

**Appendix N**

Dallas Love Field Master Plan Update – Public Outreach  
Event #2 (July 10, 2014)

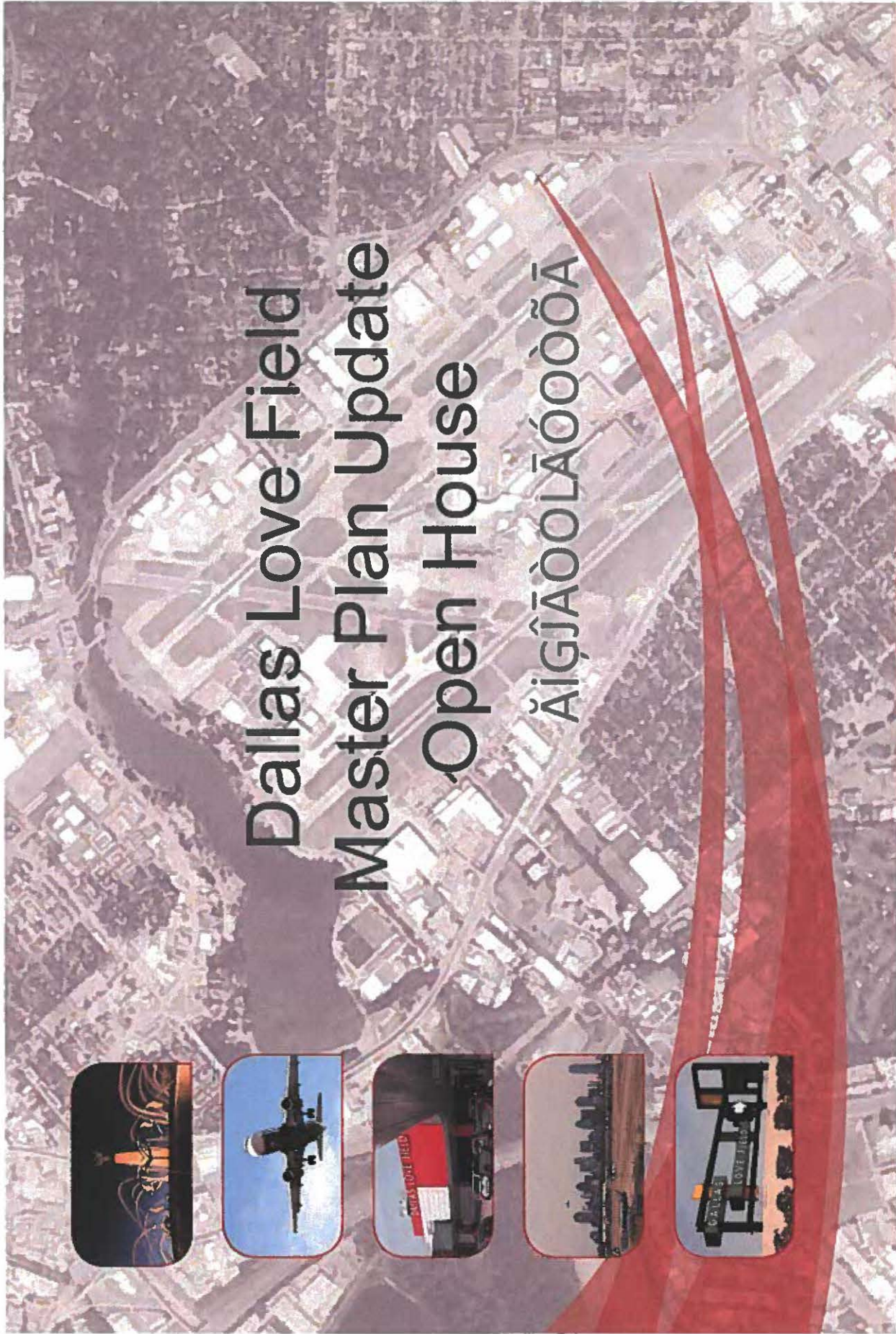




# Dallas Love Field Master Plan Update Open House

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# Welcome

- Open House format – no formal presentation will be conducted
- Informational boards are set up for your review
- City staff and consultants are available to answer any questions
- Comments can be submitted through forms at the Public Comment Station or by e-mail  
[LoveFieldMasterPlan@Dallascityhall.com](mailto:LoveFieldMasterPlan@Dallascityhall.com)
- WEBSITE: [www.Dallas-LoveField.com](http://www.Dallas-LoveField.com)

# What is an Airport Master Plan?

- A comprehensive study of an airport that defines the short-, medium and long-term development plans to meet future aviation demand



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# Master Plan Process

## INVENTORY

- Document Existing Conditions

## AVIATION FORECAST

- Passenger Enplanements
- Aircraft Operations
- FAA Review and Approval

## DEMAND/CAPACITY AND FACILITY REQUIREMENTS

- Define Future Facility Needs
- Assess Ability to Meet Future Needs
- Identify Future Requirements

## ALTERNATIVES DEVELOPMENT AND PUBLIC INVOLVEMENT

- Prepare Concepts that Meet Future Requirements
- Solicit Public Input
- Environmental Overview of Alternatives
- Evaluate Options and Select Preferred Plan

## IMPLEMENTATION PLAN AND DOCUMENTATION

- Identify Financing and Phasing Plans
- Complete Airport Layout Plan
- FAA Review and Approval



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# Why Prepare an Airport Master Plan?

## FEDERAL AVIATION ADMINISTRATION (FAA) REQUIREMENTS

- Airports are required to maintain an up-to-date Airport Layout Plan (ALP) depicting future development. Proposed development must be depicted on an FAA-approved-ALP to be eligible for Airport Improvement Program (AIP) grant funding
- FAA must approve the ALP

## FINANCIAL CONSIDERATIONS

- The approval process for some airport development projects may be lengthy
- The financial commitments may be large

## ENVIRONMENTAL AND SOCIAL IMPACTS

- Environmental and social impacts of airport development projects may be significant and must be addressed

