



CARBON COUNTY AIRPORT MASTER PLAN 2017











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EXECUTIVE SUMMARY

→ Carbon County Airport (FAA identifier = PUC) is owned and operated by Carbon County, Utah. The County is the airport sponsor.

→ This Airport Master Plan was undertaken with a grant issued by the FAA as well as by the County. The Master Plan was prepared in accordance with pertinent FAA advisory circulars and other guidance documents.

 \rightarrow PUC is classified by the FAA as a general aviation airport, which means that it does not accommodate airline service. The airport is served by daily regional freight service to/from Salt Lake City International (SLC) by turboprop aircraft (such as the Beech 99 and Cessna Caravan).

 \rightarrow PUC has a two-story terminal building/hangar that is occupied by the FBO, Redbird Aviation. Redbird also operates the airport on a day-to-day basis for the County.

Table ES-1 Runway Data								
Runwa y	Size	Approach	Lights	Visual Aids	Taxiway			
1-19	8,310' x 100'	Rwy 1: Instrument Landing System (ILS). GPS & VOR non-precision. Rwy 19 Visual	HIRL. Rwy 1 – MALSF. Rwy 1 – REIL Rwy 19 - REIL	Rwy 1 PAPI (4) Rwy 19 PAPI (2)	Full parallel			
15-33	4,514' x 75'	Visual	MIRL	Rwy 1 PAPI (4) Rwy 19 PAPI (2)	No			
8-26	3,150' x 75'	Visual	No runway lights. Rwy 8 & 26 – REIL	Rwy 8 & 26 PAPI (2)	No			
Notes: HIRL = high intensity runway lights. MIRL = medium intensity runway lights. MALSF = medium intensity approach light								

→ There are three paved runways, summarized below:

system with sequenced flashing lights. REIL = runway end identifier lights. PAPI = precision approach path indicator lights: (2) = 2 boxes; (4) = 4 boxes. → There is a very high frequency (VHE) omni directional radio (VOR) transmitter situated on the

 \Rightarrow There is a very high frequency (VHF) omni directional radio (VOR) transmitter situated on the airport between Runway 1 and 33, that serves as a navigation aid for pilots enroute in the vicinity of PUC, as well as for pilots landing at PUC.

✤ FAA records indicate that in 2015 there were 15 based aircraft at PUC, and approximately 4,430 aircraft operations (takeoffs and landings) per year, or approximately 12 operations per day on average.

→ PUC meets FAA design standards for Airport Reference Code (ARC) C-II, which means it can accommodate all piston-engine GA airplanes, as well as mid-size corporate turboprops and jets such as the Beech King Air 350, TBM-700/800/930, Pilatus PC-12, Cessna Grand Caravan, Cessna Citation CJ-3, Excel, X, Challenger 604/300/350, and Hawker 800 (see Figure ES-1). Larger jets such



as the Gulfstream G-IV and Global Challenger also occasionally use PUC, but do not generate sufficient activity to meet FAA's 'substantial use threshold' of 500 itinerant operations per year.



FIGURE ES-1 RUNWAY DESIGN CODE (RDC)

 \Rightarrow Runway 1-19 accommodates approximately 90% of all aircraft operations. Runway 15-33 and 8-26 are valuable for operations during strong crosswinds at certain times of the year, and also serve as overflow parking for firefighting aircraft during strong fire seasons.

 \Rightarrow The forecasts of demand analyzed several scenarios that could affect future activity at PUC. The analysis concluded that FAA's Terminal Area Forecast (TAF) of approximately 4,431 annual operations (takeoffs and landings) through 2036 is consistent with historic trends, general aviation industry trends, and also anticipated business activity at the airport. For example, the analysis noted that the basing of a corporate flight department, opening a flight school, or basing a military aviation unit at PUC could significantly increase activity levels, but concluded that those events have a low probability of occurring based on present trends. The preferred forecast scenario projected that based aircraft would increase from 15 based aircraft in 2015 to a total of 22 by the year 2036.



 \rightarrow The operational capacity of the runway and taxiway system exceeds the existing and projected activity, and as a result there are no operational delays at the airport, which was also confirmed by the airport user survey.

→ Mapping was prepared by Woolpert, Inc. to FAA's Airport Geographic Information System (AGIS) standards, and was uploaded on FAA's web site and accepted and approved by the FAA and the National Geodetic Survey (NGS). The mapping was used as the basis for developing the Airport Layout Plan (ALP) drawing set to FAA Standard Operating Procedures 2.00 and 3.00.

 \Rightarrow Based on the forecasts of demand, it is recommended maintaining the airport's facilities to FAAs ARC C-II design standards. In addition, it was recommended that the three runways be maintained at their current size, and with their current instrument and visual approach procedures. In addition to meeting FAA design standards, airport users indicted that the runways are adequate for their purposes, and that the precision ILS approach to Runway 1 met their current and future needs.

 \Rightarrow Lowering the visibility minimums on the ILS Runway 1 by 1/4 mile (from 3/4 to 1/2 mile) would require extending the existing MALSF approach light system to the south, to upgrade it to a MALSR (with runway alignment indicator lights). Due to the sloping terrain south of the airport it would be expensive to extend the existing MALSF, and the potential benefit in terms of reducing the visibility minimums by 1/4 mile do not justify the cost. Airport users indicated that they do not need the visibility minimums reduced by 1/4 mile.

 \Rightarrow Airport users did indicate a need for better radar coverage and communications with Salt Lake Center air traffic control facility. Those improvements would need to be implemented by the FAA. In addition, airport users requested that FAA develop and distribute terminal weather forecasts (TAF) for PUC, which would be beneficial for all airport users, particularly those that operate under 14 CFR Part 135.

→ The Master Plan identified the need for up to five new corporate/box hangars, approximately 80' x 80' in size. The hangars would be constructed north of the terminal building, in the area where the County had previously installed underground utilities (see Figure ES-2, Recommended Airport Development Plan). A new paved taxilane would need to be constructed to serve the hangars. The taxliane could be constructed by the County, a portion of which would be eligible for FAA grants, or it could be constructed by private parties. Since it is anticipated that the hangar development, and the size of individual hangars, will depend on the demand expressed by developers/aircraft owners. An extension is also shown on the south side of the paved aircraft parking apron that could accommodate a future corporate hangar, or potentially six T-hangars, or else additional parking for based and transient aircraft, depending on the specific demand expressed by aircraft owners.

 \Rightarrow The Master Plan identified approximately three parcels (approximately 56.5 acres of land) on the east side of the airport to be designated as surplus in relation to future aeronautical purposes, which could be developed for non-aeronautical uses such as light industrial, commercial, etc. (Figure ES-3). The County must ensure that all non-aeronautical development be fully compatible with aircraft and



airport activities and operations, and that the revenue generated by non-aeronautical development be dedicated to the airport for operations, maintenance, and capital improvements. The southern-most parcel(12.5 acres), between Runway 1 and 33, can only be developed after the FAA shuts down the Carbon VOR transmitter. FAA has given no schedule for decommissioning the Carbon VOR.



FIGURE ES-2 RECOMMENDED AIRPORT DEVELOPMENT PLAN

FIGURE ES-3 NON-AERONAUTICAL DEVELOPMENT PLAN





 \Rightarrow The FAA requires that Master Plans include a reuse, recycle, and waste management plan. The Master Plan included best practices adopted at other airports regarding reuse, recycling and waste management programs, as well as recommendations made by the FAA.

→ The Airport Layout Plan (ALP) is graphic depiction of the existing and proposed airport facilities. The ALP set consists of a number of drawings, to scale, depicting various aspects of the existing and proposed airport facilities, as well as the airspace and land use on and in the vicinity of the PUC Airport. The ALP drawing set was developed based on the AGIS mapping prepared by Woolpert, and was prepared in accordance with FAA Standard Operating Procedures 2,00, Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs), and SOP 3.00, Standard Procedure for FAA Review and Approval of Exhibit A Property Maps. The Title Sheet was signed by Carbon County as the airport sponsor, and the Airport Layout Plan drawing was signed by the FAA.

 \rightarrow PUC Airport's Capital Improvement Plan (CIP) was updated to include the projects recommended in the Master Plan. Existing projects such as rehabbing Runway 15-33 and on-going airfield maintenance were kept in the CIP. It was noted that FAA's share of eligible costs of future improvement projects is subject to requirements adopted by the U.S. Congress as the FAA's Airport Improvement Program (AIP) is reauthorized. The current Airport Improvement Program is authorized and funded through September 30, 2017. When a new AIP is adopted by Congress it could incorporate changes in funding levels, project eligibility criteria, priority ranking system, etc., which could impact funding availability for future projects at PUC.

 \rightarrow The airport's financial situation was examined. It was noted that airport-related revenue could be increased by increasing rates and charges on land and building leases, consistent with FAA policies regarding leases. The FAA grant assurances require airports to be as financially self-sufficient as possible. FAA policies also limit lease terms to a maximum of 50 years, and strongly recommend shorter lease terms to provide more control over land uses on an airport by sponsors. However, increases in airport fees (landing, tiedown fuel flowage, and land leases) could also negatively impact activity levels since airports and FBOs operate in a competitive environment. FAA requires that land and other leases for non-aeronautical tenants be based on fair market value (FMV).



1.0 INTRODUCTION

Carbon County Regional Airport (PUC or the Airport) is a public-use airport, owned and operated by Carbon County, Utah. The County has accepted Federal Aviation Administration (FAA) grants for airport improvements, and is therefore obligated to meet FAA requirements in the Sponsor Grant Assurances, advisory circulars, and FAA orders.

As noted in Chapter 1 of the FAA's AC 150/5070-6B, *Airport Master Plans*: "The elements of a master planning process will vary in complexity and level of detail, depending on the size, function, issues, and problems of the individual airport. The technical steps described in this AC are generally applicable, although each step should be undertaken only to the extent necessary to produce a meaningful product for a specific airport. The sponsor, the sponsor's consultant, and FAA representatives must carefully prepare a scope of work that reflects the circumstances (and requirements) of the individual airport."

The FAA requires that sponsors update their airport master plans on a regular basis, and that each airport master plan produce the following items:

- Forecasts of aviation demand approved by FAA
- Airport Layout Plan (ALP) signed by the FAA and Carbon County
- Airport Capital Improvement Plan (CIP)
- Airport Recycling, Reuse, and Waste Reduction Plan

The FAA formally approves the forecasts of aviation activity and the ALP. FAA approval of the ALP is accompanied with a set of conditions, including the need to obtain necessary environmental review and approvals, as well as the availability of federal funding. FAA also notes that its approval of an ALP is not a commitment to implement any of the projects shown on the ALP.

This Master Plan specifically addresses the dynamics in the aviation industry, the impact that trends in the local economy have had on demand for aviation services, and examines potential future aviation activity trends and airport facility needs.

This Master Plan and the accompanying ALP are being prepared in accordance with FAA regulations, Advisory Circulars (ACs) and guidance, including:

- FAA's Airports Standard Operating Procedure (SOP), Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs) (ARP SOP 2.00)
- FAA's Airports Standard Operating Procedure (SOP) for FAA Review and Approval of Exhibit 'A' Airport Property Inventory Maps (ARP SOP 3.00)
- FAA AC 150/5070-6B, Airport Master Plans
- AC 150/5300-13A, Airport Design
- AC 150/5060-5, Airport Capacity and Delay
- AC 150/5325-4B, Runway Length Requirements for Airport Design



- AC 150/5300-16A, -17C, -18B, Aeronautical Surveys, Airport Geographic Information Systems (AGIS)
- 14 CFR Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace
- FAA Order 5100.38D, AIP Handbook
- FAA Order 1050.1E, Environmental Impacts: Policies and Procedures
- FAA Order 5050.4B, NEPA Implementing Instructions for Airport Actions

1.1 Master Plan Study Goals

The goals of the PUC Master Plan include the following:

- Ensure that PUC is currently and will remain in compliance with all appropriate FAA design standards, guidelines, and requirements.
- Ensure that PUC continues to operate safely and efficiently.
- Ensure that PUC continues to meet the needs of its users.
- Provide a useful and practical planning tool for the County.
- Ensure that the planning process is transparent and provides a forum for all interested parties to express their opinions about PUC and its future.

1.2 Master Plan Key Issues

The FAA strongly recommends that master plans be tailored to each individual airport. The PUC Master Plan is focused on the following specific issues:

- Define the Airport's infrastructure needs to accommodate existing and future activity.
- Analyze the Airport's ability to attract businesses, including competition from other airports
- Identify the highest and best use of current airport facilities.
- Define the optimum location for new airport facilities considering airport operational needs, FAA airport design standards, financial impacts.
- Analyze whether to designate PUC as a Community Development Area (CDA)¹ and recommend non-aeronautical land uses to increase revenues in those areas designated as surplus for aviation purposes.
- Present an airport financial plan consistent with FAA's stipulation that airports should be as financially self-sufficient as feasible.

1.3 Inventory Summary and Conclusions

- PUC meets FAA's airport design standards for airport reference code C-II, and the Airport can safely accommodate general aviation aircraft up to and including corporate jets and turboprops.
- Airfield operational capacity (the runway/taxiway system) exceeds existing demand.

¹ CDA is defined by the State of Utah for the purpose of creating a public benefit through community development.



- PUC currently accommodates a wide range of general aviation and corporate aircraft and helicopters, including a variety of firefighting fixed-wing aircraft and helicopters.
- Runway 1-19 accommodates 95% of all takeoffs and landings (operations). Both Runway 8-26 and 15-33 are also used by operators, particularly during periods of strong winds from the west and east.
- The length of Runway 1-19 (8,312 feet) is adequate for the existing operators and type of aircraft at the Airport.
- Aircraft operations and based aircraft are estimated to have declined between 2008 and 2015.
- The existing Runway 1 ILS precision instrument approach, and its current approach minimums of 200 feet and ³/₄ mile is adequate for the Airport's users.
- There is both hangar storage and aircraft tie-down capacity currently available, as well as utility hook-ups for future hangars.

1.4 Airport History

As noted in the Utah State History: "After World War II, Carbon County renewed its efforts to enlarge the airfield, constructing, with federal help and matching funds from state and county, a new runway and extending the other runways so larger planes could use the facility. In October 1948 construction crews finished the new runways. An airshow sponsored by the Carbon County Commission, featured planes from the U.S. Air Force, Castle Valley Flying Service, and Carbon-Emery Flying Service.

A little over a year later it became necessary to widen the taxi strip to the hangars as a safety measure in handling large planes. By 1951, the County had opened an airport in East Carbon for a short time. For several years the county leased the Price airport to a manager, who received his compensation from fees obtained through airport business. For many years, E.L. "Buck" Davis promoted and ran the airport.

Soon the County was in the midst of an energy boom that placed unusual demands on the small airport, including use by corporate jets. Some local businessmen also began chartering flights and taking flying lessons. The Carbon-Emery Aviation Company purchased two new airplanes for charter and rental, hired a chief pilot and a flight instructor, and began a modest advertising campaign. Trans West Airline wanted to expand its air services, including passenger service, to the Price airport. The airport manager told the County Commission that his facilities were too small and that he needed a commuter terminal. All of this activity stopped with the end of the energy boom, however, and the airport settled down into its former routine."

1.5 PUC Airport Role and Function

The FAA classifies PUC as a general aviation (GA) airport, which means it does not have scheduled airline service. Its role is Basic, which FAA defines as: "Supports general aviation activities, often serving aeronautical functions within the local community such as emergency response and access to remote communities. These airports have moderate levels of activity with an average of 10 propeller-driven (based) aircraft and no (based) jets."



The Utah Continuous Airport System Plan also classifies PUC as a GA airport, and its role as Regional. The Utah System Plan defines Regional as: "General Aviation Regional Airports (GA Regional) serve and support the local and regional economies and connect them to the state and national economies. Regional airports serve primarily general aviation activity, with a focus on serving business activity including jet and multi-engine aircraft. FAA Reliever airports are categorized as Regional. These airports support the system of International and National airports and should provide significant coverage to the state's population."

Airport Criteria	Minimum Objectives			
ARC	– C-II or greater			
Runway Length	 Accommodate 75% of large aircraft at 60% useful load 			
Runway Width	– To meet ARC			
Runway Strength	 Single-wheel gear - 30,000 lbs., equivalent for dual wheel 			
Taxiway	– Partial Parallel			
Navigational Aids	 Non-Precision Straight-In Approach 			
Visual Aids	– GVGls, REILs			
Lighting	 MIRL, Beacon, Windsock 			
Weather	 Automated Weather 			
Services	 Phone Restrooms FBO - Limited Service Maintenance Facilities - limited service On-site courtesy car Perimeter fencing 			
Facilities	 Terminal with appropriate facilities Hangars - 60% of based fleet and 25% of overnight aircraft Apron - 40% of based fleet and 50% for transient Auto Parking - Equal to 33% of based aircraft Food - Limited service restaurant or vending service 			

TABLE 1-1 - UTAH AIRPORT SYSTEM PLAN'S OBJECTIVES FOR REGIONAL AIRPORTS

Source: UCASPP, 2007, Chapter 3



2.0 INVENTORY

Carbon County Regional Airport (PUC or the Airport), also known as Buck Davis Field, is located in East Central Utah, 108 nautical miles (NM) southeast of Salt Lake City, and three NM east of Price, Utah (**Figure 2-1**). The Airport is owned by Carbon County. The Airport Reference Point (ARP) is Latitude 39° 36' 54.82" N and Longitude 110° 45' 04.06" W¹. PUC's elevation is 5,957.4 feet MSL².



FIGURE 2-1 - PUC LOCATION MAP

Source: Jviation

2.1 Airfield Facilities

PUC has three paved runways: Runway 1/19 is the main runway, and Runways 8/26 and 15/33 operate as crosswind runways. Runway 1/19 has a full-length, paved, parallel taxiway, joined by five connector taxiways. Access to portions of Runways 8/26 and 15/33 is also provided by this taxiway system, but neither crosswind runway has a full parallel taxiway. **Table 2-1** provides additional detail about each runway: size, pavement type and runway design code (RDC). Also see Appendix 2 for pertinent FAA data on PUC airport facilities.

² Airnav. (15 October 2015). Carbon County Regional Airport/Buck Davis Field. Retrieved from http://www.airnav.com/airport/KPUC



¹ Carbon County 2002 ALP

FIGURE 2-2 - PUC AIRPORT LAYOUT



Source: PUC ALP, Jviation

TABLE 2-1 - PUC RUNWAY INFORMATION

Runway	Length (ft)	Width (ft)	Pavement Type	Pavement Condition Index (PCI)	Condition	Runway Design Code (RDC)
1/19	8,312	100	Grooved Asphalt	100	Good	CII-4000
8/26	3,150	60	Asphalt	100	Good	BI-Visual
15/33	4,511	75	Asphalt	62	Fair	BII-Visual

Source: Form 5010

Currently, each runway is in compliance with FAA's design standards for its specific runway design code (RDC), as shown in **Table 2-2**, **Table 2-3**, **Table 2-4**. The elements bolded in the tables below apply to PUC. The RDC consists of three components; the first is the aircraft approach category (AAC), which relates to the aircraft's approach speed when landing. The aircraft design group (ADG) is based on the aircraft's wingspan or tail height (whichever is most restrictive). The final criteria is the lowest visibility minimums to each runway end based on the instrument approach procedure in place.



TABLE 2-2 - AIRCRAFT APPROACH CATEGORY (AAC)

AAC	Vref/Approach Speed
Α	Approach speed less than 91 knots
В	Approach speed 91 knots or more but less than 121 knots
С	Approach speed 121 knots or more but less than 141 knots
D	Approach speed 141 knots or more but less than 166 knots
E	Approach speed 166 knots or more

Source: FAA AC 150/5300-13A, Airport Design AAC = aircraft approach category

Group #	Tail Height (ft [m])	Wingspan (ft [m])
I	< 20′ (< 6 m)	< 49' (< 15 m)
Ш	20′ - < 30′ (6 m- < 9 m)	49' - < 79' (15 m - < 24 m)
Ш	30′ - <45′ (9 m - < 13.5 m)	79' - < 118' (24 m - < 36 m)
IV	45' - < 60' (13.5 m - < 18.5 m)	118' - < 171' (36 m - < 52 m)
V	60' - < 66' (18.5 m - < 20 m)	171' - < 214' (52 m - < 65 m)
VI	66' - < 80' (20 m - < 24.5 m)	214' - < 262' (65 m - < 80 m)

TABLE 2-3 - AIRPLANE DESIGN GROUP (ADG)

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

TABLE 2-4 - VISIBILITY MINIMUMS

RVR (ft)	Instrument Flight Visibility Category (statue mile)
5,000	Not lower than 1 mile
4,000	Lower than 1 mile but not lower than 34 mile
2,400	Lower than 3/4 mile but not lower than 1/2 mile
1,600	Lower than 1/2 mile but not lower than 1/4 mile
1,200	Lower than 1/4 mile

Source: FAA AC 150/5300-13A, Airport Design RVR = runway visibility range



FIGURE 2-3

A-I A-II B-I **B-II** Beech Baron 58 Beech King Ai C-I **B-III ATR 72** C-II C-III PUC CL 604 Challenger irbus 319 D-II D-IV Boeing 757

RUNWAY DESIGN CODE (RDC)

Source: Jviation

2.1 Airspace and Air Traffic Control (ATC)

There is no air traffic control tower at PUC. As a result, the Airport is situated in FAA-designated Class G airspace, which extends from ground level up to 700 feet above ground level (AGL). Class G is defined by FAA as uncontrolled, meaning that aircraft are not required to obtain an air traffic control (ATC) clearances prior to takeoff or landing at PUC, or while flying in the vicinity of the Airport. Above 700 feet AGL, the airspace transitions to Class E (see **Figure 2-4**). Aircraft are required to obtain ATC clearance when the weather is lower than three miles visibility and/or the ceiling is less than 1,000 feet AGL.

Figure 2-4 also illustrates the high terrain in the vicinity of the Airport. The blue circle is a compass rose, oriented towards magnetic north that represents the Carbon Very High Frequency Omni Radio Range (VOR). The VOR is a transmitter situated on the Airport that is used by pilots to navigate when they are within 40 miles of the VOR.



FIGURE 2-4 - PUC AIRSPACE



Source: SkyVector

There is a Unicom radio frequency for pilots to communicate with one another. The absence of a Control Tower means that there are no day-to-day counts of aircraft activity at the Airport, and therefore most activity levels are estimated versus counted, which is discussed in **Chapter 3**, **Aviation Activity Forecasts**.

Based on FAA's Advisory Circular 150/5060-5, *Airport Capacity and Delay*, the operational capacity of PUC's airfield is estimated to be 230,000 operations per year³ based on its three runways, their configuration, the full parallel taxiway to Runway 1-19, and the type of aircraft operating at PUC. The FAA recently estimated that PUC's annual operations were approximately 4,431⁴ takeoffs and landings, indicating that activity levels are well below operational capacity. This is confirmed by airport users who note that there are no delays to arriving or departing aircraft at the Airport.

