Airport Layout Plan Update
Chandler Municipal Airport

City Council Micro-Retreat
September 12, 2016

City of Chandler

Chandler Municipal Airport

Airport Layout Plan (ALP)

- ALP is an airport planning document showing:
  - Physical layout of existing and potential airport facilities
  - On and off-airport airspace, including any obstructions
  - Airport property and land uses

- A project identified on an ALP does not guarantee it will be built, only that it is planned
  - Depends on need, priority, and funding availability
  - Project must be on the Airport's Capital Improvement Plan
  - FAA won't provide funds for projects that are not on the ALP

Why are we updating the ALP?

- We need to:
  - Comply with FAA ALP requirements
  - Meet FAA airport design standards
  - Meet City ordinance requirements
  - Reflect current conditions
  - Prepare for 2018 Airport Master Plan Update
  - Keep our flexibility to respond to future conditions

- FAA requirements
  - We must identify current and planned improvements on an FAA-approved ALP
  - We are obligated to “keep the ALP up-to-date at all times”

Why are we updating the ALP?

- Our ALP is out-of-date - it was last approved in 2000
  - The FAA did not approve the Draft ALP from the 2007/2010 airport master plan process
  - The FAA gave us funding to complete the ALP update by December 2016

- The 2000 ALP does not reflect current conditions, FAA standards, or meet Ordinance #3888
  - It shows a future 6,800 ft South Runway
  - It does not show the existing Germann Road alignment
  - It does not meet FAA's Runway Protection Zone standards

Ordinance No. 3888

- Approved by City Council on February 22, 2007
- Amended City Code:
  - Set the maximum runway length at 5,700 ft (South Runway)
  - Extension of a runway requires voter-approved bonds, which specify the bond monies are for the purpose of extending a runway
  - Airport shall not be designed to accommodate aircraft that:
    - Weigh greater than 75,000 lbs and/or,
    - Have a wingspan greater than 79 ft (Airplane Design Group II)
  - No application for a Part 139 certificate without prior City Council approval
    - Part 139 certificates are required to accommodate commercial scheduled/unscheduled passenger service

Design Group II Airplanes

Turboprop and jet aircraft operating at the Airport

HondaJet

Dassault Falcon 900 Series

Cessna Citation X

Beech King Air

What's in the ALP Update?

Runway and Runway Protection Zones

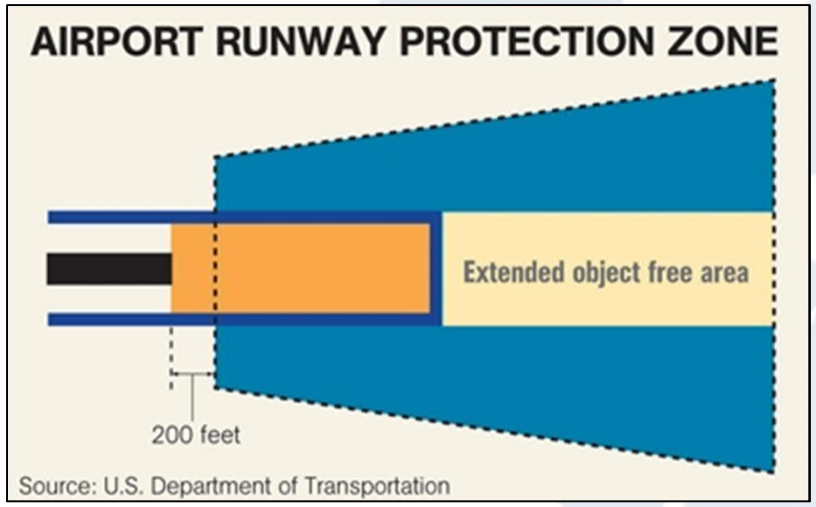
- Potential future South Runway length
- Runway Protection Zones for South Runway