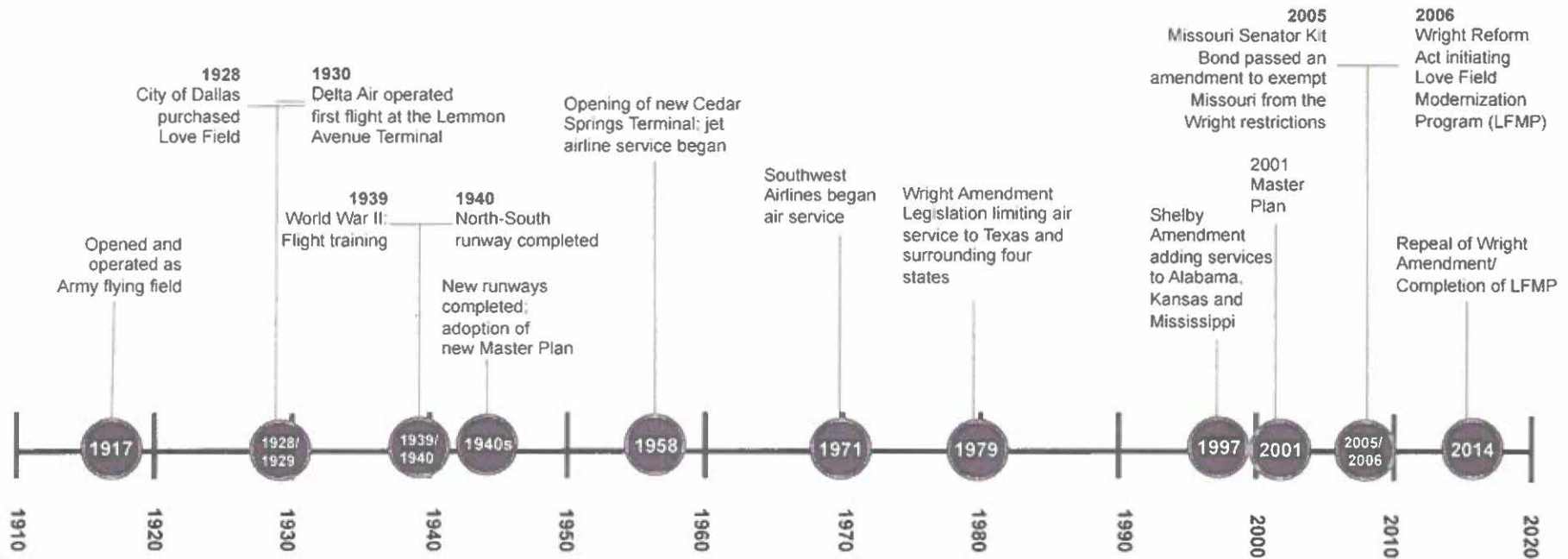
# Dallas Love Field Aerial



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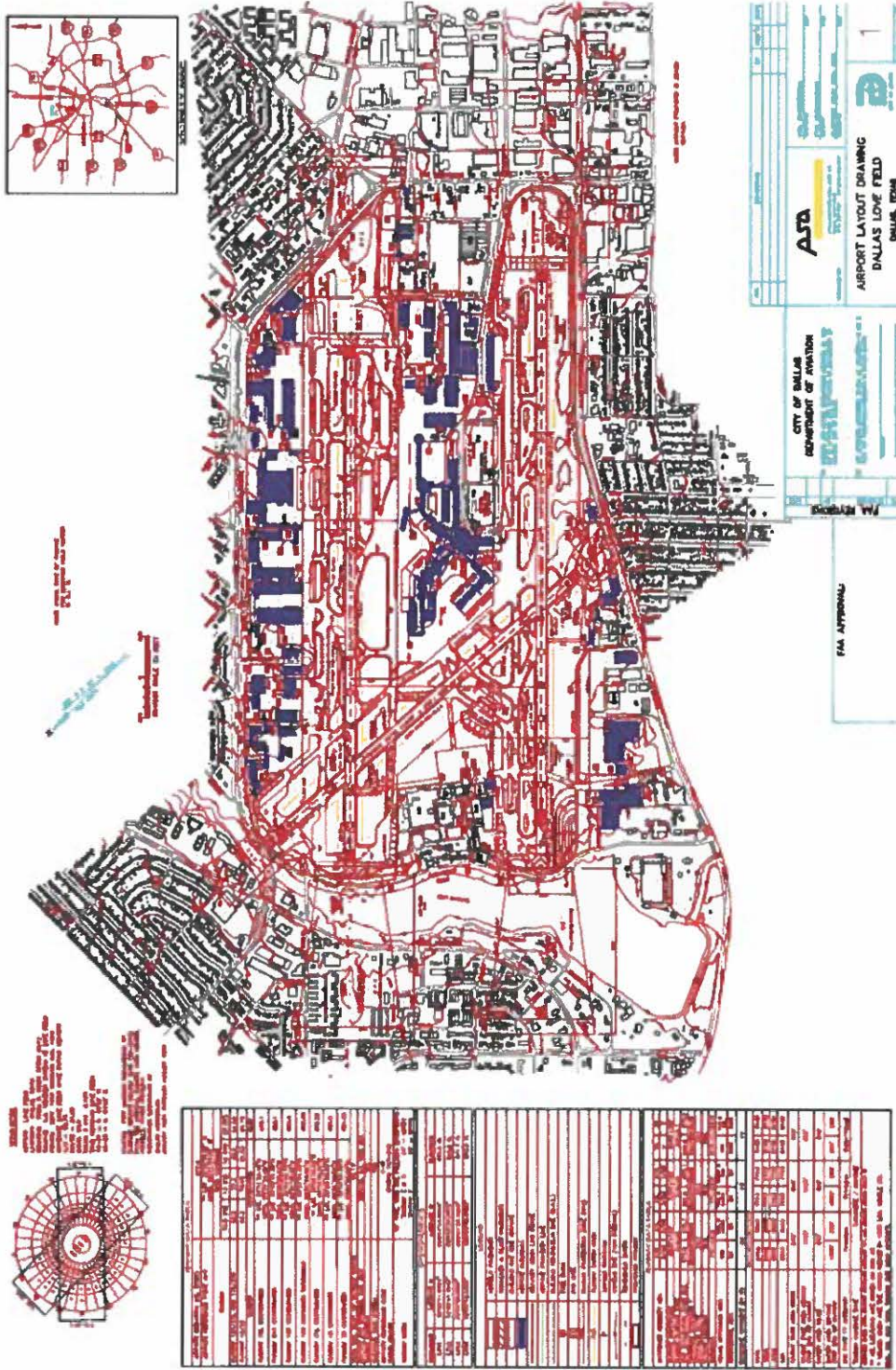
# History of Love Field



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# 2001 Love Field Master Plan



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# Master Plan Inventory

## DEFINITION

- A systematic data collection effort that provides an understanding of past and present airport facilities and activity characteristics. A comprehensive inventory is used to form the basis for analysis performed throughout the Airport Master Plan study

