LAX Specific Plan Amendment Study (SPAS)
Final EIR and Related Actions

Board of Airport Commissioners

February 5, 2013

Background

- The LAX Master Plan Program serves as the airport's long range development plan. It establishes the framework for various airport programs and projects, including:
  - Airfield configuration
  - Ground access and regional transit connections
  - Terminal improvements

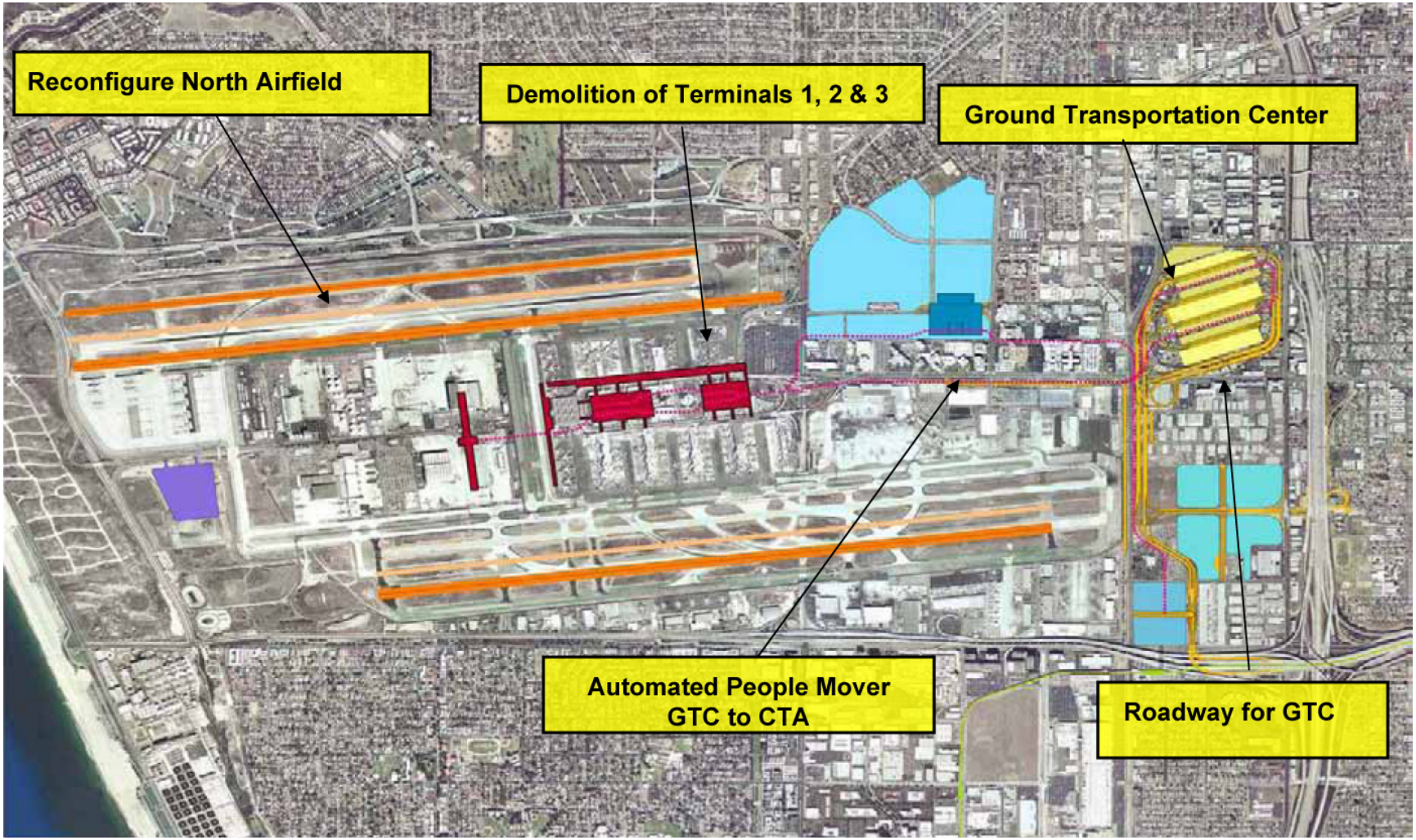
- The LAX Master Plan was adopted in December 2004
  - However, pursuant to the LAX Specific Plan adopted by the City Council, certain projects required additional study prior to final approval.
  - The Stipulated Settlement Agreement further defined how the study of these "Yellow Light" projects is to be conducted.
  - "Yellow Light" projects cannot be implemented until they are evaluated through Specific Plan Amendment Study (SPAS) process and receive LAX Plan Compliance from the City Council.

SPAS - Objectives

- The LAX Stipulated Settlement states that the purpose of SPAS is to identify amendments that "plan for the modernization and improvement of LAX in a manner that is designed for a practical capacity of 78.9 million annual passengers while enhancing safety and security, minimizing environmental impacts on the surrounding communities, and creating conditions that encourage airlines to go to other airports in the region, particularly those owned and operated by LAWA".

- The Settlement Agreement states that SPAS should focus on "solutions to the problems that the Yellow Light projects were designed to address". The "Yellow Light" Designated Projects are:
  - Reconfiguration of North Airfield
  - Ground Transportation Center (GTC)
  - Automated People Mover (APM) between Central Terminal Area (CTA) and GTC
  - Demolition of Terminals 1, 2 and 3
  - Roadways associated with GTC and APM

Yellow Light Projects



Contents of Specific Plan Amendment Study

Specific Plan Amendment Study Documents

- **SPAS Environmental Impact Report (EIR)**
  - Contains:
    - Project Objectives
    - Environmental analysis
    - Discloses impacts
    - Identifies mitigations
  - Released:
    - Draft EIR – released July 27, 2012 (75 day comment period)
    - Final EIR – released January 25, 2013

- **SPAS Report**
  - Contains:
    - History and Concept Development
    - Financial analysis
    - Security evaluation
  - Released:
    - Preliminary SPAS Report – released July 27, 2012
    - Final SPAS Report – released January 30, 2013

