

*Preliminary Draft
For Discussion Purposes Only*

DISCUSSION OUTLINE

JUNE 17, 2003

**Prepared by
Ricondo & Associates, Inc.**

AGENDA

- I. INTRODUCTION
- II. BACKGROUND
- III. ELEMENTS OF ALP PROOF OF CONCEPT
- IV. ALP CONCEPT – OPTION 5A
- V. ALP CONCEPT – OPTION 5B
- VI. ALP CONCEPT – OPTION 5C
- VII. NEXT STEPS

I. INTRODUCTION

1. On November 26, 2002 the Federal Aviation Administration (FAA) Air Traffic Working Group introduced an enhancement to the O'Hare Modernization Program (OMP) Airport Layout Plan (ALP) that included a new runway oriented approximately 12/30, to address concerns relating to departure capacity and runway crossings in the IFR-East runway configuration. In December 2002 the FAA Great Lakes Region requested that the City withhold further comments and review of the 12/30 runway until the FAA had an opportunity to conduct an internal review.
2. On December 23, 2002, the City submitted a draft ALP package to the FAA Great Lakes Region.
3. On May 2, 2003, the FAA requested that the City consider and evaluate the option of adding to the ALP a runway oriented 12/30 on the south airfield, to facilitate balanced inbound/outbound traffic flows under specific airfield conditions.
4. On May 6, 2003, the City met with FAA – Air Traffic Division to discuss methodology and protocols associated with FAA's formal request that the Chicago Department of Aviation (DOA) analyze two alternatives developed by a FAA, Air Traffic Division Working Group.
5. On May 21, 2003, the FAA Great Lakes Region provided comments to the City on the draft ALP package.
6. This meeting is intended to review the status of analyses relative to the runway 12/30 alternatives. For purposes of these analyses, the 12/30 runway concept is being evaluated as two distinct alternatives. Alternative 5B considers the addition of the 12/30 runway as a supplemental runway to those depicted previously in the draft ALP. Alternative 5C considers the 12/30 runway as a replacement for the southern most runway depicted in the draft ALP.

