Central Colorado
REGIONAL AIRPORT
Buena Vista

THE CENTRAL COLORADO REGIONAL AIRPORT

MASTER PLAN

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1.0 INTRODUCTION

The purpose of this study is to provide the Town of Buena Vista and the Central Colorado Regional Airport (AEJ or Airport) with a document that determines the extent, type, and schedule of development needed to not only meet current service levels but to accommodate future demand in a healthy and feasible way. This study will provide a current Master Plan and Airport Layout Plan (ALP). The prior documents were completed in 2004.

1.1 Study Goals

The overall goal is to develop a plan that guides AEJ and the community in the future while meeting existing and future aviation needs. To accomplish this goal the following main objectives have been developed:

- Determine the current condition of existing facilities and their efficiencies.
- Provide a planning document for the next 20 years that is technically accurate, realistically executable, and financially feasible. This plan will also be completed to achieve financial and environmental sustainability.
- Prepare forecasts of aviation activity.
- Prepare a financial plan that considers the operating budget, revenue, expenses, and potential FAA grant funding.
- Incorporate public involvement throughout the process to ensure that the future of the airport aligns with the values and vision of the community.

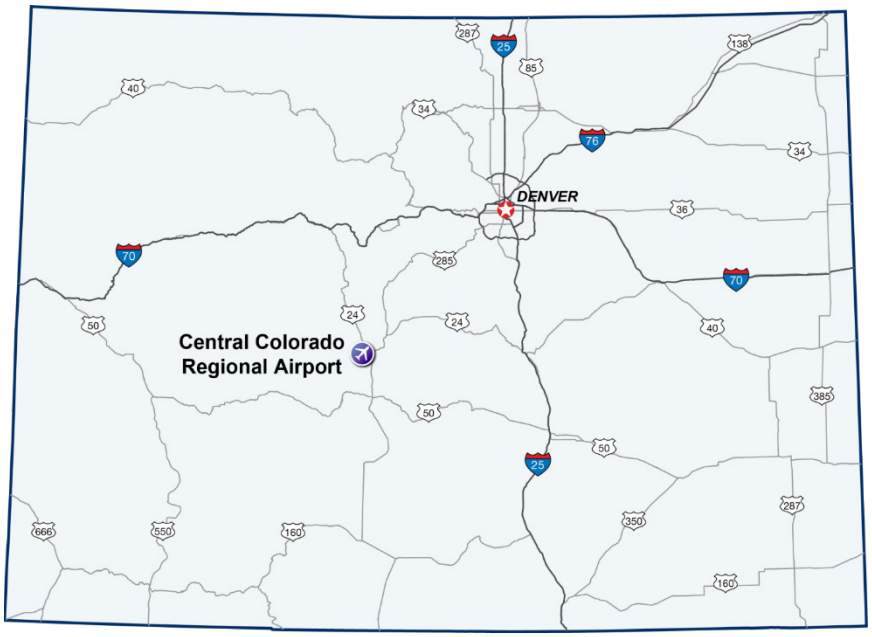
1.2 Local Information/History

The Airport is located within Chaffee County, Colorado. A portion of the Airport is located within the town limits of Buena Vista. Chaffee County is situated in the Upper Arkansas River Valley, as depicted in **Figure 1-1**. This region is known for its beautiful scenery and abundance of outdoor activities. The area was originally settled in the 1860's by early gold miners, resulting in many deserted ghost towns that add to the unique characteristics of the region.

Chaffee County had a population of 16,242 in 2000 which grew to 17,809 in 2010, a 9.65 percent increase. The population in Buena Vista experienced a larger increase over the same period. The town's population was 2,195 in 2000 and grew to 2,617 in 2010; an increase of 19.23 percent.[1]

[1] Census Viewer, http://censusviewer.com/county/CO, Accessed August 2014

FIGURE 1-1 – LOCATION MAP

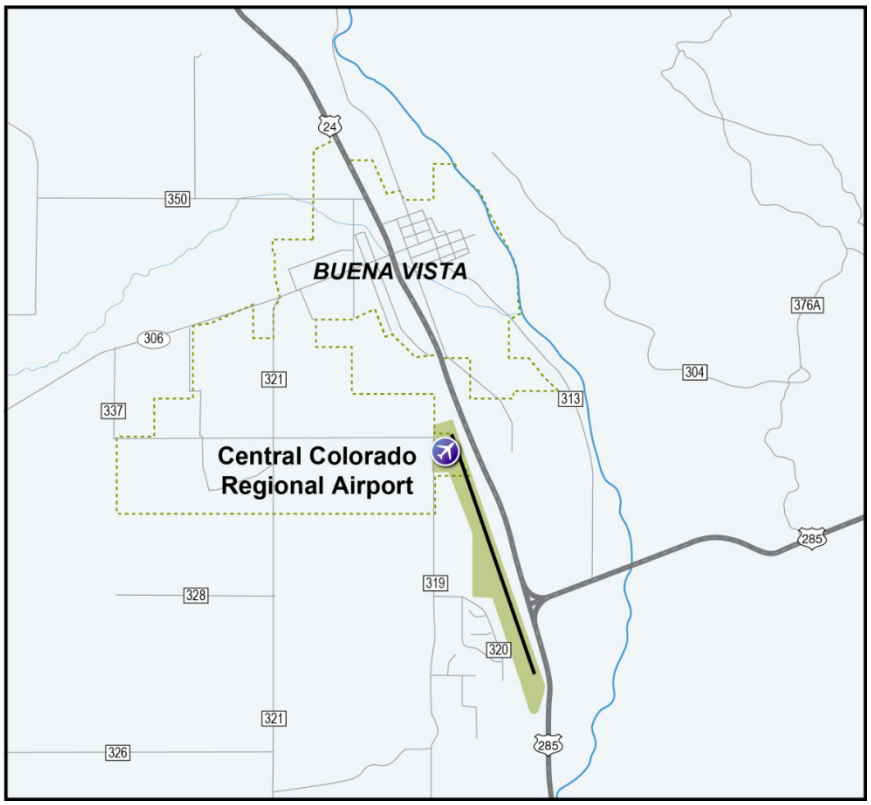


Note: Not to scale
Source: Jviation

1.3 Airport Location

The Central Colorado Regional Airport is located approximately two miles south of the Central Business District (CBD) of Buena Vista. The Airport sits at an elevation of 7,950 feet above mean sea level (MSL). U.S. Highway 285 provides access to the region from Denver, the nearest large city. Main Airport access is via Steele Drive to County Road 319. **Figure 1-2** depicts the Airport's location relative to the Town of Buena Vista.

FIGURE 1-2 – VICINITY MAP



Note: Not to scale
Source: Jviation

1.4 Airport Management and Ownership Structure

The Airport is owned by the Town of Buena Vista and overseen by the Buena Vista Airport Advisory Board. The Board consists of five members and up to two alternates appointed by the Town Board of Trustees. The current board is comprised of five voting members, one alternate member, and a Trustee Liaison (appointed annually by the Board). The board members serve five year terms and meet the third Tuesday of each month. The Town Administrator is responsible for overseeing all airport projects, policies and procedures, and budget, while the manager is responsible for the day-to-day operations at the Airport.

The Town of Buena Vista is responsible for all airport policy considerations, as well as compliance with all federal, state, and local regulations.

1.5 Airport History and Activity

The Airport is made up of approximately 184 acres. A portion of the property is owned in fee simple and the remainder through long-term leases/easements from the Colorado Department of Corrections, Colorado Department of Natural Resources, and the Colorado Division of Wildlife. Significant projects or events that have occurred at the Airport consist of the following:

- 1985: Two 15,000 gallon above-ground fuel tanks installed

- 1985: Fixed Based Operator (FBO) hangar constructed
- 1991: Airport Overlay Zone District was established by the town of Buena Vista
- 1993: Airport Master Plan
- 1996: Runway relocated 300 feet to the east to provide a full-length parallel taxiway
- 2002: Installation of tether (100,000-pound strength) for high altitude testing
- 2004: Airport Master Plan

High altitude testing has become a constant at AEJ since it began in 2002. The testing typically occurs during summer months, mid-June through September. Numerous companies and organizations have come to AEJ to test aircraft, and during the testing they rent office space, conference rooms, and the flight test center.

Figure 1-3 depicts photos from military testing at AEJ in January 2014, an atypical month for testing. Companies and organizations that have tested at AEJ in the past include:

- Augusta
- Bell
- Boeing
- Sikorsky
- Qinetiq (London, England)
- U.S. Army
- U.S. Air Force
- U.S. Navy Seals

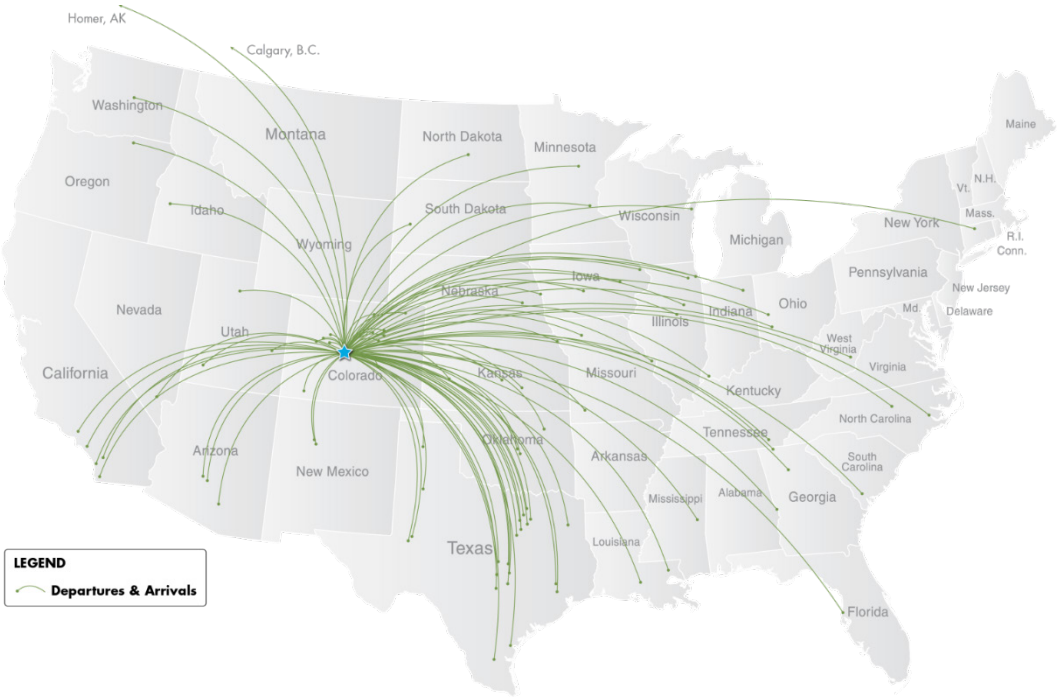
FIGURE 1-3 – MILITARY TESTING

Source: AEJ Airport Management, 2014

The Buena Vista area is also a destination for many aircraft throughout the United States and western Canada. The destinations for IFR plans[1] filed from AEJ for a five-year period, August 2009 through August 2014, are depicted in **Figure 1-4** (each route shown represents a destination, not the number of flight plans filed with FAA). This broad reach is a significant asset for the viability and economic health of the town and county as well as neighboring towns in the Arkansas River Valley.

[1] During certain meteorological conditions, the FAA requires pilots to file a flight plan and follow instrument flight rules (IFR), which requires pilots to comply with more restrictive weather requirements and certain air traffic control procedures. IFR flight plans are required for air carrier operations and typically filed by the business segment of GA that uses turboprop and business jet aircraft (rather than the pleasure fliers).

FIGURE 1-4 - IFR FLIGHT PLANS (AUGUST 2009 – AUGUST 2014)



Note: Not to scale
Source: Jviation

1.6 Economic Impact

The Colorado Department of Transportation (CDOT) Division of Aeronautics completed an Economic Impact Study (Study) in 2013 to determine how Colorado commercial and general aviation (GA) airports support the state and local economies. Estimated impacts were developed for jobs supported, annual payroll, and total annual economic output.

The jobs supported element is defined by those jobs that the operation and development of airports support through off-airport visitor spending and by off-airport companies that rely on air cargo services to ship their goods. Annual payroll is defined as that which is associated with aviation supported jobs. Total annual economic activity is comparable to the spending required to purchase goods and services to support operations for all activities considered. **Table 1-1** depicts the total economic output for AEJ.

TABLE 1-1– AEJ TOTAL ANNUAL ECONOMIC OUTPUT

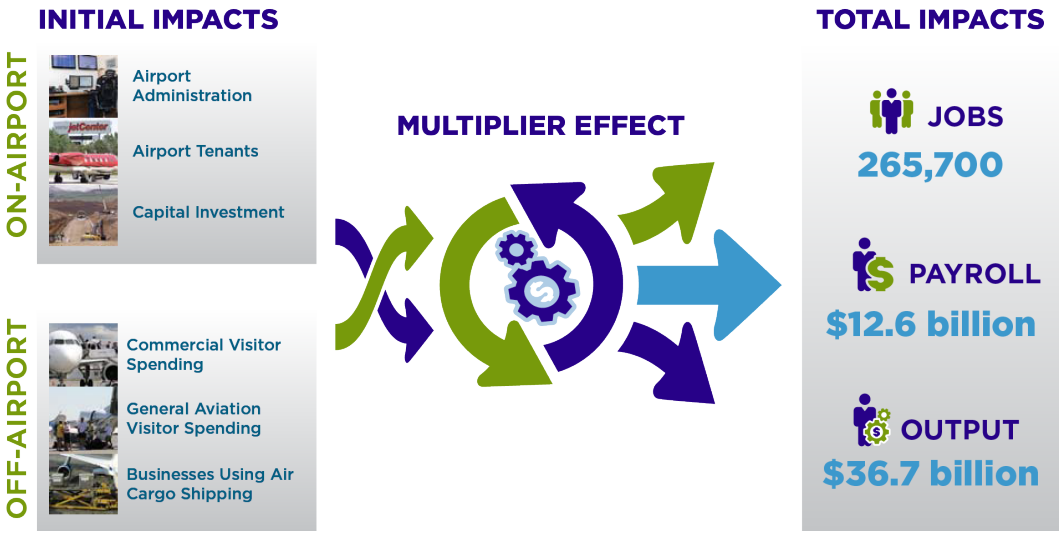
Airport	Town	Service Category	Total Employment	Total Payroll	Total Output
AEJ	Buena Vista	General Aviation	26	$901,093	$3,078,973

Source: CDOT, Division of Aeronautics, Economic Impact Study, 2013

Methodology for the study included all 86 airports providing assistance with data collection. Airport operators provided information for economic activities related to airport operations, tenants, capital investments, as well as visitor estimates. Initial economic impacts enter the economy and re-circulate which generate successive rounds of spending, employment, payroll and output in other economy

sectors. The impacts generated through recirculation are classified in this study as "multiplier" effects, see **Figure 1-5**. The Study used six regions to establish appropriate multipliers for each airport. State level multipliers were used to calculate total statewide aviation related economic impacts. As a higher percentage of all initial economic impacts are retained within the state's economy, statewide economic impacts are greater than the sum of the individual airport impacts.

FIGURE 1-5 – MULTIPLIER EFFECT (STATE-WIDE IMPACTS)



Sources: CDOT, Division of Aeronautics, Economic Impact Study, 2013 and Jviation

Table 1-2 shows the initial impacts, impacts after a multiplier was applied and total impacts in terms of employment, payroll, and output for AEJ.

TABLE 1-2 – STATE OF COLORADO: AEJ ON- AND OFF-AIRPORT IMPACTS ON TOTAL EMPLOYMENT, PAYROLL, AND WAGES

Impact Category	Employment			Payroll			Output		
	Initial	Multiplier	Total	Initial	Multiplier	Total	Initial	Multiplier	Total
Airport Administration, Tenants, & Capital Investment	7	3	10	$289,249	$89,844	$379,093	$1,063,096	$458,876	$1,521,972
General Aviation Visitor Spending	12	4	16	$363,000	$159,000	$522,000	$1,045,000	$512,000	$1,557,000

Source: CDOT, Division of Aeronautics, Economic Impact Study, 2013

2.0 INVENTORY

This chapter documents the type and general condition of the existing facilities at AEJ as of March 2015. The inventory is a complete compilation of all facilities and systems of the Airport including airfield, terminal area, navigational aids, ground access, parking, pavement conditions, utilities, and other characteristics.

Table 2-1 and Table 2-2 summarize the major landside and airside components of AEJ. Key items listed will be discussed in greater detail throughout this chapter.

TABLE 2-1 – AIRPORT PAVEMENT INVENTORY

Item	Description
Runway 15/33	– 8,300 feet by 75 feet – Asphalt – Published Strength: 30,000 pounds Single Wheel (SW) and Dual Wheel Gear (DW)
Taxiways	– Parallel Taxiway A – Connector Taxiways A1 through A6
Apron	– General Aviation (GA) / Fixed Base Operator (FBO): 950 feet by 175 feet

Source: Jviation

TABLE 2-2 – AIRPORT FACILITIES INVENTORY

Item	Description
Navigational Aids	Area Navigation (RNAV/Global Positioning System (GPS)
Visual Aids	– Medium Intensity Runway Lights (MIRL) – Non-Precision Runway Markings – Precision Approach Path Indicators (PAPI) – Runways 15 and 33 – Airport Rotating Beacon – Runway & Taxiway Guidance Signs – Segmented Circle / Wind Cone (lighted)
Airport Facilities	– Terminal – 5,900 square feet (two levels) – Apron – 18,800 square yards – Box Hangar (adjacent to terminal) – 1unit, 12,700 square feet – T-hangars (nested) – 11 units, 11,500 square feet – Box hangar – 5 units, 9,020 square feet – Box hangar – 1 unit, 4,070 square feet – Box hangar – 2 units, 6,000 square feet
Parking	Employee, Visitor, Rental Car –approximately 21 marked spaces and an additional 14 unmarked spaces are inside the secure area

Source: Jviation

2.1 Advisory Circular 150/5300-13A, *Airport Design*[1]

In October 2012, the Federal Aviation Administration (FAA) released the new Advisory Circular (AC) 150/5300-13A, *Airport Design*, which replaces the previous *Airport Design* AC in its entirety,

[1] FAA Advisory Circular 150/5300-13A, Airport Design

and is the first comprehensive update of this AC since 1989. This new airport design guidance will be used when assessing the facilities at AEJ in **Chapter 4, Facility Requirements**.

The most significant changes from the previous *Airport Design* AC include the new standards and technical requirements of the Runway Design Code (RDC) and Taxiway Design Group (TDG). The AC still uses a design aircraft[1]; however, in most cases the design aircraft is a composite aircraft representing a collection of aircraft classified by three parameters: Aircraft Approach Category (AAC), Airplane Design Group (ADG), and TDG. The FAA notes that the critical design aircraft must generate a minimum of 500 operations (takeoffs and landings) per year to be classified as the critical aircraft.

The AAC and ADG are combined to form the RDC. The TDG relates to the undercarriage dimension of the aircraft. Taxiway width and fillet standards, and in some instances runway to taxiway and taxiway/taxilane separation standards, are still determined by the ADG. However, AC 150/5300-13A requires selection of the RDC(s) and the most demanding meteorological conditions for desired/planned levels of service for each runway. These are then applied to the airport design criteria associated with the RDC and designated or planned approach visibility minimums. The associated taxiways are then designed accordingly to the designated TDG.

2.1.1 Runway Design Code

The FAA classifies airport runway facilities with a coding system known as the RDC. This classification helps apply design criteria appropriate to operational and physical characteristics of various aircraft types operating at an airport. As mentioned previously, the RDC of a runway is made up of three separate components: the AAC, the ADG, and approach visibility minimums.

The AAC is an *alphabetical* classification of an aircraft based upon 1.3 times the stall speed in a landing configuration at its maximum certified landing weight. The approach category for an airport is determined by the approach speed of the fastest aircraft that has at least 500 operations annually, with Category A being the slowest approach speed and Category E the fastest.

The categories are:

- **Category A**: Speed less than 91 knots
- **Category B**: Speed 91 knots or more but less than 121 knots
- **Category C**: Speed 121 knots or more but less than 141 knots
- **Category D**: Speed 141 knots or more but less than 166 knots
- **Category E**: Speed 166 knots or more

The ADG is a *numerical* classification of aircraft based on wingspan or tail height. If an airplane's wingspan and tail height are in two categories, the most demanding category is used. Like the approach category, the ADG for an airport is determined by the largest aircraft operating at least 500

[1] The design aircraft is the aircraft type that is the most demanding on airport facilities that regularly uses the airport (at least 500 annual operations). Based on wing span and approach speeds, the design aircraft determines what design standards must be used, including pavement widths, lengths and strengths and separation distances between runways and taxiways.

times per year at the facility. Also, for airports with multiple runways, the published RDC is based on the most demanding aircraft for each runway specifically. ADG details are identified in **Table 2-3.** Examples of aircraft types are shown in **Figure 2-1**.

TABLE 2-3 – AIRPLANE DESIGN GROUP (ADG)

Group	Tail Height (ft)	Wingspan (ft)
I	<20	<49
II	20 ≤ 30	49 ≤ 79
III	30 ≤ 45	79 ≤ 118
IV	45 ≤ 60	118 ≤ 171
V	60 ≤ 66	171 ≤ 214
VI	66 ≤ 80	214 ≤ 262

Source: FAA AC 150/5300-13A

FIGURE 2-1 - AIRCRAFT TYPES

Source: Jviation

The RDC of a runway determines the runway width, shoulder width, runway separation distances from other runways and taxiways, runway safety area (RSA) dimensions, object free area (OFA) dimensions, obstacle free zone (OFZ) dimensions, and the widths and length of the runway protection zone (RPZ).

2.1.2 Taxiway Design Group

Previously, taxiway design was determined solely on the ADG of a runway complex. An ADG is based exclusively on the wingspan and tail height of the design aircraft, not the dimension of the aircraft undercarriage. With the release of AC 150/5300-13A, taxiway design standards are now based on the TDG and the ADG of a taxiway complex. The TDG of a taxiway complex is determined by the undercarriage dimensions, overall Main Gear Width (MGW) and the Cockpit to Main Gear (CMG) distance, of the most demanding aircraft. Taxiway/taxilane width, shoulder width, and fillet standards, *and in some instances*, runway to taxiway and taxiway/taxilane separation requirements, are governed by the TDG. TDG improves the design of taxiways fillets and radii, enabling safe and efficient taxiing by airplanes while minimizing excess pavement.

The ADG of a taxiway complex determines the taxiway separations from other taxiways/taxilanes, the taxiway safety area, the taxiway/taxilane object free area, and wingtip clearances.

2.2 Airfield Design Standards

The primary consideration for runway and taxiway design is the standards established by the FAA. These standards are based upon the critical aircraft. Runway dimensional design standards define the widths and clearances required to optimize safe operations in the landing and takeoff area. These dimensional standards vary depending upon the RDC for the runway and the type of approach that is provided. The most demanding, or critical aircraft[1], using AEJ currently are B-II.

In accordance with previous FAA airport design standards, AEJ was designated with an Airport Reference Code (ARC) of B-II and currently meets or exceeds B-II standards. Under new design standards, AEJ has an RDC of B-II as well. The current runway design standards for AEJ, as well as B-II design standards, are shown in **Table 2-4**.

TABLE 2-4 - RDC B-II (RW 15/33) FAA RUNWAY DESIGN STANDARDS

Standard	Current Conditions	B-II Design Standards
Runway Width	75’	75’
Runway Shoulder Width	10’	10’
Runway Safety Area (RSA) Width	150’	150’
RSA Beyond Runway End	300’	300’
Runway Object Free Area (ROFA) Width	500’	500’
ROFA Beyond Runway End	300’	300’
Runway Centerline to Parallel Taxiway Centerline	300’	240’
Runway Centerline to Aircraft Parking	550’	250’

[1] FAA defines a critical aircraft as one having a minimum of 500 operations (takeoffs and landings) per year.

Standard	Current Conditions	B-II Design Standards
Runway Holding Position Markings	200'	200'

Source: FAA AC 150/5300-13A

2.3 Airfield/Airspace

2.3.1 Runways

AEJ's airfield configuration consists of one active runway, Runway 15/33, as depicted on **Figure 2-2**. The runway is constructed of asphalt. Runway 15/33 is positioned north/south, and is 8,300 feet long by 75 feet wide with unpaved shoulders. Runway pavement condition and strength are discussed in **Section 2.3.4**.

Per the FAA Airport Master Record (FAA Form 5010-1), the current Airport Reference Point (ARP) is located at Latitude 38˚48'51.1000"N and Longitude 106˚07'14.2000"W. The ARP is the latitude and longitude of the approximate center of the runway(s) at an airport. The established airport elevation, which is defined as the highest point along an airport's runway(s) is 7,950.4' above mean sea level (MSL), and is located at the end of Runway 15.

The needle on a compass orients according to the earth's magnetic field. Compasses are used in aircraft to provide directional guidance. Runway designations are determined by magnetic north and adjusted orientation. The earth's magnetic shifting is measured, recorded, and applied to an airport's runway numerals. Different numbers are therefore periodically painted on the runway to accurately represent the magnetic heading of the runway. The magnetic heading for the runway should be re-evaluated periodically.

A declination must be applied to a compass to arrive at a true north heading; and the same principle is utilized to maintain runway designations that are in accordance with FAA regulations. The magnetic bearing of a runway will change as the location of magnetic north shifts. Per the National Geophysical Data Center, as of July 30, 2014, the current declination for AEJ is 8˚59'27" east changing by 7.6' west annually[1]. The current true bearing for Runway 15 is N 160˚49' 41.2" W and the current true bearing of Runway 33 is S 340˚50' 2.5". The runway designation at AEJ should be appropriately adjusted to reflect magnetic changes since the last runway marking project. Numerals painted on the runway surface currently indicate an orientation of 15/33; however, they should be updated to reflect an orientation of 16/34.

2.3.2 Taxiways

The taxiway system at AEJ is constructed of asphalt and consists of one full length parallel taxiway (Taxiway A) on the west side of Runway 15/33 and six connector taxiways (A1-A6). Refer to **Table 2-5** and **Figure 2-2** for an overview of the existing taxiway information and layout.

Taxiway pavement condition and strength are discussed in **Section 2.3.4**.

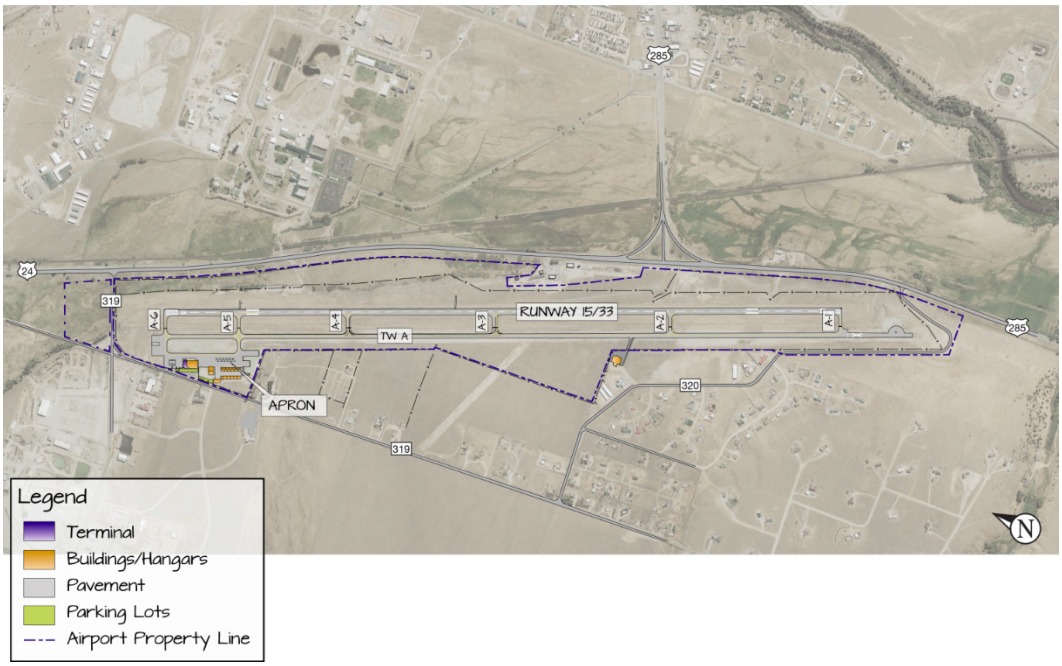
[1] http://www.ngdc.noaa.gov/geomag-web/, accessed July 2014.

TABLE 2-5 – TAXIWAY SYSTEM

Taxiway	Description	Width (feet)
A	Full length parallel taxiway on the west side of Runway 15/33	50
A1	Taxiway connector from parallel Taxiway A to the threshold of Runway 33	35
A2	Taxiway connector from parallel Taxiway A to Runway 15/33	35
A3	Taxiway connector from parallel Taxiway A to the midpoint of Runway 15/33	35
A4	Taxiway connector from parallel Taxiway A to Runway 15/33	35
A5	Taxiway connector from parallel Taxiway A to the GA apron and Runway 15/33	35
A6	Taxiway connector from parallel Taxiway A to the threshold of Runway 15	35

Source: Jviation

FIGURE 2-2 - AIRFIELD LAYOUT



Note: Not to scale
Sources: Jviation and Woolpert, Inc.

2.3.3 Apron

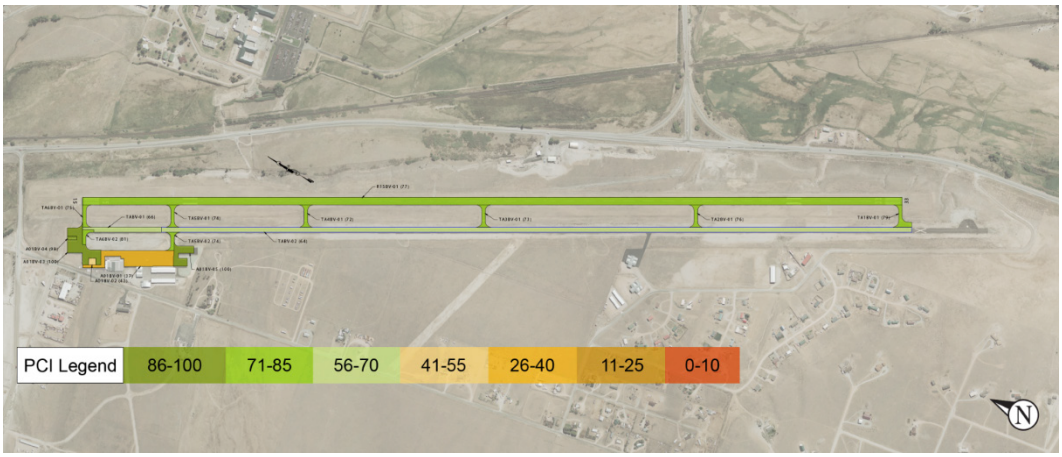
AEJ has one apron serving both the based and transient aircraft needs as depicted in **Figure 2-2**. The apron is located west of Runway 15/33 and Taxiway A. The total apron area is approximately 166,250 square feet of asphalt with a concrete hardstand.

2.3.4 Pavement Condition and Strength

The FAA recommends in AC 150/5380-6b, *Guidelines and Procedures for Maintenance of Airport Pavements,* that a detailed pavement inspection be conducted that follows the American Society for Testing and Materials (ASTM) D5340, Standard Test Method for Airport Pavement Condition Index Surveys. This method employs a visual rating system for pavement distress and is known as the Pavement Condition Index (PCI). The PCI scale ranges from a value of zero (representing a

pavement in a failed condition) to a value of 100 (representing a pavement in excellent condition). The last major PCI study performed by the CDOT Division of Aeronautics for AEJ was completed in 2012. Overall, the surfaces at AEJ range from a PCI of 37 to 100 as shown on **Figure 2-3**. Runway 15/33 is constructed to support a weight-bearing capacity of no greater than 30,000 pounds for a single wheel gear (SWG) and dual wheel gear (DWG) equipped aircraft. The taxiway and apron weight-bearing capacities are not published.

FIGURE 2-3 - EXISTING PAVEMENT CONDITION INDEX



Note: Not to scale
Sources: CDOT 2013 System Update, Pavement Evaluations and Management and Jviation

2.3.5 Lighting, Markings, and Signage of Runways and Taxiways

Runway 15/33 is equipped with a medium intensity runway lighting (MIRL) system. The MIRL's were installed in 1996 and have been maintained since that time but are currently in fair condition.

Taxiway A and all associated connector taxiways are not equipped with a lighting system. All taxiway pavement edges are marked with blue and yellow reflectors.

The Airport is equipped with standard airfield signage which is in good condition. The signage provides essential guidance information that is used to identify items and locations on an airport. Airfield signage gives pilots visual guidance information for all phases of movement on the airfield. AEJ is equipped with a wide array of FAA required signage including instruction, location, direction, destination, and information signs.

2.3.6 Visual and Navigational Airport Aids

The Airport has numerous visual and navigational aids as summarized in **Table 2-6**.

TABLE 2-6 – AEJ VISUAL AND NAVAID SUMMARY TABLE

General	Runway 15/33
Rotating Beacon	MIRL /b/
Lighted Wind Cone and Segmented Circle	PAPI /c/
AWOS/a/	RNAV (GPS)/d/ – Runway 33

General	Runway 15/33
UNICOM	

Notes: /a/ Automated Weather Observation System, /b/Medium Intensity Runway Lighting (MIRL), /c/ Precision Approach Path Indicator, /d/Area Navigation
Source: Jviation

Runways 15 and 33 are equipped with two light precision approach path indicators (PAPIs), providing a three-degree glide slope to arriving aircraft. The PAPIs provide visual descent guidance and are found on the left side of each runway. PAPI lights are visible from up to five miles during the day and up to 20 miles at night. The PAPIs are owned by the Airport, were installed in 1995, and are in fair condition. An Area Navigational (RNAV)/GPS approach is available for Runway 33. The approach is a non-precision approach that provides aircraft with lateral navigation (LNAV) but is without Vertical Guidance (LP).

AEJ has an Automated Weather Observation System (AWOS) located east of the end of Runway 15. An AWOS is an automated sensor suite which is voice synthesized to provide a weather report that can be transmitted via VHF radio, non-directional beacon (NDB), or VHF omni directional radio range (VOR), ensuring that pilots on approach have up-to-date airport weather for safe and efficient aviation operations. Most AWOS observe and record temperature and dew point in degrees Celsius, wind speed and direction in knots, visibility, cloud coverage and ceiling up to 12,000 feet, freezing rain, thunderstorm (lightning), and altimeter setting. The AWOS at AEJ was installed in 2005 with grants from CDOT and FAA. The AWOS is in good condition.

AEJ has a segmented circle located east of the mid-point of Runway 15/33 as well as a standard green and white rotating beacon located 650 feet west of the Runway 15 end; both in good condition.

2.3.7 Air Traffic Service Areas and Aviation Communications

FAA air traffic controllers, stationed in Air Route Traffic Control Center (ARTCC), provide air traffic control within defined geographic jurisdictions. There are 22 ARTCC geographic jurisdictions established within the continental United States. AEJ is within the Denver ARTCC jurisdiction which includes the airspace in all of Colorado and portions of Kansas, Nebraska, Wyoming, Utah, Arizona, and New Mexico. The Denver ARTCC can be reached at frequency 118.575 MHz.

Aviation communication associated with AEJ includes an Aeronautical Advisory Station (UNICOM) on frequency 122.8 which is also the frequency to activate the runway lights and PAPIs. As discussed in **Section 2.3.6**, an AWOS is stationed at the Airport and can be accessed on frequency 132.925 MHz.

2.3.8 Instrument Approach Procedures

An instrument approach procedure is a sequence of maneuvers to guide aircraft operating under FAA's Instrument Flight Rules (IFR) from the beginning of the initial approach to a runway to landing. Currently, the FAA recognizes three instrument approach types: precision, approach with

vertical guidance (APV) and non-precision. The FAA definitions of these approach types are as follows.

Precision Approach - An instrument approach procedure providing course and vertical path guidance conforming to FAA Order 8260.3B, *U.S. Standard for Terminal Instrument Procedures (TERPS),* requirements. Instrument Landing System (ILS), Precision Approach Radar, and Microwave Landing System (MLS) are examples of precision approaches and are commonly referred to in the context of conventional approach technologies via the use of ground based navigational aids.

Approach Procedure with Vertical Guidance (APV) - An instrument approach based on a navigation system that is not required to meet the precision approach standards of TERPS but provides course and glidepath deviation information. Localizer type directional aid (LDA) with glidepath, lateral navigation (LNAV)/vertical navigation (VNAV), and localizer performance with vertical guidance (LPV) are examples of APV approaches. Guidance provided for APV approaches via GPS do not require the use of ground-based navigational aids.

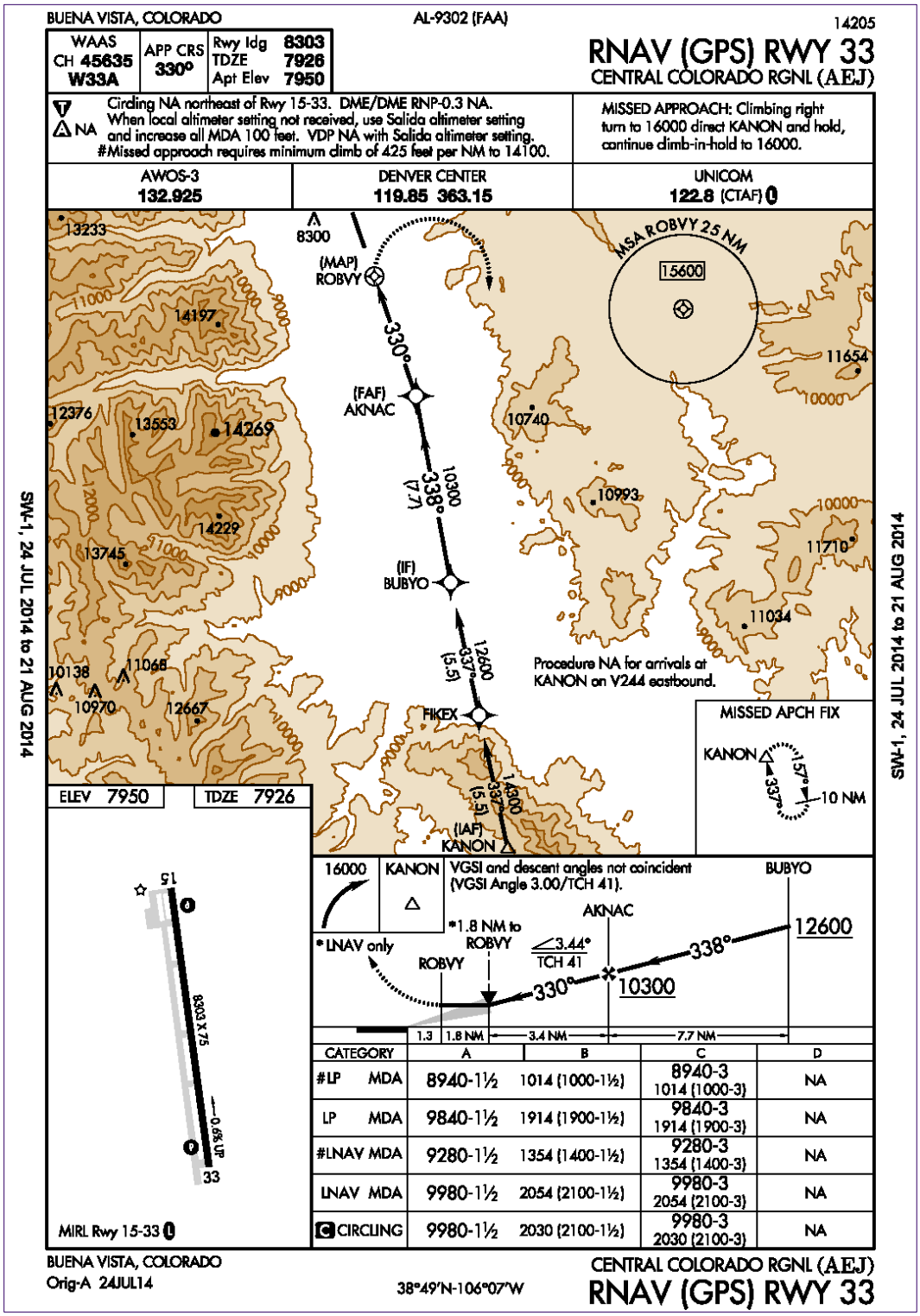
Non-precision Approach - An instrument approach based on a navigation system which provides course deviation (horizontal) information, but no glidepath deviation (vertical) information. VOR, non-directional beacon (NDB), LNAV, and circling minima are examples of non-precision approaches. Guidance provided for non-precision approaches via GPS do not require the use of ground-based navigational aids.

ILS precision approaches are divided into three categories: CAT I, CAT II, and CAT III, based on minimum altitudes an aircraft is capable of descending, as well as minimum visibility. CAT I systems are the most common ILS found at airports, as CAT II and CAT III systems allow for lower minimum altitudes and lower visibility, and therefore require increased airport investments in equipment and obstacle clearance to protect larger imaginary surfaces and meet additional airport design standards. It is important to point out that use of these ILS approaches is subject to aircraft being properly equipped and certified and properly trained aircrew.

GPS satellite based instrument approaches follow the same basic guidelines as ground-based systems, with the lowest possible minimums for approaches with horizontal only guidance being 300 feet above threshold and at least one mile of visibility (300-1). With the addition of vertical guidance through Wide Area Augmentation System (WAAS) or Ground Bases Augmentation System (GBAS), the lowest minimums are generally 200- ½ when an approach lighting system is installed.

As discussed previously, AEJ has one published non-precision approach procedure, an RNAV/GPS for Runway 33 (see **Figure 2-4**). The approach provides a minimum descent altitude of 1,000 feet and 1 ½ mile visibility and the lowest minimums are 8,940 feet (MSL) and 1 ½ mile visibility. Minimum descent altitude is associated with non-precision approaches and is the lowest altitude an aircraft can fly until the pilot sees the airport environment. If the pilot has not seen the airport environment by the designated Missed Approach Point (MAP), a missed approach is initiated.

FIGURE 2-4 - AEJ RNAV/GPS APPROACH

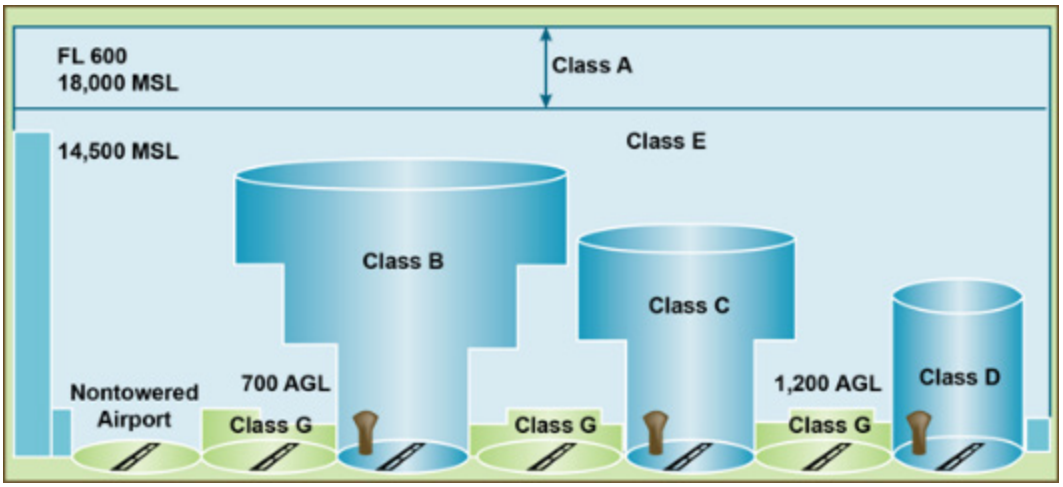


Source: SkyVector, https://skyvector.com/files/tpp/1408/pdf/09302R33.PDF, Accessed July 2014

2.3.9 Airport Airspace Usage

The FAA designates the airspace surrounding airports using a letter classification ranging from A to E, as depicted in **Figure 2-5**. The most restrictive of these airspaces is Class A airspace. It exists between 18,000 and 60,000 feet above mean sea level (MSL). Class A is controlled airspace applicable during the en route portion of flight. Classifications are based on the level and type of aircraft operations for a specific airport. Airspace surrounding the nation's busiest airports, like Denver International Airport, is designated as Class B, and is strictly controlled by air traffic control. Other towered airports are surrounded by Class C and D airspace. For airports, such as AEJ that have no tower, the surrounding airspace is designated as Class E. Airspace that has not been designated as Class A, Class B, Class C, Class D, or Class E airspace is classified as Class G (uncontrolled) airspace. This airspace extends from the surface to 1,200 feet above ground level (AGL), as described in FAA Order JO 7400.2K, *Procedures for Handling Airspace Matters*.

FIGURE 2-5 – AIRSPACE CLASSIFICATIONS

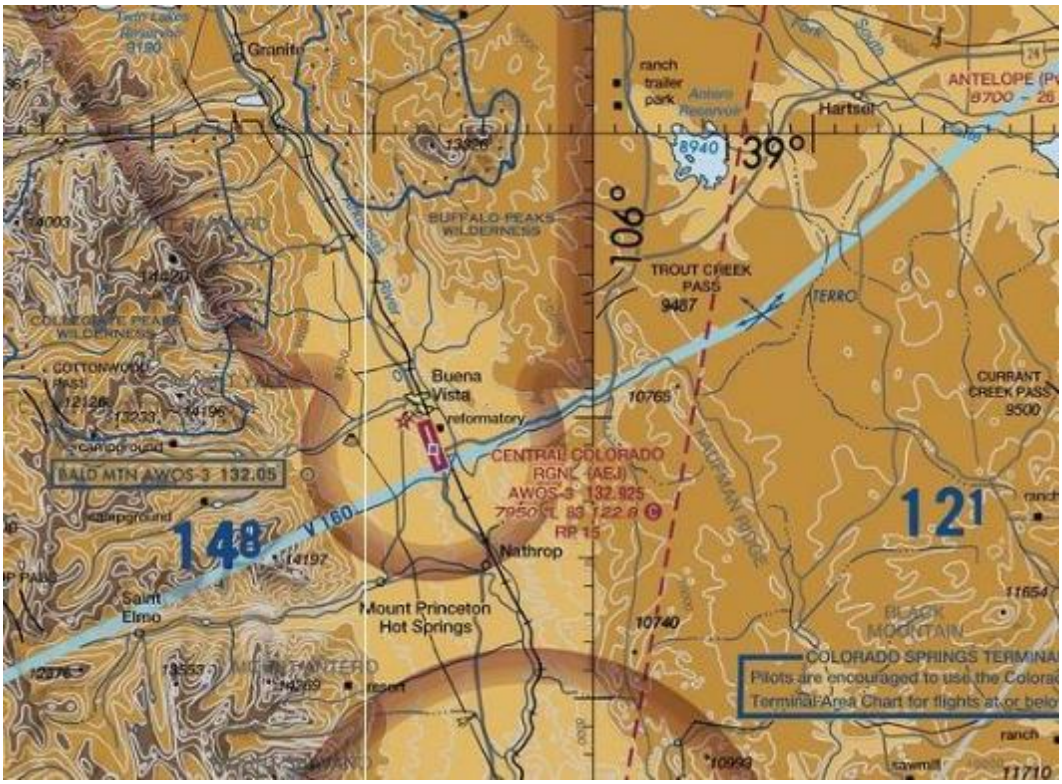


Source: Federal Aviation Administration

As previously mentioned, the Denver ARTCC provides air traffic control for AEJ. The airspace surrounding AEJ is designated as Class E airspace, with a secondary designation as a surface area. This secondary designation expands the airspace to surround all instrument approach procedures to the extent practicable[1]. Airspace classified as Class E is subject to less restrictive air traffic control than that of Classes A through D. The primary restriction to this airspace is maintaining separation from other aircraft and minimum weather requirements of three statute mile visibilities and remaining clear of clouds by 1,000 feet above, 500 feet below, and 2,000 feet horizontally. **Figure 2-6** depicts the airspace surrounding AEJ.

[1] Federal Aviation Administration. (2014). Order JO 7400.2K, Procedures for Handling Airspace Matters, Chapter 18. Class E Airspace. Section 1 Paragraph b. p. 18-1-1.

FIGURE 2-6 – AERONAUTICAL CHART



Note: Not to scale
Source: Denver Aeronautical Sectional Chart, 90th edition - January 9, 2014

2.3.10 Obstructions to Air Navigation

Obstructions are defined as any object of natural growth, terrain, permanent or temporary construction equipment, or permanent or temporary manmade structures that penetrate an imaginary/protected surface as specified in 14 CFR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace* (Part 77).

A survey of the pertinent objects near AEJ has been completed by Woolpert, Inc. The survey follows FAA AC 150/5300-16A, *General Guidance Specifications of Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey*; 150/5300-17C, *Standards for Using Remote Sensing Technologies in Airport Surveys*; and 150/5300-18B, *General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards*. The survey was uploaded on FAA's web site and reviewed and approved by the FAA and the National Geodetic Survey (NGS). The survey identified penetrations to the imaginary surfaces, which are shown on drawings in the Airport Layout Plan (ALP) set, and discussed subsequently in this plan.

2.4 General Aviation Facilities

General Aviation (GA) facilities provide services to GA operators at an airport. GA facilities include the Fixed Base Operator (FBO), hangars, and apron/tie-down space.

2.4.1 Fixed Base Operator

A fixed base operator (FBO) is an aviation related business that provides services for non-air carrier pilots, aircraft, and passengers. However, some FBOs fuel air carrier aircraft, as well as provide deicing and light maintenance. FBO services range from GA aircraft fueling, ground servicing, aircraft maintenance and repair, in-flight catering, flight training, and aircraft rental. FBOs may also serve as a terminal for passengers boarding GA aircraft and may include a lobby, restrooms, vending, and rental car services. Pilot lounges, flight planning rooms, weather computers, and pilot shops are also typical in FBOs.

Currently, AEJ is served by one FBO, managed by the Town of Buena Vista. The FBO is located on the GA apron at the northwest side of Runway 15; see **Figure 2-7**.

The FBO is open during the summer (June 1st through September 30th) from 7:00 AM to 5:00 PM and during the winter (October 1st through May 31st) from 8:00 AM to 4:00 PM. However, self-fueling is available 24 hours a day and assisted service is provided during hours of operation.

Other services offered by the FBO include:

- Aircraft tie-downs
- Self-serve and full-serve Avgas and Jet A fuel
- Pilot lounge with WiFi
- Executive pilot lounge
- Conference center
- Flight planning room
- Rental Cars

FIGURE 2-7 – TERMINAL/FBO

Source: Jviation, 2014

2.4.2 Airport Hangars

Hangars are enclosed structures for the parking, servicing, and maintenance of aircraft which are designed to protect aircraft from environmental elements such as wind, snow, hail, ice, and rain. Most hangar structures are either box-style or T-style designs. Box-style hangars, also known as conventional hangars, have a box-shaped or rectangular footprint and range in size to hold one or

two single-engine aircraft up to accommodating several corporate jet aircraft. T-style hangars are known as T-hangars which are a series of interconnected aircraft hangars with footprints in the shape of a "T". T-hangars generally store one single- or multi-engine aircraft each, while box-style hangars can range in size from those that accommodate one small plane to those that accommodate many aircraft of various sizes.

AEJ has both T-hangars and box hangars for aircraft storage. **Table 2-7** details the hangar units, and **Figure 2-8** depicts the hangar locations. A through-the-fence (TTF) operator[1] has a box hangar with six units located just north of the taxiway connector A-2 (

Figure 2-9).

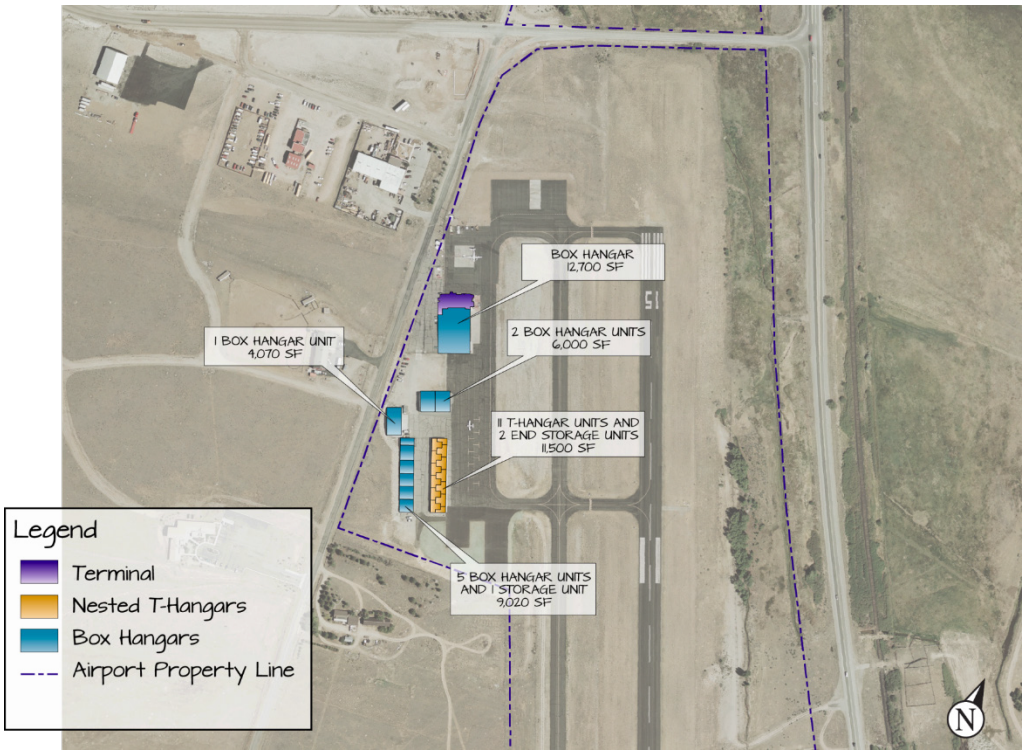
TABLE 2-7 – EXISTING HANGARS

Type	Name	Units	Area (square feet)	Year Constructed	Condition	Utilities[a]
Box	Mandes Hangar	1	12,700	1983	Fair	E
Box	Twin Peaks	2	6,000	2007	Good	E
Box	Jay Jones	1	4,070	2012	Excellent	E
T-hangar[b]	B	11	11,500	2004	Good	E
Box	A	5	9,020	1985	Fair/Good	E
Box – TTF[c]	TTF	6	9,438	1995	Good	E

Notes: [a]Water (W), Sewer (S), Electric (E), Gas (G), [b] Includes as storage unit on either end of hangar, [c]TTF = through the fence
Source: Airport Management Records, 2015

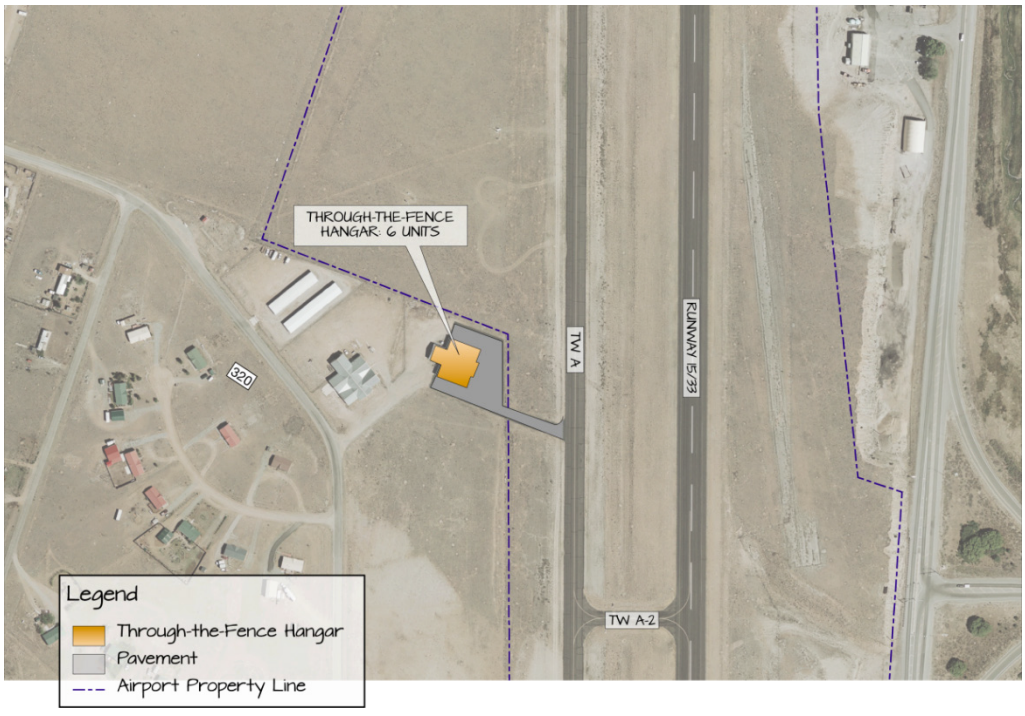
[1] Through-the-Fence Operator per FAA AC 150/5190-7, *Minimum Standards for Commercial Aeronautical Activities* – the owner of an airport may, at times, enter into an agreement (i.e. access agreement or lease agreement) that permits access to the public landing area by independent operators offering an aeronautical activity or to owners of aircraft based on land adjacent to, but not a part of, the airport property.

FIGURE 2-8 - HANGARS



Note: Not to scale
Source: Jviation

FIGURE 2-9 – THROUGH-THE-FENCE HANGAR



Note: Not to scale
Source: Jviation

2.4.3 Based Aircraft

The Airport has a total of 27 based aircraft which are primarily stored in hangars. Table 2-8 lists a breakdown of based aircraft by type.

TABLE 2-8 – BASED AIRCRAFT

Aircraft Type	Amount
Single Engine	21
Multi Engine	3
Jet	2
Glider	1
Helicopters	0

Source: Airport Administration, 2015

2.4.4 Based & Transient Aircraft Parking Aprons & Tie-downs

Aircraft parking aprons, also known as ramps, are large paved surfaces designed for parking and servicing aircraft. Aprons provide access to terminals, hangars, and FBO facilities, locations to transfer cargo from aircraft, and areas for aircraft fueling and maintenance. An apron's size and pavement strength varies greatly at different airports and even on the same airport. Factors contributing to size and strength include: aircraft type, available space, special aircraft needs, and the configuration of terminals, hangars, and FBOs. In addition, whether aircraft power-in/power-out to parking positions, or if tugs are used to pull-in and/or push-out the aircraft, can greatly impact an apron's parking capacity.

The Airport has one apron to serve all aircraft and passenger needs. The apron is approximately 166,250 square feet and is located west of the end of Runway 15. The apron has 12 tie-downs for both based and transient aircraft. Pavement type and condition is discussed in Section 2.3.4.

2.5 Airport Equipment

The Airport owns and operates several pieces of large equipment to perform maintenance, snow removal, and Aircraft Rescue and Fire Fighting (ARFF). ARFF and Snow Removal Equipment (SRE) are eligible for FAA funding and most other maintenance equipment is eligible for CDOT Aeronautics funding.

2.5.1 ARFF Equipment

Aircraft Rescue and Firefighting (ARFF) is a special category of firefighting on airports for response, evacuation, and possible rescue of passengers and crew in an aircraft. Since AEJ is not a Federal Aviation Regulations (FAR) Part 139 airport, it is not required to provide ARFF services. AEJ has one ARFF vehicle, a 3,000 gallon 1985 foam truck donated to Buena Vista for Airport use. The vehicle is in poor condition. The truck is located at the Buena Vista Fire Department, located approximately one and a half miles to the north of the Airport on Linderman Avenue. The ARFF vehicle is staged at the Airport during high altitude testing.

2.5.2 Snow Removal Equipment

Snow removal equipment (SRE) is used to clear the runway, taxiways, and apron at the Airport. Two plow trucks, a 1987 Ford L-8000 dump truck 200 and a 2003 International 7400 snow plow, purchased in 2013, are owned by the Airport. Both the 1987 dump truck and snow plow are in fair condition. The Airport also uses a 1998 Caterpillar IT28B front end loader. The loader is in fair condition.

2.5.3 Other Equipment

The Airport has other equipment which is used for mowing, aircraft fueling, courtesy cars, and maintenance. **Table 2-9** includes a list of this equipment as well as its current condition.

TABLE 2-9 – AIRPORT EQUIPMENT

Year	Make/Model	Use	Condition
2004	Ford Excursion	Airport staff	Fair
1998	Ford Taurus	Courtesy car	Fair
2005	Massey Ferg Tractor	Mowing	Fair
1983	Ford Tug	Aircraft movement	Poor
2005	Lektro Tug	Aircraft movement	Good
1999	Chevrolet Venture Van	Courtesy car	Fair
1974	Chevrolet Custom 30 Truck	Maintenance	Fair/Poor
2014	Sealcoat Machine	Maintenance	Excellent
1998	International 4700 T444E	Aircraft Fueling	Good

Source: Airport Administration Records, 2014

2.6 Support Facilities

2.6.1 Aircraft Rescue and Firefighting (ARFF) Station, SRE Storage Building, and Maintenance Building

The Airport does not currently have a specific building dedicated to storing ARFF and SRE equipment or a maintenance facility. Space is leased in the hangar adjacent to the terminal building to store the 1983 Ford tug and the Lektro tug. The remainder of the equipment is stored outside along the south end of the hangar adjacent to terminal (**Figure 2-10**).

FIGURE 2-10 – EQUIPMENT STORAGE

Source: Jviation, 2014

2.6.2 Aircraft Fuel Storage and Use

Aircraft typically use one of two fuel types: AvGas or Jet A. AvGas, or Aviation Gasoline, is used by aircraft with reciprocating piston engines. The most common grade of AvGas is 100 low lead (LL). Jet A is a kerosene type fuel, which contains no lead, and is used for powering jet and turbo-prop engine aircraft. Aviation fuel is currently stored northwest of the apron in the fuel farm. The fuel farm has two 15,000-gallon above ground storage tanks (AST) that were installed in 1985. They are single-walled with fuel containment. The Airport's fuel truck is a 1998 International 4700 T444E with a 3,000-gallon capacity. The tanks and fuel truck are owned by the Town of Buena Vista; see **Figure 2-11**. The tanks are in good condition as is the fuel truck. However, the fuel truck was purchased from Florida and does not have a cold weather package which is not ideal for a Colorado airport.

FIGURE 2-11 – FUEL FARM AND FUEL TRUCK

Source: Jviation, 2014

Self-serve fuel is also available at the Airport for use during FBO non-operating times and is located north of the terminal building, directly east of the fuel storage tanks. A 72-foot by 66-foot concrete apron surrounds the fuel pumps where aircraft park for fueling. **Figure 2-12** depicts the self-fueling facility.

FIGURE 2-12 – SELF-SERVICE FUELING FACILITY

Source: Jviation, 2014

Airport records indicated fuel flowage at AEJ has steadily increased over the past five years (2009-2013), with peak usage in 2011. **Table 2-10** details the fuel pumped from 2009 through 2013.

TABLE 2-10 – FUEL FLOWAGE

Year	Total Jet A & AvGas Fuel (gallons)
2009	42,656
2010	53,094
2011	60,374
2012	58,180
2013	59,847

Source: Airport Administration Records, 2014

2.7 Access, Circulation, and Parking

Adequate vehicular access to the Airport, as well as parking facilities, is necessary for effective operation of an airport. The following summarizes existing road and parking conditions at the Airport.

2.7.1 Airport Access Road & Circulation Network

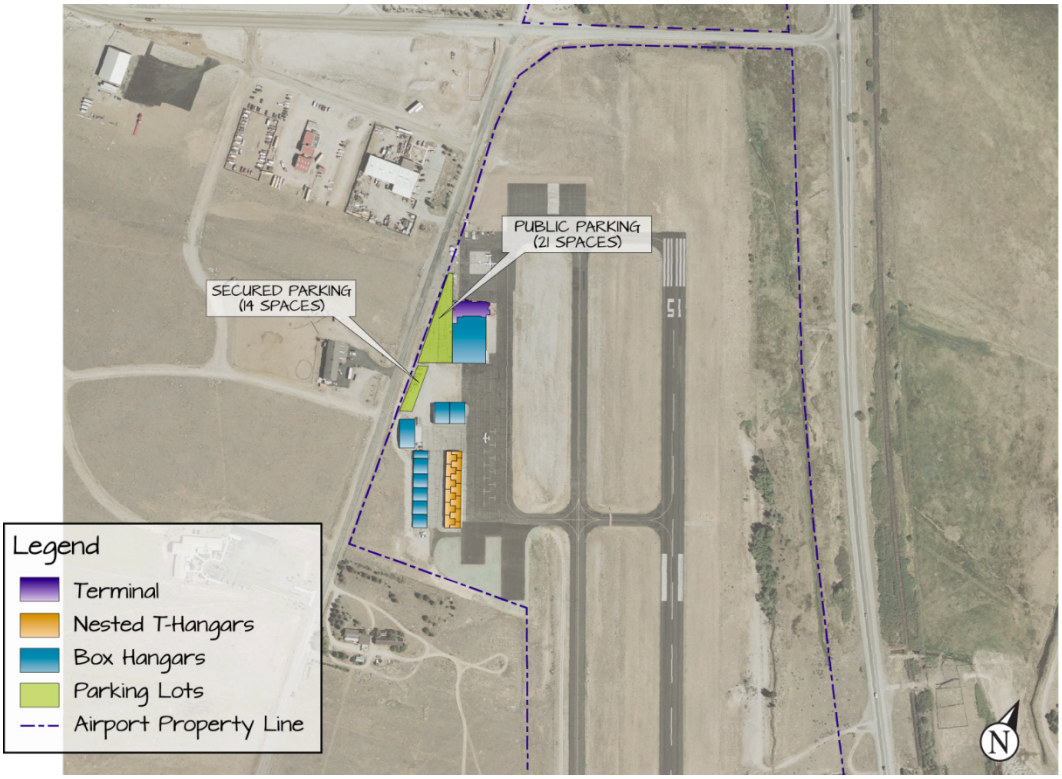
The main access road to the Airport is County Road 319 which connects to U.S. Highway 24 via Steele Drive. County Road 319 is a two-lane road that sits directly adjacent to the Airport's auto parking lot. Alternatively, access is available from the south via U.S. Highway 285 to County Road 320 which connects to County Road 319.

2.7.2 Auto Parking

Public parking at AEJ consists of one lot located west of the apron and FBO and east of County Road 319. The parking lot has 21 spaces and is free of charge for airport users. The parking lot is also used for employee vehicles, rental cars (as needed), and airport courtesy cars. An additional

unpaved secure lot is located through the gate, southwest of the terminal, with 14 spaces. **Figure 2-13** illustrates the parking areas.

FIGURE 2-13 – AEJ PARKING



Note: Not to scale
Source: Jviation

2.8 Utilities

AEJ has a variety of public utilities. Public utilities include natural gas, electrical service, water supply, and fiber optics and communications. All utility lines serving the Airport are buried underground and provide service to buildings and airfield facilities. Waste water is treated on-site.

2.8.1 Natural Gas

Natural gas is supplied by Atmos Energy.

2.8.2 Electricity

Electricity is provided by the Sangre de Cristo Electric Association.

2.8.3 Water Supply

Water lines serving the Airport are from the Buena Vista Municipal Water Plant and provide potable water and fire protection.

2.8.4 Waste Water

A four-inch sanitary sewer line provides waste water discharge into the Airport's wastewater treatment facilities, which consist of a 1,500-gallon septic tank and associated leach field.

2.8.5 Fiber Optics and Communications

Century Link provides phone service to the Airport while Matrix provides internet and data services.

2.9 Meteorological Data

Environmental elements play a significant role in an airport's layout and design. Temperatures impact runway length and prevailing winds are one of the most important environmental elements as they dictate runway orientation.

2.9.1 Wind Coverage

Wind conditions are particularly important for runway use at an airport. Each aircraft has an acceptable crosswind component for landing and takeoff. The crosswind component is a calculation of the speed of wind at a right angle to the runway centerline. When the acceptable crosswind component of an aircraft is exceeded, the aircraft must divert to another runway or a completely different airport.

Per FAA AC 150/5300-13A, Airport Design, when the current runway(s) provide less than 95 percent wind coverage for any aircraft that use the airport on a regular basis, a crosswind(s) runway should be considered. The crosswind components of 10.5, 13, 16, and 20 knots were used for this analysis to look at the allowable crosswind component for various sizes of aircraft. A 10.5 knot crosswind component is used for small aircraft weighing 12,500 pounds or less, and a 20 knot crosswind component is used for an aircraft the size of a Boeing 767.

Typically, weather observations are obtained from the National Climatic Data Center (NCDC). However, the NCDC noted that 10 years of data did not exist for AEJ as observations were just started in 2010. It was also noted that wind data was not obtained during the 2004 Master Plan. However, a local meteorologist has been collecting data at AEJ since November 2007; see **Appendix B** for qualifications. Observations used were taken November 11, 2007 through October 20, 2014. Per the FAA, the desirable wind coverage for an airport is 95 percent during all weather conditions, which means that runways should be oriented so that the maximum crosswind component does not exceed more than five percent of the time. As shown in **Table 2-11,** the runway orientation of Runway 15/33 provides 90.64 percent coverage for a 10.5-knot crosswind, which is under the FAA crosswind component requirement of 95 percent. "All Weather" includes data on the winds observed for all types of weather conditions during the observation period. The FAA All Weather wind rose is depicted in **Figure 2-14**.

TABLE 2-11 – AEJ WIND COVERAGE

All Weather	10.5-Knots	13-Knots	16-Knots	20-Knots
Runway 15/33	90.64%	93.95%	96.96%	98.93%

Sources: Mal Sillars, Consulting Meteorologist, and FAA AGIS Wind Rose Form, https://airports-gis.faa.gov/airportsgis/publicToolbox/windroseForm.jsp

2.9.2 Temperature

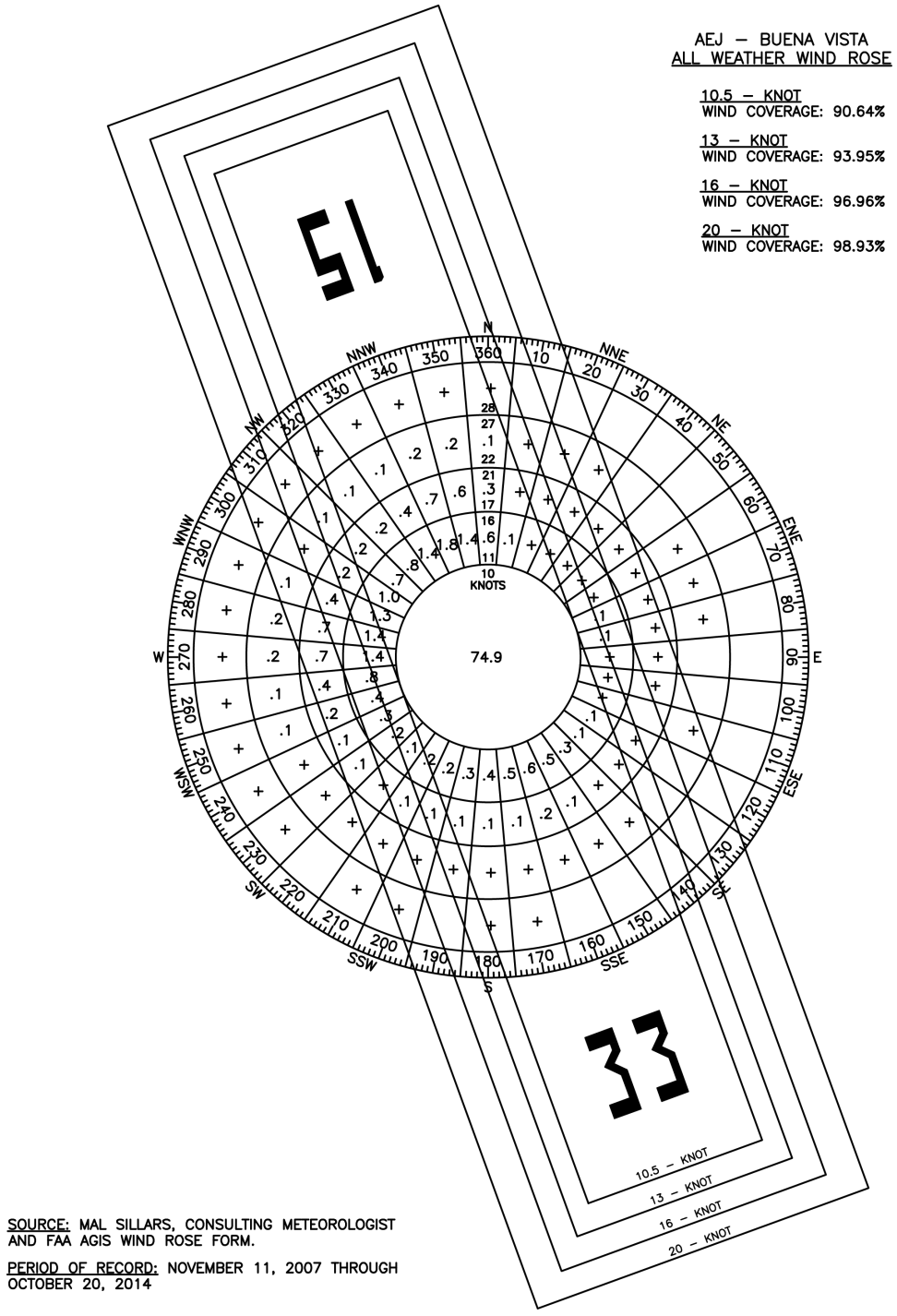
The mean maximum temperature of the hottest month, also known as the airport reference temperature, occurs in July with a temperature of 82.1°F. The average temperature in January is 25.8°F and in June it is 60.4°F. These temperatures are recorded by the Western Region Climate Center. [1]

2.9.3 Precipitation

July is typically the rainiest month in Buena Vista, and the total precipitation averages 9.8 inches per year. The average snowfall for the city averages 41.2 inches per year, with most of the snowfall occurring November through April.[2]

[1] Western Region Climate Center, Colorado Climate Summaries. http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?co1071, Accessed August 2014.
[2] Western Region Climate Center, Colorado Climate Summaries. http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?co1071, Accessed August 2014.

FIGURE 2-14 – ALL-WEATHER WIND ROSE



2.10 Airport Property

The Airport property is comprised of 184 acres. The land is owned in fee simple and through long-term leases/easements with the State of Colorado Departments of Corrections, Colorado Division of Wildlife, and Colorado Department of Natural Resources.

The land depicted as the airport on the Exhibit "A" Property Map must be used in accordance with the Airport Layout Plan. The Exhibit "A" is an inventory of the parcels that makeup dedicated airport property and indicates how the land was acquired and the funding source. Property that is designated for aeronautical use cannot be used for non-aeronautical purposes except under limited circumstances or with FAA approval.

2.11 Regional Setting and Land Use

The Airport is located approximately two miles south of the Town of Buena Vista, as shown in **Figure 1-2**. The Airport is zoned by both the Town of Buena Vista and Chaffee County (see **Figure 2-15**). Buena Vista controls the portion of the airport that includes the buildings and hangars, while the County controls the remaining areas. The portion of the Airport controlled by Buena Vista is zoned as Industrial (I-1). The principal use of land zoned as I-1 is:

> "for the fabrication, assembly and manufacture of goods and materials in conjunction with related retail and wholesale activities. It is the intention of these regulations to encourage the development and orderly expansion of the district with such uses and in such a manner as to avoid dangerous, noxious or unsightly land uses"[1].

The portion of the Airport controlled by Chaffee County is zoned as Industrial (IND). The intent of IND is:

> "areas for industrial businesses in locations where conflicts with residential, commercial and other land uses can be minimized. It is the intent of this district to allow uses that are complementary to industrial uses. This land use district is intended to promote the development of local employment centers as well as to provide a location for uses that may be considered undesirable in other areas, such as concrete and asphalt plants, heavy equipment storage, and intensive manufacturing processes. These land uses should have easy access to the state highways or other transportation modes"[2].

In addition to the zoning designations by the Town of Buena Vista and Chaffee County, both entities have included an airport overlay district in their municipal codes. The Town of Buena Vista adopted an Airport Protection Overlay District (APO). The intent of the APO is:

> The Airport Protection Overlay ("APO") District is a supplemental district that may overlay any standard zoning district. Any use by right or conditional use permitted in the underlying district is also permitted in an APO District so long as that use meets the special conditions required in an APO District.
>
> The APO District is established to minimize exposure of residential and other sensitive land uses to aircraft noise areas, to avoid danger from aircraft accidents, to reduce the possibility of such accidents, to discourage traffic congestion within the

[1] Colorado Code Publishing Company, Buena Vista Municipal Code, Section 16-160, 1992
[2] Chaffee County Commissioners, Chaffee County Land Use Code, Section 2.2.7, 2014

area of the district and to restrict non-compatible land uses in proximity to and within airport influence areas.

The APO District shall be applied in the vicinity of all general aviation airports which would be significantly affected by air traffic, noise or any hazard related to the establishment, operation or maintenance of an airport.

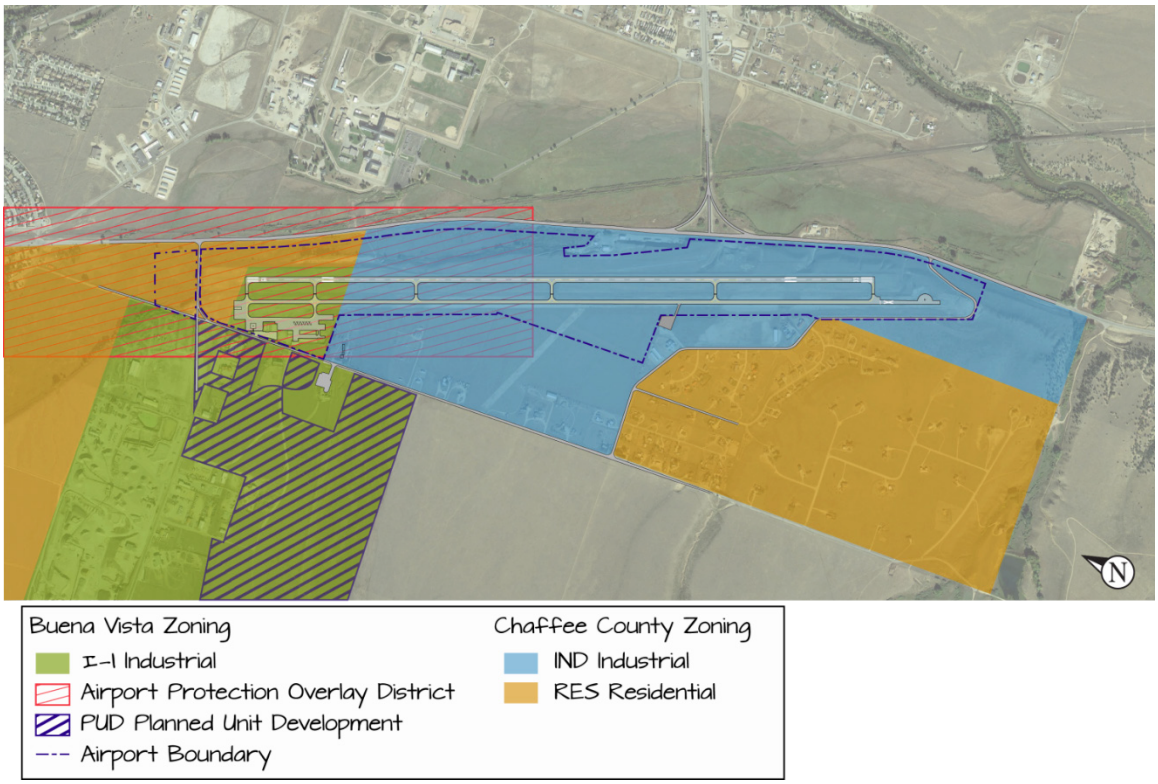
The degree of protection provided by this overlay district is considered reasonable and prudent for land use regulatory purposes and is based on established parameters of control. Establishment of this district, however, does not imply that areas outside of the district will be totally free from airport and aircraft related hazards, or that all hazards within the APO District will be completely mitigated. Establishment of this district shall not create a liability on the part of or create or cause action against the Town or any officer, employee or contractor thereof for any damages that may result directly or indirectly from reliance on the provisions contained herein.[1]

Chaffee County adopted an Airport Overlay District (AIO) with the intent of:

- To support and encourage the continued operation and vitality of public use airports and heliports.
- To reduce potential safety hazards for persons living, working or recreating near public use airports and heliports.
- To minimize environmental impacts resulting from the operation of public use airports and heliports.[2]

[1] Colorado Code Publishing Company, Buena Vista Municipal Code, Section 16-168, 1992
[2] Chaffee County Commissioners, Chaffee County Land Use Code, Section 2.6.3, 2014

FIGURE 2-15 – ZONING



Note: Not to scale
Sources: Town of Buena Vista and Chaffee County

2.12 Environmental Overview

FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, and Order 5050.4B, *National Environmental Policy Act: Implementation Instruction for Airport Actions* addresses specific environmental categories that are to be evaluated in environmental documents in accordance with the National Environmental Policy Act (NEPA). The following section inventories the applicable environmental categories and their existence at AEJ. The following environmental categories are not discussed as they are not relevant to AEJ and/or they relate to impacts from a specific project.

- Coastal Resources
- Construction Impacts
- Secondary Impacts
- Socioeconomic Impacts
- Environmental Justice
- Children's Health and Safety Risks

2.12.1 Air Quality

Air quality analysis for federally funded projects must be prepared in accordance with applicable air quality statutes and regulations that include the Clean Air Act of 1970[1], the 1977 Clean Air Act Amendments[2], the 1990 Clean Air Act Amendments[3], and the National Ambient Air Quality

[1] U.S. Code. The Clean Air Act of 1970. U.S. Congress, Public Law 91-604, 42 U.S.C. §7401
[2] U.S. Code. The 1977 Clean Air Act Amendments, U.S. Congress, Public Law 95-95, 42 U.S.C. §7401
[3] U.S. Code. The 1990 Clean Air Act Amendments, U.S. Congress, Public Law 101-549, 42 U.S.C. §7401

Standards[1] (NAAQS). The air pollutants of concern in the assessment of impacts from airport-related sources include six "criteria pollutants"; carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM-10 and PM-2.5), and sulfur dioxide (SO_2).

The Airport is in Chaffee County, which is designated by the U.S. Environmental Protection Agency (EPA) as being in attainment status for all parts of the county in all criteria[2].

2.12.2 Department of Transportation Act: Section 4(f)

The Department of Transportation (DOT) Act, Section 4(f)[3] provides that the "Secretary of Transportation will not approve any program or project that requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land from an historic site of national, state, or local significance unless there is no feasible or prudent alternative and the use of such land includes all possible planning to minimize harm resulting from the use".

The FAA has adopted the regulations the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued in March 2008 (23 CFR Part 774)[4] to address project-related effects on Section 4(f) resources.

For Section 4(f) purposes, a proposed action would eliminate a resource's use in one of two ways.

- *Physical use.* Here, the action physically occupies and directly uses the Section 4(f) resource. Here an action's occupancy or direct control (via purchase) causes a change in the use of the Section 4(f) resources. For example, building a runway safety area across a fairway of a publicly-owned golf course is a physical taking because the transportation facility physically used the course by eliminating the fairway.
- *Constructive use*. Here, the action indirectly uses a Section 4(f) resource by substantially impairing the resource's intended use, features, or attributes. For example, a constructive use of an overnight camping area would occur when project-related aircraft noise eliminates the camping area's solitude. Although not physically occupying the area, the project indirectly uses the area by substantially impairing the features and attributes (i.e., solitude) that are necessary for the area to be used as an overnight camping area.[5]

The Town of Buena Vista has numerous park and recreation areas as listed in **Table 2-12** and shown on **Figure 2-16;** however, none are located adjacent to or near the Airport.

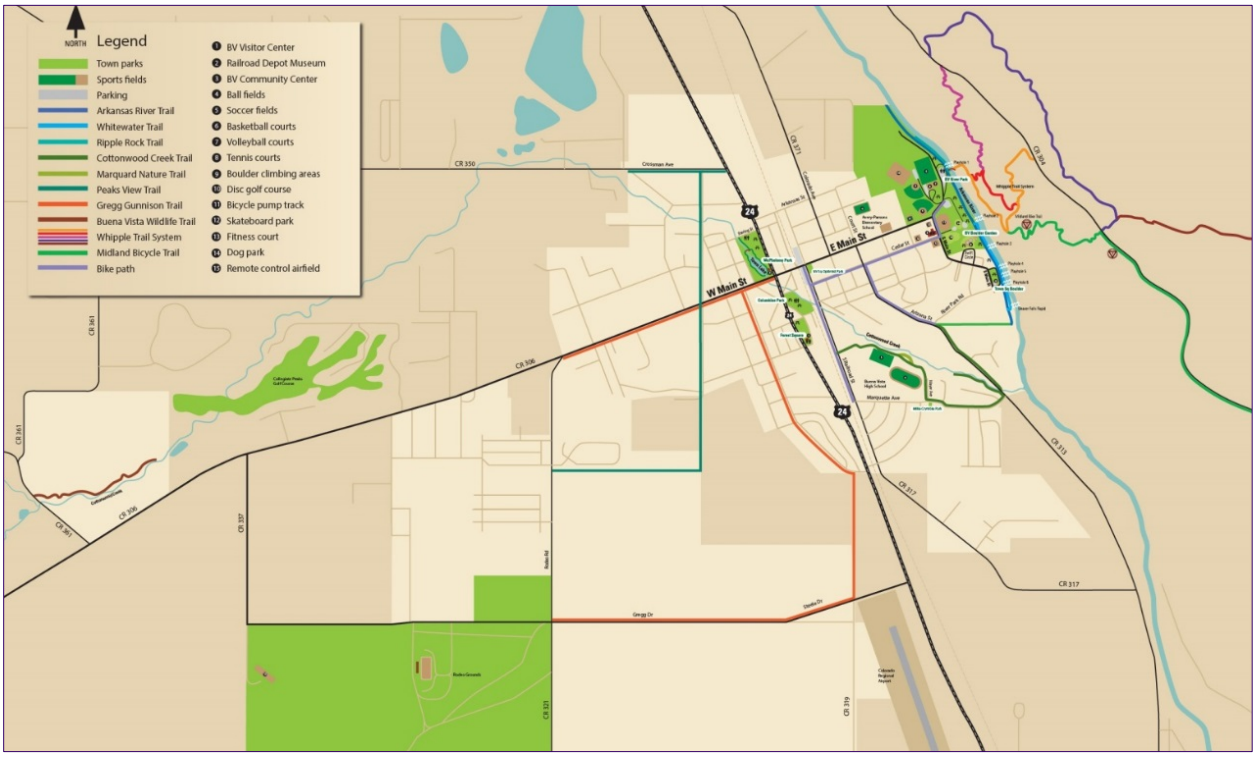
[1] 40 CFR Part 50, Section 121, National Ambient Air Quality Standard
[2] U.S. Environmental Protection Agency, Green Book – Nonattainment Status for Each County by Year, www.epa.gov/airquality/greenbook/astate.html, accessed July 2014
[3] U.S. Department of Transportation Act, section 4(f), recodified and renumbered as § 303(c) of 49 U.S.C.
[4] Vol. 73 Federal Register, page 13395, Mar. 2008.
[5] A de minimis use cannot occur if a project constructively uses a Section 4(f) property. This is because the substantial impairment associated with a constructive use is more severe than the minor effects to which de minimis provisions apply.

TABLE 2-12 – BUENA VISTA PARK FACILITIES

Park Name	Location
Buena Vista Square Optimist Park (future park)	Corner of East Main Street and Railroad Street
Remote Control Airstrip	West of Buena Vista Rodeo Grounds
Millie Crymble Park	Marquette Avenue, east of Buena Vista High School
Dog Park	Across from Community Center on East Main Street
Buena Vista Rodeo Grounds	Rodeo road (CR 321) just west of Gregg Drive intersection
River Walk	Follows the Arkansas River, connecting the South Main area to the recreation area north of the River Park
Whitewater Park	South Main neighborhood
Disc Golf Course	Within River Park, end of Main Street next to Arkansas River
Skate Park	South of Community Center on East Main Street
South Main Square park	South Main development along the Arkansas River
River Park	End of Main Street next to Arkansas River
Forest Square Park	Highway 24, 3 blocks south of the stoplight in Buena Vista
Columbine Park	Highway 24, just south of stoplight in Buena Vista
McPhelemy Park	Intersection of Highway 24 and Main St.

Source: Buena Vista Parks and Recreation, http://bvparksandrec.org/category/park/

FIGURE 2-16 – BUENA VISTA PARKS AND RECREATION AREAS



Source: Buena Vista Parks and Recreation, http://bvparksandrec.org/wp-content/uploads/2014/03/Parks-Map.jpg

2.12.3 Farmlands

The Farmland Protection Policy Act (FPPA) regulates federal actions that may impact or convert farmland to a non-agricultural use. FPPA defines farmland as "prime or unique land as determined by the participating state or unit of local government and considered to be of statewide or local importance".

The Natural Resources Conservation Service (NRCS) Web Soil Survey was used to review soils on and around AEJ. **Table 2-13** details the soil types on Airport property, none of which are classified as prime farmland, and **Figure 2-17** depicts the NRCS soils.

TABLE 2-13 – ON-AIRPORT SOIL CLASSIFICATIONS

Map Unit Symbol	Map Unit Name	Farmland Classification
AdC	Adilis loam, 1 to 5 percent slopes	Not prime farmland
ChB	Chaffee loam, 1 to 3 percent slopes	Not prime farmland
DoD	Dominson gravelly sandy loam, 1 to 9 percent slopes	Not prime farmland
DoF	Dominson gravelly sandy loan, 9 to 45 percent slopes	Not prime farmland
GcB	Gas Creek gravelly sandy loam, 1 to 30 percent slopes	Not prime farmland
GP	Pits, gravel	Not prime farmland
Gv	Gravelly alluvial land	Not prime farmland
OrC	Ouray sandy loam, 1 to 5 percent slopes	Not prime farmland
RcF	Rockland, 15 to 60 percent slopes	Not prime farmland

Map Unit Symbol	Map Unit Name	Farmland Classification
Ro	Rock outcrop	Not prime farmland
Ru	Rough broken land	Not prime farmland
SsC	San Isabel stony sandy loam, 1 to 5 percent slopes	Not prime farmland
StC	Sawatch sandy loam, 1 to 5 percent slopes	Not prime farmland
W	Water	Not prime farmland

Source: Natural Resource Conservation Service, Web Soil Survey, www.websoilsurvey.nrcs.usda.gov, accessed July 2014

FIGURE 2-17 - NRCS SOILS

Note: Not to scale
Source: Natural Resource Conservation Service, Web Soil Survey, www.websoilsurvey.nrcs.usda.gov, accessed July 2014

2.12.4 Fish, Wildlife, and Plants

Requirements have been set forth by The Endangered Species Act[1], The Sikes Act[2], The Fish and Wildlife Coordination Act[3], The Fish and Wildlife Conservation Act[4], and the Migratory Bird Treaty Act[5], for the protection of fish, wildlife, and plants of local and national significance. The U.S. Fish and Wildlife Service's (USFWS) Information, Planning, and Conservation (IPaC) System was used to identify species of concern. It was found that various species listed by the USFWS as being threatened, endangered, or candidates may be found in Chaffee County. The identified species are depicted in **Table 2-14**.

A survey would need to be completed prior to development to determine if any listed species occur on Airport property.

TABLE 2-14 – THREATENED AND ENDANGERED SPECIES IN CHAFFEE COUNTY

Group	Species	Scientific Name	Status
Birds	Gunnison sage-grouse	*Centrocercus minimus*	Proposed Endangered
	Mexican spotted owl	*Strix occidentalis lucida*	Threatened
Insects	Uncompahgre Fritilary butterfly	*Boloria acrocnema*	Endangered
Mammals	Black-Footed ferret	*Mustela nigripes*	Experimental Population, Non-Essential
	Canada Lynx	*Lynx canadensis*	Threatened
	North American wolverine	*Gulo gulo luscus*	Proposed Threatened

Source: USFWS, Information, Planning, and Conservation System, Species Report, https://ecos.fws.gov, accessed July 2014

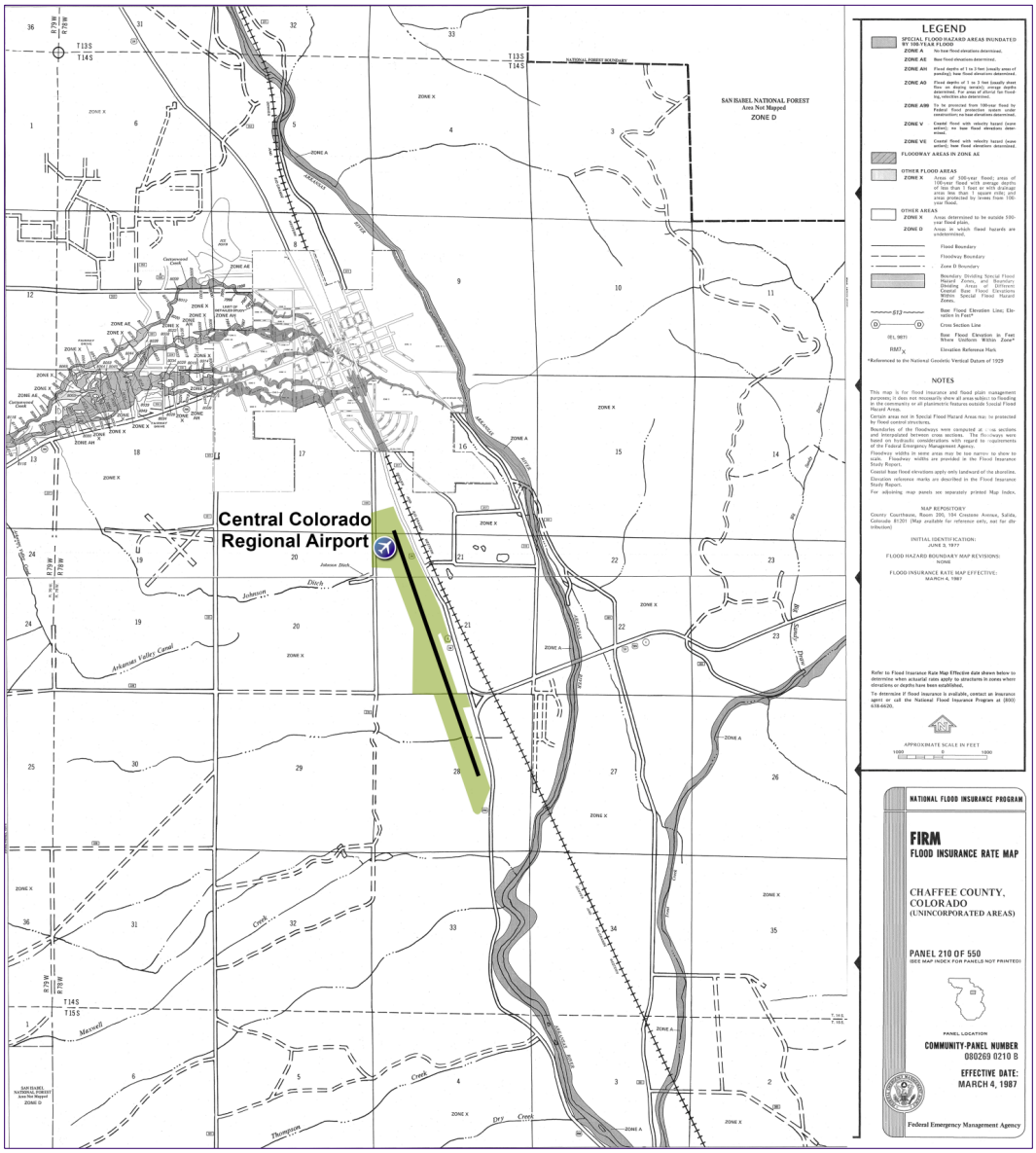
2.12.5 Floodplains

Executive Order 11988, *Floodplain Management,*[6] directs federal agencies to "avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative".

The Airport is located on Flood Insurance Rate Map (FIRM) Panel 0802690210B, effective March 4, 1987. The Airport, in its entirety, is in an area designated by the Federal Emergency Management Agency (FEMA) as Zone X, as shown in **Figure 2-18**. Areas within Zone X are areas determined to be outside the 500-year flood plain.

[1] Endangered Species Act of 1973, U.S. Congress, Public Law 93-205, 16 U.S.C §1531-1544
[2] Sikes Act, Amendments of 1974, U.S. Congress, Public Law 93-452
[3] Fish and Wildlife Coordination Act of 1958, U.S. Congress, Public Law 85-624, 16 U.S.C §661-666c
[4] Fish and Wildlife Conservation Act of 1980, U.S. Congress, Public Law 96-366, 16 U.S.C §2901-2912
[5] Migratory Bird Treaty Act of 1981, 16 U.S.C §703-712
[6] Executive Order 11988, Floodplain Management, 1977

FIGURE 2-18 - FLOOD INSURANCE RATE MAP



Note: Not to scale
Source: *FEMA, Flood Insurance Rate Map, Panel 0802690210B, effective March 4, 1987*

2.12.6 Hazardous Materials, Pollution Prevention, and Solid Waste

The Resource Conservation and Recovery Act (RCRA)[1], Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)[2], Superfund Amendments and Reauthorization Act (Superfund)[3], and the Community Environmental Response Facilitation Act (CERFA)[4] are the four predominant laws regulating actions related to the use, storage, transportation, or disposal of

[1] U.S. Code, 1976, Resource Conservation and Recovery Act, 42 USC, §6901
[2] U.S. Code 1980, Comprehensive Environmental Response, Compensation and Liability Act, 42 USC, §9601-9628
[3] U.S. Code 1986, Superfund Amendments and Reauthorization Act, 42 USC
[4] U.S. Code 1992, Community Environmental Response Facilitation Act, Public Law 102-426

hazardous materials, chemicals, substances, and wastes. Federal actions that pertain to the funding or approval of airport projects require the analysis of the potential for environmental impacts per the regulating laws. Furthermore, property listed or considered for the National Priority List (NPL) should be evaluated in relation to the Airport's location.

Per the NPL, no sites are located near the Airport.

2.12.7 Historical, Architectural, Archaeological, and Cultural Resources

The National Historic Preservation Act[1] and the Archaeological and Historical Preservation Act[2] regulate the preservation of historical, architectural, archaeological and cultural resources. Federal actions and undertakings are required to evaluate the impact on these resources.

For the purposes of this Master Plan, historic, archaeological and cultural resources are districts, sites, buildings, structures, objects, landscapes, and Native American Traditional Cultural Properties (TCPs) that are on or eligible for listing on the National Register of Historic Places (NRHP). The NRHP currently lists seven properties for Buena Vista, as noted in **Table 2-15**.

A survey would be required prior to development to determine if any historic, archaeological and cultural resources occur on Airport property.

TABLE 2-15 – NATIONAL REGISTER OF HISTORIC PLACES – BUENA VISTA

Property Name	Location	Year Added to Registry	Distance from Airport
Bridge over Arkansas River	U.S. Highway 24, Buena Vista	1985	0.8 miles east
Chaffee County Courthouse and Jail Buildings	501 E. Main St., Buena Vista	1979	1.2 miles north
Grace Episcopal Church	Main and Park Ave., Buena Vista	1978	1.2 miles north
Bonney, J.M. House	408 Princeton Ave., Buena Vista	1994	1.4 miles north
Clear Creek Canyon of Chaffee County	North of Buena Vista	1974	14.7 miles north
Vicksburg Mining Camp	Northwest of Buena Vista on SR. 390	1977	15 miles northwest
Winfield Mining Camp	Northwest of Buena Vista on SR. 390	1980	15 miles northwest

Source: National Register of Historic Places, www.nationalregisterofhistoricplaces.com, accessed July 2014

2.12.8 Light Emissions and Visual Impacts

Federal regulations do not specifically regulate airport light emissions; however, the FAA does consider airport light emissions on communities and properties near an airport. A significant portion of light emissions at airports are a result of safety and security equipment and facilities. AEJ has four primary sources of light:

- Runway Lighting: lights outlining the runway; classified by the intensity or brightness the lights can produce.
- Airport beacon: a rotating light used to locate the Airport.

[1] U.S. Code, 1966, National Historic Preservation Act of 1966, Public Law 89-665
[2] U.S. Code, 1974, Archaeological and Historical Preservation Act of 1974, 16 USC 469

- PAPIs: system of lights on the side of an airport runway threshold that provides visual descent guidance information during approach
- Apron/Parking Lights: pole lighting on aprons and parking areas

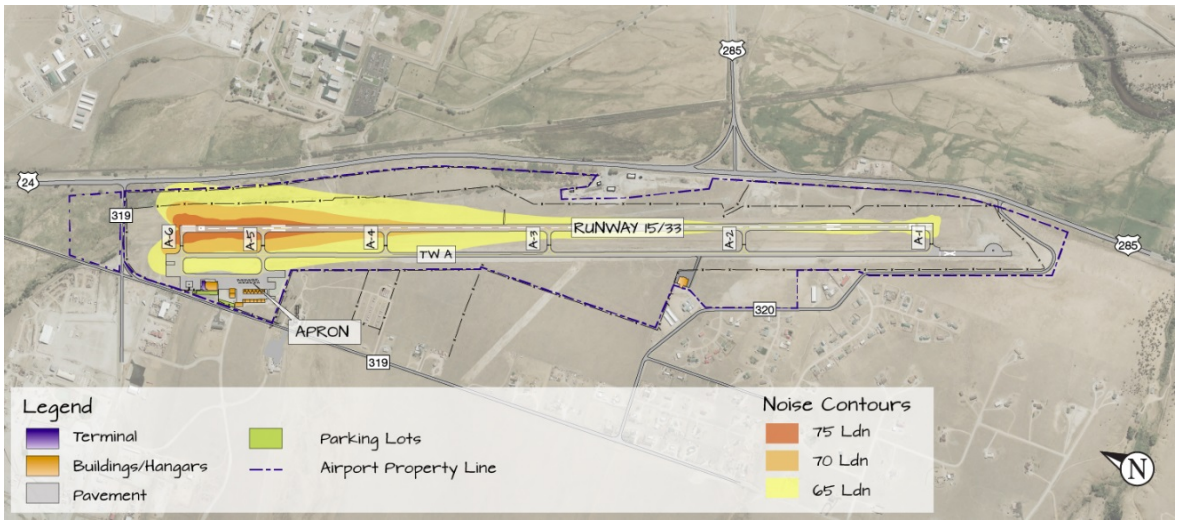
All sources of light aid in the safety of operations at the airport and produce an insignificant amount of light on the surrounding area.

