion of the No Action Alternative and how it fails to meet all the screening criteria?

Comment [sbb86R85]:

Comment [VL87]: There should be a discussion of how Alternative 3 meets (or fails to meet) the screening criteria.

Comment [sbb88R87]:

Comment [VL89]: Alternative 2, Concept A should not be dismissed. First, the reason for dismissal is based on community concerns. This does not fit into our screening criteria. Second, removing an alternative that was discussed in detail in the Draft EA from the Final EA is very problematic (assuming this is what happened, it is difficult to tell based on the discussion), regardless of the circumstances. If Alt. 2 and Alt. 3 are exactly the same from an environmental perspective then, couldn't the alternatives be discussed together? The Environmental Consequences chapter could open up with a discussion explaining that these are the same alternatives with a couple of minor exceptions and have the same environmental consequences and will be discussed together. Then, the sections could be revised to treat the alternatives together.

Comment [sbb90R89]:

4.4.3 Summary Table of Alternatives Analysis

Comment [VL91]: Revise.  
Comment [sbb92R91]:

TABLE 4.4-1  
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS

Screening Item	Alt-Off 1 Lake Nona	Alt-Off 2 OEA	Alt-1 No-Action	Alt-2 East-Airfield Concept-A*	Alt-3 East-Airfield Concept-B	Alt-4 Tradeport	Alt-5 South Terminal	Alt-6 Heintzelman Blvd	Alt-7 Mud-Lake
Parcel size of approximately 1,000 contiguous acres.	X			X	X	X	X		X
Parcel has direct or future-planned airfield access.		X		X	X	X	X	X	
Parcel has access to necessary infrastructure to support large-scale aviation development (a minimum of a 9,000-foot runway).				X	X	X	X	X	
Increases and diversifies OIA revenue without disrupting or impacting existing or future-planned airport revenue-generation areas (identified on the current ALP).				X	X			X	X
Consistency with local land use plans (designated for aviation uses)		X		X	X	X	X	X	
Meets FAA standards and provide for safe and efficient use of airport property				X	X	X	X	X	
Use of existing airport land not needed currently or in the future for commercial passenger service		X		X	X	X		X	X
Parcel has access to major transportation infrastructure, including state and interstate highways and rail facilities (existing or planned)				X	X	X	X	X	
Environmental Constraints—Potential to adversely affect natural resources, fish and wildlife (none, low, medium, or high—described in section 4.4.1)	medium	low		medium	medium	low	low	low	high

An "X" indicates that the alternative meets the screening criteria.  
a—Alternative 2 was eliminated from further consideration due to community concerns.  
SOURCE: ESA Airports, 2009

~~Alternative 4, Tradeport Area~~ was eliminated from further consideration because it ~~would substantially disrupt or impact existing or planned airport development areas, and disrupt existing airport revenue streams.~~ did not meet the primary screening criteria of increasing and diversifying revenue generation without disrupting or impacting existing or future planned airport revenue generation. This alternative would impact numerous existing businesses and facilities and would require demolition and reconstruction to support large scale Aviation Uses in this area. While the alternative is consistent with local land use plans, the remaining undeveloped property in the Tradeport area ~~is not contiguous (60 acres on the north, 65 acres on the south, and 15 acres in the central portion of the area), and consists predominately of infill parcels that are inadequate to support large scale aviation uses.~~ Impacts to the existing revenue stream resulting from impacts to existing Tradeport tenants are counter to primary screening criteria in the purpose and need. ~~This alternative is not considered reasonable and was eliminated from further consideration.~~ This alternative was eliminated from further consideration.

~~Alternative 5, South Terminal Area~~ was eliminated from further consideration because it did not meet the primary screening criteria of increasing and diversifying revenue generation without disrupting or impacting existing or future planned airport revenue generation ~~would substantially impact planned airport development areas that have already undergone NEPA review and obtained ALP approval.~~ This alternative site has already been planned, designed, and permitted for commercial passenger service uses and thus, was eliminated from further consideration. The future south terminal complex has been planned for in the OIA Master Plan, received environmental clearance (FAA unconditional approval on the current 2005 OIA ALP), and environmental impacts have already been mitigated. Alternative 5 is not considered a prudent alternative in light of ~~because of~~ the future needs for commercial passenger service facilities at OIA. ~~This alternative is not considered reasonable and was eliminated from further consideration.~~ This alternative was eliminated from further consideration.