II. BACKGROUND

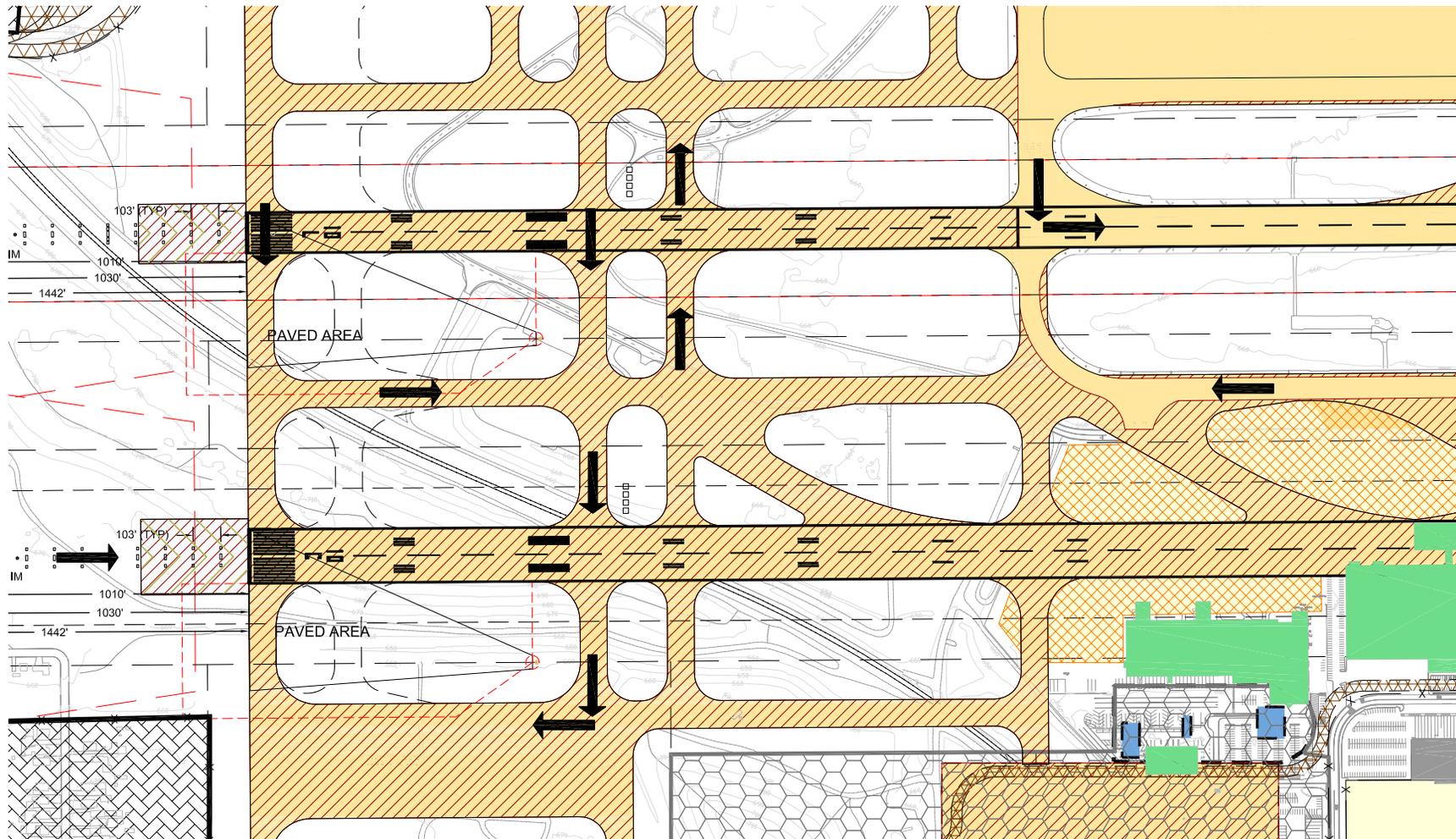
1. As illustrated in **Exhibit 1 - "FUTURE AIRPORT LAYOUT PLAN"**, the draft ALP facilitates three arrival and three departure runways with a six east-west runway configuration.
2. In an east runway configuration, it is envisioned that arrivals will occur on Runways 9L, 9C and 10C and departures on Runways 9R, 10L and 10R.
3. The FAA, Air Traffic has provided for "Proof of Concept", two ALP alternatives that are intended to reduce the number of runway crossings and enhance departure capacity during an IFR-East operating configuration.

III. ELEMENTS OF ALP PROOF OF CONCEPT

- 1. ALP Concept Drawings**
2. Operational Performance
3. Cost Estimates
4. Land Estimates
5. Compatibility with Other Transportation Plans

IV. ALP CONCEPT - OPTION 5A

1. **Exhibit 2 - “Future Airport Layout Plan – Option 5A”** illustrates refinements to the draft ALP identified in conjunction with the Total Airspace and Airport Modeller (TAAM) simulation while evaluating the IFR-East operating configuration.
2. During an IFR-East operating configuration, departures on Runway 10R will require aircraft originating from the terminal core to cross Runways 10L and 10C. It is envisioned that taxiing aircraft will cross behind intersection departures on Runway 10L and cross Runway 10C near the approach end of the runway.
3. **Exhibit 3 – “Option 5A - IFR East Flow”** illustrates a change to the draft ALP that relocates the taxiway used to cross Runway 10C. The taxiway has been relocated east of the glideslope critical area to prevent aircraft that are transiting to Runway 10R from interfering with the Runway 10C glideslope signal.
4. **Exhibit 4 – “Option 5A -VFR/IFR West Flow”** illustrates a change to the draft ALP that relocates two north-south taxiway connectors. The connectors used to cross Runway 28R at the east end of the runway have been moved further west to ensure taxiing aircraft south of Runway 28R remain clear of the Runway 28C Runway Protection Zone (RPZ).
5. **Exhibit 5 – “Option 5A South Cargo Area”** illustrates redevelopment of the South Cargo Area. This concept depicts generic facilities sized consistent with the impacted facility footprints. Actual location and layout of each facility and leasehold property will ultimately be defined through airline/tenant decisions and negotiations. A list of facilities impacted by Option 5A have been identified in **Table 1 – “Summary of Impacted Facilities - Option 5A” South Cargo Area.**
6. Additional changes to the draft ALP will be made as appropriate to address recently received FAA comments.