SPAS Alternatives Summary

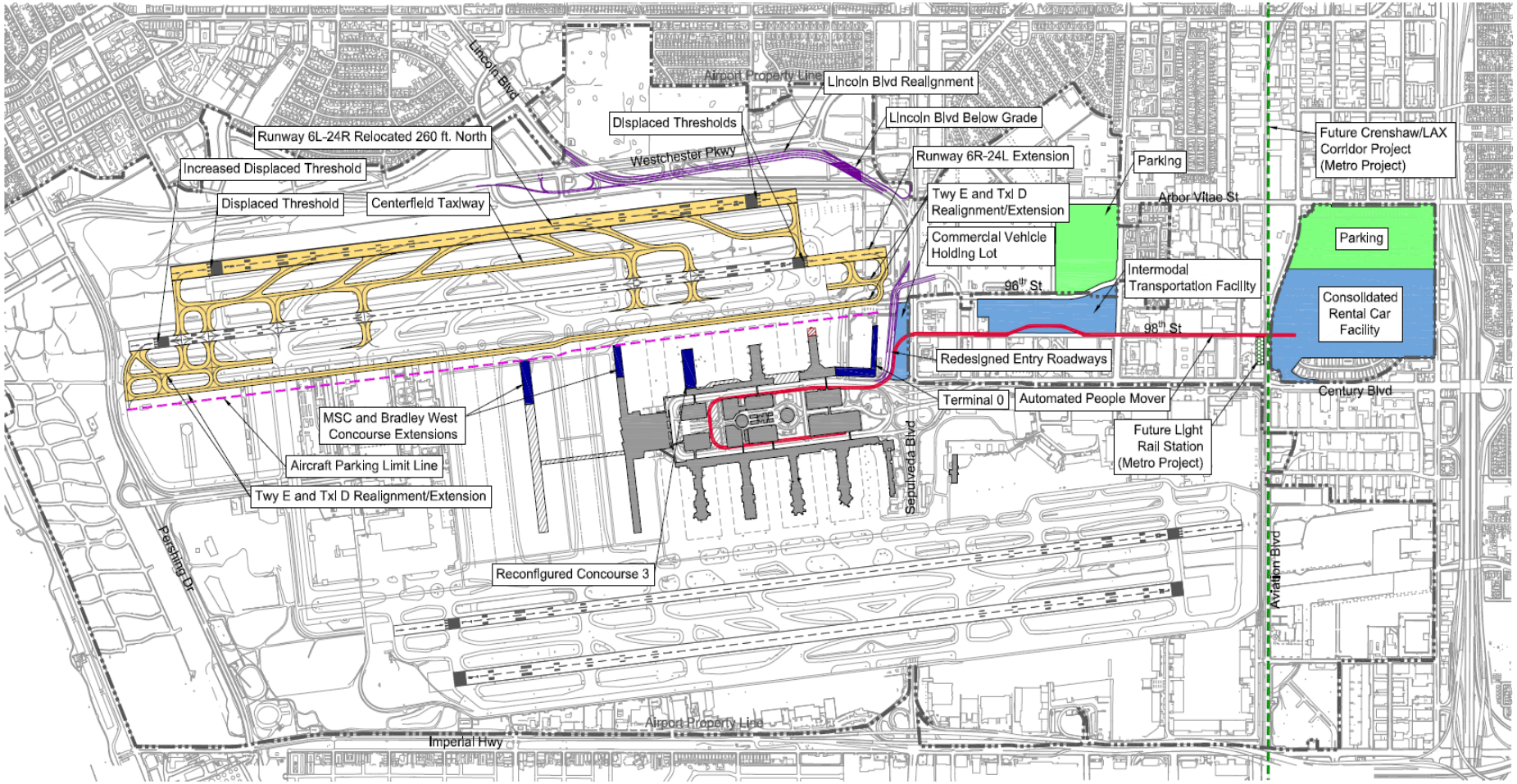
Alternative Designation	Former References or "Description"
Integrated Alternatives	
Alternative 1	"260' N" with "Busway/No Consolidated Rent-A-Car (CONRAC) Facility"
Alternative 2	"No Increased Separation" with "Busway/No CONRAC"
Alternative 3	Master Plan/ "Alternative D"
Alternative 4	"No Yellow Light Projects"
Airfield Alternatives	
Alternative 5	"350' N"
Alternative 6	"100' N"
Alternative 7	"100' S"
Ground Transportation Alternatives	
Alternative 8	"Busway/CONRAC"
Alternative 9	"Automated People Mover (APM)/CONRAC"

SPAS Project Objectives

1. Provide North Airfield Improvements That Support Safe and Efficient Movement of Aircraft
2. Improve Ground Access System to Better Accommodate Airport Traffic
3. Maintain LAX's Position as International Gateway to Southern California
4. Plan Improvements That Do Not Result in More Than 153 Passenger Gates at 78.9 MAP
5. Enhance Safety and Security at LAX
6. Minimize Environmental Impacts on Surrounding Communities
7. Produce an Improvement Program that is Sustainable, Feasible, and Fiscally Responsible

Staff Recommended Alternative

Staff-Recommended Alternative



Key Features of Staff-Recommended Alternative

- **Airfield/Terminal Features:**
  - Achieves centerline taxiway with a movement of arrivals runway 260’ north.
  - Supports standard operations on the North Airfield, except for Group 6 aircraft when visibility is less than ½ mile.
  - Provides pilot line-of-sight to end of departures runway for all except Group 6 operations.
  - Addresses Runway Safety Area and Taxiway/Taxilane deficiencies.
  - Allows redevelopment or extension to north terminal facilities, including Terminal 0, TBIT and the Midfield Satellite Concourse (MSC)
  - 153 passenger gates.

- **Ground Transportation Features**
  - Significant new facilities to be developed based on airport ground transportation and passenger conveyance needs. Including:
    - Intermodal Transportation Facility (ITF)
    - Consolidated Rent-A-Car Facility (CONRAC)
    - Automated People Mover system (APM)
  - Service to Metro facilities in Lot C and at Century/Aviation to be provided by airport circulator

Los Angeles World Airports

Common Misconceptions About SPAS

Addressing Common Misconceptions About SPAS

- All of the Alternatives are designed to have the same practical capacity as the LAX Master Plan – 78.9 million annual passengers (MAP).
- The implementation of the airfield included in the Staff-Recommended Alternative ("260' North") would not result in the taking of any homes.
- None of the Alternatives would move the runway north of Westchester Parkway or beyond the outer perimeter fence.
- LAWA cannot require airlines or passengers to use another airport.
- This review of the north airfield is required by the LAX Master Plan Stipulated Settlement and the LAX Specific Plan.
- Additional project-level design and engineering review is required before construction could start on any SPAS project element.

Summary of Comments and Responses in SPAS Final EIR

Draft EIR Comments Received

- Official Comment Period was July 27, 2012 through October 10, 2012 (75 days)

- Three public meetings held in late August -
  - Over 370 attended
  - 101 verbal comments
  - “Virtual Meeting” was available from September 10 until the close of the comment period.

- Comments Received during the comment period -
  - 251 commentors
  - 2063 individual comments

- Written responses to submitted comments are included in the SPAS Final EIR

Final EIR Contents

- Final EIR was made available on January 25, 2013 and includes:
  - Analysis and discussion of Staff-Recommended Alternative
    - Environmental impacts
    - Associated Mitigations
    - No new significant environmental impacts
  - Responses to comments
    - Organized by commentor
    - Additional analysis performed to address new issues raised by commentors
  - Corrections and Additions

SPAS EIR Comments Highlights

- Scope of SPAS
- EIR Design/Methodology
- Constructability/Cost Estimates
- Finance
- Airfield Safety
- Air Quality
- Aircraft Noise
- Transit Connections at LAX
- Traffic
- Regionalism
- Suggested Alternatives
- Suggested Mitigations
- Selection of Alternative

Scope of SPAS

- Purpose of SPAS is to conduct a study of the LAX Master Plan “Yellow Light Projects” and potential alternatives to those projects

- Project Description (Chapter 2 of the SPAS Draft EIR) itemizes the “Yellow Light Projects” and alternatives to those projects

- Other projects were cumulatively assessed in Chapter 5 of the SPAS Draft EIR, including, but not limited to:
  - Midfield Satellite Concourse
  - LAX Northside
  - Other terminal improvements
  - Airport Metro Connector

SPAS EIR Design/ Methodology

- Elements of Alternatives analyzed at a “program level”
  - Concepts developed to a level of detail sufficient for meaningful environmental analysis
    - Provide understanding of the relationship between facilities
    - Facilities not designed or engineered
    - General construction impacts
    - Analysis in the final year of build-out - 2025
  - All SPAS project elements would require additional environmental analysis and approval before construction could begin
    - Detailed design and engineering
    - Project-Level analysis under CEQA
    - Environmental evaluation under NEPA