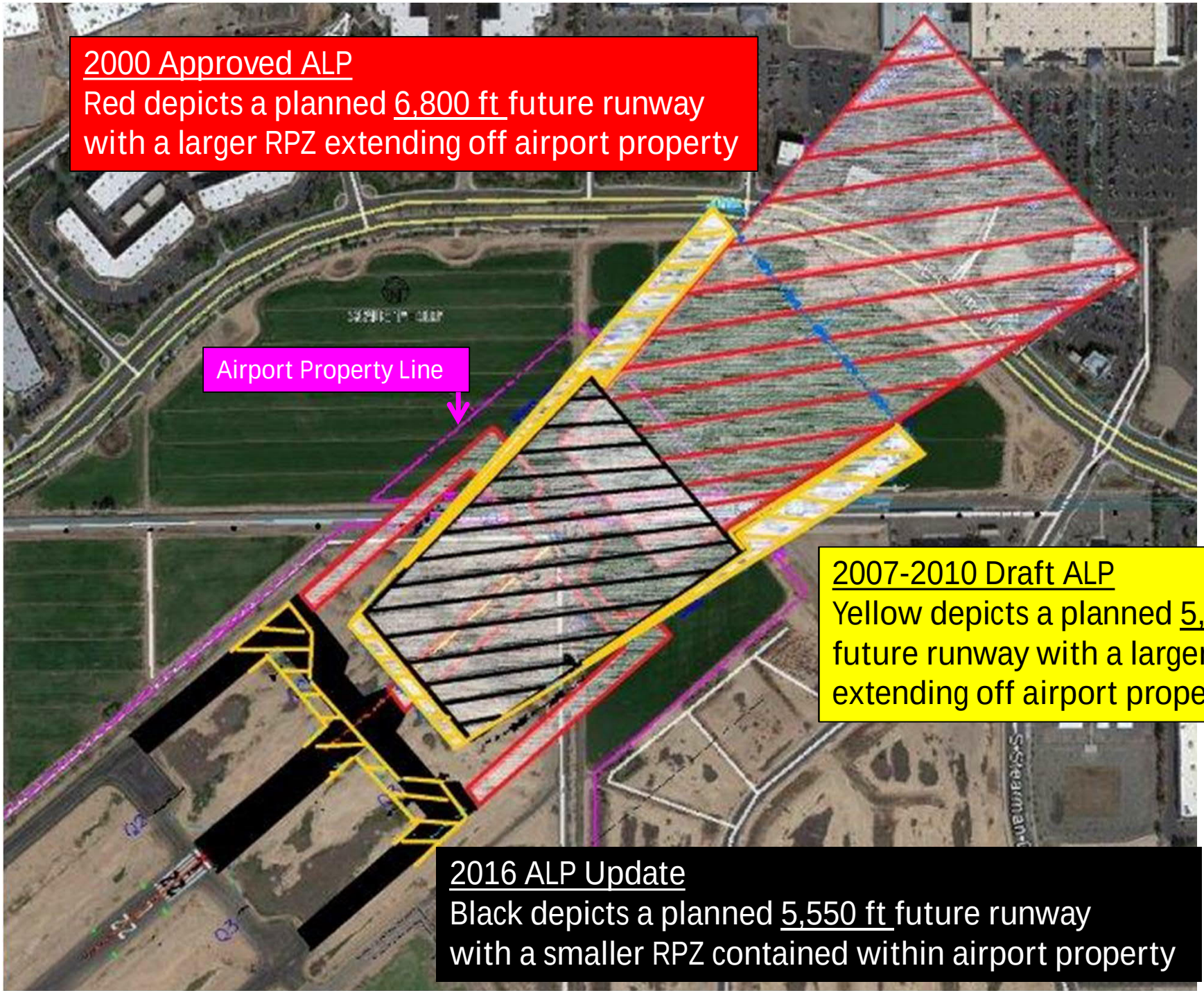
Additional Airfield Changes

- New separation standards between taxiways and taxilanes
- New standards that discourage "straight-through" pavement
- New design standards for taxiway fillets
- Potential future hangar/t-shade sites

Runway Protection Zone (RPZ)

- RPZ ("clear zone") is a trapezoidal area off the end of each runway
  - Protects people and property on the ground
  - Very limited land uses permitted
  - FAA wants airports to control the land where RPZs are located




2000 Approved ALP
Red depicts a planned 6,800 ft future runway with a larger RPZ extending off airport property
Airport Property Line
2007-2010 Draft ALP
Yellow depicts a planned 5,700 ft future runway with a larger RPZ extending off airport property
2016 ALP Update
Black depicts a planned 5,550 ft future runway with a smaller RPZ contained within airport property

