

5.0 ALTERNATIVES ANALYSIS

The purpose of this chapter is to present and evaluate the comprehensive planning issues and recommendations associated with the future configuration of Rifle Garfield County Airport (RIL or Airport). This chapter takes into account the facility demand requirements that were previously determined in **Chapter 4, Facility Requirements and Demand/Capacity Analysis**. This analysis recognizes input received during previous chapters of this Master Plan, from key stakeholders, the Planning Advisory Committee (PAC), airport staff, and the public. Recommendations on individual issues identified in **Chapter 4** are provided, and where needed, descriptions of alternatives that warrant further consideration are presented throughout this chapter.

5.1 DEVELOPMENT GOALS

Realistic goals for development have been identified in this planning effort that reflects the role of RIL in the national and state aviation systems, and the community. Further, these goals were developed with consideration of both the short-term and long-term needs of the Airport and include the interests of airport users and the surrounding community. The goals include:

- Provide effective guidance for the future development of RIL through the preparation of a logical development program that provides a realistic vision to meet future aviation-related demand.
- Analysis that identifies financially feasible projects that maximize use of the limited space available while meeting current and future needs of the community.
- Continued adherence to federal, state, and local design standards and compatible land use.
- Airport development should remain compatible with the surrounding community, and the environment on- and off-airport property.
- Future development alternatives should be developed based upon the most efficient and cost effective methods that meet the needs of existing and future airport users and the surrounding community.

5.2 IDENTIFIED AIRSIDE & LANDSIDE ALTERNATIVES

In this chapter, specific facility requirements that were identified in **Chapter 4** are further evaluated to determine the best strategy to meet the needs of airport users and the community. The alternatives for these facilities have been examined to determine the most efficient and cost-effective method to develop the projects. The alternatives evaluated in this chapter include:

- Extension of Runway 8/26
- General Aviation (GA) & Transient Apron Expansion

- Hangar Development
- Airport Access/Circulation and Auto Parking Improvements

5.3 EVALUATION CRITERIA

The following criteria for provides the basis of evaluation for each alternative identified in this chapter:

- Operational Criteria – the ability to accommodate current and forecasted aircraft, passengers, and vehicles.
- Economic Criteria – an estimate of costs to provide a basis for comparison of each alternative.
- Environmental Criteria – development that provides for minimal disruption of the environmental resources evaluated in **Chapter 6**, *Environmental Overview*.
- Feasibility Criteria – tangible and intangible factors that affect an airport’s ability to implement certain development projects
- Compatibility with future aviation demand and required improvements, as identified in **Chapter 3**, *Aviation Activity Forecasts*, and **Chapter 4**.

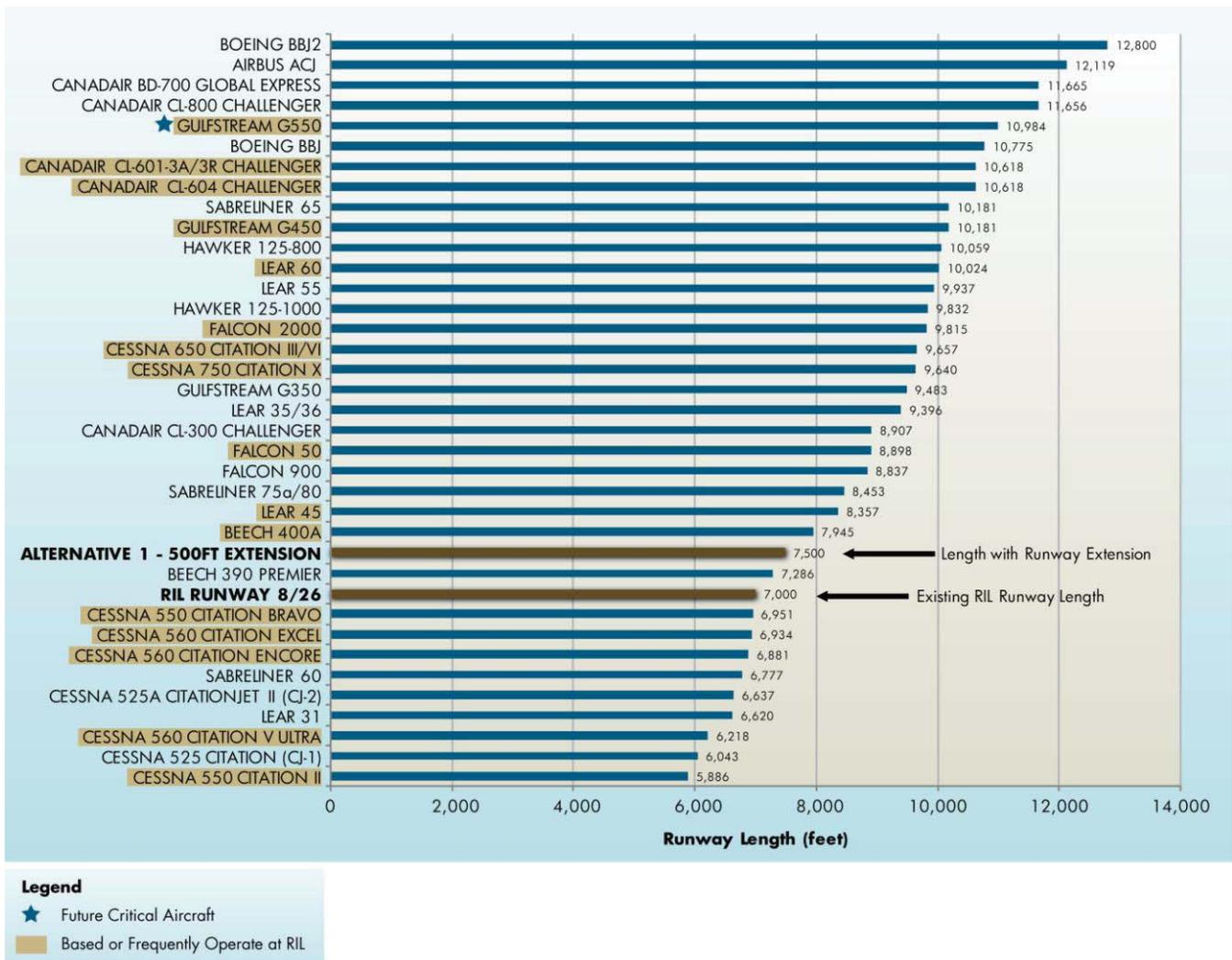
5.4 EXTENSION OF RUNWAY 8/26

5.4.1 OVERVIEW

As previously discussed in **Section 2.13.1** and **Section 4.3**, Runway 8/26 is 7,000 feet long, 100 feet wide, and provides a pavement strength of 90,000 lbs for single wheel gear (SWG), 200,000 lbs for dual wheel gear (DWG), and 250,000 pounds for dual tandem wheel gear (DTW), and is designed to D-II Standards. **Section 4.3.3** explained the potential need for a runway extension to Runway 8/26 in order to better accommodate the existing aircraft that utilize the Airport.

A summary of the runway length requirements specific to business jets, including those that are based and frequently operate at RIL are shown in **Figure 5-1**. In order to examine the feasibility of an extension on this site, one runway extension alternative has been identified and is evaluated in the following sections. This alternative includes a 500-foot extension to the east for a total of 7,500 feet in length. This alternative has been evaluated based on the criteria stated in **Section 4.3.3**.

FIGURE 5-1 – BUSINESS JET RUNWAY LENGTH REQUIREMENTS



Source: Jviation, Inc.

5.4.2 ASSUMPTIONS

Several assumptions were made in the analysis of the runway extension alternative. Although it is assumed that certain elements within the alternatives *could* occur, this is not meant to be construed that these elements *should* occur, or would be easy to implement. For the preparation of the alternative, the following assumptions were made:

1. Parallel Taxiway A will be extended along with the runway.
2. Alternatives only assume a runway that is usable at full-length in both directions.
3. No portion of any future or existing public roadway can be included inside of the future Runway Protection Zone (RPZ) per FAA runway design criteria.

4. Avigation easements can be acquired on the east side of the Airport for approach protection if required by the alternative.
5. Estimated land and property acquisition costs are provided. Land and property values will need to be assessed and purchased at fair market value for the type and use of the land.
6. All runway extensions are designed to maintain RIL's current Runway Design Code (RDC) of D-II and future RDC of D-III.