Constructability/ Cost Estimates

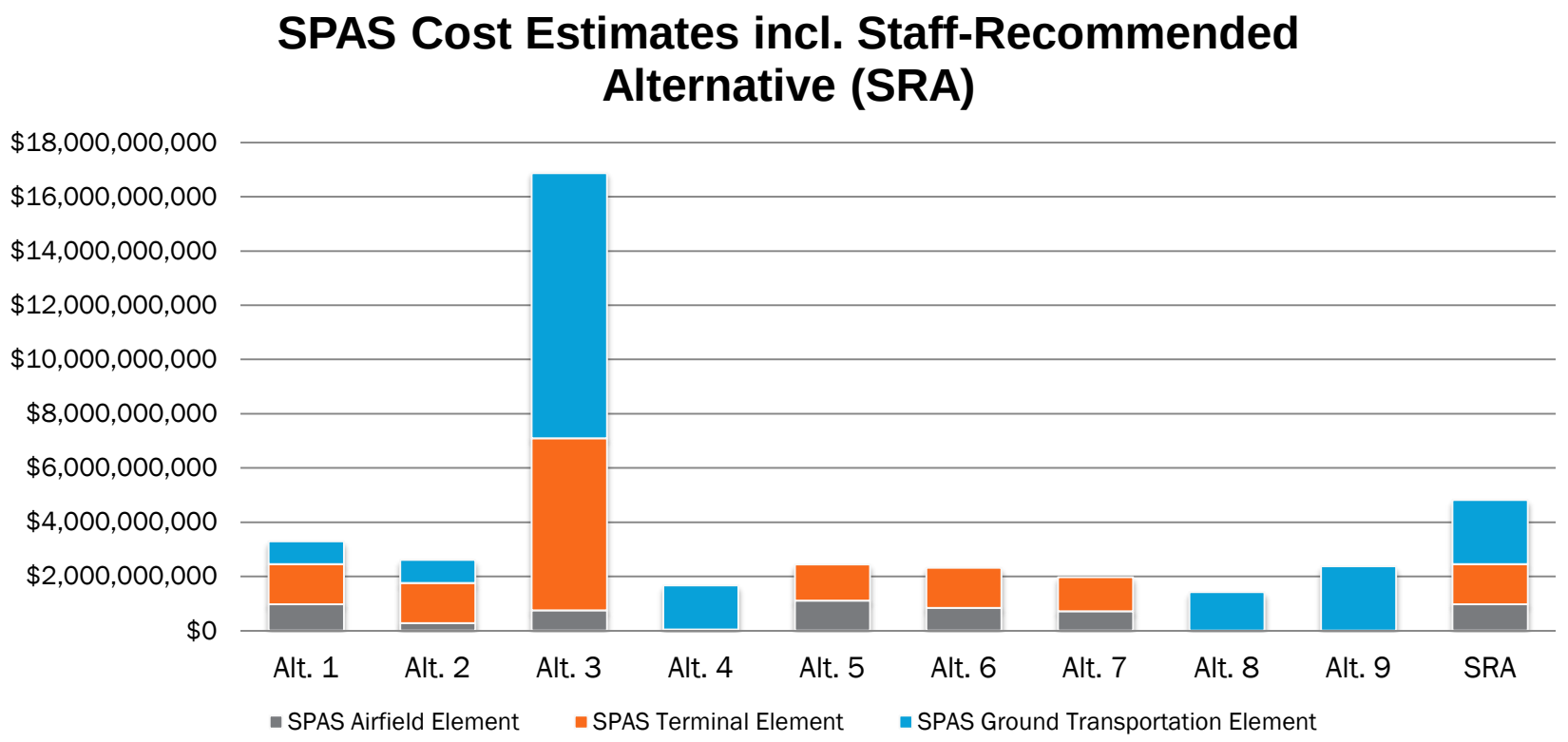
- Rough Order of Magnitude (ROM) Cost Estimates were developed to assist in:
  - Providing decision-makers relative capital costs for each Alternative;
  - Providing base information for the financial analysis in the Preliminary SPAS Report;
  - The analysis of construction impacts in the EIR.

- ROM Cost Estimates were developed using project description and concept data from LAWA Staff, and were itemized in the Preliminary SPAS Report

- Specific items included in the estimates include:
  - Relocation of Lincoln Blvd.
  - Removal of tunnel under the north airfield
  - Utility Relocation

- For each of the Alternatives, no “fatal flaws” to constructability were found

Finance



- Total Estimated Capital Cost of the SPAS Staff-Recommended Alternative is approximately $4.8 Billion

- SPAS Report Financial Analysis indicated that the airside and terminal elements were a “low” risk for a bond rating downgrade, while the ground elements were a “medium” risk

Airfield Safety

- The EIR itemized safety enhancements included in each Alternative in accordance with North Airfield Planning Objectives.
- The NASS concluded that operations on the existing airfield are already extremely safe.
- All Safety Studies concluded that safety on the north airfield would be enhanced by separating the north runways and installing a centerline taxiway.
- The FAA stated that airfield safety would be greatly improved by separating the runway and building a centerfield taxiway.

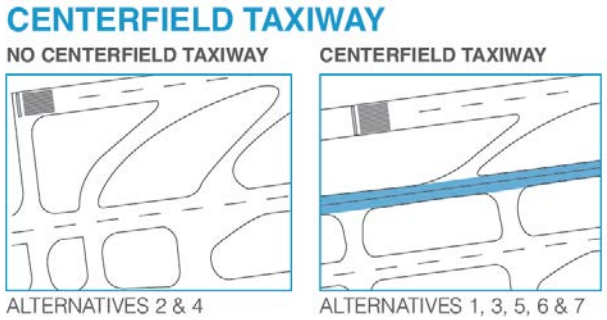
ENHANCEMENT	ALTERNATIVE						
	1	2	3	4	5	6	7
Achieves full Runway Safety Area (RSA) compliance	✈	✈	✈	✈	✈	✈	✈
Shifts the arrival Runway Protection Zone (RPZ) for Runway 24R westward, **resulting in residences and the vehicle staging area west of Sepulveda Boulevard no longer being located within the RPZ**	✈				✈	✈	
Provides greater amount of runway and taxiway facilities that meet FAA Airport Design Standards for ADG 5 and 6 aircraft, particularly as it relates to separation requirements	✈	✈	✈[1]		✈[1]	✈	✈[1]
Reduces the need for special operations restrictions, modifications of standards, and waivers from FAA	✈	✈	✈		✈	✈	✈
Provides increased separation between runways and between runways and taxiways, which better enables taxiing and holding aircraft to stay clear of runway OFZ and RSA surfaces	✈		✈		✈	✈	✈
Allows addition of a centerfield parallel taxiway with high-speed exits from Runway 6L/24R, which provides more time and options for FAA air traffic controllers to handle aircraft exiting the runway; more time and distance for the pilot of an arriving aircraft to exit the runway, slow down and hold before crossing Runway 6R/24L; and reduces the potential for safety hazards/incursions.	✈		✈		✈	✈	✈
Improves the locations and design of crossing points (i.e., 90-degree crossing angle) at Runway 6R/24L, which provides better pilot visibility down Runway 6R/24L before crossing	✈		✈		✈	✈[2]	✈[2]
Realigns/straightens Taxilane D to provide a full-length parallel taxiway **designed for ADG 5 aircraft**	✈	✈	✈		✈	✈	✈
Realigns/straightens Taxilane D to provide a full-length parallel taxiway **designed for ADG 6 aircraft**			✈		✈		
Relocates vehicle service road adjacent to Taxiway E and Taxilane D out from between two active surfaces	✈	✈			✈	✈	✈
Provides more aircraft holding areas near the end of runways, improving the ability for sequencing departures	✈	✈	✈		✈	✈	✈
Improves high-speed exit locations from Runway 6L/24R and improves crossing angles at Runway 6R/24L with **better pilot visibility down Runway 6R/24L before crossing**	✈	✈	✈		✈	✈	✈

