



Pinal Airpark Master Plan Fact Sheet 3



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What is the status of the Pinal Airpark Master Plan?

Pinal County is currently conducting an airport master plan to determine the necessity, extent, type, and schedule of development necessary to accommodate existing needs and future aviation demand at Pinal Airpark (Airport). The *Draft Existing Conditions and Needs Report* was completed in the spring of 2014, documenting:

- Existing conditions of the Airport's infrastructure and facilities.
- Forecast of aviation activity and selection of a design aircraft.
- Facility requirements, or necessary improvements/upgrades to accommodate existing and future demand.

After facility requirements were identified, a series of alternative solutions to satisfy them was identified and evaluated. The *Draft Alternatives Development and Evaluation Report* identifies alternatives with different development layouts that can accommodate demand within the existing airport property. These alternatives were divided into two groups—those related to the runway and taxiway system and those affected by on-airport land use planning. These alternatives were evaluated using several criteria

described later in this fact sheet and feedback from the airport master plan's steering committee. After evaluation, a preferred alternative was selected. It will be shown on a draft airport layout plan, which is currently being prepared.

Highlights of the *Draft Alternatives Development and Evaluation Report* are summarized below.

Alternatives Development—Runway and Taxiway System

Based on the existing constraints of the Airport and coordination with the steering committee, the alternatives for the runway and taxiway system focused on the following:

1. Gaining control of land uses and activities within the runway protection zones (RPZs). RPZs are trapezoidal areas off each runway end intended to protect people or property in case an aircraft lands beyond the runway end. Currently, the Airport's RPZs cover land that is not owned by the airport. It is recommended by the Federal Aviation Administration (FAA) that the airport sponsor have control over these areas.
2. Gaining control of the runway safety area (RSA) and runway object free area (ROFA) that extend off property to ensure compliance with FAA design standards.
3. Meeting runway and taxiway design standards

for the critical aircraft (the Boeing 747-400).

4. Increasing operational capabilities by implementing non-precision instrument approach capabilities.
5. Minimizing airspace conflicts with nearby airports and the adjacent activities.

Four alternatives were presented. They are shown on the Runway and Taxiway System Alternatives table on page 3.

Alternative 4 proposes declared distances, which represent the maximum runway length available and suitable for aircraft activities according to each runway end. They can be used to achieve compliance with design standards when there are no feasible alternatives. Because the other alternatives in this case require acquisition of privately owned land, declared distances were considered and evaluated. There are no physical changes to the runway associated with declared distances; these distances are published for pilots to use when making flight calculations. In order to achieve compliance without land acquisition, declared distances would be implemented for both runway ends and the Runway 30 threshold would be displaced 136 feet from the pavement end.

Figures

The figures for these alternatives are included at the end of this fact sheet.

- Alternative 1—No Action
- Alternative 2—Meeting Standards
- Alternative 3—Instrumentation
- Alternative 4—Within Bounds

Alternatives Development—Land Use Planning

Based on the existing operations and users of the Airport, as well as feedback from the steering committee, the alternatives for land use planning focused on identification and delineation of apron space and associated facilities for:

1. General aviation (GA) users.
2. Maintenance, repair and overhaul (MRO) operations including teardown, storage, and maintenance.
3. Military users including those related to the adjacent Parachute Training and Testing Facility (operated by the U.S. Special operations Command) and the Silver Bell Army Heliport (SBAH).

Three alternatives were developed and are shown on the Land Use Planning Alternatives table on page 3.

Figures

The alternatives and their associated projects are depicted on the figures at the end of this fact sheet.

- Alternative A—No Action
- Alternative B—Smooth Transition
- Alternative C—Fresh Look

Alternatives Evaluation Criteria

The alternatives are evaluated according to the following criteria per FAA recommendations and feedback by the Airport Master Plan Steering Committee:

- Operational performance—related to capacity; capability to meet airport design standards and ensure a safe operating environment; and how well the alternatives work as a system to avoid delays, inefficiencies, airspace conflicts, etc.
- Best planning tenets—including flexibility to accommodate unforeseen change, technical feasibility, and conformance to the County's goal of creating a more attractive experience/Airport for GA pilots.
- Environmental implications.
- Financial feasibility—consider development costs, the economic impact to the community, and revenue generation/opportunities, including increased activity and new businesses.



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Runway and Taxiway System Alternatives

1—No Action	2—Meeting Standards	3—Instrumentation	4—Within Bounds
No changes to airfield configuration or infrastructure.	Acquire the land within the RSA and ROFA in fee simple and obtain control over the land uses and activities within the RPZs that extend off airport property via avigation easements. This will help meet design standards without impacting the operational capabilities of the runway.	Implement an instrument approach procedure to Runway 12 to enhance the operational capabilities of the Airport. This alternative also involves acquiring the land within the RSA and ROFA in fee simple, and obtaining avigation easements over the land within the RPZs that extend off airport property to meet design standards.	Implement declared distances and displace the Runway 30 threshold to meet FAA design standards without land acquisition.

Land Use Planning Alternatives

A—No Action	B—Smooth Transition	C—Fresh Look
No changes to landside configuration or uses.	Delineates areas for use by various operational types, considering the locations of existing facilities and immediate plans of the County to minimize potential impacts.	Reevaluates the existing layout to determine the most operationally efficient layout, with limited consideration of constraints by existing facilities.



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Based on a qualitative and quantitative assessment of the alternatives, each evaluation criterion was assigned a comparative rating. Similar to the *Consumer Reports* system, the rating system uses a modified circle to visually communicate the qualitative assessment. The ratings correlate to a simplified non-weighted score as shown on the attached matrices. The alternatives' evaluation scoring can also be found on the attached and a summary is provided below.

Alternatives Rankings

Runway and Taxiway System Alternatives		
Ranking	Summary Score	Alternative
1	18	4—Within Bounds
2 (tie)	17	2—Meeting Standards
2 (tie)	17	1—No Action
3	16	3—Instrumentation

Land Use Planning Alternatives		
Ranking	Summary Score	Alternative
1	23	B—Smooth Transition
2	22	C—Fresh Look
3	16	A—No Action

Source: C&S Companies

Alternatives Ranking

As show on the alternatives rankings table on this page, Alternative 4—Within Bounds received the highest summary score of the runway and taxiway system alternatives. Alternative B—Smooth Transition received the highest summary score of the land use planning alternatives. The preferred alternative involves a combination of the strategies and proposed development depicted on Alternative 4 and Alternative B. However, based

on feedback from the FAA, the displaced threshold and declared distances involved in Alternative 4 will be implemented as a short-term solution to achieving compliance for the RSA and ROFA. Land acquisition will be proposed in the long term and represented by the ultimate conditions.