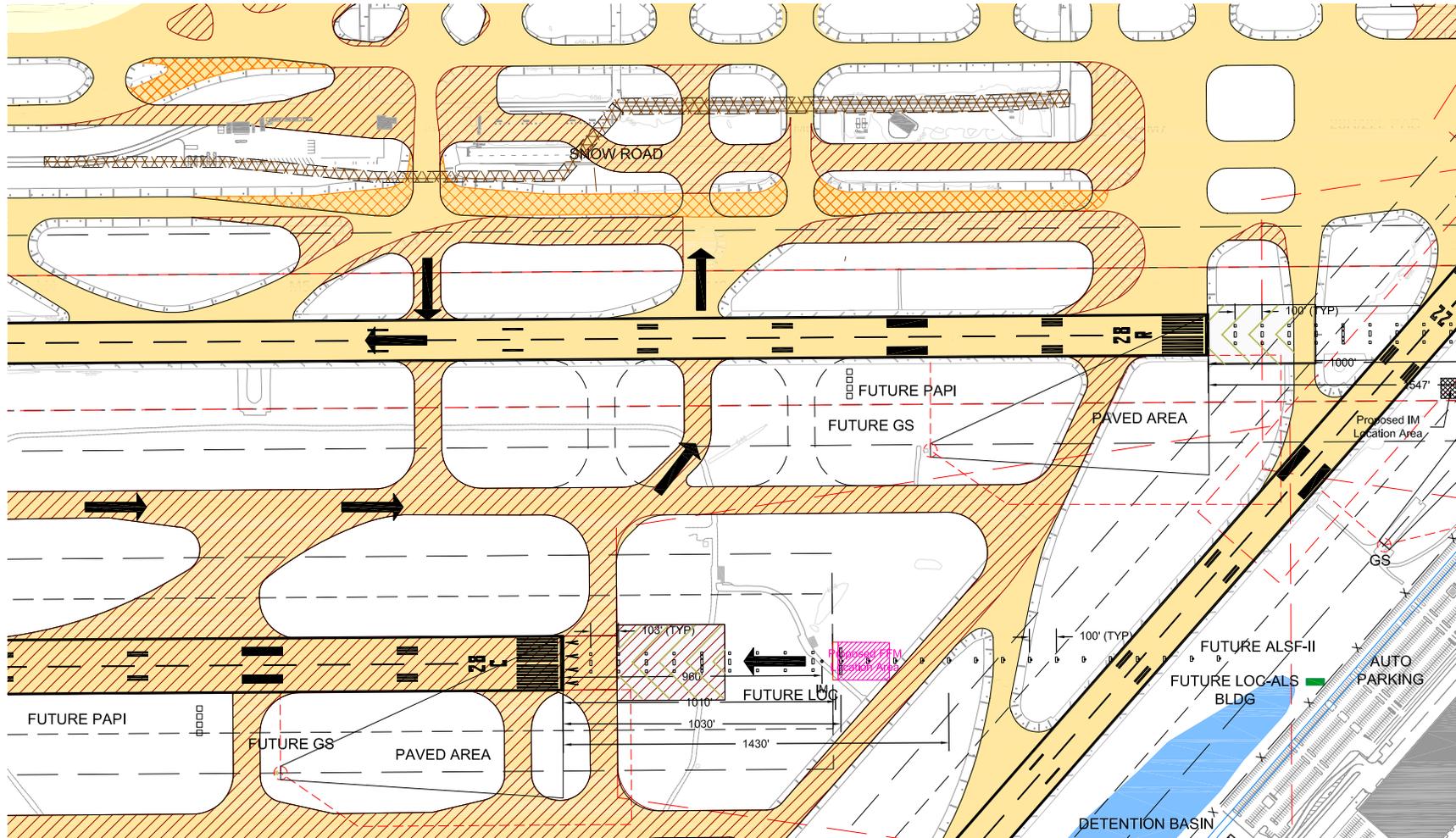


Source: Ricondo & Associates, Inc.
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Exhibit 3