One operational constraint reported by airport users is that there is no radar coverage below approximately 8,000 feet (MSL). Radar coverage is provided in that area by Salt Lake Air Route Traffic Control Center (ARTCC). Pilot-ATC communications frequency is 133.9 MHz, via Salt Lake ARTCC's Sunnyside sector. The Center's radar signals are limited by the high terrain. The minimum en route altitudes (MEA) for aircraft flying on instrument flight plans in the vicinity of PUC range from 10,000 feet to 13,000 feet, also due to the high terrain. The limited radar coverage

⁴ Federal Aviation Administration. (2015). APO Terminal Area Forecast Detail Report (Carbon County Rgnl/Buck Davis Field). Retrieved from <u>https://www.faa.gov/data_research/aviation/taf/</u>



³ Federal Aviation Administration. (1983). Airport Capacity and Delay (AC 150/5060-5). U.S. Department of Transportation.

affects the airspace capacity in instrument meteorological conditions (IMC) for aircraft arriving and departing PUC. However, because the prevailing weather is generally visual (VFR), and there are relatively few aircraft arriving or departing on IFR flight plans there are no reported delays due to the lack of radar coverage close to PUC. At altitudes higher than 8,000 feet MSL, pilots can receive radar coverage and communicate with Salt Lake Center Air Traffic Controllers.

2.2 **Obstruction Analysis**

PUC has accepted FAA grants for airport improvements, therefore, the County is legally encumbered by the FAA Sponsor Assurances. Assurance number 20, Hazard Removal and Mitigation, states:

"It *[the airport sponsor - Carbon County]* 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."

The FAA defines all penetrations to imaginary surfaces in the vicinity of an airport as obstacles, and requires airport sponsors to develop a plan to address the penetrations.

The 2005 Airport Master Plan identified relatively few penetrations to the imaginary surfaces in the vicinity of PUC. After that master plan was prepared, FAA adopted the Airports Geographic Information System (AGIS) program. Airports GIS helps the FAA collect airport and aeronautical data needed to meet the demands of the Next Generation National Airspace System (NextGen). FAA requires all airports preparing airport master plans to compile survey and mapping to the AGIS standards. The data is used by FAA Flight Procedures to develop new and update existing instrument approach procedures.

PUC undertook AGIS mapping prior to beginning the airport master plan, which has since been uploaded on FAA's web site for review and approval. The AGIS mapping was accomplished by Woolpert, Inc. Subsequent to the AGIS mapping, and upon the start of the master plan, Woolpert undertook the additional mapping needed for the master plan's Airport Layout Plan (ALP) drawing set. The new mapping will be used to prepare the airspace drawings as part of the ALP drawing set, as required by FAA. The AGIS mapping did identify penetrations to the imaginary surfaces, some of which are high terrain situated away from the airport.

2.3 Terminal Building and Hangars

PUC is currently served by Redtail Aviation, an FBO that provides multiple services, including both full and self-serve fuel, tie-downs and hangars for transient aircraft, as well as minor airframe and power plant maintenance. Redtail has been located at PUC for many years, and occupies the terminal building and attached hangar. The terminal building and hangar are owned by Carbon County and leased to Redtail.



PUC has three T-Hangars on the south side of the main ramp, all of which are owned by the County (**Figure 2-5**). Two Quonset buildings sit just north of the T-hangars. The larger of the two is occupied by aircraft, while the other contains offices.

The terminal building and hangar, occupied by Redtail Aviation, has offices and space for passengers and pilots to wait before or after flights. Most recently built was the "CAP Hangar", next to the FBO terminal. The northern most building consists of four separate hangars. Additional information can be found in **Figure 2-5** and **Table 2-5**.





Source: Jviation

The North Hangar and CAP Hangar are connected to one septic system, while the FBO, cottage and pavilion are connected to a separate septic system. The City of Price does have a sewer line, but currently it does not go out to the Airport.

Although most hangars are in good condition, it is shown in the previous ALP that the T-Hangars should be replaced or relocated. The main restriction on development would be the septic-tank capacity.



2.4 Utilities

The airport is served by a number of utilities. See **Table 2-5** for a list of the utilities. PUC extended water, sewer, and electrical hook-ups to the area north of the terminal building, behind existing hangars, for future development.

Building	Owner	Condition	Size	Water	Sewer	Electric	Cable	Natural Gas
T-Hangar (3)	County	Poor	756 sf ea.	*		Х		
Quonset (Larger)	County	Fair	2,640 sf			Х		
Quonset (smaller)	County	Fair				Х		
Sun Shade for Fuel Trucks	County	Very Good				Х		
Pavilion	County	Good		Х	Х	Х		
Airport Cottage	County	Fair		Х	Х	Х	Х	Х
Main FBO Hangar	County	Good	10,000 sf	Х	Х	Х	Х	Х
CAP Hangar	County	Very Good	1,620sf	Х	Х	Х		Х
Northern Hangar	Private	Very Good	6,480sf	Х	Х	Х		Х

TABLE 2-5 - BUILDINGS AND UTILITIES

Source: Jviation

*Two of the T-Hangars have water hook-ups, but one does not

2.5 Airport Support Facilities

PUC's fuel farm is located between the FBO and the Quonset buildings, as shown in **Figure 2-5**. The fueling equipment is operated by Redtail Aviation, but owned by PUC. Currently there are two gallon above ground storage tanks (one tank for 100LL and one for Jet A). The FBO also utilizes one 3,000 gallon Jet A truck and one 1,000 gallon Avgas 100LL truck.

Carbon County owns and operates the airport maintenance equipment (mowers, snow removal equipment, etc.).

2.6 Airport Ground Access, Circulation, and Parking

PUC Airport is located 3.2 miles east of downtown Price. Airport Road serves as the primary ground access between Price and the airport. Route 191 is the primary north-south road serving Price. Northeast of Price, Route 191 connects with Route 6 and I-15 to Provo and Salt Lake City. A paved lot for vehicle parking is adjacent to the terminal building, as well as a large dirt parking lot, as shown in Figure 2-5. The parking lot is not marked or striped, and the parking capacity is approximately 30 vehicles.



2.7 Meteorological Data

Wind speed and direction at PUC has been collected and interpreted in the wind rose charts below. Crosswind coverage up to 16 kts. in all weather conditions is 95.35%⁵, exceeding FAA's minimum requirements of 95%. **Figure 2-6** and **Figure 2-7** show the wind roses for All Weather and IFR Weather. Runway 1-19, alone, provides better than 95% wind coverage for allowable crosswinds of 10.5 and 13 knots.

FIGURE 2-6 - PUC RW 15/33 & RW 1/19 ALL WEATHER WINDROSE



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

⁵ FAA Airports GIS Program. (2015). Retrieved from http://arp-govcloud.jvs.aero:8080/windRose/; Federal Aviation Administration. (26 February 2014). Airport Design (AC 150/5300-13A, Appendix 2). U.S. Department of Transportation.





FIGURE 2-7 - PUC RW 15/33 & RW 1/19 IFR WINDROSE

Sources: NCDC and FAA AGIS Wind Rose Form, <u>https://airports-gis.faa.gov/airportsgis/publicToolbox/windroseForm.jsp</u>



Weather Type	Runway	10.5 knots	13 knots
VFR Weather	01	84.8%	87.94%
	19	72.96%	74.88%
	01/19	91.6%	95.2%
IFR Weather	01	94.66%	95.71%
	19	91.32%	91.97%
	01/19	97.04%	98.35%
All Weather	01	85.31%	88.36%
	19	73.96%	75.84%
	01/19	91.87%	95.35%

TABLE 2-6 - RUNWAY 1/19 WIND ANALYSIS

TABLE 2-7 RUNWAY 15/33 WIND ANALYSIS

Weather Type	Runway	10.5 knots	13 knots
	15	74.16%	74.97%
VFR Weather	33	87.13%	88.98%
	15/33	95.48%	97.66%
	15	90.97%	91.28%
IFR Weather	33	93.59	94.2%
	15/33	98.09%	98.7%
	15	75.02%	75.81%
All Weather	33	87.44%	89.24%
	15/33	95.57%	97.7%

Weather Type	Runway	10.5 knots	13 knots
	08	81.08%	82.52%
VFR Weather	26	85.22%	88.03%
	08/26	92.67%	96.01%
IFR Weather	08	92.5%	93.08%
	26	86.74%	87.64%
	08/26	97.27%	98.45%
	08	81.61%	83.02%
All Weather	26	85.29%	87.98%
	08/26	92.91%	96.14%

PUC's weather is reported by the on-field Automated Surface Observation System (ASOS). The ASOS gives the current weather data within a five-mile radius of the airport. Many airports have a Terminal Weather Forecast, which is a forecast for the five-mile area surrounding the airport and is valid for 30 hours. The FAA does not currently prepare a Terminal Weather Forecast for PUC. This can adversely impact aircraft operators, particularly those operating under FAR Part 135, flying into



the airport in instrument (IFR) conditions. Operators have indicated a need for Terminal Weather Forecasts at PUC.

2.8 On-Airport Navigation Aids (NAVAIDs)

Table 2-9 lists the radio navigation aids (NAVAIDS) and lighting situated on PUC, by each runway. In addition to the ground-based navigation aids listed, pilots also use satellite-based GPS for navigating in the vicinity of PUC. Only Runway 1 has published instrument approach procedures, including a precision Instrument Landing System (ILS), GPS RNAV, and VOR approach (Appendix 1). Aircraft using those instrument approaches can circle to land on other runways, depending on wind conditions. All of the runway ends other than Runway 1 are classified by the FAA to be visual. The instrument approach charts note that circle-to-landing at night on Runway 8/26 is not allowed because it is not lit.

Runway	NAVAID	Lighting
1/19	Rwy 1: ILS/DME, VOR/DME, GPS RNAV	HIRL, PAPI Rwy 1 & 19 Rwy 1 - MALSF
8/26	None	PAPI/REIL
15/33	None	MIRL

TABLE 2-9 - NAVIGATION AND LIGHTING AIDS

Sources: FAA Form 5010, FAA Airport Facility Directory, Jviation

PAPI = Precision approach path indicator lights; MALSF = medium intensity approach lights with sequenced flashers; REIL = runway end identifier lights; MIRL = medium intensity runway lights; HIRL = high intensity runway lights; ILS = (precision) instrument landing system; DME = distance measuring equipment; VOR = very high frequency radio range; GPS = global positioning system; RNAV = area navigation

The Carbon VOR-DME (Very High Frequency Radio Range) navigation transmitter is used by pilots to navigate in the vicinity of PUC. It is classified by the FAA as a high altitude VOR which means it is used to define both low and high altitude victor airways and jet routes used by aircraft on instrument flight plans. The transmitter antenna is situated on the airport between the Runway 33 and Runway 1 thresholds. The FAA has defined a critical area around the antenna of 1,000-foot radius within which no other objects should be erected in order to prevent interference with the VOR signals.

NAVAIDS at the airport are currently sufficient for the type and volume of traffic the airport receives, according to airport users. The FAA's Instrument Flight Procedures (IFP) Production Plan does not list any additional instrument approaches at PUC, or modifications to the existing published instrument approaches.

2.9 Environmental Overview

The FAA AC 150/5070-6B, *Airport Master Plans* states, "The principal objective of an environmental overview is to document environmental conditions that should be considered in the identification and analysis of airport development alternatives.". This section will address various environmental factors that specifically apply to PUC.



FAA Order 1050.1F, *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 PUC. The following environmental categories are not discussed as they are not relevant to PUC and/or they relate to impacts from a specific project.

- Coastal Resources
- Climate
- Socioeconomic, Environmental Justice, and Children's Environmental Health and Safety Risks

2.9.1 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 (CAA) of 1970⁶, the 1977 Clean Air Act Amendments⁷, the 1990 Clean Air Act Amendments⁸, and the National Ambient Air Quality Standards⁹ (NAAQS). In particular, 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 (NO₂), ozone (O₃), particulate matter (PM-10 and PM-2.5), and sulfur dioxide (SO₂).

All areas within the State of Utah are designated with respect to the NAAQS as being in attainment, nonattainment, maintenance, or unclassifiable. An area with air quality better than the NAAQS is designated attainment, while an area with air quality worse than the NAAQS is designated nonattainment. An area may also be designated unclassifiable when there is a lack of data to form a basis of attainment status.

PUC is located in Carbon County, which is currently designated as an attainment area for NAAQS.

2.9.2 Biological Resource (Including Fish, Wildlife, and Plants)

Requirements have been set forth by The Endangered Species Act¹⁰, The Sikes Act¹¹, The Fish and Wildlife Coordination Act¹², The Fish and Wildlife Conservation Act¹³, and the Migratory Bird Treaty Act¹⁴, 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.

¹⁴ Migratory Bird Treaty Act of 1981, 16 U.S.C §703-712



⁶ U.S. Code. The Clean Air Act of 1970. U.S. Congress, Public Law 91-604, 42 U.S.C. §7401

⁷ U.S. Code. The 1977 Clean Air Act Amendments, U.S. Congress, Public Law 95-95, 42 U.S.C. §7401

⁸ U.S. Code. The 1990 Clean Air Act Amendments, U.S. Congress, Public Law 101-549, 42 U.S.C. §7401

⁹ 40 CFR Part 50, Section 121, National Ambient Air Quality Standard

¹⁰ Endangered Species Act of 1973, U.S. Congress, Public Law 93-205, 16 U.S.C §1531-1544

¹¹ Sikes Act, Amendments of 1974, U.S. Congress, Public Law 93-452

¹² Fish and Wildlife Coordination Act of 1958, U.S. Congress, Public Law 85-624, 16 U.S.C §661-666c

¹³ Fish and Wildlife Conservation Act of 1980, U.S. Congress, Public Law 96-366, 16 U.S.C §2901-2912

It was found that various species listed by the USFWS as being threatened, endangered, or candidates may be found in Carbon County. The identified species are depicted in **Table 2-10**. In addition to the species listed in **Table 2-10**, Carbon County is home to numerous migratory birds and eagles.

Group	Species	Scientific Name	Status
Birds			
	Mexican Spotted Owl	Strix occidentalis lucida	Threatened (Critical Habitat in Carbon County)
	Yellow-billed Cuckoo	Coccyzus americanus	Threatened
Fish			
	Bonytail Chub	Gila elegans	Endangered (Critical Habitat in Carbon County)
	Colorado Pikeminnow	Ptychocheilus lucius	Endangered (Critical Habitat in Carbon County)
	Humpback Chub	Gila cypha	Endangered (Critical Habitat in Carbon County)
	Razorback Sucker	Xyrauchen texanus	Endangered (Critical Habitat in Carbon County)
Flowering Plants			
	Uinta Basin Hookless Cactus	Sclerocactus wetlandicus	Threatened

Source: USFWS, Information, Planning, and Conservation System, Species Report, https://ecos.fws.gov, accessed January 2016

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

Wildlife Management Planning

In addition to the information presented in **Section 2.9.2**, the Utah Department of Transportation (UDOT) prepared a Programmatic Sensitive Habitat Management Plan (HMP) in 2010. The HMP evaluated the potential for federally listed threatened, endangered, or candidate species, or state sensitive species to be present at each Utah Airport. From this report it was found that four species have the potential to occur at PUC. **Table 2-11** depicts the species identified in the HMP.

Common Name	Scientific Name	Status	Habitat Requirements
Burrowing Owl	Athene cunicularia	Wildlife Species of Concern	Usually inhabits open grassland and prairies, but also utilizes other open situations, such as golf courses, cemeteries, and airports; usually nests in mammal burrows, e.g., prairie dog, ground squirrel, or badger
Ferruginous Hawk	Buteo regalis	Wildlife Species of Concern	Open farmlands, grasslands, deserts, and shrub steppes; nest substrates may include trees and shrubs, cliffs, utility structures, ground outcrops, haystacks, or abandoned buildings; high elevations, forests, and

TABLE 2-11 - POTENTIAL FOR SPECIES AT RISK - PUC



Common Name	Scientific Name	Status	Habitat Requirements
			narrow canyons are avoided; however, because of a strong preference for elevated nest sites, cliffs, buttes, and creek banks are usually present
Long-billed Curlew	Numenius americanus	Wildlife Species of Concern	Higher and drier meadowlands than many other shorebird species; four essential nesting habitat requirements are: (1) short grass (less than 30 cm tall), (2) bare ground components, (3) shade, and (4) abundant vertebrate prey; nest in mixed fields with adequate, but not tall, grass cover and fields with elevated points, uncultivated rangelands and pastures
White-tailed Prairie Dog	Cynomys leucurus	Wildlife Species of Concern	Open meadows and grassland with well drained soils and moist herbage; areas of brushy species are avoided

Source: UDOT, Programmatic Sensitive Habitat Management Plan, Volume II, May 2010

2.9.3 Department of Transportation Act, Section 4(f)

The Department of Transportation (DOT) Act, Section 4(f)¹⁵ 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)¹⁶ 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

¹⁶ Vol. 73 Federal Register, page 13395, Mar. 2008.



¹⁵ U.S. Department of Transportation Act, section 4(f), recodified and renumbered as § 303(c) of 49 U.S.C.

impairing the features and attributes (i.e., solitude) that are necessary for the area to be used as an overnight camping area.¹⁷

PUC is located in a rural area, primarily surrounded by privately owned open land, and without any 4(f) properties in close proximity. According to the National Register of Historic Places (NRHP), there are 308 historic properties and archeological sites listed in and near the city of Price, located approximately 3 miles west of the Airport (see **Figure 2-8** for historic properties - archaeological sites not shown). However, none of these listed properties are on or adjacent to airport property.

2.9.4 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 PUC. **Figure 2-9** depicts the soil types on Airport property classified as prime farmland. As shown, PUC is primarily located in an area with soil types designated as "Prime Farmland if Irrigated." However, none of the existing airport property is irrigated or actively being used as farmland.

¹⁷ 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.





FIGURE 2-8 - ADJACENT NATIONAL REGISTER OF HISTORIC PLACES

Sources: Jviation & National Register of Historic Places (National Park Service)







Source: USDA Web Soil Survey Retrieved from <u>http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</u>

2.9.5 Hazardous Materials, Solid Waste, and Pollution Prevention

The Resource Conservation and Recovery Act (RCRA)¹⁸, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)¹⁹, Superfund Amendments and Reauthorization Act (Superfund)²⁰, and the Community Environmental Response Facilitation Act (CERFA)²¹ are the

²¹ U.S. Code 1992, Community Environmental Response Facilitation Act, Public Law 102-426



¹⁸ U.S. Code, 1976, Resource Conservation and Recovery Act, 42 USC, §6901

¹⁹ U.S. Code 1980, Comprehensive Environmental Response, Compensation and Liability Act, 42 USC, §9601-9628

²⁰ U.S. Code 1986, Superfund Amendments and Reauthorization Act, 42 USC

four predominant laws regulating actions related to the use, storage, transportation, or disposal of 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. According to the NPL, no sites are located on or near PUC.

2.9.6 Historical, Architectural, Archeological, and Cultural Resources

The National Historic Preservation Act²² and the Archaeological and Historical Preservation Act²³ 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). As stated in **Section 2.9.3**, the NRHP lists 308 historic properties and archeological sites in and near the city of Price, located approximately 3 miles west of the Airport (see **Figure 2-8** for historic properties - archaeological sites not shown). However, none of these listed properties are on or adjacent to airport property.

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

2.9.7 Land Use and Zoning

The compatibility of land promotes the safety, health, and welfare of both airport users and surrounding neighbors by protecting airspace and ensuring appropriate use of land within airport property boundaries and surrounding an airport. Typically, development actions that may affect surrounding land uses are changes in airport fleet mix and/or the number of aircraft operations, air traffic changes, and new approaches.

According to Carbon County's zoning descriptions and map, the Airport is designated as *I-1 light Industrial*²⁴, as shown below in **Figure 2-10**, and allows for "recreation, farmland or industrial" land uses. Land surrounding PUC is primarily zoned as *M&G Mining and Grazing*²⁵ which allows for agriculture, mining, and other industrial operations.

There are no indications of planned residential or commercial development surrounding airport property.

²⁵ Carbon County Utah Planning and Zoning. (12 March 2013). Carbon County Zoning Descriptions. Retrieved from <u>http://www.carbon.utah.gov/Portals/0/DocsPlanning/Zone%20Descriptions.pdf</u>



²² U.S. Code, 1966, National Historic Preservation Act of 1966, Public Law 89-665

²³ U.S. Code, 1974, Archaeological and Historical Preservation Act of 1974, 16 USC 469

²⁴ Carbon County Utah Planning and Zoning. (12 March 2013). Carbon County Zoning Descriptions. Retrieved from <u>http://www.carbon.utah.gov/Portals/0/DocsPlanning/Zone%20Descriptions.pdf</u>



FIGURE 2-10 - CARBON COUNTY ZONING DISTRICTS MAP

Sources: Jviation & NSGIC GIS Inventory (Ramona Inventory)

2.9.8 Noise and Compatible Land Uses

Aircraft noise is often a contentious issue for neighbors in the vicinity of an airport. The FAA has identified compatible land uses in relation to aircraft noise, and has published 14 CFR Part 150, Airport Noise Compatibility Planning. The FAA acknowledges that airport sponsors typically do not control land uses off-airport, but strongly encourage airports to work with the agencies that adopt zoning ordinances and land use plans to direct compatible land use development near an airport. In general, the FAA, as well as the U.S. Department of Housing and Urban Development (HUD), use the day-night (Ldn) noise metric, and define the 65 Ldn noise contour as the threshold for compatible land uses. Certain land uses, particularly residential, institutional, and outdoor recreational, are not compatible with noise contours that are higher than 65 Ldn. On the other hand, commercial, industrial, agricultural, and transportation land uses are generally compatible with aircraft noise. The land use around Carbon Count Airport is almost exclusively open space,


which is fully compatible with airport and aircraft operations. The 2002 PUC Airport Master Plan developed aircraft noise contours, which did not encroach upon any noise sensitive or incompatible land uses. Aircraft activity levels were higher in 2002 than estimated in 2015, and turbine aircraft noise levels have been reduced over the last 10 years due to new engine technology.

2.9.9 Visual Effects (Including Light Emissions)

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

- Runway lighting (high and medium intensity): lights outlining the runway edges; classified by the intensity or brightness the lights are capable of producing. Runway 1-19 has high intensity lights, and Runway 15-33 has medium intensity lights. The runway lights are activated by pilots via the radio, and remain on for 15 minutes before automatically shutting off.
- Navigational/Approach Lighting: Runway End Identifier Lights (REILs), Precision Approach Path Indicators (PAPIs), and Medium-intensity Approach Lighting System with Sequenced Flashing lights (MALSF), are also activated by pilots using the unicom radio frequency.
- Airport beacon: a rotating light used to locate the airport remains on all night
- Apron/Parking Lights: pole lighting on aprons and parking areas

All sources of light aid in the safe operation of the airport. Because the land use around PUC is open space, and most of the airport lights are on for very limited periods, the light emissions do not adversely affect surrounding land uses.

2.9.10 Water Resources

Water resources, to include wetlands, floodplains, surface waters, ground waters, and Wild and Scenic Rivers, are vital to society. They provide drinking water and support recreation, transportation and commerce, industry, agriculture, and aquatic ecosystems. The resources act together as one integrated natural system, and therefore, impacts to one resource can disrupt the entire system. Water resources in the vicinity of PUC are summarized in the following sections.

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.



According to the U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI), two wetlands and three freshwater ponds occur near PUC²⁶, as shown in **Figure 2-11**. A wetland delineation would need to be completed prior to development to determine if any wetlands occur on Airport property.



FIGURE 2-11 - WETLAND AREAS IN CLOSE PROXIMITY TO PUC

Sources: Jviation, U.S. Fish and Wildlife Service & the National Wetlands Inventory

Floodplains

Executive Order 11988, Floodplain Management²⁷, 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."