~~Alternative 6, Heintzelman Boulevard~~, was eliminated from further consideration because it did not meet the primary screening criteria of having a ~~large contiguous area capable of accommodating large scale aviation and aviation support use.~~ parcel size of approximately 1,000 contiguous acres. ~~Although this area has XXX acres of undeveloped land, due to its location between two runways, it has significant development constraints.~~ This alternative did not have 1,000 usable acres available for large scale Aviation Uses due to the constraints on development imposed by ~~based on~~ air traffic control line of site requirements and FAR Part 77 height restrictions. ~~These constraints would limit the height of buildings and thus the ability of the site to provide for large scale development to meet the purpose and need.~~ Additionally, ~~Alternative 6 provides considerably less contiguous land area than any of the other alternatives, restricting the types and flexibility of Aviation Use facility development and overall revenue enhancement thus, not meeting a primary screening consideration for the purpose and need.~~ ~~This alternative is not considered reasonable and was eliminated from further consideration.~~

This alternative was eliminated from further consideration.

Comment [VL93]: Need to look at this alternative again after consultant provides additional input per comments in section 4.3.2

Comment [sbb94R93]:

Comment [VL95]: This doesn't seem consistent with the screening criteria.

Comment [sbb96R95]:

Comment [VL97]: Any of the other alternatives? Not exactly. Also, information in 4.3.2 is not provided or else not clear regarding what amount would be available for development.

Comment [sbb98R97]:

~~Alternative 7, Mud Lake, was eliminated from further consideration because it did not meet the following primary screening criteria:~~

- ~~• Does not have feasible airfield access;~~
- ~~• Does not have access to a 9,000-foot runway (minimum length);~~
- ~~• Would not be consistent with local land use plans;~~
- ~~• Would impact an existing environmental area protected by dedicated conservation easements or restrictions and used as mitigation for prior airport projects~~
- ~~• Would not meet FAA safety and efficiency requirements.~~

~~Additionally, it has a high potential to have adverse affects on natural resources, fish and wildlife, and its present use. This area is as an existing mitigation area which has been impressed with a recorded 1,000 acres conservation easement, required in partial fulfillment of mitigation of wetland impacts associated with a prior approved OIA project.~~

~~Although not a screening criteria, Alternative 7 would have the largest amount of substantially greater wetland impacts when compared to the other on-site alternatives Proposed Action (Alternative 3). Approximately 639 acres of USACE wetland impacts would be required if Alternative 7 would be developed to meet the purpose and need compared to 245 acres of USACE wetland impacts for the Proposed Action. In addition, Alternative 7 could require the filling of up to 240 acres of Mud Lake. It is unlikely that the sponsor would be able to obtain the necessary governmental permits authorizing these wetland impacts or the filling of Mud Lake. This alternative is not considered reasonable and was eliminated from further consideration. This alternative was eliminated from further consideration.~~

**Comment [VL99]:** Is there any vacant area that would be developable after subtracting out the 1,000 acre mitigation area and 240 acre Mud Lake (or is this part of the 1,000 acre).

**Comment [sbb100R99]:**

**Comment [VL101]:** Not exactly per 4.3.2. Explain why this is not feasible.

**Comment [sbb102R101]:**

**Comment [VL103]:** Ditto above.

**Comment [sbb104R103]:**

#### 4.4.4. Alternatives Retained After **Primary and Secondary** Screening

Following the ~~secondary~~ screening analysis, **Alternative 3-2 - East Airfield Development Area Concept B** was retained for further analysis and is considered the Airport Sponsor's **Preferred Alternative**. Except for the No Action Alternative (~~Alternative 1~~), all other alternatives were eliminated from further consideration. Although the No Action Alternative does not meet the purpose and need ~~or screening criteria~~, as mentioned previously, it is retained for further environmental analysis as it provides a baseline for comparative purposes to fulfill FAA's responsibility under NEPA and the CEQ Guidelines.