2.12.9 Noise

Aircraft noise and noise surrounding airports are two of the most notorious issues related to the environment at airports. The FAA examines actions and development that may change runway configurations, airport/aircraft operation and/or movements, aircraft types, and flight patterns, all of which could ultimately alter the noise impacts on the communities near the airport.

A noise analysis for existing conditions was completed by KB Environmental Sciences, Inc., see **Appendix C** for full report. **Figure 2-19** illustrates the 2015 65 Day-Night Average Sound Level (DNL). The noise contour was generated using the Aviation Environmental Design Tool (AEDT), Version 2b. As shown, the noise contour remains well within AEJ's boundary with exception to a small area west of the Runway 15 end. Land use (road right-of-way) within that area is compatible with the 65 DNL contour.

FIGURE 2-19 – 2015 DNL NOISE CONTOURS



Source: KB Environmental Sciences, Inc., 2016

2.12.10 Water Quality

The Clean Water Act[1] provides the federal government the "authority to establish water quality standards, control discharges, develop waste treatment management plans and practices, prevent or minimize the loss of wetlands, location with regard to an aquifer or sensitive ecological area such as a wetland area, and regulate other issues concerning water quality."

[1] U.S. Code, 1977 The Clean Water Act, 33 U.S.C. §1251-1387

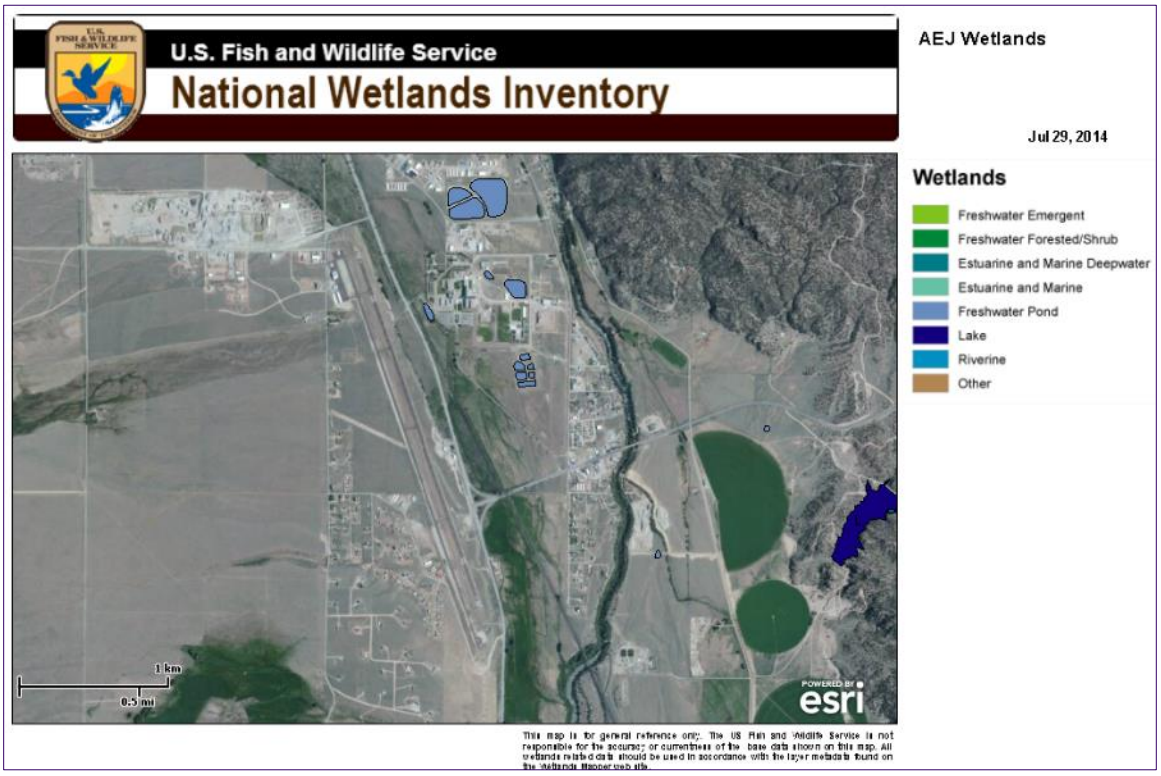
The major watershed for the Buena Vista area is the Arkansas Headwaters. As discussed in **Section 2.8.3**, the Airport's water supply is obtained from the Town of Buena Vista.

2.12.11 Wetlands

Executive Order 11990, Protection of Wetlands, defines wetlands as "those areas that are inundated by surface or groundwater with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction." Federal agencies are required to minimize the destruction, loss, or degradation of wetlands.

Per the National Wetlands Inventory (NWI) wetlands exist near the Airport; however, none have been delineated on airport property. The nearest known wetlands are depicted in **Figure 2-20**. A survey would need to be completed prior to development to determine if any wetlands occur on Airport property.

FIGURE 2-20 - NATIONAL WETLAND INVENTORY MAP



Note: Not to scale
Source: U.S. Fish and Wildlife Service, National Wetlands Inventory, Wetlands Mapper, www.fws.gov/wetlands/Data/Mapper.html

2.12.12 Wild and Scenic Rivers

The Wild and Scenic Rivers Act of 1968, as amended[1], describes those river segments designated as, or eligible to be included in, the Wild and Scenic Rivers System. Impacts to designated rivers should

[1] U.S. Code, The Wild and Scenic Rivers Act of 1968, 16 USC 1271-1287, 1977

be avoided or minimized to the extent possible. In addition, the President's 1979 *Environmental Message Directive* on Wild and Scenic Rivers[1] directs federal agencies to avoid or mitigate adverse effects on rivers identified in the Nationwide Rivers Inventory as having potential for designation under the Wild and Scenic Rivers Act.

Rivers are classified as wild, scenic, or recreational. **Table 2-16** describes each classification. However, regardless of classification, each river in the National System is administered with the goal of protecting and enhancing the values that caused it to be designated. A designated river is neither prohibited from development nor does it give the federal government control over private property. Protection of the river is provided through voluntary stewardship by landowners and river users and through regulation and programs of federal, state, local, or tribal governments. In most cases, not all land within boundaries is, or will be, publicly owned, and the Act limits how much land the federal government can acquire from willing sellers.[2]

As of July 2011, the National System protects 12,598 miles of 203 rivers in 38 states and the Commonwealth of Puerto Rico; this is less than one-quarter of one percent of the nation's rivers.[3]

TABLE 2-16 – WILD & SCENIC RIVER CLASSIFICATIONS

Classification	Description
Wild	Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
Scenic	Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
Recreational	Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Source: National Wild and Scenic Rivers System, www.rivers.gov, accessed July 2014

AEJ is in central Colorado, with the Cache la Poudre River being the nearest river designated as "Wild and Scenic". The Poudre River, located in the northern Front Range of Colorado, is approximately 100 miles to the north of AEJ.

2.13 Airport Waste Recycling

The Airport currently collects oil, plastic, paper, aluminum, and glass for recycling. The oil is collected and taken to NAPA Automotive by airport staff for recycling. The remaining items are sorted and transported to the B.V. Recycling Center on Gregg Drive, just west of the Airport, by Airport staff. Solid waste at the Airport is taken to the Public Works facility located on Gregg Drive.

Appendix D contains the AEJ's Recycling, Reuse, and Waste Reduction Plan.

[1] Office of Environmental Policy, 1979, Policy Guidelines for Wild and Scenic Rivers, 1980
[2] National Wild and Scenic Rivers System, www.rivers.gov, accessed July 2014
[3] Ibid.

2.14 Financial Information

2.14.1 Revenues

AEJ's operating aeronautical revenue consists of Operating Revenue from Aeronautical and Non-Aeronautical, and Non-Operating Revenue. These revenue sources include landing fees, tie-down fees, jet pad parking fees, towing fees, hangar land leases, aviation fuel tax, aviation fuel sales, and high altitude testing fees.

Landing Fee: These fees are charged for the use of airport infrastructure and facilities for landing, take-off, and ground maneuvering. The rates are based on the certified maximum take-off weight for each aircraft; see **Table 2-17** for AEJ's rates. Landing fees vary each year depending upon activity. Fees collected in 2012 and 2013 were $1,600 and $2,035, respectively.

TABLE 2-17 – AEJ LANDING FEES

Weight (pounds)	Fee
Under 12,500	No fee per FAA Rules
12,500 to 16,500	$20.00
Over 16,500 to 30,000	$30.00
Over 30,000 to 50,000	$40.00
Over 50,000 to 100,000	$75.00
Over 100,000	N/A

Source: Airport Management, 2014

Tie Down Fee: Aircraft parking fees for tie-down on the apron are based on the parking duration and wingspan. **Table 2-18** details AEJ's rates. Tie-down fees collected in 2012 and 2013 were $2,126 and $2,375, respectively.

TABLE 2-18 – AEJ TIE-DOWN FEES

Wing Span	Daily	Weekly	Monthly
40' or less	$5.00	$25.00	$75.00
Over 40'	$10.00	$50.00	$150.00

Source: Airport Management, 2014

Jet Pad Parking Fees: This fee is based on a daily basis and aircraft weight (**Table 2-19**).

TABLE 2-19 – AEJ JET PAD PARKING FEES

Weight (pounds)	Daily Fee
Up to 16,500	$30.00
Over 16,500 to 30,000	$45.00
Over 30,000 to 50,000	$50.00
Over 50,000 to 100,000	$75.00
Over 100,000	Negotiated

Source: Airport Management, 2014

Towing Fees: The fee for towing aircraft is based on aircraft weight (**Table 2-20**).

TABLE 2-20 – AEJ AIRCRAFT TOWING FEES

Weight (pounds)	Fee
Under 12,500	$10.00
12,500 to 16,500	$20.00
Over 16,500 to 30,000	$30.00
Over 30,000 to 50,000	$40.00
Over 50,000 to 80,000	$50.00
Over 80,000	N/A

Source: Airport Management, 2014

Hangar Land Leases: Most airports make a large portion of their revenue from hangar rental fees. However, the hangars at AEJ are owned by others which limits hangar lease revenue. Many the hangars are leased to a private owner until 2043. AEJ does receive 20 percent of revenue from the Mandes hangar, which is attached to the terminal, for managing the space. Rent revenue in 2012 and 2013 was $15,750 and $5,811, respectively.

Aircraft Fuel Sales and Excise Tax Refund: Revenue from Jet A and AvGas is the largest revenue generator at AEJ. An excise tax refund is received when fuel is sold to certain users including but not limited to, military aircraft. Fuel sales for 2012 and 2013 were $290,910 and $312,390, respectively and the tax refund was $2,429 and $2,691.

High Altitude Testing: High altitude testing has become a constant at AEJ since it began in 2002 with various companies and organizations. During testing they often rent office space, the conference room, and the flight test center. Revenue from this testing in 2012 and 2013 was $29,037 and $13,564, respectively.

Indirect Revenue: This is revenue that is usually property taxes on hangars and aircraft. Unlike direct airport revenue, indirect may be placed in the City or County's general fund and may be used for other purposes.

Non-Aeronautical Revenue: Non-aeronautical revenues include land and non-terminal facilities, terminal food and beverage, retail stores, and rental cars.

Non-Operating Revenue: An airport's non-operating revenue consists of interest income, grant receipts, and passenger facility charges[1]. **Table 2-21** details AEJ's FAA grant history.

TABLE 2-21 – AEJ FAA GRANT HISTORY

Grant Number	Fiscal Year	Project
001-1991	1991	Conduct Airport Master Plan Study
002-1993	1993	Construct Runway
002-1993	1993	Acquire Land for Development
002-1993	1993	Construct Runway

[1] Passenger facility charges are only collected at commercial service airports; therefore they are not applicable at AEJ.

Grant Number	Fiscal Year	Project
003-1994	1994	Construct Runway
003-1994	1994	Acquire Land for Development
004-1994	1994	Construct Runway
005-1995	1995	Install Runway Vertical/Visual Guidance System
005-1995	1995	Extend Taxiway
005-1995	1995	Construct Runway
005-1995	1995	Install Runway Lighting
005-1995	1995	Improve Building
005-1995	1995	Install Airfield Guidance Signs
005-1995	1995	Construct Taxiway
006-2001	2001	Conduct Airport Master Plan Study
007-2003	2003	Rehabilitate Taxiway
007-2003	2003	Rehabilitate Apron
007-2003	2003	Rehabilitate Runway
008-2004	2004	Install Perimeter Fencing
009-2005	2005	Install Weather Reporting Equipment
009-2005	2005	Update Airport Master Plan Study
010-2006	2006	Expand Apron
010-2006	2006	Rehabilitate Apron
011-2008	2008	Construct Terminal Building
012-2009	2009	Rehabilitate Runway (fog seal)
013-2009	2009	Rehabilitate Taxiway (fog seal)
013-2009	2009	Rehabilitate Apron (fog seal)
013-2009	2009	Rehabilitate Runway (fog seal)
014-2014	2014	Conduct Airport Master Plan Study

Source: Federal Aviation Administration, Denver Airports District Office

2.14.2 Expenses

Typical operating and non-operating expenditures to airports include personnel compensation and benefits, communications and utilities, maintenance, contractual services, and insurance. Personnel compensation and benefits costs are the expense of a full- or part-time manager and support staff. Primary utility expenses are the cost of electricity to operate airfield lighting and visual aids, airport buildings and the cost of water for public use areas or irrigation. Pavement maintenance costs includes crack sealing and seal coating, and remarking pavements every three to eight years. Facility maintenance costs are mowing, snow removal, repair and replacement of equipment, and building up-keep on airport property. The insurance cost is a non-operating expense and consists of the airport's liability insurance and property insurance.

2.15 Airport User Surveys

To further assess the adequacy of the airport facilities and desired improvements, surveys were sent to local aircraft owners and pilots, local businesses, car rental agency, and high altitude testing companies that have operated at AEJ in the past. The surveys are in **Appendix E**.

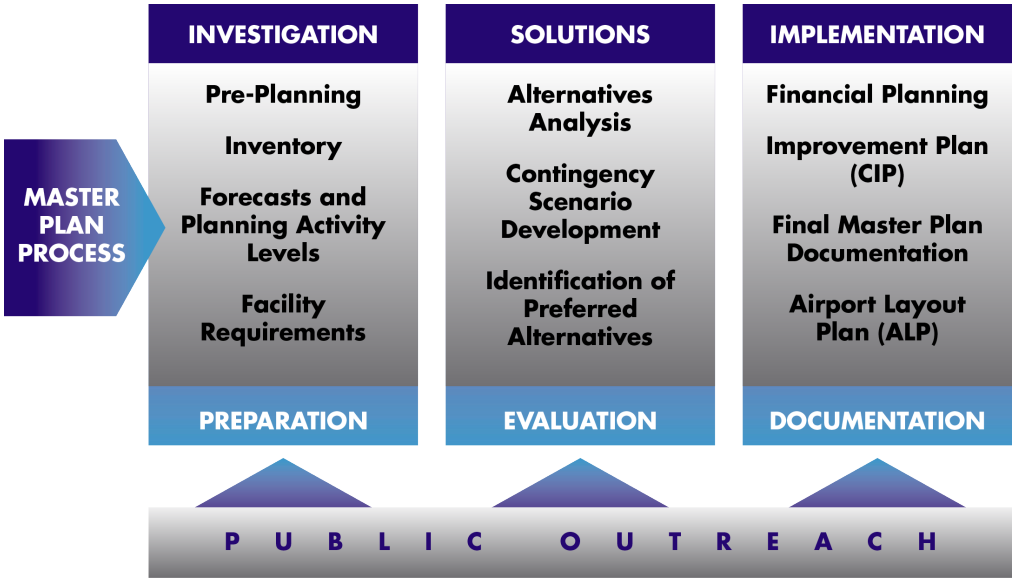
3.0 FORECAST OF AVIATION ACTIVITY

Aviation activity forecasts are essential for airport master plans because they directly impact a number of important factors at an airport such as:

- Future facility requirements needed to accommodate projected demand, identified through the demand-capacity analysis;
- Future design aircraft and FAA airport design criteria;
- Capital investments, priorities, and timing;
- Future aeronautical revenue potential; and
- Potential environmental issues.

In the master planning process forecasts are typically the second element of the investigation phase of the study, after the inventory, see **Figure 3-1**. Once developed, aviation activity forecasts are used to determine the need for new or improved airport facilities. According to FAA's Advisory Circular (AC) 150/5070-6B: *Airport Master Plans*, aviation forecasts should be "realistic, based upon the latest available data, reflect current airport conditions, and provide adequate justification for airport planning and development."

FIGURE 3-1 - MASTER PLAN ELEMENTS



Source: Jviation

Once the aviation forecasts have been accepted by the Town of Buena Vista and the FAA, the Master Plan will examine the facility requirements based on anticipated aviation demand for the 20-year planning period, which concludes the investigation phase of the Master Plan, and initiates the solutions phase to accommodate future aviation demand on airport facilities.

Aviation forecasts are typically prepared for short- (0-5 year), medium- (6-10 year), and long-term (11-20 year) planning periods. The forecast period for this Master Plan is between 2014 and 2034.

As discussed in the following text, the forecast periods are directly related to forecast validity. While forecasting is essential for a successful master plan, it only serves as an approximation of future activity. Forecasts are developed accounting for historical data and trends, present conditions, and future outlooks based on a number of variables.

Historical trend lines are an important tool in forecasting, but prior activity levels at non-towered airports such as Central Colorado Regional Airport (AEJ)[1] are estimates, not actual counts. For example, FAA's estimates of activity at AEJ between 1990 and 2012 show significant fluctuations in aircraft operations[2] and based aircraft over the 22-year period (see **Figure 3-2** and **Figure** 3-3), but do not indicate why those changes occurred or why operations decreased sharply in 1996, and again in 2004 when based aircraft were increasing. The fluctuations in activity do not appear to correspond with demographic changes in Chaffee County, which experienced steady increase in both population and employment over that period, see **Section 3.3**.

In addition, the FAA's Terminal Area Forecast (TAF) and Form 5010[3] do not agree on current activity levels at AEJ; typically these two FAA data sources are equal. However, as the FAA does not provide any site specific explanation for their forecast at individual GA airports, nor identify the specific local or national factors that they anticipate will influence future activity at AEJ, it is unknown why they differ. The FAA's Traffic Flow Management System Counts (TFMSC), which tracks aircraft activity via filed instrument (IFR) flight plans and Air Traffic Control (ATC) clearances, did not record any activity at AEJ, and as a result there are no FAA records of corporate aircraft activity at AEJ, other than what the town has counted. Given the discrepancies in the data and the lack of explanation concerning the variations, the historical trends shown do not provide statistically reliable models for future trend line or regression analysis forecasts.[4]

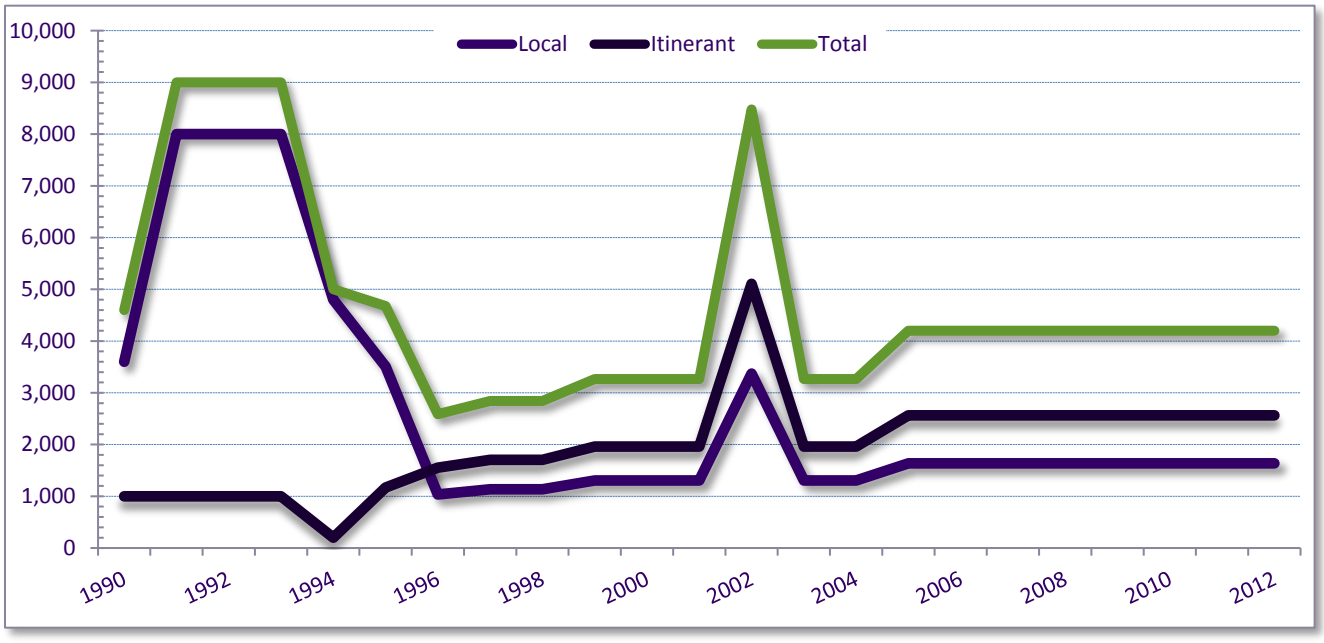
[1] FAA identifier for Central Colorado Regional Airport

[2] An aircraft operation is either a take-off or landing.

[3] FAA Airport Master Record, Form 5010-1

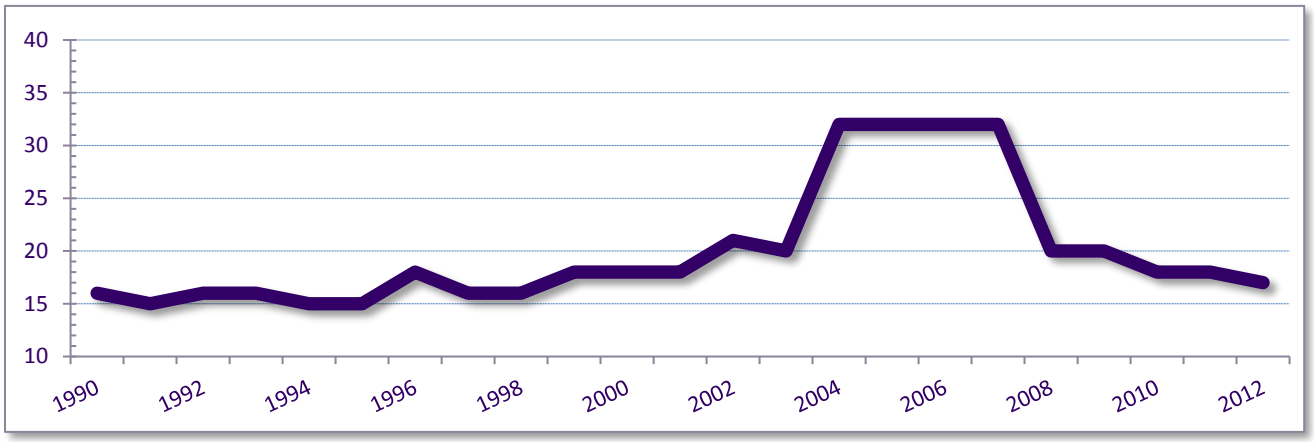
[4] **Trend analysis** uses a technique called least squares to fit a trend line to a set of time series data and then project the line into the future for a forecast. **Regression analysis** is used to understand which among the independent variables are related to the dependent variable, and to explore the forms of these relationships.

FIGURE 3-2 – AIRCRAFT OPERATIONS, AEJ



Source: FAA Terminal Area Forecast (TAF)[1]

FIGURE 3-3 – BASED AIRCRAFT, AEJ



Source: FAA Terminal Area Forecast

[1] **Local** operations are performed by aircraft which: (a) operate in the local traffic pattern or within sight of the airport; (b) are known to be departing for, or arriving from, flight in local practice areas located within a 20-mile radius of the airport; (c) execute simulated instrument approaches or low passes at the airport. **Itinerant** operations are all aircraft operations other than local operations.

According to Jill Van Deel, the airport manager, the number of based aircraft at AEJ as of January 2015 is 27, as detailed below. Because these aircraft were counted by the airport manager, there is a higher level of confidence that this number is more accurate than FAA's estimate.

- Jet Turbine - 2
- Turbo Prop - 1
- Multi Engine - 2
- Single Engine – 22

Fuel sales records maintained by the Airport between 2009 and 2013 indicate a fluctuation in the amount of 17,718 gallons of fuel sold, see **Table 3-1**. Changes in fuel sales occurred during periods when FAA's estimate of aircraft operations at AEJ was relatively stable. A possible factor for the variation is that high altitude aircraft testing, during the summer season, may result in additional fuel sales that fluctuate from year to year, while that activity was not captured in FAA's estimates.

TABLE 3-1 – AEJ FUEL SOLD (GALLONS)

FY	Total
2013	59,847
2012	58,180
2011	60,374
2010	53,094
2009	42,656

Source: Airport Administration Records, 2014

The FAA maintains detailed aircraft activity records at airports with control towers. FAA's records of aircraft activity between 2000 and 2013 [1] at towered airports throughout Colorado[2] indicate that general aviation activity declined steadily by 23 percent, see **Table 3-2**. Itinerant and local GA operations[3] both declined by a similar percentage over the 14-year period. Over that same period however, both air carrier and air taxi operations increased.

Although aircraft operations at non-towered airports have not been accurately documented, the decline in GA activity at towered airports was likely mirrored by similar trends at many non-towered airports over the same period. The decline in GA operations between 2000 and 2013 experienced at towered airports is not unique to Colorado nor to the FAA's Northwest Mountain Region as it was seen throughout the nation.

The decrease in GA activity also predates the national recession that began in late 2007 and officially ended in 2010. Industry analysts have noted factors such as rapidly rising aviation fuel prices, the rising cost of airplane ownership and maintenance, the decline in airline hiring, and declining pilot

[1] FAA's Air Traffic Activity Data System (ATADS). Compiles traffic counts maintained by tower controllers.
[2] Towered airports include: DIA, COS, PUB, APA, FTG, BJC, ASE, EGE, GJT. Military control towers including Buckley, USAF Academy, and Fort Carson AAF are not included in FAA's data.
[3] An operation is a take-off or landing. Local operations are those that operate in the local traffic pattern or within site of the airport and itinerant operations are all other aircraft operations other than local.

population among the factors affecting GA activity. The recession between 2007 and 2010 also greatly impacted GA activity nationally and statewide, including corporate aircraft.

TABLE 3-2 – AIRCRAFT OPERATIONS AT COLORADO TOWERED AIRPORTS

CY	Itinerant					Local			Total	Total
	Air Carrier	Air Taxi	GA	Military	Total	GA	Military	Total	Operations	GA
2000	412,879	236,708	445,999	26,963	1,122,549	434,622	31,852	466,474	1,589,023	880,621
2001	390,555	235,274	418,758	29,298	1,073,885	426,228	34,148	460,376	1,534,261	844,986
2002	374,308	273,728	444,190	30,647	1,122,873	455,508	32,447	487,955	1,610,828	899,698
2003	355,790	292,844	384,711	40,901	1,074,246	373,763	52,070	425,833	1,500,079	758,474
2004	360,576	356,864	380,908	33,798	1,132,146	370,602	44,060	414,662	1,546,808	751,510
2005	416,819	306,041	388,104	33,536	1,144,500	382,310	39,076	421,386	1,565,886	770,414
2006	461,093	295,393	399,241	29,749	1,185,476	377,134	35,384	412,518	1,597,994	776,375
2007	483,621	288,310	408,008	32,925	1,212,864	419,313	52,361	471,674	1,684,538	827,321
2008	497,163	274,848	390,220	29,707	1,191,938	420,438	23,291	443,729	1,635,667	810,658
2009	490,944	244,966	344,828	31,091	1,111,829	353,448	28,250	381,698	1,493,527	698,276
2010	504,157	250,752	356,739	30,323	1,141,971	365,179	39,123	404,302	1,546,273	721,918
2011	486,789	272,228	360,292	26,894	1,146,203	326,168	31,628	357,796	1,503,999	686,460
2012	476,426	260,952	362,857	28,526	1,128,761	341,314	36,085	377,399	1,506,160	704,171
2013	449,575	247,959	347,269	25,116	1,069,919	330,950	33,164	364,114	1,434,033	678,219
Percent Change CY 2000 – 2013										
	8.9%	4.8%	-22.1%	-6.9%	-4.7%	-23.9%	4.1%	-21.9%	-9.8%	-23.0%

Source: FAA's Air Traffic Activity Data System (ATADS)

There are many factors/changes that will influence future aviation activity at AEJ as time progresses, both positively and negatively. A number of these changes are beyond any single airport or state to control, and many changes are also difficult to anticipate when and if they will occur. These factors include:

- aviation fuel prices;
- availability of 100LL avgas and a drop-in replacement[1];
- cost of airplane ownership: acquisition, maintenance, storage, insurance, etc.;
- airport and/or airspace security regulations;
- the number of licensed pilots, and pilot demographics; and
- local and regional economy.

One local example is the availability of FBO services (fuel and aircraft servicing/handling), which are provided by the Town of Buena Vista, and directly support aircraft activity. If for any reason the

[1] Drop in replacement means another fuel can be used in the same storage tanks and aircraft engines with no modifications

FBO services were no longer available, as has happened at other GA airports, overall activity levels at AEJ would likely decline. Conversely, if new aviation-related businesses were to locate at AEJ in the future, including a restaurant, then it is likely that overall activity would increase. Presently, AEJ accommodates specialty activity including high altitude testing by aircraft and component manufacturers, which could increase in the future.

There are two factors that directly impact the accuracy of every forecast (including meteorology, economics, demographics, and aviation activity). First, forecast accuracy is closely correlated to time, and the level of confidence in every forecast diminishes the further it moves into the future, primarily because more unknown or unanticipated events may occur. As a result, the forecasts with the highest level of confidence are short-term (typically one to five years). Medium and long range forecasts should be treated as outlooks and updated regularly. Secondly, the size of the database being projected affects forecast accuracy. In general, the level of confidence increases as the forecasted population increases. General aviation activity on an airport-specific level represents a relatively small population, which reduces the level of confidence in specific forecast numbers.

Another factor that affects forecast validity is that general aviation is a very broad and generic term that encompasses a wide variety of activity. As a GA airport, AEJ accommodates a broad spectrum of different missions including:

- personal/discretionary flying;
- business/corporate activity; [1]
- high altitude aircraft flight testing;
- air taxi/on-demand commercial services;[2]
- flight training;
- aerial observation/photography/filming;
- agricultural support;
- public services including law enforcement, medical evacuation, patient transportation; and
- military aircraft operations – transient (there are no based military aircraft at AEJ).

Per FAA's latest General Aviation and Air Taxi Survey conducted in 2012, the percent of GA hours flown by type of mission is shown in **Table 3-3**. The single largest GA mission in terms of hours flown is personal (discretionary) flying, followed by instructional, air taxi, corporate, and business. All those missions are flown at AEJ, but likely at different rates than measured nationally and shown in **Table 3-3**.

TABLE 3-3 – GA HOURS FLOWN BY ACTUAL USE (NATIONALLY)

GA Actual Use	Percent	GA Actual Use	Percent
Personal	33.5%	Part 135 Air Medical	3.0%
Instructional	15.3%	Air Tours	1.4%

[1] 14 CFR 91, General Operating and Flight Rules
[2] 14 CFR 135, Operating Requirements: Commuter And On Demand Operations And Rules Governing Persons On Board Such Aircraft

GA Actual Use	Percent	GA Actual Use	Percent
Air Taxi (Part 135)	10.0%	Other Work	1.1%
Corporate	9.7%	External Load	0.9%
Business	8.7%	Aerial App. – Other	0.8%
Aerial Observation	5.4%	Sightseeing	0.7%
Other	5.2%	Air Medical (Part 91)	0.4%
Aerial App. – Ag.	3.9%		

Note: FAA defines corporate as professionally flown aircraft, and business as flown by the aircraft owner
Source: FAA GA and Air Taxi Activity Survey, 2012.

A number of GA missions are closely tied to local and regional socioeconomic trends such as discretionary/personal flying and flight training, while other missions such as public service - law enforcement, emergency medical, etc. - are less affected by local socioeconomic factors. Corporate aviation activity is directly affected by factors such as the performance of the stock market, corporate profits, and the strength of specific industries such as the oil and gas market. As a consequence, the level of activity by each mission will change at different rates in the future; some missions will expand over time while others will remain flat or decline. In addition, every airport has different activity levels by various types of mission, and in some cases no activity by specific missions. For example, some GA airports have no agricultural (application) or construction support (external load) activity.

Given the many variables noted above, activity forecasts and the projects that they justify should be revisited and updated annually and compared against actual data (or estimates), and the forecast assumptions reviewed for continued validity.

3.1 Aviation Activity Forecasts Guidance Documents

3.1.1 FAA Advisory Circular 150/5070-6B, Airport Master Plans

The AC describes the forecast methodology that complies with FAA requirements for the development of airport master plans. The AC provides a flexible approach to preparing forecasts, based on the data that's available while focusing on critical issues unique to each airport.

3.1.2 FAA Form 5010-1, Airport Master Record

Form 5010 provides current estimated aircraft operations and based aircraft data for airports, as filed with/by the FAA. It is primarily used for navigational publications, such as the Airport Facility Directory (AFD) and is also used by FAA as the basis for historical data in the FAA's TAF. The latest Form 5010 for AEJ (dated July, 2014) lists 14 based airplanes, two based helicopters, and an estimated 10,000 aircraft operations – 3,893 local ops, and 5,970 itinerant ops for the calendar year ending December 31, 2012.

3.1.3 ACRP - Counting Aircraft Operations at Non-Towered Airports[1]

This 2007 report was prepared for the Airport Cooperative Research Program (ACRP), a research branch of the Transportation Research Board of the National Academies. This report describes the various methodologies used to estimate and count aircraft operations at non-towered airports. The report notes that where actual traffic counts had been done, either using an acoustical counter, video monitors, or manual counts, the number of aircraft operations recorded were typically less than the number estimated by the FBO and/or airport manager. Given the uncertainties and variability's associated with estimating traffic at non-towered airports, consideration could be given to using electronic counters at AEJ in the future to validate the forecasts and more accurately track activity levels.

3.1.4 ACRP - Airport Aviation Activity Forecasting[2]

This 2007 discusses various methods, including different forecast modeling and practices, for forecasting aviation activity and identifies ways to evaluate forecast, particularly the uncertainty and accuracy in forecasts. This ACRP report also identifies common aviation metrics, such as average operations per based aircraft (OPBA), as well as issues in data collection and preparation, and data sources.

3.1.5 Forecasting Aviation Activity by Airport[3]

Written by GRA, Inc. under contract to the FAA, this 2001 document provides guidance to airports, consultants, and the FAA when preparing airport activity forecasts, as well as those who review the forecasts. Further, the FAA utilizes this guidance when developing the TAF. This report utilizes a number of statistical methodologies that require substantial databases that are often not available at non-towered airports.

3.2 Previous AEJ Aviation Forecasts

A number of prior studies projected aviation activity at AEJ, which are summarized below.

3.2.1 AEJ Airport Master Plan, 2004

The previous AEJ Airport Master Plan was prepared in 2004 by Washington Infrastructure Services. The 2004 Master Plan projected that annual aircraft operations would increase from 6,124 in 2002 to 8,240 operations by 2021, an increase of 34.6 percent. Based aircraft were projected to increase from 23 in 2002 to 48 by 2021, an increase of 109 percent.

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[1] Airport Cooperative Research Program Synthesis 4, *Counting Aircraft Operations at Non-Towered Airports*, http://onlinepubs.trb.org/onlinepubs/acrp/acrp_syn_004.pdf

[2] Airport Cooperative Research Program Synthesis 1, *Airport Aviation Activity Forecasting*, http://onlinepubs.trb.org/onlinepubs/acrp/acrp_syn_002.pdf

[3] FAA Aviation Data & Statistics, http://www.faa.gov/data_research/aviation_data_statistics/index.cfm?print=go

3.2.2 Colorado Aviation System Plan, 2011

CDOT's Aviation System Plan examined a variety of performance measures at every airport in the state's system, including AEJ. The plan also included forecasts of activity at each individual airport through 2030. CDOT projected that activity at AEJ would increase by approximately 10 percent over 20 years (**Table 3-4**), which is a relatively conservative growth rate that is consistent with other GA airports in the state.

TABLE 3-4 – AEJ FORECASTS (CDOT)

Year	Based Aircraft	Aircraft Operations
2010	20	4,140
2015	20	4,210
2020	21	4,290
2030	22	4,470
Forecast Period	**Percent Change**	
2010-2015	0%	1.7%
2015-2020	0%	1.9%
2020-2030	5%	4.1%
2010-2030/a/	10%	7.9%

Source: Colorado DOT, Division of Aeronautics, 2011 Aviation System Plan

3.2.3 FAA Terminal Area Forecast (TAF)[1]

The FAA prepares the TAF for every airport in its National Plan of Integrated Airport Systems (NPIAS), including AEJ (**Table 3-5**). The TAF is updated annually, and is used by the FAA to determine facility and budget needs for the NPIAS, as well as serving as a resource for airport operators and state agencies.

The TAF serves as a guideline for other forecasts, and is utilized for comparison with scenario-driven projections in airport master plans. The FAA requires that master plan forecasts be compared to the TAF, and any discrepancies between the two that exceed pre-established limits be explained and justified prior to FAA approval of the master plan forecasts.[2]

The current TAF for AEJ covers the period Fiscal Year (FY) 2013 – 2040 (see **Appendix F**). FAA does not provide any explanation for their forecast at individual GA airports, nor do they identify the specific local or national factors that they anticipate will influence future activity.

The TAF projected based aircraft at AEJ would increase by 22 between 2013 and 2040, an increase of 122 percent. However, annual operations were shown to remain level over the same period. Typically, operations and based aircraft trend in similar directions (i.e. they decline or rise over the

[1] FAA Terminal Area Forecast, http://aspm.faa.gov/main/taf.asp
[2] FAA AC 150/5070-6B, *Airport Master Plans*, http://www.faa.gov/documentLibrary/media/advisory_circular/150-5070-6B/150_5070_6b_chg1.pdf

same period). The FAA did not offer an explanation of their forecast methodology or the underlying assumptions.

TABLE 3-5 – AEJ ACTIVITY FORECASTS (FAA TAF)

Year	Based Aircraft	Aircraft Operations
2013	18	4,200
2015	19	4,200
2020	22	4,200
2030	30	4,200
2040	40	4,200
Forecast Period	**Percent Change**	
2013-2015	5.6%	0%
2015-2020	15.8%	0%
2020-2030	36.4%	0%
2030-2040	33.3%	0%
2010-2040	**122.2%**	**0%**

Source: FAA Terminal Area Forecast (TAF), Issued Feb. 2014

3.2.4 Summary of FAA and CDOT Forecasts

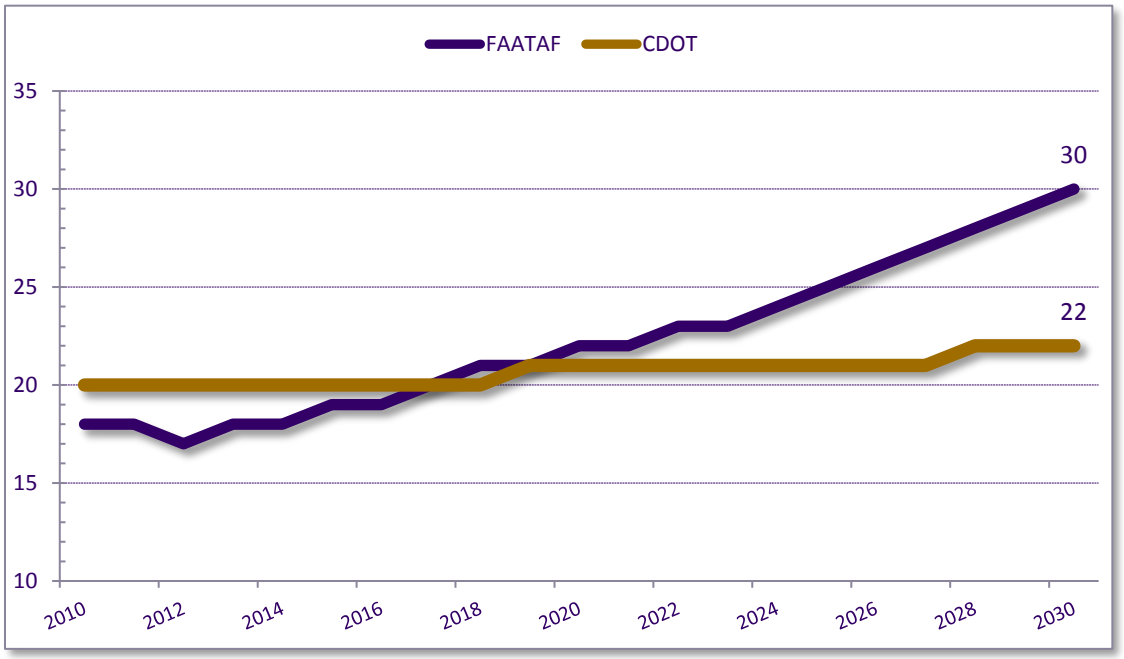
While the TAF for AEJ projected 4,200 annual operations through 2040, FAA's Form 5010 estimated approximately 10,000 annual operations for the calendar year ending December 31, 2012. Additionally, the TAF estimated 18 based aircraft against Form 5010's estimated 14 based aircraft, but there is no explanation as to why the sources differ.

Comparing CDOT's forecast against the TAF illustrates that the FAA was more optimistic about future growth of based aircraft at AEJ, while CDOT projected more growth in aircraft operations. See **Figure 3-4** and **Figure 3-5** for a comparison of projected growth through the end of CDOT's forecasted year, 2030. However, there is insufficient information to compare the underlying assumptions for the CDOT and FAA forecasts.

3.2.5 Based Aircraft – Airport Counts

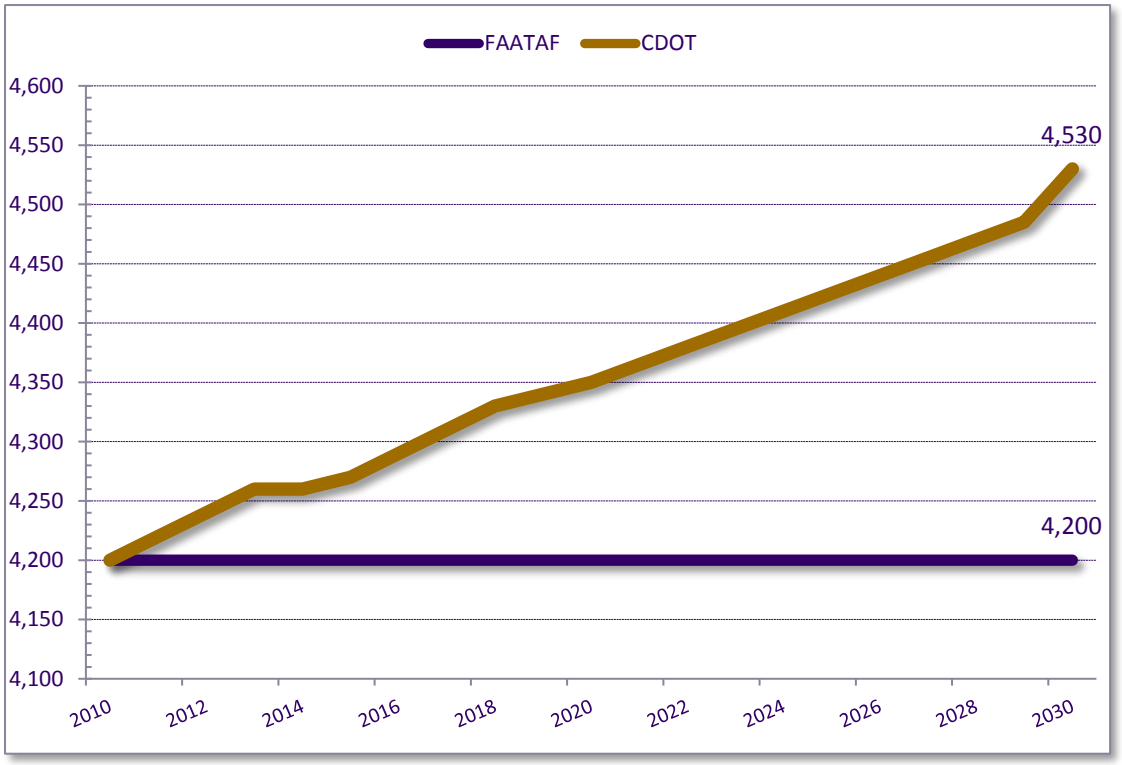
As noted previously, the airport manager counted 27 based aircraft as of January 2015, which is higher than both the FAA or CDOT estimates. Due to the higher confidence level compared to FAA's estimate, that number (28) is used as the base year number for these forecasts which accounts for one additional aircraft to be based at AEJ in 2015.

FIGURE 3-4 – FAA AND CDOT FORECAST OF BASED AIRCRAFT, AEJ



Sources: FAA TAF, Issued Feb. 2014 and CDOT 2011 Aviation System Plan

FIGURE 3-5 - FAA AND CDOT FORECAST OF AIRCRAFT OPERATIONS, AEJ



Note: An operation consists of a landing or take-off.
Sources: FAA TAF, Issued Feb. 2014 and CDOT 2011 Aviation System Plan

3.2.6 Operations-Per-Based-Aircraft (OPBA)

The previous edition of FAA Advisory Circular 150/5300-13, *Airport Design*, noted that activity at non-towered airports could be estimated by using a factor (range) of operations-per-based-aircraft (OPBA). FAA noted that GA activity could range between an average of 492 OPBA at GA airports, up to 637 OPBA at designated reliever GA airports. Applying the low OPBA average of 492 to the current27 based aircraft at AEJ, results in an estimated 13,284 operations annually. That calculation is significantly higher than both FAA's TAF and CDOT's estimate at AEJ, but it is relatively close to FAA's current Form 5010 estimate of 10,000 annual operations.

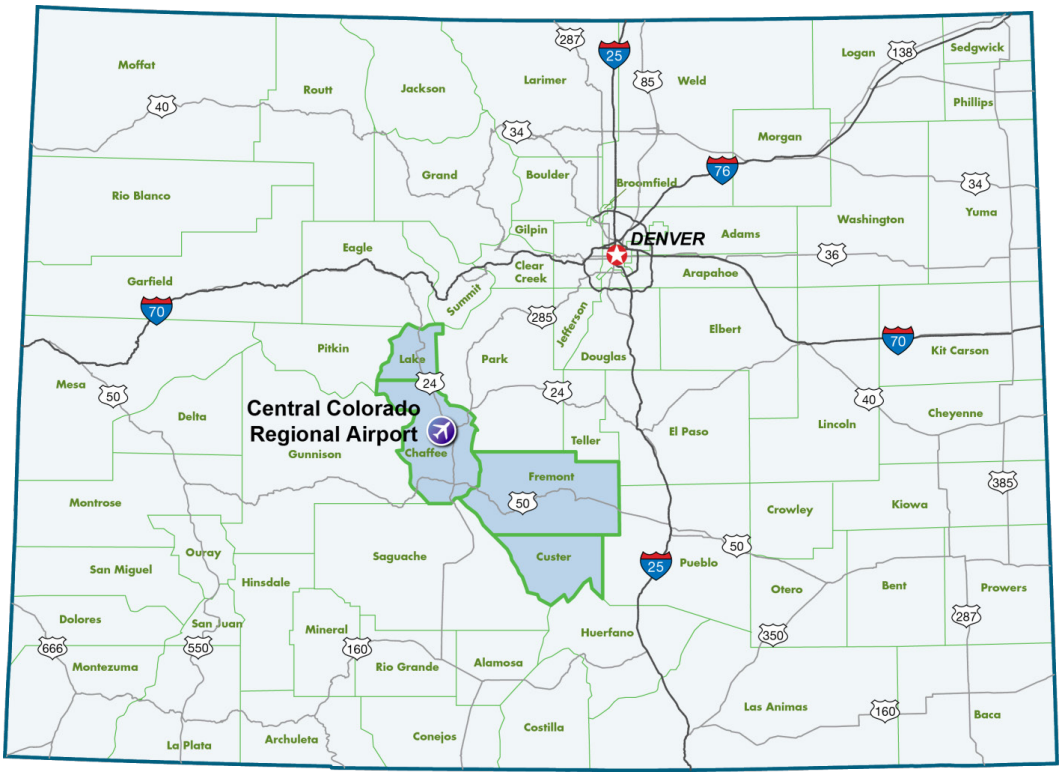
Given the uncertainties about actual aircraft operations at non-towered airports, a variety of electronic counters have been developed to track activity at non-towered airports. While the counters provide a way to measure takeoffs and landings, they also require an investment of capital to acquire, operate and maintain, as well as labor to monitor and create databases.

3.3 Demographic and Socioeconomic Factors

Demand for aviation services is greatly affected by local and regional demographic trends and socioeconomic activity. A variety of different types of aviation activity occur at AEJ, and each type of GA activity responds to different socioeconomic and demographic factors.

The Town of Buena Vista is situated in Chaffee County, and both the Town and the County are part of the Upper Arkansas Region. As defined by the State of Colorado, the Upper Arkansas Region includes Chaffee, Lake, Fremont, and Custer Counties (**Figure 3-6**). The Upper Arkansas Region is also referred to as State Region 13.

FIGURE 3-6 – COUNTIES IN THE UPPER ARKANSAS REGION

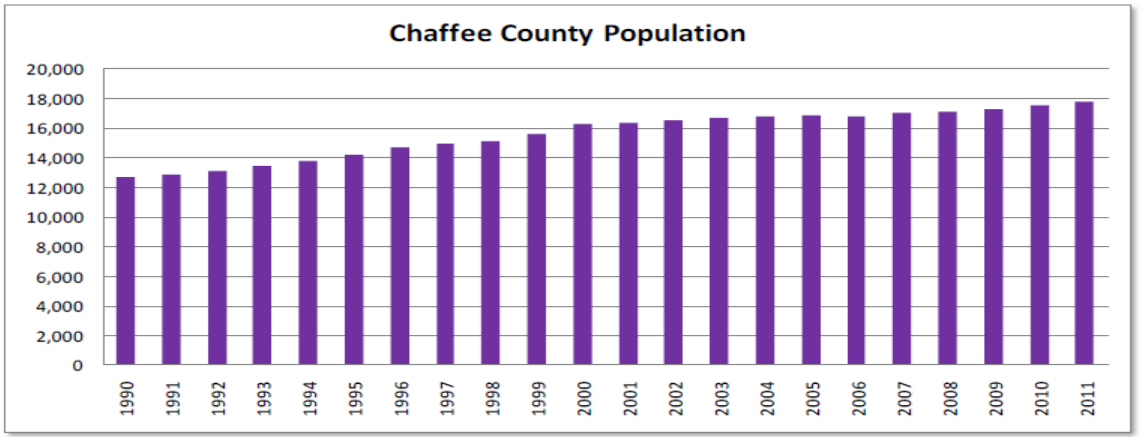


Note: Not to scale
Source: Jviation, Inc.

The Southern Colorado Economic Development District published the Chaffee County 2010 CEDS report (Report) which noted that Chaffee County has experienced steady population growth since 1990 (**Figure 3-7**).

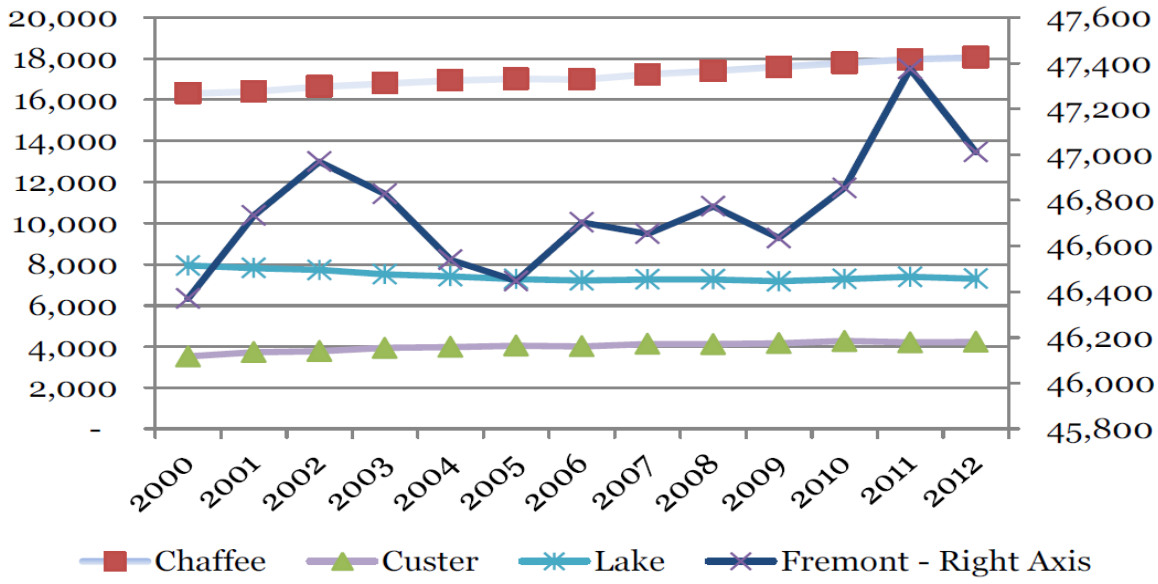
The State Demography Office noted that the population of Chaffee County increased steadily between 2000 and 2012, by approximately 11 percent. Population growth was only outpaced by Fremont County, which experienced population fluctuations of nearly 1,000 persons within a decade. The county experienced a significant growth period since the Great Recession but has shown a steep decline in population since 2011; that decline is uncharacteristic of the steady growth experienced by Chaffee County (**Figure 3-8**).

FIGURE 3-7 – CHAFFEE COUNTY POPULATION



Source: Chaffee County CEDS Report, 2010, Southern Colorado Economic Development District. http://www.scedd.com/Chaffee-County, accessed August 2014.

FIGURE 3-8 – POPULATION ESTIMATES BY COUNTY



Source: Chaffee County CEDS Report, 2010, Southern Colorado Economic Development District. http://www.scedd.com/Chaffee-County, accessed August 2014.

The Report also noted that Chaffee County's unemployment rate typically matched that of Colorado; however, their rates have been lower than the state average since 2006. A high number of those working in the county maintain seasonal employment in the service industry and part- or full-time jobs attributed to travel and tourism. Seasonal employment may be a contributing factor to the median per capita income for Chaffee County also being below the state average. In 2009, average personal income for the county was 22 percent below the state average at $32,766, as opposed to Colorado's average of $41,895.

Chaffee County's and the Upper Arkansas Region's economies are heavily dependent on tourism. The Report noted that travel spending generated a significant amount of revenue in Chaffee County,

in part because it serves the tourist industry. Travel has a significant impact on the county and monies spent have annually surpassed $50 million since 2007. A reported $53 million was spent by Chaffee County visitors in 2009. The strong tourism

base is supported by an efficient network of transportation. AEJ is a vital component of the region's transportation network that accommodates tourism and travel demand.

The county's strengths, particularly its transportation network and strong tourist market, serve to stimulate GA activity at AEJ. In contrast, as shown **Table 3-6,** their weaknesses could serve to dampen demand for GA services.

TABLE 3-6 – CHAFFEE COUNTY TRANSPORTATION ANALYSIS

Strengths	Weaknesses
– Central Colorado Regional Airport (AEJ) – Highway access – Local economic development groups	– High cost of living – Low wages – Shrinking middle class – Economy dependent on tourism – Possible closure of major employers

Source: Chaffee County CEDS Report, 2010, Southern Colorado Economic Development District. http://www.scedd.com/Chaffee-County, accessed August 2014.

Based on a Chaffee County-wide survey, the primary economic development focus in the future was identified to 'attract new businesses, and support and assist existing businesses to expand.' The Report included a Chaffee County 2010 CEDS study which identified a number of goals and strategies that would support business attraction and expansion. Improving transportation by way of the airports in Buena Vista and Salida therefore became a focal point. Hangar development, high altitude testing, and facilitating a hub environment for regional and emergency services are a few of the opportunities considered by Buena Vista to further develop AEJ.

The Report identified strategies and goals for the Upper Arkansas Region, which could stimulate economic development (**Table 3-7**). One of the top five economic development strategies is to assure that infrastructure (including AEJ) can accommodate future growth. Should the five major goals be achieved, it is likely that Chaffee County's economy and the regional economy would expand, and activity at AEJ would increase throughout the forecast period. Population forecasts prepared by the Colorado Department of Local Affairs anticipate that Chaffee County will experience higher rates of growth through 2040 than the state (**Table 3-8**).

TABLE 3-7 – TOP FIVE ECONOMIC DEVELOPMENT GOALS AND STRATEGIES

"Bottom-Up" 2011 County Economic Development Summary RED = Priority Action Plan Items			
	Goal(s)	Strategy(ies)	Action(s)
#1	Close the gap between the cost of living and average wages	– Create living wage jobs – Create affordable housing – Educate the workforce	-Expansion and creation of new businesses -Develop partnerships with schools -Find more affordable housing options (tie to new commercial development?) -Fix up available rental housing -Financial assistance for first time buyers

"Bottom-Up" 2011 County Economic Development Summary RED = Priority Action Plan Items			
#2	Diversify the Economic Base	– Expand existing businesses – Attract new businesses – Economic gardening – Health and Wellness Study – Support the DOC facility	– Identify gaps – Identify growth businesses – Recruit businesses that appreciate CC and fit the character – Support/training for entrepreneurs and lone eagles – Streamline processes to establish businesses in CC – Create Ambassador programs – Extend the tourist season
#3	Increase Access to Capital	– Find more public funding – Increase private funding – Tax incentives/credits	– Research available funding – Grant writing – Identify private investment opportunities – Work with State on incentives – Work with local banks
#4	Assure Infrastructure can handle growth	– Meet IT/Broadband needs – Enhance transportation – Complete current Municipal projects	– Apply for State funding to develop redundant and higher capacity Broadband – Highway improvements – -Airports strategy – Train transport (?) – Public/tourist transportation – Warehousing – New high school – Wastewater treatment plant – River improvements – Other municipal projects underway
#5	Excel at Education	– Meet public school needs – Add more higher education opportunities – Educate the workforce	– Find funding for teachers – Expand CMC-high school crossover courses – Attract major university satellite/research campus – SBDC and Colorado Workforce job training – Employer sponsored job training

Source: Chaffee County CEDS Report, 2010, Southern Colorado Economic Development District. http://www.scedd.com/Chaffee-County, accessed August 2014.

TABLE 3-8 – POPULATION GROWTH COMPARISON

Population Forecast					
Year	Chaffee CO.	Colorado	Year	Chaffee CO.	Colorado
2015	19,329	5,456,067	2028	26,191	6,735,672
2016	19,902	5,554,079	2029	26,640	6,830,911
2017	20,475	5,652,091	2030	27,090	6,926,150
2018	21,048	5,750,103	2031	27,412	7,013,641
2019	21,621	5,848,115	2032	27,734	7,101,132
2020	22,197	5,946,128	2033	28,056	7,188,623
2021	22,726	6,046,893	2034	28,378	7,276,114
2022	23,255	6,147,658	2035	28,699	7,363,604
2023	23,784	6,248,423	2036	28,967	7,445,376
2024	24,313	6,349,188	2037	29,235	7,527,148

Population Forecast					
2025	24,844	6,449,955	2038	29,503	7,608,920
2026	25,293	6,545,194	2039	29,771	7,690,692
2027	25,742	6,640,433	2040	30,038	7,772,466

Percent Growth		
Time Period	Chaffee CO.	Colorado
2015-2020	14.8%	9.0%
2020-2030	22.0%	16.5%
2015-2040	55%	42%

Source: Colorado Department of Local Affairs. http://www.colorado.gov/cs/Satellite/DOLA-Main/CBON/1251593346834, accessed August 2014.

The State Demography Office (SDO) projected the State Region 13 will experience strong population growth through 2040. Future population is expected to reach over 100,000 by the year 2030 at a growth rate of two percent annually. The growth projected for Chaffee County will contribute to that regional population increase.

Basic and total jobs in the State Region 13 are also forecasted to develop. Job growth is estimated to increase at more than two percent annually from 2015 through 2025, exceeding the rate of population growth during the same time period. Labor forecasts for State Region 13 indicate that the rate of job growth will slow around 2035, however, SDO provides that overall job growth in State Region 13 is projected to be increase steadily through 2040.

The positive outlook for population and job growth in the region is indicative of growing demand for aviation services within the Upper Arkansas, State Region 13, and in particular at AEJ.

3.4 FAA Aerospace Forecasts[1] FY 2014-2034

The FAA prepares national aerospace forecasts annually with a 20-year planning period. Aerospace forecasts are prepared by FAA to identify anticipated workload and funding needs for FAA arms, such as the Air Traffic Organization (ATO). The FAA analyzes broad industry trends by various sectors, which include the following:

- future economic conditions and the underlying assumptions concerning economic growth;
- commercial aviation (i.e. passenger and cargo airlines);
- GA activity; and
- Air Traffic Control (ATC) workload.

The aerospace forecasts identified industry trends that impact GA activity, not just on the national level, but also at individual airports. Excerpts from the FAA's aerospace forecast dealing specifically with GA follow; certain sections are emphasized by means of *italics* to indicate pertinent trends.

Regarding the overall future of general aviation activity, the FAA concluded the following.

> "*The long term outlook for general aviation is favorable*, even though the slow growth of the U.S. economy, contributed by uncertainties caused by debt ceiling crises, sequestration, government shutdown, and the European recession, have affected the near term growth, particularly for the turbo jet sector. While it is slightly lower than predicted last year, *the growth in business aviation demand over the long term continues, driven by a growing U.S. and world economy especially in the turbo jet, turboprop, and turbine rotorcraft markets*. As the fleet grows, the *number of general aviation hours flown is projected to increase an average of 1.4 percent a year through 2034*."

The overall GA fleet will experience relatively low growth, but corporate aircraft and helicopters will experience the highest growth rates through 2034.

> "The active general aviation fleet is projected to increase at an average annual rate of 0.5 percent over the 21-year forecast period, growing from an estimated 202,865 in 2013 to 225,700 aircraft by 2034. The more expensive and sophisticated turbine-powered fleet (including rotorcraft) is projected to grow to a total of 49,565 aircraft at an average rate of 2.6 percent a year over the forecast period, with the turbine jet portion increasing at 3.0 percent a year, reaching a total of 22,050 airplanes by 2034."

The FAA projected that the number of piston-engine aircraft nationally will decline throughout the period.

> "The number of active piston-powered aircraft (including rotorcraft) is projected to decrease at an average annual rate of 0.3 percent from the 2013 total of 141,325 to 131,615 airplanes by 2034, with declines in both single and multi-engine fixed wing

[1] FAA Aerospace Forecast, Fiscal Years 2013-2033
http://www.faa.gov/about/office_org/headquarters_offices/apl/aviation_forecasts/aerospace_forecasts/2013-2033/

> aircraft, but with the smaller category of piston powered rotorcraft growing at 1.7 percent a year. Single-engine fixed-wing piston aircraft, which are much more numerous within this group, are projected to decline at a rate of 0.4 percent, while multi-engine fixed wing piston aircraft are projected to decline by 0.5 percent a year."

The overall hours flown by GA aircraft and helicopters is projected to increase, but almost all of the growth will come from turbine-powered aircraft.

> "The total number of general aviation hours flown is projected to increase by 1.4 percent yearly over the forecast period. *The FAA projects faster growth in hours will occur after 2023 with increases in the fixed wing turbine aircraft fleet*, as well as increasing utilization of both single and multi-engine piston aircraft as the aging of this fleet starts to slow down. *In the medium term, much of the increase in hours flown reflects strong growth in the rotorcraft and turbine jet fleets*."

3.5 Factors That May Impact Future GA Activity at AKO

Aviation is a dynamic industry, which is constantly adjusting to both internal and external pressures. General aviation in particular has experienced a number of challenges over the last decade and more, and industry analysts anticipate that a number of challenges will continue, some of which are discussed below. Individual airports have relatively little control over most of these factors; they represent national trends, some of which affect local GA activity. However, as previously noted, local positive trends can counterbalance some of the national challenges.

As noted previously, the outlook for employment and population in Chaffee County is positive. The county has a higher projected rate of growth than the state overall. The socioeconomic trends in the county can offset some of the potential national trends that may adversely affect GA activity, discussed below. The Chaffee County CEDS study prepared by the Southern Colorado Economic District in 2010 lists a series of goals and objectives including improvements to AEJ, see **Section 3.3**, which could stimulate additional growth in traffic. The study also noted that any curtailment to federal funding "will have a drastic impact on one or both (Buena Vista and Salida) airports."

3.5.1 Leakage: Regional Airport Competition

Airports and their tenants operate in a competitive environment. Many GA aircraft operators are price sensitive and will often utilize airports with lower priced fuel, maintenance, tiedowns, etc. There are a number of other public-use airports relatively near AEJ (**Table 3-9**), so there is some competition and potential traffic leakage from AEJ to other regional airports. However, both Aspen-Pitkin County (ASE) and Gunnison-Crested Butte (GUC) Airports have scheduled airline service, and some GA aircraft pilots prefer to operate at airports that do not have airlines. Additionally, AEJ has very competitive fuel prices regionally (**Table 3-10**); therefore, it is improbable that AEJ is losing traffic to other airports due to lower fuel prices.

TABLE 3-9 – PUBLIC USE AIRPORTS NEAR AEJ

Airport ID	Airport Name	Driving Distance[a]	Drive Time[a]
ANK	Harriet Alexander Field	23	26
GUC	Gunnison-Crested Butte	83	93
LXV	Lake County	34	40
1V6	Fremont County	92	107
ASE	Aspen-Pitkin County	68	103

Note: [a] Distances (miles) and Drive Time (minutes) from Central Colorado Regional Airport (AEJ).
Source: Google Maps, accessed 2014.

TABLE 3-10 – FUEL PRICES

Airport ID	Airport Name	Avgas – 100LL[a]	Jet A[a]
AEJ	Central Colorado Regional	$5.35	$5.20
ANK	Harriet Alexander Field	$5.66	$5.07
GUC	Gunnison-Crested Butte	$6.70	$6.60
LXV	Lake County	$5.25	$5.35
1V6	Fremont County	$5.85	$4.64
ASE	Aspen-Pitkin County	$7.89	$7.98

Note: [a] Price of fuel per gallon
Source: Airnav.com, accessed July 2014

One area where competition impacts airports is Jet A fuel sales. For many FBOs, and a number of airports, Jet A fuel represents their strongest revenue source. A number of corporate aircraft designed and built within the last 10 to 15 years have large fuel capacities, very efficient engines, and long range capabilities, and as a result they can often tanker fuel. This allows corporate aircraft pilots/operators to negotiate with FBOs for lower priced Jet A fuel (below the posted price), and if the local FBO cannot match the desired price per gallon, operators will not buy fuel. Corporate aircraft frequently have sufficient reserves to fly to another airport and buy fuel at a lower price. Local FBOs, therefore, are often competing for Jet A fuel sales against FBOs that are hundreds or a thousand miles away. A number of FBOs have reported that even as the number of corporate aircraft has increased since 2010, increases in fuel sales have not kept pace with operations, in part because of the ability to tanker fuel and buy wherever the fuel price is lowest. Analysts expect that will be a long-term trend in corporate aviation.

3.5.2 Avgas (100LL)

The large majority of aircraft piston engines use 100LL avgas. The amount of 100LL avgas sold in the U.S. represents less than one-quarter of one percent (0.14 percent) of the total fuel sold in the U.S., which makes 100LL avgas a 'boutique fuel' (i.e. highly specialized blend for a small market). The amount of 100LL avgas fuel sold in the U.S. has also been declining steadily for more than 30 years (from approximately 11.1 million barrels in 1981 to 4.4 million barrels in 2013, a 60 percent decline). The availability of 100LL is also decreasing (and disappearing) in many countries outside of

the U.S., which further decreases overall demand for the fuel. [1] In addition, several major GA aircraft manufacturers (Cessna, Piper, Mooney, etc.) have recently introduced new models of popular airplanes equipped with diesel engines that use Jet A fuel. As those airplanes replace piston engine models, the volume of avgas sold will continue to decline.

100LL avgas is also the only fuel in the U.S. that contains tetraethyl lead (TEL), a toxic substance used to prevent engine knocking (detonation). Environmental groups have petitioned the US Environmental Protection Agency (EPA) to eliminate the grandfather clause allowing 100LL, and the EPA has been studying the proposals and monitoring air quality at general aviation airports. In addition, there is only one source of TEL that is added to avgas, and the producer is based in England. All of those factors have driven up the price of avgas, which as of early summer 2014 averaged approximately $6.35 per gallon in the Western U.S., compared to $5.72 per gallon for Jet A, and $3.46 per gallon for regular auto gas[2]. As noted previously, the price of 100LL avgas at AEJ is lower than the regional average.

If 100LL avgas supplies were to diminish significantly, or if fuel prices were to rise significantly (i.e. more than $10-$12/gallon), or if 100LL avgas were no longer available, piston-engine GA activity would decline substantially. Some aircraft with smaller piston engines (i.e. less than 360 cubic inch) have been approved by the FAA to use auto gas (mogas) without ethanol, although the amount of auto gas available without ethanol has been steadily declining. However, aircraft with larger piston engines (such as the Cessna 402, Cirrus SR-22, Beech Baron and Bonanza, Piper Seneca, Matrix and Malibu, for example), which consume the largest amount of 100LL avgas, cannot use any auto fuel or fuel rated less than 100 octane.

At present there is no 'drop-in' replacement for 100LL avgas that will work in all piston engines (i.e. both small and large displacements) although some industry analysts are optimistic such a replacement can be found. The FAA currently has a 100LL avgas replacement program and is studying more than six different proposed replacement fuels for 100LL. If a replacement fuel is found and certified by FAA, the key question will be - what will the retail price at the pump be for the drop-in replacement fuel? If the replacement fuel is priced significantly higher than the current retail price for avgas (approximately $6.40 per gallon), then overall GA activity will likely decline even if a replacement fuel is available.

The price per gallon of 100LL avgas and Jet A fuel at AEJ is competitive regionally (**Table 3-10**). Different airports and FBOs within the same region have different wholesale fuel suppliers and pay different wholesale prices for fuel. In addition, the wholesale price for fuel changes with every delivery, so it is challenging for airports and FBOs to price fuel competitively. Airports and FBOs need to cover their wholesale fuel costs, operating expenses, and desired profit margins. Some airports/FBOs absorb rising wholesale fuel costs to remain competitive regionally on retail prices, and do not pass along all of their cost increases. However, that policy significantly decreases any profit margins derived from fuel sales, which is the primary source of revenue for FBOs and airports.

[1] U.S. Energy Information Agency. http://www.eia.gov/, accessed August 2014.
[2] AirNav. https://www.airnav.com/fuel/local.html, accessed August 2014.

3.5.3 Security Regulations

After the attacks on September 11, 2001, the U.S. Congress created the Transportation Security Administration (TSA) as part of the Department of Homeland Security, and also imposed new airport and airspace regulations. The majority of new airport security regulations applied to airports with commercial airline service (those with FAR Part 139 operating certificates issued by FAA). As a result, GA airports such as AEJ have not been encumbered by the same security regulations, although many GA airports have implemented such things as security fencing, video monitoring, electronic gate access, etc.

Airspace regulations, specifically temporary flight restrictions (TFR), have impacted GA activity across the country. TFRs are imposed for a variety of reasons, many with relatively short notice. TFRs can extend for a 10 or 20 mile radius, and can be in effect for a matter of hours or days or even weeks. A recent example is a TFR imposed over Denver in July 2014 for a visit by the President (a copy of the TFR is in Appendix 2). TFRs have a combination of no-fly areas as well as areas allowed for flight but with strict conditions imposed. The imposition of TFRs has impacted GA activity at airports across the U.S. since 2001. TFRs have adversely impacted many FBOs and GA businesses. Airport managers and state aeronautic agencies have no discretion or input about when TFRs are imposed or how long they remain in effect. If Congress were to impose additional airport or airspace security procedures targeted specifically at general aviation, as has been proposed by some organizations, they could result in higher costs and reduced GA activity.

3.5.4 Increased Cost

The cost of new GA aircraft and parts has been rising faster than the overall rate of inflation for many years. A new Cessna 172, a four seat single-engine piston aircraft frequently used for training, currently retails for approximately $400,000. A number of high performance four-seat single-engine piston airplanes retail for $700,000 to $1 million (e.g. Cirrus SR-22 GTS, Cessna TT, Piper Malibu and Matrix, and the Beech G36). As a result, many airplane owners continue to fly used aircraft, with the average age of a GA airplane in the U.S. being more than 40 years old. This trend of aging aircraft is why aircraft maintenance costs and replacement parts are high and rising. Because a high percentage of GA flying is conducted for personal/recreational purposes, rising aircraft ownership costs have decreased overall activity.

3.5.5 Pilot Population

The number of licensed pilots has been declining for years. According to FAA records, between 2004 and 2013 the number of total licensed pilots declined by 3.2 percent. Licensed private pilots have declined by 23.6 percent, and the number of commercial pilots dropped by 11.7 percent.[1] A declining pilot population is an indicator of overall declining demand for GA services. A number of factors have been attributed to the long-term decline, including rising costs as well as relatively few young people starting flight training. Industry organizations such as the Experimental Aircraft

[1] Source: FAA US Civil Airmen Statistics, http://www.faa.gov/data_research/aviation_data_statistics/civil_airmen_statistics/2013/

Association (EAA) and Aircraft Owners and Pilots Association (AOPA) have identified the downward trend as a potential long term challenge to GA activity.

Congress recently mandated that FAA change the requirements for new hires at airlines. All new pilots must hold an Airline Transport Pilot (ATP) license which requires a minimum of 1,500 hours logged flight time plus additional provisions[1]. Some regional carriers have stated that requirement has already impacted their ability to hire qualified pilots and have reduced their schedule because of a shortage of pilots. Analysts have said that the rule change would decrease the number of student pilots who had originally intended to become airline pilots but now cannot afford the time or cost to meet the new standards. At the same time, the military has also been reducing their pilot training pipeline, offering more incentives to retain rated pilots, while rapidly shifting their training focus to operators of remotely piloted vehicles (RPVs). Many military pilots also fly general aviation aircraft, and also serve as a pipeline for the airlines. A number of GA student and private pilots start flight training in the hopes of being accepted to fly for the military, and with that option being closed there is less incentive to start flight training. Boeing has publicly stated that future pilot shortages will limit airline growth worldwide and in the U.S.

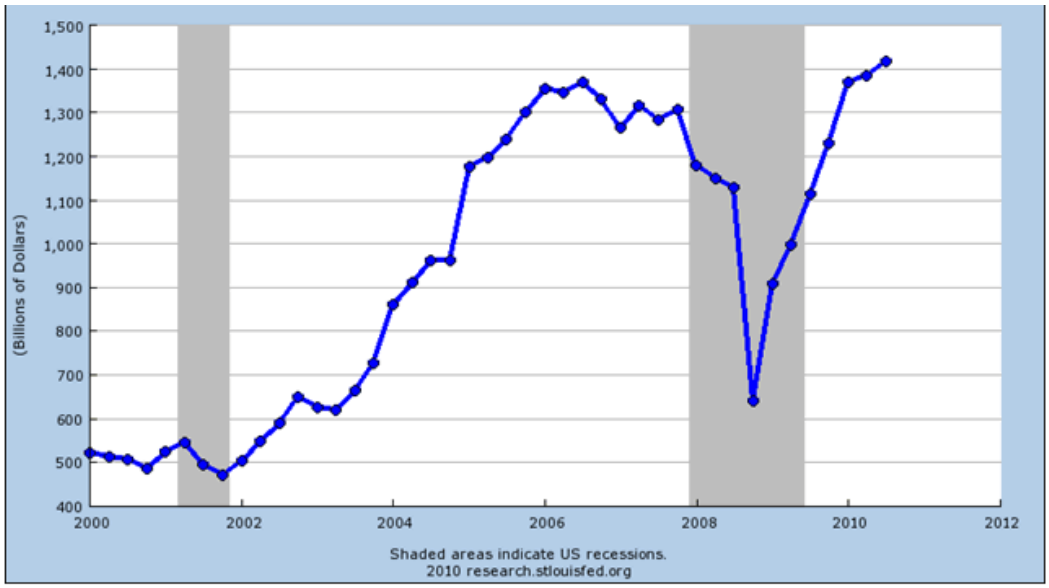
The pilot population is also aging faster than the population as a whole. Between 1990 and 2010 the average age of U.S. pilots increased from 40.5 to 44.2 years old. The 2014 average age of private pilots has since increased an additional 4.3 years for an average age of 48.5 years old. By comparison, the median age of the U.S. population is 37.2 years old according to the U.S. Census Bureau. While private pilots do not have a mandatory retirement age similar to the airlines, the amount of flying decreases as pilots age. Barriers to attracting younger pilots include the high cost of flight training, the uncertainty of the aviation industry as a career path (particularly for regional and major airline pilots), the military's shrinking pilot training pipeline, combined with rapidly growing interest in remotely piloted vehicles (RPVs) that require less training and cost less than airplanes.

3.5.6 Economics

National economic trends affect GA activity on the local level. The economic recession that occurred between late 2007 and 2010 significantly depressed corporate aviation activity throughout the U.S. and internationally, it also impacted piston-engine activity. The decline in corporate aviation over that period clearly illustrated the close correlation between corporate aircraft activity and the performance of the stock market and corporate profits. Since late 2010 both the stock market and corporate profits have been rising steadily (**Figure 3-9**), and corporate aviation activity has been growing as well, although not at the rate experienced between 2003 and 2007.

[1] Some universities and colleges with FAA-approved flight training programs have an agreement with FAA that their students can be hired by airlines with less than 1,500 hours after graduating successfully from their program.

FIGURE 3-9 – U.S. RECESSIONS, AFTER TAX CORPORATE PROFITS

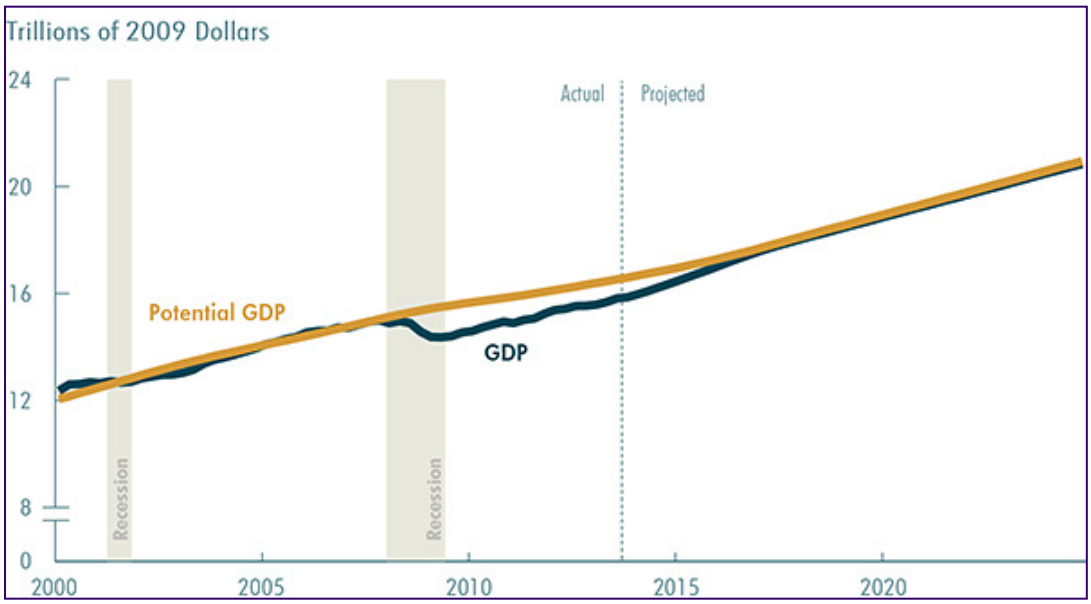


Source: U.S. Department of Commerce, BEA

The Congressional Budget Office's (CBO) assessment of the U.S. economy in 2014 noted: "After a frustratingly slow recovery from the severe recession of 2007 to 2009, the economy will grow at a solid pace in 2014 and for the next few years. Real Gross Domestic Product (GDP - output adjusted to remove the effects of inflation) is expected to increase by roughly three percent between the fourth quarter of 2013 and the fourth quarter of 2014—the largest rise in nearly a decade. Similar annual growth rates are projected through 2017." (**Figure 3-10**)

Longer term, however, the CBO is less optimistic: "Beyond 2017, CBO expects that economic growth will diminish to a pace that is well below the average seen over the past several decades. That projected slowdown mainly reflects long-term trends—particularly slower growth in the labor force because of the aging of the population. Inflation, as measured by the change in the price index for personal consumption expenditures (PCE), will remain at or below two percent throughout the next decade,"

FIGURE 3-10 – REAL AND POTENTIAL GDP



Source: Congressional Budget Office (CBO)

The FAA, as well as a number of private companies, is optimistic about the long-term growth potential for corporate aviation. For example, Honeywell (a manufacturer of many components used in corporate and air carrier aircraft) recently noted the following:

> "Honeywell Global Business Aviation Forecast Sees 4 To 5 Percent Average Annual Industry Growth over Next Decade:

- Up to 9,250 deliveries of new business jets valued at over $250 billion expected through 2023
- Operators plan to replace 28 percent of their fleets with new jets in the next five years
- "BRIC" (Brazil-Russia-India-China) purchase plan percentage leads all world regions
- Large cabin jets account for more than 55 percent of new purchase plans"

> "Shifting from jet purchases to flight activity, over the course of the past year the pace of recovery has been mixed. Much of the ground lost by operations during the 2009 recession still remains to be recaptured, but modest improvements in international flight activity and in U.S. operations in general have been seen in recent months."

> "North America, the industry's mainstay market, has seen new jet purchase plan levels improve — about three points — to the world average of 28 percent after averaging near 25 percent for the past six years. Though buying plan levels might be moderate when compared with emerging markets, North America represents more than half of projected global demand for the next five years based on the region's historically dominant installed business jet base, affirming the region's indisputable importance to the industry's future. Timing of North American acquisitions has been deferred compared with other regions, suggesting that despite improved aggregate

five-year interest levels reported by potential purchasers, short-term conversion plans could be moderate until 2015–2016."

Although corporate activity has rebounded, corporate flight departments are closely managing costs by generally utilizing larger more fuel-efficient aircraft. Flight departments are very sensitive to the price of Jet A fuel, and as noted previously, because newer aircraft have large fuel capacities they can 'tanker' fuel and buy it at any number of airports that offer the lowest price fuel. At many airports, corporate aircraft activity has not returned to the levels experienced between 2004 and 2007. The continued steady growth of the stock market and corporate profits will be key factors to long-term growth of corporate aviation activity.

3.6 AEJ Aviation Forecast Scenarios

Given the challenges facing the GA industry, as well as certain positive indicators on the local level discussed above, it is apparent that a number of aviation activity scenarios could evolve between 2014 and 2034. Based on the variety of factors presented above, three forecast scenarios were developed and analyzed. These scenarios encompass the range of potential factors that could impact GA activity at AEJ. As noted previously, a number of these factors are beyond the control or even influence of AEJ, the Town of Buena Vista, or the State of Colorado. In addition, AEJ hosts special activities such as high altitude aircraft testing. Those special activities are tied to specific industries, and are not affected by local or regional factors such as demographic trends, etc. As a result, it is not possible to project future levels of special activities at AEJ. In all likelihood, some combination of these scenarios will occur at AEJ over the 20-year planning period, but it is difficult if not impossible to predict exactly what factor(s) will occur, when, and in what combination with other positive or negative trends. As a result, the forecasts should be reviewed regularly, and updated based on historical data.

3.6.1 Forecast Scenario 1 – Status Quo/Slow Growth

This forecast scenario assumed that the future cost of GA aircraft ownership and operation, including the price of new aircraft, parts, and fuel, will rise at or near the overall rate of inflation. A drop-in replacement fuel for 100LL avgas will be developed before 2020, at a retail price equal to existing 100LL prices. This scenario assumes that no new security regulations will be imposed that would further restrict access to GA airports or to airspace. Programs such as the EAA's Young Eagles and Aircraft Owners and Pilots Association (AOPA)'s various programs including promoting flying clubs, among others, will attract enough young pilots to gradually replace aging pilots. Airline hiring will increase which will provide incentives for people to learn how to fly. In addition, socioeconomic trends in Chaffee County will continue to outpace the state through 2034 as currently projected by the Colorado Department of Local Affairs. In this scenario, GA activity at AEJ, including based aircraft, will increase at three percent per year through 2034 and corporate aircraft activity will grow at four to five percent per year.

3.6.2 Forecast Scenario 2 – High Growth

In Scenario 2 the overall cost of GA aircraft ownership and operation will decrease in relation to the average rate of inflation, and aviation fuel prices will remain stable or possibly decline throughout

the forecast period. This scenario also assumes that the regional and state economy will grow steadily at three to four percent per year; the inflation rate will remain below two percent; the stock market and corporate profits will increase steadily at five percent or more per year (as they have done between 2010 – 2Q 2014); airlines will enter a long term hiring mode; and overall GA activity will grow at three percent or more per year. In addition, socioeconomic trends in Chaffee County will continue to outpace the state average through 2034. Within this scenario, no major shocks to the economy or to the GA industry through 2034 are assumed to occur. In addition, 100LL avgas (or a viable drop-in replacement) will become available at a competitive price; the FAA will not impose any new security regulations; and there is not another severe economic recession. Based on these assumptions, overall activity at AEJ could increase at an average rate of three to four percent per year through 2034 and corporate aircraft activity will grow at five to six percent per year.

3.6.3 Forecast Scenario 3 – Decline

Scenario 3 is based on the assumption that one or more significant setbacks to the GA industry and/or economy will occur, such as the discontinuation of 100LL avgas or a sudden price rise due to decreased availability; new access restrictions imposed on GA airports and airspace due to security concerns; the airlines and the military significantly reduce pilot hiring and training; and/or the onset of another deep economic recession with a prolonged decline in corporate profits and the stock market, perhaps due to foreign events that disrupt the flow of international oil and gas.

This scenario also assumes that socioeconomic growth in Chaffee County will slow by the end of this decade which will reduce the county's performance in relation to the state's overall rate of growth in terms of employment and per capita income. Any combination of these factors could significantly impact one or more sectors of GA activity at AEJ, particularly personal aviation activity, flight training, corporate flying, etc. In this scenario, overall GA activity could decline at AEJ by as much as five percent per year through 2033. While a number of these potential events (shocks) have been discussed in both the aviation and general press and reviewed by industry analysts, it is not anticipated that they will occur within the forecast period, by 2034. It is not anticipated that any two or more of the events described above will happen simultaneously.

3.6.4 Forecast Scenario Conclusions

Based on historical events over the last 20 years, it is acknowledged that possible major shocks could occur in the future similar to the September 11th attacks and the deep economic recession of 2007 - 2010. But it is more likely that a combination of some downward pressures on GA activity will be offset by positive developments. That is the primary reason why aircraft operations recorded at towered airports over a 20 to 30 year period fluctuates up and down, usually within a limited range, in response to positive and negative pressures. As a result, both Scenario 2 – High Growth and Scenario 3 – Decline, are considered to be less likely to occur than Scenario 1 – Status Quo.

Scenario 1 – Status Quo best represents the future level of aviation activity at AEJ through 2034, i.e. a balance between the optimistic and downward trend scenarios. It is also very likely that actual activity levels at AEJ will fluctuate over time, trending upwards over the long term, but activity levels will most likely not grow in a straight line, even though forecasts typically show straight lines.

As noted previously, because of all the variables that may occur it is strongly recommended that the forecasts be reviewed on a regular basis (i.e. annually) against known recent trends in activity, and the forecast assumptions should be reviewed against actual developments. Consideration could also be given to acquiring some type of electronic counter (acoustical or video) with which to sample traffic at AEJ and the measurements can be compared against estimated activity levels and forecasts.

The ACRP published a report; "Counting Aircraft at Non-Towered Airports", Synthesis 4.1 That report reviewed various electronic traffic counters, their use by various airports and state aeronautics agencies, and the quality of data derived from each type of counter.

ACRP is currently working on another report; "Evaluating Methods for Counting Aircraft Operations at Non-Towered Airports", ACRP 03-27, that involves field testing various electronic counters. ACRP anticipates it will be available in fall 2014.

3.6.5 Summary of Preferred Forecasts

As noted above, the estimates of aircraft operations at non-towered airports such as AEJ vary – sometimes widely – between the various sources. The FAA's TAF, FAA's Form 5010, the estimate of activity based on the operations-per-based-aircraft (OPBA) formula tied to the number of based aircraft provided by the airport manager, and the airport manager's estimate of current aircraft operations, are all different. As a result, an average of the various activity estimates was used to develop the base year for the Master Plan forecasts.

The Airport Manager reported that she has been receiving continued interest to construct hangars to house additional based aircraft at AEJ. Consequently, the based aircraft forecasts include growth to accommodate this demand.

Appendix B of the FAA document, Forecasting Aviation Activity by Airport, recommends formatting the preferred forecast data into a particular tabular format for ease of readability. This format is shown in Table 3-11.

3.6.6 Airport Reference Code (ARC) and Critical Design Aircraft

FAA airport design standards are based on the identification of the critical design aircraft. FAA noted that the critical design aircraft may be a composite of different aircraft in terms of wingspan and approach speed; however, each aircraft must meet FAA's definition of "substantial use threshold" – which means that the critical aircraft must conduct a minimum of 500 itinerant operations (takeoffs and landings) per calendar year. That represents one takeoff and landing each day for 250 days per year. There are two based jets (Cessna Citation II) at AEJ, plus transient jets and turboprop operations. Combined they generate more than 500 transient operations per year. The Cessna Citation II and the turboprops fall within FAA's ARC B-II.

TABLE 3-11 – AIRPORT PLANNING AND TAF FORECASTS COMPARISON

Central Colorado Regional Airport				
	Year	AMP FORECAST	AEJ FAA TAF	% Difference

[1] ACRP report available on-line at http://onlinepubs.trb.org/onlinepubs/acrp/acrp_syn_004.pdf

Central Colorado Regional Airport				
Local Operations				
Base yr.	2015	1,702	1,635	4.1%
Base yr. + 5yrs.	2020	1,879	1,635	12.6%
Base yr. + 10yrs.	2025	2,075	1,635	26.9%
Base yr. + 15yrs.	2030	2,292	1,635	37.3%
Base yr. + 20yrs.	2035	2,525	1,635	54.4%
Itinerant Operations				
Base yr.	2015	2,690	2,565	4.9%
Base yr. + 5yrs.	2020	3,025	2,565	12.6%
Base yr. + 10yrs.	2025	3,408	2,565	32.9%
Base yr. + 15yrs.	2030	3,847	2,565	12.6%
Base yr. + 20yrs.	2035	4,334	2,565	69.0%
Total Operations				
Base yr.	2015	4,392	4,200	4.6%
Base yr. + 5yrs.	2020	4,904	4,200	12.6%
Base yr. + 10yrs.	2025	5,483	4,200	30.5%
Base yr. + 15yrs.	2030	6,139	4,200	12.6%
Base yr. + 20yrs.	2035	6,859	4,200	63.3%
Based Aircraft				
Base yr.	2015	28	18	55.6%
Base yr. + 5yrs.	2020	32	21	12.6%
Base yr. + 10yrs.	2025	37	24	54.2%
Base yr. + 15yrs.	2030	43	29	12.6%
Base yr. + 20yrs.	2035	50	34	47.1%

Sources: Base Year 2014 – AEJ Airport Manager and FAA Terminal Area Forecast (TAF), issued February 2014
Notes: TAF data is on a U.S. Government fiscal year basis (October through September).
AF/TAF (% Difference) column has embedded formulas and reflects the absolute value.
An operation consists of a take-off or landing

4.0 FACILITY REQUIREMENTS AND DEMAND/CAPACITY ANALYSIS

This chapter documents the facilities needed to meet the demand requirements as described in **Chapter 3, Aviation Activity Forecasts**. Current facilities were examined to determine if they meet existing demands of the Airport as well as future needs. Certain items identified in this chapter may have multiple solutions which will be examined to determine the preferred alternatives. These items will be explored in **Chapter 5, Alternatives Analysis**.

4.1 Regional Airport System Role

In 2011 the Colorado Department of Transportation (CDOT) Division of Aeronautics published the Colorado Aviation System Plan (Plan). The Plan evaluated and measured the performance of the Colorado system of publicly-owned airports and assigned each Colorado airport to one of three functional categories: Major, Intermediate, or Minor. The State classifies AEJ as an Intermediate General Aviation (GA) airport in the Plan. CDOT evaluated airports' current facilities against the Plan's objectives and identified facilities and services that need improvements. These objectives included:

- Primary runway length, width, and strength
- Taxiway system objectives for primary runway
- Runway approach
- Visual landing aids
- Runway lighting
- Weather reporting systems
- Telephone service and restroom access
- Fixed base operator services
- Aircraft maintenance services
- Airports with aircraft fuel
- Ground transportation services
- Terminal buildings
- Aircraft parking aprons and aircraft hangars
- Auto parking
- Snow removal and de-icing capabilities
- Fencing
- Additional needs (air traffic control tower, ground communications outlet, electrical vault, Aircraft Rescue and Fire Fighting (ARFF) equipment/building, tractors, mowers, maintenance vehicle, paint machine, crack fill machine)

AEJ meets all but one of the airport-specific objectives identified in the 2011 System Plan. The plan recommends runway end identifier lights (REILs). This recommendation is considered in **Section 4.3.3**.

4.2 FAA Design Standards

Table 4-1 summarizes FAA design standards from FAA AC 150/5300-13A, *Airport Design,* along with the current conditions on existing Runway 15/33. As described in **Chapter 2**, the Runway Design Code (RDC) is a classification given to aircraft based on the maximum approach speed and wingspan of the aircraft and approach visibility minimums. This classification applies design criteria appropriate to operational and physical characteristics of the aircraft types operating at an airport. As

described in **Section 2.2**, AEJ meets B-II design standards, as required by FAA AC 150/5300-13A[1]. Runway and taxiway dimensional standards must meet or exceed the specified widths and clearances specific to the critical aircraft to ensure safe operation for landing, take-off, and taxi. The critical aircraft for AEJ is a Cessna Citation II, as discussed in **Section 3.6.6**. **Table 4-1** lists the RDC B-II design standards in comparison to the existing Runway 15/33.

The airfield currently meets B-II design standards.

TABLE 4-1 – FAA DESIGN STANDARDS

Standard	Current Conditions	B-II Design Standards
Runway Width	75'	75'
Runway Shoulder Width	10'	10'
Runway Safety Area (RSA) Width	150'	150'
RSA Beyond Runway End	300'	300'
Runway Object Free Area (ROFA) Width	500'	500'
ROFA Beyond Runway End	300'	300'
Runway Protection Zone (RPZ) Length	1,000'	1,000'
Runway Centerline to Parallel Taxiway Centerline	300'	240'
Runway Centerline to Aircraft Parking	550'	250'
Runway Holding Position Markings	200'	200'

Source: FAA AC 150/5300-13A, *Airport Design*

Runway Safety Area

The runway safety area (RSA) is a defined surface surrounding the runway that is specifically prepared and suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the paved surface. The standard RSA for a B-II airport is 150 feet wide and extends 300 feet beyond the end of the runway. The existing RSA for Runway 15/33 at AEJ is 150 feet in width and extends 300 feet beyond each end of the runway.

AEJ meets RSA requirements for RDC B-II.

Runway Object Free Area

An object free area (OFA) is an area on the ground that is centered on a runway, taxiway, or taxilane centerline, and is provided to enhance the safety of aircraft operations by clearing the area of above-ground objects. Acceptable objects in the runway object free area (ROFA) are objects that need to be located in that area for air navigation or aircraft ground maneuvering purposes, or are less than three inches tall. As shown previously in **Table 4-1**, AEJ meets both existing and future ROFA requirements.

AEJ meets ROFA requirements for RDC B-II.

[1] Federal Aviation Administration Advisory Circular 150/5300-13A, *Airport Design*

Obstacle Free Zone

The obstacle free zone (OFZ) is a volume of airspace intended to protect aircraft in the early and final stages of flight. It must remain clear of object penetrations, except for frangible navigational aids (NAVAIDs) located in the OFZ because of their function. The OFZ is 400 feet wide and extends 200 feet beyond the end of the runway.

AEJ meets OFZ requirements for RDC B-II.

Runway Hold Position Markings

According to AC 150-5300-13A, holdlines at airports without control towers, such as AEJ, identify the location where a pilot should ensure there is adequate separation from other aircraft before proceeding onto the runway. These locations are chosen to ensure that aircraft are clear of the RSA and OFZ during operations. Based upon AEJ's RDC of B-II the holding position should be 200-feet from runway centerline.

AEJ meets runway hold position marking requirements for RDC B-II.

Building Restriction Lines

Building restriction lines (BRLs) run parallel to the runway and are offset at a distance that ensures that new construction remains outside of Terminal Instrument Procedures (TERPS) surfaces and other protected surfaces as required by 14 CFR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*. The BRLs at AEJ are calculated based on a 35-foot-tall structure. Structures taller than 35 feet require additional analysis to ensure compliance with the 14 CFR Part 77 surfaces.

AEJ meets the BRL requirements; existing buildings are outside of the BRL.

4.3 Airside Requirements

The airside components evaluated include the runway, taxiways, FAA safety standards, navigational and landing aids, airspace requirements, and obstructions.

4.3.1 Runway

Runway Orientation

The ability of the runway to meet the requirements of airport users is one of the most critical components to the success of an airport. The runway must have the capacity, length, strength, and proper orientation to the wind to meet the demands of its users. This section examines several key factors used in the determination of the adequacy of the runway system.

Runway orientation is the alignment of the runway in relation to magnetic north, and is primarily influenced by wind direction. Runways are aligned so the prevailing wind creates the least amount of crosswind operations. Recognizing that there are variable weather conditions, aircraft are designed to land with an acceptable degree of crosswind, referred to as the crosswind component. When conditions are above the maximum allowable crosswind component for a particular type of aircraft,

said aircraft must use another runway or divert to another airport. Since AEJ has just one runway, the only option is to divert to another airport. To reduce the amount of diversions due to wind, the most ideal runway layout results in an allowable crosswind component for the design aircraft 95 percent of the time.

Provided the current runway configuration and the historic combined wind coverage for AEJ, as discussed in **Section 2.9.1**, the runway falls under the 95 percent FAA recommended crosswind coverage for all weather conditions for 10.5 and 13 knots. A crosswind runway could be recommended within the planning period; however, the FAA may not support one due to higher funding priorities within the national system and limited funding for crosswind runways. Consequently, should the community desire a crosswind runway, funding outside of federal support would likely be necessary.

Discussions with local pilots at the public open house held on March 9, 2015 and at their monthly meeting on May 16, 2015 revealed their concern about the strong crosswinds they consistently experience landing on Runway 15/33. They feel that improving the safety of the landing environment for those operating small aircraft should be AEJ's priority.

The pilots also noted that the undulating terrain east of Runway 33 magnifies the intensity of the crosswinds as they disrupt the airflow and suggested grading the terrain to improve conditions. The varied terrain, however, serves as drainage channels and a portion is not located within AEJ boundaries. **Figure 4-1** depicts the terrain.

FIGURE 4-1 – TERRAIN EAST OF RUNWAY 33

Note: Not to scale
Source: Google Earth, 2015

AEJ's current runway orientation does not provide adequate wind coverage per FAA guidance. A crosswind runway may be considered but would be outside of FAA funding. Chapter 5, Alternatives Analysis, will review the possibility of grading the area east of Runway 33 to minimize crosswind effects as well as the orientation of a crosswind.

