AIRPORT LAYOUT PLAN (ALP) REPORT

for

Aztec Municipal Airport

2021

Final Draft

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Airport Layout Plan Report

for

Aztec Municipal Airport

2021

Prepared for: City of Aztec, New Mexico

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in association with
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Table of Contents

List of Tables

List of Exhibits

Appendices

Introduction

Introduction

The purpose of this Airport Layout Plan (ALP) Report is to provide the City of Aztec (City) with a future development plan that satisfies aviation demand, verifies the critical aircraft, addresses airport issues and needs, documents general environmental conditions, addresses new FAA design standards and updates the Airport Capital Improvement Plan (ACIP) as well as the ALP drawings.

It's been more than a decade since an airport-related planning study was completed, which was the 2008 Airport Action Plan. This ALP Report is a much-needed update to ensure the Aztec Municipal Airport (Airport) continues to be developed in a safe and effective manner. As directed by the City early in this study, much of the future development from the 2008 Plan has been carried over to this plan, which takes advantage of former analyses and findings that remain applicable. However, some 2008 proposed development is revisited to consider changes over the last 10+ years.

Funding for this study was primarily through a NMDOT Aviation grant, which covered 90% of study costs.

Elements of the ALP Report for the Aztec Municipal Airport (Airport) are documented in several sections and include the following:

I. Inventory
II. Forecasts
III. Requirements
IV. Development Alternatives
V. Airport Capital Improvement Plan (ACIP)

A public involvement program established for the study offered the community an opportunity to follow progress, review materials, ask questions and submit comments. As part of the program, the City established a Planning Advisory Committee (PAC). PAC members served as community liaisons to help address questions about the study. The first PAC meeting was held on August 21, 2018, to kick off the study and discuss airport issues and existing conditions. The study was placed on hold, at times, to address some unanticipated planning issues such as the Bureau of Land Management (BLM) lease as well as extended review/comment and approval periods for forecasts. Consequently, some study tasks were delayed, and the second PAC meeting was postponed until October 2020. At the October meeting, the PAC evaluated near- to long-term development alternatives and identified a preferred development alternative to be recommended to the City for approval. In early December 2020, an overview of the study's progress and findings including the PAC-selected preferred alternative was presented to the community at a Public Information Workshop. The October PAC meeting and December Public Information Workshop were virtual (online) meetings for safety during the COVID-19 pandemic. The City approved the preferred alternative in early February 2021, so the study could proceed with completion of the ACIP and the ALP drawings. The ALP drawings will soon be submitted to the FAA for review and approval since the City renewed their BLM lease—the highest priority to satisfy FAA requirements and to remain eligible for future funding.

Section I

Inventory

I. INVENTORY

The purpose of this section is to document the existing conditions at the Aztec Municipal Airport (Airport). Inventory data from the 2008 Airport Action Plan is updated as part of this process through a site visit, meetings with the airport manager and other city staff, and review of existing documents and drawings. It is important to note that the inventory of existing conditions takes a snapshot in time so changes may occur before the study is complete.

Identifying current aviation activity and existing facilities at the Airport is important to subsequent planning elements when aviation demand forecasts are prepared, and future development needs are determined to serve the projected aviation demand.

Community Overview

The City of Aztec (City), located in the northwestern corner of New Mexico, has an estimated population of 6,566[1], in its 13-square-mile area. Aztec is the county seat of San Juan County and represents an estimated 5% of the County's population of 126,926. Larger nearby communities within San Juan County include Farmington and Bloomfield with populations over 45,000 and 8,000, respectively. Albuquerque is 180 miles, a three-hour drive, from Aztec via Highway 550. The closest commercial airline passenger service is available 40 miles away at the Durango-La Plata County Regional Airport (CO), a 45-minute drive from Aztec with daily nonstop flights to Dallas-Fort Worth, Phoenix, and Denver. The Farmington-Four Corners Regional Airport, a 30-minute drive, lost its commercial service with Great Lakes Airlines in November 2017. The closest major air carrier passenger service in New Mexico is at Albuquerque International Sunport.

According to the City, public bus service in the area is offered by Red Apple Transit and Road Runner Transit.

The Aztec Ruins National Monument, which attracted nearly 53,000 visitors in 2017, is one of numerous tourist attractions in the area.

Airport Overview

According to the 2008 Airport Action Plan, the City of Aztec purchased the Airport in 1961 for $8,900, but additional property history is limited. Federal Aviation Administration (FAA) records indicate that Aztec Municipal Airport consists of 160 acres today, but the FAA, New Mexico Department of Transportation (NMDOT) Aviation Division, and airport sponsor could not locate an Exhibit A property map with parcel

[1] Census Bureau July 2017 estimate, a decline from the 2010 Census population of 6,763.

acquisition details. The City acknowledges that the Airport is on a combination of city-owned land and a BLM lease. The latest BLM lease is from 2001 and includes approximately 11 acres[2]. Prior to 2001, the City leased 145.93 acres, but reduced the property lease to 11 acres in 2001. The airport manager and other city staff stated that the reduction in the BLM was for financial reasons since renewal of the larger lease area was too costly. Throughout this study, the City has been working with the BLM to renew their current lease as well as pursue additional acreage with a new lease.

The Airport is at an elevation of 5,882 feet[3] mean sea level (MSL), which is 238 feet above the City's elevation of 5,644 feet MSL. Sitting atop a mesa, the terrain around the airport drops significantly (60 to 180 feet), which has limited the airport's footprint since its early development.

The three-letter FAA identifier for Aztec is N19, and the Airport coordinates are:

Latitude: 36° 50' 13.017" N / Longitude: 108° 01' 43.163" W

Airport Ownership and Management

The Aztec Municipal Airport is owned and managed by the City of Aztec with an airport manager overseeing the day-to-day operations. The airport manager splits his time between two city jobs; his airport management responsibilities take approximately 50 percent of that time. Part-time support from other city staff is utilized on occasion for airport maintenance and upkeep such as mowing. In the Airport's early years, it was managed as a city department through a contracted concession arrangement.

An eight-member airport advisory board (AAB) is in place to serve in an advisory capacity to the City Commission. Promoting the safe, proper and orderly use and development of the airport is the AAB's primary goal.

In 1996, a set of rules and regulations were prepared and adopted. The rules and regulations, city titled as the Handbook of Airport Operations, apply to all airport tenants to ensure the safe and efficient operation of the Airport. With no commercial aeronautical services conducted at the Airport, the City has not developed a set of minimum standards.

According to the City's FY2017 records, annual airport operating revenues totaled $56,446 compared to $50,626 in operating expenses. However, personnel expenses are excluded from this figure. In comparison, FY2016 operating revenues totaled $53,250 and expenses reached nearly $72,000. Capital improvement grants from the FAA Airport Improvement Program (AIP) and NMDOT Aviation Division are excluded from these revenue figures and the City's matching funds for those grants are excluded from

[2]The BLM lease expired during the study and the City worked with the BLM to resolve the lease issue so the study and ALP drawing preparation could be completed. According to BLM correspondence with FAA, staffing constraints, workload and the pandemic caused extended processing times. See appendices for correspondence.
[3] Surveyed (2011)

expenses. FAA and State Aviation grants received during these two fiscal years totaled more than $970,000 for airport improvements and maintenance.

Economic Impact

The New Mexico Airport System Plan (NMASP), dated November 2017, states the following:

> *The New Mexico Airport System encompasses a multi-faceted gateway that welcomes commerce and visitors and provides access for outward travel across the state and to national and intercontinental destinations. The airports of New Mexico create significant benefits that extend beyond the aviation community to impact economic growth and development as well as the quality of life of residents.*

Three key economic activity indicators help quantify each airport's contribution to the community and region. These include employment, payroll and output. Further, the two sources of economic impact created by an airport include on-airport activity and off-airport spending. On-airport activity includes jobs and worker payroll, which may be associated with airport management, on-airport business activity and capital improvement projects. Off-airport spending is an important consideration as pilots and passengers spend money locally creating hospitality-related jobs, income and revenues—something to be considered each time pilots and passengers take a courtesy car from the airport into town, or when airport construction project-related workers spend days, weeks or months in the area.

Also notable is that economic activity has a direct and secondary economic impact. Direct impacts are the most apparent such as airport-generated revenues (e.g., fuel sales, hangar leases), paying airport-related employees and workers, and visitors arriving by air and spending money on goods and services. Secondary impacts include indirect and induced. Indirect, for example, may include the fuel supplier who sells to the airport and pays its employees. Induced is often referred to as the multiplier effect as airport-related activity dollars are circulated and recirculated in the economy.

The 2017 NMASP highlights the following as the economic impact for the New Mexico system of airports:

- Jobs supported 18,940
- Payroll $717.7 million
- Total Economic Impact $2.3 billion

Table 1A presents the economic impact findings specifically for the Aztec Municipal Airport. The economic impact study shows that the economic benefits exceed the cost of operating, maintaining and upgrading airport facilities.

Table 1A. Aztec Municipal Airport Economic Impact (NMASP 2017)

Source	Employment	Payroll	Output
Direct Economic Impact			
On-Airport Activity	9	$553,000	$2,157,000
GA Visitors	12	$273,000	$1,050,000
Direct Impact	21	$826,000	$3,207,000
Secondary Economic Impact			
On-Airport Activity	10	$453,000	$1,386,000
GA Visitors	3	$117,000	$397,000
Secondary Impact	13	$570,000	$1,783,000
Total Economic Impact			
On-Airport Activity	19	$1,006,000	$3,543,000
GA Visitors	15	$390,000	$1,447,000
Secondary Impact	34	$1,396,000	$4,990,000

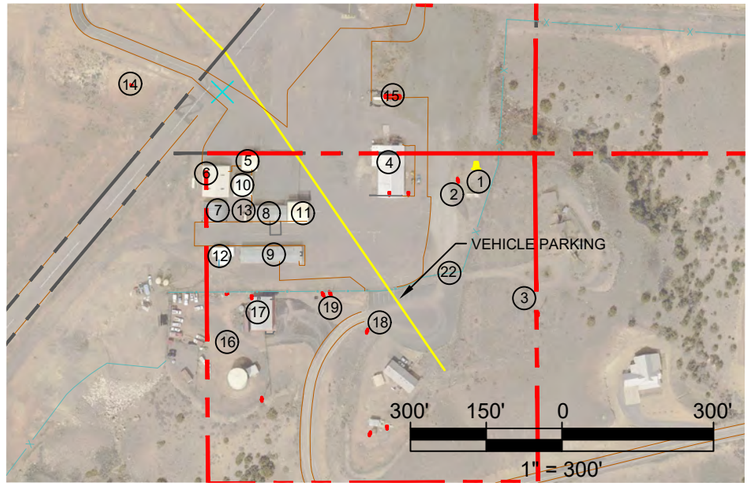
Note: Employment, payroll, and output include annual average capital improvement expenditures of $320,000
Source: NMASP 2017

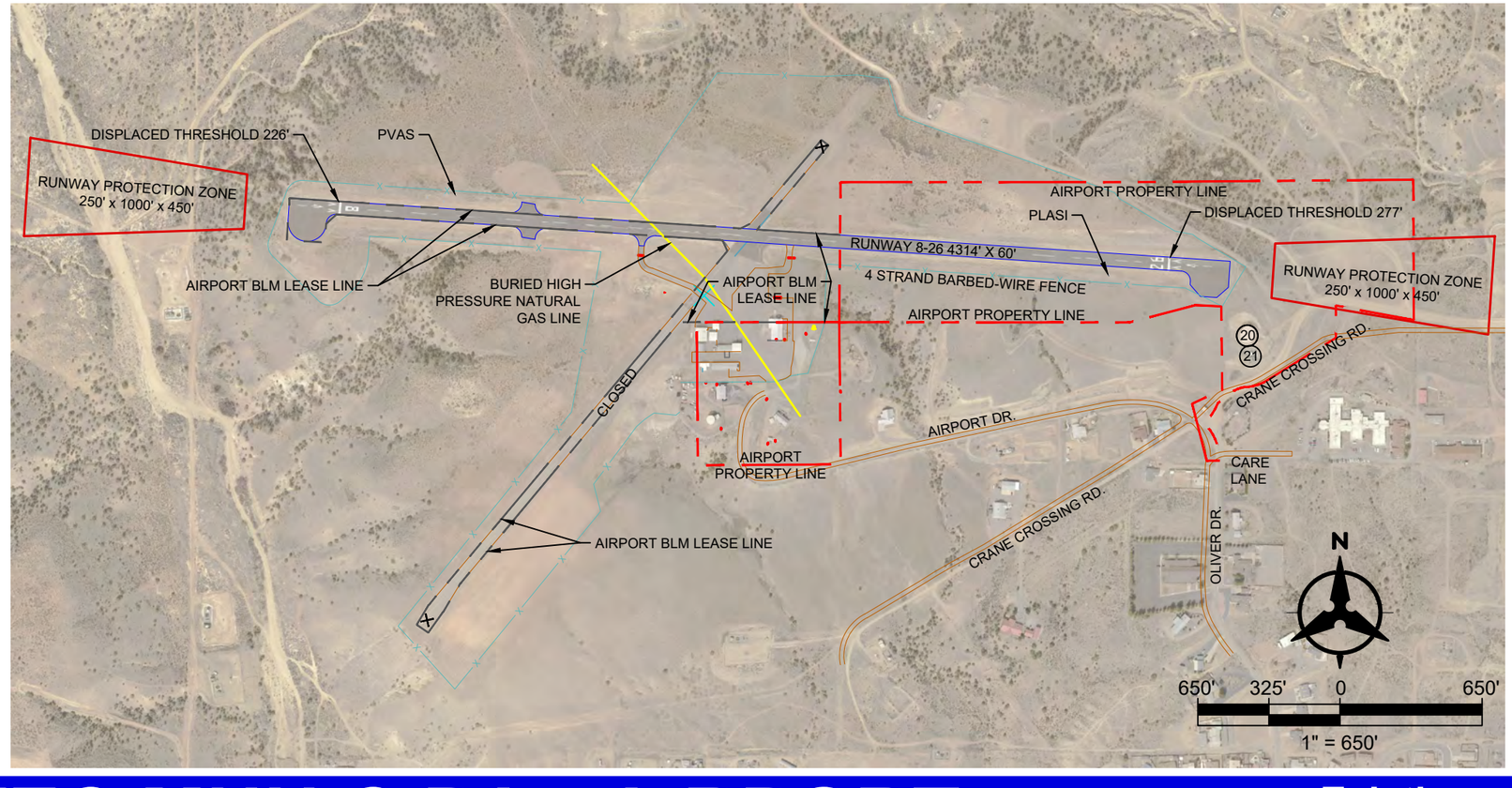
Existing Facilities

The Airport's existing facilities are generally classified as airside, landside and support. Airside includes facilities such as runways, taxiways, and aircraft apron while landside includes facilities such as hangars and the terminal /pilot lounge building. For discussion, support facilities include auto access and parking, security and fencing, fuel storage, and utilities and drainage. **Exhibit 1A** presents the existing conditions at the Airport.

FACILITIES TABLE

EXISTING		
#	Facility Name	Top Elevation
1	Rotating Beacon	5931.7
2	Power Pole with Light	5910
3	Power Pole	5907
4	Airport Office/Hangar (Antenna)	5908
5	Hangar	5890.8
6	Hangar	5897.9
7	Hangar	5892.3
8	Hangar	5889.5
9	Hangar	5887.8
10	Hangar	5890.8
11	Hangar	5893.8
12	Hangar	5885.6
13	Light	5899
14	Windcone with segmented circle	5895.3
15	Light Pole at Fuel Tank	5897.1
16	Water Tank	5899.2
17	Fire Station (Antenna)	5898.4
18	Light Pole	5900.5
19	Light Pole	5902.1
20	Water Tank (Vent)	5836.1
21	Pump House	5809.8
22	Motor operated gate and keypad	5878





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Existing Conditions Map

EXHIBIT 1A

Airside Facilities

Runway

Including Aztec, there are 26 public use airports with a single-runway airfield configuration in the New Mexico airport system, while the remaining 29 system airports have two or more runways. Aztec's single runway is a paved east-west runway, Runway 8-26, with dimensions of 4,314 by 60 feet. Both runway ends have a displaced threshold since the graded runway safety areas off both ends are inadequate. Runway 8 has a 226-foot displaced threshold and Runway 26 has a 277-foot displaced threshold. The displacements are from the actual pavement end to the landing threshold or beginning of the runway available for landing. The displaced area can be used for takeoff. Further, the midfield elevation of Runway 8-26 obstructs the line of sight between runway ends due to the parabolic grade of the runway. Both ends of Runway 8-26 are built up using rock filled gabion baskets up to 15 feet high as a retaining wall due to the near vertical drop-offs on the runway ends to provide as much length as possible on the mesa top. While the runway end to runway line-of-sight does not meet the Airport Design criteria for a runway without a parallel taxiway, it was allowed by the FAA during the design for the reconstruction of Runway 8-26 in 2010 as a parallel taxiway is planned for this runway. During the reconstruction of Runway 8-26 in 2010, the gabion retaining walls raised the runway ends to improve the line-of-sight and allowed a slightly longer runway length than existed before the reconstruction.

Aztec's former crosswind runway has been officially closed since 2017). Aligned northeast-southwest (formerly Runway 4-22), this 40-foot-wide runway was deactivated since it did not meet various safety standards including FAA's required minimum width of 60 feet. Additionally, the conventional/box hangar closest to Runway 22 (88 feet from the runway centerline) encroaches into the FAA-required object free area and safety areas creating a physical hazard. Despite the runway closure markings, there are reports of pilots using the pavement occasionally during strong south westerly crosswinds.

Runway Alignment

Runways are developed to align with the prevailing winds. Runway numbering is based on the longitudinal magnetic heading rounded to the nearest 10 degrees, so runway 8 has a magnetic heading of approximately 080 degrees and Runway 26 has a magnetic heading of approximately 260 degrees. For Aztec, prevailing winds are from the east and west, so the east-west Runway 8-26 alignment is optimal. However, pilots report that when crosswinds are present, it is difficult to use Runway 8-26.

Local Aztec wind data is unavailable to accurately assess wind coverage, so the closest available data acceptable to the FAA is at the Farmington-Four Corners Regional Airport. Considering the distance and variance in terrain and the proximity of two rivers to the Farmington airport, airport users agree that Farmington wind data is not representative of Aztec. Nevertheless, the FAA recommends that the best available wind data be obtained for the most recent 10 years, which is Farmington wind data from 2008 through 2017. According to the Farmington wind analysis, wind coverage at 10.5 knots (13 mph) on a Runway 8-26 alignment is 96.16%. The Farmington alignments are Runways 7-25 and 5-23.

Taxiways

There are two connecting taxiways between the apron area and Runway 8-26, as well as taxilanes providing access to hangars. There is no parallel taxiway system.

The east connecting taxiway is located east of the old Runway 4-22 intersection with Runway 8-26 and runs from the tiedown apron and fuel island to Runway 8-26. This taxiway was recently realigned to include a 90° turn to comply with current FAA design standards requiring that direct access from an apron to a runway be eliminated to reduce the potential for runway incursions—pilots inadvertently taxiing onto an active runway.

The west connecting taxiway is 25-feet wide and located west of the old Runway 4-22 intersection; this taxiway is not designed to the current FAA taxiway design criteria. The taxiway has a curve prior to intersecting Runway 8-26 and meets this aspect of the taxiway design criteria, but the curve fillets do not comply with design criteria.

Aircraft Apron

The aircraft apron area including tiedowns, circulation and taxilanes is approximately 12,000 square yards with one large contiguous pavement that runs from the taxiway connectors to the hangars and terminal and south to the fence line where the access gate and auto parking is located. A total of eight nested tiedowns are marked in front of the terminal and an additional four tiedowns are south of the terminal towards the south end of the apron.

Pavement Strength and Condition

According to a 2011 runway reconstruction project, the pavement strength of Runway 8-26 is 12,500 pounds single wheel loading (SWL). This differs from the pavement strength rating identified on the FAA Airport Master Record (FAA Form 5010), which reports 10,000 pounds SWL. As part of the New Mexico Statewide Pavement Management System Update, Aztec's airport pavements were inspected in April 2016. Eight pavement sections totaling 561,959 square feet were inspected including the crosswind runway, which was closed in 2017. **Exhibit 1B** is derived from the inspection but advances the pavement condition to anticipated current (2018) PCI values. Since the inspection, apron and east connecting taxiway improvements have been completed.

Airfield Lighting, Marking and Signage

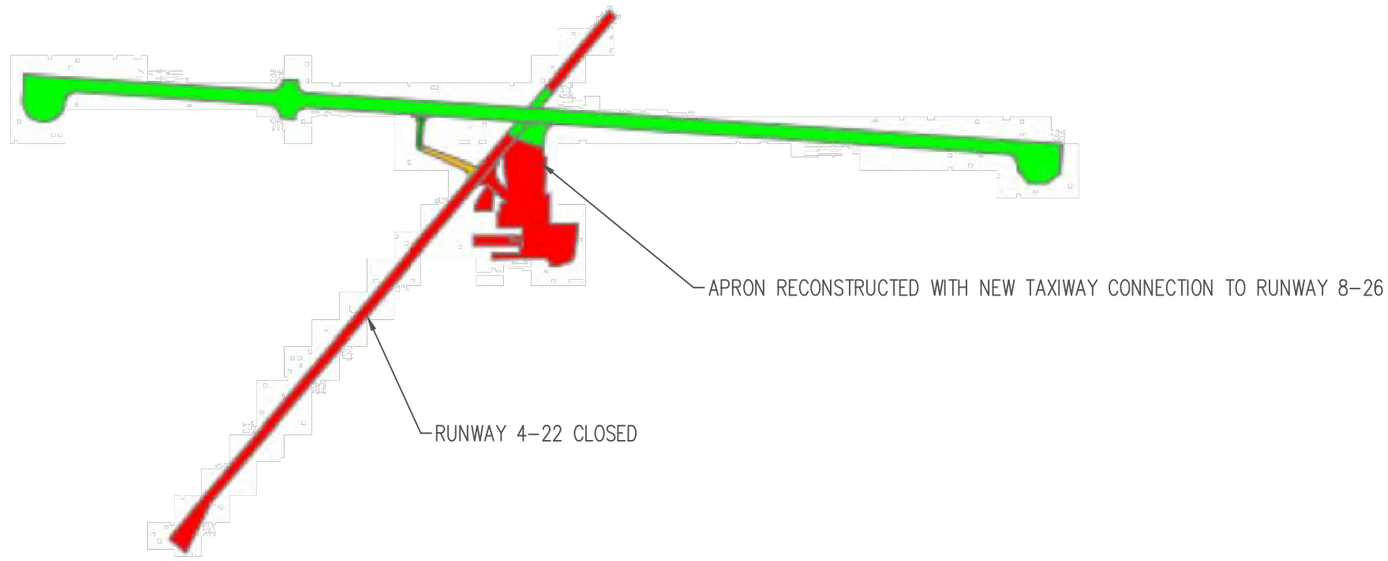
Runway 8-26 has retro-reflective runway edge lighting, but a design project has been completed for installing a medium intensity runway lighting (MIRL) system. Project construction delays occurred for the City's execution of its BLM lease agreement[4]; runway threshold and displaced thresholds lights as well as taxiway entrance lights are included in the project. Currently non-standard approach lighting is also

[4] The BLM lease expired during the study and the City worked with the BLM to resolve the lease issue so the study and ALP drawing preparation could be completed. The BLM provided a letter to the FAA once the lease renewal was in progress, and the FAA agreed to allow the lighting project to proceed.

Aztec Municipal

PAVEMENT CONDITION INXED (PCI) MAP
FROM NEW MEXICO DEPARTMENT OF TRANSPORTATION – AVIATION DIVISION
PCI MAP ADVANCED TO 2018 ANTICIPATED CONDITIONS.
APRON RECONSTRUCTION NOT REFLECTED IN THIS MAP.

PCI GENERAL GUIDELINES
71–100 PREVENTATIVE MAINTENANCE
41–70 MAJOR REHABILITATION
0–40 RECONSTRUCTION



PCI Legend:	86-100	71-85	56-70	41-55	26-40	0-25

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Pavement Conditions Index

EXHIBIT 1B

installed on each runway end. Pilots can activate the approach lights on the Common Traffic Advisory Frequency (CTAF), 122.9. Connecting taxiways are equipped with reflectors.

Runway 8-26 is marked as a basic visual runway, which includes a white centerline and runway numbers. There are displaced threshold markings for both runways. The displaced threshold markings depict the beginning point where the runway is available for landing, but takeoffs can be initiated behind the displaced threshold.

Airfield signage includes a retro-reflective runway holding position sign for Runway 8-26 on the west connector taxiway. The east connector taxiway does not have a runway holding position sign. The MIRL system project design includes new airfield guidance signage.

Airport Navigational Aids

Visual aids and instrument approach aids are classified as airport navigational aids. Aztec is equipped with visual slope guidance indicators, which identify to pilots whether they are coming in too high, too low, or on the proper approach slope. Runway 8 has a retroreflective Passive Visual Approach Slope Indicator (PVAS) while Runway 26 has a Pulsating Light Approach Slope Indicator (PLASI). Both systems are working but outdated. The airfield lighting design project replaces the old systems with Precision Approach Path Indicator (PAPI) systems.

Also considered visual aids are the wind indicators on the airfield. The Airport has an unlighted supplemental wind cone near each runway end and an unlighted primary wind cone and segmented circle near the west connecting taxiway. The runway lighting design project (construction delayed) includes installation of a new primary lighted wind indicator and segmented circle.

As a visual airport, there are no instrument approach aids at the Airport.

Landside

Hangars

The City has numbered each hangar currently occupied by its airport tenants. Of the 14 total, 10 are city-owned hangars and four are on ground leases. All hangar and ground leases are with private aircraft owners, not businesses. Buildings 5, 10, 11 and 12 depicted on Exhibit 1A are privately owned hangars on ground leases with the City; all others are city-owned and leased hangars. Building 4 consists of two large conventional hangars as well as the pilot lounge on the northwest side. Building 8 includes a bank of two hangars and Building 9 is a bank of four hangars.

Terminal Building

The terminal building, named “Mike Arnold Pilot Lounge,” is attached to one of the city-owned large hangars—the easternmost hangar. Amenities include a seating area, a TV, and a side table filled with brochures on tourist attractions, restaurants, and lodging. On one side, there are two restrooms while the other side includes a room with a desk, computer and printer for flight planning and two snack and

beverage vending machines. Wi-Fi is available as well. The building also includes a separate airport administration and storage room.

City Fire Station

A City of Aztec Fire Station served by 14 volunteer fire fighters, is located on the Airport. This station is for structural firefighting. There is no equipment designed for aircraft rescue and firefighting (ARFF) at this station or on the airport as ARFF support is not required since commercial passenger service is not offered.

Support Facilities

Support facilities include auto access and parking, fuel storage, utilities and drainage, security and fencing, and airport property.

Airport Access and Auto Parking

Airport Drive provides access to the airport property. Going west from town on US Highway 64, access is from North Oliver Ave. to Airport Drive.

Airport Drive leads to a paved auto parking area for visitors outside the airport security gate. Inside the gate, there is unmarked paved parking adjacent to the terminal building and attached hangar.

Security and Fencing

For Aztec, security includes chain link fence with a controlled-access gate at the auto parking area, building area lighting and occasional patrols by law enforcement. The Airport has a four-strand barbed wire fence around the perimeter, but some sections are presently down and in need of repair. The controlled-access gate, which is in good operating condition, is adjacent to auto parking along the fence line at the main airport entrance. To enhance security, the gate remains closed and requires an access code for all airport visitors.

Fuel

The City provides fuel service 24/7 with a self-serve 100LL fuel pump on the apron. Fuel storage capacity is 10,000 gallons. The fuel farm is a new facility installed in 2016 that complies with all current environmental requirements. Pilots often stop at Aztec specifically for its competitive fuel prices, ease of access and location within the aerial highway system.

Utilities and Drainage

Utilities at the airport include electricity, water, sewer, solid waste, and telephone/data. Gas for the terminal building was provided from the high-pressure gas line that bisects the airport. This is to be replaced with a propane system. Most of the hangars have electrical service only.

Drainage from the site is adequate using established drainage paths from the mesa top.

The City provides the electrical, water, sewer, and solid waste services.

Facilities Summary

Table 1B summarizes the airside, landside and support facilities at the Airport.

Table 1B. Summary of Facilities

Facility	Description
Runway	Runway 8-26, paved, 4,314' x 60' Displaced Thresholds R8: 226' / R26: 277'
Pavement Strength	12,500 lbs. SWL
Airfield Lighting Markings Signage	Retroreflectors (MIRL project - design completed) Basic Visual Runway holding position sign (west connector taxiway)
Visual Aids	R8: PVAS / R26: PLASI (PAPI systems – design completed) Wind indicators – 3
Apron	12,000 SY
Hangars	4 Privately-owned hangars on ground leases 10 city-owned hangar leases
Terminal	Pilot lounge/seating area, restrooms, vending machines, wi-fi, airport admin/storage
Auto Access & Parking	Airport Drive (off Olive). Access-controlled security gate. Paved auto parking (outside fence and by terminal, unmarked)
Security & Fencing	Perimeter fencing (4-strand barbed wire); chain link fence with controlled-access gate; building area lighting; occasional patrols
Fuel	24/7 self-serve 100LL (Avgas); 10,000-gallon storage tank

Airport Development History

As noted in the 2008 Action Plan, the Airport was a private facility before the City purchased it in 1961 for $8,900. NMDOT Aviation Division records include numerous projects through 2018, which included local and state funding. Since the Airport was added to the National Plan of Integrated Airport System (NPIAS), it has received Federal Airport Improvement Program funding. A summary of the Airport's grant history is included in the report appendices.

Aviation Activity

Aviation activity at an airport is primarily measured by the number of based aircraft and airport operations. According to the FAA Airport Master Record (Form 5010) for Aztec, there are 12 single-engine aircraft based at the Airport plus two ultralights. The airport manager recently updated the airport's

aircraft count in the national based aircraft inventory database at www.basedaircraft.com, which allows airport sponsors to enter tail numbers (aircraft registration) of their based aircraft to validate their based aircraft status or to flag them as being identified as a based aircraft at another airport. If duplication exists, the location at which the aircraft spends more than 50 percent of time should be considered and listed as the home base for the aircraft.

Total annual operations are reported as 5,500, which is an average of 106 operations weekly, or 15 operations daily.

A review of aviation activity at seven area airports within 40 nautical miles of and including Aztec are presented in **Table 1C**. An aeronautical chart for the area is depicted in **Exhibit 1C**, which shows the location of these airports. These airports may compete with Aztec for based aircraft and operations depending on factors such as runway length, instrument approach capability, fuel services, hangar availability, hangar rates, and location convenience, to name a few.

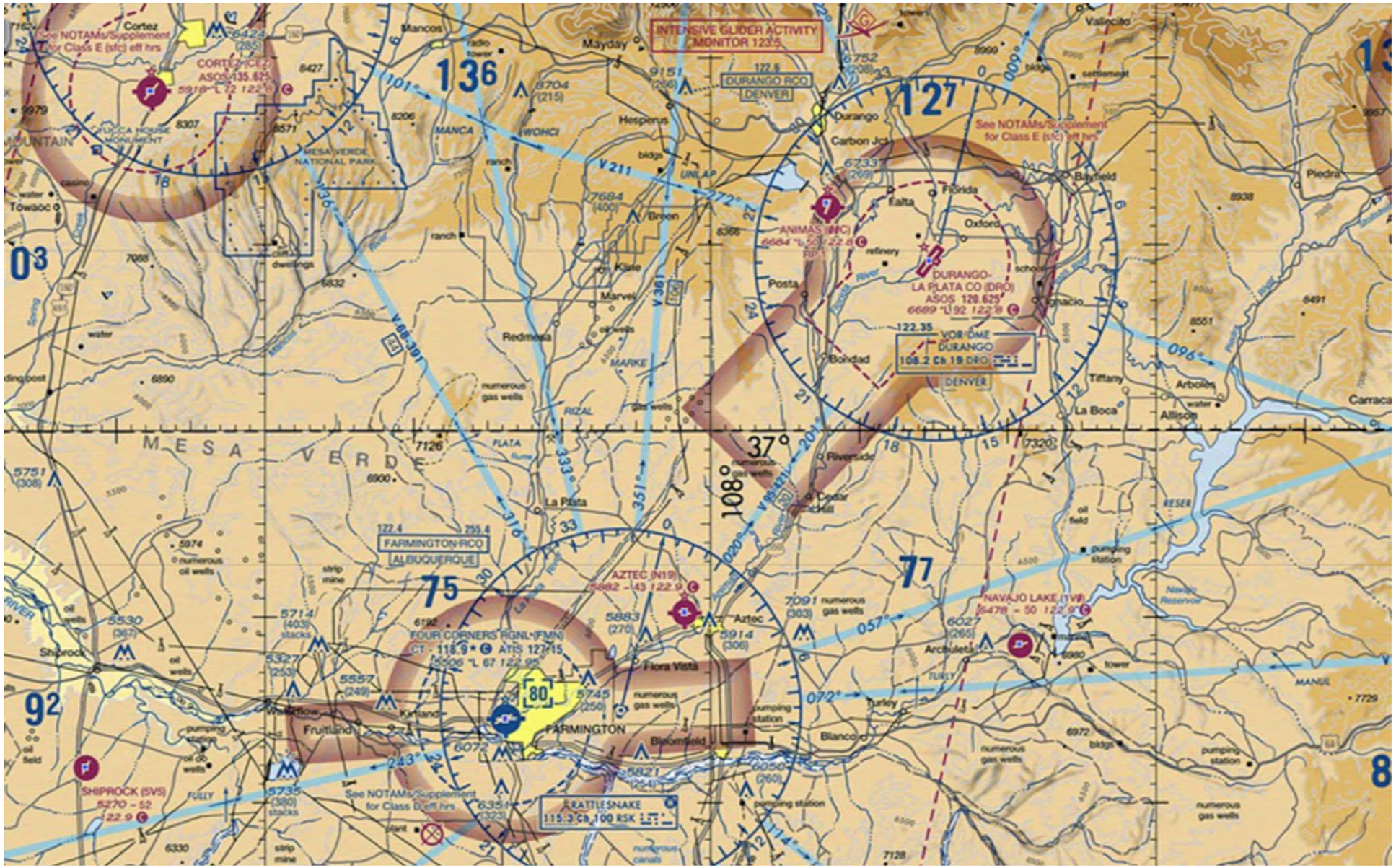
Table 1C reveals that the based aircraft count at area airports ranges from zero to 122, and annual operations range from 200 to 36,000. Three of the seven airports can accommodate instrument operations with a published instrument approach procedure (IAP); these three also have the longest runways. In comparison, Aztec's 5,500 operations represent an estimated 15 percent of Durango's activity. Further, Aztec has approximately 20 percent of Durango's total based aircraft (61). In contrast, Four Corners Regional in Farmington has double the based aircraft of Durango (122).

Table 1C. Area Public Use Airports and Activity

Airport	Identifier	Distance from Aztec	Longest Runway	Based Aircraft	Operations
Aztec	**N19**	**--**	**Paved 4,314' x 60' (visual)**	**12**	**5,500**
Four Corners Regional	FMN	11 nm NW	Paved 6,704' x 100' (IAP)	122	32,642
Navajo Lake	1V0	18 nm E	Paved 5,022' x 60' (visual)	0	200
Durango-La Plata Co	DRO	23 nm NE	Paved 9,201' x 150' (IAP)	61	36,031
Animas Air Park	00C	23 nm N	Paved 5,010' x 50' (visual)	45	10,950
Shiprock	5V5	33 nm W	Paved 5,210' x 75' (visual)	0	500
Cortez	CEZ	40 nm NW	Paved 7,205' x 100' (IAP)	31	9,834

Source: FAA Airport Master Record (FAA Form 5010)

The airport manager is currently in the process of verifying the based aircraft count through the FAA's national based aircraft inventory program www.basedaircraft.com.