5.4.3 RUNWAY EXTENSION CONSIDERATIONS

It is important to note that designing the Airport to accommodate aircraft that are larger than RDC D-III would require extensive modifications to the Airport and is not a feasible alternative of this study. Although improvements would not be designed for these larger aircraft, any extension has the potential to attract some slightly larger than D-III aircraft. Larger aircraft accommodations will not occur in great number without additional improvements, such as pavement strengthening and improved support services and facilities.

When determining runway length, consideration must be given to what length could attract larger and/or faster aircraft that require a higher design standard. Due to inefficiencies of normally aspirated engines at higher elevations, the runway length needs of piston aircraft increase faster with elevation gain than turbine powered aircraft.

5.4.4 PRELIMINARY RUNWAY EXTENSION ALTERNATIVES

Preliminary alternatives were identified and considered as methods to gain additional runway length, but were eventually dismissed. These alternatives included a traditional extension with the addition of runway pavement and the use of declared distances.

Declared distances represent the maximum distances available and appropriate for turbine powered aircraft takeoff, rejected takeoff, and landing distances performance requirements. A clearway, an area that extends beyond the runway end available for the completion of a takeoff operation, may be included in the declared distances as part of the takeoff distance available (TODA). A clearway increases an aircraft's allowable operating takeoff weight without increasing the runway length. In examining the addition of a clearway to Runway 8/26 to increase TODA, without increasing the existing runway length, a clearway would have to be added at one end of the runway within the existing Runway Safety Area³⁵ (RSA). However, the RSA would then have to be extended to remain compliant with FAA runway design standards. Therefore, depending upon the length used for the clearway, significant development costs may materialize due to the considerable physical changes required by extending the RSA in either direction.

³⁵ According to AC 150/5300-13A, *Airport Design*, an RSA must be free of objects, except for objects, such as navigational aids, that need to be located in the RSA due to their function. AC 150/5300-13A indicates that the RSA must extend behind the start of both the departure and approach ends of the runway, and that portion of the runway behind the start of the takeoff is unavailable for takeoff distance, takeoff run, and accelerate-stop distance.

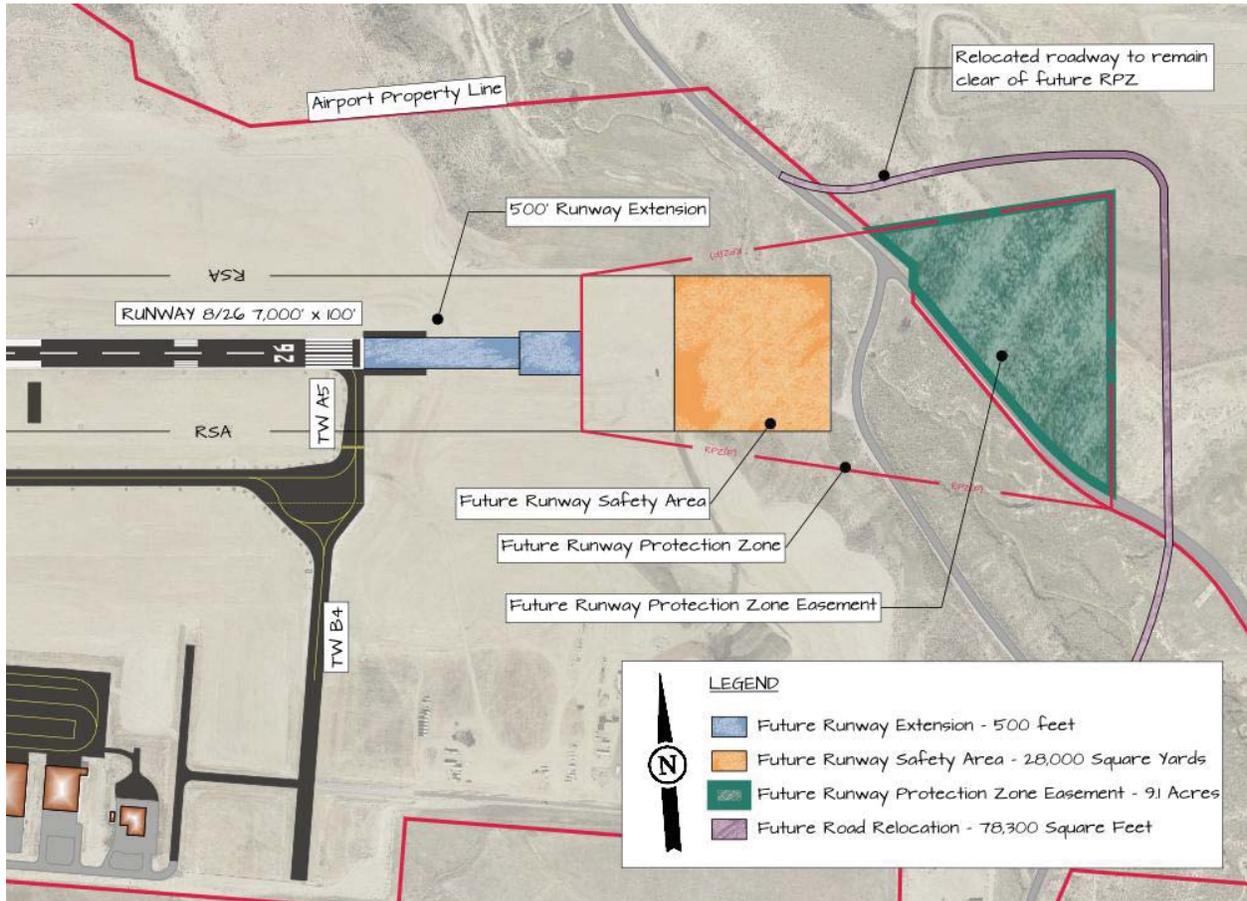
Extending the runway to the west was not considered feasible due to existing constraints west of the RSA, which includes the existing embankment wall located at the end of the Runway 8 RSA, Dry Creek, sloping terrain, buildings, overhead power lines, the existing localizer, and Interstate 70 located within the approach path of Runway 8. If the runway were extended west, this would shift the RSA further west over these areas, significantly driving up development costs. Therefore, extending the runway to the west was dismissed as a feasible alternative to gain additional runway length. As such, only one runway extension alternative was examined in this chapter, which is extending the runway to the east.

Neither of these alternatives remain environmentally compatible with the surrounding community, as both have potential significant impacts to both airport and off-airport property. Due to the physical changes necessary to implement either alternative, they are not the most efficient or the most cost effective methods to meet the needs of existing and future airport users and the surrounding community.

5.4.5 AIRSIDE ALTERNATIVE 1 – EXTEND RUNWAY 500 FEET EAST

It was directly indicated at the May 2013 Planning Advisory Committee meeting that “an extra 500 feet would make a big difference.” A runway extension of 500 feet to the east was examined in this analysis to determine the feasibility and benefit of a 7,500-foot runway. As shown below in **Figure 5-2**, Airside Alternative 1 examined an extension of Runway 8/26 500 feet to the east, for a total of 7,500 feet in TODA. Further, this alternative includes the extension of Taxiway A to the new runway end, and the construction of a new blastpad off the extended Runway 26 threshold.

FIGURE 5-2 – AIRSIDE ALTERNATIVE 1 - EXTEND RUNWAY 500 FEET EAST



Source: Jviation, Inc.

As part of the evaluation, Alternative 1 – Extend Runway 500 Feet to the East was evaluated against specific criteria for each category as identified in **Section 5.3**. The following sections summarize the evaluation of this alternative.

5.4.5.1 Operational Criteria

- Accommodates 100% of airplanes weighing less than 12,500 pounds on a hot day (91° Fahrenheit).
- Accommodates 98% of large airplanes weighing 12,500 pounds up to 60,000 pounds at 60% useful load on a hot day (91° Fahrenheit).
- A large portion of business jets that operate at RIL, as identified in Figure 5-1, would still be required to operate with takeoff weight limitations, since a total runway length of 7,500 feet is insufficient to accommodate several business jets, including the design aircraft (Gulfstream 550), at maximum takeoff weight.
- A cool day (roughly 54° Fahrenheit), accommodates approximately 100% of the large aircraft fleet weighing 60,000 pounds or less at 60% useful load.

