

# **SPAS Airfield Update**

Board of Airport Commissioners  
August 9, 2010

## Proposed SPAS Timeline and Next Steps

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- August 9 – Airfield Issues Review
  - Review of Existing Conditions
  - Key Considerations
  - Airfield Concepts
- August 16 - Meet with SPAS Advisory Committee
- Reissue of SPAS EIR Notice of Preparation

## SPAS Methodology

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- LAWA's methodology for conducting SPAS will be based on realistic projections of air and ground traffic, and produce a program that is:
  - Efficient
  - Sustainable
  - Feasible
  - Financially responsible

## North Airfield – Existing Conditions

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### Operations & Safety

- The North Airfield does not meet FAA standards for Group 5 or Group 6 aircraft under any weather conditions.
- Failure to meet standards means that we have non-standard operating procedures when Group 5 or 6 aircraft utilize the North airfield, impacting operations on both runways on the North Airfield.
- Without a centerline taxiway and other airfield improvements, there is an increased risk of incursions and collisions.
- 24L is not long enough to accommodate some fully-loaded departing aircraft, resulting in higher utilization of the South Airfield.

## North Airfield – Existing Conditions

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### Air Quality

- Non-standard operating procedures increase aircraft-related emissions.

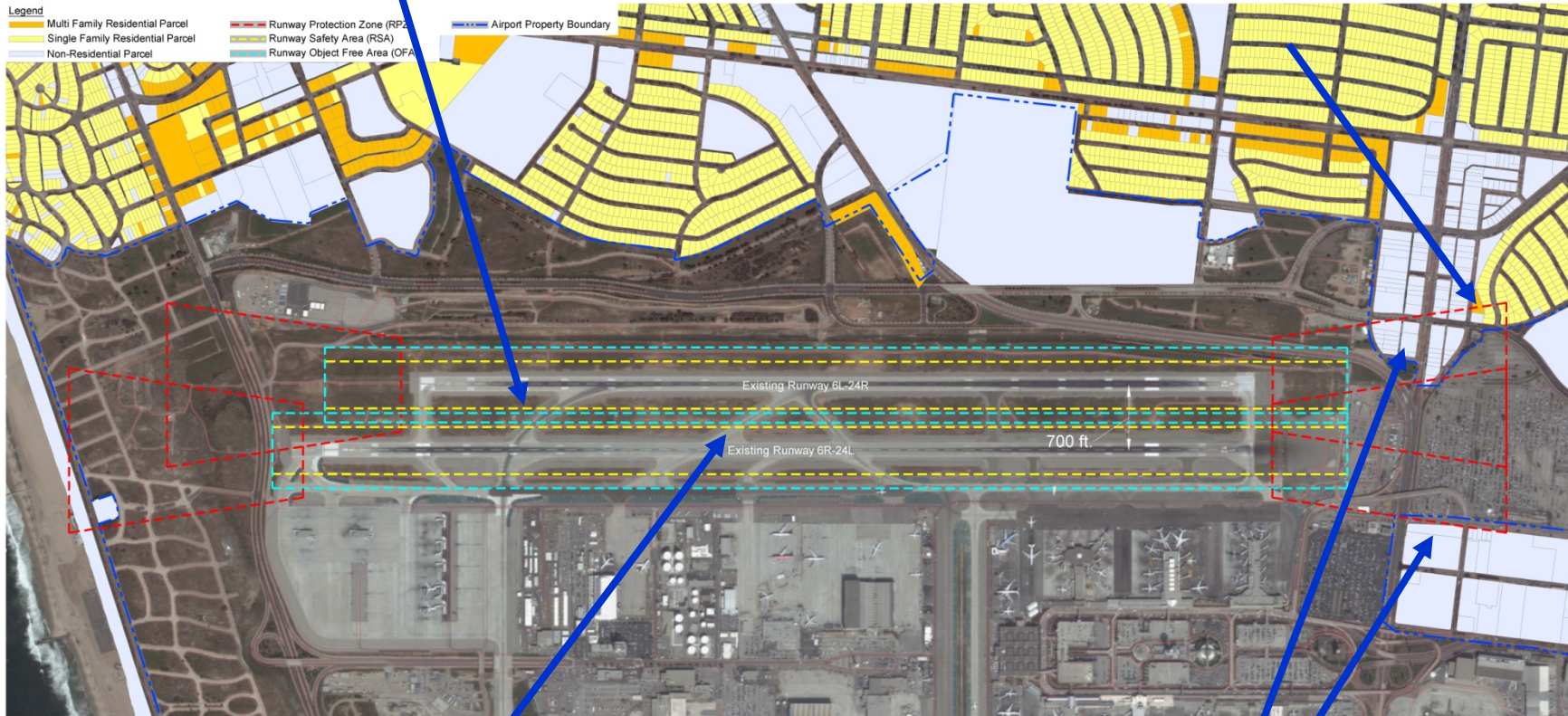
### Land Use & Community

- There are currently eight single-family homes, one multi-family residential development, and 29 commercial properties in the North Airfield's Runway Protection Zone.