Summary matrices for the alternatives rankings are included at the end of this fact sheet.

Where do we find it?

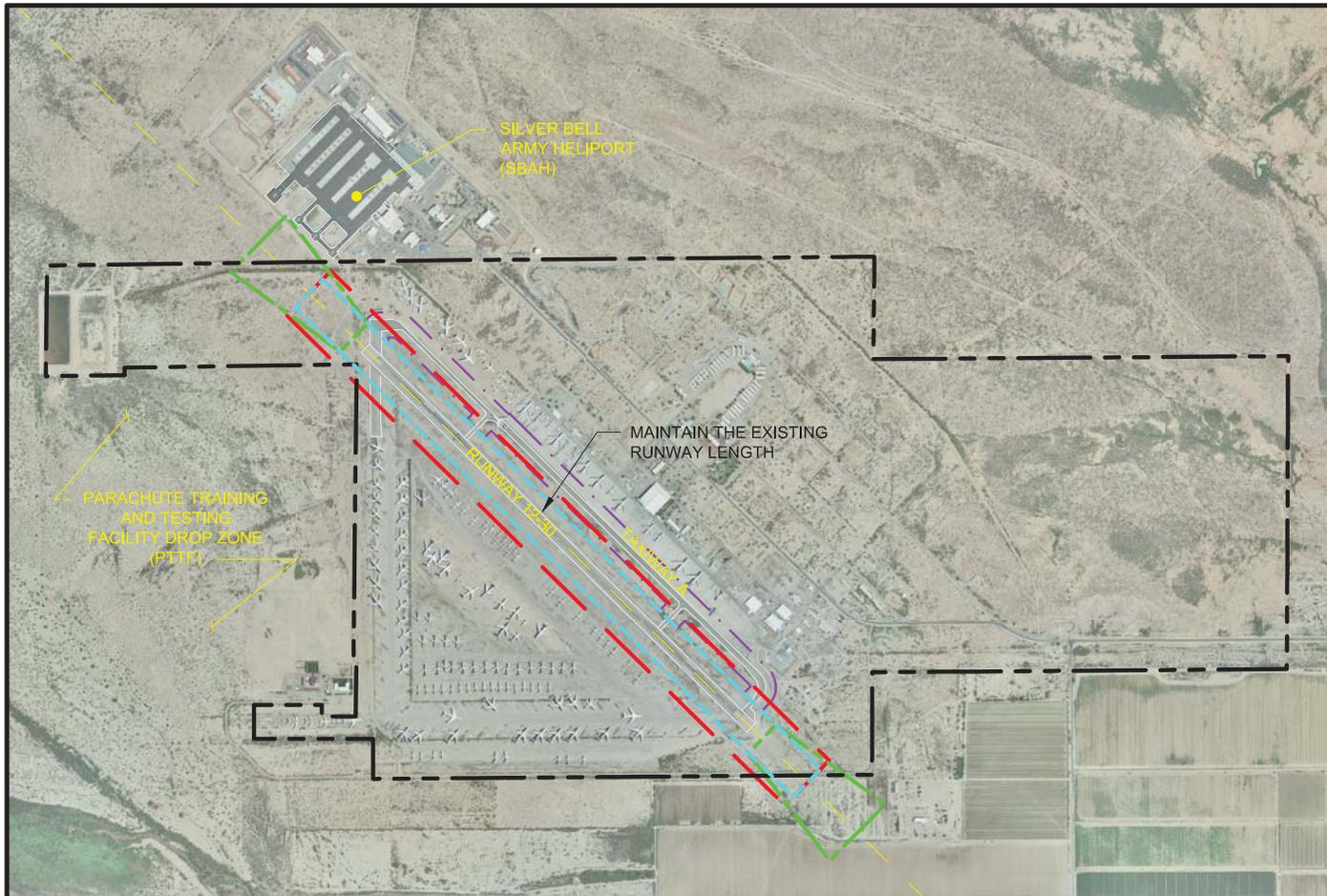
The *Draft Alternatives Development and Evaluation Report* can be found on Pinal County's website at: pinalcountyaz.gov/airport. Comments and questions should be provided to Carly Shannon of the C&S Companies at cshannon@cscos.com.



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LEGEND

-  EXISTING AIRPORT PROPERTY LINE
-  RUNWAY OBJECT FREE AREA (ROFA)
-  RUNWAY SAFETY AREA (RSA)
-  RUNWAY PROTECTION ZONE (RPZ)
-  TAXIWAY OBJECT FREE AREA (TOFA)

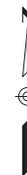


Airside Projects

Maintain the existing runway length



SCALE: 1" = 1500'