5.4.5.2 Economic Criteria

- The estimated cost for extending the runway 500 feet to the east is approximately \$16.2 million, half of which is earthwork for fill, grading, and a retaining wall for the Runway 26 RSA.

5.4.5.3 Environmental Criteria

- Per FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures, section 401k, (3)*, a major runway extension is an action that would normally require an Environmental Assessment (EA).
- Relocation of Garfield County Airport Road would disrupt the existing surface traffic.
- Potential impacts to Mamm Creek and wetlands would require evaluation and possible mitigation. Wetland delineation is recommended.
- Potential impacts to the threatened and endangered species that may occur in Mamm Creek. Coordination with the U.S. Fish and Wildlife Service is recommended.
- Coordination with the State Historic Preservation Office is recommended.
- Potential noise and light emission impacts resulting from a change in the approach path.
- Requires acquisition of approximately nine acres of aviation easements for the RPZ. Purchase of this land has the potential to change the existing land use and zoning.

5.4.5.4 Feasibility Criteria

- The project feasibility depends upon funding available if the FAA approves the justification of the runway extension.

5.4.5.5 Compatibility Criteria

- The runway extension is compatible with future anticipated aviation demand for both itinerant and local traffic, as identified in Chapter 3.

5.4.6 RECOMMENDATION

As discussed in **Section 5.4.4**, the use of declared distances and extending the runway to the west, were both determined not to be feasible methods to gain additional runway length. An extension to the east would be possible. However, to add additional length to the existing runway, the Airport would have to provide documentation by corporate users demonstrating the need for longer runway length. Currently, such demand for a runway extension is not warranted. During the previous runway realignment and reconstruction project, runway extension alternatives were examined to determine the maximum length possible, which resulted in the runway's existing length of 7,000 feet, given the physical and environmental constraints surrounding the Airport. However, with the \$47 million investment made for realigning the

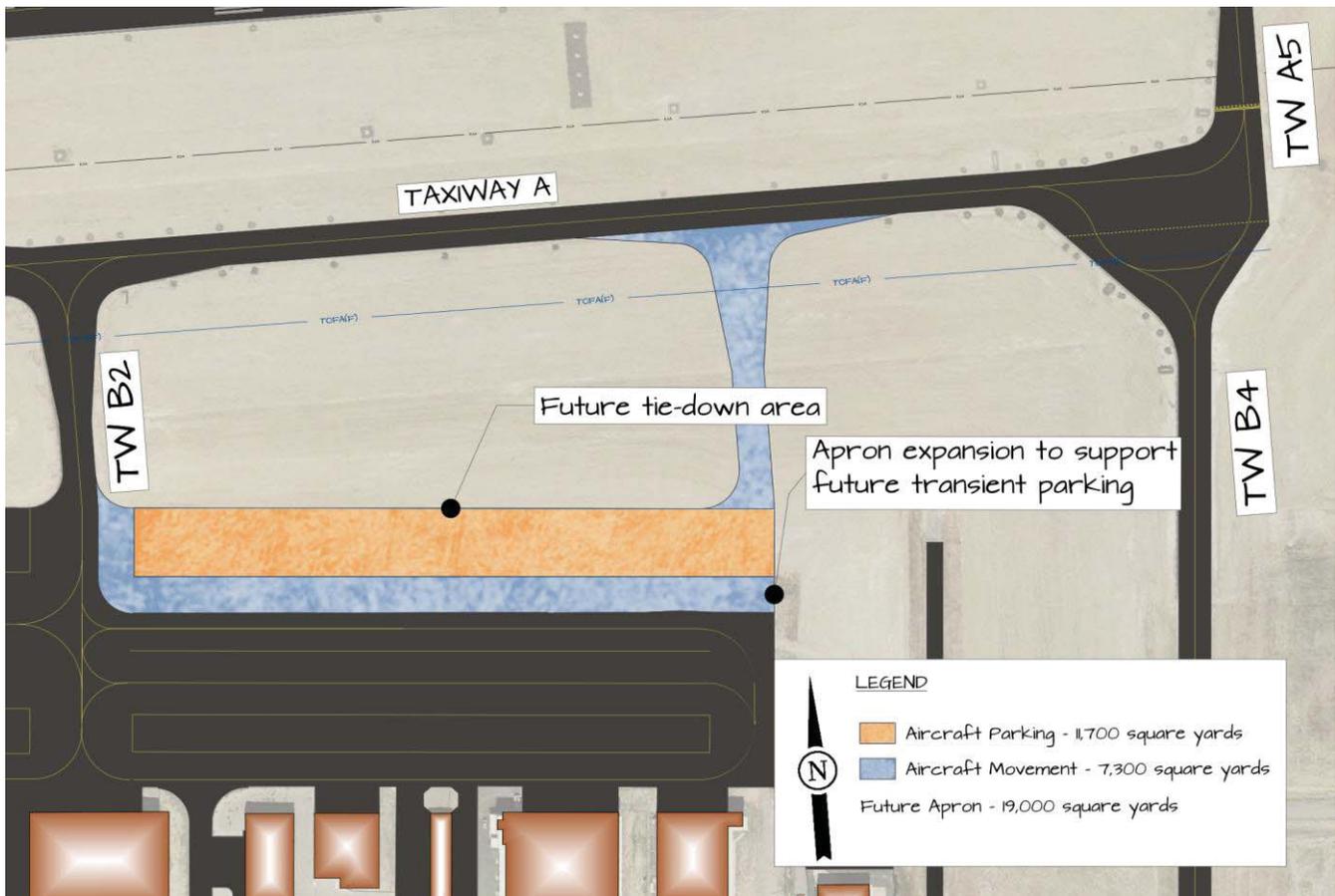
runway and the RSA improvements in 2010, making an additional investment to extend the runway is neither feasible nor recommended for this planning period.

5.5 TRANSIENT & GA APRON EXPANSION

5.5.1 TRANSIENT APRON EXPANSION

A development area is reserved for expanding the transient apron north, east of Taxiway B2 as shown in **Figure 5-3**. This area would provide an additional 19,000 square yards of apron for aircraft parking and include approximately 11,700 square yards of additional aircraft parking space to meet facility requirements for transient apron space for the 20-year planning period. The estimated cost of expanding the transient apron is approximately \$2.2 million.

FIGURE 5-3 – TRANSIENT APRON ALTERNATIVE



Source: Jviation, Inc.

5.5.2 GA APRON EXPANSION

The GA Apron Development Alternatives examined options for expanding the existing GA apron to provide additional tiedown space and T-hangar storage. The areas located north and west of the existing GA

apron have been reserved for future apron expansion. Any apron configuration should be planned and designed so it meets the following criteria:

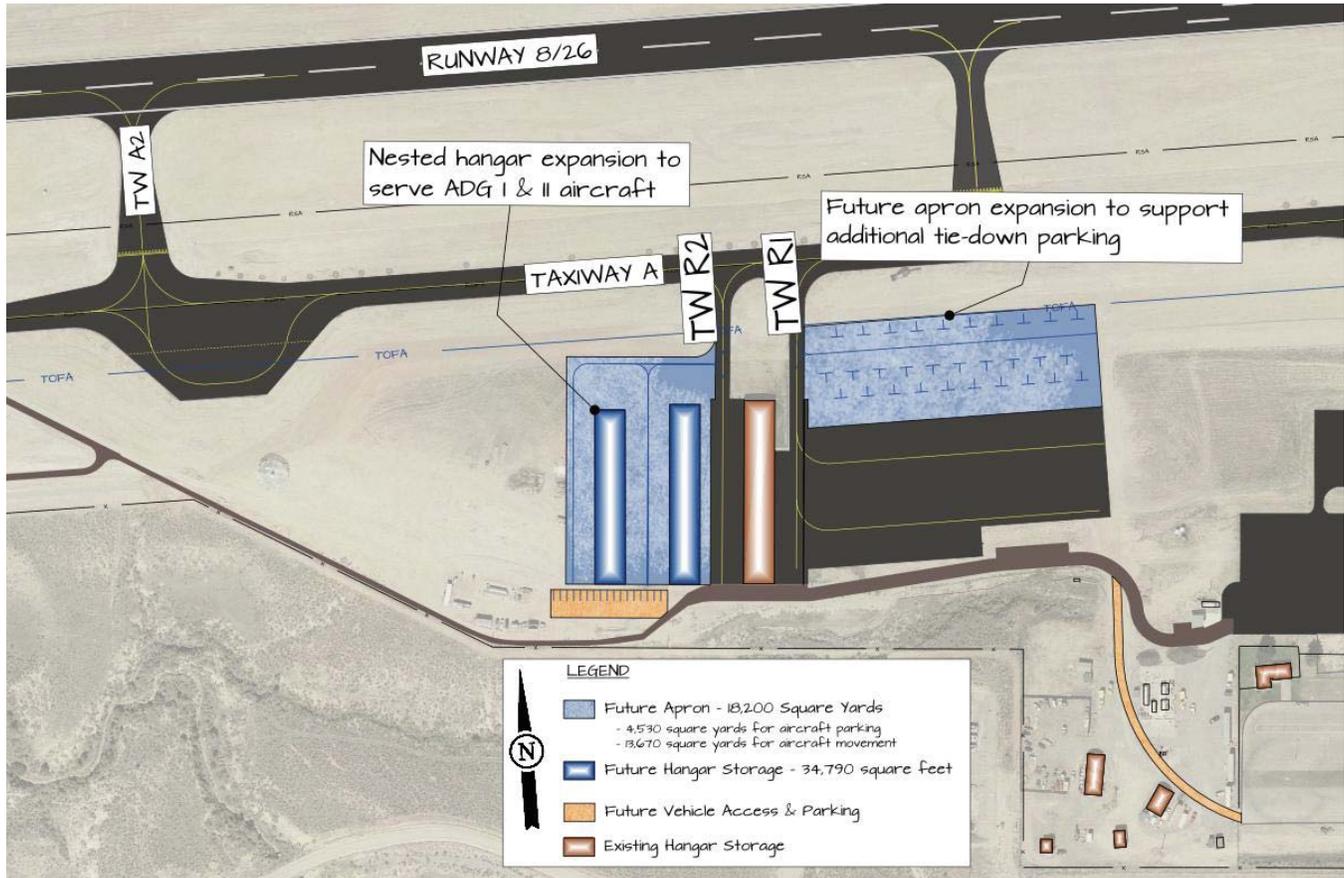
- Address all applicable FAA standards for taxiway setbacks and tiedown areas.
- Maintain transient aircraft parking as close as possible to an FBO.
- Provide easily visible transient parking and FBO facilities for pilots who are arriving at RIL.
- Allow flexibility to accommodate different mixes of aircraft types.
- Minimize, or eliminate, transient operations in the vicinity of based aircraft hangars.
- Expand vehicle parking to accommodate additional visitors, patrons and persons.

5.5.2.1 GA Apron Development Alternative 1

GA Apron Development Alternative 1, as shown in **Figure 5-4**, includes expanding the existing GA apron north, into a reserved area which would include a total of approximately 18,200 square yards of apron. Approximately 13,670 square yards would be used for movement/staging and 4,530 square yards would be dedicated to small aircraft parking for approximately 30 additional small aircraft tiedowns.

Alternative 1 allows for vehicle parking located on the south part of the west apron, with access to the parking area from the west side of the existing parking lot. GA Apron Development Alternative 1 also includes expanding the apron further west (adjacent to the existing T-hangar area) to accommodate an additional two T-hangars (approximately 34,790 square feet). The T-hangar apron would connect to Taxiway R2 to provide access to Taxiway A. The total cost of this alternative is approximately \$2.4 million.

FIGURE 5-4 – GA DEVELOPMENT APRON ALTERNATIVE 1



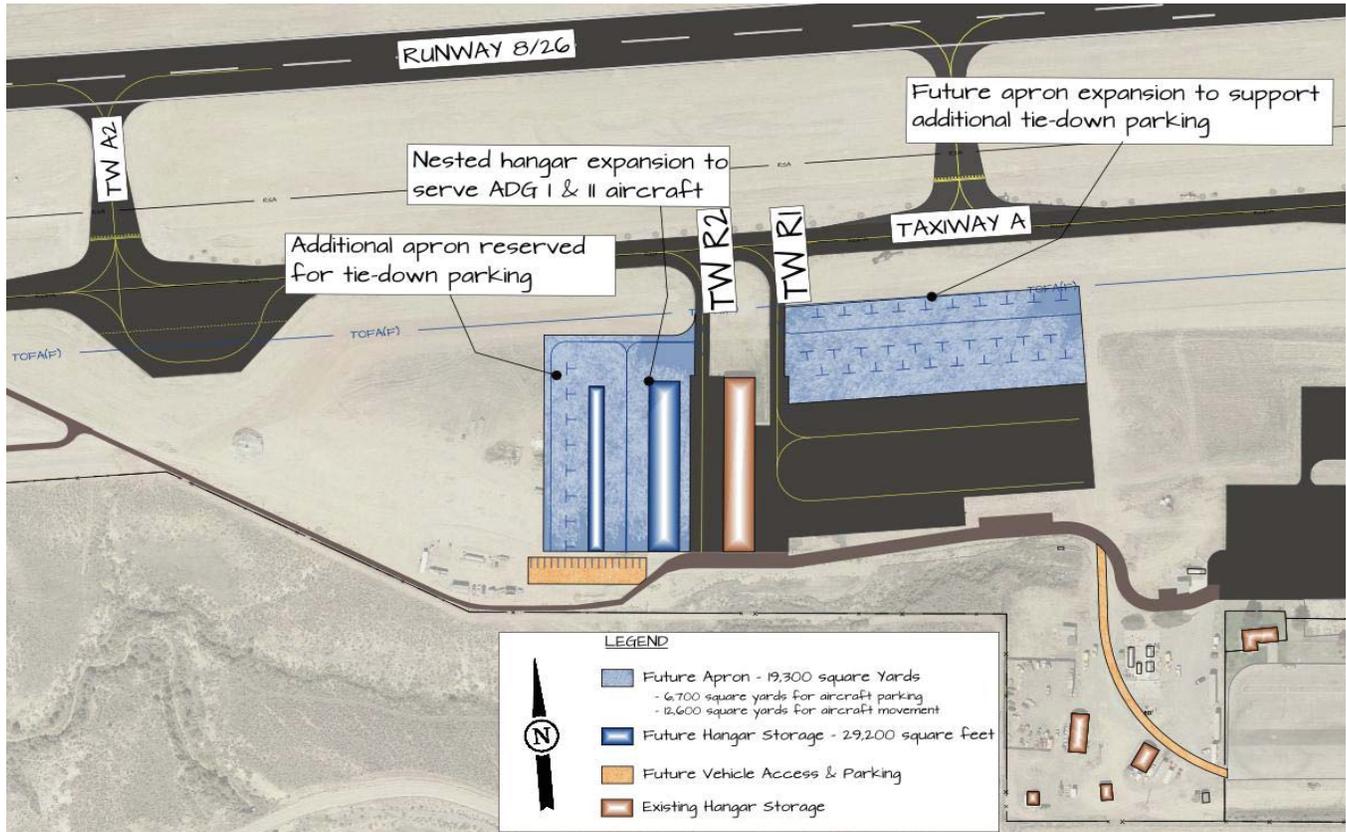
Source: Jviation, Inc.

5.5.2.2 GA Apron Development Alternative 2

GA Apron Development Alternative 2 incorporates several elements from Alternative 1, including expanding the existing GA apron north into the reserved expansion area, and expanding the apron west of the existing T-hangar building. Alternative 2 accommodates an additional one and one-half T-hangars, and provides additional tiedown parking on the northern part of the existing GA apron and the westernmost portion of the expanded apron. Alternative 2 allows for vehicle parking located on the south part of the west apron, with access to the parking area from the west side of the existing parking lot.

Alternative 2 has a total of 19,300 square yards of additional pavement, of which 6,700 square yards would be dedicated to small aircraft parking, and 12,600 square yards would be used for aircraft movement/staging. Further, Alternative 2 would accommodate an additional eight tiedown spaces and 29,200 square feet of additional T-hangar storage space. The total cost of this alternative is approximately \$2.7 million. GA Apron Development Alternative 2 is shown below in **Figure 5-5**.

FIGURE 5-5 – GA DEVELOPMENT ALTERNATIVE 2



Source: Jviation, Inc.

5.5.2.3 Recommendation

Table 5-1 summarizes the GA apron expansion alternatives. Alternative 1 and Alternative 2 are similar in all of the evaluation criteria, as shown in the table. Different components of each alternative can be combined as needed to fit actual demand.