## PHYSICAL AND OPERATIONAL CHARACTERISTICS

- Terminal
- Airfield/airspace
- Roads/parking and transit
- Support facilities

## ENVIRONS

- Surrounding communities
- Regional transportation system

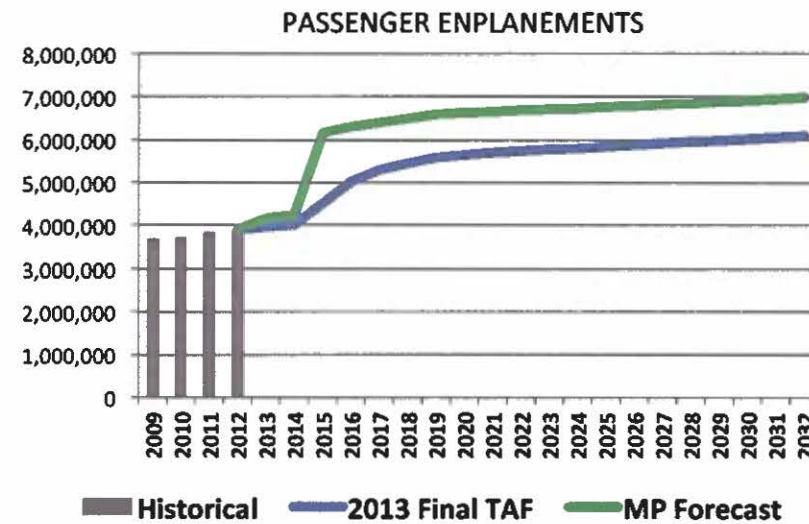
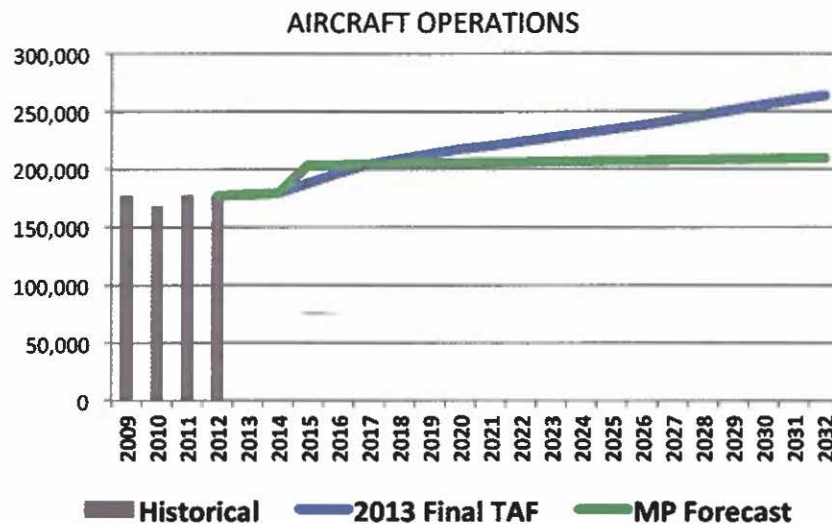
## ACTIVITY AND SOCIOECONOMIC DATA

- Passenger activity, (enplanements and deplanements)
- Passenger characteristics (use of ticketing and baggage facilities, purpose of travel, etc.)
- Aircraft activity (commercial and general aviation)
- Ground Transportation (auto parking, roadway traffic volumes)
- Transit ridership

# Aviation Activity Forecast

## DEFINITION

- A projection of future levels of activity that will occur at the Airport including the number of passengers and aircraft operations. It provides the basis for determining the requirement for future expansion, and the timing for expansion



**NOTES:**

- The *Terminal Area Forecast (TAF)* is the official FAA forecast of aviation activity for U.S. airports
- The Annual Passengers at an Airport is equal to 2 times the enplanements
- The Master Plan Forecast assumes that Southwest Airlines will immediately amend its route network at the Airport upon the expiration of the Wright Amendment restrictions. Rather than a gradual adjustment of service as depicted in the TAF, the Master Plan Forecast assumes a fast change to a new route structure.

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# Planning Activity Levels (PALs)

AIRCRAFT OPERATIONS	
Planning Activity Level	Total Annual Operations
PAL O1	200,000
PAL O2	210,000
PAL O3	245,000

PASSENGER ENPLANEMENTS	
Planning Activity Level	Annual Enplanements
PAL E1	5.5
PAL E2	6.2
PAL E3	7.0

- Planning Activity Levels (PALs) are defined to correspond to a particular demand level identified as part of the demand scenarios
- Due to the nature of variance between the MP Forecast and the Draft 2013 TAF, separate PALs have been chosen for both Operations and Enplanements.

**NOTE:**

The Annual Passengers at an Airport is equal to 2 times the enplanements

# Demand/Capacity & Requirements

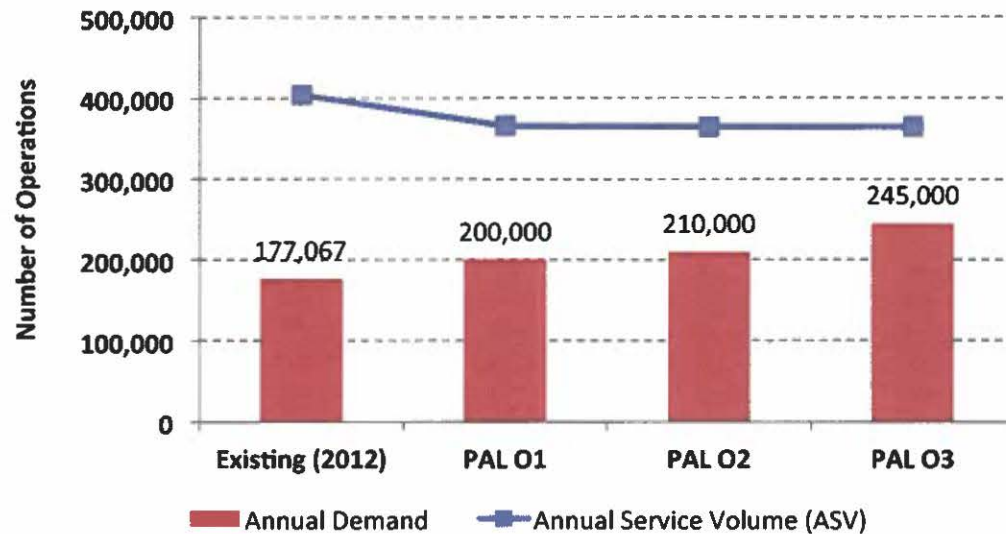
## DEFINITION

- An assessment of existing facilities ability to accommodate future demand and an identification of requirements. This includes defining facilities necessary to accommodate future demand which are used throughout the alternatives development phase

## AREAS IDENTIFIED

- AIRFIELD
- LANDSIDE
  - Parking
  - Rental Car
  - Terminal Roadways
  - Non-Terminal Roadways
- LAND USE / FIXED BASED OPERATORS

# Demand/Capacity & Requirements Airfield



- Established the Annual Service Volume (ASV), hourly throughput capacity and estimated delay per aircraft operation
- The current Airfield can accommodate nearly 360,000 operations annually and is sufficient to accommodate the annual demand within the 20-year planning horizon

NOTES:

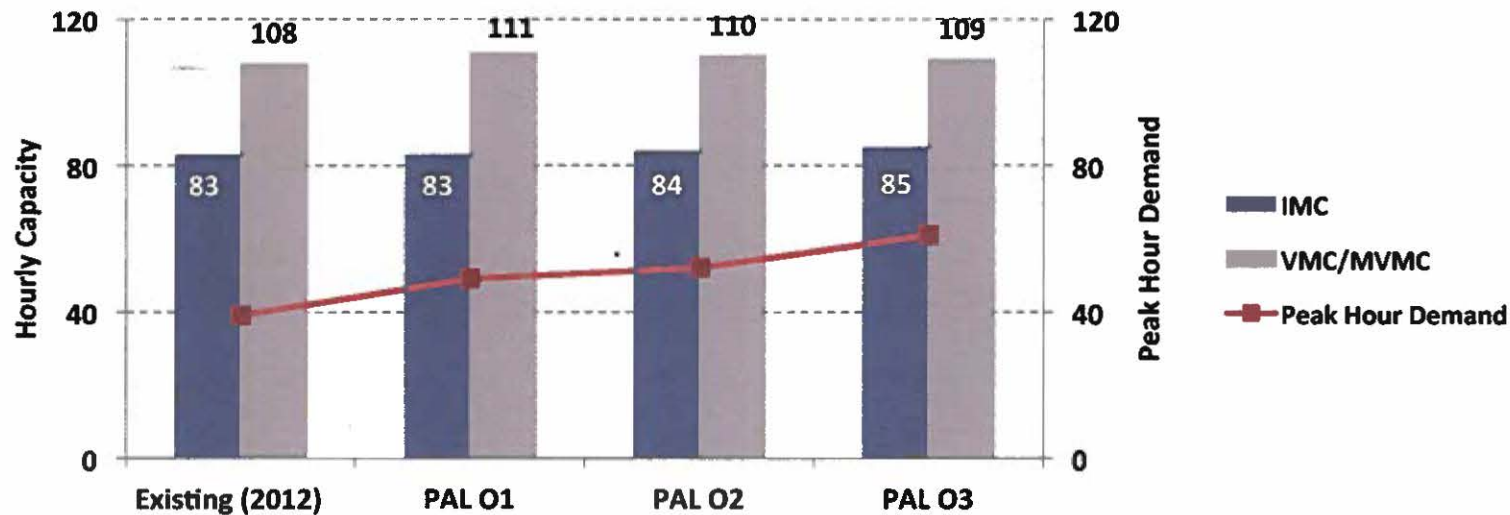
PAL = Planning Activity Level

2012 Existing Conditions were used for the Master Plan Forecast

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# Demand/Capacity & Requirements Airfield



- Peak hour demand levels do not exceed the hourly airfield capacity
- The capacity of the existing airfield is adequate to accommodate future demand

**NOTES:**

PAL = Planning Activity Level

IMC = Instrument Meteorological Conditions

VMC = Visual Meteorological Conditions

MVMC = Marginal VMC

2012 Existing Conditions were used for the Master Plan Forecast

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# Demand/Capacity & Requirements Landside On-Airport Parking

PUBLIC PARKING SPACES	EXISTING (2012)			PAL		
	Capacity	Demand	Spaces Required	E1	E2	E3
<b>Design Day</b>						
Garage A	2,980	2,609	2,880	3,880	4,370	4,940
Garage B	4,000	2,246	2,360	3,190	3,590	4,060
<b>Total</b>	<b>6,980</b>	<b>4,856</b>	<b>5,240</b>	<b>7,070</b>	<b>7,960</b>	<b>9,000</b>
Surplus/(Deficit)	-	-	1,740	(90)	(980)	(2,020)

EMPLOYEE PARKING SPACES	EXISTING (2012)	PAL		
		E1	E2	E3
Requirements	940	1,220	1,350	1,490
Surplus/ (Deficit)	(443)	(723)	(853)	(993)

NOTES:  
PAL = Planning Activity Level



# Demand Capacity & Requirements Landside On-Airport Roadways

## UPPER LEVEL

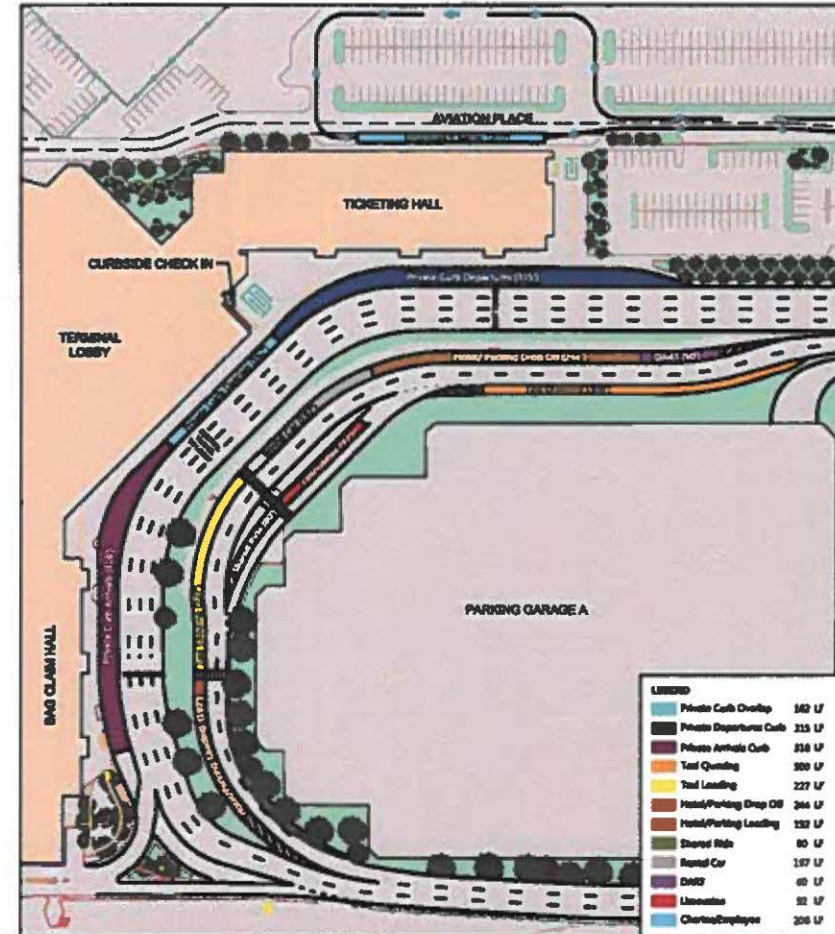
- Private vehicle drop-off and pick-up
- Taxis, Limousines and Shared Ride Vans can drop-off

## LOWER LEVEL

- Pick-up for Taxis, Limousines and Shared Ride Vans
- Rental Car Shuttles, Hotel and Parking Shuttles drop-off and pick-up
- Additional Taxi queuing

## BEHIND TICKETING HALL

- Employee and Charter Bus pick-up/drop-off



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# Demand Capacity & Requirements Landside On-Airport Roadways

AM Peak (Approximately 6:30AM - 7:30AM)	Existing (2013)	PAL E1		PAL E2		PAL E3	
CATEGORY	Curb Length Available (Linear Feet)	Required Curb Length (feet)	Curbside LOS	Required Curb Length (feet)	Curbside LOS	Required Curb Length (feet)	Curbside LOS
Upper Level							
Arrivals Curbside	480	100	A	125	A	125	A
Departures Curbside	477	660	D	477	D	910	E
Lower Level							
Taxicabs	227	50	A	50	A	50	A
Limos	92	30	A	30	A	30	A
Shared Ride / Door-to-Door Vehicles	80	30	A	30	A	30	A
Rental Car Shuttles	197	60	A	60	A	60	A
Hotel/Motel/Parking Shuttles Drop-off	244	80	A	80	A	80	A
Hotel/Motel/Parking Shuttles Pickup	192	40	A	40	A	40	A
DART Busses	186	40	A	40	A	40	A
<b>TOTAL</b>	<b>1218</b>	<b>330</b>	<b>A</b>	<b>330</b>	<b>A</b>	<b>330</b>	<b>A</b>
PM Peak (Approximately 7:00PM – 8:00PM)	Existing (2013)	PAL E1		PAL E2		PAL E3	
CATEGORY	Curb Length Available (Linear Feet)	Required Curb Length (feet)	Curbside LOS	Required Curb Length (feet)	Curbside LOS	Required Curb Length (feet)	Curbside LOS
Upper Level							
Arrivals Curbside	480	400	B	500	C	575	D
Departures Curbside	477	655	D	680	D	880	F
Lower Level							
Taxicabs	227	75	A	100	A	125	A
Limos	92	30	A	30	A	30	A
Shared Ride / Door-to-Door Vehicles	80	30	A	30	A	30	A
Rental Car Shuttles	197	60	A	60	A	60	A
Hotel/Motel/Parking Shuttles Drop-off	244	80	A	80	A	80	A
Hotel/Motel/Parking Shuttles Pickup	192	40	A	40	A	40	A
DART Busses	186	40	A	40	A	40	A
<b>TOTAL</b>	<b>1218</b>	<b>325</b>	<b>A</b>	<b>350</b>	<b>A</b>	<b>375</b>	<b>A</b>