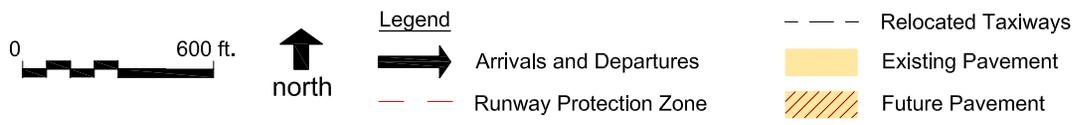


**Option 5A
IFR East Flow**



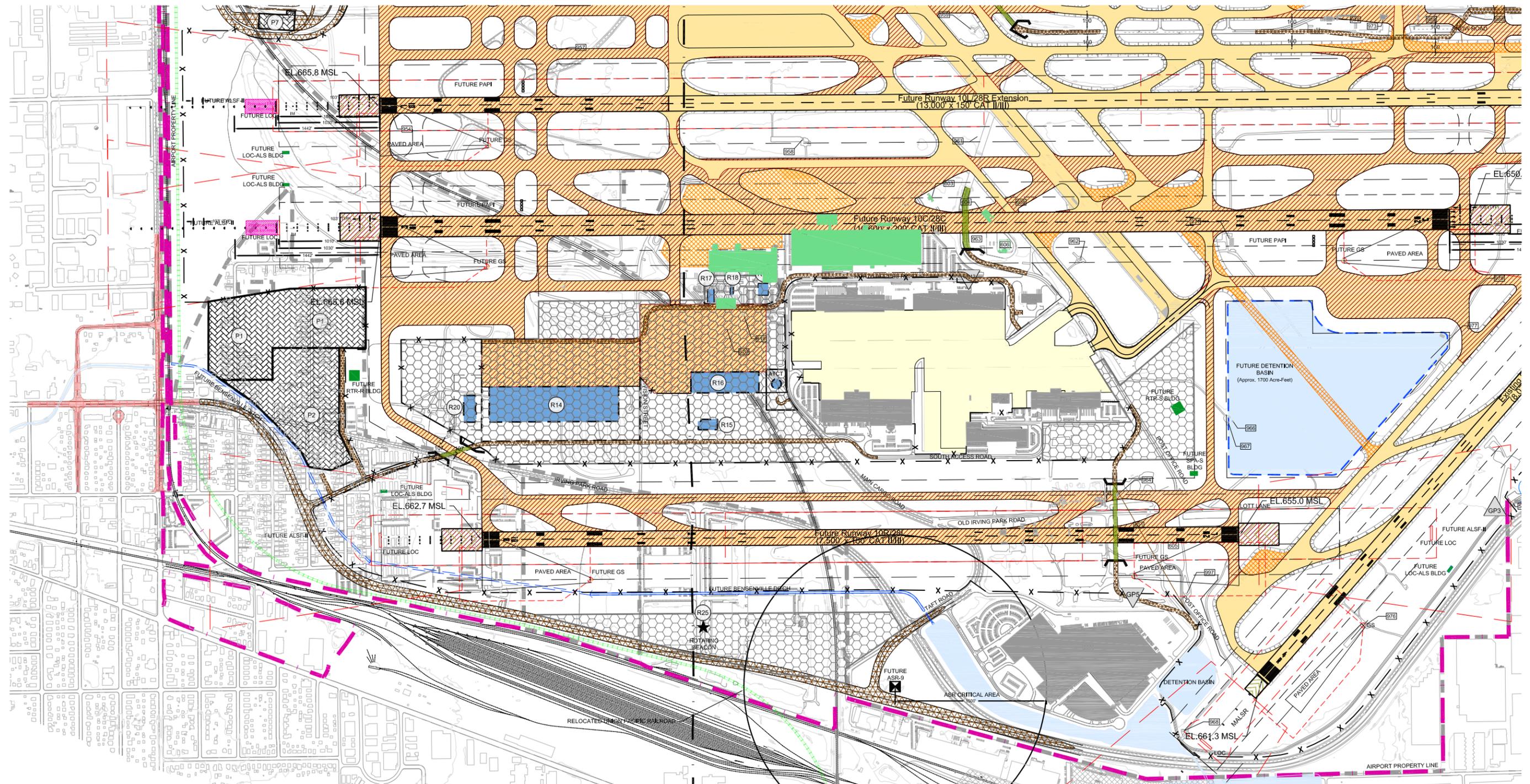
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Exhibit 4