According to Flood Insurance Rate Maps (FIRMs) provided by the Federal Emergency Management Agency (FEMA), PUC is located on FIRM panels 49007C0425E, 49007C0700E, and 49007C0657E, all with effective dates of 5/2/2012. The Airport is not located in a floodplain;

²⁷ Executive Order 11988, Floodplain Management, 1977



²⁶ U.S Fish and Wildlife Services. (19 November 2015). [Map of Wetlands near PUC]. Wetlands Mapper. Retrieved from <u>http://www.fws.gov/wetlands/data/mapper.html</u>

however, flood zones A exist to the west. Flood Zone A is a "special flood hazard area subject to inundation by the 1% annual chance flood". The 1% annual flood (100-year flood), has a 1% change of being equaled or exceeded in any given year. The based flood elevations have not been determined for areas within Zone A.

Surface and Ground Waters

The *Federal Water Pollution Control Act*, as amended by the *Clean Water Act (CWA)*²⁸ and the Safe Drinking Water Act, as amended²⁹, protect and regulate Federal actions that have the potential to impact surface and ground waters.

Hayes Wash and Deadman Creek are located to the west of PUC, neither of which contain any flowing waters. No surface waters or groundwater are located within the vicinity of the Airport.

Spill Prevention, Control, and Countermeasures (SPCC) Plan

All facilities that store or have the potential to store more than 1,320 gallons of oil are required, per 40 CFR 112, to have a Spill Prevention, Control, and Countermeasure (SPCC) Plan in place. The Plans are designed to provide preventative measures to ensure that any oil spills are contained and avoid oil spills reaching navigable waters. PUC completed a SPCC Plan in 2012. The Plan includes:

- Basic overview of the Plan
- Overview of existing airport storage facilities and their location
- Discharge prevention, control, countermeasures, disposal & contact list
- Spill report and response procedures
- Spill contingency plan & spill control and removal commitment
- Failure prediction, containment, tanker loading/unloading, transfer operations & pumping, and dike drainage
- Training recommendations and requirements
- Spill prevention procedures and briefings
- Inspections and test/record procedures
- Security of facilities

Wild and Scenic Rivers

The Wild and Scenic Rivers Act, as amended, designates rivers and those eligible to be designated in the Wild and Scenic Rivers System. Wild and Scenic Rivers are designated as "*rivers having remarkable scenic, recreational, geological, fish, wildlife, historic, or cultural values.*" The Department of the Interior (National Park Service, U.S. Fish and Wildlife Service, and Bureau of Land Management) and the Department of Agriculture (U.S. Forest Service) are the oversight agencies for the Wild and Scenic Rivers System. Federal agencies with jurisdiction over lands the border upon, or

²⁹ 42 U.S.C. 300.f.



²⁸ 33 U.S.C. Chapter 26.

are adjacent to any designated rivers, are required to take the necessary actions to protect the rivers, as stated in Section 12 of the Wild and Scenic Rivers Act.

Utah has one river listed in the National Wild and Scenic Rivers System: the Virgin River. Only portions/select tributaries of the Virgin River are designated Wild and Scenic, with the nearest designated portion of the River located approximately 200 miles southwest of PUC.

2.10 Regional Socioeconomic Analysis

The population Carbon County decreased 3.5%³⁰ between 2010 and 2014. Over the same time period, the population of Utah increased 6.5%, with most of the growth occurring in the urban areas of Salt Lake City and Provo. **Figure 2-12** - Utah Population Density by Census Tract gives additional detail about population changes over the past four years in Carbon County and the state of Utah. The State projected that population in Carbon County would increase from 21,403 in 2010 to 23,582 by 2050, a 10% increase over 40 years, or compound annual growth rate of 0.24% per year.



FIGURE 2-12 - UTAH POPULATION DENSITY BY CENSUS TRACT

³⁰ Carbon County Utah State and County QuickFacts. (14 October 2015). Retrieved from <u>http://quickfacts.census.gov/qfd/states/49/49007.html</u>



Source: Jviation, US Census Bureau, Federal Aviation Administration (FAA), Office of the Assistant Secretary for Research and Technology's Bureau of Transportation Statistics (OST-R/BTS) & National Transportation Atlas Databases (NTAD) 2014.

The top five non-farm industries, according to the Economic Development Corporation of Utah³¹, in Carbon County (respectively) are depicted in **Figure 2-13**.



FIGURE 2-13 - CARBON COUNTY TOP FIVE NON-FARM JOB INDUSTRIES

Source: Utah Department of Workforce Services, Jviation. Note: Data from June 2015

Carbon County's unemployment rate fluctuated between 5.1-5.7%³² between 2014 and 2015. Since late 2014 and throughout 2015, the price of energy has dropped significantly. The decline in the price of oil, gas, and coal has resulted in lower retail energy prices, but it has also had a significant impact on energy companies. The drop in energy prices has forced energy companies to greatly reduce costs, such as labor and investment in exploration and production. Analysts anticipate the low prices continuing through 2016, which will likely result in energy companies restructuring or going out of business. Carbon County has historically been dependent on the energy industry. Because of the high volatility of the energy industry and the large number of people employed in this industry in Carbon County, changes in the energy industry directly impact all sectors of the County's economy.

³¹ Economic Development Corporation of Utah. (2015). [Graphics and Tables about the Economy in Carbon County, Utah] Carbon County. Retrieved from <u>http://www.edcutah.org/2015%20County%20Profiles/documents/Carbon.pdf</u>
³² Local Area Unemployment Statistics Map. (2015) Bureau of Labor Statistics. Retrieved from http://data.bls.gov/map/MapToolServlet



FIGURE 2-14 - AVERAGE MEDIAN INCOMES OF UTAH AND CARBON COUNTY (2009-2013)



Source: US Census Bureau- Quick Facts, Jviation

Figure 2-14 compares the median income of Utah to Carbon County³³. Carbon County median household income is about 76% of Utah's median household income.

³³ Carbon County Utah State and County QuickFacts. (14 October 2015). Retrieved from http://quickfacts.census.gov/qfd/states/49/49007.html



FIGURE 2-15 - PUC FY16 CAPITAL IMPROVEMENT PLAN

	Project Description & Cost Estimate													
Scheduled/		Project		Sponsor					Cost Allocation \$					
Requested Federal Fiscal Year	Project Description	Identification in ALP/MP	Comments	Priority Number	Es Co	timated Total ost of Project	F	Federal Participation	NP	Entitlement	State Apportionment	State Participation	F	Sponsor Participation
	Federally Fund	ded Projects						90.63%				4.685%		4.685%
2016	Security Fencing & Gates				\$	277,934	\$	251,892	\$	251,892		\$ 13,021	\$	13,021
2017	Bank GA Entitlement				\$	-						\$-	\$	-
2018	Bank GA Entitlement				\$	-						\$-	\$	-
2019	Bank GA Entitlement				\$	-						\$-	\$	-
2020	Rehabilitate Runway 15/3	3 Pavement	& Lighting		\$	3,475,670	\$	3,150,000	\$	600,000	\$2,550,000	\$162,835	\$	162,835
2021	Bank GA Entitlement				\$	-						\$-	\$	-
2022	Bank GA Entitlement				\$	-						\$-	\$	-
					\$	-						\$-	\$	-
					\$	-						\$-	\$	-
	Participatio	on Totals			\$	3,753,605	\$	3,401,892	\$	851,892	\$2,550,000	\$175,856	\$	175,856
							_					1	—	
-	State Funde	d Projects			7							90.00%	L	10.00%
2017	Pavement Preservation R	W 1/19 & TW	ΥA		\$	250,000						\$225,000	\$	25,000
2019	Pavement Preservation R	W 8/26 & Apr	ons		\$	200,000						\$180,000	\$	20,000
												\$-	\$	-
												\$-	\$	-
	Participation Totals \$ 450,000 \$ 450,000 \$ 405,000 \$ 45,000													
١	Note: Attach additional sheets as necessary to fully describe projects or to add information needed for a full understanding of project scope, location and costs.													

3.0 FORECASTS OF AVIATION ACTIVITY

3.1 Introduction

Aviation forecasting is an important element in an Airport Master Plan. As noted in FAA's Advisory Circular, Airport Master Plans:

"Forecasts of future levels of aviation activity are the basis for effective decisions in airport planning. These projections are used to determine the need for new or expanded facilities. In general, forecasts should be realistic, based upon the latest available data, be supported by information in the study, and provide an adequate justification for airport planning and development. Any activity that could potentially create a facility need should be included in the forecast."

Analyzing current and past aviation activity trends alongside trends within the broader aviation industry and the economy - locally, statewide, and nationally - helps to identify correlations that can be used to develop future outlooks. The forecasting process is a critical component for determining the need for airport facilities such as runways, taxiways, hangars, aprons, terminals and other airport facilities.

A number of unforeseen/unanticipated factors can influence future aviation activity, both positively and negatively. Changes in aviation fuel prices, new airport and airspace security regulations, pilot demographics, as well as changes in the local and regional economy can all affect future activity. For example, changes in the oil and coal markets have greatly impacted energy companies and communities that are dependent on energy resources, such as Carbon County. Those changes have had an impact on some airport activity trends, while at the same time reduced aviation fuel prices have helped stimulate aviation activity.

In addition to the broader trends, local events such as the opening of a new flight school or the basing of a new corporate flight department on the airport could have a significant impact on aircraft operations, as well as airport generated revenue, at Carbon County Regional Airport (PUC or the Airport). But it is difficult to accurately project local and regional triggers that will impact aviation activity levels. Given the potential impact of unanticipated events, it is important for airport sponsors to periodically revisit aviation forecasts on a regular basis, as well as the projects they justified. Analyzing past and current aviation trends, as well as socioeconomic trends, a realistic forecast can be created to determine future needs of PUC.

3.2 Historical and Current Aviation Activity at PUC

Aviation activity levels are estimated at PUC because there is not an Air Traffic Control Tower located at the airport. Estimates are based upon information from the FAA, the Utah Department of Transportation, airport management, the fixed base operator (FBO), as well as airport tenants and

¹ FAA AC 150/5070-6B, Airport Master Plans, Chapter 7, Aviation Forecasts, 701.



users. Surveys of airport management, the FBO, and airport users were conducted as part of this study to collect operational data.

Each year the FAA produces the Terminal Area Forecast (TAF), which is, "prepared (in order) to meet the budget and planning needs of the FAA and provide information for use by state and local authorities, the aviation industry, and the public." The FAA further notes: "The TAF assumes a demand driven forecast for aviation services based upon local and national economic conditions as well as conditions within the aviation industry. Forecasts of itinerant general aviation operations and local civil operations at FAA facilities are based primarily on time series analysis. For non-FAA facilities (such as Carbon County for example), historic operations in the TAF are from the Form 5010 data. These operations levels are held constant for the forecast unless otherwise specified by a local or regional FAA official."²

The FAA's TAF issued for PUC in January 2015 shows both historical activity data between CY 1990 and 2013, as well as forecasted activity between CY 2014 and 2040 (Appendix 3).

The FAA's TAF estimate of aircraft operations between 1990 and 2013 indicate a large decline occurred in 2005, and continued fluctuation in activity between 2006 and 2014 (**Figure 3-1**), but does not explain the cause of the changes. The reconstruction of Runway 1-19 in 2013-2014 impacted activity at PUC. However, the FAA does not explain why the variations in activity occurred in 2005. Typically an event such as a corporate flight department locating at the airport or the opening (or closing) of an FBO or flight school can trigger large changes in activity. The fixed base operator (FBO), Redtail Aviation, has been at PUC for a number of years. Personnel at Redtail Aviation indicated that FAA's estimate of current activity, approximately 4,431 annual operations (or an average of approximately 12 operations per day throughout the year), appears to accurately reflect current activity.





² Source: FAA Terminal Area Forecast Summary, Fiscal Years 2015-2040



Source: Jviation

The FAA's Airport Master Record Form (Form 5010) for CY 2015 estimates traffic levels at PUC (**Table 3-1**). Airport master records are updated either by FAA personnel or representatives from the State DOT Aeronautics agency. They are based on site visits to the airport and discussions with airport management, FBOs, and tenants.

Based Aircra	ft	Operations				
Single Engine (SE)	11	Air Carrier	0			
Multi Engine (ME)	0	Air Taxi	1,200			
Jet (J)	0	General Aviation Local	1,533			
Total Fixed Wing	11	General Aviation Itinerant	1,698			
Helicopters	0	Military	0			
Gliders	0	Total Operations	4,431			
Military	0					
Ultra-light	0					

TABLE 3-1 - 2015 AVIATION ACTIVITY AT PUC

Carbon County Regional Airport is a general aviation (GA) airport which means that it does not accommodate scheduled airline activity. There is a daily cargo flight between PUC and Salt Lake City International Airport (SLC) by turboprop aircraft. General aviation is a broad term that encompasses many different types of aviation activities, many of which are listed in **Table 3-2**.



Personal/Discretionary Flying
Part 135 Air Taxi/Charter
Flight Training
Firefighting
Air Freight
Corporate (Business)
Aerial Survey/photography/filming
Emergency medical services (EMS)
Law Enforcement
Construction support/external load
Agricultural seeding/spraying/herding

Source: Jviation

The FBO, Redtail, Aviation, has noted that activity levels at PUC increase greatly during fire season, with activity at PUC proportional to the size of the fires and extent of aerial firefighting services



Source: PUC Form 5010, Jviation. Operations data for 12 months ending 01/01/2012

needed. During a busy fire season as many as 10 or more firefighting aircraft (both fixed wing and helicopters) are stationed at the Airport. During a recent large fire season, Redtail Aviation reported parking aircraft on seldom used taxiways and having to close one runway for a short period of time.

Firefighting aircraft are stationed at PUC only as long as needed to fight the fires. The U.S. Forest Service brings a number of their own aircraft support equipment with them, including fuel for helicopters. It is anticipated that the Forest Service will continue to stage aircraft and helicopters at PUC during fire season on an as-needed basis, although it is difficult to predict the volume of activity year-to-year. Based on recent large fire seasons, there is adequate operational and storage capacity at PUC to accommodate the necessary firefighting aircraft.

Although there is no air traffic control tower at PUC, the FAA and several flight tracking firms compile data from flight plans filed by pilots with the FAA. The data indicates the make and model of aircraft, the aircraft registration number, and the origin and destination of individual flights. Flight tracking companies also use the registration data to identify aircraft owners.

As shown below, aircraft fly non-stop to and from Carbon County throughout the United States. Because there are no U.S. customs or immigration services available at PUC, there are very few international flights at the Airport. According to the flight plan data, the companies, agencies, and aircraft owners that flew into the Airport include those listed in **Table 3-3**.

Airport	Airport Users					
Condie Air LLC	Metair LLC					
Banc Of America Leasing & Capital LLC	Pacificorp					
Cardan Air LLC	Rivers Aviation LLC					
Flax Services Corp	Spectrum Air LLC					
Land Rover Denver East Inc	Utah Dot					
Happytails Aviation LLC	Surgimark Inc					
Maverick Aircraft Leasing LLC	Terwedo Financial Services LLC					
Aero-Graphics Inc	Wcao Aviation LLC					
Wilkinson Rose Investments Inc	Wkc Corporation					
Ihc Health Services Inc	Mar-Tech Engineering LLC					
Titanium Luxury Club LLC	U.S. Department Of Agriculture					
Utah Valley State College	Wagner Equipment Co					
Hunt Consolidated, Inc.	Utah Division Of Wildlife Resources					
Strata Medical LLC	Usda Forest Service					
Redtail Aviation	Avtrade Trustee					
California Natural Products	Duenkel Enterprises Inc					
Fnb Investments Inc	Maaco Enterprises Inc					

TABLE 3-3 - CARBON COUNTY	REGIONAL AIRPORT USERS
---------------------------	------------------------

Sources: Redtail Aviation, FAA, GCR Inc., Jviation survey

3.2.1 Carbon County Airport Users Survey

Jviation conducted a survey of the FBO and airport users. In addition to airport site visits, Jviation prepared and distributed an electronic survey, and also conducted a workshop that was held at

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Redtail Aviation on the evening of Tuesday, November 17th, 2015. Six aircraft operators completed the written survey, and an equal number attended the workshop. The survey respondents operate a range of aircraft from a Cessna 185 up to Canadair Challengers 604 and 605. One operator based their aircraft at PUC, while the other aircraft operators based their airplanes elsewhere including SLC, PVU, etc.

Two of the operators said their activity had increased in 2015, while three operators said it had remained the same. They noted that Runway 1/19 is the primary use runway, followed by 15/33. The respondents feel the airport is in excellent condition, and that the FBO, Redtail Aviation, provides excellent service.

The respondents also felt that the airport rates and charges for fuel, parking, and hangars storage are reasonable and comparable to other airports in the state. One operator mentioned the need for flight training at the airport, and Redtail noted that it is looking for an experienced flight instructor. Some operators noted that radar and communications coverage by the Salt Lake City Center Air Traffic Control Facility only extends down approximately 8,000 in the vicinity of PUC. If there were a higher volume of aircraft arriving or departing on instrument flight plans to/from PUC, the lack of lower radar coverage could cause delays, but operators reported that there were in fact few operational delays.

Airport users presented several recommendations for improvements:

- Install a remote communications outlet (RCO) at the airport to allow aircraft on the ground and in the vicinity of Carbon County Airport to talk directly with Salt Lake Center controllers. That would both enhance and speed up communications between pilots and the Center.
- There is an automated surface observation system (ASOS) on the ground at PUC that collects and disseminates weather information for pilots. However, the FAA does not produce terminal weather forecasts for the Airport, which directly affects air taxi and other commercial aircraft operating under FAR Part 135. It was recommended that FAA produce terminal weather forecasts for PUC.
- Lower radar coverage by Salt Lake Center in the vicinity of PUC. FAA is in the process of implementing the Next Generation ATC system (NextGen). One part of that system is the use of Automated Dependent Beacon-Surveillance (ADS-B), which will allow air traffic controllers to monitor and control aircraft via satellite versus ground-based radar. FAA has mandated that all aircraft owners must install ADS-B "out" equipment by 2020 to allow FAA controllers to track all airplanes via satellite. Once that system is fully operational, FAA will have air traffic control coverage down to the ground level at PUC.

3.2.2 Corporate/Business Jet Activity at PUC

Business/corporate jet operations at PUC are tracked by the FAA by collecting data from flight plans filed by aircraft pilots. Most operators of turbine-powered aircraft file flight plans with the FAA, however, not all do, so the data does not capture all corporate activity at the Airport.



The FAA's data shows that business jet operations fluctuated between 2005 and 2014, and averaged approximately 110 operations (takeoffs and landings) per year, or approximately two jet operations per week. All of the jets were transient - there are no based jets at PUC. The majority of jets were relatively small (Cessna Citations, Mustangs, Embraer Phenom, and Beech Premier 1). The decline in activity in 2013 was likely due to work on Runway 1-19, which is the runway used primarily by corporate aircraft (**Figure 3-2**).



FIGURE 3-2 - ANNUAL BUSINESS JET OPERATIONS BY YEAR

As shown in **Figure 3-3**, operators fly non-stop to/from PUC from points all across the United States. There is no U.S. customs or border patrol service at PUC, so flights arriving from international destinations must stop first at airports with on-site customs and border patrol.

FIGURE 3-3 - PUC IFR MAP DESTINATIONS



Source: AirportIQ-GCR Data, Jviation

3.3 Factors Impacting Aviation Activity

Activity levels at an airport are often affected by historic trends, national aviation trends, as well as local, regional and national socioeconomic trends. Discussed below are some of the trends that may impact activity at the Airport in the future.

3.3.1 Aviation Industry Factors

According to the FAA, between 2005 and 2014 the total number of licensed pilots decreased by 2.7 percent. The number of private pilots declined by 23.5 percent and commercial pilots declined by 13.5 percent over the same period. This decline impacts demand for aircraft activity throughout the country. The fewer number of pilots, the less demand there will be for flying airplanes, and fewer operations at airports.

The FAA has forecasted the number of licensed pilots to increase by 0.1-0.2 percent each year for the next 20 years. Although this will not bring the total number of pilots back to its previous peak, this may help increase the level of aviation activity and therefore the number of operations at airports across the country.³

³Federal Aviation Administration. (16 December 2015). [FAA Aerospace Forecasts]. *Previous FAA Forecasts*. Retrieved from: <u>http://www.faa.gov/data_research/aviation/aerospace_forecasts/</u>



Category	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
PilotTotal	593,499	599,086	610,576	617,128	627,588	594,285	613,746	590,349	597,109	609,737
Student	120,546	120,285	119,946	118,657	119,119	72,280	80,989	84,339	84,866	87,213
Recreational (only)	220	238	218	227	212	234	252	239	239	278
Sport (only)	5,157	4,824	4,493	4,066	3,682	3,248	2,623	2,031	939	134
Airplane										
Private	174,883	180,214	188,001	194,441	202,020	211,619	222,596	211,096	219,233	228,619
Commercial	104,322	108,206	116,400	120,865	123,705	125,738	124,746	115,127	117,610	120,614
Airline Transport	152,933	149,824	145,590	142,511	142,198	144,600	146,838	143,953	141,935	141,992
Rotorcraft (only)	15,511	15,114	15,126	15,220	15,377	15,298	14,647	12,290	10,690	9,518
Glider (only)	19,927	20,381	20,802	21,141	21,275	21,268	21,055	21,274	21,597	21,369
Flight Instructor Certificates	100,993	98,842	98,328	97,409	96,473	94,863	93,202	92,175	91,343	90,555
Instrument Ratings	306,066	307,120	311,952	314,122	318,001	323,495	325,247	309,865	309,333	311,828

TABLE 3-4 - NUMBER OF ACTIVE PILOTS IN THE UNITED STATES

Source: FAA U.S. Civil Airmen Statistics

In addition to the decline in the number of licensed pilots, the cost of fuel, purchase price of new airplanes, aircraft parts, and flight training have all been quickly increasing, at a higher pace than the overall rate of inflation. If aircraft ownership and operating costs continue to increase at a pace higher than inflation, the ability for pilots and students to continue flying will decrease, negatively impacting the total number of licensed pilots and overall operations at airports.

3.3.2 Local and Regional Socioeconomic Factors

The population of Carbon County decreased by an estimated 3.5 percent between 2010 and 2014⁴. As shown in **Figure 3-4**, projections indicate relatively little growth in population from approximately 21,400 people in 2010 to 22,900 by 2040, an increase of 1,500 residents over 30 years. By comparison, the State of Utah is projected to see a 77 percent increase in population over the same period. Economic changes in the area can influence the amount of people moving into or out of Carbon County, and contributes to the growth in income.

Redtail Aviation reported that a variety of companies operate their aircraft at PUC. Use of the airport by corporate aviation users may increase or decrease as the area's economy changes. Although the historical trend shows a decreasing population, the state of Utah's projected forecast for Carbon County is estimated to increase 10 percent by 2050⁵. This may increase the operational demand on the airport through corporate or leisure traffic.

It is important to note Figure 3-5 displays "Enterprise Zones" in the bright green sections. These areas are designated by the Utah Governor's Office of Economic Development to promote economic

⁵ Utah Foundation. (April 2015) A Snapshot of 2050. Retrieved from: <u>http://www.utahfoundation.org/uploads/rr720.pdf</u>



⁴ United States Census Bureau. (02 December 2015). *Carbon County, Utah Quick Facts.* Retrieved from: <u>http://quickfacts.census.gov/qfd/states/49/49007.html</u>

growth and activity. Development projects within the boundaries are eligible for certain tax breaks. This opportunity may persuade companies to increase investment and development in Carbon County, potentially increasing the amount of corporate aviation operations.