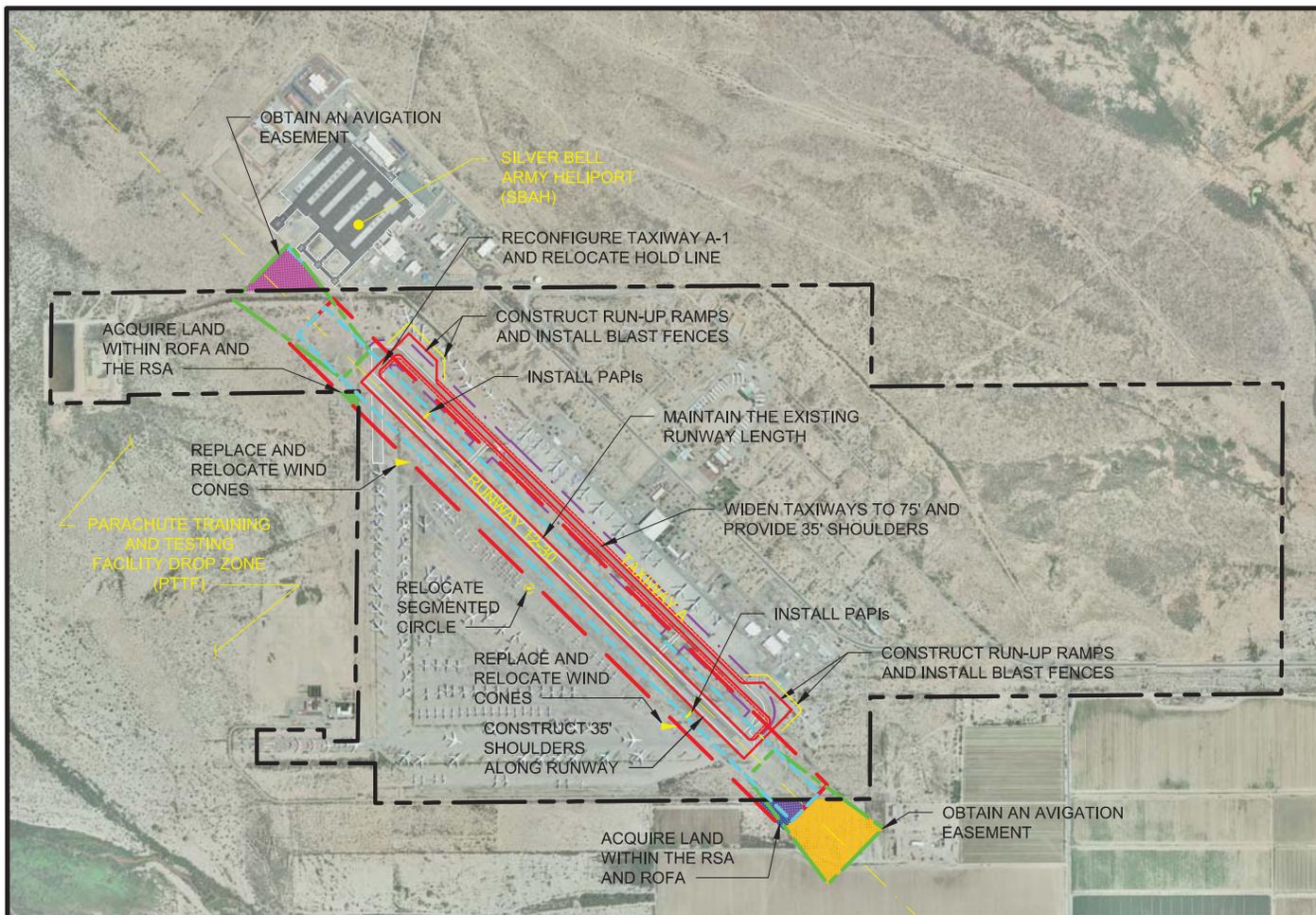
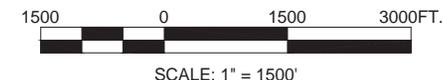
PINAL AIRPARK
ALTERNATIVE 1:
NO ACTION
FIGURE 5-1



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LEGEND

- EXISTING AIRPORT PROPERTY LINE
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY PROTECTION ZONE (RPZ)
- TAXIWAY OBJECT FREE AREA (TOFA)
- LAND OFF PROPERTY WITHIN RUNWAY 30 RSA; 1.72 ACRES
- LAND OFF PROPERTY WITHIN RUNWAY 30 RPZ; 17.34 ACRES
- LAND OFF PROPERTY WITHIN RUNWAY 12 RSA; 0.02 ACRES
- LAND OFF PROPERTY WITHIN RUNWAY 12 ROFA; 0.71 ACRES
- LAND WITHIN RUNWAY 12 RPZ ON SBAH; 0.48 ACRES
- LAND OFF PROPERTY WITHIN RUNWAY 12 RPZ; 6.64 ACRES
- LAND OFF PROPERTY WITHIN RUNWAY 30 ROFA; 1.59 ACRES



Property Acquisition and Easements

- Acquire land within the ROFA and the RSA that extends onto the PTTF
- Acquire land within the Runway 30 RSA and ROFA that extend off airport onto private land
- Obtain an avigation easement for the portion of the Runway 30 RPZ that extends off airport property
- Obtain an avigation easement for the portion of the Runway 12 RPZ that extends off airport property

Airside Projects

- Maintain the existing runway length
- Construct 35-foot shoulders along the runway
- Widen taxiways to 75 feet and provide 35-foot shoulders
- Reconfigure Taxiway A-1 and relocate the hold line
- Construct run-up ramps and install blast fences
- Install PAPIs
- Replace and relocate wind cones
- Relocate segmented circle

Note: Project list does not include ancillary elements, which will be identified on ALP