NOTE:

PAL = Planning Activity Level

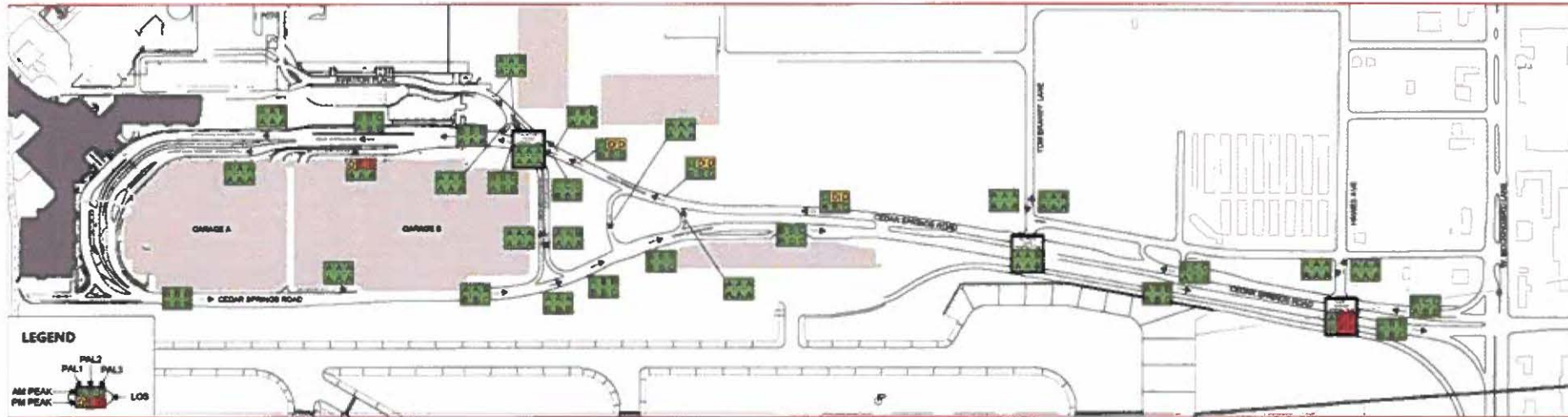
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# Demand Capacity & Requirements

## Landside On-Airport Roadways



Level Of Service (LOS) Descriptions		
LOS	Condition	Description
A	Excellent	Traffic is free flow, with low volumes and high speeds
B	Very good	Drivers have reasonable freedom to select their speed and lane of operation
C	Good	Drivers become restricted in their ability to select their speed or to change lanes
D	Fair	Drivers have little freedom to maneuver and driving comfort levels are low
E	Poor	Roadway is operating at or near capacity
F	Failure	Forced flow operations where excessive roadway queuing develops

SOURCE: Transportation Research Board, *Highway Capacity Manual*, 2000.

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# Demand Capacity & Requirements Landside Non-Terminal Roadways

Intersection	PAL E3 AM Peak Level of Service (LOS)	PAL E3 PM Peak LOS
1. Lemmon Avenue and Airdrome Drive	C	C
2. Lemmon Avenue and Mockingbird Lane	C	C
3. Airdrome Drive and Mockingbird Lane	B	C
4. Cedar Springs Road and Mockingbird Lane	F	F
5. Mockingbird Lane and Denton Drive	E	E

- Existing Mockingbird Lane is expected to have low level of service prior to PAL E3 at Cedar Springs Road and at Denton Drive
  - LOS F at Cedar Springs Road
  - LOS E at Denton Drive



NOTES:  
PAL = Planning Activity Level

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# Demand/Capacity & Requirements Landside - Rental Car

RENTAL CAR FACILITIES	2013 Existing	PAL		
		E1	E2	E3
<b>Ready/Return/Storage Areas</b>				
Requirements	10.4 acres	14.1 acres	15.9 acres	17.9 acres
Surplus/ (Deficit)	-	(3.7) acres	(5.5) acres	(7.5) acres
<b>Quick Turnaround (QTA)/Service Site</b>				
Requirements	3.1 acres	4.1 acres	4.7 acres	5.3 acres
Surplus/ (Deficit)	-	(1.0) acres	(1.6) acres	(2.2) acres

NOTES:

PAL = Planning Activity Level

# Demand/Capacity & Requirements Land Use / Fixed Base Operators

Fixed Base Operators (FBO's) Gross Facility Requirements					Corporate/ Maintenance Hangars Gross Facility Requirements				
	Gross Facility Requirements (sq. ft.)					Gross Facility Requirements (sq. ft.)			
	Existing	PAL 01	PAL 02	PAL 03		Existing	PAL 01	PAL 02	PAL 03
Hangar	1,043,000	1,133,000	1,229,000	1,407,000	Hangar	891,000	891,000	1,090,000	1,243,000
Apron	2,799,000	3,019,000	3,281,000	3,752,000	Apron	1,594,000	1,594,000	1,943,000	2,224,000
Auto Parking and Circulation	910,000	919,000	999,000	1,141,000	Auto Parking and Circulation	786,000	786,000	960,000	1,096,000
Vacant/Open Areas	593,000	626,000	666,000	726,000	Vacant/Open Areas	327,200	327,200	399,300	456,300
Total (sq. ft.):	5,345,000	5,697,000	6,175,000	7,026,000	Total (sq. ft.):	3,598,200	3,598,200	4,392,300	5,019,300
Total (Acres):	122.7	130.8	141.8	161.3	Total (Acres):	82.6	82.6	100.8	115.2
Cumulative Net Increase	-	6.5%	15.5%	31.4%	Cumulative Net Increase	-	0.0%	22.1%	34.9%
Deficiencies (sq. ft.)	-	352,000	830,000	1,681,000	Deficiencies (sq. ft.)	-	0	794,100	1,421,100
Deficiencies (Acres)	-	8.1	19.1	38.6	Deficiencies (Acres)	-	0.0	18.2	32.6

FBO – Corporate Maintenance Hangars Gross Facility Requirements Summary Table (Acres)

	FBO Acres Required	Corporate / Maintenance Hangars Acres Required	Total Acres Required
PAL 01	8.1	0	8.1
PAL 02	19.1	18.2	37.3
PAL 03	38.6	32.6	71.2

- A split growth rate for forecasted based aircraft and aircraft operations was used to determine requirements for Corporate hangar and Maintenance facilities.
- Based aircraft growth rates were used to determine requirements for Fixed Based Operator facilities.