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Aeronautical Chart Extract

EXHIBIT 1C

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At airports without a control tower, like Aztec, annual operations are estimated. For Aztec, these estimates are derived from fueling transactions, visitor logs, and daily observations. An operation is a takeoff or landing, so with an average of 106 operations weekly at Aztec, this translates to about 53 takeoffs and 53 landings weekly. Operations are also categorized as either local or itinerant. A local operation is defined as one that remains in the vicinity of the airport, which is typically training activity such as touch-and-go operations. Itinerant activity includes all operations that are departing for or arriving from another location. Of the estimated 5,500 annual operations at Aztec, 2,500 are identified as local and 3,000 as itinerant.

There is a broad variety of airport users at Aztec such as recreational, business, flight training, firefighting, and medical. In the past, some agricultural activity was conducted out of the Airport (i.e., crop dusters).

Additional discussion of aviation activity as well as projected future demand is presented in the Aviation Demand Forecasts.

Environmental Conditions

In this section, a preliminary identification of potential or known environmental conditions is documented. The purpose of this element is to identify potential environmental issues that may require consideration in developing the airport and to comply with NEPA requirements. The FAA requires an environmental review of any activity that results in disturbing the earth on the airport. The simplest is a Categorical Exclusion (CATEX) which is generally a paper review of archaeologic, biotic and flora and fauna in the area. The next is an Environmental Assessment (EA) which is an on the ground evaluation of the same items and may or may not involve things like noise and traffic pattern issues as well as public meetings. The most extreme is a full Environmental Impact Study which require extensive public involvement in addition to a significant amount of groundwork.

Information presented is derived from the City's past environmental documentation and online resources.

The City's most recent environmental documentation for the Airport includes a Categorical Exclusion (CATEX) submitted to the FAA for a runway lighting project, which is dated March 2018. The CATEX addresses the runway environment noting that the area has been "...disturbed by prior construction and reconstruction of Runway 8-26. The area surrounding the airport property is residential to the south and east, to the west and north are several gas wells."

Table 1D summarizes the information from the March 2018 CATEX and online information.

Table 1D. Summary of Environmental Conditions

Category	Description
Wetlands	• There are no wetlands or other waters of the US in or near the project area • Wetland delineation has not been completed within the proposed project area.
Flood Zones	• The project is not located in, encroach upon or otherwise impact a floodplain.
Historic or Cultural features	• There are no historic/cultural resources listed (or eligible for listing) on the National Register of Historic Places located in the Area of Potential Effect. The project does not have the potential to cause effects and area has previously been disturbed. (Note: There are 24 listings for Aztec on the National and State Register of Historic Places according to New Mexico's SHPO data, but none are at or in the immediate vicinity of the airport)
Section 4(f) features	• There are no properties protected under Section 4(f) in or near the project area. This includes publicly owned parks, recreation areas, and wildlife or waterfowl refuges of national, state or local significance or land from a historic site of national, state or local significance. • No project construction or operation will physically or constructively "use" any Section 4(f) resource. The project will not affect any recreational or park land purchased with Section 6(f) Land and Water Conservation Funds
Flora/Fauna	• There are no federal or state listed endangered, threatened, or candidate species or designated critical habitat in or near the project area including species protected by individual statute, such as the Bald Eagle. (Fish and Wildlife Service letter in appendices) • The project does not affect or have the potential to affect, directly or indirectly, any federal or state-listed, threatened, endangered or candidate species, or designated habitat under the Endangered Species Act (Note: See subsequent table of threatened and endangered species occurring in San Juan County) • The project does not have the potential to take birds protected by the Migratory Bird Treaty Act. • The project area does not contain resources protected by the Fish and Wildlife Coordination Act
Natural Resources	• The project will not change energy requirement or use consumable natural resources either during construction or during operations

Table 1D. Summary of Environmental Conditions (continued)

Category	Description
Other relevant features or potential impacts	• Noise: The project could result in an increase in aircraft operations, nighttime operations or change aircraft fleet mix. *There is potential for a minor increase in nighttime operations with the installation of runway lighting to replace the current retro-reflective edge system.* • Light Emissions and Visual Effects: *Runway lights and PAPIs by their nature increase the lighting on and off the airport.* No significant visual or aesthetic impacts are anticipated as a result of the proposed lighting project and no concerns have been expressed. • Potential Controversy: There is no substantial dispute regarding future airport development.

According to the U.S. Fish and Wildlife Service, nine protected species have habitat in San Juan County. T**able 1E** identifies these species and their status as threatened or endangered.

Table 1E. San Juan County Threatened and Endangered Species

Group	Common Name	Scientific Name	Status
Birds	Yellow-billed Cuckoo	Coccyzus americanus	Threatened
Birds	Southwestern willow flycatcher	Empidonax traillii extimus	Endangered
Fishes	Colorado pikeminnow (=squawfish)	Ptychocheilus lucius	Endangered
Fishes	Razorback sucker	Xyrauchen texanus	Endangered
Fishes	Zuni bluehead Sucker	Catostomus discobolus yarrowi	Endangered
Flowering Plants	Mancos milk-vetch	Astragalus humillimus	Endangered
Flowering Plants	Knowlton's cactus	Pediocactus knowltonii	Endangered
Flowering Plants	Mesa Verde cactus	Sclerocactus mesae-verdae	Threatened
Mammals	Canada Lynx	Lynx canadensis	Threatened

Source: U.S. Fish & Wildlife Service ECOS Environmental Conservation Online System

Section II

Forecasts

II. AVIATION DEMAND FORECASTS

Aviation demand forecasts presented in this section will feed subsequent planning tasks the necessary information to determine what airport improvements are needed, why they are necessary, when they should be completed, and how much they will cost.

The activity baseline used for Aztec projections is 2017. Forecasts cover the 20-year planning period, which is subdivided into 5-, 10- and 20-year timeframes.

- short-term (2022)
- intermediate-term (2027)
- long-term (2037)

Existing (2017) aviation activity is determined by the best available data. Aztec like many small GA airports, does not have a control tower, so operations are estimated. These estimates are reported on the FAA Airport Master Record (Form 5010). A planning study is an opportune time to review the estimated activity and validate or revise the estimates using available resources. Such resources may include acoustical counters, photos from motion-sensitive airfield cameras, fuel sale records, and input from the City (airport manager) and airport tenants. In Aztec's case, fuel sale records and airport user input assisted with the review of aviation activity estimates, specifically annual operations. The airport manager's records provided the number of aircraft based at Aztec—derived from tenant leases. To correspond with the typical FAA airport activity measures, the forecasts address:

- Based aircraft by type (fleet mix)
- Annual operations categorized by local and itinerant and classified as air taxi, general aviation or military
- Critical aircraft and airport reference code

The critical aircraft, also referred to as the design aircraft, may be represented by a specific aircraft or family of aircraft, which dictate the FAA design standards to be applied to airfield geometry.

The Aztec forecasts require review and approval[1] by the FAA. If the study's projections for Aztec vary from the FAA's forecasts by more than 10% within the short-term timeframe or 15% in the intermediate timeframe, higher-level review and approval is necessary. Projections within these thresholds are considered consistent with the FAA's Terminal Area Forecast (TAF) and can be approved at the FAA Airports District Office level.

[1] The Aztec Municipal Airport forecasts were submitted to the FAA in January 2019, for review and approval. In an email from the FAA on February 5, 2020 (see appendices), the FAA officially approved the forecasts.

To start, national, state and local aviation trends are discussed, which influence the Aztec forecasts. With so many factors influencing demand, a shift in one or more of those factors may impact forecasts. Cumulative impacts over time drive the need for planning updates, so forecasts and facility needs may be updated.

National Aviation Trends

National aviation trends, specifically general aviation trends, have an impact on the Aztec Municipal Airport activity, so a discussion is relevant. General aviation (GA) refers to all activity other than scheduled commercial airline and military activity. GA utilizes a large spectrum of aircraft from small single-engine piston to large business jets and rotorcraft. For this reason, the FAA captures and documents historical activity by aircraft type to assess trends and prepare activity projections. According to *FAA Aerospace Forecasts 2018-2038*, the GA active aircraft fleet includes 213,050 aircraft while GA hours flown is at 25.4 million (**Table 2A**).

Table 2A. Nationwide GA and Air Taxi Active Fleet and Hours Flown (2017)

Aircraft Type	Active Aircraft	% Fleet	Hours Flown (000)	% Hours Flown	Hours per Aircraft
Piston SE Fixed Wing	130,330	73.39%	11,878	50.06%	91.1 `
Piston ME Fixed Wing	12,935	7.28%	1,666	7.02%	128.8
Turboprop Fixed Wing	9,430	5.31%	2,674	11.27%	283.6
Turbojet Fixed Wing	14,075	7.93%	4,274	18.01%	303.7
Rotorcraft	10,805	6.08%	3,237	13.64%	299.6
Subtotal	177,575	100.00%	23,729	100.00%	133.6
Experimental	27,865	78.55%	1,248	76.10%	44.8
Sport Aircraft	2,585	7.29%	197	12.01%	76.2
Other	5025	14.16%	195	11.89%	38.8
Subtotal	35,475	100.00%	1,640	100.00%	46.2
TOTAL	**213,050**		**25,369**		**119.1**

Source: *FAA Aerospace Forecasts 2018-2038 (existing for 2017).* SE=Single Engine ME = Multi Engine
Note: GAMA notes that of GA hours flown, two-thirds are for business.

It's not uncommon for single-engine piston aircraft to fly less often than higher performance turbojets and rotorcraft. The average hours flown per aircraft is evidence of this, revealing that single-engine piston fly 200 hours less per aircraft annually than the turbojets and rotorcraft. Also notable in the *FAA Aerospace Forecasts* is that 2017 GA operations at FAA and contract tower airports recorded a 0.1 percent increase over 2016 activity. Despite a 0.5 percent decline in itinerant operations, local operations increased by 0.9 percent, more than offsetting the itinerant decline.

With Aztec primarily serving small single-engine piston aircraft, historical and forecast active single-engine piston aircraft and hours are presented in **Table 2B.** As shown, the single-engine piston fleet has declined in recent years with the FAA projecting a continued decrease. Hours flown by this fleet is also projected to decline.

Table 2B. Nationwide Historical and Forecast Single Engine Piston Fleet

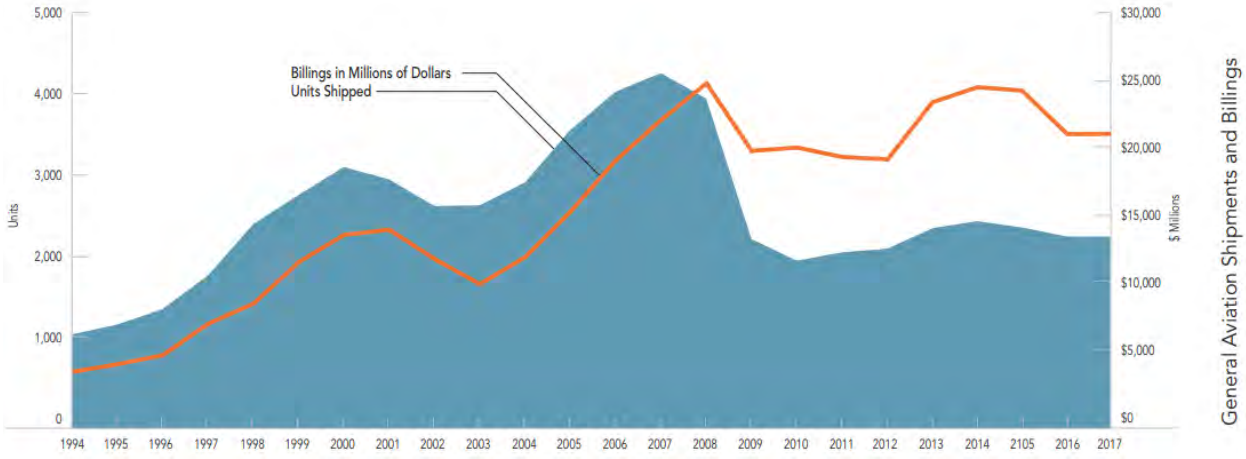
Historical	Active SE Piston Fixed Wing Fleet	Hours Flown SE Piston Fixed Wing
2010	139,519	12,161
2015	127,887	11,217
2016	129,652	11,865
2017E	130,330	11,878
Average Annual Growth 2010-2017	-1.0%	-0.3%
Forecast		
2018	130,500	11,765
2023	125,330	10,608
2028	118,740	10,021
2038	107,800	9,419
Average Annual Growth 2018-2038	-1.0%	-1.1%

Source: *FAA Aerospace Forecasts 2018-2038*
Note: An active aircraft is one that has a current registration and was flown at least one hour during the calendar year.

The General Aviation Manufacturer Association (GAMA) is another important source for aviation trends, namely aircraft shipments and billings. While GA showed growth prior to the recession that spanned late 2007 through 2009, the recession had a significant negative impact on GA activity. **Exhibit 2A** from GAMA illustrates the history of aircraft shipments and billings since 1994, the steep decline from the recession,

and the slow recovery since that time. According to GAMA figures for 2016 and 2017, worldwide shipments slightly increased while billings slightly decreased.

Exhibit 2A. General Aviation Airplane Shipments and Billings Worldwide (1994–2017)



Source: GAMA 2017 Annual Report

Since the GAMA 2017 Annual Report, GAMA has published its second quarter figures for 2018. Worldwide shipments increased the first six months of 2018 over 2017 levels including growth in pistons, turboprops, and rotorcraft, while business jet deliveries remained flat after earlier growth. GAMA noted that the increase in piston and rotorcraft shipments is attributed to training needs. Despite the increase in worldwide aircraft shipments, billings are down for the same period attributed to the type of aircraft deliveries.

Since the recession, FAA and industry projections for future GA growth remain conservative. The *FAA Aerospace Forecasts Fiscal Years 2018-2038* makes the same statement about GA's future as it published in the previous year's report: "The long-term outlook for general aviation is stable to optimistic, as growth at the high-end offsets continuing retirements at the traditional low end of the segment."

Highlights from the *FAA Aerospace Forecasts* 2018-2038 include:

- The FAA projects that the total active GA fleet will generally remain stable with only a slight increase, an estimated 0.2% average annual growth. A detailed breakdown of projected annual growth rates includes:
    - Fixed wing pistons decline at -0.9 % (SE at -1.0%, ME at -0.4%)
    - Turbojets increase 2.2 %
    - Turboprops increase 1.7 %

  - Rotorcraft increase 1.8 %
  - Experimental increase 0.8 %
  - Sport Aircraft increase 3.6 % (down from FAA's 4.1% projection in previous forecast)
- The turbine fleet (including rotorcraft) projected growth is 2.0% annually, which is up from FAA's 1.9% annual growth projection in previous year's forecast publication.
- Despite a minimal growth forecast of 0.2% annually in the active GA fleet, GA hours flown is projected to grow 0.8% annually through 2038, down slightly from last year's forecast of 0.9% annual growth. Fixed Wing GA and Air Taxi hours flown are projected to increase 2.4% annually. Pistons are forecast to decline 1.0% annually, which is offset by strong growth projected in Turboprop and Jet hours flown.
- GA operations are forecast to grow 0.3% annually as turbine-powered operations more than offset the continuing decline in piston aircraft operations.
- Total active pilot numbers are projected to generally remain the same with recreation, private, commercial and glider certificates decreasing while offset by anticipated growth in sport pilot, airline transport, and rotorcraft certificates.

State Aviation Trends

According to the 2017 New Mexico Airport System Plan (NMASP), there are 61 publicly-owned public use facilities[2] in the statewide airport system. The NMASP projected aviation demand, defined aeronautical roles for the airports, outlined needed airport improvements, and calculated the economic benefit of these airports. Further, the NMASP states the following:

> *Aviation is an important part of New Mexico's transportation infrastructure providing its citizens and businesses access to critical services, such as air ambulance services, firefighting, agricultural spraying, law enforcement, military training, business travel, air cargo services, pilot training, and tourism.*

In 2013, the base year for the latest NMASP, an estimated 1,647 aircraft were based in New Mexico. Statewide GA operations were estimated at 546,472 for the same timeframe, which are derived from towered airports with more reliable counts and non-towered airports with rough estimates. Statewide forecasts project that, by 2035, based aircraft and GA operations will increase 25.1 and 16.3 percent respectively, reaching the following new totals:

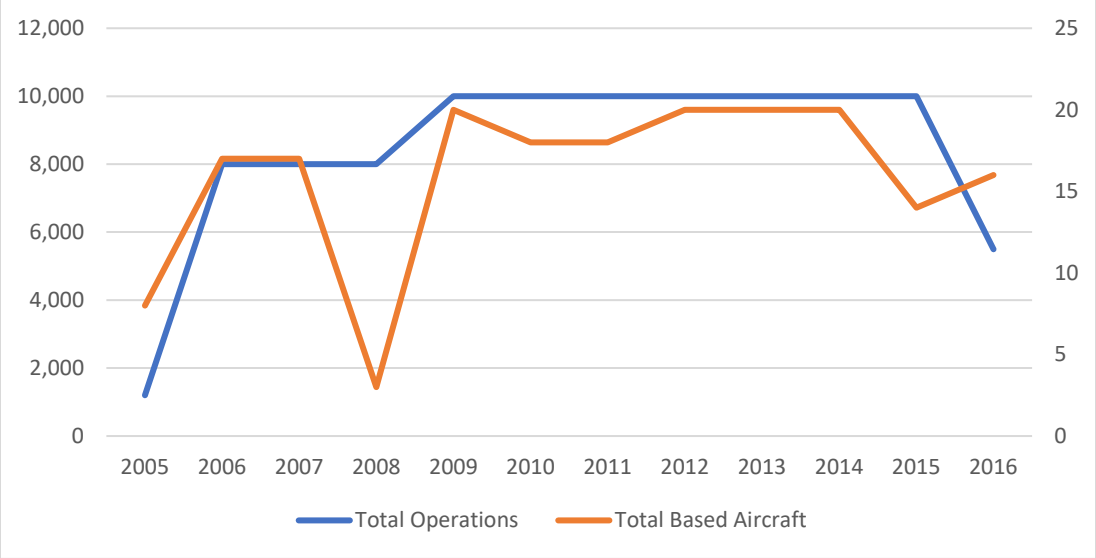
- NM Based Aircraft 2,061 (1.02% average annual growth rate 2013 – 2035)
- NM GA Operations 635,727 (0.69% average annual growth rate 2013 – 2035)

[2] Includes 55 airports, four heliports, one seaplane base, and one proposed airport

Local Aviation Trends

Local trends address aviation activity specific to the Aztec Municipal Airport to include based aircraft and operations, which are typical FAA measures of aviation activity. Since Aztec is in the Federal system of airports—documented in the FAA's National Plan of Integrated Airport Systems (NPIAS)—the City reports its based aircraft count and estimated annual operations to the FAA. Historical based aircraft and operations for Aztec can be found in the FAA Terminal Area Forecast (TAF) publication. While the historical figures for many airports are questionable due to past reporting practices, their accuracy is expected to improve over time as the FAA and airport sponsors implement strategies to report more reliable figures. In the meantime, the FAA TAF figures are the best available data. **Exhibit 2B** illustrates the fluctuation in based aircraft and operations according to historical records. Additional based aircraft and operations discussion follows.

Exhibit 2B. Historical Records on Based Aircraft and Operations for Aztec



Source: FAA Terminal Area Forecast

Based Aircraft

Aztec's historical based aircraft records in the FAA TAF are summarized in **Table 2C**, for 2005 through 2016**.** Historical data is limited to 2005, after the Airport was added to the NPIAS. Using the FAA's based aircraft classification system for reporting, Aztec's fleet mix has included single-engine, multi-engine, and other (e.g. ultralights).

Table 2C. Historical Based Aircraft for Aztec Municipal Airport

	Based Aircraft Fleet Mix					
Year	Single-engine	Multi-engine	Jet	Helicopters	Other	Total Aircraft
2005	6	0	0	0	2	8
2006	15	0	0	0	2	17
2007	15	0	0	0	2	17
2008	1	0	0	0	2	3
2009	17	1	0	0	2	20
2010	17	1	0	0	0	18
2011	17	1	0	0	0	18
2012	17	1	0	0	2	20
2013	17	1	0	0	2	20
2014	17	1	0	0	2	20
2015	14	0	0	0	0	14
2016	14	0	0	0	2	16

Source: FAA Terminal Area Forecasts (TAF)
Note: Airport management has confirmed that for 2017, single-engine aircraft based at Aztec total 12, plus two ultralights classified as "Other." Based aircraft often fluctuate (increasing and decreasing), but the baseline activity from early in the study is used for the forecasts.

The based aircraft count for 2017 is determined in coordination with airport management through their tenant leases, physical inspections, FAA Airport Master Record (Form 5010-1) and the FAA's National Based Aircraft Inventory Program. Since tenant leases and inspections may include seasonal aircraft that are based elsewhere for most of the year, the National Based Aircraft Inventory Program helps make the distinction between based and seasonal. For Aztec, the City has reported 13 based single-engine aircraft, but one has been determined to be based elsewhere. To date, eight of the 13 aircraft have been validated in the Inventory Program. Five aircraft tail numbers entered into the database as Aztec-based are also identified as based elsewhere because other airports identified them as based. However, Aztec addresses are listed in the FAA aircraft registry for four of the aircraft. Therefore, this study asserts that 12 aircraft are officially Aztec-based, plus two ultralights, which are FAA-designated as "Other" aircraft. Aztec will resolve the conflict in based aircraft counts with the other airport sponsors reporting tail numbers that have Aztec addresses in the FAA registry.

It is important to note that only single-engine, multi-engine, jet and helicopters are the FAA-required aircraft types for data entry in the Aircraft Inventory Program, and the only counts that are officially moved to the FAA Airport Master Record (Form 5010-1) upon validation. Consequently, the "Other" aircraft type category, which includes ultralights, is not officially validated (or counted) when entered into the Aircraft Inventory Program--these "Other" aircraft typically don't have an N-number (tail number) for

aircraft registration. Regardless, the FAA TAF includes historical aircraft counts in the "Other" category for Aztec, and the City continues to count them as based aircraft.

Operations

In **Table 2D**, a summary of Aztec's historical operations reported in the FAA TAF are presented. The FAA TAF reports GA local, GA itinerant, air taxi, air carrier, and military operations for each airport. Aztec operations are identified as GA local and itinerant only.

Table 2D. Historical Operations for Aztec Municipal Airport

	Aircraft Operations		
Year	Itinerant GA	Local GA	Total Operations
2005	1000	200	1,200
2006	5000	3000	8,000
2007	5000	3000	8,000
2008	5000	3000	8,000
2009	5500	4500	10,000
2010	5500	4500	10,000
2011	5500	4500	10,000
2012	5500	4500	10,000
2013	5500	4500	10,000
2014	5500	4500	10,000
2015	5500	4500	10,000
2016	3000	2500	5500

Source: FAA Terminal Area Forecasts (TAF)
Note: Aircraft operations are estimated at 5,500 for 2017, in coordination with airport management and user input

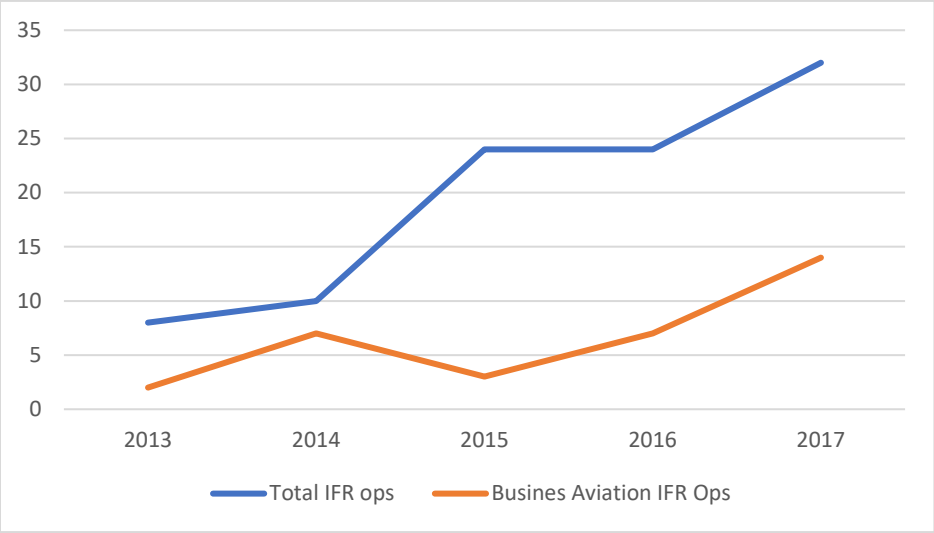
Aztec's baseline aviation activity, represented by 2017 data, is derived from the best available data. For uncontrolled airports like Aztec, this often requires that several sources and methods be used. Aztec operations activity is derived from visitor logs, airport management input, tenant interviews, and fuel sale records. For future updates on activity, Aztec could use other sources such acoustical counts, airfield camera photos, observational counts, and user surveys. The City of Aztec estimated operations for the Airport to be 5,500 in 2017, which breaks down to 2,500 local operations and 3,000 itinerant operations. Local operations consist of aircraft activity that remains in the vicinity of the Airport such as training operations, namely touch-and-go operations. Itinerant activity includes all other operations. Based on a review of these estimates in coordination with airport management and user input, these figures are considered reasonable estimates for 2017. Further, user-provided input characterized historical aviation

activity at Aztec to include recreational, training, business aviation, medical, agricultural, and aerial firefighting.

IFR Operation Records

While Aztec does not have a published instrument approach procedure, the FAA does have records of IFR operations associated with Aztec departures and arrivals as a result of pilot-filed IFR flight plans. Looking back five years through the FAA Traffic Flow Management System Counts (TFMSC) data for Aztec, a total of 98 IFR operations are recorded calendar years 2013 through 2017. Further, one-third of these operations were identified as business aviation. **Exhibit 2C** illustrates the growing trend in total IFR operations as well as the portion of which are identified as business aviation operations. This data also helps identify some of the aircraft using Aztec. As expected, the records reveal that small single-engine piston aircraft are the predominant users of the Airport with the occasional use by turboprop aircraft such as a King Air or Socata.

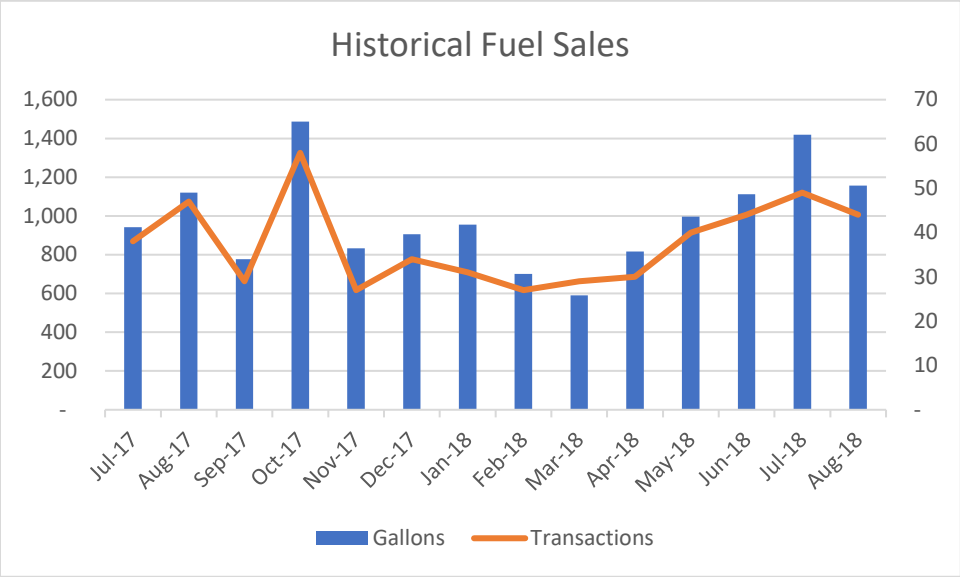
Exhibit 2C. Historical IFR Operations for Aztec



Fuel Sales

Since Aztec installed a self-serve fueling station, the City has maintained records of fuel flowage going back to July 2017. **Exhibit 2D** illustrates the fluctuations over the 14-month period. Fuel records are unavailable prior to July 2017.

Exhibit 2D. Historical Fuel Sales



Source: City of Aztec

According to the 2017 NMASP, 34 of 60 existing facilities in the state's airport system offer fuel service, while the remaining do not. These fuel services include 100LL (Avgas), or both 100LL and Jet A. Fuel sale records at airports without a control tower can help estimate activity levels and peak periods.

User Input

Airport users provided some limited input regarding activity. Five operators reported that they conduct an estimated 1,110 operations annually. This is 20 percent of the total annual operations estimated for Aztec. Further, these airport users indicated that their operations conducted at Aztec are generally split as follows:

- Business Aviation 1%
- Recreational 69%
- Training 30%

Business and recreational operations are itinerant activity while training is identified as local operations (touch-and-go activity). These figures represent a small sample of airport users and differ from the current split of total airport operations, which is estimated at 55% itinerant and 45% local.

Regional Demographic and Socioeconomic Characteristics

Historical and projected population for San Juan County is derived from the University of New Mexico (UNM) Geospatial and Population Studies for the forecasts to provide consistency in the baseline estimates. **Table 2E** summarizes the UNM data, which shows a drop in county population from 2000 to 2010, followed by an increase according to the 2015 estimate. A review of county and state growth over 15 years reveals that New Mexico's population growth averaged nearly one percent annually while San Juan County averaged 0.57%. Projected annual growth for both over the next two decades anticipates a slower pace with 0.51% and 0.59% for county and state, respectively.

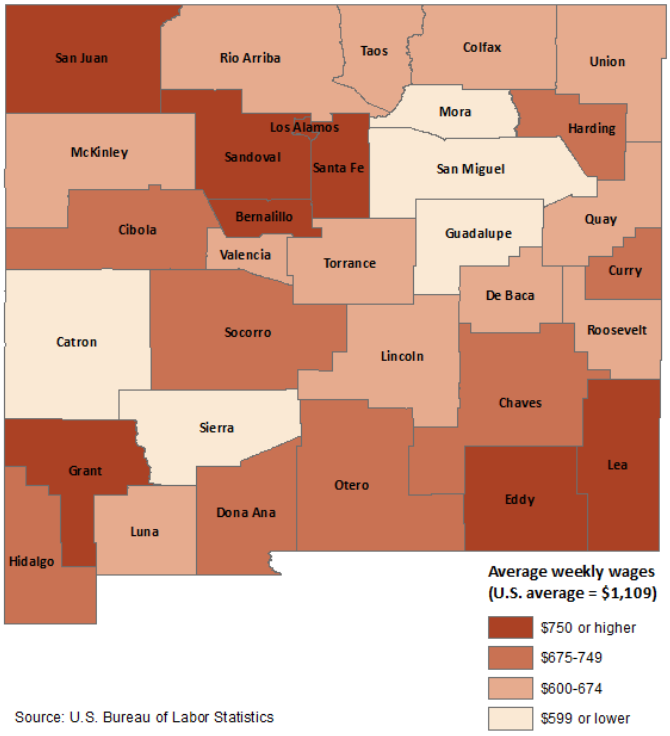
Table 2E. Historical and Projected Population

Year	San Juan County	New Mexico
Historical		
2000	113,801	1,819,046
2010	130,044	2,059,179
2015 estimate	123,979	2,099,856
Projected		
2020	128,162	2,187,183
2025	131,278	2,247,564
2030	134,446	2,308,475
2035	137,173	2,360,091
Average Annual Growth Rates		
2000-2015	0.57%	0.96%
2015-2035	0.51%	0.59%

Source: University of New Mexico Geospatial and Population Studies

Since higher income can influence the propensity to use aviation, per capita and mean household income are reviewed. Per capita income[3] for San Juan County is $22,927, which is nearly 11% below the state average of $24,459. However, mean household income for the county is 2.2% higher than the state—San Juan County at $64,463, while the state is at $63,057. Another notable comparison is from the U.S. Department of Labor, Bureau of Labor Statistics (BLS), which compares weekly wages for New Mexico counties in a geographic illustration **(Exhibit 2E)**. As shown, San Juan County's darker shade of color represents a weekly wage of $750 or higher. According to BLS, the state average is $865, and San Juan County is just above the state average at $874.

Exhibit 2E. New Mexico Average Weekly Wages by County



The unemployment rate, like income, can offer insight on the economic vitality of an area. According to BLS reports, the unemployment rate for San Juan County was at 5.0% in September 2018, which is a 1.6% percent improvement over the same time last year when county unemployment was at 6.6%. The statewide unemployment rate, lower than San Juan County, also showed improvement over the last year—4.6% this year compared to 6.0% last year.

[3] 2016 American Community Survey

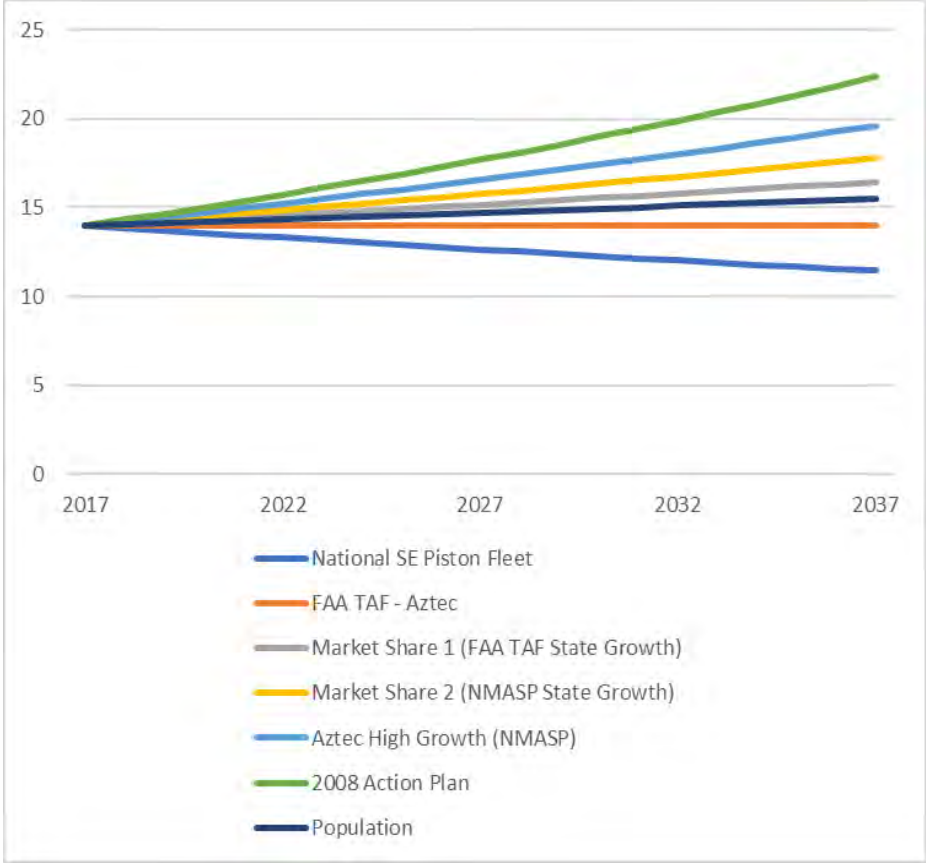
Based Aircraft Forecast

Understandably, aviation demand has an impact on facility needs at the Aztec Municipal Airport. Based aircraft, specifically, can have an impact on the need for hangars, aircraft parking apron, and taxilanes, for example. Anticipating those facility needs allows the City to plan for improvements in consideration of funding eligibility and availability.