PINAL AIRPARK ALTERNATIVE 2: MEETING STANDARDS FIGURE 5-2



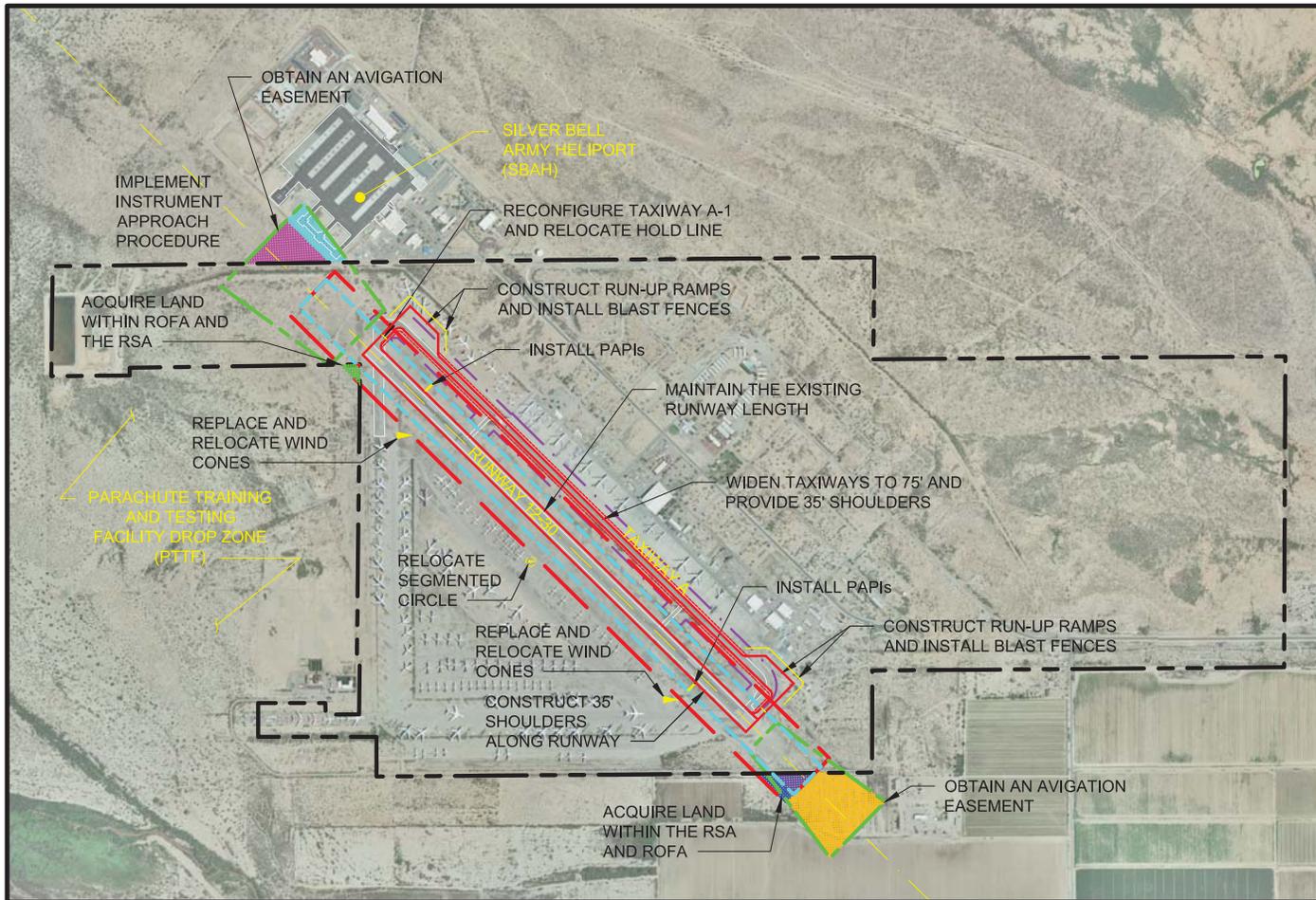
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LEGEND

- EXISTING AIRPORT PROPERTY LINE
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY PROTECTION ZONE (RPZ)
- TAXIWAY OBJECT FREE AREA (TOFA)
- LAND OFF PROPERTY WITHIN RUNWAY 30 RSA; 1.72 ACRES
- LAND OFF PROPERTY WITHIN RUNWAY 30 RPZ; 17.34 ACRES
- LAND OFF PROPERTY WITHIN RUNWAY 12 RSA; 0.02 ACRES
- LAND OFF PROPERTY WITHIN RUNWAY 12 ROFA; 0.71 ACRES
- LAND WITHIN RUNWAY 12 RPZ ON SBAH; 5.16 ACRES
- LAND OFF PROPERTY WITHIN RUNWAY 12 RPZ; 6.76 ACRES
- LAND OFF PROPERTY WITHIN RUNWAY 30 ROFA; 1.59 ACRES

1500 0 1500 3000FT.

SCALE: 1" = 1500'



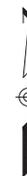
Property Acquisition and Easements

- Acquire land within the ROFA and the RSA that extends onto the PTTF
- Acquire land within the Runway 30 RSA and ROFA that extend off airport onto private land
- Obtain an avigation easement for the portion of the Runway 30 RPZ that extends off airport property
- Obtain an avigation easement for the portion of the Runway 12 RPZ that extends off airport property

Airside Projects

- Maintain the existing runway length
- Implement a non-precision Instrument Approach Procedure to Runway 12
- Construct 35-foot shoulders along the runway
- Widen taxiways to 75 feet and provide 35-foot shoulders
- Reconfigure Taxiway A-1 and relocate the hold line
- Construct run-up ramps and install blast fences
- Install PAPIs
- Replace and relocate wind cones
- Relocate segmented circle

Note: Project list does not include ancillary elements, which will be identified on ALP