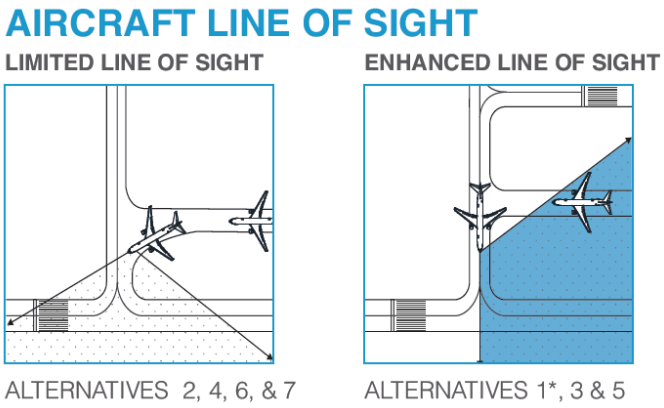
Notes: RSA = Runway Safety Area RPZ = Runway Protection Zone ADG = Aircraft Design Group OFZ = Obstacle Free Zone
1- Improves to a greater degree than Alternatives 1, 2 and 6
2- Improves to a more limited degree than Alternatives 1, 3 and 5

Safety (cont.) – Safety Features And Other Enhancements

- Safety Features included in the Staff-Recommended Alternative:
  - 99.87% of operations on north airfield standardized
  - Centerline taxiway
  - Pilot line-of-sight for aircraft up through Group 5
  - Relocated/Redesigned Crossing Taxiways
  - Runway Safety Area (RSA) compliance
  - No residential uses in the Runway Protection Zone (RPZ)

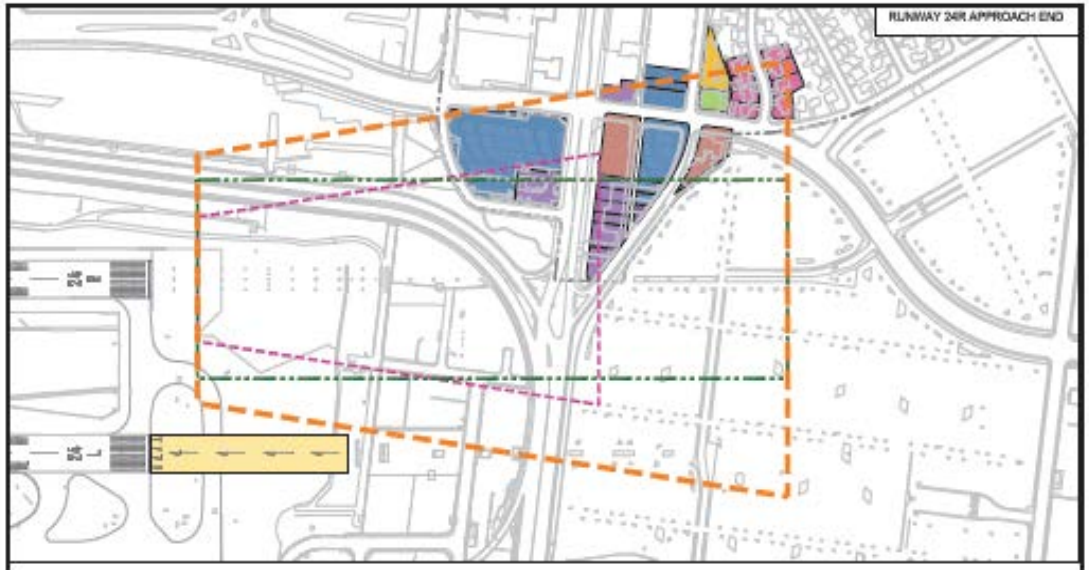
- Staff supports other safety enhancements, such as Runway Status Lights and full Air Traffic Controller staffing. However, they are not substitutes for runway separation and a centerline taxiway.

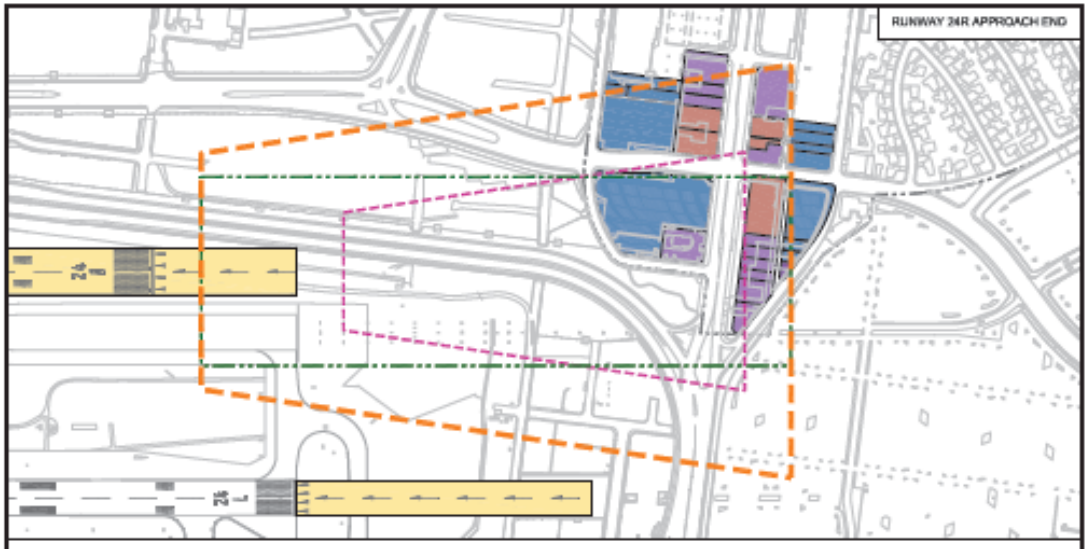




* Does not apply to Group 6 Aircraft

Safety (cont.) - Runway Protection Zones





Existing Conditions

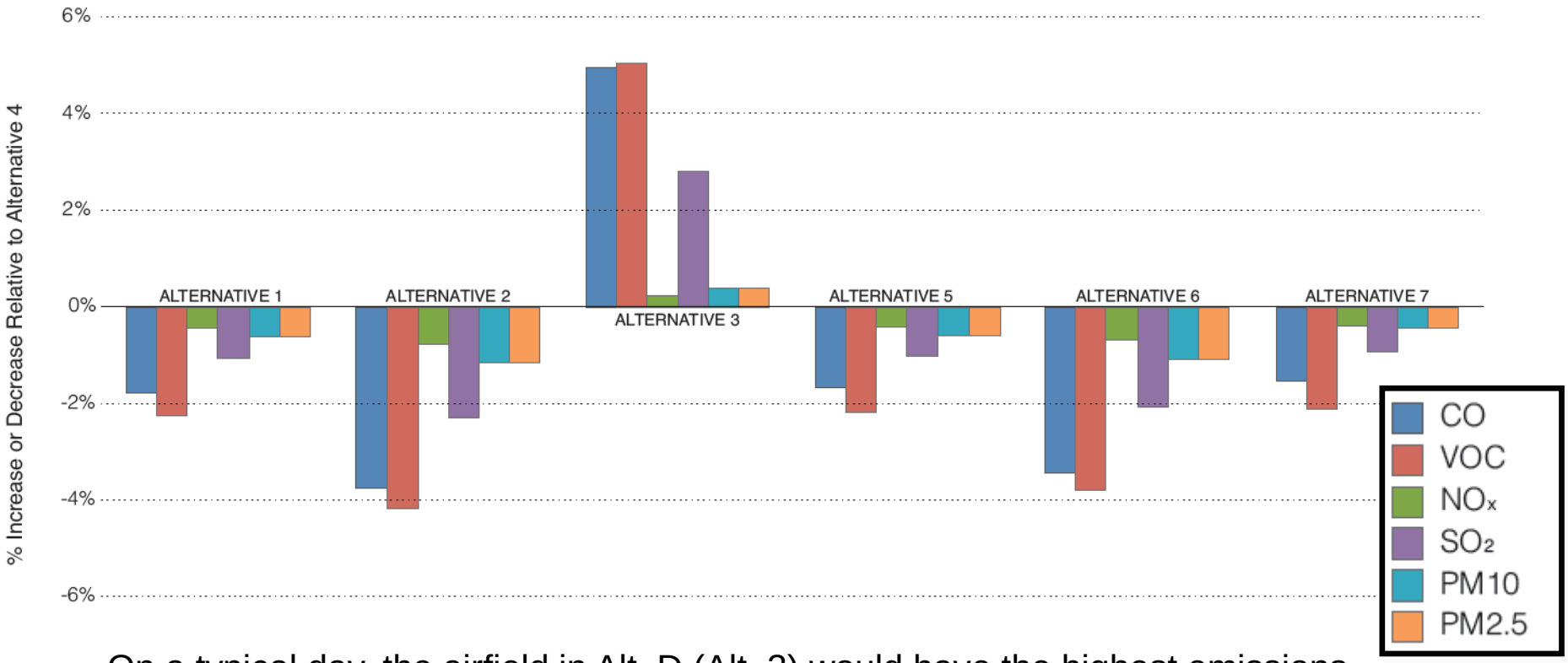
RUNWAY 24R	
PARCEL USE	*NUMBER OF PARCELS IN RPZ*
Parking	7
Sales & Service	8
Office	2
Residential- Single	8
Residential-Multi	1
Vacant	4
Government	1
24R TOTAL	31