Runway Magnetic Bearing

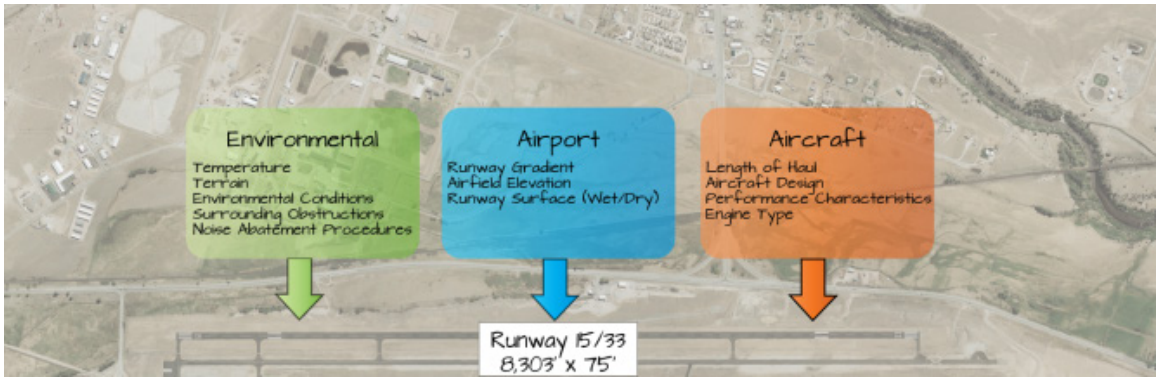
FAA evaluates the numbering for each runway end (known as the runway designation) against magnetic bearing every five years. Magnetic bearings change periodically due to changes in the earth's magnetic field (i.e. the earth's magnetic north is constantly moving at approx. 0^0 6' W per year). As a result, over time, the runway magnetic bearings change as well. AEJ's runway designation is 15/33, which is short hand for 150 degrees and 330 degrees magnetic. The runway true bearing is 340^0-160^0, and the magnetic declination is 8^0 48' E (source: NOAA magnetic field calculator). FAA identifies which airports have runway bearings that require a re-designation due to the shift in magnetic north. Written notice from the FAA Air Traffic Organization (ATO) is issued to airports with runway designations that are due to be changed, and every effort is made to facilitate the change as part of an upcoming runway maintenance or construction project, such as a pavement maintenance project., .

Based on the runways' current true bearing, the rate of magnetic north shift, and the magnetic declination, it does not appear that Runway 15-33 needs to be re-designated within the next five to ten years.

Runway Length

The purpose of the runway length analysis is to determine if the length of the existing runway is adequate for the current and projected aircraft fleet operating at AEJ. The current length of Runway 15/33 is 8,303 feet. Runway length is dependent on numerous factors, including: airport elevation, temperature, wind velocity and direction, ambient air temperature, aircraft design, length of haul, runway surface (wet or dry), runway gradient, presence of obstructions, and any imposed noise abatement procedures or other prohibitions. The required runway length at AEJ is particularly impacted by the airfield elevation, surrounding obstructions, and runway gradient. The terrain surrounding the Airport also impacts runway length as it limits the amount of space available for runway construction. **Figure 4-2** displays factors that impact runway length.

FIGURE 4-2 – IMPACTS TO RUNWAY LENGTH



Note: Not to scale
Source: Jviation

For design purposes, runway length recommendations at GA airports are generally based upon a combination of the most demanding aircraft or family grouping of aircraft within the GA fleet that

are operating, or anticipated to operate at the airport in the future. The portion of the GA fleet normally operating at AEJ is dominated by small aircraft weighing up to 12,500 pounds.

While the FAA does not provide standards for runway length, FAA AC 150/5325-4B, *Runway Length Requirements for Airport Design*, provides guidance to assist in determining the recommended runway length for an airport based on the previously noted factors. The process for determining runway length begins with analyzing the operating weight for critical aircraft that are anticipated to account for at least 500 annual operations within the planning period.

Based on their weight, aircraft are placed in three categories: aircraft that weigh less than or equal to 12,500 pounds, aircraft weighing between 12,500 pounds and 60,000 pounds, and aircraft weighing 60,000 pounds or greater. Methodology for determining runway length is dependent on the category to which the critical aircraft belongs. **Table 4-2** shows the recommended runway lengths for small and large airplanes less than or equal to 60,000 pounds.

TABLE 4-2 – RECOMMENDED RUNWAY LENGTHS FOR AEJ

Runway Lengths Recommended for Airport Design	
Small airplanes with approach speeds of < 30 knots	538.5 feet
Small airplanes with approach speeds of < 50 knots	1,436 feet
Small airplanes with < 10 passenger seats	
– 95% of these small airplanes	10,000 feet
– 100% of these small airplanes	10,000[a] feet
Large airplanes weighing ≤ 60,000 pounds	
– 75% of these large airplanes at 60% useful load	7,700[b] feet
– 75% of these large airplanes at 90% useful load	8,600[b] feet
– 100% of these large airplanes at 60% useful load	11,000[b] feet
– 100% of these large airplanes at 90% useful load	11,000[b] feet

Notes: [a]Airport elevation exceeds curve parameters at mean daily maximum temperature of the hottest month of year.
[b]Maximum Runway Length (feet) permissible rate of climb according to performance capability as contained in the FAA- approved airplane manuals under an assumed loading condition.
Source: FAA AC 150/5325-4B, Runway Length Requirements for Airport Design

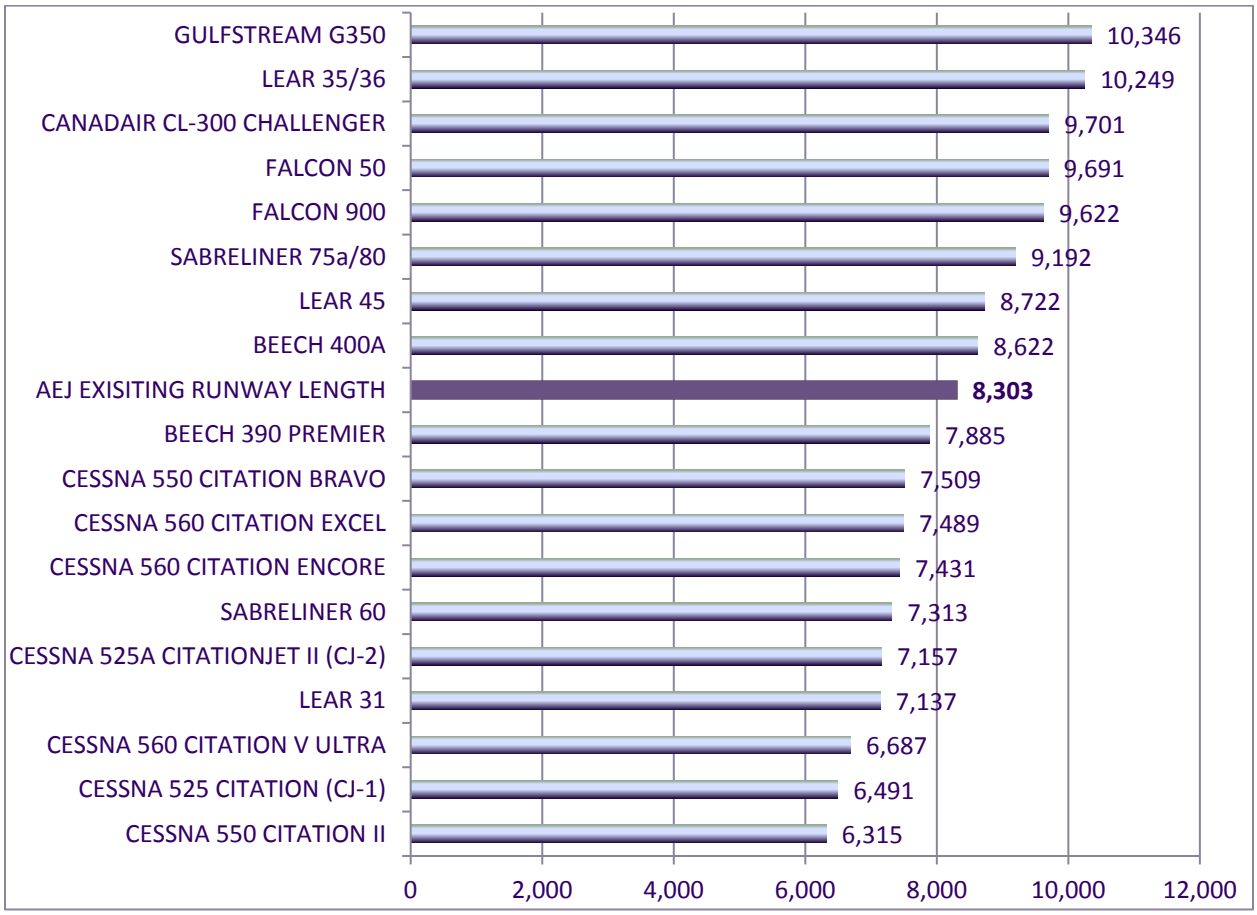
As **Table 4-2** shows, AEJ currently accommodates 100 percent of the small airplane fleet with approach speeds less than 50 knots; however, for aircraft weighing up to 60,000 pounds, there is insufficient runway length to accommodate the large jet aircraft fleet at 90 percent useful load. For larger business jet aircraft, the existing runway length is less than the requirement for maximum takeoff weight.

However, the analysis indicates that at 8,303 feet, Runway 15/33 currently accommodates 75 percent of large airplanes weighing less than or equal to 60,000 pounds at 60 percent useful load. Reduction of useful load by the commercial and business jet fleet is typical for accommodating existing runway lengths at high altitude airports. **Figure 4-3** illustrates that many jets, including AEJ's critical aircraft (Cessna Citation II), are accommodated without operational penalties. Those jets shown that require more runway length than AEJ's existing runway length do have to make operational adjustments.

Documentation from users demonstrating the need for a longer runway length would be necessary in order to justify a runway extension. Currently, such demand for a runway extension is not warranted.

Runway length is adequate for existing and future demand based upon AEJ's critical aircraft.

FIGURE 4-3 – LARGE AIRCRAFT FLEET RUNWAY LENGTH REQUIREMENTS



Note: Runway requirements are approximate only from manufacturer Balanced Field Length or Takeoff Field Length adjusted for a mean max temp (82.1 degrees Fahrenheit) and field elevation (7,950 feet) with a 46.4 foot maximum difference in runway centerline elevation. These lengths are not a substitute for calculations required by individual aircraft operators; however, these calculations provide an estimate of runway length needed for these aircraft types to operate at AEJ at 100% useful load.
Sources: Aviation Research Group, Inc.; aircraft manufacturer data; Jviation

Runway Width

AEJ's current and future RDC of B-II requires a minimum runway width of 75 feet. Additionally, 10-foot-wide runway shoulders and 95-foot-wide runway blast pads are recommended (source: FAA AC 150/5300-13A, Appendix 7, Runway Design Standards Matrix, B-II). AEJ's existing runway width is 75 feet, and AEJ's runway shoulders (unpaved) are 10 feet wide. **Table 4-3** below shows the RDC design standards comparison with the existing Runway 15/33.

Blast pads are recommended for each Runway end (15 & 33), 95' wide x 150' long, if there are erosion conditions off the end of the runways. Given the soil type and lack of vegetation off each runway end, erosion from jet blast appears to be possible.

TABLE 4-3 – RUNWAY DESIGN STANDARDS

	ARC B-II > 1-Mile Visibility Minimums/a/	ARC B-II > ¾-Mile Visibility Minimums/a/	Existing Runway 15/33/a/
Runway Width	75	75	75
Runway Shoulder Width	10	10	10
Blast Pad Width	95	95	None
Blast Pad Length	150	150	None
Runway CL to Parallel TW CL	240	240	300
Runway CL to Aircraft Parking	250	250	550
Runway Hold Line	200	200	200

Note: /a/dimensions are in feet
Source: FAA AC 150/53-00-13A, *Airport Design*

Runway Line of Sight

The runway line of sight standard requires that two points, five feet above the runway centerline be mutually visible for the entire length of the runway. If there is a parallel taxiway, the two five-foot points must be visible for one-half of the runway length. The existing full length parallel taxiway (Taxiway A) and taxiway grades allow for mutual visibility of two five-foot points for at least half of the runway length.

Runway line of sight requirements on Runway 15/33 are met.

Runway Strength

Airfields are constructed to provide adequate pavement strength for aircraft loads, as well as resisting the abrasive action of traffic and deterioration from adverse weather conditions and other influences. Runway 15/33 has a weight-bearing capacity designed to accommodate 30,000 pounds for Single Wheel Gear (SWG) equipped aircraft and 30,000 pounds for Dual Wheel Gear (DWG) equipped aircraft. **Table 4-4** shows runway weight bearing capacity for AEJ.

TABLE 4-4 – RUNWAY WEIGHT CAPACITY

Gear Configuration	Weight (pounds)	Aircraft Classification
Single Wheel Gear (SWG)	30,000	Most GA Aircraft including small and mid-sized business jets.
Dual Wheel Gear (DWG)	30,000	Narrow body aircraft such as Boeing 737 and Airbus A320 aircraft.

Source: Airnav.com

Runway 15/33's pavement strength is adequate for existing and future operational needs. No additional strengthening is recommended.

Runway Surface and Markings

Runway 15/33 is constructed of asphalt. The 2012 CDOT Division of Aeronautics Pavement Condition Index (PCI) study identified that the runway is of acceptable condition. Existing runway markings are in very poor condition.

Runway 15/33 is scheduled to be fog sealed and re-marked in summer 2015. Continued routine maintenance, such as crack and joint sealing, should be performed on a scheduled basis to extend the pavement life of the runway.

Runway Capacity

This section addresses the evaluation method used to determine the capability of the airside facilities to accommodate aircraft operational demand. This evaluation is expressed in terms of potential excesses and deficiencies in capacity. The measurement of airfield capacity is based upon the methodology in FAA Advisory Circular (AC) 150/5060-5, *Airport Capacity and Delay*.

Runway Capacity is defined by the FAA as, "a measure of the maximum number of aircraft operations that can be accommodated on the Airport or airport component in an hour."[1] Capacity is further divided into two categories: Visual Flight Rules (VFR) and Instrument Flight Rules (IFR). Utilizing guidance contained in FAA AC 150/5060-5, *Airport Capacity and Delay,* the runway capacity for AEJ has been calculated to be 74 VFR flights and 57 IFR flights per hour.

Another factor in runway capacity is annual service volume (ASV), which is a reasonable estimate of the Airport's annual capacity. A number of factors that may occur over the period of a year are used to determine ASV. These factors include runway use, aircraft mix, and weather conditions. ASV is calculated using the following criteria:

- ASV = CW x D x H
- CW weighted hourly capacity
  D ratio of annual demand to average daily demand
  H ratio of average daily demand to average peak hour demand

Using this equation, the ASV for AEJ has been calculated to be a maximum of 195,000 annual operations. As noted in **Chapter 3**, **Forecast**, total annual operations in 2015 are anticipated to be 4,392, well below the maximum ASV. FAA planning standards state that when 60 percent of the ASV is reached (117,000 annual operations), the airport should start planning to increase runway capacity, including construction of a new runway or extension of an existing runway. Once 80 percent of ASV is reached (156,000 annual operations), construction should begin in order to increase capacity of the existing facilities.

AEJ's existing facilities are adequate for accommodating future hourly and annual demand.

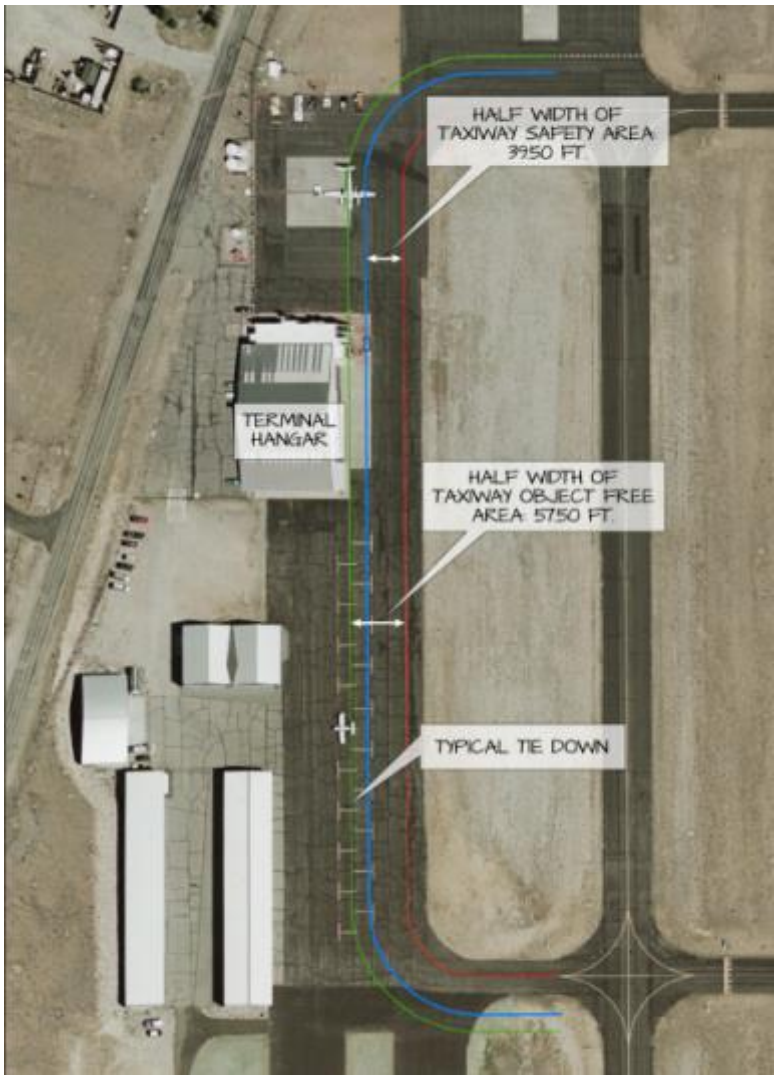
[1] FAA AC 150/5060-5, *Airport Capacity and Delay*

4.3.2 Taxiways and Taxilanes

Taxiways are designed to provide movement from one part of an airport to another. Ideally, the taxiway system should allow an aircraft to taxi to an associated runway in the most direct manner without having to change speed or cross active runways. Taxilanes are designed for lower speed movement and provide access from taxiways to aircraft parking positions and other terminal areas.

The taxiway design standards for width and separation are dictated by Aircraft Design Group (ADG) and Taxiway Design Group (TDG) as described in FAA AC 150/5300-13A, *Airport Design*. The TDG is determined by the main gear width (MGW) and the cockpit to main gear (CMG) of the largest aircraft operating at an airport on a frequent basis (critical aircraft). AEJ's TDG is 2, based upon the critical aircraft Cessna Citation II. All taxiways require a designated width of a Taxiway Safety Area (TSA) and Taxiway Object Free Area (TOFA) centered on the taxiway centerline. These standards allow for the safe movement of aircraft without the threat of striking any objects or other aircraft. AEJ's existing taxilane does not meet several criteria due to the location of the tiedowns, vehicle parking, terminal building, and terminal hangar (Mandes), see **Figure 4-4.** **Table** 4-5 provides existing taxiway and taxilane conditions and design standards for ADG II/TDG 2.

FIGURE 4-4 – TAXIWAY AND TAXILANE STANDARDS



Note: Not to scale
Source: Jviation

TABLE 4-5 - TAXIWAY DESIGN STANDARDS

Criteria	AEJ Existing Taxiway & Connectors[/a/]	AEJ Existing Taxilane[/a/]	ADG II TDG 2 Taxiway[/a/]	ADG II TDG 2 Taxilane[/a/]
Width	50 (taxiway) 35 (connector)	35	35	35
Taxiway Safety Area Width	79	Non-standard[/b/]	79	79
Taxiway Object Free Area Width	131	Non-standard[/b//c/]	131	115
Taxiway Centerline to – Runway Centerline – Fixed or Moveable Object	 300 65.5	n/a	 300 65.5	n/a
Taxilane Centerline to – Parallel Taxiway	n/a	229	n/a	105

Criteria	AEJ Existing Taxiway & Connectors[/a/]	AEJ Existing Taxilane[/a/]	ADG II TDG 2 Taxiway[/a/]	ADG II TDG 2 Taxilane[/a/]
– Fixed or Moveable Object		Non-standard[/b//c/]		57.5
Taxiway/Taxilane Wing Tip Clearance	26	Non-standard[/b//c/]	26	18
Taxiway Shoulder Width	15	n/a	15	n/a

Notes: [/a/] dimensions are in feet
[/b/] tiedowns are located within taxiway safety area and object free area; vehicles parked on east side of terminal encroach safety area.
[/c/] terminal building and terminal hangar encroach object free area
Sources: FAA AC 150/5300-13A, *Airport Design* and Jviation

Additional recommendations for taxiway system layouts (geometry) were recently included in AC 150/5300-13A[1]. As such, compliance with these recommendations is now mandatory. AEJ's taxiway connectors do not meet current fillet standards. **Figure 4-5** provides an example of one intersection at AEJ with existing geometry and the standard criteria.

Lastly, two connector taxiways (A5 and A6) are not in compliance as these taxiways provide direct access from the apron to the runway. It is recommended that alternatives be evaluated to eliminate direct taxiway access between the apron and Runway 15/33.

FIGURE 4-5 – FAA TAXIWAY DESIGN GROUP 2 FILLET DESIGN REQUIREMENTS

Note: Not to scale
Source: Jviation

It is recommended that tiedowns should be reconfigured to accommodate FAA standard taxilane safety areas and object free areas. This may require additional pavement which should also be considered east of the terminal building and hangar to meet taxilane standards. It is also recommended that direct access to Runway 15/33 from the apron be removed and taxiway/connector fillet standards be met. Options for each of these recommendations will be explored in Chapter 5, Alternatives Analysis. Routine maintenance, such as crack and joint sealing,

[1] FAA AC 150/5300-13A, *Airport Design*, Table 4-5 Standard Intersection Details for TDG 2.

should be performed on a scheduled basis to extend the pavement life of the taxiways. The taxiways are scheduled to be fog sealed in summer 2015.

4.3.3 Airfield Lighting and Signage of Runways and Taxiways

The runway is equipped with a 19-year-old medium intensity runway lighting (MIRL) system which is in fair condition. Lighting systems are eligible for replacement per the FAA's Airport Improvement Program (AIP) Handbook, Order 5100.38D after 15 years. However, systems can last much longer than 15 years and replacement is typically triggered by frequent malfunctioning or replacement of cables, light fixtures, or transformers. It is anticipated that the MIRL system will need replacement during the early to mid-portion of the planning period.

The runway ends do not currently have lights. The 2012 CDOT System Plan recommended that both runway ends be equipped with runway end identifier lights (REILS) in the near-term.

Taxiway A and associated connector taxiways are marked with reflectors. A lighting system should be considered during the planning period.

It is recommended that a medium intensity taxiway lighting (MITL) system be installed on the parallel taxiway and connectors in the first half of the planning period. REILS are also recommended on both runway ends during the earlier portion of the planning period. The MIRL system should be replaced at the end of its useful life (anticipated to be towards the early to middle of planning period).

4.3.4 Navigational Aids & Instrument Approach Procedure Analysis

As discussed in **Chapter 2**, **Inventory**, AEJ has one published non-precision approach procedure. Approach minimums for such procedures are based upon several factors, including aircraft characteristics, obstacles, navigation equipment, approach lighting, and weather reporting equipment. Both ends of Runway 15/33 are equipped with precision approach path indicators (PAPIs), which provide visual decent guidance. The airport also has a rotating beacon to aid pilots in identifying the Airport.

Recent technological advancements have made possible the use of satellite-based navigation systems that rival conventional ground-based predecessors in accuracy and dependability. These capabilities are expected to further improve with the continued implementation of the FAA's NextGen program. NextGen is a complete upgrade of the National Airspace System. A focus of NextGen is the enhancement of pre-departure, departure, climb, en route, and approach phases of a flight. More information on the NextGen program can be obtained from the FAA's website[1].

NextGen and the evolution of Global Positioning System (GPS) have already had profound impacts on instrument approach capabilities at public use airports. Conventional instrument approaches, such as the instrument landing system (ILS), require ground-based facilities on or near an airport for navigation. NextGen and GPS eliminate the need for ground-based facilities and make it possible to develop or improve approaches at airports where it was previously infeasible. The FAA is continuing

[1] http://www.faa.gov/nextgen/

to expand development and use of GPS for use in aircraft navigation and instrument approach procedures via Area Navigation (RNAV) and the Wide Area Augmentation System (WAAS). WAAS utilizes a network of ground-based antennas to send correcting signals to the GPS satellite constellation, allowing for ILS like accuracy. Due to the advent of this technology an ILS installation at AEJ is highly unlikely.

A discussion with FAA Flight Procedures on March 3, 2015[1] regarding AEJ existing and future approach procedures resulted in the following conclusions:

- Existing terrain to the north prevents publishing an instrument approach to Runway 15.
- An LPV could be considered as an approach to Runway 33; however the climb gradient on the missed approach procedure would need to be at least 973 feet per nautical mile up to 11,200 feet, which is extremely steep. Due to the extreme climb gradient, a waiver would need to be requested and even if approved, most aircraft do not have the performance capability to accomplish the climb gradient.
- Visibility minimums could be reduced by one-half mile on Runway 33's existing procedure by installing a medium intensity approach lighting system with runway alignment indicator lights (MALSR).
- Consideration of a required navigation performance (RNP) to Runway 33 should be given. RNP allows aircraft to fly a specific path between two 3D-defined points in space. RNAV and RNP systems are similar with the key difference between them being the requirement for on-board performance monitoring and alerting for RNP. RNP generally provides lower minimums. AEJ would need to request this approach.

It is recommended that Chaffee County continue to monitor and protect for the future implementation of NextGen. A MALSR is also recommended within the planning period as a mid- to long-term project.

4.3.5 Airspace Requirements

14 CFR Part 77 defines and establishes the standards for determining obstructions that affect airspace in the vicinity of an airport. Prior to any airport development, a 14 CFR Part 77 evaluation must be conducted regardless of the project scale to verify that there will be no hazardous effects to air navigation due to construction. 14 CFR Part 77 defines an airport's imaginary surfaces, which are geometric shapes that are in relation to the airport and each runway. The size and dimensions of these imaginary surfaces are based on the category of each runway for current and future airport operations. The five imaginary surfaces are defined on the following page and depicted in **Figure 4-6**.

Primary Surface – The primary surface is an imaginary obstruction-limiting surface that is specified as a rectangular surface longitudinally centered on a runway. The specific dimensions of this surface are functions of types of approaches, existing or planned, for the runway.

[1] Steve Berardo, Jviation spoke with Fred Mitchell, FAA Flight Procedures on March 3, 2015.

Approach Surface – The approach surface is an imaginary obstruction-limiting surface that is longitudinally centered on an extended runway centerline. It extends outward and upward from the primary surface at each end of a runway, at a designated slope and distance, determined upon the type of available or planned approach by aircraft to a runway.

Horizontal Surface – The horizontal surface is an imaginary obstruction-limiting surface that is specified as a portion of a horizontal plane surrounding a runway located 150 feet above the established airport elevation. The specific horizontal dimension of this surface is a function of the types of approaches existing or planned for the runway.

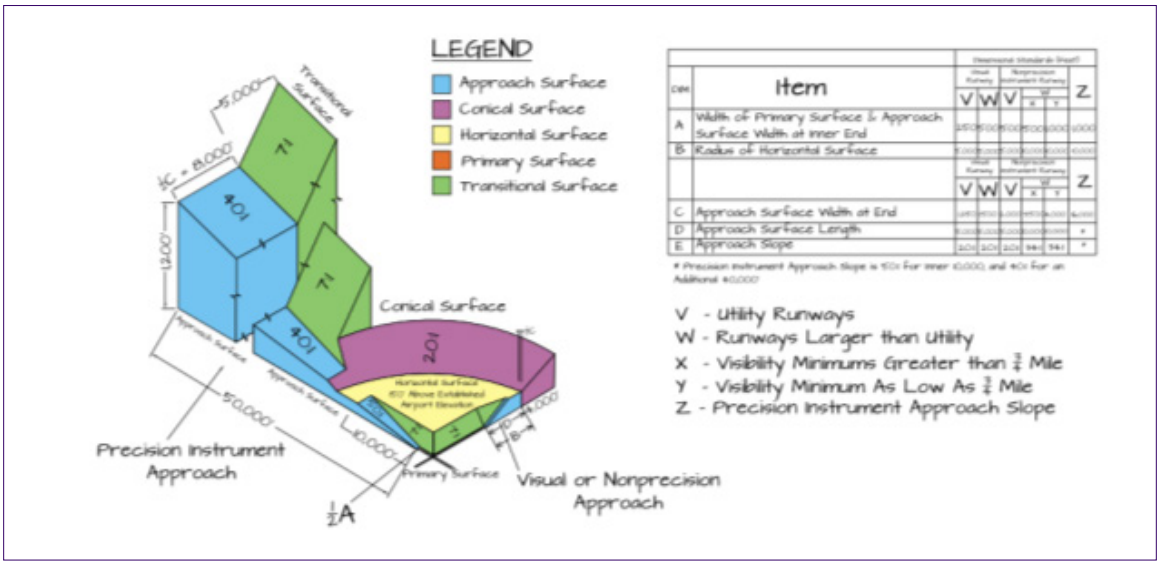
Conical Surface – The conical surface is an imaginary obstruction-limiting surface that extends from the edge of the horizontal surface outward and upward at a slope of 20:1(horizontal:vertical) for a horizontal distance of 4,000 feet.

Transitional Surface – The transitional surface is an imaginary obstruction-limiting surface that extends outward and upward at right angles to the runway centerline and the runway centerline, extended at a slope of 7:1 (horizontal:vertical) from the sides of the primary surface.

Runway 15 is a larger-than-utility runway with a visual approach. Runway 33 is a larger-than-utility runway with a non-precision GPS approach with a visibility minimum of one and one half miles.

With new advances in technology and the potential for more efficient use of existing airspace with future NextGen technology, these limitations may be reduced.

FIGURE 4-6 – PART 77 SURFACES



Source: FAA 14 CFR Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace

4.3.6 Obstructions

As discussed in **Section 2.3.10** of this document, Woolpert completed mapping of the airport and surrounding area to FAA AGIS standards. The mapping identified penetrations to the imaginary surfaces, which are shown on the airspace drawings within the Airport Layout Plan (ALP) set.

The FAA sponsor grant assurance number 20 states: "It (i.e. the airport sponsor) will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards."

It is recommended that the airport coordinate with FAA to develop an appropriate mitigation plan regarding penetrations to the imaginary surfaces.

4.4 General Aviation

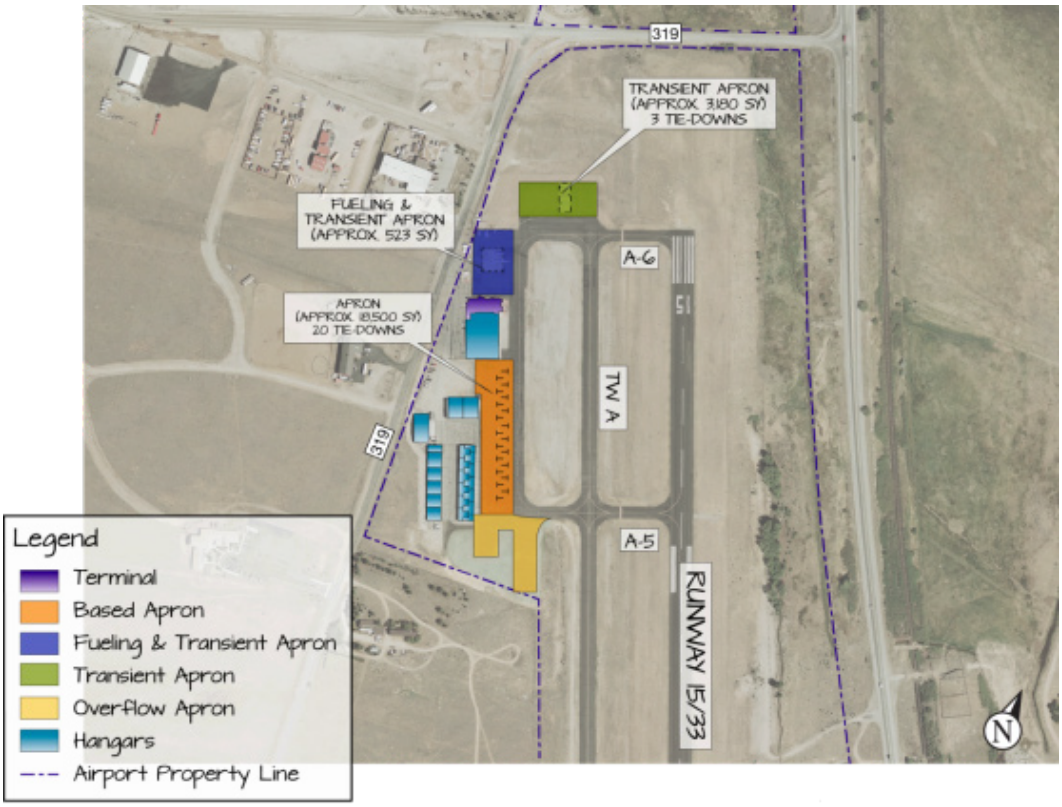
The number and types of projected GA operations and based aircraft can be converted into a generalized projection of GA facility needs. GA facilities include the FBO, hangars, apron, and tiedown space.

A major component of GA facilities is apron space. Apron frontage is considered premium airport space and should be strategically utilized. Apron layout design should take into account the location of airport terminal buildings, FBO facilities, and other aviation-related access facilities at an airport. Aprons provide parking for based and transient airplanes, access to the terminal facilities, fueling, and surface transportation. FAA AC 150/5300-13A, *Airport Design,* Appendix 5, provides guidelines in assisting with the determination of the layout and design of airplane parking apron(s) and tiedown area(s) for based and transient aircraft.

4.4.1 Aircraft Parking Aprons

The aircraft parking aprons, shown in **Figure 4-7**, provide access to parking, terminal facilities, fueling, and surface transportation for both based and transient aircraft. Specifically, the north apron provides space for transient aircraft only. The fueling and transient apron does have a hardstand to park larger/heavier aircraft; however, the majority of space is taken for fueling and movement of aircraft. Twenty tiedowns exist on the south apron and pads located south of the tiedown area provide additional (overflow) parking for transient aircraft. However, these pavement areas were built to accommodate hangars and should hangars be constructed, the additional parking areas for transient aircraft would be lost.

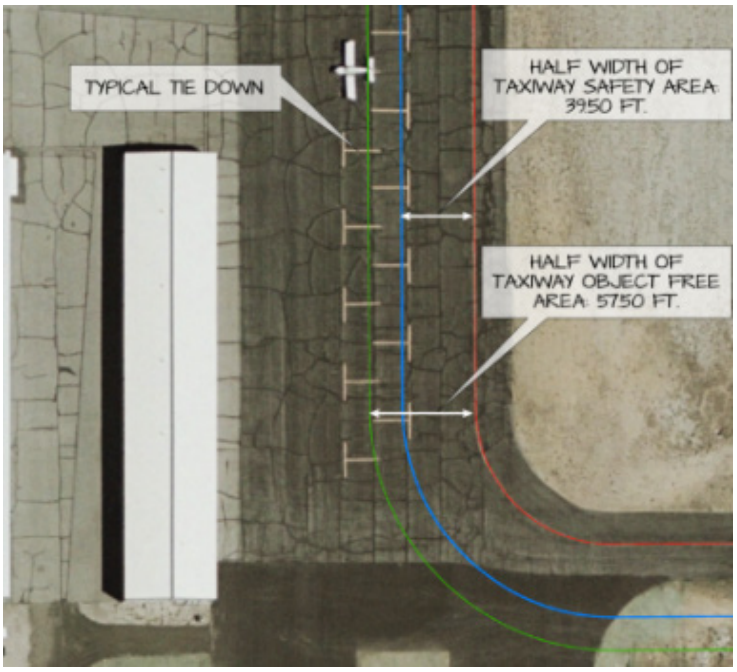
FIGURE 4-7 – AIRCRAFT PARKING APRONS



Note: Not to scale
Source: Jviation

According to airport management, apron space is constrained during the busy summer months when the tiedown area is often full with temporary based aircraft, limiting space for transient aircraft. As noted in **Section 4.3.2**, the tiedowns are within the taxilane safety and object free areas, see **Figure 4-8.** In order to accommodate safety standards, all 20 tiedowns would be lost. Also, when tiedowns are occupied, aircraft cannot taxi past to reach the overflow parking on the pads located south of the apron.

FIGURE 4-8 – TIE-DOWN AND TAXILANE SAFETY STANDARDS



Note: Not to scale
Source: Jviation

It is also important to note that transient aircraft, specifically jet aircraft, prefer power-in/power-out parking which requires significantly more space than nested tiedowns. Allowing an area of 2,000 square yards to accommodate ADG II aircraft would be considered adequate space for each transient aircraft for power-in/power-out parking. The number of aircraft on the ground at any given time is determined by taking 25 percent of peak day transient aircraft.[1] **Table 4-6** summarizes the current space available, along with the minimum apron space required. Hardstands to accommodate several heavier aircraft should be considered as airport management receives requests several times a year by pilots/companies operating aircraft heavier than the current pavement strength of 30,000 pounds.

TABLE 4-6 – TRANSIENT APRON PARKING REQUIREMENTS

	2015	2020	2025	2030	2035
Peak Day Operations	20	23	25	29	32
Required Parking Positions/a/	5	6	6	7	8
Space per Position/b/	2,000	2,000	2,000	2,000	2,000
Existing Transient Parking Apron Available/b/	3,180	3,180	3,180	3,180	3,180
Peak Day Transient Parking Apron Requirement/b/	10,000	12,000	12,000	14,000	16,000
Transient Aircraft Parking Apron Requirements Surplus/(Deficit) /b/	(6,820)	(8,820)	(8,820)	(10,820)	(12,820)

Notes: /a/ 25 percent of peak day operations,
/b/ dimensions are in square yards

[1] Federal Aviation Administration Advisory Circular 150/5300-13A, *Airport Design*

Source: Jviation

It is recommended that additional apron be constructed to accommodate the 20 tiedowns lost due to taxilane safety area and object free area standards. These tiedowns should be configured to meet current FAA standards per FAA AC 150/5300-13A. Additional apron should also be constructed to accommodate transient aircraft parking; hardstands should be considered to accommodate several heavier aircraft. Chapter 5, Alternatives Analysis, will review options to accommodate the additional need.

4.4.2 Apron Pavement

The pavement on the GA tiedown apron is oxidized and exhibits considerable cracking, primarily on the south end. These conditions indicate the pavement and subgrade are in poor condition. No cracking appears on the newer apron areas near the fuel farm. Preventative pavement maintenance is required for all apron areas as well as those that were constructed in 2006 and remain in good condition.

Based upon a preliminary analysis of the apron, it was determined that portions do not meet FAA grade standards per FAA AC 150/5300-13A, Change 1, *Airport Design*.

A fog seal application is scheduled for summer of 2015. GA apron grade correction/rehabilitation is recommended within the planning period prior to year 2020. Preventative pavement maintenance and a pavement maintenance plan are recommended to be continued to ensure pavement life.

4.4.3 Aircraft Storage Requirements

Hangars at AEJ include one 11-unit T-hangar and four box hangar units of different capacities. Two box hangars are located through-the-fence (TTF), and accommodate six aircraft. The Airport has indicated that current hangar space is in demand, specifically to accommodate larger aircraft in box hangars.

One of the on-airport box hangars, the Mandes hangar, is reserved for transient operations (12,700 square feet). The hangar was owned privately until the Town/Airport purchased on April 30, 2015.

In total, AEJ has 43,290 square feet of based and transient hangar space (does not include TTF). Both based and transient space is used in the calculations to account for adequate transient storage as well as to capture "drop and go" passengers during inclement weather conditions from surrounding airports.

Dividing the current 43,290 square feet of existing hangar space by the 2015 quantity of 28 aircraft, results in approximately 1,546 square feet of hangar space for each based aircraft. Specific demand will be based on the actual size of aircraft that ultimately will be based at AEJ and will require new hangar construction; however, for planning purposes it is assumed that the current ratio of 1,546 square feet per aircraft will continue. Table 4-7 shows AEJ has insufficient aircraft hangar space.

TABLE 4-7 – BASED HANGARED AIRCRAFT REQUIREMENTS

Year	Based GA Aircraft	Based GA Aircraft Using Tie downs	Minimum Hangar Space Required[a]	Current Hangar Space[a]	Surplus or (Shortfall) [a]
2015	28	0	43,290	43,290	0
2020	32	0	49,472	43,290	(6,182)
2025	37	0	57,202	43,290	(13,912)
2030	43	0	66,478	43,290	(23,188)
2035	50	0	77,300	43,290	(34,010)

Note: [a] dimensions in square feet
Source: Jviation

It is recommended that hangars be constructed throughout the planning period as demand warrants. It is also recommended that the Airport purchase the TTF hangar units. Additional hangar development will be investigated in Chapter 5, Alternatives Analysis.

4.5 Landside Access and Parking Requirements

4.5.1 Regional Transportation Network

The roads and highways that provide access to AEJ are adequate to handle both current conditions and the future growth predicted in the approved FAA forecast.

The existing regional access to the Airport from U.S. Routes 285 and 24 are considered adequate for the 20-year planning period.

4.5.2 Access and On-Airport Circulation Roadways

Access to AEJ is from County Road 319, a two-lane road that runs north to south. A large undefined paved area provides direct access from the road to the Airport's main parking area. [Explain safety issue that requires improvement.]

It is recommended that the intersection providing access to the Airport be improved to enhance safety.

4.5.3 Auto Parking

As shown in in **Figure 2-13**, there are two auto parking lots. There is one paved lot west of the terminal facility with 21 public parking spaces, and one secured gravel lot located between the south end of the terminal and hangar facilities with 14 spaces. Auto parking spaces are at capacity. For planning purposes, the existing ratio of one parking space for every 75 itinerant operations was used to determine parking lot demand at AEJ, shown in **Table 4-8**.

TABLE 4-8 – AUTO PARKING DEMAND

	2015	2020	2025	2030	2035
Itinerant GA Operations	2,629	2,963	3,346	3,3784	4,284
Parking Spaces Requirement	35	40	45	50	57

	2015	2020	2025	2030	2035
Parking Spaces Surplus/(Deficit)	0	(4)	(10)	(15)	(22)

Source: Jviation

Construction of an additional 22 parking spaces is recommended by the end of the planning period. Expansion options for auto parking will be evaluated in Chapter 5, Alternatives Analysis.

4.6 Airport Support Equipment and Facilities

4.6.1 Snow Removal Equipment (SRE) and Airport Equipment

AEJ owns two plow trucks, a 1987 Ford L-8000 dump truck 200, and a 2003 International 7400 snow plow, purchased in 2013. The 1987 dump truck and snow plow are in fair condition. The Airport also owns a 1998 Caterpillar IT28B front-end loader. The loader is in fair condition. The Airport is in the process of purchasing a new plow blade to replace the blade on the International 7400. The replacement plow will accommodate the Airport's needs for several years.

Airport management has expressed concern about the amount of foreign object debris (FOD) located on the runway, taxiways, and apron. FOD is a known hazard to aircraft and those operating at an airport. Currently, the only method of removal is manually by the staff. A tow-behind sweeper attachment would aid the Airport in maintaining the pavements free of FOD.

The management also expressed the need for a tractor or mower to maintain the vegetative areas within the property as the current equipment (small tractor and brush hog) is in poor condition.

The replacement of both plow trucks is recommended in the mid- to late planning period in order for AEJ to maintain an operational airport in times of inclement weather. Purchase of a sweeper attachment and a mower are recommended early in the planning period.

4.6.2 Equipment Storage/SRE Building

The majority of equipment is stored outside adjacent to the terminal hanger as a dedicated SRE and equipment building is not available. In order to protect the Airport's investment an SRE and equipment storage building is recommended. The Town has been discussing purchasing the storage building located behind the existing through-the-fence operator for this purpose.

Construction of a new SRE and equipment building or acquisition of the current storage building for use as such is recommended in the short-term planning period. Options will be discussed in Chapter 5, Alternatives Analysis.

4.6.3 Fuel Storage Requirements

AEJ has two 15,000-gallon above-ground storage tanks (AST), for a total capacity of 30,000 gallons of fuel storage. One AST is dedicated to AvGas, and the other is dedicated to Jet-A fuel. These fueling facilities and AEJ's 3,000-gallon Jet-A fuel truck support the based GA aircraft. The fueling infrastructure is owned by the Town of Buena Vista and is located on the north GA apron. National Fire Protection Association NFPA 407: Standard for Aircraft Fuel Servicing, as well as FAA AC

150/5230-4B, Aircraft Fuel Storage, Handling, Training, and Dispensing on Airports, prescribe standards and procedures for installing, maintaining, and operating fuel storage tanks on airports. In addition, local and state building and fire codes also govern fuel tank installation and operation.

The fuel truck is not equipped with a cold weather package, which is critical in Buena Vista's climate. The cold weather package would increase productivity and equipment performance as well as protect against hydraulic pump and hose damage.

Pavement in the fueling area is in good condition and includes a concrete hardstand. Based on fuel data provided by Airport management, an average of 54,830 gallons of fuel was dispensed annually from 2009 through 2013. Measuring fuel flowage against annual operations and comparing to peak month operations from Chapter 3, the existing fuel storage capacity provides approximately 144 days of storage for current operations and 92 days storage in 2035, as shown in **Table 4-9**.

TABLE 4-9 – FUEL STORAGE CAPACITY

	2015	2020	2025	2030	2035
Operations – Average Peak Day	20	23	26	29	32
Fuel (gal) – Average Peak Day	208	232	260	291	326
Existing Fuel Storage	30,000	30,000	30,000	30,000	30,000
Approximate Days of Fuel	144	129	115	103	92

Source: Jviation

It is recommended that AEJ replace both AST's with tanks that are double-walled and meet the standards outlined for the storage and delivery of aviation fuel in an airport environment, in accordance with the National Fire Prevention Association (NFPA)[1]. It is also recommended that the existing fuel truck be equipped with a cold weather package.

4.7 Deicing Facilities

Deicing of aircraft is frequently needed in AEJ's climate due to the propensity of frost, ice, and snow to accumulate on aircraft surfaces. Ice buildup diminishes the aerodynamic qualities of aircraft and can result in loss of lift and stability. Aircraft deicing is not currently offered at AEJ.

It is recommended that AEJ assess the feasibility of providing deicing facilities upon an increase in demand by aircraft operators.

4.8 Utilities

All utility lines serving the Airport are buried underground and provide service to buildings and airfield facilities. Waste water is treated on-site via a new sanitary lift station completed in early 2015. A new water line was also installed to accommodate current and future needs. All existing utilities meet current demand and are anticipated to be sufficient for future demand.

[1] Federal Aviation Administration Advisory Circular 150/5230-4B uses the most recent edition of the National Fire Prevention Association (NFPA) 407, Standard for Aircraft Fuel Servicing. http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=407.

It is recommended that utilities be maintained over the planning period to ensure continued service.

4.9 Emergency Response

Emergency response service is provided to AEJ through a mutual aid agreement with the Town of Buena Vista. As discussed in **Section 2.5.1**, the Airport was a recipient of a 1985 foam truck for ARFF purposes. AEJ no longer utilizes the truck as it has become too costly to maintain. .

It is recommended that the Airport sell the 1985 foam truck and purchase a new ARFF vehicle within the planning period.

4.10 Facility Requirements Summary

A summary of the facility improvements that need to be addressed during the planning period is provided in **Table 4-10**. Certain improvements will be further examined in **Chapter 5, Alternatives Analysis** to evaluate options to accommodate the facility requirements.

TABLE 4-10 – FACILITY REQUIREMENTS SUMMARY

Facility	Identified Requirement
Runway Length & Width	Runway length and width are adequate
Runway Strength	Runway strength is adequate
Runway Blast Pads	Add blast pads [really needed?]
Taxiway System	Remove direct access from apron to runway; correct non-standard taxilane safety and object free areas; routine maintenance
Airfield Lighting an Signage	Install MITL system; install REILS on both runway ends; replace/upgrade MIRL system
Navigation Aids/Instrument Approach	MALSR installation on Runway 33
Obstruction Removal	Relocate fence located in departure surface
General Aviation/Transient Apron	Provide additional transient apron space; reconfigure tiedowns (add additional pavement)
Aircraft Hangar Storage	Expand aircraft hangar storage capacity as needed; acquire through-the-fence hangars/property
Landside Requirements	Reconfigure and expand existing parking lot Improve auto entrance/circulation access
Snow Removal Equipment / Airport Equipment	Replacement of plow trucks and dump truck with plow; acquire tractor/mower; acquire sweeper attachment
Snow Removal Equipment Building	Construct or acquire building for dedicated equipment storage
Fuel Storage Requirements	Upgrade existing fuel storage tanks and containment area to comply with NFPA standards and provide more capacity

Notes: MITL – medium intensity taxiway lighting; REILS – runway end identifier lights; MIRL – medium intensity runway lighting; MALSR – medium approach light system with runway alignment indicator lights
Source: Jviation

5.0 ALTERNATIVE ANALYSIS

The purpose of this chapter is to present and evaluate the comprehensive planning issues and alternatives associated with the future configuration of Central Colorado Regional Airport (AEJ or Airport). This chapter considers the facility demand requirements that were previously determined in **Chapter 4, Facility Requirements**.

This alternatives analysis recognizes input received during previous chapters of this Master Plan, the Planning Advisory Committee (PAC), Airport staff, and the public. Recommendations on individual issues identified in **Chapter 4** are provided, and descriptions of alternatives that warrant further consideration are presented throughout this chapter.

5.1 Development Goals

Realistic development goals are identified in this planning effort to reflect the role of AEJ in the national and state aviation systems and the community. These goals are developed with consideration of both the short- and long-term requirements and include the interests of airport users and the surrounding community. These development goals include the following:

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

5.2 Airside & Landside Alternatives

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

- Crosswind Runway
- Land Acquisition
- North Apron Expansion and General Aviation (GA) Development
- South GA Area Development

5.3 Evaluation Criteria

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

- **Operational Criteria** – the ability to accommodate current and forecasted aircraft, visitors, and vehicles
- **Economic Criteria** – an estimate of costs to provide a basis for comparison of each alternative, as well as the Airport's ability to fund the improvements
- **Environmental Criteria** – identify thresholds for environmental review, assessments, and permits, where appropriate
- **Feasibility Criteria** – tangible and intangible factors that affect the Airport's ability to implement certain development projects
- **Compatibility Criteria** – the level of compatibility with existing and future needs of the Airport and the community

5.4 Crosswind Runway

The current runway configuration, 15/33 does not provide adequate wind coverage per FAA guidance (see **Section 2.9.1**) and local pilots note frequent and strong crosswinds. Development of a crosswind runway to address this issue is shown on AEJ's current airport layout plan (ALP) as ultimate development. Discussions about including a crosswind or emergency runway within the planning period for this Master Plan or depicting it as ultimate improvement outside the 20-year planning period were discussed with the public, PAC, and in local pilot meetings.

Constructing a crosswind runway, as shown in **Figure 5-1,** was evaluated against the specific criteria identified in **Section 5.3**. It was determined that an emergency runway is not feasible per FAA regulations as a runway constructed on a federally obligated airport is required to meet FAA standards.

5.4.1 Operational Criteria

As described in **Section 2.9.1**, Runway 15/33 does not meet the FAA-recommended 95 percent crosswind coverage for all weather conditions for 10.5-knot and 13-knot crosswinds. The addition of a crosswind runway would alleviate this shortfall and meet the needs of existing and future pilots. However, it is important to note that AEJ is a non-towered airport and the alignment of the crosswind with the primary runway could create potential traffic conflicts. In addition, aircraft operating at AEJ are not required to have or use radios, further increasing the potential for traffic conflicts between aircraft operating on the main and the crosswind runways at the same time.

5.4.2 Economic Criteria

AEJ does not qualify for FAA funds to construct or maintain a crosswind runway due to higher funding priorities in the national airport system. Federal funding is not available for the purchase of land for constructing a crosswind runway at AEJ, even if it were of higher priority. Consequently, AEJ is responsible for securing funds to acquire land, construct, and maintain a crosswind runway.

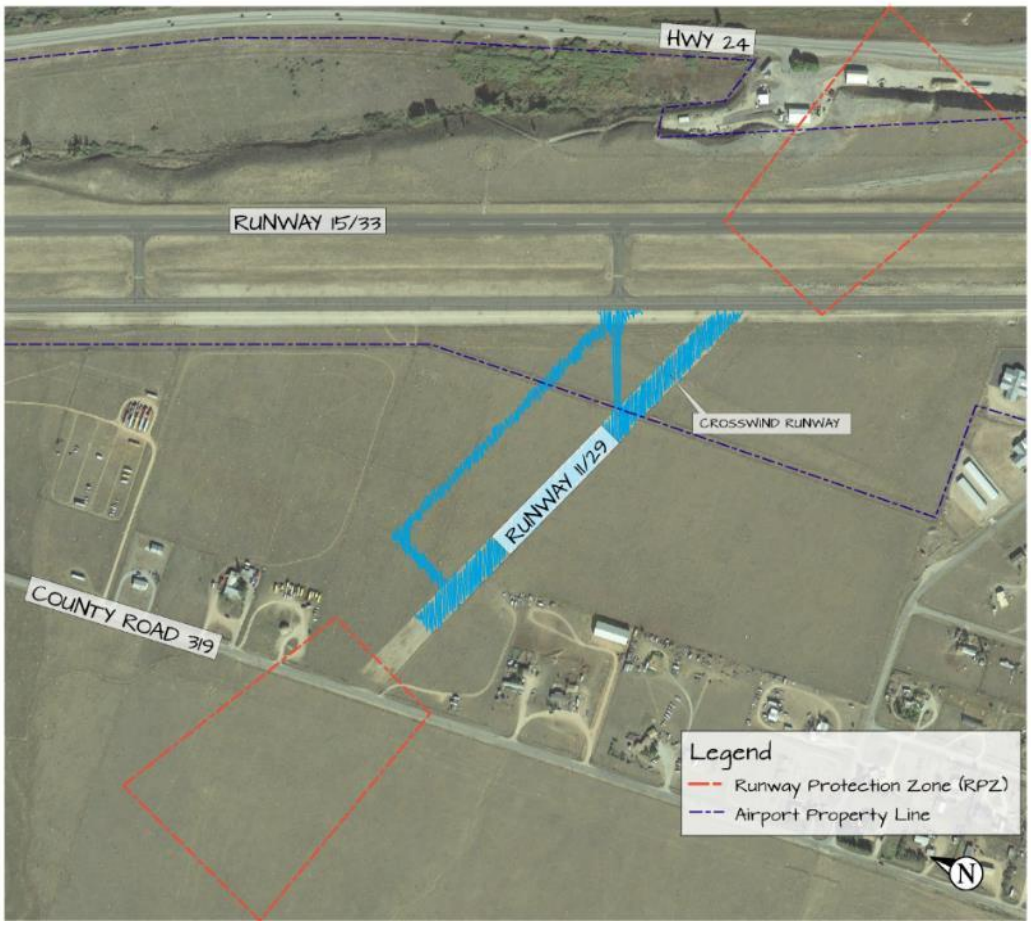
5.4.3 Environmental Criteria

Given the proximity of adjacent residential land use, construction of the crosswind runway requires evaluation of potential socioeconomic effects, noise, lighting, and compatible land use. In *Land Use Compatibility and Airports, a Guide for Effective Land Use Planning,* the FAA indicates that residential land uses are generally considered to be incompatible with airports, specifically due to the noise incompatibility associated with airport environs. Land acquisition is also required to accommodate the runway protection zones (RPZ).

5.4.4 Feasibility Criteria

The primary challenge associated with constructing a crosswind runway at AEJ is that both County Road 319 (CR 319) and U.S. Highway 24 (US-24) would be located within the RPZs, as shown in **Figure 5-1**. As noted in the FAA's September 27, 2102 memorandum, *Interim Guidance on Land Uses within a Runway Protection Zone,* transportation facilities, including public roads/highways, are incompatible land uses and are not to be introduced into an RPZ. This guidance exists as the purpose of an RPZ is to protect persons and property on the ground from aircraft that may experience problems while approaching or departing a runway.

FIGURE 5-1 – CROSSWIND RUNWAY CONCEPT



Note: Not to scale
Source: Jviation

5.4.5 Compatibility Criteria

Given the location of CR 319 and US-24 within each RPZ, a crosswind runway would require FAA evaluation and approval of compatible land use. As it is unlikely the FAA would grant approval for the roadways within the RPZs, rerouting or tunneling a portion of CR 319 and US-24 may be required. While FAA approval may be granted for the location of CR 319 within the RPZ, it would be highly unlikely to gain FAA approval that would allow a major U.S. Highway, US-24, to be located within the RPZ.

5.4.6 Recommendation

As noted in the evaluation criteria, the primary challenge associated with constructing a crosswind runway at AEJ is the project cost without federal funding. The FAA has stated that approval for modification of standards to allow the RPZs to encompass portions of CR 319 and US-24 is unlikely. Therefore, it is recommended that the crosswind runway not be included within the planning period or ultimately.

These constraints were discussed during the Airport Master Plan – Planning Advisory Committee Meeting on July 13, 2015, and the decision was made to eliminate the crosswind runway at this time.

5.5 Land Acquisition

The function of compatible land use, its impact on surrounding land uses, and how AEJ land uses may be impacted by adjacent land uses must be considered for the benefit of all parties. Chaffee County and AEJ have authority over airport land uses and can ensure compatible land use through the fee simple purchase of adjacent airport land. In *Land Use Compatibility and Airports, a Guide for Effective Land Use Planning*, the FAA notes that to meet the current and future needs and continue to contribute to local and regional economies, it is the airport's responsibility to acquire sufficient land for airport expansion and future aeronautical development.

In addition to complying with federal requirements to control land uses adjacent and near AEJ, the Town of Buena Vista must comply with federal grant assurances. Such assurances require a federally-obligated airport sponsor to act to preserve its rights and powers over the airport (see Federal Grant Assurance No.5, Preserving Rights and Powers). Existing through-the-fence (TTF) agreements with adjacent land owners may limit the town's ability to control its rights and powers and consideration should be given to purchasing neighboring properties to eliminate any non-compliant TTF agreements.

The acquisition of a five-acre parcel, located just south of the existing terminal area would expand a constrained development area at AEJ (**Figure 5-2**) and bring a portion of the existing airport protection overlay district into AEJ's control, ensuring land use compatibility. The parcel has access to water, sewer, and electricity. The current owner of the property has informed AEJ they are interested in selling the property.

Acquisition of a 0.74-acre parcel east of U.S. Highway 285 would provide AEJ complete ownership of the Runway 33 Runway Protection Zone (RPZ) with exception to the portion which overlies the

highway. Land ownership of this parcel enables AEJ to protect the underlying portion of the approach from obstructions and incompatible land use. This small parcel is a part of an existing 125.08 acres valued at $89,643 which belongs to a private local owner[1].

A privately-owned parcel east of Runway 33, valued at $105,391 includes a portion of the Runway 15/33 runway object free area (ROFA)[2]. The BRL also extends into this parcel. Acquisition of a 9.73-acre portion of this parcel would ensure conformity with current federal requirements to maintain control over object free areas as well as protecting 14 CFR Part 77 surfaces from private development within the BRL.

Three privately owned parcels located west of Runway 15/33 and just north of the recently acquired (July 27, 2015) Carpenter parcels are also of interest to AEJ. The three parcels, currently zoned as "Industrial," would provide an area for future aeronautical development (**Figure 5-2**). The acquisition of this land will also eliminate an existing TTF that does not comply with current federal requirements and align a portion of the existing airport overlay district with land use compatibility.

5.5.1 Operational Criteria

Acquisition of the six parcels, totaling approximately 78 acres, would expand AEJ's constrained terminal area and eliminate the TTF agreement, thereby bringing the airport into compliance with the FAA's policy regarding TTF access. It would ensure compatible land use and provide an opportunity for future aeronautical development beyond this 20-year planning period.

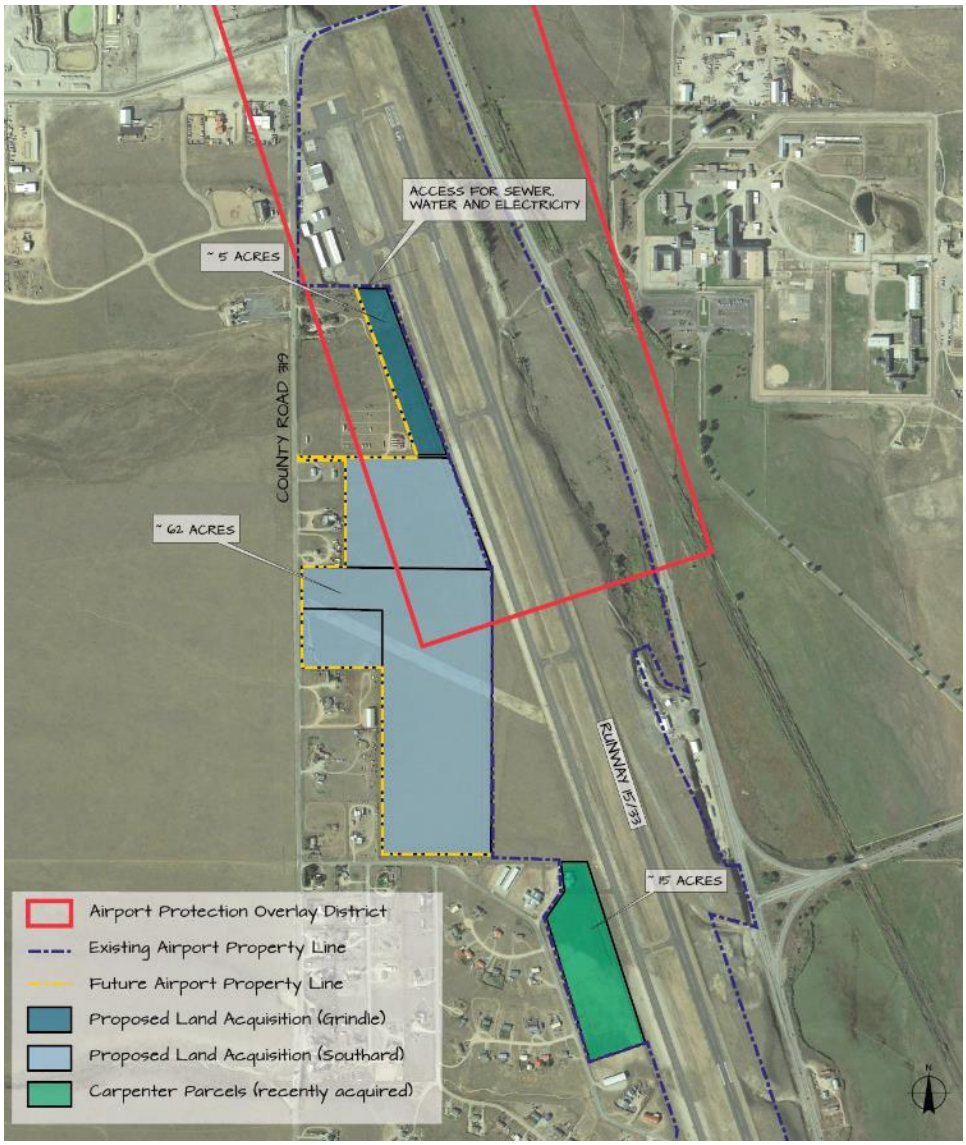
5.5.2 Economic Criteria

The acquisition of these parcels is eligible for federal funding. The amount paid for the land must be fair market value if federal funding is used, as determined per 49 CFR Part 24, Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs.[3]

The Town of Buena Vista retained a firm to conduct an appraisal report on various parcels, including the three parcels totaling 62 acres (**Figure 5-2)**. The appraisal valued for the three parcels is $1,551,000. The appraisal did not evaluate the other parcels (approximately 16 acres) and it is recommended that AEJ conduct a second appraisal prior to acquiring the property and to comply with 49 CFR Part 24.

[1] Mosby, B. (Ed.). (n.d.). Chaffee County Assessor. Retrieved December 16, 2016, from http://qpublic6.qpublic.net/qpmap4/map.php?county=co_chaffee&layers=parcels parcel_sales roads&mapmode
[2] Mosby, B. (Ed.). (n.d.). Chaffee County Assessor. Retrieved December 16, 2016, from http://qpublic6.qpublic.net/qpmap4/map.php?county=co_chaffee&layers=parcels parcel_sales roads&mapmode
[3] http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title49/49cfr24_main_02.tpl

FIGURE 5-2 - FUTURE LAND ACQUISITION FOR AERONAUTICAL DEVELOPMENT



Note: Not to scale
Source: Jviation

5.5.3 Environmental Criteria

Based upon the data collected in **Section 2.12** of this document, no significant environmental impacts are anticipated for the purchase of the vacant property. The purchase would follow guidelines established in FAA AC 150/5700-17, *Land Acquisition and Relocation Assistance for AIP Projects*. The appropriate level of environmental review and compliance is required before any future development.

5.5.4 Feasibility Criteria

Purchase of these parcels is dependent on the willingness to sell by the current land owners and availability of funds from the FAA, State, and Sponsor.

5.5.5 Compatibility Criteria

Given the location of these parcels, acquisition of this land eliminates a TTF agreement and creates a connection between the existing north terminal area and the proposed south GA development area, while also providing additional space to meet future aeronautical development needs.

5.5.6 Recommendation

It is recommended that, upon availability of funding, AEJ purchase the five-acre parcel in the near-term for expansion of the terminal area. Purchase of the 0.74-acre parcel for RPZ protection, and the 9.73-acre parcel for maintaining property within the ROFA and BRL is also recommended. The other parcels are recommended for purchase towards the end of the planning period to reserve space for future aeronautical development outside this planning period, and protect surrounding land use. Specific development requirements and design will be determined at the time of development.

5.6 North Apron Expansion and GA Development Alternatives

As described in **Section 4.4.1**, the existing north GA apron area becomes constrained during the high-volume summer months. When the tiedown area is fully occupied with temporary based aircraft there is limited space for transient aircraft. Furthermore, the existing 20 tiedowns are located within the taxilane safety and object free areas, and do not meet current FAA design standards.

The future apron configuration should be planned and designed so it meets the following criteria.

- Address all applicable FAA standards for taxilane setbacks and tiedown areas.
- Maintain transient aircraft parking as close as possible to the FBO/terminal.
- Provide visible transient parking and FBO facilities for pilots who are arriving at AEJ.
- Allow flexibility to accommodate different mixes of aircraft types.
- Minimize transient operations near based aircraft hangars.
- Expand vehicle parking to accommodate additional visitors, patrons, and persons.

Furthermore, while there is adequate hangar space for existing based aircraft, examination of facility requirements determines that additional hangars will need to be constructed as demand warrants throughout the planning period (2015-2035). Hangars serve a variety of purposes (storage, maintenance, etc.), therefore, not all existing hangar capacity is available for future aircraft storage. Two alternatives for apron expansion were explored in this analysis. A reconfigured tiedown area and additional hangar space in the north apron and GA area are described in **Sections 5.6.1, 5.6.2** and **5.6.3**.

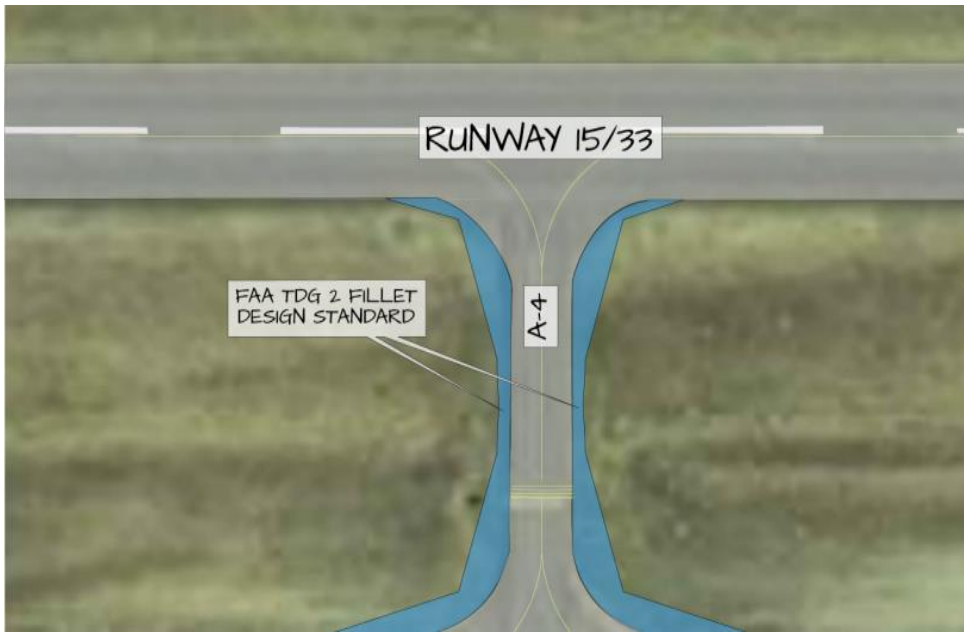
5.6.1 Common Elements within North Apron Expansion and GA Development Alternatives

Taxiway Fillets, Connectors, & Safety Areas

As noted in **Section 4.3.2**, AEJ's existing taxilane does not meet FAA taxiway design group (TDG) 2 standards due to the location of aircraft tiedowns within the taxiway safety area, and taxiway

connectors that do not meet fillet design standards. Existing taxiway connector A-5 is not compliant with current FAA design standards because it provides direct access from the tiedown apron to the runway (**Section 0**). The North Apron Expansion Alternatives 1 and 2 are designed to meet AEJ's ADG[1] II/TDG 2 requirements and current fillet standards presented in FAA AC 150/5300-13A[2], and shown in **Figure 5-3** at taxiway connector A-4. Estimated costs are shown in **Table 5-1**.

FIGURE 5-3 - FAA TAXIWAY DESIGN GROUP (TDG) 2 FILLET DESIGN REQUIREMENTS



Note: Not to scale
Source: Jviation

Remove Direct Access from Apron to Runway 15/33

Taxiway connector A5 is not compliant with current FAA design standards due to the direct access it provides from the tiedown apron to the runway. FAA established indirect runway access as part of their program to reduce runway incursions.[3] Both Alternatives 1 and 2 for North Apron Development Area show demolition of existing taxiway connector A5 to eliminate direct access between the apron and Runway 15/33 and show its relocation between the proposed future and ultimate transient parking aprons. Estimated costs are shown in **Table 5-1**.

Airport Access and Parking

The pavement in the existing auto parking area, west of the terminal, is in poor condition. Both North Apron Development Area alternatives propose pavement rehab of the existing parking lot, and single direction ingress/egress. As determined in **Chapter 4, Facility Requirements**, an additional 22 vehicle parking spots are needed by 2035. Both Alternatives 1 and 2 supply these

[1] ADG – Aircraft Design Group
[2] FAA AC 150/5300-13A, *Airport Design*, Table 4-5 Standard Intersection Details for TDG 2.
[3] Runway incursion - any occurrence involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing or takeoff of aircraft.

needed parking spaces. Currently, 16 spaces are located on the far west side of the paved terminal parking lot and eight spaces are located to the west of the Twin Peaks hangar in the gravel parking lot, which should be paved during rehabilitation of the existing paved parking lot. Estimated costs are shown in **Table 5-1**.

Hangars

Airport management has indicated that there is currently demand for additional hangar storage, specifically to accommodate larger aircraft in box (executive) hangars. As noted in **Section 4.4.3**, it is expected that an additional 34,010 square feet of hangar storage space will be required by 2035, and that new hangars should be constructed throughout the planning period as demand warrants. Due to the limited space available for hangar construction at the north end of the Airport, the majority of future hanger development is proposed in the South GA area. Estimated costs are shown in **Table 5-1**.

5.6.2 North Development Area Alternative 1 – Transient and GA Aircraft Parking

North Development Alternative 1, illustrated in **Figure 5-4**, provides approximately 18,200 square yards of additional transient apron space. The existing layout of facilities combined with AEJ's property boundary limits apron development options. The available space was optimized to accommodate additional apron by infilling the open space between the existing apron and parallel taxiway, adding approximately 16,000 square yards.[1] This option includes concrete transient power in/power out parking positions, accommodating up to 10 B-II aircraft, like turboprops and smaller corporate jets, or fewer large aircraft (e.g. mid-sized corporate jets) if required.[2] An expansion of approximately 2,200 square yards to the existing north transient apron is also included. Ultimately, this alternative provides an additional 15,600 square yards of apron, with power-out parking for up to eight additional B-II aircraft.

This alternative reconfigures the existing tiedowns outside of the TDG 2 taxilane safety and object free areas to meet current FAA standards. This reconfiguration provides 18 tiedowns for B-II aircraft with an additional six new tiedowns on the south – for a total of 24. Alternative 1 also proposes construction of one 80' x 100' hangar, and one 100' x 100' hangar to offer an additional 18,000 square feet of hangar space.

5.6.3 North Development Area Alternative 2 - Transient Apron and GA Aircraft Parking

North Development Alternative 2, shown in **Figure 5-5**, provides 18,400 square yards of additional apron space. As in Alternative 1, the open space between the existing apron and parallel taxiway is

[1] This additional pavement and parking area maintains compliance with 14 CFR Party 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace, including transitional surfaces, http://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&node=14:2.0.1.2.9.

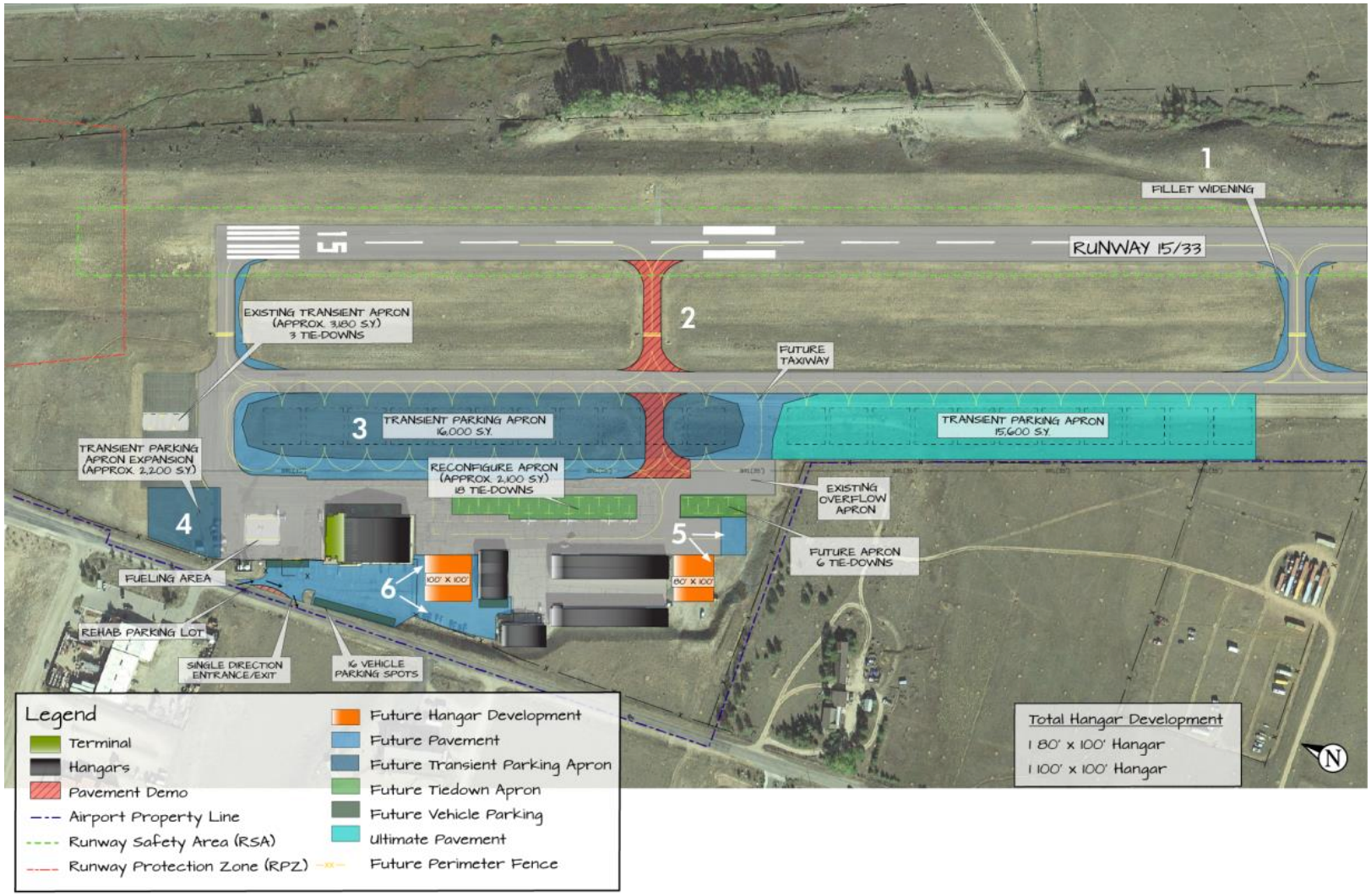
[2] The area per parking position is generic per FAA design guidance; actual layout may differ depending upon specific aircraft. Factors such as the configuration of the parking apron, the location of the runways, taxiways, buildings and other facilities, will affect the actual parking layout for each apron, as well as the space required for each parking position.

infilled, providing an additional 16,000 square yards of additional concrete transient apron space for power in/power out parking, accommodating up to 10 B-II aircraft or fewer large aircraft.[1] An expansion of approximately 2,400 square yards to the existing north transient apron is also included. Ultimately, this alternative provides an additional 15,600 square yards of apron, with power-out parking for up to eight additional B-II aircraft.

Alternative 2 reconfigures the existing non-standard tiedown area by relocating the tiedowns outside of the taxilane safety and object free areas to meet current FAA standards for TDG 2 taxilane safety areas and taxiway object free areas. The reconfiguration of the tiedown apron can accommodate 18 tiedowns. Alternative 2 also provides six T-hangars (2,850 total square feet), four box hangars (8,000 total square feet) and one 120' x 120' box (executive) hangar (14,400 square feet) for a total of 25,250 additional square feet of hangar space.

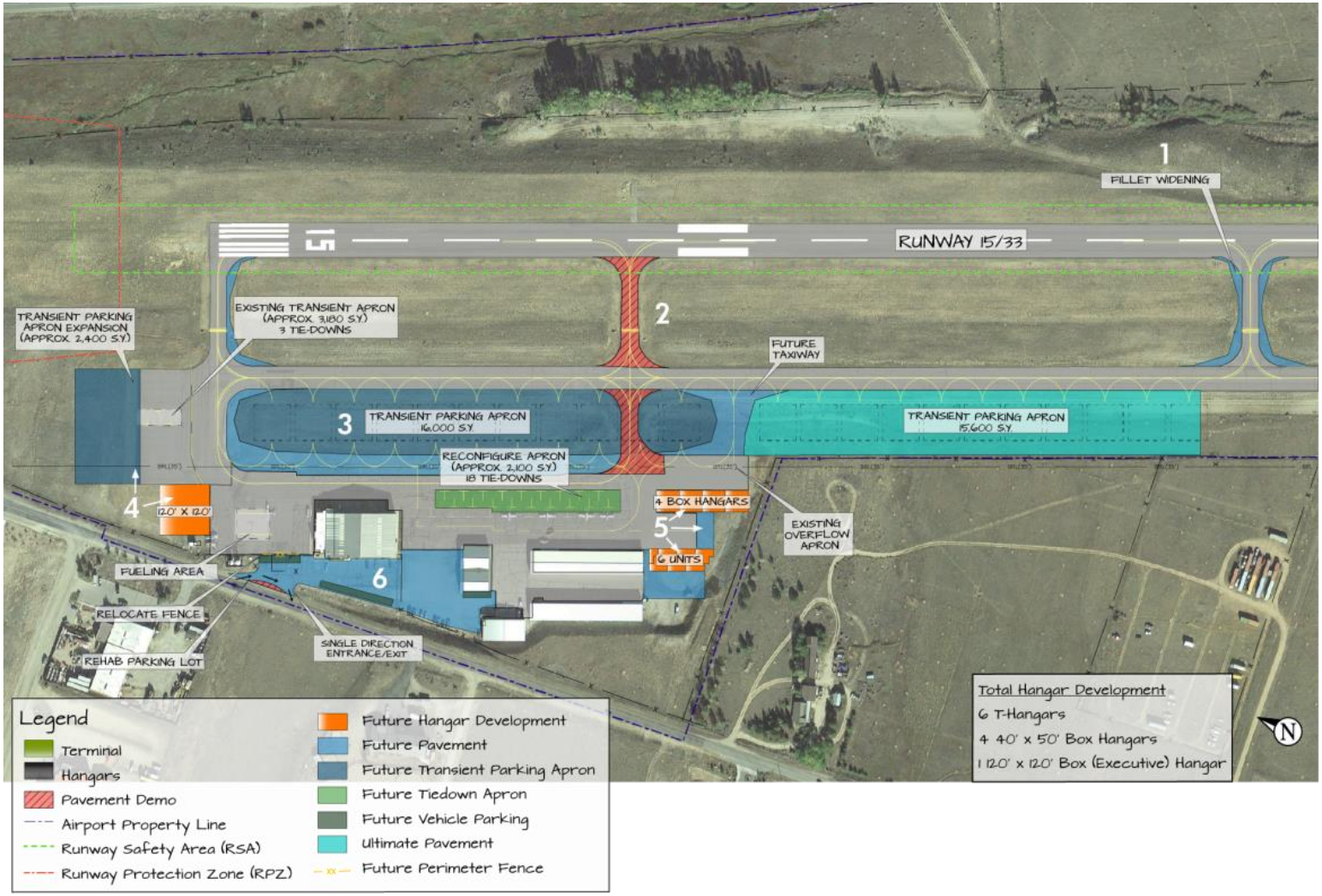
[1] This additional pavement and parking area maintains compliance with 14 CFR Party 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace, including transitional surfaces, http://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&node=14:2.0.1.2.9.

FIGURE 5-4 - NORTH DEVELOPMENT AREA ALTERNATIVE 1 – TRANSIENT APRON & GA PARKING



Notes: Reference numbers on figure correspond with project costs in Table 5-1
Not to scale
Source: Jviation

FIGURE 5-5 - NORTH DEVELOPMENT AREA – TRANSIENT & GA PARKING ALTERNATIVE 2



Notes: Reference numbers on figure correspond with project costs in **Table 5-1**
Not to scale
Source: Jviation

5.6.4 Cost Summary

Table 5-1 details the costs for each alternative.

TABLE 5-1 – COST SUMMARY: NORTH DEVELOPMENT AREA – TRANSIENT & GA PARKING

Reference No.[a]	Item[b]	Alternative 1[b]	Alternative 2[b]
1	Taxiway Fillets	$850,000	$850,000
2	Taxiway A5 Demolition	$140,000	$140,000
3	Transient Parking Apron	$5.5M	$5.5M
4	North Apron Expansion	$410,000	$2.8M
5	South Apron Expansion	$1.4M	$2.1M
6	Access Road & Parking Area Expansion	$2.1M	$800,000
	TOTAL:	**$10.4M**	**$12.2M**

[a] Reference No. corresponds with Alternative 1 and Alternative 2 items in **Figure 5-4**, and **Figure 5-5**, respectively.
[b] Ultimate development not included.
Source: Jviation

5.6.5 Evaluation Criteria Summary

Table 5-2 details the evaluation criteria for each alternative. Different components of each alternative can be combined as needed to fit actual demand.

TABLE 5-2 – NORTH DEVELOPMENT AREA ALTERNATIVES COMPARISON MATRIX

Evaluation Criteria	Alternative 1	Alternative 2
Operational		
– Total New T-Hangars	0	6
– Total New Box Hangars	2	5
– Tiedowns	24	18
– Additional Transient Apron (SY)	18,200	18,400
– Future Transient Parking Spaces	9-11	9-11
– Ultimate Transient Apron (SY)	15,600	15,600
	Meets aviation demand forecasts for local based aircraft parking and storage requirements as well as vehicle and other facility needs.	
Economic	The cost summary provided in **Table 5-1** includes hangar development which is typically funded by third-party developers. The remainder of development costs would be funded via the Airport Improvement Program (AIP) (entitlement funding and discretionary funding if available), CDOT, and Sponsor funding.	
Environmental	No significant environmental impacts anticipated. Appropriate level of environmental review will be required. Will not alter on or off-airport land use.	
Feasibility	Funding for apron development and reconfiguration of access and parking must be available. Hangar construction is dependent upon third party developers and demand.	
Compatibility	Reconfigures existing apron to meet FAA design guidelines, expands hangar storage per demand, and meets	Reconfigures existing apron to meet FAA design guidelines, expands hangar storage per demand, and meets transient parking

Evaluation Criteria	Alternative 1	Alternative 2
	transient parking needs. Provides 6 additional tiedowns but location may be better served for hangars. The 100' x 100' hangar is located on existing high altitude testing staging area which may cause issue during testing.	needs. The box hangars and T-hangars on south apron is optimal for AEJ's layout. Hangar units lend to increased revenue opportunity. Retains staging area for high altitude testing with northern 120' x 120' hangar development.

Source: Jviation

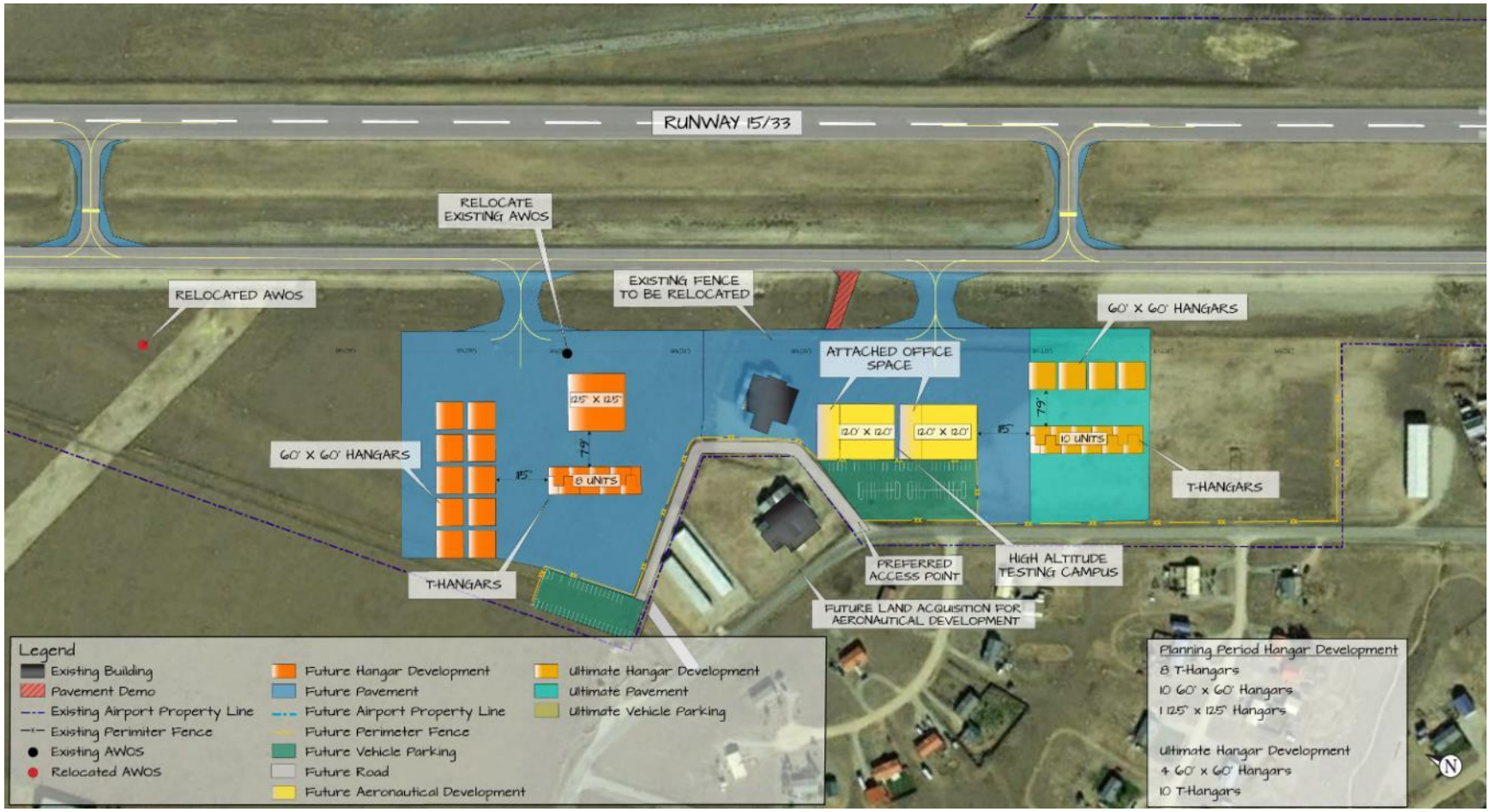
5.6.6 Preferred Alternative

The Sponsor's preferred North Apron Expansion and GA Development Alternative is Alternative 2. Estimated cost for Alternative 2 is approximately $12.2 million with the inclusion of hangars. However, hangar construction is typically at the developer's expense. The cost of Alternative 2 without hangar development is $7.2 million.

5.7 South GA Area Development Alternatives:

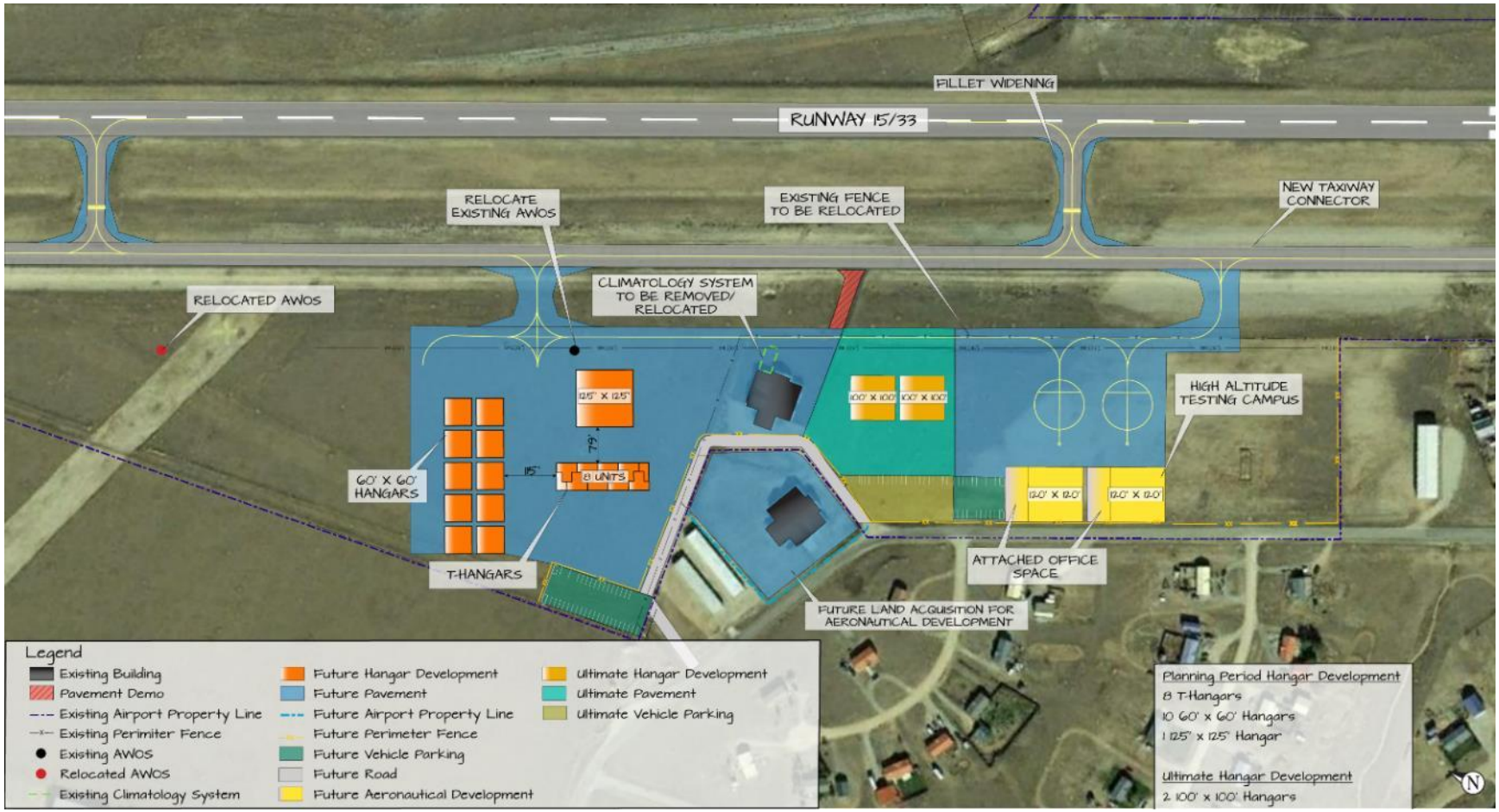
Two alternatives were identified and evaluated for development in the South GA area. Both alternatives provide a mix of box hangar and T-hangar development and the ability to construct a high-altitude testing campus within the planning period (2015-2035), see **Figure 5-6** and **Figure 5-7**.

FIGURE 5-6 - SOUTH GA AREA DEVELOPMENT ALTERNATIVE 1



Note: Not to scale
Source: Jviation

FIGURE 5-7 - SOUTH GA AREA DEVELOPMENT ALTERNATIVE 2



Note: Not to scale
Source: Jviation

5.7.1 Hangars

Following the recommendation in **Chapter 4, Facility Requirements**, AEJ acquired the TTF hangar as well as the adjacent Carpenter parcels (located northwest of Runway 33) in July 2015. With the purchase of these parcels, AEJ assumes ownership of the TTF box hangar, which is approximately 10,500 square feet with storage capacity for up to six aircraft, while also securing approximately 15 acres of land for future aeronautical development. The procurement of this property provides space for future box hangar development that can specifically meet current demand for larger aircraft storage space, as indicated by AEJ. The South GA Area Alternatives 1 and 2 include future and ultimate hangar development proposals which are outlined in **Table 5-3.**

TABLE 5-3 - SOUTH GA HANGAR PROPOSED DEVELOPMENT COMPARISON

South GA Area Alternative 1			
Aircraft Storage Type	**Future Hangar Development**	**Ultimate Hangar Development**	**Total Hangar Development**
T- hangar	8	10	18
60' x 60' Hangar	10	4	14
125' x 125' Hangar	1	0	1
Total SF	**68,725**	**23,900**	**92,625**

South GA Area Alternative 2			
Aircraft Storage Type	**Future Hangar Development**	**Ultimate Hangar Development**	**Total Hangar Development**
T- hangar	8	0	8
60' x 60' Hangar	10	0	10
100' x 100' Hangar	0	2	2
125' x 125' Hangar	1	0	1
Total SF	**59,225**	**20,000**	**79,225**

Source: Jviation

5.7.2 High-Altitude Testing Campus

South GA Area Alternatives 1 and 2 include a high-altitude testing campus consisting of two 120' x 120' box hangars with attached offices. Both alternatives propose construction of the campus within the 20-year planning period. As helicopters are the typical test aircraft, Alternative 2 provides two helicopter parking spots. Developing the campus within the planning period depends upon interest by the companies performing the testing, and their willingness to fund the improvements. Construction in the south GA area will allow the testing companies to be isolated from everyday operations in the north terminal area, with Alternative 2 providing the most isolation within the planning period.

5.7.3 Automated Airport Weather Station (AWOS) Relocation

Due to the proposed hangar development, the existing AWOS will need to be relocated in South GA Area Alternatives 1 and 2. **Figure 5-6** and **Figure 5-7** illustrate the AWOS relocation approximately 1,000 feet west of the runway center line, and north of the development area.

5.7.4 Land Acquisition

Both alternatives propose the acquisition of an adjacent parcel with an existing storage building due to its proximity to the south GA area and for future aeronautical use.

5.7.5 Summary

TABLE 5-4 – SOUTH GA AREA DEVELOPMENT ALTERNATIVES COMPARISON MATRIX

Evaluation Criteria	Alternative 1	Alternative 2
Operational	Exceeds aviation demand forecasts for aircraft storage requirements and provides adequate access and parking needs.	
Economic[a]	Alternative 1 is estimated to cost $24.4M. Hangar development is typically funded by third party developers.	Alternative 2 is estimated to cost $26.3M. Hangar development is typically funded by third party developers.
Environmental	No significant environmental impacts anticipated. Appropriate level of environmental review will be required. Will not alter on or off-airport land use.	
Feasibility	If approved by the FAA, funding for apron development must be available. Hangar construction is dependent upon third party developers.	
Compatibility	Expands the developable area of AEJ beyond the north terminal area and utilizes the recently purchased Carpenter property. Creates a high-altitude testing campus which would reduce congestion on the main north apron but would still share GA apron space. Allows for growth beyond the planning period.	Expands the developable area of AEJ beyond the north terminal area and utilizes the recently purchased Carpenter property. The high-altitude testing campus is segregated from future GA development due to ultimate development layout. This layout allows isolation from everyday GA activity and provides two helicopter parking spots. Highly compatible with long term use and growth.

[a] Costs do not include ultimate development.
Source: Jviation

5.7.6 Preferred Alternative

The Sponsor's preferred South GA Area Alternative is Alternative 2 as it provides an ideal layout for the high-altitude testing campus while allowing for expansion of aircraft storage in larger hangars. Estimated cost for Alternative 2 is approximately $26.3 million (cost without hangar development is approximately $8.8 million).

5.8 SRE Building

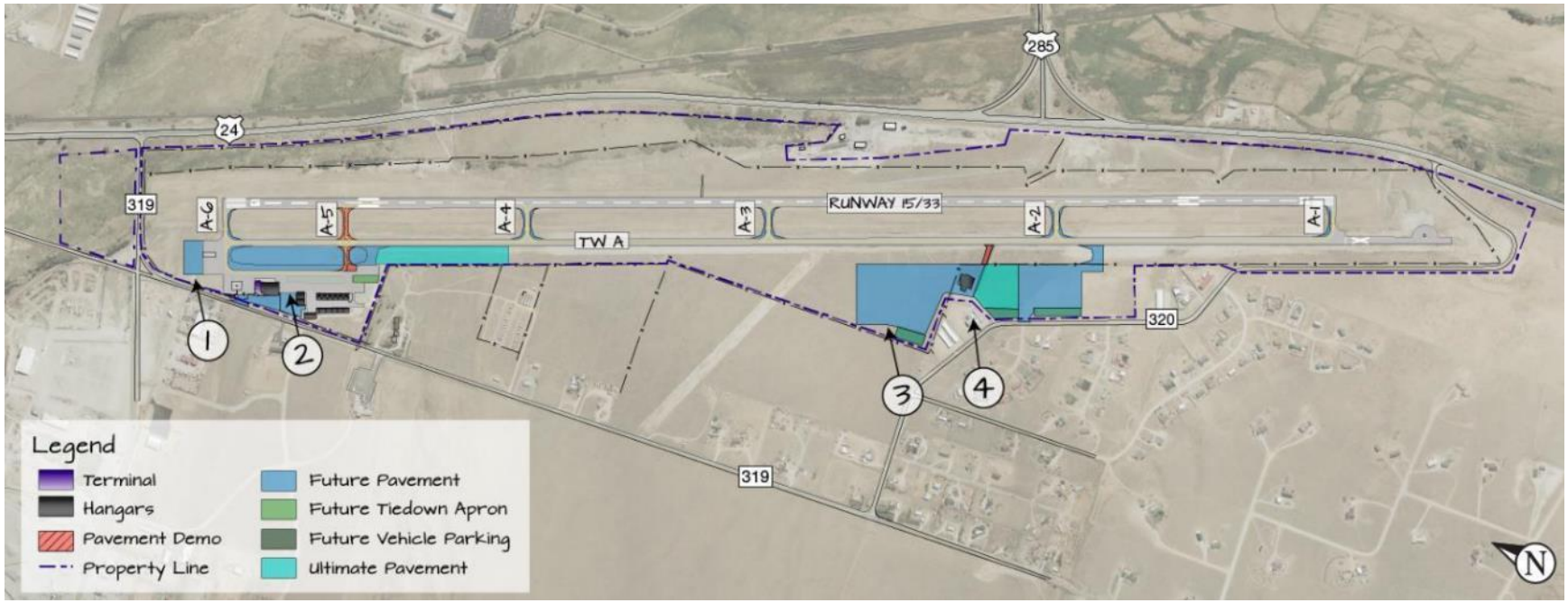
AEJ does not currently have a dedicated SRE building and construction of a dedicated building is recommended within the planning period to protect the Airport's investment in SRE and other equipment. Opportunities to construct an SRE building within the North GA area are limited due to it being a prime development area for hangars and other aviation related facilities, the need for additional apron space, and the restrictive grading on the south side of the existing apron. FAA AC 150/5220-18A, *Buildings For Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials*, provides guidance on SRE building locations and size in **Chapter 2, Building Siting Requirements** as follows:

> 2-1. LOCATION.
>
> **a. Siting Factors**. The location of the building must address, at a minimum, the following safety details.
>
> **(1)** The building must be sited in such a manner that activities associated with the facility—in particular, egress/ingress by snow clearing crews, employees, and deliveries—do not interfere with fire lanes used by the airport rescue and fire fighting (ARFF) service or hamper aircraft taxiing operations.
>
> **(2)** In order to reduce wear and tear of equipment and slow responses, the site must provide snow clearing crews with direct access to taxiways and runways instead of using perimeter roads or circuitous routes to reach runways and taxiways.
>
> **(3)** The site must emphasize the mitigation of runway incursions by eliminating the need for employee, private and service vehicles to cross runways or taxiways to reach the building.
>
> **(4)** The site must take into consideration its affect on other existing facilities, such as cargo facilities and fueling areas. When the operating efficiency of the snow crews is not impaired, the building location should avoid existing and future revenue-producing areas, such as ramps and hangar areas.
>
> **b. Expansion Capabilities – Land Tract and Building.** The land tract designated for the building should be large enough to accommodate future building expansions and employee parking. Furthermore, the design of the building should anticipate a 10- to 15-percent future growth with respect to personnel space and snow equipment parking.
>
> 2-2. BUILDING ORIENTATION.
>
> **a. Siting.** In those instances where options for building orientation are available, it is preferable for buildings having all entrances for snow equipment on one side to have the entrance(s) parallel and downwind (leeward side) to the prevailing winter winds.