PINAL AIRPARK
ALTERNATIVE 3:
INSTRUMENTATION
FIGURE 5-3



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LEGEND

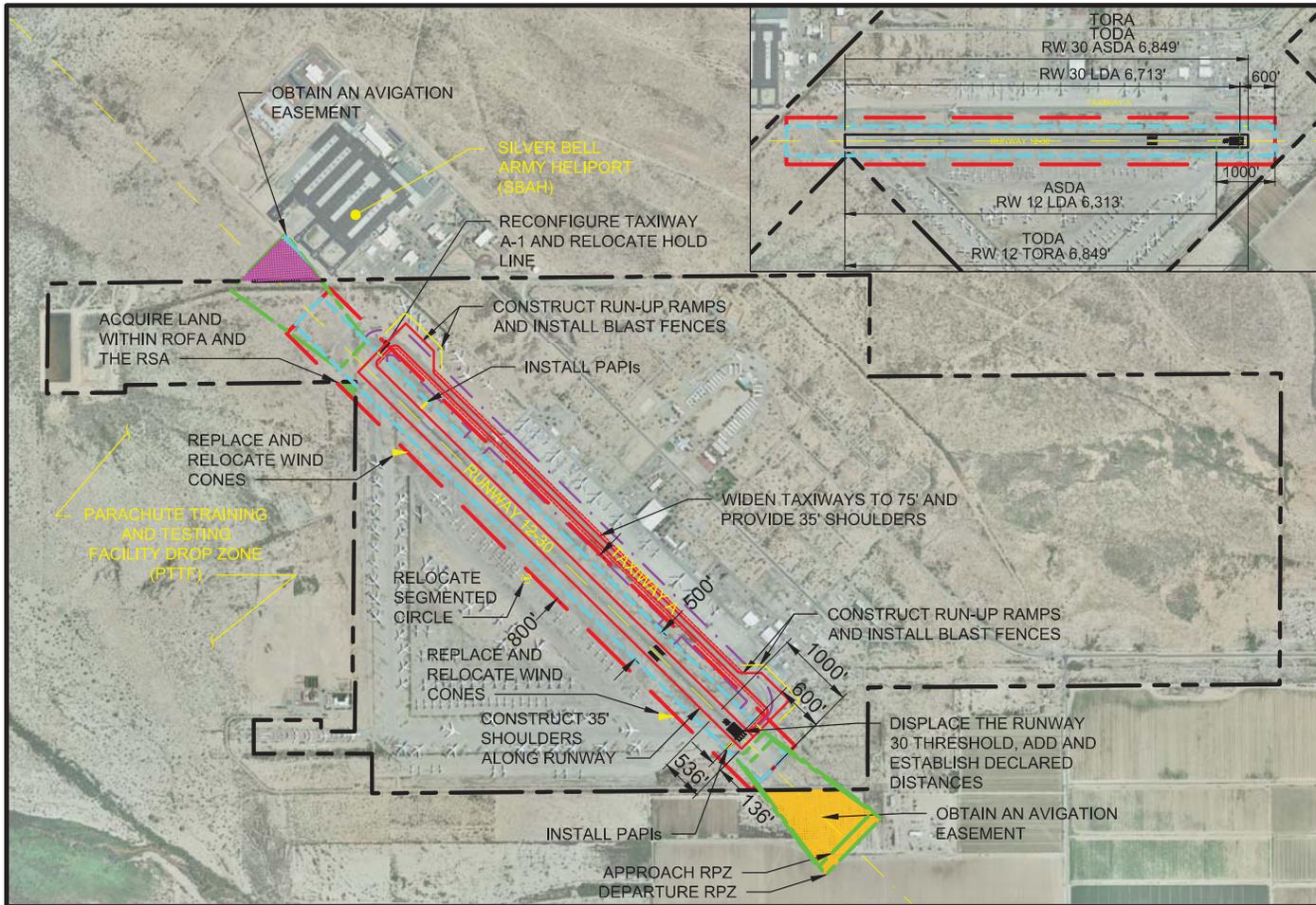
-  EXISTING AIRPORT PROPERTY LINE
-  RUNWAY OBJECT FREE AREA (ROFA)
-  RUNWAY SAFETY AREA (RSA)
-  RUNWAY PROTECTION ZONE (RPZ)
-  TAXIWAY OBJECT FREE AREA (TOFA)
-  LAND OFF PROPERTY WITHIN RUNWAY 30 RPZ; 20.70 ACRES
-  LAND OFF PROPERTY WITHIN RUNWAY 12 RSA; 0.02 ACRES
-  LAND OFF PROPERTY WITHIN RUNWAY 12 ROFA; 0.71 ACRES
-  LAND WITHIN RUNWAY 12 RPZ ON SBAH; 0.48 ACRES
-  LAND OFF PROPERTY WITHIN RUNWAY 12 RPZ; 6.64 ACRES



SCALE: 1" = 1500'



PINAL AIRPARK ALTERNATIVE 4: WITHIN BOUNDS FIGURE 5-4



Property Acquisition and Easements

- Acquire land within the ROFA and the RSA that extends onto the PTF
- Obtain an avigation easement for the portion of the Runway 30 RPZ that extends off airport property
- Obtain an avigation easement for the portion of the Runway 12 RPZ that extends off airport property

Airside Projects

- Displace the Runway 30 threshold, add and establish declared distances
- Construct 35-foot shoulders along the runway
- Widen taxiways to 75 feet and provide 35-foot shoulders
- Reconfigure Taxiway A-1 and relocate the hold line
- Construct run-up ramps and install blast fences
- Install PAPIs
- Replace and relocate wind cones
- Relocate segmented circle

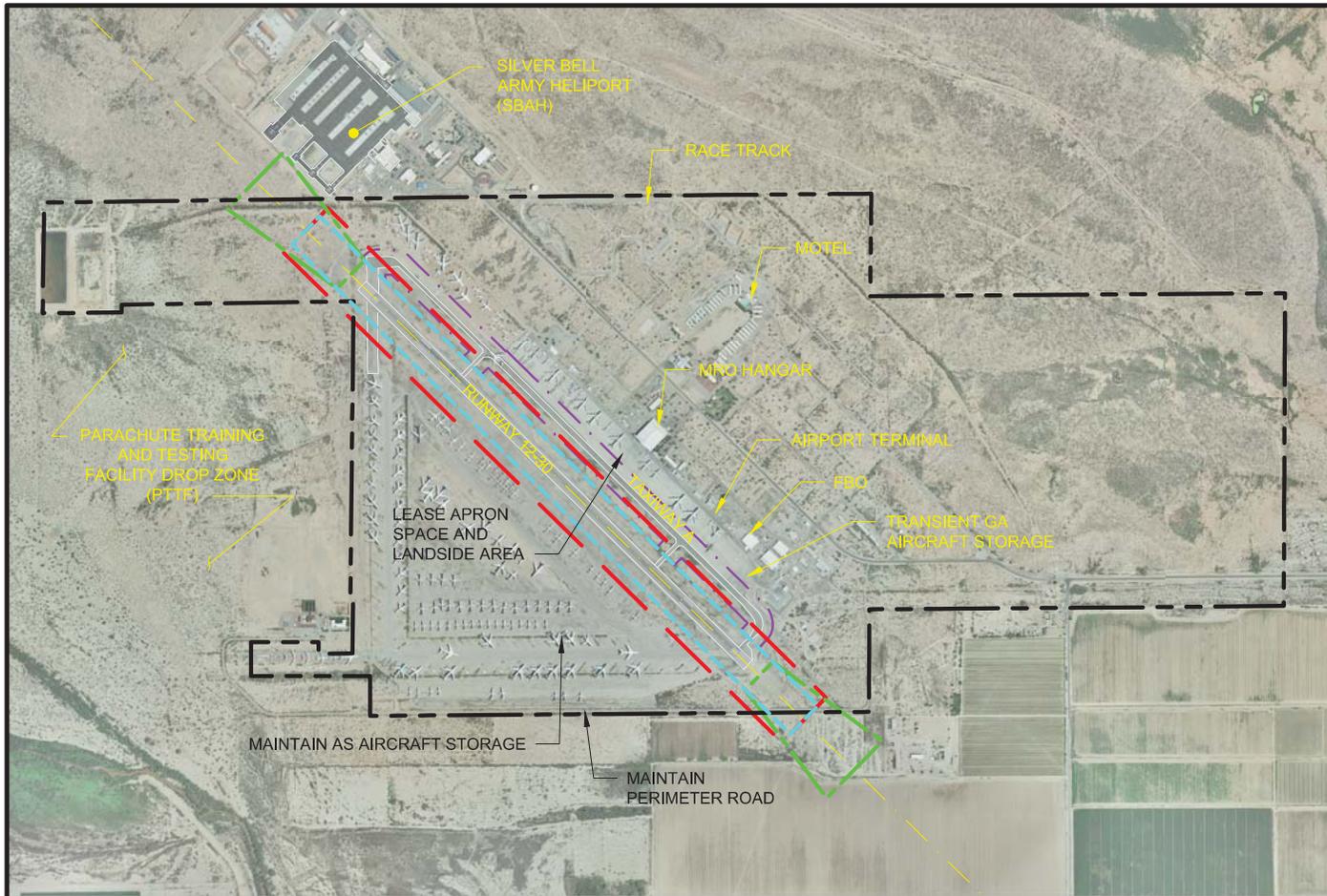
Note: Project list does not include ancillary elements, which will be identified on ALP