Figure 3-5 shows the concentration of active oil fields in Carbon County, and in the vicinity of Price. The County has relied on the energy market including coal, oil, and gas, for a large share of its economic development over much of its history. As noted elsewhere in this chapter, energy prices have declined significantly throughout 2015, and as a result energy companies are rapidly decreasing their operating budgets and capital investments, which is also impacting certain local economies. Aviation activity in those communities is showing signs of the impact.

The mining industry provides the largest payroll and is one of the top five employers in Carbon County⁶. This dependence on the energy industry by the County means that aviation activity at PUC is directly affected by the overall trends in the energy market. When the energy market is strong, oil and coal prices are higher, and energy companies are hiring employees, demand for aviation services increases. Conversely, when the energy market is soft, prices are lower, and energy companies decrease employment, demand for aviation services decrease.

The U.S. Energy Information Agency (EIA) notes that crude oil prices have declined by more than 60 percent since early 2014. The EIA does not anticipate that oil prices will rebound in 2016. The price of oil has forced many energy companies to cut back on drilling and reduce staff as well as their capital budgets. The average market price per short ton of coal has remained relatively stable in the last several years according to the EIA, but the thermal coal CAPP price has declined since January 2011.



⁶ Utah Department of Workforce Services (2015). *Industry Employment and Wages*. Retrieved from: <u>https://jobs.utah.gov/jsp/wi/utalmis/industrydetail.do</u>



FIGURE 3-4 - POPULATION PROJECTIONS FOR CARBON COUNTY

Source: U.S. Census Bureau, Jviation



FIGURE 3-5 - OIL FIELD STATUS IN CARBON COUNTY (2012)



Oil Field Status (2012) for Carbon County and Surrounding Counties

Over the long term if oil and coal prices continue to decline the energy industry will continue to contract, adversely impacting the economy of Carbon County, particularly in terms of population, employment, and income. The decline in the energy market will impact many sectors of the County's economy, including demand for aviation services.

It is anticipated that the oil fields in central and western Carbon County will remain active, but continued low energy prices will adversely impact productivity, employment, and investment. A decline in the County's economy would adversely aviation activity at the Airport.



Source: Utah Department of Natural Resources, Oil Gas and Mining Division, Jviation

3.4 Forecasts of Aviation Activity

3.4.1 Forecast Periods

Forecasts are broken out into three different periods defined by the FAA:

- Short term up to five years (2017-2021)
- Medium-term a six- to ten-year time frame (2022-2026)
- Long-term beyond ten years (2027-2036)

3.4.2 **Previous Forecasts**

As explained in **Section 3-1**, the FAA's Terminal Area Forecast (TAF) compiled historical operations as well as forecasted activity. The excerpt from the FAA's TAF (**Figure 3-6**) displays annual aircraft operations from 1999 through 2014, and forecasts through 2026. As noted previously aircraft activity data at PUC are estimated based on a variety of sources, however, aircraft operations were not counted or recorded.

The FAA's TAF does not explain the fluctuations in activity between 1999 and 2014, although some of the decline in activity was due to work on the runways, such the rehabilitation of Runway 1-19.

In 2006, the State of Utah updated their Continuous Airport System Plan (UCASP). Through this process they revised their forecast for aviation activity at each airport in the state.

According to the UCASP "forecasts of aviation activity at Utah's system of airports are based on projected population growth rates in each county. The State's UCASP projected that aircraft operations and based aircraft at PUC would increase by 0.6 percent per year between 2006 and 2026.

The forecasts prepared for the previous PUC airport master plan, which was completed in 2002, projected a steady increase in annual operations, from 14,250 takeoffs and landings in 2000 to 22,300 through the year 2020, an increase of 56 percent, or a compound average annual growth rate of 2.26 percent per year over 20 years.

However, based on current FAA estimates, activity levels at PUC between 2002 and 2015 have not increased as projected by the State System Plan or the prior Master Plan.

Figure 3-6 compares the current FAA TAF, the 2006 UCASP and the 2002 PUC Master Plan.





FIGURE 3-6 - COMPARISON OF OPERATIONS FORECASTS

Source: 2006 Utah Continuous Airport System Plan, 2002 Carbon County Airport Master Plan, 2014 FAA TAF, Jviation

The number of based aircraft at PUC was also projected in all three forecasting sources. **Figure 3-7** compares these forecasts. The 2002 PUC Master Plan shows a .84 percent increase in the number of based aircraft each year, while the Utah CASP displays a .6 percent increase.

The FAA TAF is the most recent forecast for PUC. Based aircraft remain at 12 per year beginning in 2012, through the year 2040.





FIGURE 3-7 - COMPARISON OF BASED AIRCRAFT FORECASTS

Source: 2006 Utah Continuous Airport System Plan, 2002 Carbon County Airport Master Plan, 2014 FAA TAF, Jviation

3.4.3 Forecast Methodology and Scenarios

FAA AC 150/5070-6B states, "there are several appropriate methodologies and techniques for forecasting aviation activity." Trend analysis was chosen as the appropriate method for forecasting at PUC. It is described as "typically [using] the historical pattern of an activity and projects this trend into the future." Three trend analysis scenarios were developed for PUC to project future aircraft operations, shown in **Figure 3-8**.

In general, forecast methodologies that rely on statistical correlations require a substantial amount of data, which is often not available at GA airports. In addition, aviation activity at non-towered airports such as PUC are estimated, which further decreases statistical reliability.

Aviation activity at GA airports, and in many cases socio-economic measures such as population, employment and income in the region, represent a relatively small population compared to larger airports in metropolitan statistical areas (MSA), which also decreases statistical validity. As a result, forecast techniques such as applied growth rates, judgmental forecasts, and trend analysis are more appropriate for GA airports than statistical correlations or models.

Forecast scenarios are useful because they allow for the consideration of a variety of factors that may affect future aviation activity at PUC, such as fuel prices, the cost of new airplanes and parts, changing pilot demographics, county-wide population and employment outlook.

It is not possible to make strong statistical correlations between any one or series of factors noted above and aviation activity at PUC Airport, for several reasons: the level of aviation activity at PUC



is relatively small, aviation activity levels are estimated (versus counted), and there is not a direct cause-and-effect relationship between those factors and activity levels at PUC. However, aviation industry and socio-economic trends are useful indicators of potential future activity trends at PUC.

It should be noted that some factors, such as rising fuel prices, can counteract positive socioeconomic indicators in terms of activity levels at the airport. In general, events such as the opening of a new FBO and/or a new flight school, the location of a new corporate flight department, or the location of a military aviation unit on PUC would have a significant impact on traffic in the short term. The likelihood that any of those events will occur at PUC is not considered to be high.

Scenario 1 - High Growth

There are a number of events that could stimulate aviation activity at Carbon County Airport. On the local level, the operation of a full time flight school, and/or the basing of an active corporate flight department, and/or the basing of a military aviation Guard unit at PUC could each generate a significant amount of new activity.

While possible, trends within the local market do not indicate that those events are likely to occur at PUC. Flight training may be offered on a part-time basis, but it does not appear that the market will support a full-time flight school, in addition, experienced flight instructors are becoming scarce.

A number of factors could stimulate aviation activity on a statewide and local level, including:

- the plateauing of price increases in aircraft ownership and operation (e.g. the price of new aircraft and parts)
- the lowering of aviation fuel prices
- maintaining the long-term availability of 100LL avgas
- · an increase in student and private pilots
- · no new airport or airspace security regulations imposed by the TSA or the FAA
- continued economic expansion and growth, would each stimulate aviation activity. One of the greatest stimulants of GA activity in the past, for example, was the federal governments' education benefits for veterans under the GI Bill (the Servicemen's Readjustment Act of 1944, P.L. 78-346), which previously paid for a large percentage of flight training for veterans.

While flight training is currently eligible for veterans' benefits, there are a number of restrictions and limitations that were not in place until the 1980s and 1990s. If the federal government were to restore the benefits for flight training that were in place prior to the 1990s that could serve as a large generator of GA activity. While each of those events and trends are possible, recent indicators do not support that type of growth.

The previous airport master plan for PUC, completed in 2002, applied the highest average growth rate of 2.26 percent per year of all of the forecasts examined in this study. Applying that growth rate to existing aircraft operations at PUC, by the year 2035 annual aircraft operations would be projected to be 7,000 per year. Also in this high growth scenario, based aircraft at PUC would increase 3.26 percent each year, to 20 based airplanes by 2035.



Scenario 2 - Status Quo

Scenario 2 represents a balance between the high growth scenario, and the low growth/decline outlook. It is common for both positive and negative trends on a local and national level to serve as balances. The FAA's Terminal Area Forecast (TAF) indicates no growth in based aircraft or aircraft operations through 2040 at PUC.

The FAA did not identify the factors behind their forecast, but it does represent a balanced outlook in response to the positive and negative trends affecting the general aviation industry. As a result, Scenario 2 applied the FAA's TAF as a projected growth rate.

This scenario has an overall positive outlook based on a number of assumptions:

- Demographic characteristics in Carbon County (population, employment, per capita income) will continue to grow throughout the forecast period
- The drop in energy prices, and the adverse impact on the energy industry, is short lived, and energy prices will rebound by late 2016 and throughout the forecast period.
- Aviation factors such as the price of fuel, the cost of new airplanes and parts, will increase only at the overall rate of inflation throughout the forecast period.
- No new restrictions on airport or airspace security, and no new regulations on aircraft operations or pilot licenses, will be adopted by the FAA.
- No new user fees will be adopted by the FAA.

Scenario 2 allows for some growth in the number of based aircraft. Starting at 15 based aircraft in 2015, the number grows by an average of 1.19 percent each year, to a total of 22 in the year 2036.

Scenario 3 - Low Growth/Decline

A number of factors could have negative consequences for aviation activity at PUC:

- rapidly rising fuel prices, as well as rising cost of airplane ownership
- the sudden discontinuance of 100LL avgas without an adequate replacement fuel
- a deep economic recession
- long-term decline in the oil, coal, and gas industry, and the subsequent impact on the County's economy
- the continued decline in the number, as well as the aging, of the pilot population
- the imposition of new airport and airspace security regulations.

It is unlikely that all of those trends will occur over the long-term, however, some of those trends will likely occur on a short-term basis during the forecast period. Because it is difficult to predict specific events, such as an economic recession, or future aircraft ownership and operating costs, it is important for airport sponsors to monitor actual activity levels and trends and compare them against the forecasts and assumptions used.



Assuming that all, or most of those negatives pressures were to occur, this scenario projected an average negative growth rate in aircraft operations of -3.58 percent each year. Based aircraft are also projected to decrease in this scenario, but at a lower percent average of -1.58 each year.

Figure 3-8 and **Figure 3-9** summarize the three forecast scenarios. While forecasts in general show trends in straight lines, in reality activity fluctuates over time. As noted above, it is difficult to predict specific events that will affect aviation activity, particularly in a given year, but based on historic data from airports across the country it is likely that activity levels at PUC will fluctuate as changes occur in the economy and the aviation industry.



FIGURE 3-8 - FORECAST OF PUC AIRCRAFT OPERATIONS BY SCENARIO

Source: 2014 FAA TAF, Utah Office of Management and Budget, 2002 Carbon County Airport Master Plan, Jviation



FIGURE 3-9 - FORECAST OF BASED AIRCRAFT AT PUC BY SCENARIO

3.4.4 Preferred Forecast Scenario

Based on recent trends in aviation activity at PUC, local and regional demographic trends, and certain indicators of future GA activity, Scenario 2 is the preferred scenario for the forecast period. This scenario represents modest growth throughout the forecast period, and is well within the range of consistency with the FAA's Terminal Area Forecast (TAF).



Year	Total Operations	Based Aircraft
2015	4,431	15
2016	4,431	15
2017	4,431	16
2018	4,431	16
2019	4,431	16
2020	4,431	17
2021	4,431	17
2022	4,431	17
2023	4,431	18
2024	4,431	18
2025	4,431	18
2026	4,431	19
2027	4,431	19
2028	4,431	19
2029	4,431	20
2030	4,431	20
2031	4,431	20
2032	4,431	20
2033	4,431	21
2034	4,431	21
2035	4,431	21
2036	4,431	22

TABLE 3-5 – PUC PREFERRED FORECAST

3.5 Future Critical Design Aircraft, Airport Reference Code, Runway Design Code

In order to qualify as the critical design aircraft, it must meet FAA's definition of substantial use, which is a minimum of 500 itinerant operations per calendar year. Based on the data available from FAA flight plans and flight tracking companies, the critical design aircraft is the Cessna Citation series, and the Raytheon/Beech King Air 200.

However, there are also occasional operations by larger corporate jets at PUC, but their level of activity does not meet FAA's threshold for substantial use. According to records from flight plans filed with the FAA, there were less than 50 operations per year by large corporate jets such as the Gulfstream G-IV, Challenger 605, Global Challenger, Hawker 800, Citation X, etc., at PUC in CY 2012, 2013 and 2014.



In addition to corporate aircraft, during fire season the U.S. Forest Department Fire & Aviation Management unit stages a variety of aircraft at PUC. The Forest Service operates a wide variety of fixed-wing aircraft and helicopters, from Beech King Airs up to Lockheed P-3 Orions, C-130s, Bae-146, and CH-54 Skycranes, etc.

The airport reference code (ARC) of the firefighting aircraft range from B-II up to C-III. Although firefighting aircraft only operate during brief periods at PUC, on an as-needed basis, they represent a critical safety mission, and therefore it is important to accommodate them even when they do not meet FAA's substantial use threshold. Therefore, PUC's current and future airport reference code (ARC) is and will continue to be C-II.

Runway 1-19 is currently meets FAA criteria for runway design code (RDC) C-II-4000, and it is recommended that it maintain its current Runway Design Code (RDC), C-II-4000, throughout the forecast period.

Runway 1 will continue to be served by a precision instrument landing system (ILS) approach with ³/₄ mile visibility minimums (as discussed in subsequent chapters, it is not feasible to upgrade the existing approach light system to Runway 1 to a MALSR, which is required to achieve ¹/₂ mile visibility minimums). Runway 19 will remain visual. Runways 8-26 and 15-33 are currently RDC B-II, and they will also remain B-II-visual.



ATTACHMENT

FAA APPROVAL OF MASTER PLAN FORECASTS

March 30, 2016





U.S. Department of Transportation Federal Aviation Administration Denver Airports District Office 26805 E. 68th Avenue, Room 224 Denver, Colorado 80249 303-342-1254; FAX303-342-1260

March 30, 2016

Mr. Jae Potter Carbon County 751 East 100 North Price, UT 84501

> Carbon County Regional/Buck Davis Field Price, UT AIP Project No. 3-49-0026-016-2015 Forecast Approval

Dear Mr. Potter,

The Federal Aviation Administration has completed review of forecast information for Carbon County Regional/Buck Davis Field received February 29, 2016. We found the forecast to be supported by reasonable planning assumptions and current data and developed using acceptable forecasting methodologies. Accordingly this forecast is approved for the use in the Carbon County/Buck Davis Field Airport Master Plan.

If you have any questions concerning this matter, please contact me at (303) 342-1263 or john.sweeney@faa.gov

Sincerely,

John Sweeney Community Planner

ecc: UDOT Jviation



4.0 DEMAND/CAPACITY ANALYSIS AND FACILITY REQUIREMENTS

4.1 Summary and Conclusions

- Carbon County Regional Airport's (PUC or the Airport) existing airfield facilities, including the three runways, the parallel taxiway to Runway 1-19, and the precision instrument approach to Runway 1, provide more than adequate operational capacity to meet existing and projected demand. Based on the forecasts of demand as well as input from airport users, the existing runways are long enough to meet users' needs.
- All of the Airport's facilities meet or exceed current FAA design standards for their respective design codes. The crosswind runways (8-26 and 15-33) are shorter than FAA guidelines, however, airport users indicated that both runways are of sufficient length for the type of aircraft that use them and the weather conditions in which they are used.
- Runway 1 has a precision instrument landing system (ILS) approach, as well as several nonprecision instrument approaches. The other runways (19, 8, 26, 15, 33) are visual. Airport users indicated that the existing instrument approaches to Runway 1 meet their operational needs. Based on the forecast of activity as well as user input it was determined that there is insufficient justification to extend the medium intensity approach lighting system (MALSF) to Runway 1.
- Airport users indicated a need for additional radar coverage by Salt Lake City Air Traffic Control facility, as well as better radio communications in the vicinity of PUC. They also indicated a desire for the FAA to develop terminal weather forecasts (TAF) for PUC.
- There are existing underground utilities and sufficient space to accommodate existing tenants as well as a minimum of five future 80-feet-by-80-feet conventional (box) hangars. There is also space to accommodate a new 120-feet-by-80-feet box hangar south of the FBO terminal, or additional T-hangars, or transient parking, depending on the specific demand from aircraft operators. It is anticipated that all future hangars will be constructed by private parties.
- The existing terminal and hangar building occupied by the FBO is of sufficient size to accommodate current and anticipated activity levels. The second floor of the building is rough finished space, and could be finished if additional office and/or training space is needed in the future.
- The terminal apron is of sufficient size (approximately 42,000 square yards) to accommodate existing and projected transient parking demand. Based on current activity levels, there are an average of four to six transient aircraft parked on the apron at any one time. The apron can accommodate most private and corporate aircraft and also allows power-in, power-out parking, including occasional operations by large jets such as the Gulfstream G-550 and Global Challenger. During peak fire seasons one of the crosswind runways has been closed and used for parking by firefighting aircraft and helicopters, leaving the apron available for transient aircraft.
- There are three areas on PUC that can be designated for non-aeronautical development. The first area is approximately 39 acres, north of Runway 26 and adjacent to Airport Road. The second area is east of the existing terminal building and hangars, also adjacent to Airport Road, which encompasses approximately three acres. The third area is to the south, between Runway



33 and Runway 1, approximately 12.5 acres. The south area can only be developed after FAA decommissions the Carbon VOR. FAA has implemented a nationwide program to decommission ground based navigation aids such as VORs and NDBs, and use GPS satellite navigation as part of its Next Generation ATC system (NextGen). However, FAA has not set a schedule to decommission the Carbon VOR. Any future non-aeronautical development on-airport must be in full compliance with FAA requirements and guidance, discussed below.

4.2 Overview/Introduction

This chapter analyzes the ability of PUC's facilities to meet current and future demands of Airport users, as well as comply with appropriate FAA design standards. The demand-capacity analysis focuses on airside facilities, i.e. runways, taxiways, aircraft tie-down aprons, communications and navigation aids (NAVAIDs), aviation fuel, as well as on the Airport's landside facilities; the FBO/terminal building, hangars, access road and vehicle parking, and utilities.

The FAA notes that the need for airport facilities are primarily demand driven, and must adequately accommodate both existing and future demand. The County has made significant investments in the Airport since the year 2000, including reconstructing Runway 1-19 in 2011-2013, Runway 8-26 in 2013, and installing underground utilities to accommodate future hangar development.

The preferred forecast scenario projected that aircraft operations would remain constant through 2035 at 4,200 annual takeoffs and landings, an average of 11 operations per day. This is based on the FAA's latest Terminal Area Forecast (TAF) for PUC, as well as recent socio-economic and industry-wide trends. That generates approximately four to six parked transient aircraft on the apron at one time, although there are periods with fewer parked aircraft.

PUC currently meets FAA's airport reference code (ARC) design standards for C-II aircraft, and can accommodate a variety of small, mid-size, and large corporate jets, as well as piston-engine airplanes and a variety of helicopters. Runway 1-19 meets FAA's Runway Design Code (RDC) C-II-4000, and Runway 15-33 and 8-26 currently meet FAA's RDC B-II-VIS.

The facilities at PUC are also in compliance with recommendations presented in the previous airport master plan prepared in 2002, as well as the Utah Continuous Airport System Plan (UCASP), published in 2007 (see Appendix 6 for pertinent excerpts). The UCASP classified PUC as a Regional Airport, and notes that: "General Aviation Regional Airports (GA Regional) serve and support the local and regional economies and connect them to the state and national economies. Regional airports serve primarily general aviation activity, with a focus on serving business activity including jet and multi-engine aircraft." **Table 4-1** lists the objectives established by the UCASP for regional airports in Utah.

Airport Criteria	Minimum Objective	PUC Objective Met
ARC	C-II or greater	Yes
Runway Length	Accommodate 75% of large aircraft at 60% useful load	Yes
Runway Width	To meet ARC	Yes
Runway Strength	Single-wheel gear - 30,000lbs., equivalent for dual wheel	Yes

TABLE 4-1 - GENERAL AVIATION REGIONAL AIRPORT ROLE - STATE AIRPORT SYSTEM PLAN



Airport Criteria	Minimum Objective	PUC Objective Met
Taxiway	Partial Parallel	Yes; Full Parallel
Navigational Aids	Non-Precision Straight-in Approach	Yes; VOR, RNAV, ILS
Visual Aids	GVGIs, REILs	Yes
Lighting	MIRL, Beacon, Windsock	Yes
Weather	Automated Weather	Yes
Services	 Phone Restrooms FBO-Limited Service Maintenance facilities - Limited Service On-site courtesy car Perimeter fencing 	Yes
Facilities	 Terminal with appropriate facilities Hangars - 60% of based fleet & 25% of overnight aircraft Apron - 40% of based fleet & 50% for transient Auto Parking - Equal to 33% of based aircraft Food - Limited service restaurant or vending service 	Yes

Source: UCASP 2007

4.3 Airfield and Airspace Requirements

4.3.1 Airfield Capacity

FAA Advisory Circular 150/5060-5, *Airport Capacity and Delay*, defines capacity as a measure of the maximum number of aircraft operations that can be accommodated on the Airport within given time periods without causing significant delays.

Annual Service Volume (ASV) is defined as a reasonable estimate of an airport's annual operational capacity.¹ Based on its three runways, the full parallel taxiway to 1-19, the type of aircraft using PUC, and the runway use characteristics, the annual service volume at PUC is estimated by FAA to be 230,000 operations (takeoffs and landings) per year (**Table 4-2**). FAA planning standards require airports to begin planning for projects to increase capacity when the airport reaches 60% of its total capacity.

At 4,200 operations per year, the activity level at PUC is less than 3% of its annual capacity. Runway 1-19 is the primary use runway and accommodates more than 90% of annual operations. The full parallel taxiway to Runway 1-19 provides five exit taxiways, plus two runway intersections, minimize runway occupancy time by landing and departing aircraft, thereby maximizing the operational capacity of the primary runway.

Peak hour capacity under visual (VFR) and instrument (IFR) meteorological conditions also greatly exceed existing and forecasted activity. Based on FAA's methodology, as well as the existing and projected levels of traffic at PUC, there is no need for improvements to the existing runways or taxiways to provide additional operational capacity.