AEJ's SRE building size has been determined using standard FAA calculations for pieces and type of equipment to be stored, annual operations, snowfall, and the type and amount of pavement at the airport. FAA Advisory Circular (AC) 150/5220-18A, *Buildings for Storage and Maintenance of Airport Snow and Ice Control Equipment Materials*, was used to calculate the minimum square

footage to satisfactorily store the equipment. The calculation resulted in approximately 3,000 square feet which includes circulation space as well as deicer and sand storage areas. In evaluating possible locations for a future SRE building, four locations were identified as shown in **Figure 5-8.** Options 1 and 2 propose placement and new construction of an SRE building in the North Development area. Option 1 provides space for an approximate 3,000-square-foot SRE building located west of the existing transient parking apron and north of the existing fueling area. Option 2 affords a 3,000-square-foot SRE building, located north of the Twin Peaks hangar and south of the terminal building. Options 3 and 4 locate the SRE building in the south GA development area. Option 3 provides space for a 3,000-square-foot SRE building west of the future transient apron expansion, and Option 4 positions the building south of the proposed land acquisition and west of the recently purchased TTF. Option 4 proposes using an existing 10,000-square-foot building, currently used for storage. Depending on the condition of this building, it may be suitable for reuse as SRE and equipment storage.

FIGURE 5-8 - SRE BUILDING LOCATION OPTIONS



Note: Not to scale
Source: Jviation

5.8.1 Evaluation Criteria Summary

TABLE 5-5 – EVALUATION CRITERIA SUMMARY MATRIX

Evaluation Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Operational	Each alternative meets the space requirements for existing equipment and planned equipment within the planning period.			
Economic	$1.2M	$1.2M	$1.8M	$1.4M
Environmental	No significant environmental impacts anticipated. Appropriate level of environmental review is required. Will not alter on or off-airport land use.			
Feasibility	Associated costs for Alternatives 1 through 4 are subject to availability of FAA grant funding. Funding may not become available for several years. Per federal guidelines, Alternative 4 would only be eligible			
Compatibility	Location requires expansion of apron for access to airfield. Places SRE at end of existing terminal area and doesn't take away from future hangar development.	Location not preferred as space is currently used as staging area for high altitude testing. Doesn't meet short-term needs but meets long-term development plan when high altitude testing moves to south GA area.	Location requires access to airfield as area is not currently developed. Doesn't meet short-term needs but meets long-term development plan when high altitude testing moves to south GA area. The existing building in Alternative 4 is oversized for current and projected needs.	

5.8.2 Preferred Alternative

The Sponsor's preferred SRE Alternative is Alternative 1 as it provides an ideal location, and is able to be implemented in the nearest timeframe. The estimated cost for Alternative 1 is approximately $1.2 million.

5.9 Miscellaneous Improvements

Alternatives for the following miscellaneous improvements were not evaluated as they are improvements that are either completed or not completed – other options do not exist. **Chapter 6, Capital Improvement Program (CIP)**, details the phasing and cost of each item.

5.9.1 Runway 15/33 and Taxiway A Rehabilitation

As noted in **Chapter 3, Facility Requirements**, routine maintenance to extend the pavement life of Runway 15/33 and Taxiway A is recommended. North Apron Expansion Alternatives 1 and 2 include runway and parallel taxiway rehabilitation.

5.9.2 General Aviation Apron Rehabilitation

The existing general aviation apron pavement is in poor condition and is recommended for rehabilitation as discussed in **Chapter 4, Facility Requirements.**

5.9.3 Medium-Intensity Approach Lighting System with Sequenced Flashers (MALSF)

As described in **Chapter 4**, visibility minimums at AEJ may be reduced by one-half mile for the existing Runway 33 instrument approach procedure by installing a MALSF. Consequently, a MALSF is recommended for installation on Runway 33 to improve the usability of the airport during low visibility conditions.

5.9.4 Airfield Lighting

As described in **Chapter 4**, Runway 15/33 is currently equipped with a medium intensity runway lighting (MIRL) system that is in fair condition and was installed in 1996. The existing MIRL system should be replaced during the early to mid-portion of this planning period (2020–2025).

Runway ends do not have runway end identifier lights (REIL). The 2012 CDOT Aviation System Plan recommends that both runway ends be equipped with REIL in the near-term.

It is recommended that the medium intensity taxiway lighting (MITL) system on the parallel taxiway and connectors be replaced at the end of its useful life, which is anticipated to be towards the early to mid-portion of this planning period (2020 – 2025).

5.9.5 Relocate Fence

The existing perimeter fence in the South GA development area should be relocated to include the outer boundary of the recently purchased Carpenter parcels.

Within the main auto parking lot, the portion of the fence located northwest of the terminal building should also be relocated to the edge of the aircraft parking apron to maximize the available space for vehicle parking.

5.9.6 SRE and Other Equipment

AEJ's 1987 Ford L-8000 dump truck 200, 2003 International 7400 snow plow and 1998 Caterpillar IT28B front-end loader are all considered to be in fair condition. The replacement of both plow trucks is recommended in the mid- to late planning period (2020-2035) for AEJ to maintain operations during periods of inclement weather.

Equipment is also needed for foreign object debris (FOD) removal, as it is currently collected manually by staff. As indicated by Airport management, the current airport maintenance equipment used to maintain vegetative areas on Airport property, including a small tractor and a brush hog, are both in poor condition. Purchase of a sweeper attachment for FOD removal and a replacement mower are recommended early in the planning period (2015-2020). Airports such as Denver International Airport (DIA) offer used airport maintenance equipment for free or reduced cost to other airports, which may be an option for AEJ to replace some of their current maintenance equipment at relatively low cost.

5.9.7 Fuel Storage Improvements

The Airport should maintain the existing above-ground fuel storage tanks (ASTs).

5.10 Summary

The preferred alternatives presented above will be incorporated into AEJ's future airport development plan, which will be reflected on the Airport Layout Plan (ALP). Detailed cost analysis and phasing will be discussed in **Chapter 6, Financial Implementation**. **Table 5-6** summarizes the recommended improvements for the planning period (2015-2035).

TABLE 5-6 – RECOMMENDED IMPROVEMENTS SUMMARY

Facility/Infrastructure Improvement	Improvements Evaluated/Recommendations	Planning Period Time Frame
Land Acquisition	Purchase six adjacent parcels and reserve land for future aeronautical development	When funding becomes available
SRE Building[a]	SRE Building	2015-2020
General Aviation Apron Rehabilitation	Rehabilitate apron to extend useful life	2015-2020
Relocate Fence	Relocate fence around Carpenter parcels and in vehicle parking lot	2015-2020
Runway 15/33 & Taxiway A Rehabilitation and Airfield Lighting	– Rehabilitate runway and taxiway pavement to extend useful life; Replace MITL[b] – Install REILS[c] at both runway ends – Replace MIRL[d]	2015-2025
North Apron Expansion & General Aviation Development Alternative 2	Expand existing apron and construct hangars as dictated by demand	2015-2025
Taxiway Fillets and Remove Direct Access to Runway	Construct fillets on taxiway connectors to meet TDG[e] 2 standards and relocate taxiway connector A-5	2020-2025
Upgrade SRE & Other Equipment	– Replace 2 plow trucks – Purchase sweeper attachment – Replace mower	2020-2025
Airport Access and Parking	– Rehab pavement in main auto parking lot – Expand existing parking in the main auto lot – Reconfigure airport access for single direction ingress/egress – Pave gravel parking lot and expand existing parking	2020-2025
South GA Area Development Alternative 2	– Construct new apron and taxiway connectors – Expand hangar development area as demand dictates – Construct high altitude testing campus	2020-2035 (as dictated by demand)
MALSF[f]	Install MALSF on Runway 33 end	2025-2035

Notes: [a]SRE – Snow Removal Equipment
[b]MITL – medium intensity taxiway lights [c]REILS – runway end identifier lights
[d]MIRL – medium intensity runway lights
[e]TDG – taxiway design group
[f]MALSF – medium intensity approach lighting system with sequenced flashers
Source: Jviation

6.0 AIRPORT LAYOUT PLANS

Future development plans for AEJ have evolved from a variety of considerations. Aviation activity forecasts, facility requirements, environmental considerations, and aircraft operational characteristics are among the many factors evaluated to develop a dependable basis for planning. Forecasts are utilized as a framework for planning; however, development and facilities are constructed to meet actual demand.

Previous chapters in this Master Plan have presented recommendations for future improvements at Colorado Regional Airport (the Airport or AEJ), which are illustrated on the Airport Layout Plan (ALP) drawing set. These recommendations are represented in the following drawings: The Airport Layout Plan, the Terminal Area Plan, the Airport Airspace Drawing – Part 77, Airport Airspace Profile, Inner Approach Surface Drawings, Departure Surface Drawing, the Land Use Plan, and the Exhibit A Property Map.

The purpose of the ALP set of drawings is to graphically depict the existing and proposed airport facilities so that the relationships among the facilities, as well as the Airport's setting in the context of adjacent uses, can be evaluated. The full array of protected land areas and airspace are drawn in plan view, allowing planners to identify these areas to ensure proper control over safety critical areas and develop plans that efficiently utilize all airport land. When the Federal Aviation Administration (FAA) conditionally approves and signs the ALP set, FAA can then fund development that is eligible for FAA participation, subject to environmental processing through the National Environmental Policy Act (NEPA). These conditions are described in a letter that accompanies the ALP set and must be met prior to implementing depicted development.

The ALP set of drawings for this Master Plan were prepared according to relevant FAA Advisory Circulars and FAA Airports Division (ARP) Standard Operating Procedure No. 2.00 (October 1, 2013). The drawings were circulated among the various FAA lines of business that are affected by the development shown in the ALP set and their comments incorporated into the set. In accordance with FAA regulation the airport sponsor must keep the ALP up to date at all times. Thus, the ALP set that is included in this Master Plan may not be current. At the time this Master Plan was published, FAA signature was pending. Contact AEJ or FAA Denver Airports District Office in order to view the latest approved ALP set.

Each sheet of the set is briefly described in the following text and included in this chapter narrative.

6.1 Cover Sheet

The cover sheet (Sheet 01 of 11) contains basic required information about the location of the Airport along with an aerial overview of the Airport's setting. The index of drawings for the entire 11-sheet drawing set orients the reviewer with the location and order of each sheet.

6.2 Airport Layout Plan

The Airport Layout Plan - Future (Sheet 02 of 11) graphically represents the existing and future airport facilities required to enable the Airport to accommodate future demand. It provides detailed

information pertinent to airport and runway design criteria, which is necessary to define relationships with applicable standards. Tabulated data and wind roses have been included. These tables provide detail regarding the size, type, dimensions, and other design criteria applicable to the design standards AEJ is planning to establish and maintain. Additionally, there are facilities that are planned for ultimate implementation, but not necessarily within the 20-year planning horizon.

The following paragraphs describe the key development depicted on the Airport Layout Plan.

6.2.1 Terminal Area Plans

The Terminal Area Plans (sheets 03 and 04 of 11) illustrate additional pavement and hangars that provide opportunity for expansion.

Depicted are areas for aircraft parking development and reconfiguration. The taxiway system shows reconfiguration that allows for safe and efficient movement of aircraft to each runway end while allowing more efficient use of the ramp. Adjustments to taxiways include connector widening to improve aircraft movement safety.

Hangar development could include a range of hangar sizes that meet the needs of third-party individuals and entities. Third-party developers will also establish the aprons that accompany new hangars and respective vehicle access/parking expansion. Construction is dependent upon the demand to accommodate transient aircraft and based aircraft. Activity demand and private investment will dictate the level of actual development; therefore, it is anticipated that construction will be phased over the 20-year planning period.

6.3 Airspace Drawing – 14 CFR Part 77 Imaginary Surfaces

The Airport Airspace Drawing (05 of 11) is a graphic depiction of imaginary surfaces prescribed in 14 CFR Part 77, Objects Affecting Navigable Airspace. The Airport Airspace Drawing illustrates both existing and potential penetrations to the imaginary surfaces. The FAA grant assurances require airport sponsors to maintain their airspace clear of obstructions to the extent feasible, and prevent future penetrations to the surfaces.

The Part 77 Airspace drawings (Sheets 05, 06, 07, and 08 of 11) provide both plan and profile views that depict the imaginary surfaces and penetrations specific to AEJ. There are also data tables listing each object, type, and height. The objects were identified based on digital mapping compiled for FAA's Airport Geographic Information System (AGIS) program. The drawings provide a detailed resource for the Airport sponsor, in coordination with the FAA, to determine which penetrations of the imaginary surfaces should be removed, lowered, marked, and/or lighted.

6.4 Inner Approach Plans and Profiles

The Inner Portion of the Approach Surface Drawings (Sheets 07 and 08 of 11) provide a detailed view of the inner areas of the runway protection zone (RPZ) surfaces and CFR 14 Part 77 approach surfaces The RPZ is an area off each runway end designed to enhance the protection of people and property on the ground. The RPZ begins 200 feet off the end of the runway, and extends along the runway centerline in a trapezoidal shape. Size of the RPZ is a function of the design aircraft, and visibility minimums of the runway's instrument approach capabilities. The Inner Portion of the Approach Surface Drawings is based upon future planned approaches to each runway end and illustrates large-scale plan and profiles. The drawings identify roadways, railroads, structures, power lines, and other potential obstructions that may lie within the confines of each runway end's inner approach surface area.

6.5 Departure Plans and Profiles

Departure Surface Drawing (Sheets 09 of 11) graphically depict applicable runway departure surface as defined in Table 3-2, Approach/Departure Standards in FAA AC 150/5300-13A, *Airport Design*. The departure surface off the end of Runway 15 is shown, and as noted elsewhere in this Plan, the FAA does not allow instrument departures from Runway 33 due to high terrain north of the Airport. As a result, there is no departure surface off the end of Runway 33.

6.6 Land Use

The Land Use Drawing (Sheet 10 of 11) graphically depicts existing and recommended future land uses within the future property line, as well as the vicinity of AEJ. This is a primary planning document used to identify property and land uses that may or may not be compatible with the sustained long term operation of AEJ. The Land Use Plan provides guidance to local authorities to establish appropriate land use controls and/or zoning within the vicinity of AEJ, as well as a plan for future uses of revenue-producing areas contained on Airport property.

The Land Use Plan for AEJ is presented on Sheet 10. The predominant land uses adjacent to the AEJ airport boundary are open space, agricultural, light industrial, and low density residential. Because of the location of residential land uses in the vicinity of the Airport, it is recommended that the Town of Buena Vista monitor trends in land uses and limit residential and other noise sensitive land uses in the vicinity of the Airport, and also maintain an open dialog with the surrounding residents about Airport activity, even though the existing and future 65 DNL noise contours do not extend off Airport property.

6.7 Exhibit A Property Map

The Airport Property Map (Sheet 11 of 11) illustrates the legal control exercised by the Town, as the Airport sponsor, over Airport property, as well as the acquisition history of various tracts of land within Airport boundaries, and the ownership status of any land that is recommended by the Master Plan for acquisition. The primary purpose of the Exhibit A is to certify to FAA that existing and future airport development has been and will be situated on land owned and/or controlled by the Airport sponsor, as required by the FAA Airport Improvement Program (AIP) Handbook, and FAA's Airport Compliance Handbook. The Exhibit A was prepared in compliance with FAA standard Operating Procedure (SOP) 3.00.

The property map graphically identifies individual parcels that have been acquired over time, and provides information for identifying each parcel boundary. The accompanying table provides detail about former ownership, recording data, purpose of the parcel, and information about which FAA grant(s) may have been used to acquire parcels. Alternatively, if land has been released or there is a different type of interest in the property the Exhibit A will be the document that maintains that information.

This Master Plan has identified several parcels that may be acquired during the planning period, dependent on availability and funds.

7.0 FINANCIAL IMPLEMENTATION PLAN

This chapter of the Airport Master Plan (AMP) presents the financial implementation analysis for the Central Colorado Regional Airport (AEJ or the Airport), and will examine various facets of the financial operating condition of the Airport. In addition, this chapter reviews the Airport's historic operating revenues and expenses, and provides estimates for future financial results. The goal of this chapter is to help the Airport meet the requirements of FAA sponsor assurance number 24, Fee and Rental Structure, which states: "It (i.e. the airport sponsor) will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection."

The projections of Airport revenues and expenses focus on the three planning periods of this AMP's Capital Improvement Program (CIP): Phase I (Short Term, 2016-2020), Phase II (Intermediate Term, 2021-2025), and Phase III (Long Term, 2026-2035). These planning periods are utilized to assist the Airport in financially supporting future projects either by contributing the local share of costs, or by wholly funding them. The CIP and associated financial plan included in this chapter should be viewed as a guideline that is based on the circumstances and conditions that were current at the time of the completion of this Master Plan. Ultimately, capital projects should be undertaken when demand warrants and appropriate funding becomes available.

The overall approach for the development of the financial implementation analysis included the following elements:

- Gathered and reviewed key Airport documents related to historical financial results, capital improvement plans, operating budgets, regulatory requirements, and Airport policies.
- Interviewed key Airport management personnel to gain an understanding of the existing operating and financial environment, as well as the overall financial management philosophy.
- Reviewed the AMP CIP, cost opinions, and development schedule anticipated for the planning period to project the overall financial requirements for the program.
- Determined and analyzed the sources and timing of capital funding available to meet the financial requirements for funding the CIP.
- Analyzed historical and budgeted operating expenses, developed operations and maintenance expense assumptions, and projected future operating costs for the planning period.
- Analyzed historical and budgeted operating revenues, developed operating revenue assumptions, and projected future operating revenues for the planning period.
- Completed results of the analysis and evaluation in a Financial Plan Summary that provides conclusions regarding the financial feasibility of the CIP.

Airport budgets can be broadly categorized as capital improvements and operating and maintenance (O&M). Grants issued by the FAA and CDOT are generally restricted to capital improvement projects, and with few exceptions cannot be used for airport operating and maintenance expenses. Operating revenues generated by aircraft landing and parking fees, fuel flowage fees, land and building leases, etc., can be applied to both capital improvements as well as O&M expenses.

7.1 Capital Funding Sources

The implementation of AEJ's Master Plan CIP is anticipated to be funded primarily through the following sources:

- Federal Aviation Administration (FAA) Grants from its Airport Improvement Program (AIP)
- State of Colorado Funding Sources
- Local Funding Sources
- Other Capital Project Funding Sources

Each of these funding sources is described in the following sections.

7.1.1 Federal Aviation Administration Grants

Only airports included in FAA's National Plan of Integrated Airport Systems (NPIAS) are eligible to receive FAA grants. For general aviation airports, the Federal Aviation Administration provides the most significant percentage of the funding required for the construction of eligible capital projects. Following World War II, the Federal Government recognized the need to develop airports to meet the nation's long-term aviation needs, and thereafter initiated a Grants-In-Aid Program for eligible airport sponsors.

Following a series of federal airport funding programs, the Airport Improvement Program (AIP) was established by Congress on behalf of the FAA through the Airport and Airway Improvement Act of 1982. The initial AIP legislation provided funding through fiscal year 1992, but since then the AIP has been reauthorized and amended multiple times, most recently through the FAA Extension, Safety, and Security Act of 2016[1]. The current AIP program was authorized for one year, through FY 2017 (September 30, 2017). In order for FAA to continue issuing grants after that date, Congress will need to authorize a new AIP program or else pass continuing resolutions, as it has done in the past. Each time Congress reauthorizes AIP, it changes parts of the program including funding disbursements, project eligibility requirements, appropriation levels, etc. Those changes make it difficult for airports to know how much FAA funding will be available in the future, particularly once the current AIP program expires.

Under the most current legislation, the AIP will typically provide 90 percent of the total cost of an eligible capital project (with the balance typically being covered through a combination of state and local funding), although this percentage can be reduced based on the size, complexity, and requirements of a specific project. Funds obligated for the AIP are drawn from the Airport and Airway Trust fund, which is designed to support the improvement of the country's air transportation system by funding airport improvements, airport repair projects, and modernizing the Air Traffic Control system. The Trust Fund receives revenue through taxes on aviation fuels, airline ticket sales, and air freight shipments.

AIP grants are generally available for planning, development, or noise compatibility projects at public-use airports included in the National Plan of Integrated Airport Systems (NPIAS). Eligible

[1] https://www.congress.gov/114/bills/hr636/BILLS-114hr636enr.pdf

projects include those improvements related to enhancing airport safety, capacity, security, and environmental concerns.

In general, sponsors can leverage AIP funds for most airfield capital improvements or repairs, and in limited situations, for terminals, hangars, and other non-aviation development. Professional services that are necessary for eligible projects, such as planning, surveying, and design, may be eligible. In most cases, an airport's demand for a capital improvements must be quantified and documented (such as through an airport master plan process), and each project must be shown on an approved Airport Layout Plan (ALP). In addition, the proposed improvement must meet appropriate Federal environmental and procurement requirements. Projects related to revenue-generating improvements (such as privately owned or leased hangars and aprons, or those portions of a terminal building leased by airlines or concessions, etc.) are typically not eligible for AIP funding, nor are standard airport operations and standard maintenance costs (salaries, equipment, supplies, etc.).

AIP grants are generally divided into two categories: entitlements and discretionary. Entitlement Grants are allocated among NPIAS airports through a formula largely driven by passenger enplanements, landed cargo weights, and types of operations. Currently, "primary" airports, defined in the NPIAS as having a particular level of commercial air service (i.e. enplane more than 10,000 passengers per year), receive $1,000,000 annually in entitlement funding.

"Non-primary" airports, which include small commercial service airports and general aviation airports, are currently eligible for $150,000 of annual entitlement funding. AIP grants must be spent on FAA-eligible projects as defined in the most current version of FAA Order 5100.38D, *AIP Handbook*, and must be expended within four years of their issue or they will be returned to the FAA. Similar to entitlements to individual airports, each state receives an annual apportionment from the FAA based on an area-population formula. These federal funds may be utilized at the discretion of the individual states.

In addition to entitlement grants, the AIP distributes discretionary grants since the capital requirements of airports often will exceed the limits of their annual entitlement funding. National discretionary funding levels are established annually by the FAA and result from federal funds that remain available after the distribution of entitlements. Generally, airports compete for these discretionary grants, which are typically awarded based on priority ratings given to each potential project by the FAA. The prioritization process makes certain that the most important and beneficial projects (as viewed by the FAA), given the availability of adequate discretionary funding, are the first to be completed. Each NPIAS airport development project is subject to eligibility and justification requirements as part of the normal AIP funding process.

As of the writing of this document, the AIP program is due for reauthorization before September 30, 2017, and will likely see changes. The future of the AIP program may include changes to federal share amounts, non-primary entitlements, set-asides, and/or passenger facility charges (PFCs).

Under the current authorization legislation and based on its inclusion in the NPIAS, the Central Colorado Regional Airport is currently eligible to receive General Aviation (GA) entitlements of $150,000 per year through the planning period. Additional funding could be realized through state

apportionment funding and AIP discretionary funding, based on the aforementioned project eligibility ranking methodology.

7.1.2 State of Colorado Funding Sources

Colorado Aviation Grant Program

In support of the Colorado Department of Transportation's (CDOT) stated goal to develop a forward-looking multi-modal transportation system for the 21st century, the Colorado Division of Aeronautics is charged with promoting partnerships with its public and private constituents to enhance aviation safety, aviation education, and the development of an effective air transportation system through the efficient administration of the Colorado Aviation Fund. Specifically, through the Colorado Aviation Grant program and at the discretion of the Colorado Aeronautical Board (CAB), the Division annually awards discretionary aviation grants to the state's public-use, publicly-owned airports from the Aviation Fund. The chief priority for distributing these state grants is to leverage Federal AIP grants by providing a five percent match to state airports. The State awards half of the local match requirement up to a limit, recommended annually by the Division and approved by the CAB. Currently the grant cap is $150,000 through the year 2020, after which that cap may be raised to $250,000. Although the State is currently limiting grants to matches on AIP projects, it does have the statutory authority to give grants for overmatch on an AIP project that may be short of funds, as well as to award grants for State and Local projects without federal participation. In general, State funding is focused on non-revenue generating projects that are prioritized from the "runway out" – meaning that preference is given to projects related to runways, then taxiways, and then others.

It is important to note that the Colorado Aviation Fund is directly supported by revenues generated through a state sales tax on aviation fuel. This tax is indexed to a percentage of the cost of a gallon of commercial jet fuel. Therefore, as the cost of jet fuel increases, the size of the Colorado Aviation Fund increases, allowing for more state grant availability. Conversely, when fuel prices decline, the fund will decrease in size, reducing state grant availability.

State Infrastructure Bank

The State Infrastructure Bank (SIB) Loan Program was enacted by the Colorado Legislature in 1998 and adopted by CDOT in 1999. This unique funding source is administered by the Colorado Transportation Commission and helps provide funding for all types of transportation facilities (including aviation) through a low-interest revolving loan program. For aviation needs, a separate fund has been established within the SIB so that airports only compete with other airports for funding. Loans awarded to Colorado public-use airports from the SIB have been used to support funding for projects such as capital airport improvements, air traffic control towers, snow removal equipment, and airport pavement reconstruction. Additionally, these low-interest loans have been utilized for land acquisitions that have protected Colorado airports from incompatible land-use surrounding airports. These loans are awarded for a maximum of 10 years with an interest rate that is set every six months by the Transportation Commission. In November 2016, the interest rate was set at 2¼ percent and the aviation fund had an available balance of approximately $11,000,000.

State Aviation Fuel Tax Disbursements

Pursuant to Colorado statutes, the State currently collects multiple sales taxes on aviation fuels at publicly owned, public-use airports at the following rates:

- Commercial jet fuel = 2.9 percent of the cost of a gallon.
- Non-commercial jet fuel = $0.04 per gallon
- Aviation gasoline = $0.06 per gallon

Of the commercial jet fuel sales taxes collected annually, 65 percent are distributed back to the airport where the fuel was sold, with the remaining 35 percent being used to fund the Colorado Division of Aeronautics Program. Of the non-commercial jet fuel taxes collected, 100 percent is provided to the airport of origin. With respect to aviation gasoline tax revenues, 66 percent is sent to the airport, and the remaining 33 percent is applied to the State Aviation Program. CDOT passed through the following amounts to AEJ from the aviation fuel taxes that were collected:

TABLE 7-1 – CDOT AVIATION FUEL TAX DISTRIBUTION TO AEJ

Fiscal Year	Amount
2016	$1,557.12
2015	$1,816.41
2014	$2,677.58
2013	$2,134.73
2012	$2,208.01
2011	$2,784.06

Source: CDOT Division of Aeronautics, https://www.codot.gov/programs/aeronautics/FuelTax

7.1.3 Local Funding Sources

Local Funding is typically generated from revenues accrued on the airport. These user fees are typically established by the airport based on market conditions in the area and vary airport-to-airport. AEJ has a number of sources for generating revenue including:

- Tie-down fee
- Hangar land leases
- Aircraft fuel sales and excise tax refund
- High altitude testing
- Indirect revenue
- Non-Aeronautical revenue
- Non-Operating revenues

Further explanation of these sources can be found in **Chapter 2, Inventory.**

Landside facility development and levels of aviation activity are typically the primary factors affecting airport operating revenues. As additional development occurs, the number of based aircraft and

itinerant aircraft operations increase and leases are updated at the Airport, it is likely that Airport operating revenues will increase in a corresponding fashion.

7.1.4 Other Capital Project Funding Sources

The traditional funding sources described in previous sections (FAA and CDOT grants, and airport revenue) are often insufficient to finance the full range of capital projects programmed for development during a CIP. When the availability of traditional funding is lacking, other non-traditional sources will need to be investigated and possibly utilized for the ultimate implementation of projects. (In this chapter, these sources have collectively been referenced as "Other Funding Sources.") If funding sources cannot be ultimately identified and obtained in the time frames planned, the associated projects should be delayed until appropriate funding can be identified and secured.

Non-traditional funding sources for an airport typically include general fund revenues, bond issues, and private funding. Of these, general fund revenues and general obligation bonds are by far the most common funding sources, particularly at commercial service airports. The ability of municipalities and counties to issue general obligation bonds for airport capital projects is directly affected by their debt level and ability to finance their existing and future debt load. As the debt burden increases, rating agencies often lower their credit ratings, which increases their interest payments. Revenue bonds supported by airport-generated revenues are seldom used because most general aviation airports do not generate enough income to pay operating expenses and the debt service of capital funding requirements. Private sources such as FBOs, aircraft owners, etc., often assume the responsibility of paying for hangars, fuel storage tanks, and sometimes for parking aprons, taxiways, and utility hookups. However, when private parties make capital investments in airports, they often try to negotiate reduced land and/or building lease rates to balance their capital investment.

General Fund Revenues

Capital development expenditures from general fund revenues have been somewhat difficult to obtain in recent years. One reason for this difficulty is the seemingly universal shortfall in local general fund revenues. Budgetary problems have created an environment where local funding is uncertain. The amount of general fund support for airport improvement projects varies by airport and is generally based upon the local tax base, priority of the development project, historical funding trends, and, of course, local attitudes concerning the importance of aviation.

Bond Funds

The period since the mid-1990s has seen the unprecedented development of various types of municipal bonds and securities used for airport projects. Municipal securities (municipal bonds) refer generically to interest-bearing obligations issued by state and local governmental entities to finance capital costs. These funding instruments are generally broken down into the following categories: (1) general obligation, (2) revenue and special facility bonds, (3) hybrid source bonds, and (4) industrial development and exempt facility bonds.

For an airport owned by a municipality, like AEJ, bond issues funding the local share of airport development projects must compete for the same attention and leadership consideration as other departments or divisions within the municipal government (i.e., schools, highways, sewer, etc.). As with the general fund apportionment, bond issues supporting airport development depend greatly on the priority assigned to such projects by the local community.

Private Funds

Items such as hangars, fuel systems, and pay parking lots are not typically eligible for federal or state grant funding at public airports because they generate income for the airport. Communities sometimes work with FBOs or other local businesses to fund these types of improvements.

Each of these options would need to be weighed independently to determine the appropriateness of their potential application for eligible projects.

7.2 Financial Analysis and Implementation Plan

This section, along with the tables presented at the end of the section, provide the analysis and results of evaluating the financial reasonableness of implementing the AMP Capital Improvement Program (CIP) during the planning period (2016 through 2035).

7.2.1 Capital Improvement Program (CIP)

The following is a listing and brief description of the projects identified within this AMP for inclusion in AEJ's CIP. The individual projects are listed in order of their CIP identifying letter and all projects are assumed to require some level of federal, state, and/or local funding, unless otherwise indicated. (Each project's associated "CIP ID" is not an indication of prioritization, importance, or funding participation, but simply a mechanism for tracking the individual projects.) Note that this listing is the best estimate of anticipated projects at the time of this AMP; however, it should be understood that many of these projects may change in scope or in timing based on future requirements. Therefore, the CIP must be reviewed, assessed and updated on a regular basis (typically annually).

A. **Acquire Grindle Property:** Three parcels, currently zoned as "Industrial," would provide an area for future aeronautical development. The acquisition of this land will also eliminate an existing agreement that does not comply with current federal requirements and align a portion of the existing airport overlay district with land use compatibility.
B. **Acquire Jones Hangar:** Acquisition of this hangar will allow AEJ to utilize this facility for revenue generating purposes.
C. **Hangar Development:** Hangar development allows the Airport to satisfy local demand for additional hangar space and increase Airport revenues through ground leases. This project is anticipated to be funded through private resources.
D. **Fog Seal / Crack Repair (Apron):** This project is a critical part of the best management practices for pavement preservation by improving existing pavement conditions on the apron and extending its useful life.

E. **Construct SRE Storage Building:** This 3,000-square-foot building project will be constructed on the north end of Taxiway A. The building is critical to maintaining and extending the life of airfield maintenance and snow removal equipment by keeping them out of the weather.

F. **Acquire Mower Attachment:** A new mower attachment is required to maintain grassed areas on the Airport.

G. **Rehabilitate Runway 15/33 & Existing Apron (Design):** The useful pavement life of Runway 15/33 and the existing apron is rapidly nearing its end. This project consists of the engineering design phase required for the pavement's ultimate rehabilitation.

H. **Rehabilitate Runway 15/33 & Existing Apron (Construct); Fog Seal / Crack Repair (Taxiway A):** Associated with Project G, this project encompasses the construction phase of the rehabilitation of Runway 15/33 and the existing apron. Note that this project will also include the installation of Medium Intensity Runway Lighting (MIRL) and Runway End Identifier Lights (REILs). Additionally, this project will include fog seal/crack repair maintenance for Taxiway A.

I. **Acquire Sweeper Attachment:** A new sweeper attachment is required to augment the Airport's ability to keep runways and taxiways clear during snow events, enhancing its overall level of safety.

J. **Design & Construct New Hangar Development on Existing Apron:** It is expected that an additional 34,010 square feet of hangar storage space will be required to meet demand by 2035. New hangars should be constructed throughout the planning period as demand warrants. This project is anticipated to be funded through private resources.

K. **Construct & Reconfigure Auto Parking:** This project encompasses several elements related to auto parking and access at the Airport. These include a rehabilitation and expansion of the primary auto parking lot, a paving of the gravel parking lot and a reconfiguration of Airport access for single direction ingress/egress.

L. **Acquire Plow Truck:** The Airport will require the acquisition of another plow truck to either augment or replace its current equipment.

M. **Fog Seal / Crack Repair (Airfield Pavements):** This project is a critical part of the best management practices for pavement preservation by improving existing pavement conditions for various airfield areas and extending useful life.

N. **Taxiway Rehabilitation Design (Mil & Overlay; MITLs; Fillets; Taxiway Relocation):** The Airport's taxilane and taxiway stub on the existing apron do not meet FAA design standards and must be brought into conformance. This project consists of the engineering design phase required to bring these pavements up to current standards.

O. **Airport Master Plan:** The FAA recommends that airports update their master plans every five to ten years as part of their best management practices. As projects are constructed and conditions (e.g. local, economic, industry, etc.) change, it is important for an airport to regularly monitor and adjust their long-term development path. An AMP process will accomplish that.

P. **Taxiway Rehabilitation Construct (Mil & Overlay; MITLs; Fillets; Taxiway Relocation):** Associated with Project N, this project encompasses the construction phase of

bringing the Airport's taxilane and taxiway stubs into conformance with FAA design standards.

Q. **Acquire Plow Truck:** The Airport will require the acquisition of another plow truck to either augment or replace its current equipment.

R. **Design & Construct New South GA Development Area - Phase 1:** This recommended alternative would involve constructing a new apron and taxiway connectors, and relocating fencing to accommodate more vehicle parking. This project is anticipated to be funded through private resources.

S. **Fog Seal / Crack Repair (Airfield Pavements):** This project is a critical part of the best management practices for pavement preservation by improving existing pavement conditions for various airfield areas and extending useful life.

T. **Design & Construct New North Apron:** Based on demand forecasts, it is anticipated that the Airport will require additional apron space to accommodate aircraft parking located north of the existing apron.

U. **Design & Construct New South GA Development Area - Phase 2:** The second phase of Project R, this project provides the buildout of this development area that includes constructing a new apron, taxiway connectors and relocating fencing to accommodate more vehicle parking. This project is anticipated to be funded through private resources.

V. **Design & Construct New MALSF:** A Medium Intensity Approach Lighting System with Sequenced-Flashers (MALSF) is recommended for installation on Runway 33 to improve the usability of the Airport during low visibility conditions. (Refer to **Chapter 9** regarding instrument approaches at AEJ: the current GPS approach to Runway 33 has relatively high minimums due to high terrain around the Airport, particularly to the north, and installation of a MALSF may not reduce visibility minimums. Close coordination with FAA Flight Procedures Division is needed to determine what visibility benefits could be gained from the MALSF before it is installed.)

W. **Pave Over Island in Existing Apron for Jet Aircraft:** As reflected in demand projections, the Airport requires significantly more area to accommodate larger aircraft. This project will help satisfy the demand for additional jet aircraft parking on the apron.

X. **Acquire Southard Property:** This acquisition will allow the Airport to development this land for future aeronautical development.

Y. **Fog Seal / Crack Repair (Taxiway A):** This project is a critical part of the best management practices for pavement preservation by improving existing pavement conditions for Taxiway A and extending useful life.

Z. **Acquire Avigation Easement on Parcel 10 (Steel Property):** This easement acquisition is required by the FAA to ensure Airport control of the Runway Protection Zone (RPZ) on the approach end of Runway 33.

AA. **Acquire Parcel 11 (Pelino Property):** This property acquisition is recommended to ensure AEJ controls areas within its Building Restriction Line (BRL).

7.2.2 Estimated Project Costs and Development Schedule

A listing of capital improvement projects has been assembled based on the preferred development alternative for the Airport established in **Chapter Five** of this Master Plan. This project list has been coordinated with the Airport Layout Plan (ALP) drawing set and the CIP, both of which should be maintained and updated by Airport management, as required. Generally, the CIP has three primary purposes:

1. Identify improvement projects that will be required at an airport over a specific period of time.
2. Estimate the order of implementation of the projects included in the plan.
3. Estimate the total costs and funding sources for each of the projects.

It is important to note that as the CIP progresses from project planning in the current year to projects planned in future years, the plan becomes less detailed and more flexible. Additionally, the CIP is typically modified on an annual basis as new projects are identified, projects change, funding sources evolve, and financial environments evolve.

Each proposed capital improvement project within the planning horizon has been assigned to one of three specific planning periods: Phase I, Short Term (2016-2020); Phase II, Intermediate Term (2021-2025); and Phase III, Long Term (2026-2035). These project assignments are depicted in **Table 7-2, Table 7-3,** and **Table 7-4** which show all proposed Airport projects (including AIP funded, State funded, Airport funded, and privately funded) and their estimated costs for each phase within the planning horizon. The complete current CIP summary is found in **Table 7-5** and **Table 7-6.**

TABLE 7-2 - CAPITAL IMPROVEMENT PROGRAM PHASE I (2016-2020)

CIP ID	Project	Primary Funding Source	Estimated Capital Costs	Federal	State	Local	Other/ Private
A	Acquire Grindle Property	Local	$200,000	$0	$0	$200,000	$0
B	Acquire Jones Hangar	Local	$18,000	$0	$0	$18,000	$0
C	Hangar Development	Other	$500,000	$0	$0	$0	$500,000
D	Fog Seal/Crack Repair (Apron)	State	$20,000	$0	$9,000	$11,000	$0
E	Construct SRE Storage Building	FAA	$553,718	$498,346	$27,685	$27,687	$0
Phase 1 Program Totals			**$1,291,718**	**$498,346**	**$36,685**	**$256,687**	**$500,000**

Source: Jviation

TABLE 7-3 - CAPITAL IMPROVEMENT PROGRAM PHASE II (2021-2025)

CIP ID	Project	Primary Funding Source	Estimated Capital Costs	Federal	State	Local	Other/ Private
F	Acquire Mower Attachment	Local	$69,000	$0	$0	$69,000	$0
G	Rehab RW 15/33 & Existing Apron (Design)	FAA	$586,500	$527,850	$29,325	$29,325	$0

CIP ID	Project	Primary Funding Source	Estimated Capital Costs	Federal	State	Local	Other/ Private
H	Rehab RW 15/33 & Existing Apron (Construct); Fog Seal / Crack Repair (TW A)	FAA	$7,553,573	$6,798,216	$150,000	$605,357	$0
I	Acquire Sweeper Attachment	Local	$72,600	$0	$0	$72,600	$0
J	Design & Construct New Hangar Development on Existing Apron	Other	$2,557,909	$0	$0	$0	$2,557,909
K	Construct & Reconfigure Auto Parking	Local	$989,100	$0	$0	$988,100	$0
Phase II Program Totals			**$11,827,682**	**$7,326,066**	**$179,325**	**$1,764,382**	**$2,557,909**

Source: Jviation

TABLE 7-4 CAPITAL IMPROVEMENT PROJECT PHASE III (2026-2035)

CIP ID	Project	Primary Funding Source	Estimated Capital Costs	Federal	State	Local	Other/Private
L	Acquire Plow Truck	Local	$234,000	$0	$0	$234,000	$0
M	Fog Seal / Crack Repair (Airfield Pavements)	State	$465,500	$0	$418,950	$46,550	$0
N	TW Rehab Design (mill & overlay; MITLs; Fillets; TW relocation)	FAA	$517,004	$465,304	$25,850	$25,850	$0
O	Airport Master Plan	FAA	$408,000	$367,200	$20,400	$20,400	$0
P	TW Rehab Construct (mill & overlay; MITLs; Fillets; TW relocation)	FAA	$8,586,294	$7,727,665	$429,314	$429,315	$0
Q	Acquire Plow Truck	Local	$250,200	$0	$0	$250,200	$0
R	Design & Construct New South GA Development Area-Phase I	Other	$18,675,386	$0	$0	$0	$18,675,386
S	Fog Seal / Crack Repair (Airfield Pavements)	State	$518,000	$0	$466,200	$51,800	$0
T	Design & Construct New North Apron	FAA	$650,236	$585,212	$32,511	$32,513	$0
U	Design & Construct New South GA Development Area - Phase 2	Other	$20,253,587	$0	$0	$0	$20,253,587
V	Design & Construct New MALSF	FAA	$2,337,720	$2,103,948	$116,886	$116,886	$0
W	Pave over island in existing apron for jet aircraft	FAA	$8,467,967	$7,621,170	$423,398	$423,399	$0
X	Acquire Southard Property	Other	$2,388,540	$0	$0	$0	$2,388,540
Y	Fog Seal / Crack Repair (TW A)	State	$64,680	$0	$58,212	$6,468	$0
Z	Acquire Avigation Easement on Parcel 10	FAA	$15,400	$13,860	$770	$770	$0

CIP ID	Project	Primary Funding Source	Estimated Capital Costs	Federal	State	Local	Other/Private
AA	Acquire Parcel 11 (Pelino Property)	FAA	$161,700	$145,530	$8,085	$8,085	$0
Phase III Program Totals			**$63,294,714**	**$19,029,889**	**$1,581,626**	**$1,365,686**	**$41,314,513**

Source: Jviation

TABLE 7-5 - AEJ CIP SUMMARY

CENTRAL COLORADO REGIONAL AIRPORT

CIP ID	CIP Phase	YEAR	DESCRIPTION	TOTAL ESTIMATED PROJECT COST *2017* DOLLARS	TOTAL ESTIMATED PROJECT COST w/ Annual % Escalation *3%*	FUNDING SOURCES													
						FEDERAL				STATE			Local				Other		TOTAL PROPOSED FUNDING
						Total	Entitlement (% project funding) *90%*	Discretionary (% project funding) *90%*	State Apportionment *90%*	Total	Federal Match (% project funding) *5%*	CDAG Grant (% project funding) *90%*	Total	Federal Match (% project funding) *5%*	CDAG Grant Match (% project funding) *10%*	Other Local Funding	Private Investment	Unidentified	
		2014		$ -	$ -					$ -			$ -						$ -
		2014	SUBTOTAL	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		2015		$ -	$ -					$ -			$ -						$ -
		2015	SUBTOTAL	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
A	I	2016	Acquire Grindle Property	$ 200,000	$ 200,000					$ -			$ 200,000			$ 200,000			$ 200,000
		2016	SUBTOTAL	$ 200,000	$ 200,000		$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000	$ -	$ -	$ 200,000	$ -	$ -	$ 200,000
B	I	2017	Acquire Jones Hangar	$ 18,000	$ 18,000					$ -			$ 18,000			$ 18,000			$ 18,000
C	I	2017	Hangar Development	$ 500,000	$ 500,000					$ -			$ -				$ 500,000		$ 500,000
D	I	2017	Fog Seal / Crack Repair (Apron)	$ 20,000	$ 20,000					$ 9,000		$ 9,000	$ 11,000		$ 11,000				$ 20,000
E	I	2017	Construct SRE Storage Building	$ 553,718	$ 553,718	$ 498,346	$ 498,346	$ -		$ 27,685	$ 27,685		$ 27,687	$ 27,687					$ 553,718
		2017	SUBTOTAL	$ 1,091,718	$ 1,091,718	$ 498,346	$ 498,346	$ -	$ -	$ 36,685	$ 27,685	$ 9,000	$ 56,687	$ 27,687	$ 11,000	$ 18,000	$ 500,000	$ -	$ 1,091,718
		2018	Payback NPE Funds to 2017 (Transfer from other)	$ -	$ -	$ -		$ -		$ -	$ -		$ -	$ -					$ -
		2018	SUBTOTAL	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		2019	Roll NPE Funds to 2022 (Transfer to Fort Morgan)	$ -	$ -					$ -			$ -						$ -
		2019	SUBTOTAL	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		2020	Roll NPE Funds to 2022 (Transfer to Salida)	$ -	$ -					$ -			$ -						$ -
		2020	SUBTOTAL	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		2021	Roll NPE Funds to 2022 (Transfer to Lamar)	$ -	$ -					$ -			$ -						$ -
		2021	SUBTOTAL	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
F	II	2022	Acquire Mower Attachment	$ 60,000	$ 69,000					$ -			$ 69,000			$ 69,000			$ 69,000
G	II	2022	Rehab RW 15/33 & Existing Apron (Design)	$ 510,000	$ 586,500	$ 527,850	$ 527,850	$ -		$ 29,325	$ 29,325		$ 29,325	$ 29,325					$ 586,500
		2022	SUBTOTAL	$ 570,000	$ 655,500	$ 527,850	$ 527,850	$ -	$ -	$ 29,325	$ 29,325	$ -	$ 98,325	$ 29,325	$ -	$ 69,000	$ -	$ -	$ 655,500
H	II	2023	Rehab RW 15/33 & Existing Apron (Construct); Fog Seal / Crack Repair (TW A)	$ 6,401,333	$ 7,553,573	$ 6,798,216	$ 672,150	$ 6,126,066		$ 150,000	$ 150,000		$ 605,357	$ 605,357					$ 7,553,573
		2023	SUBTOTAL	$ 6,401,333	$ 7,553,573	$ 6,798,216	$ 672,150	$ 6,126,066	$ -	$ 150,000	$ 150,000	$ -	$ 605,357	$ 605,357	$ -	$ -	$ -	$ -	$ 7,553,573
I	II	2024	Acquire Sweeper Attachment	$ 60,000	$ 72,600					$ -			$ 72,600			$ 72,600			$ 72,600
		2024	Payback NPE Funds for 2023	$ -	$ -					$ -			$ -						$ -
		2024	SUBTOTAL	$ 60,000	$ 72,600	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 72,600	$ -	$ -	$ 72,600	$ -	$ -	$ 72,600
J	II	2025	Design & Construct New Hangar Development on Existing Apron	$ 2,062,830	$ 2,557,909					$ -			$ -				$ 2,557,909		$ 2,557,909
K	II	2025	Construct & Reconfigure Auto Parking	$ 796,855	$ 988,100					$ -			$ 988,100			$ 988,100			$ 988,100
		2025	Payback NPE Funds for 2023	$ -	$ -					$ -			$ -						$ -
		2025	SUBTOTAL	$ 2,859,685	$ 3,546,009	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 988,100	$ -	$ -	$ 988,100	$ 2,557,909	$ -	$ 3,546,009

TABLE 7-6 - AEJ CIP SUMMARY (CONT.)

CENTRAL COLORADO REGIONAL AIRPORT

CIP ID	CIP Phase	YEAR	DESCRIPTION	TOTAL ESTIMATED PROJECT COST 2017 DOLLARS	TOTAL ESTIMATED PROJECT COST w/ Annual % Escalation 3%	FUNDING SOURCES													
						FEDERAL				STATE			Local				Other		TOTAL PROPOSED FUNDING
						Total	Entitlement (% project funding) 90%	Discretionary (% project funding) 90%	State Apportionment 90%	Total	Federal Match (% project funding) 5%	CDAG Grant (% project funding) 90%	Total	Federal Match (% project funding) 5%	CDAG Grant Match (% project funding) 10%	Other Local Funding	Private Investment	Unidentified	
		2026	Payback NPE Funds for 2023	$ -	$ -					$ -			$ -						$ -
		2026	**SUBTOTAL**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
		2027	Roll NPE Funds to 2029	$ -	$ -					$ -			$ -						$ -
L	III	2027	Acquire Plow Truck	$ 180,000	$ 234,000					$ -			$ 234,000			$ 234,000			$ 234,000
		2027	**SUBTOTAL**	**$ 180,000**	**$ 234,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 234,000**	**$ -**	**$ -**	**$ 234,000**	**$ -**	**$ -**	**$ 234,000**
		2028	Roll NPE Funds to 2029	$ -	$ -					$ -			$ -						$ -
M	III	2028	Fog Seal / Crack Repair (Airfield Pavements)	$ 350,000	$ 465,500					$ 418,950		$ 418,950	$ 46,550		$ 46,550				$ 465,500
		2028	**SUBTOTAL**	**$ 350,000**	**$ 465,500**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 418,950**	**$ -**	**$ 418,950**	**$ 46,550**	**$ -**	**$ 46,550**	**$ -**	**$ -**	**$ -**	**$ 465,500**
N	III	2029	TW Rehab Design (mill & overlay; MITLs; Fillets; TW relocation)	$ 380,150	$ 517,004	$ 465,304	$ 82,800	$ 382,504		$ 25,850	$ 25,850		$ 25,850	$25,850					$ 517,004
O	III	2029	Airport Master Plan	$ 300,000	$ 408,000	$ 367,200	$ 367,200	$ -		$ 20,400	$ 20,400		$ 20,400	$ 20,400					$ 408,000
		2029	**SUBTOTAL**	**$ 680,150**	**$ 925,004**	**$ 832,504**	**$ 450,000**	**$ 382,504**	**$ -**	**$ 46,250**	**$ 46,250**	**$ -**	**$ 46,250**	**$ 46,250**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 925,004**
P	III	2030	TW Rehab Construct (mill & overlay; MITLs; Fillets; TW relocation)	$ 6,177,190	$ 8,586,294	$ 7,727,665	$ 600,000	$ 7,127,665		$ 429,314	$ 429,314		$ 429,315	$429,315					$ 8,586,294
Q	III	2030	Acquire Plow Truck	$ 180,000	$ 250,200					$ -			$ 250,200			$ 250,200			$ 250,200
		2030	**SUBTOTAL**	**$ 6,357,190**	**$ 8,836,494**	**$ 7,727,665**	**$ 600,000**	**$ 7,127,665**	**$ -**	**$ 429,314**	**$ 429,314**	**$ -**	**$ 679,515**	**$ 429,315**	**$ -**	**$ 250,200**	**$ -**	**$ -**	**$ 8,836,494**
		2031	Payback NPE Funds for 2030	$ -	$ -					$ -			$ -						$ -
R	III	2031	Design & Construct New South GA Development Area - Phase 1	$ 13,151,680	$ 18,675,386					$ -			$ -				$18,675,386		$ 18,675,386
		2031	**SUBTOTAL**	**$ 13,151,680**	**$ 18,675,386**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 18,675,386**	**$ -**	**$ 18,675,386**
		2032	Payback NPE Funds for 2030	$ -	$ -					$ -			$ -						$ -
		2032	**SUBTOTAL**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
		2033	Payback NPE Funds for 2030	$ -	$ -					$ -			$ -						$ -
S	III	2033	Fog Seal / Crack Repair (Airfield Pavements)	$ 350,000	$ 518,000					$ 466,200		$ 466,200	$ 51,800		$ 51,800				$ 518,000
		2033	**SUBTOTAL**	**$ 350,000**	**$ 518,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 466,200**	**$ -**	**$ 466,200**	**$ 51,800**	**$ -**	**$ 51,800**	**$ -**	**$ -**	**$ -**	**$ 518,000**
T	III	2034	Design & Construct New North Apron	$ 430,620	$ 650,236	$ 585,212	$ 300,000	$ 285,212		$ 32,511	$ 32,511		$ 32,513	$32,513					$ 650,236
		2034	**SUBTOTAL**	**$ 430,620**	**$ 650,236**	**$ 585,212**	**$ 300,000**	**$ 285,212**	**$ -**	**$ 32,511**	**$ 32,511**	**$ -**	**$ 32,513**	**$ 32,513**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 650,236**
		2035	Payback NPE Funds for 2034	$ -	$ -					$ -			$ -						$ -
U	III	2035	Design & Construct New South GA Development Area - Phase 2	$ 13,151,680	$ 20,253,587					$ -			$ -				$20,253,587		$ 20,253,587
V	III	2035	Design & Construct New MALSF	$ 1,518,000	$ 2,337,720	$ 2,103,948	$ -	$ 2,103,948		$ 116,886	$ 116,886		$ 116,886	$116,886					$ 2,337,720
W	III	2035	Pave over island in existing apron for jet aircraft	$ 5,498,680	$ 8,467,967	$ 7,621,170	$ -	$ 7,621,170		$ 423,398	$ 423,398		$ 423,399	$423,399					$ 8,467,967
X	III	2035	Acquire Southard Property	$ 1,551,000	$ 2,388,540					$ -			$ -					$ 2,388,540	$ 2,388,540
Y	III	2035	Fog Seal / Crack Repair (TW A)	$ 42,000	$ 64,680					$ 58,212		$ 58,212	$ 6,468		$ 6,468				$ 64,680
Z	III	2035	Acquire Avigation Easement on Parcel 10 (Steel Property)	$ 10,000	$ 15,400	$ 13,860	$ -	$ 13,860		$ 770	$ 770		$ 770	$770					$ 15,400
AA	III	2035	Acquire Parcel 11 (Pelino Property)	$ 105,000	$ 161,700	$ 145,530	$ -	$ 145,530		$ 8,085	$ 8,085		$ 8,085	$8,085					$ 161,700
		2035	**SUBTOTAL**	**$ 21,876,360**	**$ 33,689,594**	**$ 9,884,508**	**$ -**	**$ 9,884,508**	**$ -**	**$ 607,351**	**$ 549,139**	**$ 58,212**	**$ 555,608**	**$ 549,140**	**$ 6,468**	**$ -**	**$ 20,253,587**	**$ 2,388,540**	**$ 33,689,594**

Source: Jviation, 2016

7.2.3 Airport Operating Revenues and Expenses

Airport revenues are typically generated through user fees charged by a given airport for the facilities and services that it provides. These user fees are typically established by that airport based on the market conditions within its area and can vary dramatically from airport-to-airport. At AEJ, operating revenues are realized through several sources including, but not limited to:

- Hangar and Ground Leases
- Aircraft Fuel Sales
- Aircraft Testing Services
- Tie Down/Ramp Fees
- Direct Financial Contributions by Chaffee County and the Town of Buena Vista

The amount of land and buildings leased, the lease rates charged, and levels of aviation activity that generate fuel sales, parking and hangar storage, are the primary factors affecting airport operating revenues. Unlike commercial service airports, GA airports typically generate little to no revenue from auto parking, concessions (e.g. restaurants and shops), and terminal building tenants (airlines, rental car agencies), etc.

As additional airport development occurs, the number of based aircraft and itinerant aircraft operations will generally increase and new or updated leases will be enacted, typically resulting in airport operating revenues increasing in a corresponding fashion. Land and building leases typically generate the most stable source of revenue over the long term, particularly if the lease rates reflect industry standards. Revenue from fuel sales, aircraft tiedowns and hangar rentals, fluctuate with traffic levels. In addition, at AEJ revenue generated from high-altitude flight test companies also fluctuates with demand year over year.

With respect to the future establishment of lease rates and other income generating charges, it is important that the Airport continue to consider the following:

- FAA grant assurance number 22, Economic Nondiscrimination, states: "It (i.e. the airport sponsor) will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport."
- The FAA assurance states that the sponsor will charge, "reasonable and not unjustly discriminatory prices," and will also ensure that airport tenants who enter into an agreement with the sponsor will: "furnish said services on a reasonable, and not unjustly discriminatory, basis to all users."
- The FAA assurance states: "Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities."
- The FAA considers any lease with a term of greater than 20 years to be long-term, and a lease with a term of 50 years or greater to be in violation of FAA policy (source FAA Order 5160.9B, *Airport Compliance Manual*). FAA considers 50-year lease terms as equivalent to

the sale of airport property, which FAA allows only under very specific circumstances, and also considers 50-year lease terms as infringing on the powers of the sponsor. FAA recommends that lease terms extend no longer than the end of the amortization period and/or useful life of the facility.

Airport operating revenues are offset by airport operating expenses, typically referred to as Operation and Maintenance (O&M) costs. Airport operating expenses are the day-to-day costs incurred by operating the airport. They do not include non-cash and capital costs associated with depreciation and infrastructure development. Primary components of O&M costs at AEJ include, but are not limited to, the following:

- Personnel Services
- Airport Supplies
- Aviation Fuel
- Other Operational Charges
- Utilities

The historic operating revenues and expenses for AEJ since 2014 is presented in **Table 7-7**. AEJ generated a strong operating profit (net operating income) in FY 2015, and is budgeted to in FY 2016, However, in both years there was a transfer from the general fund to the Airport of $350,000 and $321,000, respectively. (It is important to note that the Town will annually transfer resources from the general fund to the Airport to cover any O&M shortfalls, as well as to provide the local match for any airport-related grant funding. So, such transfer will fluctuate with annual revenues and capital expenditures.) In FY 2015, fuel sales and revenue from high altitude testing were the largest revenue generators. In FY 2016 it was projected that fuel sales and "non-operating revenues" would be two largest sources of funds, followed by transfer from the general fund.

TABLE 7-7 - AIRPORT OPERATING REVENUES AND EXPENSES (HISTORICAL)

	FY2014 (actual)	FY2015 (actual)	FY2016 (Budget)
Airport Operating Revenues			
Operating Revenues (Aviation Fuel)	$261,810	$358,100	$350,300
Operating Revenues (Testing Service Fees)	$20,000	$200,000	$150,000
Operating Revenues (Hangars & Ground Lease)	$14,346	$12,859	$25,802
Operating Revenues (Other)	$26,279	$12,150	$17,160
Non-operating Revenues	$611	$843	$352,067
Chaffee County Contribution	$25,000	$25,000	$25,000
Transfer from General fund	$110,000	$350,000	$321,000
Total Operating Revenues:	$458,046	$958,952	$1,241,329
Airport Operating Expenses			
Personnel Services	$141,686	$145,371	$181,545
Materials & Supplies (less aviation fuel)	$32,369	$42,531	$39,739
Materials & Supplies (aviation fuel)	$211,131	$212,986	$269,731
Charges & Services	$43,786	$41,343	$64,536
Utilities	$22,494	$26,106	$25,268

	FY2014 (actual)	FY2015 (actual)	FY2016 (Budget)
Total Operating Expenses:	$451,465	$468,335	$580,819
NET OPERATING INCOME:	**$6,580**	**$490,617**	**$660,509**

Source: Town of Buena Vista

7.2.4 Projected Operating Revenues and Expenses

The continued growth of AEJ in terms of activity, tenants, new leases and facility development will impact the Airport's operating revenues and expenses over the 20-year planning period. Actual future financial outcomes will be determined by a variety of factors, many of which are impossible to identify at the current time. However, the projections developed in this evaluation depict future airport operating revenues and expenses based on recent financial results, budgeted revenues, and expenses for 2016, and activity and tenant growth trends identified in previous chapters of this Master Plan.

Projections of future airport operating revenues and expenses at AEJ for the periods 2016 through 2035 are presented in **Table 7-8.**

The estimates for future operating revenues were established through close consideration of historical trends, as well as proposed airport development initiatives and how they might impact those future revenues. In most instances, revenue projections resulted from normal, conservative growth factors refined to more closely reflect the circumstances of the Airport. These revenues were projected to increase between two percent and 3.5 percent annually with an average at the standard 3 percent annual growth rate. The exception to these rates may be miscellaneous revenues that could be realized through the one-time sales of airport assets, such as a fuel truck or other assets. On the operating expenses side, increases in salaries and wages, as well as overall operational activities are based on accepted inflationary growth rates (ranging from two percent to 3.5 percent average annual growth) with the higher growth factors being applied to fuel costs in order to account for some volatility in the supply market.

The projected operating revenues presented in **Table 7-8** are based on historical year-end financial results for FY2014-FY2015. Additionally, forecasted increases in airport based and itinerant aircraft activities, as well as airport tenant populations presented in previous chapters of this Master Plan, have been considered in these projections as a percentage annual increase. As reflected in in **Table 7-9** and **Table 7-10,** based on projected activity growth and assumptions regarding future tenant growth and development at the Central Colorado Regional Airport, airport revenues are projected to increase from $458,046 in FY2014 to $1,574,212 by 2035. Additionally, operations and maintenance expenses are projected to increase from $451,465 in FY2014 to $1,017,945 by FY 2035. When combined, these projections reflect a balanced airport operations and maintenance budget throughout the planning period.

TABLE 7-8 – INCOME AIRPORT OPERATING REVENUES AND EXPENSES (PROJECTED)

	FY2016 (Budget)	FY2017	FY2020	FY2025	FY2035
Airport Operating Revenues					
Operating Revenues (Aviation Fuel)	$350,300	$357,306	$382,902	$443,889	$596,551

	FY2016 (Budget)	FY2017	FY2020	FY2025	FY2035
Operating Revenues (Testing Service Fees)	$150,000	$154,500	$168,826	$195,715	$263,025
Operating Revenues (Hangars & Ground Lease)	$25,802	$26,318	$27,929	$31,600	$42,468
Operating Revenues (Other)	$17,160	$17,503	$18,574	$21,015	$28,243
Non-operating Revenues	$352,067	$417	$443	$489	$659
Chaffee County Contribution	$25,000	$25,000	$25,000	$25,000	$25,000
Transfer from General fund	$321,000	$71,204	$17,055	$1,011,200	$618,266
Total Operating Revenues:	$1,241,329	$652,248	$640,729	$1,728,908	$1,574,212
Airport Operating Expenses					
Personnel Services	$181,545	$186,084	$200,392	$232,309	$312,203
Materials & Supplies (less aviation fuel)	$39,739	$40,733	$43,865	$50,851	$68,341
Materials & Supplies (aviation fuel)	$269,731	$276,474	$297,733	$345,154	$486,875
Charges & Services	$64,536	$65,827	$69,857	$79,037	$106,220
Utilities	$25,268	$26,026	$28,439	$32,968	$44,306
Total Operating Expenses:	$580,819	$595,144	$640,286	$740,319	$1,017,945
NET OPERATING INCOME:	**$660,509**	**$57,104**	**$443**	**$988,589**	**$556,267**

Source: Jviation, 2016
Note: * Transfers from general fund also reflect projected capital expenditures. Net operating income balance reflects capital expenditure requirements.

7.3 Financial Plan Summary

The primary goal is for the Airport is to evolve into a facility that will best serve the air transportation needs of the region while simultaneously maintaining itself as a self-sustaining economic generator for the Town of Buena Vista. This Airport Master Plan can best be described as the road map to helping the Airport achieve its goals. However, it should be recognized that planning is a continuous process that does not end with the completion of the Master Plan: the fundamental issues that have driven this Master Plan will remain valid for many years. Therefore, the ability to continuously monitor the existing and forecast status of airport activity will be a key ingredient in maintaining the applicability and relevance of this study.

In order to realize those goals through the successful implementation of airport development projects, the Airport must make sound and measured decisions. Two of the most important factors in influencing the decision to move forward with a specific improvement are airport activity and funding timing. Both factors must be considered in the implementation of this Master Plan because while airport activity levels provide the "what" and the "why" in the establishment of airport improvements, the timing of funding provides the "how." The "what" and the "why" have been discussed in detail in previous chapters. This chapter has addressed the "how" by providing an overview of the practical financial realities required to implement this overall airport development program. While every effort has been made in this chapter to conservatively estimate when facility development may be required, aviation demand and the availability of financial resources for capital projects will ultimately dictate when facility improvements need to be implemented, accelerated or delayed.

The financial plan summary presented below includes projection totals for operating revenues, operating expenses, capital expenditures, capital funding, and cash flow that result from the projections presented above.

Previous sections of this analysis provided a practical approach for scheduling capital expenditures to match the availability of capital financing. Based on the assumptions identified within the previous sections and subject to the availability of FAA and CDOT funding (identification of a potential funding source does not guarantee its availability), and the identification of currently unidentified Unknown Capital Funding Sources described in the analysis, implementation of the Master Plan CIP is financially feasible. However, the most significant concern of implementing this CIP is the identification of those Unknown Capital Funding Sources, without which, several projects would have to be shifted to later phases until such time as that funding is identified or is made available by accumulating airport revenue.

The "reasonableness" of funding the capital program can be best characterized by the level of identified funding indicated in each phase of the program. In Phase I and Phase II, all funding sources has been identified as federal, state, local, or private. Phase III, however, has one project where funding has not been identified. As this project approaches, funding sources will need to be further analyzed and identified.

Key assumptions supporting the financial plan relate to the availability and timeliness of the funding sources that have been indicated. Continuation of the AIP entitlement program at authorized funding levels is essential. Additionally, receiving funding of approximately $1,291,718 during Phase I, $11,827,682 during Phase II and $63,294,714 during Phase III are critical to the financial feasibility of implementing these projects. Without these levels of funding, these projects are not feasible and would need to be delayed or cancelled unless another source of funds could be acquired.

The following tables present the detailed financial analysis for implementation of AEJ's CIP.

TABLE 7-9 - ACTUAL, BUDGETED, AND PROJECTED OPERATING REVENUES

Revenues	Historical Data (2014-2015) Actual		Phase I (2016-2020) Projected						Phase II Projected	Phase III Projected
	2014	2015	2016	2017	2018	2019	2020	*Total*	2021-2025	2026-2035
Annual Airport Revenues										
Non-Airport Contributions										
Chaffee County Contribution	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	*$125,000*	*$125,000*	*$250,000*
Annual Growth Rate		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	*0.0%*	*0.0%*	*0.0%*
Town of Buena Vista	$110,000	$350,000	$212,558	$71,204	$16,540	$16,805	$17,055	*$334,162*	*$1,867,465*	*$2,079,542*
Annual Growth Rate		218.2%	-39.3%	-66.5%	-76.8%	1.6%	1.5%	*-45.4%*	*126.3%*	*-4.8%*
Total Non-Airport Contributions	*$135,000*	*$375,000*	*$25,000*	*$96,204*	*$41,540*	*$41,805*	*$42,055*	*$246,604*	*$1,992,465*	*$2,329,542*
Airport Operating Revenues										
Aviation Fuel	$261,810	$358,100	$350,300	$357,306	$364,452	$373,563	$382,902	*$1,828,523*	*$2,093,867*	*$5,241,361*
Annual Growth Rate		36.8%		2.0%	2.0%	2.5%	2.5%	*1.3%*	*3.0%*	*3.0%*
Testing Service Fees	$20,000	$200,000	$150,000	$154,500	$159,135	$163,909	$168,826	*$796,370*	*$923,210*	*$2,310,963*
Annual Growth Rate		900.0%		3.0%	3.0%	3.0%	3.0%	*-3.3%*	*3.0%*	*3.0%*
Hangar & Ground Leases	$14,346	$12,859	$25,802	$26,318	$26,844	$27,381	$27,929	*$134,274*	*$150,476*	*$373,126*
Annual Growth Rate		-10.4%		2.0%	2.0%	2.0%	2.0%	*16.8%*	*2.5%*	*3.0%*
Other	$26,279	$12,150	$17,160	$17,503	$17,853	$18,210	$18,574	*$89,300*	*$100,071*	*$248,139*
Annual Growth Rate		-53.8%		2.0%	2.0%	2.0%	2.0%	*8.9%*	*2.5%*	*3.0%*
Total Airport Operating Revenues	*$322,435*	*$583,109*	*$543,262*	*$555,627*	*$568,284*	*$583,063*	*$598,231*	*$2,848,467*	*$3,267,624*	*$8,173,589*
Total Annual Revenues	$457,435	$958,109	$568,262	$651,831	$609,824	$624,868	$640,286	*$3,095,071*	*$5,260,089*	*$10,503,131*
Annual Growth Rate		109.5%	-40.7%	14.7%	-6.4%	2.5%	2.5%	*-7.7%*	*22.0%*	*-0.9%*
Total Non-Operating Revenues										
Miscellaneous	$611	$843	$400	$417	$425	$434	$443	*$2,119*	*$2,351*	*$5,785*
Annual Growth Rate		38.1%		2.0%	2.0%	2.0%	2.0%	*-12.1%*	*2.0%*	*3.0%*
Total Annual Revenues	$458,046	$958,952	$568,662	$652,248	$610,249	$625,302	$640,729	*$3,097,190*	*$5,262,440*	*$10,508,916*
Annual Growth Rate		109.4%	-40.7%	14.7%	-6.4%	2.5%	2.5%	*-7.7%*	*22.0%*	*-0.9%*

Source: Town of Buena Vista, Jviation

TABLE 7-10 - ACTUAL, BUDGETED, AND PROJECTED OPERATIONS AND MAINTENANCE EXPENSES

Expenses	Historical Data (2014-2015) Actual		Phase I (2016-2020) Projected						Phase II Projected	Phase III Projected
	2014	2015	2016	2017	2018	2019	2020	*Total*	2021-2025	2026-2035
Operations & Maintenance Expenses										
Personnel Services	$141,686	$145,371	$181,545	$186,084	$190,736	$195,504	$200,392	*$954,261*	$1,095,826	$2,743,055
Annual Growth Rate		2.6%		2.5%	2.5%	2.5%	2.5%	*6.6%*	3.0%	3.0%
Materials & Supplies (less aviation fuel)	$32,369	$42,531	$39,739	$40,733	$41,751	$42,795	$43,865	*$208,883*	$239,870	$600,442
Annual Growth Rate		31.4%		2.5%	2.5%	2.5%	2.5%	*0.6%*	3.0%	3.0%
Materials & Supplies (aviation fuel)	$211,131	$212,986	$269,731	$276,474	$283,386	$290,471	$297,733	*$1,417,795*	$1,628,126	$4,190,861
Annual Growth Rate		0.9%		2.5%	2.5%	2.5%	2.5%	*6.9%*	3.0%	3.5%
Charges & Services	$43,786	$41,343	$64,536	$65,827	$67,144	$68,487	$69,857	*$335,851*	$376,370	$933,256
Annual Growth Rate		-5.6%		2.0%	2.0%	2.0%	2.0%	*11.1%*	2.5%	3.0%
Utilities	$22,494	$26,106	$25,268	$26,026	$26,807	$27,611	$28,439	*$134,151*	$155,515	$389,281
Annual Growth Rate		16.1%		3.0%	3.0%	3.0%	3.0%	*1.7%*	3.0%	3.0%
Total O&M Expenses/Expenditures	$451,465	$468,335	$580,819	$595,144	$609,824	$624,868	$640,286	*$3,050,941*	$3,119,337	$8,856,895
Annual Growth Rate		3.7%	24.0%	2.5%	2.5%	2.5%	2.5%	*6.5%*	2.9%	3.2%

Source: Town of Buena Vista, Jviation

TABLE 7-11 - BUDGETED AND PROJECTED NET REVENUES, CAPITAL FUNDING, AND CAPITAL EXPENDITURES

Operating and Capital Cash Flow	Historical Data (2014-2015) Actual		Phase I (2016-2020) Projected						Phase II Projected 2021-2025	Phase III Projected 2026-2035
	2014	2015	2016	2017	2018	2019	2020	Total		
Operating Cash Flow										
Revenues:										
Total Operating Revenues	$322,435	$583,109	$543,262	$555,627	$568,284	$583,063	$598,231	$2,848,467	$3,267,624	$8,173,589
County Contributions (Direct)	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$125,000	$125,000	$250,000
Town Contributions (Direct)	$110,000	$350,000	$212,558	$71,204	$16,540	$16,805	$17,055	$334,162	$1,867,465	$2,079,542
Expenses:										
Total Operation and Maintenance Expenses	$451,465	$468,335	$580,819	$595,144	$609,824	$624,868	$640,286	$3,050,941	$3,495,707	$8,856,895
Net Operating Cash Flow	$5,970	$489,774	$200,000	$56,687	$0	$0	$0	$256,687	$1,764,382	$1,646,236
Airport Enterprise Fund (07) Balance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Airport Operating Funds Available for Capital Expenditures	$5,970	$489,774	$200,000	$56,687	$0	$0	$0	$256,687	$1,764,382	$1,646,236
Capital Cash Flow										
Capital Improvement Program (CIP):										
AIP-Eligible Expenditures	$9,267	$1,520,979	$0	$553,718	$0	$0	$0	$553,718	$8,140,073	$21,144,321
CDAG-Eligible Expenditures			$0	$20,000	$0	$0	$0	$20,000	$0	$1,048,180
Expenditures Ineligible for Fed/State Grants			$200,000	$518,000	$0	$0	$0	$718,000	$3,687,609	$41,801,713
Total Public/Airport Capital Expenditures	$9,267	$1,520,979	$200,000	$1,091,718	$0	$0	$0	$1,291,718	$11,827,682	$63,994,214
Non-CIP Capital Expenditures (airport projects)	$143,051	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Capital Funding Sources:										
AIP Entitlement Grants (Primary + Rollover)			$0	$498,346	$0	$0	$0	$498,346	$1,200,000	$1,350,000
AIP Discretionary Grants	$58,910	$640,664	$0	$0	$0	$0	$0	$0	$6,126,066	$17,679,889
State Apportionment			$0	$0	$0	$0	$0	$0	$0	$0
CDOT Aeronautics Division	$61,416	$563,175	$0	$36,685	$0	$0	$0	$36,685	$179,325	$2,000,576
Private or Unknown Capital Funding Source			$0	$500,000	$0	$0	$0	$500,000	$2,557,909	$41,317,513
Total Capital Funding Sources	$120,326	$1,203,839	$0	$1,035,031	$0	$0	$0	$1,035,031	$10,063,300	$62,347,978
										$0
Total Funds Available for Capital Expenditures	$126,295	$1,693,612	$200,000	$1,091,718	$0	$0	$0	$1,291,718	$11,827,682	$63,994,214
Total Local Funds Required for Capital Expenditures	$31,993	$317,140	$200,000	$56,687	$0	$0	$0	$256,687	$1,764,382	$1,646,236
FAA AIP Entitlement Rollover			$150,000	-$198,346	-$48,346	$101,654	$251,654			
Ending Airport Fund Balance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Source: Town of Buena Vista, Jviation

8.0 PLANNING FOR COMPLIANCE

8.1 Introduction

The Town of Buena Vista (the Town) is Central Colorado Regional Airport's (AEJ or the Airport) airport sponsor and has accepted federal grants; subsequently, the Town is legally obligated to comply with the FAA's Sponsor Assurances, pertinent FAA advisory circulars, and FAA Order 5190.6B, *Airport Compliance Manual*.

As part of the airport master planning process, the FAA Northwest Mountain Region and the Denver Airport District Office (ADO) encourage airport sponsors to evaluate their compliance with FAA grant assurances and other federal obligations; the results of the evaluation are presented in this chapter. The FAA has a responsibility to ensure that sponsors are in compliance with their obligations. Airport sponsors that are not in compliance with FAA assurances or requirements may risk losing FAA grants.

8.1.1 Compliance Education Materials

In addition to the *Airport Compliance Manual*, FAA Order 5100.38D, *Airport Improvement Handbook*, also serves as a valuable guide for airport sponsors dealing with FAA grants.

8.1.2 Summary and Conclusions

This analysis concluded that:

- The Town of Buena Vista should develop and submit an Airport Concession Disadvantaged Business Enterprise Program to the FAA for review and approval, in compliance with 49 C.F.R. § 23.21.
- The Exhibit "A" Property Map and the Airport Layout Plan (ALP) should be kept up-to-date as capital projects are completed and changes are made in terms of property ownership, control, and easements.
- The Town should create a database of all airport leases, licenses, and permits; this will enable the Town to better maintain, track, and ensure consistency among the agreements.
- The Town should amend the Airport primary guiding documents to ensure consistency with each other, as well as compliance with federal aviation statutes and regulations and standard industry practices.

The Federal Aviation Administration (FAA) encourages airport sponsors to establish practices and procedures that ensure ongoing review of and compliance with pertinent regulatory requirements.

Airport sponsors are not required, but are strongly encouraged, to adopt a number of guiding documents to ensure compliance with the FAA assurances, including:

- Airport rules and regulations
- Minimum standards

- Leases
- Airport business and marketing plan

AEJ's list of key guiding documents is in **Table 8-1**.

The FAA requires airport sponsors to develop and keep current the following:

- Airport layout plan (ALP)
- Exhibit "A" property interest map
- Airport Capital Improvement Plan (CIP)

Preparation of this chapter included a review of existing airport documents, plans, and associated records.

TABLE 8-1 – KEY AIRPORT GUIDING DOCUMENTS

Document	Requirement / Additional Information	Date AEJ Last Updated
REQUIRED DOCUMENTS AND PLANS		
Airport Certification Manual	Each holder of an Airport Operating Certificate must maintain an Airport Certification Manual. See 14 C.F.R. Part 139, Subpart C. Additional information is available in FAA Advisory Circular 150-5210-22.	NA
Airport Concession Disadvantaged Business Enterprise (ACDBE) Program	The requirements for an ACDBE Program are set forth in 49 CFR Part 23. In general, primary commercial service airports are required to maintain an ACDBE program.	
Airport Emergency Plan	14 C.F.R. § 139.325 mandates that "each certificate holder must develop and maintain an airport emergency plan". FAA provides additional guidance in Advisory Circular (AC) 150/5200-31C (Jun. 2009).	NA
Airport Security Program	The Airport Security Program is mandated by 49 C.F.R. Part 1542.	NA
Emergency Contingency Plan	Airport operators are required to develop and implement an Emergency Contingency Plan pursuant to 49 U.S.C. § 42301(a)(1).	
Snow and Ice Control Plan	Each certificate holder must develop and implement a snow and ice control plan. 14 C.F.R. § 139.313(a).	
Spill Prevention, Control and Countermeasures (SPCC) Plan	The requirements for a Spill Prevention, Control, and Countermeasures (SPCC) Plan are found in 40 C.F.R. Part 112.	
Storm Water Management Plan	The requirements for a Storm Water Management Plan are found in 40 C.F.R. § 122.26.	
Wildlife Hazard Management Plan	A wildlife hazard management plan may be required under 14 C.F.R. § 139.337. Additional guidance can be found in ACRP Legal Research Digest 20 (2013).	
Primary Guiding Documents (voluntary)		
Airport Minimum Standards	The FAA recommends that airport sponsors establish minimum standards for commercial aeronautical activities. See FAA Order 5190.6B, Airport Compliance Manual, at 10-1 (Sept. 2009).	February 2008

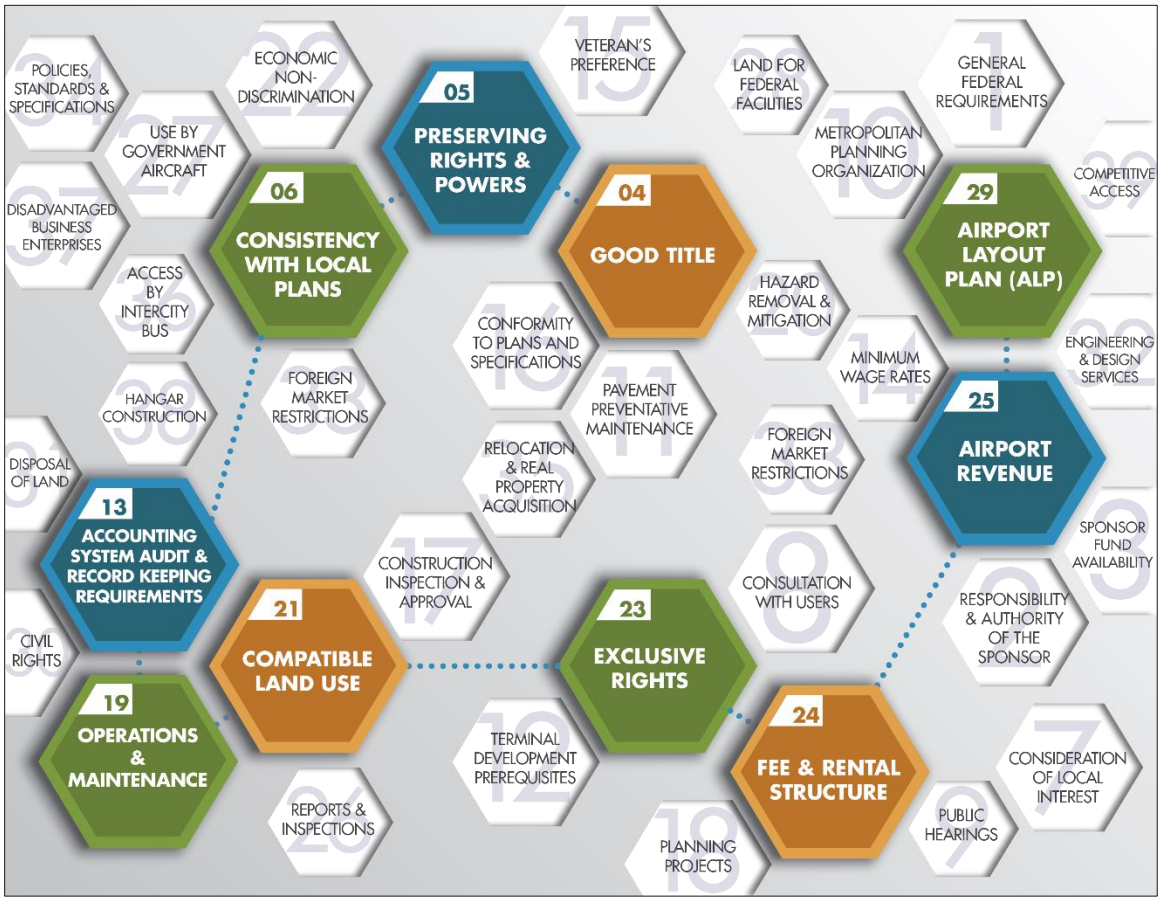
Document	Requirement / Additional Information	Date AEJ Last Updated
Airport Rates and Charges	Pursuant to Grant Assurance 22(c) and 22(e), FBO's and air carriers must be subject to similar rates, fees, rentals, and other charges as compared to other FBO's and air carriers respectively.	
Airport Rules and Regulations	The County is authorized under state law to regulate use of the Airport. The FAA acknowledges an airport sponsor's right to adopt reasonable and not unjustly discriminatory conditions on use of an airport.	September 2010
Air Service Development Plan	Airport sponsors can develop air service marketing campaigns and have limited authority to offer incentives for new service. FAA policy is set forth in Air Carrier Incentive Guidebook: A Reference for Airport Sponsors (Sept. 2010).	NA
Design Guidelines	Some airport sponsors adopt design guidelines to establish procedural and substantive requirements for new construction.	
Leasing Policy	Some airport sponsors adopt leasing policies to establish procedural and substantive standards on leasing airport property.	
Schedule of Insurance Requirements	Some airport sponsors adopt a schedule of insurance requirements to be satisfied by various types of airport users.	
Professional Service Agreements	Additional information can be found in FAA Advisory Circular (AC) 150/5100-14 (Sept. 2005) and ACRP Report 87 (2013).	
Safety Management System	The FAA issued a Notice of Proposed Rulemaking that would require all certificated airports to develop and implement a Safety Management System. Some airport operators are developing an SMS in advance of the final rule.	
Standard Forms and Permits	Some airport sponsors develop standard forms and permits to ensure consistency and expedite negotiation of new agreements.	
Planning Documents (voluntary)		
Strategic Plan		
Financial Plan		
Business Plan		2015
Noise Exposure Map and Noise Compatibility Program	Airport sponsors can voluntary conduct noise studies and develop land use compatibility programs under 14 C.F.R. Part 150.	

Source: Town of Buena Vista

8.2 FAA Grant Assurances

Airport sponsors that accept FAA grants, including the Town of Buena Vista, are legally obligated to comply with the FAA's sponsor assurances (see **Appendix 8-A** for the FAA Sponsor Assurances). There are 39 assurances, ten of which directly impact day-to-day airport management and operations. Those ten are highlighted in **Figure 8-1** and summarized below.

FIGURE 8-1 - FAA AIRPORT SPONSOR ASSURANCES



Source: FAA Grant Assurances, Jviation

8.2.1 Good Title – Assurance No. 4

Good Title requires that the airport sponsor provide proof of ownership for property that may be affected through consideration of projects associated with land, building, or equipment. Ownership must be complete and leave no legal question as its legitimacy. It must be demonstrated that the property will soon be acquired when the Airport does not hold affected property.

8.2.2 Preserving Rights and Powers – Assurance No. 5

Actions that may take away rights or powers from the sponsor are prohibited when they are necessary to fulfill conditions included in the grant agreements. Existing actions and activities that impede rights or powers are to be discontinued in order to preserve the authority and necessary functions of the Airport. For example, Through-the-Fence activity hinders the sponsor's control of Airport operations. Consequentially, other Airport users may be negatively affected. Adverse effects can be present in many forms such as unequal rates and charges for on-airport or off-airport users, and other unreasonable competitive advantage for a particular party or user.

8.2.3 Consistency with Local Plans – Assurance No. 6

Airport projects must be consistent with City and County comprehensive plans, transportation plans, zoning ordinances development code, and hazard mitigation plans. The airport sponsor and planners shall consider local planning documents prior to project consideration. Such action ensures compliance with local ordinances and demonstrates an interest for the well-being of stakeholders.

A proactive approach to ensuring consistent compliance with local plans is by the Airport contributing to the development of local plans. Incorporation of the Airport and its needs may be supported through policy and goal development, as well as implementation strategies that protect the Airport within local plans and ordinances.

8.2.4 Accounting System Audit and Record Keeping – Assurance No. 13

All project accounts and records must be kept in a manner that supports a successful audit or examination at any time. Records are to include costs connected with the grant, how monies were actually spent, funds supplied by other sources, and all other financial records associated with the granted project. It is therefore pertinent that the sponsor keeps and make available books, records, documents, and papers that pertain to the project.

8.2.5 Operations and Maintenance – Assurance No. 19

All federally-funded airport facilities must operate at all times in a safe and serviceable manner. Any activities that would inhibit or interfere with this manner are to be prohibited by the Airport. The airport will promptly mark and light on-airport hazards, and promptly issue Notices to Airmen (NOTAMs) to advise of any conditions that might affect safe aeronautical use. Exceptions are temporary weather conditions that make it unreasonable to maintain the airport. Further, this assurance does not require the sponsor to repair conditions of substantial damage or destruction imposed by conditions beyond its control.

8.2.6 Compatible Land Use – Assurance No. 21

Land uses around an airport are to be planned and implemented in a way that ensures compatibility with surrounding development and activities. The sponsor is expected to ensure compatibility through appropriate action, to the extent reasonable, including the adoption of zoning laws and noise programs. Projects will not cause or permit any change in land use, within its jurisdiction, that reduces compatibility. Compatible land use surrounding airports is best accomplished by prevention to ensure the future progress of airports.

8.2.7 Exclusive Rights – Assurance No. 23

Specific experiences at an airport often complicate the assurance of Exclusive Rights. FAA states that the sponsor "will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public." This is, however, permitted under specific circumstances. Exemption occurs when permitting a similar business is unreasonably costly, burdensome, or impractical and when not granting an exclusive right reduces leased space in an

existing agreement. Denial of a business opportunity due to safety must have clear justification that demonstrates the supposed compromise to airport safety.

Exclusive rights can be established with any business at the Airport which could assist in the operation of an aircraft at the Airport. Commonly, exclusive rights relationships occur between an airport and an FBO. Any existing unapproved exclusive rights agreements are to be dissolved before the award of future federal funding.

When there is uncertainty surrounding the denial of a business at the Airport it is encouraged to seek guidance from the FAA ADO, in AEJ's case, the Denver ADO. Preemptive communication may help clarify specific situations and protect the airport from a denial of access that could be viewed as unjust discrimination. Advisory Circular 150/5190-6, *Exclusive Rights at Federally Obligated Airports* offers detailed information concerning this Exclusive Rights assurance.

8.2.8 Fee and Rental Structure – Assurance No. 24

The Airport fee and rental structure must be implemented in a manner that makes the Airport as self-sustaining as possible. Generated revenue from Airport-related fees and rents are to support day-to-day operational needs. Regular oversight of the fee and rental structure should be done to ensure that reasonable charges are established to support this goal. Familiar fees that may be included are that of fuel flowage, tie-downs, landing, cargo, and parking and hangar charges.

8.2.9 Airport Revenue – Assurance No. 25

All revenues generated by the Airport and local taxes on aviation fuel are to be used for the operating costs of the Airport, the local airport system, or other local facilities which are owned or operated by the Airport. That which is directly impacted by actual air transportation of passengers or property and noise mitigation also applies. Use of revenues generated by Airport activities is therefore applied toward the continued operation and maintenance of the Airport. Airport revenue uses like subsidization of non-aviation activities or functions are not permitted and considered revenue diversion. Revenue diversion is a significant compliance issue and questionable practices may raise concern enough for inspection by the FAA.

8.2.10 Airport Layout Plan (ALP) – Assurance No. 29

The Airport is to at all times keep an up-to-date ALP showing current and future boundaries, facilities/structures, and the location of existing and proposed non-aviation areas and improvements. Changes may only be made to benefit the Airport and its safety, utility, efficiency, and operations. Such changes cannot be made outside conformity with the ALP and appropriate FAA authorization shown through signature. Any alterations outside of these parameters must be restored to original condition or the Airport is responsible to bear all cost associated with the change. Improvement projects not shown on an approved ALP do not qualify for federal participation.

8.3 AEJ Airport Business Plan

The AEJ Business Plan states that the Airport serves the general aviation (GA) and corporate aircraft markets. AEJ is also used by the U.S. Forest Service, U.S. Department of Natural Resources,

Colorado Division of Wildlife, Flight for Life, transient military aircraft, as well as public service and law enforcement agencies.

Another important market sector for AEJ has been high-altitude aircraft testing. The Airport has been used by a variety of military and civilian agencies to test a variety of aircraft. High-altitude aircraft testing began in 2002, and continues to be a vibrant seasonal utilization of the Airport. Testing at AEJ typically occurs June through September, and is anticipated to continue.

The Airport Business Plan needs to address airport rates and charges, and also specifically reference certain FAA sponsor assurances. The Business Plan serves as a public notice to Airport users that the Town and the Airport are abiding by and in compliance with FAA guidelines regarding airport rates and charges and agreements. In particular, FAA assurance Numbers 22, 23, and 24 state:

> Number 24: "It (i.e. the airport sponsor – Town of Buena Vista) will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection."
>
> Number 22: "It (i.e. the airport sponsor – Town of Buena Vista) will furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers."
>
> Number 22: "Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities."
>
> Number 23: "It (i.e. the airport sponsor – Town of Buena Vista) will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public."

FAA allows sponsors to negotiate different rates and charges with different users and tenants on the airport, reflecting different investments made by them, as well as the varying costs of doing business on the airport. The FAA strongly encourages airport sponsors to ensure that the rates and charges that are put in place result in the airport being financially self-supporting.

8.3.1 Recommendations

Ensure that the Airport Business Plan addresses existing and future revenue sources, rates and charges, clearly show how the Airport can be as financially self-supporting as possible, and also reference specific FAA sponsor assurances. The Business Plan should also address possible future scenarios in which aviation activity and Airport revenues increase faster than anticipated, and also a scenario in which they decrease over time.

8.4 Airport Marketing Plan

AEJ's Marketing Plan focuses on efforts that may be advanced and maintained through the efforts of current staff. The Plan presents seven recommendations, which are ranked in order of priority by perceived strength in marketing:

1. Billboards
2. Website
3. Charter Service/Broker Promotion
4. Online Directories
5. Tradeshows
6. Marketing at Eagle County Airport
7. Local Outreach - "Win a Scenic Flight Tour!"

The aforementioned recommendations were implemented in 2015 and will be followed to track budget allocations and investment returns.

8.4.1 Recommendations

- Record initial progress in terms of meeting goals after a two-year cycle, followed by an annual evaluation, to gauge returns on investment. Re-rank marketing items in order of priority and present new ideas that may benefit AEJ in its changing environment.
- Assess and adjust budget resources to align and support expenses with positive returns on investment.
- Ensure the Marketing Plan takes full advantage of marketing programs offered by aviation trade organizations such as Aircraft Operators and Pilots Association (AOPA), Experimental Aircraft Association (EAA), and National Business Aviation Association (NBAA). For example, AOPA is actively promoting the formation of flying clubs in an effort to stimulate flying, as well as a program to attract pilots that are no longer current to return to the Airport, get current again, and fly. Also, EAA has long promoted their Young Eagles program. Tie-ins with national marketing programs may offset some local expenses.

8.5 Airport Minimum Standards

Airport minimum standards are not required by the FAA, although the FAA strongly recommends that sponsors adopt minimum standards. The Town adopted minimum standards for AEJ in 2008. The standards set forth the minimum requirements that must be met by Airport tenants to conduct commercial aeronautical activities at AEJ. Minimum standards also represent a commitment by the airport sponsor to ensure that all tenants and service providers abide by the standards.

Minimum standards should include reasonable standards that satisfy sponsor expectations of engagement for any person, firm, or corporation to operate at the Airport. They are to reflect specific Airport conditions and all known factors that may impact the involved parties. Businesses that conduct commercial operations and other aeronautical activities at public-use airports are therefore held to the same basic requirements through minimum standards. This practice ensures that like

operators are given the same advantage by the sponsor and that each business may operate within the careful consideration given to the development of standards. Satisfactorily meeting the standards implies that the sponsor agrees to provide an opportunity for the party to engage in aeronautical activity at the Airport.

The FAA's objectives for adopting minimum standards are to promote safety in all Airport activities, maintain a higher quality of service for Airport users, protect the public from unlicensed and unauthorized products or services, enhance the availability of adequate services for all Airport users, and promote the orderly development of airport land[1].

FAA AC 150/5190-7, *Minimum Standards for Commercial Aeronautical Activities*, states: "When developing minimum standards, the most critical consideration is the particular nature of the aeronautical activity and operating environment at the airport. Minimum standards should be tailored to the specific aeronautical activity and the airport to which they are to be applied."

In addition, the FAA AC notes: "When the airport sponsor imposes reasonable and not unjustly discriminatory minimum standards for airport operations through the use of reasonable minimum standards, the FAA generally will not find the airport sponsor in violation of the Federal obligations. Considerations for applying those standards may include, but are not limited to, the following:

1. Apply standards to all providers of aeronautical services, from full service FBOs to single service providers;
2. Impose conditions that ensure safe and efficient operation of the airport in accordance with FAA rules, regulations, and guidance;
3. Ensure standards are reasonable, not unjustly discriminatory, attainable, uniformly applied and reasonably protect the investment of providers of aeronautical services to meet minimum standards from competition not making a similar investment;
4. Ensure standards are relevant to the activity to which they apply; and
5. Ensure standards provide the opportunity for newcomers who meet the minimum standards to offer their aeronautical services within the market demand for such services.

Note: There is no requirement for inclusion of non-aeronautical activities (such as a restaurant, parking, or car rental concession) in minimum standards since those activities are not covered under the grant assurances or covenants in conveyance of Federal property."

FAA also recommends that minimum standards be updated on a regular basis to reflect current conditions on the Airport.

AEJ aligns with FAA objectives, considers recommended factors, and serves to meet the aviation needs of the Town of Buena Vista and Chaffee County by providing aerial access for aircraft in a safe and efficient manner. These commitments are designated to preserve the public interest and

[1] *Exclusive Rights and Minimum Standards for Commercial Aeronautical Activities*, FAA AC 150/5190-5. FAA, Washington, D.C., 2002. 14 pp. www.faa.gov/airports_airtraffic/airports/resources/advisory_circulars

accommodate a variety of commercial activities like aircraft maintenance, fueling, charter, flight training, sales, rental, and like entities.

AEJ's minimum standards should be flexible to accommodate changes in the Airport environs. Criteria should also reflect care via the development of reasonable, relevant, and applicable standards for each type and class of service.

8.5.1 Recommendations

It is recommended that AEJ review the 2008 Minimum Standards with the intent of refining its content to include specific and consistent criteria. The revision should be reflective of current conditions. AEJ should establish and enforce minimum standards to promote orderly development and can be included in commercial leases. It is not advised that AEJ adopt standards to accommodate a single operator or as a generic framework for agreements.

FAA Recommended Factors for Establishing Minimum Standards

FAA AC 150/5190-5 suggests that the following factors be considered when establishing minimum standards.

- What type of airport is at issue? Is it a large airport or a small rural airport? Will that airport provide service to only small general aviation aircraft or will it serve air taxi operators as well?
- What types of aeronautical activities will be conducted on the airport? Is there a demand for the business?
- How much space will be required for each type of aeronautical activity that may prospectively operate at the airport?
- What type of documentation will business applicants be required to present as evidence of financial stability and good credit?
- To what extent will each different type of aeronautical activity be required to demonstrate to the sponsor compliance with sanitation, health, and safety codes?
- What requirements will be imposed regarding minimum insurance coverage and indemnity provisions?
- Is each minimum standard relevant to the aeronautical activity for which it was designed to apply? For example, the minimum space required for a repair station might not be relevant to an air taxi operation. Avoid unreasonable standards by selecting elements that accurately reflect the nature of the aeronautical activity in question.

8.6 Airport Rules and Regulations

AEJ maintains rules and regulations to ensure its efficient operation, and to safeguard life and property from dangerous conditions[1]. These Airport Rules and Regulations apply to all Airport employees, local staff, and organizations working at, conducting business at, leasing property from, or accessing AEJ. All persons must satisfy these provisions on the Airport in the interest of protecting health, safety, and welfare.

FAA does not require airport sponsors to adopt Airport Rules and Regulations, although it strongly supports them. Airport Rules and Regulations must be fully consistent with federal aviation regulations, FAA sponsor assurances, as well as with state and local laws and ordinances, as they may be amended. Federal and state laws preempt Airport Rules and Regulations if there is a discrepancy. As a result, when federal and state laws are amended, Airport Rules and Regulations should be reviewed and amended as needed to ensure consistency.

8.6.1 Recommendations

Airport Rules and Regulations serve an important role at AEJ. It is recommended that they be occasionally updated, particularly as pertinent federal and state laws are amended. It is recommended

[1] Town of Buena Vista, Colorado Ordinance No. 17 (Series of 2010). Article V Airport Rules and Regulations Sec. 8-93.

that editorial and organization changes be made in the subsequent revision of the Airport Rules and Regulations. Suggested areas of emphasis to strengthen this guiding document are included in **Table 8-2.**

TABLE 8-2 - RECOMMENDED CHANGES TO AEJ'S AIRPORT RULES AND REGULATIONS

Recommended Change	Benefit
Table of Contents	Ease user experience by making AEJ's Airport Rules and Regulations more accessible.
Ensure lease and rental clauses effectively meet FAA grant assurances	Support grant assurances by safeguarding against economic nondiscrimination, and protecting the Airport and its tenants as Airport conditions evolve.
Environmental Standards Section	Define expectations surrounding AEJ and its impact on in the local environment.
Security Requirements Section	Cover existing and future compliance developments relating to Airport security.
Enforcement Section	Refine existing Violations of Airport Rules and Regulations; penalty section to clearly state compliance responsibilities, Notice of Violation, and procedures.

Source: AEJ staff and Jviation

8.7 Regional Setting and Land Use

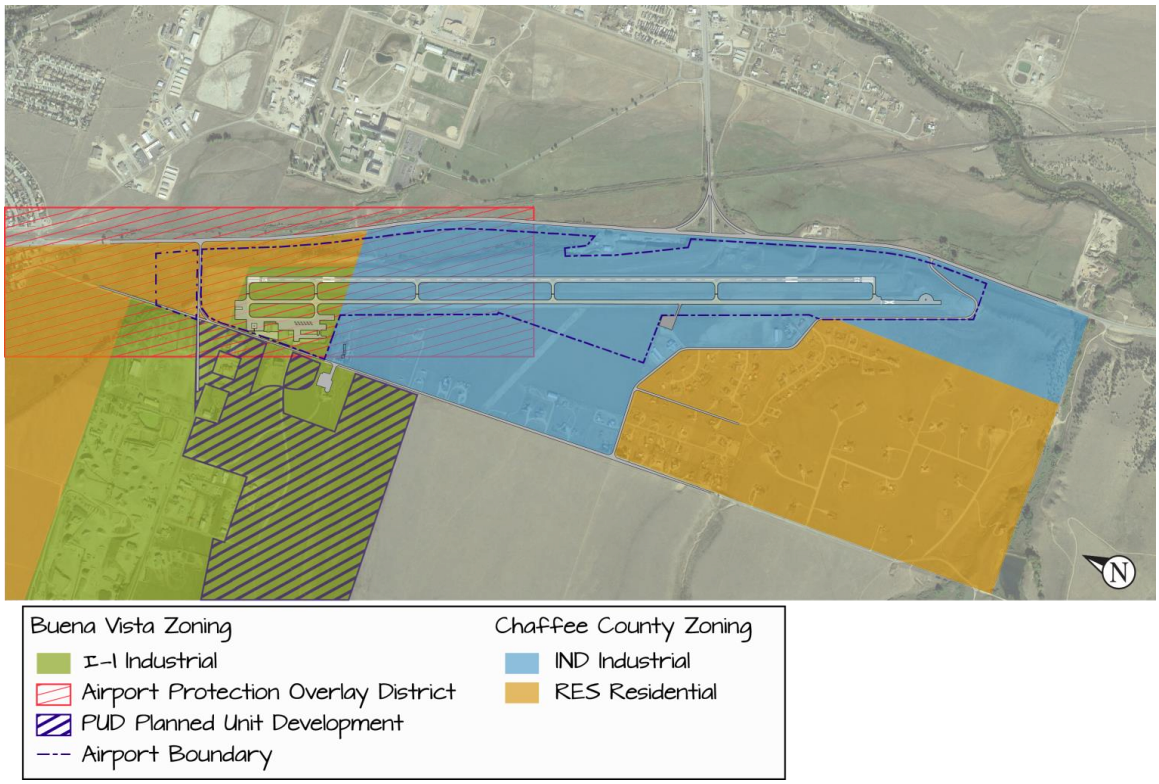
The Federal Aviation Act of 1958 preempts local regulations in the area of aircraft operations and control of navigable airspace. The preemption does not affect the responsibility of local governments to exercise their powers over land uses that abate, mitigate, and respond to incompatible land uses surrounding an airport.