TABLE 5-1 – GA APRON DEVELOPMENT ALTERNATIVES COMPARISON MATRIX

Evaluation Criteria		Alternative 1	Alternative 2
Safety		Equal level of safety for the intended aircraft	
Operational	Total New T-Hangars	2	1.5
	Total Small Aircraft Tiedowns	30	38
	Additional Apron (SY)	18,200	19,300
Compatibility		Meets aviation demand forecasts for local based aircraft storage requirements.	
Environmental		No significant environmental impacts anticipated. Appropriate level of environmental review is required. Will not alter on or off-airport land use	
Feasibility		If approved by the FAA, funding for apron development must be available. T-hangar construction is dependent upon 3 rd party developers.	
Economic		\$2.4 Million	\$2.7 Million

Note: Cost estimates do not include the cost of hangar development, which is funded through private developers, based on demand.
Source: Jviation, Inc.

5.5.3 PREFERRED ALTERNATIVE CHOSEN

The Sponsor’s preferred GA development alternative is Alternative 1. Estimated cost for Alternative 1 is approximately \$2.4 million.

5.6 SOUTHEAST HANGAR DEVELOPMENT

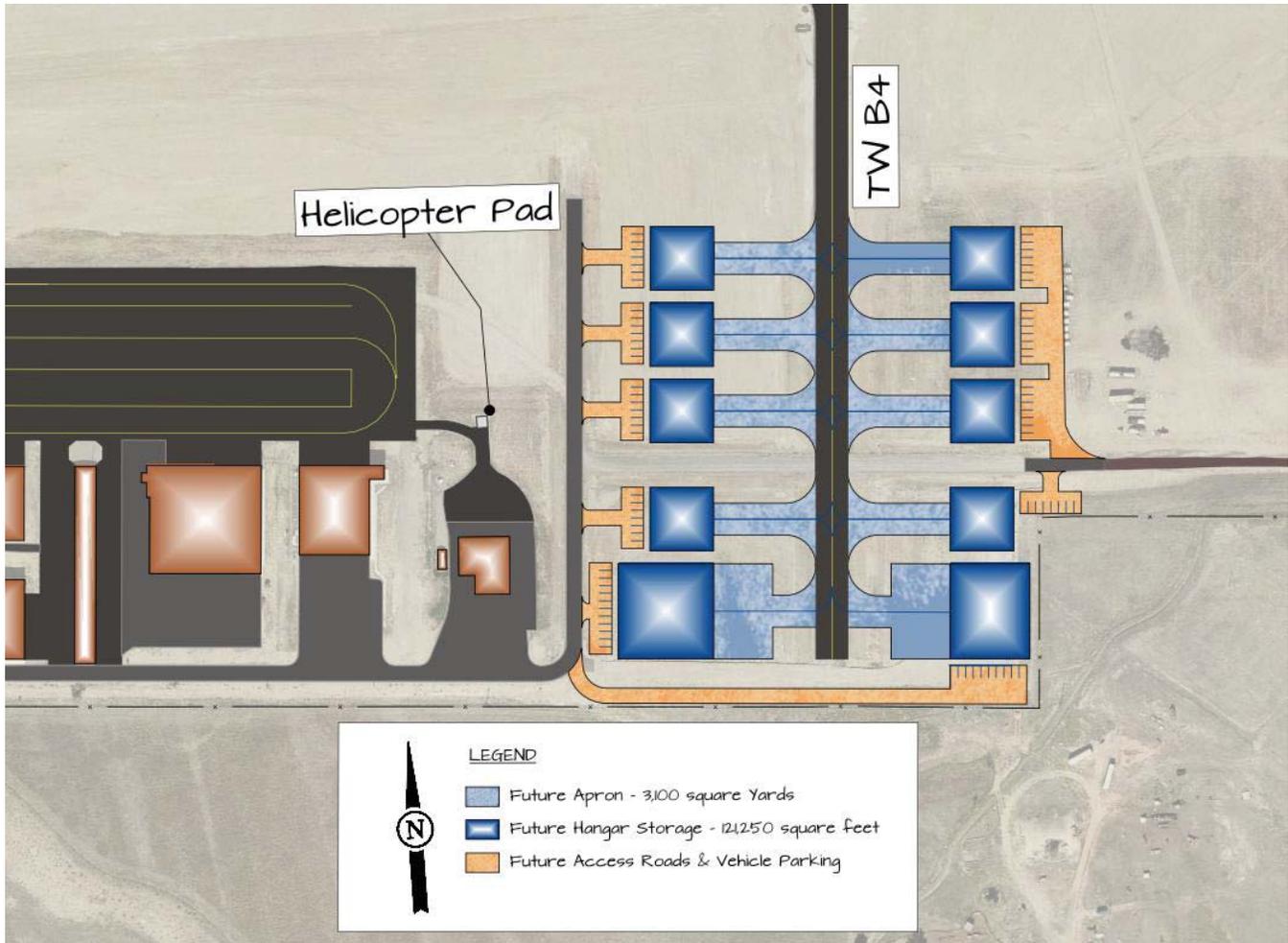
As discussed in Section 2.14.3, nine parcels of land have been reserved for large hangar development, located on each side of Taxiway B4. Three different alternatives were explored in this analysis. All three alternatives continue to reserve the area east of the large aircraft hangar development area for future expansion. In each alternative, consideration was also given to the helicopter pad located southeast of the transient apron, and immediately west of the southeast hangar development area. The potential impact to these alternatives is the road located to the east of the helicopter pad, which was constructed to provide a buffer for helicopter approaches. The following sections provide a description of each hangar development alternative.

5.6.1 SOUTHEAST HANGAR DEVELOPMENT ALTERNATIVE 1

Southeast Hangar Development Alternative 1, shown in Figure 5-6, provides for eight individual large hangars (100 feet by 100 feet), and two large corporate hangars (150 feet by 150 feet and 150 feet by 125 feet) located on either side of Taxiway B4. The total amount of hangar space provided for Alternative 1 is 121,250 square feet. Additional apron space would be constructed in front of the two large corporate hangars, for a total of approximately 3,100 square yards. Although most of the existing access roads are utilized in this alternative, an additional access road would be required to extend north to the hangars located on the northeast parcel, as well as an access road on the south end of the hangars. Southeast Hangar Development Alternative 1 preserves the road located east of the helicopter pad, which preserves helicopter

approaches in this direction. The total cost of the asphalt pavement for this alternative is approximately \$3.3 million.