### 4.5 Preferred Alternative

As a result of this analysis, Alternative 3-2, ~~Concept Beast Airfield Development Area~~, is identified as the Preferred Alternative for implementation of the Proposed Action. The following land uses are included as part of the 1,325 acre site for Alternative 3-2 (details can be reviewed in Section 3.0):

- Approximately 600 acres of high intensity airport support facilities with direct airfield access including taxiways, aircraft parking apron, and airfield lighting
- Approximately 115 acres of medium intensity aviation support facilities which creates a land use buffer to the south of the project
- An approximate 30 acre site for a fuel farm facility in the northern portion of the project
- Approximately 200 acres of stormwater treatment facilities and drainage facility improvements
- Additional acreage for taxiways and transportation infrastructure internal to the project, for project egress and ingress from surrounding transportation systems, development setbacks, and landscaping, and open space, etc (see section 3.0 for acreage details).
- Off-site wetland mitigation (see section 6.20 for off-site wetland mitigation discussion).

## 4.6 Consistency with the USACE Permit Application Alternatives

The Sponsor has submitted an application to the United States Department of Army, Corps of Engineers (USACE) for authorization under 33 U.S.C. Section 1344 to discharge dredged or fill material to “waters of the United States” associated with the construction of the Proposed Action (see Appendix 4-A “USACE Application”). The Sponsor’s application, USACE Application No. SAJ-2006-2640 (IP-JSC), is presently pending before the USACE pending the completion of FAA NEPA review of the Proposed Action. The preferred alternative selected through the NEPA process is consistent with the results of the practicable alternatives analysis undertaken by GOAA as required the Section 404(b)(1) Guidelines adopted in 40 C.F.R. Section 230.10. The application of the screening criteria produced results similar to the conclusion of the alternatives analysis prepared by the Sponsor as part of the September 2006 USACE Application (USACE) (SAJ 2006 2640 IP JSC) for authorization under 33 U.S.C. Section 1344 to discharge dredged or fill material to “waters of the United States” associated with the Proposed Action. According to the Section 404(b)(1) Guidelines promulgated by the U.S. Environmental Protection Agency, no discharge of dredged or fill material to waters of the United States shall be permitted where there is a practicable alternative which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. Under the Section 404(b)(1) Guidelines, an alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If an alternative is otherwise practicable, it may be considered even if it is not presently owned by the applicant provided that it could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose.

The Sponsor determined development feasibility was a significant factor in site selection concluding the site must be of sufficient size to accommodate the scale and logistics of the large-scale aviation facilities and aviation related uses. For purposes of the Section 404(b)(1) Guidelines, a parcel with approximately 1,000 developable acres would accommodate all federal, state, and local permitting requirements for a development of this scope and correlate to necessary economies of scale. The

Sponsor also determined the site must have land use designations allowing development of the large-scale aviation facilities, aviation support, and other aviation related facilities. In addition, the Sponsor concluded use of the site as a major aviation facility must be consistent with applicable federal, state, and local airport operational requirements. Further, the Sponsor determined the site must be available and be free of constraints that would preclude the proposed development.

In evaluating potential sites for acquisition and development, therefore, the Sponsor considered a variety of factors, including:

- Location;
- Size;
- Direct access to existing Airport flight operations;
- Access to major transportation infrastructure, including state and interstate highways and rail facilities;
- Access to the Airport property's service areas and internal secure road network to facilitate the free flow of goods and services within the secure Airport Property;
- Land use and zoning designations;
- Compatibility with Airport operations and surrounding land uses;
- Consistency with federal, state, and local airport operations laws and regulations;
- Environmental conditions; and
- Site availability and cost considerations.

The Sponsor concluded that there was no off-site practicable alternative available and capable of being developed after taking into consideration cost, existing technology, and logistics in light of overall project purposes. [A copy of USACE Application No. SAJ-2006-2640 \(IP-JSC\) is attached in Appendix 4-A2B](#)

**Comment [VL105]:** This section should come out or be re-written; see comment below;

**Comment [sbb106R105]:** See revised text

**Comment [VL107]:** We will need to have documentation in the EA to support a finding that there is no practicable alternative. This section as written does not support a finding.