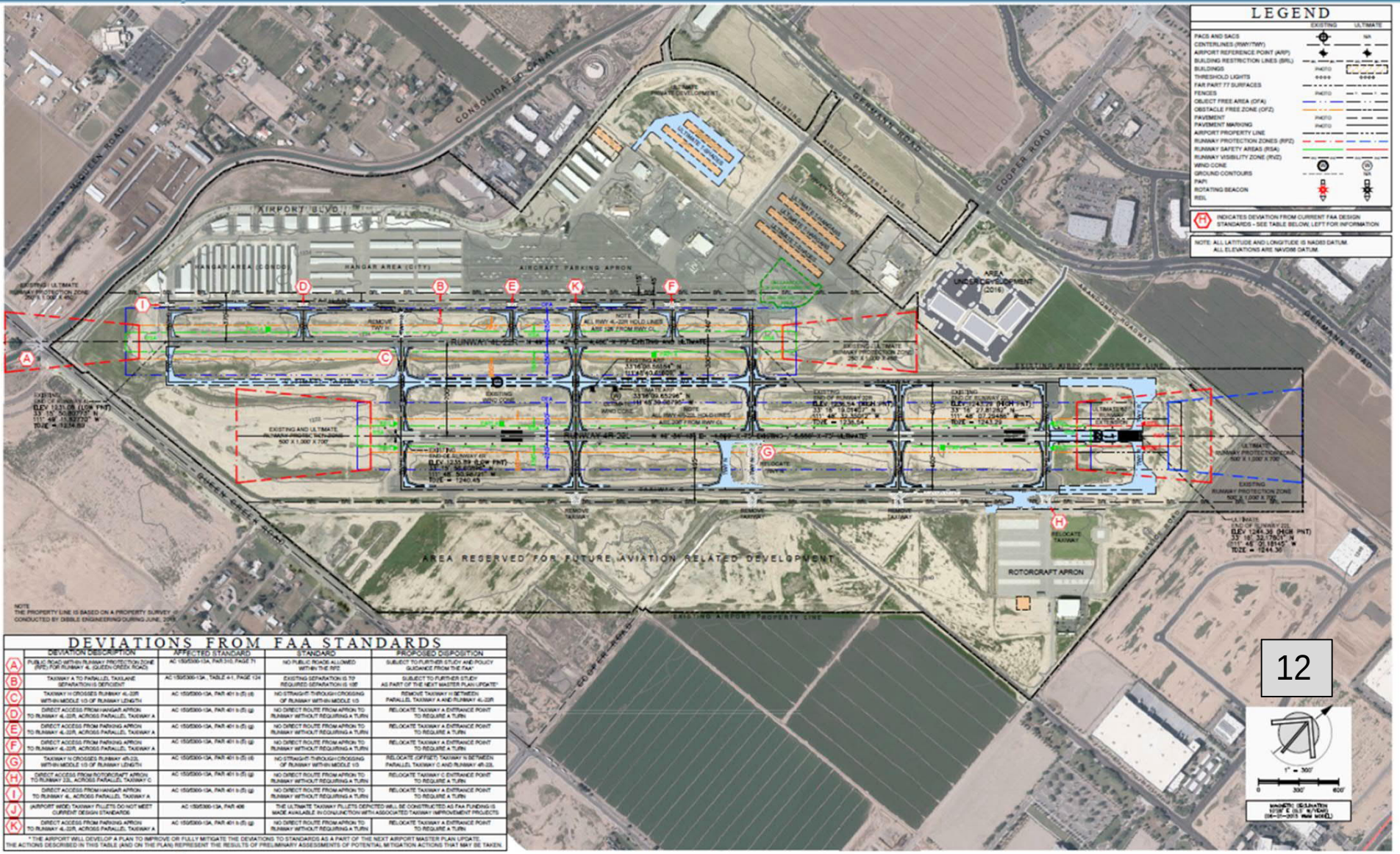
Comparing the ALPs

Item	Existing Facilities	Current 2000 ALP (Future Plan)	Draft 2007-10 ALP (Future Plan)	Proposed 2016 ALP Update (Future Plan)
South Runway Length	4,870 ft.	6,800 ft.	5,700 ft.	5,550 ft.
South Runway Category	B-II	C-II	C-II	B-II
RPZ for South Runway (North end)	Completely On-Airport	Extends Off-Airport	Extends Off-Airport	Completely On-Airport
Land Acquisition needed for RPZ for South Runway?	No	Yes	Yes	No
Germann Road Alignment	As-is	Planned	Completed	Completed