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LEGEND

-  EXISTING AIRPORT PROPERTY LINE
-  RUNWAY OBJECT FREE AREA (ROFA)
-  RUNWAY SAFETY AREA (RSA)
-  RUNWAY PROTECTION ZONE (RPZ)
-  TAXIWAY OBJECT FREE AREA (TOFA)



SCALE: 1" = 1500'



Property Leases and Delineation of Activities

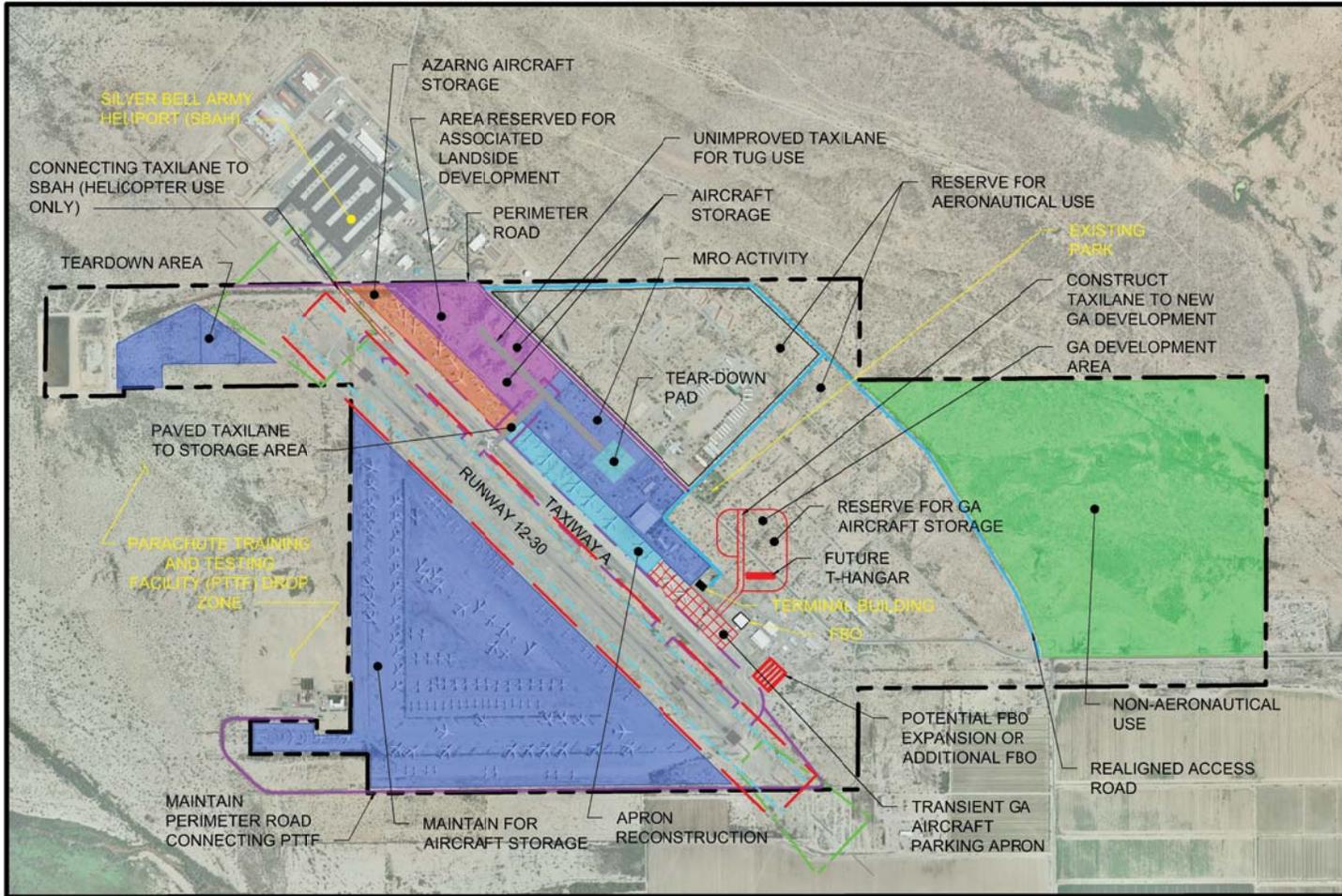
- Lease apron space and landside area for MRO maintenance and repair activities
- Maintain as aircraft storage

Landside Projects

- Maintain perimeter road providing access to PTTF



PINAL AIRPARK
ALTERNATIVE A:
NO ACTION
FIGURE 5-5



Property Leases and Delineation of Activities

- Designate area for GA development
- Designate apron for GA transient aircraft storage and activities
- Continue to lease apron space and landside area for MRO activities
- Lease apron space and adjacent landside area to AZARNG for aircraft storage and associated facilities
- Lease northwestern space for aircraft teardown
- Reserve area for aeronautical use
- Designate entrance area as non-aeronautical use
- Maintain storage triangle for aircraft storage

Airside Projects

- Reconstruct apron
- Establish taxilane connecting to SBAH
- Construct taxilane to new GA development
- Construct taxilane to new aircraft storage area
- Establish unpaved taxilane for tug use through new storage area
- Construct new tear-down pad