As previously determined, Aztec's current based aircraft count is at 12 single-engine plus two ultralights for a total of 14, which serves as the baseline for projecting demand over the 20-year planning period. Forecasting models are identified to project demand. Since the historical based aircraft data is questionable with its significant fluctuations, regression analyses and trend line forecasting models are not considered.

Exhibit 2F compares the various Aztec forecast models. As shown, the models include average annual growth rates from -1.0% to 2.37%, translating to a range of 11 to 22 total based aircraft by 2037. A description of each forecast model follows.

Exhibit 2F. Comparison of Based Aircraft Forecasts



National Single-engine Piston Fleet (-1.0%). In the FAA Aerospace Forecast 2018-2038, the single-engine piston aircraft are projected to decline at 1.0% annually as many in the fleet are retired. For Aztec, this would mean based aircraft decrease to 11 by 2037.

FAA Terminal Area Forecast – Aztec (0%). This model applies the FAA Terminal Area Forecast (TAF) growth rate of zero identified for Aztec, so the based aircraft count would remain at 14. It's not uncommon for the FAA to forecast flat growth for small GA airports like Aztec.

Market Share 1 - FAA TAF State Growth (0.81%). This model assumes that Aztec will maintain its current market share of statewide based aircraft, so it applies the FAA TAF growth rate for New Mexico based aircraft. At 0.81% growth annually over 20 years, the based aircraft count would increase by two aircraft for a total of 16.

Market Share 2 – NMASP State Growth (1.20%). This model assumes that Aztec will maintain its current market share of statewide based aircraft outlined in the NMASP forecasts, which applies a higher growth rate than the FAA TAF. Accordingly, Aztec's based aircraft would increase from 14 to 18 over the planning period.

Aztec High Growth – NMASP (1.7%). In the 2017 NMASP, the high growth scenario for Aztec projects a 1.7% average annual growth rate. While the NMASP used a different baseline figure, this study applies the growth rate to Aztec's current based aircraft count resulting in a forecast of 20 aircraft by 2037.

Airport Action Plan 2008 (2.37%). During the previous planning study, general aviation was still thriving and forecast models included more aggressive growth rates representative of the time before the Great Recession. Population was, at the time, projected to grow 2.37 percent annually for Aztec, which was selected as the growth rate for future based aircraft demand. This model, which projects 22 aircraft by 2037, is included for comparison.

Population (0.51%) – Preferred Forecast. San Juan County population is projected to grow at a modest 0.51% annually over the next two decades. This is the preferred forecast for its conservative growth rate. Considering the slow post-recession recovery of GA, recent industry trends, and various industry projections, nominal demand is anticipated at Aztec. Over the 20-year planning period, a 0.51% growth rate adds one more based aircraft for a total of 15 at Aztec.

Operations Forecast

A forecast of operations should include timing of anticipated growth, the aircraft types and peaking characteristics. Larger aircraft or more aircraft on the ramp at one time can impact the need for ramp parking, circulation, and possibly overnight hangar storage for transients. With Aztec's physical site

constraints and maximum possible runway length, a jump to a larger and faster aircraft category than served today is highly unlikely. Consequently, the frequency of activity by the family of aircraft that can be physically accommodated remains the driving factor for facility needs.

For airports of similar size and character to Aztec, forecasting GA operations is often accomplished using an operations-per-based-aircraft (OPBA) ratio. Recognizing the fact that GA operations are conducted by both based and transient aircraft, the OPBA simply serves as a tool to project activity. Further, each airport's OPBA level represents a number of operational factors and unique characteristics.

The current Aztec OPBA ratio is calculated using the estimated annual GA operations, 5500, and the current number of based aircraft, 14. Dividing the operations by based aircraft equates to a current OPBA of 393. For Aztec, the OPBA is forecast to remain unchanged. Multiplying the OPBA by the forecast number of based aircraft, 15, results in a total of 5,895 annual operations by 2037.

Also noteworthy is that Aztec's OPBA of 393 is high considering the FAA's original guidelines. The following OPBA levels were previously published by the FAA to gauge activity:

- 250 OPBA is typical at a rural GA airport with little itinerant traffic
- 350 OPBA is typical at a busier GA airport with more itinerant traffic
- 450 OPBA is typical at a busy reliever airport with a large amount of itinerant traffic

While Aztec's OPBA is well above the typical 250 for a rural GA airport, this can be attributed to factors such as local pilots flying more frequently, a high level of training activity (local, touch-and-go operations), higher transient activity, and the BLM operations occasionally conducted out of Aztec for aerial vegetation treatments and horse surveys.

Forecast Summary

Table 2F summarizes the forecast of based aircraft and operations for Aztec. The variance between this ALP Report forecast and FAA TAF projections is also presented since these figures will be presented to the FAA for review and approval. As shown, the based aircraft fleet mix is forecast to remain unchanged for the single-engine category and increase by one in the "Other" category. Since the FAA anticipates a nationwide decline in the single-engine piston aircraft class of aircraft and growth in the sport aircraft class, this fleet mix takes that trend into consideration.

Table 2F. Aztec Municipal Airport Forecasts

Based Aircraft	Base Year 2017	Short-term 2022	Intermediate-term 2027	Long-term 2037
Single Engine	12	12	12	12
Twin Engine	0	0	0	0
Jet	0	0	0	0
Helicopter	0	0	0	0
Other	2	2	2	3
Total Based Aircraft Forecast	**14**	**14**	**14**	**15**
FAA TAF Based Aircraft Forecast	*16*	*16*	*16*	*16*
% Difference Between Forecast and TAF	14%	14%	14%	7%
Operations				
GA Local	2,500	2,500	2,500	2,655
GA Itinerant	3,000	3,000	3,000	3,240
Total GA Operations Forecast	**5,500**	**5,500**	**5,500**	**5,895**
FAA TAF Operations Forecast	*5,500*	*6,517*	*7,500*	*9,950*
% Difference Between Forecast and TAF	0%	18%	36%	69%

Note: The Aztec forecast presented in this report requires FAA review and approval with respect to the differences between the ALP Report and FAA TAF projections. In an email from the FAA, dated February 5, 2020, the FAA officially approved the forecasts.

Design Aircraft and Airport Reference Code

The design aircraft, also referred to as the critical aircraft, for Aztec is the Beech Bonanza, and aircraft of similar characteristics. The design aircraft is the most demanding aircraft that regularly uses the Airport. Regular activity is defined as a minimum of 500 annual itinerant operations—typically 250 takeoffs and 250 landings.

FAA design standards applicable to an airport are determined by the Airport Reference Code (ARC) that corresponds with the approach speed and wingspan of the design aircraft. Consisting of two key

components, the ARC is alphanumeric with a letter representing the Aircraft Approach Category (AAC) and a Roman numeral representing the Airplane Design Group (ADG), as outlined in **Table 2G.**

Table 2G. Airport Reference Code Components

Aircraft Approach Category	Approach Speed	Representative Aircraft
A	Less than 91 knots	Cessna 150, 172, Beech Bonanza
B	91 to 120 knots	King Air, Piper Navajo, Gulfstream I
C	121 to 140 knots	Learjet, Citation X, Boeing 737
D	141 to 165 knots	Boeing 747, Gulfstream V
Airplane Design Group	**Wingspan**	**Representative Aircraft**
I	Less than 49 feet	Cessna 150, 172, 206, Beech Bonanza
II	40 to 78 feet	King Air, Dassault Falcon
III	79 to 117 feet	Boeing 737, DC-3, Gulfstream V
IV	118 to 170 feet	Boeing 757, 767
V	171 to 213 feet	Boeing 747, 777
Airplane Design Group may be determined by tail height, if more demanding than wingspan:		
Airplane Design Group	**Tail Height**	
I	Less than 20 feet	
II	20 to 29 feet	*ADG component is based on wingspan or*
III	30 to 44 feet	*tail height, whichever is more restrictive*
IV	45 to 59 feet	
V	60 to 65 feet	

Source: FAA AC 150/5300-13A, Airport Design.
Note: Aircraft Approach Category E (166 knots or more) and Airplane Design Group VI (214 feet or more) are not shown.

Aztec is presently an A-I airport based on regular activity by aircraft in the A-I family. While current and historical activity has been reported by A-II, B-I, and B-II aircraft, it is not surprisingly infrequent considering the airfield's physical constraints. However, growth in operations over time includes an increase in approach category B aircraft activity, which is projected to exceed 500 annual itinerant operations in the long-term. Therefore, Aztec is forecast to be a B-I facility by 2037. **Table 2H** provides an estimated breakdown of forecast operations by ARC.

Table 2H. Operations Forecast by Airport Reference Code

ARC	Base Year 2017	Short-term 2022	Intermediate-term 2027	Long-term 2037
A-I	91%	91%	90%	89%
A-II	2%	2%	2%	2%
B-I	7%	7%	8%	9%
B-II	<1%	<1%	<1%	<1%
A-I	4,983	4,983	4,928	5,223
A-II	110	110	110	118
B-I	385	385	440	531
B-II	22	22	22	24
Total	5,500	5,500	5,500	5,895

Note: Figures are rounded.

The ARC for Aztec and associated planning and design implications are further addressed in *Facility Requirements*.

Section III

Requirements

III. REQUIREMENTS

The purpose of this section is to identify the facility requirements necessary for Aztec Municipal Airport (Airport) to comply with the current FAA design standards, accommodate projected aviation demand[1], align with the City of Aztec's vision for the Airport, and address airport user needs identified during the study process. Further, the facility information builds on what was previously presented in Section I, Inventory.

The requirements outlined in the subsequent sections are key to creating various development alternatives for the City to review and evaluate before selecting a preferred long-term development plan.

Planning Criteria and Guidance

There are numerous resources that provide planning criteria and guidance in identifying facility requirements. A few of the key resources in this process include the following:

- **Federal Aviation Administration (FAA) –** FAA Advisory Circular (AC) 150/5070-6B, *Airport Master Plans,* provides guidance for the preparation of master plans and similar studies like this ALP Report. FAA design guidelines found in AC 150/5300-13A, *Airport Design*, provide criteria specific to the airfield geometry and protective surfaces.
- **New Mexico Airport System Plan Update (NMASPU) 2017 –** Prepared by the New Mexico Department of Transportation (NMDOT) Aviation Division, the NMASPU presents a set of minimum facility and service objectives recommendations for each airport classification.
- **Airport User and Stakeholder Input –** The City, airport users and other stakeholders provide input regarding Aztec needs from the local perspective.

Airport Role

National System

As noted in earlier sections, the Aztec Municipal Airport is included in the FAA National Plan of Integrated Airport Systems (NPIAS). An airport's inclusion in the NPIAS means that it is important to the national system of airports, and it is eligible for federal funding. General Aviation (GA) airports in the NPIAS, like

[1] Aviation demand forecasts presented in the previous section received FAA approval in February 2020.

Aztec, are typically located at least 20 miles[2] from the nearest NPIAS airport and have at least 10 based aircraft. The two main NPIAS airport classifications include primary and nonprimary. There are 380 primary facilities nationwide, which comprise airports that have at least 10,000 annual enplanements. Nonprimary includes all GA airports and nonprimary commercial service airports[3]. Aztec is one of 2,941 nonprimary airports in the country, which are further subdivided into national, regional, local, basic and unclassified. The NPIAS identifies Aztec as a "basic" airport—one of 840 nationwide.

A breakdown of the NPIAS airports is presented in **Exhibit 3A** ("basic" classification is circled)**.** Also notable is that New Mexico has a total of 50 airports in the NPIAS, of which 23 are "basic" airports, including Aztec.

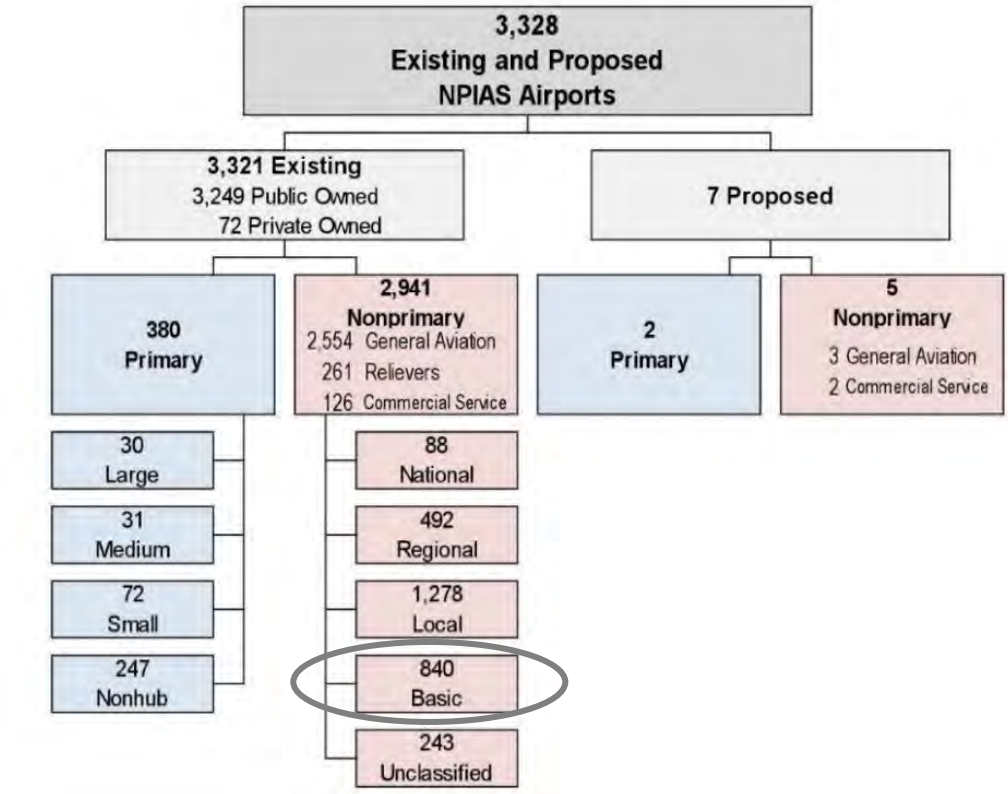
The following is an excerpt from the NPIAS regarding the "basic" classification.

> *Basic airports fulfill the principal role of a community airport providing a means for private general aviation flying, linking the community with the national airport system, and making other unique contributions. In some instances, the airport is the only way to access the community and provides emergency response access, such as emergency medical or fire fighting and mail delivery. These airports have moderate levels of activity with an average of nine propeller-driven aircraft and no jets. Many of these airports are located in rural areas. The 840 basic airports account for 6 percent of the development in this report.*

[2] New FAA Order 5090.5, *Formulation of the National Plan of Integrated Airport Systems (NPIAS) and the Airports Capital Improvement Plan (ACIP)*, published September 3, 2015, has modified the qualifying distance between NPIAS airports at 30 miles (superseding the original 20-mile distance)

[3] Nonprimary commercial service airports have at least 2,500 annual enplanements but less than 10,000

Exhibit 3A. Summary of NPIAS Airports by Category



Source: FAA NPIAS 2019-2023

State System

According to the NMASPU 2017, there are 61 publicly owned public use facilities in the New Mexico airport system. A set of six airport role classifications are defined for the statewide system which vary from the NPIAS classifications. Aztec's role is defined as "Community GA"—one of 19 in the state. The NMASPU describes these airports as follows:

> *Community General Aviation airports serve a supplemental contributing role for the local economy. Community airports focus on providing aviation access for small business, recreational, and personal flying activities throughout New Mexico. These airports are located throughout the State to serve rural needs and provide another connection to the State's transportation infrastructure.*

The NMASPU presents a number of recommendations for Community GA Airports, which are summarized in **Table 3A** alongside a comparative summary of the existing conditions at Aztec.

Table 3A. NMASPU Minimum Recommendations for Community GA Airports

Airport Criteria	Minimum Objectives for Community GA Airport Role	Existing Aztec Municipal Airport (N19)
Airport Reference Code (ARC)	B-II or Greater	A-I small (B-I small forecast in long-term)
Runway Length	95% of small aircraft (7,400 feet for N19)	4,314 feet
Runway Width	75 feet	60 feet
Runways Strength	SWG of 12,500 to 30,000 lbs.	12,500 Single Wheel Gear.
Taxiway	Partial Parallel	Connectors
Instrument Approach	Non-precision	Basic Visual
Visual Aids	Rotating beacon, lighted wind indicator, visual glide slope	Rotating beacon, unlighted wind indicator, visual glide slope indicators (PLASI/PASI) *(Design complete for PAPI systems, lighted wind indicator, segmented circle)*
Lighting	MIRL	Retro-reflective runway edge lighting *(MIRL installation project design complete)*
Weather Reporting	Automated Weather Reporting (AWOS or ASOS)	No on-site weather reporting (ASOS at FMN)
Wind Coverage	Primary and Crosswind Runway have 95% wind coverage	Primary runway has 96% wind coverage* (former crosswind runway is closed)
Services	Phones, restrooms, limited service FBO, 24/7 AvGas (100LL) and Jet A; courtesy car available, limited-service maintenance	Phone; restrooms; FBO; self-serve 100LL fueling 24/7; courtesy car
Facilities	Terminal w/ public restrooms & pilot lounge, limited-service restaurant and/or vending, hangar storage for 60% of based aircraft and 25% of transient, apron tiedowns for 40% of based fleet and 50% of transient	Terminal, public restrooms, pilot lounge, hangar storage and apron parking
Safety and Security	Emergency Response Plan	Emergency Response Plan

**Based on best available wind data, which is at Farmington-Four Corners Regional Airport*
Acronyms: ASOS (Automated Surface Observing System), AWOS (Automated Weather Observation System), FBO (Fixed Base Operator), LL (Low Lead), MIRL (Medium Intensity Runway Lights), SWG (Single Wheel Gear)
Source: NMASPU and Aztec Municipal Airport conditions

According to the 2017 NMASPU, facility and service issues identified for Aztec include the following list *(updated notes from this current study are in parentheses)*:

- Runway Safety Area (RSA) not compliant on the crosswind runway. (*Crosswind Runway 4-22 is presently closed.)*
- Runway length analysis is needed *(Runway length is site-constrained as addressed in previous planning study and in this study)*
- ALP is outdated, 2009 or older *(Updated ALP is key element of the current study)*
- Runway PCI below 70, which included the crosswind runway *(Runway 4-22 closed in 2017, Runway 8-26 PCI above 70)*
- Not compliant with optimal emergency service criteria for King Air 200, which recommends:
    - Paved runway with length to accommodate 75%[4] of small aircraft, small planes with less than 10 passenger seats *(Runway length is site-constrained as addressed in previous planning study and in this study)*
    - Runway lighting (MIRL) at a minimum (Note: *Design completed for MIRL system)*
    - Pavement condition exceeds PCI of 70 (*Runway 8-26 PCI above 70)*
    - On-site weather reporting *(remains a need, addressed in this study)*
    - Instrument Approach *(site constraints limit ability to accommodate and protect FAA-required surfaces, addressed in this study)*

Not compliant with recommended facilities and service criteria to support business aviation operations:

- Paved runway with length to accommodate 95 percent of small aircraft *(Runway length is site-constrained as addressed in previous planning study and in this study)*
- Instrument Approach *(site constraints limit ability to accommodate and protect FAA-required surfaces, addressed in this study)*
- Availability of jet fuel *(addressed in this study)*
- Ground transportation *(two courtesy cars available)*
- Terminal *(existing terminal building with pilot lounge, computer with internet access, vending machines and two public restrooms)*

[4] Previous Plan identified need for 5,230 feet of runway to serve 75% of the small aircraft fleet. FAA Advisory Circular (AC) 150/5325-4B, *Runway Length Requirements for Airport Design*, uses runway length tables for 95% and 100% of the small fleet (both indicate 7,400 feet is needed for Aztec).

Airport User and Stakeholder Input

Early in the study, input was requested from planning advisory committee members as well as airport users/pilots. During the first committee meeting for the study, a number of issues were discussed such as the need for at least "20 years" on the BLM property lease for FAA funding eligibility, a possible BLM property transfer (also discussed in the previous planning study); taxiway design standards not meeting the 2012 FAA design standards; fencing repair needs; and land use controls for protection of airport environs including airspace through the FAA Obstruction Evaluation/Airport Airspace Analysis (OE/AAA)[5] process to generate airspace review of any proposed area construction.

In addition, a survey questionnaire was distributed to airport users to question pilots about activity and invite feedback regarding facility needs. Five users provided input, but not all commented on facility needs. The following is a summary of facility-related user input:

- Need crosswind, keep Runway 4-22 open until new crosswind is built
- Improve airfield lighting
- Finish apron pavement maintenance (areas not completed during last apron project)
- More hangar space
- Frost-free spigot for washing aircraft
- Repair fence

Design Standards

As addressed at the end of *Forecasts* (Section II), the critical aircraft, or design aircraft, is the Beech Bonanza and aircraft of similar characteristics. The Beech Bonanza is a small aircraft, which means its maximum gross takeoff weight is 12,500 pounds or less. The Beech Bonanza's Airport Reference Code (ARC) is A-I, which corresponds with a set of FAA design standards. **Exhibit 3B** includes several aircraft representative of the various ARCs. Aztec is an A-I small aircraft[6] facility today and projected to reach B-I small in the long-term. Examples of B-I aircraft that have operated at Aztec in recent history include the Beech King Air 90 (turboprop) and Piper Aerostar (piston). Aztec users have also flown in a small number of B-II aircraft, namely the Beech Super King Air 350 (turboprop).

The ARC represents the greatest Runway Design Code (RDC) designation at the Airport. The RDC includes the ARC components plus a third component representing the runway visual range (RVR) or visibility minimums for an airport. For airports with visual approaches, like Aztec, the third component is identified as "VIS" for visual. Consequently, the RDC for Runway 8-26 at Aztec is A-I-VIS (for small aircraft).

[5] Online submittal is at https://oeaaa.faa.gov
[6] Small refers to aircraft that are 12,500 pounds or less, per FAA definition.

Facility Needs

Airside, landside and support facility needs are outlined here.

Airside Requirements

Runway Alignment

Currently, the Aztec Municipal Airport is served by a single-runway system (Runway 8-26). Ideally, the primary runway at an airport should be aligned with prevailing winds for safety and efficiency. As discussed in the *Inventory*, the prevailing winds at Aztec run east-west like the alignment of Runway 8-26. Winds are typically from the east in the morning and the west in the afternoon. However, pilots report that during strong crosswinds, it is difficult to land on Runway 8-26.

According to the Farmington Municipal Airport (nearest) wind data, the east-west alignment of Runway 8-26 provides 96% wind coverage. FAA recommends that a crosswind runway be considered if wind coverage is less than 95%. Further, a crosswind runway is ineligible for federal funding when the primary runway has wind coverage that is 95% or higher, like Aztec. Regardless, area pilots dispute the results of the wind data analyses since the data is from Farmington-Four Corners Regional Airport. Wind data from Aztec, if available, would be more representative of area conditions than Farmington data. This has been an ongoing point of discussion since the Airport's previous study. No other weather stations are located nearby that could provide reliable wind data for Aztec because of topographic issues. Further discussion is provided in this study in subsequent sections on *Crosswind* and *Weather Reporting.*

Runway Length

Aztec serves a broad range of small GA aircraft on a routine basis and while many are unrestricted by the runway length, the high elevation and hot days of summer can limit some aircraft activity, namely aircraft in approach category B or faster. Due to physical site constraints, Runway 8-26 cannot be extended beyond its current length of 4,314 feet. Further, the displaced thresholds in place on both runway ends reduce the landing length. Due to the terrain, there is insufficient area for an A-I/B-I-small compliant RSA along the full runway length necessitating the establishment of displaced thresholds on both runway ends. Runway 8 requires a 226-foot displaced threshold and Runway 26 requires a 277-foot displaced threshold. With displaced thresholds, declared distances are typically published since takeoff run and landing distance, for example, vary. Declared distances are not presently reported in FAA publications for Aztec. Declared distances are described here and summarized in **Table 3B** for Aztec.

- TODA - Takeoff Distance Available. The takeoff run available plus the length of any remaining runway or clearway beyond the far end of the takeoff run available.
- TORA - Takeoff run available. The runway length declared available and suitable for the ground run of an airplane taking off.

- ASDA - Accelerate-Stop Distance Available. The runway plus stopway length declared available and suitable for the acceleration and deceleration of an airplane aborting a takeoff.
- LDA - Landing Distance Available. The runway length declared available and suitable for a landing airplane.

Table 3B. Declared Distances

Description	Runway 8 (feet)	Runway 26 (feet)
TORA	4,314	4,314
TODA	4,314	4,314
ASDA	4,038	4,088
LDA	3,812	3,812

Note: Based on Runway 8 and 26 displaced thresholds of 226 feet and 276 feet, respectively

As determined in previous studies, the 4,314-foot length is inadequate for a number of small aircraft (12,500 lbs. or less) based on FAA guidelines. FAA Advisory Circular (AC) 150/5325-4B, *Runway Length Requirements for Airport Design,* provides guidance in determining runway length based on airport elevation and mean maximum temperature of the hottest month for aircraft using an airport on a regular basis (500 or more annual itinerant operations). The analysis concludes that Aztec requires a runway of 7,400 feet based on an airport elevation of 5,882 feet MSL, a mean maximum temperature of 94 degrees Fahrenheit and predominant use by small aircraft. The 7,400-foot length serves 95%[7] of the small airplane fleet with less than 10 passenger seats; this fleet category is established in the FAA guidance and is primarily intended to serve areas with smaller populations and low activity airports. It is estimated that Aztec's existing runway length serves approximately half of the small aircraft fleet.

Runway Width

Based on the aircraft activity predominantly served and projected to be served by Aztec, which is Airplane Design Group I (discussed earlier in *Forecasts*), a runway width of 60 feet is required. Consequently, the runway's current width of 60 feet complies with FAA design standards.

Other Airfield Design Standards

The airfield must comply with several FAA design standards to ensure that aircraft operations are accommodated in a safe and efficient manner. As a A-I/B-I small airport, the following apply specifically to Aztec, which will ultimately be depicted on the updated Airport Layout Plan (ALP) set of drawings:

[7] This same length is required to serve 100% of the small airplane fleet for Aztec conditions. For small aircraft with an approach speed of less than 50 knots, a minimum length of 1,270 feet is required.

- Runway Safety Area (RSA). The RSA is a graded surface that surrounds and is centered on the runway. The RSA dimensions are 120 feet wide extending the full length of the runway plus 240 feet beyond each runway end. For Aztec, site constraints due to terrain limit the RSA dimensions and grade, so displaced thresholds are in place on both runway ends for RSA compliance. The purpose of the RSA is to minimize the damage when an aircraft undershoots, overshoots or deviates from the runway
- Runway Object Free Area (ROFA). The ROFA, like the RSA, is centered on the runway for the full length of the runway and beyond each runway end. However, the ROFA does not have a grading requirement, but must be clear of above-ground objects protruding above the nearest point of the RSA except for those fixed by function. The ROFA width is 250 feet and extends 240 feet beyond each runway end. Presently, portions of the four-foot perimeter fence are within the ROFA, so a fencing relocation project should be planned to clear the ROFA.
- Runway Obstacle Free Zone (ROFZ). The ROFZ is protected airspace (clear of object penetrations) that is centered on the runway centerline at runway centerline elevation with a width of 250 feet and extending 200 feet beyond the runway end. Presently, portions of the four-foot perimeter fence are within the ROFZ, so a fencing relocation project should be planned to clear the ROFZ.
- Runway Visibility Zone (RVZ). The RVZ, mentioned previously, is an established protected area that provides proper line-of-sight between intersecting runways. When a crosswind runway is constructed and active, the RVZ will be required.
- Runway Protection Zone (RPZ). The RPZ is a trapezoidal surface centered on the extended runway centerline. The purpose of the RPZ is to enhance the safety and protection of people and property on the ground. The RPZ on each runway end at Aztec has an inner width of 250 feet, a length of 1,000 feet and an outer width of 450 feet. For Aztec, the approach and departure RPZs are the same dimensions. While the RPZ is typically 200 feet from the runway end, this varies with displaced thresholds.

It's important to note that the FAA expects airports in the NPIAS to comply with FAA design standards, as written. In some cases, an airport sponsor may face significant challenges in complying with a particular design standard and request a modification of standard (MOS). The request must ensure "…an acceptable level of safety, capacity, efficiency, utility or access." The FAA may approve or deny the request. Regardless, an approved MOS associated with design standards is limited to five years. The airport sponsor must re-submit the MOS for review and approval if an extension is requested. The FAA states that an MOS is not applicable for the following:

- non-standard RSA dimensions
- non-standard Obstacle Free Zone (OFZ) surfaces
- non-standard approach / departure surfaces
- to match existing equipment owned by the airport
- impermissible land use within Runway Protection Zone (RPZ) limits

New Crosswind Runway

Although Runway 4-22 was closed in 2017 for safety reasons, the City of Aztec has been planning for a future north-south crosswind runway, identified in their previous 2008 planning study. Pilots have indicated the alignment is not ideal, but the physical site constraints to airfield development on the mesa limit the city's options in terms of location, alignment, runway length, safety, and compliance with FAA standards.

The new north-south crosswind runway, Runway 17-35, has been on the FAA-approved Airport Layout Plan (ALP) since 2008, and the City plans to keep it on the ALP update that is under way. The City concurs that the proposed development remains valid and a high priority to enhance the safety of operations during crosswind conditions. For cost effectiveness, the new runway could be gravel or turf.

Pilots wanted Runway 4-22 to remain open[8], which was not an option for the City. Runway 4-22 had not been in compliance with FAA design standards and this presented airfield safety concerns that could not be mitigated in an operationally or financially feasible manner. Non-compliance issues included hangars in the ROFA and ROFZ, buildings obstructing the RVZ, sight distance between Runway 4 and Runway 22, inadequate width (40-foot existing, 60-foot standard), length/topographic constraints and significant pavement issues (surfacing is a slurry seal on a fly ash treated subgrade, which has failed structurally). An overview of the non-compliance issues is depicted on an aerial in the appendices.

Airfield Line-of-Sight

The midfield elevation of Runway 8-26 obstructs the view between runway ends. FAA requires that the runway profile allow any two points five feet above the runway centerline to be mutually visible for the entire runway length. Currently, FAA pilot publications report "No line of sight between the ends of Rwy 08–26." However, this nonstandard condition was approved as part of the Runway 8-26 reconstruction project since a full-length parallel taxiway is shown on the Airport Layout Plan. If the runway has a full-length parallel taxiway in the future, the runway profile will allow an unobstructed line of sight from any point five feet above the runway centerline to any other point five feet above the runway centerline for one-half the runway length.

Prior to the closure of Runway 4-22, the airfield had a designated runway visibility zone (RVZ). The RVZ is required to be clear of objects so a pilot on one runway may see the pilot on another runway in an adequate amount of time to avoid conflict. A new RVZ is required with the proposed new north-south crosswind runway to ensure the area remains clear.

Taxiways

The airfield taxiway system is limited to the two connecting taxiways between the apron area and Runway 8-26. While the east taxiway connector complies with current FAA design criteria since it was realigned

[8] Runway 4-22 was the original runway on the Aztec Municipal Airport. After Runway 8-26 was constructed, it served as a crosswind runway until it was officially closed in 2017.

during a recent construction project, the west taxiway connector requires a modification to the curve fillets to be in compliance. Future airfield improvements should consider options for expanding the taxiway system, particularly with a proposed crosswind runway. Further, a proposed parallel taxiway is a required condition to mitigate the line-of-sight issue mentioned above. However, site constraints require the parallel taxiway to Runway 8-26 be located on the north side, which was also addressed during the previous planning study.

Based on the Airport's design aircraft, the FAA-required taxiway design group (TDG) is 1A, which requires a 25-foot-wide taxiway. Considering the existing ARC at Aztec is A-I small, and the future long-term ARC will be B-I small, the taxiway safety area[9] is required to be 49 feet wide (24.5 feet either side of centerline) and the taxiway object free area is required to be 89 feet wide (44.5 feet either side of centerline). In comparison, taxilanes require an object free area that is 10 feet less, or 79 feet wide (39.5 feet either side of center line). However, Aztec has a nonstandard taxilane object free area of 48.5 feet between the southwest hangars. This dimension is closer to the standard for the taxilane safety area, but deficient by 30.5 feet for the object free area. As the existing hangars in the area age and deteriorate in the long-term, redevelopment of this area should consider compliance with the taxilane object free area standard of 79 feet. This nonstandard condition has not previously been addressed for cost reasons and the small aircraft using the hangars have operated without incident using the current taxilane.

Future landside development should include FAA-compliant taxiways and taxilanes to serve airside and landside development. A parallel taxiway is recommended for Runway 8-26 on the north side with a minimum distance of 150 feet from runway centerline to taxiway centerline in accordance with applicable FAA design standards.

Aircraft Apron

Based on routine aircraft parking and peak activity at Aztec, no additional apron area is required during the planning period. However, apron circulation and the potential for increased activity beyond the planning period should be considered in the development alternatives. The existing apron area pavement comprised of approximately 12,000 square yards is adequate through 2037, but area should be reserved to potentially double that in the distant future. Protecting for apron expansion beyond the forecasts will ensure that other development does not preclude or inhibit apron development needs beyond the 20-year planning period. The ultimate apron does not necessarily need to be a large contiguous pavement; an area for a second apron could be protected to serve future GA activity.

Approximately 10 years ago, BLM aerial firefighting operations were often conducted out of Aztec during fire season. At that time, BLM could fill the aircraft apron with single-engine air tanker (SEAT) aircraft and staging of other equipment and materials. While the BLM indicates that Aztec remains an option depending on the fire season, they have been using Durango for most of their area firefighting needs. If Aztec supports aerial firefighting, again, in the future, consideration should be given to associated aircraft

[9] The taxiway safety area should be cleared and graded.

parking and staging needs. Occasionally, BLM operates a SEAT aircraft out of Aztec for area chemical treatments (on vegetation). Further, they may operate a helicopter (Type 3, medium) out of Aztec for horse surveys. However, BLM's infrequent activity does not require additional apron capacity.

Pavement Strength and Condition

Runway 8-26 has a pavement strength of 12,500 pounds single wheel loading (SWL), as designed in the 2009 runway reconstruction project completed in 2011.This complies with the minimum pavement strength required to serve the existing and projected small aircraft fleet at Aztec. Based on current pavement conditions, the following is recommended as part of the Airport's pavement maintenance management program (**Table 3C**).

Table 3C. Recommended Pavement Maintenance Management Projects

Project Description	Near-term (thru 2022)	Intermediate term (2023-2027)	Long-term (2028-2037)
Rehabilitate - crack fill, seal coat, remark Runway 8-26	X	X	X
Reconstruct south apron, taxilanes and box hangar aprons	X		

Airfield Lighting, Marking and Signage

A design project for the installation of a medium intensity runway lighting (MIRL) system on Runway 8-26 has been completed to replace the existing retro-reflective runway edge lighting. Runway threshold and displaced thresholds lights are a part of the same project. Delays in construction of the lighting project occurred during the study while the City worked through the renewal process of its BLM lease agreement[10] with the BLM and FAA. The approach lighting, believed to be approximately 15 years old, may require replacement during the planning period. Approach lighting consists of non-standard omni-directional approach lights activated on the common traffic advisory frequency (CTAF). Runways 26 and 8 have two strobe ODALS either side of the runway edges. Local pilots indicate these are a tremendous aid in locating the runway for nighttime landings. Approach lighting is desirable at Aztec due to terrain and occasional visibility limitations during poor weather.