**Comment [sbb108R107]:** See revised text. A new Appendix item has been added to provide a copy of the USACE Application information. For the purposes of the response submittal, the appendix item is named "Appendix 2B USACE Application." During the production of the Final EA, this appendix will be re-lettered to follow the alphabetical order.

**Comment [sbb41R40]:** The South Terminal Complex will be developed incrementally over time based on actual airline demand. The initial construction is anticipated to begin in the northwest portion of the South terminal Complex area and will include a 24 gate airside, connecting taxiways, access roadways, infrastructure and related support facilities necessary to support the initial complex. In 2007, GOAA prepared a capacity analysis of the North Terminal Complex which analyzed the capacity of various elements of the existing terminal. Examples of these elements included, roadways, gates, ticket counters, baggage systems, security, Automated People Movers etc. The results of this study indicated that the effective capacity of the North Terminal Complex is approximately 45 Million Annual Passengers (MAP). It is anticipated that construction of the South Terminal Complex will begin on or before the effective capacity of the North Terminal is reached and once sufficient airline lease commitments are in place.

**Comment [VL42]:** Discuss the large areas on the south site of the terminal complex that are designated “south terminal support” and why this is not appropriate for large scale aviation development and aviation support.

**Comment [sbb43R42]:** The “south terminal support” area identified as part of the South Terminal Complex Final EA August 4, 1998) consists strictly of support services for commercial air service related uses. The EA document includes the following uses in the “support areas:” infrastructure, catering, cargo handling, waste disposal, GOAA support facilities, employee parking and public parking facilities, rent-a-car maintenance facilities, federal inspection services, airport related warehouse and distribution support uses, aircraft maintenance and repair and support infrastructure. These are facilities that need to be in close proximity of the south terminal.

**Comment [VL44]:** Has there been any construction? This would make the dismissal of the alternative later in the section stronger.

**Comment [sbb45R44]:** Yes. Portions of the site has undergone clearing , grubbing, and fill activities (site prep work) and GOAA has constructed a portion of the surface water management system for the site. Over 300 million dollars has been invested in this site to date for the development of the South Terminal Complex.

**Comment [sbb51R50]:** Architectural and Engineering plans have been completed for the South Terminal buildings and infrastructure.

**Comment [VL52]:** What is planned for this area, identified as South Terminal Support Area? Figure 4.3.10 already identified areas for “south terminal support”. What document designates and permits this area for “South Terminal Support”? This use is not designated on the current or updated ALP.

So are you saying that only 180 acres is available for development because 440 acres is designated for this vague “South Terminal Support Area”?

**Comment [sbb53R52]:** The “south terminal support” area identified as part of the South Terminal Complex Final EA August 4, 1998) consists strictly of support services for commercial air service related uses. The EA document includes the following uses in the “support areas:” infrastructure, catering, cargo handling, waste disposal, GOAA support facilities, employee parking and public parking facilities, rent-a-car maintenance facilities, federal inspection services, airport related warehouse and distribution support uses, aircraft maintenance and repair and support infrastructure. These are facilities that need to be in close proximity of the south terminal.

The total acreage for Alternative 6 is 620 acres. Of that 620 acres, 440 is designated and permitted as South Terminal Support Area. There is approximately 180 acres north of taxiway F that is undeveloped and available. However, this area is constrained by FAR Part 77 surfaces and ATCT line of sight limitations (see Appendix reference for analysis)

**Comment [VL54]:** There is no discussion in P& N or Proposed Project regarding the height of anticipated buildings/development or parked aircraft.

**Comment [sbb55R54]:** Section 3.3 Proposed Action, the following text was added: “The plan also includes the flexibility to serve a full range of aircraft types (e.g. aircraft parking, taxiway/taxi lane sizing, and hangar or manufacturing facilities for a variety of building sizes and heights).” In the Purpose and Need , height and line of sight restrictions are discussed in Section 2.4.3.

**Comment [VL58]:** Why isn’t this being looked at for other alternatives?