¹ FAA AC 150/5060-5, September 23, 1983



Existing Operational Capacity	Existing & Future Demand (operations)
Annual service volume = 230,000 operations	4,200 operations
Peak hour visual (VFR) = 98 operations	4 operations
Peak hour instrument (IFR) = 59 operations	2 operations
Based aircraft = 15 Transient A/C parking PH demand: 5 +/- Note: high volume of transient F/W & Helo during fire season	Hangar storage capacity = 10 -20 aircraft Apron (approx. 47,000 S.Y.) = 28 tie-downs Corp. A/C/helo transient parking = 6

TABLE 4-2 - PUC CAPACITY VS. DEMAND

Source: FAA AC 150/5060, Airport Capacity and Delay

4.3.2 Runways

Runways 1-19, 15-33, and 8-26 are in compliance with FAA's standards for their respective runway design codes (RDC). As shown in **Table 4-3**, **Table 4-4**, and **Table 4-5**, due to its size and the type of aircraft that use it, Runway 1-19 has a different design code than Runways 8-26 and 15-33. Runway 1-19 is the largest runway, and accommodates more than 90% of annual aircraft operations at PUC. There is also a full parallel taxiway to Runway 1-19.

Runway 1-19 complies with the FAA's design standards for RDC C-II-4000. C-II can accommodate all piston engine aircraft, the large majority of corporate turboprops, as well as most corporate jets including the Hawker 700/800, Falcon 900/2000, Cessna Citation series, Challenger 300/350/605, Learjet 40/45/55/60, Embraer Phenom 100/300, and Gulfstream 280/300/400/450, among others.

Runway 1-19 has, and will continue to accommodate occasional operations by larger jet aircraft such as the Gulfstream G-550 and Canadair Global Challenger, which are classified as design group III aircraft. However, the number of operations by larger (design group III) jets at PUC do not meet FAA's "substantial use" threshold, which is a minimum of 500 itinerant operations per year. Therefore, Runway 1-19 will remain classified as RDC C-II-4000 throughout the planning period.

Given the operational capacity provided by Runway 1-19 and its parallel taxiway, the fact that Runway 1-19 accommodates the large majority of aircraft operations, and provides better than 95% wind coverage, the need for Runways 15-33 and 8-26 was discussed with Airport users as well as the fixed base operator (FBO). The users and the FBO noted that although Runway 1-19 is the primary runway and is used the majority of time, there are periods throughout the year when strong winds are aligned with 15-33 and 8-26, and those runways are needed even though Runway 1-19 provides greater than 95% wind coverage for 10.5 kt. up to 16 kt. crosswinds. A variety of aircraft also use Runways 8-26 and 15-33 when their arrival or departure direction is aligned with one of those runways.

The crosswind runways (8-26 and 15-33) are also used for overflow parking during busy fire season by a variety of firefighting aircraft and helicopters (up to Sikorsky S-64 Skycranes). As a result, it is recommended to maintain the runways as visual facilities. Runway 15-33 pavement is in "Fair" condition: it is well maintained, but it is programmed to be resurfaced in the next five to ten years (in the 2020-2025 time period).



	Existing Conditions	Design Standard	Deficiency or Meets Standards
Width	100′	100′	Meets Standards
Length	8,312' (based on AGIS survey by Woolpert)	 7,100' (75% of fleet at 60% useful load) 8,600' (75% of fleet at 90% useful load) 	Meets Standards 290' Deficiency
Lighting & Markings	HIRL, Precision, 1-PAPI; 19-PAPI	NA	Meets Standards
Runway Safety Area (RSA)	1000' beyond runway end x 500' wide	1000' x 500'	Meets Standards
Runway Object Free Area (ROFA)	1000' beyond runway end x 800' wide	1000' x 800'	Meets Standards
Runway centerline to: - Taxiway centerline - Aircraft parking area	400′ 420′	300' 400'	Meets Standards Meets Standards

TABLE 4-3 - RUNWAY 1-19 FAA RUNWAY RDC C-II-4000

Source: FAA AC 150/5300-13A, Airport Design, FAA AC 150/5340-30H, Design and Installation Details for Airport Visual Aids, Form 5010

TABLE 4-4 - RUNWAY 8-26 - FAA RUNWAY DESIGN CODE B-I-VIS

	Existing Conditions	Design Standard	Deficiency or Meets Standards
Width	60'	60′	Meets Standards
Length	3,150′	7,100′	3,950' Deficiency
Lighting & Markings	MIRL/Visual, 8-PAPI; 26-PAPI	NA	Meets Standards
Runway Safety Area (RSA)	240 beyond runway end x 120' wide	240' x 120'	Meets Standards
Runway Object Free Area (ROFA)	240' beyond runway end x 400' wide	240' x 400'	Meets Standards
Runway centerline to: - Taxiway centerline - Aircraft parking area	NA 710'	225' 200'	Meets Standards Meets Standards

Source: FAA AC 150/5300-13A, Airport Design, FAA AC 150/5340-30H, Design and Installation Details for Airport Visual Aids, Form 5010

TABLE 4-5 - RUNVVAY T5-33 - FAA RUNVVAY DESIGN CODE BII-VIS	TABLE 4-5 - RUN	WAY 15-33 -	FAA RUNWAY	DESIGN CC	DE B-II-VIS
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	Existing Conditions	Design Standard	Deficiency or Meets Standards
Width	75'	75′	Meets Standards
Length	4,511′	7,100′	2,589' Deficiency
Lighting & Markings	MIRL/Visual	NA	Meets Standards
Runway Safety Area (RSA)	300 beyond runway end x 150' wide	300' x 150'	Meets Standards
Runway Object Free Area (ROFA)	300' beyond runway end x 500' wide	300' x 500'	Meets Standards
Runway centerline to: - Taxiway centerline - Aircraft Parking Area	NA 1,080′	240' 250'	Meets Standards Meets Standards

Source: FAA AC 150/5300-13A, Airport Design, FAA AC 150/5340-30H, Design and Installation Details for Airport Visual Aids, Form 5010



Runway Length

Runway 1-19 is currently 8,312 feet long (based on the AGIS survey by Woolpert). There are many variables that affect runway length requirements including field elevation (PUC is 5,957 feet above sea level), runway slope, ambient temperature, wind direction and speed, obstacle clearance requirements, among other factors. FAA AC 150/5325-4B, *Runway Length Requirements for Airports*, provides guidelines to determine the appropriate runway length to accommodate a variety of aircraft (**Table 4-6, Table 4-7, Table 4-8**). PUC's field elevation and mean maximum temperature (89°F) were factored into the runway length requirements shown below.

Particularly during the summer months with high temperatures, some aircraft must reduce weight in order to takeoff from PUC. However, as noted in the Inventory chapter, some operators fly non-stop to and from PUC for distances up to 1,500 nautical miles (nm) in the summer, which indicates that Runway 1-19 provides adequate length for most general aviation and corporate aircraft operators, even though some operators take weight penalties under certain conditions.

That was further substantiated by the survey responses from aircraft operators at PUC who indicated that Runway 1-19 has adequate length (8,312 feet) for their missions. Users also indicated that because Runways 8-26 and 15-33 were typically used during periods of strong crosswinds, and/or by smaller aircraft with shorter takeoff requirements, those runways have adequate length, even though they are shorter than Runway 1-19.

TABLE 4-6 - RUNWAY TAKEOFF LENGTH - SMALL AIRPLANES < 10 PASSENGER SEATS

95% Fleet	100% Fleet	
7,500′	7,600′	
Representative airplanes include: Beech E90 King Air, Beech A100 King Air, Mitsubishi MU-2, Swearingen Merlin III, IV, Metro II		

TABLE 4-7 - RUNWAY TAKEOFF LENGTH - 75% OF GENERAL AVIATION FLEET

75% Fleet at 60% Useful Load	75% Fleet at 90% Useful Load	
7,100′	8,600′	
Representative airplanes include: Beech Jet 400, Dassault Falcon 10/20/50/900, Learjet 31/35/40/45, Hawker 400, Cessna Citation Series (I, II, XL Encore, V Ultra, VII, Sovereign, Bombardier 300)		

TABLE 4-8 - RUNWAY TAKEOFF LENGTH - 100% GENERAL AVIATION FLEET

100% Fleet at 60% Useful Load	100% Fleet at 90% Useful Load	
11,000′	11,000′	
Representative airplanes include all of the above plus Cessna Citation X, Learjet 55/60/65, Hawker 800/1000, Bombardier 604, Sabreliner 65/75		

Source: FAA AC 150/5325-4B, Runway Length Requirements for Airports

Business & Commercial Aviation (BCA) provides detailed performance data for individual makes and models of corporate aircraft. The data is updated annually and published in BCA's Planning and Purchasing Handbook. Using aircraft manufacturers' data and typical operating characteristics, BCA calculated takeoff distances (balanced field length) for specific makes and models of corporate jets at an airport at 5,000 feet elevation and 77°F.

JVIATION

At maximum takeoff weight, the takeoff distance for the following mid-size and large corporate jets shows that they can depart from PUC on Runway 1-19 with little if any weight penalty (**Table 4-9**).

Aircraft Type	Takeoff Length	Aircraft Type	Takeoff Length
Citation XLS+	5,430′	Bombardier Challenger 350	6,890′
Embraer Phenom 300	5,114′	Gulfstream G-450	8,200′
Cessna Citation X	7,300′	Bombardier Global 5000	6,798′
Dassault Falcon 2000EX	6,050′	Dassault Falcon 7X	8,045′

TABLE 4-9 - RUNWAY TAKEOFF LENGTH AT MAXIMUM TAKEOFF WEIGHT

Note: Field elevation = 5,000' MSL; Ambient temp. = 77°F; Maximum takeoff weight; Zero wind; Runway slope = 0. Source: Business & Commercial Aviation, Planning & Purchasing Handbook, May, 2014

Another factor that directly impacts the takeoff weight of aircraft is the required climb performance after takeoff to clear obstacles. Turbine aircraft typically calculate climb performance with one engine inoperative (for airplanes that have more than one engine), and adjust their takeoff weight to assure adequate obstacle clearance with one engine inoperative during climb-out.

There are mountains within 30 miles, west of PUC, with a top elevation of 11,285 feet, which is almost 6,000 feet higher than PUC (**Figure 4-1**). Depending on the direction of flight and runway used, obstacle clearance must be factored into climb performance requirements on departure. Obstacle clearance requires some aircraft to reduce weight on takeoff, independent of the length of Runway 1-19.

In terms of day-to-day corporate aircraft operations across the country, the majority of all departures by corporate jets are conducted at reduced takeoff weight, even at airports with no constraints due to runway length or obstacles clearance requirements. That is because the typical corporate aircraft mission length is significantly less than the maximum range of the aircraft, and aircraft typically depart with less than full fuel, which reduces overall fuel consumption and runway length requirements. In addition, average passenger load factors on corporate aircraft are less than 50% of seating capacity², which further reduces takeoff weight and runway length requirements. As a result, the majority of corporate aircraft takeoff at significantly less than maximum takeoff weight in normal day-to-day operations.

² Business & Commercial Aviation and the National Business Aircraft Association




FIGURE 4-1 - HIGH TERRAIN IN VICINITY OF PUC

Source: Skyvector.com

Aircraft manufacturers have been developing new technologies (engines, aerodynamic design, and materials) that significantly improve aircraft performance in terms of reduced fuel burn, lower noise and emissions, and reduced runway length requirements. In addition to greater fuel efficiency and lower operating costs, a specific design goal of many corporate aircraft manufacturers is to reduce runway length requirements to allow corporate jets to operate at more airports, particularly those with runways of 4,000 feet or less.

For example, a recent operators survey and pilot report on the Falcon 7X, a large three-engine corporate jet³, specifically noted that: "The Falcon 7X comfortably operates out of small general aviation airports. Departing off a 3,000-ft. runway, the aircraft can fly more than 1,500 nm."⁴

Based on these factors, the current length of Runway 1-19 (8,312 feet) is adequate for the existing and future aircraft and the missions flown at PUC. The crosswind runways (8-26 and 15-33) are significantly shorter than 1-19, and do not meet FAA guidelines for runway length (Table 4-3).

But the crosswind runways are used by aircraft that do not require 8,300 feet for takeoff, and they are used when strong winds favor those runways, thereby reducing takeoff and landing distances. Given that an estimated 90% of operations occur on Runway 1-19, and that Runway 8-26 and 15-33 are used primarily during strong wind conditions, both crosswind runways are of adequate length for existing and future Airport users and do not require any extension.

⁴ Source: Business & Commercial Aviation, March 24, 2016



³ Falcon 7X: 12 to 19 passenger seats; wingspan 86 feet - Design Group III; max. range 5,670 nm; max. takeoff weight 70,000 lbs.

Runway Safety Area

FAA requires airports to meet their current standards for runway safety areas (RSA), which are safety-related issues. The runway safety area (RSA) is a defined surface surrounding the runway that is specifically prepared turf or pavement, and that is graded, drained, and cleared of objects. RSAs are designed to bear the weight of an airplane and thereby reduce the risk of damage and injury in the event of a landing undershoot, takeoff overrun, or excursion from the runways paved surface.

RSAs should also support snow removal equipment (SRE) and emergency equipment in the event of an aircraft accident/incident. RSAs are required to be free of non-frangible objects except when fixed by a function. All RSAs at PUC meet current FAA standards (**Table 4-3**, **Table 4-4**, **Table 4-5**).

Runway Object Free Area

An object free area (OFA) is a defined imaginary surface that is centered on a runway, taxiway, or taxilane centerline. OFA's enhance the safety of aircraft operations by clearing the area of aboveground objects except those defined by FAA as "fixed by function." Objects allowed in the runway object free area (ROFA) are those required for air navigation or aircraft ground maneuvering purposes, such as Runway End Identifier Lights (REIL), Precision Approach Path Indicator (PAPI), Visual Approach Slope Indicator (VASI), the Inner Marker beacon, and all types of approach light systems.

However, any object in an OFA must be frangible, or less than three inches tall. It is important to note that like the runway safety area (RSA), the object free areas (OFA) extend behind the start of the takeoff and approach end of the runway. All runway and taxiway object free areas at PUC meet current FAA standards (**Table 4-3**, **Table 4-4**, **Table 4-5**).

4.3.3 Taxiways

Taxiways serve several important functions on an airport. In addition to providing ground access between runways and parking aprons and hangars, one of the most important functions is to enhance safety by reducing the amount of time that aircraft are taxiing on an active runway. Another function of taxiways is to increase operational capacity by allowing more aircraft to take off and land on a given runway within a given time period by shifting taxiing aircraft from runways to taxiways.

The full parallel taxiway to Runway 1-19 at PUC achieves both objectives. There are seven exits off of Runway 1-19, including Runway 8-26 and 15-33 and five exit taxiways. The parallel taxiway centerline is 400 feet from the runway centerline, which meets FAA airport reference code (ARC) Design Group II standards (**Table 4-10**).

The crosswind Runways 8-26 and 15-33 do not have parallel taxiways. Based on the fact that the crosswind runways accommodate less traffic than Runway 1-19, they are visual runways, and there are several exits from each runway at various intersections, parallel taxiways to those runways are not required.

FAA requires that taxiways also meet Taxiway Safety Area (TSA) and Taxiway Object Free Area (TOFA) standards. The TSA and TOFA are centered on the taxiway centerline, and the clearances

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ensure that aircraft will not strike objects or other aircraft while taxiing. The parallel taxiway meets both TSA and TOFA standards, and also meets FAA criteria for taxiway width for taxiway design group (TDG) 2 aircraft, which includes most corporate jets (**Table 4-10**).

	Existing Conditions	Design Standards	Deficiency or Meets FAA Standards
Taxiway Width	35′	35′	Meets Standards
Taxiway Safety Area Width	79′	79′	Meets Standards
Taxiway Object Free Area Width	131′	131′	Meets Standards

TABLE 4-10 - RUNWAY 1-19 PARALLEL TAXIWAY

Source: FAA AC 150/5300-13A

4.3.4 Communications and Navigation Aids (NAVAIDs)

The existing communications and NAVAIDs at PUC were discussed in Chapter 2, Inventory. The level and type of activity at PUC does not meet FAA's criteria for an air traffic control tower. Based on user surveys, as well as discussions with Airport users, several communications needs were identified:

- Terminal weather forecasts (TAF) for PUC. Pilots currently obtain weather data from the automated weather observation station (AWOS) situated on the Airport, and use area forecasts (FA) developed by the FAA and National Weather Service (NWS) for weather outlooks. Terminal weather forecasts for PUC would be prepared by the FAA four times daily, and would be used by all pilots flying into PUC. Terminal weather forecasts would be particularly beneficial to aircraft operating under FAR Part 135 as air taxis, particularly in instrument or marginal meteorological conditions. It would provide more specific forecasts for the Airport than the current area forecasts. When operating under FAR Part 135, if the area forecasts indicate that weather conditions anywhere within the region will be lower than the minimums on the ILS Runway 1 approach, aircraft cannot depart to PUC and see if conditions. Terminal weather forecasts are more precise, and may allow aircraft to land at PUC when they may not otherwise use just area forecasts.
- Installation of a remote communications outlet (RCO) to allow pilots to talk directly with Salt Lake Center while on the ground or in the vicinity of PUC. Currently pilots communicate with the flight service station (Cedar City Radio) via a RCO on 122.2 MHz, or with Salt Lake Center on the phone. A direct radio communications link (via an RCO) with Salt Lake Center would enhance efficiency for aircraft arriving and departing PUC, as well as safety. However, FAA recently announced that it is decommissioning a number of RCOs around the country due to lack of use⁵, which may impact their level of support to install a new RCO at PUC.
- Lower radar coverage provided by Salt Lake Center air traffic control. Currently, radar coverage only extends down to approximately 9,000 feet, below which Salt Lake Center cannot provide radar vectors or communicate directly with aircraft flying into or out of PUC. The limitation is due to the location of the existing radar site and the high terrain in

⁵ Federal Register, 04/28/2016, Agency Docket Number FAA-2016-4756, pgs. 25484-25486



the vicinity of PUC. The State of Colorado and the FAA installed a new Wide Area Multilateration (WAM) System, which uses sensors located in remote areas. WAM is part of FAA's Next Generation Air Traffic Control system (NextGen). The sensors send out signals that interrogate aircraft transponders which, in turn, transmit a response. Computers analyze those responses and triangulate the precise location of aircraft. Aircraft position and identification information are then transmitted to air traffic controllers, who use the surveillance data to safely separate aircraft. WAM is much less expensive than installing additional radar antennas, and provides equivalent tracking capabilities.

• The existing precision instrument landing system (ILS) approach to Runway 1, with approach minimums of 200 feet and ³/₄-mile visibility, adequately meets users' needs. The existing medium intensity approach light system with flashing lights (MALSF) to Runway 1 would need to be extended into an approach light system with runway alignment indicator lights (MALSR) in order to lower the visibility minimums to a half mile. However, the terrain drops steeply just south of the existing MALSF, and an extension of the existing approach light system would require a very large financial investment in light poles, electrical hookups, and an access road. As a result, it is not recommended that the existing MALSF be expanded.

4.3.5 Airspace - Obstruction Removal

PUC is situated in FAA designated Class G airspace. Aircraft do not require a clearance from air traffic control (ATC) to land or takeoff at PUC unless weather conditions are less than three miles visibility or clouds (ceiling) lower than 1,000 feet. Based on existing and projected operations over the forecast period, the Class G airspace will remain in place. PUC does not meet FAA's criteria to install or operate an ATC tower, which would require a change in airspace designation.

The FAA requires airport sponsors to protect the airspace in the vicinity of the airport. FAA's grant assurance 20 states:

20. Hazard Removal and Mitigation

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.

The airspace is defined in 14 CFR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace.* Five imaginary surfaces comprise the airspace: Primary, Horizontal, Approach, Conical, and Transitional. Each has a different dimension and slope.

As required by the FAA as part of this Master Plan, digital mapping of the Airport and surrounding area was compiled by Woolpert, Inc. to FAA's Airport Geographic Information System (AGIS) standards. The mapping was compiled in fall 2015, and was uploaded and accepted by the FAA and the National Geodetic Survey (NGS). That data is used by FAA Flight Procedures to analyze existing and future instrument approach procedures at PUC.



In addition, Woolpert also compiled mapping to analyze penetrations to the 14 CFR Part 77 imaginary surfaces. That mapping is shown on the airspace drawings in the Airport Layout Plan (ALP) drawing set. The FAA Part 77 surfaces around an airport are shown below. The FAA sponsor assurances require airport sponsors to protect the airspace around an airport, primarily by preventing penetrations to those imaginary surfaces, and removing or marking existing penetrations. The mapping compiled by Woolpert identifies the existing penetrations to those surfaces.



FIGURE 4-2 - PART 77 IMAGINARY SURFACES

Source: Jviation, FAA Part 77

FAA defines all penetrations of the imaginary surfaces as obstacles. FAA also presumes that all obstacles are hazards to air navigation unless it reviews and approves an aeronautical study that has examined the obstacles and presented recommendations to either remove, mark, or light them. Airports are responsible for preparing aeronautical studies, which are submitted to FAA for review and approval. An aeronautical study has not been prepared for PUC. FAA recognizes that sponsors cannot remove certain obstacles such as mountains, etc., but expects sponsors to attempt to install obstruction lights where feasible. Once aeronautical studies have been prepared by airports and accepted by FAA, the FAA sets deadlines for implementation of the recommendations to remove, mark, or light obstacles.

In general, in order for an airport sponsor to remove, mark, or light an obstacle situated off-airport property, the sponsor must negotiate and acquire an easement from the property owner. If the airport sponsor accepts an FAA grant to acquire easements, they must comply with FAA AC 150/5100-17, *Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects*. Among the steps required by FAA are obtaining two separate appraisals and negotiating with the property owner. In addition, the easement must comply with FAA requirements. If the sponsor and the property owner cannot reach agreement, one possible remedy is the use of eminent domain, if the sponsor chooses to do so. However, a number of airport sponsors do not have the legal authority to exercise eminent domain.



If an airport sponsor uses local funding (vs. FAA grants) to acquire easements and remove obstacles, they may use their local process to acquire the easements. In that situation, however, FAA will not contribute funding, and will also not provide any funding in the future to remove, mark, or light future obstacles on the same parcel.

4.3.6 Pavement Classification Number (PCN)

An evaluation of the pavement on Carbon County Airport was prepared by Jviation in the summer of 2016. The evaluation was done in conformance with FAA Advisory Circular 150/150/5335-5C, *Standardized Method of Reporting Airport Pavement Strength – PCN*, 8/14/2014. The AC defines certain values as:

- Aircraft Classification Number (ACN) expresses the relative effect of an aircraft at a given configuration on a pavement structure for a specified standard subgrade strength.
- Pavement Classification Number (PCN) expresses the load-carrying capacity of a pavement for unrestricted operations.

The pavement condition report is attached in Appendix 4. The report concluded that the PCN values are as follows:

- Runway 1/19 can be reported as 18/F/B/X/U.
- Runway 15/33 can be reported as 13/F/B/X/U.
- Runway 8/26 can be reported as 3/F/B/Z/U.

The codes are defined as:

- 18/13/3 = Numerical value
- F = Flexible pavement
- B = Subgrade strength high. CBR ≥ 13
- X = High Pressure limited to 254 psi. Z = Low Pressure limited to 73 psi
- U = Usage by aircraft

While the majority of aircraft operations at PUC are conducted by piston-engine aircraft, the Airport accommodates occasional activity by corporate jets. The aircraft classification number (ACN) calculated for dual wheel aircraft up to 70,000 lbs. weight is 18.4. According to the FAA AC, "Under these conditions, any aircraft with an ACN equal to or less than the reported PCN value can safely operate on the pavement subject to any limitations on tire pressure."