Staff-Recommended Alternative

RUNWAY 24R	
PARCEL USE	*NUMBER OF PARCELS IN RPZ*
Parking	12
Sales & Service	12
Office	5
Vacant	1
24R TOTAL	30

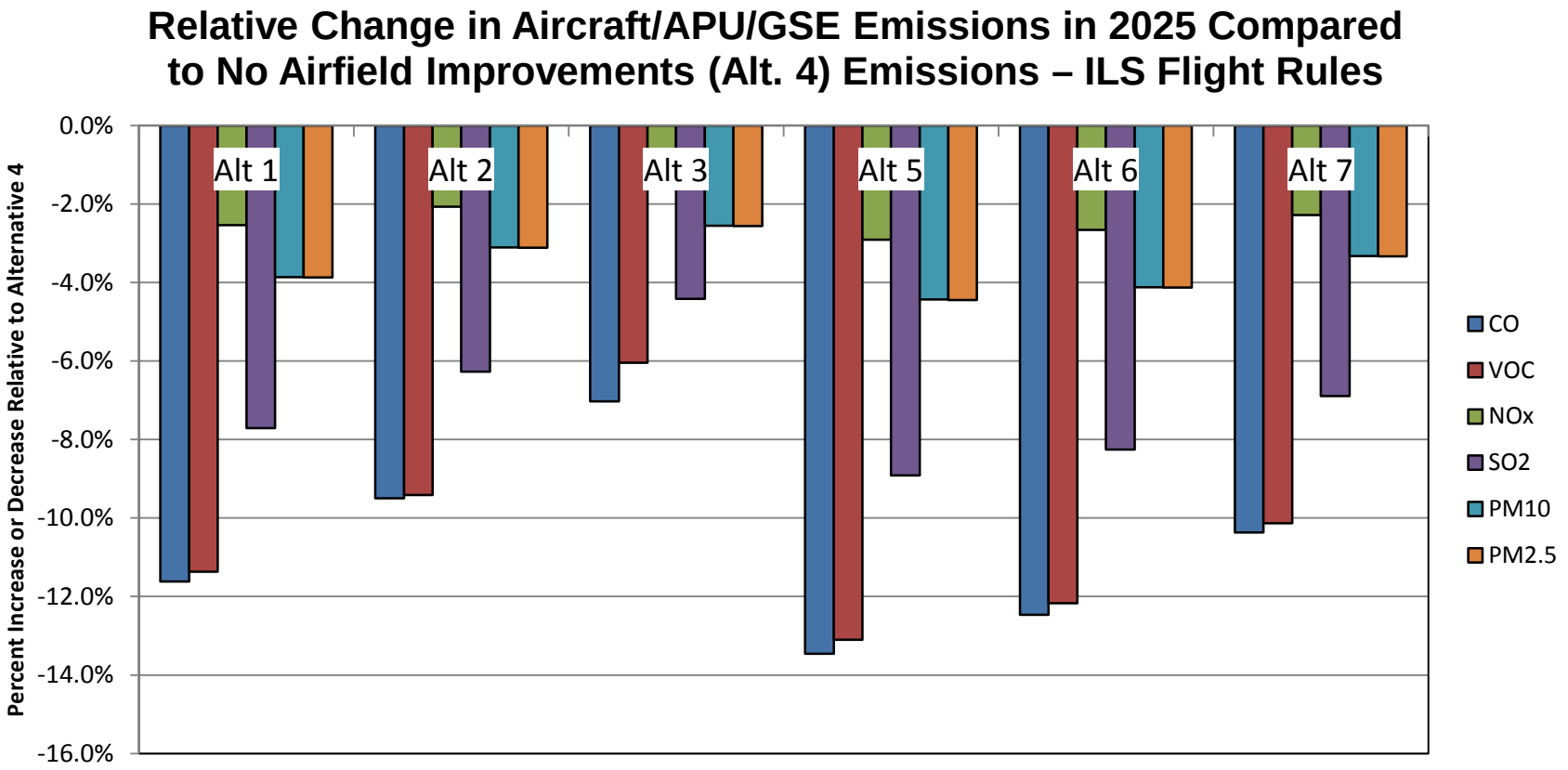
Air Quality

Relative Change in APU/GSE/Aircraft Emissions Compared to No Airfield Improvements (Alt. 4) – Visual Flight Rules (VFR)



- On a typical day, the airfield in Alt. D (Alt. 3) would have the highest emissions of all Alternatives, including the “No Airfield Improvements” Alt. (Alt. 4).
- Alt. 2 would have the lowest emissions, but would be lower than Alt. 1 by only .3% to 2%.

Air Quality (cont.)



- While it occurs infrequently, the highest airfield emissions occur when visibility is limited (i.e. the airfield operates under instrument flight rules).