# Existing Conditions – North Airfield

## High Speed Taxiway Design

## Residences In RPZ



No Center Taxiway

Commercial Properties  
In RPZ

## Stipulated Settlement Objectives for SPAS

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- The Stipulated Settlement says that SPAS will identify amendments to the LAX Specific Plan that plan for the modernization and improvement of LAX in a manner that:
  - Designs for a practical capacity of 78.9 million annual passengers;
  - Enhances safety & security;
  - Minimizes environmental impacts on the surrounding communities; and
  - Creates conditions that encourage airlines to go to other airports in the region, particularly those owned by LAWA.

## North Airfield Planning Objectives

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Provides for north airfield improvements that:

- Are consistent with FAA design standards for the largest aircraft types currently in service and anticipated for the future (Group 5 and 6 aircraft) for all weather conditions
- Minimize if not avoid modifications of standards, waivers, or operational restrictions, all of which reduce airfield efficiency and level of service
- Reduce the potential for airfield hazards, including incursions, and enhance the overall safety of airfield operations through runway and taxiway design
- Can accommodate a greater percentage of departing aircraft, thereby increasing airfield efficiency
- Minimize or eliminate the extent to which the Runway Protection Zone overlays residential areas
- Minimize construction-related impacts, including disruption to airport operations

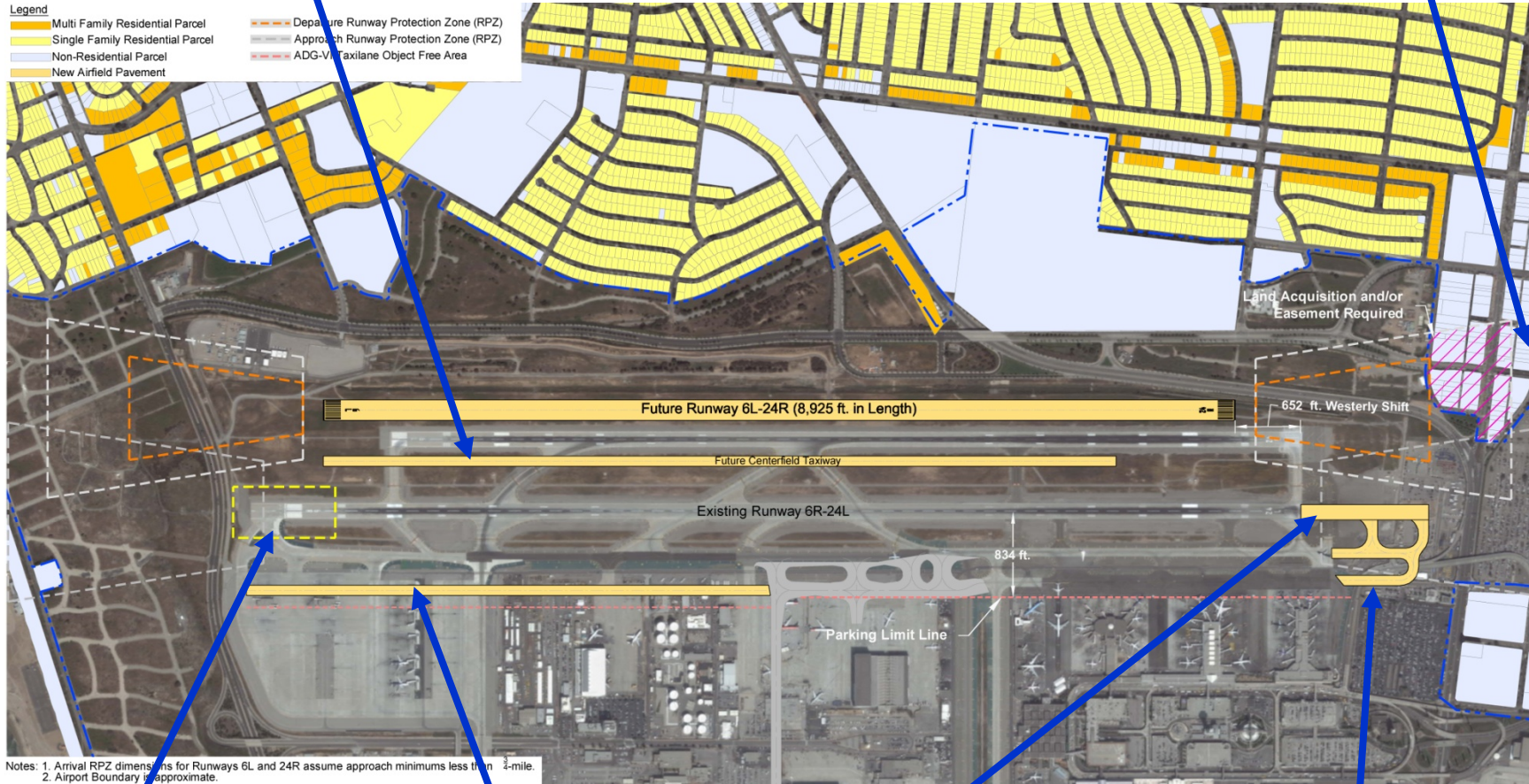
## North Airfield Concept Comparison – Runway Length & Taxiway Issues