It is in the mutual interest of the FAA, Airport users, the Town of Buena Vista, and Chaffee County, to ensure that the land uses on and in the vicinity of the Airport are fully compatible with aircraft and Airport operations. In general, land uses around AEJ are compatible with the Airport in relation to noise exposure levels. Although there are noise sensitive residential land uses near the Airport, as noted below, the aircraft noise contours do not extend off Airport property.

AEJ is zoned industrial by the Town of Buena Vista and Chaffee County (**Figure 8-2**). The Town controls the portion of the Airport that includes the buildings and hangars, while the County controls the remaining areas. Land use decisions by the Town and County serve to protect the valuable resource of land, and promote on- and off-airport compatibility in order for the affected economy sectors to continue to expand, provide job opportunities, and meet the needs of the public[1].

[1] Land Use Compatibility and Airports, Federal Aviation Administration, 2015

FIGURE 8-2 - ZONING



Note: Not to scale
Sources: Town of Buena Vista and Chaffee County

The portion of the Airport controlled by the Town is zoned as Industrial (I-1). The principal use of land zoned as I-1 is:

> "for the fabrication, assembly and manufacture of goods and materials in conjunction with related retail and wholesale activities. It is the intention of these regulations to encourage the development and orderly expansion of the district with such uses and in such a manner as to avoid dangerous, noxious or unsightly land uses."[1]

The portion of the Airport controlled by Chaffee County is zoned as Industrial (IND). The intent of IND is:

> "areas for industrial businesses in locations where conflicts with residential, commercial and other land uses can be minimized. It is the intent of this district to allow uses that are complementary to industrial uses. This land use district is intended to promote the development of local employment centers as well as to provide a location for uses that may be considered undesirable in other areas, such as concrete and asphalt plants, heavy equipment storage, and intensive manufacturing

[1] Colorado Code Publishing Company, Buena Vista Municipal Code, Section 16-160, 1992

processes. These land uses should have easy access to the state highways or other transportation modes."[1]

An airport protection overlay (APO) district is included in the municipal codes of the Town of Buena Vista and Chaffee County as an additional protective layer to zoning designations. The intent of the APO District adopted by the Town is:

- The APO District is a supplemental district that may overlay any standard zoning district. Any use by right or conditional use permitted in the underlying district is also permitted in an APO District so long as that use meets the special conditions required in an APO District.
- The APO District is established to minimize exposure of residential and other sensitive land uses to aircraft noise areas, to avoid danger from aircraft accidents, to reduce the possibility of such accidents, to discourage traffic congestion within the area of the district and to restrict non-compatible land uses in proximity to and within airport influence areas.
- The APO District shall be applied in the vicinity of all general aviation airports which would be significantly affected by air traffic, noise or any hazard related to the establishment, operation or maintenance of an airport.
- The degree of protection provided by this overlay district is considered reasonable and prudent for land use regulatory purposes and is based on established parameters of control. Establishment of this district, however, does not imply that areas outside of the district will be totally free from airport and aircraft related hazards, or that all hazards within the APO District will be completely mitigated. Establishment of this district shall not create a liability on the part of or create or cause action against the Town or any officer, employee or contractor thereof for any damages that may result directly or indirectly from reliance on the provisions contained herein.[2]

Intent of the Airport Protection Overlay District (APO) adopted by the County is:

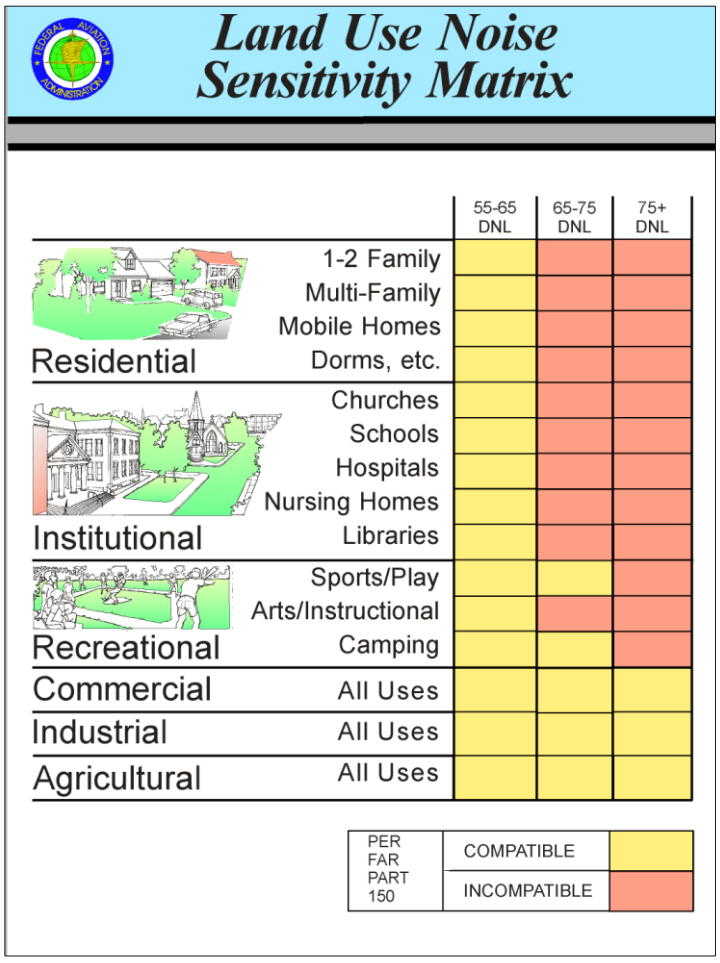
- To support and encourage the continued operation and vitality of public use airports and heliports.
- To reduce potential safety hazards for persons living, working or recreating near public use airports and heliports.
- To minimize environmental impacts resulting from the operation of public use airports and heliports.[3]

To assess land compatibility, KB Environmental developed airport-related noise contours by using the FAA-approved computer simulation model, the Aviation Environmental Design Tool (AEDT), Version 2b. The AEDT produces Day-Night Average Sound Level (DNL) contours (i.e., lines of equal noise exposure).

[1] Chaffee County Commissioners, Chaffee County Land Use Code, Section 2.2.7, 2014
[2] Colorado Code Publishing Company, Buena Vista Municipal Code, Section 16-168, 1992
[3] Chaffee County Commissioners, Chaffee County Land Use Code, Section 2.6.3, 2014

A DNL is a 24-hour (average day), time-weighted sound level that is expressed in A-weighted decibels. A-weighted decibels express how loud a sound is to the human ear. The FAA, and other federal agencies including Housing & Urban Development (HUD), among others, use DNL as the primary means of determining land compatibility because the DNL noise contour correlates well with attitudinal surveys regarding noise; the noise contour increases with the duration of noise events; and, the noise contours account for an increased sensitivity to noise at night by increasing each noise event that occurs during nighttime hours (10 pm to 7 am) by a factor of 10. The FAA and other federal agencies define compatible land use in relation to the 65 DNL contour. Certain land uses within the 65 DNL and higher noise contours, such as residential, institutional, outdoor recreational, etc. are not considered to be compatible with aircraft operations (see **Figure 8-3**).

FIGURE 8-3 – LAND USE NOISE SENSITIVITY MATRIX

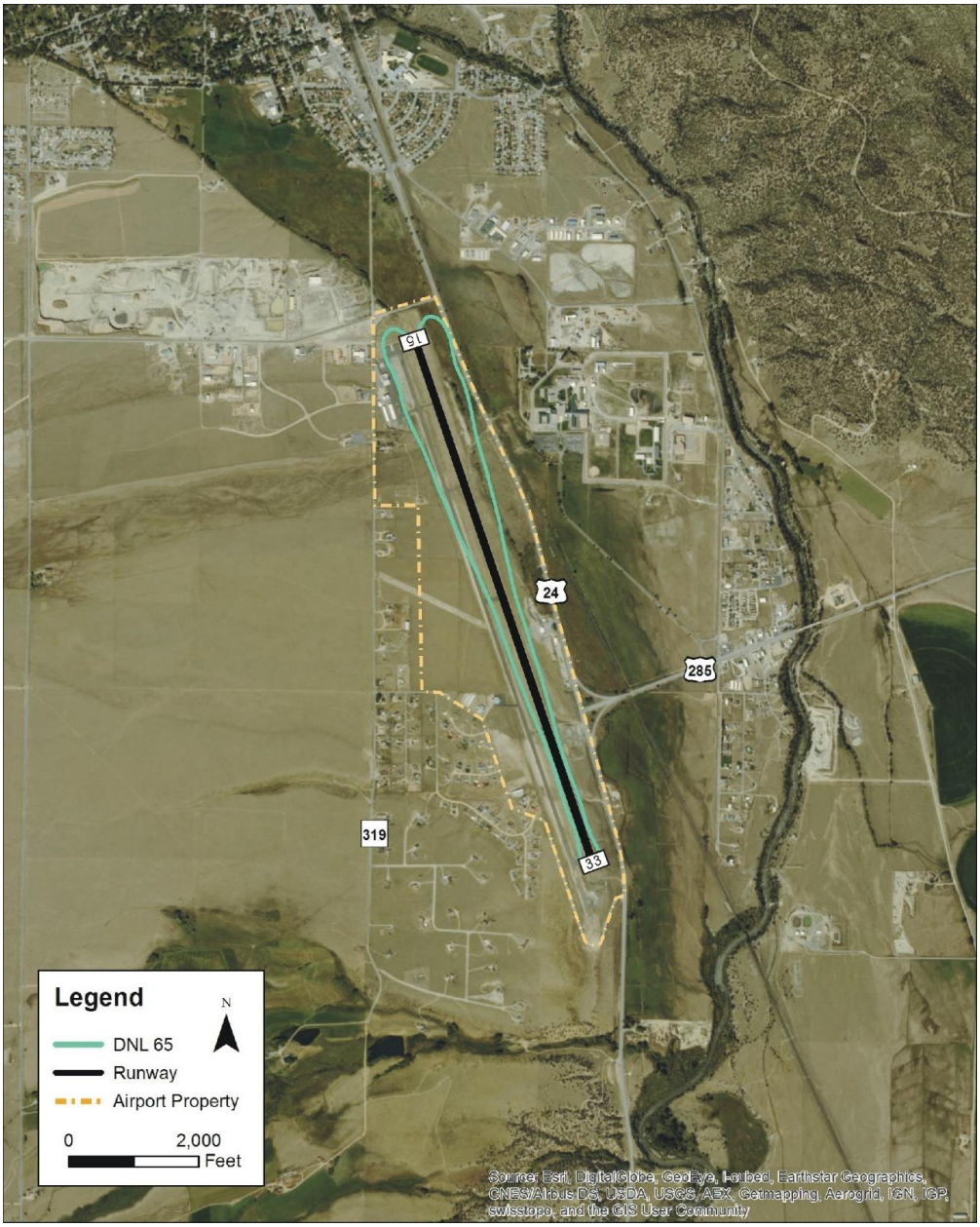


Source: FAA Land Use Compatibility at Airports
https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/planning_toolkit/media/III.B.pdf

The AEDT model was run to assess the noise impacts of aircraft operations at AEJ in 2015, as well as aircraft operations projected in 2035. The results of the computer model show that the 65 DNL noise contour, based on aircraft operations in 2015, do not extend off of the Runway. Based on aircraft operations projected for 2035, the 65 DNL noise contour does not extend off Airport

property (**Figure 8-4**). As a result, the residential land uses in the vicinity of AEJ are considered to be compatible within FAA guidelines.

FIGURE 8-4 - DNL NOISE CONTOUR 2035



Source: KB Environmental Services
NOTE: Given the minimal size of the 70 and 75 DNL contours, they are not shown graphically on the figure.

8.7.1 Recommendations

It is recommended that the Town and County ensure that noise-sensitive land uses are not allowed to develop adjacent to or any closer to AEJ than presently exist. In addition, communication and cooperation between the Airport users and the community should remain the focus of local efforts to

establish common compatible land use goals. Such goals should align with the necessary development of compatible land use, airport planning, and governing jurisdictions of adjacent land.

Establishment of realistic future Airport development needs are supported in the Airport Master Plan through documentation and analyses that speak to the reasonableness of future Airport development. Communicating AEJ's established needs and surrounding potential high risk areas should involve City and County planning efforts. Increased knowledge of future Airport development plans allows for concerns from adjacent jurisdictions and the public to set mutually beneficial goals in the best interest of the Town, County, and Airport users.

APPENDIX 8-A

FAA SPONSOR ASSURANCES

FAA
Airports

ASSURANCES

Airport Sponsors

A. General.

1. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.
2. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.
3. Upon acceptance of this grant offer by the sponsor, these assurances are incorporated in and become part of this grant agreement.

B. Duration and Applicability.

1. **Airport development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.**

   The terms, conditions and assurances of this grant agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. **Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.**

   The preceding paragraph 1 also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. **Airport Planning Undertaken by a Sponsor.**

Unless otherwise specified in this grant agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 25, 30, 32, 33, and 34 in Section C apply to planning projects. The terms, conditions, and assurances of this grant agreement shall remain in full force and effect during the life of the project; there shall be no limit on the duration of the assurances regarding Airport Revenue so long as the airport is used as an airport.

C. Sponsor Certification.

The sponsor hereby assures and certifies, with respect to this grant that:

1. **General Federal Requirements.**

It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance and use of Federal funds for this project including but not limited to the following:

Federal Legislation

a. Title 49, U.S.C., subtitle VII, as amended.
b. Davis-Bacon Act - 40 U.S.C. 276(a), et seq.[1]
c. Federal Fair Labor Standards Act - 29 U.S.C. 201, et seq.
d. Hatch Act – 5 U.S.C. 1501, et seq.[2]
e. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 Title 42 U.S.C. 4601, et seq.[1 2]
f. National Historic Preservation Act of 1966 - Section 106 - 16 U.S.C. 470(f).[1]
g. Archeological and Historic Preservation Act of 1974 - 16 U.S.C. 469 through 469c.[1]
h. Native Americans Grave Repatriation Act - 25 U.S.C. Section 3001, et seq.
i. Clean Air Act, P.L. 90-148, as amended.
j. Coastal Zone Management Act, P.L. 93-205, as amended.
k. Flood Disaster Protection Act of 1973 - Section 102(a) - 42 U.S.C. 4012a.[1]
l. Title 49, U.S.C., Section 303, (formerly known as Section 4(f))
m. Rehabilitation Act of 1973 - 29 U.S.C. 794.
n. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
o. Americans with Disabilities Act of 1990, as amended, (42 U.S.C. § 12101 et seq.), prohibits discrimination on the basis of disability).
p. Age Discrimination Act of 1975 - 42 U.S.C. 6101, et seq.
q. American Indian Religious Freedom Act, P.L. 95-341, as amended.
r. Architectural Barriers Act of 1968 -42 U.S.C. 4151, et seq.[1]
s. Power plant and Industrial Fuel Use Act of 1978 - Section 403- 2 U.S.C. 8373.[1]
t. Contract Work Hours and Safety Standards Act - 40 U.S.C. 327, et seq.[1]
u. Copeland Anti-kickback Act - 18 U.S.C. 874.1
v. National Environmental Policy Act of 1969 - 42 U.S.C. 4321, et seq.[1]
w. Wild and Scenic Rivers Act, P.L. 90-542, as amended.
x. Single Audit Act of 1984 - 31 U.S.C. 7501, et seq.[2]
y. Drug-Free Workplace Act of 1988 - 41 U.S.C. 702 through 706.

z. The Federal Funding Accountability and Transparency Act of 2006, as amended (Pub. L. 109-282, as amended by section 6202 of Pub. L. 110-252).

Executive Orders

a. Executive Order 11246 - Equal Employment Opportunity[1]
b. Executive Order 11990 - Protection of Wetlands
c. Executive Order 11998 – Flood Plain Management
d. Executive Order 12372 - Intergovernmental Review of Federal Programs
e. Executive Order 12699 - Seismic Safety of Federal and Federally Assisted New Building Construction[1]
f. Executive Order 12898 - Environmental Justice

Federal Regulations

a. 2 CFR Part 180 - OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement).
b. 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. [OMB Circular A-87 Cost Principles Applicable to Grants and Contracts with State and Local Governments, and OMB Circular A-133 - Audits of States, Local Governments, and Non-Profit Organizations].[4, 5, 6]
c. 2 CFR Part 1200 – Nonprocurement Suspension and Debarment
d. 14 CFR Part 13 - Investigative and Enforcement Procedures14 CFR Part 16 - Rules of Practice For Federally Assisted Airport Enforcement Proceedings.
e. 14 CFR Part 150 - Airport noise compatibility planning.
f. 28 CFR Part 35- Discrimination on the Basis of Disability in State and Local Government Services.
g. 28 CFR § 50.3 - U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964.
h. 29 CFR Part 1 - Procedures for predetermination of wage rates.[1]
i. 29 CFR Part 3 - Contractors and subcontractors on public building or public work financed in whole or part by loans or grants from the United States.[1]
j. 29 CFR Part 5 - Labor standards provisions applicable to contracts covering federally financed and assisted construction (also labor standards provisions applicable to non-construction contracts subject to the Contract Work Hours and Safety Standards Act).[1]
k. 41 CFR Part 60 - Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Federal and federally assisted contracting requirements).[1]
l. 49 CFR Part 18 - Uniform administrative requirements for grants and cooperative agreements to state and local governments.[3]
m. 49 CFR Part 20 - New restrictions on lobbying.
n. 49 CFR Part 21 – Nondiscrimination in federally-assisted programs of the Department of Transportation - effectuation of Title VI of the Civil Rights Act of 1964.
o. 49 CFR Part 23 - Participation by Disadvantage Business Enterprise in Airport Concessions.

p. 49 CFR Part 24 – Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs.[1] [2]
q. 49 CFR Part 26 – Participation by Disadvantaged Business Enterprises in Department of Transportation Programs.
r. 49 CFR Part 27 – Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance.[1]
s. 49 CFR Part 28 – Enforcement of Nondiscrimination on the Basis of Handicap in Programs or Activities conducted by the Department of Transportation.
t. 49 CFR Part 30 - Denial of public works contracts to suppliers of goods and services of countries that deny procurement market access to U.S. contractors.
u. 49 CFR Part 32 – Governmentwide Requirements for Drug-Free Workplace (Financial Assistance)
v. 49 CFR Part 37 – Transportation Services for Individuals with Disabilities (ADA).
w. 49 CFR Part 41 - Seismic safety of Federal and federally assisted or regulated new building construction.

Specific Assurances

Specific assurances required to be included in grant agreements by any of the above laws, regulations or circulars are incorporated by reference in this grant agreement.

Footnotes to Assurance C.1.

[1] These laws do not apply to airport planning sponsors.

[2] These laws do not apply to private sponsors.

[3] 49 CFR Part 18 and 2 CFR Part 200 contain requirements for State and Local Governments receiving Federal assistance. Any requirement levied upon State and Local Governments by this regulation and circular shall also be applicable to private sponsors receiving Federal assistance under Title 49, United States Code.

[4] On December 26, 2013 at 78 FR 78590, the Office of Management and Budget (OMB) issued the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR Part 200. 2 CFR Part 200 replaces and combines the former Uniform Administrative Requirements for Grants (OMB Circular A-102 and Circular A-110 or 2 CFR Part 215 or Circular) as well as the Cost Principles (Circulars A-21 or 2 CFR part 220; Circular A-87 or 2 CFR part 225; and A-122, 2 CFR part 230). Additionally it replaces Circular A-133 guidance on the Single Annual Audit. In accordance with 2 CFR section 200.110, the standards set forth in Part 200 which affect administration of Federal awards issued by Federal agencies become effective once implemented by Federal agencies or when any future amendment to this Part becomes final. Federal agencies, including the Department of Transportation, must implement the policies and procedures applicable to Federal awards by promulgating a regulation to be effective by December 26, 2014 unless different provisions are required by statute or approved by OMB.

[5] Cost principles established in 2 CFR part 200 subpart E must be used as guidelines for determining the eligibility of specific types of expenses.

[6] Audit requirements established in 2 CFR part 200 subpart F are the guidelines for audits.

2. **Responsibility and Authority of the Sponsor.**

   a. Public Agency Sponsor:

   It has legal authority to apply for this grant, and to finance and carry out the proposed project; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

   b. Private Sponsor:

   It has legal authority to apply for this grant and to finance and carry out the proposed project and comply with all terms, conditions, and assurances of this grant agreement. It shall designate an official representative and shall in writing direct and authorize that person to file this application, including all understandings and assurances contained therein; to act in connection with this application; and to provide such additional information as may be required.

3. **Sponsor Fund Availability.**

   It has sufficient funds available for that portion of the project costs which are not to be paid by the United States. It has sufficient funds available to assure operation and maintenance of items funded under this grant agreement which it will own or control.

4. **Good Title.**

   a. It, a public agency or the Federal government, holds good title, satisfactory to the Secretary, to the landing area of the airport or site thereof, or will give assurance satisfactory to the Secretary that good title will be acquired.

   b. For noise compatibility program projects to be carried out on the property of the sponsor, it holds good title satisfactory to the Secretary to that portion of the property upon which Federal funds will be expended or will give assurance to the Secretary that good title will be obtained.

5. **Preserving Rights and Powers.**

   a. It will not take or permit any action which would operate to deprive it of any of the rights and powers necessary to perform any or all of the terms, conditions, and assurances in this grant agreement without the written approval of the Secretary, and will act promptly to acquire, extinguish or modify any outstanding rights or claims of right of others which would interfere with such performance by the sponsor. This shall be done in a manner acceptable to the Secretary.

b. It will not sell, lease, encumber, or otherwise transfer or dispose of any part of its title or other interests in the property shown on Exhibit A to this application or, for a noise compatibility program project, that portion of the property upon which Federal funds have been expended, for the duration of the terms, conditions, and assurances in this grant agreement without approval by the Secretary. If the transferee is found by the Secretary to be eligible under Title 49, United States Code, to assume the obligations of this grant agreement and to have the power, authority, and financial resources to carry out all such obligations, the sponsor shall insert in the contract or document transferring or disposing of the sponsor's interest, and make binding upon the transferee all of the terms, conditions, and assurances contained in this grant agreement.

c. For all noise compatibility program projects which are to be carried out by another unit of local government or are on property owned by a unit of local government other than the sponsor, it will enter into an agreement with that government. Except as otherwise specified by the Secretary, that agreement shall obligate that government to the same terms, conditions, and assurances that would be applicable to it if it applied directly to the FAA for a grant to undertake the noise compatibility program project. That agreement and changes thereto must be satisfactory to the Secretary. It will take steps to enforce this agreement against the local government if there is substantial non-compliance with the terms of the agreement.

d. For noise compatibility program projects to be carried out on privately owned property, it will enter into an agreement with the owner of that property which includes provisions specified by the Secretary. It will take steps to enforce this agreement against the property owner whenever there is substantial non-compliance with the terms of the agreement.

e. If the sponsor is a private sponsor, it will take steps satisfactory to the Secretary to ensure that the airport will continue to function as a public-use airport in accordance with these assurances for the duration of these assurances.

f. If an arrangement is made for management and operation of the airport by any agency or person other than the sponsor or an employee of the sponsor, the sponsor will reserve sufficient rights and authority to insure that the airport will be operated and maintained in accordance Title 49, United States Code, the regulations and the terms, conditions and assurances in this grant agreement and shall insure that such arrangement also requires compliance therewith.

g. Sponsors of commercial service airports will not permit or enter into any arrangement that results in permission for the owner or tenant of a property used as a residence, or zoned for residential use, to taxi an aircraft between that property and any location on airport. Sponsors of general aviation airports entering into any arrangement that results in permission for the owner of residential real property adjacent to or near the airport must comply with the requirements of Sec. 136 of Public Law 112-95 and the sponsor assurances.

6. **Consistency with Local Plans.**

   The project is reasonably consistent with plans (existing at the time of submission of this application) of public agencies that are authorized by the State in which the project is located to plan for the development of the area surrounding the airport.

7. **Consideration of Local Interest.**

   It has given fair consideration to the interest of communities in or near where the project may be located.

8. **Consultation with Users.**

   In making a decision to undertake any airport development project under Title 49, United States Code, it has undertaken reasonable consultations with affected parties using the airport at which project is proposed.

9. **Public Hearings.**

   In projects involving the location of an airport, an airport runway, or a major runway extension, it has afforded the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary, submit a copy of the transcript of such hearings to the Secretary. Further, for such projects, it has on its management board either voting representation from the communities where the project is located or has advised the communities that they have the right to petition the Secretary concerning a proposed project.

10. **Metropolitan Planning Organization.**

    In projects involving the location of an airport, an airport runway, or a major runway extension at a medium or large hub airport, the sponsor has made available to and has provided upon request to the metropolitan planning organization in the area in which the airport is located, if any, a copy of the proposed amendment to the airport layout plan to depict the project and a copy of any airport master plan in which the project is described or depicted.

11. **Pavement Preventive Maintenance.**

    With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, it assures or certifies that it has implemented an effective airport pavement maintenance-management program and it assures that it will use such program for the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the airport. It will provide such reports on pavement condition and pavement management programs as the Secretary determines may be useful.

12. **Terminal Development Prerequisites.**

    For projects which include terminal development at a public use airport, as defined in Title 49, it has, on the date of submittal of the project grant application, all the safety equipment required for certification of such airport under section 44706 of Title 49, United States Code, and all the security equipment required by rule or regulation, and

has provided for access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft.

13. **Accounting System, Audit, and Record Keeping Requirements.**

    a. It shall keep all project accounts and records which fully disclose the amount and disposition by the recipient of the proceeds of this grant, the total cost of the project in connection with which this grant is given or used, and the amount or nature of that portion of the cost of the project supplied by other sources, and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.

    b. It shall make available to the Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to this grant. The Secretary may require that an appropriate audit be conducted by a recipient. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to the project in connection with which this grant was given or used, it shall file a certified copy of such audit with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.

14. **Minimum Wage Rates.**

    It shall include, in all contracts in excess of $2,000 for work on any projects funded under this grant agreement which involve labor, provisions establishing minimum rates of wages, to be predetermined by the Secretary of Labor, in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a-276a-5), which contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in proposals or bids for the work.

15. **Veteran's Preference.**

    It shall include in all contracts for work on any project funded under this grant agreement which involve labor, such provisions as are necessary to insure that, in the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in Section 47112 of Title 49, United States Code. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

16. **Conformity to Plans and Specifications.**

    It will execute the project subject to plans, specifications, and schedules approved by the Secretary. Such plans, specifications, and schedules shall be submitted to the Secretary prior to commencement of site preparation, construction, or other performance under this grant agreement, and, upon approval of the Secretary, shall be incorporated into this grant agreement. Any modification to the approved plans,

specifications, and schedules shall also be subject to approval of the Secretary, and incorporated into this grant agreement.

17. **Construction Inspection and Approval.**

    It will provide and maintain competent technical supervision at the construction site throughout the project to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary for the project. It shall subject the construction work on any project contained in an approved project application to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary. Such regulations and procedures shall require such cost and progress reporting by the sponsor or sponsors of such project as the Secretary shall deem necessary.

18. **Planning Projects.**

    In carrying out planning projects:

    a. It will execute the project in accordance with the approved program narrative contained in the project application or with the modifications similarly approved.

    b. It will furnish the Secretary with such periodic reports as required pertaining to the planning project and planning work activities.

    c. It will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.

    d. It will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.

    e. It will give the Secretary unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.

    f. It will grant the Secretary the right to disapprove the sponsor's employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.

    g. It will grant the Secretary the right to disapprove the use of the sponsor's employees to do all or any part of the project.

    h. It understands and agrees that the Secretary's approval of this project grant or the Secretary's approval of any planning material developed as part of this grant does not constitute or imply any assurance or commitment on the part of the Secretary to approve any pending or future application for a Federal airport grant.

19. **Operation and Maintenance.**

    a. The airport and all facilities which are necessary to serve the aeronautical users of the airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal,

state and local agencies for maintenance and operation. It will not cause or permit any activity or action thereon which would interfere with its use for airport purposes. It will suitably operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary. In furtherance of this assurance, the sponsor will have in effect arrangements for-

1) Operating the airport's aeronautical facilities whenever required;
2) Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and
3) Promptly notifying airmen of any condition affecting aeronautical use of the airport. Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. **Hazard Removal and Mitigation.**

It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. **Compatible Land Use.**

It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. **Economic Nondiscrimination.**

a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.

b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or

to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to-

1) furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and

2) charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.

c. Each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities.

d. Each air carrier using such airport shall have the right to service itself or to use any fixed-based operator that is authorized or permitted by the airport to serve any air carrier at such airport.

e. Each air carrier using such airport (whether as a tenant, non-tenant, or subtenant of another air carrier tenant) shall be subject to such nondiscriminatory and substantially comparable rules, regulations, conditions, rates, fees, rentals, and other charges with respect to facilities directly and substantially related to providing air transportation as are applicable to all such air carriers which make similar use of such airport and utilize similar facilities, subject to reasonable classifications such as tenants or non-tenants and signatory carriers and non-signatory carriers. Classification or status as tenant or signatory shall not be unreasonably withheld by any airport provided an air carrier assumes obligations substantially similar to those already imposed on air carriers in such classification or status.

f. It will not exercise or grant any right or privilege which operates to prevent any person, firm, or corporation operating aircraft on the airport from performing any services on its own aircraft with its own employees [including, but not limited to maintenance, repair, and fueling] that it may choose to perform.

g. In the event the sponsor itself exercises any of the rights and privileges referred to in this assurance, the services involved will be provided on the same conditions as would apply to the furnishing of such services by commercial aeronautical service providers authorized by the sponsor under these provisions.

h. The sponsor may establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.

i. The sponsor may prohibit or limit any given type, kind or class of aeronautical use of the airport if such action is necessary for the safe operation of the airport or necessary to serve the civil aviation needs of the public.

23. **Exclusive Rights.**

It will permit no exclusive right for the use of the airport by any person providing, or intending to provide, aeronautical services to the public. For purposes of this paragraph, the providing of the services at an airport by a single fixed-based operator shall not be construed as an exclusive right if both of the following apply:

a. It would be unreasonably costly, burdensome, or impractical for more than one fixed-based operator to provide such services, and

b. If allowing more than one fixed-based operator to provide such services would require the reduction of space leased pursuant to an existing agreement between such single fixed-based operator and such airport. It further agrees that it will not, either directly or indirectly, grant or permit any person, firm, or corporation, the exclusive right at the airport to conduct any aeronautical activities, including, but not limited to charter flights, pilot training, aircraft rental and sightseeing, aerial photography, crop dusting, aerial advertising and surveying, air carrier operations, aircraft sales and services, sale of aviation petroleum products whether or not conducted in conjunction with other aeronautical activity, repair and maintenance of aircraft, sale of aircraft parts, and any other activities which because of their direct relationship to the operation of aircraft can be regarded as an aeronautical activity, and that it will terminate any exclusive right to conduct an aeronautical activity now existing at such an airport before the grant of any assistance under Title 49, United States Code.

24. **Fee and Rental Structure.**

It will maintain a fee and rental structure for the facilities and services at the airport which will make the airport as self-sustaining as possible under the circumstances existing at the particular airport, taking into account such factors as the volume of traffic and economy of collection. No part of the Federal share of an airport development, airport planning or noise compatibility project for which a grant is made under Title 49, United States Code, the Airport and Airway Improvement Act of 1982, the Federal Airport Act or the Airport and Airway Development Act of 1970 shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. **Airport Revenues.**

a. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it for the capital or operating costs of the airport; the local airport system; or other local facilities which are owned or operated by the owner or operator of the airport and which are directly and substantially related to the actual air transportation of passengers or property; or for noise mitigation purposes on or off the airport. The following exceptions apply to this paragraph:

1) If covenants or assurances in debt obligations issued before September 3, 1982, by the owner or operator of the airport, or provisions enacted before September 3, 1982, in governing statutes controlling the owner or operator's financing, provide for the use of the revenues from any of the airport owner or

operator's facilities, including the airport, to support not only the airport but also the airport owner or operator's general debt obligations or other facilities, then this limitation on the use of all revenues generated by the airport (and, in the case of a public airport, local taxes on aviation fuel) shall not apply.

2) If the Secretary approves the sale of a privately owned airport to a public sponsor and provides funding for any portion of the public sponsor's acquisition of land, this limitation on the use of all revenues generated by the sale shall not apply to certain proceeds from the sale. This is conditioned on repayment to the Secretary by the private owner of an amount equal to the remaining unamortized portion (amortized over a 20-year period) of any airport improvement grant made to the private owner for any purpose other than land acquisition on or after October 1, 1996, plus an amount equal to the federal share of the current fair market value of any land acquired with an airport improvement grant made to that airport on or after October 1, 1996.

3) Certain revenue derived from or generated by mineral extraction, production, lease, or other means at a general aviation airport (as defined at Section 47102 of title 49 United States Code), if the FAA determines the airport sponsor meets the requirements set forth in Sec. 813 of Public Law 112-95.

b. As part of the annual audit required under the Single Audit Act of 1984, the sponsor will direct that the audit will review, and the resulting audit report will provide an opinion concerning, the use of airport revenue and taxes in paragraph (a), and indicating whether funds paid or transferred to the owner or operator are paid or transferred in a manner consistent with Title 49, United States Code and any other applicable provision of law, including any regulation promulgated by the Secretary or Administrator.

c. Any civil penalties or other sanctions will be imposed for violation of this assurance in accordance with the provisions of Section 47107 of Title 49, United States Code.

26. **Reports and Inspections.**

It will:

a. submit to the Secretary such annual or special financial and operations reports as the Secretary may reasonably request and make such reports available to the public; make available to the public at reasonable times and places a report of the airport budget in a format prescribed by the Secretary;

b. for airport development projects, make the airport and all airport records and documents affecting the airport, including deeds, leases, operation and use agreements, regulations and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request;

c. for noise compatibility program projects, make records and documents relating to the project and continued compliance with the terms, conditions, and assurances of this grant agreement including deeds, leases, agreements, regulations, and other instruments, available for inspection by any duly authorized agent of the Secretary upon reasonable request; and

d. in a format and time prescribed by the Secretary, provide to the Secretary and make available to the public following each of its fiscal years, an annual report listing in detail:

1) all amounts paid by the airport to any other unit of government and the purposes for which each such payment was made; and

2) all services and property provided by the airport to other units of government and the amount of compensation received for provision of each such service and property.

27. **Use by Government Aircraft.**

It will make available all of the facilities of the airport developed with Federal financial assistance and all those usable for landing and takeoff of aircraft to the United States for use by Government aircraft in common with other aircraft at all times without charge, except, if the use by Government aircraft is substantial, charge may be made for a reasonable share, proportional to such use, for the cost of operating and maintaining the facilities used. Unless otherwise determined by the Secretary, or otherwise agreed to by the sponsor and the using agency, substantial use of an airport by Government aircraft will be considered to exist when operations of such aircraft are in excess of those which, in the opinion of the Secretary, would unduly interfere with use of the landing areas by other authorized aircraft, or during any calendar month that –

a. Five (5) or more Government aircraft are regularly based at the airport or on land adjacent thereto; or

b. The total number of movements (counting each landing as a movement) of Government aircraft is 300 or more, or the gross accumulative weight of Government aircraft using the airport (the total movement of Government aircraft multiplied by gross weights of such aircraft) is in excess of five million pounds.

28. **Land for Federal Facilities.**

It will furnish without cost to the Federal Government for use in connection with any air traffic control or air navigation activities, or weather-reporting and communication activities related to air traffic control, any areas of land or water, or estate therein, or rights in buildings of the sponsor as the Secretary considers necessary or desirable for construction, operation, and maintenance at Federal expense of space or facilities for such purposes. Such areas or any portion thereof will be made available as provided herein within four months after receipt of a written request from the Secretary.

29. **Airport Layout Plan.**

a. It will keep up to date at all times an airport layout plan of the airport showing

1) boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto;

2) the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and

roads), including all proposed extensions and reductions of existing airport facilities;

3) the location of all existing and proposed nonaviation areas and of all existing improvements thereon; and

4) all proposed and existing access points used to taxi aircraft across the airport's property boundary. Such airport layout plans and each amendment, revision, or modification thereof, shall be subject to the approval of the Secretary which approval shall be evidenced by the signature of a duly authorized representative of the Secretary on the face of the airport layout plan. The sponsor will not make or permit any changes or alterations in the airport or any of its facilities which are not in conformity with the airport layout plan as approved by the Secretary and which might, in the opinion of the Secretary, adversely affect the safety, utility or efficiency of the airport.

b. If a change or alteration in the airport or the facilities is made which the Secretary determines adversely affects the safety, utility, or efficiency of any federally owned, leased, or funded property on or off the airport and which is not in conformity with the airport layout plan as approved by the Secretary, the owner or operator will, if requested, by the Secretary (1) eliminate such adverse effect in a manner approved by the Secretary; or (2) bear all costs of relocating such property (or replacement thereof) to a site acceptable to the Secretary and all costs of restoring such property (or replacement thereof) to the level of safety, utility, efficiency, and cost of operation existing before the unapproved change in the airport or its facilities except in the case of a relocation or replacement of an existing airport facility due to a change in the Secretary's design standards beyond the control of the airport sponsor.

30. **Civil Rights.**

It will promptly take any measures necessary to ensure that no person in the United States shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any activity conducted with, or benefiting from, funds received from this grant.

a. Using the definitions of activity, facility and program as found and defined in §§ 21.23 (b) and 21.23 (e) of 49 CFR § 21, the sponsor will facilitate all programs, operate all facilities, or conduct all programs in compliance with all non-discrimination requirements imposed by, or pursuant to these assurances.

b. Applicability

1) Programs and Activities. If the sponsor has received a grant (or other federal assistance) for any of the sponsor's program or activities, these requirements extend to all of the sponsor's programs and activities.

2) Facilities. Where it receives a grant or other federal financial assistance to construct, expand, renovate, remodel, alter or acquire a facility, or part of a facility, the assurance extends to the entire facility and facilities operated in connection therewith.

3) Real Property. Where the sponsor receives a grant or other Federal financial assistance in the form of, or for the acquisition of real property or an interest in real property, the assurance will extend to rights to space on, over, or under such property.

c. Duration.

The sponsor agrees that it is obligated to this assurance for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the assurance obligates the sponsor, or any transferee for the longer of the following periods:

1) So long as the airport is used as an airport, or for another purpose involving the provision of similar services or benefits; or

2) So long as the sponsor retains ownership or possession of the property.

d. Required Solicitation Language. It will include the following notification in all solicitations for bids, Requests For Proposals for work, or material under this grant agreement and in all proposals for agreements, including airport concessions, regardless of funding source:

"The **(Name of Sponsor)**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises and airport concession disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."

e. Required Contract Provisions.

1) It will insert the non-discrimination contract clauses requiring compliance with the acts and regulations relative to non-discrimination in Federally-assisted programs of the DOT, and incorporating the acts and regulations into the contracts by reference in every contract or agreement subject to the non-discrimination in Federally-assisted programs of the DOT acts and regulations.

2) It will include a list of the pertinent non-discrimination authorities in every contract that is subject to the non-discrimination acts and regulations.

3) It will insert non-discrimination contract clauses as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a sponsor.

4) It will insert non-discrimination contract clauses prohibiting discrimination on the basis of race, color, national origin, creed, sex, age, or handicap as a

covenant running with the land, in any future deeds, leases, license, permits, or similar instruments entered into by the sponsor with other parties:

a) For the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and

b) For the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.

f. It will provide for such methods of administration for the program as are found by the Secretary to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the acts, the regulations, and this assurance.

g. It agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the acts, the regulations, and this assurance.

31. **Disposal of Land.**

a. For land purchased under a grant for airport noise compatibility purposes, including land serving as a noise buffer, it will dispose of the land, when the land is no longer needed for such purposes, at fair market value, at the earliest practicable time. That portion of the proceeds of such disposition which is proportionate to the United States' share of acquisition of such land will be, at the discretion of the Secretary, (1) reinvested in another project at the airport, or (2) transferred to another eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order, (1) reinvestment in an approved noise compatibility project, (2) reinvestment in an approved project that is eligible for grant funding under Section 47117(e) of title 49 United States Code, (3) reinvestment in an approved airport development project that is eligible for grant funding under Sections 47114, 47115, or 47117 of title 49 United States Code, (4) transferred to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport, and (5) paid to the Secretary for deposit in the Airport and Airway Trust Fund. If land acquired under a grant for noise compatibility purposes is leased at fair market value and consistent with noise buffering purposes, the lease will not be considered a disposal of the land. Revenues derived from such a lease may be used for an approved airport development project that would otherwise be eligible for grant funding or any permitted use of airport revenue.

b. For land purchased under a grant for airport development purposes (other than noise compatibility), it will, when the land is no longer needed for airport purposes, dispose of such land at fair market value or make available to the Secretary an amount equal to the United States' proportionate share of the fair market value of the land. That portion of the proceeds of such disposition which is proportionate to the United States' share of the cost of acquisition of such land will, (1) upon application to the Secretary, be reinvested or transferred to another

eligible airport as prescribed by the Secretary. The Secretary shall give preference to the following, in descending order: (1) reinvestment in an approved noise compatibility project, (2) reinvestment in an approved project that is eligible for grant funding under Section 47117(e) of title 49 United States Code, (3) reinvestment in an approved airport development project that is eligible for grant funding under Sections 47114, 47115, or 47117 of title 49 United States Code, (4) transferred to an eligible sponsor of another public airport to be reinvested in an approved noise compatibility project at that airport, and (5) paid to the Secretary for deposit in the Airport and Airway Trust Fund.

c. Land shall be considered to be needed for airport purposes under this assurance if (1) it may be needed for aeronautical purposes (including runway protection zones) or serve as noise buffer land, and (2) the revenue from interim uses of such land contributes to the financial self-sufficiency of the airport. Further, land purchased with a grant received by an airport operator or owner before December 31, 1987, will be considered to be needed for airport purposes if the Secretary or Federal agency making such grant before December 31, 1987, was notified by the operator or owner of the uses of such land, did not object to such use, and the land continues to be used for that purpose, such use having commenced no later than December 15, 1989.

d. Disposition of such land under (a) (b) or (c) will be subject to the retention or reservation of any interest or right therein necessary to ensure that such land will only be used for purposes which are compatible with noise levels associated with operation of the airport.

32. **Engineering and Design Services.**

It will award each contract, or sub-contract for program management, construction management, planning studies, feasibility studies, architectural services, preliminary engineering, design, engineering, surveying, mapping or related services with respect to the project in the same manner as a contract for architectural and engineering services is negotiated under Title IX of the Federal Property and Administrative Services Act of 1949 or an equivalent qualifications-based requirement prescribed for or by the sponsor of the airport.

33. **Foreign Market Restrictions.**

It will not allow funds provided under this grant to be used to fund any project which uses any product or service of a foreign country during the period in which such foreign country is listed by the United States Trade Representative as denying fair and equitable market opportunities for products and suppliers of the United States in procurement and construction.

34. **Policies, Standards, and Specifications.**

It will carry out the project in accordance with policies, standards, and specifications approved by the Secretary including but not limited to the advisory circulars listed in the Current FAA Advisory Circulars for AIP projects, dated _____ (the latest approved version as of this grant offer) and included in this grant, and in accordance

with applicable state policies, standards, and specifications approved by the Secretary.

35. **Relocation and Real Property Acquisition.**

    a. It will be guided in acquiring real property, to the greatest extent practicable under State law, by the land acquisition policies in Subpart B of 49 CFR Part 24 and will pay or reimburse property owners for necessary expenses as specified in Subpart B.
    b. It will provide a relocation assistance program offering the services described in Subpart C and fair and reasonable relocation payments and assistance to displaced persons as required in Subpart D and E of 49 CFR Part 24.
    c. It will make available within a reasonable period of time prior to displacement, comparable replacement dwellings to displaced persons in accordance with Subpart E of 49 CFR Part 24.

36. **Access By Intercity Buses.**

    The airport owner or operator will permit, to the maximum extent practicable, intercity buses or other modes of transportation to have access to the airport; however, it has no obligation to fund special facilities for intercity buses or for other modes of transportation.

37. **Disadvantaged Business Enterprises.**

    The sponsor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract covered by 49 CFR Part 26, or in the award and performance of any concession activity contract covered by 49 CFR Part 23. In addition, the sponsor shall not discriminate on the basis of race, color, national origin or sex in the administration of its DBE and ACDBE programs or the requirements of 49 CFR Parts 23 and 26. The sponsor shall take all necessary and reasonable steps under 49 CFR Parts 23 and 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts, and/or concession contracts. The sponsor's DBE and ACDBE programs, as required by 49 CFR Parts 26 and 23, and as approved by DOT, are incorporated by reference in this agreement. Implementation of these programs is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the sponsor of its failure to carry out its approved program, the Department may impose sanctions as provided for under Parts 26 and 23 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1936 (31 U.S.C. 3801).

38. **Hangar Construction.**

    If the airport owner or operator and a person who owns an aircraft agree that a hangar is to be constructed at the airport for the aircraft at the aircraft owner's expense, the airport owner or operator will grant to the aircraft owner for the hangar a long term lease that is subject to such terms and conditions on the hangar as the airport owner or operator may impose.

39. **Competitive Access.**

a. If the airport owner or operator of a medium or large hub airport (as defined in section 47102 of title 49, U.S.C.) has been unable to accommodate one or more requests by an air carrier for access to gates or other facilities at that airport in order to allow the air carrier to provide service to the airport or to expand service at the airport, the airport owner or operator shall transmit a report to the Secretary that-

1) Describes the requests;

2) Provides an explanation as to why the requests could not be accommodated; and

3) Provides a time frame within which, if any, the airport will be able to accommodate the requests.

b. Such report shall be due on either February 1 or August 1 of each year if the airport has been unable to accommodate the request(s) in the six month period prior to the applicable due date.

9.0 INSTRUMENT APPROACH ANALYSIS

9.1 Introduction

Central Colorado Regional Airport's (AEJ or the Airport) ability to provide the most advanced instrument approaches that technology and the operating environment will allow is critical to the safety and efficiency of the Airport's users, as well as to AEJ's future economic success. To ensure AEJ remains as accessible as possible in all types of weather conditions, this chapter analyzes both existing instrument approach procedures, as well as new or other technologies that may be available during the 20-year planning period. It is important that airports stay on top of the state-of the-art in FAA technology in order to take maximum advantage of new capabilities.

9.2 Existing Instrument Approaches

The FAA has published two GPS instrument approaches to Runway 33 at AEJ, both of which are non-precision approaches: a localizer performance (LP) approach without vertical guidance, and a lateral navigation approach (LNAV), also without vertical guidance. The LP approach procedure requires the use of a wide area augmentation system (WAAS[1]), and provides lower approach minimums than the LNAV. Aircraft using the LNAV approaches may use WAAS, but are not required to do so. The instrument approach chart is in **Figure 9-1**.

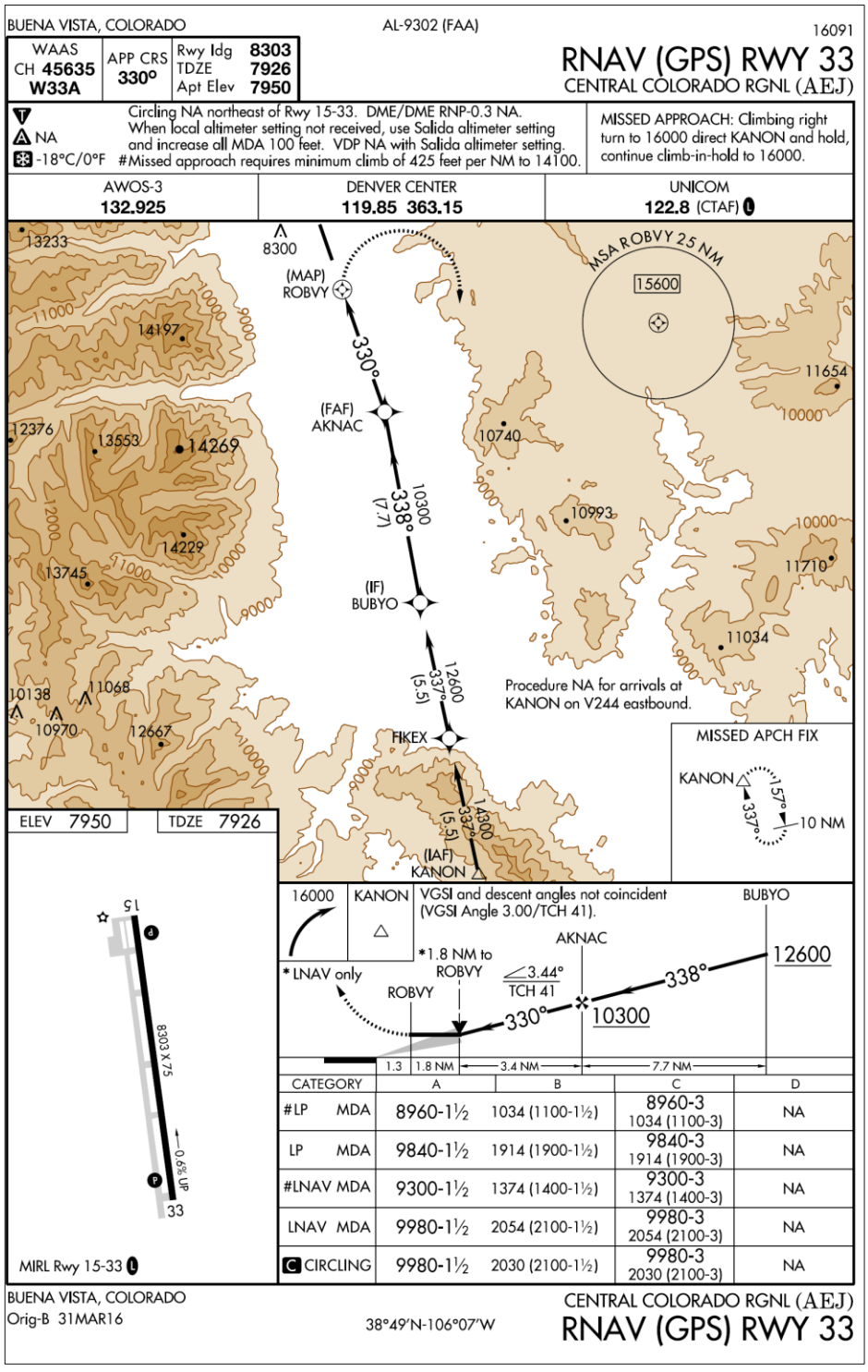
The FAA has provided two sets of minimums for both the LP and LNAV approaches to Runway 33 (shown in **Figure 9-1**). The lower minimums are marked with a # symbol, and FAA notes that the lower minimums can be used if the aircraft can fly the missed approach procedure with a minimum climb gradient of 425 feet per nautical mile to 14,100 feet above mean sea level (MSL). If aircraft cannot fly that climb gradient, then they must use the higher minimums due to the high terrain north of the Airport.

The visibility minimums of 1½ miles are higher than standard minimums for non-precision approaches due to the high terrain surrounding AEJ, resulting in relatively high minimum descent altitudes (MDA) and the lack of an approach lighting system (ALS) to Runway 33. Given the relatively high MDA, FAA may not be able to lower the visibility minimums even if an approach lighting system were installed because of the requirements in FAA Order 8260.3, *U.S. Standard for Terminal Instrument Procedures (TERPS)*.

In addition to the straight-in approaches to Runway 33, FAA allows aircraft to circle-to-land on Runway 15. However, FAA does not allow aircraft to circle to the northeast of the Airport due to high terrain. The circle-to-land minimums are the same as the higher LNAV straight in approach minimums.

[1] Wide area augmentation system (WAAS) is a ground-based system that improves the accuracy of satellite GPS signals, enabling FAA to publish more precise instrument approach procedures.

FIGURE 9-1 - AEJ RUNWAY 33 GPS INSTRUMENT APPROACH CHART



Source: FAA Terminal Procedures Publication. Notes: LP = Localizer Performance. LNAV = Lateral Navigation. NA = not available

Not Be Used for Navigation

FIGURE 9-2 - CATEGORY A, B, C, D APPROACH SPEEDS

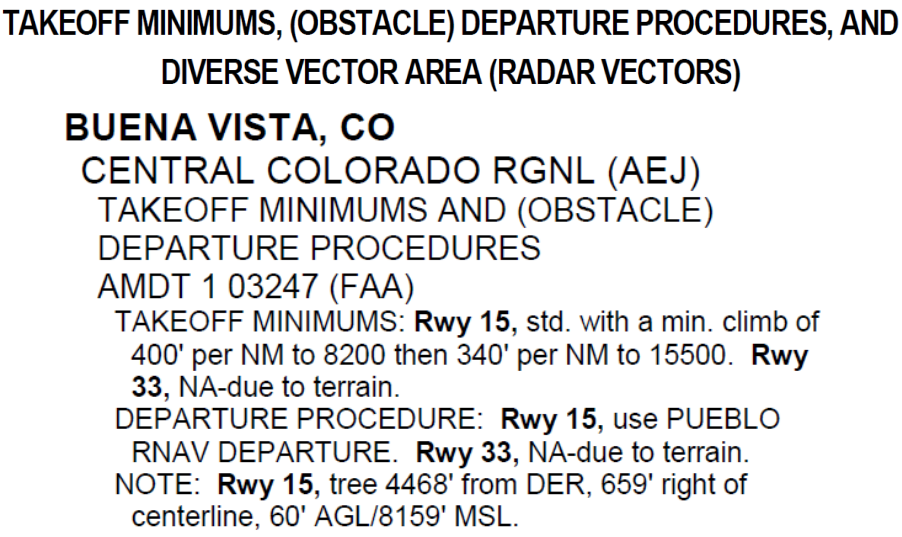
A	Approach speed less than 91 knots
B	Approach speed 91 knots or more but less than 121 knots
C	Approach speed 121 knots or more but less than 141 knots
D	Approach speed 141 knots or more but less than 166 knots

Source: FAA AC 150/5300-13A, paragraph 105C

FAA has not published instrument approach procedures to Runway 15 because of high terrain to the north of the Airport.

FAA does not allow instrument departures on Runway 33 to the north due to high terrain. Instrument departures from AEJ are only allowed on Runway 15 (see **Appendix 9-A**).

FIGURE 9-3 - AEJ TAKEOFF MINIMUMS AND PROCEDURES



TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

BUENA VISTA, CO

CENTRAL COLORADO RGNL (AEJ)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 03247 (FAA)

TAKEOFF MINIMUMS: **Rwy 15,** std. with a min. climb of 400' per NM to 8200 then 340' per NM to 15500. **Rwy 33,** NA-due to terrain.

DEPARTURE PROCEDURE: **Rwy 15,** use PUEBLO RNAV DEPARTURE. **Rwy 33,** NA-due to terrain.

NOTE: **Rwy 15,** tree 4468' from DER, 659' right of centerline, 60' AGL/8159' MSL.

Source: https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dtpp/

9.3 Analyze Use of New or Other Technologies

The advent of GPS instrument approaches has allowed FAA to publish procedures without the need for ground-based navigation aids (NAVAIDs), such as Very High Frequency Omni-directional Radio-range (VOR), localizer or glide slope antennas, etc. This has reduced both the initial cost and the recurrent expenses associated with ground-based NAVAIDs. Operationally, GPS instrument approach minimums are equivalent to minimums for ground-based NAVAIDs. For example, FAA has published GPS lateral performance with vertical guidance (LPV) instrument approaches that provide the same minimums as the traditional instrument landing system (ILS).

Because the high terrain surrounding AEJ is a mountain range and subsequently cannot be modified, it is not anticipated that FAA will publish any new instrument approaches to AEJ, nor lower the

existing approach minimums. Review of FAA's Instrument Flight Procedures Information Gateway[2] also indicates that no new procedures are being developed for AEJ.

FAA has developed and published required navigation performance (RNP) instrument approach procedures. RNP approaches were originally developed by airlines and the FAA primarily for airports located in mountain states, such as Alaska, where many airports either did not have instrument approaches or else had very high approach minimums. Some airports in Colorado now have published RNP approaches.

RNP approaches use a variety of ground-based and GPS NAVAIDs, and must also meet stringent accuracy and monitoring requirements. RNP approaches often provide lower minimums than either LP or LNAV approaches. However, both the equipment in the aircraft and the pilots must be specifically certified by FAA to use RNP procedures; subsequently, not all aircraft or pilots are qualified to use the procedures.

FAA specifically added a note to AEJ's GPS Runway 33 approach chart stating: "DME/DME RNP-0.3 NA," (see Figure 9-1), which means that RNP approaches are not allowed to Runway 33. However, FAA could re-examine the Runway 33 approach, utilizing the AGIS mapping, and see if their criteria would now allow them to publish an RNP approach to Runway 33. As noted above, even if FAA were to publish an RNP approach to Runway 33 some aircraft and pilots would not be qualified by FAA to fly the procedure. FAA could also examine a possible RNP approach to Runway 15, but the high terrain to the north of the airport decreases the likelihood of an instrument approach to 15.

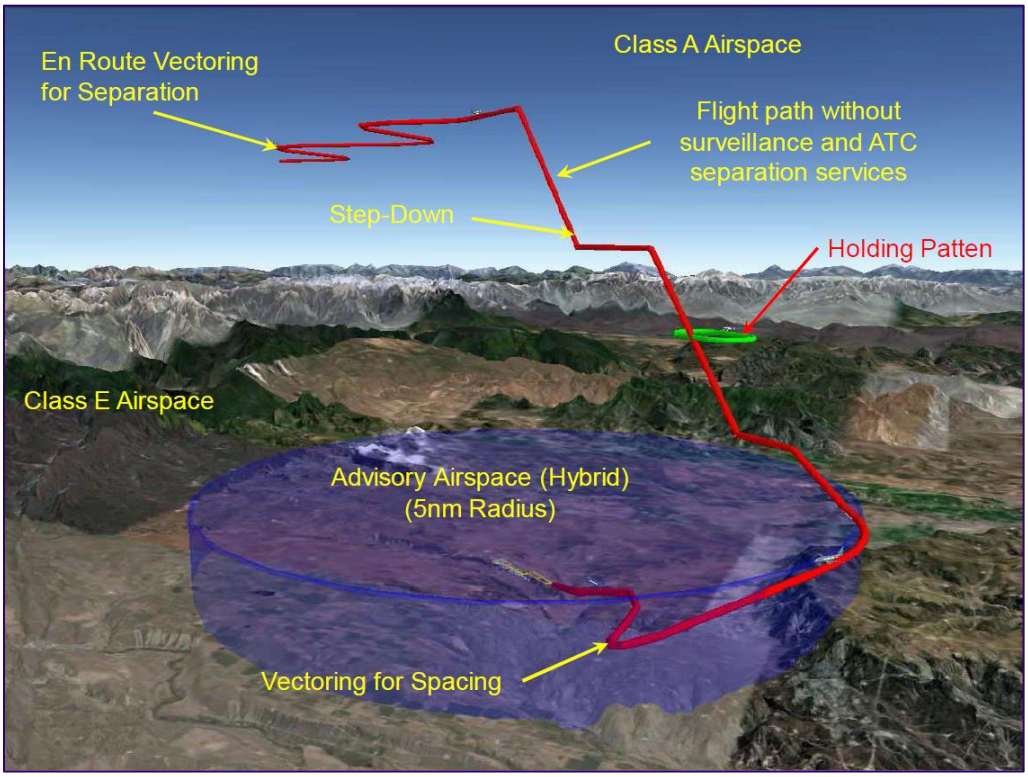
Two other areas of new technology currently being developed by the FAA are the Next Generation Air Transportation System (NextGen) and ground-based augmentation system (GBAS), both of which will result in much more accurate air traffic monitoring, control, and spacing, resulting in greater airspace capacity. One program that has already come out of NextGen and has been implemented in Colorado is the wide area multilateration (WAM) system.

The WAM is a NextGen surveillance capability that enables air traffic controllers to track aircraft flying into and out of airports in mountainous areas with no radar coverage. WAM provides surveillance through a network of small sensors deployed in remote areas.

One feature of the project is the "blended airport concept," where a seamless transition from the terminal to the en route phase is developed (see **Figure 9-4**).

[2] Source: https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/)

FIGURE 9-4 - WAM – BLENDED AIRSPACE CONCEPT FOR MOUNTAIN AIRPORTS



Source: Colorado DOT Division of Aeronautics, Colorado Surveillance Project, Phases I, II, and III, 2011

WAM sensors are inexpensive compared to multi-million-dollar radar installations and much easier to install around airports in mountainous areas, and even on mountain tops. Six sensors can cover a wide swath of previously unobserved airspace. The Colorado Division of Aeronautics, in conjunction with FAA, has installed WAM sensors in the state that have greatly improved air traffic control (ATC) monitoring of aircraft traffic to and from mountain airports.

Another new technology being implemented is FAA's GBAS, formerly referred to as the Local Area Augmentation System (LAAS). GBAS has a radius of approximately 23 nautical miles (nm), and provides differential corrections and integrity monitoring of global navigation satellite systems (GNSS). GBAS also provides extremely accurate precision approaches in the vicinity of the host airport (i.e. those within 23 nm of the GBAS station). GBAS yields the extremely high accuracy, availability, and integrity necessary for Category I, and eventually Category II and III precision approaches.

It is possible that a combination of NextGen and GBAS might result in new instrument approach procedures to AEJ with lower instrument approach minimums. However, at present there is no schedule for the installation of that new technology at AEJ. FAA Flight Procedures Division noted that current constraint on instrument approach procedures and minimums at AEJ are due to aircraft performance limitations and FAA's standards for Terminal Instrument Procedures (TERPS), not GPS limitations.

9.4 Recommend Best Course(s) of Action

The recommended courses of action include:

- Continuously monitor FAA developments with the implementation of NextGen and GBAS.
- Communicate with FAA Flight Procedures on a regular basis (at least annually) to discuss whether changes in FAA TERPS criteria or the adoption of new technologies could allow the publication of new GPS approaches to AEJ.
- Hold regular discussions with AEJ users about the limitations of the current instrument approach and departure procedures, and how much the publication of an LPV or GBAS instrument approach might benefit their operation.
    - Investigate how many operators that use AEJ are certified to use RNP instrument approaches, and whether the publication of an RNP approach to AEJ would benefit their operation.
    - Discuss aircraft performance limitations in the vicinity of AEJ given the high terrain around the Airport. This information is useful to FAA when examining the need for instrument approach procedures.

APPENDIX A

AVIATION GLOSSARY OF TERMS

AVIATION GLOSSARY OF TERMS

Above Ground Level (AGL). An altitude that is measured with respect to the underlying ground.

Accelerate-stop distance available (ASDA). The runway plus stopway length declared available and suitable for the acceleration and deceleration of an airplane aborting a takeoff.

Administrator. Federal Aviation Administrator or any person to whom he has delegated his authority in the matter concerned.

Advisory Circular (AC). External communications or publications issued by the FAA to provide non-regulatory guidelines for the recommendations relative to a policy, and guidance and information relative to a specific aviation subject matter.

Air Carrier. A person or company who undertakes directly by lease, or other arrangement, to engage in air transportation.

Aircraft. A device that is used or intended to be used for flight in the air.

Airplane. An engine-driven fixed-wing aircraft heavier than air that is supported in flight by the dynamic reaction of the air against its wings.

- ***Large Airplane.*** An airplane of more than 12,500 pounds maximum certified takeoff weight.
- ***Small Airplane.*** An airplane of 12,500 pounds or less maximum certified takeoff weight.

Balloon. A lighter-than-air aircraft that is not engine-driven, and that sustains flight through the use of either gas buoyancy or an airborne heater.

Glider. A heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its lifting surfaces and whose free flight does not depend principally on an engine.

Heavy Aircraft. Aircraft capable of takeoff weight of more than 255,000 pounds whether or not they are operating at this weight during particular phase of flight.

Helicopter. A rotorcraft that, for horizontal motion, depends principally on its engine-driven rotors.

Large Aircraft. Aircraft of more than 41,000 pounds maximum certified takeoff weight, up to 255,000 pounds

Regional Jet (RJ). There is no regulatory definition for an RJ; however, for FAA use, an RJ is a commercial jet airplane that carries fewer than 100 passengers.

Rocket. An aircraft propelled by ejected expanding gases generate in engine from self-contained propellants and not dependants on the intake of outside substances.

Rotorcraft. A heavier-than-air aircraft that depends principally for it support in flight on the lift generated by one or more rotors.

Small Aircraft. Aircraft of 41,000 pounds or less maximum certified takeoff weight.

Aircraft Accident Safety Zone. This zone represents data clusters of historical aircraft accidents. The data is collected from the NTSB and analyzed in several studies to first determine the shape of the zone based on the greatest cluster of accident sites per acre and second on the ratio of accidents per acre changes.

Aircraft Approach Category. An alphabetical classification of an aircraft based upon 1.3 times the stall speed in a landing configuration at their maximum certified landing weight. The categories are as follows:

Category A: Speed less than 91 knots.

Category B: Speed 91 knots or more but less than 121 knots

Category C: Speed 121 knots or more but less than 141 knots.

Category D: Speed 141 knots or more but less than 166 knots.

Category E: Speed 166 knots or more.

Aircraft Deicing Pad. *See Deicing Pad.*

Aircraft Operation. *See Operation.*

Aircraft Rescue and Fire Fighting (ARFF). A special category of fire fighting that involves the response, hazard mitigation, evacuation and possible rescue of passengers and crew of an aircraft involved in (typically) an airport ground emergency.

ARFF Building. A facility located at an airport that provides emergency vehicles, extinguishing agents, and personnel responsible for minimizing the impacts of an aircraft accident or incident.

Airplane. *See Aircraft*

Airplane Design Group (ADG). A numerical classification aircraft based on wingspan or tail height. Where an airplane is in two categories, the most demanding category should be used. The groups are as follows:

Group I: Up to but not including 49 feet wingspan or tail height up to but not including 20 feet. (e.g. Cessna 172)

Group II: 49 feet up to but not including 79 feet wingspan or tail height from 20 up to not including 30 feet. (e.g. Cessna Citation Business jet).

Group III: 79 feet up to but not including 118 feet wingspan or tail height from 30 up to but not including 45 feet. (e.g. Boeing 737)

Group IV: 118 feet up to but not including 171 feet wingspan or tail height from 60 up to but not including 66 feet. (e.g. Boeing 767)

Group V: 171 feet up to but not including 214 feet wingspan or tail height from 60 up to but not including 66 feet. (e.g. Boeing 747)

Group VI: 214 feet up to but not including 262 feet wingspan or tail height from 66 up to but not including 80 feet. (e.g. Airbus A380)

Table: Airplane Design Groups (ADG)

Group #	Tail Height (ft.)	Wingspan (ft.)
I	<20	<49
II	20 ≤30	49 ≤79
III	30 ≤45	79 ≤118
IV	45 ≤60	118≤171
V	60 ≤66	171≤214
VI	66 ≤80	214 ≤262

Airport. An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

Cargo Service Airport. An airport served by aircraft providing air transportation of property only, including mail, with an annual aggregate landed weight of at least 100 million pounds.

Certificated Airport. An airport that has been issued an Airport Operating Certificate by the FAA under the authority of FAR Part 139, Certification and Operation.

Commercial Service Airport. A public airport providing scheduled passenger service that enplanes at least 2,500 annual passengers.

General Aviation Airport. An airport that provides air service to only general aviation.

Hub Airport. An airport that an airline uses as a transfer point to get passengers to their intended destination. It is part of a hub and spoke model, where travelers moving between airports not served by direct flights change planes en route to their destinations.

Large Hub Airport. An airport that handles over 1% of the country's annual enplanements.

Medium Hub Airport. An airport that handles 0.25% ≥ 1% of the country's annual enplanements.

Small Hub Airport. An airport that handles 0.05% ≥ 0.25% of the country's annual enplanements.

Non-Hub Airport. An airport that handles over 10,000 enplanements, but less than 0.05% of the country's annual enplanements.

Incursions. *See Runway Incursion.*

International Airport. Relating to international flight, it means:

- An airport of entry which has been designated by the Secretary of Treasury or Commissioner of Customs as an international airport for customs service.
- A landing rights airport at which specific permission to land must be obtained from customs authorities in advance of contemplated use.
- Airports designated under the Convention on ICAO as an airport for use by international commercial air transport and/or international general aviation.

Primary Airport. A commercial service airport that enplanes at least 10,000 annual passengers.

Reliever Airport. General aviation airports in a major metropolitan area that provides pilots with attractive alternatives to using congested hub airports.

Uncontrolled Airport. An airport without an air traffic control tower at which the control of VFR traffic is not exercised. Pilots "see and avoid" other traffic without the aid of air traffic control.

Airport Authority. A quasi-government public organization responsible for setting the policies governing the management and operation of an airport or system of airports under its jurisdiction.

Airport Capital Improvement Plan. The planning program used by the FAA to identify, prioritize, and distribute funds for airport development and the needs of National Airspace System (NAS) to meet specified national goals and objectives.

Airport Elevation. The highest point of an airport's usable runway(s) expressed in feet above mean sea level (MSL).

Airport Facility Directory. A publication with information on all airports, seaplane bases, and heliports open to the public. This publication is issued in seven volumes according to geographical area, and includes communications data, navigational facilities, and certain special notices and procedures.

Airport Improvement Program (AIP). A program authorized by the Airport and Airway Improvement Act of 1982 that provides funding for the airport planning and development.

Airport Influence Area. The area defined by overlaying the FAR Part 77 Imaginary Surfaces, Aircraft Accident Safety Zone data, and Noise Contour data over the top of an existing land use map, critical areas map or other base map.

Airport Layout Plan (ALP). A scaled drawing of the airport showing the layout of existing and proposed facilities necessary for current and future operation and development of the airport.

Airport Layout Plan Drawing Set. A set of planning drawings that depicts existing airport facilities and proposed development as determined from the planners' review of the aviation activity forecasts, facility requirements, and alternative analysis. Minimum components of the set are:

- Cover Sheet
- Airport Layout Plan (ALP)
- Data Sheet
- Facilities Layout Plan
- Terminal Area Plan(s)
- Airspace Drawing
- Inner Approach Surface Drawing(s)
- Departure Surface Drawing(s)
- On-Airport Land Use Drawing
- Off-Airport Land Use Drawing
- Airport Property (also known as the Exhibit A)
- Utility Drawing(s)

Airport Lighting. Various lighting aids that may be installed on an airport. Types of airport lighting include:

ALS. *See Approach Light System.*

Boundary Lights. Lights defining the perimeter of an airport or landing area.

Runway Centerline Lighting. Flush centerline lights spaced at 50-foot intervals beginning 75 feet from the landing threshold and extending to within 75 feet of the opposite end of the runway. Only used on Category II/III ILS Runways.

Runway Edge Lights. Lights used to outline the edges of the runways during periods of darkness or restricted visibility conditions. They are usually uniformly spaced at intervals of approximately 200 feet, and intensity may be controlled or preset. These light systems are classified according to the intensity they are capable of producing:

- *High Intensity Runway Lights (HIRLs).*
- *Medium Intensity Runway Lights (MIRLs).*
- *Low Intensity Runway Lights (LIRLs).*

Runway End Identifier Lights (REIL).Provides rapid and positive identification of the approach end of particular runway. The system consists of a pair of synchronized flashing lights, one on each side of the runway threshold.

Threshold Lights. Fixed lights arranged symmetrically left and right of the runway centerline, identifying the runway threshold. Lights are green for arriving aircraft and red for departing aircraft.

Touchdown Zone Lighting. Two rows of transverse light bars located symmetrically about the runway centerline normally at 100 foot intervals. Only used on Category II/III ILS Runways.

Airport Markings. Markings used on runway and taxiway surfaces to identify a specific runway, a runway threshold, a centerline, a hold line, etc. A runway should be marked in accordance with its present usage such as: 1) Visual, 2) Nonprecision instrument, 3) Precision Instrument.

Airport Master Plan. A comprehensive study of an airport that focuses on the short-, medium-, and long-term development plan to meet future aviation demand of the airport.

Airport Obstruction Chart. A scaled drawing depicting the FAR Part 77 imaginary airspace surfaces, a representation of objects that penetrate these surfaces, runway, taxiway, and

ramp areas, navigational aids, buildings, roads, and other detail in the vicinity of the airport.

Airport Operations Area (AOA). An area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. An AOA includes such paved areas or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiways, or apron.

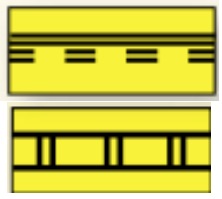
Airport Operator. The operator (private or public) or sponsor of a public-use airport.

Airport Reference Code (ARC). A coding system used to relate the airport design criteria to the operational and physical characteristics of the airplanes intended to use the airport or the critical aircraft. It is a two character code consisting of the Aircraft Approach Category and the Airplane Design Group.

Airport Reference Point (ARP). The latitude and longitude of the approximate center of the runway(s) at an airport.

Airport Signs. Signs used to identify items and locations on the airport.

Boundary Sign. These signs are used to identify the location of the boundary of the RSA/ROFZ or ILS critical areas for a pilot, or an existing the runway. These signs have a black inscription on a yellow background.



Destination Sign. These signs indicate the general direction to a remote location. They have black inscriptions on a yellow background and ALWAYS contain an arrow.

Direction Sign. These signs indicate directions of taxiways leading out of an intersection. They may also be used to indicate a taxiway exit from a runway. These signs have black inscriptions on a yellow background and ALWAYS contain arrows.

Information Sign. These signs are installed on the airside of an airport and are considered to be signs other than mandatory signs. They have black inscriptions on a yellow background.

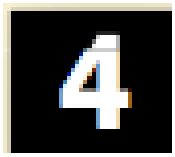
Location Sign. These signs identify the taxiway or runway upon which the aircraft is located. The sign has a yellow inscriptions on a black background with a yellow border and does NOT use arrows.

Mandatory Instruction Sign. They denote taxiway/runway intersections, runway/runway intersections, ILS critical areas, OFZ boundaries, runway approach areas, CAT II/II operations areas, military landing zones, and no entry areas. These signs have white inscriptions with a black outline on a red background.

Roadway Sign. These signs are located on the airfield and are solely intended for vehicle operators. They should conform to the categorical color codes established by the

Manual on Uniform Traffic Control Devices (MUTCD).

Runway Distance Remaining Signs. These signs are used to provide distance remaining information to pilots during takeoff and landing operations. These signs have a white numeral inscription on a black background.



Airport Sponsor. The entity that is legally responsible for the management and operation of an airport including the fulfillment of the requirements of laws and regulations related thereto.

Airport Surveillance Radar (ASR). A radar system used at airports to detect and display the position of aircraft in the terminal area.

Air Route Traffic Control Centers (ATRCC). A facility responsible for en route control of aircraft operating under IFR in a particular volume of airspace (within its area of jurisdiction) at high altitudes between airport approaches and departures. Approximately 26 such centers cover the United States.

Airside. The portion of an airport that contains the facilities necessary for the operations of aircraft.

Air Taxi. An aircraft operating under an air taxi operating certificate for the purpose of carrying passengers, mail, cargo for revenue in accordance with FAR 121 or FAR Part 135.

Air Traffic. Any aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas.

Air Traffic Control (ATC). A service provided by ground-based controllers who direct aircraft on the ground and in the air. The primary purpose of ATC systems is to *separate* aircraft to prevent collisions, to organize and expedite the flow of traffic, and to provide information and other support for pilots when able.

Air Traffic Control Tower (ATCT). A facility in the terminal air traffic control system located at an airport which consists of a tower cab structure and an associated instrument flight rules rooms, if radar equipped, that uses ground-to-air and air-to-ground communications and radar, visual, signaling, and other devices to provide for the safe and expeditious movement of terminal area air traffic in the airspace and airports within its jurisdiction.

Annual Service Volume (ASV). The number of annual operations that can reasonably be expected to occur at the airport based on a given level of delay.

Anti-Icing. Following aircraft deicing, anti-icing chemicals can applied to protect against the accumulation of ice or snow for a limited period of time, known as the holdover time.

Approach (or Departure) Airspace. The airspace, within five statue miles of an airport, through which aircraft more during landing and takeoff.

Approach Surface. *See Imaginary Surfaces.*

Approach Light System (ALS). An airport lighting facility aids in runway identification during the transition from instrument flight to visual flight for landing. Typical approach lighting systems used at airports include:

> ***Approach Light System with Sequenced Flashing (ALFS).***
>
> ***Lead-in-light System (LDIN).*** Consists of one or more series of flashing lights installed at or near ground level that provides positive visual guidance along an approach path, either curving or straight, where special problems

exist with hazardous terrain, obstructions, or noise abatement procedures.

Medium-Intensity Approach Light System with Runway Alignment Indicator (MALSR). A lighting system installed on the approach end of a runway and consists of a series of lightbars, strobe lights, or a combination that extends outward from the runway end. It usually serves a runway that has an instrument approach procedure associated with it and allows the pilot to visually identify and align self with the runway environment once the pilot has arrived at a prescribed point on the approach.

Omnidirectional Approach Lighting System (ODALS). Consist of seven omnidirectional flashing lights located in the approach area of a non-precision runway. Five lights are located on the runway centerline extended with the first light located 300 feet from the threshold and extending at equal intervals up to 1,500 feet from the threshold. The other two lights are located on each side of the runway, with a lateral distance of 40 feet from the runway edge, or 75v feet from the runway edge when installed on a runway equipped with VASI.

Runway Alignment Indicator Lights (RAILS). Sequenced Flashing Lights which are installed only in combination with other lighting systems.

Apron. A specific portion of the airfield used for passenger, cargo or freight loading and unloading, aircraft parking, and the refueling, maintenance and servicing of aircraft. Also referred to as ramp or tarmac.

Approach (or Departure) Airspace. The airspace, within five statue miles of an airport, through which aircraft more during landing and takeoff.

Approach Surface. *See Imaginary Surfaces.*

Arrival Time. The time an aircraft touches down on arrival.

Automated Flight Service Station (AFSS). An automated air traffic facility that provides information and services to aircraft pilots before, during, and after flights, but it is not responsible for giving instructions or clearances or providing separation.

Automated Surface Observation System (ASOS). Similar data reporting as an AWOS, but usually owned and maintained by the National Weather Service.

Automated Weather Observation System (AWOS). An automated sensor suite which is voice synthesized to provide a weather report that can be transmitted via VHF radio, NDB, or VOR ensuring that pilots on approach have up-to-date airport weather for safe and efficient aviation operations. Most AWOS observe and record temperature and dew point in degrees Celsius, wind speed and direction in knots, visibility, cloud coverage and ceiling up to 12,000 feet, freezing rain, thunderstorm (lightning), and altimeter setting.

Avigation Easement. A contractual right or a property interest in land over which a right of unobstructed flight in the airspace can occur.

Balloon. *See Aircraft.*

Baggage Claim. *A*n area where passengers obtain luggage that was previously checked at an airline ticket counter at the departing airport.

Based Aircraft. The general aviation aircraft that use a specific airport as a home base.

Base Leg. *See Traffic Pattern.*

Benefit-Cost Analysis (BCA). An analysis of the cost, benefit, and the uncertainty associated with a project or action. A formal BCA is required for capacity projects of $5 million or more AIP discretionary funds.

Birds Balls. High-density plastic floating balls that can be used to cover ponds and prevent birds from using the sites.

Blast Fence. A barrier used to divert or dissipate jet blast or propeller wash.

Boundary Lights. *See Airport Lighting.*

Boundary Sign. *See Airport Signs.*

Building Restriction Line (BRL). A line that identifies suitable building area locations on airports to limit building proximity to aircraft movement areas. Typically base on the FAR Part 77 Airport Imaginary Surfaces.

Capacity (Throughput Capacity). A measure of the maximum number of aircraft operations or their airport components which can be accommodated on the airport.

Capital Improvement Plan (CIP). The planning program used by the FAA to indentify, prioritize, and distribute AIP funds for airport development and the needs of the NAS to meet specified national goals and objectives.

Cargo Service Airport. *See Airport.*

Ceiling. The height above the earth's surface of the lowest layer of clouds or obscuring phenomena that is reported as broken, overcast or obscured.

Certificated Airport. *See Airport.*

Citizen's Advisory Committee (CAC). A group of individuals that weight recommendations against community goals, values, and needs, typically during a Master Plan.

Clear Zone. Former term for Runway Protection Zone.

Clearway (CWY). A defined rectangular area beyond the end of the runway cleared or suitable for use in lieu of runway to satisfy take off distance requirements.

Commercial Service Airport. *See Airport.*

Common Traffic Advisory Frequency (CTAF). The VHF radio frequency used for air-to-air communication at uncontrolled airports or where no control tower is currently active. Pilots use the common frequency to coordinate their arrivals and departures safely, give position reports, and acknowledge other aircraft in the airfield traffic pattern.

Compass Rose. A circle, graduated in degrees, printed on some charts or marked on the ground at an airport. It is used as a reference to either true or magnetic direction. When marked on the ground it is used to calibrate an aircraft's compass.

Conical Surface. *See Imaginary Surfaces.*

Consultant. A firm, individual, partnership, corporation, or joint venture that performs architectural, engineering or planning service as defined in AC150/5100-14D, employed to undertake work funded under an FAA airport grant assistance program.

Controlled Airspace. Airspace of defined dimensions within which air traffic control service is provided to IFR flight and to VFR flights in accordance with the airspace classification. Controlled airspace is a generic term that covers Class A, Class B, Class C, Class D, and Class E Airspace.

Critical (Design) Aircraft. The most demanding aircraft with at least 500 annual operations

that operates, or is expected to operate, at the airport.

Crosswind. A wind that is not parallel to a runway centerline or to the intended flight path of an aircraft.

Crosswind Component. The component of wind that is at a right angle to the runway centerline or the intended flight path of an aircraft.

Crosswind Leg. *See Traffic Pattern.*

Decision Height (DH). This is associated with precision approaches and the aircraft is continually descending on final approach. When the aircraft reaches the DH, the pilot must make a decision to land or execute the missed approach procedure.

Deicing. The removal, though application of a max of heated water and propylene or ethylene glycol, of frost, ice, slush, or snow from the aircraft in order to provide clean surfaces.

Deicing Pad. A facility where an aircraft received deicing or anti-icing.

Delay. The difference between constrained and unconstrained operating time.

Demand. The number of aircraft operations, passengers, or other factors that are required in a specific period of time.

Department of Transportation (DOT). The United States federal department that institutes and coordinates national transportation programs; created in 1966. The FAA is an organization within the DOT.

Departure Airspace. *See Approach Airspace.*

Destination Sign. *See Airport Signs.*

Detention Ponds. Storm water management ponds that hold storm water for short periods of time, a few hours to a few days.

Direction Sign. *See Airport Signs.*

Discretionary Grant Funds. Annual Federal grant funds that may be appropriate to an airport based upon designation by the Secretary of Transportation or Congress to meet a specified national priority such as enhancing capacity, safety, and security or mitigating noise.

Displaced Threshold. *See Threshold.*

Distance Measuring Equipment (DME). *See Navigation Aid.*

Downwind Leg. *See Traffic Pattern.*

Emergency Locator Transmitter (ELT). A radio transmitter attached to the aircraft structure that aids in locating downed aircraft by radiating a audio tone on 121.5 MHz or 243 MHz.

Enplanement. The boarding of a passenger, cargo, freight or mail on an aircraft at an airport.

Entitlement Grant Funds. Annual federal funds for which all airports in the NPIAS are eligible for.

Environmental Assessment (EA). An environmental analysis performed pursuant to the Nation Environmental Policy Act to determine whether an action would significantly affect the environment and thus require a more detailed environment al impact statement.

Environmental Impact Statement (EIS). A document required of federal agencies by the National Environmental Policy Act (NEPA) for major projects or legislative proposals affecting the environment. It is a tool for decision-making describing the positive. If no significant

impact is found a Finding of No Significant Impact (FONSI) is issued.

Federal Aviation Administration (FAA). An agency of the United States Department of Transportation with authority to regulate and oversee all aspects of civil aviation in the United States.

Federal Aviation Regulations (FAR). The general and permanent rules established by the executive departments and agencies of the Federal government for aviation which are published in the Federal Register. These are the aviation subset of the U.S. Code of Federal Regulations (CFR).

Federal Grant Agreement. A Federal agreement that represents an agreement made between the FAA (on the behalf of the United States) and an airport sponsor for the grant of Federal Funding.

Federal Grant Assurance. A provision within a Federal grant agreement to which the recipient of Federal airport development assistance has agreed to comply in consideration of the assistance provided.

Finding of No Significant Impact (FONSI). A public document prepared by a Federal agency that presents the rationale why a proposed action will not have a significant effect on the environment and for which an environmental impact statement will not be prepared.

Fixed Base Operator (FBO). A business enterprise located on the airport property that provides services to pilots including aircraft rental, training, fueling, maintenance, parking, and the sale of pilot supplies.

Flight Service Station (FSS). An air traffic facility that provides information and services to aircraft pilots before, during, and after flights, but unlike ATC, is not responsible for giving instructions, clearances, or providing separation.

Flight Standards District Office (FSDO). An FAA field office serving an assigned geographical area and staffed with Flight Standard personnel who serve the aviation industry and the general public on matters relating to the certification and operation of air carrier and general aviation aircraft. Activities include general surveillance of operation safety, certification of airmen and aircraft, accident prevention, investigation, enforcement, etc.

Foreign Object Debris (FOD). Any object found on an airport that does not belong in or near airplanes, and as a result can injure personnel and damage aircraft.

Form 7460-1, Notice of Proposed Construction or Alternation. Federal law requires filing a Notice of Proposed Construction or Alteration (Form 7460) for all structures over 200 feet AGL or lower if closer than 20,000 feet to a public use airport with a runway over 3,200 feet in length.

Form 7480-1, Notice of Landing Area Proposal. Submitted to the FAA Airport Regional Division Office or ADO as formal written notification for project involving the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport.

Fuel Flowage Fee. A tax assessed on the user, which is paid at the pump. Fuel flowage fee revenues are sent to the airport governing body, usually the board or authority and are then used for airport improvements or other expenses.

Gap Analysis. *See Safety Management System.*

Gate. An aircraft parking position used by a single aircraft loading or unloading passengers, mail, or cargo, etc.

General Aviation (GA). The segment of aviation that encompasses all aspects of civil

aviation except certified air carriers and other commercial operators, such as airfreight carriers.

General Aviation Airport. *See Airport.*

Geographic Information System (GIS). A technology that manages, analyzes, and disseminates geographic data.

Glider. *See Aircraft.*

Glideslope. *See Instrument Landing System.*

Global Positioning System (GPS). A satellite based navigational system that provides signals in the cockpit of aircraft defining aircraft position in terms of latitude, longitude, and altitude.

GPS Runway. *See Runway.*

Grant Agreement. *See Federal Grant Agreement.*

Ground Access. The transportation system on and around the airport that provides access to and from the airport by ground transportation vehicle for passengers, employees, cargo, freight, and airport services.

Hazard. *See Safety Management System.*

Hazardous Wildlife. 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.

Heavy Aircraft. *See Aircraft.*

Helicopter. *See Aircraft.*

Helipad. A small, designated area, usually with prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, movement area used for takeoff, landing, or parking of helicopters.

Heliport. An area of land, water, or structure used or intended to be used for the landing and takeoff of helicopters.

High Intensity Runway Lighting (HIRL). *See Airport Lighting.*

Holdover Time. The estimated time the application of anti-icing fluid will prevent the formation of frozen contamination on the protected surfaces of an aircraft. With a one-step deicing/anti-icing operation, the holdover beings at the start of the operations; with a two-step operations, the holdover beings at the start of the final anti-icing application.

Horizontal Surface. *See Imaginary Surfaces.*

Hub Airport. *See Airport.*

Imaginary Surfaces. Are surfaces defined in FAR Part 77, and are in relation to the airport and each runway. The size of these imaginary surfaces is based on the category of each runway for current and future airport operations. Any objects which penetrate these surfaces are considered an obstruction and affects navigable airspace.

Approach Surface. An imaginary obstruction limiting surface defined in FAR Part 77 which is longitudinally centered on an extended runway centerline and extends outward and upward from the primary surface at each end of a runway at a designated slope and distance upon the type of available or planned approach by aircraft to a runway.

Conical Surface. An imaginary obstruction-limiting surface defined in FAR Part 77 that extends from the edge of the horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

Horizontal Surface. An imagery obstruction-limiting surface defined in FAR Part 77 that is specified as a portion of a horizontal plane surrounding a runway located 150 feet above

the established airport elevation. The specific horizontal dimension of this surface is a function of the types of approaches existing or planned for the runway.

Primary Surface. An imaginary obstruction-limiting surface defined in FAR Part 77 that is specified as a rectangular surface longitudinally centered about a runway. The specific dimensions of this surface are function of types of approaches existing or planned for the runway.

Transitional Surface. An imaginary obstruction-limiting surface defined in FAR Part 77 that extends outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the slides of the primary surface.

Incursion. The unauthorized entry by an aircraft, vehicle, or obstacle into the defined protected area surrounding an active runway, taxiway, or apron.

Information Sign. *See Airport Signs.*

Inner Marker (IM). *See Instrument Landing System.*

Instrument Approach. A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually.

Instrument Flight Rules (IFR). Procedures for the conduct of flight in weather conditions below Visual Flight Rules (VFR) weather minimums. The term IFR is often also used to define weather conditions and type of flight plan under which an aircraft is operating. IFR is defined as the weather condition that occurs whenever the cloud ceiling is at least 500 feet above ground level, but less than 1,000 feet and/or visibility is at least one statue mile, but less than 3 statute miles.

Instrument Landing System (ILS). A precise ground based navigation system for aircraft that provides precision guidance to an aircraft approaching a runway. It uses a combination of radio signals and, in many cases, high-intensity lighting arrays to enable a safe landing during instrument meteorological conditions. Normally consists of the following components and visual aids:

> ***Localizer.*** The component of an ILS which provides horizontal guidance to the runway.
>
> ***Glideslope.*** An independent ILS subsystem that provides vertical guidance to aircraft approaching a runway. It is an antenna array that is usually located on one side of the runway touchdown zone.
>
> ***Outer Marker (OM).*** A marker beacon at or near the glideslope intercept altitude of an ILS approach and it keyed to transmit two dashes per second.
>
> ***Middle Marker (MM).*** A marker beacon that defines a point along the glideslope of an ILS normally located at or near the point of DH (CAT I). It is keyed to transmit alternate dots and dashes.
>
> ***Inner Marker (IM).*** A marker beacon use with an ILS (CAT II & CAT III) precision approach located between the middle marker and the end of the ILS runway, transmitting a radiation pattern keyed at six dots per second, and indicating that the pilot, both aurally and visually, is at the DH
>
> ***Approach Lights.*** *See Approach Lighting Systems.*

ILS Categories:

Precision Approach Category I (CAT I). An instrument approach procedure which provides for an approach to a DH of not less than 200 feet and visibility of not less than ½ mile or RVR 2,400 (RVR 1,800 with operative touchdown zone and runway centerline lights).

Precision Approach Category II (CAT II). An instrument approach procedure which provides for an approach to a minima less than CAT I to as low as a DH of not less than 200 feet and visibility of not less than 100 feet and RVR of not less than RVR 1,200.

Precision Approach Category III (CAT III An instrument approach procedure which provides for an approach to minima less than CAT II.

Instrument Meteorological Conditions (IMC). Meteorological conditions expressed in terms of specific visibility and ceiling conditions that are less than the minimums specified for visual meteorological conditions. IMC are defined as period when cloud ceiling are less than 1,000 feet above ground and/or visibility less than three miles

Instrument Runway. *See Runway.*

International Civil Aviation Organization (ICAO). An agency of the United Nations which codifies the principles and techniques of the international air navigation, and fosters the planning and development of international air transport to ensure safe and orderly growth. The ICAO Council adopts standards and recommended practices concerning air navigation, prevention of unlawful interference, and facilitation of border-crossing procedure for international civil aviation.

Itinerant Operations. *See Operation.*

Knot. A unit of speed equal to one nautical mile per hour, or 1.15 statue mile per hour.

Land and Hold Short Operations (LAHSO). To increase airport capacity, efficiency, and safety, LAHSO clearances usually instruct an aircraft to land, and then hold short of an intersecting runway, taxiway, or predetermined point.

Large Hub Airport. *See Airport.*

Landside. The portion of an airport that provides the facilities necessary for the processing of passengers, cargo, freight, and ground transportation vehicles.

Large Airplane. *See Aircraft.*

Lead-In-Light System (LDIN). *See Approach Light System.*

Localizer. *See Instrument Landing System.*

Local Operations. *See Operation.*

Location Sign. *See Airport Signs.*

Low Intensity Airport Lighting. *See Airport Lighting.*

Magnetic (Compass) Heading. The heading relative to the magnetic poles of the Earth. Is the heading indicated by a magnetic compass.

Mandatory Instruction Sign. *See Airport Signs.*

Maximum Certified Takeoff Weight (MTOW). The Maximum certificated weight for the airplane at takeoff, i.e. the airplane's weight at the start of the takeoff run.

Mean Sea Level (MSL). The average or mean height of the sea, with reference to a suitable reference surface.

Medium Hub Airport. *See Airport.*

Medium Intensity Approach Light System with Runway Alignment Indicator (MASLR). *See Approach Light System.*

Medium Intensity Runway Lights (MIRL). *See Airport Lighting.*

Middle Marker (MM). *See Instrument Landing System.*

Military Operations. *See Operation.*

Minimum Descent Altitude. This is associated with non-precision approaches and is the lowest altitude an aircraft can fly until the pilot sees the airport environment. If the pilot has not found the airport environment by the Missed Approach Point (MAP) a missed approach is initiated.

Missed Approach Point (MAP). The point prescribed in an instrument approach at which a missed approach procedure shall be executed if visual reference of the runway environment is not in sight or the pilot decides it is unsafe to continue. The MAP is similar in principle to the Decision Height.

Movement Area. The runway, taxiways, and other area of an airport an airport/heliport which are utilized for taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas. At those airports with a tower, specific approval for entry onto the movement area must be obtained from ATC.

National Airspace System (NAS). The network of air traffic control facilities, air traffic control areas, and navigational facilities throughout the U.S.

National Environmental Policy Act (NEPA). Federal legislation that established environmental policy for the nation. It requires an interdisciplinary framework for federal agencies to evaluate environmental impacts and contains action-forcing procedures to ensure that federal agency decision makers take environmental factors into account.

National Plan of Integrated Airport Systems (NPIAS). The national airport system plan developed by the Secretary of Transportation on a biannual basis for the development of public use airports to meet national air transportation needs.

National Transportation Safety Board (NTSB). A federal investigatory board whose mandate is to ensure safe public transportation. As part of the DOT, the NTSB investigates accidents, conducts studies, and makes recommendations to federal agencies and the transportation industry.

Navigation Aid (NAVAID). Any visual electronic device, airborne or on the surface, which provides point-to-point guidance information or position data to aircraft in flight.

Distance Measuring Equipment (DME). Equipment (airborne and ground) used to measure, in nautical miles, the slant range distance of an aircraft from the DME NAVAID.

Non-Directional Beacon (NDB). A radio transmitter at a known location used as a NAVIAD. The signal transmitted does not include inherent directional information, in contrast with other NAVIADS such as VOR and TACAN.

Precision Approach Path Indicator (PAPI). A path indicator that uses a single row of lights arranged to provide precision descent guidance information during approach to a runway.

Rotating Beacon. A visual NAVAID used to assist pilots in finding an airport, particularly those flying in IMC or VFR at night. The beacon provides information about the type of airport through the use of a particular set of color filter:

- Green flashed alternated with two quick white flashes: Lighted military land airport.
- Alternating White and green flashes: Lighted civilian land airport.
- Alternating white and yellow flashes: lighted water airport

- Alternating yellow, green, and white: Lighted heliport.

Tactical Air Navigation (TACAN). An ultra-high frequency electronic rho-theta NAVAID which provides suitably equipped aircraft a continuous indication of bearing and distance to the TACAN station.

Visual Approach Slope Indicator (VASI). A system of lights arranged to provide vertical visual approach slope guidance to aircraft during approach to landing by radiating a directional pattern of high intensity red and white focused light beam.

VOR (Very High Frequency Omni-directional Radio-range). A ground-based electronic NAVAID transmitting very high frequency navigation signals, 360 azimuth, oriented from magnetic north, used as a basis for navigation in NAS.

> ***VORTAC***. A NAVAID providing VOR azimuth, TACAN azimuth, and TACAN DME at one site.

Night. The time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.

Noise Abatement Procedures. Procedures developed by the FAA and community to reduce the level of noise generated by aircraft departing over populated areas.

Noise Contour. A continuous line on a map of the airport vicinity connecting all points of the same noise level. These contours represent noise levels generated from aircraft operations, takeoff and landing of aircraft. They are generated based on mythology developed by the FAA and the data provides information that can be used to identify varying degrees of noise impacts on the surrounding area.

Non-Directional Beacon (NDB). *See Navigation Aid.*

Non-Hub Airport. *See Airport.*

Non-Movement Area. Taxilanes and apron areas not in the movement area and therefore no under the control of traffic control.

Nonprecision Approach Procedure. A standard instrument approach procedure in which no electronic glideslope is provided.

Nonprecision Runway. *See Runway.*

Notice to Airmen (NOTAM).A notice containing information concerning the establishment, condition, or change in any component (facility, service, procedure of, or hazard in the NAS) the timely knowledge of which is essential to personnel concerned with flight operations.

Object. Includes, but is not limited to above ground structures, NAVAIDs, people, equipment, vehicles, natural growth, terrain, and parked aircraft.

Object Free Area (OFA). An area on the ground centered on a runway (ROFA), taxiway (TOFA), or taxilane centerline provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.

Obstacle. An existing object which may be expected at a fixed location within prescribed area with reference to the vertical clearance that must be provided during flight operations.

Obstacle Free Zone (OFZ). The OFZ is the airspace below 150 feet above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft

landing or taking off from the runway, and for missed approaches.

Obstruction. An object of greater height than any of the surfaces presented in FAR Part 77. (Obstructions to air navigation are presumed to be hazards to air navigation until an FAA study has determined otherwise.)

Omnidirectional Approach Lighting System (ODALS). *See Approach Light System.*

Operation. The landing, takeoff, or touch-and-go procedure by an aircraft on a runway at an airport. Operations can be categorized into the following categories:

> ***Itinerant Operations.*** Operations by aircraft that leaves the local airspace.
>
> ***Local Operations.*** Aircraft operations performed by aircraft that are based at the airport and that operate in the local traffic pattern or within sight of the airport, that are known to be departing for or arriving from flights in local practice areas within a prescribed distance from the airport, or that execute simulated instrument approaches at the airport.
>
> ***Military Operations.*** Aircraft operations performed in military aircraft. May be itinerant or local operations.
>
> ***Transient Operations***. Operations by aircraft that are not based at a specified airport.

Outer Marker (OM). *See Instrument Landing System.*

Parallel Runways. *See Runway.*

Parallel Taxiways. *See Taxiway.*

Passenger Facility Charge (PFC). The collection of PFC fees for every enplaned passenger at commercial airports controlled by public agencies to be used to fund FAA-approved projects that enhance safety, security, or Capacity; reduce noise; or increase air carrier competition.

Peak Hour (PH). An estimate of the busiest hour in a day. This is also known as the design hour.

Performance-Based Navigation (PBN). It specifies that aircraft RNP and RNAV systems performance requirements be defined in terms of accuracy, integrity, availability, continuity and functionality required for the proposed operations in the context of a particular airspace, when supported by the appropriate navigation infrastructure.

Area Navigation (RNAV). A method of navigation that permits aircraft operations on any desired flight path.

Required Navigation Performance (RNP). A type of Performance-Based Navigation (PBN) that allows an aircraft to fly a specific path between two, 3 dimensionally defined points in space.

Planning Activity Level (PAL). Selected activity levels that may trigger the need for additional facilities or improvements.

Precision Approach Categories I, II, III (CAT I, CAT II, CAT III). *See Instrument Landing System.*

Precision Approach Procedure. A standard precision approach procedure in which an electronic glideslope is provided, such as ILS or PAR.

Primary Airport. *See Airport.*

Primary Surface. *See Imaginary Surfaces.*

Poor Visibility and Ceiling (PVC). Is a condition that exists whenever the cloud ceiling is less than 500 feet and/or the visibility is less than one statue mile.

Precision Approach Path Indicator (PAPI). *See Navigational Aid*

Ramp. Synonymous with Apron. *See Apron.*

Record of Decision (ROD). A public document that reflects the FAA's final decision of an EIS, rationale behind that decision, and commitments to enforce and monitor mitigation.

Regional Jet. *See Aircraft.*

Regression Analysis. A statistical technique that seeks to identify and quantify the relationships between factors associated with a forecast.

Reliever Airport. *See Airport.*

Retention Ponds. Storm water management ponds that hold water for several months.

Risk Assessment. *See Safety Management System.*

RNAV. *See Performance Based Navigatio.n*

RNP. *See Performance Based Navigation.*

Roadway Sign. *See Airport Signs.*

Rocket. *See Aircraft.*

Rotating Beacon. *See Navigation Aid.*

Rotorcraft. *See Aircraft.*

Runway (RW). Defined as rectangular surface on an airport prepared or suitable for the landing and takeoff of airplanes. Runways can be classified as the following:

> ***Instrument Runway.*** A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved.