NOTE:

PAL = Planning Activity Level

# Public Involvement

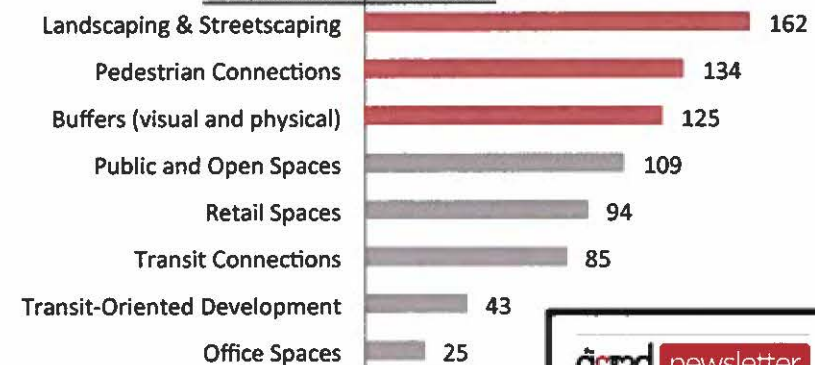
- The Good Neighbor Plan Initiative was created in 2012 to enhance the physical and economic development of the airport and its bordering communities

MEETING	NUMBER OF ATTENDEES
East Zone Residential Meeting (North) Shorecrest Estates, Cochran Chapel	14
East Zone Business Meeting	9
East Zone Residential Meeting (South) North Park	38
Dallas Love Field Airport Tenants Meeting	30
South Zone Business Meeting	10
South Zone Residential Meeting	2
West Zone Business Meeting	6
West Zone Residential Meeting	34
North Zone Residential Meeting	6
North Zone Business Meeting	7
<b>TOTAL</b>	<b>156</b>

## OUTREACH EFFORTS INCLUDED:

- Door hangers
- Posters
- Phone calls
- Newsletters
- Email blasts
- Website
- Letters

## Priorities of Interest



# Alternatives Development & Evaluation

## DEFINITION

- Identification and evaluation of Airport development alternatives that
  - Satisfy future aviation demand over the planning horizon
  - Are responsive to the needs of the communities served by the Airport
  - Maximize revenue-generating opportunities while effectively managing land uses and development, and provides flexibility to accommodate the dynamic nature of the aviation industry