	Existing Conditions	Master Plan (Alt. D)	Current Options
<b>Runway Length</b>	24R – 8,925' 24L – 10,285'	24R – 10,420' 24L – 11,700 (10,700' takeoff length)	24R – 8,925' 24L – 11,535' (10,700' takeoff length)
<b>Centerline Taxiway</b>	No	Yes	Yes
<b>Taxiway Design</b>	D & E – Group 4 in some segments	D - Modified Group 6 E - Group 5	D – Modified Group 6 E – Group 5

# SPAS North Airfield Common Components

## Centerline Taxiway

## Residences No Longer in RPZ



**RSA Improvement**

**Taxiway Extended West**

**24L Extension/  
RSA Improvement**

**East Taxiway Redesign**

# Operations & Safety Considerations

## Safety

- Compared to the baseline, a 40% reduction in the risk of a fatal runway collision with at least a 100' separation and a centerline taxiway

## Normal Weather Conditions:

- The airfield meets standards for Group 6 aircraft at 300'.
- Modification of Standards (MOS) are required for Group 6 aircraft at 100' & 200'
- Aircraft operations are restricted for Group 5 aircraft for Existing Conditions & 100' North

## Weather Restricted Conditions:

- The airfield meets Group 6 standards at 400'
- Modifications of Standards are required for Group 6 aircraft for 300' & 340'
- Airfield operations are restricted for Group 5 aircraft for Existing Conditions, 100' North, and 200' North.

Runway Option	Runway	Efficiency By Group Allowed		Safety
		Normal Weather (96%)	Weather Restricted (4%)	NASS Reduced Risk Compared To Baseline
400' North*	6R/24L	Green	Green	> 55%
	6L/24R	Green	Green	
340' North*	6R/24L	Green	Light Green	55%
	6L/24R	Green	Light Green	
300' North*	6R/24L	Green	Light Green	40-55%
	6L/24R	Green	Light Green	
200' North*	6R/24L	Yellow	Red	40-55%
	6L/24R	Yellow	Red	
100' North*	6R/24L	Yellow	Red	40%
	6L/24R	Yellow	Red	
Existing Location	6R/24L	Red	Red	N/A
	6L/24R	Red	Red	
340' South (Master Plan)	6R/24L	Green	Light Green	50%
	6L/24R	Green	Light Green	

Efficiency Key:	Green = Meets ADG 6 Standards
	Light Green = ADG 6 w/MOS (no restrictions)
	Yellow = Meets ADG 5 Standards; Group 6 w/ MOS and restrictions
	Red = Meets Group 4 standards; Group 5 w/MOS and restrictions

\*Note = Airfield configuration includes westward move of 24R

## Land Use Considerations

- 8 Single Family Homes and 1 Apartment complex are in the existing and Alt. D Runway Protection Zones (RPZs).
- No Single Family Homes are in the RPZ with new runway options 100' North to 400' North.
- One Apartment Complex would fall within FAR Part 77 height restrictions for 24R with movements greater than 214' North. FAA would make determination if mitigation necessary.