4.3.7 Terminal Building Requirements

The existing terminal/FBO building and attached hangar, occupied by Red Tail Aviation, are in good condition, and sized adequately to meet current and forecasted demand. The building is a twostory metal structure, and is approximately 130 feet by 100 feet in size. The ground floor has FBO offices, training rooms, passenger waiting area, and restrooms, as well as the hangar. The second story of the terminal/FBO building has spaces that are rough finished, used primarily for storage.



Finishing this space would give the FBO additional office space, training rooms, or waiting areas for passengers and crew members, at such time that activity increases and there is a need for the space.

4.3.8 Aircraft Parking and Storage Requirements

For aircraft parking and storage there are 28 tie-down spaces on the apron, three conventional hangars, and three T-hangars. Combined there is the capacity to park and store approximately 40 aircraft depending on their type and size. As of 2016 there were 11 based aircraft. PUC also has adequate parking space for based and transient aircraft.

When needed, the U.S. Forest Service temporarily stage firefighting aircraft and helicopters at PUC during fire season. In order to fight large fires, they stage sufficient aircraft at PUC to require closing a crosswind runway (either Runway 8-26 or 15-33 depending on the number of aircraft to be parked), to provide temporary parking to accommodate the aircraft.

All of the terminal facilities on the Airport are located on the east side of the main runway. The facilities, including the FBO terminal, apron, hangars, and fuel farm are all easily accessible from all runways by way of the taxiway parallel to Runway 1-19. All future airfield development will be located in the same area as the current facilities.

Although there is hangar storage capacity available, there may be demand by aircraft operators in the future to construct new hangars, particularly for corporate turboprops and jets. The County has installed underground utilities behind the existing hangars on the north end of the apron, which will reduce construction costs for future hangars. **Figure 4-3** shows a potential layout of future hangars.

There is space available for five 80-feet-by-80-feet hangars, and one 60-feet-by-150-feet hangar on the south side of the apron. A new paved taxilane would be needed to the new hangars. The taxilane should meet TDG 2 design standards.

The south side of the apron could also be expanded either for paved tiedowns, transient parking, or T-hangars (versus a large corporate hangar), if aircraft owners or operators express demand for that type of parking or storage. The additional hangars and tiedowns would provide more than adequate capacity to meet future aviation demand through the end of the 20-year planning period. It is anticipated that the hangars would be constructed by private parties, and that the hangar developers will determine the actual size of hangars to be constructed, as well as the time frame for development.



FIGURE 4-3 - FUTURE HANGARS



The existing terminal area is served by Airport Road, a two-lane paved public road that connects the Airport with downtown Price, as well as the regional road network including Route 191.

4.4 Airport Support Equipment and Facilities

4.4.1 Airport Maintenance

PUC is owned by Carbon County, which also operates snow removal equipment and other maintenance equipment for the Airport on an as-needed basis. This equipment is currently stored off-site in a County storage building. As long as the County and Airport maintain this on-call snow removal and maintenance equipment relationship, there is no foreseen need for airport maintenance storage facilities on the airfield.

4.4.2 Aviation Fuel Storage and Dispensing

Fuel Equipment	Capacity
100LL Fuel Tank - Above Ground	13,000 gallons
100LL Fuel Truck	1,000 gallons
Jet A Fuel Tank - Above Ground	12,000 gallons
Jet A Fuel Truck	3,000 gallons

TABLE 4-11 - FUEL EQUIPMENT AND CAPACITY

Source: Redtail Aviation

The fuel storage tanks are owned by the County and managed by the FBO, Redtail Aviation. According to Redtail Aviation, both storage tanks are refilled fewer than ten times per year. Because of this, the fuel storage tanks and mobile fuelers have sufficient capacity to accommodate both



existing and future demand at PUC. The two fuel tanks were constructed in 1998 and are in good condition.

All fuel storage and handling requires specific quality control and monitoring for safety purposes. A variety of regulations and guidelines govern fuel storage and handling at airports, including the National Fire Protection Association (NFPA) 407, Standard for Aircraft Fueling, and FAA AC 150/5230-4C, *Aircraft Fuel Storage, Handling and Dispensing*.

In general, the quality of fuel deteriorates the longer it is stored in tanks, particularly Jet A. As a result, the amount of monitoring and quality control required increases the longer fuel is stored in order to ensure that the fuel maintains manufacturer specifications. As a result, fuel storage capacity should not be excessive in relation to demand - i.e. it is very useful to cycle fuel through storage tanks on a regular basis. For those reasons, it is not recommended that any additional fuel storage capacity be added at PUC. In addition, the construction/installation of fuel storage tanks and associated equipment requires a significant financial investment, which can only be amortized if there are sufficient fuel sales generating revenue.

The firefighting aircraft that stage at PUC during fire season provide some of their own fuel, particularly during peak fire seasons, as well as buy fuel from Redtail. Firefighting aircraft activity at PUC, including demand for fuel, is seasonal and tied to the extent of fires in the region each season, which makes it difficult to predict when they will require large volumes of fuel.

4.5 Ground Access, Circulation and Parking Requirements

4.5.1 Regional Transportation Network

The Airport is situated approximately five miles east of the City of Price. Public road access from downtown Price is via East Main Street to Airport Road. Based on current and projected levels of traffic, the existing road network will accommodate demand without any recurring delays. PUC is situated approximately 125 miles southeast of Salt Lake City, and connected via I-15 and Route 6. There is no bus or rail service to the Airport, although taxis located in Price are available. There is adequate signage to the Airport.

4.5.2 Airport Road Circulation and Vehicle Parking

Auto parking capacity at PUC is approximately 30 vehicles, and is a combination of paved and gravel parking. The number of parking spaces is adequate for the amount of use the Airport currently has and is forecasted to have over the next 20 years. Vehicles also park adjacent to hangars, and it is anticipated that future hangars will also provide vehicle parking as well, although aircraft owners frequently park their vehicles in the hangars for security and to protect them from the weather when they are using their aircraft.

4.6 Utilities

Utilities at PUC consist of those listed in Chapter 2 – Inventory, Table 2-5 – Buildings and Utilities. Carbon County extended underground utilities to the area behind existing hangars in preparation for future hangar development. The existing utilities are adequate for the type of aeronautical



development currently on and anticipated for the Airport. Future non-aeronautical tenants will need to determine their particular utility requirements and coordinate with the County to construct their utility hook-ups and utility upgrades if needed. It is anticipated that the non-aeronautical tenants will fund the utility hook-ups and upgrades.

4.7 Potential Non-Aeronautical Development On-Airport

The FAA requires that all airport property be used to accommodate existing and future aviation activity. FAA only permits non-aeronautical development on an airport under the following conditions:

- The facilities required for future aviation demand can be fully accommodated on the airport beyond the 20-year planning period.
- Leases and other agreements between the sponsor and each non-aeronautical tenant specify that the leasehold reverts to the airport in the event that the land is needed for aeronautical purposes.
- All non-aeronautical development is fully compatible with airport and aircraft operations, which is specified in the lease. The area between Runway 33 and Runway 1 could only be developed after FAA decommissions the Carbon VOR. FAA has not set a schedule for decommission, although it does have a plan in place to decommission 400 VORs by 20206.
- The airport sponsor receives fair market value (FMV) for the land and other leases from nonaeronautical tenants.
- All revenue generated on an airport, including from non-aeronautical sources, is dedicated to the airport.
- The area designated for non-aeronautical development are shown on an approved Airport Layout Plan.

Potential revenue from non-aeronautical development on the Airport could substantially increase income for the Airport. Non-Aeronautical development can help diversify an airport's revenue and increase their ability to become more self-sustaining, as directed in FAA Grant Assurance #24. Examples of non-aeronautical development on airports include: farming, advertising space (billboards), solar power farms, storage lots, vehicle parking lots, industrial and office parks, business centers, etc. Noise-sensitive land uses including residential, institutional (schools, hospitals), outdoor venues that attract crowds, etc., should not be allowed.

Any non-aeronautical development must be analyzed to ensure that it is compatible in relation to aircraft operations, i.e. not noise sensitive, does not generate electrical or visual signals, including smoke and light that may interfere with aircraft operations, and that does not penetrate any imaginary surface or interfere with any navigation or communications aids.

As shown in **Figure 4-4** and **Figure 4-5**, as much as 54 acres could be developed for airportcompatible, non-aeronautical uses such as light industrial, office space, storage areas, etc. That would maintain sufficient area for future aeronautical development such as hangars, etc., which would

⁶ Source: Federal Register, Thursday, December 11, 2011, Docket Number FAA-2011-1082, pg. 77939

provide more capacity than needed beyond the 20-year planning period based on the activity forecasts. Utilities required for non-aeronautical development can be routed to most areas, and the property is relatively level with good road access.



FIGURE 4-4 - TERMINAL AREA AVAILABLE FOR NON-AERONAUTICAL LAND USES

Source: Jviation



FIGURE 4-5 - AIRPORT AREAS AVAILABLE FOR NON-AERONAUTICAL LAND USES

Source: Jviation



4.8 Airport Security Considerations

The FAA and the Transportation Security Administration (TSA) do not require general aviation airports such as PUC to adopt security plans or procedures. PUC currently does not have a security fence surrounding the entire Airport perimeter, but does have a fence to keep wildlife off of the airfield. Carbon County plans to install a chain link wildlife fence along the airside of the Airport in the summer of 2016. In addition, security gates will be installed which will only grant access to the airfield to designated aircraft operators.

Because PUC does not serve scheduled air carriers and is not required to have an airport operating certificate issued under 14 CFR Part 139, the County is not required to have a security program approved by the TSA. In 2004 TSA published *Security Guidelines for General Aviation Airports, Information Publication A-001*, which provides recommendations on how a general aviation airport could improve security. The recommendations are not mandatory, although many general aviation airports have adopted a number of their recommendations.

Some corporate aircraft users of PUC expressed a desire for security fencing around the full perimeter of the Airport to prevent access by unauthorized users. Security measures adopted at other general aviation airports include installing electronic gates that require card readers to access the airfield, security cameras, area lighting for the parking aprons and hangar areas, training for Airport tenants and users to recognize potential security threats and how to take appropriate action, and coordination with local law enforcement agencies on Airport operations and potential security threats.

The Aircraft Owners and Pilots Association (AOPA) publishes guidelines and best practices for general aviation airport security, as well as training programs for general aviation pilots and Airport employees. The FAA requires security training for all certified flight instructors.

4.9 Alternatives Analysis

The alternatives that were identified and evaluated are summarized in Table 4-3. The existing airport facilities meet current FAA design standards for ARC C-II, which will also meet projected demand throughout the forecast period. The existing runway and taxiway system meets current and projected demand, and no changes are proposed to the airfield system.

The proposed airport improvements include the construction of five new corporate hangars and a paved taxilane in the area north of the terminal building where there are existing utilities, and the sites are graded.

A portion of the south apron could also be expanded to accommodate another corporate hangar, or T-hangars, or transient parking, depending on what demand warrants in the future. All of the proposed improvements would be consistent with the Airport's current role, design standards, and operating characteristics.

Hangar development in other parts of the Airport, such as to the west or north, would require installation of utilities, road access, and taxiways to access the airfield, which would require



significant capital investments. South of the Airport the terrain slopes significantly, making any airfield-related development expensive and impractical.

The proposed non-aeronautical development in the terminal area, and to the north between Runway 26 and 19, would be on property that is surplus for aeronautical purposes. The areas have road access, and the property is relatively flat.

Non-aeronautical development such as storage units, light industrial, and office space, for example, could be designed and constructed that would be fully compatible with airport and aircraft operations, and which would not constrain any future aeronautical-related development on PUC. An area to the south, between Runway 33 and Runway 1, could also be developed for non-aeronautical land use, but only after FAA decommissioned the Carbon VOR radio transmitter.

FAA has not set a schedule for decommissioning that VOR, although it has begun the process of discontinuing approximately 400 other VORs around the country as part of its Next Generation (NextGen) air traffic (ATC) program.

The proposed non-aeronautical development would generate revenue for the Airport, and utilize property otherwise not needed for aeronautical purposes. It would not be practical to designate areas west, north, or south of the Airport for non-aeronautical development due to lack of ground access, utility hookups, and sloping terrain.



Option	Pros	Cons
Expand current MALSF to MALSR.	Potentially lower visibility minimums on ILS 1 by ¼ mile	Due to sloping terrain to the south of the Airport, any expansion of the MALSF would be very expensive. Operators said the ¼ mile lower viz. not needed.
Develop future hangars within the existing terminal area (Figure 4-3).	The area is graded, there are utilities and road access, and the hangars would be close to the terminal building and fuel services. It is anticipated that the hangars will be developed by private parties, thereby requiring little investment by the County, except for the paved taxilane. New hangars would generate revenue for the Airport from land leases, and fuel sales from aircraft in the hangars.	None
Develop future hangars on the south, north, or west sides of the Airport.	None	Any sites to the south, north, or west of the Airport would require constructing new access roads, site preparation, and installation of utilities, which could require significant cost.
Non-aeronautical development on the east side of Airport (Figure 4-5).	The property is surplus for aviation purposes. Development would be compatible with Airport and aircraft operations. The development could generate significant revenue for the Airport. The areas have road access and are relatively flat.	None
Non-aeronautical development on the west, north, or south sides of the Airport.	Could generate revenue for the Airport.	Would require construction of new roads, significant site preparation, installation of utilities, and require very high investment costs.
Do not allow non-aeronautical development on the Airport	None.	County could lose significant revenue. Property is surplus for aviation purposes so will not be developed for hangars, parking aprons, or terminal buildings.

TABLE 4-3 - SUMMARY OF ALTERNATIVES EVALUATION

Notes: MALSF = medium intensity approach light system with flashing lights. MALSR = medium intensity approach light system with runway alignment lights. ILS = precision approach instrument landing system to Runway 1



5.0 AIRPORT FINANCIAL PLAN

5.1 Introduction

Many public-use airports, such as Carbon County Regional Airport (PUC or the Airport), are owned by Cities, Counties, and States, and are part of the local government's budgeting and financial accounting system, which typically operate in compliance with Generally Accepted Accounting Principles (GAAP). GAAP establishes appropriate measurement and classification criteria for financial reporting.

According to the Utah Continuous Airport System Plan (UCASP) (pages 7-16 and 7-17):

Local public airport sponsors such as counties, cities, and airport authorities are responsible for costs associated with airport development projects that remain after federal and state shares have been applied. [*General aviation airport sponsors are typically responsible for half of the required federal matching share, and the state (Utah DOT) matches the other half.*]

Local government funding for airport development projects is derived from the following sources:

- Local General Fund Revenues
- Bond Issues
- Airport-Generated Revenues
- Private Funding

Of these, general fund revenues and general obligation bonds are by far the most common funding sources. Revenue bonds supported by airport-generated revenues are seldom used because most general aviation airports do not earn enough money to pay operating expenses plus the debt service of capital funding requirements.

Airports also have access to the State of Utah's Permanent Community Impact Fund Board. The Permanent Community Impact Fund Board provides loans and grants to counties, cities and towns that are impacted by mineral resource development on federal lands. Because local communities cannot collect taxes from federal lands, their ability to provide necessities like roads, municipal buildings, water and sewer service is diminished. To reduce that burden, a portion of the federal lease fees are returned to the Community Impact Board to distribute to the impacted communities.

Airport sponsors that accept FAA grants, including Carbon County, are legally encumbered by the sponsor assurances. Some of the sponsor assurances specifically address airport financial management:

22. Economic Nondiscrimination.

a. It (the airport sponsor – Carbon County) 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 furnish said services on a reasonable, and not unjustly discriminatory, basis to 1) all users thereof, and charge reasonable, and not unjustly discriminatory, prices for each unit or 2) 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.

24. Fee and Rental Structure. It (i.e. the airport sponsor – Carbon County) 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 ... project for which a grant is made under Title 49, United States Code...shall be included in the rate basis in establishing fees, rates, and charges for users of that airport.

25. Airport Revenues. All revenues generated by the airport and any local taxes on aviation fuel established after December 30, 1987, will be expended by it (the airport sponsor, Carbon County) for the capital or operating costs of the airport.

FAA acknowledges that each airport's financial situation is unique, as well as each airport sponsor's financial goals and objectives. However, FAA requires each airport to work towards the goal of achieving and maintaining financial self-sufficiency to the extent feasible given each airport's unique circumstances.

5.2 Airport Finances and Budgets

Airport finances and budgets are typically divided into two broad categories: operating and maintenance (O&M), and capital improvements. **Table 5-1** shows the relationship between revenues and expenses in each of the categories.

Type of Expense/Revenue	Costs/Expenses	Revenue/Funds
Capital Improvements	- Airfield facility construction	– FAA, State Grants
	 Terminal area construction Ground transportation infrastructure 	 Loans Operating Surplus
Operating & Maintenance	 Repairs, supplies, equipment, etc. Administration, personnel, overhead Airport/air service marketing/promotion 	 Aeronautical (landing fees, parking fees, fuel flowage, etc.)

TABLE 5-1 -	EXAMPLES	OF AIRPORT	REVENUES A	and expenses

JVIATION

Type of Expense/Revenue	Costs/Expenses	Revenue/Funds
		 Non-aeronautical (vehicle parking, concessions, advertising, non-aeronautical commercial uses, etc.)

Source: Airport Cooperative Research Program, Report 77

Grants issued by the FAA, as well as many grants issued by state aeronautics agencies, are restricted to capital improvement projects and cannot be used for operations and maintenance. In addition, only certain types of capital improvements are eligible for FAA and state grants, and the facilities must be available for public use (i.e. not sold or encumbered by an exclusive lease). As a result, airport O&M expenses must be covered by operating income, including revenue from fuel sales, aircraft landing and parking fees, land and building lease fees, vehicle parking, concessions, etc.

Grants issued by the FAA and state agencies also require airport sponsors to apply matching shares. Currently, FAA funds 90.63% of eligible airport projects in Utah. The airport sponsor pays half of the balance (4.685%), and the State of Utah pays the other half of the local share (4.685%).

In order to meet FAA's stipulation in the grant assurances that airports should be "as self-sustaining as possible under the circumstances existing at the particular airport," the sponsor needs to generate sufficient operating income from leases and user fees (fuel sales, land and tie-down fees, etc.) to match or exceed annual O&M expenses, as well as the local share of grants for capital improvements.

FAA and state grants received by an airport do not count as operating income, and can only be used for specific eligible projects. As a result, sponsors should examine the rates and charges in place at their airport to determine if the revenue from fuel sales (or fuel flowage fees), aircraft parking and landing fees, land and building lease rates, vehicle parking, and concession fees (restaurants, shops) etc., is equal to or exceeds O&M costs, and also the local share of grants.

FAA does not specify what rates and charges an airport may impose, except that they must be "reasonable and non-discriminatory." As discussed below, raising rates and charges to generate more revenue can potentially reduce traffic, particularly if adjacent airports are more price competitive. The fixed base operator (FBO) at PUC, Redtail Aviation, sells and pumps fuel, collects aircraft landing and tie-down fees, as well as hangar storage rent.

At general aviation airports like Carbon County Regional Airport (PUC), that is a common financial/management arrangement. Sponsors should receive a share of the revenue collected by the FBO, in addition to land and building lease revenue. However, that is determined on a case-by-case basis at each airport.

Carbon County's budget, adopted December 31, 2015, shows that between 2013 and 2015 the Airport budget decreased by 46.7%, from \$471,800 to \$251,300 (**Table 5-2**). In addition, in 2013 and 2014 actual expenses were less than budgeted. That is an indicator of cost controls, which is an important element of working towards FAA's goal of financial self-sufficiency. Additionally, there were not any large airport improvement projects undertaken requiring a large grant match.



20	13	20	14	2015		
Budget	Actual	Budget	Actual	Budget	Actual	
\$471,800	\$425,597	\$395,300	\$360,177	\$251,300	NA	

TABLE 5-2 - PUC BUDGET

Source: Carbon County, UT

5.3 Airport Capital Improvement Plan (CIP)

The FAA is required by the U.S. Congress to prepare a capital improvement plan (CIP) for every airport in the National Plan of Integrated Airport Systems (NPIAS), including PUC. In turn, the FAA requires each airport sponsor to submit their individual CIP to FAA on an annual basis. FAA uses the CIPs to develop the NPIAS, which identifies airport funding needs for at least five years.

Each airport CIP is focused on facility improvements and development (i.e. capital projects), and not on airport operation and maintenance (O&M) expenses. The FAA requires each airport CIP to cover a minimum of a five-year period, however many CIPs cover longer periods. CIPs are updated every year, and sometimes more frequently depending on circumstances. Each CIP is required to identify:

- Individual improvement projects
- The cost estimate for the project
- Potential funding sources—typically FAA, Sponsor, State, Private, as appropriate
- The time period for implementation

5.3.1 PUC CIP Project List

PUC's current CIP Airport Development Plan Project List is shown in **Table 5-3** and **Table 5-4**. Future projects are subject to funding availability on the federal, state, and local level. The 2016 security fencing and gates project has been completed.



TABLE 5-3 - PUC AIRPORT DEVELOPMENT PLAN PROJECT LIST

Utah Division of Aeronautics Airport Development Plan Project List															
Carbon County (PUC)															
	Project Description & Cost Estimate														
Scheduled/R										Co	ost Allocation \$				
equested Federal Fiscal Year	Project Description	Project Identification in ALP/MP	Comments	Sponsor Priority Number	Es Ci	timated Total ost of Project		Federal Participation	NP	Entitlement	State Apportionment	Pa	State articipation	Pi	Sponsor articipation
	Federally Fund	led Projects			i –			90.63%				Ē	4.685%		4.685%
2016 Security Fencing & Gates					\$	277,934	\$	251,892	\$	251,892		\$	13,021	\$	13,021
2017	Bank GA Entitlement				\$							\$	-	\$	
2018	Bank GA Entitlement				\$							\$	-	\$	
2019	Bank GA Entitlement				\$							\$	-	\$	-
2020	Rehabilitate Runway 15/33	Pavement & I	ighting		\$	3,475,670	\$	3,150,000	\$	600,000	\$ 2,550,000	\$	162,835	\$	162,835
2021	Bank GA Entitlement				\$	-						\$	-	\$	-
2022	Bank GA Entitlement				\$	-						\$	-	\$	-
					\$	-						\$		\$	-
					\$	-						\$		\$	-
	Participatio	on Totals			\$	3,753,605	\$	3,401,892	\$	851,892	\$ 2,550,000	\$	175,856	\$	175,856
												_			
	State Funde	d Projects											90.00%		10.00%
2017	Pavement Preservation RW	/ 1/19 & TWY	A		\$	250,000						\$	225,000	\$	25,000
2019	Pavement Preservation RW	8/26 & Apror	IS		\$	200,000						\$	180,000	\$	20,000
												\$	-	\$	-
												\$		\$	-
	Participatio	on Totals			\$	450,000						\$	405,000	\$	45,000
	Note: Attach additional she	ets as necessa	ry to fully desc	cribe project	s or t	o add informat	on n	eeded for a full	under	rstanding of p	roject scope, loca	atior	n and costs		
For Planning Purposes Only															
								-							

Source: Utah Division of Aeronautics



TABLE 5-4 – PUC PROJECT DESCRIPTIONS & COST ESTIMATES

Scheduled/	Project Description	Project ID in	Comments	Sponsor	Estimated			Cost Alloca	ation \$		
Requested Federal Fiscal Year		ALP/MP		Priority Number	Total Cost of Project	Federal Particip.	NP Entitlements	State Apportionment	State Participation	Sponsor Participation	Private Investment
	Federally Fund	ded Projects				90.63%			4.685%	4.685%	
					PHASE I 20	016-2020					
2016	Security fencing & GA gates (completed)		Completed		\$277,934	\$251,892			\$13,021	\$13,021	
2017	Bank GA Entitlements										
2018	Bank GA Entitlements										
2019	Bank GA Entitlements										
2020	Rehabilitate Rwy 15-33 Pav	ement & Ligh	ting		\$2,228,000	\$2,019,236	\$600,000	\$1,419,232	\$104,381	\$104,381	
					PHASE II 2	021-2025					
2021	Construct taxilane to hangars		Amount of FAA partic ipation dependent on hangar ownership/lease.		\$591,000	\$535,621*	\$150,000	\$385,621	\$27,688	\$27,688	
2021	Construct two box hangars (12,800 s.f. @ \$165/s.f.)										\$2,110,000
2022	Construct one box hangar (6,400 s.f. @ \$165/sf)										\$1,056,000
2023	Construct one box hangar (6,400 s.f. @ \$165/s.f.)										\$1,056,000
2024	Construct one box hangar (6,400 s.f. @ \$165/s.f.)										\$1,056,000
2025	Bank GA Entitlements										
					PHASE III 2	2026-2035					
2026-2035	Expand south apron (9,000 s.f.)				\$152,000	\$137,758	\$137,758		\$7,121	\$7,121	
2026-2035	Bank GA Entitlements										
Participation 7	Totals	•		•	\$3,248,934	\$2,044,507	\$887,758	\$1,804,853	\$152,211	\$152,211	\$5,278,000
State Funded	Projects								90%	10%	
2017	Pavement preservation RW	1/19 & Txwy	A		\$250,000				\$225,000	\$25,000	
2019	Pavement preservation RW	8/26 & Apror	S		\$200,000				\$180,000	\$20 <u>,</u> 000	
Participation	Totals				\$450,000				\$405,000	\$45,000	

Source: Jviation. Notes: Cost estimate for expansion of south apron parking shown. The site could potentially be used for corporate/box hangar or T-hangar area, depending on demand from aircraft owners. See Appendix 7 for cost estimate breakdowns. *The amount of eligible FAA participation in the hangar access taxilane will depend on the ownership and/or lease agreements with the hangar owners.