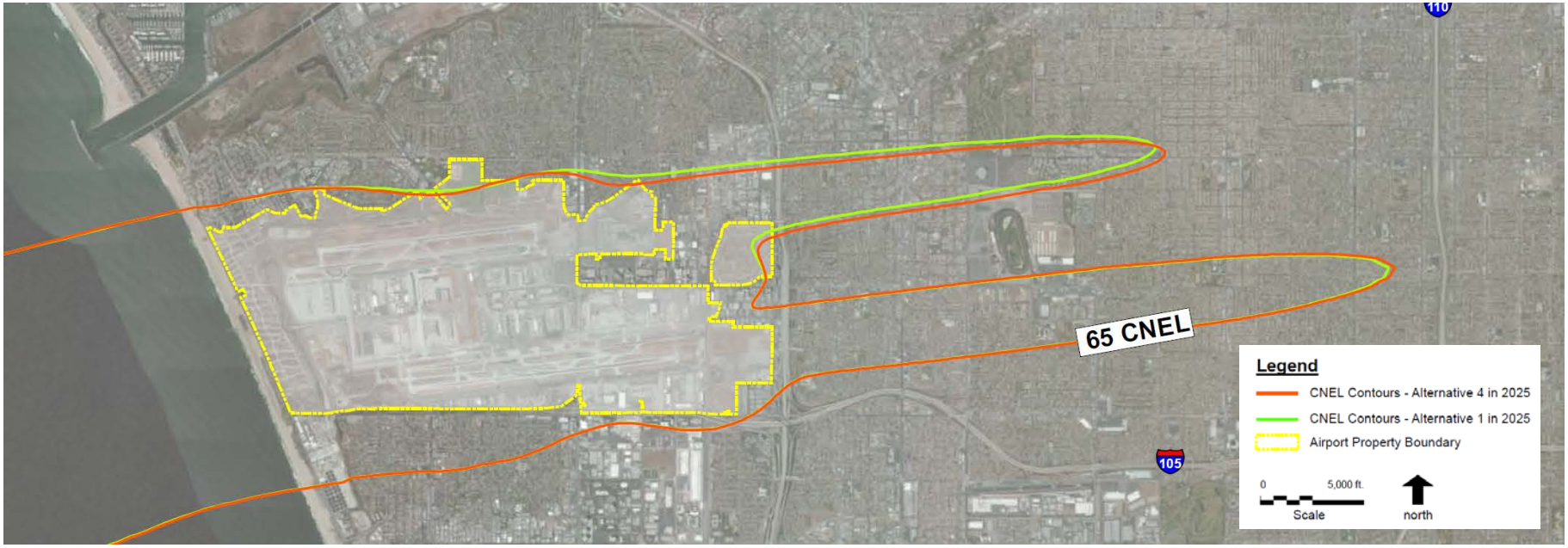
- Under these conditions, all Alternatives showed reduced emissions compared to the “No Airfield Improvements” scenario (Alt. 4). However, under these conditions, Alt. 1 performed better than Alt. 2.

Aircraft Noise

- The aircraft noise analysis in the EIR was developed using the Integrated Noise Model (INM). That model:
  - Takes into account topography
  - Assigns greater weight to evening/nighttime noise

- The INM model can distinguish the differences between noise resulting from departures and arrivals. Changes in the location of the arrivals runway tend to influence the noise contour eastward and not northward.

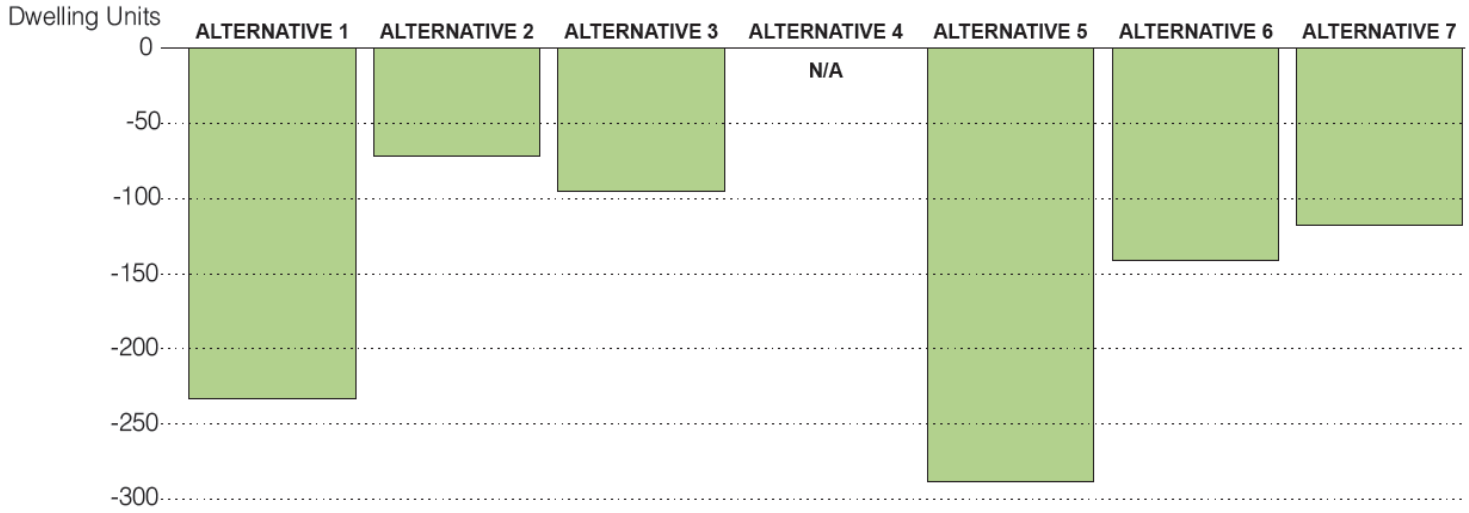
Noise Contour – Existing Airfield and Staff-Recommended Alt.



Aircraft Noise

Change in Number of Dwelling Units Exposed to ≥65 CNEL

Year 2025 Conditions With Alternative Versus Without Airfield Improvements



- The impacts identified in the EIR come predominantly from the increase in aircraft operations expected in 2025, as opposed to the configuration of the airfield.

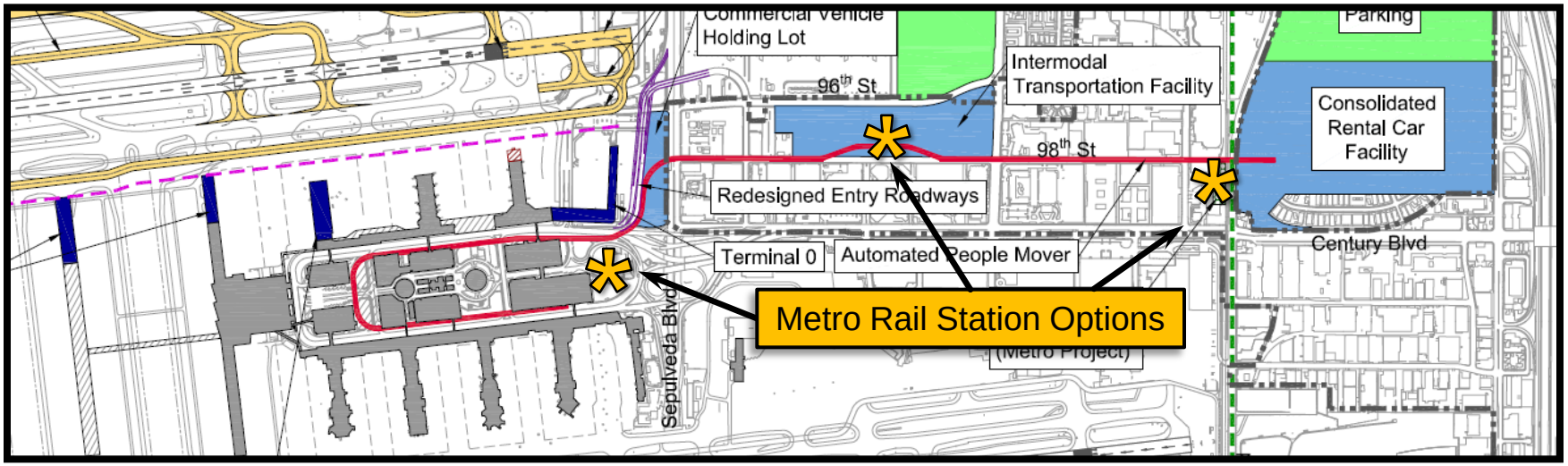
- The EIR indicates that the Staff-Recommended Alternative would provide fewer aircraft noise impacts when compared to Alt. 2 (“No Increased Separation”) or Alt. 4 (“No Yellow Lights”).