GPS Runway. A runway having a precision or nonprecision approach procedure using GPS navigational guidance with or without vertical guidance.

Nonprecision Instrument Runway. A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance for which a straight-in or side-step nonprecision approach procedure has been approved.

Nonprecision Runway. A runway with only horizontal guidance available.

Parallel Runways. Two or more runways at the same airport whose centerlines are parallel. In addition to runway number, parallel runways are designated as L (left) and R (right) or, if three parallel runways exist, L (left), C (center), and R (right).

Precision Instrument Runway. A runway having an existing instrument approach procedure utilizing air navigation facilities with both horizontal and vertical guidance for which a precision approach procedure has been approved.

Utility Runway. A runway that is constructed for and intended to used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

Visual Runway. A runway without an existing or planned straight-in instrument approach procedure and no instrument approach procedure/equipment.

Runway Alignment Indicator Lights (RAILS). *See Approach Light System.*

Runway Blast Pad. A surface adjacent to the ends of the runways provided to reduce the erosive effect of jet blast and propeller wash.

Runway Centerline Lighting. *See Airport Lighting.*

Runway Distance Remaining Sign. *See Airport Signs.*

Runway Edge Lights. *See Airport Lighting.*

Runway End Identifier Lights (REIL). *See Airport Lighting.*

Runway Environment. The physical runway and the areas surrounding the runway out to the hold position marking.

Runway Gradient. The ratio of the change in elevation divided by the length of the runway expressed as a percentage.

Runway Heading. The magnetic direction that corresponds with the runway centerline extended.

Runway Incursion. Any occurrence at an airport involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.

Runway Lights. *See Airport Lighting.*

Runway Protection Zone (RPZ). A trapezoidal area off the runway end intended to enhance the protection of people and property on the ground.

Runway Safety Area (RSA). A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

Runway Visual Range (RVR). The distance over which a pilot of an aircraft on the centerline of the runway can see the runway surface markings delineating the runway or identifying its centerline. RVR is normally expressed in feet.

Safety Assessment. *See Safety Management System.*

Safety Assurance. *See Safety Management System.*

Safety Management System. The formal top-down business-like approach to managing safety risk. It includes systematic procedures, practices, and policies for the management of safety (including safety risk management, safety policy, safety assurance, and safety promotion).

> ***Gap Analysis.*** Identification of existing safety components, compare to SMS program requirements. Gap analysis provides an airport operator an initial SMS development plan and Safety roadmap to compliance.
>
> ***Hazard.*** Any existing or potential condition that can lead to injury, illness, or death to people; damage to or loss of a system, equipment, or property, or damage to the environment. A hazard is a condition that is a prerequisite to an accident or incident.
>
> ***Risk Assessment.*** Assessment of the system or component to compare the achieved risk level with the tolerable risk level.
>
> ***Safety Assessment.*** A systematic, comprehensive evaluation of an implemented system.
>
> ***Safety Assurance.*** SMS process management functions that systematically provides confidence that organizational products/services meet or exceed safety requirements.

Safety Policy. Defines the fundamental approach to managing safety that is to be adopted within an organization. Safety policy further defines the organization's commitment to safety and overall safety vision.

Safety Promotion. A combination of safety culture, training, and data sharing activities that supports the implementation and operation of an SMS in an organization.

Safety Risk Control. Anything that mitigates the safety risk of a hazard. Safety risk controls necessary to mitigate an unacceptable risk should be mandatory, measureable, and monitored for effectiveness.

Safety Risk Management (SRM). A formal process within the SMS composed of describing the system, identifying the hazards, assessing the risk, analyzing the risk, and controlling the risk. The SRM process is embedded in the operation system: is not a separate/distinct process.

Severity. The consequence or impact of a hazard in terms of degree of loss or harm.

Safety Policy. *See Safety Management System.*

Safety Promotion. *See Safety Management System.*

Safety Risk. *See Safety Management System.*

Safety Risk Control. *See Safety Management System.*

Safety Risk Management (SRM). *See Safety Management System.*

Scope. The document that identifies and defines the tasks emphasis, and level of effort associated with a project or study.

Self-Fueling. The fueling of an aircraft by the owner or operator of the aircraft.

Segmented Circle. A circle located on an airport where wind and runway pattern information are located. It performs two function: it aids the pilot in locating the obscure airports, and it provides a centralized location for wind and traffic pattern indicators as may be required on a particular airport.

Separation. The spacing of aircraft to achieve their safe and orderly movement in flight, and while landing and taking off.

Severity. *See Safety Management System.*

Shoulder. An area adjacent to the edge of paved runways, taxiways, or aprons providing a transition between the pavement and the adjacent surface; support for aircraft running off the pavement; enhanced drainage; and blast protection.

Small Airplane. *See Aircraft.*

Small Hub Airport. *See Airport*.

Snow Removal Equipment (SRE). Equipment, such as plow trucks and brooms, to remove snow from the paved surfaces on an airport.

Sponsor. A public agency or private owner of a public-use airport that submits to the Secretary an application for financial assistance for the airport.

Surface Movement Guidance and Control System (SMGCS). Systems providing routing, guidance, surveillance and control to aircraft and affected vehicles in order to maintain movement rates under all local weather condition within the Aerodrome Visibility Operational Level (AVOL) whilst maintaining the required level of safety.

System of Airport Reporting (SOAR). The FAA Office of Airport integrated database that contains airport planning, development, and financial information.

Tactical Air Navigation (TACAN). *See Navigation Aid.*

Tailwind. Any wind more than 90 degrees to the longitudinal axis of the runway.

Takeoff Distance Available (TODA). The TORA plus the length of any remaining runway or clearway (CWY) beyond the far end of the TORA.

Takeoff Run Available (TORA). The runway length declared available and suitable for the ground run of an airplane taking off.

Taxi. The movement of an airplane under its own power on the surface of an airport.

Taxilane (TL). The portion of the aircraft parking area used for access between taxiways and aircraft parking positions.

Taxiway (TW). A defined path established for the taxiing aircraft from one part of an airport to another.

Parallel Taxiway. A taxiway whose centerline is parallel to an adjacent runway.

Taxiway Safety Area (TSA). A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.

Technical Advisory Committee (TAC). A group of individual that provide input on technical issues.

Terminal Area. A general term used to describe airspace in which approach control service or airport traffic control service is provided.

Terminal Area Forecast (TAF). The official forecast of aviation activity, both aircraft and enplanements, at FAA facilities. This includes FAA-towered airports, federally contracted towered airports, non-federal towered airports, and many non-towered airports.

Terminal Instrument Procedures (TERPS). Published flight procedure standards for conducting instrument approaches to runways under instrument meteorological conditions. Information on TERPS is contained in FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).

Threshold (TH). The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.

Displaced Threshold. A threshold that is located at a point on the runway other than the designated beginning of the runway.

Threshold Lighting. *See Airport Lighting.*

Through-the-Fence Operations. Those activities permitted by the airport sponsor through an agreement that permits access to the public landing area by independent entities or operator offering an aeronautical activity or to owners of aircraft based on land adjacent to, but not a part of, the airport property. The obligation to make an airport available for the use and benefit of the public does not impose any requirement for the airport sponsor to permit ground access by aircraft from adjacent property.

Throughput Capacity. *See Capacity.*

Touchdown Zone Lighting. *See Airport Lighting.*

Traffic Pattern. The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The following

defines components of a standard traffic pattern:

> ***Base Leg***. A flight path at right angles to the landing runway off its approach end. The base leg extends from the downwind leg to the intersection of the extended runway centerline.
>
> ***Crosswind Leg.*** A flight path at right angles to the landing runway off its upwind end.
>
> ***Downwind Leg.*** A flight path parallel to the landing runway in the direction opposite to landing. The downwind leg normally extends between the crosswind leg and the base leg.
>
> ***Upwind Leg***. A flight path parallel to the landing runway in the direction of the landing.

Transitional Surface. *See Imaginary Surfaces.*

Transient Operations. *See Operation.*

Transportation Security Administration (TSA). An agency established in 2001 to safeguard United States transportation systems and to insure safe air travel. TSA operates under the Department of Homeland Security.

True Heading. A heading relative to the actual North and South Poles of the Earth, rather than the magnetic poles.

Uncontrolled Airport. *See Airport.*

Uncontrolled Airspace. Airspace where an ATC service is not deemed necessary or cannot be provided for practical reasons. Uncontrolled airspace is a generic term that covers Class F and Class G Airspace.

Universal Integrated Communications (UNICOM). An air-ground communication facility operated by a private agency to provide advisory service at uncontrolled airport. Aircraft call the ground station to make announcements of their intentions. In some cases, the ground station is not staffed. If no one is staffing the ground station, pilots broadcast their location and intentions over the UNICOM or CTAF channel. When the ground station is closed this is done without an acknowledgement.

Upwind Leg. *See Traffic Pattern.*

Utility Runway. *See Runway.*

Visibility. A measure of the horizontal opacity of the atmosphere at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night; and is expressed in terms of the horizontal distance at which a person should be able to see and identify, is measured in statute miles.

Visual Approach. An approach conducted on an IFR flight plan which authorizes the pilot to proceed visually and clear of clouds to the airport. The pilot, at all times, must have either the airport or the preceding aircraft in sight. Reported weather at the airport must be ceiling at or above 1,000 feet and visibility of three miles or greater.

Visual Approach Slope Indicator (VASI). *See Navigational Aid.*

Visual Flight Rules (VFR). Procedures for the conduct of flight in weather conditions above Visual Flight Rules (VFR) weather minimums. The term VFR is often also used to define weather conditions and type of flight plan under which an aircraft is operating. VFR is defined as the weather condition whenever the cloud ceiling is at least 1,000 feet above ground level and visibility is at least three statue miles.

Visual Meteorological Conditions (VMC). Meteorological conditions expressed in terms of specific visibility and ceiling conditions which

are equal to or greater than the threshold values for IMC.

Visual Runway. *See Runway.*

VOR. *See Navigation Aid.*

VORTAC. *See Navigation Aid.*

Wide Area Augmentation System (WAAS). An enhancement of the GPS that includes integrity broadcasts, differential correction, and additional ranging signals for the purpose of providing the accuracy, integrity, availability, and continuity required to support all phases of flight.

Wildlife Attractants. Any human-made structure, land-use practice, or human-made or natural geographic feature that can attract or sustain hazardous wildlife within the approach or departure airspace or the airport's AOA. These attractants can include architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquaculture activities, surface mining, or wetlands.

Wildlife Hazard Assessment (WHA).

Wind Direction. Is the opposite direction in which the windsock is pointing, and is specified in terms of magnetic heading.

Windsock (Wind Cone). A conical textile tube designed to indicate wind direction and relative wind speed.

APPENDIX B

METEOROLOGIST, MAL SILLARS

Jviation

Mal Sillars
Professional Meteorologist

Post Graduate: University of Michigan, Ann Arbor, MI.
Course work in Meteorology, 1968-69, 1971-72
Graduate: West Virginia University, Morgantown, WV.
Received Master of Science Degree in Physics, 1967
College: Bethany College, Bethany, WV. Received Bachelor of Science Degree in Physics, 1963

1996 - present	Mal Sillars Consulting Meterologist. Buena Vista, CO
1999 - 2006	Government Certified Weather Observer, SAWRS Central Colorado Regional Airport, Buena Vista, CO
1999 – present	Buena Vista National Weather Service Cooperative Observer
1984 - 1996	Mal Sillars Weather Consultants, Inc. Grosse Pointe, MI President
1980 - 1995	WDIV TV-4 Detroit, Michigan Chief Meteorologist
1973 - 1980	Commercial Weather Services, Inc. Vice President, Flint, MI

APPENDIX C

NOISE ANALYSIS

KBE Final - 10/11/16

Existing Noise

The extent of existing noise resulting from aircraft operations at Central Colorado Regional Airport (AEJ) was determined using the FAA-approved computer simulation model—the Aviation Environmental Design Tool (AEDT), Version 2b. The AEDT produces Day-Night Average Sound Level (DNL) contours (i.e., lines of equal noise exposure). The following provides an overview of the AEDT and the DNL metric.

The AEDT produces aircraft noise contours that delineate areas of equal day-night average sound levels (DNL). The AEDT works by defining a network of grid points at ground level around an airport. It then selects the shortest distance from each grid point to each flight track and computes the noise exposure generated by each aircraft operation, along each flight track. Corrections are applied for atmospheric acoustical attenuation, acoustical shielding of the aircraft engines by the aircraft itself, and aircraft speed variations. The noise exposure levels for each aircraft are then summed at each grid location. The cumulative noise exposure levels at all grid points are then used to develop noise exposure contours for selected values (e.g. 65, 70 and 75 DNL). Using the results of the grid point analysis, noise contours of equal noise exposure can then be plotted.

A DNL is a 24-hour (average day), time-weighted sound level that is expressed in A-weighted decibels. The FAA, and other federal agencies, use DNL as the primary measure of noise impact because: it correlates well with the results of attitudinal surveys regarding noise; it increases with the duration of noise events; and, it accounts for an increased sensitivity to noise at night by increasing each noise event that occurs during nighttime hours (10 pm to 7 am) by a factor of 10.

In Appendix A of 14 CFR Part 150, *Airport Noise Compatibility Planning*, the FAA identifies, as a function of yearly (365-day average) DNL value, land uses which are compatible and land uses which are non-compatible in an airport environs. As shown in **Table 1**, the FAA considers all land uses to be compatible with aircraft noise if the DNL is less than 65 DNL.

Table 1. Land Use Compatibility

Land use	DNL					
	Below 65	**65–70**	**70–75**	**75–80**	**80–85**	**Over 85**
Residential						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
Public Use						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail—building materials, hardware and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade—general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

SLUCM=Standard Land Use Coding Manual. Y (Yes) = Land Use and related structures compatible without restrictions. N (No) = Land Use and related structures are not compatible and should be prohibited. NLR = Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30, or 35=Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.
(1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
(2) Measures to achieve NLR 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(4) Measures to achieve NLR 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal level is low.
(5) Land use compatible provided special sound reinforcement systems are installed.
(6) Residential buildings require an NLR of 25.
(7) Residential buildings require an NLR of 30.
(8) Residential buildings not permitted.

Source: 14 CFR Part 150

AEDT Input Data

In the development of DNL contours, the AEDT uses both default and airport-specific factors. The default factors include engine noise levels, thrust settings, aircraft arrival and departure flight profiles and aircraft speed. The airport-specific factors include the number of aircraft operations, the type of aircraft, the airport elevation, runway use, operational time (day/night), and, for departures, the distance from AEJ to destination airports. The following describes these AEJ-specific data.

Aircraft Operations

The FAA requires the use of an annual-average day condition, which means the AEDT takes into account all operations that occurred at the airport over a 365-day period inclusive of the runways and flight paths used, the types of aircraft, and the time each operation occurred. Therefore, the AEDT outputs will not depict the noise levels on any specific day, but rather on an average day of the year. The total aircraft operations that occurred at the airport in 2015 were be divided by 365 in order to generate the total operations that occurred on an average day.

An aviation activity forecast for AEJ was prepared as part of this Master Plan with a baseline year of 2015. The overall forecast of aviation activity was divided into categories of aircraft. The 2015 aircraft operations by category is provided in **Table 2.** As shown, in 2015 there were 4,392 operations at AEJ (an average of approximately 12 operations per day).

Table 2. 2015 Annual Aircraft Operations by Category

Aircraft Category	Operations
General Aviation Local	1,702
General Aviation Itinerant	2,690
Total	**4,392**

Source: Draft Central Colorado Regional Airport Master Plan Update, July, 2015

Time of Day

As previously stated, DNL is calculated such that aircraft operations that occur after 10 pm and before 7 am (i.e., during the nighttime) are penalized by a factor of 10. For noise modeling purposes, it was estimated that approximately five percent of the operations at AEJ occur during the nighttime hours.

Aircraft Fleet Mix

The FAA's Traffic Flow Management System Count (TFMSC) was used to develop the 2015 AEDT aircraft fleet mix for AEJ. TFMSC data provides information on traffic counts by airport and includes the specific aircraft types operating at that airport.

The AEDT includes a number of individual aircraft types as well as a number of FAA-approved substitute aircraft. The TFMSC data for AEJ was reviewed and each aircraft type was assigned an AEDT aircraft type (or approved substitute).

For the purposes of preparing DNL contours, operational data were segregated by aircraft type and by type of operation. Aircraft operations were segregated as being local or itinerant. An itinerant operation is defined as an aircraft departure where the aircraft leaves the airport vicinity and lands at another airport, or an aircraft landing where the aircraft arrives from another airport. Local operations are aircraft conducting training operations in the vicinity of the airport.

The 2015 AEDT aircraft fleet of itinerant and local aircraft operations, by time of day, are provided in **Table 3.**

Table 3. 2015 Annual Operations and AEDT Fleet Mix

Operation Type	Aircraft Category	Aircraft Types	AEDT Aircraft	Daytime Operations	Nighttime Operations	Total Operations
GA Itinerant	Single-Engine Piston	Piper 24/32/32R, Mooney M20K	GASEPV	413	21	434
		Cessna 206	CNA206	34	2	36
		Cessna 182	CNA182	31	2	33
		Piper Cherokee PA28/PA28R	PA28	21	1	22
		Cessna 172	CNA172	12	1	13
	Multi-Engine Piston	Beech 55/58, Cessna 310/340/404/414/421	BEC58P	399	21	420
		Piper 31	PA31	29	2	31
	Turboprop	Cessna 425/441, Piper Cheyenne 2/3/4	CNA441	304	16	320
		Cessna 208, Pilatus PC-12, Socata TBM 7/8	CNA208	93	5	98
		Piaggio P-180	DHC6	26	1	27
	Jet	Lear 31/35/40/45/55	LEAR35	303	16	319
		Cessna Citation	CIT3	292	15	307
		Cessna Citation X	CNA750	261	14	275
		Cessna Citation C560	CNA560E	104	5	109
		Cessna Citation C680	CNA680	87	5	92
		Bombardier Challenger 300/600/604, Gulfstream G200	CL600	73	4	77
		Beechjet 400	CNA500	73	4	77
	Itinerant Total			***2,555***	***135***	***2,690***
GA Local	Single-Engine Piston	Piper 24/32/32R, Mooney M20K	GASEPV	1,455	77	1,532
		Cessna 206	CNA206	81	4	85
	Multi-Engine Piston	Beech 55/58, Cessna 310/340/404/414/421	BEC58P	81	4	85
	Local Total			***1,617***	***85***	***1,702***
Grand Total				***4,172***	***220***	***4,392***

Sources: FAA's Traffic Flow Management System Counts (TFMSC), Draft Central Colorado Regional Airport Master Plan Update, July, 2015, KB Environmental Sciences, Inc.

Runway Use

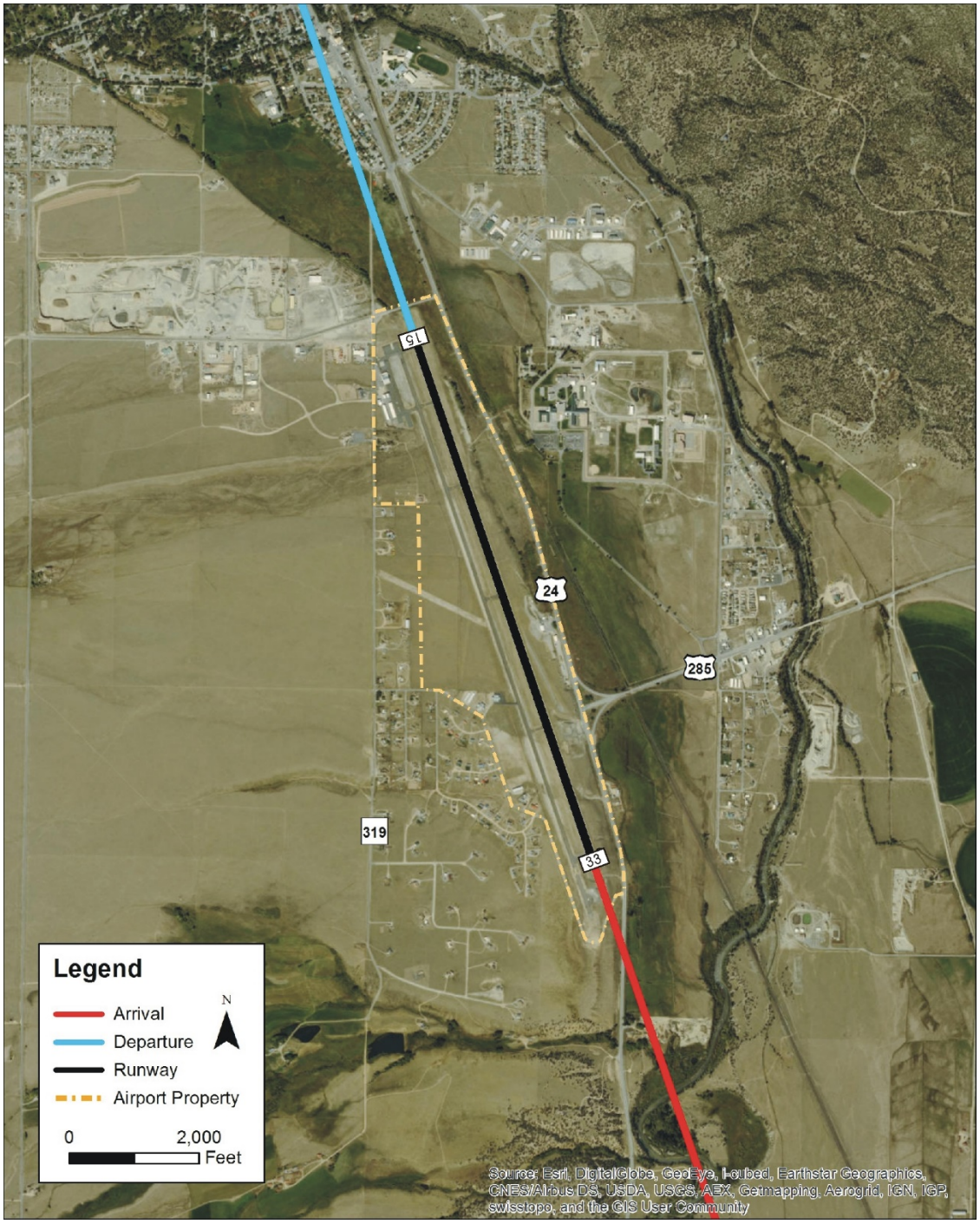
AEJ currently has one runway - 15/33 which is 8,303 feet long and 75 feet wide. Based on historic wind data, for modeling purposes, it was assumed that the airport operates in south flow approximately 95% of the time and in north flow approximately 5% of the time.

Flight Tracks and Profiles

The AEDT uses airport-specific ground tracks and vertical flight profiles to compute three-dimensional flight paths for each modeled aircraft. The default AEDT vertical profiles, which consist of altitude, speed, and thrust settings, are compiled from data provided by aircraft manufacturers.

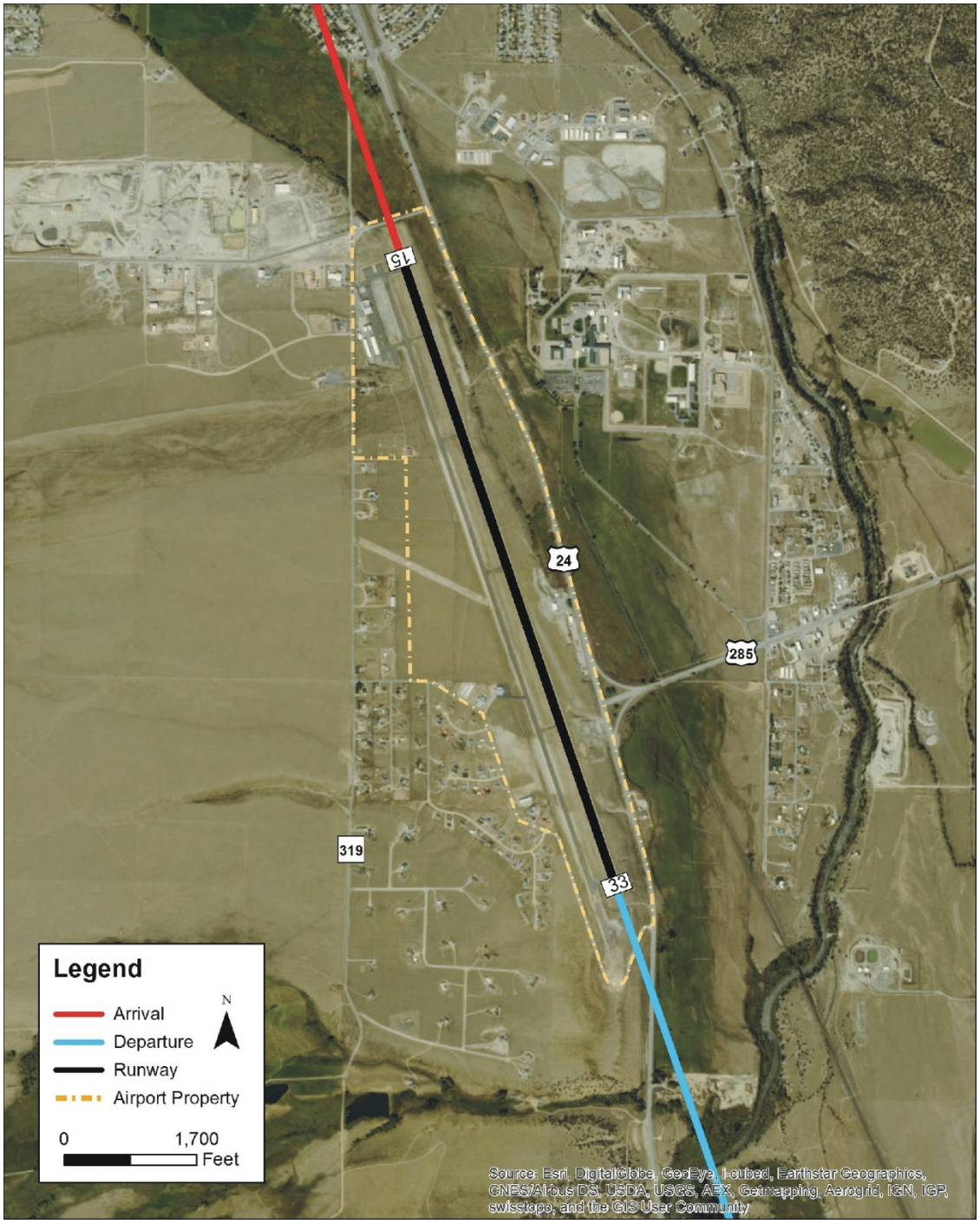
Because it was assumed that the aircraft noise contours would not extend far beyond the airport runway, the locations of the existing aircraft arrival and departure flight paths (i.e., tracks) in the immediate vicinity of AEJ were modeled straight in/out from each runway end. Local tracks were modeled following a standard left pattern from Runway 33 and a right pattern from Runway 15. The itinerant AEDT flight tracks are shown on **Figures 1** and **2**, and the local tracks are shown on **Figure 3**.

Figure 1. AEDT Itinerant Flight Tracks – North Flow



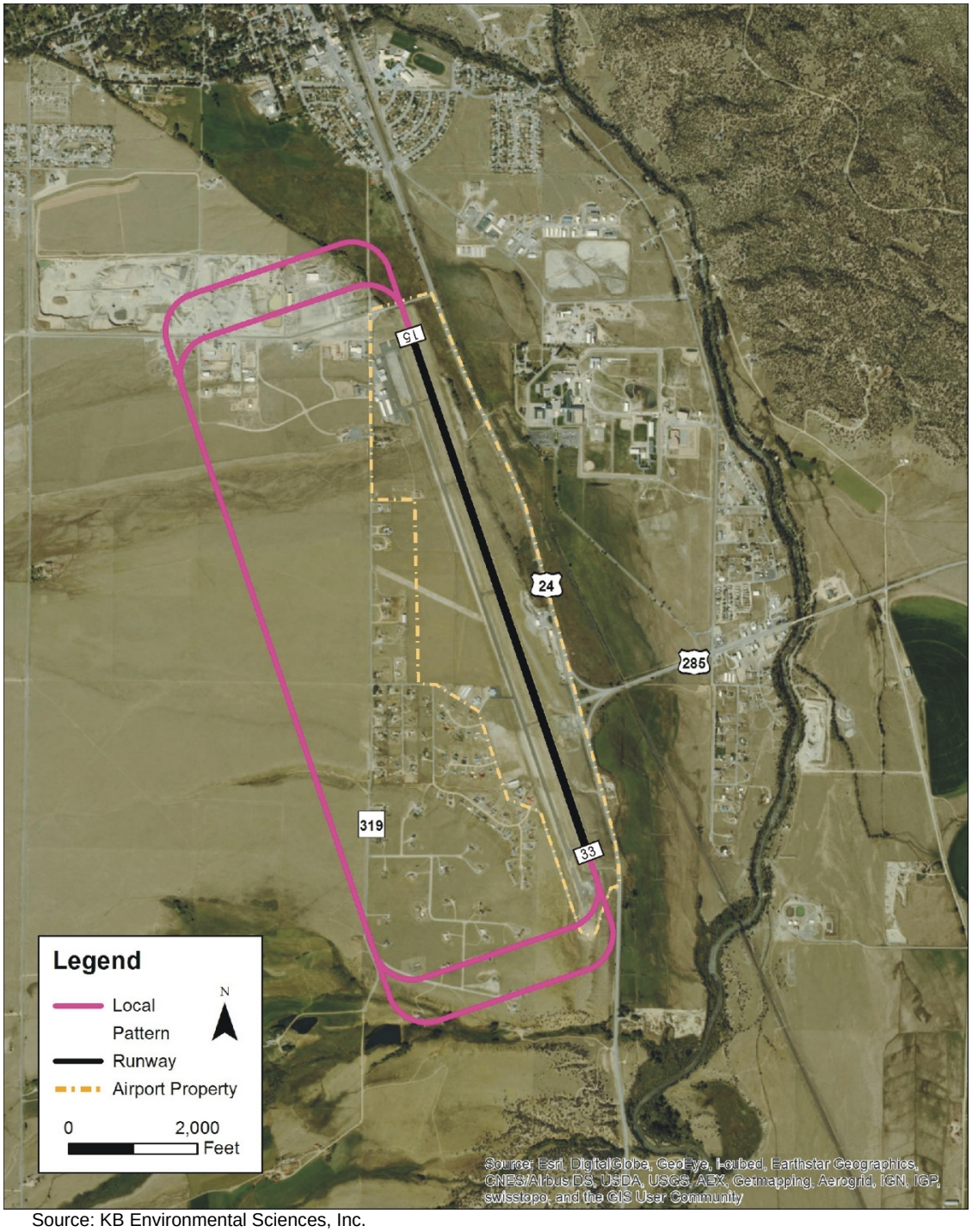
Source: KB Environmental Sciences, Inc.

Figure 2. AEDT Itinerant Flight Tracks – South Flow



Source: KB Environmental Sciences, Inc.

Figure 3. AEDT Local Pattern Flight Tracks

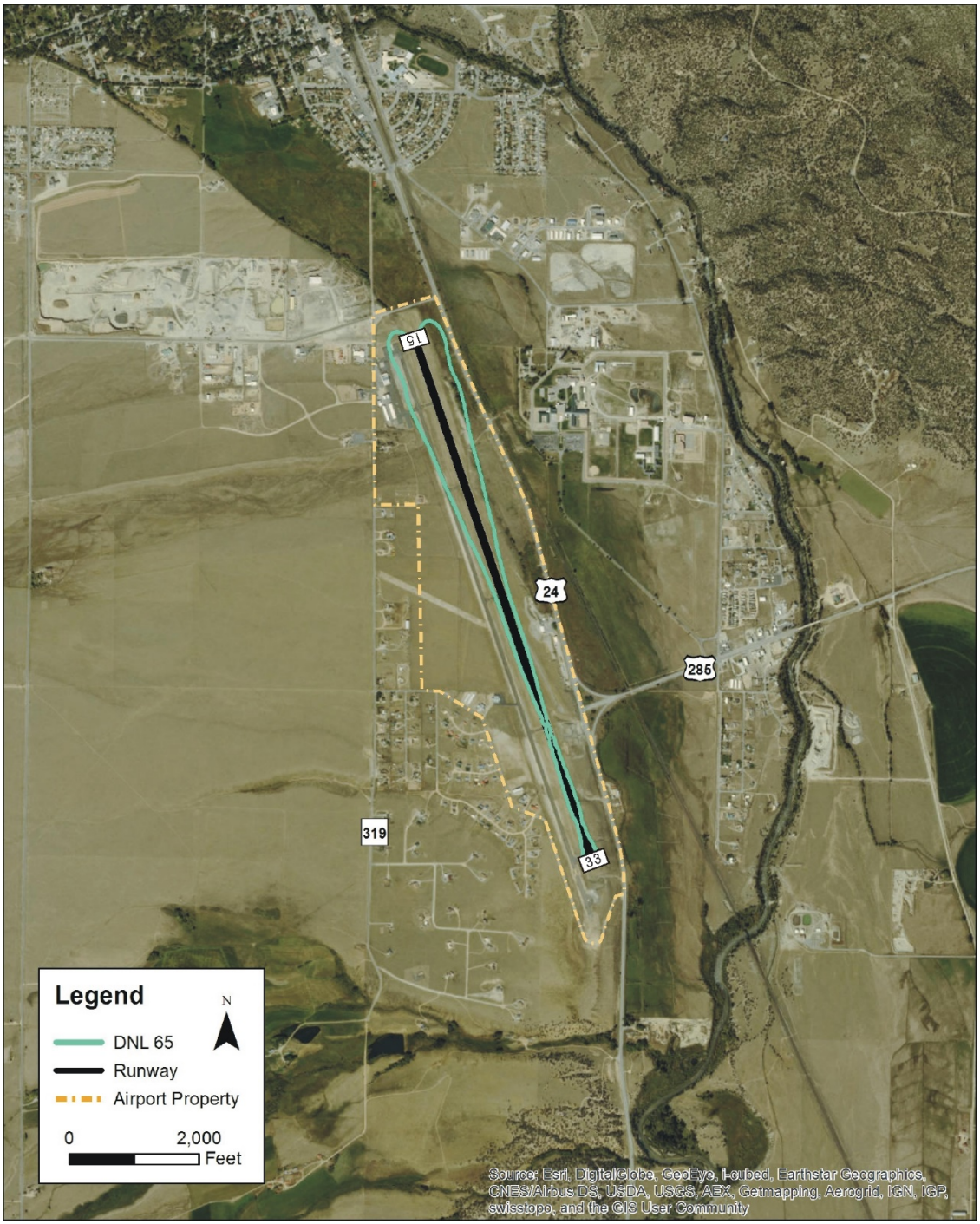


Source: KB Environmental Sciences, Inc.

2015 DNL Contours

The 2015 65 DNL contour is provided on **Figure 4.** The total area encompassed by the 65 DNL contour is 72 acres. The 65 DNL contour falls within the limits of the property owned by the airport. There are no residences or other noise sensitive uses within the 2015 65 DNL contour limits.

Figure 4. 2015 DNL Contours



Source: KB Environmental Sciences, Inc.

NOTE: Given the minimal size of the 70 and 75 DNL contours, they are not shown graphically on the figure.

Future (2035) Aircraft Operations

A forecast of aviation activity for AEJ was prepared as part of the Master Plan. The forecast of operations for the year 2035 by aircraft category is presented in **Table 4.** As shown, the 2035 forecast includes 6,859 operations at AEJ (an average of approximately 19 operations per day).

Table 4. 2035 Annual Aircraft Operations by Category

Aircraft Category	Operations
General Aviation Local	2,525
General Aviation Itinerant	4,334
Total	**6,859**

Source: Draft Central Colorado Regional Airport Master Plan Update, July, 2015

Future (2035) Aircraft Fleet Mix

The 2035 aircraftfleet mix was determined by applying the percentages of the aircraft types that occurred in 2015 to the total ooperations forecast to occur at the airport in 2035. The 2035 aircraft fleet of itinerant and local operations, by time of day, are provided in **Table 5**.

Future (2035) Operational Time of Day

The percentages of operations that were modeled during daytime/nighttime hours for 2035 were the same as those modeled for the 2015 condition.

Future (2035) Aircraft Flight Tracks

The flight tracks, flight track use, and profiles modeled for 2035 were the same as those modeled for the 2015 condition.

Table 5. 2035 Annual Operations and AEDT Fleet Mix

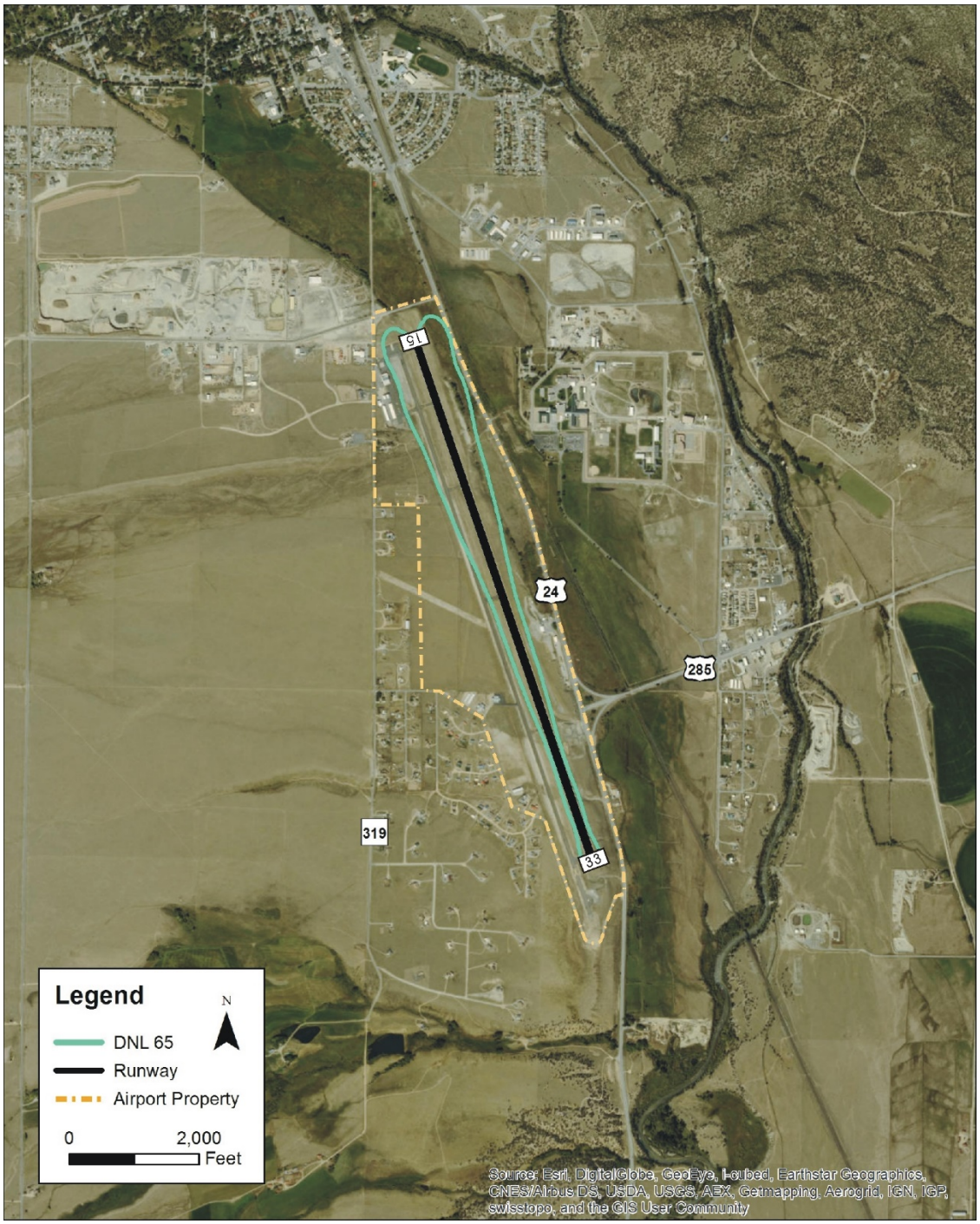
Operation Type	Aircraft Category	Aircraft Types	AEDT Aircraft	Daytime Operations	Nighttime Operations	Total Daily Operations
GA Itinerant	Single-Engine Piston	Piper 24/32/32R, Mooney M20K	GASEPV	668	35	703
		Cessna 206	CNA206	55	3	58
		Cessna 182	CNA182	51	3	54
		Piper Cherokee PA28/PA28R	PA28	33	2	35
		Cessna 172	CNA172	20	1	21
	Multi-Engine Piston	Beech 55/58, Cessna 310/340/404/414/421	BEC58P	643	34	677
		Piper 31	PA31	48	2	50
	Turbo-prop	Cessna 425/441, Piper Cheyenne 2/3/4	CNA441	490	26	516
		Cessna 208, Pilatus PC-12, Socata TBM 7/8	CNA208	150	8	158
		Piaggio P-180	DHC6	41	2	43
	Jet	Lear 31/35/40/45/55	LEAR35	488	26	514
		Cessna Citation	CIT3	470	25	495
		Cessna Citation X	CNA750	421	22	443
		Cessna Citation C560	CNA560E	166	9	175
		Cessna Citation C680	CNA680	139	7	146
		Bombardier Challenger 300/600/604, Gulfstream G200	CL600	117	6	123
		Beechjet 400	CNA500	117	6	123
	Itinerant Total			***4,117***	***217***	***4,334***
GA Local	Single-Engine Piston	Piper 24/32/32R, Mooney M20K	GASEPV	2159	114	2273
		Cessna 206	CNA206	120	6	126
	Multi-Engine Piston	Beech 55/58, Cessna 310/340/404/414/421	BEC58P	120	6	126
	Local Total			***2,399***	***126***	***2,525***
Grand Total				***6,516***	***343***	***6,859***

Sources: FAA's Traffic Flow Management System Counts (TFMSC), Draft Central Colorado Regional Airport Master Plan Update, July 2015, KB Environmental Sciences, Inc.

2035 DNL Contours

The 2035 65 DNL contour is provided on **Figure 5**. The total area within the 65 and greater DNL contour is 107 acres. The 65 DNL contour remains within the limits of the airport property boundary. There are no residences or other noise sensitive uses within the 2035 65 DNL.

Figure 5. 2035 DNL Contour



Source: KB Environmental Sciences, Inc.

NOTE: Given the minimal size of the 70 and 75 DNL contours, they are not shown graphically on the figure.

APPENDIX D

AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION PLAN

AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION PLAN

The Federal Aviation Administration (FAA) issued a memorandum on September 30, 2014 to provide guidance on preparing airport recycling, reuse, and waste reduction plans as an element of a master plan, master plan update, within a sustainability document, or as a standalone document. The guidance is mandatory when preparing a master plan or update.

The purpose of this document is to review the Central Colorado Regional Airport's (AEJ or Airport) recycling, reuse, and waste program and provide guidance on ways to reduce waste and improve recycling and reuse at the facility as part of the Master Plan in compliance with the FAA's memorandum. This document serves to meet that requirement and will:

- Review existing practices and solid waste sources (waste audit)
- Review the feasibility of solid waste recycling at the Airport
- Summarize operation and maintenance (O&M) requirements
- Review waste management contracts
- Identify potential cost savings or revenue generation
- Provide recommendation to minimize solid waste generation

FACILITY DESCRIPTION AND BACKGROUND

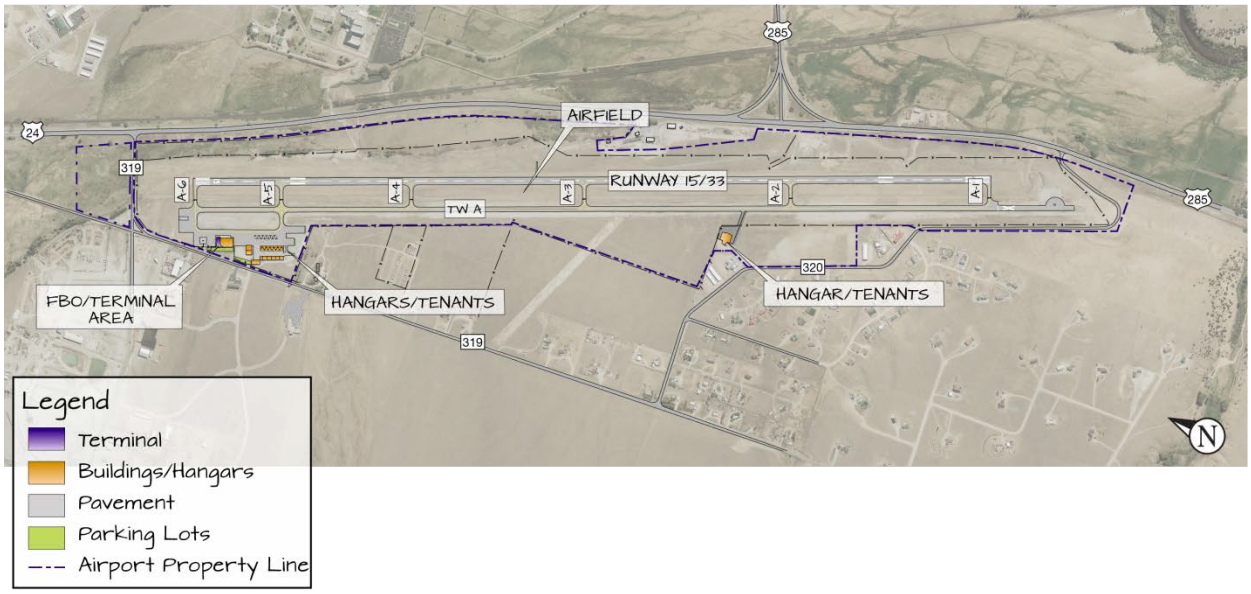
AEJ is located in the Upper Arkansas River Valley in Colorado, approximately two miles south of the Central Business District (CBD) of Buena Vista. AEJ is owned by the Town of Buena Vista and overseen by the Buena Vista Airport Authority Board. Additional facility information is in Chapter 1, Introduction and Chapter 2, Inventory of the Master Plan.

The Airport is a key asset for the viability and economic health of Buena Vista as well as neighboring towns throughout the Arkansas River Valley. AEJ has seen significant fluctuations in aircraft operations and based aircraft, as described in Chapter 3, Forecast of Aviation Activity. AEJ had approximately 4,392 operations and 28 based aircraft in 2015. It is forecasted that in 2035 AEJ will have approximately 6,859 operations and 50 based aircraft.

Existing Waste Sources

The identification and evaluation of airport waste sources can be complicated. There are many different groups, agreements, operational styles, and collection/disposal processes that play into the overall generation of waste. AEJ airport management identified three primary sources of waste: the FBO/Terminal Area, Hangars/Tenants, and the Airfield. See **Figure 1** for each area's location. Of these three sources, the FBO/Terminal Area was found to produce the most solid waste.

FIGURE 1 - SOURCES OF WASTE



Source: AEJ Airport Management and Jviation, Inc.

The sources of waste, per the FAA September 30, 2014 memo, can be further broken down by how much control the airport has on the generation and disposal of waste. The three levels of control are:

1. Areas where the airport has *direct control* of waste management (public space, office space, terminal building, airfield). These areas are controlled by the airport and they are able to introduce recycling, reuse, and waste reduction programs directly.
2. Areas where the airport has *no direct control* but can *influence* waste management (tenants). These are areas owned by the airport; however, they are leased out to tenants. The airport can recommend that recycling, reuse, and waste reduction programs be used and can include language in the tenant contracts, but realistically can't control what is done.

3. Areas where the airport has *no control* or *influence* over waste management. These are areas the airport neither owns or leases (none of which are included in this chapter).

Table 1 shows the identified areas of waste generation, what waste is generated, how the waste is collected, if any reduction and/or recycling programs are in place, and AEJ's level of control.

TABLE 1 - WASTE GENERATION AREAS

Area	*Waste Generated*	*Current Solid Waste Collection*	*Current Waste Reduction/Recycling*	*Control*
Area 1: FBO/Terminal Area	Plastic, glass, aluminum, oil, batteries, trash	Trash and recyclables collected and delivered to Buena Vista waste facilities and Recycling Centers.	Use of Buena Vista Recycling Centers. Oil collected and taken to NAPA Automotive for recycling.	Direct
Area 2: Hangars/Tenants	Plastic, glass, aluminum, oil, batteries, trash	Hangar trash and recyclables collected and delivered to Buena Vista waste facilities and Recycling Centers.	Use of Buena Vista Recycling Centers. Oil collected and taken to NAPA Automotive for recycling.	Direct
Area 3: Airfield	General debris found on airfield. Construction material (asphalt, concrete, wood, metal)	Collected by staff, unusable waste deposited into AEJ dumpsters.	Excavated dirt is reused on airport property	Direct Control

Source: Central Colorado Regional Airport staff and Jviation

Current Waste Management Programs

The existing recycling and waste reduction programs are limited in Chaffee County and the Town of Buena Vista. However, there are several recycling centers open to the public including[1]:

- Angel of Shavano Recycling (located in Salida)
- Salida Hot Springs Pool (located in Salida)
- Chaffee County Landfill & Recycling Center (located in Salida)
- B.V. Recycling Center (located in Buena Vista)
- High Valley Center (located in Poncha Springs)
- Pak-Mail (located in Salida)

[1] Chaffee County, Colorado, http://www.chaffeecounty.org/Landfill-Recycling-Locations, Accessed August, 2015.

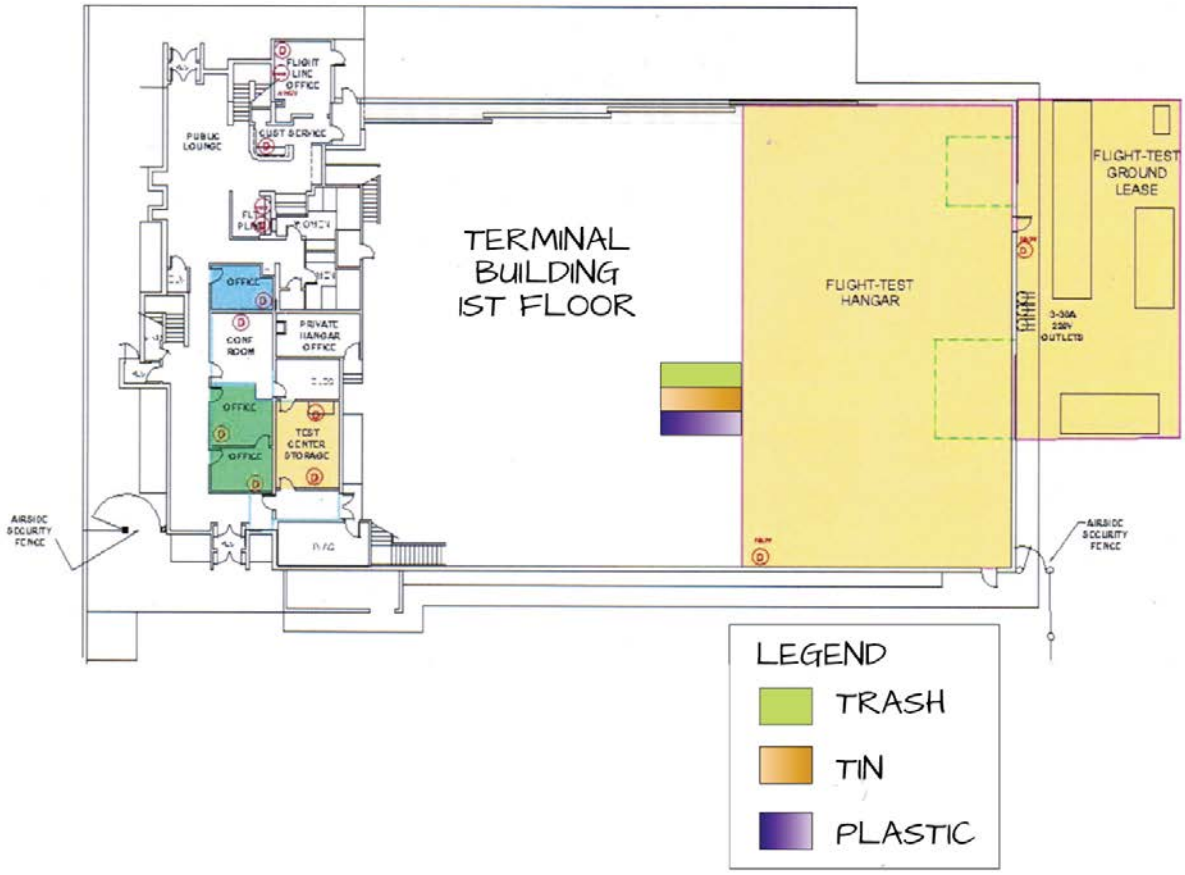
Cumulatively, the above-mentioned centers collect newspaper, aluminum/tin cans, brown paper bags, empty aerosol cans, clear/green/brown glass, cardboard, office paper, paperboard, magazines, plastic (#1-7), motor oil, batteries, metal, computers, copiers, printers, and other electronics[2].

Central Colorado Regional Airport

AEJ is actively involved in recycling and strives to make recycling easy for its visitors, tenants, and staff. As shown in **Figure 2**, the Airport provides four trash and recycling bins throughout the FBO/Terminal. The Airport collects a variety of items including oil, plastic, paper, aluminum, and glass. These items are collected by staff and taken to the Buena Vista Recycling Center. In addition, AEJ also collects used oil for recycling (taken to NAPA Automotive). Oil can also be deposited in the oil drum located near the fuel tanks, which is hauled to the local CARQUEST Auto Parts for disposal.

[2] Chafee County, Colorado, http://chaffeecountywaste.com/recycling/, Accessed September, 2015.

FIGURE 2 - TRASH AND RECYCLING BIN LOCATIONS



Source: AEJ Airport Management and Jviation, Inc.

Review of Recycling Feasibility

Currently, AEJ participates in a basic recycling program. They provide trash and recycling bins throughout the FBO/Terminal area and allow tenants to participate in the recycling program if they desire. Challenges identified with the current program are:

- Visitors are uneducated on what materials can and cannot be recycled
- AEJ does not require tenants to have recycling containers in place or to participate in airport initiatives

The Airport recognizes these challenges and plans to post education material near recycling bins notifying visitors what items can be recycled. The Airport also plans to encourage tenants to participate in their recycling program.

Operation and Maintenance Requirements

The operations staff is currently responsible for the collection and disposal of all waste throughout the Airport. The recyclables are collected and sorted by airport operations staff, who then takes the recyclables to the Public Works department. The staff also evaluates the recyclables for contamination.

Review of Waste Management Contracts

AEJ does not currently have any private contracts in place to collect and remove recyclables. The staff is responsible for the collection of recyclables and also hauls it off airport property.

Contracts with existing tenants do not require tenants to participate in any recycling programs or provide recycling bins for customers and employees. It is recommended that AEJ add language to future contracts that requires tenants to provide recycling bins and participate in the city's program.

Potential for Cost Savings or Revenue Generations

AEJ does not rent any recycling bins or dumpsters, nor do they pay anyone to collect and handle their recyclables. Therefore, they are saving money at the forefront of their recycling plan. However, as the amount of recyclable material and waste increases, additional costs may be associated with removal. As such, the best way to reduce waste while also minimizing costs would be reduce the amount of waste generated and keep as much material on-airport as possible. This is best achieved by reusing materials when

possible (including airfield construction material) and educating staff, tenants, and contractors on ways to reduce the amount of waste they generate.

Plan to Minimize Solid Waste Generation

AEJ voluntarily participates in a recycling program; however, the Airport is aware that their recycling, reuse, and waste reduction program can be improved through a few simple practices such as:

- Provide adequate signage with recycling bins clearly showing type of materials accepted.
- Provide educational material to tenants and airport employees on what material should be recycled and the appropriate business contacts.
- Add recycling, reuse, and reduce waste objectives to future tenant leases.
- When feasible, purchase products made from recycled material and encourage tenants to do so as well.

The above-mentioned practices are relatively basic; however, the success of implementing a long-term recycling, reuse, and waste reduction program requires management buy-in, staff commitment, planning, and follow-up. **Figure 3** outlines "10 Steps to Design and Implement an Effective Airport Recycling/Waste Minimization Program" as recommended by the FAA in their *Recycling, Reuse and Waste Reduction at Airports – A Synthesis Document*[3]. AEJ should follow these steps when implementing their recycling program.

[3] FAA, Recycling, Reuse and Waste Reduction at Airport – A Synthesis Document, 2013

FIGURE 3 - 10 STEPS TO DESIGN AND IMPLEMENT RECYCLING PROGRAM

Source: FAA, Recycling, Reuse and Waste Reduction at Airport – A Synthesis Document, 2013

CONCLUSION

AEJ has a basic recycling program in place; however, with minimal effort and expense they could implement some very basic procedures to improve their program and reduce the amount of solid waste they generate. Through coordination with local entities, AEJ could play a more active role in recycling, reusing, and reducing solid waste.

APPENDIX E

USER SURVEYS

Centeral Colorado Regional Airport (AEJ) Owner/Operator Survey

Page One

1. Name

2. Email

3. Please select your aircraft:

	Aircraft 1	Aircraft 2	Aircraft 3
Type	Aircraft 1 Single Engine Piston Multi Engine Piston Turbo-prop Jet Helicopter Other	Aircraft 2 Single Engine Piston Multi Engine Piston Turbo-prop Jet Helicopter Other	Aircraft 3 Single Engine Piston Multi Engine Piston Turbo-prop Jet Helicopter Other

4. Please list the make(s) and model(s) of your aircraft regardless of where they are stored the majority of the year.

5. Including Touch-and-Go operations (counts as two operations, both a landing and a takeoff), approximately how many operations (takeoffs and landings) would you estimate that you conduct at AEJ in a typical year?

6. Are any of your aircraft stored the majority of the year at AEJ?

If yes, please indicate your current lease expiration date.

If no, please indicate where your aircraft is(are) primarily based.

7. Hangar Space:

Do you desire any additional hangar space at AEJ?

Yes
No

If yes, please describe the ownership arrangement, size, and type of hangar.

- ☐ Lease a T-hangar unit
- ☐ Construct a T-hangar and lease out units
- ☐ Construct a conventional box hangar 60'x60' or smaller
- ☐ Construct a conventional box hangar larger than 60'x60'
- ☐ Lease space

8. Runway Length:

Is the existing runway length adequate for your requirements?

Yes
No

Pleases provide any comments regarding runway length.

Page Two

9. FBO Services:

Are the FBO services provided adequate for your needs?

- Yes
- No

Are there additional services that the FBO should provide to better serve you or other members of the flying community?

10. What facilities, activities, or capabilities do you consider essential for the Airport to provide?

- Aircraft Fueling Services (Self-Service, FBO Fueling)
- Aircraft Maintenance
- GA Terminal Facilities
- Aircraft Tie-downs/Hangars
- Rental Cars
- Fire & Rescue
- Tourism/Entertainment Related Activities
- Precision Instrument Approach (e.g. ILS, GPS)
- Flight Instruction, Aircraft Rentals, Aircraft Charter, or Other Activities
- Restaurant
- Other

11. Please rate the following categories based on your experience at AEJ.

	[Poor] 1	2	3	4	5	6	7	8	9	10 [Excellent]
Runway Orientation	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Runway Length	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Condition of Pavements	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Instrument Approaches	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Visual Aids	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Navigational Aids	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hangar Space	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Hangar/Pad Lease Rates	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
FBO Services	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Unicom Services	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Apron Space	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

12. Please select one of the categories from question 11 that you believe should get the highest priority.

- Runway Orientation
- Runway Length
- Condition of Pavements
- Instrument Approaches
- Visual Aids
- Navigational Aids
- Hangar Space
- Hangar/Pad Lease Rates
- FBO Services
- Unicom Services
- Apron Space

13. Please rate how important you feel the Airport is to the local community and businesses. 1 indicates no value; 5 indicates high value.

14. Please share something based upon your experience that:

AEJ does particularly well...

AEJ could improve...

15. Please provide any additional thoughts or concerns regarding the facilities or services at AEJ.

Centeral Colorado Regional Airport (AEJ) Business Survey

(untitled)

1. This form was completed by:

First Name

Last Name

Title

Company Name

Phone Number

Email Address

(untitled)

2. How important, on a scale from 1 to 10, do you feel the Airport is to the local community and businesses? 10 indicates most important.

3. Please explain your ranking.

(untitled)

4. What is the proximity of your business to the Airport?

5. Are there improvements to the terminal that you would like to see?

(untitled)

6. Do you use the Airport for any company business?

- Yes
- No

7. If yes, in what capacity?

(untitled)

8. Please provide any additional thoughts or concerns regarding the facilities at AEJ.

Centeral Colorado Regional Airport (AEJ) Rental Car Survey

Page One

1. This form was completed by:

First Name

Last Name

Title

Company Name

Email Address

Phone Number

2. Facilities:

A) Is the Rental Car facility arrangement meeting your operational demands?

Yes
No

If not, what is needed?

B) Are means of notification and ease of company/client contact adequate for your needs?

Yes
No

If not, what is inadequate?

C) Are airport schedules and services adequate for your needs?

Yes
No

If not, please explain.

3. Please provide any additional thoughts or concerns regarding the facilities or services at AEJ.

APPENDIX F

FAA TERMINAL AREA FORECAST

APO TERMINAL AREA FORECAST DETAIL REPORT
Forecast Issued January 2016

AEJ

	AIRCRAFT OPERATIONS													
	Enplanements			Itinerant Operations					Local Operations					
Fiscal Year	Air Carrier	Commuter	Total	Air Carrier	Air Taxi & Commuter	GA	Military	Total	Civil	Military	Total	Total Ops	Total Tracon Ops	Based Aircraft
REGION:ANM **STATE:**CO **LOCID:**AEJ														
CITY:BUENA VISTA **AIRPORT:**CENTRAL COLORADO RGNL														
2013	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	16
2014	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	16
2015*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	17
2016*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	17
2017*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	18
2018*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	19
2019*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	19
2020*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	20
2021*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	20
2022*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	21
2023*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	21
2024*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	22
2025*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	23
2026*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	24
2027*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	25
2028*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	26
2029*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	27
2030*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	28
2031*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	29
2032*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	30
2033*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	31
2034*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	32

2035*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	33
2036*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	34
2037*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	35
2038*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	36
2039*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	37
2040*	0	0	0	0	0	5,970	137	6,107	3,893	0	3,893	10,000	-	38

APPENDIX G

GENERAL AVIATION PILOT MEETING NOTES

Central Colorado Regional Airport

General Aviation (GA) Pilots Meeting

May 16, 2015

10:00 AM – 11:30 AM

Consultant & Airport Representatives:

Collen Cummins, Jviation
Dave Nafie, Jviation
Dennis Heap, Airport Advisory Board
General Aviation Pilot Group (10 representatives)

Meeting Summary:

Barry Hayes opened the meeting with several general topics.

Jviation attendees, Colleen Cummins and Dave Nafie introduced themselves as did Dennis Heap, Airport Advisory Board representative. Colleen and Dave informed the group that they were there to listen and learn about the pilots' concerns.

The discussion's primary focus was safety as it related to the lack of a cross-wind runway and the importance of Jviation documenting this priority in the Master Plan. It was noted that funding a crosswind runway could be difficult as it isn't on the Federal Aviation Administration's (FAA) priority list. The Town would need to consider alternative funding.

Other issues discussed:

- Request for detailed breakdown of the $276,000 master plan cost
  - *Colleen sent information to Barry and requested he distribute to the group on May 28, 2015.*
- GA pilots not concerned with additional parking for jets
- Sewer system is not a GA priority and pilots were not sure why it was a priority with the Town
- AEJ has a reputation of being unsafe, especially with pilots along the Front Range – considered a dangerous airport
- The airport has not seen growth in 20 years. Why would growth be expected in the next 20 years?
  - AEJ has lost 50% of its based aircraft
  - Colleen noted that decline of based aircraft is a national trend and not unique to AEJ. However, airports are seeing a slow upward trend currently and in the past few years.
- Through-the-fence (TTF) needs to happen and could be a solution for an emergency landing runway, i.e. make a condition of the TTF to build a long taxiway

- Request for document from FAA saying TTF not legal
- It was noted that the FAA discourages new TTF agreements
- *Colleen sent TTF guidance information to Barry and requested he distribute to the group on May 28, 2015.*
- *Jviation discussed additional TTF operations with the Town on Monday, May 25, 2015. The Town noted that new agreements or allowing additional TTF operators is not a priority. They are currently working with the FAA to purchase the existing TTF per the FAA's request. Consequently, approving a new TTF operation would contradict with current priorities.*

- EAA Yong Eagles is a priority item with group
- Have Trustees approved permit for September air show?
- Blue hangar being used for medical manufacturing, which may be a non-compliance with FAA Why build hangars if we don't use the ones we have for aircraft? Did they get a grant from economic development?
- It is very difficult to build a hangar on AEJ – why isn't there a development plan and consistent lease rates?
- AEJ is not friendly to transient pilots as terminal facilities, i.e. weather planning, bathrooms are not available after 4 pm, security fence is hard to get through

Opportunities:

- Strengthen GA pilot relationship
  - Young Eagles
  - Air Show
  - Quarterly pilot meeting
    - Conference room – coffee & doughnuts
    - Operational Update
    - Development Update
    - Sounding board
    - Educate on airport funding
    - Business Aviation is GA

- It is imperative that all aviation groups are coordinated and have the same goals! AEJ GA pilots need to see there selves as airport ambassadors.

The meeting was adjourned by Barry who thanked Jviation and Dennis for attending and listening

APPENDIX H

EXHIBIT A SUPPORTING DOCUMENTS

PROVIDED BY: CENTRAL COLORADO TITLE & ESCROW, INC. AND THE FEDERAL AVIATION ADMINISTRATION

Central Colorado Title & Escrow, Inc.

Exhibit A Supporting Documents

CERTIFICATE OF OWNERSHIP AND ENCUMBRANCE

Date: March 10, 2016

To: Brandy Reitter, Town Administration
Town of Buena Vista

Re: Parcel 2 , Parcel 4, and Parcel 7 (Central Colorado Regional Airport Searches)

This is to certify that an examination has been done of the records in the Chaffee County Clerk and Recorder's Office on March 7, 2016 at 7:45AM pertaining to the property, which is described as follows:

A tract of land situate in the Southwest Quarter of the Northwest Quarter (SW ¼ NW 1/4) and the North Half of the Northwest Quarter of the Southwest Quarter (N ½ NW ¼ SW ¼) of Section 21, Township 14 South, Range 78 West of the 6th P.M., Chaffee County, Colorado, described as follows: Commencing at the 1/16 corner in the center of the NW ¼ of said Section 21; thence North 89°54' West 697.98 feet; thence South 22°37' East 1831.60 feet; thence North 0°13' West 1692.70 feet to the point of beginning.

AND

Property more particularly described in Deed recorded August 23, 1983 in Book 459 at Page 224.

AND

Property more particularly described in Deed recorded October 26, 2004 as Reception No. 347095.

The title of this property is vested in *Town of Buena Vista, a municipal corporation*, by virtue of a Warranty Deed recorded May 2, 1969 in Book 365 at Page 483.

ENCUMBRANCES:

Ordinance No. 2 (Series of 2000) recorded August 15, 2000 as Reception No. 312747.

Ordinance No. 2 (Series of 2000) recorded September 13, 2000 as Reception No. 313352.

Ordinance No. 2 (Series of 2000) recorded September 5, 2001 as Reception No. 320384.

Right of way Agreement recorded April 6, 2006 as Reception No. 357655.

The effect of Order of Inclusion of the Buena Vista Sanitation District recorded August 1, 2008 as Reception No. 375760.

This Certificate is not to be construed as an abstract of title or a policy of title insurance and the liability therein is limited to the amount of the fee paid for the Certificate.

First American Title Insurance Company
Central Colorado Title & Escrow, Inc.

Brett Eakins/Examiner

(2)

Recorded at 1:30 o'clock P M., MAY 2 1969 BOOK 365 PAGE 483

Reception No. 131789 JASPER J. CORTESE Recorder.

483

FILING STAMP

THIS DEED, Made this 14th day of April,

19 69, between RICHARD O. GEORGE and MARY E. GEORGE of the County of Chaffee and State of Colorado, of the first part, and TOWN OF BUENA VISTA, a municipal corporation, of the County of Chaffee and State of Colorado, of the second part:

WITNESSETH, That the said party of the first part, for and in consideration of the sum of TEN DOLLARS and other good and valuable consideration- - - -~~XXXXX~~ DOLLARS, to the said party of the first part in hand paid by the said party of the second part, the receipt whereof is hereby confessed and acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm, unto the said party of the second part, his heirs and assigns forever, all the following described lot or parcel of land, situate, lying and being in the County of Chaffee and State of Colorado, to-wit:

A tract of land situate in the SW-1/4 NW-1/4 and N-1/2 NW-1/4 SW-1/4 of Section 21, Township 14 South, Range 78 West of the 6th P.M., Chaffee County, Colorado, described as follows: Commencing at the 1/16 Corner in the center of the NW-1/4 of said Section 21; thence North 89° 54' West 697.98 feet; thence South 22° 37' East 1831.60 feet; thence North 0° 13' West 1692.70 feet to the point of beginning.

TOGETHER with all and singular the hereditaments and appurtenances thereto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof; and all the estate, right, title, interest, claim and demand whatsoever of the said party of the first part, either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances.

TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the said party of the second part, his heirs and assigns forever. And the said party of the first part, for himself, his heirs, executors, and administrators, does covenant, grant, bargain, and agree to and with the said party of the second part, his heirs and assigns, that at the time of the ensealing and delivery of these presents, he is well seized of the premises above conveyed, as of good, sure, perfect, absolute and indefeasible estate of inheritance, in law, in fee simple, and has good right, full power and lawful authority to grant, bargain, sell and convey the same in manner and form as aforesaid, and that the same are free and clear from all former and other grants, bargains, sales, liens, taxes, assessments and encumbrances of whatever kind or nature soever., except the 1969 general taxes due and payable January 1, 1970,

$4,000.00

and the above bargained premises in the quiet and peaceable possession of the said party of the second part, his heirs and assigns against all and every person or persons lawfully claiming or to claim the whole or any part thereof, the said party of the first part shall and will WARRANT AND FOREVER DEFEND. The singular number shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders.

IN WITNESS WHEREOF, the said party of the first part has hereunto set his hand and seal the day and year first above written.

Richard O George [SEAL]

Mary E. George [SEAL]

[SEAL]

State Documentary Fee Date MAY 2 1969 $1.60 Pd.

STATE OF ~~COLORADO~~ CALIFORNIA } ss.
County of Sacramento }

The foregoing instrument was acknowledged before me this 14th day of April 1969, by Richard O. George and Mary E. George.

My commission expires , 19 . Witness my hand and official seal.

BEATRICE C. GOWER
Notary Public
Sacramento County
State of California
My Commission Expires December 12, 1972

Beatrice C. Gower
Beatrice C. Gower Notary Public.

No. 932A. WARRANTY DEED.—For Photographic Record.—Bradford Publishing Co., 1874-76 Stout Street, Denver, Colorado

Recorded at 1:00 o'clock P M. AUG 2 3 1983 BOOK 459 PAGE 224

MARY ELLEN BELMAR
CHAFFEE COUNTY RECORDER
Recorder.

Reception No. 223221

RICHARD H. GRINDLE and MARY ANN GRINDLE

whose address is

County of Chaffee, and State of Colorado, for the consideration of TEN DOLLARS AND OTHER GOOD AND VALUABLE CONSIDERATION ~~Dollars~~, in hand paid,

State Documentary Fee
Date AUG 2 3 1983
$ Exempt

hereby sell(s) and quit claim(s) to TOWN OF BUENA VISTA, COLORADO

whose address is P. O. Box 2002, Buena Vista,

County of Chaffee, and State of Colorado, the following real property, in the County of Chaffee, and State of Colorado, to wit:

See the attached Exhibit "A" which is incorporated herein by reference.

also known as street and number

with all its appurtenances.

Signed this 18th day of August, 1983

Richard H. Grindle
RICHARD H. GRINDLE

Mary Ann Grindle
MARY ANN GRINDLE

STATE OF COLORADO,
County of Chaffee } ss.

The foregoing instrument was acknowledged before me this 18th day of August, 19 83, by RICHARD H. GRINDLE and MARY ANN GRINDLE.

My commission expires 3/10/84
Witness my hand and official seal

JULIA E. HUPPER NOTARY PUBLIC STATE OF COLORADO

Julia E. Hupper
Notary Public.

310 East Main St
Address Buena Vista, Co 81211

No. 898. QUIT CLAIM DEED—Short form — Bradford Publishing, 5825 W. 6th Ave., Lakewood, CO 80214 — (303) 233-6900 — 9-81

EXHIBIT A

A Parcel of Land located within the Southwest 1/4 of the Northwest 1/4 of Section 21, Township 14 South, Range 78 West of the Sixth Principal Meridian, Chaffee County, Colorado, described as follows:

Beginning at a point on the South boundary of a tract of land described in Book 393 at Page 232 of the Chaffee County Records from whence the South 1/4 corner of said Section 21 bears first South 19° 17'55" East 3090.25 feet, and thence South 88°59'41" East 639.75 feet, also from said beginning point, a rebar monument with a 1 inch aluminum cap marking the Southwest corner of the above described tract bears South 89°27'55" West 977.11 feet;

Thence proceeding around the parcel herein described North 19°17'55" West 1184.91 feet to the Northerly boundary of the said Southwest 1/4 of the Northwest 1/4 as fenced;

Thence South 89°25'32" East along the above said fenced Northerly boundary 5.62 feet;

Thence South 22°37' East 1210.63 feet to the Southeast corner of the above described tract;

Thence South 89°27'55" West 79.59 feet to the point of beginning, containing 1.097 Acres.

Directions are based upon a bearing of North 88°35'35" East between the North 1/4 corner and the Northeast corner of Section 28, Township 14 South, Range 78 West, 6th P.M.

CHAFFEE COUNTY, SALIDA CO REC $11.00
JOYCE M. RENO, COUNTY CLERK AND RECORDER

10/26/2004 RECPT-347095
11:20:00AM 1 OF 2

State Documentary Fee
Date OCT 26 2004
$ -0-

QUITCLAIM DEED

THIS DEED, made this 13th day of October, 2004, by and between RONALD W. SOUTHARD hereinafter referred to as ("Grantor") of County of Chaffee and State of Colorado, and THE TOWN OF BUENA VISTA hereinafter referred to as ("Grantee"), and whose legal address is P. O. Box 2002, Buena Vista, of the County of Chaffee and State of Colorado, 81211

WITNESS, that the grantor, for and in consideration of the sum of ONE AND NO DOLLARS ($1.00) in hand paid by Grantee, and for other good and valuable consideration, the receipt whereof is hereby acknowledged, has remised, released and quit-claimed and by these presents does remise, release and quit-claim unto the Grantee, its heirs, successors and assigns, forever, all the right, title, interest, claim and demand which the Grantor has in and to the following described real property, together with improvements, if any, situate, lying and being in the County of Chaffee, State of Colorado, described as follows:

See Exhibit A, attached hereto

also known by street and number as: N/A
assessor's schedule or parcel number: N/A

TO HAVE AND TO HOLD the same, together with all and singular, the appurtenances and privileges thereunto belonging, or in anywise thereunto appertaining, and all the estate, right, title, interest and claim whatsoever of the Grantor, either in law or equity, to the only proper use, benefit and belief of the Grantee, it heirs and assigns forever.

IN WITNESS WHEREOF, the Grantor has executed this deed on the date set forth above.

DATED this 13th day of October, 2004.

RONALD W. SOUTHARD

STATE OF COLORADO)
) ss.
County of Chaffee)

The foregoing instrument was acknowledged before me this 13th day of October, 2004, by Ronald W. Southard .

Witness my hand and official seal.
My commission expires: 9/27/08

SHELLEY L. DENNIS NOTARY PUBLIC STATE OF COLORADO

Notary Public

CHAFFEE COUNTY, SALIDA CO REC $11.00 10/26/2004 RECPT-347095
JOYCE M. RENO, COUNTY CLERK AND RECORDER 11:20:00AM 2 OF 2

CLERK'S NOTE:
ORIGINAL IS POOR QUALITY

LEGAL DESCRIPTION

ALL THAT TRACT OF LAND LOCATED IN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF SECTION 21, TOWNSHIP 14 SOUTH, RANGE 78 WEST OF THE SIXTH PRINCIPAL MERIDIAN, TOWN OF BUENA VISTA, COUNTY OF CHAFFEE, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 21, FROM WHENCE THE NORTH SIXTEENTH CORNER BETWEEN SAID SECTION 21 AND SECTION 20 BEARS NORTH 00° 01' 31" WEST, A DISTANCE OF 1,339.35 FEET;

THENCE NORTH 77° 33' 24" EAST, A DISTANCE OF 1,061.60 FEET TO THE INTERSECTION OF AN EXISTING FENCE LINE AND THE NORTH LINE OF THE PARCEL DESCRIBED IN BOOK 519 AT PAGE 561 AND RECORDED IN THE OFFICE OF THE CHAFFEE COUNTY CLERK AND RECORDER, THIS BEING THE TRUE POINT OF BEGINNING.

THENCE NORTH 89° 36' 00" EAST ALONG SAID NORTH LINE OF THE PARCEL DESCRIBED IN BOOK 519 AT PAGE 561, A DISTANCE OF 80.03 FEET TO THE NORTHEAST CORNER OF SAID PARCEL DESCRIBED IN BOOK 519 AT PAGE 561;

THENCE SOUTH 22° 37' 00" EAST ALONG THE EASTERLY LINE OF SAID PARCEL DESCRIBED IN BOOK 519 AT PAGE 561, A DISTANCE OF 606.47 FEET TO THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 21;

THENCE SOUTH 00° 11' 37" WEST ALONG SAID EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 21, A DISTANCE OF 276.84 FEET TO THE AGREED PROPERTY LINE, BEING AN EXISTING FENCE, AS RECORDED IN BOOK 352 AT PAGE 261 IN THE OFFICE OF THE CHAFFEE COUNTY CLERK AND RECORDER;

THENCE NORTH 86° 06' 04" WEST ALONG SAID AGREED PROPERTY LINE, A DISTANCE OF 12.83 FEET TO A FENCE CORNER;

THENCE NORTH 19° 43' 41" WEST ALONG SAID FENCE LINE, A DISTANCE OF 887.32 FEET TO THE POINT OF BEGINNING.

PREPARED BY: BEAR SURVEYING SERVICES, INC
CHARLES E. BEAR, PLS 31544

EXHIBIT A

800

08/15/2000 08:00 RECORD FEE: $15.00 PAGE #: 0001 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 312747 **

ORDINANCE NO. 2
(Series of 2000)

AN ORDINANCE OF THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO AMENDING CHAPTER 16 "ZONING" OF THE BUENA VISTA MUNICIPAL CODE BY ADDING A NEW SECTION CLARIFYING THE GEOGRAPHICAL BOUNDARIES OF THE AIRPORT PROTECTION OVERLAY DISTRICT.

WHEREAS, in 1991 the town adopted Sections 16-167 to 16-170 of the Zoning Code establishing the Airport Protection Overlay District (the "APO" District) and associated regulations in order to manage and regulate land development and uses in and around the Buena Vista Municipal Airport, now known as the Central Colorado Regional Airport, in order to protect and enhance public safety; and

WHEREAS, while the APO district is an overlay designation with geographical boundaries that may be adjusted from time to time, and which may be imposed over one or more underlying zone districts or areas, the town has from 1991 to the present utilized the geographical description for the district as provided in the Buena Vista Municipal Airport, Airport Master Plan (1992), to wit, such area extending 1,250 feet laterally from either side of the runway centerline and 5,000 feet beyond each end of the runway primary surface; and

WHEREAS, Colorado State House Bill 1041 defines the "critical zones" as (a) areas 2,000 feet wide extending 5,000 feet horizontally from a point 200 feet from each end of visual runways; and (b) areas 4,000 feet wide extending 10,000 feet horizontally from a point 200 feet from each end of instrument runways; and

WHEREAS, in order to minimize, if not eliminate, confusion or uncertainty with respect to the geographical boundaries of the current APO district, the Board of Trustees now desires to codify the current geographical description of the APO district and incorporate, for illustration purposes, a map delineating the district; to an area equal to "critical area" identified in House Bill 1041; and

WHEREAS, the Planning and Zoning Commission has reviewed the matter and forwarded its recommendations thereon to the Board of Trustees.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF BUENA VISTA, COLORADO as follows:

Section One

That Article VIII, "District Regulations," of Chapter 16, "Zoning," of the Buena Vista Municipal Code be amended by adding new Section 16-171, "APO district boundaries--map," such new section to read as follows:

Sec. 16-171. APO district boundaries—map

(a) The APO district shall include all land within an area extending laterally one thousand feet (1,000') from either side of the runway centerline at a point five thousand two hundred feet (5,200') north of the north end of the runway and extends south to the south end of the runway where it widens to two thousand feet (2000') laterally from either side of the runway centerline and extends ten thousand two hundred feet (10,200') south from the south end of Runway 15/33 at the Central Colorado Regional Airport.

(b) The Town Clerk shall maintain and make available to interested persons during regular business hours not less than one copy of the most current map(s) illustrating the APO district boundaries as described in subsections (a) and (b) above. Such map shall be used for general reference and illustration purposes only and shall not supersede or alter the geographical boundaries of the APO district as set forth in this section.

Section Two

This ordinance shall not have an effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section Three

The provisions of this ordinance are severable and the invalidity of any section, phrase, clause or portion of the ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the ordinance.

INTRODUCED, READ, ADOPTED AND ORDERED PUBLISHED this 25 **day of** July, **2000.**

TOWN OF BUENA VISTA

By: Shayla A. Solis

(SEAL)

ATTEST:

Town Clerk

08/15/2000 08:00 RECORD FEE: $15.00 PAGE #: 0003 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 312747

PUBLISHED in full following adoption by the Board of Trustees in The Chaffee County Times, a newspaper of general circulation within the Town of Buena Vista on the 3rd day of August, 2000.

By: Tina Darrah
Town Clerk

09/13/2000 02:00 RECORD FEE: $10.00 PAGE #: 0001 OF 0002
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 313352 **

ORDINANCE NO. 2
(Series of 2000)

AN ORDINANCE OF THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO AMENDING CHAPTER 16 "ZONING" OF THE BUENA VISTA MUNICIPAL CODE BY ADDING A NEW SECTION CLARIFYING THE GEOGRAPHICAL BOUNDARIES OF THE AIRPORT PROTECTION OVERLAY DISTRICT.

WHEREAS, in 1991 the town adopted Sections 16-167 to 16-170 of the Zoning Code establishing the Airport Protection Overlay District (the "APO" District) and associated regulations in order to manage and regulate land development and uses in and around the Buena Vista Municipal Airport, now known as the Central Colorado Regional Airport, in order to protect and enhance public safety; and

WHEREAS, while the APO district is an overlay designation with geographical boundaries that may be adjusted from time to time, and which may be imposed over one or more underlying zone districts or areas, the town has from 1991 to the present utilized the geographical description for the district as provided in the Buena Vista Municipal Airport, Airport Master Plan (1992), to wit, such area extending 1,250 feet laterally from either side of the runway centerline and 5,000 feet beyond each end of the runway primary surface; and

WHEREAS, Colorado State House Bill 1041 defines the "critical zones" as (a) areas 2,000 feet wide extending 5,000 feet horizontally from a point 200 feet from each end of visual runways; and (b) areas 4,000 feet wide extending 10,000 feet horizontally from a point 200 feet from each end of instrument runways; and

WHEREAS, in order to minimize, if not eliminate, confusion or uncertainty with respect to the geographical boundaries of the current APO district, the Board of Trustees now desires to codify the current geographical description of the APO district and incorporate, for illustration purposes, a map delineating the district; to an area equal to "critical area" identified in House Bill 1041; and

WHEREAS, the Planning and Zoning Commission has reviewed the matter and forwarded its recommendations thereon to the Board of Trustees.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF BUENA VISTA, COLORADO as follows:

Section One

That Article VIII, "District Regulations," of Chapter 16, "Zoning," of the Buena Vista Municipal Code be amended by adding new Section 16-171, "APO district boundaries--map," such new section to read as follows:

Sec. 16-171. APO district boundaries—map

(a) The APO district shall include all land within an area extending laterally one thousand feet (1,000') from either side of the runway centerline at a point five thousand two hundred feet (5,200') north of the north end of the runway and extends south to the south end of the runway where it widens to two thousand feet (2000') laterally from either side of the runway centerline and extends ten thousand two hundred feet (10,200') south from the south end of Runway 15/33 at the Central Colorado Regional Airport.

(b) The Town Clerk shall maintain and make available to interested persons during regular business hours not less than one copy of the most current map(s) illustrating the APO district boundaries as described in subsection (a) above. Such map shall be used for general reference and illustration purposes only and shall not supersede or alter the geographical boundaries of the APO district as set forth in this section.

Section Two

This ordinance shall not have an effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section Three

The provisions of this ordinance are severable and the invalidity of any section, phrase, clause or portion of the ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the ordinance.

INTRODUCED, READ, ADOPTED AND ORDERED PUBLISHED this 25th **day of** July, **2000.**

(SEAL)

ATTEST:

Town Clerk

TOWN OF BUENA VISTA

By: Gladys A. Solis

PUBLISHED in full following adoption by the Board of Trustees in The Chaffee County Times, a newspaper of general circulation within the Town of Buena Vista on the 3rd day of August, 2000.

By:
Town Clerk

FILE DATE: 09/05/2001 FILE TIME: 01:00 PAGE #: 0001 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER RECE#: 320384 **

ORDINANCE NO. 10
(Series of 2001)

AN ORDINANCE OF THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO REAMENDING ARTICLE VIII OF CHAPTER 2 OF THE MUNICIPAL CODE GOVERNING THE MEMBERSHIP AND TERMS OF OFFICE FOR THE AIRPORT ADVISORY COMMITTEE AS PREVIOUSLY AMENDED BY ORDINANCE NO. 8 (SERIES OF 2001).

WHEREAS, on July 24, 2001, the Board of Trustees adopted Ordinance No. 8 (Series of 2001), which ordinance adopted certain amendments to those municipal code sections governing the creation and organization of the Airport Advisory Committee; and

WHEREAS, additional amendments to said sections of the municipal code are necessary to clarify the amendments previously made thereto by Ordinance No. 8 (Series of 2001).

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO as follows:

Section One

That Article VIII, Airport Advisory Committee, of Chapter 2, Administration and Personnel, of the Buena Vista Municipal Code be amended at Sections 2-162, Appointment; qualifications; 2-163, Term of office; vacancies; and 2-166, Operations, such amended sections to read as follows:

Sec. 2-162. Appointment and qualifications--alternates.

The committee shall consist of five (5) voting members who shall be appointed by and serve at the pleasure of the board of trustees, plus a non-voting representative of the airport fixed base operator (FBO) and a non-voting representative or designee of the board of trustees. Committee members, inclusive of alternates, need not be residents or qualified electors of the town. The board of trustees shall also appoint two (2) alternate members who shall perform all of the duties of a regular voting member in the absence of a regular voting member from a meeting of the committee.

Sec. 2-163. Term of office--vacancies.

(a) Voting members of the committee, inclusive of alternates, shall serve staggered terms of four (4) years unless earlier removed from office; provided that two (2) of the members first appointed shall initially serve to and until the second Tuesday in April, 2002, and three (3) members and the two (2) alternates shall initially serve to and until the second Tuesday in April, 2004. Voting members may be reappointed to serve on the committee without limitation.

(c) Vacancies in voting member positions shall be filled by appointment made by the board of trustees to serve out an unexpired term.

(d) The non-voting members of the committee representing the fixed base operator and the board of trustees shall be appointed and serve at the pleasure of the fixed base operator and board of trustees, respectively, and may serve indefinite terms.

Sec. 2-166. Operation--quorum.

Voting members of the committee shall elect from its membership a chairperson and vice-chairperson who shall serve terms of two (2) years. The committee shall keep contemporaneous minutes of its meetings, votes and actions. Three (3) voting members shall constitute a quorum for the transaction of business.

Section Two

The membership of the Airport Advisory Committee existing upon the effective date of this ordinance shall be reduced to five (5) voting members. Presently sitting committee members desiring to remain on the new reduced-size committee shall draw lots to determine which members shall serve as voting members until April 2002, and which members shall serve as voting members until April 2004. Once the new committee membership is determined, the committee shall organize itself as otherwise required in Article VIII of Chapter 2, as amended. Vacancies in any voting membership position, including alternate positions, resulting from the reorganization of the committee shall be filled by appointment by the board of trustees.

Section Three

This ordinance shall not have any effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section Four

The provisions of this ordinance are severable and the invalidity of any section, phrase, clause or portion of the ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the ordinance.

INTRODUCED, READ, ADOPTED AND ORDERED PUBLISHED this 14 **day of** August **, 2001.**

TOWN OF BUENA VISTA

By: _____

ATTEST:

Mindy K Philips
Town Clerk – Deputy

(SEAL)

PUBLISHED in full following adoption by the Board of Trustees in the Chaffee County Times, a newspaper of general circulation within the Town of Buena Vista, on the 30 day of August, 2001.

By: Mindy Philips
Town Clerk - Deputy

C:\Client\Buena Vista\Ordinances\Airport Advisory Committee Amend2.doc

357655 4/6/2006 3:54 PM JOYCE M. RENO
1 of 5 ROW R$26.00 D$0.00 Chaffee County Clerk

APR 6 '06 PM 3:54

RIGHT-OF-WAY AGREEMENT

THIS AGREEMENT, made this 30th day of MARCH, 2006, by and between the Town of Buena Vista, Colorado, (hereinafter the "Town") and Ridgeway Matrix, Inc. & McCoy Communications, Inc. each Colorado corporations, of 27960 County Road 319, P.O. Box 1910, Buena Vista, CO 81211 (hereinafter referred to collectively as "Ridgeway/McCoy");

WHEREAS, Ridgeway/McCoy wishes to obtain a right-of-way agreement with the Town for purposes of installing its transmission infrastructure (fiber-optic or copper cable), under, in, or across property owned by the Town for purposes of providing internet services to various individuals and businesses; and

WHEREAS, the Town is willing to grant Ridgeway/McCoy such a Right-of-way Agreement; and

WHEREAS, the Town and Ridgeway/McCoy wish to memorialize their agreement as set forth herein.

NOW, THEREFORE, based on good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Town and Ridgeway/McCoy agree as follows:

1. Ridgeway/McCoy is hereby granted a non-exclusive easement in, under, and across any property owned by the Town for purposes of installing its transmission facilities for the sole and exclusive purpose of providing internet services to Ridgeway/McCoy's customers.

2. Said easement shall be restricted to the unused portions of any town right-of-way so that Ridgeway/McCoy's installation of transmission facilities will not unreasonably interfere with traffic or other uses of Town property. Upon reasonable advance notice by the Town, Ridgeway/McCoy shall move or relocate at its expense any above ground facility located in a Town right-of-way if necessary to accommodate any public improvement including, but not limited to widening or installation of curb and gutter.

3. Ridgeway/McCoy agrees that all installation plans, specifications, and procedures (Project Plan) for major trunk lines or projects within the Town shall be submitted to the Town's Public Works Director for review and comment before commencement of any installation work. The Town's comments and corrections identified by the Town to bring the Project Plan into satisfactory compliance with all Town Ordinances, Rules, Regulations, Codes or other legal authority, shall be implemented by Ridgeway/McCoy in execution of the Project Plan. Ridgeway/McCoy's Project Plan shall be modified as necessary to assure such satisfactory compliance. The Town shall review and provide written approval or proposed modification within 10 days of submission from Ridgeway/McCoy. Additionally, Ridgeway/McCoy shall be solely and absolutely responsible for obtaining and maintaining any and all required permits necessary for such work. Ridgeway/McCoy shall also be solely and absolutely responsible for paying any and all fees charged for such permits.

4. During Ridgeway/McCoy's installation work, the Town shall have the right to inspect the installation work. If the Town determines that execution of the work is not in full compliance with applicable Town Ordinances, Rules, Regulations, Codes or other legal authority, and because of this, the installation work needs to be stopped or modified, the Town shall notify Ridgeway/McCoy who shall immediately comply with the terms and conditions of the Town's notice. The decision of whether or not to issue an order to stop or modify the installation process shall be based upon a specific finding that the work is not proceeding in accordance with the standards referenced above and that Ridgeway/McCoy has refused to cure the Town's objection within five (5) days of receipt.

5. Ridgeway/McCoy agrees to restore or repair all Town property affected or damaged by the installation process to the same condition said property was in prior to the commencement of the installation work. Said restoration or repair shall be completed within thirty (30) days of the occurrence of the damage and shall be at Ridgeway/McCoy's sole expense. The Town shall have the right to inspect the restoration and repair work done by Ridgeway/McCoy and if not approved by the Town, Ridgeway/McCoy shall correct the restoration repairs to comply with the Town's requirements for such repairs.

6. Prior to commencing any installation work with cost in excess of $50,000 Ridgeway/McCoy shall deposit with the Town a bond or irrevocable letter of credit in a form and amount satisfactory to the Town Attorney. Said bond or letter of credit shall be of sufficient amount to complete anticipated repairs or restoration to Town property made necessary by the installation process. The Town's Director of Public Works or his designee shall be solely responsible for determining the appropriate amount of the bond or letter of credit to be deposited. However, Ridgeway/McCoy shall not be required to provide a bond or letter of credit, if Ridgeway/McCoy's work is being performed prior to the Town's acceptance of the right-of-way or prior to the right-of-way improvements being completed such as paving and curb and gutter, as in the case of a new subdivision, for example.

7. At all times during installation, Ridgeway/McCoy agrees to carry general liability insurance which covers Ridgeway/McCoy's use of the easement agreement. Said insurance shall have limits of at least one million dollars ($1,000,000) per occurrence and shall name the Town as an additional insured. Ridgeway/McCoy shall also maintain all statutorily required Workers Compensation Insurance and shall provide the Town with a copy of its Certificate of Coverage.

8. Ridgeway/McCoy agrees to indemnify and hold the Town harmless from any and all claims arising out of Ridgeway/McCoy's work or use of the easement granted herein except for claims, loss, and damages caused by the gross negligence or willful misconduct of the Town. Said agreement to indemnify and hold the Town harmless includes, but is not limited to reasonable attorney fees incurred by the Town in defense of such claims, investigative expenses regarding such claims and any amounts paid by or on behalf of the Town arising out of such claims.

9. Ridgeway/McCoy shall install lines and other facilities underground. While the parties agree that there is a preference for underground installation, above ground installation of lines and other facilities shall be permitted by the Town under this Agreement 1) when "piggy

backing" or use of preexisting overhead facilities is possible; or 2) when due to physical conditions installation of overhead facilities including poles is reasonably necessary. However, when any such pre-existing above ground structures, equipment, or facilities used by Ridgeway/McCoy is removed by the owner of such facilities, Ridgeway/McCoy shall promptly remove its own equipment and facilities from the Town's right-of-way or otherwise shall install its equipment and facilities underground pursuant to this Agreement. The review of any proposed installation overhead or underground shall be made by the Town's Director of Public Works. However, installation of facilities in new subdivisions shall be required to be installed underground.

10. As partial consideration for the easement being granted herein, Ridgeway/McCoy agrees to install internet services to up to four Town buildings or offices, as designated by the Town, when the property lines are located within fifty feet (50') of Ridgeway/McCoy's transmission facilities within Town rights of way, free of charge, and to provide basic level internet service (512/384 Kbps) on a monthly basis free of charge. All services and bandwidth in excess of 512/384 Kbps shall be billed on a monthly basis at prevailing public rates and shall be paid for by the Town on a monthly basis.

11. As additional consideration for the easement being granted herein, Ridgeway/McCoy agrees to pay the Town a sum equal to $.75 (Seventy-five cents), per residential customer per month and $1.00, (One Dollar), per commercial customer per month. For purposes of this Agreement, the distinction between residential customers and commercial customers shall be determined by Ridgeway/McCoy consistent with its customary billing practices. Said fees shall be limited to Ridgeway/McCoy's customers located within the corporate limits of the Town. The total amount due the Town under this clause shall be payable annually within 10 days of the end of the preceding year. This fee shall not be charged for non-profit, charitable, or governmental organizations that Ridgeway/McCoy elects not to charge for regular service; accordingly, when not charged in such cases, Ridgeway/McCoy shall not pay this fee to the Town.

12. Ridgeway/McCoy agrees to keep accurate customer lists and records at its office in Buena Vista, CO. The Town shall have the right to inspect such records as it deems necessary in order to ensure that an accurate accounting of Right-of-Way fees is being kept by Ridgeway / McCoy.

13. Ridgeway/McCoy agrees to maintain at its cost all its structures, apparatus, and equipment.

14. Ridgeway/McCoy agrees that the Town shall be fully and absolutely immune from any liability for any damage occurring to any of Ridgeway/McCoy's equipment, including, but not limited to fiber-optic components, conduits, fiber-optic cable, vaults, risers, poles and other equipment or fixtures unless such damage arises from the Town's negligence or other acts or omissions of the Town.

15. Ridgeway/McCoy agrees to join the UNCC (Utility Notification Center of Colorado) as a Tier I participant for purposes of utility locates.

16. In addition to installation work, this agreement shall also be granted for purposes of allowing Ridgeway/McCoy access to any transmission facility installed pursuant to this Agreement for purposes of maintenance and repair. Any such maintenance or repair efforts undertaken by Ridgeway/McCoy shall be governed by all terms and conditions set forth in this Agreement and all applicable Town Ordinances, Rules, Regulations, Codes or other legal authority.

17. This Agreement shall be binding on the party's successors and assigns.

18. Attorneys Fees. In the event of any litigation between the parties hereto arising out of or relating to this Agreement, or the breach hereof, or the interpretation hereof, the prevailing party shall be entitled, in addition to other damages or costs, to an award of reasonable attorney fees from the other party.

19. In the event any court of competent jurisdiction declares any portion of this agreement to be void or unenforceable, the remaining terms and conditions of the Agreement shall remain in full force and effect.

20. The Town may terminate this agreement by notifying Ridgeway/McCoy, in writing, that Ridgeway/McCoy has breached any of it's obligations under this agreement. Ridgeway/McCoy shall be deemed not to be in breach of this agreement if it cures the breach identified by the Town within fifteen (15) days of the Town's mailing of notice of the breach to the address set forth herein. Ridgeway/McCoy shall have the right to terminate this agreement upon thirty (30) days written notice to the Town. Such termination shall then be effective upon payment of all sums due under this agreement. In the event of a termination by any party, Ridgeway/McCoy agrees to remove all of its equipment, poles, material, wiring, cable or any other component it installed pursuant to this agreement located above ground within ninety (90) days of the date of termination. Failure to do so will render Ridgeway/McCoy liable to the Town for all expenses incurred by the Town in removing such items.

21. Any and all notices required pursuant to this Agreement shall be forwarded to the following:

(a) The Town of Buena Vista
P.O. Box 2002
210 East Main Street
Buena Vista, CO 81211

(b) Ridgeway/McCoy Communications, Inc.
27960 C.R. 319; P O Box 1075
Buena Vista, CO 81211

22. This agreement contains the entire understanding and agreement between the parties with respect to the subject matter herein. There are no representations, agreements, or

357655 4/6/2006 3:54 PM JOYCE M. RENO
5 of 5 ROW R$26.00 D$0.00 Chaffee County Clerk

understandings between or among the parties relating to the subject matter of this Right of Way Agreement which are not fully expressed herein.

IN WITNESS THEREOF, parties hereunto set their hand this 30th day of March, 2006.

MCCOY COMMUNICATION, INC.

By: _____

TOWN OF BUENA VISTA

By: _____
Sharyle A. Solis, Mayor

RIDGEWAY MATRIX, INC.