FIGURE 5-6 – SOUTHEAST HANGAR DEVELOPMENT ALTERNATIVE 1

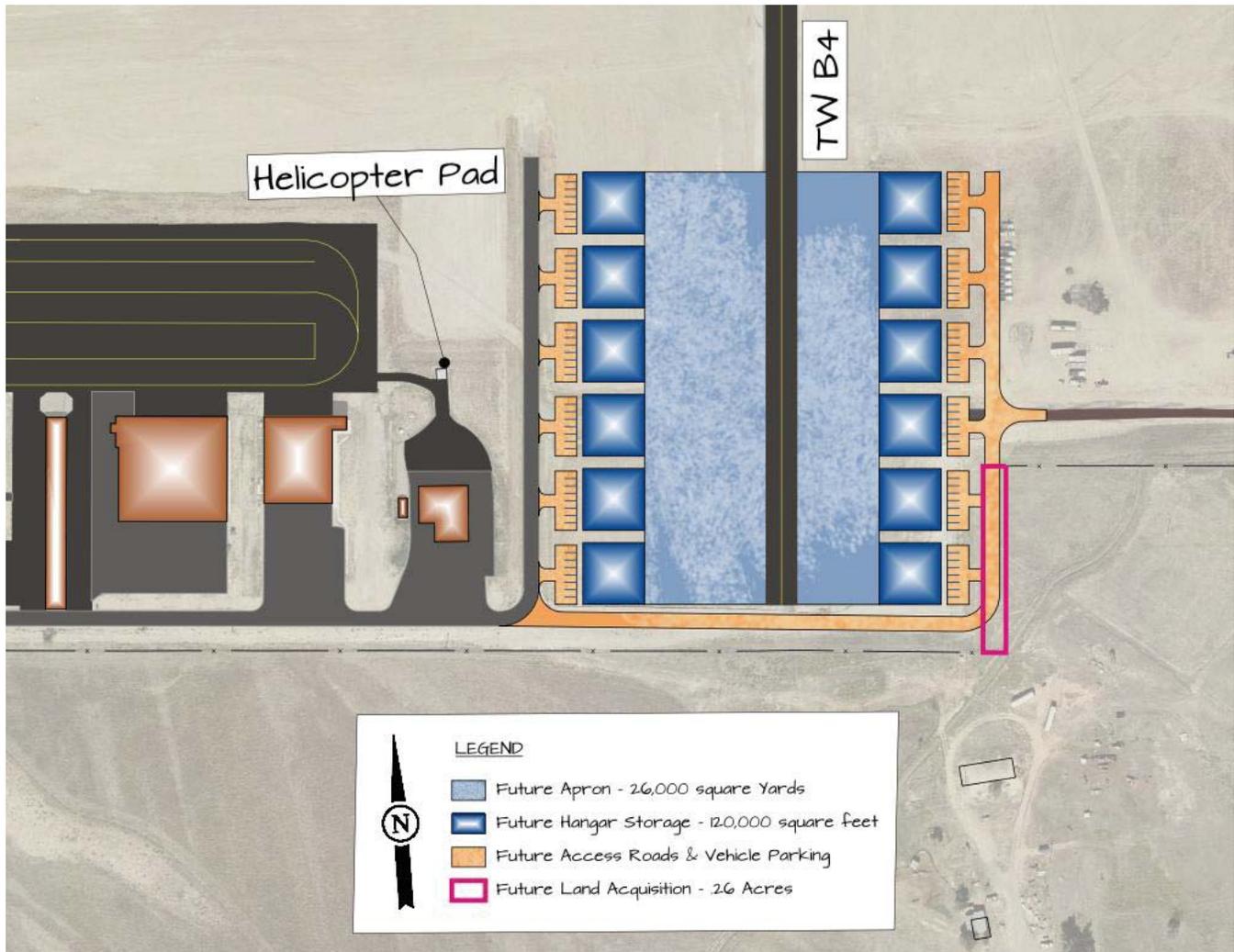


Source: Jviation, Inc.

5.6.2 SOUTHEAST HANGAR DEVELOPMENT ALTERNATIVE 2

Shown in **Figure 5-7**, Alternative 2 provides for the development of 12, 100 feet by 100 feet hangars, located on either side of Taxiway B-4. Although each hangar would have individual auto parking, this alternative would require the existing access road going, through the middle of the development area, to be closed. Additional access roads would be required to the east and south of the development area. Approximately 26,000 square yards of pavement would be developed, and approximately 120,000 square feet in additional hangar space for large aircraft would be provided. A portion of the proposed access road, on the east, would require land acquisition of approximately 0.26 acres. Further, Southeast Hangar Development Alternative 2 does not preserve the road located east of the helicopter pad, which would eliminate helicopter approaches in this direction. The total cost of the asphalt pavement for this alternative is approximately \$4.4 million.

FIGURE 5-7 – SOUTHEAST HANGAR DEVELOPMENT ALTERNATIVE 2

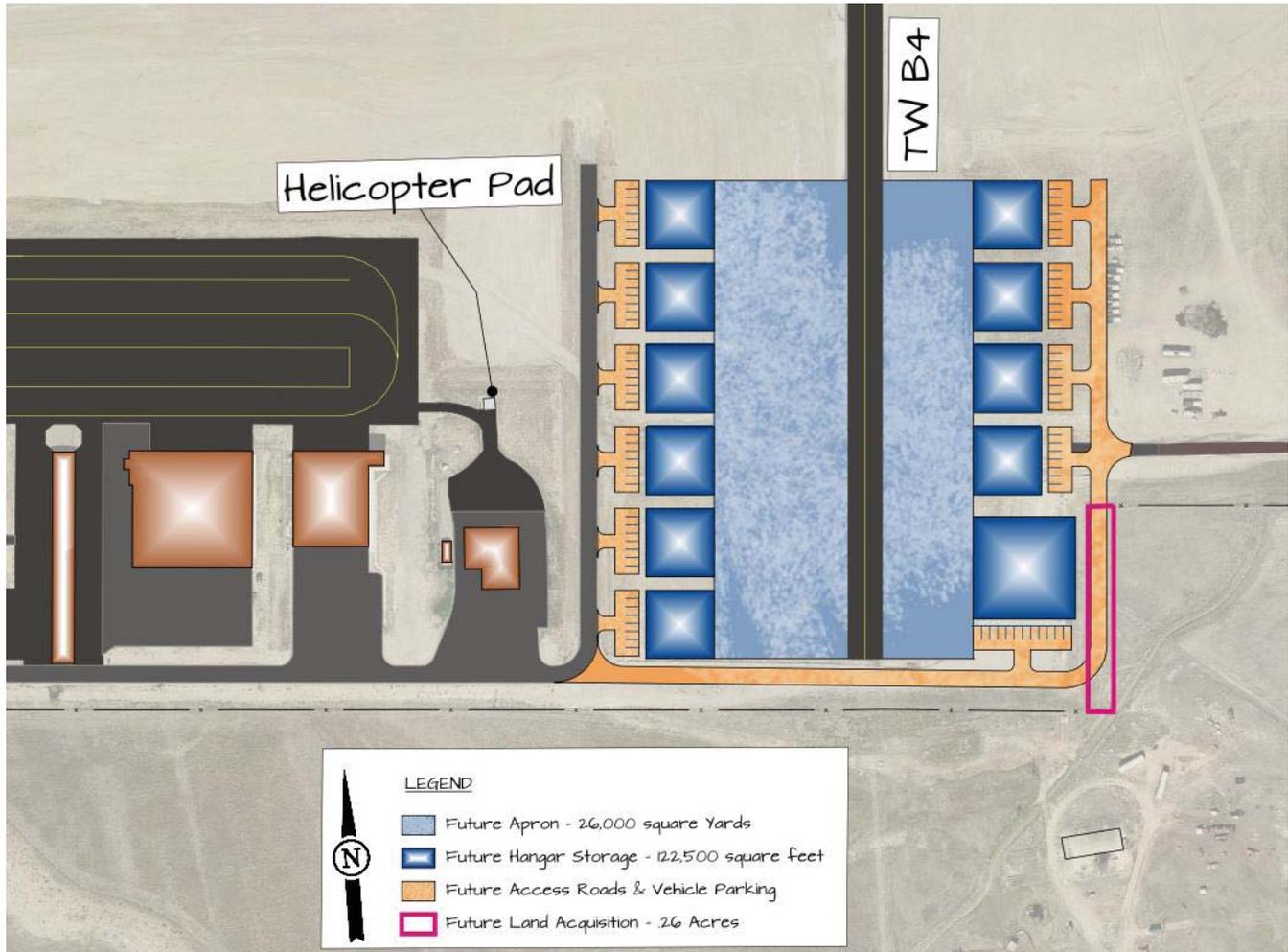


Source: Jviation, Inc.

5.6.3 SOUTHEAST HANGAR DEVELOPMENT ALTERNATIVE 3

Alternative 3 provides for 10 100 feet by 100 feet hangars and one 150 feet by 150 feet hangar, located on both sides of Taxiway B-4. This alternative includes filling in this entire area for additional apron pavement, which is approximately 26,000 square yards of apron space. The total square footage in hangar space allowed for in Alternative 3 is 122,500 square feet for large aircraft hangar storage. Additionally, two access roads would be required, linking the east side to the south side of the development area. As in Alternative 2, a portion of the access road would require land acquisition of approximately 0.26 acres in the southeast corner. Further, Southeast Hangar Development Alternative 3 does not preserve the road located east of the helicopter pad, which would eliminate helicopter approaches in this direction. The total cost for this alternative is approximately \$4.9 million. Alternative 3 is shown below in **Figure 5-8**.

FIGURE 5-8 – SOUTHEAST HANGAR DEVELOPMENT ALTERNATIVE 3



Source: Jviation, Inc.

5.6.4 RECOMMENDATION FOR THE SOUTHEAST HANGAR DEVELOPMENT

Table 5-2 summarizes the hangar development alternatives. It is recommended that Garfield County include in the Master Plan the hangar design concepts for private hangars with specific design to be determined at the time of development. The actual need will be determined when a development proposal is submitted to the County.