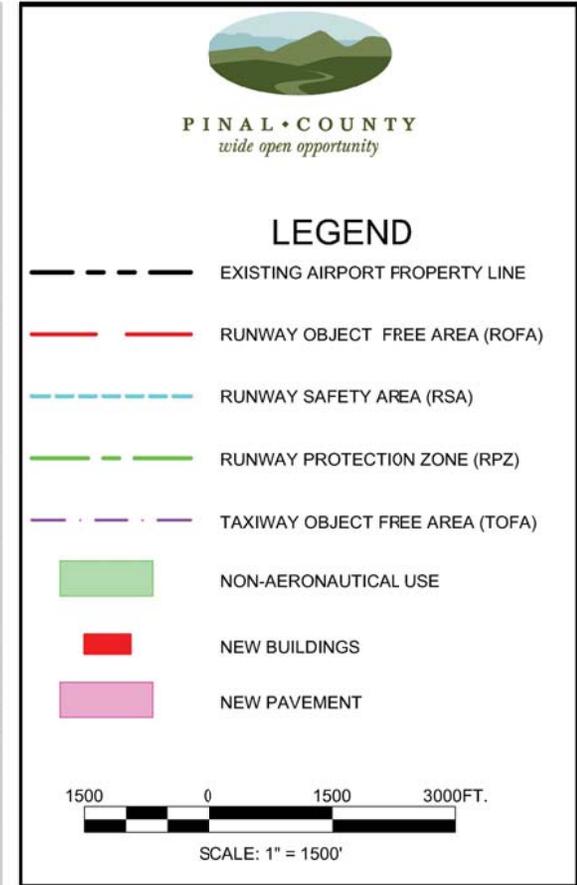
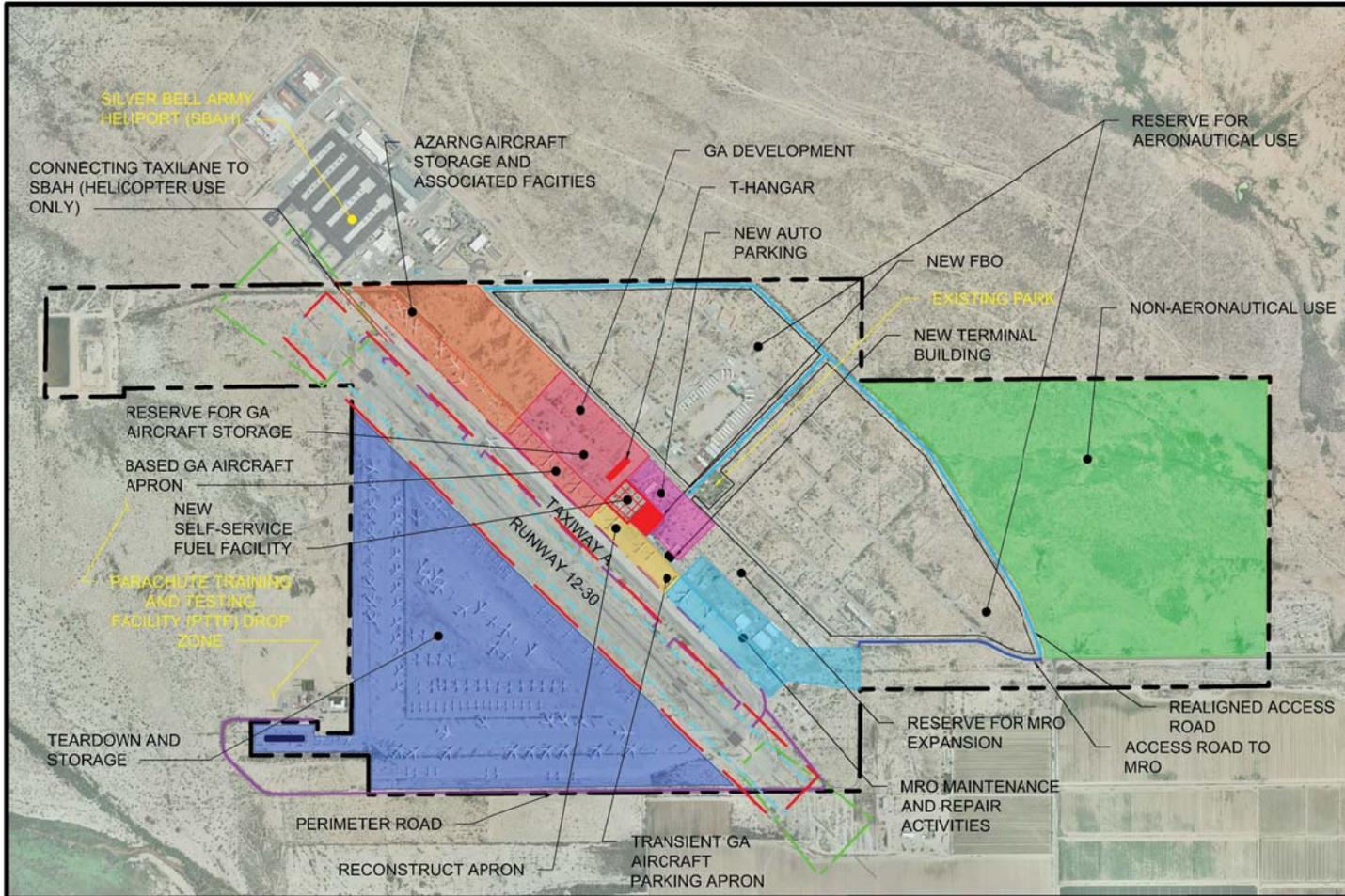
Landside Projects

- Construct T-hangar for GA aircraft storage
- Construct perimeter road connecting MRO area to proposed teardown area
- Maintain perimeter road to PTTF

Note: Project list does not include ancillary elements, which will be identified on ALP



**PINAL AIRPARK
ALTERNATIVE B:
SMOOTH TRANSITION
FIGURE 5-6**



Property Leases and Delineation of Activities

- Designate area for GA development
- Designate apron for GA transient aircraft storage and activities
- Designate apron for based GA aircraft
- Lease area for MRO maintenance and repair activities
- Lease apron space and adjacent landside area to AZARNG for aircraft storage and associated facilities
- Lease storage triangle for aircraft teardown and storage
- Reserve area for aeronautical use
- Designate entrance area as non-aeronautical use

Airside Projects

- Reconstruct apron
- Establish taxilane connecting to SBAH

Landside Projects

- Construct T-hangar
- Maintain perimeter road to PTTF and teardown and storage area
- Construct new terminal or relocate existing building to mid-field
- Construct new FBO building or retrofit existing hangar
- Install self-service fuel facility mid-field
- Construct parking
- Rehabilitate and designate the access road to the MRO area for specific use