Transit Connections at LAX

- All Alternatives, except the “No Yellow Light” Alternative (Alt. 4), have an airport-operated, grade-separated circulator serving public transit facilities, including Metro’s proposed facility at Century/Aviation
  - Automated People Mover – Alts. 3, 9, and Staff-Recommended Alt.
  - Busway – Alts. 1, 2, and 8

- Heavy- and high-speed rail connections to public transit at LAX were considered infeasible
  - Not proposed by another public agency
  - Not planned
  - Not funded

Transit Connections at LAX – Light Rail and Metro

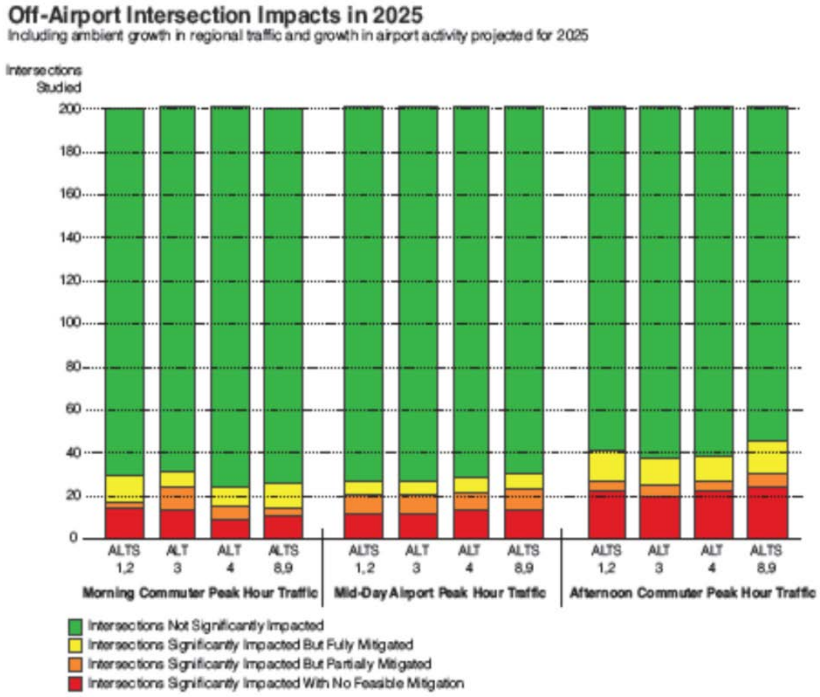


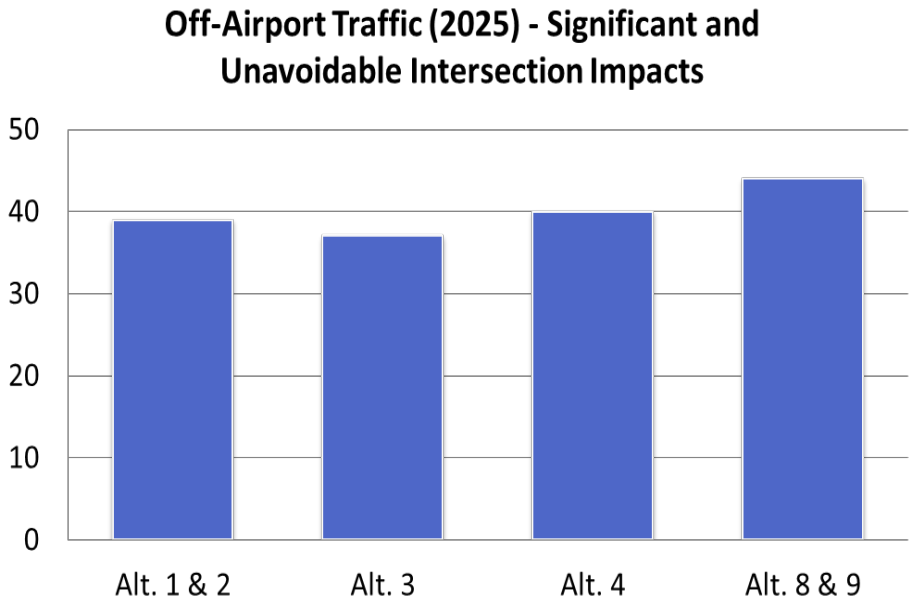
- The Staff-Recommended Alternative includes an Automated People Mover (APM) to circulate within the CTA and to other airport facilities and serve private and public transit users.

- In a parallel effort, LAWA is collaborating with Metro to identify convenient connections to LAX. As part of the Airport Metro Connector project, LAWA is working with Metro examining potential methods to connect Crenshaw/LAX Corridor and Green Line passengers “to the airport”.

- The Staff-Recommended Alternative preserves two additional opportunities to connect Metro light rail directly “to the airport”.

Off-Airport Traffic





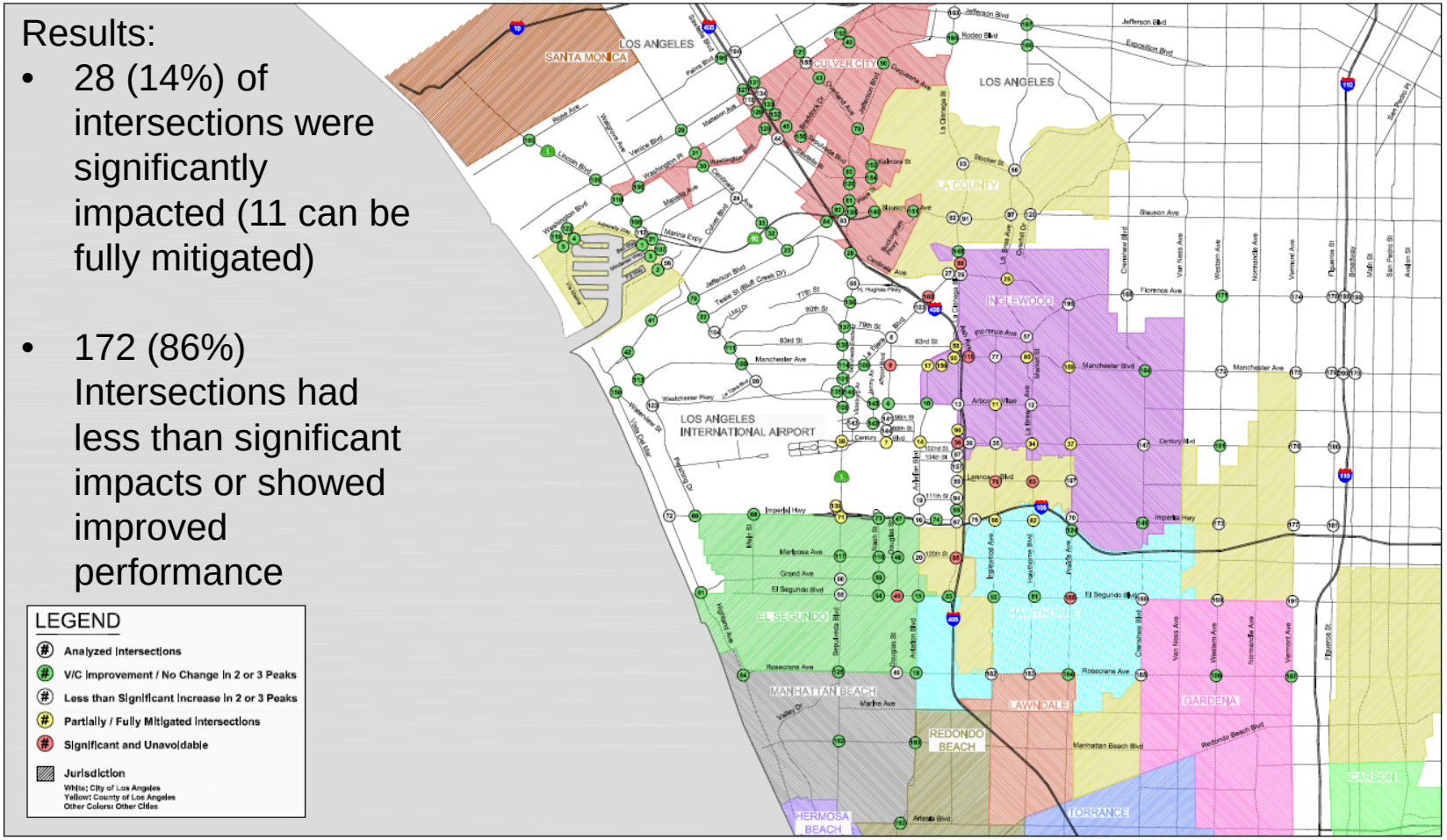
- Most identified off-airport traffic impacts occur regardless of Alternative selected.
- The Staff-Recommended Alternative includes 32 off-airport traffic mitigation measures.