By: _____

ATTEST:

_____
Diane Spomer, Town Clerk

375760 8/1/2008 8:40 AM JOYCE M. RENO
1 of 2 ORDIN R$11.00 D$0.00 Chaffee County Clerk

DISTRICT COURT, COUNTY OF CHAFFEE, STATE OF COLORADO

Case No. 4229

IN RE THE ORGANIZATION OF BUENA VISTA SANITATION DISTRICT, CHAFFEE COUNTY, COLORADO

ORDER FOR INCLUSION OF THE BUENA VISTA SANITATION DISTRICT

THIS MATTER coming before the Court under C.R.S. ξ 32-1-401(1)(c)(I) and an Order of the Board of Directors of the Buena Vista Sanitation District granting a Petition for Inclusion filed with it by the Town of Buena Vista; and the Court being advised in the premises and having determined that all the procedures and requirements of C.R.S. ξ 32-1-401 for inclusion have been satisfied and justify including the property covered by the Petition for Inclusion in the boundaries of the Buena Vista Sanitation District,

ORDERS that the following described land be and is hereby included within the boundaries of the Buena Vista Sanitation District:

LEGAL DESCRIPTION OF THE
CENTRAL COLORADO REGIONAL AIRPORT

ALL THAT TRACT OF LAND LOCATED IN THE NORTHWEST QUARTER, SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 21 AND IN THE NORTHWEST QUARTER, NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 28, TOWNSHIP 14 SOUTH, RANGE 78 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CHAFFEE COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE NORTHWEST CORNER OF SAID SECTION 21, BEING MARKED BY AN ILLEGIBLE 3 ¼" ALUMINUM CAP;
THENCE SOUTH 00° 01' 31" EAST, A DISTANCE OF 1,338.91 FEET TO THE NORTH SIXTEENTH CORNER BETWEEN SAID SECTION 21 AND SECTION 20;
THENCE SOUTH 89° 47' 46" EAST ALONG THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 21, A DISTANCE OF 660.77 FEET;
THENCE SOUTH 19° 13' 31" EAST, A DISTANCE OF 1,173.74 FEET;
THENCE SOUTH 19° 43' 41" EAST, A DISTANCE OF 887.32 FEET TO A POINT ON THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 21;
THENCE SOUTH 86° 06' 04" EAST, A DISTANCE OF 12.83 FEET;
THENCE SOUTH 00° 11' 37" WEST ALONG SAID EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER AND THE EAST LINE OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 21, A DISTANCE OF 2,088.18 FEET TO THE WEST SIXTEENTH CORNER BETWEEN SAID SECTION 21 AND SECTION 28;
THENCE SOUTH 88° 51' 46" EAST ALONG THE SOUTH LINE OF SAID SECTION 21, A DISTANCE OF 708.80 FEET;
THENCE SOUTH 19° 10' 56" EAST, A DISTANCE OF 1,882.13 FEET;
THENCE SOUTH 00° 33' 55" WEST, A DISTANCE OF 177.48 FEET;
THENCE SOUTH 19° 11' 32" EAST, A DISTANCE OF 2,019.59 FEET;
THENCE SOUTH 69° 52' 28" EAST, A DISTANCE OF 501.65 FEET TO THE WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 285;
THENCE NORTH 01° 03' 47" EAST ALONG SAID WESTERLY RIGHT-OF-WAY, A DISTANCE OF 537.17 FEET;
THENCE CONTINUING ALONG SAID WESTERLY RIGHT-OF-WAY, NORTH 00° 12' 00" WEST, A DISTANCE OF 307.20 FEET;
THENCE NORTH 19° 10' 27" WEST, A DISTANCE OF 2,846.04 FEET;
THENCE SOUTH 78° 00' 01" EAST, A DISTANCE OF 318.15 FEET TO THE WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 285;
THENCE NORTH 15° 31' 15" WEST ALONG SAID WESTERLY RIGHT-OF-WAY, A DISTANCE OF 420.70 FEET;
THENCE SOUTH 88° 34' 40" WEST, A DISTANCE OF 115.71 FEET;
THENCE NORTH 25° 17' 41" WEST, A DISTANCE OF 852.80 FEET;
THENCE NORTH 20° 16' 59" WEST, A DISTANCE OF 673.82 FEET;
THENCE NORTH 46° 20' 53" EAST, A DISTANCE OF 110.08 FEET;
THENCE SOUTH 24° 53' 22" EAST, A DISTANCE OF 284.57 FEET;
THENCE SOUTH 69° 13' 25" EAST, A DISTANCE OF 180.01 FEET TO THE WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 24;
THENCE NORTH 15° 22' 13" WEST ALONG SAID WESTERLY RIGHT-OF-WAY, A DISTANCE OF 1,302.81 FEET TO A POINT OF CURVATURE;
THENCE NORTHWESTERLY AND DEFLECTING TO THE LEFT, A DISTANCE OF 1,070.87 FEET ALONG THE ARC OF A CURVE HAVING A RADIUS OF 5,547.80 FEET AND A DELTA ANGLE OF 11° 03' 35" TO A POINT OF TANGENCY;
THENCE NORTH 26° 24' 58" WEST, A DISTANCE OF 635.13 FEET;
THENCE NORTH 26° 22' 56" WEST, A DISTANCE OF 318.46 FEET TO A POINT OF CURVATURE;
THENCE NORTHWESTERLY AND DEFLECTING TO THE RIGHT, A DISTANCE OF 1,184.99 FEET ALONG THE ARC OF A CURVE HAVING A RADIUS OF 11,804.93 FEET AND A DELTA ANGLE OF 05° 51' 02" TO A POINT OF TANGENCY;
THENCE NORTH 20° 31' 57" WEST, A DISTANCE OF 664.80 FEET, THIS AND THE PRECEDING 5 COURSES ARE ALONG SAID WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 24;
THENCE SOUTH 72° 18' 25" WEST, A DISTANCE OF 688.42 FEET TO A POINT OF CURVATURE;
THENCE SOUTHWESTERLY AND DEFLECTING TO THE LEFT, A DISTANCE OF 356.22 FEET ALONG THE ARC OF A CURVE HAVING A RADIUS OF 284.29 FEET AND A DELTA ANGLE OF 71° 47' 33" TO A POINT OF TANGENCY;
THENCE SOUTH 00° 30' 51" WEST, A DISTANCE OF 206.82 FEET;
THENCE NORTH 89° 30' 10" WEST, A DISTANCE OF 29.93 FEET TO THE POINT OF BEGINNING.
SAID PARCEL CONTAINS 237.87 ACRES, MORE OR LESS.

375760 8/1/2008 8:40 AM JOYCE M. RENO
2 of 2 ORDIN R$11.00 D$0.00 Chaffee County Clerk

FURTHER ORDERS that this Order shall have the legal effect set forth in C.R.S. ξ 32-1-402.

DONE this 27 day of June, 2008.

BY THE COURT:

District Court Judge

SEAL

STATE OF COLORADO, } ss
COUNTY O[illegible]

Certified to [illegible] correct copy of the [illegible] custody.
WITNESS my [illegible] Seal of said Court this 3 July, 2008

Karen Rissen
CLERK [illegible] COMBINED COURT

DEPUTY

CERTIFICATE OF OWNERSHIP AND ENCUMBRANCE

Date: September 10, 2015

To: Brandy Reitter, Town Administration
Town of Buena Vista

Re: Parcel 2 (Central Colorado Regional Airport Searches)

This is to certify that an examination has been done of the records in the Chaffee County Clerk and Recorder's Office on September 10, 2015 at 7:45AM pertaining to the property, which is described as follows:

A tract of land situate in the Southwest Quarter of the Northwest Quarter (SW ¼ NW 1/4) and the North Half of the Northwest Quarter of the Southwest Quarter (N ½ NW ¼ SW ¼) of Section 21, Township 14 South, Range 78 West of the 6th P.M., Chaffee County, Colorado, described as follows: Commencing at the 1/16 corner in the center of the NW ¼ of said Section 21; thence North 89°54' West 697.98 feet; thence South 22°37' East 1831.60 feet; thence North 0°13' West 1692.70 feet to the point of beginning.

AND

Property more particularly described in Deed recorded August 23, 1983 in Book 459 at Page 224.

AND

Property more particularly described in Deed recorded October 26, 2004 as Reception No. 347095.

The title of this property is vested in *Town of Buena Vista, a municipal corporation*, by virtue of a Warranty Deed recorded May 2, 1969 in Book 365 at Page 483.

ENCUMBRANCES:

Ordinance No. 2 (Series of 2000) recorded August 15, 2000 as Reception No. 312747.

Ordinance No. 2 (Series of 2000) recorded September 13, 2000 as Reception No. 313352.

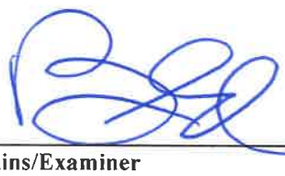
Ordinance No. 2 (Series of 2000) recorded September 5, 2001 as Reception No. 320384.

Right of way Agreement recorded April 6, 2006 as Reception No. 357655.

The effect of Order of Inclusion of the Buena Vista Sanitation District recorded August 1, 2008 as Reception No. 375760.

This Certificate is not to be construed as an abstract of title or a policy of title insurance and the liability therein is limited to the amount of the fee paid for the Certificate.

First American Title Insurance Company
Central Colorado Title & Escrow, Inc.



Brett Eakins/Examiner

EXHIBIT A

A Parcel of Land located within the Southwest 1/4 of the Northwest 1/4 of Section 21, Township 14 South, Range 78 West of the Sixth Principal Meridian, Chaffee County, Colorado, described as follows:

Beginning at a point on the South boundary of a tract of land described in Book 393 at Page 232 of the Chaffee County Records from whence the South 1/4 corner of said Section 21 bears first South 19° 17'55" East 3090.25 feet, and thence South 88°59'41" East 639.75 feet, also from said beginning point, a rebar monument with a 1 inch aluminum cap marking the Southwest corner of the above described tract bears South 89°27'55" West 977.11 feet;

Thence proceeding around the parcel herein described North 19°17'55" West 1184.91 feet to the Northerly boundary of the said Southwest 1/4 of the Northwest 1/4 as fenced;

Thence South 89°25'32" East along the above said fenced Northerly boundary 5.62 feet;

Thence South 22°37' East 1210.63 feet to the Southeast corner of the above described tract;

Thence South 89°27'55" West 79.59 feet to the point of beginning, containing 1.097 Acres.

Directions are based upon a bearing of North 88°35'35" East between the North 1/4 corner and the Northeast corner of Section 28, Township 14 South, Range 78 West, 6th P.M.

(2)

Recorded at 1:20 o'clock P M., MAY 2 1969 BOOK 365 PAGE 483

Reception No. 131789 JASPER J. CORTESE Recorder.

483

FILING STAMP

THIS DEED, Made this 14th day of April,

19 69, between RICHARD O. GEORGE and MARY E. GEORGE of the County of Chaffee and State of Colorado, of the first part, and TOWN OF BUENA VISTA, a municipal corporation, of the County of Chaffee and State of Colorado, of the second part:

WITNESSETH, That the said party of the first part, for and in consideration of the sum of TEN DOLLARS and other good and valuable consideration- - - -DOLLARS, to the said party of the first part in hand paid by the said party of the second part, the receipt whereof is hereby confessed and acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm, unto the said party of the second part, his heirs and assigns forever, all the following described lot or parcel of land, situate, lying and being in the County of Chaffee and State of Colorado, to-wit:

A tract of land situate in the SW-1/4 NW-1/4 and N-1/2 NW-1/4 SW-1/4 of Section 21, Township 14 South, Range 78 West of the 6th P.M., Chaffee County, Colorado, described as follows: Commencing at the 1/16 Corner in the center of the NW-1/4 of said Section 21; thence North 89° 54' West 697.98 feet; thence South 22° 37' East 1831.60 feet; thence North 0° 13' West 1692.70 feet to the point of beginning.

$1,000.00

TOGETHER with all and singular the hereditaments and appurtenances thereto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof; and all the estate, right, title, interest, claim and demand whatsoever of the said party of the first part, either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances.

TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the said party of the second part, his heirs and assigns forever. And the said party of the first part, for himself, his heirs, executors, and administrators, does covenant, grant, bargain, and agree to and with the said party of the second part, his heirs and assigns, that at the time of the ensealing and delivery of these presents, he is well seized of the premises above conveyed, as of good, sure, perfect, absolute and indefeasible estate of inheritance, in law, in fee simple, and has good right, full power and lawful authority to grant, bargain, sell and convey the same in manner and form as aforesaid, and that the same are free and clear from all former and other grants, bargains, sales, liens, taxes, assessments and encumbrances of whatever kind or nature soever., except the 1969 general taxes due and payable January 1, 1970,

and the above bargained premises in the quiet and peaceable possession of the said party of the second part, his heirs and assigns against all and every person or persons lawfully claiming or to claim the whole or any part thereof, the said party of the first part shall and will WARRANT AND FOREVER DEFEND. The singular number shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders.

IN WITNESS WHEREOF, the said party of the first part has hereunto set his hand and seal the day and year first above written.

Richard O George [SEAL]

Mary E. George [SEAL]

[SEAL]

State Documentary Fee Date MAY 2 1969 $1.60 Pd

STATE OF ~~COLORADO~~ CALIFORNIA } ss.
County of Sacramento }

The foregoing instrument was acknowledged before me this 14th day of April 1969, by Richard O. George and Mary E. George.

My commission expires , 19 . Witness my hand and official seal.

BEATRICE C. GOWER
Notary Public
Sacramento County
State of California
My Commission Expires December 12, 1972

Beatrice C. Gower
Beatrice C. Gower Notary Public.

No. 932A. WARRANTY DEED.—For Photographic Record.—Bradford Publishing Co., 1674-76 Stout Street, Denver, Colorado

Recorded at 2:00 o'clock P M. AUG 2 3 1983
MARY ELLEN BELMAR
CHAFFEE COUNTY RECORDER
Reception No. 223221 BOOK 459 PAGE 224
Recorder.

RICHARD H. GRINDLE and MARY ANN GRINDLE
whose address is

County of Chaffee, and State of Colorado, for the consideration of TEN DOLLARS AND OTHER GOOD AND VALUABLE CONSIDERATION ~~Dollars~~, in hand paid,

State Documentary Fee
Date AUG 2 3 1983
$ Exempt

hereby sell(s) and quit claim(s) to TOWN OF BUENA VISTA, COLORADO
whose address is P. O. Box 2002, Buena Vista,
County of Chaffee, and State of Colorado, the following real property, in the County of Chaffee, and State of Colorado, to wit:

See the attached Exhibit "A" which is incorporated herein by reference.

also known as street and number
with all its appurtenances.

Signed this 18th day of August, 1983

RICHARD H. GRINDLE

Mary Ann Grindle
MARY ANN GRINDLE

STATE OF COLORADO,
County of Chaffee } ss.

The foregoing instrument was acknowledged before me this 18th day of August, 19 83, by RICHARD H. GRINDLE and MARY ANN GRINDLE.

My commission expires 3/10/84
Witness my hand and official seal

JULIA E. HUPPER NOTARY PUBLIC STATE OF COLORADO

Julia E. Hupper
Notary Public.
Address 310 East Main St
Buena Vista, Co 81211

No. 898. QUIT CLAIM DEED—Short form — Bradford Publishing, 5825 W. 6th Ave., Lakewood, CO 80214 — (303) 233-6900 — 9-81

CHAFFEE COUNTY, SALIDA CO REC $11.00
JOYCE M. RENO, COUNTY CLERK AND RECORDER

10/26/2004 RECPT-347095
11:20:00AM 1 OF 2

State Documentary Fee
Date OCT 26 2004
$ -0-

QUITCLAIM DEED

THIS DEED, made this 13th day of October, 2004, by and between RONALD W. SOUTHARD hereinafter referred to as ("Grantor") of County of Chaffee and State of Colorado, and THE TOWN OF BUENA VISTA hereinafter referred to as ("Grantee"), and whose legal address is P. O. Box 2002, Buena Vista, of the County of Chaffee and State of Colorado, 81211

WITNESS, that the grantor, for and in consideration of the sum of ONE AND NO DOLLARS ($1.00) in hand paid by Grantee, and for other good and valuable consideration, the receipt whereof is hereby acknowledged, has remised, released and quit-claimed and by these presents does remise, release and quit-claim unto the Grantee, its heirs, successors and assigns, forever, all the right, title, interest, claim and demand which the Grantor has in and to the following described real property, together with improvements, if any, situate, lying and being in the County of Chaffee, State of Colorado, described as follows:

See Exhibit A, attached hereto

also known by street and number as: N/A
assessor's schedule or parcel number: N/A

TO HAVE AND TO HOLD the same, together with all and singular, the appurtenances and privileges thereunto belonging, or in anywise thereunto appertaining, and all the estate, right, title, interest and claim whatsoever of the Grantor, either in law or equity, to the only proper use, benefit and belief of the Grantee, it heirs and assigns forever.

IN WITNESS WHEREOF, the Grantor has executed this deed on the date set forth above.

DATED this 13th day of October, 2004.

RONALD W. SOUTHARD

STATE OF COLORADO)
) ss.
County of Chaffee)

The foregoing instrument was acknowledged before me this 13th day of October, 2004, by Ronald W. Southard .

Witness my hand and official seal.
My commission expires: 9/27/08

SHELLEY L. DENNIS NOTARY PUBLIC STATE OF COLORADO

Notary Public

CHAFFEE COUNTY, SALIDA CO REC $11.00
JOYCE M. RENO, COUNTY CLERK AND RECORDER

10/26/2004 RECPT-347095
11:20:00AM 2 OF 2

CLERK'S NOTE:
ORIGINAL IS POOR QUALITY

LEGAL DESCRIPTION

ALL THAT TRACT OF LAND LOCATED IN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF SECTION 21, TOWNSHIP 14 SOUTH, RANGE 78 WEST OF THE SIXTH PRINCIPAL MERIDIAN, TOWN OF BUENA VISTA, COUNTY OF CHAFFEE, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 21, FROM WHENCE THE NORTH SIXTEENTH CORNER BETWEEN SAID SECTION 21 AND SECTION 20 BEARS NORTH 00° 01' 31" WEST, A DISTANCE OF 1,339.35 FEET;

THENCE NORTH 77° 33' 24" EAST, A DISTANCE OF 1,061.60 FEET TO THE INTERSECTION OF AN EXISTING FENCE LINE AND THE NORTH LINE OF THE PARCEL DESCRIBED IN BOOK 519 AT PAGE 561 AND RECORDED IN THE OFFICE OF THE CHAFFEE COUNTY CLERK AND RECORDER, THIS BEING THE TRUE POINT OF BEGINNING.

THENCE NORTH 89° 36' 00" EAST ALONG SAID NORTH LINE OF THE PARCEL DESCRIBED IN BOOK 519 AT PAGE 561, A DISTANCE OF 80.03 FEET TO THE NORTHEAST CORNER OF SAID PARCEL DESCRIBED IN BOOK 519 AT PAGE 561;

THENCE SOUTH 22° 37' 00" EAST ALONG THE EASTERLY LINE OF SAID PARCEL DESCRIBED IN BOOK 519 AT PAGE 561, A DISTANCE OF 606.47 FEET TO THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 21,

THENCE SOUTH 00° 11' 37" WEST ALONG SAID EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 21, A DISTANCE OF 276.84 FEET TO THE AGREED PROPERTY LINE, BEING AN EXISTING FENCE, AS RECORDED IN BOOK 352 AT PAGE 261 IN THE OFFICE OF THE CHAFFEE COUNTY CLERK AND RECORDER;

THENCE NORTH 86° 06' 04" WEST ALONG SAID AGREED PROPERTY LINE, A DISTANCE OF 12.83 FEET TO A FENCE CORNER;

THENCE NORTH 19° 43' 41" WEST ALONG SAID FENCE LINE, A DISTANCE OF 887.32 FEET TO THE POINT OF BEGINNING.

PREPARED BY: BEAR SURVEYING SERVICES, INC
CHARLES E. BEAR, PLS 31544

EXHIBIT A

800

08/15/2000 08:00 RECORD FEE: $15.00 PAGE #: 0001 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 312747 **

ORDINANCE NO. 2
(Series of 2000)

AN ORDINANCE OF THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO AMENDING CHAPTER 16 "ZONING" OF THE BUENA VISTA MUNICIPAL CODE BY ADDING A NEW SECTION CLARIFYING THE GEOGRAPHICAL BOUNDARIES OF THE AIRPORT PROTECTION OVERLAY DISTRICT.

WHEREAS, in 1991 the town adopted Sections 16-167 to 16-170 of the Zoning Code establishing the Airport Protection Overlay District (the "APO" District) and associated regulations in order to manage and regulate land development and uses in and around the Buena Vista Municipal Airport, now known as the Central Colorado Regional Airport, in order to protect and enhance public safety; and

WHEREAS, while the APO district is an overlay designation with geographical boundaries that may be adjusted from time to time, and which may be imposed over one or more underlying zone districts or areas, the town has from 1991 to the present utilized the geographical description for the district as provided in the Buena Vista Municipal Airport, Airport Master Plan (1992), to wit, such area extending 1,250 feet laterally from either side of the runway centerline and 5,000 feet beyond each end of the runway primary surface; and

WHEREAS, Colorado State House Bill 1041 defines the "critical zones" as (a) areas 2,000 feet wide extending 5,000 feet horizontally from a point 200 feet from each end of visual runways; and (b) areas 4,000 feet wide extending 10,000 feet horizontally from a point 200 feet from each end of instrument runways; and

WHEREAS, in order to minimize, if not eliminate, confusion or uncertainty with respect to the geographical boundaries of the current APO district, the Board of Trustees now desires to codify the current geographical description of the APO district and incorporate, for illustration purposes, a map delineating the district; to an area equal to "critical area" identified in House Bill 1041; and

WHEREAS, the Planning and Zoning Commission has reviewed the matter and forwarded its recommendations thereon to the Board of Trustees.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF BUENA VISTA, COLORADO as follows:

Section One

That Article VIII, "District Regulations," of Chapter 16, "Zoning," of the Buena Vista Municipal Code be amended by adding new Section 16-171, "APO district boundaries--map," such new section to read as follows:

Sec. 16-171. APO district boundaries—map

(a) The APO district shall include all land within an area extending laterally one thousand feet (1,000') from either side of the runway centerline at a point five thousand two hundred feet (5,200') north of the north end of the runway and extends south to the south end of the runway where it widens to two thousand feet (2000') laterally from either side of the runway centerline and extends ten thousand two hundred feet (10,200') south from the south end of Runway 15/33 at the Central Colorado Regional Airport.

(b) The Town Clerk shall maintain and make available to interested persons during regular business hours not less than one copy of the most current map(s) illustrating the APO district boundaries as described in subsections (a) and (b) above. Such map shall be used for general reference and illustration purposes only and shall not supersede or alter the geographical boundaries of the APO district as set forth in this section.

Section Two

This ordinance shall not have an effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section Three

The provisions of this ordinance are severable and the invalidity of any section, phrase, clause or portion of the ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the ordinance.

INTRODUCED, READ, ADOPTED AND ORDERED PUBLISHED this 25 **day of** July **, 2000.**

TOWN OF BUENA VISTA

By: Stacy A. Sobi

(SEAL)

ATTEST:

Town Clerk

08/15/2000 08:00 RECORD FEE: $15.00 PAGE #: 0003 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 312747

PUBLISHED in full following adoption by the Board of Trustees in The Chaffee County Times, a newspaper of general circulation within the Town of Buena Vista on the 3rd day of August, 2000.

By: Tina Darrah
Town Clerk

09/13/2000 02:00 RECORD FEE: $10.00 PAGE #: 0001 OF 0002
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 313352 **

ORDINANCE NO. 2
(Series of 2000)

AN ORDINANCE OF THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO AMENDING CHAPTER 16 "ZONING" OF THE BUENA VISTA MUNICIPAL CODE BY ADDING A NEW SECTION CLARIFYING THE GEOGRAPHICAL BOUNDARIES OF THE AIRPORT PROTECTION OVERLAY DISTRICT.

WHEREAS, in 1991 the town adopted Sections 16-167 to 16-170 of the Zoning Code establishing the Airport Protection Overlay District (the "APO" District) and associated regulations in order to manage and regulate land development and uses in and around the Buena Vista Municipal Airport, now known as the Central Colorado Regional Airport, in order to protect and enhance public safety; and

WHEREAS, while the APO district is an overlay designation with geographical boundaries that may be adjusted from time to time, and which may be imposed over one or more underlying zone districts or areas, the town has from 1991 to the present utilized the geographical description for the district as provided in the Buena Vista Municipal Airport, Airport Master Plan (1992), to wit, such area extending 1,250 feet laterally from either side of the runway centerline and 5,000 feet beyond each end of the runway primary surface; and

WHEREAS, Colorado State House Bill 1041 defines the "critical zones" as (a) areas 2,000 feet wide extending 5,000 feet horizontally from a point 200 feet from each end of visual runways; and (b) areas 4,000 feet wide extending 10,000 feet horizontally from a point 200 feet from each end of instrument runways; and

WHEREAS, in order to minimize, if not eliminate, confusion or uncertainty with respect to the geographical boundaries of the current APO district, the Board of Trustees now desires to codify the current geographical description of the APO district and incorporate, for illustration purposes, a map delineating the district; to an area equal to "critical area" identified in House Bill 1041; and

WHEREAS, the Planning and Zoning Commission has reviewed the matter and forwarded its recommendations thereon to the Board of Trustees.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF BUENA VISTA, COLORADO as follows:

Section One

That Article VIII, "District Regulations," of Chapter 16, "Zoning," of the Buena Vista Municipal Code be amended by adding new Section 16-171, "APO district boundaries--map," such new section to read as follows:

09/13/2000 02:00 RECORD FEE: $10.00 PAGE #: 0002 OF 0002
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 313352

Sec. 16-171. APO district boundaries—map

(a) The APO district shall include all land within an area extending laterally one thousand feet (1,000') from either side of the runway centerline at a point five thousand two hundred feet (5,200') north of the north end of the runway and extends south to the south end of the runway where it widens to two thousand feet (2000') laterally from either side of the runway centerline and extends ten thousand two hundred feet (10,200') south from the south end of Runway 15/33 at the Central Colorado Regional Airport.

(b) The Town Clerk shall maintain and make available to interested persons during regular business hours not less than one copy of the most current map(s) illustrating the APO district boundaries as described in subsection (a) above. Such map shall be used for general reference and illustration purposes only and shall not supersede or alter the geographical boundaries of the APO district as set forth in this section.

Section Two

This ordinance shall not have an effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section Three

The provisions of this ordinance are severable and the invalidity of any section, phrase, clause or portion of the ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the ordinance.

INTRODUCED, READ, ADOPTED AND ORDERED PUBLISHED this 25th **day of** July **, 2000.**

TOWN OF BUENA VISTA

By: Gladys A. Solis

(SEAL)

ATTEST:

Tina Darrah
Town Clerk

PUBLISHED in full following adoption by the Board of Trustees in The Chaffee County Times, a newspaper of general circulation within the Town of Buena Vista on the 3rd day of August, 2000.

By: Tina Darrah
Town Clerk

FILE DATE: 09/05/2001 FILE TIME: 01:00 PAGE #: 0001 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER RECE#: 320384 **

ORDINANCE NO. 10
(Series of 2001)

AN ORDINANCE OF THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO REAMENDING ARTICLE VIII OF CHAPTER 2 OF THE MUNICIPAL CODE GOVERNING THE MEMBERSHIP AND TERMS OF OFFICE FOR THE AIRPORT ADVISORY COMMITTEE AS PREVIOUSLY AMENDED BY ORDINANCE NO. 8 (SERIES OF 2001).

WHEREAS, on July 24, 2001, the Board of Trustees adopted Ordinance No. 8 (Series of 2001), which ordinance adopted certain amendments to those municipal code sections governing the creation and organization of the Airport Advisory Committee; and

WHEREAS, additional amendments to said sections of the municipal code are necessary to clarify the amendments previously made thereto by Ordinance No. 8 (Series of 2001).

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO as follows:

Section One

That Article VIII, Airport Advisory Committee, of Chapter 2, Administration and Personnel, of the Buena Vista Municipal Code be amended at Sections 2-162, Appointment; qualifications; 2-163, Term of office; vacancies; and 2-166, Operations, such amended sections to read as follows:

Sec. 2-162. Appointment and qualifications—alternates.

The committee shall consist of five (5) voting members who shall be appointed by and serve at the pleasure of the board of trustees, plus a non-voting representative of the airport fixed base operator (FBO) and a non-voting representative or designee of the board of trustees. Committee members, inclusive of alternates, need not be residents or qualified electors of the town. The board of trustees shall also appoint two (2) alternate members who shall perform all of the duties of a regular voting member in the absence of a regular voting member from a meeting of the committee.

Sec. 2-163. Term of office—vacancies.

(a) Voting members of the committee, inclusive of alternates, shall serve staggered terms of four (4) years unless earlier removed from office; provided that two (2) of the members first appointed shall initially serve to and until the second Tuesday in April, 2002, and three (3) members and the two (2) alternates shall initially serve to and until the second Tuesday in April, 2004. Voting members may be reappointed to serve on the committee without limitation.

(c) Vacancies in voting member positions shall be filled by appointment made by the board of trustees to serve out an unexpired term.

(d) The non-voting members of the committee representing the fixed base operator and the board of trustees shall be appointed and serve at the pleasure of the fixed base operator and board of trustees, respectively, and may serve indefinite terms.

Sec. 2-166. Operation--quorum.

Voting members of the committee shall elect from its membership a chairperson and vice-chairperson who shall serve terms of two (2) years. The committee shall keep contemporaneous minutes of its meetings, votes and actions. Three (3) voting members shall constitute a quorum for the transaction of business.

Section Two

The membership of the Airport Advisory Committee existing upon the effective date of this ordinance shall be reduced to five (5) voting members. Presently sitting committee members desiring to remain on the new reduced-size committee shall draw lots to determine which members shall serve as voting members until April 2002, and which members shall serve as voting members until April 2004. Once the new committee membership is determined, the committee shall organize itself as otherwise required in Article VIII of Chapter 2, as amended. Vacancies in any voting membership position, including alternate positions, resulting from the reorganization of the committee shall be filled by appointment by the board of trustees.

Section Three

This ordinance shall not have any effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section Four

The provisions of this ordinance are severable and the invalidity of any section, phrase, clause or portion of the ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the ordinance.

INTRODUCED, READ, ADOPTED AND ORDERED PUBLISHED this 14 **day of** August, **2001.**

FILE DATE: 09/05/2001 FILE TIME: 01:00 PAGE #: 0003 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER RECE#: 320384

TOWN OF BUENA VISTA

By: _____

ATTEST:

Mindy K Philips
Town Clerk – Deputy

(SEAL)

PUBLISHED in full following adoption by the Board of Trustees in the Chaffee County Times, a newspaper of general circulation within the Town of Buena Vista, on the 30 day of August, 2001.

By: Mindy Philips
Town Clerk - Deputy

C:\Client\Buena Vista\Ordinances\Airport Advisory Committee Amend2.doc

357655
1 of 5
4/6/2006 3:54 PM
ROW R$26.00 D$0.00
JOYCE M. RENO
Chaffee County Clerk

APR 6 '06 PM 3:54

RIGHT-OF-WAY AGREEMENT

THIS AGREEMENT, made this 30th day of MARCH, 2006, by and between the Town of Buena Vista, Colorado, (hereinafter the "Town") and Ridgeway Matrix, Inc. & McCoy Communications, Inc. each Colorado corporations, of 27960 County Road 319, P.O. Box 1910, Buena Vista, CO 81211 (hereinafter referred to collectively as "Ridgeway/McCoy");

WHEREAS, Ridgeway/McCoy wishes to obtain a right-of-way agreement with the Town for purposes of installing its transmission infrastructure (fiber-optic or copper cable), under, in, or across property owned by the Town for purposes of providing internet services to various individuals and businesses; and

WHEREAS, the Town is willing to grant Ridgeway/McCoy such a Right-of-way Agreement; and

WHEREAS, the Town and Ridgeway/McCoy wish to memorialize their agreement as set forth herein.

NOW, THEREFORE, based on good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Town and Ridgeway/McCoy agree as follows:

1. Ridgeway/McCoy is hereby granted a non-exclusive easement in, under, and across any property owned by the Town for purposes of installing its transmission facilities for the sole and exclusive purpose of providing internet services to Ridgeway/McCoy's customers.

2. Said easement shall be restricted to the unused portions of any town right-of-way so that Ridgeway/McCoy's installation of transmission facilities will not unreasonably interfere with traffic or other uses of Town property. Upon reasonable advance notice by the Town, Ridgeway/McCoy shall move or relocate at its expense any above ground facility located in a Town right-of-way if necessary to accommodate any public improvement including, but not limited to widening or installation of curb and gutter.

3. Ridgeway/McCoy agrees that all installation plans, specifications, and procedures (Project Plan) for major trunk lines or projects within the Town shall be submitted to the Town's Public Works Director for review and comment before commencement of any installation work. The Town's comments and corrections identified by the Town to bring the Project Plan into satisfactory compliance with all Town Ordinances, Rules, Regulations, Codes or other legal authority, shall be implemented by Ridgeway/McCoy in execution of the Project Plan. Ridgeway/McCoy's Project Plan shall be modified as necessary to assure such satisfactory compliance. The Town shall review and provide written approval or proposed modification within 10 days of submission from Ridgeway/McCoy. Additionally, Ridgeway/McCoy shall be solely and absolutely responsible for obtaining and maintaining any and all required permits necessary for such work. Ridgeway/McCoy shall also be solely and absolutely responsible for paying any and all fees charged for such permits.

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4. During Ridgeway/McCoy's installation work, the Town shall have the right to inspect the installation work. If the Town determines that execution of the work is not in full compliance with applicable Town Ordinances, Rules, Regulations, Codes or other legal authority, and because of this, the installation work needs to be stopped or modified, the Town shall notify Ridgeway/McCoy who shall immediately comply with the terms and conditions of the Town's notice. The decision of whether or not to issue an order to stop or modify the installation process shall be based upon a specific finding that the work is not proceeding in accordance with the standards referenced above and that Ridgeway/McCoy has refused to cure the Town's objection within five (5) days of receipt.

5. Ridgeway/McCoy agrees to restore or repair all Town property affected or damaged by the installation process to the same condition said property was in prior to the commencement of the installation work. Said restoration or repair shall be completed within thirty (30) days of the occurrence of the damage and shall be at Ridgeway/McCoy's sole expense. The Town shall have the right to inspect the restoration and repair work done by Ridgeway/McCoy and if not approved by the Town, Ridgeway/McCoy shall correct the restoration repairs to comply with the Town's requirements for such repairs.

6. Prior to commencing any installation work with cost in excess of $50,000 Ridgeway/McCoy shall deposit with the Town a bond or irrevocable letter of credit in a form and amount satisfactory to the Town Attorney. Said bond or letter of credit shall be of sufficient amount to complete anticipated repairs or restoration to Town property made necessary by the installation process. The Town's Director of Public Works or his designee shall be solely responsible for determining the appropriate amount of the bond or letter of credit to be deposited. However, Ridgeway/McCoy shall not be required to provide a bond or letter of credit, if Ridgeway/McCoy's work is being performed prior to the Town's acceptance of the right-of-way or prior to the right-of-way improvements being completed such as paving and curb and gutter, as in the case of a new subdivision, for example.

7. At all times during installation, Ridgeway/McCoy agrees to carry general liability insurance which covers Ridgeway/McCoy's use of the easement agreement. Said insurance shall have limits of at least one million dollars ($1,000,000) per occurrence and shall name the Town as an additional insured. Ridgeway/McCoy shall also maintain all statutorily required Workers Compensation Insurance and shall provide the Town with a copy of its Certificate of Coverage.

8. Ridgeway/McCoy agrees to indemnify and hold the Town harmless from any and all claims arising out of Ridgeway/McCoy's work or use of the easement granted herein except for claims, loss, and damages caused by the gross negligence or willful misconduct of the Town. Said agreement to indemnify and hold the Town harmless includes, but is not limited to reasonable attorney fees incurred by the Town in defense of such claims, investigative expenses regarding such claims and any amounts paid by or on behalf of the Town arising out of such claims.

9. Ridgeway/McCoy shall install lines and other facilities underground. While the parties agree that there is a preference for underground installation, above ground installation of lines and other facilities shall be permitted by the Town under this Agreement 1) when "piggy

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backing" or use of preexisting overhead facilities is possible; or 2) when due to physical conditions installation of overhead facilities including poles is reasonably necessary. However, when any such pre-existing above ground structures, equipment, or facilities used by Ridgeway/McCoy is removed by the owner of such facilities, Ridgeway/McCoy shall promptly remove its own equipment and facilities from the Town's right-of-way or otherwise shall install its equipment and facilities underground pursuant to this Agreement. The review of any proposed installation overhead or underground shall be made by the Town's Director of Public Works. However, installation of facilities in new subdivisions shall be required to be installed underground.

10. As partial consideration for the easement being granted herein, Ridgeway/McCoy agrees to install internet services to up to four Town buildings or offices, as designated by the Town, when the property lines are located within fifty feet (50') of Ridgeway/McCoy's transmission facilities within Town rights of way, free of charge, and to provide basic level internet service (512/384 Kbps) on a monthly basis free of charge. All services and bandwidth in excess of 512/384 Kbps shall be billed on a monthly basis at prevailing public rates and shall be paid for by the Town on a monthly basis.

11. As additional consideration for the easement being granted herein, Ridgeway/McCoy agrees to pay the Town a sum equal to $.75 (Seventy-five cents), per residential customer per month and $1.00, (One Dollar), per commercial customer per month. For purposes of this Agreement, the distinction between residential customers and commercial customers shall be determined by Ridgeway/McCoy consistent with its customary billing practices. Said fees shall be limited to Ridgeway/McCoy's customers located within the corporate limits of the Town. The total amount due the Town under this clause shall be payable annually within 10 days of the end of the preceding year. This fee shall not be charged for non-profit, charitable, or governmental organizations that Ridgeway/McCoy elects not to charge for regular service; accordingly, when not charged in such cases, Ridgeway/McCoy shall not pay this fee to the Town.

12. Ridgeway/McCoy agrees to keep accurate customer lists and records at its office in Buena Vista, CO. The Town shall have the right to inspect such records as it deems necessary in order to ensure that an accurate accounting of Right-of-Way fees is being kept by Ridgeway / McCoy.

13. Ridgeway/McCoy agrees to maintain at its cost all its structures, apparatus, and equipment.

14. Ridgeway/McCoy agrees that the Town shall be fully and absolutely immune from any liability for any damage occurring to any of Ridgeway/McCoy's equipment, including, but not limited to fiber-optic components, conduits, fiber-optic cable, vaults, risers, poles and other equipment or fixtures unless such damage arises from the Town's negligence or other acts or omissions of the Town.

15. Ridgeway/McCoy agrees to join the UNCC (Utility Notification Center of Colorado) as a Tier I participant for purposes of utility locates.

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16. In addition to installation work, this agreement shall also be granted for purposes of allowing Ridgeway/McCoy access to any transmission facility installed pursuant to this Agreement for purposes of maintenance and repair. Any such maintenance or repair efforts undertaken by Ridgeway/McCoy shall be governed by all terms and conditions set forth in this Agreement and all applicable Town Ordinances, Rules, Regulations, Codes or other legal authority.

17. This Agreement shall be binding on the party's successors and assigns.

18. Attorneys Fees. In the event of any litigation between the parties hereto arising out of or relating to this Agreement, or the breach hereof, or the interpretation hereof, the prevailing party shall be entitled, in addition to other damages or costs, to an award of reasonable attorney fees from the other party.

19. In the event any court of competent jurisdiction declares any portion of this agreement to be void or unenforceable, the remaining terms and conditions of the Agreement shall remain in full force and effect.

20. The Town may terminate this agreement by notifying Ridgeway/McCoy, in writing, that Ridgeway/McCoy has breached any of it's obligations under this agreement. Ridgeway/McCoy shall be deemed not to be in breach of this agreement if it cures the breach identified by the Town within fifteen (15) days of the Town's mailing of notice of the breach to the address set forth herein. Ridgeway/McCoy shall have the right to terminate this agreement upon thirty (30) days written notice to the Town. Such termination shall then be effective upon payment of all sums due under this agreement. In the event of a termination by any party, Ridgeway/McCoy agrees to remove all of its equipment, poles, material, wiring, cable or any other component it installed pursuant to this agreement located above ground within ninety (90) days of the date of termination. Failure to do so will render Ridgeway/McCoy liable to the Town for all expenses incurred by the Town in removing such items.

21. Any and all notices required pursuant to this Agreement shall be forwarded to the following:

(a) The Town of Buena Vista
P.O. Box 2002
210 East Main Street
Buena Vista, CO 81211

(b) Ridgeway/McCoy Communications, Inc.
27960 C.R. 319; P O Box 1075
Buena Vista, CO 81211

22. This agreement contains the entire understanding and agreement between the parties with respect to the subject matter herein. There are no representations, agreements, or

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understandings between or among the parties relating to the subject matter of this Right of Way Agreement which are not fully expressed herein.

IN WITNESS THEREOF, parties hereunto set their hand this 30th day of March, 2006.

MCCOY COMMUNICATION, INC.

By: _____

RIDGEWAY MATRIX, INC.

By: _____

TOWN OF BUENA VISTA

By: _____
Sharyle A. Solis, Mayor

ATTEST:

_____
Diane Spomer, Town Clerk

375760 8/1/2008 8:40 AM JOYCE M. RENO
1 of 2 ORDIN R$11.00 D$0.00 Chaffee County Clerk

DISTRICT COURT, COUNTY OF CHAFFEE, STATE OF COLORADO

Case No. 4229

IN RE THE ORGANIZATION OF BUENA VISTA SANITATION DISTRICT, CHAFFEE COUNTY, COLORADO

ORDER FOR INCLUSION OF THE BUENA VISTA SANITATION DISTRICT

THIS MATTER coming before the Court under C.R.S. ξ 32-1-401(1)(c)(I) and an Order of the Board of Directors of the Buena Vista Sanitation District granting a Petition for Inclusion filed with it by the Town of Buena Vista; and the Court being advised in the premises and having determined that all the procedures and requirements of C.R.S. ξ 32-1-401 for inclusion have been satisfied and justify including the property covered by the Petition for Inclusion in the boundaries of the Buena Vista Sanitation District,

ORDERS that the following described land be and is hereby included within the boundaries of the Buena Vista Sanitation District:

LEGAL DESCRIPTION OF THE
CENTRAL COLORADO REGIONAL AIRPORT

ALL THAT TRACT OF LAND LOCATED IN THE NORTHWEST QUARTER, SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 21 AND IN THE NORTHWEST QUARTER, NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 28, TOWNSHIP 14 SOUTH, RANGE 78 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CHAFFEE COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE NORTHWEST CORNER OF SAID SECTION 21, BEING MARKED BY AN ILLEGIBLE 3 ¼" ALUMINUM CAP;
THENCE SOUTH 00° 01' 31" EAST, A DISTANCE OF 1,338.01 FEET TO THE NORTH SIXTEENTH CORNER BETWEEN SAID SECTION 21 AND SECTION 20;
THENCE SOUTH 89° 47' 46" EAST ALONG THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 21, A DISTANCE OF 660.77 FEET;
THENCE SOUTH 19° 13' 36" EAST, A DISTANCE OF 1,173.74 FEET;
THENCE SOUTH 19° 43' 41" EAST, A DISTANCE OF 667.32 FEET TO A POINT ON THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 21;
THENCE SOUTH 89° 06' 04" EAST, A DISTANCE OF 12.63 FEET;
THENCE SOUTH 00° 11' 37" WEST ALONG SAID EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER AND THE EAST LINE OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 21, A DISTANCE OF 2,088.16 FEET TO THE WEST SIXTEENTH CORNER BETWEEN SAID SECTION 21 AND SECTION 28;
THENCE SOUTH 89° 51' 46" EAST ALONG THE SOUTH LINE OF SAID SECTION 21, A DISTANCE OF 708.80 FEET;
THENCE SOUTH 19° 10' 58" EAST, A DISTANCE OF 1,882.13 FEET;
THENCE SOUTH 00° 33' 35" WEST, A DISTANCE OF 177.48 FEET;
THENCE SOUTH 19° 11' 32" EAST, A DISTANCE OF 2,019.59 FEET;
THENCE SOUTH 89° 52' 28" EAST, A DISTANCE OF 501.65 FEET TO THE WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 285;
THENCE NORTH 01° 03' 47" EAST ALONG SAID WESTERLY RIGHT-OF-WAY, A DISTANCE OF 537.17 FEET;
THENCE CONTINUING ALONG SAID WESTERLY RIGHT-OF-WAY, NORTH 00° 12' 00" WEST, A DISTANCE OF 307.20 FEET;
THENCE NORTH 19° 10' 27" WEST, A DISTANCE OF 2,845.04 FEET;
THENCE SOUTH 76° 00' 01" EAST, A DISTANCE OF 308.15 FEET TO THE WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 285;
THENCE NORTH 15° 31' 15" WEST ALONG SAID WESTERLY RIGHT-OF-WAY, A DISTANCE OF 420.70 FEET;
THENCE SOUTH 69° 34' 40" WEST, A DISTANCE OF 115.71 FEET;
THENCE NORTH 25° 17' 41" WEST, A DISTANCE OF 992.80 FEET;
THENCE NORTH 20° 16' 56" WEST, A DISTANCE OF 673.62 FEET;
THENCE NORTH 69° 20' 53" EAST, A DISTANCE OF 110.08 FEET;
THENCE SOUTH 24° 53' 22" EAST, A DISTANCE OF 294.57 FEET;
THENCE SOUTH 69° 13' 25" EAST, A DISTANCE OF 160.01 FEET TO THE WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 24;
THENCE NORTH 19° 22' 13" WEST ALONG SAID WESTERLY RIGHT-OF-WAY, A DISTANCE OF 1,302.81 FEET TO A POINT OF CURVATURE;
THENCE NORTHWESTERLY AND DEFLECTING TO THE LEFT, A DISTANCE OF 1,070.87 FEET ALONG THE ARC OF A CURVE HAVING A RADIUS OF 5,847.80 FEET AND A DELTA ANGLE OF 11° 03' 35" TO A POINT OF TANGENCY;
THENCE NORTH 28° 24' 09" WEST, A DISTANCE OF 638.13 FEET;
THENCE NORTH 28° 22' 56" WEST, A DISTANCE OF 319.46 FEET TO A POINT OF CURVATURE;
THENCE NORTHWESTERLY AND DEFLECTING TO THE RIGHT, A DISTANCE OF 1,184.99 FEET ALONG THE ARC OF A CURVE HAVING A RADIUS OF 11,604.93 FEET AND A DELTA ANGLE OF 05° 51' 02" TO A POINT OF TANGENCY;
THENCE NORTH 20° 31' 57" WEST, A DISTANCE OF 494.80 FEET, THIS AND THE PRECEDING 5 COURSES ARE ALONG SAID WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 24;
THENCE SOUTH 72° 16' 35" WEST, A DISTANCE OF 888.42 FEET TO A POINT OF CURVATURE;
THENCE SOUTHWESTERLY AND DEFLECTING TO THE LEFT, A DISTANCE OF 308.22 FEET ALONG THE ARC OF A CURVE HAVING A RADIUS OF 304.29 FEET AND A DELTA ANGLE OF 71° 47' 33" TO A POINT OF TANGENCY;
THENCE SOUTH 00° 33' 51" WEST, A DISTANCE OF 288.82 FEET;
THENCE NORTH 89° 30' 10" WEST, A DISTANCE OF 28.93 FEET TO THE POINT OF BEGINNING.
SAID PARCEL CONTAINS 237.87 ACRES, MORE OR LESS.

375760 8/1/2008 8:40 AM JOYCE M. RENO
2 of 2 ORDIN R$11.00 D$0.00 Chaffee County Clerk

FURTHER ORDERS that this Order shall have the legal effect set forth in C.R.S. ξ 32-1-402.

DONE this 27 day of June, 2008.

BY THE COURT:

District Court Judge

SEAL

STATE OF COLORADO } ss
COUNTY O[illegible]

Certified to [illegible] correct copy of the [illegible] custody. WITNESS [illegible] Seal of said Court this 3 July, 2008

Karen Rissa
CLERK [illegible] COMBINED COURT

DEPUTY

CERTIFICATE OF OWNERSHIP AND ENCUMBRANCE

Date: March 10, 2016

To: Brandy Reitter, Town Administration
Town of Buena Vista

Re: Parcel 3 (Central Colorado Regional Airport Searches)

This is to certify that an examination has been done of the records in the Chaffee County Clerk and Recorder's Office on March 7, 2016 at 7:45AM pertaining to the property, which is described as follows:

Property more particularly described in Deed recorded July 3, 2000 as Reception No. 312044

The title of this property is vested in *Town of Buena Vista, a municipal corporation*, by virtue of a Warranty Deed recorded July 3, 2000 as Reception no. 312044.

ENCUMBRANCES:

Ordinance No. 6 (Series of 2000) recorded July 21, 2000 as Reception No. 312329.

Ordinance No. 2 (Series of 2000) recorded August 15, 2000 as Reception No. 312747. (copy attached to Parcel 2 search)

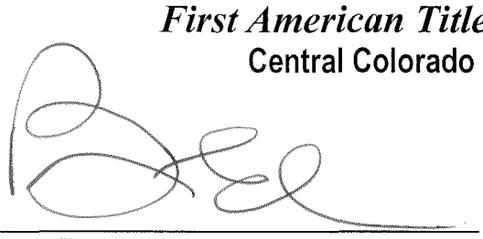
Ordinance No. 2 (Series of 2000) recorded September 13, 2000 as Reception No. 313352. (copy attached to Parcel 2 search)

Ordinance No. 2 (Series of 2000) recorded September 5, 2001 as Reception No. 320384. (copy attached to Parcel 2 search)

Right of way Agreement recorded April 6, 2006 as Reception No. 357655. (copy attached to Parcel 2 search)

This Certificate is not to be construed as an abstract of title or a policy of title insurance and the liability therein is limited to the amount of the fee paid for the Certificate.

First American Title Insurance Company
Central Colorado Title & Escrow, Inc.



Brett Eakins/Examiner

07/03/2000 04:00 RECORD FEE: $15.00 PAGE #: 0001 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 312044 **

Recorder.

QUITCLAIM DEED

State Documentary Fee
Date JUL 03 2000
$ -0-

THIS DEED, Made this 30th day of June, 2000,
Between THE STATE OF COLORADO, acting by and through the Department of Natural Resources for the use and benefit of the

Division of Wildlife and the Wildlife Commission,
6060 Broadway, Denver, CO 80216,

of Adams County, State of Colorado, grantor, and

TOWN OF BUENA VISTA, a municipal corporation
210 East Main Street
P.O. Box 2002
Buena Vista, CO 81211

of Chaffee County, State of Colorado, grantee:

WITNESSETH, That pursuant to the parties' Exchange Agreement dated May 23, 2000, grantor agreed to convey to grantee certain real estate known as the Airport Parcel No. 3, Chaffee County, Colorado (valued at $51,800), in exchange for conveyance to grantor by grantee of that certain parcel of land known the Chesmore property, in Chaffee County, Colorado, which is valued at $44,000 and payment to grantor by grantee of the sum of $7,800, the receipt and adequacy of which consideration from grantee is hereby acknowledged, and in furtherance of said Exchange Agreement, grantor hereby transfers and quitclaims unto the grantee, its heirs and assigns forever, all the following real property, situate, lying and being in Chaffee County, State of Colorado, described as follows:

SEE EXHIBIT A attached hereto and incorporated herein by reference;
also known by street and number as: NO STREET NUMBER ASSIGNED
assessor's schedule or parcel number:

TOGETHER with all and singular the appurtenances and privileges thereunto belonging, or in anywise appertaining, and all of the estate, right, title, interest and claim whatsoever of the grantor, either in law or equity, to the only proper use, benefit and behalf of the grantee, its successors and assigns forever.

IN WITNESS WHEREOF, the grantor has executed this deed on the date set forth above.

THE STATE OF COLORADO
Bill Owens, Governor

BY: Walter D Grant for
Bruce L. McCloskey, Acting Director
of the Division of Wildlife for the Executive
Director of the Department of Natural Resources
and on behalf of the Wildlife Commission

STATE OF COLORADO
} ss.
County of Adams

The foregoing instrument was acknowledged before me this 30th day of June, 2000, by Walter D. Grant, Administrator-Wildlife Programs, for the Division of Wildlife.

Witness my hand and seal.

My commission expires: 1,28,2004

Notary Public
Golden, CO 80403

EXHIBIT A

LEGAL DESCRIPTION

A parcel of land in the Northwest Quarter of the Northwest Quarter (NW¼ NW¼) of Section 21, Township 14 South, Range 78 West of the 6th Principal Meridian, Chaffee County, Colorado; said tract is within the boundaries of Central Colorado Regional Airport (formerly Buena Vista Municipal Airport) as described with the document titled Exhibit A, dated April, 1997, and being more particularly described as follows:

PARCEL 3

Beginning at the West Quarter Corner of Section 16, Township 14 South, Range 78 West;
thence South 0°17'20" West along the West boundary of Section 16 a distance of 2656.91 feet, to the Northwest Corner of said Section 21, and the true point of beginning;
thence along the North boundary of said Section 21, South 89°37'15" East 30.00 feet;
thence continuing along said boundary South 89°37'15" East 595.00 feet;
thence South 22°18'24" East 1444.88 feet, to a point on the South boundary of the NW¼ NW¼ of Section 21;
thence along said South boundary North 89°55'18" West 1170.00 feet, to the southwest corner of the NW¼ NW¼ of Section 21;
thence along the West boundary of said Section 21, North 0°08'45" West 1339.29 feet, to the true point of beginning.

07/21/2000 08:15 RECORD FEE: $55.00 PAGE #: 0001 OF 0011
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 312329 **

ORDINANCE NO. 10
(Series of 2000)

AN ORDINANCE OF THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO APPROVING THE EXCHANGE OF CERTAIN REAL PROPERTY KNOWN AS THE CHESMORE PROPERTY FOR A PARCEL OF LAND KNOWN AS THE AIRPORT PARCEL NO. 3.

WHEREAS, The Town must have control of the land on which the Central Colorado Regional Airport ("Airport") is located in order to protect the Town's investment in the facility and to comply with FAA grant requirements; and

WHEREAS, a portion of the land comprising the airport is owned by the State of Colorado, and controlled by the Division of Wildlife was leased to the Town for a term expiring in 2008; and

WHEREAS, the State has agreed to convey to the Town the property known as Airport Parcel No. 3., in exchange for the Chesmore Property, a 4.77 acre parcel of land on the east side of the Arkansas River not far from the Town's municipal boundary; and

WHEREAS, pursuant to Resolution No. 63 (Series of 1999), the Town committed to purchase the Chesmore Property in order to exchange it for the Airport Parcel No. 3; and

WHEREAS, the Airport Parcel No. 3 was appraised at $51,800 and the Chesmore Property at $44,000, requiring the Town to pay an additional $7,800 to the State for an even exchange; and

WHEREAS, the Town and the State have negotiated a land exchange agreement to enable the Town to acquire the Airport Parcel No. 3 in exchange for the Chesmore Property; and

WHEREAS, the Federal Aviation Administration (FAA) has committed to reimburse 90% of the Town's acquisition cost for the Airport Parcel No. 3, including the consulting services of Raytheon, and appraisals of the Chesmore Property and the Airport Parcel No. 3, but excluding the Town's legal fees and title insurance costs;

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF BUENA VISTA, COLORADO as follows:

Section One

The Exchange Agreement with the State of Colorado, Division of Wildlife, a copy of which is attached hereto as Exhibit A, be and is hereby approved, the Mayor and Town Clerk are directed and authorized to execute the Exchange Agreement on behalf of the Town, and the Town Administrator is directed and authorized to take such action as necessary and appropriate to implement the Exchange Agreement on behalf of the Town. The funds committed to the Town from

the Federal Aviation Administration to assist the Town in paying a portion of the cost of performing the Exchange Agreement shall be obtained and utilized.

Section Two.

This ordinance shall not have any effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section Three

The provisions of this ordinance are severable and the invalidity of any section, phrase, clause or portion of the ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the ordinance.

INTRODUCED, READ, ADOPTED AND ORDERED PUBLISHED this 23rd **day of** May, **2000.**

TOWN OF BUENA VISTA

By: Sharyl A. Sobi

ATTEST:

Ina Darrah

Town Clerk

(SEAL)

PUBLISHED in full following adoption by the Board of Trustees in the Chaffee County Times, a newspaper of general circulation within the Town of Buena Vista, on the 1st day of June, 2000.

By: Ina Darrah
Town Clerk

EXCHANGE AGREEMENT

This EXCHANGE AGREEMENT (hereinafter "Agreement") is made and entered into this 23rd day of May, 2000, by and between the **STATE OF COLORADO** acting by and through the **DEPARTMENT OF NATURAL RESOURCES**, for the use and benefit of the **DIVISION OF WILDLIFE** and **WILDLIFE COMMISSION**, whose address is 6060 Broadway, Denver, Colorado 80216 (hereinafter referred to as "DOW" or the "State"), and the **TOWN OF BUENA VISTA**, a municipal corporation, whose address is 210 East Main Street, Buena Vista, Colorado 81211 (hereinafter referred to as "Buena Vista").

RECITALS

A. WHEREAS, the State owns in fee title a parcel of land approximately 27.2 acres in size, as described on Exhibit A attached hereto and incorporated herein by reference (hereinafter the "Airport Parcel"); and

B. WHEREAS, the Airport Parcel was appraised in December 1999 to have a monetary value of $51,800.00; and

C. WHEREAS, Buena Vista has contracted to purchase from Robert E. Chesmore and Glenda J. Chesmore a parcel of land approximately 4.77 acres in size, as described on Exhibit B attached hereto and incorporated herein by reference (hereinafter the "River Parcel"); and

D. WHEREAS, the River Parcel was appraised in May 1999 to have a monetary value of $44,000.00; and

E. WHEREAS, pursuant to § 33-1-105(1)(b), C.R.S., the State has the authority to exchange property for other property, provided that any cash received does not exceed fifty percent (50%) of the total value of the consideration; and

F. WHEREAS, the Parties desire to exchange the Airport Parcel for the River Parcel, with Buena Vista paying the different in values to the State in cash.

NOW, THEREFORE, for and in consideration of the mutual promises and covenants, terms, conditions, restrictions, and requirements contained herein, the Parties mutually agree as follows:

1. *THE EXCHANGE.* At closing the following shall occur:

A. The State shall convey ownership of the Airport Parcel to Buena Vista by quit claim deed.

B. Buena Vista shall convey ownership of the River Parcel to the State by quit claim deed and also pay the State $7,800.00.

Payment shall be by City check or warrant, or by wire transfer. The two quit claim deeds shall be in a form that, at a minimum, satisfies the requirements of § 38-30-116, C.R.S.

2. *COOPERATION WITH TRANSFER.* In addition to execution of the documents explicitly described elsewhere in this Agreement, the parties hereto expressly agree to execute any and all documents reasonably necessary in furtherance of this Agreement.

3. *EVIDENCE OF TITLE.*

For the River Parcel. The State has been provided a copy of title commitment #516864 (Order Number 993743) dated 10/12/99 and issued by Stewart Title Guaranty Company for the River Parcel. As soon as practical after the day and year first above written, Buena Vista shall (i) cause to be issued a title insurance commitment in the name of the State covering the River Parcel in the amount of $44,000.00, which shall be issued by Stewart Title Guaranty Company or another title insurance company authorized to do business in the State of Colorado, and (ii) provide copies to the State of those documents disclosed in Exceptions #7, #8, #12, and #13 of Stewart title commitment #516864. Buena Vista shall pay the cost of the State's title insurance commitment and title policy after closing. The State shall then have ten (10) days after receipt of said title evidence described above within which to examine the same and to make any objections, which shall include the right to object to any lien, deed of trust, mortgage, or other encumbrance for debt that runs with the land not previously disclosed. Thereafter, Buena Vista shall have an opportunity within which to rectify any objections made thereto, including obtaining any and all written acknowledgments of subordination required for the release of any lien, deed of trust, mortgage, or other encumbrance for debt that runs with the land. If good and merchantable title is not shown by said title commitment, and Buena Vista is unable to rectify any objections of the State, then this Agreement shall become null and void and Buena Vista and the State shall be released from any further obligations under it.

For the Airport Parcel. As soon as practical after the day and year first above written, the State (i) shall provide Buena Vista with a copy of the deed whereby the State came into ownership of the Airport Parcel, and (ii) shall make its real estate files available at the State's Denver office for inspection by Buena Vista. In addition, as soon as practical after the day and year first above written Buena Vista shall, it its own expense, obtain a commitment for title insurance naming Buena Vista as the insured, in the amount of $51,800. Buena Vista shall then have ten (10) days after receipt of (1) the State's deed described above, or (2) the commitment for title insurance, whichever is received later, within which to examine the same and the State's files and to make any objections, which shall include the right to object to any encumbrance that runs with the land not previously disclosed. Thereafter, the State shall have an opportunity within which to rectify any objections made thereto. If the State is unable to rectify any objections of Buena Vista, then this Agreement shall become null and void and Buena Vista and the State shall be released from any further obligations under it.

Buena Vista and the State agree that title standards adopted by the Colorado Bar Association may be used to resolve disputes concerning good and merchantable title when applicable.

4. *INSPECTION.* The Parties shall have the right to enter upon the River Parcel and the Airport Parcel at reasonable times for surveying, inspection, and other reasonable purposes related to the transaction contemplated hereunder. If, for any reason and in its sole discretion, either Party is not satisfied that the parcel it is to receive is acceptable or suitable, then that Party shall notify the other Party in writing on or before 5:00 PM on the date ten (10) days after the day and year first above written, at which time this Agreement shall be considered null and void and of no further force and effect; provided, however, that if the objections are of a nature that can be reasonably cured within a fifteen (15) day period following the receipt of notice from the objecting Party, then the other Party shall have such period to cure such defects to the reasonable satisfaction of the other. Failure of either Party to notify the other of its dissatisfaction prior to the expiration of the period of time provided for above shall be deemed a waiver of this provision and acceptance of the parcel said Party is to receive as suitable.

5. *CONTINGENCIES*. This Agreement and the performance of the Parties hereunder are specifically contingent upon each of the following conditions:

(A) The approval of the Capital Development Committee of the Legislature pursuant to § 33-1-105(3)(a), C.R.S.; and

(B) The support of the local Legislators and the Chaffee County Commission; and

(C) The approval of the Wildlife Commission.

(D) Acquisition of the River Parcel by Buena Vista from the Chesmores.

In the event that one or more of these contingencies are not satisfied by July 30, 2000, and the parties have not agreed in writing to allowing additional time for satisfaction, then this Agreement shall be terminated, in which event DOW and Buena Vista shall be released from all further obligations and liabilities with respect to this Agreement.

6. *RECORDING AND CLOSING FEES; TAXES.* Buena Vista shall pay the cost of all recording and closing fees associated with this Agreement. All taxes and assessments on the River Parcel for the year of closing shall be prorated as of the date of closing based on the most recent tax bill, and shall have been paid by Buena Vista or its predecessors.

7. *AMENDMENTS.* This Agreement may only be amended by written agreement executed by all Parties hereto.

8. *CAPTIONS.* The captions used in this Agreement are for convenience only and shall not limit the meaning of the language contained herein.

9. *SUCCESSION.* The covenants and agreements herein contained shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors and assigns of the respective parties.

10. *SPECIAL PROVISIONS.* Buena Vista and the State further agree to the covenants and conditions as set below.

(a) The laws of the State of Colorado and rules and regulations issued pursuant thereto shall be applied in the interpretation, execution and enforcement of this contract. Any provision of this contract whether or not incorporated herein by reference which provides for arbitration by any judicial body or person or which is otherwise in conflict with said laws, rules and regulations shall be considered null and void. Nothing contained in any provision incorporated herein by reference which purports to negate this or any other special provision in whole or in part shall be valid or enforceable or available in any action at law whether by way of complaint, defense or otherwise. Any provision rendered null and void by the operation of this provision will not invalidate the remainder of this contract to the extent that the contract is capable of execution.

(b) The signatories hereto aver that they are familiar with C.R.S. 18-8-301, et. seq., (Bribery and Corrupt Influences) and C.R.S. 18-8-401, et. seq., (Abuse of Public Office), and that no violation of such provisions is present.

(c) The signatories aver that to their knowledge, no state employee has a personal or beneficial interest whatsoever in the service or property described herein.

11. *NOTICES.* All notices required or provided for in this Agreement shall deemed given upon delivery, or if, mailed, upon deposit in the United States Mail, first class postage prepaid, properly addressed to the party to whom directed at its address as shown below, or at such other address as shall be given by notice pursuant to this paragraph.

If to the State
Division of Wildlife
Real Estate Unit
6060 Broadway
Denver, CO 80216

If to Buena Vista
Town Administrator
210 East Main Street
Buena Vista, Colorado 81211

copy to: Edward M. Caswall, Esq.
Alperstein & Covell P.C.
1600 Broadway #2350
Denver, CO 80202

12. *ENTIRE UNDERSTANDING.* This Agreement constitutes the entire understanding of the Parties and there are no other provisions other than set forth above and any changes in this Agreement shall be made in writing and signed by both Buena Vista and the State in accordance with required contracting procedures before the same shall be effective.

13. *SURVIVE CLOSING.* All of the rights, obligations, representations and warranties created under this Agreement shall survive closing.

14. *CLOSING.* Closing shall occur as soon as practicable and at a time and place mutually agreeable to the Parties.

15. *EXPIRATION OF THIS AGREEMENT.* If closing has not occurred prior to December 31, 2000, then this Agreement shall become null and void unless extended in writing by mutual agreement of the parties hereto.

16. *COUNTERPARTS.* This Agreement may be executed in counterparts, all of which shall constitute one Agreement, which shall be binding on all of the Parties.

17. *SATURDAYS, SUNDAYS, OR HOLIDAYS.* If the final date of any time period of limitation set out in any provision of this Agreement falls on a Saturday, Sunday or legal holiday under the laws of the State of Colorado, then the time of such period shall be extended to the next day which is not a Saturday, Sunday, or legal holiday.

IN WITNESS WHEREOF, the Parties hereto set their hands the day and year first above written.

STATE OF COLORADO
Bill Owens, Governor

By Walter D. Graul
For the Director of Division of Wildlife for the
Executive Director of the Department of Natural Resources,
and on behalf of the Colorado Wildlife Commission

STATE OF COLORADO)
) ss.
COUNTY OF ADAMS)

The foregoing instrument was acknowledged before me the 14th day of April, 2000, by Walter D. Graul, acting on behalf of the State of Colorado, Department of Natural Resources, benefitting the Division of Wildlife and the Colorado Wildlife Commission.

Witness my hand and official seal.
My Commission expires: Jan. 22, 2002

Linda L. Whittaker
(Seal) NOTARY PUBLIC

LINDA L. WHITTAKER NOTARY PUBLIC STATE OF COLORADO

TOWN OF BUENA VISTA
Sharyle A. Solis Mayor

By Sharyle A. Solis
For the Town of Buena Vista

STATE OF COLORADO)
) ss.
COUNTY OF CHAFFEE)

The foregoing instrument was acknowledged before me the 24th day of May, 2000, by Sharyle A. Solis, acting on behalf of the Town of Buena Vista.

Witness my hand and official seal.
My Commission expires:

MY COMMISSION EXPIRES
08-17-2003

Tina Darrah
(Seal) NOTARY PUBLIC

TINA DARRAH NOTARY PUBLIC STATE OF

Nrbw7525.doc

D:\Client Files\Buena Vista\Chesmore\exchange agreement dow - a&c revision.wpd

PARCEL 3
EXHIBIT A
DESCRIPTION OF A PARCEL OF LAND IN CHAFFEE COUNTY, COLORADO

A Parcel of land in the Northwest Quarter, of the Northwest Quarter (NW1/4NW1/4) of Section Twenty-one (21), Township Fourteen South (14S), Range Seventy-eight West (78W) of the Sixth Principal Meridian, County of Chaffee, State of Colorado; said tract is within the boundaries of Central Colorado Regional Airport (formerly Buena Vista Municipal Airport) as described with the document titled Exhibit A, dated April, 1997, and being more particularly described as follows:

PARCEL 3

Beginning at the West ¼ Corner of Section 16, T14S, R78W; thence S 0°17'20" W along the West boundary of Section 16 a distance of 2656.91 feet, to the Northwest Corner of said Section 21, and the True Point of Beginning;

Thence along the North boundary of said Section 21, S 89°37'15" E 30.00 feet;
Thence continuing along said boundary S 89°37'15" E 595.00 feet,
Thence S 22°18'24" E 1444.88 feet, to a point on the South boundary of the NW1/4NW1/4 Section 21;
Thence along said South boundary N 89°55'18" W 1170.00 feet, to the Southwest Corner of the NW1/4NW1/4 Section 21;
Thence along the West boundary of said Section 21, N 0°08'45" W 1339.29 feet, to the True Point of Beginning.

Said Parcel 3 contains an area of 27.55 acres, more or less.

07/21/2000 08:15 RECORD FEE: $55.00
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 312329

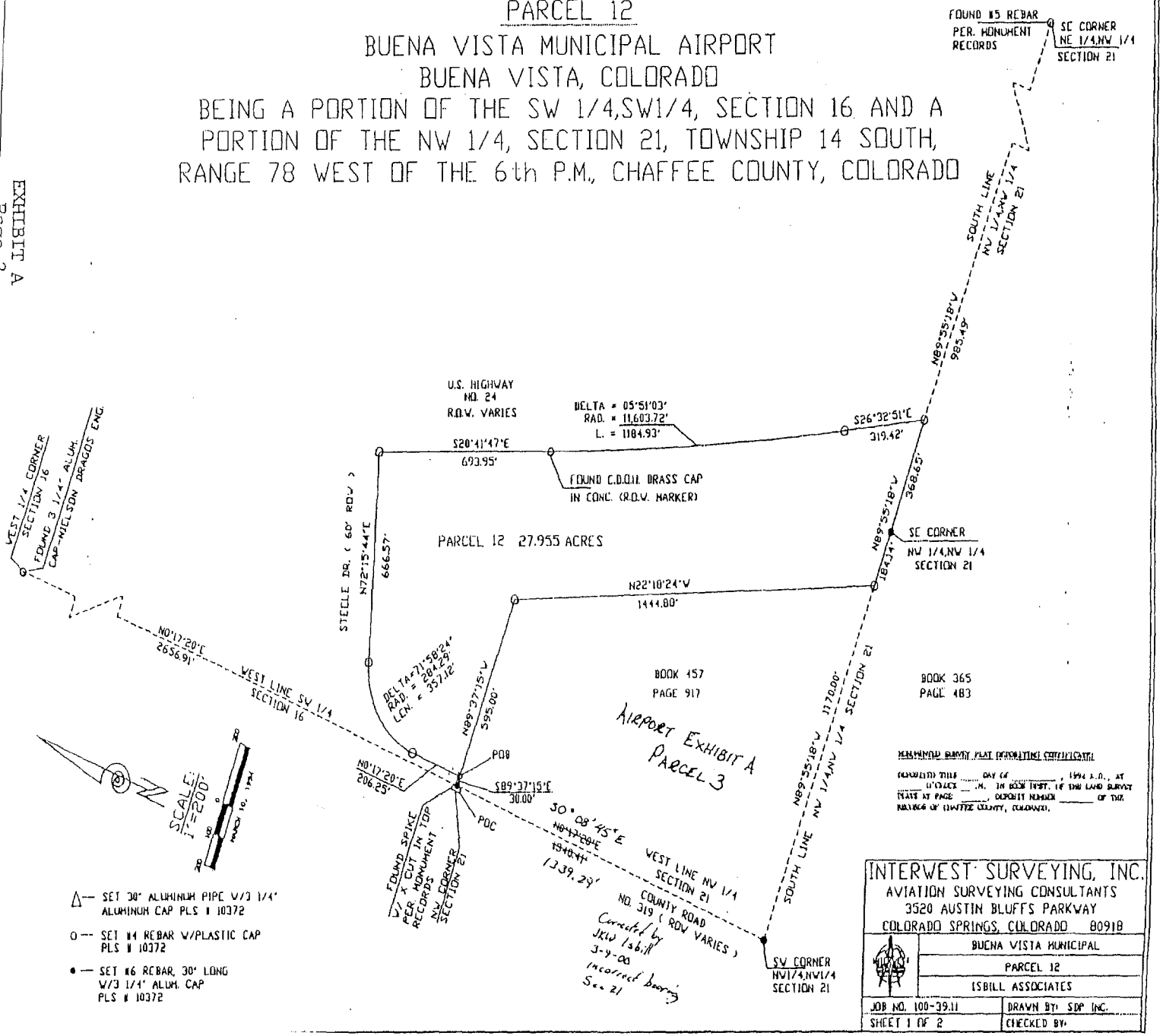
EXHIBIT A

LAND SURVEY PLAT

PARCEL 12

BUENA VISTA MUNICIPAL AIRPORT
BUENA VISTA, COLORADO

BEING A PORTION OF THE SW 1/4,SW1/4, SECTION 16 AND A PORTION OF THE NW 1/4, SECTION 21, TOWNSHIP 14 SOUTH, RANGE 78 WEST OF THE 6th P.M., CHAFFEE COUNTY, COLORADO



INTERWEST SURVEYING, INC.
AVIATION SURVEYING CONSULTANTS
3520 AUSTIN BLUFFS PARKWAY
COLORADO SPRINGS, COLORADO 80918

BUENA VISTA MUNICIPAL	
PARCEL 12	
ISBILL ASSOCIATES	
JOB NO. 100-39.11	DRAWN BY: SDP INC.
SHEET 1 OF 2	CHECKED BY:

07/21/2000 08:15 RECORD FEE: $55.00
CHAFFEE COUNTY, CO. JOYCE M RENO - CLERK & RECORDER PAGE #: 0011 OF 0011
REC #: 312329

That portion of the East Half of the Southeast Quarter of the Southwest Quarter (E½ SE¼ SW¼) of Section 9, Township 14 South, Range 78 West of the 6th Principal Meridian, lying East of the center of the Arkansas River, being a part of "the Placer Mining Claim known as the RONK Placer Mining Claim in the Arkansas River Mining District", Chaffee County, Colorado, as described in U. S. Patent recorded in Book 76 at Page 47.

STEWART TITLE
Guaranty Company

CERTIFICATE OF OWNERSHIP AND ENCUMBRANCE

Date: September 10, 2015

To: Brandy Reitter, Town Administration
Town of Buena Vista

Re: Parcel 4 (Central Colorado Regional Airport Searches)

This is to certify that an examination has been done of the records in the Chaffee County Clerk and Recorder's Office on September 10, 2015 at 7:45AM pertaining to the property, which is described as follows:

A portion of the property described in Easement Deed and Agreement recorded August 26, 1983 in Book 459 at Page 266.

NOTE: May require a survey to determine exact legal description

The title of this property is vested in *State of Colorado*

ENCUMBRANCES:

Terms and conditions set forth in Easement Deed and Agreement recorded August 26, 1983 in Book 459 at Page 266.

Ordinance No. 2 (Series of 2000) recorded August 15, 2000 as Reception No. 312747.

Ordinance No. 2 (Series of 2000) recorded September 13, 2000 as Reception No. 313352.

Ordinance No. 2 (Series of 2000) recorded September 5, 2001 as Reception No. 320384.

Right of way Agreement recorded April 6, 2006 as Reception No. 357655.

The effect of Order of Inclusion of the Buena Vista Sanitation District recorded August 1, 2008 as Reception No. 375760.

This Certificate is not to be construed as an abstract of title or a policy of title insurance and the liability therein is limited to the amount of the fee paid for the Certificate.

First American Title Insurance Company
Central Colorado Title & Escrow, Inc.

Brett Eakins/Examiner

CERTIFICATE OF OWNERSHIP AND ENCUMBRANCE

Date: September 10, 2015

To: Brandy Reitter, Town Administration
Town of Buena Vista

Re: Parcel 4 (Central Colorado Regional Airport Searches)

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First American Title Insurance Company
Central Colorado Title & Escrow, Inc.

Brett Eakins/Examiner

Easement to BV

223269

FILED FOR RECORD 8:00 O'CLOCK A M AUG 2 5 1983 MARY ELLEN BELMAR CHAFFEE COUNTY RECORDER BOOK 459 PAGE 266

EASEMENT DEED AND AGREEMENT

THIS EASEMENT DEED AND AGREEMENT, dated as of this 8th day of August, 1967, by and between the COLORADO STATE REFORMATORY, hereinafter called "Reformatory", and the TOWN OF BUENA VISTA, hereinafter called "Town"; and

WHEREAS, the Town is a municipal corporation of the State of Colorado, and is desirous of providing airport facilities for the use and benefit of the residents of the Town; and

WHEREAS, the Reformatory has a need for airport facilities in the vicinity of the present location of the Reformatory; and

WHEREAS, the Reformatory owns certain real property which is feasibly situated for the development of an airport; and

WHEREAS, both the Town and the Reformatory are desirous of cooperating in providing airport facilities on the terms and conditions hereinbelow set forth.

NOW THEREFORE, in consideration of the promises and agreements herein contained, the Reformatory hereby sells, conveys and grants unto the Town an easement and right-of-way over, across and through the following described lands situated in Chaffee County, Colorado, for the uses and purposes and upon the terms hereinafter set forth:

A tract of land located in the East 1/2 of the West 1/2 and in the Southwest 1/4 of the Southeast 1/4 of Section 21, Township 14 South, Range 78 West of the 6th Principal Meridian, being described as follows:

Beginning at the South 1/4 corner of said Section 21; thence North 88° 43' East 303.3 feet; thence North 25° 17' West 952.6 feet; thence North 20° 19' West 1649.3 feet; thence North 18° 57' West 597.0 feet; thence North 24° 08' West 862.6 feet to the intersection of centerline of the access road; thence continuing North 24° 08' West 300.9 feet to the west boundary of the East 1/2 of the West 1/2 of said Section 21; thence along said boundary South 0° 28' East 4020.9 feet more or less to the South line of said Section 21; thence South 89° 06' East along said Section line 929.3 feet more or less to the point of beginning; containing 73.6 acres more or less.

Together with an easement for access road purposes over a road, the centerline of which begins at the above

mentioned access road intersection point and extends North 39° 38' East 505.7 feet more or less to U.S. Highway No. 24, said access road being 30.0 feet on each side of above described centerline.

Directions were determined by solar observation.

This easement and right-of-way is for the purpose of granting the Town the right to construct, inspect, maintain and operate an airport.

As further consideration for the easement, the Town hereby agrees as follows:

1. To hold and save the Reformatory harmless from any and all damage arising from the Town's use of the right, easement and right-of-way herein granted, and the Town agrees to pay any damages or damage which may arise to the property, premises or rights of the Reformatory through the Town's use, occupation and possession of the rights herein granted.

2. To allow the Reformatory to use the subject easement herein granted for airport purposes at all times without further fee or charge subject to the condition, however, that the Reformatory agrees to obey and abide by all reasonable rules and regulations adopted or promulgated by the Town in connection with the subject airport.

3. To promptly enter into a program for the development and improvement of the airport and to do all things reasonably necessary to accomplish this end. The Town agrees to be responsible for said development and agrees that its program shall be in accordance with the rules and regulations and standards of the Federal Aviation Agency.

4. In the event the Town no longer uses or ceases to use the property herein granted for airport purposes for a period of one year or more, then the subject easement herein granted shall without further act or deed revert to the Reformatory. In this situation and to this end the Town agrees to execute any necessary agreements or deeds requested by the Reformatory to effectively terminate this easement and reconvey the rights herein granted.

In addition to the above provisions, it is mutually agreed between the Reformatory and the Town as follows:

1. The Reformatory agrees to provide at its expense a Federal Aviation Agency approved radio communications system to service the airport. It is understood that the Reformatory shall be responsible for the maintenance, upkeep and operation of this

radio communications system and shall provide the necessary personnel in connection therewith. All equipment and property provided by the Reformatory in connection with this provision shall remain the sole and separate property of the Reformatory during the existence of this easement and after the termination thereof.

2. The Reformatory agrees to cooperate with the Town in connection with maintaining the airport facilities, and to that end both parties agree to work toward arriving at an equitable formula to determine the respective responsibility of each party towards the airport's upkeep and maintenance. In arriving at this formula, the percentage of use of the Reformatory compared to the percentage of use of all other parties shall be considered in arriving at the agreed percentage or cost figure.

3. Both the Reformatory and the Town agree to cooperate in obtaining additional county, state and federal support and aid toward the subject airport facility.

4. It is understood that the Town shall not transfer or assign its interest in the subject easement without first obtaining the written consent of the Reformatory.

5. It is understood and agreed that the actual operation of the airport facility shall be under the direction and control of the Town, except as herein provided, and that the Town will adopt and promulgate rules and regulations concerning its operation.

IN WITNESS WHEREOF the parties have executed this Agreement as of the day and year first above written.

TOWN OF BUENA VISTA

By Norman L. Knudsen
Mayor

ATTEST:

Town Clerk

COLORADO STATE REFORMATORY

By Clinton Zumbaley
Warden

STATE OF COLORADO)
) ss.
COUNTY OF CHAFFEE)

The foregoing instrument was acknowledged before me by Norman S. Knudsen as Mayor, and attested by Jack Geist as Town Clerk of the Town of Buena Vista, this 8th day of August, 1967.

Witness my hand and seal.
My commission expires July 31, 1968

Virginia D. [illegible]
Notary Public

STATE OF COLORADO)
) ss.
COUNTY OF CHAFFEE)

The foregoing instrument was acknowledged before me by C. Winton Tinsley as Warden of the Colorado State Reformatory, this 2nd day of August, 1967.

Witness my hand and seal.
My commission expires March 17

Elizabeth [illegible]
Notary Public

800

08/15/2000 08:00 RECORD FEE: $15.00 PAGE #: 0001 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 312747 **

ORDINANCE NO. 2
(Series of 2000)

AN ORDINANCE OF THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO AMENDING CHAPTER 16 "ZONING" OF THE BUENA VISTA MUNICIPAL CODE BY ADDING A NEW SECTION CLARIFYING THE GEOGRAPHICAL BOUNDARIES OF THE AIRPORT PROTECTION OVERLAY DISTRICT.

WHEREAS, in 1991 the town adopted Sections 16-167 to 16-170 of the Zoning Code establishing the Airport Protection Overlay District (the "APO" District) and associated regulations in order to manage and regulate land development and uses in and around the Buena Vista Municipal Airport, now known as the Central Colorado Regional Airport, in order to protect and enhance public safety; and

WHEREAS, while the APO district is an overlay designation with geographical boundaries that may be adjusted from time to time, and which may be imposed over one or more underlying zone districts or areas, the town has from 1991 to the present utilized the geographical description for the district as provided in the Buena Vista Municipal Airport, Airport Master Plan (1992), to wit, such area extending 1,250 feet laterally from either side of the runway centerline and 5,000 feet beyond each end of the runway primary surface; and

WHEREAS, Colorado State House Bill 1041 defines the "critical zones" as (a) areas 2,000 feet wide extending 5,000 feet horizontally from a point 200 feet from each end of visual runways; and (b) areas 4,000 feet wide extending 10,000 feet horizontally from a point 200 feet from each end of instrument runways; and

WHEREAS, in order to minimize, if not eliminate, confusion or uncertainty with respect to the geographical boundaries of the current APO district, the Board of Trustees now desires to codify the current geographical description of the APO district and incorporate, for illustration purposes, a map delineating the district; to an area equal to "critical area" identified in House Bill 1041; and

WHEREAS, the Planning and Zoning Commission has reviewed the matter and forwarded its recommendations thereon to the Board of Trustees.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF BUENA VISTA, COLORADO as follows:

Section One

That Article VIII, "District Regulations," of Chapter 16, "Zoning," of the Buena Vista Municipal Code be amended by adding new Section 16-171, "APO district boundaries--map," such new section to read as follows:

Sec. 16-171. APO district boundaries—map

(a) The APO district shall include all land within an area extending laterally one thousand feet (1,000') from either side of the runway centerline at a point five thousand two hundred feet (5,200') north of the north end of the runway and extends south to the south end of the runway where it widens to two thousand feet (2000') laterally from either side of the runway centerline and extends ten thousand two hundred feet (10,200') south from the south end of Runway 15/33 at the Central Colorado Regional Airport.

(b) The Town Clerk shall maintain and make available to interested persons during regular business hours not less than one copy of the most current map(s) illustrating the APO district boundaries as described in subsections (a) and (b) above. Such map shall be used for general reference and illustration purposes only and shall not supersede or alter the geographical boundaries of the APO district as set forth in this section.

Section Two

This ordinance shall not have an effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section Three

The provisions of this ordinance are severable and the invalidity of any section, phrase, clause or portion of the ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the ordinance.

INTRODUCED, READ, ADOPTED AND ORDERED PUBLISHED this 25 **day of** July, **2000.**

(SEAL)

ATTEST:

Town Clerk

TOWN OF BUENA VISTA

By:

08/15/2000 08:00 RECORD FEE: $15.00 PAGE #: 0003 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 312747

PUBLISHED in full following adoption by the Board of Trustees in The Chaffee County Times, a newspaper of general circulation within the Town of Buena Vista on the 3rd day of August, 2000.

By: Tina Darrah
Town Clerk

09/13/2000 02:00 RECORD FEE: $10.00 PAGE #: 0001 OF 0002
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 313352 **

ORDINANCE NO. 2
(Series of 2000)

AN ORDINANCE OF THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO AMENDING CHAPTER 16 "ZONING" OF THE BUENA VISTA MUNICIPAL CODE BY ADDING A NEW SECTION CLARIFYING THE GEOGRAPHICAL BOUNDARIES OF THE AIRPORT PROTECTION OVERLAY DISTRICT.

WHEREAS, in 1991 the town adopted Sections 16-167 to 16-170 of the Zoning Code establishing the Airport Protection Overlay District (the "APO" District) and associated regulations in order to manage and regulate land development and uses in and around the Buena Vista Municipal Airport, now known as the Central Colorado Regional Airport, in order to protect and enhance public safety; and

WHEREAS, while the APO district is an overlay designation with geographical boundaries that may be adjusted from time to time, and which may be imposed over one or more underlying zone districts or areas, the town has from 1991 to the present utilized the geographical description for the district as provided in the Buena Vista Municipal Airport, Airport Master Plan (1992), to wit, such area extending 1,250 feet laterally from either side of the runway centerline and 5,000 feet beyond each end of the runway primary surface; and

WHEREAS, Colorado State House Bill 1041 defines the "critical zones" as (a) areas 2,000 feet wide extending 5,000 feet horizontally from a point 200 feet from each end of visual runways; and (b) areas 4,000 feet wide extending 10,000 feet horizontally from a point 200 feet from each end of instrument runways; and

WHEREAS, in order to minimize, if not eliminate, confusion or uncertainty with respect to the geographical boundaries of the current APO district, the Board of Trustees now desires to codify the current geographical description of the APO district and incorporate, for illustration purposes, a map delineating the district; to an area equal to "critical area" identified in House Bill 1041; and

WHEREAS, the Planning and Zoning Commission has reviewed the matter and forwarded its recommendations thereon to the Board of Trustees.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF BUENA VISTA, COLORADO as follows:

Section One

That Article VIII, "District Regulations," of Chapter 16, "Zoning," of the Buena Vista Municipal Code be amended by adding new Section 16-171, "APO district boundaries--map," such new section to read as follows:

Sec. 16-171. APO district boundaries—map

(a) The APO district shall include all land within an area extending laterally one thousand feet (1,000') from either side of the runway centerline at a point five thousand two hundred feet (5,200') north of the north end of the runway and extends south to the south end of the runway where it widens to two thousand feet (2000') laterally from either side of the runway centerline and extends ten thousand two hundred feet (10,200') south from the south end of Runway 15/33 at the Central Colorado Regional Airport.

(b) The Town Clerk shall maintain and make available to interested persons during regular business hours not less than one copy of the most current map(s) illustrating the APO district boundaries as described in subsection (a) above. Such map shall be used for general reference and illustration purposes only and shall not supersede or alter the geographical boundaries of the APO district as set forth in this section.

Section Two

This ordinance shall not have an effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section Three

The provisions of this ordinance are severable and the invalidity of any section, phrase, clause or portion of the ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the ordinance.

INTRODUCED, READ, ADOPTED AND ORDERED PUBLISHED this 25th **day of** July, **2000.**

(SEAL)

TOWN OF BUENA VISTA

By: Sharyl A. Solis

ATTEST:

Gina Darrah
Town Clerk

PUBLISHED in full following adoption by the Board of Trustees in The Chaffee County Times, a newspaper of general circulation within the Town of Buena Vista on the 3rd day of August, 2000.

By: Gina Darrah
Town Clerk

FILE DATE: 09/05/2001 FILE TIME: 01:00 PAGE #: 0001 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER RECE#: 320384 **

ORDINANCE NO. 10
(Series of 2001)

AN ORDINANCE OF THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO REAMENDING ARTICLE VIII OF CHAPTER 2 OF THE MUNICIPAL CODE GOVERNING THE MEMBERSHIP AND TERMS OF OFFICE FOR THE AIRPORT ADVISORY COMMITTEE AS PREVIOUSLY AMENDED BY ORDINANCE NO. 8 (SERIES OF 2001).

WHEREAS, on July 24, 2001, the Board of Trustees adopted Ordinance No. 8 (Series of 2001), which ordinance adopted certain amendments to those municipal code sections governing the creation and organization of the Airport Advisory Committee; and

WHEREAS, additional amendments to said sections of the municipal code are necessary to clarify the amendments previously made thereto by Ordinance No. 8 (Series of 2001).

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES FOR THE TOWN OF BUENA VISTA, COLORADO as follows:

Section One

That Article VIII, Airport Advisory Committee, of Chapter 2, Administration and Personnel, of the Buena Vista Municipal Code be amended at Sections 2-162, Appointment; qualifications; 2-163, Term of office; vacancies; and 2-166, Operations, such amended sections to read as follows:

Sec. 2-162. Appointment and qualifications--alternates.

The committee shall consist of five (5) voting members who shall be appointed by and serve at the pleasure of the board of trustees, plus a non-voting representative of the airport fixed base operator (FBO) and a non-voting representative or designee of the board of trustees. Committee members, inclusive of alternates, need not be residents or qualified electors of the town. The board of trustees shall also appoint two (2) alternate members who shall perform all of the duties of a regular voting member in the absence of a regular voting member from a meeting of the committee.

Sec. 2-163. Term of office--vacancies.

(a) Voting members of the committee, inclusive of alternates, shall serve staggered terms of four (4) years unless earlier removed from office; provided that two (2) of the members first appointed shall initially serve to and until the second Tuesday in April, 2002, and three (3) members and the two (2) alternates shall initially serve to and until the second Tuesday in April, 2004. Voting members may be reappointed to serve on the committee without limitation.

(c) Vacancies in voting member positions shall be filled by appointment made by the board of trustees to serve out an unexpired term.

(d) The non-voting members of the committee representing the fixed base operator and the board of trustees shall be appointed and serve at the pleasure of the fixed base operator and board of trustees, respectively, and may serve indefinite terms.

Sec. 2-166. Operation--quorum.

Voting members of the committee shall elect from its membership a chairperson and vice-chairperson who shall serve terms of two (2) years. The committee shall keep contemporaneous minutes of its meetings, votes and actions. Three (3) voting members shall constitute a quorum for the transaction of business.

Section Two

The membership of the Airport Advisory Committee existing upon the effective date of this ordinance shall be reduced to five (5) voting members. Presently sitting committee members desiring to remain on the new reduced-size committee shall draw lots to determine which members shall serve as voting members until April 2002, and which members shall serve as voting members until April 2004. Once the new committee membership is determined, the committee shall organize itself as otherwise required in Article VIII of Chapter 2, as amended. Vacancies in any voting membership position, including alternate positions, resulting from the reorganization of the committee shall be filled by appointment by the board of trustees.

Section Three

This ordinance shall not have any effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

Section Four

The provisions of this ordinance are severable and the invalidity of any section, phrase, clause or portion of the ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the ordinance.

INTRODUCED, READ, ADOPTED AND ORDERED PUBLISHED this 14 **day of** August **, 2001.**

FILE DATE: 09/05/2001 FILE TIME: 01:00 PAGE #: 0003 OF 0003
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER RECE#: 320384

TOWN OF BUENA VISTA

By: _____

ATTEST:

Mindy K Philips
Town Clerk – Deputy

(SEAL)

PUBLISHED in full following adoption by the Board of Trustees in the Chaffee County Times, a newspaper of general circulation within the Town of Buena Vista, on the 30 day of August, 2001.

By: Mindy Philips
Town Clerk - Deputy

C:\Client\Buena Vista\Ordinances\Airport Advisory Committee Amend2.doc

357655
1 of 5
4/6/2006 3:54 PM
ROW R$26.00 D$0.00
JOYCE M. RENO
Chaffee County Clerk
APR 6 '06 PM 3:54

RIGHT-OF-WAY AGREEMENT

THIS AGREEMENT, made this 30th day of MARCH, 2006, by and between the Town of Buena Vista, Colorado, (hereinafter the "Town") and Ridgeway Matrix, Inc. & McCoy Communications, Inc. each Colorado corporations, of 27960 County Road 319, P.O. Box 1910, Buena Vista, CO 81211 (hereinafter referred to collectively as "Ridgeway/McCoy");

WHEREAS, Ridgeway/McCoy wishes to obtain a right-of-way agreement with the Town for purposes of installing its transmission infrastructure (fiber-optic or copper cable), under, in, or across property owned by the Town for purposes of providing internet services to various individuals and businesses; and

WHEREAS, the Town is willing to grant Ridgeway/McCoy such a Right-of-way Agreement; and

WHEREAS, the Town and Ridgeway/McCoy wish to memorialize their agreement as set forth herein.

NOW, THEREFORE, based on good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Town and Ridgeway/McCoy agree as follows:

1. Ridgeway/McCoy is hereby granted a non-exclusive easement in, under, and across any property owned by the Town for purposes of installing its transmission facilities for the sole and exclusive purpose of providing internet services to Ridgeway/McCoy's customers.

2. Said easement shall be restricted to the unused portions of any town right-of-way so that Ridgeway/McCoy's installation of transmission facilities will not unreasonably interfere with traffic or other uses of Town property. Upon reasonable advance notice by the Town, Ridgeway/McCoy shall move or relocate at its expense any above ground facility located in a Town right-of-way if necessary to accommodate any public improvement including, but not limited to widening or installation of curb and gutter.

3. Ridgeway/McCoy agrees that all installation plans, specifications, and procedures (Project Plan) for major trunk lines or projects within the Town shall be submitted to the Town's Public Works Director for review and comment before commencement of any installation work. The Town's comments and corrections identified by the Town to bring the Project Plan into satisfactory compliance with all Town Ordinances, Rules, Regulations, Codes or other legal authority, shall be implemented by Ridgeway/McCoy in execution of the Project Plan. Ridgeway/McCoy's Project Plan shall be modified as necessary to assure such satisfactory compliance. The Town shall review and provide written approval or proposed modification within 10 days of submission from Ridgeway/McCoy. Additionally, Ridgeway/McCoy shall be solely and absolutely responsible for obtaining and maintaining any and all required permits necessary for such work. Ridgeway/McCoy shall also be solely and absolutely responsible for paying any and all fees charged for such permits.

4. During Ridgeway/McCoy's installation work, the Town shall have the right to inspect the installation work. If the Town determines that execution of the work is not in full compliance with applicable Town Ordinances, Rules, Regulations, Codes or other legal authority, and because of this, the installation work needs to be stopped or modified, the Town shall notify Ridgeway/McCoy who shall immediately comply with the terms and conditions of the Town's notice. The decision of whether or not to issue an order to stop or modify the installation process shall be based upon a specific finding that the work is not proceeding in accordance with the standards referenced above and that Ridgeway/McCoy has refused to cure the Town's objection within five (5) days of receipt.

5. Ridgeway/McCoy agrees to restore or repair all Town property affected or damaged by the installation process to the same condition said property was in prior to the commencement of the installation work. Said restoration or repair shall be completed within thirty (30) days of the occurrence of the damage and shall be at Ridgeway/McCoy's sole expense. The Town shall have the right to inspect the restoration and repair work done by Ridgeway/McCoy and if not approved by the Town, Ridgeway/McCoy shall correct the restoration repairs to comply with the Town's requirements for such repairs.

6. Prior to commencing any installation work with cost in excess of $50,000 Ridgeway/McCoy shall deposit with the Town a bond or irrevocable letter of credit in a form and amount satisfactory to the Town Attorney. Said bond or letter of credit shall be of sufficient amount to complete anticipated repairs or restoration to Town property made necessary by the installation process. The Town's Director of Public Works or his designee shall be solely responsible for determining the appropriate amount of the bond or letter of credit to be deposited. However, Ridgeway/McCoy shall not be required to provide a bond or letter of credit, if Ridgeway/McCoy's work is being performed prior to the Town's acceptance of the right-of-way or prior to the right-of-way improvements being completed such as paving and curb and gutter, as in the case of a new subdivision, for example.

7. At all times during installation, Ridgeway/McCoy agrees to carry general liability insurance which covers Ridgeway/McCoy's use of the easement agreement. Said insurance shall have limits of at least one million dollars ($1,000,000) per occurrence and shall name the Town as an additional insured. Ridgeway/McCoy shall also maintain all statutorily required Workers Compensation Insurance and shall provide the Town with a copy of its Certificate of Coverage.

8. Ridgeway/McCoy agrees to indemnify and hold the Town harmless from any and all claims arising out of Ridgeway/McCoy's work or use of the easement granted herein except for claims, loss, and damages caused by the gross negligence or willful misconduct of the Town. Said agreement to indemnify and hold the Town harmless includes, but is not limited to reasonable attorney fees incurred by the Town in defense of such claims, investigative expenses regarding such claims and any amounts paid by or on behalf of the Town arising out of such claims.

9. Ridgeway/McCoy shall install lines and other facilities underground. While the parties agree that there is a preference for underground installation, above ground installation of lines and other facilities shall be permitted by the Town under this Agreement 1) when "piggy

backing" or use of preexisting overhead facilities is possible; or 2) when due to physical conditions installation of overhead facilities including poles is reasonably necessary. However, when any such pre-existing above ground structures, equipment, or facilities used by Ridgeway/McCoy is removed by the owner of such facilities, Ridgeway/McCoy shall promptly remove its own equipment and facilities from the Town's right-of-way or otherwise shall install its equipment and facilities underground pursuant to this Agreement. The review of any proposed installation overhead or underground shall be made by the Town's Director of Public Works. However, installation of facilities in new subdivisions shall be required to be installed underground.

10. As partial consideration for the easement being granted herein, Ridgeway/McCoy agrees to install internet services to up to four Town buildings or offices, as designated by the Town, when the property lines are located within fifty feet (50') of Ridgeway/McCoy's transmission facilities within Town rights of way, free of charge, and to provide basic level internet service (512/384 Kbps) on a monthly basis free of charge. All services and bandwidth in excess of 512/384 Kbps shall be billed on a monthly basis at prevailing public rates and shall be paid for by the Town on a monthly basis.

11. As additional consideration for the easement being granted herein, Ridgeway/McCoy agrees to pay the Town a sum equal to $.75 (Seventy-five cents), per residential customer per month and $1.00, (One Dollar), per commercial customer per month. For purposes of this Agreement, the distinction between residential customers and commercial customers shall be determined by Ridgeway/McCoy consistent with its customary billing practices. Said fees shall be limited to Ridgeway/McCoy's customers located within the corporate limits of the Town. The total amount due the Town under this clause shall be payable annually within 10 days of the end of the preceding year. This fee shall not be charged for non-profit, charitable, or governmental organizations that Ridgeway/McCoy elects not to charge for regular service; accordingly, when not charged in such cases, Ridgeway/McCoy shall not pay this fee to the Town.

12. Ridgeway/McCoy agrees to keep accurate customer lists and records at its office in Buena Vista, CO. The Town shall have the right to inspect such records as it deems necessary in order to ensure that an accurate accounting of Right-of-Way fees is being kept by Ridgeway / McCoy.

13. Ridgeway/McCoy agrees to maintain at its cost all its structures, apparatus, and equipment.

14. Ridgeway/McCoy agrees that the Town shall be fully and absolutely immune from any liability for any damage occurring to any of Ridgeway/McCoy's equipment, including, but not limited to fiber-optic components, conduits, fiber-optic cable, vaults, risers, poles and other equipment or fixtures unless such damage arises from the Town's negligence or other acts or omissions of the Town.

15. Ridgeway/McCoy agrees to join the UNCC (Utility Notification Center of Colorado) as a Tier I participant for purposes of utility locates.

16. In addition to installation work, this agreement shall also be granted for purposes of allowing Ridgeway/McCoy access to any transmission facility installed pursuant to this Agreement for purposes of maintenance and repair. Any such maintenance or repair efforts undertaken by Ridgeway/McCoy shall be governed by all terms and conditions set forth in this Agreement and all applicable Town Ordinances, Rules, Regulations, Codes or other legal authority.

17. This Agreement shall be binding on the party's successors and assigns.

18. Attorneys Fees. In the event of any litigation between the parties hereto arising out of or relating to this Agreement, or the breach hereof, or the interpretation hereof, the prevailing party shall be entitled, in addition to other damages or costs, to an award of reasonable attorney fees from the other party.

19. In the event any court of competent jurisdiction declares any portion of this agreement to be void or unenforceable, the remaining terms and conditions of the Agreement shall remain in full force and effect.

20. The Town may terminate this agreement by notifying Ridgeway/McCoy, in writing, that Ridgeway/McCoy has breached any of it's obligations under this agreement. Ridgeway/McCoy shall be deemed not to be in breach of this agreement if it cures the breach identified by the Town within fifteen (15) days of the Town's mailing of notice of the breach to the address set forth herein. Ridgeway/McCoy shall have the right to terminate this agreement upon thirty (30) days written notice to the Town. Such termination shall then be effective upon payment of all sums due under this agreement. In the event of a termination by any party, Ridgeway/McCoy agrees to remove all of its equipment, poles, material, wiring, cable or any other component it installed pursuant to this agreement located above ground within ninety (90) days of the date of termination. Failure to do so will render Ridgeway/McCoy liable to the Town for all expenses incurred by the Town in removing such items.

21. Any and all notices required pursuant to this Agreement shall be forwarded to the following:

(a) The Town of Buena Vista
P.O. Box 2002
210 East Main Street
Buena Vista, CO 81211

(b) Ridgeway/McCoy Communications, Inc.
27960 C.R. 319; P O Box 1075
Buena Vista, CO 81211

22. This agreement contains the entire understanding and agreement between the parties with respect to the subject matter herein. There are no representations, agreements, or

357655 4/6/2006 3:54 PM JOYCE M. RENO
5 of 5 ROW R$26.00 D$0.00 Chaffee County Clerk

understandings between or among the parties relating to the subject matter of this Right of Way Agreement which are not fully expressed herein.

IN WITNESS THEREOF, parties hereunto set their hand this 30th day of March, 2006.

MCCOY COMMUNICATION, INC.

By: _____

RIDGEWAY MATRIX, INC.