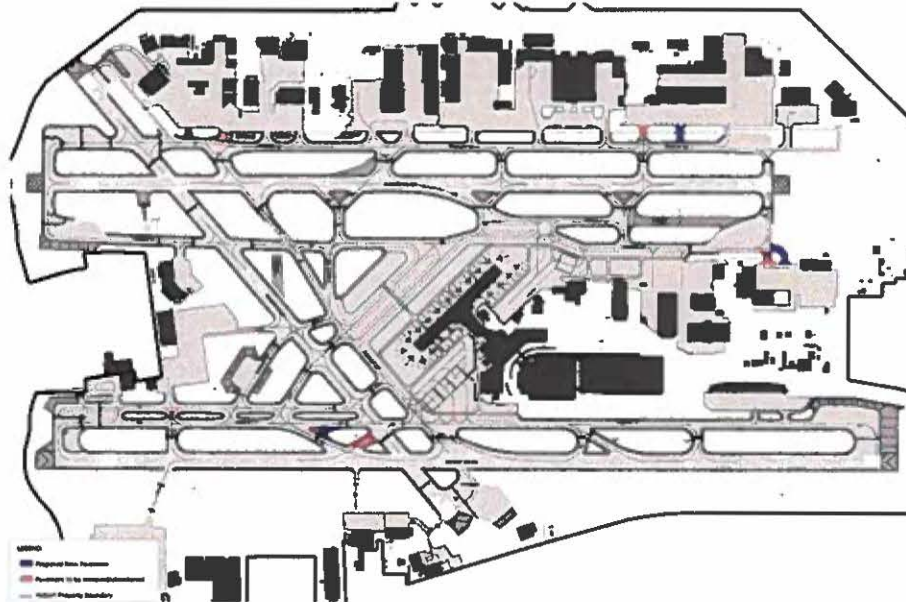
## AREAS IDENTIFIED

- Airside
- Landside
- Fixed Base Operators / Support Facilities

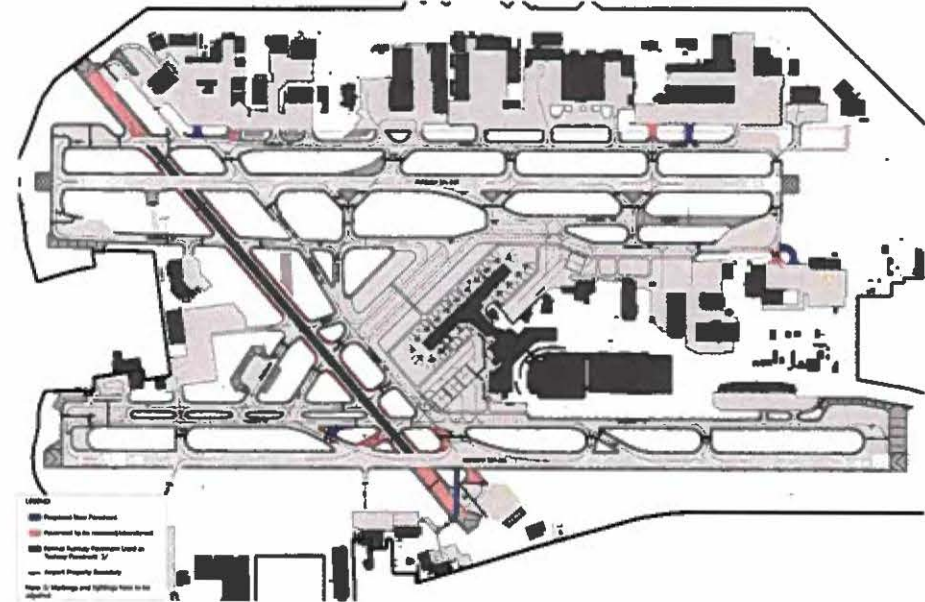


# Airfield Alternatives: Runway 18-36

Runway 18-36

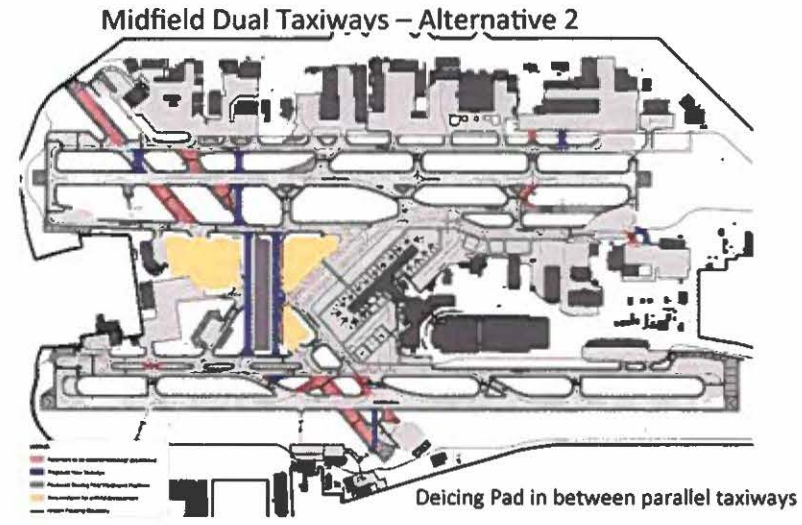
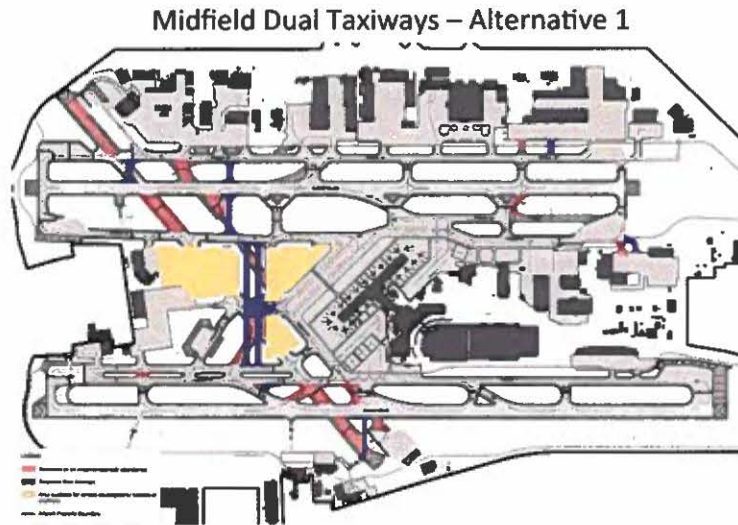


Runway 18-36 Converted Into a Taxiway



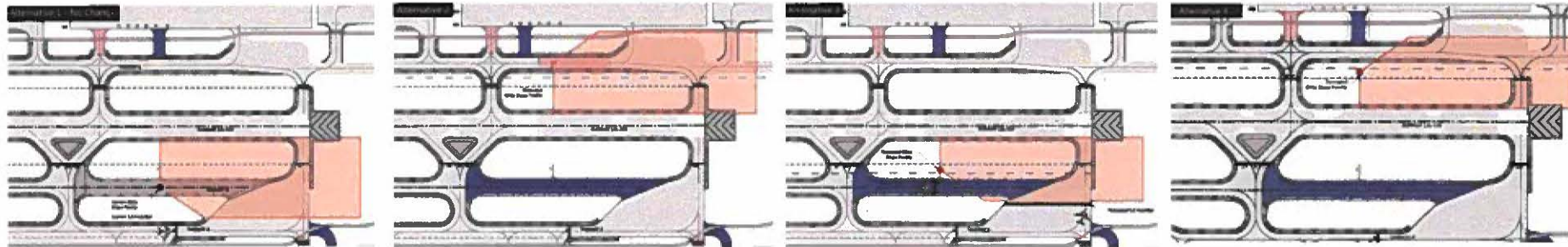
- As the current runway system is adequate to meet PAL O3 operational demand levels, the airfield alternatives focus on the reconfiguration of the taxiway infrastructure to comply with the current FAA design standards such as:
  - The modification of taxiways to reduce the potential for runway incursions
  - Other taxiway geometric modifications to optimize the airfield configuration

# Airfield Alternatives: Midfield Dual Taxiways



- If Runway 18-36 is decommissioned, a full reconfiguration of the midfield taxiway infrastructure would reduce aircraft taxi distances while maximizing the amount of airport property that would be available for other facility development.
- To optimize the airfield layout and provide flexibility for future developments, midfield dual parallel taxiways perpendicular to the runways are recommended.
- These dual parallel taxiways would also provide areas available for future aircraft parking, terminal development or other airfield developments.

# Glideslope Facility Alternatives



- Opportunities to relocate the glideslope facility serving arrivals to Runway 31R have been considered in order to allow Taxiway M to become operational south of Taxiway B1

RUNWAY 31R GLIDESLOPE FACILITY RELOCATION ALTERNATIVES				
CRITERIA	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Glideslope facility relocated	No	Yes	Yes	Yes
Lateral Separation between the glideslope facility and Runway 13L-31R centerline	400 feet	405 feet	268 feet	268 feet
Glideslope facility inside the Runway OFA	No	No	Yes	Yes
Taxiway M operational	No	Yes	Yes, but with restrictions	Yes
Largest Aircraft allowed on Taxiway M	None	ADG IV aircraft	ADG III aircraft	ADG IV aircraft
Impact on other taxiways	None	Yes: a section of Taxiway A is closed	No	Yes: glideslope critical area encroaches on Taxiway A

# Landside Alternatives On-Airport Parking / Rental Car

Option 1



**Development Includes:**

- Parking

Option 2



**Development Includes:**

- Parking
- Rental Car – Ready/Return
- Separate Site – Rental Car QTA & Maintenance