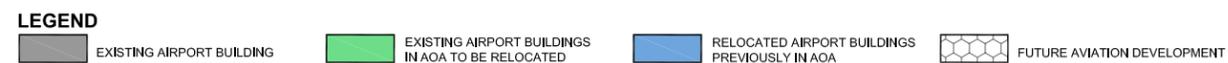
**Option 5A
VFR/IFR West Flow**

June 17, 2003



Source: Ricondo & Associates, Inc.
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Exhibit 5



Option 5A South Cargo Area

June 17, 2003

Table 1

Summary of Impacted Facilities
Option 5A

Impacted Facilities
Option 5A South Cargo Area

<u>Building Number</u>	<u>Relocated Number</u>	<u>Facility</u>	<u>Site Area (SF)</u>
601	N/A	Post #5 Guardhouse	-
603	R18	Air Cargo Simulation Property	13,800
604	R17	Lighting Utility Property	21,880
605	N/A	Post #5A Guardhouse & Property	-
606	R19	Fueling Utility Property	97,229
608	R17	Electrical Utilities Property	2,406
610	R14	United Airlines Cargo Leasehold	1,414,627
611	R16	Federal Express Metroplex	
619	N/A	Federal Express Guardhouse	1,778,110
620	N/A	Federal Express Fueling System	
621	R15	Federal Express Maintenance	
Total			3,328,052

Source: Ricondo & Associates, Inc.
Prepared By: Ricondo & Associates, Inc.

V. ALP CONCEPT - OPTION 5B

1. **Exhibit 6 – “Future Airport Layout Plan - Option 5B”** illustrates the addition to the draft ALP of a runway oriented 12/30 located on the south airfield. Runway 12/30 is planned as 150 feet wide and 9,946 feet long, The Aircraft Design Group V (ADG-V) non-precision approach “visual” runway.