Runway 8-26 markings such as centerline, runway numbers and displaced thresholds, should be repainted, as needed, as part of future runway pavement rehabilitation projects.

[10]BLM lease expired and the City actively worked to renew the lease with the BLM during the study. According to BLM correspondence with FAA, staffing constraints, workload and the pandemic have caused extended processing times. See appendices for correspondence.

Aztec's airfield signage, which includes a non-standard Runway 8-26 location sign will be removed. The proposed airfield lighting project includes the installation of new airfield guidance signs.

Airport Navigational Aids

As part of the same airfield lighting project noted above, new visual slope guidance indicators will be installed on Runway 8-26. A new precision approach path indicator (PAPI) system will be installed on Runway 8 to replace its Passive Approach Slope Indicator (PASI), and on Runway 26 to replace its pulsating light approach slope indicator (PLASI) unless site constraints such as topography create non-standard ROFA/ROFZ issues.

In addition, there are plans to install a lighted wind indicator and segmented circle north of the runway to replace the old primary wind indicator which is not lighted. The existing supplemental wind indicators will remain—one at each runway end.

A rotating beacon, which operates after dusk, was recently replaced and will serve the Airport's needs for the planning period.

Aztec is a visual airport as there are no published instrument approach procedures at the Airport. However, nearby airports with instrument procedures include:

- Four Corners Regional Airport (FMN), 11 nautical miles SW
- Durango-La Plata County Airport (DRO), 23 nautical miles NE

In the previous 2008 Airport Action Plan, the City was interested in a future instrument approach with visibility minimums not lower than one mile since the design standards are similar to those required of Aztec presently, as a visual airport. While the Airport's approach surface is 20:1 (20 feet horizontal, 1 foot vertical), the FAA requires that a departure surface off the departure runway end be protected for airports with instrument approaches. A departure surface requires a 40:1 (40 feet horizontal,1 foot vertical) slope clearance. Due to the topography, these protected surfaces are clear.

Landside Requirements

Hangars

Hangar demand is driven by various factors such as the number of based aircraft, fleet mix, user preference, weather conditions, and overnight transient activity. All aircraft based at Aztec are stored in hangars, which include T-hangars and conventional/box hangars. All hangars are presently occupied by area private aircraft owners, who lease one of the 10 city-owned hangars or have a ground lease with a hangar contained within the lease lot. The existing hangar area can accommodate additional structures adjacent to the apron and east of the terminal building, but circulation is somewhat constrained. However, the low activity at Aztec is expected to minimize any conflicts. Further, undeveloped property to the south may be considered for ultimate growth in hangars at Aztec.

As reported in the *Forecasts,* Aztec is presently home to 12 single-engine aircraft and two ultralights with a projected increase of one additional aircraft within the planning period for a total of 15. This translates to a minimum of one additional hangar for aircraft storage, but more may be needed for seasonal aircraft and transient overnight storage. Further, one or more aircraft based elsewhere such as Farmington or Durango may be interested in relocating in the future, representing relocated demand rather than new area growth. It is not uncommon for aircraft to relocate from commercial service airports to lower activity general aviation airports, particularly when owners have less restrictive security and/or lease rates are more competitive.

Also notable is that projected demand assumes all hangars are used for aircraft storage and supporting aeronautical uses such as aircraft maintenance/shop purposes.

To accommodate future hangar needs, the City will work with one or more private developers to construct additional hangars on ground leases. These hangars may support current and future based aircraft as well as transient operators, particularly during inclement weather. New hangar development is not a financially feasible undertaking for the City, so private development is preferred. Aging hangars may require replacement during the 20-year planning period, which means new hangar development may support the relocation of some tenants. Further, the nonstandard taxilane object free area (OFA) width between the southwest hangars could be remedied if the southernmost hangars were farther south. However, the bank of four nested T-hangars have access on the north for two units and on the south side for two units. Hangars placed farther south would not have adequate space for south side access for aircraft. This requires consideration when the hangar requires replacement in the future.

Airport Maintenance

For long-term planning, the City may require additional storage for airport maintenance equipment. One of the city-owned hangars is used for airport equipment storage, but a second city-owned hangar is needed. The City may use one of its hangars once a tenant vacates a city-owned hangar and moves into a newly constructed hangar.

Terminal / Airport Administration Building

The terminal building comprises the airport management office and pilot/passenger lounge space including two restrooms, vending machines and computer/internet/cell phone access. The terminal space is adequate to serve its general aviation users through the 20-year planning period when activity will average 16 operations daily, a portion of which is comprised of touch-and-go activity for training. This means that the existing terminal building offers adequate capacity for local and transient pilots and passengers.

City Fire Station

Since Aztec does not have commercial air passenger service, aircraft rescue and firefighting (ARFF) support are not required. However, the City of Aztec has a fire station on airport property, which has equipment

and supplies that could be used to respond to an aircraft emergency. Of the City's 14 volunteer firefighters, there are plans to provide optional ARFF training in the future for possible emergencies.

According to the City, there are no current plans to improve the fire station.

Weather Reporting Station

It is recommended that a weather reporting station be installed at the Airport so accurate wind data may be collected and analyzed for Aztec. A crosswind runway is not eligible for FAA funding unless the primary runway has less than 95% wind coverage. Despite the Farmington-Four Corners Regional Airport wind data used in the past for Aztec suggesting that more than 95% coverage is provided on the Runway 8-26 alignment, local area pilots dispute this assessment noting that Farmington is not representative of Aztec wind conditions. In the absence of Aztec wind data to support their argument, Farmington wind data is the best available for FAA purposes. Noteworthy is that Farmington's primary runway (Runway 7-25) is within 10 degrees of Aztec's Runway 8-26 alignment/heading.

An Automated Weather Observing System (AWOS) has been in Aztec's Airport Capital Improvement Plan (ACIP) submitted to the FAA and State for several years. Once the Airport has the AWOS in place with wind data collected for two or three years, a crosswind runway project may be discussed.

Auto access and parking

Airport Drive and the paved auto parking outside the controlled-access gate is adequate. Auto parking along the fence can accommodate an estimated eight vehicles. Other parking is available adjacent to the terminal building and attached hangar for airport staff and pilots, if needed. Growth projected during the planning period at the Airport does not require access improvements or auto parking expansion, but the existing auto parking area will require routine maintenance.

Fuel storage

The city's fuel farm facilities and equipment meet the Airport's needs for the 20-year planning period and beyond. The fuel farm is a new 2016 facility that complies with all environmental requirements. Pilots often stop at Aztec specifically for its competitive fuel prices.

Utilities

On site utilities consist of city-provided water, sanitary sewer and electricity. The pilot lounge has natural gas provided by Xcel Energy, but there are plans for propane service. The pilot lounge also has city-provided internet access and computer equipment. Some of the hangars have electricity. Utility infrastructure improvements should be coincident with future airside and landside development.

Drainage

Surface water drainage on the airport is adequate with no reports of on-site water ponding or flooding. Drainage flows are predominantly to the east, west or south, off the mesa top to arroyos below flowing

to the San Juan river eventually. The storm water pollution prevention plan is current and up to date according to the airport manager. Drainage improvements should be coincident with future airside and landside development, as needed.

Security and fencing

Airport security is provided by terminal area and perimeter fencing, a controlled access gate, apron lighting, calls to local authorities, occasional law enforcement patrols, and local monitoring by airport users (tenants and visitors). Fencing around the terminal area and vehicle parking consists of a four-foot-high chain link fence with a motor operated access gate. Four-strand barbed wire fencing is around the perimeter. Fencing deters unauthorized entry and wildlife access. Segments of the perimeter fencing require repair. These repairs are under way. In the future, a wildlife hazard assessment should be completed for the Airport to determine whether the perimeter fencing should be upgraded. However, wildlife incursions are infrequent and there are no reports of wildlife incidents on the Aztec airfield or in the vicinity according to FAA's online database.

Since portions of the perimeter fencing near Runway 8-26 are within the runway object free area (ROFA), discussed earlier, a project to relocate the fencing is needed in the near-term. Topographic constraints may impact the fence relocation in some places.

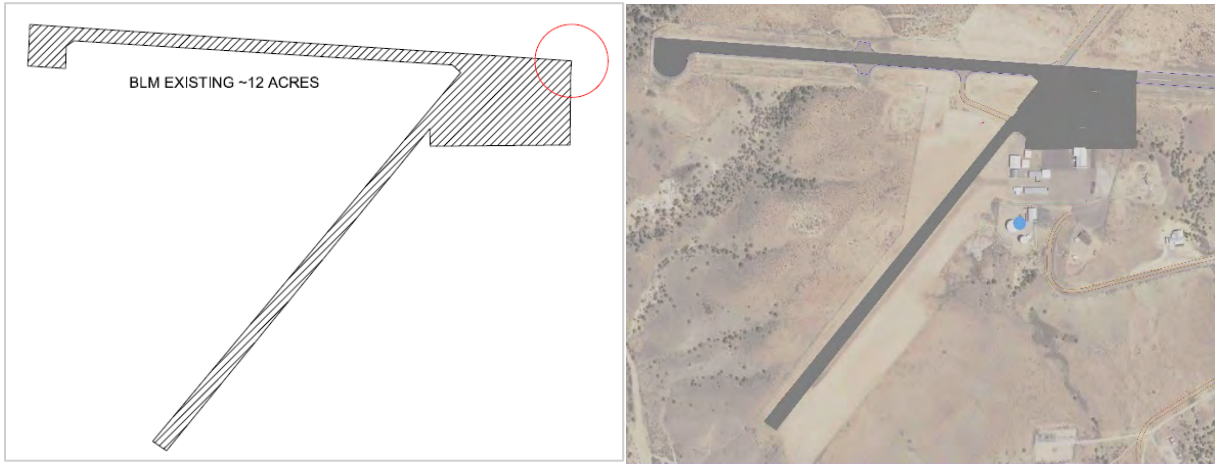
Airport property

As stated earlier, FAA records indicate that a total of 160 acres is dedicated to airport property. The previous 2008 Action Plan indicated that half of that property was on a BLM lease with the other half airport-owned property. However, the latest available property information varies from the old plan. Airport-owned property is estimated at 40 acres. Other records show that the City of Aztec's latest BLM lease for the Airport includes an estimated 11 to 12 acres[11], which means that a large portion of land that was in the previous BLM lease was excluded from the latest renewal of the lease. The City indicated that the reduction in the land leased from BLM was for cost savings[12]. The current lease includes the west portion of Runway 8-26, the south portion of Runway 4-22, and a segment between Runway 8-26 and the apron –shown in the sketch below (**Exhibit 3B**). During this planning study, the FAA put a hold on Airport Improvement Program (AIP) grants for Aztec Municipal Airport when their BLM lease expired, but it was subsequently renewed.

[11] Original research showed an estimated 11 acres in the City's lease from the BLM (city and BLM records). However, the diagram within the BLM database scales at approximately 12 acres (a one-acre variance from the reported figure in the BLM and city records).

[12] According to the City of Aztec, BLM lease rates increased substantially prior to the renewal of the original acreage lease. The City determined that it was not financially feasible to renew the total acreage in the lease, so the majority of the acreage was released from the lease with an estimated 11 acres being included in the new (renewed) lease.

Exhibit 3B. Existing BLM Land Lease



Source: BLM database

Recent communication with the City, FAA and the BLM restarted the BLM property discussion during the lease renewal process. Further, a few of options were discussed to expand the BLM property lease since it is currently insufficient to accommodate airport use. One option was to renew the current lease but adjust what it comprises by increasing the Runway 8-26 leased area to include the runway OFA while eliminating the leased Runway 4-22 portion since that runway is closed. FAA indicated that this process could be done with a categorical exclusion (CATEX). CATEX is the lowest level of National Environmental Policy Act (NEPA) analysis and supports a decision not to conduct additional environmental review. CATEX is further defined as follows.

> *The Council on Environmental Quality (CEQ) defines "categorical exclusion" as a category of actions which do not individually or cumulatively have a significant effect on the human environment, and which have been found to have no such effect in procedures adopted by a Federal agency.*

Another option for the City was to lease additional BLM land for the Airport, which could require an Environmental Assessment (EA), appraisals, and any related tasks. The disadvantage to this option is that FAA doesn't participate in these costs. While the EA may conclude with a Finding of No Significant Impact (FONSI), which would mean no additional action is required, the costs associated with this process could be a budgetary challenge for the City.

A third option was to request a BLM land transfer (patent transfer), so the land would become a part of the airport-owned property. Like the second option, the required EA and related tasks are not eligible for FAA funding. Further, the BLM was not processing any transfer requests at the time these options were discussed, which were likely attributed to the time-consuming nature of the process and limited BLM staff resources.

Since Aztec's 20-year (2001-2021) BLM lease was expiring during the planning study and there were BLM processing delays (due to staffing constraints, workload and the pandemic), the City worked with the BLM to renew the existing lease without modifications in an effort to minimize delays. The City will continue to pursue the additional property needed in a subsequent BLM lease for the future crosswind and protected airfield surfaces. As noted earlier, leasing additional land may require an EA, the cost of which will be ineligible for FAA funding.

Separate from the BLM-controlled land that the Airport needs, any other property needed (e.g., private property) is identified as future acquisition or avigation easement, if appropriate. In fact, land acquisition from a private owner is required to support the proposed development of the new north-south crosswind runway, Runway 17-35. Additionally, avigation easements are required for any portion of a Runway Protection Zone (RPZ) that is not presently owned or leased by the Airport, which applies to the RPZs for Runway 8 and 26, and future Runway 17 and 35.

It's important to note that a current Exhibit A Property Map is being prepared as part of the ALP update for this study. An accurate, recent Exhibit A Property Map could not be located in FAA, State, BLM or city files.

Section IV

Alternatives

IV. DEVELOPMENT ALTERNATIVES

The Aztec Municipal Airport (Airport) development options element of this planning study takes the input from stakeholders early in the process and the findings of the Facility Requirements section to identify various physical layouts for future development.

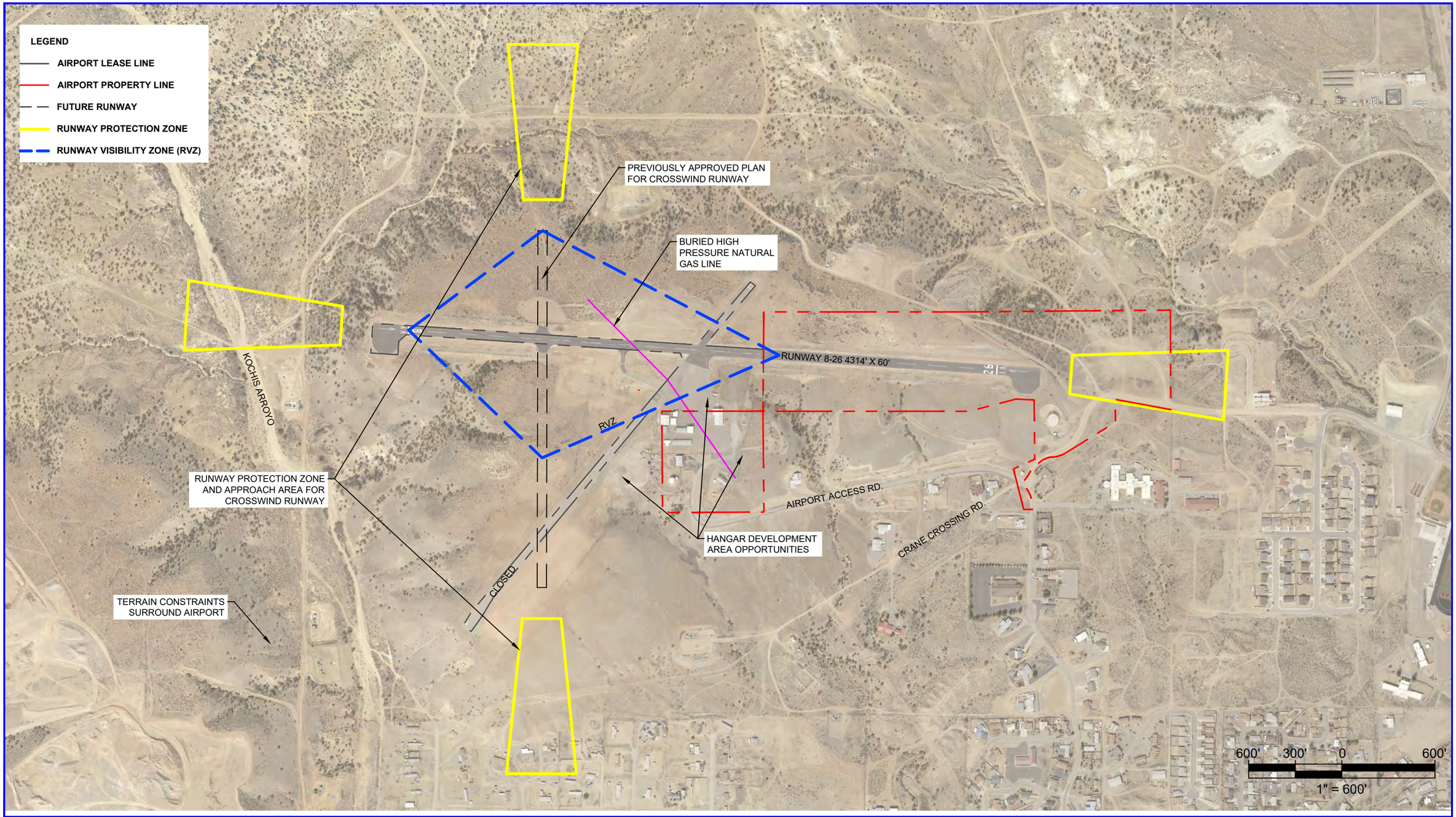
Two of the Airport's most significant facility needs are a new crosswind runway and additional hangar development. However, the City determined that the north-south crosswind runway alignment, Runway 17-35, evaluated and selected in the previous planning study, would remain in the current plan. Therefore, development options (alternatives) in this section focus on hangar development.

The hangar alternatives are comparatively reviewed and discussed so a preferred alternative may be selected that represents the most ideal layout for near- to long-term development at the Airport. It's important to note that the preferred alternative may represent a composite of the various alternatives presented.

PLANNING CONSIDERATIONS

Planning considerations refer to those factors that should be identified and considered before defining development options. These may include opportunities such as vacant or underutilized land that could be used for future facility needs. In contrast, they may also include challenges or constraints such as terrain. By identifying these planning considerations early in the process, the development alternatives can address them. For Aztec, the key planning considerations are called out on **Exhibit 4A** and include the following:

- Undeveloped land for possible hangar expansion adjacent to the existing apron and hangar area
- Undeveloped land for new hangar development and apron area located west and southwest of the existing hangar area, which is the southeast side of proposed Runway 17-35.
- Terrain/topographic constraints surround the Airport so there are significant limitations to the Airport's future development footprint
- Existing utility infrastructure is available at the Airport, which can be extended to new facilities, as needed
- An underground high-pressure gas line transits the airfield and the existing apron/building area



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Planning Considerations

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EXHIBIT 4A

Further, previously planned projects are also considered for Aztec. These projects are referred to as common features and are inherently a part of all alternatives. These include:

- The City's longstanding plan for a new north-south crosswind runway, Runway 17-35
- Runway 4-22 to remain closed due to non-compliance with Federal Aviation Administration (FAA) standards and the impractical options to bring into compliance. Runway 4-22 could not comply with standards for runway visibility zone (RVZ), runway object free area (ROFA), runway obstacle free zone (ROFZ), etc. Note: See appendices for *Overview of Closed/Non-Compliant Runway 4-22*
- Fencing to be relocated to clear protected runway surfaces such as the ROFZ and ROFA described in Requirements.
- Electrical vault to be installed east of the existing terminal building.

IDENTIFICATION OF HANGAR DEVELOPMENT ALTERNATIVES

As stated earlier, development options focus on hangar alternatives. Four alternatives are presented for the comparative review and discussion. Two of the four alternatives show development in the existing hangar/apron area while the other two show possible hangar layouts for undeveloped land (clear of the RVZ) to the west of the existing hangar area.

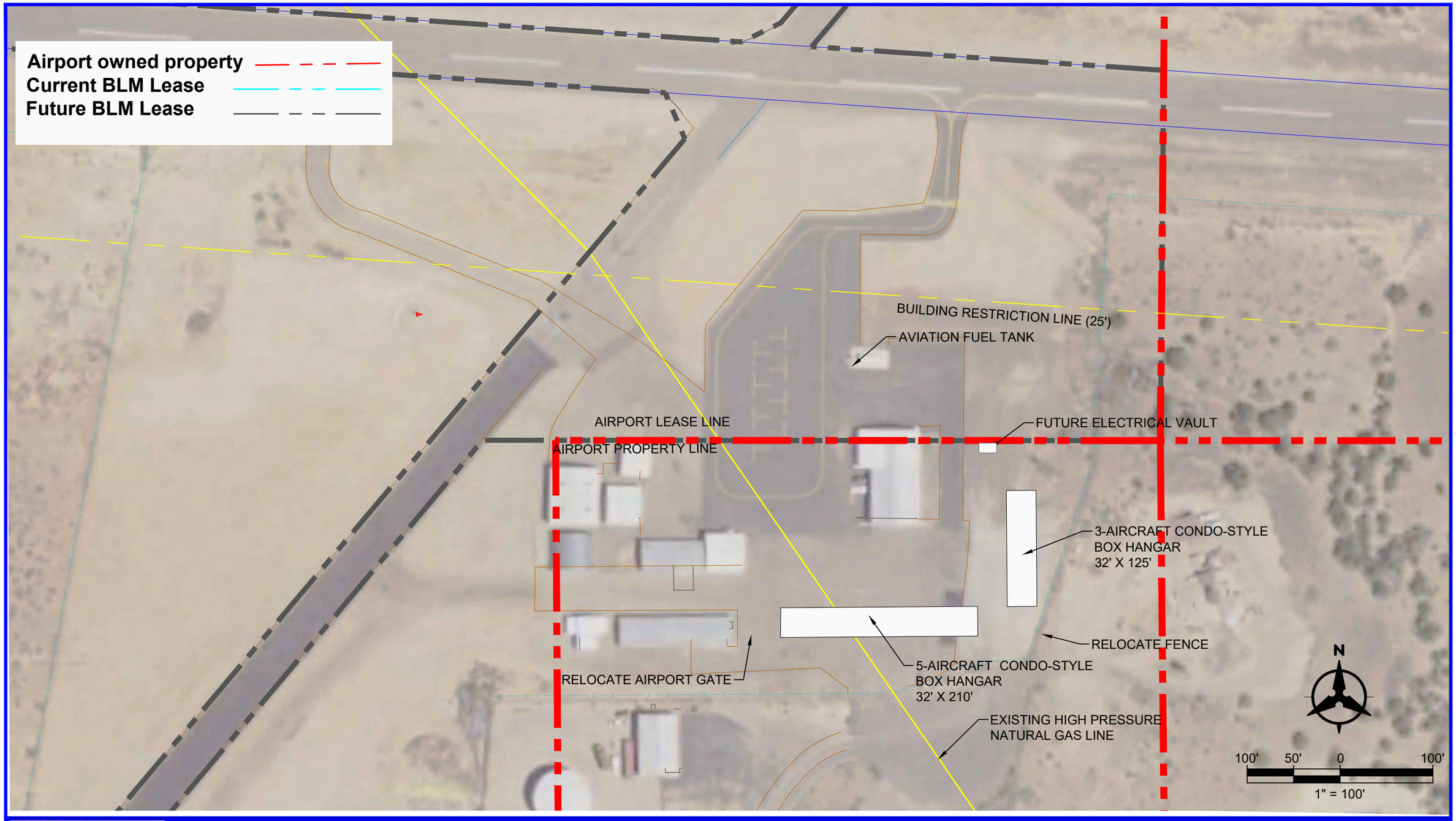
Hangar Alternative 1

The first alternative proposes two banks of box hangars – one with five hangar units and one with three (**Exhibit 4B**). These eight additional hangars, which are proposed adjacent to the existing terminal/ hangar area, exceed the Airport's based aircraft storage needs for the 20-year planning period. However, the additional capacity may provide transient and seasonal aircraft with storage and/or serve growth in based aircraft beyond the forecasts. The five-unit hangar is located at the south end of the apron with hangar entry doors facing north towards Runway 8-26. The hangar is placed east of the existing bank of nested T-hangars with adequate space for a taxilane to ensure current T-hangar tenants with south-facing hangar entry doors are provided proper taxilane clearance. As part of this alternative, the airport gate requires relocation to the west.

The proposed new three-unit hangar is placed perpendicular to and east of the new five-unit hangar to allow adequate circulation and access to hangar doors for each structure. This requires that the three-unit hangar be set apart from the existing paved apron area. Apron expansion will be necessary to serve aircraft circulation in this area.

Hangar Alternative 2

Alternative 2 (**Exhibit 4C**) is similar to Alternative 1 in that two additional structures are proposed in the existing terminal/hangar area. One structure is a bank of nested T-hangars with six units located at the south end of the apron, so the airport vehicle access gate requires relocation. A taxilane would be required around the east side of the building to provide access to all south entry hangar doors. The second structure proposed is a large conventional hangar, which can spaciously accommodate three to four aircraft plus



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Alternative 1

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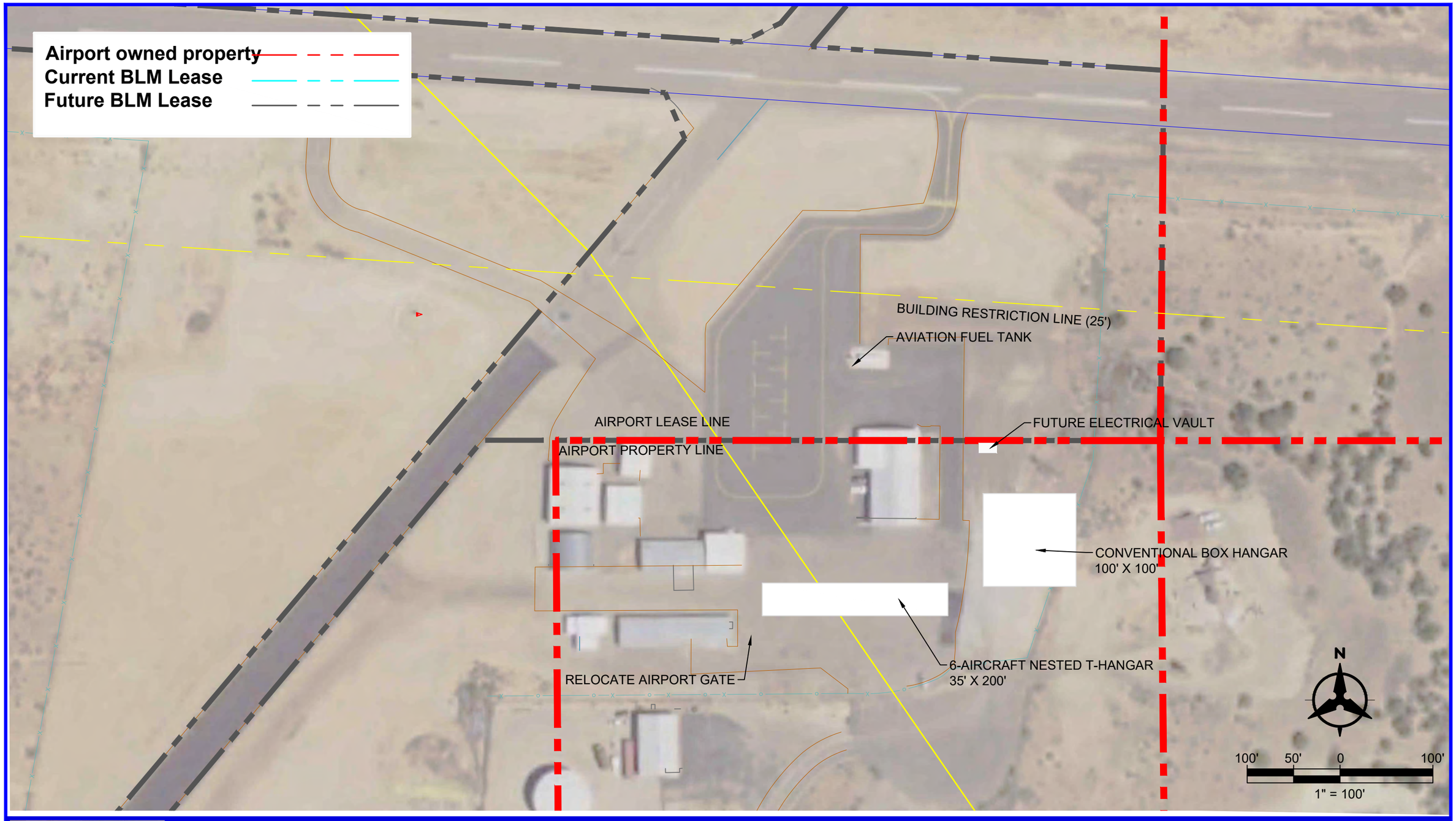
EXHIBIT 4B



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Alternative 2

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EXHIBIT 4C

shop space. Large conventional hangars are often more attractive to private hangar developers desiring shop space and revenue from based aircraft/tenant and overnight transient aircraft storage. The conventional hangar is proposed east of the apron but within the current airport east property boundary. Apron expansion will be necessary to serve aircraft circulation in this area.

The excess aircraft storage capacity provided in this proposed development may serve possible growth that exceeds the forecasts and/or transient and seasonal aircraft storage needs.

Apron expansion will be necessary to serve aircraft circulation in this area.

Hangar Alternative 3

For Alternative 3, long-term hangar development is proposed to the west of the existing hangar area partially overlaying the former (closed) crosswind runway. As shown in **Exhibit 4D**, three large conventional hangars and three banks of T-hangars are proposed. The conventional hangars are centralized facing the intersection of Runway 8-26 and future Runway 17-35. The three banks of T-hangars are placed parallel to future Runway 17-35. Aircraft storage capacity is well beyond the Airport's projected needs over the 20-year planning period. The placement of these proposed hangars clears the future RVZ.

Hangar Alternative 4

Alternative 4 is depicted in **Exhibit 4E**. Five large and six small conventional hangars are included as well as one bank of T-hangars. Similar to Alternative 3, all development is proposed west of the existing hangar area and extended to the south running parallel to the future crosswind runway. Apron and taxilane development to support the new hangar development area is included. This alternative provides the greatest increase in aircraft storage capacity, which could serve the Airport's needs into the distant future.

COMPARATIVE REVIEW AND SELECTION OF PREFERRED ALTERNATIVE

Next, the planning advisory committee (PAC) comparatively reviews and discusses the hangar development alternatives. Several factors are considered as part of the committee's comparative review, which include but are not limited to the following:

- Property needs. Alternatives 1 and 2 depict hangar development within the airport's current boundary while Alternatives 3 and 4 propose hangar development within the future BLM lease.
- Long-term capacity. The alternatives offer varying levels of aircraft storage capacity, but all provide capacity beyond the projected need in the forecasts. Alternative 4 offers the greatest storage capacity.
- Practical and functional land use. Alternatives 1 and 2 place hangars adjacent to current hangar and terminal facility land use taking advantage of existing infrastructure and access. Alternatives 3 and 4 take advantage of the undeveloped land to the west and south to maximize hangar development capacity with a more efficient layout.