TABLE 5-2 – SOUTHEAST HANGAR DEVELOPMENT MATRIX

Evaluation Criteria		Alternative 1	Alternative 2	Alternative 3
Operational	100'x100' Hangars	8	12	10
	125' x 150' Hangars	1	0	0
	150'x150' Hangars	1	0	1
	Impact to Existing Helicopter Operations	No	Yes	Yes
Environmental	<ul style="list-style-type: none"> No significant environmental impacts anticipated. Appropriate level of environmental review is required. Will not alter on or off-airport land use 	<ul style="list-style-type: none"> No significant environmental impacts anticipated. Appropriate level of environmental review is required. Potential to change the existing land use 	<ul style="list-style-type: none"> No significant environmental impacts anticipated. Appropriate level of environmental review is required. Potential to change the existing land use 	
Compatibility	Accommodates future based aircraft requirements up to planning year 2033			
Feasibility	Access road construction and land acquisition is dependent upon approval and funding availability by Garfield County. Hangar development is demand-driven by 3 rd party developers.			
Economic	Land Acquisition	None	0.26 acres	0.26 acres
	Estimated Total Cost	\$3.3 million	\$4.4 million	\$4.9 million

Source: Jviation, Inc.

Note: Cost estimates do not include the cost of hangar development, which is funded through private developers, based on demand.

5.6.5 PREFERRED ALTERNATIVE FOR THE SOUTHEAST HANGAR DEVELOPMENT

The Airport Sponsor has chosen Southeast Hangar Development Alternative 1 as the preferred alternative.

5.7 AUTO PARKING AND CIRCULATION

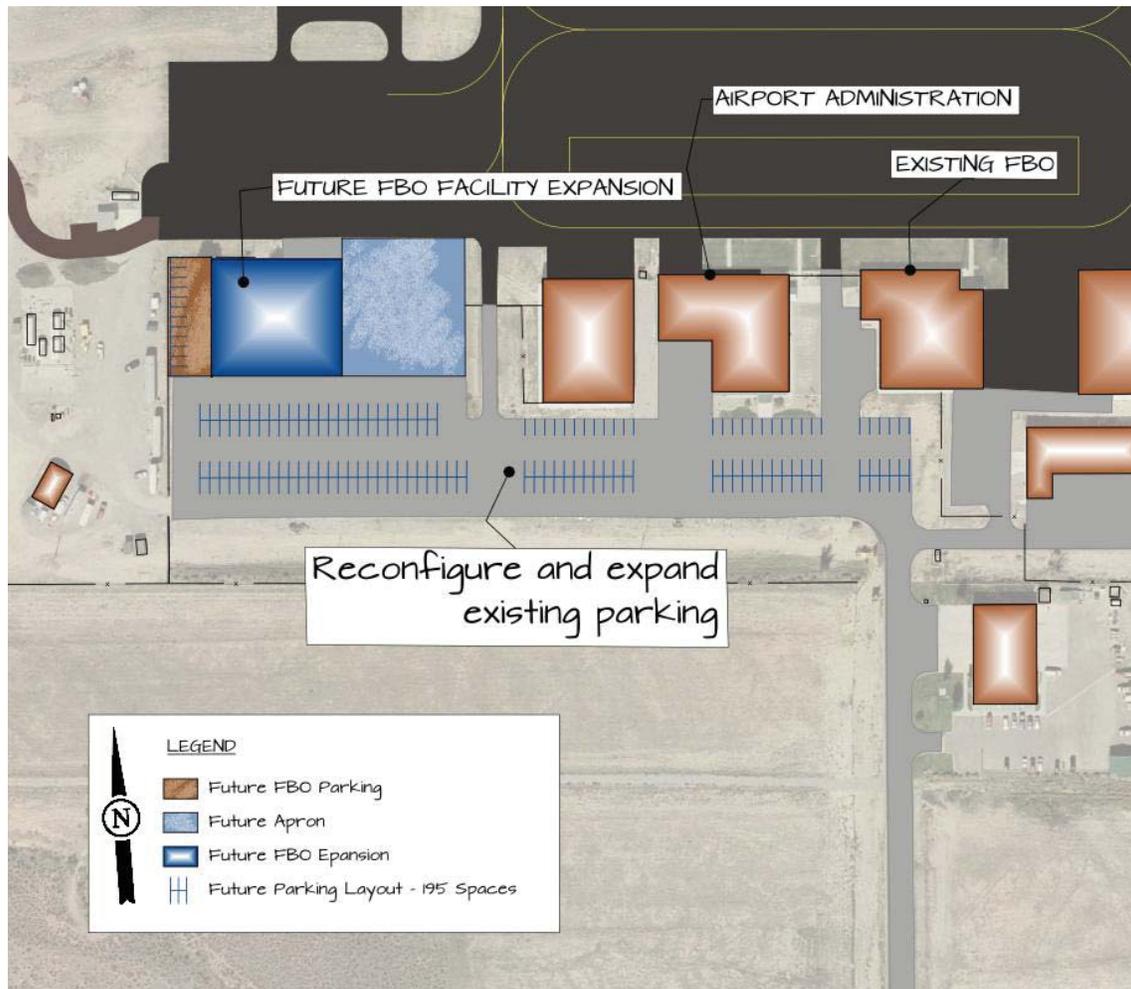
As discussed in **Chapter 4**, auto parking at times can become constrained during functions at the Garfield County administration office. Additionally, a potential area for the future FBO facility is the north side of the existing parking lot, as it is a prime location for aviation-related uses. The following parking alternatives address the potential relocation of the FBO facility in the parking lot area, with the assumption of no net loss in parking. There is a house located in this potential FBO development area that is occasionally used for Atlantic Aviation employees. Alternatives that include development within this area assume that housing accommodations for FBO employees will be contained within the new FBO facility to replace the existing house. Additional circulation improvements to the existing parking area are also presented in the following alternatives.

5.7.1 ALTERNATIVE 1

Alternative 1 includes reconfiguring the existing parking lot to accommodate the new FBO facility that will be developed in the northwest portion of the parking lot, in addition to expanded apron space adjacent to the new FBO facility. In order for there to be no net loss in parking spaces, Alternative 1 reconfigures the

parking lot to provide parking rows for double/opposite parking instead of the current single row parking. The FBO facility will also have dedicated parking directly behind the building. This alternative would provide a total of 195 parking spaces, and 2,800 square yards of additional aircraft parking apron space. The estimated cost of Alternative 1 is approximately \$1.2 million, and is shown in **Figure 5-9**.