Runway Option	Single Family Residential	Multi-Family Residential	Commercial
400' North*	None	1	40 parcels
340' North*	None	1	40 parcels
300' North*	None	1	38 parcels
200' North*	None	None	35 parcels
100' North*	None	None	32 parcels
Existing Location	8 homes	1	27 parcels
340' South (Master Plan)	8 homes	1	29 parcels

\* = Airfield configuration includes the west move of 24R

## Feasibility & Financial Considerations

- Lincoln Blvd. & Argo Ditch require substantial reconstruction/ relocation at more than 300' North
- Redesign of Taxiway D would have some impacts to Terminal 1 gates
- Alt. D's runway configuration requires the demolition and replacement of significant portions of Terminals 1 – 3

Runway Option	Major Enabling Projects
400' North*	Full-Length Argo Ditch Modification (\$161M), Extensive Lincoln Blvd. Realignment, Tunnel, and Signalization
340' North*	Full-Length Argo Ditch Modification (\$161M); Lincoln Blvd. Realignment
300' North*	Full-Length Argo Ditch Modification (\$161M); Lincoln Blvd. Realignment
200' North*	Partial Argo Ditch Modification (\$37M); Lincoln Blvd. Realignment
100' North*	Partial Argo Ditch Modification (\$23M); Lincoln Blvd. Realignment
Existing Location	Some Argo Ditch Modification for RSAs (\$6M)
340' South (Master Plan)	Demolition and Replacement of Significant Portions of T1-3 (\$5.4B), Removal of 96th St. Bridge (\$19M), Acceleration of Mid-Field Concourse

# North Airfield Configuration Considerations - Summary

Runway Option	Runway	Efficiency By Group Allowed		Safety	Land Use			Feasibility & Finance
		Normal Weather (96%)	Weather Restricted (4%)		NASS Reduced Risk Compared To Baseline	Single Family Residential	Multi-Family Residential	
400' North*	6R/24L			> 55%	None	1	40 parcels	Major Enabling Projects Full-Length Argo Ditch Modification (\$161M), Extensive Lincoln Blvd. Realignment, Tunnel, and Signalization
	6L/24R							
340' North*	6R/24L			55%	None	1	40 parcels	Full-Length Argo Ditch Modification (\$161M); Lincoln Blvd. Realignment
	6L/24R							
300' North*	6R/24L			40-55%	None	1	38 parcels	Full-Length Argo Ditch Modification (\$161M); Lincoln Blvd. Realignment
	6L/24R							
200' North*	6R/24L			40-55%	None	None	35 parcels	Partial Argo Ditch Modification (\$37M); Lincoln Blvd. Realignment
	6L/24R							
100' North*	6R/24L			40%	None	None	32 parcels	Partial Argo Ditch Modification (\$23M); Lincoln Blvd. Realignment
	6L/24R							
Existing Location	6R/24L			N/A	8 homes	1	27 parcels	Some Argo Ditch Modification for RSA (\$6M)
	6L/24R							
340' South (Master Plan)	6R/24L			50%	8 homes	1	29 parcels	Demolition and Replacement of Significant Portions of T1-3 (\$5.4B), Removal of 96th St. Bridge (\$19M), Acceleration of Midfield Concourse
	6L/24R							
Efficiency Key:	Green = Meets ADG 6 Standards							
	Light Green = ADG 6 w/MOS (no restrictions)							
	Yellow = Meets ADG 5 Standards; Group 6 w/ MOS and restrictions							
	Red = Meets Group 4 standards; Group 5 & 6 w/MOS and restrictions							

\* = Airfield Configuration includes westward move of 24R and lengthening of 24L

# North Airfield Configurations Being Considered For Further Study

<b>Airfield Options</b>	
<b>Current Options</b>	400' North 300' North 200' North 100' North
<b>Master Plan (Alt. D)</b>	340' South
<b>No Project</b>	Existing configuration