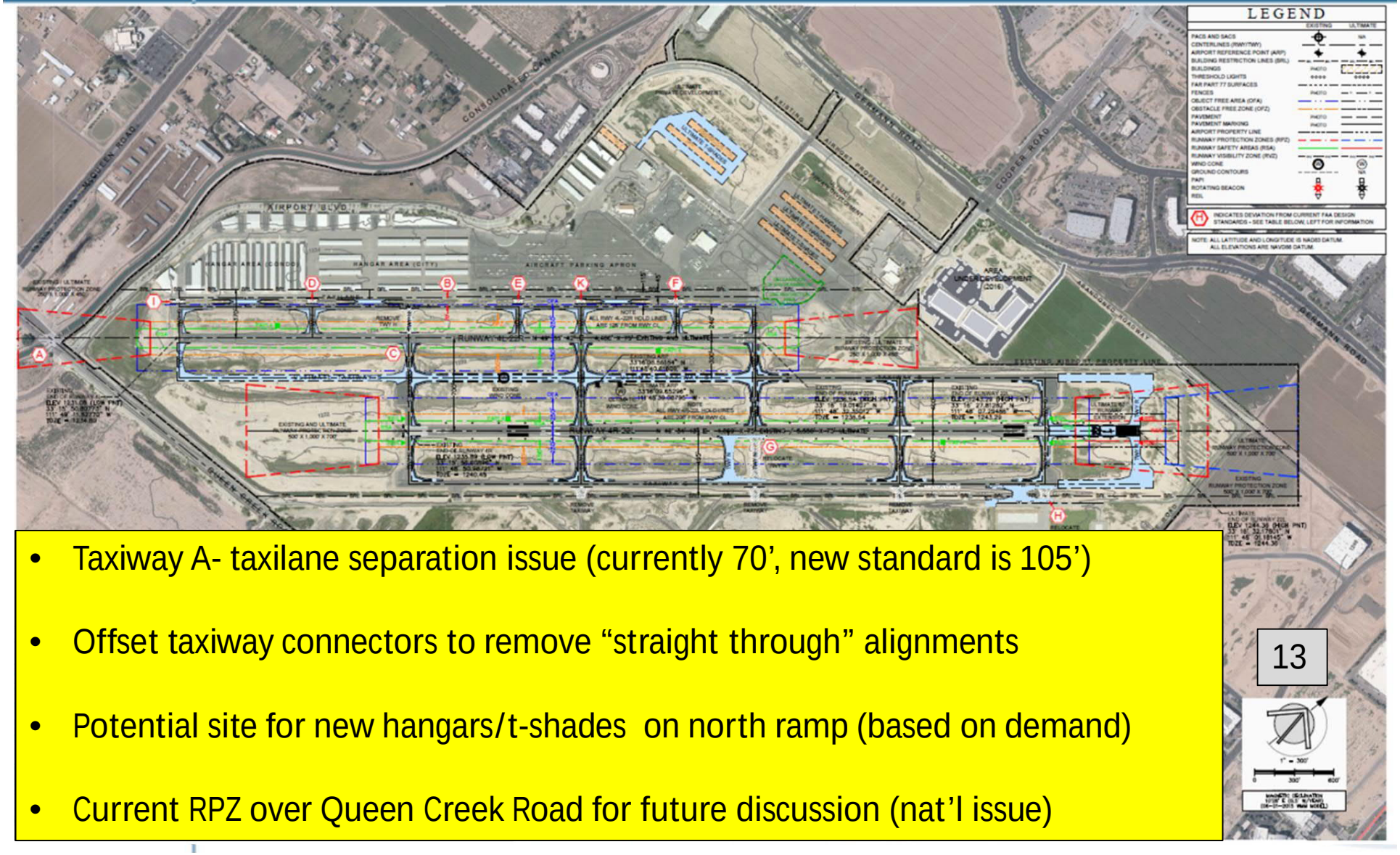
NOTES

- "B" means the aircraft approach speed from 104 to 138 mph
- "C" means the aircraft approach speed from 139 to 191 mph
- "II" means the aircraft wingspan from 49 feet to 79 feet
- B-II category has a smaller Runway Protection Zone than C-II

ALP – Proposed Airport Layout Drawing



ALP - Other Changes



- Taxiway A- taxilane separation issue (currently 70’, new standard is 105’)
- Offset taxiway connectors to remove “straight through” alignments
- Potential site for new hangars/t-shades on north ramp (based on demand)
- Current RPZ over Queen Creek Road for future discussion (nat’l issue)

Summary of Other Changes to ALP

Design Issue/ Facility Improvement	Comment
Queen Creek Road in North Runway RPZ	Subject to further guidance from FAA (national issue)
70 ft. separation between Taxiway A and parallel taxilane to the north should be 105 ft.	Subject to further study as part of next Master Plan Update; could entail changes to taxilane/aircraft tie-downs or potential modification to standards
Straight-through crossings (within middle third of runway) should be offset	Remove some connectors and construct new offset connectors
Direct routes to runways from aircraft apron should have 1 required vehicle turn to minimize incursions.	Remove some connectors and construct new offset connectors
Taxiway fillets do not meet current design standards	Construct new fillets to FAA standard as part of new projects
New hangars and t-shade planned for Armory Ramp	Based on future demand

Recommendation

- Submit updated ALP to the FAA for comment depicting a potential 5,550 foot runway and other changes as indicated

- Benefits
  - Brings us into compliance with FAA's ALP requirements
  - Meets FAA standard for airports to control RPZ land
  - Finalizes the potential length and category of the South Runway
  - Meets City Ordinance No. 3888
  - Reflects current conditions
  - Prepares for 2018 Airport Master Plan Update effort
  - Keeps flexibility to respond to future conditions
  - No need for additional land acquisition

Schedule

Date	Action
September 12	City Council Micro retreat
September 14	Airport Commission
September 30	Submit working draft to FAA for 45 day preliminary review period
November 15	FAA comments expected
November 23	FAA comments incorporated
December 8	City Council Agenda for ALP approval
December 12	Submit signed ALP to FAA for final approval
December 14	Airport Commission

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