FIGURE 5-9 – AUTO PARKING & CIRCULATION IMPROVEMENT ALTERNATIVE 1

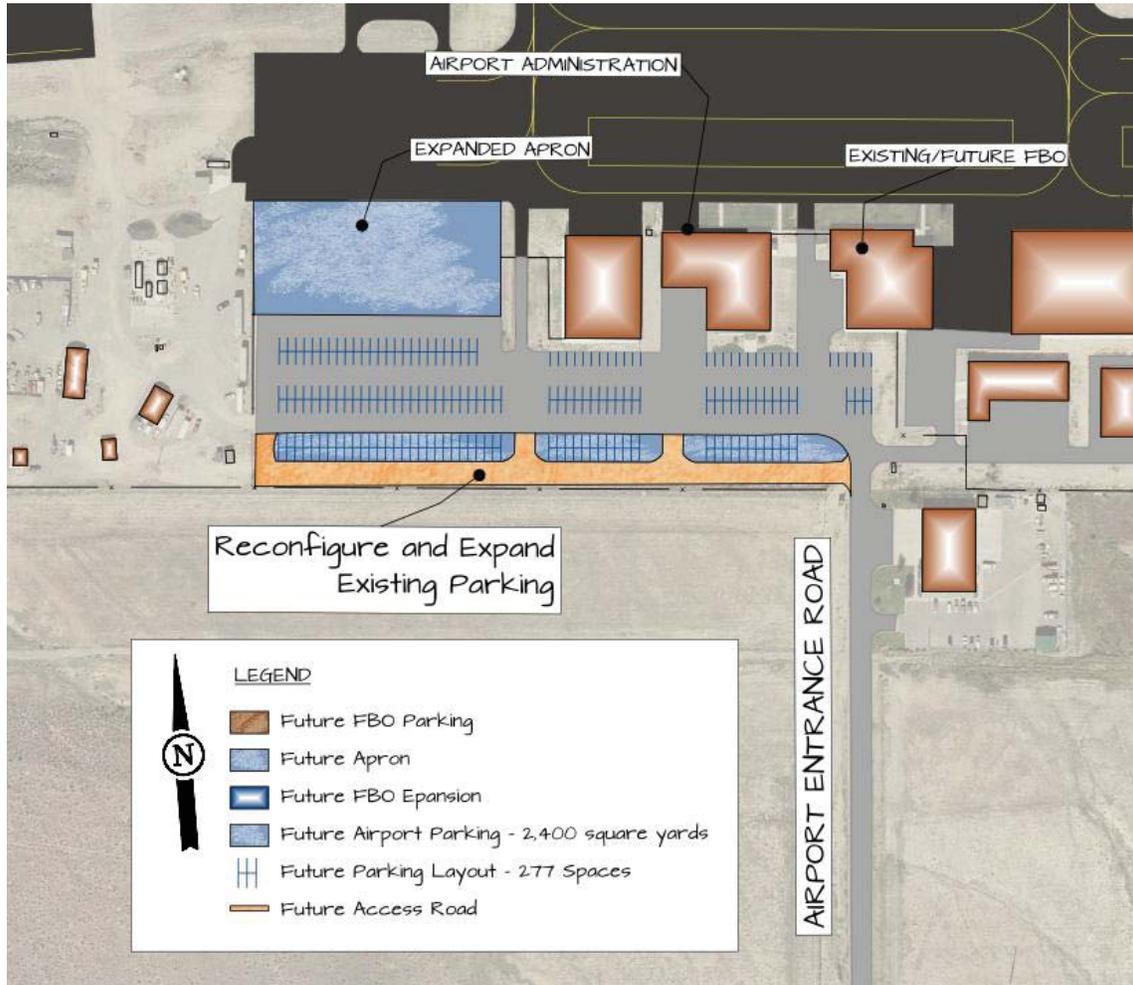


Source: Jviation, Inc.

5.7.2 ALTERNATIVE 2

Alternative 2 includes similar elements to Alternative 1, such as the apron expansion in the northwest part of the parking lot and reconfiguring the parking lot to allow double-row parking. Alternative 2 assumes the FBO facility will remain at its existing location, which allows for the aircraft parking apron to be expanded a total of approximately 6,700 square yards in the northwest section of the parking lot. Further, Alternative 2 expands the existing parking lot south to the fence line for additional overflow parking. No net loss in parking would occur; additional spaces would be added for a total of 277 parking spaces, as shown in **Figure 5-10**. The estimated cost of Alternative 2 is \$2.2 million.

FIGURE 5-10 – AUTO PARKING & CIRCULATION IMPROVEMENT ALTERNATIVE 2

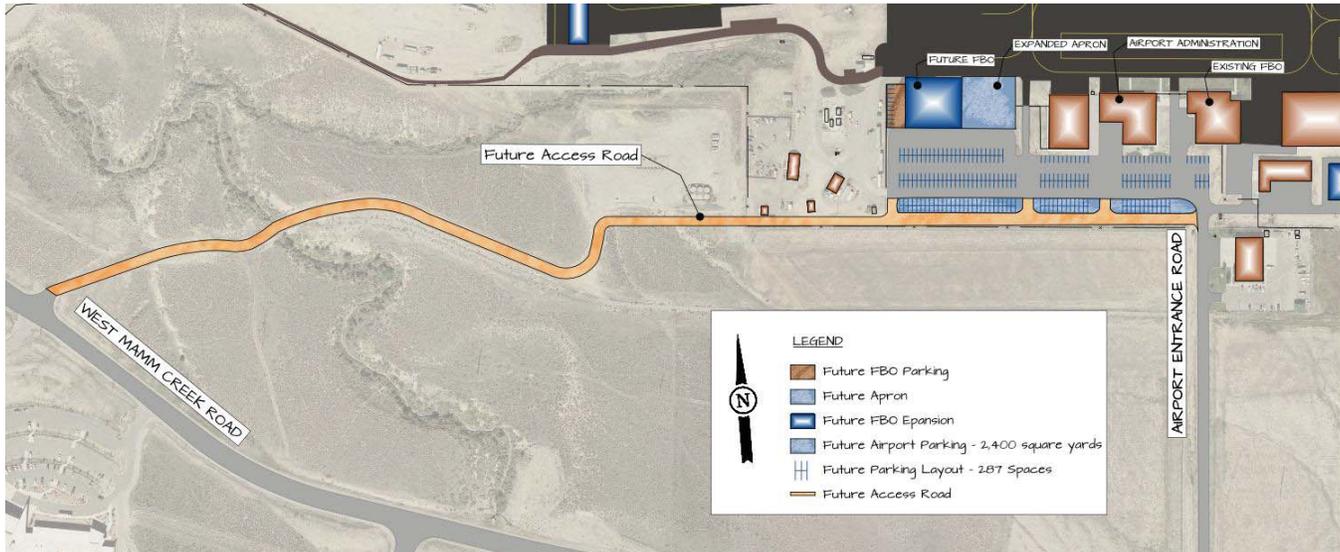


Source: Jviation, Inc.

5.7.3 ALTERNATIVE 3

As shown in **Figure 5-11**, Alternative 3 combines elements of both Alternatives 1 and 2, by relocating the FBO facility to the west and expanding the apron by approximately 2,400 square yards. Double row parking is also provided, and existing access and circulation is improved by converting the gravel County road on the southwest side of the parking lot (off-airport property) to a secondary access point directly to the FBO facility area. The total number of parking spaces in Alternative 3 is approximately 287. Although no land acquisition is required, coordination with Garfield County would be required for potential access roadway improvements. The estimated cost of Alternative 3 is approximately \$2.2 million.

FIGURE 5-11 – AUTO PARKING & CIRCULATION IMPROVEMENT ALTERNATIVE 3



Source: Jviation, Inc.

5.7.4 RECOMMENDATION

Table 5-3 summarizes the auto parking and improved circulation alternatives. Different components of each alternative can be combined as needed to fit actual demand.

TABLE 5-3 – AUTO PARKING & IMPROVED CIRCULATION ALTERNATIVES MATRIX

Evaluation Criteria		Alternative 1	Alternative 2	Alternative 3
Operational	Total Parking Spaces	200*	277	292*
	Improved Circulation	No	Yes	Yes
Environmental		<ul style="list-style-type: none"> No significant environmental impacts anticipated. Appropriate level of environmental review is required. Will not alter on- or off-airport land use 		<ul style="list-style-type: none"> Modification of road may change existing surface traffic patterns Potential impacts to undisturbed land Potential impacts to Dry Creek Potential change to the existing land use
Compatibility		Meets parking requirements to accommodate future aviation demand needs.		
Feasibility		Access road construction and parking lot development depend upon approval and funding availability by Garfield County.		
Financial (Cost of asphalt pavement, not including utilities)		\$1.2 Million	\$2.2 million	\$2.2 million

*Includes reserved parking for FBO terminal building.

Source: Jviation, Inc.

5.7.5 PREFERRED ALTERNATIVE

Alternative 2 is the preferred auto parking and improved circulation alternative as directed by the Airport Sponsor.

5.8 SUMMARY

Table 5-4 summarizes the recommended facility improvements as analyzed in this chapter. These improvements are based upon direction received from the Airport Sponsor for each preferred alternative.

TABLE 5-4 – RIL RECOMMENDED FACILITY IMPROVEMENTS

Item	Facility/Infrastructure Improvement	Improvements Recommended
1	Runway Length	Maintain existing runway length
2	Transient Aircraft Parking Apron	Expand existing main apron as demand dictates
3	GA Aircraft Parking Apron	Will be determined following PAC meeting
4	Southeast Hangar Development	Expand hangar development area as demand dictates, based on the configuration of Alternative 1
5	Auto Parking & Circulation Improvements	Expand auto parking & improve on-airport circulation, based on the configuration of Alternative 2
6	Runway Shoulders & Blast Pads	Add 20-foot runway shoulders
7	Taxiway System	Add shoulders to taxiways, taxilanes, and aprons serving ADG-III aircraft
8	Deicing	Replace existing deicing facilities
9	SRE	Replacement of existing snow blower and snow plow
10	Fuel Storage Requirements	Expand Jet-A fuel storage capacity by 2023 Upgrade existing fuel storage tanks and containment area
11	Landside Requirements	Reconfigure and expand existing parking lot Improve auto entrance/circulation areas. Additional auto parking is recommended.

Source: Jviation, Inc.