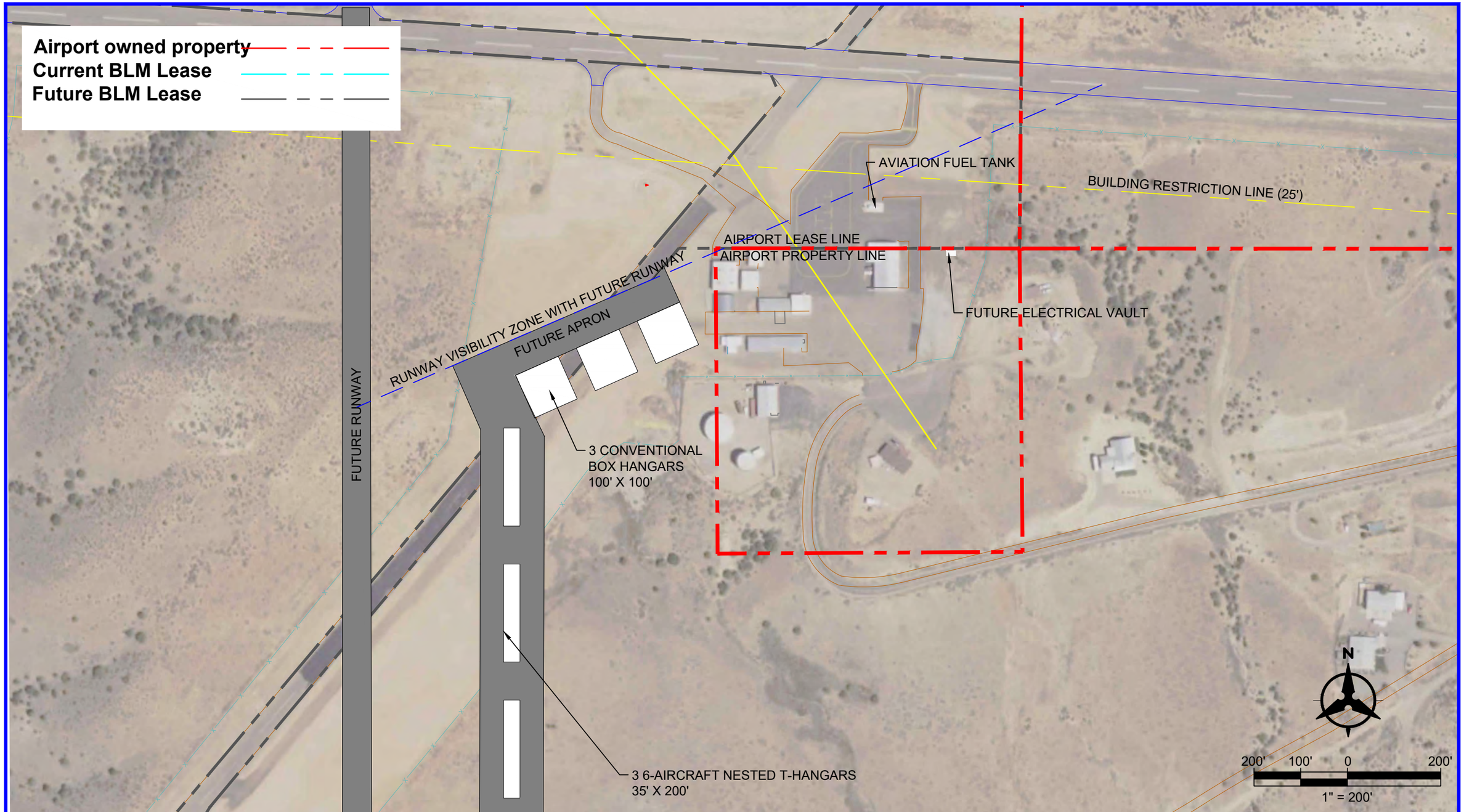

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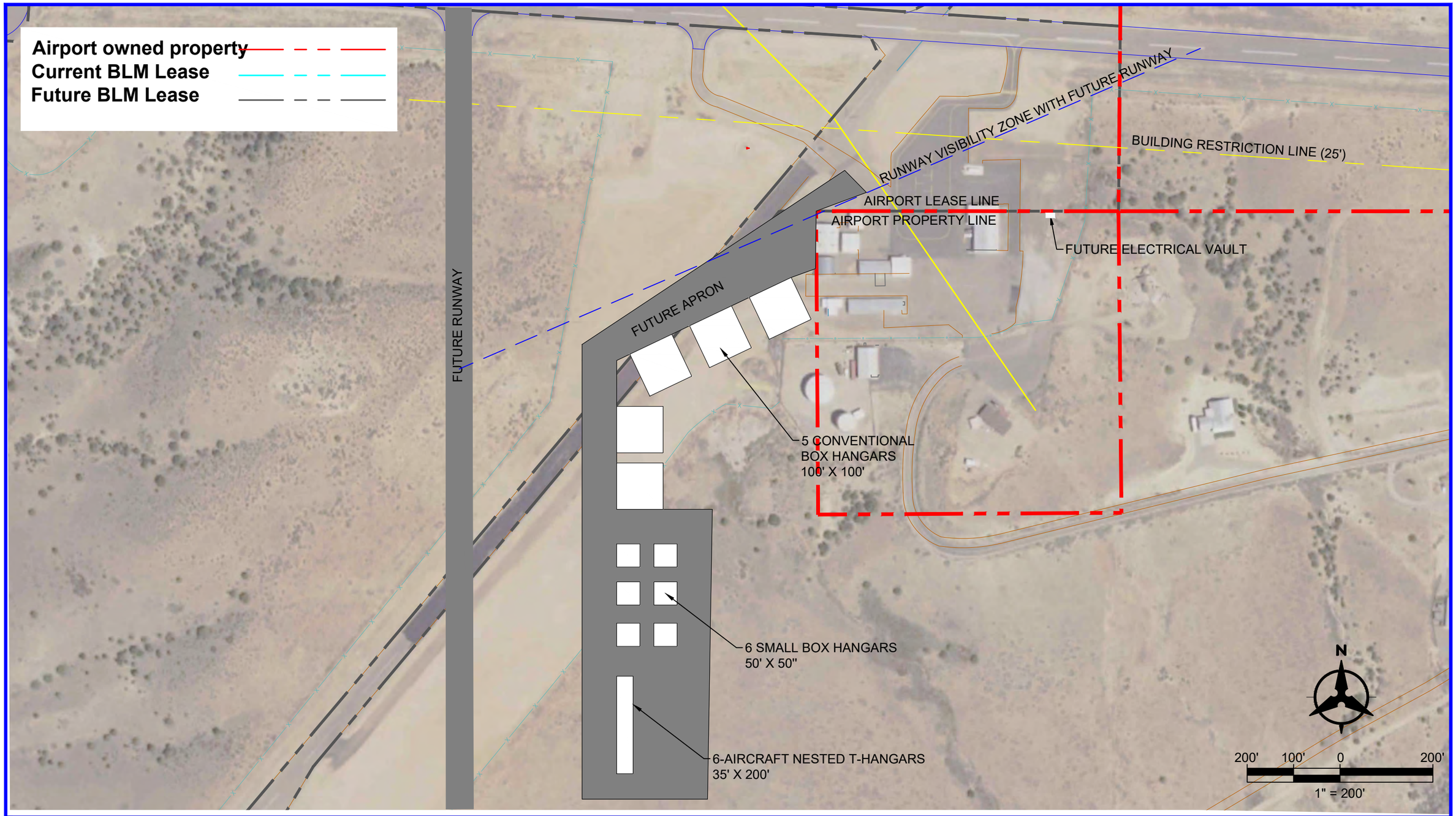
EXHIBIT 4D



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Alternative 4

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EXHIBIT 4E

- Planning flexibility. External events, shifts in aviation demand, changes in development priorities and needs, and other factors may dictate the need to change plans. While all future hangar development with corresponding taxilane and apron development should be demand driven, plans for expansion beyond demand should remain flexible. All alternatives offer varying levels of flexibility.
- Tenant/transient user appeal. While tenants typically look for the most cost-efficient aircraft storage options and may not require proximity to the terminal building, transient operators may prefer to be near the terminal.
- Practical phasing. Alternatives 1 and 2 can be developed without any substantial phased development as access to the existing apron will be available. However, the auto access gate does require relocation for hangar development. Alternatives 3 and 4 require additional taxilanes/apron for circulation and extended roadway access. Phased development of the hangars in Alternatives 3 and 4 would be from the north to south.
- Financial feasibility (estimated costs vs funding). Hangar development is ineligible for FAA Airport Improvement (AIP) funding, but taxiway/taxilane access serving all users is eligible. Cost estimates for each alternative vary as the number and types of hangars vary.

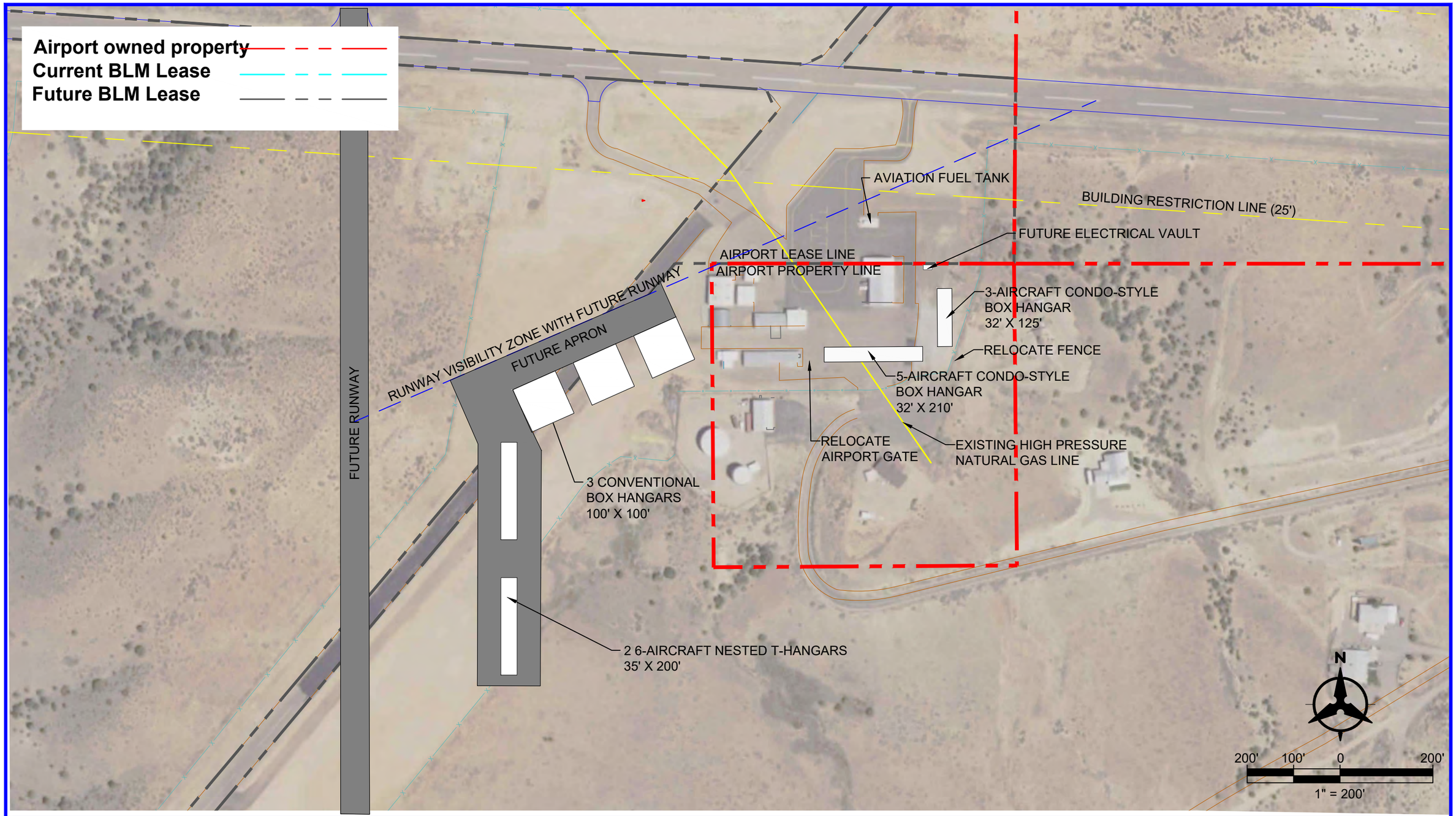
On October 21, 2020, the PAC met[1] to review the study's findings and discuss the various development alternatives for near- to long-term hangar development. The comparative evaluation concluded with the PAC selecting a preferred hangar alternative to recommend to the City, which includes a combination of Alternatives 1 and 3. In Alternative 1, hangar development is proposed for the near- to intermediate-term as demand dictates and development funding is available (through a private source). Alternative 3 illustrates what is envisioned for long-term hangar development. However, the southernmost T-hangar may be costly due to terrain, so it is removed from the long-term development plans.

The preferred alternative (**Exhibit 4F**) provides the City with a plan for aircraft storage capacity well beyond demand in the 10-year planning period and more distant future. Prior to the City's official approval, the preferred alternative recommended by the PAC was presented at an online public information workshop on December 1, 2020, which offered the community an opportunity to learn about the study, ask questions and provide feedback.

The City officially approved the PAC's recommended "preferred alternative" in a letter dated February 5, 2021 (see appendices), so the study could proceed to completion with the preferred hangar alternative incorporated into the Airport Layout Plan (ALP) as well as the Airport Capital Improvement Plan (ACIP). Further, specific improvements drawn from the City's previous airport planning study are incorporated, as directed, including the future crosswind runway (Runway 17-35) and other airside and landside/support improvements, which remain valid needs for Aztec.

The next section, *Airport Capital Improvement Plan*, addresses the various proposed development projects, associated cost estimates and possible funding sources.

[1] A virtual (online) planning advisory committee (PAC) was held due to the pandemic (COVID19)



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Preferred Alternative

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EXHIBIT 4F

Section V

Airport Capital Improvement Plan

V. AIRPORT CAPITAL IMPROVEMENT PLAN

Based on the City's approval in February 2021 of the preferred hangar alternative and other specific improvements derived from the previous City- and FAA-approved Airport Layout Plan (ALP), an Airport Capital Improvement Plan (ACIP) is prepared. The ACIP identifies projects in ranking priority to address the needs of Aztec Municipal Airport (Airport) over the 20-year planning period. The ACIP is divided into three phases: short-, intermediate- and long-term, with the highest priority needs in the short-term. Funding sources are also presented, so the City may anticipate their funding requirements in matching grants from the FAA and NMDOT Aviation Division.

Originally, the five-year short-term window for the study started in 2018 (study kickoff year) and went through 2022. With study progress paused for property issues and extended review and approval timeframes, this section has reframed the short-term window to run from 2021 to 2025.

AIRPORT CAPITAL IMPROVEMENT PLAN (ACIP)

The ACIP for Aztec includes 17 projects over the next 20 years. Projects beyond 20 years are excluded from the ACIP but briefly discussed.

Ideally, capital improvements would be completed on schedule every year or two, but a project is often postponed due to City, federal and/or state funding constraints or simply moved in the sequence of projects to adapt to funding availability, changes in demand or modified priorities. Consequently, the ACIP is updated annually and submitted to the FAA and NMDOT Aviation Division so they may update their programs.

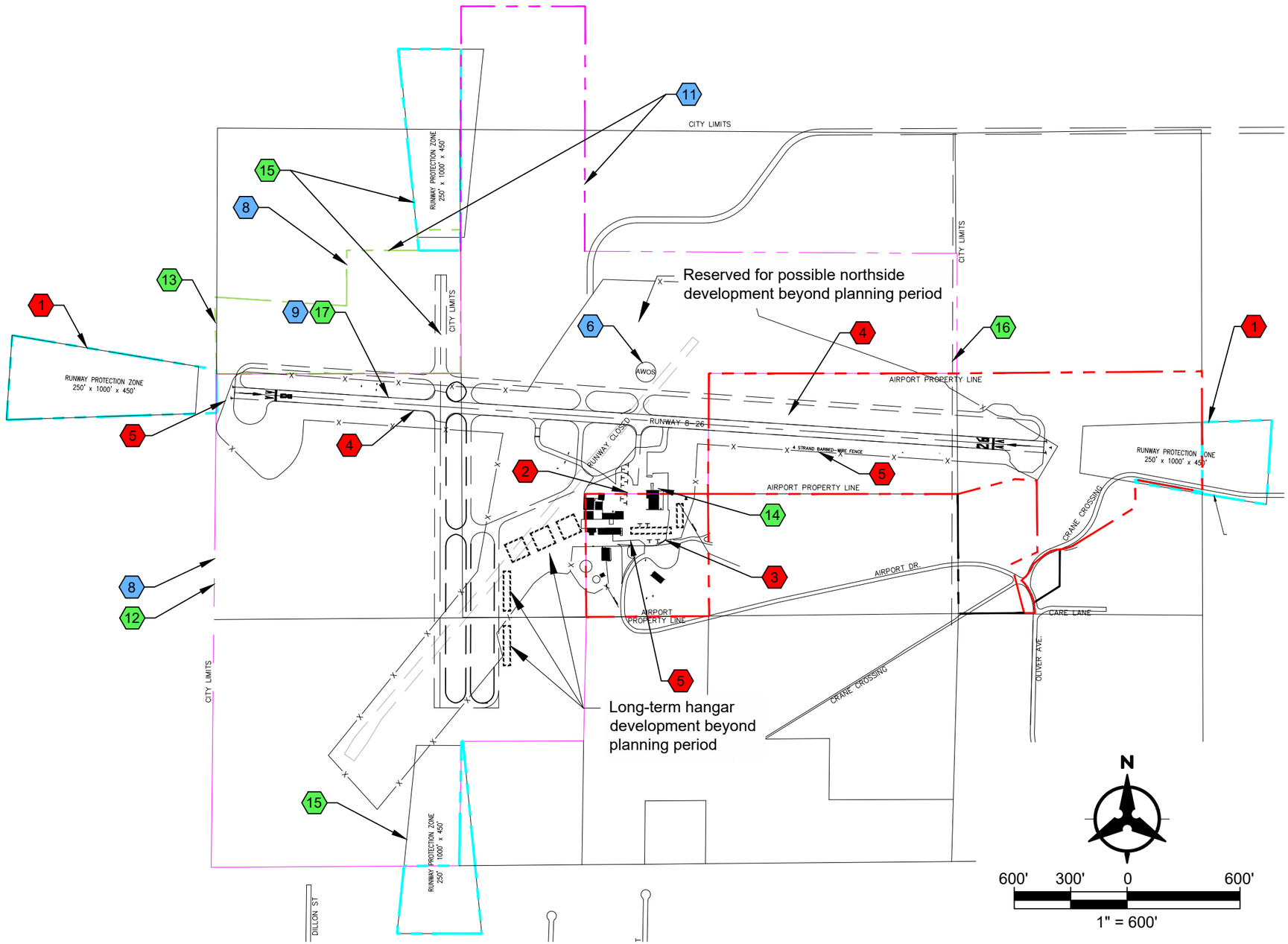
Table 5A presents the 20-year ACIP with projects in ranking priority. **Exhibit 5A** depicts the proposed development in the table by color-coded phases: red-numbered projects (1-5) are short-term/high priorities, blue-numbered projects (6-11) are intermediate-term and green (12-17) are long-term. Also noteworthy is that Aztec receives a bi-annual maintenance grant from the state for tasks such as weed control and mowing. Utility and drainage improvements necessary with airport development will be incorporated into future projects, as needed. DBE Program Updates will be required but will be added to existing projects in the future on an as-needed basis. At least one planning study is anticipated to update the ALP and revisit proposed airport improvements over the 20-year planning timeframe, but significant changes in activity, types of users, FAA design standards or similar may dictate the need for additional planning efforts. Hangar development remains a high priority for airport users. However, federal funding support is limited to hangar site development, so the City anticipates a private developer will fund hangars once site preparation is completed and a ground lease between the City and developer is executed.

Table 5A. Airport Capital Improvement Plan (ACIP) for Aztec

Project #	Description	Federal $	State $	Local/ Sponsor $	TOTAL $
1	Airport Boundary Survey & Acquire RPZ Avigation Easements (2022)	45,000	2,500	2,500	50,000
2	Reconstruct South Apron, Taxilanes & Hangar Aprons, Hangar Development Site Prep (2022)	270,000	15,000	15,000	300,000
3	Pavement Maintenance for Terminal Area Apron (2023)	67,500	3,750	3,750	75,000
4	Runway Lighting (MIRL, PAPI, lighted wind cone) (2024)	450,000	25,000	25,000	500,000
5	Fence Relocation (clear ROFA/ROFZ), Vehicle Gate Relocation (2025)	45,000	2,500	2,500	50,000
	Short-term (2021-2025) Total	877,500	48,750	48,750	975,000
6	AWOS III P/T	180,000	10,000	10,000	200,000
7	Update Airport Action Plan & ALP	135,000	7,500	7,500	150,000
8	Environmental Assessment (EA) for BLM Land & Private Property Acquisition	0	180,000	20,000	200,000
9	Pavement Maintenance 2027 for Runway 8-26	135,000	7,500	7,500	150,000
10	Wildlife Hazard Assessment/Site Visit	45,000	2,500	2,500	50,000
11	Land Appraisals for BLM and private property*	0	9,000	1000	10,000
	Intermediate-Term (2026-2030) Total	684,000	38,000	38,000	760,000
12	Acquire BLM Property	0	72,000	8,000	80,000
13	Acquire Private Property	13,500	750	750	15,000
14	Pavement Maintenance 2031 for Apron Areas, Taxilanes	135,000	7,500	7,500	150,000
15	Construct Crosswind Runway 17-35, Acquire RPZ Avigation Easements	675,000	37,500	37,500	750,000
16	Install Perimeter & Wildlife Control Fence	180,000	10,000	10,000	200,000
17	Pavement Maintenance 2034 for Runway 8-26	135,000	7,500	7,500	150,000
	Long-Term (2031-2040) Total	1,210,500	67,250	67,250	1,345,000
	ACIP 20-Year TOTAL	$2,772,000	$154,000	$154,000	$3,080,000

Notes: The priority ranking of ACIP projects and their associated cost estimates presented here are for planning purposes only. Based on funding availability and FAA/State participation, projects may be adjusted, and more detailed cost estimates appropriate for project elements will be prepared. Airport improvements beyond the 20-year planning period are not included in this table but are discussed later in this section.
*Appraisal fees attributed to Private Property (not BLM) may be funded by FAA by including them with another project due to the anticipated low cost that would not justify a separate project.

	PHASE 1 - SHORT-TERM DEVELOPMENT
1	Airport Boundary Survey & Acquire RPZ Avigation Easements (2022)
2	Reconstruct South Apron, Taxilanes & Hangar Aprons, Hangar Development Site Prep (2022)
3	Pavement Maintenance for Terminal Area Apron (2023)
4	Runway Lighting (MIRL, PAPI, lighted wind cone) (2024)
5	Fence Relocation (clear ROFA/ROFZ), Vehicle Gate Relocation (2025)
PHASE 2 - INTERMEDIATE-TERM DEVELOPMENT	
6	AWOS III P/T
7	Update Airport Action Plan & ALP
8	Environmental Assessment (EA) for BLM Land & Private Property Acquisition
9	Pavement Maintenance 2027 for Runway 8-26
10	Wildlife Hazard Assessment/Site Visit
11	Land Appraisals for BLM and private property
PHASE 3 - LONG-TERM DEVELOPMENT	
12	Acquire BLM Property
13	Acquire Private Property
14	Pavement Maintenance 2031 for Apron Areas, Taxilanes
15	Construct Crosswind Runway 17-35, Acquire RPZ Avigation Easements
16	Install Perimeter & Wildlife Control Fence
17	Pavement Maintenance 2034 for Runway 8-26



AZTEC MUNICIPAL AIRPORT

ALP REPORT

Bohannan Huston
www.bhinc.com 800.877.5332

Phased Development Map

EXHIBIT 5A

Short-Term (thru 2025)

The first five projects are the highest priorities for Aztec and are included in the short-term phase of development at a total cost of $975,000 with local share estimated at $48,750. A description of each project and its anticipated year of implementation follows:

1. **Airport Boundary Survey and Acquire Avigation Easements for Runway Protection Zones (RPZs) on Runways 8 and 26 (2022)**. Records appear inadequate to confirm the airport property boundary, particularly along the east side of the airport. No map with accurate metes and bounds can be located. At the southeast property corner, five monuments have been located that vary by 20 feet and it is unclear which is a proper surveying monument. A boundary survey should be completed to take steps in defining the existing airport property and to support the Exhibit "A" property map preparation. With ongoing improvements planned, property dedicated to the airport should be clarified, so the City may reaffirm acreage and future property and avigation easement needs. This project includes the acquisition of RPZ avigation easements for Runway 8 and 26.
2. **Reconstruct South Apron, Taxilanes and Box Hangar Aprons, and Prepare Adjacent Hangar Development Site (2022)**. The south apron area is in poor condition with crumbling edges and requires reconstruction since maintenance is inadequate. Additional hangar development (by a third party) is proposed in the same area so the City will be preparing the site with additional apron and taxilanes in advance to accommodate the new hangars.
3. **Pavement Maintenance for Terminal Area Apron (2023)**. Routine maintenance of pavements is necessary and recurring throughout the planning period. Based on the timing of the last terminal apron project, maintenance is planned for 2023.
4. **Runway Lighting including MIRL, PAPI, lighted wind cone (2024).** This project includes the installation of runway lighting—a medium intensity runway lighting (MIRL) system—to replace the old deteriorating retroreflectors on Runway 8-26. The design phase is complete, but the FAA has postponed the construction phase until the City renews their BLM lease. In the meantime, the City ordered new retroflectors for the runway to be installed until installation of the MIRL system can be funded and completed. This project includes the installation of a precision approach path indicator (PAPI) system on Runway 8 and Runway 26 to replace the outdated vertical guidance systems currently in place. A new lighted wind cone for the segmented circle is also included in the project.
5. **Fence Relocation (clear ROFA/ROFZ) and Vehicle Gate Relocation (2025).** Presently, portions of the four-foot barbed wire perimeter fence are within the Runway Object Free Area (ROFA) and Runway Obstacle Free Zone (ROFZ) for Runway 8-26. This primarily includes the east end (off Runway 26 end). A fencing relocation project should be planned to clear these surfaces. The ROFA and ROFZ are both 250 feet wide and both extend beyond the runway end--ROFA extends 240 feet beyond end and the ROFZ extends 200 feet beyond. While the terrain is dropping in that area below runway elevation, the four-foot fence is required to be below the elevation of the closest point of the Runway Safety Area (RSA) to meet ROFZ requirements. The portion of fence that runs parallel to the runway on the south side (east of terminal area)

is also within the ROFA/ROFZ. While the terrain declines in that area as well—thereby reducing the impacts—it appears that a partial impact remains. If the fence relocation is postponed and follows the BLM and private property acquisition (project #12 and #13), fence relocation should include the new boundary. The vehicle security gate near the auto parking area requires relocation to the west to accommodate the new hangar development and supporting apron/taxilane improvements proposed near the gate's current location.

Intermediate-Term (2026-2030)

Six projects, identified as #6 through #11, are included in the intermediate term of the ACIP at a total cost of $760,000. The local share is $38,000, which is five percent of the total costs in this phase.

6. **Automated Weather Observation System (AWOS) III P/T**. Weather reporting data for Aztec is derived from Farmington-Four Corners Regional Airport and often misrepresentative of actual wind and weather conditions at Aztec since they are 11 nautical miles apart with variances in terrain. On-site weather data for Aztec Municipal Airport would better serve the pilot community, enhance the safety of operations and offer a more reliable data source in conducting wind analyses for the airfield. The percent of actual wind coverage on Runway 17-35 and proposed crosswind, Runway 17-35, could be calculated. The AWOS would be located north of the terminal area on the north side of Runway 8-26.
7. **Update Airport Action Plan and ALP**. Planning studies should be updated on an as-needed basis when factors dictate changes to development plans. Factors might include significant changes in aviation activity that alter facility needs or the publication of new FAA design standards that need to be addressed. Planning studies for airports like Aztec have typically been updated every seven to 10 years. Aztec's previous planning study was completed in 2008. The former ALP was approved by the FAA in 2012.
8. **Environmental Assessment (EA) for BLM Land Acquisition and Private Property Acquisition.** Conduct Environmental Assessment (EA), as required, for additional BLM property transfer (or interim lease) comprised of approximately 146 acres. As required by the sponsor's grant assurances, good title to airport property or assurance to future good title is required for federal funding. According to the BLM, it may dispose of land if "…it serves important public objectives, such as community expansion and economic development." Further the BLM outlines the following three options for selling land and the sale method is determined on a case-by-case basis, depending on the circumstances of each parcel or sale: a) modified competitive bidding where some preferences to adjoining landowners are recognized; b) direct sale to one party where circumstances warrant; and c) competitive bidding at public auction. This EA will also address the private property acquisition adjacent to the northwest airport boundary in support of the proposed crosswind runway development. Depending on the time span between this EA and the actual crosswind runway construction, an EA update may be needed in advance of development.

9. **Pavement Maintenance for Runway 8-26.** Routine maintenance of pavements is necessary and recurring throughout the planning period. Based on the timing of the last runway project, maintenance needs are anticipated in 2027.
10. **Wildlife Hazard Assessment/Site Visit**. The FAA requires airport sponsors to maintain a safe operating environment, which includes conducting a Wildlife Hazard Assessment (WHA). GA airports are encouraged to conduct a WHA or at a minimum, a Wildlife Hazard Site Visit (WHSV) to determine what, if any, wildlife mitigation is needed. According to FAA guidance, the intent of a WHSV is to provide an abbreviated analysis of an airport's wildlife hazards, determine if a WHA is warranted, and provide actionable information that allows the airport to expedite the mitigation of these hazards, if necessary.
11. **Appraisals for BLM Land and Private Property Acquisition**. The City is required to acquire (or lease) additional BLM land for future airport development. The goal is to ultimately have all BLM property necessary for Aztec Municipal Airport's future be transferred to the City and dedicated to airport property. This project includes one of the specific steps required in that process. In addition to the BLM land, private property adjacent to the northwest airport boundary is also needed for future improvements. This project includes appraisals for that property as well.

Long-Term (2031-2040)

Projects planned for the last phase of the planning period have a total estimated cost of $1.35 million. There are six projects (#12 through #17) over this 10-year period with a total local requirement of $67,250 in funding. While the City's plan is to complete these airport improvements by 2040, projects may be accelerated or postponed for demand or financial feasibility.

12. **Acquire BLM Property**. The City needs additional land for the future development of the Airport, namely the proposed north-south crosswind runway and additional landside facilities such as long-term hangar development west and southwest of the existing hangar area. Since the time to complete the BLM land transfer process could be lengthy, the City may lease the land in the interim—the same property they previously leased almost 20 years ago before the City reduced the leased acreage to reduce the total cost.
13. **Acquire Private Property**. In addition to the BLM property, the City needs to acquire a portion of private property for the proposed north-south crosswind runway. The private property is adjacent to the northwest airport boundary and existing BLM lease.
14. **Pavement Maintenance for Apron Areas, Taxilanes**. Routine maintenance of pavements is necessary and recurring throughout the planning period. Based on the timing of the previous apron area project and maintenance, additional maintenance needs are anticipated in 2031.
15. **Construct Crosswind Runway and Acquire RPZ Easements**. This project includes the construction of a new north-south crosswind runway (Runway 17-35) as identified in the City's previous airport planning study and ALP and carried forward to the current study. With the physical site constraints and FAA-required design standards for the safety of operations, Aztec has highly limited options for a crosswind runway of functional length. An EA update may be required prior to the crosswind runway development. Wind coverage of the crosswind

runway alignment could be re-evaluated if Airport-specific wind data is available from the AWOS (project # 6) prior to the development. While pilots have expressed the need to reopen and improve Runway 4-22 since its alignment (northeast-southwest) best serves the airfield's strong crosswinds, the runway had several safety issues and physical site constraints that were too costly to remedy. Keeping the runway open was unsafe for airport users. The next best option for the airfield is a Runway 17-35 alignment (north-south) that can meet design and safety standards within the site constraints. This project includes the construction of Runway 17-35 and the acquisition of avigation easements within the RPZ for each runway that are beyond the airport property boundary.

16. **Install Perimeter & Wildlife Control Fence**. Currently, a four-foot-high barbed wire fence surrounds the airfield and terminal area. The WHA project noted above (project #10) will make recommendations with respect to wildlife control fence.
17. **Pavement Maintenance for Runway 8-26**. Routine maintenance of pavements is necessary and recurring throughout the planning period. Based on the timing of the previous runway pavement projects, additional maintenance is planned for 2034.

Airport improvements anticipated beyond the planning period are briefly presented here.

- *Long-term hangar development including supporting apron, taxiways/taxilanes and auto access to the west-southwest of the current building area.* Early hangar development is already planned within the next few years to serve existing and projected needs for the next two decades, Consequently, this project will serve long-term/distant future growth in based aircraft.
- *Construction of a full-length parallel taxiway to Runway 8-26.* This project is carried over from the previous planning study as reflected on the former City- and FAA-approved ALP. The safety and capacity benefits of a parallel taxiway increase as the number of aircraft operations on the runway increase because aircraft do not have to back-taxi on the runway before takeoff or after landing. With Aztec's generally light air traffic anticipated during the 20-year planning period, there are several higher priority capital improvement needs ahead of a parallel taxiway. The parallel taxiway will be constructed on the north side of the runway due to site constraints—existing buildings on the south side of the runway. Landside development in the distant future is possible on the north side, but auto access will be required. The bypass proposed by the City more than a decade ago (and shown on the FAA-approved ALP) was to provide that necessary access, but bypass development plans have been terminated. The need for an access road on the north side would be needed to serve any north side development.

CAPITAL FUNDING SOURCES

The City of Aztec has typically used a combination of federal, state, and local dollars to fund capital improvements. Federal dollars for airport improvements are managed by the FAA while state funds are managed by the NMDOT Aviation Division. Local funding is typically in the form of matching funds for a

federal or state grant and is from the City of Aztec but can be supported by third party financing. The following sections discuss the various funding sources.

Federal

The Aztec Municipal Airport is included in the National Plan of Integrated Airport Systems (NPIAS) making it eligible for federal funding. Such funding comes from the FAA Airport Improvement Program (AIP). The FAA has a priority system for projects so those of high priority to the FAA have a greater likelihood of funding; lower priority projects may not be funded for years, if at all, due to the limited availability of funds.[1] There are two primary AIP funding options for FAA-eligible projects in the ACIP: entitlement funds and discretionary funds. General aviation airports like Aztec receive $150,000 annually in entitlement funds to spend on eligible projects of their choice. Like the name suggests, discretionary funds are disbursed at the FAA's discretion for specific projects, which typically target their various priority programs such as runway safety areas. Projects that focus on safety, security and pavement preservation often have the greatest potential for discretionary funding. Implementation of Aztec's development plan for the airport assumes that the current AIP program will continue through the planning period with funding anticipated that is similar to past support.

Aztec must ensure that all FAA-eligible projects are included in their ACIP submitted to the FAA for consideration. The ACIP should be updated annually and include all proposed airport improvement projects with cost estimates in ranking priority for the next five years.

Projects eligible for AIP funding include airfield and aeronautical-related projects such as runway, taxiways, apron areas, airfield lighting and land acquisition in support of airport development. Planning and environmental studies are also eligible. Safety equipment such as Aircraft Rescue and Firefighting (ARFF) trucks and snow removal equipment (SRE) is eligible but maintenance equipment such as mowers are ineligible. Typically, fuel facilities, hangars and other revenue-generating facilities are ineligible.

The FAA participates in funding 90% of AIP-eligible projects, so the City is responsible for the remaining 10%. Typically, NMDOT Aviation Division pays for half of the sponsor's share leaving the City of Aztec to pay only 5% of a project.

State

The NMDOT Aviation Division supports public airports across New Mexico with grants for airport improvement needs. The state's aviation fund is comprised of aviation fuel taxes. A portion of the state's funding program is used to share the sponsor's match for federal grants. State grants are typically funded at a 50-50 or 90-10 split with the sponsor and may include projects that are eligible or ineligible for federal funding. The state focuses on addressing shortfalls in the New Mexico Airport System Plan (NMASP) and

[1] It's important to note that the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) enacted in March 2020 included $10 billion in funds awarded as economic relief to eligible airports nationwide. These funds were in addition to AIP funding. The City of Aztec received $20,000 of the CARES funding for the Aztec Municipal Airport. Additionally, the Coronavirus Response and Relief Supplemental Appropriation Act, 2021 (CRRSSA) provided $9,000 in funding to the City of Aztec for the Airport.

priority needs of the sponsors. State funding support needed for Aztec's airport improvements over the 20-year planning period is estimated at $154,000.

Local

The airport sponsor is responsible for the local match for federal and state grants. As shown earlier in Table 5A, the local funding required for the near-term capital improvements is $48,750. The local share of the ACIP projects for the entire 20-year planning period is $154,000. This represents 5% of the total ACIP project costs, which helps make the City's investment in airport improvements more financially manageable. Airport operating revenues typically fall short of covering operating expenses, so support for capital improvements is limited. Fortunately, the NMDOT Aviation Division has been providing routine airport maintenance grants to help offset expenses.

Acceptance of FAA and NMDOT Aviation Division grants requires that the City maintain the airport, which serves an important role in the aviation system. Consequently, the City often subsidizes the airport in the range of $30,000 to $50,000 annually. While airports like Aztec strive to be as financially self-sufficient as possible, subsidies often are required when revenue generation opportunities from fuel sales, hangar, and ground leases, etc. are limited.

Third Party Financing

Many airports use third party financing for airport improvements such as hangar development when the airport owner, like the City of Aztec, is unable to make the investment. Further, an aeronautical-related business that moves onto the Aztec Municipal Airport in the future, for example, would also be required to fund their facilities (e.g., office, hangar, exclusive use apron).

Appendix A

BLM Lease Information

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington District
Farmington Field Office
6251 College Blvd., Suite A
Farmington, New Mexico 87402
https://www.blm.gov/new-mexico

In Reply Refer To:
2800 (F01210)
NMNM 0048824

SEP 28 2021

CERTIFIED MAIL: Return Receipt Requested
9171 9690 0935 0264 7486 84

NOTICE

ATTN: Richard Tollefson, Program Manager		NMNM 0048824
FAA, ASW-640		R&PP Airport Lease
10101 Hillwood Parkway		City of Aztec
Fort Worth, TX 76177		FLPMA

On May 15, 2020 the Bureau of Land Management (BLM) received an application for renewal of the existing City of Aztec Airport Lease, NMNM 0048824. This lease was originally issued on 01/09/1961 and we anticipate it's continued use indefinitely. Due to a combination of staffing constraints, workloads and the pandemic our processing times have increased. We are working diligently to complete the backlog of renewals. The renewal of the lease will require a field visit and case review before it is renewed. We anticipate that a decision will be made within the next six months.

As per the conversation with Tamara Faust on September 23, 2021, please accept this notice as notification that the BLM is in the process of reviewing and renewing the lease NMNM 0048824. We apologize for any inconvenience and hope this suffices as notice in order for you to move forward with the grant funding.

If you need further information or have questions please contact Tamara Faust, Realty Specialist at 1-505-564-7762 or tfaust@blm.gov.