Airport Development Plan Project List Through 2035

The Master Plan recommended the following capital improvements to be undertaken through 2035. See Appendix 7 for the breakdown of the cost estimates.

- 1. Rehabilitate Runway 15-33, as currently shown on the CIP.
- 2. Construct five new corporate/box hangars on an as-needed basis, in addition to a new paved taxilane serving the hangars. The hangars are adjacent to the utilities that have been previously installed by the County. The actual number of hangars to be constructed, the timing for construction, and the specific size of each hangar, will be determined by the private entities that will pay for the hangars. FAA could participate in hangar development if they were constructed by the County and available to all aircraft owners. However, FAA will not participate in the cost of privately owned hangars, but a portion of the paved taxilane would be eligible for FAA participation. The amount of FAA participation in the taxilane construction would depend on whether the hangars were developed by private parties or the County. Depending on the extent of interest by private parties to construct new hangars, it is possible that some or all of the new taxilane could be also funded by private investment.
- 3. Construct an expansion of the parking apron on the south side, 60-feet-by-150-feet (9,000 square feet), if future parking demand warrants. The cost estimate in the CIP is shown for apron expansion which would be eligible for FAA participation. That area could also be the site of a new corporate/box hangar or possibly T-hangars, if an aircraft owner/developer expressed a need for hangars in that area. A corporate/box hangar could potentially generate more revenue for the airport than paved tiedowns or transient parking, particularly if turbine-powered aircraft were to be based at PUC.
- 4. Three areas on the airport were identified for future non-aeronautical development (**Figure 5-1** and **Figure 5-2**), representing a total of approximately 53 acres. As noted in previous chapters, all non-aeronautical development must be fully compatible with airport and aircraft operations. Approximately three acres were identified in the terminal area; approximately 39 acres between Runway 26 and 19; and approximately 12.5 acres between Runway 1 and 33. The last area (12.5 acres) can only be developed after the VOR transmitter situated in that area is shut down by the FAA. It is recommended that all of the development costs for the non-aeronautical development be paid for by private parties, including utility hookups, road improvements, etc. The County will receive land lease revenue from the development, which must be designated as airport-related revenue, and therefore used solely for airport purposes including capital improvements, operation and maintenance (O&M), etc. FAA also requires that the County charge fair market value for the land leases.
- 5. In addition to the capital improvements, the Master Plan recommends that the County continue its regular airfield maintenance program in conformance with the FAA grant assurances and the pertinent advisory circulars.

As noted, the County has installed the wildlife perimeter fencing, and Runway 15-33 is programmed in the CIP for a rehabilitation in 2020. The proposed hangars will be constructed by private parties on an as-needed basis over the next five to fifteen years.



The area shown for possible non-aeronautical development to the south, between Runways 33 and 1, will occur only after the Carbon VOR¹ is decommissioned by the FAA. The FAA is implementing a long-term plan to decommission ground-based navigation aids including VORS, NDBs, etc. FAA does not have a specific schedule or time frame to decommission the Carbon VOR.



FIGURE 5-1 - FUTURE HANGAR LAYOUT PLAN AND NON-AERONAUTICAL DEVELOPMENT

Source: Jviation

¹ Very high frequency (VHF) omni-directional range transmitter. Used by pilots for navigation.





FIGURE 5-2 - FUTURE AREAS FOR NON-AERONAUTICAL DEVELOPMENT

Source: Jviation

A number of factors affect the availability of FAA funding for eligible projects in a given fiscal year. The FAA's priority ranking system (discussed below) determines how the agency disburses limited funding each fiscal year. Factors such as lead times for environmental review and approval, the sponsor's financial capability, also affect when FAA funding may be available for eligible projects.

At PUC, it not anticipated that any of the proposed projects shown on the ALP will require environmental assessments or permitting. However, depending on the type, extent, and timing of future non-aeronautical development that might occur on the airport, which is to be determined, environmental review and permitting may be required. Is it recommended that the County require developers to identify and obtain all necessary environmental reviews and permits prior to nonaeronautical development on the Airport.

Regarding FAA's priority ranking system, the FAA's Airport Improvement Program (AIP) is funded annually by the U.S. Congress, which also prescribes the funding formulas that FAA must apply to eligible projects. FAA Order 5100.38D, *Airport Improvement Handbook*, describes what projects are eligible for FAA funding, the FAA grant process, and the grant administration required by airport sponsors. As noted previously, general aviation airports receive annual entitlement grants from FAA (currently \$150,000 per year, which can be rolled over for three years), as well as discretionary grants. FAA discretionary grants are subject to the agency's priority ranking system.

FAA Order 5100.39A, *Airports Capital Improvement Plan*, describes FAA's priority ranking system. Because the AIP does not provide enough funding to match demand from airports, FAA applies its priority ranking system to fund higher priority projects first. Lower ranked projects receive funding when it becomes available after funding higher ranked projects. FAA's priority ranking system involves detailed formulas, however, the broad priority rankings are shown below. Except for the

JVIATION

rehabilitation of runways and aprons, the capital projects shown on the PUC Airport Layout Plan would fall within the latter category.

- enhance safety or security (runway safety areas and meeting FAA design standards, , for example)
- enhance system capacity (additional runways and taxiways to meet existing or projected demand)
- enhance environment (meet the goals and guidelines of the National Environmental Policy Act NEPA, as well as FAA guidance).
- enhance access to the airport system (roads, public transit, etc.)
- support state and local plans (e.g., priorities, system plan)

5.3.2 Cost Estimate of Each Capital Improvement Project

No site-specific survey, soils or pavement testing, or other engineering data was compiled as part of this task. Existing available data was used as part of developing the project cost estimates. The cost estimates are an order of magnitude to identify potential costs, but are not be used for project bid or grant application purposes.

The proposed hangars at PUC, discussed in Chapter 4 and shown in **Figure 5-1**, could cost approximately \$6.7 million (\$165/s.f.) There are six new hangars shown on the Plan which are corporate/box hangars, five of which will be approximately 80 feet by 80 feet (6,400 square feet), and one approximately 60 feet by 150 feet (9,000 square feet). The hangar sites are graded and have utility hookups, which will reduce construction costs. The actual hangar construction costs will vary depending on a variety of factors:

- The size, configuration, and layout of each hangar and associated apron.
- Whether hangars will be required to have sprinkler or other fire suppression/protection systems such as fire walls, etc.
- The cost of materials at the time the hangars are constructed. The cost of some construction materials such as copper, steel mill products, fabricated structural metal, and prefabricated metal buildings, for example, have been extremely volatile since 2006.
- The type and extent of interior and exterior fittings installed, included security systems.
- Whether multiple hangars are constructed at the same time by the same contractor, or built individually by multiple contractors over different periods. The former process is typically less expensive than the latter.

5.3.3 Potential Funding Sources

Potential funding sources include FAA, UDOT, EDA, Utah Community Impact Board (CIB) County, private, and potential share of each project cost. As noted previously, privately funded hangars and non-aeronautical development are not eligible for FAA grants. Only a portion of the paved taxilane would be eligible for FAA funding, but it would be a relatively low priority project. It is possible that the hangars and non-aeronautical development may eligible for CIB or EDA grants,



depending on the program criteria and funding availability. It is anticipated that private investment would be the primary source of funding for those projects.

Capital improvements that are privately funded, such as hangars, or subject to leases to private parties, such as airline ticketing and office space in a terminal building, are generally not eligible for FAA funding. As a result at PUC, only a portion of the proposed paved taxilane to the future hangars would be eligible for FAA funding, but that would be ranked relatively low priority.

The FAA has established criteria for what projects are eligible for FAA funding. Eligible projects must be shown on an approved Airport Layout Plan (ALP), and must be available for public use (i.e. not an exclusive-use facility or subject to a lease with a private entity).

The FAA uses "three basic tests" to determine funding eligibility for projects:

- The project advances an AIP policy (i.e. dealing with airport safety, security, capacity, meeting FAA standards, preserving infrastructure, etc.).
- There is an actual need (i.e. facility requirements are demand-driven).
- The project scope is appropriate.

When a project is determined to be eligible for FAA funding it is then subject to FAA's priority ranking system. Projects dealing with safety, security, standards, environment, and capacity are typically ranked highest. Projects with lower priority ranking (such as hangars, vehicle parking, airport access roads, etc.) receive FAA funding after higher ranked projects have been implemented. In addition, FAA will issue a grant for an eligible project only after all of the necessary environmental reviews and approvals have been obtained, and the sponsor has the local share of the project cost available.

Airport sponsors can also implement projects without FAA funding. Many airports rely on private investment for projects such as hangars, concessions in terminal buildings, non-aeronautical development, etc. It is proposed in this Master Plan that future hangars and any non-aeronautical commercial development be privately funded, and not built by the County.

It is important to note, however, that all development projects, including those that are privately funded and involve no funding from the FAA, must be shown on and consistent with the approved Airport Layout Plan (ALP).

There are potential risks associated with private investment on airports (**Table 5-5**). Airport sponsors can mitigate some of the risks with specific lease provisions. For example, sponsors can include reversion clauses in leases whereby all improvements made on leasehold property revert to the ownership of the airport sponsor at the end of the lease term. In addition, sponsors can require construction and performance bonds before private parties begin improvement projects.

Pros	Cons
 Reduces capital outlay by the airport sponsor. Reduces the risk associated with capital development projects. 	 Facilities not eligible for FAA funding. Sponsor typically receives less revenue from land lease compared to building & land lease it sponsor constructs project.

TABLE 5-5 - PRIVATE INVESTMENT IN AIRPORTS



Pros	Cons
 Potentially improve the sponsors bond ratings. 	 Investor may insist on long-term lease to amortize investment. Without strong lease provisions, airport sponsors may have limited control over use of private facilities, sub-leasing, etc.

Source: Jviation, Inc.

Under the FAA's current Airport Improvement Program (AIP), general aviation airports such as PUC receive \$150,000 per year in entitlement grants, which can be used on FAA-eligible capital improvement projects each year, or else banked for a maximum of three years, at which time the Airport has \$450,000 available from FAA for eligible projects.

Entitlement grants for GA airports are dependent on Congressional appropriations each fiscal year. If annual appropriations were to fall below pre-determined levels, then GA airports would not receive their annual entitlements. To date Congress has appropriated sufficient money each year for GA airports to receive entitlement grants.

State DOT Funding

The Utah Division of Aeronautics (UDOA) has overall responsibility for coordinating, developing, and maintaining the Utah Continuous Airport System Plan (UCASP), and the Airport Capital Improvement Plan (ACIP) for all public use airports within the state of Utah. The DOA is the division within the DOT that has responsibility for all aeronautical and aviation-related transportation issues that impact the citizens of Utah. UDOA takes the lead within the Department in developing the UCASP and the related ACIP.

The ACIP is a five-year capital investment program for all Utah airports. The ACIP identifies and prioritizes projects at each public use airport by federal fiscal year. The ACIP is fiscally constrained to the amount of federal and state funding appropriated in a given year.

The ACIP is the DOT's program for implementing the UCASP. The ACIP is prepared in cooperation with federal, state, and local agencies and encompasses all public-use airports in Utah. It establishes priorities for airport planning, construction, improvement, and maintenance necessary to meet national, statewide, regional, and local objectives. This cooperative planning process ensures that development and maintenance projects for public use airports in the state are centrally coordinated to best serve the transportation, communication, and economic needs of the citizens of Utah.

The primary source of funding utilized by the Division is generated by aviation fuel taxes and registration fees on aircraft based in Utah. The revenue generated from these taxes and fees are deposited into a restricted account from which funds are appropriated annually by the Utah Legislature.

Table 5-6 identifies the amount of total federal and state funds that have been utilized in Utah for airport improvements between CY 2011 and 2015. It should be noted that over half of the federal funds allocated to Utah were directed towards capital improvements at Salt Lake City International Airport.



	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Federal Funds	\$63,893,891	\$61,05,483	\$53,708,107	\$49,105,967	\$44,572,328
Federal Funds for GA Airports	\$18,554,173	\$17,403,717	\$21,258,391	\$12,472,373	\$7,467,965
State Funds	\$2,100,933	\$3,357,952	\$2,458,686	\$3,723,477	\$2,229,870
Total Funds	\$65,994,824	\$64,413,435	\$56,166,793	\$52,829,444	\$46,802,198

TABLE 5-6 - HISTORICAL AVIATION FUNDING IN UTAH

Source: FAA and Utah DOT

FAA Discretionary Grants

In addition to entitlement grants, FAA also issues discretionary grants. While the term discretionary implies flexibility in terms of which projects can be awarded grants, under the recently expired AIP program two thirds of all discretionary money was dedicated for specific types of projects, such as the military airport program (MAP), noise mitigation, and environmental projects, among others.

Discretionary grants are awarded on the basis of FAA's priority ranking system, which ranks all eligible projects at GA airports within the FAA's Northwest Mountain Region, and compares the needs against the funding available to issue each fiscal year as grants. In addition, the FAA requires a benefit-cost analysis (BCA) to demonstrate the merit of certain capacity projects for which airport sponsors are seeking AIP discretionary funds.

Because available AIP funding does not meet all of the financial needs identified throughout a given FAA region, lower ranked projects (such as hangars, access roads, etc.) will receive grants only after higher priority projects are funded. Due to the uncertainties of Congressional appropriations each fiscal year, the need to fund high priority projects, and fluctuations in the availability of local and state matching funds, it is difficult to anticipate when FAA will issue discretionary grants for lower priority ranked projects.

FAA's latest AIP program expired September 30, 2015, and the program has since been funded by short-term Continuing Resolutions (CR) passed by Congress. Congress is studying legislation to create a new AIP program, but it is currently not known. Some of the unknown factors of new legislation are:

- When the new AIP program will be passed and signed into law.
- How long it will remain in effect.
- How much money will be appropriated for airport development projects.
- If the entitlement and discretionary formulas will remain the same, or be changed.
- If FAA's priority ranking system or project eligibility criteria will remain the same, or be changed.
- If FAA's share of project costs (currently 90% for most eligible projects) will remain the same or change.
- As a result, once the new AIP program has been passed, the FAA, state aeronautics agencies, and each airport will need to re-examine their CIP and determine how changes



in the new program will impact their CIP, including funding for FAA's entitlement and discretionary grants.

• **Figure 5-1** illustrates the future hangars at PUC, as well as the proposed area to be developed for non-aeronautical land uses. As noted previously it is anticipated that all of the development will be funded by private sources, and therefore will not be impacted by the reauthorization of the AIP program, although the proposed rehabilitation of Runway 15-33 might be impacted by the new program, depending on its funding levels and criteria.

Airport Leases, Rates and Charges

In addition to revenue generated from fuel sales, aircraft parking and tie-down and hangar fees, revenue from land and building leases typically represent the largest source of revenue for general aviation airports. Revenue from building and land leases represent steadier long term income for airports compared to operations-related revenue such as fuel sales, aircraft landing and parking fees, etc., which fluctuate with traffic volumes.

It is up to the County to determine the appropriate rates and charges to negotiate with each tenant, within the provisions of FAA's sponsor grant assurances. Based on surveys of rates and charges at other GA airports, a general range of fees are shown.

- unimproved land lease: 10 cents to 25 cents per square foot, per year
- improved land (graded, with utility hookups): 25 cents to 30 cents per square foot, per year
- building lease: \$1.00 to \$2.00 per square foot, per year
- T-hangar rental rate: \$120 \$200 per month
- Tie-downs: \$70 to \$100 per month
- Corporate hangar: \$500 to \$1,000 per month

There is no national benchmarking survey of general aviation airport rates and charges. The American Association of Airport Executives (AAAE) used to conduct national surveys of rates and charges every two years, however, has discontinued such surveys. Individual states such as Wyoming, Wisconsin, etc., conduct statewide airport rates and charges surveys.

One characteristic documented in the surveys is that rates and charges for every service and lease vary significantly between airports. For example, the rates and charges for Cedar City Airport are attached below (**Table 5-7**). Unlike PUC, CDC has airline service by Delta Connection to Salt Lake City, which provides more revenue sources than are typically available at general aviation airports. In addition, commercial airport sponsors typically charge more for terminal space than GA airports, but the rates and charges applicable to GA aircraft at CDC provide one guide for other airports.

The FAA does not typically review or approve leases, unless it is specifically requested to do so in response to complaints or issues raised by airport tenants. However, FAA guidance regarding leases notes that sponsors cannot enter into agreements with lease terms that exceed 50 years:



"Most tenant ground leases of 30 to 35 years are sufficient to retire a tenant's initial financing and provide a reasonable return for the tenant's development of major facilities. Leases that exceed 50 years may be considered a disposal of the property in that the term of the lease will likely exceed the useful life of the structures erected on the property. FAA offices should not consent to proposed lease terms that exceed 50 years."²

- The rates and charges set in leases should be "reasonable and not unjustly discriminatory." Sponsors should also charge fair market values (FMV) for leases. The determination of fair market value can be accomplished through surveys of comparable airport rates and charges, or hiring an appraiser to determine the value of the leasehold. FAA allows sponsors to set rates and charges that will allow the airport to be financially self-sufficient, including covering day-to-day operating as well as capital improvement costs.
- Sponsors cannot approve exclusive rights agreements (i.e. allow a monopoly) with aeronautical commercial service providers on the airport. The FAA specifically allows airport sponsors to provide aeronautical services on an exclusive basis, if it so chooses, as long as the services are provided directly by the sponsor and through a third party.
- Leases should have subordination clauses that specify that the lease is subordinate to an agreement between the sponsor and the federal government, as may be amended from time to time.
- Reversions clauses and titles: leases should include a provision whereby all improvements made on leasehold property (including titles) revert to the ownership of the airport at the expiration of the lease, or if and when the tenant (lessee) violates the lease provisions and is found in default of the lease.
- The sponsor should reserve the right to review and approve (or deny) any proposed assignment or subletting of the leasehold area by a tenant, prior to such agreements being finalized.
- Sponsors should reserve the right to relocate tenants and their improvements if required to accommodate aeronautical needs and/or comply with agreements with the federal government.
- Lease should have specified escalation clauses for all rates and charges, as well as dates for renegotiating lease rates prior to the end of the lease term, particularly if the term is greater than 10 years.

² Source: FAA Airport Compliance Manual, Chapter 12, Sect. 12.3 Review of Agreements, b. Form of Lease or Agreement, (3) Term.



TABLE 5-7 - CEDAR CITY AIRPORT RATES

Cedar City Airport Rates		Cedar City Corp. 10 N. Main St
		Cedar City, UT 84720
Revenue Source	Rate	Comments
Terminal Space of the Main Floor Lebby	\$1.15 /c f /mc	Skuwest, Bostal Car Countara
2nd Floor	\$0.71 /s.f./mo	TSA (Set by GSA)
Passenger Facility Charge	\$4.50	Per Enplanement - Set by FAA
Rental Car Concession Fee	10 % aross	
Tie Down / Overnight Barking Fee	\$10.00	First pight free
Monthly	\$10.00	Filst flight nee
Annual	\$300.00	
Land Leases Raw Land	\$0.15 /s.f./yr	
Airside Paved Apron	\$0.25 /s.f./yr	Nee Definideble
Survey Fee	\$500	Non Refundable
Hangar Leases FedEx	\$ 391 25 /mo	
Heli-Venture	\$ 214.89 /mo	
T-Hangars	\$ 120 /mo	
Ť		
Fuel Storage / Flowage per gallon	\$0.10 / Gal.	
Government contract Helicopter , or SEAT with fuel on airport not purchased from FBO.	\$0.30 / Gal.	Paid to FBO by aircraft operator per Airport Manager direction. FBO to apply gals to the above rates and pay airport.
Landing Fees		Based on Max Takeoff Weight
DI M. Lius Tankara S. 400.000 liba	\$100.00	
BLM - Hvy Tankers > 100,000 lbs BLM - Med Tankers < 100,000 lbs	\$100.00	C-130, MD-87 weight tankers
BLM - Med Tarkers < 100,000 hs	\$20.00	
General Aviation	n/2	No Charge
Commercial Aviation	\$.50 / 1000 lbs Max Take Off Weight	Commercial Airlines, Charter Operations, Cargo Operations
Flight School Operator Fees		Operator must select between monthly or per landing rate. Reviewed annually
Heliconter/Potororaft	\$7.50 per landing	or
	\$3,750 per month	
Hazardous Waste Spill	\$250	Airport portion only
Construction Clean un Fee	\$1.000	Refundable
	\$1,000	Neidhidable
SASO Initial Application/Annual License Fee	\$100	Non Refundable
	45 000	New Defendable
FBO Initial License Application Fee	\$5,000	Non Refundable

Source: Cedar City Corp.