Note: Project list does not include ancillary elements, which will be identified on ALP



**PINAL AIRPARK
ALTERNATIVE C:
FRESH LOOK
FIGURE 5-7**

TABLE 5-8 RUNWAY AND TAXIWAY ALTERNATIVES EVALUATION SUMMARY

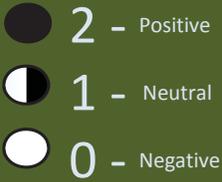
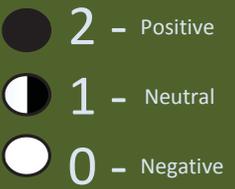
Runway and Taxiway System Alternatives		1: No Action	2: Meeting Standards	3: Instrumentation	4: Within Bounds
		No changes to airfield configuration or infrastructure.	Acquire the land within the RSA and ROFA in fee simple and obtain aviation easements over the land within the RPZs that extend off airport property to meet design standards without impacting the operational capabilities of the runway.	Implement an instrument approach to Runway 12, acquire the land within the RSA and ROFA in fee simple, and obtain aviation easements over the land within the RPZs that extend off airport property to meet design standards without impacting the operational capabilities of the runway.	Implement declared distances and displace the Runway 30 threshold to meet FAA design standards without land acquisition.
	Comparative Features				
FINANCIAL FEASIBILITY					
<i>Development Costs</i>	Anticipated costs of development, considering potential alternative funding sources				
<i>Economic Impact to the Community</i>	Employment, economic development, etc.				
<i>Revenue Generation</i>	Anticipated opportunities for revenue generation including increased activity, new businesses, etc.				
OPERATIONAL PERFORMANCE					
<i>Capacity</i>	Ability to accommodate future demand as determined in the facility requirements				
<i>Capability</i>	Ability to meet airport design standards and ensure a safe operating environment				
<i>Operational Efficiency</i>	How well the alternatives work as a system to avoid delays, inefficiencies, airspace conflicts, etc.; this would also consider the coexistence of existing and future users				
ENVIRONMENTAL IMPLICATIONS					
<i>Air Quality</i>	Anticipated change in emissions (ordinal data provided only)				
<i>Construction Impacts</i>	Because specific impacts will be covered under other categories, this will evaluate the level of construction associated with the alternative				
<i>Fish, Wildlife & Plants</i>	Potential effect on fish, wildlife and plants, particularly as it relates to changes in habitat				
<i>Floodplains</i>	Acres of 100-year floodplain impacted				
<i>Hazardous Materials, Pollution Prevention, and Solid Waste</i>	Potential for increased risk of exposure/spill, increase in pollutants, and impacts to solid waste generation				
<i>Historic, Architectural, Archeological, And Cultural Resources</i>	Extent of potential impacts				
<i>Noise</i>	Change in number of residential units within 65-decibel Day Night Average Level (DNL) noise contour				
<i>Land Use Compatibility</i>	Partially covered above; will also consider anticipated land acquisition/easements (acres affected)				
<i>Secondary (induced) Impacts</i>	Potential impacts on local economy				
<i>Water Quality Management</i>	Anticipated change (square yards) in the impervious surface area				
<i>Wetlands</i>	Acres of wetlands impacted by alternative				
BEST PLANNING TENETS					
<i>Flexibility</i>	Accommodates unforeseen change				
<i>Technically Feasible</i>	Considers site constraints and other limitations				
<i>Conforms to the County's goals</i>	Creates a more attractive experience/Airport for GA pilots				
SUMMARY SCORE					
SUMMARY SCORE		17	17	16	18
RANKING					
RANKING		2	2	3	1

TABLE 5-9 LAND USE PLANNING ALTERNATIVES EVALUATION SUMMARY

Comparative Features	Land Use Planning Alternatives	1: No Action	B: Smooth Transition	C: Fresh Look
		No changes to landside configuration or uses.	Delineates areas for use by various operational types, considering the locations of existing facilities and immediate plans of the County to minimize potential impacts.	Reevaluates the existing layout to determine the most operationally efficient layout, with limited consideration of constraints by existing facilities.
				
FINANCIAL FEASIBILITY				
<i>Development Costs</i>	Anticipated costs of development, considering potential alternative funding sources			
<i>Economic Impact to the Community</i>	Employment, economic development, etc.			
<i>Revenue Generation</i>	Anticipated opportunities for revenue generation including increased activity, new businesses, etc.			
OPERATIONAL PERFORMANCE				
<i>Capacity</i>	Ability to accommodate future demand as determined in the facility requirements			
<i>Capability</i>	Ability to meet airport design standards and ensure a safe operating environment			
<i>Operational Efficiency</i>	How well the alternatives work as a system to avoid delays, inefficiencies, airspace conflicts, etc.; this would also consider the coexistence of existing and future users			
ENVIRONMENTAL IMPLICATIONS				
<i>Air Quality</i>	Anticipated change in emissions (ordinal data provided only)			
<i>Construction Impacts</i>	Because specific impacts will be covered under other categories, this will evaluate the level of construction associated with the alternative			
<i>Fish, Wildlife & Plants</i>	Potential effect on fish, wildlife and plants, particularly as it relates to changes in habitat			
<i>Floodplains</i>	Acres of 100-year floodplain impacted			
<i>Hazardous Materials, Pollution Prevention, and Solid Waste</i>	Potential for increased risk of exposure/spill, increase in pollutants, and impacts to solid waste generation			
<i>Historic, Architectural, Archeological, And Cultural Resources</i>	Extent of potential impacts			
<i>Noise</i>	Change in number of residential units within 65-decibel Day Night Average Level (DNL) noise contour			
<i>Land Use Compatibility</i>	Partially covered above; will also consider anticipated land acquisition/easements (acres affected)			
<i>Secondary (induced) Impacts</i>	Potential impacts on local economy			
<i>Water Quality Management</i>	Anticipated change (square yards) in the impervious surface area			
<i>Wetlands</i>	Acres of wetlands impacted by alternative			
BEST PLANNING TENETS				
<i>Flexibility</i>	Accommodates unforeseen change			
<i>Technically Feasible</i>	Considers site constraints and other limitations			
<i>Conforms to the County's goals</i>	Creates a more attractive experience/Airport for GA pilots			
SUMMARY SCORE				
SUMMARY SCORE		16	23	22
RANKING				
RANKING		3	1	2