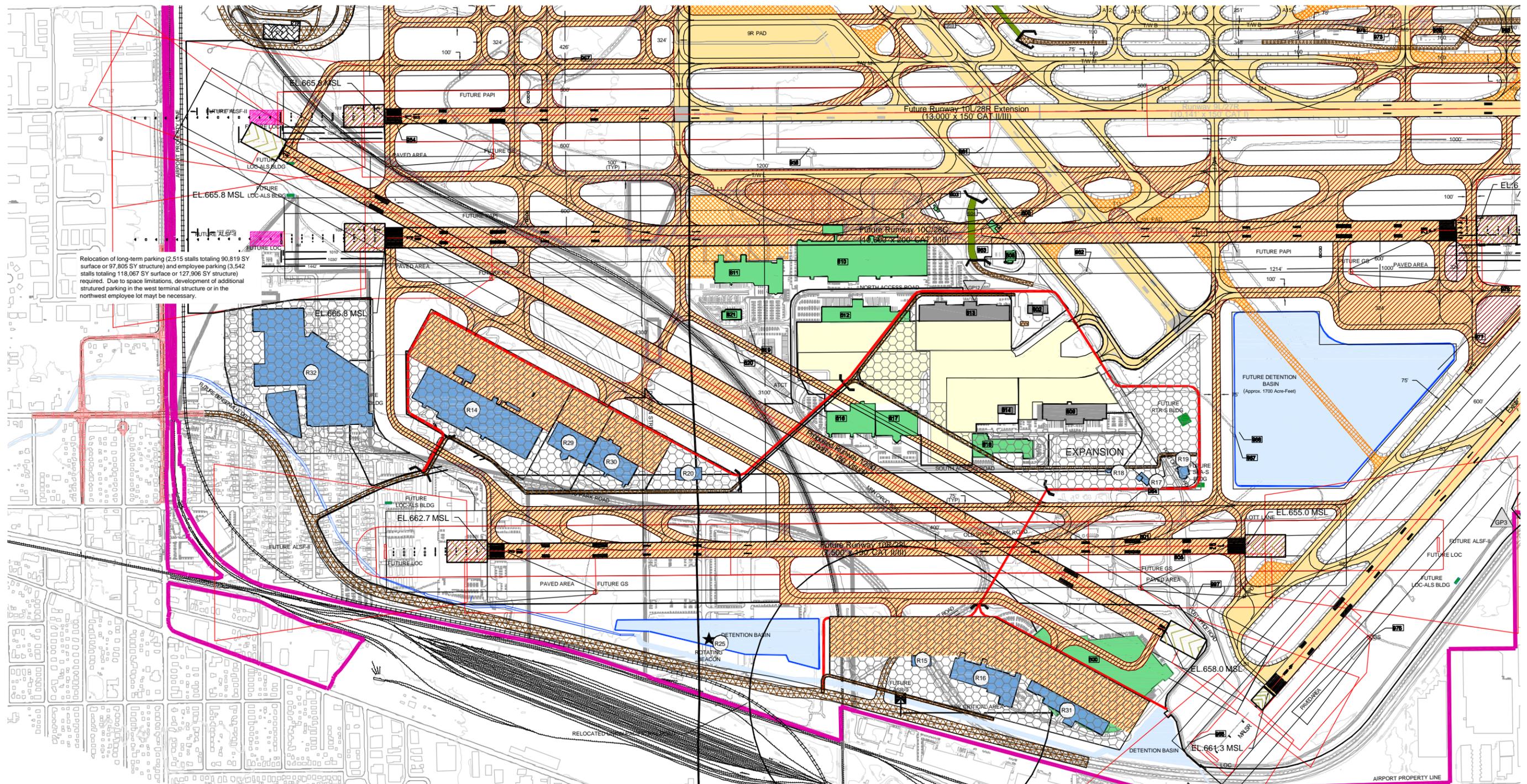
During an east-operating configuration it is envisioned that arrivals will occur on Runways 9L, 9C and 10C and departures on Runways 9R, 10L and Runway 12. Runway 10R would be used as a VFR-Quad arrival runway.

The location, length and orientation of Runway 12/30 are consistent with operational assumptions provided by the FAA Air Traffic Working Group. The location of the northwest end of the runway is fixed by a requirement that aircraft departing Runway 12 must have the ability to position and hold on Runway 12 while remaining outside the Runway 10C Runway Protection Zone (RPZ).

The placement of the southeast end of the runway was determined by a latitude and longitude provided by Chicago TRACON to ensure an aircraft departing O'Hare to the southeast would not interfere with Chicago Midway Airport arriving traffic on MDW Runway 13C.

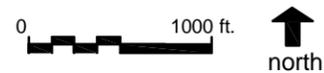
It has been assumed by the ATC Working Group that this runway would be used in the 12-direction for departures only. To maximize runway length, minimize complexities with Runways 10L, 10C and 10R, and to minimize costs, the runway is planned as a non-precision approach “visual” runway. As such, NAVAIDS (i.e., runway localizers, glideslope) and precision approach lighting systems are not planned.