Sincerely,

David Mankiewicz
Farmington Field Manager, Acting

cc: City of Aztec

City of Aztec
Airport Lease
NMNM048824

Outline of the case file actions

08/01/1958 Application received
08/01/1959 Land segregation
01/09/1961 Lease issued (see attachment)
BLM issued a lease for 156.93 acres for an airport lease for 20 years (01/09/1981). The rental chares for the first three years shall be $10.00.
T. 30 N., R. 11 W.,
Sec. 6, S½N½SE¼, N½SW¼SE¼, SW¼SW¼SE¼, E½SE¼SW¼,;
Sec. 7, NE¼NW¼, NW¼NW¼NE¼.
02/11/1964 BLM request for annual report showing the gross receipts to determine rental rate.
01/17/1981 BLM requested a concurrence from FAA to renew the city of Aztec airport lease.
02/27/1981 FAA concurs to renewal the lease with no objectives.
06/23/1981 BLM issued a renewal lease decision (see attachment) and reduce acreage to 143.93 acres.
T. 30 N., R. 11 W,
Sec. 6, S½ of lot 13, 14, 15, N½SW¼SE¼, SW¼SW¼SE¼;
Sec. 7, lot 5, NW¼NW¼NE¼.
07/15/1981 BLM issued a decision to request rental in the amount of $10.00 for the first three years.
07/29/1981 BLM issued the renewal airport lease which was signed by both parties. The lease was issued for a 20 year term (01/09/2001).
08/09/1983 City of Aztec request for a sublease approval for Michael David Williams (lessee).
Unknown date BLM approved the sublease request.
08/05/1983 BLM approves a sublease by the Historical Aircraft Corporation.
01/27/2000 City of Aztec requested an addendum to D&M Enterprises sublease with the City to install and sell fuel at the Aztec airport.
02/08/2000 BLM request for additional information such as:

1) The original leaser agreement between D7M Enterprises and the City of Aztec was never received by the BLM. Please submit for approval.
2) The agreement needs a provision indemnifying the U.S. of any and all damages, claims, suits.
3) Need descriptions and maps showing where all facilities on federal lands are located and where they plan to install the 5,000 gallon fuel tank.
4) Need copies of approval for the installation of buried fuel tank from FAA and the state with fuel tank specification.

12/19/2000 City of Aztec requested to renewal their lease.
01/11/2001 Memo to file regarding annual rental calculations that should be done by an appraisal. According to 43 CFR 2911.1(e), "...municipalities, shall pay to the lessor an annual rental calculated at the appraised fair market value of the rental of the property less 50%..."(see attachment).
01/19/2001 City of Aztec request their lease boundaries be adjusted to only in 8.47 acres of public land (see attachment).
08/14/2001 BLM issued a decision to renewal airport lease and reduce acreage from 143.93 to 11 acres. The lease was issued for 20 years and would expire in 01/09/2021).
10/24/2006 · BLM received a letter from the City of Aztec asking for a land patent for the airport lease. They need additional acreage for potential future expansion and to be eligible for FAA funding.

The BLM plan to release the 156.93 acres to the City of Aztec, however, BLM no longer issues public airport leases and would release the land under an R&PP lease and then potentially issue a patent.

01/30/2007 The realty specialist requested guidance from the NMSO on the airport expansion and patent process. The NMSO provided the following guidance:

1) City of Aztec need to contact the FAA and following their application process for an airport expansion.
2) After the FAA approves the expansion, BLM will need a copy of the FAA's letter of approving the application and setting forth the FAA conditions to be made part of the grant. Also need a copy of the FAA's NEPA determination regarding the requested conveyance pursuant to section 102(2)(C) of NEPA.
3) After BLM received the information, we can start the process. Setup a cost recovery account, calculate costs estimates and request funding from the City.

02/21/2007 An email from Joe Ferrell of the Farmington Field Office discussing a meeting with the City and the plan to proceed with the proposal to acquire a patent from BLM.

07/16/2007 FAA determined the City's requested conveyance of lands is reasonably necessary for the airport. They requested BLM to determine whether a conveyance of this property is consistent with the needs of our department.

04/22/2008 Memo to file: Due to lack of FAA funding the project or request has been put on hold (see attachment). The City has contacted a firm in Durango regarding the EA and they are waiting approval and funding before proceeding with the EA.

10/30/2008 FAA sent BLM a copy of the standard form 424, Application for Federal Assistance from the City of Aztec. The City is eligible to receive federal funds for the airport improvements however they can't issue a grant due to funding issues.

04/21/2009 A phase 1 environmental site assessment for the City of Aztec airport was completed. I didn't find any review and approval from the Hazardous material lead for the ESA.

Fall 2014 I went to Farmington Field Office to review the land tenure backlog and prioritize the workload. I had to review the files to determine the status on each file. Assigned the case file to try and figure out the status.

06/23/2016 Scott Hall asked about the casefile.

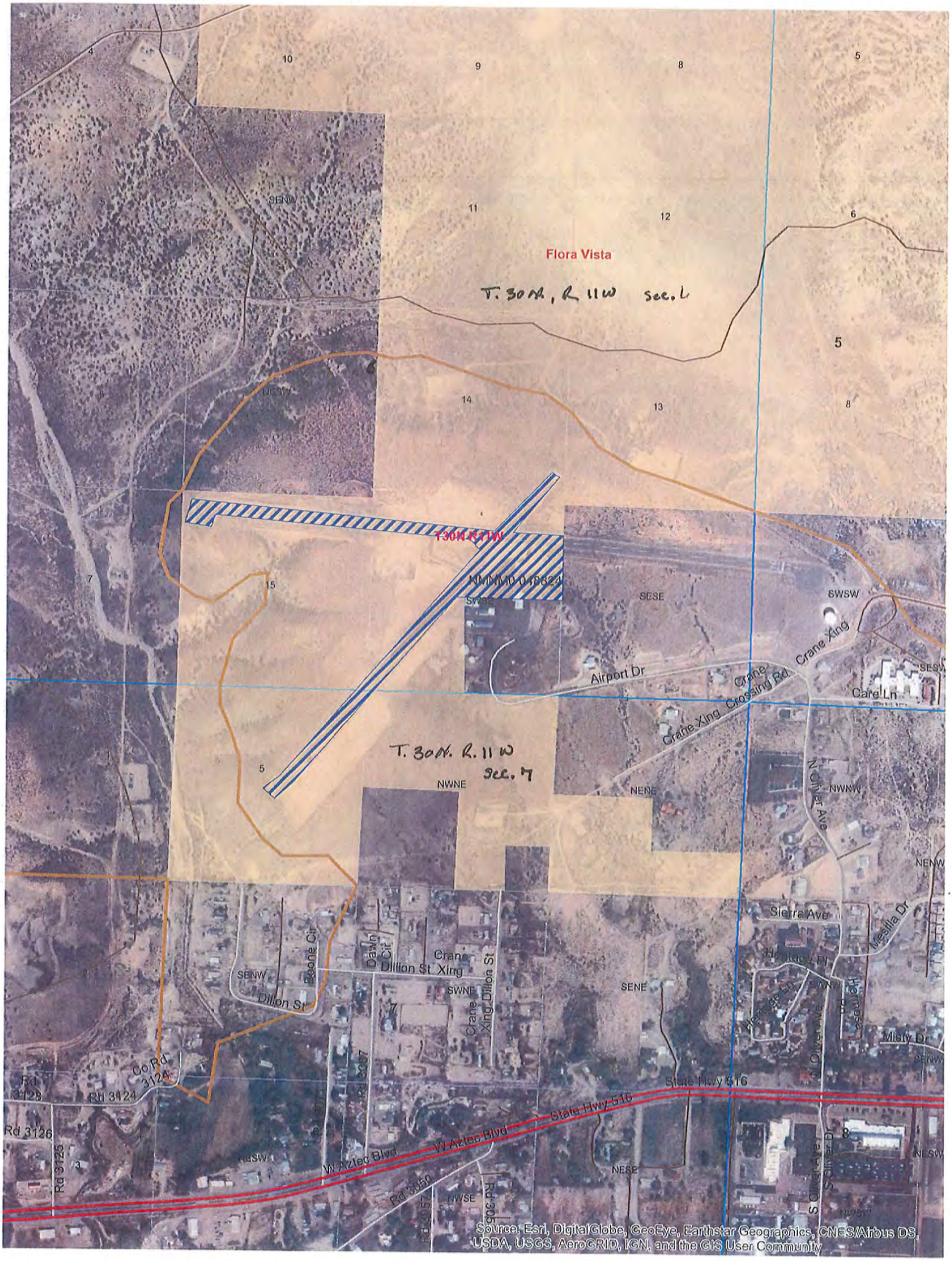
August 2016 Meet with Beth Schatz, who is a contactor working for the City of Aztec. She wanted to review the casefile to figure out the state of the project. She was given information regarding the casefile.

08/9/2016 Beth provided a copy of airport layout plan (APL), final determination from the FAA for the ALP, and a sketch showing the proposed property acquisition from BLM.

A08/15/2016 Emailed Bethan outline of the BLM's process.

Currently, BLM needs the following items:

1) City of Aztec need to contact the FAA and following their application process for an airport expansion.
2) After the FAA approves the expansion, BLM will need a copy of the FAA's letter of approving the application and setting forth the FAA conditions to be made part of the grant. Also need a copy of the FAA's NEPA determination regarding the requested conveyance pursuant to section 102(2)(C) of NEPA.
3) After BLM received the information, we can start the process. Setup a cost recovery account, calculate costs estimates and request funding from the City.


Flora Vista
T. 30 N., R. 11 W Sec. 6
T. 30 N. R. 11 W Sec. 7
T30N R11W
Airport Dr
Crane Xing
Crane Crossing Rd
Care Ln
N Oliver Ave
Sierra Ave
Mesilla Dr
Misty Dr
Dillon St
Crane Xing Dillon St
Boone Cir
Dawn Cir
Co Rd 3124
Rd 3128
Rd 3124
Rd 3126
Rd 3125
Rd 3057
Rd 3050
W Aztec Blvd
State Hwy 516
S Oliver Dr
SENW
SWNE
SENE
NESW
NESE
NWSE
SESE
SWSW
NWNE
NENE
NWNW
NENW
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(LIVE) Serial Register Page

01 05-24-1928;045STAT0728;49USC211-214
Case Type 291100: AIRPORT LEASES
Commodity 868: AIRPORTS
Case Disposition: AUTHORIZED

Total Acres: 11.000

Serial Number NMNM-- 0 048824

Case File Juris: FARMINGTON FIELD OFFICE

Serial Number: NMNM--0 048824

Name & Address					Int Rel	% Interest
AZTEC CITY OF	201 W CHACO	AZTEC	NM	87410	LESSEE	100.000000000

Serial Number: NMNM-- 0 048824

Mer	Twp	Rng	Sec	SType	Nr	Suff	Subdivision	District/ Field Office	County	Mgmt Agency
23	0300N	0110W	006	FF			PORTION OF LOT 14,15;	FARMINGTON FIELD OFFICE	SAN JUAN	BUREAU OF LAND MGMT
23	0300N	0110W	006	RSDL			N2SWSE,SWSWSE;	FARMINGTON FIELD OFFICE	SAN JUAN	BUREAU OF LAND MGMT
23	0300N	0110W	007	FF			PORTION OF LOT 5;	FARMINGTON FIELD OFFICE	SAN JUAN	BUREAU OF LAND MGMT

Serial Number: NMNM-- 0 048824

Relinquished / Withdrawn Lands

23	0300N	0110W	706	FF			13 RELQ;	FARMINGTON FIELD OFFICE	SAN JUAN	BUREAU OF LAND MGMT
23	0300N	0110W	707	FF			NWNWNE RELQ;	FARMINGTON FIELD OFFICE	SAN JUAN	BUREAU OF LAND MGMT

Serial Number: NMNM-- 0 048824

Act Date	Act Code	Action Txt	Action Remarks	Pending Office
08/01/1958	124	APLN RECD		
08/01/1959	543	SEGREGATION (MINERAL)	UNK;	
08/01/1959	544	SEGREGATION (SURFACE)	UNK;	
08/01/1959	552	LAND SEGREGATED		
01/09/1961	237	LEASE ISSUED		
02/11/1964	219	GROSS RCPT RPT RQSTD		
02/18/1964	218	GROSS RECEIPTS RPT RECD		
09/30/1965	219	GROSS RCPT RPT RQSTD		
10/25/1965	218	GROSS RECEIPTS RPT RECD		
04/25/1966	219	GROSS RCPT RPT RQSTD		
04/29/1966	218	GROSS RECEIPTS RPT RECD		
04/20/1967	219	GROSS RCPT RPT RQSTD		
04/26/1967	218	GROSS RECEIPTS RPT RECD		
04/22/1968	219	GROSS RCPT RPT RQSTD		
04/24/1968	218	GROSS RECEIPTS RPT RECD		
08/14/1970	219	GROSS RCPT RPT RQSTD		
09/10/1970	218	GROSS RECEIPTS RPT RECD		

06/22/1972	219	GROSS RCPT RPT RQSTD	
06/27/1972	218	GROSS RECEIPTS RPT RECD	
09/30/1974	219	GROSS RCPT RPT RQSTD	
10/04/1974	218	GROSS RECEIPTS RPT RECD	
02/21/1975	219	GROSS RCPT RPT RQSTD	
03/04/1975	218	GROSS RECEIPTS RPT RECD	
02/19/1976	218	GROSS RECEIPTS RPT RECD	
04/12/1976	219	GROSS RCPT RPT RQSTD	
11/08/1976	315	RENTAL RATE DET/ADJ	$47.00;1YR
01/04/1978	218	GROSS RECEIPTS RPT RECD	
01/13/1981	314	RENEWAL APLN FILED	
07/29/1981	242	LEASE RENEWED	
04/17/1986	219	GROSS RCPT RPT RQSTD	
05/05/1986	218	GROSS RECEIPTS RPT RECD	
09/08/1986	315	RENTAL RATE DET/ADJ	$317.00;1YR/87
12/23/1986	111	RENTAL RECEIVED	$317.00;1YR/87
11/18/1988	111	RENTAL RECEIVED	$317.00;1YR/88
12/09/1988	219	GROSS RCPT RPT RQSTD	
01/17/1989	111	RENTAL RECEIVED	$317.00;1YR/89
01/17/1989	218	GROSS RECEIPTS RPT RECD	
02/01/1989	379	REFUND AUTHORIZED	$317.00;
02/03/1989	315	RENTAL RATE DET/ADJ	$44.00;1YR/90
11/22/1989	974	AUTOMATED RECORD VERIF	EDC/JMV;
01/22/1991	111	RENTAL RECEIVED	$44.00;1YR/91
01/10/1992	111	RENTAL RECEIVED	$44.00;1YR/92
01/20/1993	950	COMPLIANCE APPROVED	
01/26/1993	111	RENTAL RECEIVED	$44.00;1YR/93
01/18/1994	111	RENTAL RECEIVED	$44.00;1YR/94
12/29/1994	111	RENTAL RECEIVED	$44.00;1YR/95
02/06/1996	111	RENTAL RECEIVED	$44.00;1YR/96
10/03/1997	111	RENTAL RECEIVED	$44.00;1YR/97
01/05/1998	111	RENTAL RECEIVED	$44.00;1YR/98
04/30/1998	219	GROSS RCPT RPT RQSTD	
06/15/1998	218	GROSS RECEIPTS RPT RECD	
06/16/1998	315	RENTAL RATE DET/ADJ	$10.00;
01/14/1999	111	RENTAL RECEIVED	$10.00;1YR/99
01/14/1999	111	RENTAL RECEIVED	$10.00;1YR/88BYE

12/21/1999	111	RENTAL RECEIVED	$10.00;1YR/00	
10/16/2000	474	NOTICE OF NONCOMPLIANCE	SHOW CAUSE;	
12/19/2000	314	RENEWAL APLN FILED		
04/03/2001	242	LEASE RENEWED	20 YRS;	
04/10/2001	111	RENTAL RECEIVED	$500.00;1YR/01	
05/16/2001	950	COMPLIANCE APPROVED		
12/10/2001	111	RENTAL RECEIVED	$500.00;/A/	
12/19/2002	111	RENTAL RECEIVED	$500.00;3	
01/02/2004	111	RENTAL RECEIVED	$500.00;1YR/04	
12/28/2004	111	RENTAL RECEIVED	$500.00;1YR/05	
11/21/2005	111	RENTAL RECEIVED	$500.00;1YR/06	
11/14/2006	111	RENTAL RECEIVED	$500.00;1YR/07	
11/08/2007	111	RENTAL RECEIVED	$500.00;1YR/08	
12/08/2008	111	RENTAL RECEIVED	$500.00;1YR/09	
11/17/2009	111	RENTAL RECEIVED	$500.00;1YR/10	
11/29/2010	111	RENTAL RECEIVED	$500.00;1YR/11	
01/20/2012	111	RENTAL RECEIVED	$500.00;1YR/12	
12/28/2012	111	RENTAL RECEIVED	$500.00;1YR/13	
12/02/2013	111	RENTAL RECEIVED	$500.00;1YR/14	
11/10/2014	111	RENTAL RECEIVED	$500.00;1YR/15	
01/09/2015	853	COMPL/REVIEW DUE DATE		MULTIPLE RESOURCES BRANCH
12/21/2015	111	RENTAL RECEIVED	$500.00;1YR/16	
12/21/2016	111	RENTAL RECEIVED	$500.00;1YR/17	
12/15/2017	111	RENTAL RECEIVED	$500.00;1YR/18	
01/01/2019	097	NEXT BILLING DATE		
01/09/2021	763	EXPIRES		

Serial Number: NMNM-- 0 048824

Line Number	Remark Text
0002	/A/$500 (2002) RENTAL ON 12-10-01 DID NOT TRANSFER;

Wendy M Renier

From: Mark Huntzinger <mhuntzinger@bhinc.com>
Sent: Thursday, August 30, 2018 11:19 AM
To: Wendy M Renier
Subject: RE: Aztec Airport (N19) BLM Lease

There does not appear to be a second lease. Kathy noted in her e-mail "The 2001 BLM lease agreement (forwarded in previous email) was a reduction in leased land from 156.93 acres to 11 acres (156 acres had been leased for 40 years). "

I'm looking at land acquisition now and trying to plot to see what's actually airport.

Kathy also forwarded correspondence on the transfer that included BLM.

Mark

Mark D. Huntzinger, PE NM, DE, and GU
Bohannan Huston
Direct line: 505.798.7853
voice: 505.823.1000 **facsimile:** 505.798.7988 **toll free:** 800.877.5332

From: Wendy M Renier <wmrenier@comcast.net>
Sent: Thursday, August 30, 2018 11:15 AM
To: Mark Huntzinger <mhuntzinger@bhinc.com>
Subject: RE: Aztec Airport (N19) BLM Lease

Thanks for copying me on this. I see that this lease expires in 2021 and is for 11 acres. Is there a second BLM lease?

Wendy M. Renier
720.833.1881

From: Mark Huntzinger <mhuntzinger@bhinc.com>
Sent: Thursday, August 30, 2018 10:56 AM
To: kwhitebull@blm.gov
Cc: mtilden@blm.gov; klamb@aztecnm.gov; Wallace Begay <wbegay@aztecnm.gov>; Wendy Renier (wmrenier@comcast.net) <wmrenier@comcast.net>; Dumas Slade <dslade@bhinc.com>
Subject: Aztec Airport (N19) BLM Lease

Katie,

Attached is the current lease between the BLM and City of Aztec.

We're requesting the legal description of sec. 6, portion of lots 14, I5, and sec. 7, portion of lot 5 that are listed.

As part of the Airport Layout Plan we need to show the land interests of the airport and without the legal descriptions we can't do that.

Thanks,

Mark

Mark D. Huntzinger, PE NM, DE, and GU
Project Manager Aviation
Bohannan Huston

p. 505.823.1000 | d. 505.798.7853 | c. 505.453.7075

Connect: bhinc.com | Facebook | LinkedIn | Twitter

Kathy Lamb

From: Beth Schatz [BSchatz@whpacific.com]
Sent: Monday, August 15, 2016 5:43 PM
To: Naranjo, Sarah
Cc: Scott Hall; Joshua Ray; Kathy Lamb; William Watson
Subject: Re: Aztec Municipal Airport Property Acquisition

Thanks Sarah!

Beth

On Aug 15, 2016, at 12:51 PM, Naranjo, Sarah <snaranjo@blm.gov> wrote:

> Beth,
>
> I've left you a copy of the documents you requested at front desk of the BLM Santa Fe office for you to pick up on Friday 9/19. Also I've request a copy of the environmental site assessment (ESA) for you. It should be ready by Friday 9/19. Please see Micheal in our Public room adjacent to the front desk. You'll have to pay for the copy of the ESA.
>
> I'm working on an outline for action items we (city of Aztec and BLM) needs to complete to transfer the property.
>
> Sarah
>
> On Tue, Aug 9, 2016 at 11:59 AM, Beth Schatz <BSchatz@whpacific.com> wrote:
>
> Sara,
>
> Thanks so much for taking time to meet with me regarding the land acquisition for the Aztec Municipal Airport.

As requested, I've attached for your files and reference the approved copy of the airport layout plan (ALP), the final determination from the FAA for the ALP, and a sketch showing the proposed property acquisition from the BLM. The proposed property acquisition is based on the future/ultimate airport configuration as shown on the ALP.

As we discussed, I would like to obtain copies of the current airport lease with the BLM and the documentation in regards to the status of the land acquisition from the BLM.

You also indicated you would provide guidance on the process for the City of Aztec to obtain the BLM property.

If you have any questions, please let me know.

Thanks again for your help with this matter.

Beth Schatz, PE*, PMP | Project Manager
WHPacific, Inc. | 6501 Americas Pkwy NE, Ste 400, Albuquerque, NM 87110
Direct 505.830.8754 | Mobile 214.502.5600 | Fax 505-242-4845 | bschatz@whpacific.com
*Licensed to practice in AZ, LA, NM, TX

--
Sarah Naranjo
Realty Specialist
(505) 954-2200
New Mexico State Office
301 Dinosaur Trail
P.O. Box 27115
Santa Fe, NM 87502-0115

Kathy Lamb

From: Naranjo, Sarah [snaranjo@blm.gov]
Sent: Monday, August 15, 2016 3:46 PM
To: Beth Schatz
Cc: shall@blm.gov; Joshua Ray; Kathy Lamb; William Watson
Subject: Re: Aztec Municipal Airport Property Acquisition

Beth,

Below is the BLM process for conveyance of an airport lease. I'm not sure exactly where the previous realty specialist left off in the process. I'll need to take a close look at the case file. Please let me know what items were complete on the City of Aztec's side then we can figure this out.

If you have any questions, I'll be back in the office at the end of this month. I'm able to check emails daily for now.

Sarah

Processing procedures

Sends request for conveyance to BLM Farmington District Office for determination by BLM Field Manager is conveyance would be inconsistent with BLM needs. FAA should include at least the following:

a. Agency Application – A copy of the public agency's application to the FAA for land under BLM administration

b. Evidence Document – a copy of the document evidencing the legal capability of the proposed grantee to acquire title to, or interests in land for airport purposes

c. FAA letter – FAA's letter approving the application and setting forth the FAA conditions to be made a part of the grant.

d. FAA National Environmental Policy Act (NEPA) determination – FAA's determination regarding the requested conveyance pursuant to Section 102(2)(C) of NEPA. This is usually based upon the applicant agency's NEPA assessment required with application for conveyance.

BLM Field Office

1. BLM receives the application package and check the application to see if all necessary documents have been submitted.

2. Prepare and determine the processing costs – applicant agency must reimburse BLM for all costs of processing the required conveyance.

3. Request processing cost from the applicant agency for payment.

Applicant Agency

1. Submit payment of processing fees to the BLM

BLM Field Office

1. Prepare a NEPA document and mineral report

    a. Consistency with resource management plan (RMP)

    b. If the subject area is within a grazing allotment, if the Field Manager recommended decision is to approve the request for conveyance, immediately give the grazing user(s) their 2 year notice and try to get a waiver.

2. Make a recommendation and send casefile to the BLM New Mexico State Office

BLM New Mexico State Office

1. Review the NEPA document and the Field Office recommendation

2. Prepare Notice of Realty Action (NORA) in accordance with CFR 2641.3.

    a. Segregation

        i. .NORA may segregate the lands or interests to be conveyed from appropriation under the public land laws including the mining laws from the date of publication in the federal register.

        ii. Segregated for 1 year.

        iii. Lands covered by an airport grant remain open to the operation of the mineral leasing laws, the material disposal laws and the Geothermal Steam Act.

3. Publish NORA in Federal Register and in local newspaper providing for public comment period of 45 days from the date the NORA is published. Applicant agency is responsible for these publication costs which are charged to the reimbursable account established for the case.

4. Review and address comments and protests to NORA.

5. Prepare letter of determination of FAA stating that transfer of the land is consistent with the needs of the Department of the Interior or that transfer of the lands is inconsistent with the needs of the Department.

a. The terms, covenants, conditions, and reservation to be included in the conveyance.

b. Responses to comments made on the NORA

6. Send letter of determination of the following:

a. FAA Regional Airport Division Manager

b. Applicant Public Agency

c. Any party who commented on or expressed an interest in the request for conveyance.

7. Prepare airport patent package

a. Authorized Officer's letter from the BLM to the Field Solicitors transmitting the airport patent package and requesting approval of the conveyance.

b. Agency application – a copy of the public agency's application to FAA for land under BLM administration

c. Evidence document - a copy of the document evidencing the legal capability of the propose grantee to acquire title to or interest in land for airport purpose.

d. FAA letter – a copy of the FAA letter approving the application and setting forth the FAA conditions to be made a part of the grant.

e. FAA determination – a copy of the FAA determination pursuant to Section 102(2)(C) of NEPA.

f. BLM determination – a copy of the BLM letter of determination to the FAA that transfer of the land is consistence or inconsistence with the needs of the BLM.

g. Patent – original patent to the application agency, signed, dated, but not numbered and stamped.

Department of Justice - Field Solicitors

1. Approves conveyance

2. Sends patent package back to BLM New Mexico State Office for patent stamping and dating.

BLM New Mexico State Office

1. Check reimbursable project account balance.

2. Deliver airport patent to applicant agency.

3. Send a copy of airport patent to FAA Regional Airports Division Manager.

On Tue, Aug 9, 2016 at 11:59 AM, Beth Schatz <BSchatz@whpacific.com> wrote:

Sara,

Thanks so much for taking time to meet with me regarding the land acquisition for the Aztec Municipal Airport.

As requested, I've attached for your files and reference the approved copy of the airport layout plan (ALP), the final determination from the FAA for the ALP, and a sketch showing the proposed property acquisition from the BLM. The proposed property acquisition is based on the future/ultimate airport configuration as shown on the ALP.

As we discussed, I would like to obtain copies of the current airport lease with the BLM and the documentation in regards to the status of the land acquisition from the BLM.

You also indicated you would provide guidance on the process for the City of Aztec to obtain the BLM property.

If you have any questions, please let me know.

Thanks again for your help with this matter.

Beth Schatz, PE*, PMP | Project Manager
WHPacific, Inc. | 6501 Americas Pkwy NE, Ste 400, Albuquerque, NM 87110
Direct 505.830.8754 | Mobile 214.502.5600 | Fax 505-242-4845 | bschatz@whpacific.com
*Licensed to practice in AZ, LA, NM, TX

Enhancing Client Satisfaction through Creative, Exceptional Service
NMSDC Certified MBE/CPUC Certified MBE

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Sarah Naranjo
Realty Specialist
(505) 954-2200
New Mexico State Office
301 Dinosaur Trail
P.O. Box 27115
Santa Fe, NM 87502-0115

Boccia Titanium **Boccia Titanium Watch 3555-01**

Re: land transfer for N19

From: "Summer.Guerrero@faa.gov" <Summer.Guerrero@faa.gov>

To: "mike arnold" <mike60571@yahoo.com>

Cc: klamb@aztecnm.gov "Lucero Jane NMDOT" <Jane.Lucero@state.nm.us> steve.summe

Mike,

I finally got a hold of Scott at BLM. He said he is aware of the situation and the land transfer for Aztec has not been able to get to it because he has several other land transfers to do and he has no help. H help him. He also said you submitted everything he needs and it is on his court now.

Scott Hall
Land Team Lead

Farmington Field Office
6251 College Blvd. Suite A
Farmington, New Mexico 87402
Office: (505) 564-7721 Fax: (505) 567-7608
Cell: (505) 793-0370
Email: shall@blm.gov

BUREAU OF LAND MANAGEMENT

BLM

Here is the info. for the BLM person at the Farmington office Scott Hall- land team lead-o cell#505/793/0370 Email shall@blm.gov I talked to him about this today so he is awa land transfer.

October 24, 2006

Bureau of Land Management - Farmington
Steve Henke Director
Attn: Mary Jo Albin
1235 La Plata Hiway
Farmington, NM 87401

RE: Aztec Airport Land Patent

Dear Ms. Albin:

Pursuant to our telephone conversation today please accept this letter as a formal request from the City of Aztec asking for a land patent. The land parcel the City of Aztec is asking conveyance of is identified in the current public airport lease serial number NMNM 048824.

The City of Aztec intends to continue using this land for a general aviation airport, whose management is in the process of asking for federal funding. The land patent will greatly enhance the possibility of acquiring the needed funds to facilitate upgrades and repairs to the runways, lighting infrastructure, and airport buildings.

Thank you for your immediate attention to this matter as current airport management is pursuing federal funding in the 2007-2008 funding cycle. If you have any questions please call me at (505) 334-7606.

Respectfully,

David Velasquez
Manager, City of Aztec

Airport / BLM / 2006-1024 Land Patent Request

201 West Chaco • Aztec, New Mexico 87410 • (505) 334-7600 • Fax: (505) 334-7609
www.aztecnm.com

Bureau of Land Management
Farmington Field Office
1235 La Plata Highway, Suite A
Farmington, NM 87401
Fax: (505) 599-8999

FAX

Number of pages including this cover (11)

Date: 10-24-06

To ===>>

Person: David Velalquez

Company: _____

Fax Number: 334-7602

From: Mary Jo Alvis BLM

Message: I'm faxing the BLM document sent in its entirety, but the patenting info begins on page 6 HandOut 2 (this document was from a training class which I did not attend).

LESSON PLAN

FEDERAL AVIATION ADMINISTRATION AIRPORT GRANTS

REALTY ACADEMY - MODULE 2

Time	Discussion
1-5 min.	I. Authority
	A. Previous Statutes
	1. Federal Airport Act of May 13, 1946, 60 Stat. 179, repealed
	2. Airport and Airway Development Act of 1970, 84 Stat. 232, repealed
	B. Present Statute
	1. Airport and Airway Improvement Act of September 3, 1982, Section 516, 49 U.S.C. 2215
	C. Regulation
	1. BLM - 43 CFR 2640
	2. FAA - 14 CFR 153 and 154
	D. Manual
	1. BLM Manual 2640 - Airport Patents, obsolete
5-7 min.	II. Qualified Applicants
	A. Any public agency as defined in 14 CFR 154.3:
	"A state, Puerto Rico, the Virgin Islands, American Samoa, the Trust Territory of the Pacific Islands, Guam, or the District of Columbia, any agency of any of them, a municipality or other political subdivision, a tax-supported organization, or an Indian tribe or pueblo..."

8-12 min.

III. Lands or Interests in Lands Subject to Conveyance

A. Surveyed or unsurveyed lands or interests in lands EXCEPTING:

1. National Park System - Federal lands within the National Parks, National Monuments, National Recreation Areas, or similar areas under the administration of the National Park Service.

2. National Wildlife Refuge System - Federal lands within any unit of the National Wildlife Refuge System or similar area under the jurisdiction of the U.S. Fish and Wildlife Service.

3. National Forest System - Federal lands within any National Forest or other lands and interests administered by the Forest Service.

4. Indian Reservations - Indian Reservation lands.

5. Wilderness Areas - Federal lands within any area designated part of the National Wilderness Preservation System or any designated wilderness study area.

13-45 min.

IV. Processing Procedures

A. Applicant Public Agency

Files request for conveyance in quadruplicate with FAA Regional Airports Division Manager (14 CFR 154.5 and .7)

B. Regional Airports Division Manager

1. Reviews request for conveyance and determines whether applicant is eligible and a conveyance is proper (14 CFR 154.9)

2. Sends request for conveyance to BLM State Office for determination by BLM authorized officer if conveyance would be inconsistent with BLM needs. FAA SHOULD INCLUDE AT LEAST THE FOLLOWING:

a. Agency Application - A copy of the public agency's application to the FAA for land under BLM administration.

b. Evidence Document - A copy of the document evidencing the legal capability of the proposed grantee to

acquire title to, or interests in land for airport purposes (resolution).

c. FAA Letter - FAA's letter approving the application and setting forth the FAA conditions to be made a part of the grant.

d. FAA NEPA Determination - FAA's determination regarding the requested conveyance pursuant to Section 102(2)(C) of NEPA. This is usually based upon the applicant agency's NEPA assessment required with application for conveyance.

NOTE: FAA Order 51-70.1 states that FAA has the responsibility to ensure that NEPA is adequate. They sign the FONSI and make the decision. BLM is a cooperator (14 CFR 154.7(b)(14)).

C. BLM State Office

NOTE: Airport patents issued under the Airport and Airway Improvements Act of 1982 has been delegated from the Director to State Directors. Check your State Supplement to 1203 to see if further delegated.

1. Date-time stamp application - BLM has 4 months from the date of receipt to notify FAA of its determination on its request for conveyance.

2. Serialize application - LR2000 input.

3. Check application to see if all necessary documents have been submitted.

4. Prepare processing cost estimate - Applicant agency must reimburse BLM for all costs of processing the requested conveyance.

5. Send or deliver processing cost estimate to applicant public agency requesting payment. Use certified mail/return receipt or obtain a signed confirmation if hand delivered to applicant.

D. Applicant Public Agency

1. Submits payment of estimated processing cost to BLM.

E. BLM State Office

1. Establish reimbursable account under Subactivity 5440. A project code must be assigned to the case. All work performed on request for conveyance is charged to this project code.

2. Send case to appropriate Field Office for EA. BLM can be a cooperator with FAA or can do a supplement. NOTE: The applicant agency usually contracts for the EA with BLM review and acceptance after FAA review and acceptance.

F. Field Office

1. Prepare a NEPA document and Mineral Report

a. Consistency with land use planning

b. Authorized Grazing Use, Section 402(g) of FLPMA - If the AO recommended decision is to approve the request for conveyance, immediately give the grazing user(s) their "2 years" notice and try to get a waiver. This will minimize potential delay in approval of the conveyance should a permittee/lessee not waive such notification.

2. Make recommendation and return file to SO.

G. BLM State Office

1. Review EA and FO recommendation.
2. Prepare Notice of Realty Action in accordance with 43 CFR 2641.3.

a. Segregation

1. The NORA may segregate the lands or interests to be conveyed from appropriation under the public land laws, including the mining laws, from date of publication in the Federal Register. (43 CFR 2641.3)

2. Segregation is for one year. Conflict with 2641.3(b) and 2091.4-2(a) as to termination upon issuance of patent.

3. Lands covered by an airport grant remain open to the operation of the mineral leasing laws, the material disposal laws and the Geothermal Steam Act.

3. Publish NORA in Federal Register and in a newspaper of general circulation in the area in which the lands are located providing for public comment period of 45 days from the date the NORA is published. Applicant agency is responsible for these publication costs which are charged to the reimbursable account established for the case.

43 CFR does not require further distribution of the NORA than publication in the FR and in a newspaper. It should at least be sent to the applicant public agency and to FAA. For consistency with public notification procedures for other lands actions, the NORA should be sent to interested third parties including, but not limited to, existing authorized land and resource users and adjoining land owners.