Traffic (Cont.)

- LAWA prepared an analysis that looked at 2025 traffic, with airport growth in the background, for conditions with or without the Staff-Recommended Alternative to demonstrate how traffic would be redistributed.

Results:

- 28 (14%) of intersections were significantly impacted (11 can be fully mitigated)
- 172 (86%) Intersections had less than significant impacts or showed improved performance



Regionalism

- SPAS required to develop alternatives to the LAX Master Plan Program “Yellow Light Projects”

- SPAS required the identification of LAX Specific Plan Amendments that encourage airlines to go to other airports in the region, particularly those owned by LAWA
  - Airport Noise and Capacity Act (ANCA) prohibits airport operators from forcing airlines or passengers to choose one airport over another.
  - All SPAS Alternatives are designed for 153 gates at 78.9 MAP
  - Revision to Section 7.H of the LAX Specific Plan would require an Air Passenger and Airline Market Survey/Study at 75 MAP

- ONT
  - Airlines have chosen to serve the market at LAX even though sufficient facilities are currently available at ONT
  - ONT facility improvements will cause airline costs to rise

- PMD
  - Service started in 2007 and operated for 18 months with a subsidy of $238 per passenger.
  - The airline cancelled the service the day that the subsidy ended.

Suggested Alternatives

The following are some of the Alternatives that were suggested, evaluated, and determined to be infeasible during the course of SPAS:

Integrated Alternatives

- "340' South" with existing north terminal configuration moved south

Airfield Terminal

- One-Runway
- Dual-Move Runway
- End-Around taxiway

Ground Transportation

- "Mall" to Manchester Square
- "Driverless" Cars

Suggested Mitigations

The EIR includes a thorough discussion of mitigations suggested during the Draft EIR Comment Period.

- Mitigation discussion included:
  - 68 mitigations already part of the LAX Master Plan Mitigation, Monitoring, and Reporting Program (MMRP)
  - 56 additional SPAS mitigations measures

- Mitigations accepted include, but are not limited to:
  - Parking structure technology improvements
  - Intelligent Transportation System (ITS) upgrades in Inglewood and portions of unincorporated Los Angeles County
  - Real-time traffic data sharing
  - Charging stations for electric cargo vehicles

- Mitigations found to be infeasible include, but are not limited to:
  - Certain specific intersection improvements
  - Implementation of noise-cancelling technology
  - 20’ wall along north airfield to block particulate matter

- Voluntary Commitments
  - Roadway improvements near Manchester Square
  - Congestion Pricing Study

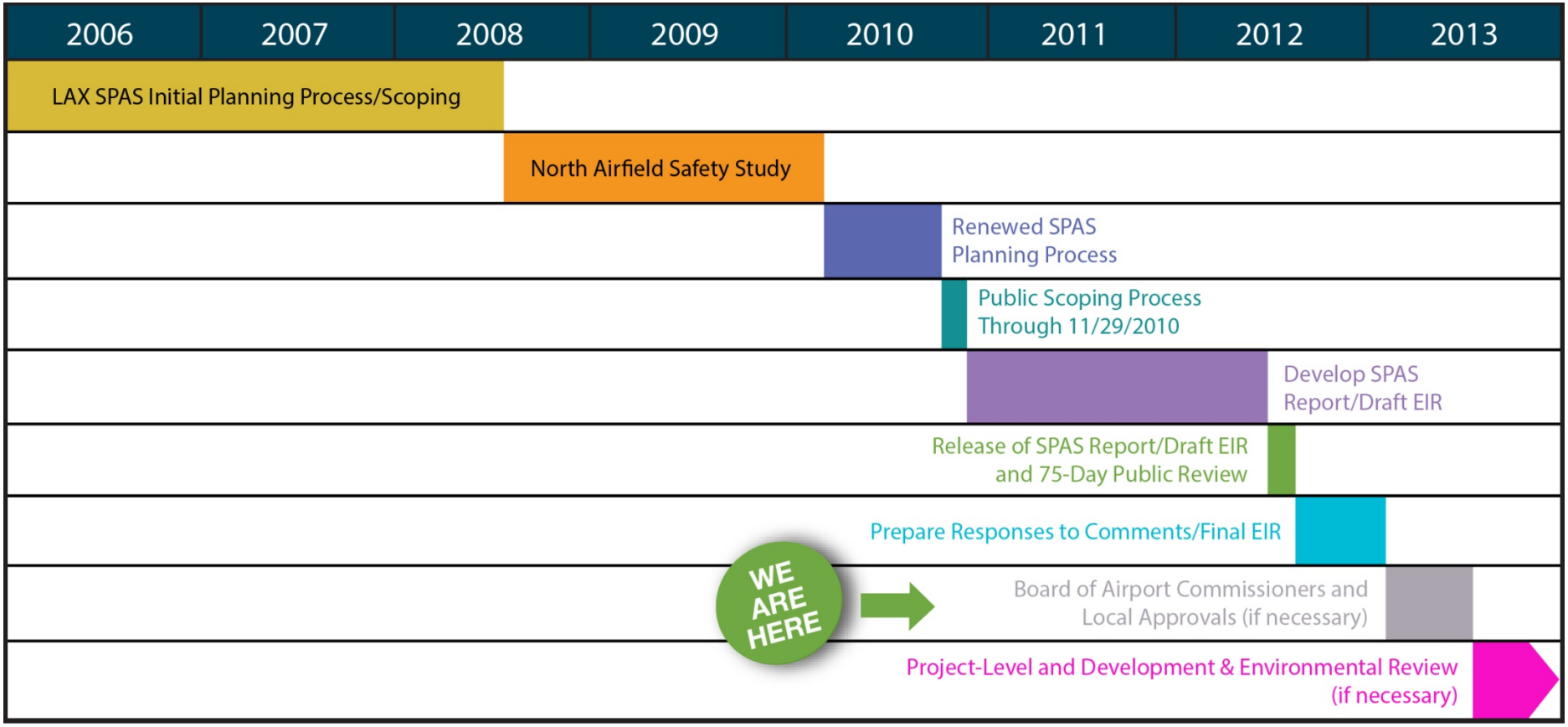
Selection of Alternatives

- During the Draft EIR Comment Period, of the 2,063 comments:
  - Approximately 30 comments opposed the SPAS process
  - Approximately 65 offered general support for the process, but did not indicate a preference for a particular SPAS Alternative
  - Of those comments that did indicate support for a particular SPAS Alternative, approximately 40 supported Alt. 2, and approximately 65 supported a combination of Alt. 2 and 9

Los Angeles World Airports

Next Steps

SPAS Timeline



Next Steps

If Board elects to follow staff recommendations on actions, the following agencies will review those actions (in whole or in part):

- City Planning Commission
- Los Angeles County Airport Land Use Commission
- City Council
- Mayor