2. **Exhibit 7 – “Option 5B South Cargo Area”** illustrates relocation of facilities in the South Cargo Area. This concept depicts generic facilities sized consistent with the impacted facility footprints. Actual location and layout of each facility and leasehold property will ultimately be defined through airline/tenant decisions and negotiations.
3. Although the area of relocated leaseholds have been preserved, functional adequacy of facilities has yet to be determined.



Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

Exhibit 7



LEGEND			
	EXISTING AIRPORT BUILDING		EXISTING AIRPORT BUILDINGS IN AOA TO BE RELOCATED
	RELOCATED AIRPORT BUILDINGS PREVIOUSLY IN AOA		FUTURE AVIATION DEVELOPMENT

**Option 5B
South Cargo Area**

4. A list of facilities impacted by Option 5B are identified in **Table 2 – “Summary of Impacted Facilities - Option 5B and 5C” South Cargo Area**. The area reserved for Federal Express depicted in **Exhibit 7 – “Option 5B South Cargo Area”**, has been placed in a location previously reserved for the ASR-9 as depicted in Exhibit 5 – “Option 5A South Cargo Area”.
5. If it is determined that a replacement site for the ASR-9 and/or collocation of these facilities is not possible, an alternative site for the Federal Express Complex must be determined.

Table 2

Summary of Impacted Facilities
Option 5B and 5C

Impacted Facilities Option 5B and 5C South Cargo Area			
<u>Building Number</u>	<u>Relocated Number</u>	<u>Facility</u>	<u>Site Area (SF)</u>
601	N/A	Post #5 Guardhouse	-
603	R18	Air Cargo Simulation Property	13,800
604	R17	Lighting Utility Property	21,880
605	N/A	Post #5A Guardhouse & Property	-
606	R19	Fueling Utility Property	97,229
608	R17	Electrical Utilities Property	2,406
610	R14	United Airlines Cargo Leasehold	1,414,627
611	R16	Federal Express Metroplex	1,778,110
619	N/A	Federal Express Guardhouse	1,778,110
620	N/A	Federal Express Fueling System	1,778,110
621	R15	Federal Express Maintenance	1,778,110
*612	R31	Federal Express Freight Building	686,231
*600	R32	USPS U.S. Post Office	1,980,853
*616	R30	Lufthansa Cargo Leasehold	508,901
*617	R29	Air France Cargo Leasehold	416,889
*618	R28	KLM Cargo Leasehold	296,735
Total			7,217,661

*Additional Impacted Facilities (Options 5B and 5C)

VI. ALP CONCEPT - OPTION 5C

1. **Exhibit 8 – “Future Airport Layout Plan - Option 5C”** illustrates the addition of one runway to the draft ALP located on the south airfield oriented 12/30. It also reflects the removal of Runway 10R/28L from the draft ALP. Runway 12/30 is planned as 150 feet wide and 9,946 feet long, ADG-V non-precision visual runway. In an east runway configuration, it is envisioned that arrivals will occur on Runways 9L, 9C and 10C and departures on Runways 9R, 10L and Runway 12. VFR Quad arrivals would not be available in this alternative.
2. **Exhibit 9 – “Option 5C South Cargo Area”** illustrates relocation of facilities in the South Cargo Area. This concept depicts generic facilities sized consistent with the impacted facility footprints. Actual location and layout of each facility and leasehold property will ultimately be defined through airline/tenant decisions and negotiations. A list of facilities impacted by Option 5C are identified in Table 2 – “Summary of Impacted Facilities - Option 5B and 5C” South Cargo Area.
3. Although the area of relocated leaseholds have been preserved, functional adequacy of facilities has yet to be determined.

VII. NEXT STEPS

1. Airfield Operational Performance - TAAM simulation Results
2. Completion of Preliminary Cost Estimates
3. Determination of Land Estimates
4. Assessment of Compatibility with Other Transportation Plans