4. Review comments and protests to NORA

a. Comments and protests can be acknowledged in the Letter of Determination, if appropriate, or acknowledged with a separate response.

b. If , as a result of a comment or protest, the decision to approve the conveyance is modified, the NORA may have to be amended. If the determination to approve the conveyance is reversed, the request for conveyance will be denied by the Letter of Determination.

5. Prepare Letter of Determination to FAA stating that transfer of the land is not inconsistent with the needs of the Department of the Interior, OR, that transfer of the lands is inconsistent with the needs of the Department. The Letter of Determination should include:

a. The terms, covenants, conditions, and reservations to be

included in the conveyance.

b. Responses to comments made on the NORA.

Handout #1

6. Send Letter of Determination to the following:

a. FAA Regional Airports Division Manager.

b. Applicant Public Agency.

c. Any party who commented on or expressed an interest in the request for conveyance.

7. Check the applicant public agency's reimbursable account to determine the balance of funds remaining to complete the conveyance. You probably will not have a final total of reimbursable expenditures until some time after the conveyance is made. If the deposit balance is low, estimate what additional funds will be needed to complete the conveyance and request a supplemental deposit from the applicant agency. Advise the agency that any remaining funds will be refunded and give an estimated time they can expect to receive the refund.

8. Prepare airport patent package. Patent package includes:

Handout #2

a. Authorized Officer's Letter - Letter from the BLM AO to the Assistant Attorney General, Environment and Natural Resources Division, Department of Justice, transmitting the airport patent package and requesting approval of the conveyance.

b. Agency Application - A copy of the public agency's application to FAA for land under BLM administration.

c. Evidence Document - A copy of the document evidencing the legal capability of the proposed grantee (applicant public agency) to acquire title to, or interest in, land for airport purposes. (This document is required by 14 CFR 154.7 as part of the request for conveyance submitted to FAA).

d. FAA Letter - A copy of the FAA letter approving the application (request for conveyance) and setting forth the FAA conditions to be made a part of the grant.

e. FAA Determination - A copy of the FAA determination

pursuant to Section 102(2)(C) of NEPA.

f. BLM Determination - A copy of the BLM Letter of Determination to the FAA that transfer of the land is not inconsistent with the needs of the Department of the Interior.

g. Patent - The original of the patent to the applicant public agency, signed and dated, but not numbered and stamped.

H. Assistant Attorney General, DOJ

1. Approves conveyance - signs and dates original of airport patent on approval space.

2. Sends Patent Package back to BLM originating office for patent stamping and numbering

I. BLM State Office

1. Check reimbursable project account balance. If there are outstanding charges, verify that they will be covered by the remaining funds in the account. If not, request the deficit from the applicant agency.

2. Deliver airport patent to applicant public agency.

3. Send copy of airport patent to FAA Regional Airports Division Manager.

4. Refund unused funds from reimbursable account after several months and account has cleared.

45-50 min. V. Compliance

A. Reversionary provisions

1. Federal Airport Act of May 13, 1946 provides:

> ".... each such conveyance shall be made on the condition that the property interest conveyed shall automatically revert to the United States in the event that the lands in question are not developed, or cause to be used, for airport purposes." NOTE: "shall revert" means at the option of the Administrator.

2. Airport and Airway Development Act of 1970 and Airport and Airway Improvement Act of 1982 provide:

> "A conveyance may be made only on the condition that, at the option of the Secretary (of Transportation), the property shall revert to the United States in the event that the lands in question are not developed for airport purposes or used in a manner consistent with the terms of the conveyance. If only a part of the property interest conveyed is not developed for airport purposes, or used in a manner consistent with the terms of the conveyance, only that particular part shall at the option of the Secretary, revert to the United States."

B. Administration of Airport Grants

1. FAA has administrative jurisdiction over lands and interests conveyed by the airport grant.

2. BLM role is normal compliance checks and reporting any inconsistencies to FAA.

50-55 min. VI. Questions

56-60 min. VII. Quiz

Form 1310-20
(August 2002)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

PROJECT/SUBPROJECT NUMBER ASSIGNMENT AND INFORMATION FORM

SEE INSTRUCTIONS ON NEXT PAGE

☐ For Real Property and Software Projects, Route to BC-653

☐ For All Other Projects, Route to BC-612

1. Submission: ☐ Original ☐ Revision	2. Program(s) (Subactivity): _____ _____ _____ _____	3. Project Number: _____	4. Subproject Number: _____	5. Real Property Number (if needed): R_____
6. Case File Number:	7. Submission Date: / /	8. Project Name: _____ Subproject Name: _____		9. Land Purchase? ☐ Yes ☐ No

10. Description of Project:

11. Applicant/Vendor's Name: _____
Applicant's Address: _____
_____
Applicant's Phone Number: _____

12. Organization Code of Lead Office: _____

13. Organization Codes of Other Offices Charging to the Project/Subproject: _____ _____ _____ _____
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

14a. Estimated Start Date: / /	14b. Estimated Completion Date: / /	15. Estimated Project Total Cost: $	16. Estimated Subproject Total Cost: $

17. Project Manager's Name: _____
Project Manager's Phone Number: _____
Project Manager's Organization Code: _____
Field Office Contact: _____ Field Office Contact Phone Number: _____

TRUST FUND PROJECTS (Program 7122) MAY BE AUTHORIZED AN INDIRECT COST RATE OTHER THAN THE ANNUAL PREVAILING RATE

18. Exception Indirect Cost Rate: _____ % 19. Under the authority of: _____
20. Approving Officer's Name (Print): _____
21. Approving Officer's Signature: _____
22. Title: _____ Date: / /

FOR NATIONAL BUSINESS CENTER BC-612 USE ONLY

23. Entry: ☐ DMPT ☐ PROJ ☐ SPRJ ☐ FPCA ☐ PROJEDIT
24. Vendor Number: _____
25. Real Property Number: _____
26. Software Number: _____
27. Input by: _____ Date: / /

28. Retained by: Requesting Office, State/Washington Office Budget

INSTRUCTIONS

Ensure that proper routing is checked before beginning form.

1. Indicate with a Check Mark if this is a first submission or a revision.
2. Identify the program(s)/subactivity(s) for this project.
3. List the Project Number assigned.
4. List the Subproject Number assigned.
5. To be assigned by Real Property (BC-653) if project is estimated to be a capitalized real property site.
6. Number assigned to the case file.
7. List the date this request was submitted.
8. Identify the name of the project/subproject.
9. Indicate with a Check Mark whether or not land is being purchased for this project. Two 1310-20 forms must be submitted when land is being purchased, one for the land and one for construction, using the same project number for both.
10. Briefy describe nature/scope of project.
11. List the name, address and phone number of the applicant/vendor involved in the project.
12. Identify the organization code of the office having lead responsibilities for this project/subproject.
13. Identify the other organizations which will be allowed to charge costs to this project/subproject.

14a. List the estimated start date for this project/subproject.

14b. List the estimated completion date for this project/subproject.

15. List the estimated total cost for this project.
16. List the estimated total cost for this subproject.
17. List the Project Manager's name, telephone number, and organization code.
18. Enter the approved exception indirect cost rate.
19. Enter property authority.
20. Print the approving official's name. (The State Director)
21. Signature of approving official.
22. Title of approving official and the date signed.
23. For Business Center Accounting use.
24. For Business Center Accounting use.
25. For Business Center Accounting use.
26. For Business Center Accounting use.
27. For Business Center Accounting use.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington Field Office
1235 La Plata Highway, Suite A
Farmington, New Mexico 87401

IN REPLY REFER TO:
NMNM 048824
2911 (07200-bs)

August 14, 2001

DECISION

City Manager City of Aztec 201 West Chaco Aztec, NM 87410	:	NMNM 048824 Airport Lease

Airport Lease NMNM 048824 Renewed
Acreage Reduced

Enclosed is a copy of airport lease NMNM 048824 dated April 3, 2001 and renewed by the Bureau of Land Management effective January 9, 2001, expiration date of original lease. The lease was renewed pursuant to the Act of May 24, 1928, as amended (49 U.S.C. 211-214), and expires on January 9, 2021, with the right to renew.

The original lease was issued for 156.93 acres. Per the City's request, the renewed airport lease was reduced by 145.93 acres and now contains 11 acres, more or less.

Annual rental in the amount of $500.00, agreed to by the City of Aztec, was received for this lease April 3, 2001, for one year rental from January 9, 2001 thru January 8, 2002. The rental for this lease is subject to an appraisal within the next five years. The next rental due date is January 9, 2002

If you have any questions concerning this decision, please contact me at (505) 599-6339.

Barbara Smith
Acting Lands Team Lead

Enclosure

Form 2910-1
(December 1988)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Serial Number

NMNM 048824 (Renewal)

PUBLIC AIRPORT LEASE

This indenture of lease, entered into this 3rd day of April, 2001, by and between the UNITED STATES OF AMERICA, hereinafter called lessor, acting in this behalf by the

City of Aztec
201 West Chaco
Aztec, New Mexico 87401

and

hereinafter called lessee, under, pursuant, and subject to the terms and conditions of the Act of May 24, 1928, as amended, (49 U.S.C. 211-214) and the regulations thereunder (43 CFR 2911):

WITNESSETH:

Sec. 1. That lessor, in consideration of rents to be paid and covenants to be observed, as herein set forth, does hereby grant and lease to lessee the exclusive right and privilege of maintaining an airport on the following-described land, to-wit:

EXISTING

T. 30 N., R. 11 W., NMPM, San Juan County, New Mexico
sec. 6, portion of lots 14, 15,
N½SW¼SE¼, and SW¼SW¼SE¼.
sec. 7, portion of lot 5.

containing approximately 11 (eleven) acres, together with the right to construct and maintain all buildings or other improvements necessary as an airport for the accommodation of the public for a period of 20* years and, if at the end of said period lessor shall determine that a new lease should be granted, lessee will be accorded a perference right thereto upon such terms and for such duration as may be fixed by lessor. *(expiring January 9, 2021)

Sec. 2. For and in consideration of the foregoing, lessee hereby agrees:

(a) To establish a public airport on said tract and to maintain such airport during the life of this lease.

(b) To pay lessor, each year in advance, the annual rental required under Sec.3(a) of this lease.

(c) To complete the construction facilities for service, fuel, and other supplies necessary to make the land available for public use as an airport within one (1) year from date of this lease.

(d) To keep the airport equipped and maintained, at all times, in accordance with the requirements made by the Federal Aviation Administration.

(e) That all departments and agencies of the United States operating aircraft shall have free and unrestricted use of the airport. With approval of lessor, any department or agency shall have the right to erect and install such structures and improvements deemed advisable, including facilities for maintaining supplies of fuel, oil, and other materials for operating aircraft.

(f) That whenever the President deems it necessary for military purposes, the Secretary of Defense may assume full control of the airport.

(g) Not to allow use of the premises included in this lease for unlawful purposes or for any purpose not in harmony with use as an airport.

(h) That authorized representatives of lessor or the Federal Aviation Administration shall, at any time, have the right to enter the leased premises for the purpose of inspection and shall have free access to records of operations under authority of this lease.

(i) Not to assign or sublet this lease without consent of lessor, and to submit for consideration all assignments made, subject to lessor's approval.

(j) To submit to the Federal Aviation Administration, for its approval, regulations to govern the use of the airport.

(k) *Equal Opportunity clause.* During the performance of this contract, the lessee agrees as follows:

(1) The lessee will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The lessor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The lessee agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this Equal Opportunity clause.

(2) The lessee will, in all solicitations or advertisements for employees placed by or on behalf of the lessee, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

(3) The lessee will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer,

Form 2910-1
(June 1975)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
RENEWAL
PUBLIC AIRPORT LEASE

RECEIVED
BLM MAIL ROOM
Jul 10 8 53 AM '81
STATE OFFICE
SANTA FE, N. MEX.

Serial Number
NM 048824

NOTED
11/12/81
AM
MEP
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GEO
MC

This indenture of lease, entered into this 29th day of July, 1981, by and between the UNITED STATES OF AMERICA, hereinafter called lessor, acting in this behalf by the

City of Aztec
201 West Chaco
Aztec, New Mexico 87410

and hereinafter called lessee, under, pursuant, and subject to the terms and conditions of the Act of May 24, 1928, as amended, (49 U.S.C. 211-214) and the regulations thereunder (43 CFR 2911):

WITNESSETH:

Sec. 1. That lessor, in consideration of rents to be paid and covenants to be observed, as herein set forth, does hereby grant and lease to lessee the exclusive right and privilege of maintaining an airport on the following-described land, to-wit: T. 30 N., R. 11 W., N. Mex. Prin. Mer., New Mexico
sec. 6, S½ of lots 13 and 14, lot 15, N½SW¼SE¼ and SW¼SW¼SE¼;
sec. 7, lot 5 and NW¼NW¼NE¼.

former lease and current proposal area

containing approximately 156.93 acres, together with the right to construct and maintain all buildings or other improvements necessary as an airport for the accommodation of the public for a period of 20* years and, if at the end of said period lessor shall determine that a new lease should be granted, lessee will be accorded a perference right thereto upon such terms and for such duration as may be fixed by lessor. *(expiring 1/9/2001)

Sec. 2. For and in consideration of the foregoing, lessee hereby agrees:

(a) To establish a public airport on said tract and to maintain such airport during the life of this lease.

(b) To pay lessor, each year in advance, the annual rental required under Sec.3(a) of this lease.

(c) To complete the construction facilities for service, fuel, and other supplies necessary to make the land available for public use as an airport within six (6) months from date of this lease.

(d) To keep the airport equipped and maintained, at all times in accordance with the requirements made by the Federal Aviation Administration.

(e) That all departments and agencies of the United States operating aircraft shall have free and unrestricted use of the airport. With approval of lessor, any department or agency shall have the right to erect and install such structures and improvements deemed advisable, including facilities for maintaining supplies of fuel, oil, and other materials for operating aircraft.

(f) That whenever the President deems it necessary for military purposes, the Secretary of Defense may assume full control of the airport.

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CITY OF AZTEC 303 S Ash, AZTEC NM 87410

FAX

Date: Feb 21 2007
Number of pages including cover sheet: 3

To:
Dumas Slade
ASCG, Inc
Phone:
Fax phone: 505-242-4845
CC:

From:
Laurie Martinez
City of Aztec
Phone: 505-334-7663
Fax phone: 505-334-7669

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please comment

Aztec Airport Legal Description From BLM, For Your Info.

Note:
Pages 1 and 2 of this document were faxed to ASCG by Laurie Martinez on February 21, 2007under cover of this page. ASCG already had a copy of Page 1 that is slightly easier to read (see Page 4). Page 5 appears to be a blank copy of Page 4.

Form 2910–1
(December 1988)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Serial Number

NMNM 048824 (Renewal)

PUBLIC AIRPORT LEASE

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T. 30 N., R. 11 W., NMPM, San Juan County, New Mexico
sec. 6, portion of lots 14, 15,
N½SW¼SE¼, and SW¼SW¼SE¼.
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(c) To complete the construction facilities for service, fuel, and other supplies necessary to make the land available for public use as an airport within one (1) year from date of this lease.

(d) To keep the airport equipped and maintained, at all times, in accordance with the requirements made by the Federal Aviation Administration.

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Form 2910–1
(December 1988)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Serial Number

NMNM 048824

PUBLIC AIRPORT LEASE

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and

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Appendix B

Airport Development History/Grants

Capital Improvement Program Report

New Mexico Department of Transportation - Aviation Division
AZTEC MUNICIPAL
Report Filter - Types: All, Statuses: Closed

All Projects

Year	Project Name	Status		FAA	State	Local	Total
1998							
	Slurry Seal and Re-stripe Runway	Closed		0.00	56,980.00	5,554.00	$62,534.00
			SubTotal:	$0.00	$56,980.00	$5,554.00	$62,534.00
2005							
	Hangar access and drainage improvements	Closed		0.00	54,000.00	6,000.00	$60,000.00
			SubTotal:	$0.00	$54,000.00	$6,000.00	$60,000.00
2006							
	Airport Action Plan	Closed		0.00	31,578.00	789.00	$32,367.00
			SubTotal:	$0.00	$31,578.00	$789.00	$32,367.00
2008							
	Q19-07-001 Weed control on city airport property	Closed		0.00	1,980.00	220.00	$2,200.00
			SubTotal:	$0.00	$1,980.00	$220.00	$2,200.00
2009							
	Q19-09-001 Herbicide Spraying	Closed		0.00	1,500.00	150.00	$1,650.00
			SubTotal:	$0.00	$1,500.00	$150.00	$1,650.00
2010							
	N19-10-001 - Design Only 8/26 Reconstruct	Closed		166,184.00	4,373.00	4,373.00	$174,930.00
	N19-10-002 - Reconstruct Runway 8-26	Closed		1,302,355.00	51,168.00	34,272.00	$1,387,795.00
			SubTotal:	$1,468,539.00	$55,541.00	$38,645.00	$1,562,725.00
2013							
	N19-13-01 Reconstruct Terminal Apron, Phase 1 - design	Closed		135,000.00	7,500.00	7,500.00	$150,000.00
			SubTotal:	$135,000.00	$7,500.00	$7,500.00	$150,000.00
2014							
	N19-14-01 Annual Maintenance Grant – State Only	Closed		0.00	3,996.00	444.00	$4,440.00

Year	Project Name	Status		FAA	State	Local	Total
			SubTotal:	$0.00	$3,996.00	$444.00	$4,440.00
2015							
	N19-15-01 MAINTENANCE GRANT	Closed		0.00	7,814.00	868.00	$8,682.00
	N19-15-02 NEW FUEL FARM	Closed		0.00	180,000.00	20,000.00	$200,000.00
			SubTotal:	$0.00	$187,814.00	$20,868.00	$208,682.00
2016							
	N19-16-02 Annual Maintenance Grant – State Only	Closed		0.00	10,000.00	1,111.00	$11,111.00
	N19-16-03 Reconstruct Apron-Design Only	Closed		0.00	63,941.00	7,105.00	$71,046.00
			SubTotal:	$0.00	$73,941.00	$8,216.00	$82,157.00
2017							
	N19-17-01 Reconstruct Terminal Apron, Phase 2 - construction	Closed		600,000.00	66,962.00	66,962.00	$733,924.00
			SubTotal:	$600,000.00	$66,962.00	$66,962.00	$733,924.00
2018							
	N19-18-01 Annual Airport Maintenance	Closed		0.00	4,950.00	550.00	$5,500.00
	N19-18-02 - RWY 8-26 LIGHTING & VISUAL AIDS -PH 1 DESIGN & DBE UPDATE	Closed		114,766.00	6,276.00	6,276.00	$127,318.00
			SubTotal:	$114,766.00	$11,226.00	$6,826.00	$132,818.00
2019							
	N19-19-02 - RWY 8-26 LIGHTING & VISUAL AIDS - PHASE 2 - CONSTRUCTION	Closed		540,000.00	30,000.00	30,000.00	$600,000.00
			SubTotal:	$540,000.00	$30,000.00	$30,000.00	$600,000.00
All Projects				$2,858,305.00	$583,018.00	$192,174.00	$3,633,497.00

Appendix C

USFWS T&E Species for New Mexico

Listed species believed to or known to occur in New Mexico

Notes:

- **As of 02/13/2015 the data in this report has been updated to use a different set of information. Results are based on where the species is believed to or known to occur. The FWS feels utilizing this data set is a better representation of species occurrence. Note: there may be other federally listed species that are not currently known or expected to occur in this state but are covered by the ESA wherever they are found; Thus if new surveys detected them in this state they are still covered by the ESA. The FWS is using the best information available on this date to generate this list.**
- This report shows listed species or populations believed to or known to occur in New Mexico
- This list does not include experimental populations and similarity of appearance listings.
- This list includes species or populations under the sole jurisdiction of the National Marine Fisheries Service.
- Click on the highlighted scientific names below to view a Species Profile for each listing.

Listed species -- 53 listings

Animals -- 40 listings

Status	Species/Listing Name
E	Amphipod, diminutive Wherever found (*Gammarus hyalleloides*)
E	Amphipod, Noel's Wherever found (*Gammarus desperatus*)
E	Bat, Mexican long-nosed Wherever found (*Leptonycteris nivalis*)
T	Chub, Chihuahua Wherever found (*Gila nigrescens*)
E	Chub, Gila Wherever found (*Gila intermedia*)
T	Cuckoo, yellow-billed Western U.S. DPS (*Coccyzus americanus*)

Status	Species/Listing Name
E	Ferret, black-footed Wherever found, except where listed as an experimental population (*Mustela nigripes*)
E	Flycatcher, southwestern willow Wherever found (*Empidonax traillii extimus*)
T	Frog, Chiricahua leopard Wherever found (*Rana chiricahuensis*)
E	Gambusia, Pecos Wherever found (*Gambusia nobilis*)
T	gartersnake, narrow-headed Wherever found (*Thamnophis rufipunctatus*)
T	gartersnake, northern Mexican Wherever found (*Thamnophis eques megalops*)
E	Hornshell, Texas Wherever found (*Popenaias popeii*)
E	Isopod, Socorro Wherever found (*Thermosphaeroma thermophilus*)
E	Jaguar Wherever found (*Panthera onca*)
T	Lynx, Canada Wherever Found in Contiguous U.S. (*Lynx canadensis*)
E	Minnow, loach Wherever found (*Tiaroga cobitis*)
E	Minnow, Rio Grande Silvery Wherever found, except where listed as an experimental population (*Hybognathus amarus*)
E	Mouse, New Mexico meadow jumping Wherever found (*Zapus hudsonius luteus*)
T	Owl, Mexican spotted Wherever found (*Strix occidentalis lucida*)
E	Pikeminnow (=squawfish), Colorado Wherever found, except where listed as an experimental population (*Ptychocheilus lucius*)
T	Plover, piping [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. (*Charadrius melodus*)
T	Rattlesnake, New Mexican ridge-nosed Wherever found (*Crotalus willardi obscurus*)
E	Salamander, Jemez Mountains Wherever found (*Plethodon neomexicanus*)
T	Shiner, Arkansas River Arkansas River Basin (AR, KS, NM, OK, TX) (*Notropis girardi*)
T	Shiner, beautiful Wherever found (*Cyprinella formosa*)

Status	Species/Listing Name
T	Shiner, Pecos bluntnose Wherever found (*Notropis simus pecosensis*)
E	Snail, Pecos assiminea Wherever found (*Assiminea pecos*)
E	Spikedace Wherever found (*Meda fulgida*)
E	Springsnail, Alamosa Wherever found (*Tryonia alamosae*)
E	Springsnail, Chupadera Wherever found (*Pyrgulopsis chupaderae*)
E	Springsnail, Koster's Wherever found (*Juturnia kosteri*)
E	Springsnail, Roswell Wherever found (*Pyrgulopsis roswellensis*)
E	Springsnail, Socorro Wherever found (*Pyrgulopsis neomexicana*)
E	Sucker, razorback Wherever found (*Xyrauchen texanus*)
E	Sucker, Zuni bluehead Wherever found (*Catostomus discobolus yarrowi*)
E	Tern, least interior pop. (*Sterna antillarum*)
E	Topminnow, Gila (incl. Yaqui) Wherever found (*Poeciliopsis occidentalis*)
T	Trout, Gila Wherever found (*Oncorhynchus gilae*)
E	Wolf, Mexican Wherever found, except where listed as an experimental population (*Canis lupus baileyi*)

Plants -- 13 listings

Status	Species/Listing Name
E	Cactus, Knowlton's (*Pediocactus knowltonii*)
T	Cactus, Kuenzler hedgehog (*Echinocereus fendleri var. kuenzleri*)
T	Cactus, Lee pincushion (*Coryphantha sneedii var. leei*)
T	Cactus, Mesa Verde (*Sclerocactus mesae-verdae*)
E	Cactus, Sneed pincushion (*Coryphantha sneedii var. sneedii*)
T	Fleabane, Zuni (*Erigeron rhizomatus*)
E	Ipomopsis, Holy Ghost (*Ipomopsis sancti-spiritus*)

Status	**Species/Listing Name**
E	Milk-vetch, Mancos (*Astragalus humillimus*)
E	Pennyroyal, Todsen's (*Hedeoma todsenii*)
E	Poppy, Sacramento prickly (*Argemone pleiacantha ssp. pinnatisecta*)
T	Sunflower, Pecos (=puzzle, =paradox) (*Helianthus paradoxus*)
T	Thistle, Sacramento Mountains (*Cirsium vinaceum*)
T	Wild-buckwheat, gypsum (*Eriogonum gypsophilum*)

Appendix D

FAA Correspondence

Wendy M Renier

From: Tollefson, Richard W (FAA) <richard.w.tollefson@faa.gov>
Sent: Wednesday, February 5, 2020 2:51 PM
To: Mark Huntzinger
Cc: Wallace Begay; Wendy Renier; Dumas Slade
Subject: RE: N19- Aztec Municipal Airport - Draft Forecasts for Airport Layout Plan (ALP) Report

Good Afternoon Mark,

The FAA approves the forecast you submitted. Please include in the master plan.

Richard

Richard Tollefson
Program Manager, LA/NM Airports District Office
FAA, ASW-640
10101 Hillwood Parkway
Fort Worth, TX 76177
(817) 222-5643

From: Mark Huntzinger <mhuntzinger@bhinc.com>
Sent: Wednesday, January 8, 2020 9:47 AM
To: Tollefson, Richard W (FAA) <richard.w.tollefson@faa.gov>
Cc: Wallace Begay <wbegay@aztecnm.gov>; Wendy Renier (wmrenier@comcast.net) <wmrenier@comcast.net>; Dumas Slade <dslade@bhinc.com>
Subject: FW: N19- Aztec Municipal Airport - Draft Forecasts for Airport Layout Plan (ALP) Report

Rich,

If you could follow up on the FAA review/approval of this forecast for N19, we'd appreciate.
Originally provided January 23, 2019.

Thanks,
Mark

Mark D. Huntzinger, PE NM, DE, and GU
Project Manager, Aviation
Bohannan Huston
p. 505.823.1000 **| d.** 505.798.7853 **| c.** 505.453.7075
Connect: bhinc.com | Facebook | LinkedIn | Twitter

Looking forward to a New Year of GIVING BACK!

From: Wendy M Renier <wmrenier@comcast.net>
Sent: Friday, August 23, 2019 3:49 PM
To: Brittan Smith <brittany.m.smith@faa.gov>
Cc: Dumas Slade <dslade@bhinc.com>; Mark Huntzinger <mhuntzinger@bhinc.com>
Subject: FW: N19- Aztec Municipal Airport - Draft Forecasts for Airport Layout Plan (ALP) Report

Brittan,

Good afternoon. We are following up on the status of FAA's review of the Aztec (N19) Forecasts—resending the email provided to you in July.

Have you had an opportunity to review the draft? Please let us know if you have any questions or comments.

Thanks!

Wendy M. Renier
WMRenier Consulting, LLC
720.833.1881

From: Mark Huntzinger <mhuntzinger@bhinc.com>
Sent: Monday, July 15, 2019 10:51 AM
To: Brittan Smith (brittany.m.smith@faa.gov) <brittany.m.smith@faa.gov>
Cc: Wallace Begay <wbegay@aztecnm.gov>; Wendy Renier (wmrenier@comcast.net) <wmrenier@comcast.net>; Dumas Slade <dslade@bhinc.com>
Subject: FW: N19- Aztec Municipal Airport - Draft Forecasts for Airport Layout Plan (ALP) Report

Brittan,

An open item for the Aztec ALP Update (City/State funded) is FAA approval of the attached forecast.

Request review and comment on the attached and approval of the forecast.

Thanks,
Mark

Mark D. Huntzinger, PE NM, DE, and GU
Bohannan Huston
Direct line: 505.798.7853
voice: 505.823.1000 **facsimile:** 505.798.7988 **toll free:** 800.877.5332

From: Wendy M Renier <wmrenier@comcast.net>
Sent: Monday, July 15, 2019 10:37 AM
To: Mark Huntzinger <mhuntzinger@bhinc.com>; Dumas Slade <dslade@bhinc.com>
Subject: FW: N19- Aztec Municipal Airport - Draft Forecasts for Airport Layout Plan (ALP) Report

Wendy M. Renier

WMRenier Consulting, LLC
720.833.1881

From: Wendy M Renier <wmrenier@comcast.net>
Sent: Wednesday, January 23, 2019 7:15 AM
To: 'Jean.Gamarra@faa.gov' <Jean.Gamarra@faa.gov>
Subject: FW: N19- Aztec Municipal Airport - Draft Forecasts for Airport Layout Plan (ALP) Report

Jean,

We added a table (Table 2F, pg 16) in this Forecasts section that is similar to the FAA TAF Comparison worksheet to make it easier for FAA review and approval of the forecasts. We can also send the FAA TAF Comparison worksheet (MS Excel file) separately.

Thanks.

Wendy M. Renier
WMRenier Consulting, LLC
720.833.1881

From: Wendy M Renier <wmrenier@comcast.net>
Sent: Monday, January 14, 2019 4:12 PM
To: 'wbegay@aztecnm.gov' <wbegay@aztecnm.gov>; 'smueller@aztecnm.gov' <smueller@aztecnm.gov>; 'ssaavedra@aztecnm.gov' <ssaavedra@aztecnm.gov>; 'vsnover@aztecnm.gov' <vsnover@aztecnm.gov>; 'klamb@aztecnm.gov' <klamb@aztecnm.gov>; 'o.dalerhodes@yahoo.com' <o.dalerhodes@yahoo.com>; 'nadonp@msn.com' <nadonp@msn.com>; 'jbougeant@capitalmds.com' <jbougeant@capitalmds.com>; 'kwhitebull@blm.gov' <kwhitebull@blm.gov>; 'mtilden@blm.gov' <mtilden@blm.gov>; 'dan.moran@state.nm.us' <dan.moran@state.nm.us>; 'sarah.conner@faa.gov' <sarah.conner@faa.gov>
Cc: 'dslade@bhinc.com' <dslade@bhinc.com>; 'mhuntzinger@bhinc.com' <mhuntzinger@bhinc.com>; 'wmrenier@comcast.net' <wmrenier@comcast.net>; 'doug@bcsco.net' <doug@bcsco.net>
Subject: N19- Aztec Municipal Airport - Draft Forecasts for Airport Layout Plan (ALP) Report

Dear Planning Advisory Committee (PAC) Members:

Good afternoon. Attached for your review and comment is a copy of the Draft Forecasts for the *Airport Layout Plan (ALP) Report*. .

The Draft Forecasts section presents an overview of aviation trends, other available forecasts, area socioeconomic characteristics, and projections of based aircraft and operations for the Aztec Municipal Airport.

Please provide any comments via email by **Monday, January 28, 2018**, or call if you prefer to discuss your comments.

We appreciate your time in reviewing the draft and look forward to any PAC member feedback. Please contact the consultant team (below) or Wallace Begay, wbegay@aztecnm.gov, (505) 334-7688, with any questions.

Regards,

Dumas Slade
Aviation Manager/Traffic and Transportation
Bohannan Huston
p. 505.823.1000 | d. 505.923.3312 | c. 505.350.2107
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Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2018-ASW-13890-OE

Issued Date: 09/28/2018

Jennifer Dreyer
Hemphill, LLC
1305 N Louisville
Tulsa, OK 74115

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Antenna Tower NW Aztec
Location:	Aztec, NM
Latitude:	36-49-57.02N NAD 83
Longitude:	108-01-37.40W
Heights:	5732 feet site elevation (SE)
	199 feet above ground level (AGL)
	5931 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 L Change 2.

This determination expires on 03/28/2020 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (816) 329-2527, or marla.wierman@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-ASW-13890-OE.

Signature Control No: 384473170-386234738 (DNE)
Marla Wierman
Technician

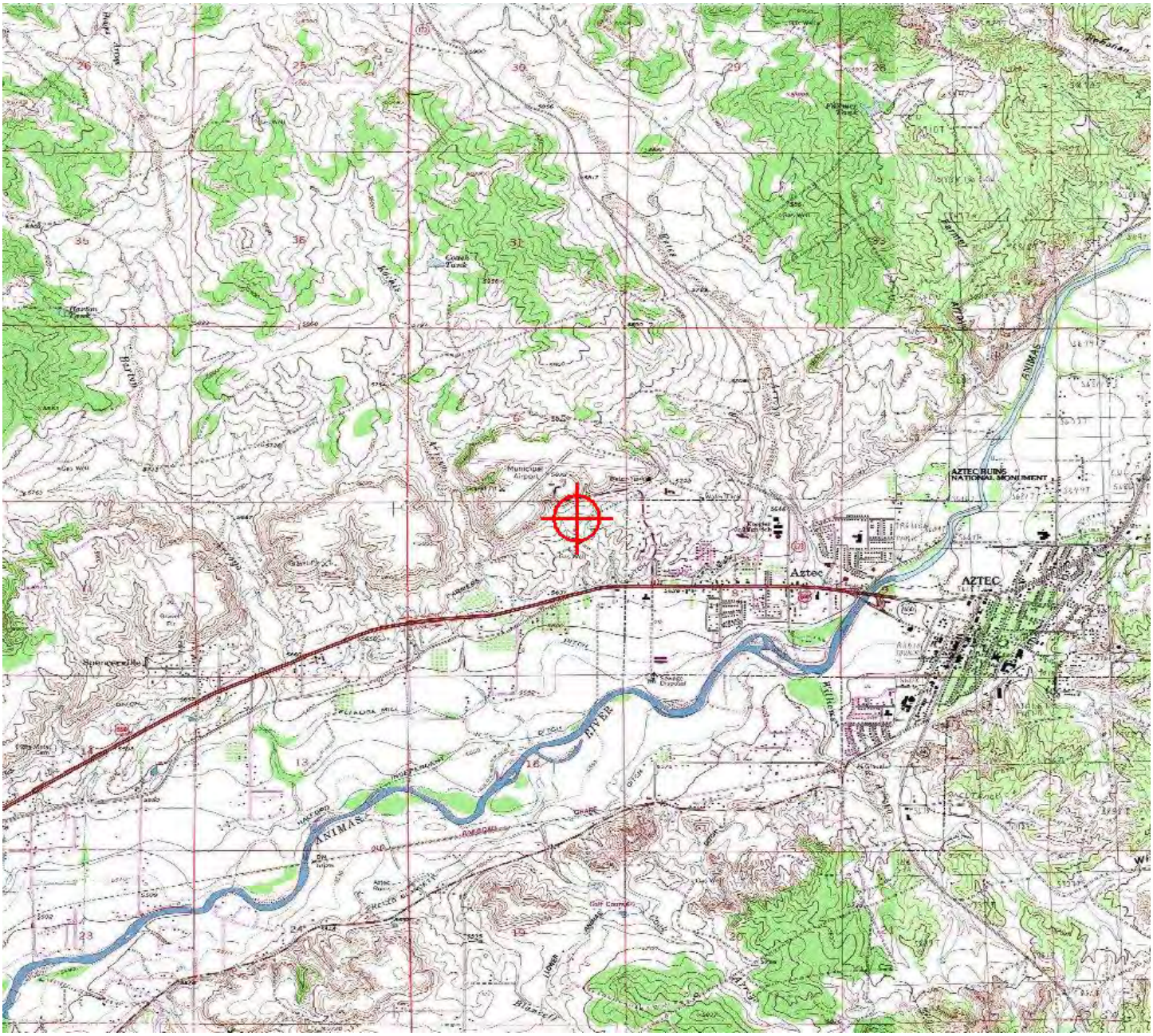
Attachment(s)
Frequency Data
Map(s)

cc: FCC

Frequency Data for ASN 2018-ASW-13890-OE

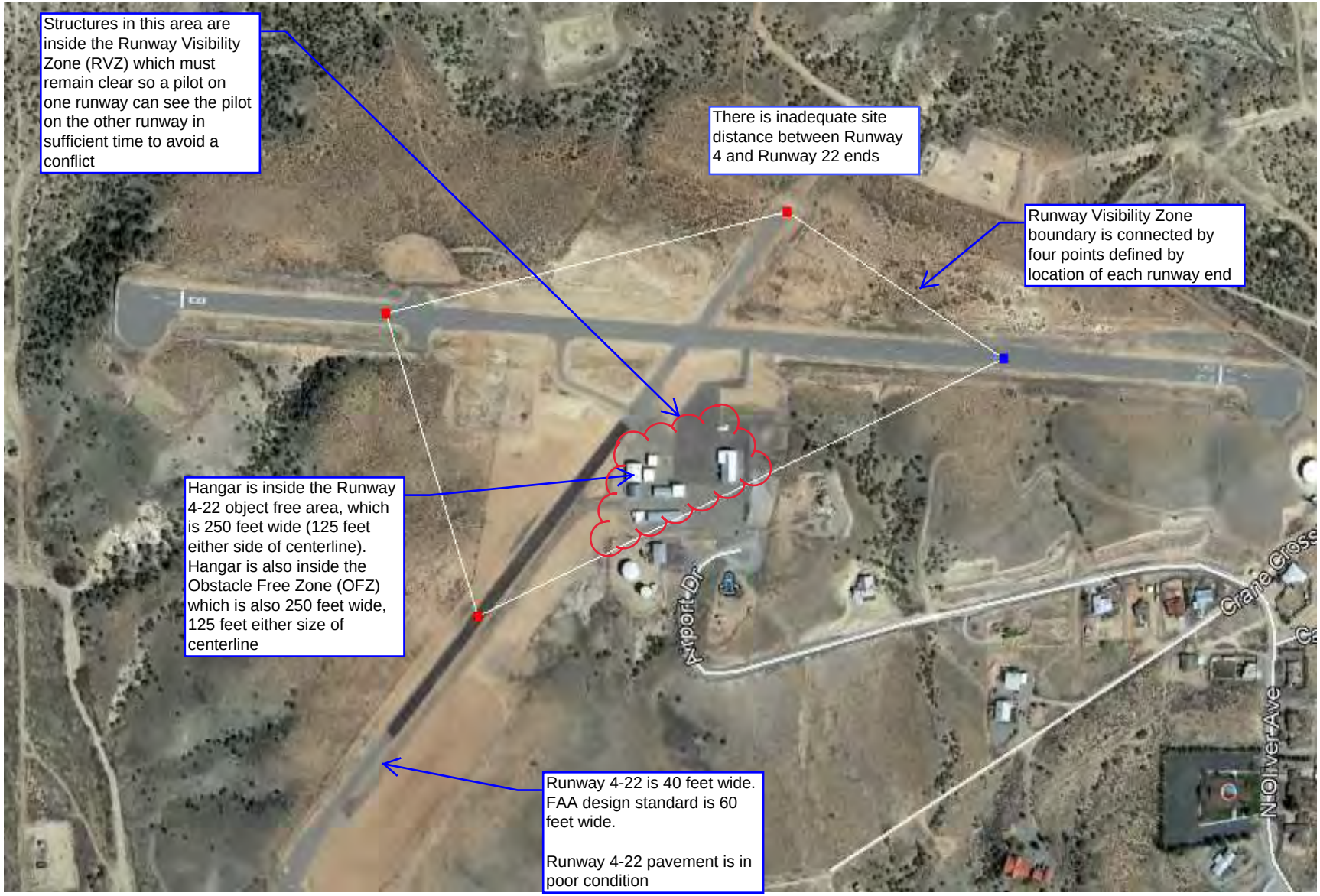
LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
851	866	MHz	500	W

TOPO Map for ASN 2018-ASW-13890-OE



Appendix E

Overview of Closed/Noncompliant Runway 4-22



Overview of Closed/Non-Compliant Runway 4-22

Appendix F

Aztec City Code – Airport Overlay Zone

DIVISION 21. AIRPORT OVERLAY ZONE (AO)

Sec. 26-2-210. Purpose.