By: _____

TOWN OF BUENA VISTA

By: _____
Sharyle A. Solis, Mayor

ATTEST:

_____
Diane Spomer, Town Clerk

375760
1 of 2
8/1/2008 8:40 AM
ORDIN R$11.00 D$0.00
JOYCE M. RENO
Chaffee County Clerk

DISTRICT COURT, COUNTY OF CHAFFEE, STATE OF COLORADO

Case No. 4229

IN RE THE ORGANIZATION OF BUENA VISTA SANITATION DISTRICT, CHAFFEE COUNTY, COLORADO

ORDER FOR INCLUSION OF THE BUENA VISTA SANITATION DISTRICT

THIS MATTER coming before the Court under C.R.S. ξ 32-1-401(1)(c)(I) and an Order of the Board of Directors of the Buena Vista Sanitation District granting a Petition for Inclusion filed with it by the Town of Buena Vista; and the Court being advised in the premises and having determined that all the procedures and requirements of C.R.S. ξ 32-1-401 for inclusion have been satisfied and justify including the property covered by the Petition for Inclusion in the boundaries of the Buena Vista Sanitation District,

ORDERS that the following described land be and is hereby included within the boundaries of the Buena Vista Sanitation District:

LEGAL DESCRIPTION OF THE
CENTRAL COLORADO REGIONAL AIRPORT

ALL THAT TRACT OF LAND LOCATED IN THE NORTHWEST QUARTER, SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 21 AND IN THE NORTHWEST QUARTER, NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 28, TOWNSHIP 14 SOUTH, RANGE 78 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CHAFFEE COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE NORTHWEST CORNER OF SAID SECTION 21, BEING MARKED BY AN ILLEGIBLE 3 ¼" ALUMINUM CAP;
THENCE SOUTH 00° 01' 31" EAST, A DISTANCE OF 1,338.91 FEET TO THE NORTH SIXTEENTH CORNER BETWEEN SAID SECTION 21 AND SECTION 20;
THENCE SOUTH 89° 47' 46" EAST ALONG THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 21, A DISTANCE OF 660.77 FEET;
THENCE SOUTH 19° 13' 31" EAST, A DISTANCE OF 1,173.74 FEET;
THENCE SOUTH 19° 43' 41" EAST, A DISTANCE OF 887.32 FEET TO A POINT ON THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 21;
THENCE SOUTH 86° 06' 04" EAST, A DISTANCE OF 12.83 FEET;
THENCE SOUTH 00° 11' 37" WEST ALONG SAID EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER AND THE EAST LINE OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 21, A DISTANCE OF 2,088.18 FEET TO THE WEST SIXTEENTH CORNER BETWEEN SAID SECTION 21 AND SECTION 28;
THENCE SOUTH 89° 51' 46" EAST ALONG THE SOUTH LINE OF SAID SECTION 21, A DISTANCE OF 708.80 FEET;
THENCE SOUTH 19° 10' 58" EAST, A DISTANCE OF 1,882.13 FEET;
THENCE SOUTH 00° 33' 55" WEST, A DISTANCE OF 177.46 FEET;
THENCE SOUTH 19° 11' 32" EAST, A DISTANCE OF 2,019.39 FEET;
THENCE SOUTH 89° 52' 28" EAST, A DISTANCE OF 501.85 FEET TO THE WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 285;
THENCE NORTH 01° 03' 47" EAST ALONG SAID WESTERLY RIGHT-OF-WAY, A DISTANCE OF 537.17 FEET;
THENCE CONTINUING ALONG SAID WESTERLY RIGHT-OF-WAY, NORTH 00° 12' 00" WEST, A DISTANCE OF 307.20 FEET;
THENCE NORTH 19° 10' 27" WEST, A DISTANCE OF 2,846.04 FEET;
THENCE SOUTH 76° 00' 01" EAST, A DISTANCE OF 318.15 FEET TO THE WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 285;
THENCE NORTH 15° 31' 15" WEST ALONG SAID WESTERLY RIGHT-OF-WAY, A DISTANCE OF 420.70 FEET;
THENCE SOUTH 68° 34' 40" WEST, A DISTANCE OF 115.71 FEET;
THENCE NORTH 25° 17' 41" WEST, A DISTANCE OF 662.80 FEET;
THENCE NORTH 20° 16' 58" WEST, A DISTANCE OF 673.82 FEET;
THENCE NORTH 66° 20' 53" EAST, A DISTANCE OF 110.08 FEET;
THENCE SOUTH 24° 53' 22" EAST, A DISTANCE OF 294.57 FEET;
THENCE SOUTH 69° 13' 25" EAST, A DISTANCE OF 160.01 FEET TO THE WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 24;
THENCE NORTH 19° 22' 13" WEST ALONG SAID WESTERLY RIGHT-OF-WAY, A DISTANCE OF 1,302.81 FEET TO A POINT OF CURVATURE;
THENCE NORTHWESTERLY AND DEFLECTING TO THE LEFT, A DISTANCE OF 1,070.87 FEET ALONG THE ARC OF A CURVE HAVING A RADIUS OF 5,547.80 FEET AND A DELTA ANGLE OF 11° 03' 35" TO A POINT OF TANGENCY;
THENCE NORTH 28° 24' 58" WEST, A DISTANCE OF 633.13 FEET;
THENCE NORTH 28° 22' 58" WEST, A DISTANCE OF 319.46 FEET TO A POINT OF CURVATURE;
THENCE NORTHWESTERLY AND DEFLECTING TO THE RIGHT, A DISTANCE OF 1,184.99 FEET ALONG THE ARC OF A CURVE HAVING A RADIUS OF 11,804.93 FEET AND A DELTA ANGLE OF 05° 31' 02" TO A POINT OF TANGENCY;
THENCE NORTH 20° 31' 57" WEST, A DISTANCE OF 694.80 FEET, THIS AND THE PRECEDING 5 COURSES ARE ALONG SAID WESTERLY RIGHT-OF-WAY OF U.S. HIGHWAY 24;
THENCE SOUTH 72° 16' 25" WEST, A DISTANCE OF 698.42 FEET TO A POINT OF CURVATURE;
THENCE SOUTHWESTERLY AND DEFLECTING TO THE LEFT, A DISTANCE OF 358.22 FEET ALONG THE ARC OF A CURVE HAVING A RADIUS OF 294.29 FEET AND A DELTA ANGLE OF 71° 47' 33" TO A POINT OF TANGENCY;
THENCE SOUTH 00° 35' 51" WEST, A DISTANCE OF 206.82 FEET;
THENCE NORTH 89° 30' 10" WEST, A DISTANCE OF 28.93 FEET TO THE POINT OF BEGINNING.
SAID PARCEL CONTAINS 237.87 ACRES, MORE OR LESS.

375760 8/1/2008 8:40 AM JOYCE M. RENO
2 of 2 ORDIN R$11.00 D$0.00 Chaffee County Clerk

FURTHER ORDERS that this Order shall have the legal effect set forth in C.R.S. § 32-1-402.

DONE this 27 day of June, 2008.

BY THE COURT:

District Court Judge

COMBINED COURT SEAL CHAFFEE COUNTY COLORADO

STATE OF COLORADO, } ss
COUNTY OF

Certified to be a correct copy of the record in my custody.
WITNESS my hand and the Seal of said Court this 3 July, 2008
Karen Rissen
CLERK OF THE COMBINED COURT
DEPUTY


COLORADO DEPT OF CORRECTI
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PRINCETON ESTATES 4
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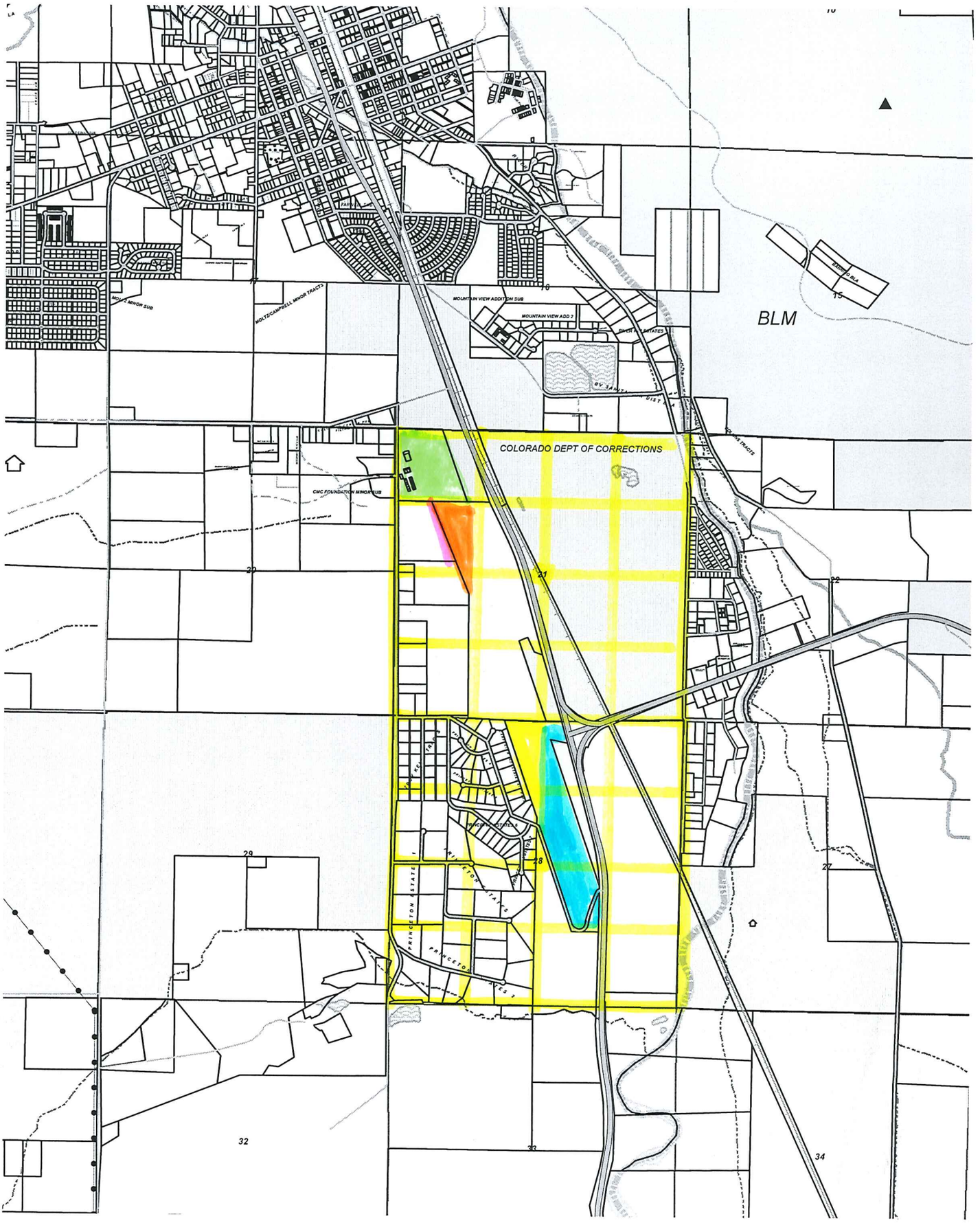
CARPENTER INDUSTRIAL AIR PARK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MOUNTAIN VIEW ADDITION SUB
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MOLTZ/CAMPBELL MINOR TRACTS
CMC FOUNDATION MINOR SUB
PRINCETON ESTATES 1
PRINCETON ESTATES 2
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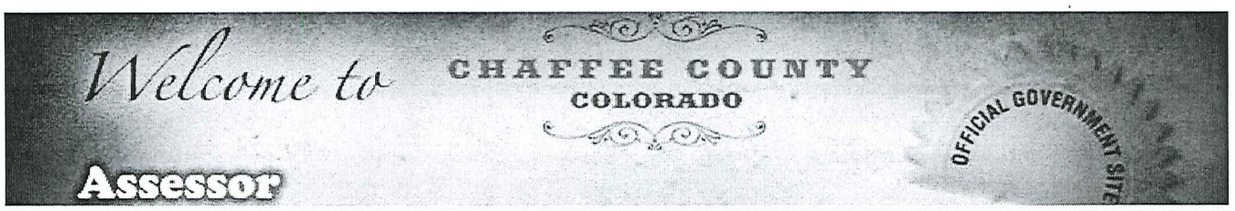


Recent Sales in Area | Previous Parcel | Next Parcel | Field Definitions | Return to Main Search Page | Chaffee Home

Owner and Parcel Information

Owner Name		**Today's Date**	September 10, 2015
Mailing Address		**Parcel Number**	327121200015 (Account #: R327121200015)
	,	**Tax District**	District 02
Location Address		**2014 Millage Rate**	52.511
Legal Description	TRACT IN NW4 SW4 & SW4 NW4 21-14-78	**Acres**	16.1
Property Class		**Parcel Map**	Show Parcel Maps
Subdivision		**Neighborhood**	()
Building Photos	NA	**Building Sketches**	NA

2015 Tax Year Value Information

Land Value	Building Value	Total Value	Assessed Value	2015 Estimated Total Taxes
$175,056	$0	$0	$0	$0.00

Improvement Information

No Improvement Information

Land Information

Description	Acres	Square Footage	Value
Exempt-Town/Non-Res	16.10	701,316.0	$ 175,056

Sale Information

Sale Date	Sale Price	Instrument	Reception Number	Vacant or Improved	Grantor	Grantee
No Sales Information available for this parcel						

Recent Sales in Area | Previous Parcel | Next Parcel | Field Definitions | Return to Main Search Page | Chaffee Home

CERTIFICATE OF OWNERSHIP AND ENCUMBRANCE

Date: March 10, 2016

To: Brandy Reitter, Town Administration
Town of Buena Vista

Re: Parcel 1, 12B, and Pt 12 (Central Colorado Regional Airport Searches)

This is to certify that an examination has been done of the records in the Chaffee County Clerk and Recorder's Office on March 7, 2016 at 7:45AM pertaining to the property, which is described as follows:

A portion of the property described in Easement Deed and Agreement recorded August 26, 1983 in Book 459 at Page 266.

NOTE: May require a survey to determine exact legal description

The title of this property is vested in *State of Colorado*

ENCUMBRANCES:

Terms and conditions set forth in Easement Deed and Agreement recorded August 26, 1983 in Book 459 at Page 266.

Ordinance No. 2 (Series of 2000) recorded August 15, 2000 as Reception No. 312747. (copy attached to Parcel 2 search)

Ordinance No. 2 (Series of 2000) recorded September 13, 2000 as Reception No. 313352. (copy attached to Parcel 2 search)

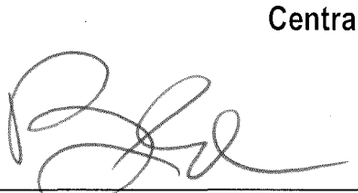
Ordinance No. 2 (Series of 2000) recorded September 5, 2001 as Reception No. 320384. (copy attached to Parcel 2 search)

Right of way Agreement recorded April 6, 2006 as Reception No. 357655. (copy attached to Parcel 2 search)

The effect of Order of Inclusion of the Buena Vista Sanitation District recorded August 1, 2008 as Reception No. 375760. (copy attached to Parcel 2 search)

This Certificate is not to be construed as an abstract of title or a policy of title insurance and the liability therein is limited to the amount of the fee paid for the Certificate.

First American Title Insurance Company
Central Colorado Title & Escrow, Inc.



Brett Eakins/Examiner

Easement to BV

223269
FILED FOR RECORD 8:00 O'CLOCK A.M. AUG 2 6 1983 MARY ELLEN BELMAR, CHAFFEE COUNTY RECORDER BOOK 459 PAGE 266

EASEMENT DEED AND AGREEMENT

THIS EASEMENT DEED AND AGREEMENT, dated as of this 8TH day of August, 1967, by and between the COLORADO STATE REFORMATORY, hereinafter called "Reformatory", and the TOWN OF BUENA VISTA, hereinafter called "Town"; and

WHEREAS, the Town is a municipal corporation of the State of Colorado, and is desirous of providing airport facilities for the use and benefit of the residents of the Town; and

WHEREAS, the Reformatory has a need for airport facilities in the vicinity of the present location of the Reformatory; and

WHEREAS, the Reformatory owns certain real property which is feasibly situated for the development of an airport; and

WHEREAS, both the Town and the Reformatory are desirous of cooperating in providing airport facilities on the terms and conditions hereinbelow set forth.

NOW THEREFORE, in consideration of the promises and agreements herein contained, the Reformatory hereby sells, conveys and grants unto the Town an easement and right-of-way over, across and through the following described lands situated in Chaffee County, Colorado, for the uses and purposes and upon the terms hereinafter set forth:

A tract of land located in the East 1/2 of the West 1/2 and in the Southwest 1/4 of the Southeast 1/4 of Section 21, Township 14 South, Range 78 West of the 6th Principal Meridian, being described as follows:

Beginning at the South 1/4 corner of said Section 21; thence North 88° 43' East 303.3 feet; thence North 25° 17' West 952.6 feet; thence North 20° 19' West 1649.3 feet; thence North 18° 57' West 597.0 feet; thence North 24° 08' West 862.6 feet to the intersection of centerline of the access road; thence continuing North 24° 08' West 300.9 feet to the west boundary of the East 1/2 of the West 1/2 of said Section 21; thence along said boundary South 0° 28' East 4020.9 feet more or less to the South line of said Section 21; thence South 89° 06' East along said Section line 929.3 feet more or less to the point of beginning; containing 73.6 acres more or less.

Together with an easement for access road purposes over a road, the centerline of which begins at the above

mentioned access road intersection point and extends North 39° 38' East 506.7 feet more or less to U.S. Highway No. 24, said access road being 30.0 feet on each side of above described centerline.

Directions were determined by solar observation.

This easement and right-of-way is for the purpose of granting the Town the right to construct, inspect, maintain and operate an airport.

As further consideration for the easement, the Town hereby agrees as follows:

1. To hold and save the Reformatory harmless from any and all damage arising from the Town's use of the right, easement and right-of-way herein granted, and the Town agrees to pay any damages or damage which may arise to the property, premises or rights of the Reformatory through the Town's use, occupation and possession of the rights herein granted.

2. To allow the Reformatory to use the subject easement herein granted for airport purposes at all times without further fee or charge subject to the condition, however, that the Reformatory agrees to obey and abide by all reasonable rules and regulations adopted or promulgated by the Town in connection with the subject airport.

3. To promptly enter into a program for the development and improvement of the airport and to do all things reasonably necessary to accomplish this end. The Town agrees to be responsible for said development and agrees that its program shall be in accordance with the rules and regulations and standards of the Federal Aviation Agency.

4. In the event the Town no longer uses or ceases to use the property herein granted for airport purposes for a period of one year or more, then the subject easement herein granted shall without further act or deed revert to the Reformatory. In this situation and to this end the Town agrees to execute any necessary agreements or deeds requested by the Reformatory to effectively terminate this easement and reconvey the rights herein granted.

In addition to the above provisions, it is mutually agreed between the Reformatory and the Town as follows:

1. The Reformatory agrees to provide at its expense a Federal Aviation Agency approved radio communications system to service the airport. It is understood that the Reformatory shall be responsible for the maintenance, upkeep and operation of this

radio communications system and shall provide the necessary personnel in connection therewith. All equipment and property provided by the Reformatory in connection with this provision shall remain the sole and separate property of the Reformatory during the existence of this easement and after the termination thereof.

2. The Reformatory agrees to cooperate with the Town in connection with maintaining the airport facilities, and to that end both parties agree to work toward arriving at an equitable formula to determine the respective responsibility of each party towards the airport's upkeep and maintenance. In arriving at this formula, the percentage of use of the Reformatory compared to the percentage of use of all other parties shall be considered in arriving at the agreed percentage or cost figure.

3. Both the Reformatory and the Town agree to cooperate in obtaining additional county, state and federal support and aid toward the subject airport facility.

4. It is understood that the Town shall not transfer or assign its interest in the subject easement without first obtaining the written consent of the Reformatory.

5. It is understood and agreed that the actual operation of the airport facility shall be under the direction and control of the Town, except as herein provided, and that the Town will adopt and promulgate rules and regulations concerning its operation.

IN WITNESS WHEREOF the parties have executed this Agreement as of the day and year first above written.

TOWN OF BUENA VISTA

By _____
Mayor

ATTEST:

_____
Town Clerk

COLORADO STATE REFORMATORY

By _____
Warden

STATE OF COLORADO)
) ss.
COUNTY OF CHAFFEE)

The foregoing instrument was acknowledged before me by Norman S. Knudsen as Mayor, and attested by Jack Geist as Town Clerk of the Town of Buena Vista, this 8th day of August, 1967.

Witness my hand and seal.
My commission expires July 31, 1968

Virginia D. [illegible]
Notary Public

STATE OF COLORADO)
) ss.
COUNTY OF CHAFFEE)

The foregoing instrument was acknowledged before me by C. Winston Tanfelyn as Warden of the Colorado State Reformatory, this 2nd day of August, 1967.

Witness my hand and seal.
My commission expires March 1, [illegible]

Elizabeth [illegible]
Notary Public

[redacted]

CERTIFICATE OF OWNERSHIP AND ENCUMBRANCE

Date: March 10, 2016

To: Brandy Reitter, Town Administration
Town of Buena Vista

Re: Parcel 5 (Central Colorado Regional Airport Searches)

This is to certify that an examination has been done of the records in the Chaffee County Clerk and Recorder's Office on March 7, 2016 at 7:45AM pertaining to the property, which is described as follows:

See Deed recorded September 1, 1983 in Book 459 at Page 439.

The title of this property is vested in *Town of Buena Vista, Colorado*, by virtue of a Quit Claim Deed recorded September 1, 1983 in Book 459 at Page 439.

ENCUMBRANCES:

Ordinance No. 2 (Series of 2000) recorded August 15, 2000 as Reception No. 312747. (copy attached to Parcel 2 search)

Ordinance No. 2 (Series of 2000) recorded September 13, 2000 as Reception No. 313352. (copy attached to Parcel 2 search)

Ordinance No. 2 (Series of 2000) recorded September 5, 2001 as Reception No. 320384. (copy attached to Parcel 2 search)

Right of way Agreement recorded April 6, 2006 as Reception No. 357655. (copy attached to Parcel 2 search)

The effect of Order of Inclusion of the Buena Vista Sanitation District recorded August 1, 2008 as Reception No. 375760. (copy attached to Parcel 2 search)

This Certificate is not to be construed as an abstract of title or a policy of title insurance and the liability therein is limited to the amount of the fee paid for the Certificate.

First American Title Insurance Company
Central Colorado Title & Escrow, Inc.

Brett Eakins/Examiner

Recorded at 8:00 o'clock A M. SEP 1 1983

Reception No. 223425 MARY ELLEN BELMAR CHAFFEE COUNTY RECORDER BOOK 459 PAGE 439 Recorder.

LOUISE W. STEEL

whose address is

County of Chaffee , and State of

Colorado , for the consideration of TEN DOLLARS AND OTHER GOOD AND VALUABLE CONSIDERATION ~~Dollars~~, in hand paid,

State Documentary Fee
Date SEP 1 1983
$ Corrected

hereby sell(s) and quit claim(s) to TOWN OF BUENA VISTA, COLORADO

whose address is P. O. Box 2002, Buena Vista,

County of Chaffee , and State of Colorado , the following real property, in the County of Chaffee , and State of Colorado, to wit:

See the attached Exhibit "A" which is incorporated herein by reference.

THIS IS A CORRECTIVE DEED RECORDED TO CORRECT THE LEGAL DESCRIPTION CONTAINED IN THAT CERTAIN DEED BETWEEN THE PARTIES RECORDED IN BOOK 455 AT PAGE 682 OF THE RECORDS OF CHAFFEE COUNTY, COLORADO

*and re-take the subject property.

also known as street and number

with all its appurtenances; provided, however, that if such property shall cease being used for purposes related to the operation of a public airport the Grantor or her heirs shall have the right to re-enter*

Signed this 31st day of August , 1983

LOUISE W. STEEL

Louise W. Steel

STATE OF COLORADO,
County of Chaffee } ss.

The foregoing instrument was acknowledged before me this 31st day of August , 1983 , by LOUISE W. STEEL.

My commission expires 3/10/84

Witness my hand and official seal

JULIA E. HUPPER NOTARY PUBLIC STATE OF COLORADO

Julia E. Hupper
Notary Public

210 East Main
Address
Buena Vista, Co 81211

No. 898. QUIT CLAIM DEED—Short form — Bradford Publishing, 5825 W. 6th Ave., Lakewood, CO 80214 — (303) 233-6900 — 9-81

EXHIBIT A

A Tract of Land located in the West 1/2 of the East 1/2 of Section 28, Township 14 South, Range 78 West of the 6th Principal Meridian, Chaffee County, Colorado, described as follows:

Beginning at the North 1/4 corner of said Section 28; Thence North 88°35'35" East 419.09 feet to the Westerly right-of-way boundary of U.S. Highway No. 285;

Thence along said right-of-way boundary South 15°38'59" East 420.19 feet;

Thence leaving said right-of-way boundary North 78°06'02" West 318.08 feet;

Thence South 19°17'55" East 2845.21 feet to the said Westerly highway right-of-way boundary;

Thence along said Westerly highway boundary South 0°18'05" East 307.16 feet to a brass capped right-of-way marker at equation station 219+76.0 N and 219+64.3 S;

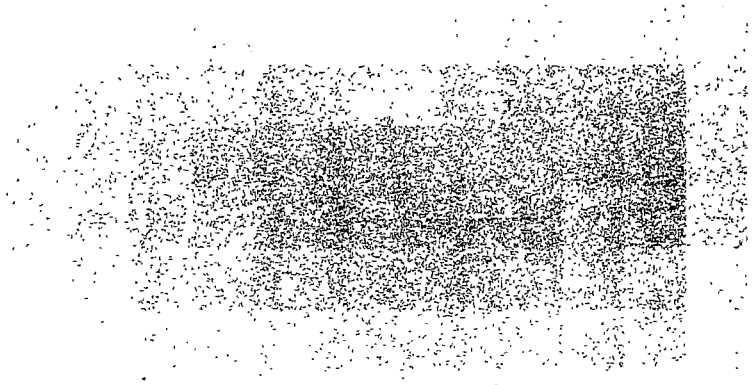
Thence South 0°53'29" West 537.0 feet;

Thence due West leaving said highway boundary 502.94 feet;

Thence North 19°17'55" West 2019.34 feet to the said West bounda of the Northwest 1/4;

Thence North 0°27'35" East 1952.35 feet to the said North 1/4 corner, the point of beginning, containing 55.33 Acres.

Directions are based upon a bearing of North 88°35'35" East between the North 1/4 corner and the Northeast corner of Section 2' Township 14 South, Range 78 West, 6th P.M.



CERTIFICATE OF OWNERSHIP AND ENCUMBRANCE

Date: March 10, 2016

To: Brandy Reitter, Town Administration
Town of Buena Vista

Re: Parcel 6 (Central Colorado Regional Airport Searches)

This is to certify that an examination has been done of the records in the Chaffee County Clerk and Recorder's Office on March 7, 2016 at 7:45AM pertaining to the property, which is described as follows:

See Deed recorded March 21, 1984 in Book 464 at Page 9

The title of this property is vested in *Town of Buena Vista, Colorado*, by virtue of a Quit Claim Deed recorded March 21, 1984 in Book 464 at Page 9.

ENCUMBRANCES:

Reservation of access 100 feet in width from the adjoining property as set forth in Deed recorded March 21, 1984 in Book 464 at Page 9.

Ordinance No. 2 (Series of 2000) recorded August 15, 2000 as Reception No. 312747. (copy attached to Parcel 2 search)

Ordinance No. 2 (Series of 2000) recorded September 13, 2000 as Reception No. 313352. (copy attached to Parcel 2 search)

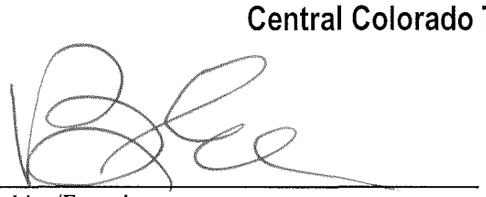
Ordinance No. 2 (Series of 2000) recorded September 5, 2001 as Reception No. 320384. (copy attached to Parcel 2 search)

Right of way Agreement recorded April 6, 2006 as Reception No. 357655. (copy attached to Parcel 2 search)

The effect of Order of Inclusion of the Buena Vista Sanitation District recorded August 1, 2008 as Reception No. 375760. (copy attached to Parcel 2 search)

This Certificate is not to be construed as an abstract of title or a policy of title insurance and the liability therein is limited to the amount of the fee paid for the Certificate.

First American Title Insurance Company
Central Colorado Title & Escrow, Inc.



Brett Eakins/Examiner

Recorded at 4 o'clock P.M. MAR 21 1984 BOOK 464 PAGE 9

Reception No. 227132 MARY ELLEN BELMAR CHAFFEE COUNTY RECORDER Recorder

KELLY RANCH, a Colorado general partnership whose address is

County of Chaffee, and State of Colorado, for the consideration of TEN DOLLARS AND OTHER GOOD AND VALUABLE CONSIDERATION ~~Dollars~~ in hand paid,

State Documentary Fee
Date MAR 21 1984
$ -0-

hereby sell(s) and quit claim(s) to TOWN OF BUENA VISTA, COLORADO whose address is P. O. Box 2002, Buena Vista,

County of Chaffee, and State of Colorado, the following real property, in the County of Chaffee, and State of Colorado, to wit:

See the attached Exhibit "A" which is incorporated herein by reference.

See reservation for access

(6) Fee

also known as street and number

with all its appurtenances.

Signed this 20 day of Dec., 1983

KELLY RANCH, a Colorado general partnership

By: William T. Kelly, Sr., Partner

Betty Nan Pugh, Partner

William Troy Kelly, Jr. a/k/a William T. Kelly, Jr., Partner

Mary E. Kelly, Partner

Bryce McLellan Kelly, Partner

STATE OF COLORADO, }
County of Chaffee } ss.

The foregoing instrument was acknowledged before me this 20th day of Dec., 1983, by William T. Kelly, Sr., William Troy Kelly, Jr., a/k/a William T. Kelly, Jr., Bryce McLellan Kelly, Betty Nan Pugh, Mary E. Kelly, Partners of KELLY RANCH, a Colorado general partnership.

My commission expires 9-4-87

Witness my hand and official seal

Notary Public

Box 220 Buena Vista Co. 81211
Address

No. 898. QUIT CLAIM DEED—Short form — Bradford Publishing, 5825 W. 6th Ave. Lakewood, CO 80214 — (303) 233-6900 — 9-81

EXHIBIT A

A Tract of Land located in the Northwest 1/4 of Section 28, Township 14 South, Range 78 West of the Sixth Principal Meridian, Chaffee County, Colorado, described as follows:

Beginning at the North 1/4 corner of said Section 28;

Thence South 0°27'35" East along the East boundary of the said Northwest 1/4 a distance of 1774.87 feet;

Thence North 19°17'55" West 1892.37 feet more or less to the North line of said Section 28;

Thence Easterly (South 88°59'41" East) along the North line of said Section 28 a distance of 639.75 feet more or less to the point of beginning, containing 13.033 Acres, more or less.

Directions are based upon a bearing of North 88°35'35" East between the North 1/4 corner and the Northeast corner of Section 28, Township 14 South, Range 78 West, 6th P.M.

Reserving unto grantors access 100 feet in width from the adjoining property owned by grantors to the tract herein conveyed.

CERTIFICATE OF OWNERSHIP AND ENCUMBRANCE

Date: March 10, 2016

To: Brandy Reitter, Town Administration
Town of Buena Vista

Re: Parcel 8 (Central Colorado Regional Airport Searches)

This is to certify that an examination has been done of the records in the Chaffee County Clerk and Recorder's Office on March 7, 2016 at 7:45AM pertaining to the property, which is described as follows:

Lots No. 3, 4, 5, 6, 7, 10, and Roads
CARPENTER INDUSTRIAL AIR PARK
per Plat recorded November 20, 2001 as Reception No. 322101
AND
Lot 8-R
CARPENTER INDUSTRIAL AIR PARK
per Plat recorded August 15, 2012 as Reception No. 401735
AND
Aircraft Taxiway
CARPENTER INDUSTRIAL AIRPARK
per Plat Amendment of Lots 11 and 12 recorded July 16, 2015 as Reception No. 421258
Chaffee County, Colorado

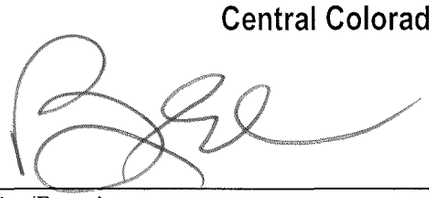
The title of this property is vested in *Town of Buena Vista, a Colorado municipality*, by virtue of a Warranty Deed recorded July 29, 2015 as Reception No. 421495.

ENCUMBRANCES:

See attached Schedule B-II, Title Commitment No. 15-01973

This Certificate is not to be construed as an abstract of title or a policy of title insurance and the liability therein is limited to the amount of the fee paid for the Certificate.

First American Title Insurance Company
Central Colorado Title & Escrow, Inc.



Brett Eakins/Examiner

421495

421495 7/29/2015 1:33 PM WD
1 of 2 R$15 D$49.10 N$0 S$1 M$0 E$0

Lori Mitchell
Chaffee Cnty

State Documentary Fee
Date JUL 29 2015
$ 49.10
JUL 29'15 PM 1:33

WARRANTY DEED

THIS DEED is dated **July 27, 2015**, and is made between **Maurice F. Carpenter** (whether one, or more than one), the "Grantor", of the County of **Chaffee** and State of **Colorado**, and **Town of Buena Vista, a Colorado municipality** (whether one, or more than one), the "Grantee," whose legal address is **PO Box 2002, Buena Vista, Colorado 81211** of the County of **Chaffee**, State of **Colorado**.

WITNESS, that the Grantor, for and in consideration of the sum of **FOUR HUNDRED NINETY-ONE THOUSAND AND NO/100** Dollars **($491,000.00)**, the receipt and sufficiency of which is hereby acknowledged, hereby grants, bargains, sells, conveys and confirms unto the Grantee and the Grantee's heirs and assigns forever, all the real property, together with any improvements thereon, located in the County of **Chaffee** and State of **Colorado**, described as follows:

Lots No. 3, 4, 5, 6, 7, 10, and Roads
CARPENTER INDUSTRIAL AIR PARK
per Plat recorded November 20, 2001 as Reception No. 322101
AND
Lot 8-R
CARPENTER INDUSTRIAL AIR PARK
per Plat recorded August 15, 2012 as Reception No. 401735
AND
Aircraft Taxiway
CARPENTER INDUSTRIAL AIRPARK
per Plat Amendment of Lots 11 and 12 recorded July 16, 2015 as Reception No. 421258
Chaffee County, Colorado

also known by street address as: **LOT 3, 4, 5, 6, 7, 8-R, 10, TAXIWAY and ROADS in, CARPENTER INDUSTRIAL AIR PARK, Buena Vista, CO 81211**
and assessor's schedule or parcel no.: **327128200062, 327128200063, 327128200064, 327128200065, 327128200066, 327128200067, 327128200069, 327128200075** and **327128200074**

TOGETHER with all and singular the hereditaments and appurtenances thereunto belonging, or in anywise appertaining, the reversions, remainders, rents, issues and profits thereof, and all the estate, right, title, interest, claim and demand whatsoever of the Grantor, either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances;

TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the Grantees and the Grantees' heirs and assigns forever. The Grantor, for the Grantor and the Grantor's heirs and assigns, does covenant, grant, bargain, and agree to and with the Grantees, and the Grantees' heirs and assigns: that at the time of the ensealing and delivery of these presents, the Grantor is well seized of the premises above described; has good, sure, perfect, absolute and indefeasible estate of inheritance, in law and in fee simple; and has good right, full power and lawful authority to grant, bargain, sell and convey the same in manner and form as aforesaid; and that the same are free and clear from all former and other grants, bargains, sales, liens, taxes, assessments, encumbrances and restrictions of whatever kind or nature soever, except and subject to: ☐ none; or ☒ the following matters:

421495

421495 7/29/2015 1:33 PM WD Lori Mitchell
2 of 2 RS15 DS49.10 NS0 SS1 MS0 ES0 Chaffee Cnty

General taxes for the year 2015 and subsequent years, and those items accepted by Grantee pursuant to the Contract to Buy and Sell Real Estate between Grantor and Grantee with respect to the premises above described, specifically including all matters excluded or excepted pursuant to the Title Commitment issued by First American Title Insurance Company as Commitment Number 15-01973.

And the Grantor shall and will WARRANT THE TITLE AND DEFEND the above described premises, *but not any adjoining vacated street or alley,* if any, in the quiet and peaceable possession of the Grantees and the heirs and assigns of the Grantees, against all and every person or persons claiming the whole or any part thereof.

IN WITNESS WHEREOF, the Grantor has executed this deed on the date set forth above.

Maurice F. Carpenter

STATE OF Colorado

ss.

COUNTY OF Chaffee

The foregoing instrument was acknowledged, subscribed and sworn to before me this the27th of July, 2015, by Maurice F. Carpenter.

Notary Public

BRETT EAKINS
NOTARY PUBLIC
STATE OF COLORADO
My Commission Expires 5/17/2016

My Commission Expires: _____

Name and Address of Person Creating Newly Created Legal Description (§ 38-35-106.5, C.R.S.), if applicable

First American Title™	Title Insurance Commitment
	ISSUED BY **First American Title Insurance Company**
Schedule BII	

File No.: 15-01973

EXCEPTIONS

Any policy we issue will have the following exceptions unless they are taken care of to our satisfaction.

1. Any facts, rights, interests, or claims that are not shown by the Public Records, but which could be ascertained by an inspection of the Land or by making inquiry of the persons in possession thereof.

2. Easements, or claims of easements, not shown by the Public Records.

3. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, and any facts which a correct survey and inspection of the Land would disclose, and which are not shown by the Public Records.

4. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown in the Public Records.

5. Any and all unpaid taxes, assessments and unredeemed tax sales.

6. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.

7. Subject to any vested and accrued water rights for mining, agricultural, manufacturing or other purposes, and rights to ditches and reservoirs used in connection with such water rights as may be recognized and acknowledged by the local customs, laws and decisions of Court hereby granted, as provided by law, in U.S. Patent issued July 30, 1896 and recorded June 4, 1900 in Book 115 at Page 152.

8. Easements, reservations, or restrictions as contained on the Plat of Carpenter Industrial Air Park, recorded November 20, 2001 as Reception No. 322101.

9. Terms and conditions set forth in Easement recorded January 16, 2003 as Reception No. 331886 (affects Lot No. 3).

10. Covenants , conditions, and restrictions as contained in the Declaration of same recorded June 25, 2002 as Reception No. 327077, and First Amendment therto recorded December 21, 2012 as Reception No. 404188.

11. The effect, if any, of Resolution BOR 2012-01, recorded November 6, 2012 as Reception No. 403333 (affects Lot No. 8-R).

12. Dedications, notes, covenants and easements set forth on the Plat of Lot 8-R, Carpenter Industrial Park, a Boundary Line Adjustment Eliminating the Lot Line Between Lots 8 and 9 of Carpenter Industrial Park, recorded August 15, 2012 as Reception No. 401735. (Affects Lot No. 8-R)

SCHEDULE BII
(Continued)

13. NOTE: The following notices pursuant to CRS 9-1.5-103 concerning underground facilities have been filed with the Clerk and Recorder. These statements are general and do not necessarily give notice of underground facilities within the subject property:
a) Mountain Bell Telephone Company - filed October 2, 1981, Reception No. 211211;
b) Public Service Company of Colorado - filed November 2, 1981, Reception No. 211929;
c) Western Slope Gas Company - December 11, 1981, Reception No. 212569 and filed May 24, 1985, Reception No. 234357; (Company name amended to "Western Gas Supply Company" by certificates recorded June 27, 1988 in Book 497 at Page 103); merged with Public Service Company of Colorado per instrument recorded January 25, 1993 in Book 531 at Page 694.
d) Greeley Gas Company - filed November 18, 1981, at Reception No. 212196.
e) Letter from Utility Notification Center of Colorado disclosing local facilities access through "One Call System" recorded September 14, 1988 in Book 498 at Page 950.

14. Any easement or right of way as may have been acquired by Sangre de Cristo Electric Association within the subject property.

15. Any existing leases or tenancies.

16. Dedications, notes, covenants and easements set forth on the Plat Amendment of Lots 11 and 12 of Carpenter Industrial Airpark recorded July 16, 2015 as Reception No. 421258.

17. Dedications, notes, covenants and easements set forth on the Land Survey Plat prepared by Henderson Land Surveying Co. Inc., Drawing No. L-15-30, dated June 29, 2015.

FEDERAL AVIATION ADMINISTRATION

EXHIBIT A SUPPORTING DOCUMENTS

JOHN A. LOVE
GOVERNOR
DAVID A. HAMIL
DIRECTOR
DEPARTMENT OF INSTITUTIONS
HARRY C. TINSLEY
CHIEF
DIVISION OF CORRECTIONS

COLORADO STATE REFORMATORY
BOX R
Buena Vista, Colorado 81211

C.WINSTON TANKSLEY
WARDEN

	SIG.	A
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11/4/68

October 23, 1968

return →

Department of Transportation
Federal Aviation Administration
Denver Area Office
10255 East 25th Ave.,
Aurora, Colorado 80010

Attn: Mr. H. T. Kimbell
Chief, Airports Branch Den.-600

Dear Mr. Kimbell:

I am sending you a copy of our Easement Deed and Agreement to clarify the ownership of the Buena Vista Airport for your official records. When we entered into this agreement it was decided to change the name from Schuette Field to the Buena Vista Airport. We do not have a resolution covering this action.

Please let me know if I can be of further assistance in this matter.

Very truly yours,

Harry Kaplan
Deputy Warden

HK:em

EASEMENT DEED AND AGREEMENT

THIS EASEMENT DEED AND AGREEMENT, dated as of this 8th day of August, 1967, by and between the COLORADO STATE REFORMATORY, hereinafter called "Reformatory", and the TOWN OF BUENA VISTA, hereinafter called "Town"; and

WHEREAS, the Town is a municipal corporation of the State of Colorado, and is desirous of providing airport facilities for the use and benefit of the residents of the Town; and

WHEREAS, the Reformatory has a need for airport facilities in the vicinity of the present location of the Reformatory; and

WHEREAS, the Reformatory owns certain real property which is feasibly situated for the development of an airport; and

WHEREAS, both the Town and the Reformatory are desirous of cooperating in providing airport facilities on the terms and conditions hereinbelow set forth.

NOW THEREFORE, in consideration of the promises and agreements herein contained, the Reformatory hereby sells, conveys and grants unto the Town an easement and right-of-way over, across and through the following described lands situated in Chaffee County, Colorado, for the uses and purposes and upon the terms hereinafter set forth:

A tract of land located in the East 1/2 of the West 1/2 and in the Southwest 1/4 of the Southeast 1/4 of Section 21, Township 14 South, Range 78 West of the 6th Principal Meridian, being described as follows:

Beginning at the South 1/4 corner of said Section 21; thence North 88° 43' East 303.3 feet; thence North 25° 17' West 952.6 feet; thence North 20° 19' West 1649.3 feet; thence North 18° 57' West 597.0 feet; thence North 24° 08' West 862.6 feet to the intersection of centerline of the access road; thence continuing North 24° 08' West 300.9 feet to the west boundary of the East 1/2 of the West 1/2 of said Section 21; thence along said boundary South 0° 28' East 4020.9 feet more or less to the South line of said Section 21; thence South 89° 06' East along said Section line 929.3 feet more or less to the point of beginning; containing 73.6 acres more or less.

Together with an easement for access road purposes over a road, the centerline of which begins at the above

mentioned access road intersection point and extends North 39° 38' East 506.7 feet more or less to U.S. Highway No. 24, said access road being 30.0 feet on each side of above described centerline.

Directions were determined by solar observation.

This easement and right-of-way is for the purpose of granting the Town the right to construct, inspect, maintain and operate an airport.

As further consideration for the easement, the Town hereby agrees as follows:

1. To hold and save the Reformatory harmless from any and all damage arising from the Town's use of the right, easement and right-of-way herein granted, and the Town agrees to pay any damages or damage which may arise to the property, premises or rights of the Reformatory through the Town's use, occupation and possession of the rights herein granted.

2. To allow the Reformatory to use the subject easement herein granted for airport purposes at all times without further fee or charge subject to the condition, however, that the Reformatory agrees to obey and abide by all reasonable rules and regulations adopted or promulgated by the Town in connection with the subject airport.

3. To promptly enter into a program for the development and improvement of the airport and to do all things reasonably necessary to accomplish this end. The Town agrees to be responsible for said development and agrees that its program shall be in accordance with the rules and regulations and standards of the Federal Aviation Agency.

4. In the event the Town no longer uses or ceases to use the property herein granted for airport purposes for a period of one year or more, then the subject easement herein granted shall without further act or deed revert to the Reformatory. In this situation and to this end the Town agrees to execute any necessary agreements or deeds requested by the Reformatory to effectively terminate this easement and reconvey the rights herein granted.

In addition to the above provisions, it is mutually agreed between the Reformatory and the Town as follows:

1. The Reformatory agrees to provide at its expense a Federal Aviation Agency approved radio communications system to service the airport. It is understood that the Reformatory shall be responsible for the maintenance, upkeep and operation of this

radio communications system and shall provide the necessary personnel in connection therewith. All equipment and property provided by the Reformatory in connection with this provision shall remain the sole and separate property of the Reformatory during the existence of this easement and after the termination thereof.

2. The Reformatory agrees to cooperate with the Town in connection with maintaining the airport facilities, and to that end both parties agree to work toward arriving at an equitable formula to determine the respective responsibility of each party towards the airport's upkeep and maintenance. In arriving at this formula, the percentage of use of the Reformatory compared to the percentage of use of all other parties shall be considered in arriving at the agreed percentage or cost figure.

3. Both the Reformatory and the Town agree to cooperate in obtaining additional county, state and federal support and aid toward the subject airport facility.

4. It is understood that the Town shall not transfer or assign its interest in the subject easement without first obtaining the written consent of the Reformatory.

5. It is understood and agreed that the actual operation of the airport facility shall be under the direction and control of the Town, except as herein provided, and that the Town will adopt and promulgate rules and regulations concerning its operation.

IN WITNESS WHEREOF the parties have executed this Agreement as of the day and year first above written.

TOWN OF BUENA VISTA

By _____
Mayor

ATTEST:

_____
Town Clerk

COLORADO STATE REFORMATORY

By _____
Warden

STATE OF COLORADO)
) ss.
COUNTY OF CHAFFEE)

The foregoing instrument was acknowledged before me by Norman S. Knudsen as Mayor, and attested by Jack Geist as Town Clerk of the Town of Buena Vista, this 8th day of August, 1967.

Witness my hand and seal.
My commission expires July 31, 1968

Virginia D. Vande
Notary Public

STATE OF COLORADO)
) ss.
COUNTY OF CHAFFEE)

The foregoing instrument was acknowledged before me by C. Winston Tapscott as Warden of the Colorado State Reformatory, this 2nd day of August, 1967.

Witness my hand and seal.
My commission expires March 17, 1970

Elizabeth Wingus
Notary Public

DOCUMENTATION RE: CHESMORE/PARCEL 3 EXCHANGE

ALPERSTEIN & COVELL, P.C.

ATTORNEYS AT LAW

DONALD W. ALPERSTEIN
CYNTHIA F. COVELL
EDWARD M. CASWALL

SCOTT A. CLARK

2350 COLORADO STATE BANK BUILDING
1600 BROADWAY, DENVER, COLORADO 80202-4923

TELEPHONE
(303) 894-8191
FAX
(303) 861-0420

July 5, 2000

James Weides
Isbill Division, Raytheon Infrastructure, Inc.
5555 Greenwood Plaza Blvd.
Englewood, CO 80111

VIA FEDERAL EXPRESS

RE: ***Town of Buena Vista - Airport Land Exchange***

Dear Jim:

Per our discussion earlier today, enclosed please find the Certificate of Title letter from the Town of Buena Vista, regarding the Airport Parcel No. 3, with a copy of the quitclaim deed from the State attached. The title commitment is not attached because I do not yet have the correct version, but hope to get it in the next couple of days. The deed was recorded on July 3, 2000 at Reception No. 312044 in the records of Chaffee County, Colorado. While I do not have a copy of the deed for the parcel transferred by the town to DOW, I can provide the recording information for same, to wit, Reception No. 312043. I understand that this information is sufficient to allow you to begin the request for reimbursement to be submitted to the FAA. I know that you and the town both wish to get this reimbursement request completed as soon as possible.

As soon as we get the correct title commitment, we will forward it to you so you can attach it and forward the reimbursement request to Patti Black at Buena Vista by overnight delivery. (I am told UPS arrives earlier in the day than Fed Ex, so it would be preferable to use UPS.) Patti can then get it signed and returned to you by overnight delivery. Chris Schaffer has told Cindy Covell that as soon as he receives the certificate of title, the deed with recording information, and the request for reimbursement, the FAA can fund the reimbursement. Chris will be out the rest of this week, but his supervisor, Nance Early (303-342-1253), can assist if needed.

Thank you very much

Sincerely yours,

Edward M. Caswall
Town Attorney

EMC/ben
Enclosures
cc: J. L'Estrange, Town Administrator

D:\Client Files\Buena Vista\Chesmore\weides letter - version 2 07-05-00.wpd

CERTIFICATE OF TITLE

Alan E. Wiechmann, Manager
Federal Aviation Administration
Denver Airports District Office
26805 East 68th Avenue, Suite 224
Denver, Colorado 80249-6361

Dear Mr. Wiechmann:

The Town of Buena Vista (hereinafter referred to as the "Sponsor"), pursuant to Section 47105(d) of Title 49, U.S.C., Subtitle VII, Part B (P.L. 103-272, as amended), hereby certifies that satisfactory property interest to the land indicated herein is vested in the Sponsor under the terms and conditions of a Grant Agreement with the Federal Aviation Administration, Federal Project No. 3-08-0082-05.

In the opinion of Edward M. Caswall, Attorney for the Sponsor, the Sponsor has legal title to the property interest and, as shown on the Exhibit "A" as of the time and date stated in the title documents, has adequate title to satisfy local laws and ordinances:

Parcel Number (Per Exhibit "A")	Quality of Interest (Fee, Easement, etc.)
Airport Parcel No. 3	Fee

The land interest acquired meets the requirements of the Federal Aviation Administration, except for easements, liens, separate mineral estate, leases, or other encumbrances on the parcel. However, such encumbrances, which are described on the attached title commitment, do not affect the use of the Airport Parcel No. 3 for airport purposes. Although the State Land Use Exchange Agreement recorded March 5, 1949 (Exception No. 10), and the warranty deed recorded March 22, 1926 (Exception No. 9) might be construed to affect the use of the Airport Parcel No. 3 for airport purposes, the age of these recorded documents, together with the fact that the Airport Parcel No. 3 has in fact been used for airport purposes without objection for many years, indicate that these alleged interests do not affect use of the Airport Parcel No. 3 for airport purposes.

Check one:

[ ] The evidence of title is based on an abstract and record examination conducted on _____, or

[X] Title Commitment No. 525738, issued on June 26, 2000, by the Stewart Title Guaranty Co. Title Insurance Company.

Recorded July 3, 2000 at Reception No. 312044 in the records of the Chaffee County Clerk and Recorder

The Sponsor recognizes and accepts full responsibility for the clearing of any outstanding encumbrances, defects, and exceptions to the title which may in any way affect the future use and operation of the land for airport purposes as may be determined by the FAA.

It is understood that the FAA reserves the right to cancel this certificate at any time.

Although specific title evidence documents are not submitted herewith, copies of deeds and other appropriate evidence of title for the land are on file with the Sponsor and are available for inspection by the FAA.

Sincerely,

Town of Buena Vista
Name of Sponsor

Jerry L. Estrange
Signature of Sponsor Official
authorized to sign Grant Agreement

6/30/00
Date

R. M. Caswell
Signature of Sponsor's Attorney

D:\Client Files\Buena Vista\Chesmore\Certificate of Title.wpd

Recorded at_____ o'clock____M.,_____Reception No.
Recorder.

QUITCLAIM DEED

THIS DEED, Made this 30th day of June , 2000,
Between THE STATE OF COLORADO, acting by and through the Department of Natural Resources for the use and benefit of the

Division of Wildlife and the Wildlife Commission,
6060 Broadway, Denver, CO 80216,

of Adams County, State of Colorado, grantor, and

TOWN OF BUENA VISTA, a municipal corporation
210 East Main Street
P.O. Box 2002
Buena Vista, CO 81211

of Chaffee County, State of Colorado, grantee:

WITNESSETH, That pursuant to the parties' Exchange Agreement dated May 23, 2000, grantor agreed to convey to grantee certain real estate known as the Airport Parcel No. 3, Chaffee County, Colorado (valued at $51,800), in exchange for conveyance to grantor by grantee of that certain parcel of land known the Chesmore property, in Chaffee County, Colorado, which is valued at $44,000 and payment to grantor by grantee of the sum of $7,800, the receipt and adequacy of which consideration from grantee is hereby acknowledged, and in furtherance of said Exchange Agreement, grantor hereby transfers and quitclaims unto the grantee, its heirs and assigns forever, all the following real property, situate, lying and being in Chaffee County, State of Colorado, described as follows:

SEE EXHIBIT A attached hereto and incorporated herein by reference;
also known by street and number as: NO STREET NUMBER ASSIGNED
assessor's schedule or parcel number:

TOGETHER with all and singular the appurtenances and privileges thereunto belonging, or in anywise appertaining, and all of the estate, right, title, interest and claim whatsoever of the grantor, either in law or equity, to the only proper use, benefit and behalf of the grantee, its successors and assigns forever.

IN WITNESS WHEREOF, the grantor has executed this deed on the date set forth above.

THE STATE OF COLORADO
Bill Owens, Governor

BY: Walter D Graul for
_____
Bruce L. McCloskey, Acting Director
of the Division of Wildlife for the Executive
Director of the Department of Natural Resources
and on behalf of the Wildlife Commission

STATE OF COLORADO
} ss.
County of Adams

The foregoing instrument was acknowledged before me this 30th day of June, 2000, by Walter D. Graul, Administrator-Wildlife Programs, for the Division of Wildlife.

Witness my hand and seal.

My commission expires: 1,28,2004

John F Smith
Notary Public
Golden, CO 80403

EXHIBIT A

LEGAL DESCRIPTION

A parcel of land in the Northwest Quarter of the Northwest Quarter (NW¼ NW¼) of Section 21, Township 14 South, Range 78 West of the 6th Principal Meridian, Chaffee County, Colorado; said tract is within the boundaries of Central Colorado Regional Airport (formerly Buena Vista Municipal Airport) as described with the document titled Exhibit A, dated April, 1997, and being more particularly described as follows:

PARCEL 3

Beginning at the West Quarter Corner of Section 16, Township 14 South, Range 78 West;
thence South 0°17'20" West along the West boundary of Section 16 a distance of 2656.91 feet, to the Northwest Corner of said Section 21, and the true point of beginning;
thence along the North boundary of said Section 21, South 89°37'15" East 30.00 feet;
thence continuing along said boundary South 89°37'15" East 595.00 feet;
thence South 22°18'24" East 1444.88 feet, to a point on the South boundary of the NW¼ NW¼ of Section 21;
thence along said South boundary North 89°55'18" West 1170.00 feet, to the southwest corner of the NW¼ NW¼ of Section 21;
thence along the West boundary of said Section 21, North 0°08'45" West 1339.29 feet, to the true point of beginning.

PARCEL 3
EXHIBIT A
DESCRIPTION OF A PARCEL OF LAND IN CHAFFEE COUNTY, COLORADO

A Parcel of land in the Northwest Quarter, of the Northwest Quarter (NW1/4NW1/4) of Section Twenty-one (21), Township Fourteen South (14S), Range Seventy-eight West (78W) of the Sixth Principal Meridian, County of Chaffee, State of Colorado; said tract is within the boundaries of Central Colorado Regional Airport (formerly Buena Vista Municipal Airport) as described with the document titled Exhibit A, dated April, 1997, and being more particularly described as follows:

PARCEL 3

Beginning at the West ¼ Corner of Section 16, T14S, R78W; thence S 0°17'20" W along the West boundary of Section 16 a distance of 2656.91 feet, to the Northwest Corner of said Section 21, and the True Point of Beginning;

Thence along the North boundary of said Section 21, S 89°37'15" E 30.00 feet;
Thence continuing along said boundary S 89°37'15" E 595.00 feet,
Thence S 22°18'24" E 1444.88 feet, to a point on the South boundary of the NW1/4NW1/4 Section 21;
Thence along said South boundary N 89°55'18" W 1170.00 feet, to the Southwest Corner of the NW1/4NW1/4 Section 21;
Thence along the West boundary of said Section 21, N 0°08'45" W 1339.29 feet, to the True Point of Beginning.

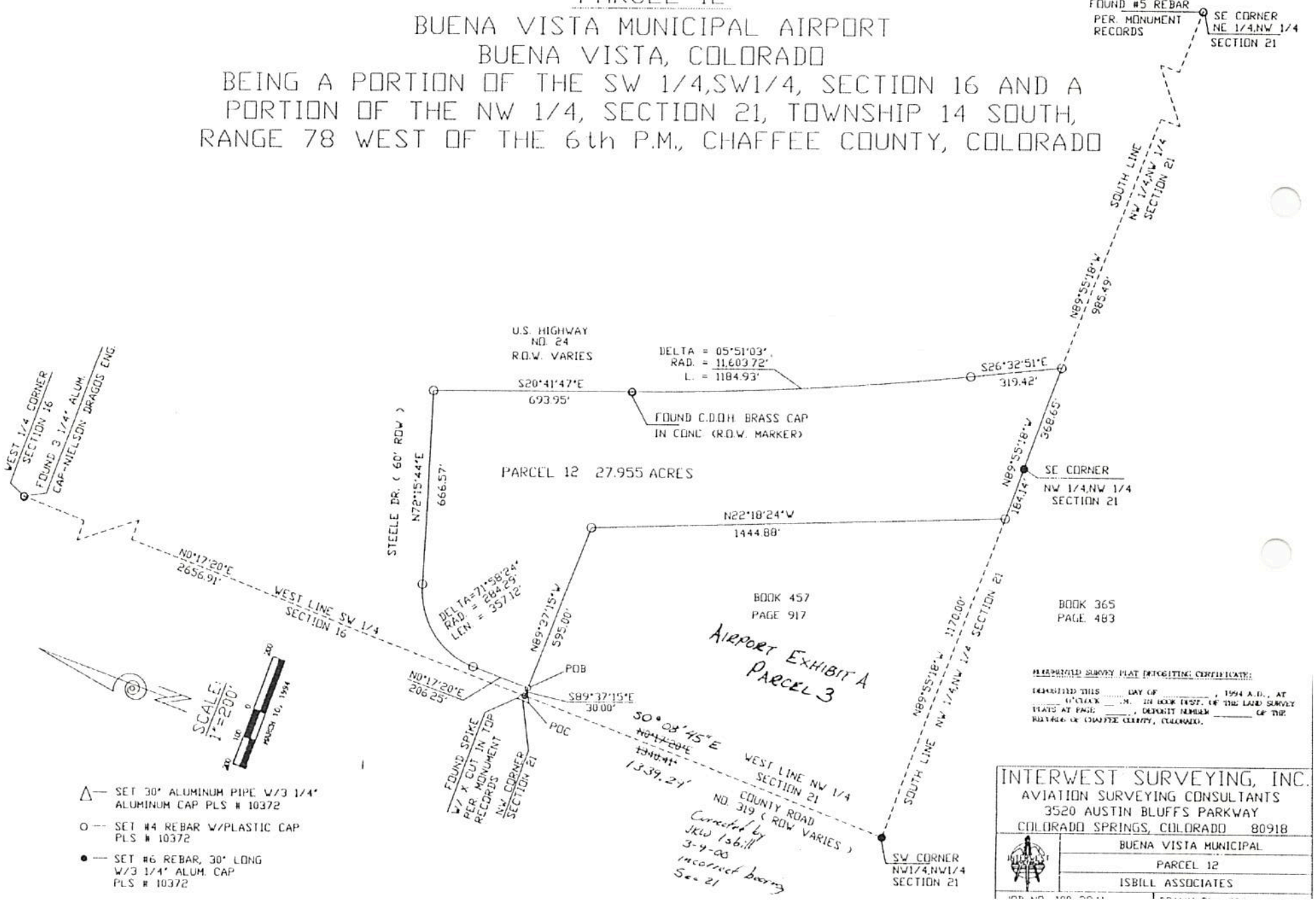
Said Parcel 3 contains an area of 27.55 acres, more or less.

LAND SURVEY PLAT

PARCEL 12

BUENA VISTA MUNICIPAL AIRPORT
BUENA VISTA, COLORADO

BEING A PORTION OF THE SW 1/4,SW1/4, SECTION 16 AND A PORTION OF THE NW 1/4, SECTION 21, TOWNSHIP 14 SOUTH, RANGE 78 WEST OF THE 6th P.M., CHAFFEE COUNTY, COLORADO



PERMITTED SURVEY PLAT DEPOSITING CERTIFICATE:

DEPOSITED THIS ____ DAY OF _____, 1994 A.D., AT ____ O'CLOCK ____ .M. IN BOOK DEPT. OF THE LAND SURVEY PLATS AT PAGE ____, DEPOSIT NUMBER _____ OF THE RECORDS OF CHAFFEE COUNTY, COLORADO.

INTERWEST SURVEYING, INC.
AVIATION SURVEYING CONSULTANTS
3520 AUSTIN BLUFFS PARKWAY
COLORADO SPRINGS, COLORADO 80918

BUENA VISTA MUNICIPAL
PARCEL 12
ISBILL ASSOCIATES

07/03/2000 04:00 RECORD FEE: $5.00 PAGE #1 0001 OF 0001
CHAFFEE COUNTY, CO, JOYCE M RENO - CLERK & RECORDER REC #: 312043

QUITCLAIM DEED

State Documentary Fee
Date JUL 0 3 2000
$ -0-

THIS DEED, Made this __________ day of ________________, 2000,

between

TOWN OF BUENA VISTA, a municipal corporation
210 East Main Street
P.O. Box 2002
Buena Vista, CO 81211

of Chaffee County, State of Colorado, grantor, and

THE STATE OF COLORADO, acting by and through the Department of Natural Resources for the use and benefit of the Division of Wildlife and the Wildlife Commission,

whose legal address is 6060 Broadway, Denver, CO 80216,

of the City and County of Denver, State of Colorado, grantee:

WITNESSETH, That pursuant to the parties' Exchange Agreement dated May 23, 2000, grantor agreed to convey to grantee certain real estate known as the Chesmore property, in Chaffee County, Colorado, which is valued at $44,000 and to pay to grantee the sum of $7,800, all in exchange for conveyance to grantor of that certain parcel of land known as the Airport Parcel No. 3, Chaffee County, Colorado (valued at $51,800),the receipt and adequacy of which consideration from grantee is hereby acknowledged, and in furtherance of said Exchange Agreement, grantor hereby transfers and quitclaims unto the grantee, its heirs and assigns forever, all the following real property, together with improvements, if any, situate, lying and being in Chaffee County, State of Colorado, described as follows:

> That portion of the East Half of the Southeast Quarter of the Southwest Quarter (E1/2 SE1/4 SW 1/4) of Section 9, Township 14 South, Range 78 West of the 6th Principal Meridian, lying East of the center of the Arkansas River, being a part of the "Placer Mining Claim known as the RONK Placer Mining Claim in the Arkansas River Mining District", Chaffee County, Colorado, as described in U.S. Patent recorded in Book 76 and Page 47

also known by street and number as: NO STREET NUMBER ASSIGNED

assessor's schedule or parcel number:

TOGETHER with all and singular the appurtenances and privileges thereunto belonging, or in anywise appertaining, and all of the estate, right, title, interest and claim whatsoever of the grantor, either in law or equity, to the only proper use, benefit and behoof of the grantee, its successors and assigns forever.

IN WITNESS WHEREOF, the grantor has executed this deed on the date set forth above.

TOWN OF BUENA VISTA, A MUNICIPAL CORPORATION

BY Jerry L'Estrange
Jerry L'Estrange, Town Administrator

ATTEST: Tina Darrah
Town Clerk

PATRICIA F. BLACK NOTARY PUBLIC STATE OF COLORADO

STATE OF COLORADO
) ss.
County of Chaffee

The foregoing instrument was acknowledged before me this 30th day of June, 2000, by JERRY L'ESTRANGE, Town Administrator of the Town of Buena Vista and TINA DARRAH, Town Clerk.

Witness my hand and official seal

My commission expires
MY COMMISSION EXPIRES 02-10-2003

Patricia F. Black
Notary Public

*If in Denver, insert "City and" ____

Name and Address of Person Creating Newly Created Legal Description (§ 38-35-106.5,C.R.S.)

AIP-03

12
12A

COPY

TOWN OF BUENA VISTA

LEASE AGREEMENT

THIS LEASE, made this 30th day of September, 1993, by and between the STATE OF COLORADO acting by and through the DEPARTMENT OF NATURAL RESOURCES for the use and benefit of the DIVISION OF WILDLIFE and WILDLIFE COMMISSION, hereinafter referred to as the "Lessor", and the TOWN OF BUENA VISTA, COLORADO, hereinafter referred to as the "Lessee";

WHEREAS, required approval, clearance and coordination have been accomplished from and with appropriate agencies; and

WHEREAS, the Lessor is the owner of real estate situated in the County of Chaffee, State of Colorado, as described and illustrated on Exhibit "A" attached hereto and incorporated herein by reference and hereinafter referred to as the "premises"; and

WHEREAS, the Lessee is desirous of obtaining a lease of the premises for constructing reconstructing, and maintaining airport facilities as further described below;

NOW, THEREFORE, BE IT AGREED AS FOLLOWS:

1. Lessor does grant a lease of the premises to the Lessee for a term of ninety-nine (99) years beginning October 1, 1993 and ending September 30, 2092.

2. As consideration for the granting of this lease, Lessee agrees to:

A. Pay to Lessor, or a person designated by Lessor, the sum of Seventy-eight Thousand Six Hundred and No/100 Dollars ($78,600.00) payable in one of the following manners within 180 days of the beginning date of this lease agreement:

(1) If the Lessor designates another person to receive part or all of such payment within 180 days of the beginning date of this lease agreement:

a. One lump sum payment in the amount of $78,600.00, payable to the person designated by Lessor, as payment for land and/or water or interests in land and/or water to be acquired by Lessor from said designated person.

b. One lump sum payment in an amount less than $78,600.00, set by Lessor, payable to the person designated by Lessor, as payment for land and/or water or interests in land and/or water to be acquired by Lessor from said designated person. The difference between this payment and $78,600.00 shall be paid to the Lessor in a lump sum.

(2) In the event Lessor fails to designate another person to receive payment within 180 days of the beginning date of this lease agreement or if Lessor directs payment to itself within said 180 day period:

a. One lump sum payment in the amount of $78,600.00 payable to Lessor.

B. Provide Lessor with a legal survey of the premises within 180 days of final execution and approval of this agreement.

C. Construct an interceptor drain system to replace the existing spring and spring house on the premises. The drain system will be designed and constructed to maximize the flow of water through the drain using good engineering principles and utilizing materials to prevent plugging. The drain system shall be built to have a minimum 50 year expected life. The lowest elevation in the interceptor line(s) shall be no higher than 7,908.0 feet above mean sea level and the lines shall be sloped to have a self cleaning velocity. The system will include four manholes, valving for maintenance and water control, and at least 800 feet of minimum 12 inch diameter slotted PVC pipe. Lessor reserves the right to review and approve both the preliminary and final design of the system prior to any construction, as provided in paragraph 13.

3. This lease is granted for the purpose of constructing, reconstructing and maintaining airport facilities, along with the right of flight by aircraft over the premises, with the inherent aircraft noise and vibration; the right to remove existing obstructions, at Lessee's expense, if any exist; and the right to restrict the establishment of future obstructions.

4. The Lessee may renew this agreement for successive 99 year terms, provided that both parties have complied with the terms and conditions of the lease applicable at the time of renewal and that the Lessee gives the Lessor written notice at least one hundred twenty (120) days prior to the last day of the current term of its desire to renew. The consideration for each successive term shall be as determined by the Lessor at the time of renewal.

5. If the Lessee does not for a period of 366 consecutive days make use of the premises for the purposes provided herein, Lessor may in its sole discretion immediately declare the leasehold abandoned and shall give Lessee notice to that effect as provided in paragraph 24.

The lease shall be terminated upon receipt of such notice and Lessee shall forfeit the lease consideration paid to Lessor.

6. This lease of the premises is subject to any and all easements and rights-of-way previously granted and now in force and effect. In the event Lessor shall, in the future, wish to grant an easement or right-of-way which encroaches upon the premises, Lessee hereby expressly consents thereto provided the proposed easement or right-of-way shall in no way interfere with the purpose for which this lease is granted, and will be subject to those rights of Lessee's as set forth in paragraph 3.

7. Lessor may consider accepting interests in land and/or water rights in lieu of payment in cash for the entire rental consideration or a portion thereof. In such event, the Lessee shall provide documentation, acceptable to the Lessor, showing the value of the land and/or water being offered. It is in the Lessor's sole discretion to accept or reject offers of land and/or water in lieu of any lease payment or portion thereof.

8. Lessor shall retain the right of historic use of the premises including irrigation, grazing, and pasturing cattle and horses.

9. The Lessor reserves the right to claim all surface water and groundwater originating on or flowing beneath the premises. The Lessor further reserves the right to develop, enhance and use said water including the right to construct pipelines, wells, division boxes, and other appurtenances as deemed necessary by Lessor so long as no vertical obstructions exceeding five feet are installed on the premises. Lessee shall have the right to review and approve any improvements planned for construction on the premises as provided in paragraph 13.

10. The Lessor reserves the right of ingress and egress as deemed necessary by the Lessor for its operations on the premises. These rights shall be subject to the requirements of Federal Air Regulation Part 107, Airport Security.

11. Lessor shall retain all water rights currently used on the premises.

12. Lessor shall have, during the original term of this lease or any renewal thereof, the right to dispose of the premises and to use the same for purposes subject only to the rights and privileges herein granted to Lessee.

13. The Lessor and Lessee shall each submit to the other, for prior written approval, its plans for any development of the premises. The party to whom the approval request is submitted shall respond within 45 days of receiving copies of the plans. Approval, by either party, shall not be unreasonably withheld.

14. The Lessee shall make a good faith effort to prevent the degradation of water quality on the premises from contamination of surface and groundwater originating on or flowing through the premises, from construction activities, aircraft maintenance, fueling, cleaning and washing, and other activities on the premises or other property controlled by Lessee at the Buena Vista Airport. In the event of water quality degradation, the Lessee will provide replacement water to Lessor of equal quality and quantity to that available to Lessor from groundwater and spring sources. Lessor will perform baseline water quality analyses and provide water quality data to the Lessee prior to the beginning of this lease.

15. In the event of termination, Lessee, at its own expense, shall remove all improvements from the premises (excluding the interceptor drain system provided in paragraph 2a) that were placed thereon by the Lessee and that can be removed without injury to the premises. The Lessee shall return the premises to as nearly as is practicable the condition of the premises existing immediately prior to the Lessee's first use. If said improvements are not removed by Lessee within 90 days of the date of termination, they become the property of the Lessor or, at Lessor's option, may be removed by Lessor at Lessee's expense. Under no circumstances shall Lessee be relieved of its obligation to restore the premises to its original condition.

16. Lessee and its agents and employees will comply with all rules, regulations and policies promulgated by Lessor pertaining to use of the premises and not in conflict with Lessee's use herein provided.

17. Lessee shall reimburse Lessor for any payments-in-lieu of taxes (pursuant to CRS 30-25-301 and 302) assessed by Chaffee County on the premises and paid by Lessor. Lessee shall make such reimbursement payment to Lessor within thirty days of receipt of notice, by Lessor, of the amount paid.

18. Lessee agrees that all excavations or other temporary removal of soil that is required for the installation and proper maintenance of facilities on the premises shall be

replaced to the satisfaction of Lessor. Lessee shall be responsible at all times for the immediate repair and restoration of the premises for any damage to the premises due to the installation or maintenance of the Lessee's facilities.

19. The Lessee recognizes that 10.1 acres of the premises are irrigated land which will be covered by either fill material or will no longer be available for irrigation due to placing the laterals of the Cottonwood Ditch in buried pipe beneath the fill. Lessee agrees to the engineering estimates which establish the historic consumptive use of irrigation water for the existing vegetation to be 19.6 inches per year. The volume of irrigation water consumptively used on the 10.1 acres is estimated at 16.3 acre feet per year. Lessee recognizes that Lessor may seek a change of water right to move this historic consumptive use of its Cottonwood Ditch water rights to a new location and it agrees not to object to the quantification as described above and transfer of such historic consumptive use in a future water court action.

20. This lease agreement may only be terminated for default of the provisions of this agreement as provided in paragraph 22 or non-use of the property as provided in paragraph 5.

21. Notwithstanding any other provision of this lease to the contrary, no term or condition of this lease shall be construed or interpreted as a waiver, either expressed or implied, of any of the immunities, rights, benefits or protection provided to both parties under the Colorado Governmental Immunity Act, Sections 24-10-101, et seq. C.R.S., as amended or as may be amended (including, without limitation, any amendments to such statute, or under any similar statute which is subsequently enacted). The parties hereto understand and agree that liability for claims for injuries to persons or property arising out of the negligence of either party, its departments, institutions, agencies, boards, officials and employees is controlled and limited by the provisions of Sections 24-10-101, et seq., C.R.S., as amended or as may be amended, and Sections 24-30-1501, et seq., C.R.S., as amended or as may be amended. Any provision of this lease, whether or not incorporated herein by reference, shall be controlled, limited and otherwise modified so as to limit any liability of either party to the above cited laws.

22. In the event of default by either party under the terms of this agreement, notice of such default shall be given in writing by the non-defaulting party to the defaulting party. If such default is not cured within ninety (90) days of receipt of written notice of default or the party in default has not begun curing the default within said period and continued to pursue

curative action with due diligence, the lease may be terminated by the non-defaulting party by giving written notice of termination, given in the manner provided in paragraph 24, effective thirty (30) days from the date of mailing of notice of termination.

If the lease is terminated for default of Lessee, the lease payment paid by Lessee shall be forfeited to Lessor.

23. If the property shall be taken by right of eminent domain, in whole or in part, for public purposes, then this lease, at the option of either the Lessor or the Lessee shall forthwith cease and terminate; and in such event the entire damages which may be awarded for such taking shall be apportioned between the Lessor and the Lessee, as their interests appear.

24. All notices required or provided for in this agreement shall be mailed to the other party at its official address, United States mail, postage prepaid, certified, return receipt requested. For the purposes of this agreement, the official addresses of the parties shall be:

Division of Wildlife
Real Estate Unit
6060 Broadway
Denver, CO 80216

Town of Buena Vista
P.O. Box 2002
Buena Vista, CO 81211

Either party may change its official address by giving notice of such change to the other party as provided for above. Except as may otherwise be provided herein, all notices shall be effective upon receipt.

25. All provisions of this agreement, including the benefits and burdens, run with the land and are binding upon and inure to the assigns, successors, tenants and legal representatives of the parties hereto.

SPECIAL PROVISIONS

26. Financial obligations of the State of Colorado payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted and otherwise made available.

27. The laws of the State of Colorado and rules and regulations issued pursuant thereto shall be applied in the interpretation, execution and enforcement of this lease. Any provision of this lease whether or not incorporated herein by reference which provides for arbitration by any extra-judicial body or person or which is otherwise in conflict with said laws, rules and regulations shall be considered null and void. Nothing contained in any provision incorporated herein by reference which purports to negate this or any other special provision in whole or in part shall be valid or enforceable or available in any action at law whether by way of complaint, defense or otherwise. Any provision rendered null and void by the operation of this provision will not invalidate the remainder of this lease to the extent that the lease is capable of execution.

28. At all times during the performance of this lease, both parties shall strictly adhere to all applicable federal and state laws, rules, and regulations that have been or may hereafter be established.

29. The signatories hereto aver that they are familiar with CRS 18-8-301, et seq., (Bribery and Corrupt Influences) and CRS 18-8-401, et seq., (Abuse of Public Office), and that no violation of such provisions is present.

30. The signatories aver that to their knowledge, no state employee has a personal or beneficial interest whatsoever in the service or property described herein.

31. This agreement constitutes the entire understanding of the parties and there are not other provisions other than set forth herein. Any changes in this agreement shall be made in writing and signed by both parties in accordance with required contracting procedures before the same shall be effective.

IN WITNESS WHEREOF, the parties hereto set their hands the day and year first above written.

LESSOR

STATE OF COLORADO

Roy Romer, Governor

By _____
Director, Division of Wildlife for
Kenneth Salazar,
Executive Director of the
Department of Natural Resources
And on behalf of the
Colorado Wildlife Commission

LESSEE

TOWN OF BUENA VISTA

By Susan L Bristol
Title Mayor Pro Tem

Attest:

By Julia E Hopper
Title Town Clerk

84-6000568
F.E.I.N.

APPROVALS

Director, State Buildings Division

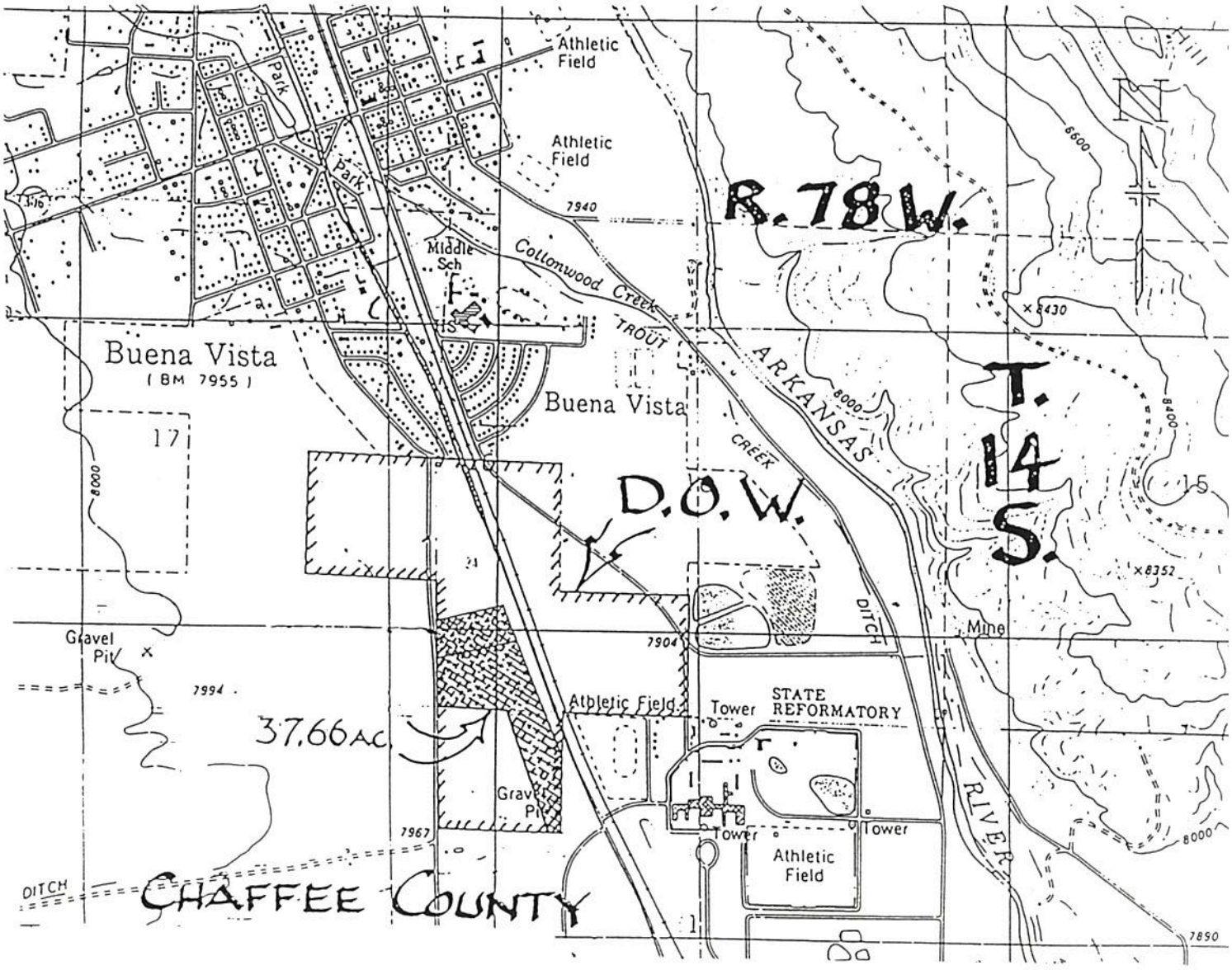
By _____

EXHIBIT "A"

Description and illustration of the premises referred to in the Lease Agreement between the STATE OF COLORADO, acting by and through the DEPARTMENT OF NATURAL RESOURCES, for the use and benefit of DIVISION OF WILDLIFE and WILDLIFE COMMISSION, Lessor, and the TOWN OF BUENA VISTA, COLORADO, Lessee.

Township 14 South, Range 78 West of the 6th P.M.

Section 16 - located within the SW1/4SW1/4
Section 21 - located within the NW1/4NW1/4



COPY

12B

RIGHT-OF-WAY 2927, Book 29
BUENA VISTA MUNICIPAL AIRPORT
BUENA VISTA, COLORADO
AVIGATION EASEMENT

THIS RIGHT-OF-WAY, made this 23rd day of June, 1993, between the **STATE OF COLORADO (Grantor)**, acting by the **STATE BOARD OF LAND COMMISSIONERS (State Land Board)**, and **TOWN OF BUENA VISTA (Grantee), P.O. Box 2002, Buena Vista, Colorado 81211 :**

W I T N E S S E T H

WHEREAS, Grantee has applied to the State Land Board for a right-of-way over, under, and across certain portions of state trust lands for the purpose of constructing, operating and maintaining for the use and benefit of the public, an easement and right-of-way for the unobstructed use and passage of all types of aircraft, in and through all air space above the surface of Grantor's property, to an infinite height above said Grantor's property, as well as in the vicinity of the Grantor's property, with such use and passage to be unlimited as to frequency, type of aircraft and proximity, and

WHEREAS, The State Land Board has approved the application subject to the terms and conditions set forth herein.

NOW, THEREFORE, the State Land Board, in consideration of the terms and conditions herein, and for the consideration of the sum of Sixty-seven thousand and No/100 Dollars ($67,000.00) grants unto the Grantee, a right-of-way for a ninety-nine (99) year term for the purpose of constructing, operating and maintaining for the use and benefit of the public, an easement and right-of-way for the unobstructed use and passage of all types of aircraft, in and through all air space above the surface of Grantor's property, to an infinite height above said Grantor's property, as well as in the vicinity of the Grantor's property, with such use and passage to be unlimited as to frequency, type of aircraft and proximity over, under and across certain portions of state trust lands described as follows:

A parcel of land situated in Section Twenty-one (Sec. 21), Township Fourteen South (T. 14 S.), Range Seventy-eight West (R. 78 W.) of the Sixth Principal Meridian (6th P.M.), Chaffee County, State of Colorado, labeled Parcel 12B on attached EXHIBIT I, being more particularly described as follows:

Commencing for reference at the southwest corner of the NW 1/4 NW 1/4 of said Section 21;

Thence along the south line of said NW 1/4 NW 1/4, South 89° 56' 04" East a distance of 1,353.72 feet to the southeast corner of said NW 1/4 NW 1/4 to the true point of beginning;

Thence South 89° 56' 04" East a distance of 368.61 feet to a point on the west right-of-way line, as fenced, of U.S. Highway 24;

Thence along said west right-of-way line, by the following three (3) courses and distances:

Thence South 26° 32' 50" East a distance of 624.27;

Thence along the arc of a curve to the right with a central angle of 10° 58' 33", a radius of 5,589.77 feet an arc distance of 1,070.80 feet (the long chord of which bears South 21° 03' 34" East a distance of 1069.16 feet);

Thence South 15° 34' 17" East a distance of 1,302.81 feet;

Thence leaving the highway right-of-way North 69° 30' 56" West a distance of 160.01 feet;

Thence North 25° 21' 08" West a distance of 294.57 feet;
Thence South 66° 36' 44" West a distance of 109.79 feet to a point on the existing airport property line;

Thence along said airport property line by the following three (3) courses and distances:

Thence North 20° 26' 30" West a distance of 975.56 feet;

Thence North 19° 04' 32" West a distance of 597.00 feet;

Thence North 23° 55' 57" West a distance of 1,154.15 feet to the point of beginning.

Containing 22.66 acres of land, more or less.

Said easement shall be appurtenant to and for the benefit of the real property now known as the Buena Vista Municipal Airport, including any additions thereto wherever located hereafter made by the Town of Buena Vista, Colorado, or its successors and assigns; and also for the benefit of the guests and invitees of said Airport, including any and all persons, firms, or corporations operating aircraft to or from said airport. .

Said easement, together with all things which may be alleged to be incident to or resulting from the use and enjoyment of said easement, includes, but is not limited to, the right to cause in all airspace above or in the vicinity of the surface of the Grantor's property such noise, vibrations, fumes, deposits of dust or other particulate matter, fuel particles (which are incidental to the normal operation of said aircraft), fear, interference with sleep or communication and any and all other effects that may be alleged to be incident to or be caused by the operation of aircraft over or in the vicinity of Grantor's property or in landing at or taking off from, or operating at or on said Buena Vista Municipal Airport; and Grantor does hereby fully waive, remise, and release any right or cause of action which it may now have or which it may have in the future against Grantee, its successors and assigns, due to such noise, vibrations, fumes, dust, fuel particles and all other effects that may be caused or may have been caused by the operation of aircraft landing at, or taking off from, or operating at or on said Buena Vista Municipal Airport.

As used herein, the term "aircraft" shall mean any and all types of aircraft, whether now in existence or hereafter manufactured and developed, to include, but not limited to, jet aircraft, propeller driven aircraft, civil aircraft, military aircraft, commercial aircraft, helicopters and all types of aircraft or vehicles now in existence or hereafter developed, regardless of existing or future noise levels, for the purpose of transporting persons or property through the air, by whomsoever owned or operated.

The easement and right-of-way hereby granted includes the continuing right in the Grantee to prevent the erection or growth upon Grantor's property of any building, structure, tree, or other object, extending into the air space above the surface of the Grantor's property, and to remove from said air space, or at the sole option of the Grantee, as an alternative, to mark and light as obstructions to air navigation, any such building, structure, tree or other objects now upon, or which in the future may be upon Grantor's property, together with the right of ingress to, egress from, and passage over Grantor's property for the above purpose. The easement and right-of-way hereby granted includes a right-of-way with the right of ingress to, egress from and passage over the Grantor's property for the placement of fill material and construction of airport facilities. The limits of the construction are shown on the attached map **(EXHIBIT I)**, along the line labeled "toe of proposed fill slope".

AND for the consideration herein set forth, the Grantor, its successors and assigns, does hereby agree that for and during the life of said easement and right-of-way, it will not hereinafter erect, permit the erection or growth of, or permit or suffer to remain upon Grantor's property any building, structure, tree or other object extending into the aforesaid prohibited air space, and that it shall not use or permit or suffer the use of Grantor's property in such a manner as to create electrical interference with radio communication between any installation upon said airport and aircraft, or as to make it difficult for flyers to distinguish between airport lights and others, or to permit any use of the Grantor's land that causes a discharge of fumes, dust or smoke so as to impair visibility in the vicinity of the airport or as otherwise to endanger the landing, taking off or maneuvering of aircraft. Grantor furthermore waives all damages and claims for damages caused or alleged to be caused by or incidental to such activities.

The historic agricultural uses of the subject property, including the water rights and the right to irrigate, fence, pasture, or mechanically hay this property are specifically not relinquished as a part of this right-of-way grant and may continue throughout the term of the grant.

The right-of-way herein granted shall continue for as long as the uses and facilities described above are in place, utilized and maintained by the Grantee or until the expiration of the term, whichever comes first. If the said use or facilities are abandoned for twelve (12) consecutive months, this right-of-way or any unused portion thereof shall automatically and without notice terminate.

Approved and granted by:

STATE OF COLORADO, BY THE
STATE BOARD OF LAND COMMISSIONERS

Lucy Black Creighton

Lucy Black Creighton, President

Robert R. Mailander

Robert R. Mailander, Register

John S. Wilkes III

John S. Wilkes III, Engineer

January 11 1994

Date

Accepted by:

For: **TOWN OF BUENA VISTA**
BUENA VISTA, COLORADO

By:

Signature

Mike Lockett

Printed Signature

Title: Mayor, Town of Buena Vista

Date: September 7, 1994

Betty J Miller

Notary Public

3-12-94

My Commission Expires

Application 93/033
ROWS\2927-29.ROW
01-05-93

TOWN OF BUENA VISTA
Post Office Box 2002
Buena Vista, Colorado 81211
Phone (719) 395-8643

September 9, 1994

Ms. Judy Hill
Senior Secretary
State of Colorado, Board of Land Commissioners
1313 Sherman Street, Room 620
Denver, Colorado 80203

VIA: CERTIFIED MAIL NO. P-039-137-069, Return Receipt Requested

Dear Ms. Hill:

Enclosed is one (1) executed original copy of Right-Of-Way 2927, Book 29, Avigation Easement, for the Buena Vista Municipal Airport, along with a check in the amount of $67,000.00. We have retained one (1) original copy for our records as per your instructions.

Thank you.

Yours truly,

Julia E. Hupper
Town Administrator

JEH/bjm

Enclosures: Right-Of-Way Application 93/033
Right-Of-Way 2927, Book 29 Avigation Easement
Town of Buena Vista check #1031, Airport Enterprise Fund - $67,000.00

CC: airport file

landbd.doc

AIP-02

Town of Buena Vista

Post Office Box 2002
Buena Vista, Colorado 81211
Phone (719) 395-8643

March 13, 1995

Mr. Christopher Schaffer
Civil Engineer
Airports District Office, DEN-ADO
Federal Aviation Administration
5440 Roslyn Street, Suite 300
Denver, Colorado 80216-6026

CERTIFICATE OF TITLE

Dear Mr. Schaffer:

The Town of Buena Vista (hereinafter referred to as the "Sponsor"), pursuant to Section 509(d) of the Airport Improvement Act of 1982 (P.L. 97-248, as amended), hereby certifies that satisfactory property interest to the land indicated herein is vested in the Sponsor under the terms and conditions of a Grant Agreement with the Federal Aviation Administration, Federal Project No. DOT-FA93NM1083.

In the opinion of Julia E. Hupper, Town of Buena Vista Town Administrator, the Sponsor has full and adequate legal title to the property interest indicated and, as shown on the Exhibit "A", as of the time and date stated in the title documents, and has adequate title to satisfy local laws and ordinances:

Quality of Interest

Parcel Number 5 (Per Exhibit "A") Fee

The land interest acquired meets the requirements of the Federal Aviation Administration, except for easements, liens, separate mineral estate, leases ,or other encumbrances on the parcels noted below. However, such encumbrances, which are described on the attachment, do not affect the use of the land for airport purposes.

Parcel(s) Not applicable

Recorded on August 31, 1983 in Book 464, Page 9

The Sponsor recognizes and accepts full responsibility for the clearing of any outstanding encumbrances, defects, and exceptions to the title which may in any way affect the future use and operation of the land for airport purposes as may be determined by the FAA.

It is understood that the FAA reserves the right to cancel this certification at any time.

Although specific title evidence documents are not submitted herewith, copies of deeds and other appropriate evidence of title for land are on file with the Sponsor and are available for inspection by the FAA.

Sincerely,

Julia E. Hupper, Town Administrator

Julia E. Hupper

Signature of sponsor official authorized to sign Grant Agreement

March 13, 1995

Date

JEH/bjm
Enclosure
CC: airport file
faatitle.doc

L. STEEL

TE OF AGREEMENT/TERM
AUGUST 8, 1967 – PERPETUAL 1/
APRIL 14, 1969
EBRUARY 23, 1983 – 25 YEARS 2/
AUGUST 18, 1983
AUGUST 31, 1983 3/
DECEMBER 20, 1983 4/

NOTES:

1. CONDITION THAT TOWN USE LAND FOR AERONAUTICAL PURPOSES ONLY, ENTER INTO AN AIRPORT DEVELOPMENT PROGRAM, ETC.
2. FOR PUBLIC USE AIRPORT FACILITIES ONLY; RESTRICTIONS, ETC.
3. CONDITION THAT TOWN PROVIDE 60' ROAD EASEMENT AND REVERSION CLAUSE SUBJECT TO USE OF PROPERTY ONLY FOR PUBLIC AIRPORT PURPOSE.
4. GRANTORS RESERVE ACCESS TO PROPERTY 100' IN WIDTH FROM ADJOINING PROPERTY.

Christopher A. Shaffer
9-23-94

RECEIVED
SEP 23 1994
FAA DEN-ADO

APPROVED — TOWN OF BUENA VISTA, COLORADO — DATE

REV. NO.	DATE	DESCRIPTION	APP.

ISBILL ASSOCIATES INC.
AIRPORT CONSULTANTS • AURORA, COLORADO

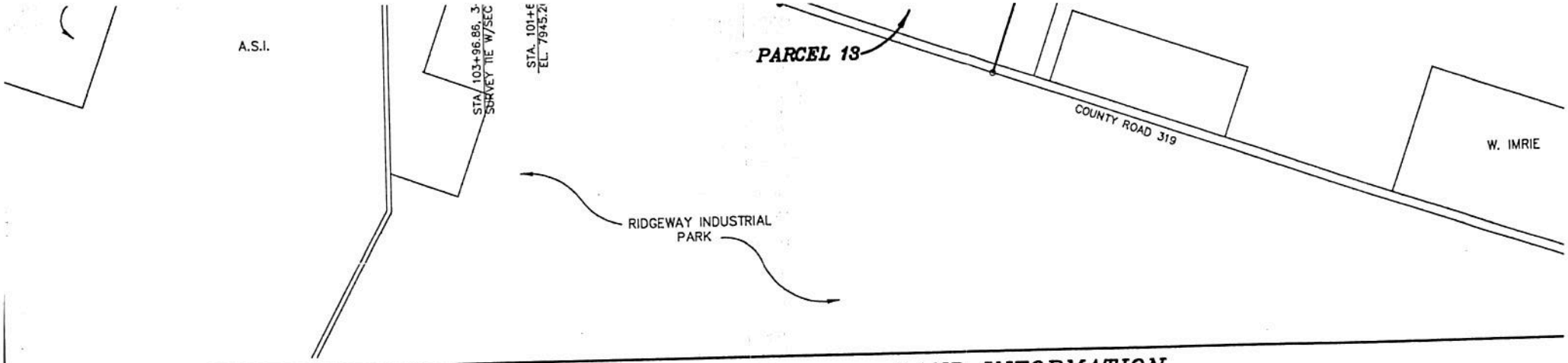
DES. C.J.B.
DR. D.C.C.
CH. N.E.R.
APP. H.G.I.

BUENA VISTA MUNICIPAL AIRPORT
BUENA VISTA, COLORADO

EXHIBIT "A" PROPERTY MAP
FOR A.I.P. PROJECT NO. 3-08-0082-~~03~~ -05

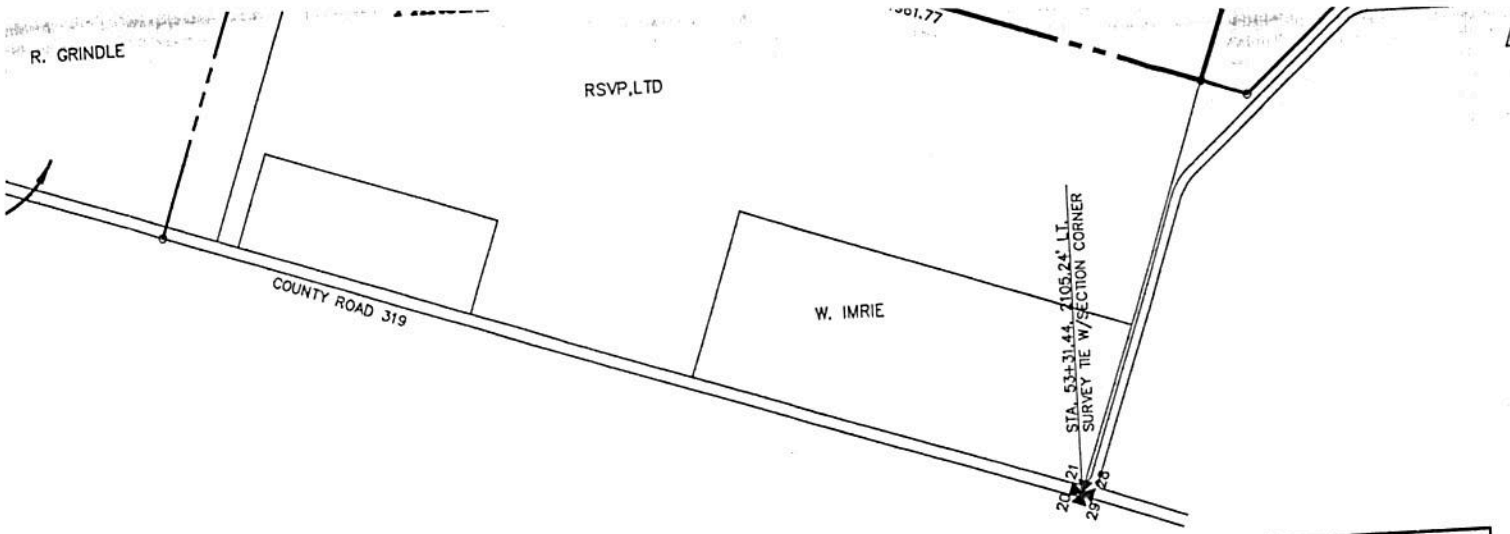
DATE JUNE 1994 — SHEET 1 OF 1

BVA-EXA3.DWG



LAND INFORMATION

PARCEL	TRACT	INTEREST	ACREAGE	FEDERAL PROJECT	USE	RECORDING INFORMATION	OWNER	INST
1		EASEMENT	73.6±	NON-FEDERAL	AERONAUTICAL	BOOK 459, PAGE 266	COLO. DEPT. OF CORRECTIONS	EASEMENT DE
2		FEE	13.5±	NON-FEDERAL	AERONAUTICAL	BOOK 365, PAGE 483	TOWN OF BUENA VISTA	WARRA
3		R-O-W AGREEMENT	27.2±	NON-FEDERAL	AERONAUTICAL	BOOK 457, PAGE 912	COLO. DIVISION OF WILDLIFE	R-O-W
4		FEE	1.097	NON-FEDERAL	AERONAUTICAL	BOOK 459, PAGE 224	TOWN OF BUENA VISTA	QUIT C
5		FEE	55.33	AIP 3-08-0082-02	AERONAUTICAL	BOOK 459, PAGE 439	TOWN OF BUENA VISTA	QUIT C
6		FEE	13.033	NON-FEDERAL	AERONAUTICAL	BOOK 464, PAGE 9	TOWN OF BUENA VISTA	QUIT C
7		FEE	0.045	NON-FEDERAL	AERONAUTICAL		TOWN OF BUENA VISTA	QUIT C
8		TO BE ACQUIRED	20.27±					
9		TO BE ACQUIRED	3.88±					
10		TO BE ACQUIRED	7.95±					
11		TO BE ACQUIRED	9.4±				COLO. DIVISION OF WILDLIFE	LEASE
12		R-O-W EASEMENT	27.96±	AIP 3-08-0082-03	AERONAUTICAL		COLO. DIVISION OF WILDLIFE	LEASE
12A		R-O-W EASEMENT	9.70±	AIP 3-08-0082-03	AERONAUTICAL		COLO. DEPT. OF CORRECTIONS	R-O-W
12B		R-O-W EASEMENT	22.66±	AIP 3-08-0082-02				
13		TO BE ACQUIRED	14.42±					
14		TO BE ACQUIRED	4.0±					



LAND INFORMATION

	RECORDING INFORMATION	OWNER	INSTRUMENT	DATE OF AGREEMENT/TERM
TICAL	BOOK 459, PAGE 266	COLO. DEPT. OF CORRECTIONS	EASEMENT DEED & AGREEMENT	AUGUST 8, 1967 – PERPETUAL 1/
TICAL	BOOK 365, PAGE 483	TOWN OF BUENA VISTA	WARRANTY DEED	APRIL 14, 1969
TICAL	BOOK 457, PAGE 912	COLO. DIVISION OF WILDLIFE	R-O-W AGREEMENT	FEBRUARY 23, 1983 – 25 YEARS 2/
TICAL	BOOK 459, PAGE 224	TOWN OF BUENA VISTA	QUIT CLAIM DEED	AUGUST 18, 1983
TICAL	BOOK 459, PAGE 439	TOWN OF BUENA VISTA	QUIT CLAIM DEED	AUGUST 31, 1983 3/
TICAL	BOOK 464, PAGE 9	TOWN OF BUENA VISTA	QUIT CLAIM DEED	DECEMBER 20, 1983 4/
TICAL				
		COLO. DIVISION OF WILDLIFE	LEASE AGREEMENT	
UTICAL		COLO. DIVISION OF WILDLIFE	LEASE AGREEMENT	
UTICAL		COLO. DEPT. OF CORRECTIONS	R-O-W AGREEMENT	
UTICAL				

NOTES:

1. CONDITION THAT TOWN USE LAND FOR AERONAUTICAL ONLY, ENTER INTO AN AIRPORT DEVELOPMENT PROGR
2. FOR PUBLIC USE AIRPORT FACILITIES ONLY; RESTRICT
3. CONDITION THAT TOWN PROVIDE 60' ROAD EASEMENT CLAUSE SUBJECT TO USE OF PROPERTY ONLY FOR P PURPOSE.
4. GRANTORS RESERVE ACCESS TO PROPERTY 100' IN ADJOINING PROPERTY.

REV. NO.	DATE	DESCRIPTION