**Optional Development:**

- Hotel

Option 3



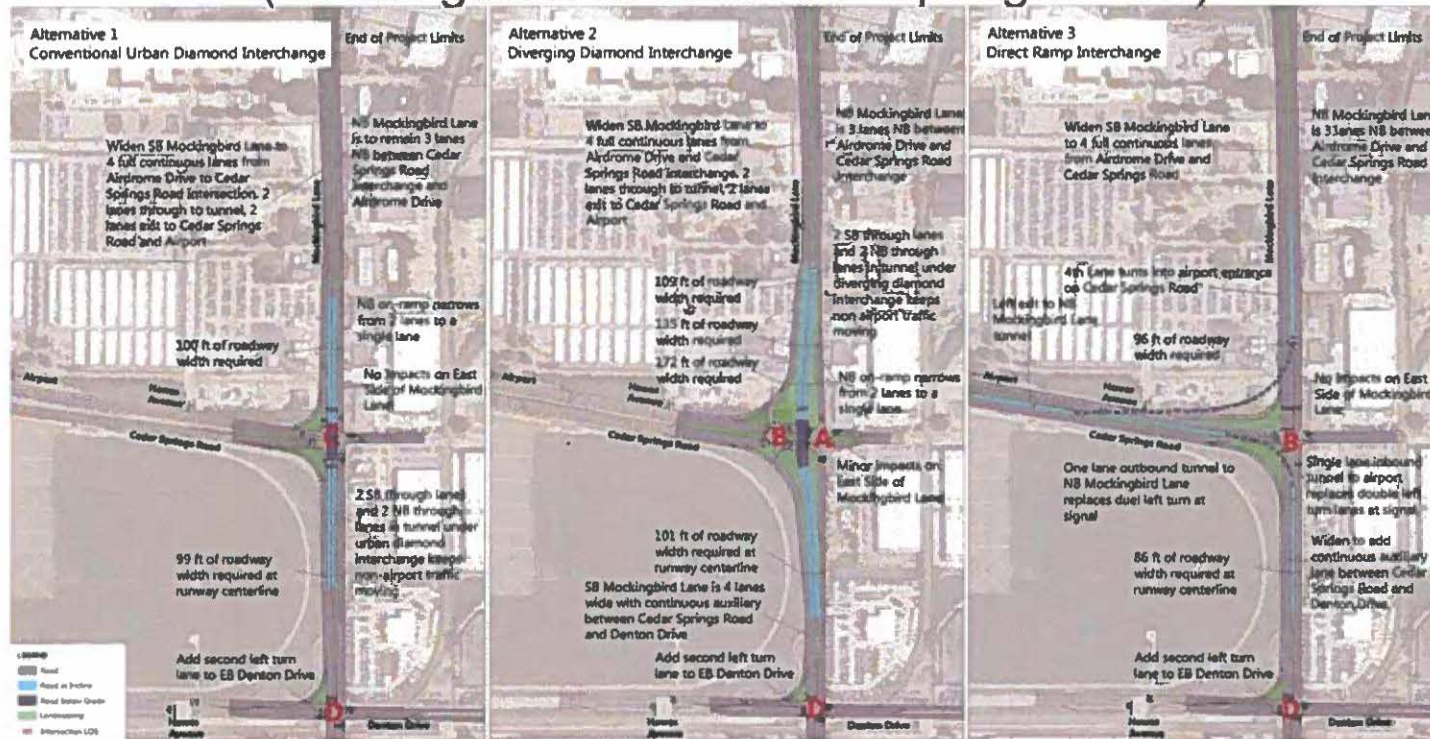
**Development Includes:**

- Parking
- Rental Car – QTA and Ready/Return

**Optional Development:**

- Hotel

# Landside Alternatives Off-Airport Roadways (Mockingbird Lane - Cedar Springs Road)



Level of Service (LOS) Descriptions

LOS	A	B	C	D	E	F
Condition	Excellent	Very good	Good	Fair	Poor	Failure
Description	Traffic is free flow, with low volumes and high speeds	Drivers have reasonable freedom to select their speed and lane of operation	Drivers become restricted in their ability to select their speed or to change lanes	Drivers have little freedom to maneuver and driving comfort levels are low	Roadway is operating at or near capacity	Forced flow operations where excessive roadway queuing develops

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# Land-Use /Fixed Base Operators Alternatives

Areas Open For Development if 18/36 is Decommissioned



## LEGEND

- Taxiway
- Taxiway Centerline
- Facility Expansion Area
- Property Line
- Runway to be decommissioned

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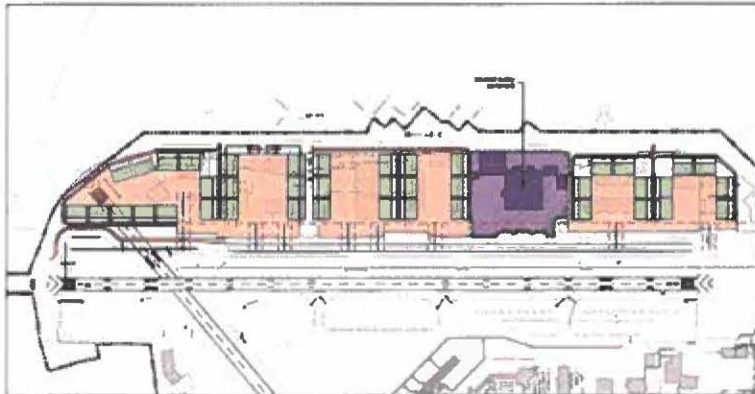
# Fixed Base Operators Alternatives



East Side Alternatives – Option 2 with Runway 18-36 active



East Side Alternatives – Option 3 with Runway 18-36 active



East Side Alternatives – Option 2 if Runway 18-36 is Decommissioned

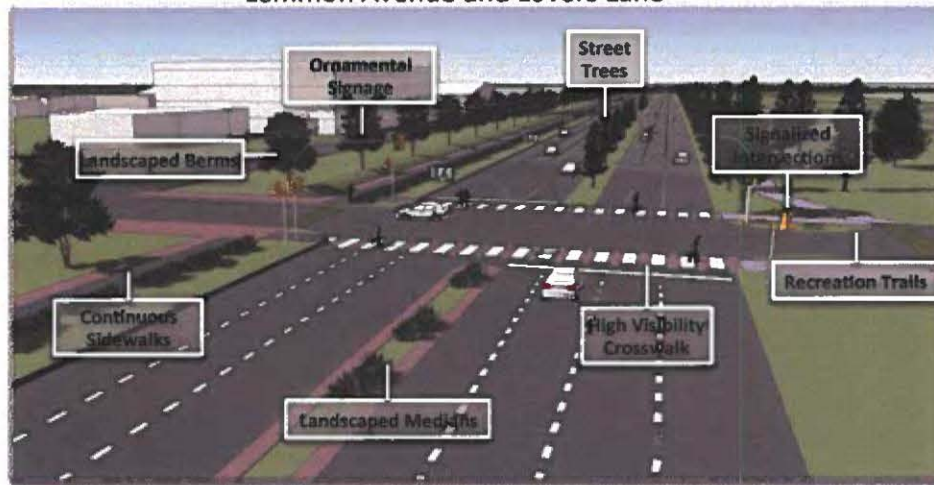


East Side Alternatives – Option 3 if Runway 18-36 is Decommissioned

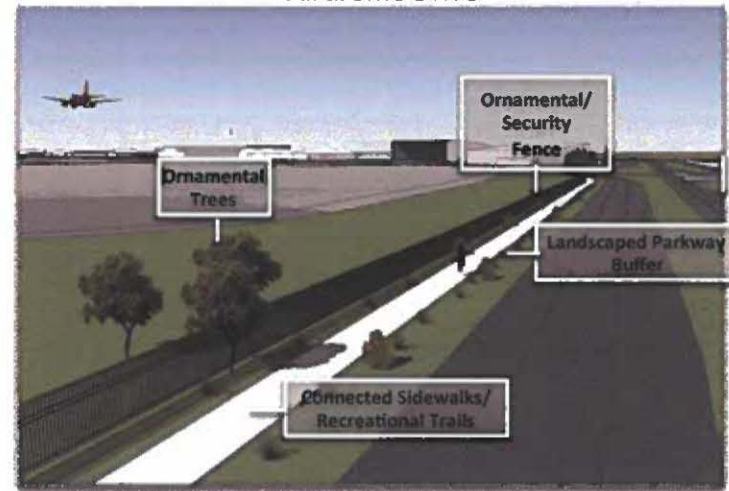
LEGEND						
Existing Buildings	Hangars	Vehicle Parking Areas	FBO Terminal	Part 77 BRL Setback	Bike Path	Taxiway OFA
Retail/Hotel Development	Apron Areas	DALFORT Facility	Sidewalk	Realigned Patrol Road	Property Line	

# Pedestrian Connections, Landscaping & Buffers

Lemmon Avenue and Lovers Lane



Airdrome Drive





# Next Steps

## EVALUATE ALTERNATIVES

- Review Public Input (30 Days) [LoveFieldMasterPlan@Dallascityhall.com](mailto:LoveFieldMasterPlan@Dallascityhall.com)
- Evaluate Options and Select Preferred Plan (45 days)
- Public Outreach Meeting #2 (Fall 2014)

## IMPLEMENTATION AND DOCUMENTATION

- Finalize Financing and Phasing Plan (Fall 2014)
- Airport Layout Plan (ALP) (Fall 2014)
- FAA Final Review and Approval of ALP (TBD)

# Public Comments

- Comments can be submitted through forms provided or by e-mail  
[LoveFieldMasterPlan@Dallascityhall.com](mailto:LoveFieldMasterPlan@Dallascityhall.com)
- WEBSITE: [www.Dallas-LoveField.com](http://www.Dallas-LoveField.com)