The Airport Overlay Zone (AO) is intended to provide standards for the safe and efficient use of the Aztec Municipal Airport and to ensure the successful interface of Airport functions with those of adjacent properties and land uses. Requirements for the Airport Overlay Zone are intended to apply in conjunction with all applicable general zone district(s) and impose regulations and standards in addition to those mandated by the general zone district(s). AO Zone requirements apply whenever they are in conflict with or are more stringent than those of the general zone district.
(Ord. 2010-380, eff. 2010-Apr-21)

Sec. 26-2-211. Jurisdiction.

AO Zone standards apply to properties located within the boundaries of the Airport Overlay Zone as shown on the Official Zoning Map.
(Ord. 2010-380, eff. 2010-Apr-21)

Sec. 26-2-212. Zone Standards.

Notwithstanding any other provisions of these Regulations, no use may be made of land or water within the AO Zone in such a manner as to create a hazard to air traffic, Airport personnel or citizens, or as to otherwise endanger life or property.

1. Creation of Airport Hazards Prohibited. No variance, permit, or use shall be allowed that would create or enhance an airport hazard.

2. General Use and Operation Limitations. No use shall be permitted which:

   (1) Creates or tends to create electrical interference to navigational devices and communication between aircraft and the Airport;
   (2) Creates or tends to create gas, smoke, dust, glare, or other visual hazard in the atmosphere around the Airport;
   (3) Creates or tends to create bird strike hazards;
   (4) Creates or tends to create structures that interfere with aircraft safety; or
   (5) Creates or tends to create any type of hazard for the Airport that would inhibit or constrain safe and acceptable airport operations or that would endanger or interfere with the landing, takeoff, or maneuvering of aircraft intending to use the Airport.

3. Height Limitation. The maximum height for all structures, except for the airport tower, air service buildings and facilities owned and/or operated by the Aztec Municipal Airport, shall be 35 feet above the adjacent ground level. The height of the airport tower, air service buildings and facilities owned and/or operated by the Aztec Municipal Airport shall be in accordance with the Aztec Municipal Airport Action Plan and shall be in adherence with all Federal Aviation Administration regulations and specifications.
   (Ord. 2010-380, eff. 2010-Apr-21)

Sec. 26-2-213. Existing Uses.

1. Regulations Not Retroactive. The regulations prescribed by this Division shall not be construed to require the removal, lowering or other change or alteration of any structure or tree not conforming to this Division as of the effective date of these Regulations, nor shall it

be construed to otherwise interfere with the continuance of an existing use within the AO Zone. Nothing contained herein shall require any change in the construction, alteration or intended use of any structure, the construction or alteration of which was begun prior to the effective date of these Regulations, and is diligently prosecuted. No permit shall be granted that would allow the establishment or creation of an obstruction or that would permit an existing use, structure or tree to become a greater hazard to air navigation amendments thereto.
(Ord. 2010-380, eff. 2010-Apr-21)

Sec. 26-2-214. Permits, Variances and Mandatory Referral.

Prior to the issuance of permits or variances, applications shall be referred to the City of Aztec Airport Advisory Board, the Airport Manager and to the Federal Aviation Administration (FAA), Louisiana/New Mexico Airport District Office for comment. In making its determination as to whether a proposed land use is consistent with the standards of this Division, the City of Aztec shall give substantial consideration to the recommendations of the City of Aztec Airport Advisory Board, the Airport Manager and the FAA.

Permits and variances shall be allowed where it is duly found that a literal application or enforcement of zone requirements will result in an unnecessary hardship (as defined in Sec. 26-4-551) and, relief granted, will not be contrary to the public interest, will not create a hazard to air navigation, will do substantial justice, and will be in accordance with the spirit of these Regulations. The Aztec City Commission may act to grant or deny variance or permit applications without the advice of the City of Aztec Airport Advisory Board, the Airport Manager and the FAA if requested parties do not respond to the request for comment within forty-five (45) days after receipt.
(Ord. 2010-380, eff. 2010-Apr-21)

Sec. 26-2-215. Compliance with Federal Aviation Regulations (FAR) Section 77.13.

All construction or alteration requiring notice under FAR Section 77.13 shall be made to the Federal Aviation Administration in the form and format they require. A final airspace determination from the FAA of “no hazard to air navigation” or “no objection” must be obtained prior to commencing work on any construction or alteration.
(Ord. 2010-380, eff. 2010-Apr-21)

Sec. 26-2-216. Federal Aviation Administration Certification.

No person, not properly certified by the Federal Aviation Administration as a pilot, mechanic or other aviation professional, and no aircraft not certified by the Federal Aviation Administration, shall operate on or over the Airport, nor shall a mechanic or other aviation professional not properly certified by the Federal Aviation Administration operate a repair or maintenance facility on Aztec Municipal Airport premises. This restriction shall not apply to public aircraft belonging to the government of the United States or to a state, territory, possession or any political subdivision or to any aircraft of a foreign country operated under permission of the federal government.
(Ord. 2010-380, eff. 2010-Apr-21)

Sec. 26-2-217. Compliance with Federal Aviation Administration Regulations.

No person shall operate any aircraft over, land upon or take off from, or service, repair or maintain any aircraft on Aztec Municipal Airport premises or conduct any operation on or from the airport otherwise than in conformity with the rules and regulations of the Federal Aviation Administration.
(Ord. 2010-380, eff. 2010-Apr-21)

Sec. 26-2-218. Use, Privilege and Assumption of Risk.

The privilege of using the Airport and its facilities shall be conditioned on the assumption of full responsibility and risk by the user thereof, and each user shall release, hold harmless and indemnify the city, its officers and employees from any liability or loss resulting from such use and from the claims of third persons as a result of such use. The exercise of the privilege of use shall constitute an acknowledgment that the City maintains the Airport in a governmental capacity.
(Ord. 2010-380, eff. 2010-Apr-21)

Secs. 26-2-219 to 26-2-220. Reserved.

Sec. 26-2-221. Definitions.

Hazard to Air Navigation
An obstruction determined to have a substantial adverse effect on the safe and efficient utilization of the navigable airspace.

Height
For the purpose of determining the height limits in all zones set forth in these Regulations and shown on the zoning map, the datum shall be mean sea level elevation unless otherwise specified.

Obstruction
Any structure, growth, or other object, including a mobile object, which exceeds a limiting height set forth in Section 26-254 of these Regulations.

Person
An individual, firm, partnership, corporation, company, association, joint stock association or governmental entity; includes a trustee, a receiver, an assignee or a similar representative of any of them.

Structure
An object, including a mobile object, constructed or installed by man, including but without limitation, buildings, towers, cranes, smoke stacks, earth formation and overhead transmission lines.
(Ord. 2010-380, eff. 2010-Apr-21)

Appendix G

City Approval Letter for Preferred Alternative

A desirable place to live, work and play; rich in history and small town values!

February 5, 2021

Mr. Dumas Slade
Manager/Aviation
Traffic and Transportation
Bohannan Huston
7500 Jefferson St. NE
Albuquerque, NM 87109-4335

Re: City Approval of Preferred Alternative

This letter serves as the approval of the Aztec Municipal Airport Layout Plan Update Study's "preferred alternative" identified during the October 21, 2020, Planning Advisory Committee (PAC) meeting and subsequently presented at the Public Information Workshop held on December 1, 2020, as advertised on the City of Aztec's webpage for public legal notices.

The City requests that the Bohannan Huston Consultant Team proceed with the remaining planning tasks for the Airport Layout Plan Study, which will be based on the City's "preferred alternative" selection.

The "preferred alternative" recommended to the City by the PAC includes near-term to long-term hangar development to address aircraft storage demand through the planning period and beyond. Further, the preferred alternative includes City-adopted development features carried over from the current FAA-approved Airport Layout Plan since the ultimate need for such improvement projects remains. Highlights of those needs include a parallel taxiway to Runway 8-26, a new north-south crosswind runway, the renewal and expansion of the Bureau of Land Management (BLM) lease and associated land acquisition and land use controls for proposed development and long-term protection of the airport environs.

While the Airport Layout Plan Study's findings and proposed development plan represent the City's vision for airport development, the City recognizes that updates/modifications to their plan may be necessary in the future as conditions and aviation demand at the Aztec Municipal Airport and within the aviation industry change.

Wallace Begay

Airport Manager
City of Aztec
201 W. Chaco St.
Aztec, NM 87410

Appendix H

Airport Layout Plan (ALP) Overview & Drawings

AIRPORT PLANS

The most important element of the study includes the preparation of the Airport Layout Plan (ALP) drawing and related drawings, which represent the ALP set. The ALP for the Aztec Municipal Airport (Airport) is prepared in accordance with FAA guidance outlined in FAA Advisory Circular 150/5300-13A, *Airport Design,* and with consideration for the FAA Standard Operating Procedure (SOP) 2.00 which is the FAA's ALP Review Checklist used when preparing the ALP for FAA review and approval.

The FAA definition of the Airport Layout Plan (ALP) is:

> *A scaled drawing (or set of drawings), in either traditional or electronic form, of current and future airport facilities that provides a graphic representation of the existing and long-term development plan for the airport and demonstrates the preservation and continuity of safety, utility, and efficiency of the airport to the satisfaction of the FAA.*

The number of drawings in the ALP set may vary depending on the airport. The Aztec set, which is prepared in AutoCAD, includes the following sheets:

- Title Sheet
- Airport Layout Plan Drawing
- Airspace Plan (Part 77)
- Runway 8-26 Inner Portion of Approach Surface drawing
- Runway 17-35 Inner Portion of Approach Surface drawing
- Terminal Area Drawing
- Property Map

Once completed, a reduced size (11" x 17") set of drawings will be included at the end of this appendix. The ALP is submitted to the FAA for review and approval.

Since the correct property boundaries must be depicted on the appropriate ALP drawings, it is important to identify the existing BLM lease boundary, existing airport-owned property boundary, future BLM property acquisition or lease, future private property acquisition, and avigation easements to be acquired. According to the City of Aztec, BLM and FAA, renewal of the January 2021-expired BLM lease is progressing and is expected within a few months. The BLM has explained, to the satisfaction of the FAA, that the renewal is guaranteed and underway with delays attributed to workload, staffing shortages and the pandemic. Therefore, the BLM lease depicted in the ALP drawings is identified as "existing."

TITLE SHEET

The title sheet includes an index of drawings in the ALP set similar to the list above. The NMDOT Aviation Division grant number as well as the City's agreement number for the planning study are included. For geographic reference, a vicinity map and location map are illustrated.

AIRPORT LAYOUT PLAN DRAWING

The ALP drawing, also referred to as the airport layout drawing, is the main drawing in the set and the most important one. Existing facilities are depicted such as runways, taxiways, aircraft apron, fencing, roadways, hangars and other structures. The City's proposed future development is also depicted, which is derived from the preferred alternative approved in February 2021 and certain development from the former 2012 FAA-approved ALP that the City chose to carry forward. Technical data that supports the drawing is also presented, as required by the FAA, such as airport data, runway data, declared distances, and wind coverage. For Aztec, key development includes projects such as land acquisition (with an environmental assessment), additional hangars, installation of a weather reporting station, a new crosswind runway with partial parallel taxiway, a full-length parallel taxiway on the north side of Runway 8-26.

AIRSPACE PLAN

The Airspace Plan as well as the related Inner Portion of Approach Surface drawings are prepared to reflect the ultimate airfield configuration. Primary, approach, horizontal, conical, and transitional surfaces are depicted on the Airspace Plan. The Airspace Plan, often referred to as the Part 77 Airspace and derived from its regulatory reference (14 CFR Part 77), represents the protected airspace surrounding the Airport. The airspace plan drawing depicts the five "imaginary surfaces" defined by Part 77 including the primary, transitional, approach, horizontal and conical surfaces. Characteristics of the Part 77 imaginary surfaces are defined by the aircraft size using the runway and the runway approach capabilities. General definitions of the imaginary surfaces include:

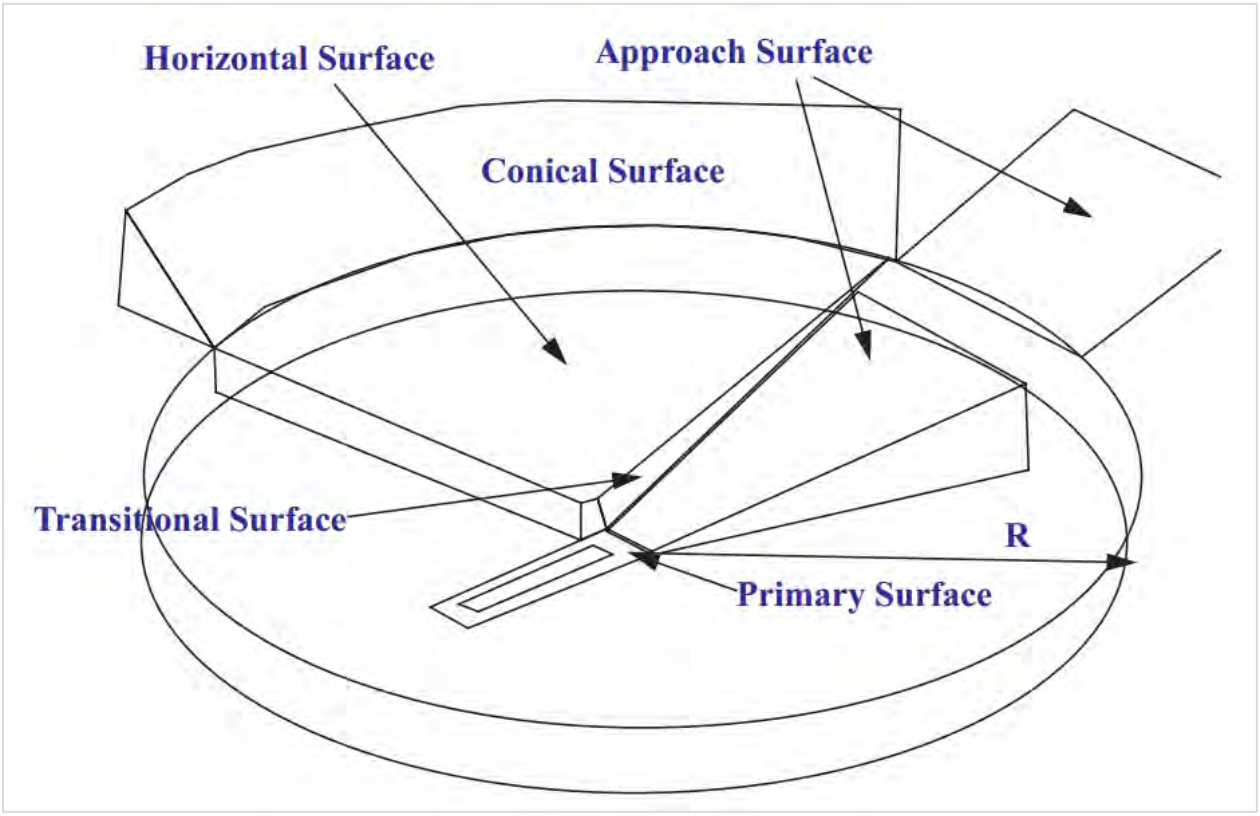
- **Primary Surface:** The primary surface is longitudinally centered on a runway and extends 200 feet beyond each end of the runway. The width of a primary surface ranges from 250 feet to 1,000 feet, depending on the existing or planned approach and runway type (e.g., visual, non-precision, or precision). The primary surface is 250 feet wide at Aztec.
- **Approach Surface:** Longitudinally centered on the extended runway centerline, the approach surface extends outward and upward from the end of the primary surface. An approach surface is applied to each end of each runway based on the type of approach. The approach slope of a runway is 20:1, 34:1, or 50:1, depending on the sophistication of the approach. FAA approach surfaces are 20:1 for visual approaches, 34:1 for non-precision approaches, and 50:1[1] for precision approaches. The approach slope is 20:1 at Aztec.
- **Transitional Surface:** Transitional surfaces extend outward and upward at right angles to the runway centerline, with the runway centerline extended at a slope of seven feet horizontally for each foot vertically (7:1) from the sides of the primary and approach surfaces. The transitional surfaces extend to where they intercept the horizontal surface at a height of 150 feet above the runway elevation. Transitional surfaces for those portions of the precision approach surface,

[1] Precision instrument approach slope is 50:1 for inner 10,000 feet and 40:1 for an additional 40,000 feet.

which project through and beyond the limits of the conical surface, extend 5,000 feet horizontally from the edge of the approach surface and at right angles to the runway centerline.

- **Horizontal Surface:** The horizontal surface is a horizontal plane located 150 feet above the established airport elevation, covering an area from the transitional surface to the conical surface. The perimeter is constructed by swinging arcs from the center of each end of the primary surface and connecting the adjacent arcs by lines tangent to those areas. The horizontal surface is at 6,032 feet MSL for Aztec.
- **Conical Surface:** The conical surface extends upward and outward from the outer limits of the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet. Consequently, the outer limits of the conical surface reach 200 feet above the horizontal surface, or 350 feet above an airport's elevation. The conical surface is at 6,232 feet MSL for Aztec.

The following calls out the five Part 77 imaginary surfaces to be protected at an airport, as described above.



Source: FAA

RUNWAY INNER PORTION OF APPROACH SURFACE DRAWING

To provide the necessary approach surface detail, Approach Surface Plan and Profile Drawings are prepared for each existing and future runway – Runways 8, 26, 17 and 35. These drawings represent an extension of the Airspace Plan (Part 77).

These views off each runway end include the area along the extended runway centerline with a scale of 1”=200’ horizontal and 1”=20’ vertical. Objects contained within the areas near the runway are numbered and correspond to a data table that includes object descriptions and whether it clears the approach or is an obstruction that penetrates the protected surface.

TERMINAL AREA PLAN

In the Terminal Area Plan (TAP) drawing, landside development areas are extracted from the ALP and enlarged to provide more detail. Structures are numbered and correspond with a data table provided. Buildings/hangars, aircraft apron, and taxiways/taxilanes are more clearly depicted on the TAP.

PROPERTY MAP

As part of the planning study, the existing Property Map and corresponding data tables have been updated. The airport property map, often referred to as the Exhibit A, includes the airport property boundary, acquisition history (as available) such as the various tracts of land that were acquired to develop the airport, and the property to be acquired for future development and/or protection of the airport environs. For Aztec, the existing airport property is comprised of a BLM lease and airport-owned land. The BLM lease, which generally follows the lines of the majority of Runway 8-26 as well as closed Runway 4-22, expired in January 2021, but the City and BLM in close coordination with the FAA are working to renew it as soon as possible (as noted earlier). The airport-owned, which is also depicted on the property map, generally encompasses the existing landside development area. Future acquisitions shown include additional BLM land, private property and avigation easements needed within the various Runway Protection Zones (RPZs).

Appendix I

Cursory Review of Wildlife Hazard Management Issues

Introduction

In order to maintain a safe airport operating environment, as required by the Federal Aviation Administration (FAA), an airport sponsor must be proactive in addressing potential safety concerns such as wildlife hazards. Hazardous wildlife is defined as "…species of wildlife (birds, mammals, reptiles), including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard."

This paper conducts a brief review of potential wildlife hazard issues for the Aztec Municipal Airport to consider and it provides background information, resources and recommendations. Ultimately, the City of Aztec will contract for a Wildlife Hazard Assessment (WHA), which will provide a detailed review that is not part of the current airport planning study. The WHA project will be included as a future project in Aztec's Airport Capital Improvement Plan (ACIP); the WHA is eligible for FAA funding of up to 90%. The majority of busy airports with known wildlife hazard issues have already conducted a WHA while lower risk airports like Aztec keep it in their ACIP's future projects.

Resources

The FAA emphasizes the importance of wildlife hazard management at airports based on history and facts—wildlife strikes by aircraft have resulted in hundreds of lost lives worldwide and billions of dollars in aircraft damage. There are several resources available to better educate airport sponsors on how to address wildlife hazards. Further, the FAA has a number of initiatives underway as part of their wildlife hazard mitigation program. One initiative is to further promote awareness and the importance of reporting wildlife strikes. Starting several years ago, the FAA printed and distributed 30,000 posters like the poster shown here. While a large emphasis was placed on the general aviation (GA) community that often neglects to report wildlife strikes, the FAA also sent posters to Part 139 certificated airports, aviation schools and other relevant organizations.

Other initiatives identified by the FAA include:

- **Funding**: Making Airport Improvement Program (AIP) funds available to GA Airports for wildlife hazard site visits, wildlife hazard assessments, wildlife hazard management plans and for tools to mitigate hazards such as fencing.

- **Reports:** There are several Airport Cooperative Research Papers (ACRP) and similar documents available to airport sponsors. These publications[1] often identified as research reports or syntheses are available online from the Transportation Research Board of the National Academies (TRB) at http://www.trb.org/Publications/Publications.aspx. Other publications may be located through an online search of the title. Report titles include:
    - *Airport Waste Management and Recycling Practices*
    - *Innovative Airport Responses to Threatened / Endangered Species*
    - *Balancing Airport Stormwater and Bird Hazard Management*
    - *Applying an SMS Approach to Wildlife Hazard Management*
    - *Habitat Management to Deter Wildlife at Airports*
    - *Airport Wildlife Population Management*
    - *Airport Responsibility for Wildlife Management*
    - *Bird Harassment, Repellent, and Deterrent Techniques for Use on and Near Airports*
    - *Guidebook for Addressing Aircraft/Wildlife Hazards at General Aviation Airports*
- **Database**: There is a National Wildlife Strike Database online that maintains records on reported wildlife strikes since 1990 at FAA Wildlife Strike Database. The FAA points out that since reporting is voluntary, the database only represents information submitted by airlines, airports, pilots and other sources.
- **FAA Advisory Circulars (ACs)**:
    - FAA AC 150/5200-38 Protocol for the Conduct and Review of Wildlife Hazard Site Visits, Wildlife Hazard Assessments, and Wildlife Hazard Management Plans (Aug 2018)
    - AC 150/5200-36B Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curriculums for Airport Personnel Involved in Controlling Wildlife Hazards on Airport (Jan 2019)
    - AC 150/5200-33C Hazardous Wildlife Attractants On or Near Airports (Feb 2020)
- **Assessing Trends and Targeting Improvements**: The FAA has studied the history of and trends in voluntary strike reporting to determine if their outreach efforts are making a difference and to further identify areas for improvement. A pattern of increased reporting was attributed, in part, to those airports with a professionally-run wildlife hazard program. Consequently, the FAA initiated an awards program to recognize those airports that have exhibited a noteworthy strike reporting program in an effort to further increase the positive trend in reporting.
- **Website**: The FAA routinely updates its Wildlife Website to link users to the resources described above including the wildlife strike database and a fast and easy electronic wildlife strike reporting form.
- **Technology, Research & Development, and Partnerships**: Initiatives in these three categories are contributing to substantial advances in mitigating wildlife hazards for airports. Examples include

[1] "Reports" are the main product of the research project and are often written as guidebooks or manuals. "Syntheses" report on the state of the practice based on literature reviews and surveys of recent activities in critical areas. Syntheses also inform airport managers about innovations being used by others to solve problems.

bird radar technology, an FAA-Smithsonian Interagency Agreement to identify bird species so manufacturers can better design engines and aircraft to withstand impacts of likely bird collision, and research in helping airports reduce the potential of aircraft-wildlife collisions.

National Overview

To better understand wildlife strikes and the need for mitigation, an overview is provided at the national level.

According to the FAA's data, 97% of wildlife strikes are birds, 2% are land mammals such as coyotes and 1% are bats and reptiles. Further, FAA's historical data from 1990 through 2014 breaks this data down into the number of species for these categories:

- More than 500[2] species of birds. Most damaging included waterfowl, gulls, raptors, and flocking birds.
- 40 species of land mammals. Most damaging included deer and coyotes.
- 20 species of bats
- 15 species of reptiles

Reports of wildlife strikes have increased dramatically over nearly three decades—2018 reported strikes are nearly nine times the number from 1990. While this rise in reports is linked, in part, to aviation community outreach, the FAA also attributes this jump to other significant factors such as:

- Increasing aviation activity
- Growing wildlife populations
- Changing aircraft fleet mix comprised of faster and quieter aircraft

Recognizing the increase in wildlife hazards at airports, the FAA increased its focus on wildlife strike hazard research and airfield wildlife management. As this paper neared completion, the FAA published a new report[3] that addressed data through 2019 and 2020, which was not previously available. In the latest report, they took a closer look at wildlife strikes based on time of day and time of year for certain species of wildlife. The new report, which updated the figures mentioned earlier (from the start of this research), also covered the timeframe inclusive of the pandemic; as expected, reported strikes decreased when aviation activity decreased.

[2] In July 2021, a new report states that a bird strike in April 2020 brought the number of identified species involved in bird strikes to 600

[3] Wildlife Strikes to Civil Aircraft in the United States, 1990 – 2020, Federal Aviation Administration and Department of Agriculture Wildlife Services, July 2021

In 2019, nationwide reports totaled 17,358 strikes which declined by 33 percent to 11,605 in 2020, attributed to the 37 percent reduction in aircraft movements as a direct result of the pandemic. The 2020 strikes were reported by a total of 665 airports in the US comprised of 412 Part 139 airports and 253 general aviation airports. Other notable statistics spanning 1990 through 2020 included:

- 53% of bird strikes occurred between July and October
- 29% of deer strikes occurred in October-November
- 62% of terrestrial mammals were struck at night
- 62% of birds were struck during the day
- 71% of bird strikes occurred at or below 500 feet AGL and 82% occur at or below 1,500 feet[4] AGL.
- Birds, terrestrial mammals, and bats are all much more likely to be struck during the arrival phase of flight

Local and Regional Overview

According to the FAA database, there are no "reported" wildlife strikes at Aztec Municipal Airport. The FAA encourages the pilot community to report strikes, but they often go unreported, primarily if there is no real damage.

Aztec Municipal Airport management indicates that there have been wildlife incursions (without incident) on their airfield, but they are infrequent; examples included wildlife such as prairie dogs and coyotes seen by pilots.

For informational purposes, a database search of airports near Aztec was completed to identify any reported wildlife strikes at those facilities. Four airports were reviewed which range from 11 nautical miles (nm) to 23 nautical miles from Aztec:

- Four Corners Regional Airport (FMN) in Farmington (11 nm from Aztec) – **13 reports** since 1997
- Navajo Lake Airport (1V0) in Navajo Dam (18 nm from Aztec) – **one report** (bird) from 2002
- Durango-La Plata Airport (DRO) in Durango, CO (23 nm from Aztec) – **73 reports** since 1996
- Animas Air Park (00C) in Durango, CO (23 nm from Aztec) – **two reports** (deer) since 2004

With Four Corners Regional Airport (Farmington) closest to Aztec, details of the 13 reported wildlife strikes were downloaded from the FAA database. As shown below, the most recent report is from 2016 and the oldest report dates back to 1997. Most wildlife strikes were reported by commercial air service or business

[4] The 1500-foot altitude falls within the five-mile airport radius, which is why the FAA guidance states that landfills, for example, should be prohibited within five miles of an airport. Simply put, land that prohibits bird attractants within an airport's five-mile radius means an airport is significantly reducing its risk for a wildlife strike.

aviation flights. As noted earlier, it is not uncommon for wildlife strikes by private aircraft to go unreported.

Incident Date	Operator	Aircraft	Phase of Flight	Species
2016-06-18	Ameriflight	PA-31 NAVAJO	Climb	Turkey vulture
2016-06-18	Business	PA-31-350	Landing Roll	Turkey vulture
2016-02-18	US Customs and Border Protection	BE-200 KING	Approach	Canada goose
2013-09-05	Unknown	UNKNOWN		Burrowing owl
2012-02-29	Great Lakes Airlines	BE-1900	Landing Roll	Unknown bird - small
2012-01-30	Great Lakes Airlines	BE-1900	Approach	Unknown bird
2011-11-28	Privately Owned	C-414	Climb	Mallard
2011-09-16	Business	MU2	Approach	Unknown bird - large
2010-10-29	Great Lakes Airlines	BE-1900	Approach	Unknown bird - small
2009-02-02	Great Lakes Airlines	BE-1900	Landing Roll	Unknown bird - small
2005-01-08	Air Midwest	BE-1900	Take-off Run	European starling
2001-09-28	Business	BE-90 KING	Take-off Run	Coyote
1997-04-20	Mesa Airlines	BE-1900	Climb	Blackbirds

In comparison statewide, New Mexico has had a total of 618 reports from 1990 to October 2021. The large majority (81%) were reported by Albuquerque International Sunport (ABQ).

Recommendations

This section offers recommendations to the City of Aztec for consideration in their ongoing wildlife hazard mitigation efforts. Recommendations here are preliminary as they are not derived from any official wildlife hazard site visit, assessment or management plan. Rather, they offer insight on standards and practices to reduce risk and enhance safety.

Promote Awareness: Put up posters at the Aztec Municipal Airport. Request additional posters from the FAA at https://www.faa.gov/airports/airport_safety/wildlife/.

Reporting: FAA continues to promote reporting for safety, research and management purposes. To report a strike, the FAA encourages the aviation community to complete their online form at https://wildlife.faa.gov/add. Valuable information is obtained from the reporting. The FAA notes that there has also been a reduced turnaround time in getting wildlife strike data published which provides immediate benefits to airports, airlines, engine and airframe manufacturers and biologists. The FAA is able to evaluate:

- Type of aircraft and species of animal
- Time of day and phase of flight
- Where the strike occurred
- Whether it was in or out of the airport environment
- How the strike occurred
- Possible attractants
- Season

Wildlife Hazard Site Visit (WHSV)/Wildlife Hazard Assessment (WHA): While Aztec does not meet the higher aviation activity levels that require a WHA, a triggering event could put the need for WHA high on their priority list within the ACIP. For now, it is recommended that Aztec keep it in their ACIP to follow higher priorities. It's important to note that much of what is briefly discussed in this paper is fully addressed in a WHA and Wildlife Hazard Management Plan (WHMP), which follows FAA published guidance and is tailored for each specific airport. According to the FAA, $350 million of Airport Improvement Program (AIP) funds have gone to wildlife-related projects such as WHAs, WHMPs and airport perimeter fencing.

Wildlife Deterrents: Current perimeter fencing (four-strand barbed wire) does help keep wildlife off the airfield, but other animals can easily cross through or under the fencing. Further, there are a few segments of the fence that are down, but repairs are underway. Ultimately, the installation of wildlife fencing is the best option for airports as a wildlife deterrent. While the fencing does not necessarily keep all wildlife out, risk reduction is helpful.

Responsible Land Use Management: The FAA recommends that airport sponsors identify and mitigate wildlife attractants, where possible, and to be proactive in monitoring and managing land use development that could become a wildlife attractant. Landfills, for example, are not permitted within five miles of an airport for this reason. Aircraft approaching

and departing an airport are at lower elevations that could result in a bird strike near a solid waste landfill. Other land uses on and around airports that could become a wildlife attractant include agriculture, wetlands, water and storm water management facilities, golf courses, certain types of landscaping, and preserves. If wildlife attractants cannot be removed, other strategies may be implemented such as repellant techniques, habitat modification (e.g., mow vegetation, eliminate access to food waste) and wildlife removal/relocation, to name a few. Also notable is that FAA updated AC 150/5200-33C, Hazardous Wildlife Attractants On or Near Airports, in February 2020. The latest version includes new guidance on land use practices. The FAA has pointed out that a new section on airport procedures for off-airport attractants offers guidance when proposed land use changes may result in the creation of a hazardous wildlife attractant.

Communication and Training: Communication among airport personnel and users is essential to further promote awareness and identify any potential wildlife hazard issues that require attention. If a WHMP is required for Aztec in the future, a training program conducted by a qualified biologist may be needed to ensure mitigation strategies are properly implemented.