In addition to the lease rates and other financial consideration, airport sponsors should include lease provisions that:

- Ensure the sponsor retains control over the land uses within the leasehold area, including having the right to review and approve or deny any changes to land uses prior to any changes.
- Specify that the sponsor has the right to review and approve or deny any sub-lease prior to entering into such agreements.
- For any lease with a term of 10 years or longer, specify the sponsor's right to renegotiate the lease term at specific intervals if conditions on the airport have changed, and/or FAA has amended their guidance to sponsors regarding leases and/or rates and charges within that time period. For lease terms greater than 30 years, request FAA review and comment prior to executing the lease.
- Specify who is responsible for maintenance of the leasehold area and the improvements situated on it, including a clear and unambiguous definition of "good condition."
- Include a reversion clause specifying that all improvements made to the leasehold area revert to the ownership of the airport sponsor at the termination of the lease. The owner typically retains the right of first refusal to negotiate a lease as a tenant on the leasehold if they have not previously violated any condition of the lease.
- Specify a fixed schedule of increases in rates and charges within specific time periods. Often such increases are tied to the Consumer Price Index (CPI), but other measures can also be used.
- Specify the conditions and time periods when the lease terms can be renegotiated.
- Include a subordination clause that specifies that all lease provisions are subordinate to any federal agreement entered into by the City, and as may be amended from time to time.
- Clearly stipulate that tenants must comply with all appropriate and pertinent federal, state, and local regulations dealing with environmental issues, licenses, permits, and approvals, building and fire codes, etc., as may be amended from time to time.
- Include a specific provision to allow the airport sponsor to enter and inspect the leasehold area and all improvements at sponsor's discretion.
- Specify that any and all tenants will ensure that their activities and improvements are fully compatible with airport and aircraft operations, including all pertinent FAA requirements, as well as the approved Airport Layout Plan (ALP).

Include specific references to the FAA Sponsor Assurances, in particular to the clauses requiring tenants to "furnish their services on a reasonable, and not unjustly discriminatory, basis to 1) all users of the airport, and 2) charge reasonable, and not unjustly discriminatory, prices for each unit or service."



FAA Guidance and Role in Airport Leases

Leases between airport sponsors and tenants are not formally approved by the FAA, but FAA may review and comment on leases if specifically requested to do so by the airport sponsor, or in response to complaints filed under 14 CFR Part 13 or Part 16 by airport tenants or parties wishing to be tenants (i.e. those entities with legal standing).

Leases are typically just one of a number of guiding documents adopted by airport sponsors, along with minimum standards and airport rules and regulations. Some of the more significant differences between leases and minimum standards include:

- Leases are legal contracts between the sponsor and individual legal entities situated on and/or doing business on the airport. Minimum standards are applicable to a broad class of commercial aeronautical service providers physically based on the airport, and standards also frequently identify exempted parties.
- Lease terms and rates are negotiated between the sponsor and each individual tenant, and are updated at specified intervals. Minimum standard terms and conditions are applicable to a broad class of commercial aeronautical service providers situated on the airport.
- Leases can only be updated/amended/extended at specified periods, unless otherwise mutually agreed to by both parties. Minimum standards can be amended or revised at the sole discretion of the airport sponsor at whatever interval or frequency determined solely by the sponsor.
- Every tenant situated and/or doing business on the airport has a lease or other agreement with the airport sponsor. Some airport tenants are excluded from the provisions of minimum standards, such as concessions, private non-commercial parties, and airlines.

Leases with airport tenants must be consistent with the following provisions of the FAA grant assurances:

- Grant Assurance 5 Preserving Rights and Powers
- Grant Assurance 22 Economic Nondiscrimination
- Grant Assurance 23 Exclusive Rights
- Grant Assurance 24 Fee and Rental Structure
- Grant Assurance 25 Airport Revenues
- Grant Assurance 38 Hangar Construction

Leases with non-aeronautical tenants on an airport should include provisions that specify that the land use is fully compatible with airport and aircraft operations, particularly regarding noise, penetrations of imaginary surfaces, creation of any visual or electronic interference with aircraft communications, navigation, or other instruments.

The Transportation Research Board (TRB) Airport Cooperative Research Program (ACRP) published the "Guidebook for Developing and Leasing Airport Property," ACRP Report 47, in 2011. That report summarized the legal requirements for leases in terms of compliance with FAA

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policies, noted above, as well as project development considerations, leases for FBO and specialized aviation service operators (SASO), airport finances, project analysis and lease agreement checklist, a list of best practices (presented below), as well as a number of specific case studies of leases executed by various airport sponsors.

The ACRP report notes:

"A recommended best practice is that airport sponsors develop a standard Airport Leasing Policy that applies to both facility and land leases. The Leasing Policy must be flexible enough to allow for unanticipated development opportunities while being comprehensive enough to account for multiple tenant types and operations. A standard, comprehensive Leasing Policy provides for the equitable treatment of all airport tenants and will minimize questions, concerns, and potential conflict between the airport and its tenants. The Leasing Policy should include, at a minimum, the following provisions:

- Land lease rates (per square foot), differentiated by area. Aeronautical versus nonaeronautical, for example, and consideration of the land's proximity to infrastructure.
- Hangar lease rates (per square foot), with consideration to the gauge of aircraft that the hangar will accommodate in terms of hangar door size, height, and clear span distance.
- Building and facility lease rates (per square foot).
- Standard lease terms that are compliant with state and local law.
- FBO/SASO (specialized aviation service operator) lease requirements, which are consistent with an airport's Minimum Standards.
- Process for adjusting rents and fees (living clause).
- Insurance requirements, preferably in one document and adopted by official action, of the governing body.
- Consolidation of all insurance requirements applicable to the airport allows an airport to review, update, and have them reconsidered by the governing body from time to time.
- Obligations of lessee as specified in a Rules and Regulations document.
- Routine inspection provisions for safety and compliance of airport tenants and users.
- Construction and improvement standards that outline pre-approval by the landlord and the airport sponsor, local permitting agency requirements, and FAA notification of proposed construction once all other approvals are secured.
- Subletting policy.

"Ensuring that any proposed project is in compliance with all applicable FAA, NEPA, state, and local regulations is the responsibility of the airport sponsor, and, as such, the sponsor must remain engaged throughout the project planning, development, and execution phases."

5.3.4 Revenue Enhancement Options

The FAA requires airports to be as "financially self-sustaining as possible under the circumstances existing at the particular airport, taking into account factors such as the volume of traffic and



economy of collection."³ The two primary ways to achieve financial self-sustainability are to control costs and maximize revenue generation. FAA does not dictate what specific rates and charges should be in place.

The FAA requires airport sponsors to charge fair market value (FMV) for land and other leases, and the County is required by the FAA grant assurances to adopt appropriate restrictions on future non-aeronautical land uses to ensure that the development is fully compatible with both airport and aircraft operations.

There are approximately 53 acres on the east side of the airport divided into several areas that could be developed for revenue-producing, non-aeronautical commercial or light industrial land uses (**Figure 5-1** and **Figure 5-2**). If, for example, the County charged a land lease rate of 20 cents per square foot per year for all 53 acres, the non-aeronautical tenants could potentially generate \$470,000 per year in revenue. FAA policy states that revenue must be dedicated to airport operation, maintenance, and capital improvements.

If all, or even the majority, of the area identified for future non-aeronautical development is leased and generates revenue, the income will cover the Airport's operating and maintenance (O&M) costs. As a result, the revenue generated by non-aeronautical development could allow the County to maintain current aviation-related rates and charges and still achieve FAA's recommendation that the airport be financially self-sustaining.

FAA's primary criteria is that the rates and charges in effect at an airport are "reasonable and nondiscriminatory," and that they result in the Airport being as financially self-sufficient as possible. Grants issued by the FAA and states are typically limited to capital improvement projects and cannot be used for operating and maintenance (O&M) costs. **Table 5-8** lists capital vs. operating expenses and potential revenue sources for each.

Type of Expense/Revenue	Costs/Expenses	Revenue/Funds
Capital	 Airfield construction Terminal construction Ground transportation infrastructure 	 FAA, State Grants Loans Operating Surplus
Operating	 Operations & Maintenance (O&M) Administration Airport/air service marketing/promotion 	 Aeronautical (landing fees, parking fees, fuel flowage, etc.) Non-aeronautical (vehicle parking, concessions, advertising, non-aeronautical commercial uses, etc.)

TABLE 5-8 - EXAMPLES OF AIRPORT REVENUES AND EXPENSES

Source: Airport Cooperative Research Program (ACRP) Report 77

In response to a number of filings from airport tenants around the country concerning the reasonableness of rates and charges, the FAA has held that airports are allowed to set rates and charges that recover the cost of maintaining and operating the airport. However, airport sponsors cannot set rates and charges to recover capital expenditures made with FAA grants.

³ FAA Sponsor Assurance No. 24, Fee and Rental Structure



While increasing rates and charges on airport tenants and users typically result in higher revenues for the sponsor, there are a number of factors to be considered:

- Existing tenant leases and agreements: The provisions of the existing tenant leases and agreements serve as legal obligations, and terms and conditions can be renegotiated at periods specified within the lease, or when the lease/agreement expires and a new lease is negotiated. As noted previously, FAA does not allow tenant leases with terms of 50 years or greater since that constitutes de facto transfer of property, as well as the transfer of the airport sponsor's rights and powers.
- Competition from area airports: increases in rates and charges have an impact on aviation activity at the Airport. General aviation aircraft owners and operators are relatively price sensitive, and will shift their operations to other airports with lower hangar and tie-down fees, and fuel prices.
- FAA Sponsor Grant Assurances state that airport sponsors and its tenants must charge "reasonable and not unjustly discriminatory prices;" each FBO is subject to uniform rates and fees utilizing similar facilities; and the airport cannot enter into exclusive agreements for aeronautical services.
- 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.
- In any agreement, contract, lease, or other arrangement...the sponsor will insert and enforce provisions requiring the contractor to furnish said services on a reasonable, and not unjustly discriminatory, basis to 1) 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.
- Each fixed-based operator (FBO) 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.
- It (i.e. the airport 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.

5.4 Summary and Conclusions

Financial management for airport sponsors is challenging. Airports operate in a highly regulated and competitive environment. In addition, capital investment costs are often high, and are made for facilities with a service life of 20 years. Activity levels at airports, along with airport-related revenues, on the other hand, fluctuate over time, sometimes over a very large range.

As discussed in previous chapters, aviation activity levels and revenues are subject to a wide variety of factors that are difficult to predict. As a result, airport sponsors must monitor activity on a regular basis, including aviation-related revenues, and adjust their capital investment plan as well as their operating and maintenance costs as needed.



In addition, the U.S. Congress is in the process of developing a new Airport Improvement Program (AIP), which serves as the funding source for FAA grants for airport development. The federal formulas and funding levels that have been in place since 2012 may change in the new program, which could directly impact funding availability for GA airports such as Carbon County. Once the new AIP program has been signed into law, changes in funding levels and formulas for the disbursement of the funds, including the GA entitlement grants, should be assessed for their impact on PUC's CIP.

The financial goals and strategy presented in this chapter are consistent with FAA's provision in the grant assurances that airports should be as financially self-sufficient as possible.


6.0 AIRPORT RECYCLING, REUSE, AND WASTE REDUCTION PLAN

6.1 Introduction

The U.S. Congress passed the FAA Modernization and Reform Act (FMRA) of 2012 was signed into law, which amended Title 49 of the United States Code. The law included a number of changes to the Airport Improvement Program (AIP), two of which related to recycling, reuse, and waste reduction at airports. Section 132(b) of the FMRA expanded the definition of airport planning to include "developing a plan for recycling and minimizing the generation of airport solid waste, consistent with applicable State and local recycling laws, including the cost of a waste audit." Section 133 of the FMRA added a provision requiring airports that have or plan to prepare a master plan, and that receive AIP funding for an eligible project, to ensure that the new or updated master plan addresses issues relating to solid waste recycling at the airport. This includes:

- The feasibility of solid waste recycling at the airport;
- Minimizing the generation of solid waste at the airport;
- Operation and maintenance requirements;
- Review of waste management contracts;
- The potential for cost savings or the generation of revenue.

As defined by Congress, "recycling" refers to any program, practice, or opportunity to reduce the amount of waste disposed in a landfill. This includes reuse and waste reduction as well as the recycling of materials.

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 airport master plans, as well as within a sustainability document, or as a standalone document. The guidance is mandatory when preparing an airport master plan.

The purpose of this chapter is to review Carbon County Regional Airport's (PUC or the Airport) current recycling, reuse, and waste program, and to provide guidance on ways to reduce waste and improve recycling and reuse at the airport, in compliance with the FAA's guidance.

6.2 Airport Description and Background

PUC is classified as a general aviation facility, and is situated east of Price, Utah. The Airport is owned and operated by Carbon County. The day-to-day airport manager is the fixed base operator (FBO) Redtail Aviation. Additional facility information is presented in Chapter 1, Introduction and Chapter 2, Inventory, of this Master Plan.

As noted in Chapter 3, Aviation Activity and Forecasts, the number of operations and based aircraft at PUC have fluctuated over the past ten years. In 2015, PUC had an estimated 4,431 general aviation operations and 15 based aircraft. It is forecasted that in 2035 PUC will have 4,431 operations and 22 based aircraft, which is consistent with the FAA's Terminal Area Forecast (TAF)



for the airport. The Airport accommodates a variety of users, and also serves as a base for firefighting aircraft on an as-needed basis.

6.3 Existing Waste Sources

The identification and evaluation of sources of waste at an airport can be complicated. There are numerous groups, agreements, operational styles, and collection/disposal processes that play into the overall generation of waste at a given airport. The three primary sources of waste at PUC are the airfield, the terminal building, and hangars/tenants. The sources of waste, per the FAA's 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 6-1 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 PUC's level of control.

Area	Waste Generated	Control
Area 1: Airfield	General debris found on airfield. Construction material (asphalt, concrete, wood, metal)	Direct Control
Area 2: Terminal Building	Plastic, glass, aluminum, oil, batteries, trash	Direct Control
Area 3: Hangars/Tenants	Plastic, glass, aluminum, oil, batteries, trash	No Direct Control but can Influence

TABLE 6-1 - WASTE GENERATION

6.4 Current Waste Management Programs

6.4.1 Local Programs

The "Green Team of Carbon County" actively promotes reuse and recycling. As noted on its web site (<u>http://greenteamcarboncounty.org/about.php</u>):

"The Green Team of Carbon County wholly intends to be self-supporting and grow in phases proportionate to our ability to fund and maintain growth. The Green Team of Carbon County began as a group of volunteers in February 2009. Then, as now, our stated mission is to promote a system to reduce and effectively manage the local waste stream of the County by encouraging...



- 1. Education that develops respect for responsible use of all man-made resources
- 2. Reduction of materials that go into landfills
- 3. The reuse of materials whenever possible
- 4. Recycling of all cost effective recyclable materials
- 5. The most effective use of public landfills
- 6. And the proper disposal of hazardous materials

"Since our inception and with the support of donations from corporations, small businesses, and organizations, we have been able to...

- 1. Conduct a survey throughout Carbon County to gauge local support for recycling
- 2. Purchase, and place into operation, collection trailers for recyclables
- 3. Partner with existing businesses in profitable disposal of aluminum, paper, and cardboard
- 4. Promote education regarding recycling at local fairs, exhibits, and other community events
- 5. Purchase and provide teaching modules for each of the Elementary schools in Carbon County
- 6. Help promote the safe disposal of some hazardous materials
- 7. Present plans for recycling and invite participation from each of the major cities within the County
- 8. Explore the possibilities of composting green waste within the County
- 9. Write and submit grants for funds to support our mission

The Green Team of Carbon County also supports "Take Back Your Medicine" day, speaks as requested at local schools and other venues, and has supported "Arbor Day" annually at each of our local Elementary schools."



TABLE 6-2 – WHERE TO RECYCLE IN CARBON COUNTY

WHAT	WHO	HOW TO PARTICIPATE	ADDRESS/CONTACT INFORMATION
Aluminum Cans	ABC Learning Center	Drop off bins in front	102 E Grassy Trail Rd., East Carbon
Aluminum Cans	USU-CEU	Call Kathy Murray	613-5284
Aluminum Cans	Howas	Check in at Howa's office	651 No. Carbonville Road, Price



WHAT	WHO	HOW TO PARTICIPATE	ADDRESS/CONTACT INFORMATION
Aluminum Cans	Market Express Chevron	Recycle trailer SW parking lot	121 No. Carbonville Road, Price
Aluminum Cans	Sutherlands	Recycle trailer NW parking lot	406 So. Highway 55, Price
Aluminum Cans	Walmart	Drop-off box at entrance	255 So. Highway 55, Price
Car Batteries	Carbon County Landfill	Check in at trailer office	636-0005 call for directions
Car Batteries & lead/acid batteries	Water and Waste Logistics	Bring to office for information	5145 N Hwy 6, Helper
Cell phones	Bruin Point Elementary	Bring to school office	Edgehill Drive, East Carbon
Cell phones	Castle Heights Elementary	Bring to school office	750 Homestead Blvd., Price
Glasses	Dr. Cook	Bring to Receptionist	92 North 400 East, Price
Ink Cartridges	Creekview Elementary	Bring to school office	590 W. 500 So., Price
Ink Cartridges	Office Etc.	Drop-off box at clerk's desk	55 East Main St., Price
Ink Cartridges	Price City Library	Bring to front desk	159 E. Main St., Price
Ink Cartridges	Wellington Elementary	Bring to school office	250 W. 200 No., Wellington
Metal-All Types	Carbon County Landfill	Check in at trailer office	2835 East Airport Road, Price
Metal-All Types	Price Metal	Bring to Price Metal	510 E. 1250 So., Price
Packaging Peanuts	Ceramic Fine Art & Design	Call Kathleen Royster 650- 4318	187 So. Main St. Helper
Packaging Peanuts	The UPS Store	Bring in a bag to clerk	1179 E. Main St., Price
Paper-In bags	Recycling	Loren Unsworth 650-6530	1400 E. Airport Rd, Price
Paper-NO Shredded	ABC Learning Center	Drop off bins in front	102 E Grassy Trail Rd., East Carbon
Paper-NO Shredded	Creekview Elementary	Call school for arrangements	435-637-0828
Paper-NO Shredded	Helper City Hall	Recycle trailer West parking lot	73 S. Main St, Helper
Paper-NO Shredded	Market Express Chevron	Recycle trailer SW parking lot	121 No. Carbonville Road, Price
Paper-NO Shredded	Sutherlands	Recycle trailer NW parking lot	406 So. Highway 55, Price
Paper-NO Shredded	USU-CEU	Recycle trailer NW parking lot	3rd East 600 N, Price
Plastic Shopping Bags	Fresh Market Store	Drop-off box at entrance	760 Price River Drive, Price
Plastic Shopping Bags	J.C. Penney & Co.	Bring to bin downstairs	78 E. Main, Price
Plastic Shopping Bags	Walmart	Drop-off box at entrance	255 So. Highway 55, Price
Plastic Drinking Bottles #1	Walmart	Drop-off box at entrance	255 So. Highway 55, Price
Pop Tabs	USU-CEU	Call Kathy Murray	613-5284

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WHAT	wнo	HOW TO PARTICIPATE	ADDRESS/CONTACT INFORMATION	
Pop Tabs	Wellington Elementary	Bring to school office	250 W. 200 No., Wellington	
Rechargeable Batteries - ALL	Office Etc.	Bring to clerk	55 East Main St., Price	
Tires	Carbon County Landfill	Check in at trailer office	2835 East Airport Road, Price	
Toner Cartridges	Office Etc.	Bring to clerk	55 East Main St., Price	
Toner Cartridges	Creekview Elementary	Bring to school office	590 W. 500 So., Price	
Unused Prescription Drugs	East Carbon City Police Dept.	Drop-off in East Carbon City Hall	105 E. Geneva Dr., East Carbon	
Unused Prescription Drugs	Price City Police Dept.	Drop-off is in lobby	910 No. 700 E., Price	
Used Oil	O'Reilly Auto Parts	Bring to O'Reilly Auto Parts	1268 E. Main St., Price	
Used Oil	Tire King	Bring to Tire King	535 E. Main St., Price	
Used Oil	Ultra Lube	Bring to Ultra Lube	955 E. 100 No., Price	
Used Oil	Walmart	Bring to Automotive Dept.	255 So. Highway 55, Price	
Event Recycle Trailer	To schedule the Event Recycl	e Trailer at your activity call 650-9	249	
U	seful Information on Rebates	and Reducing Energy Consum	ption	
Energy Hog	Reduce electricity consumptio	n & conservation	www.energyhog.org	
National Energy Assistance	"Saving Energy" activity book	'Saving Energy" activity book for kids		
Price Municipal Corporation	Rebates on Energy Star applia	Rebates on Energy Star appliances		
Rocky Mountain Power	Rebates on Energy Star applia	Rebates on Energy Star appliances		
Therm-Wise	Reduce gas consumption & co	onservation	www.thermwise.com	
Questar	Energy Audit & Rebates on Er	nergy Star appliances	www.thermwise.com	

Source: <u>http://greenteamcarboncounty.org</u>

6.5 Overview of Airport Recycling, Reuse, and Waste Management

Airports throughout the United States are "greening" their operations. Both the FAA and the U.S. Congress have directed airports to develop reuse, recycling, and waste management programs. Airports, other government agencies, and private companies have seen financial as well as environmental benefits from adopting environmentally sustainable practices, including recycling, reuse, and waste management programs. In response, airports have installed solar panels and energy efficient light fixtures, use low-emission vehicles in their fleets, constructed LEED¹ certified buildings, and have changed their waste management programs.

¹ LEED = Leadership in Energy and Environmental Design



As one agency within a larger government entity (county, municipality, state), airports typically use the recycling, reuse, and waste management programs that are in place throughout the larger government entity, as is the case at PUC. A number of commercial service and general aviation airports have adopted their own individual reuse, recycling, and waste management programs, in part because of their financial benefits, and also because they reduce waste and energy usage.

The U.S. Environmental Protection Agency (EPA) published a guide titled *Developing and Implementing an Airport Recycling Program* to help airport managers who want to create a more environmentally-friendly waste operation. The EPA hierarchy of waste management prioritizes source reduction, then reuse, recycling, and finally disposal in landfills. However, the EPA's guide focuses on recycling as a positive first step for airports to take as they conquer their waste issues.

FIGURE 6-1 - EPA'S TEN STEPS TO ESTABLISHING AN AIRPORT RECYCLING PROGRAM

Ten Steps to Establishing an Airport Recycling Program

- 1. Obtain commitment from upper management
- 2. Organize a green team
- 3. Identify types and sources of waste
- 4. Assess current waste collection contracts
- 5. Develop a plan
- 6. Educate staff and customers
- 7. Monitor and refine the plan
- 8. Measure performance
- 9. Promote successes
- 10. Expand the program

Source: EPA, Developing and Implementing an Airport Recycling Program, April 2009



FIGURE 6-2 – EPA'S SPECIAL CONSIDERATIONS FOR AIRPORTS

Special Considerations for Airports

Airport Security

The first priority for airports is to ensure that all program elements are consistent with security requirements. Including a recycling element in your waste management plan may require additional personnel in secure areas of the airport and on the airfield. Bins may need to be additionally secured and inspected. Bombproof receptacles may be required outside secure areas.

Facility Space Constraints

Airports have unique space considerations. Gates areas, tenant space, and concessionaires often do not have large amounts of additional space for bins, and staging areas are limited. The airfield generally has space constraints as well, leaving little area for additional bins. On the airfield, airports need to be aware of concerns recycling bins may raise such as foreign object debris (FOD), animal attractants, and stormwater contamination. However, a successful recycling program will reduce the amount of trash generated and the number of containers to store trash. This space can be used for recyclable materials.

Time

When airlines become involved with your recycling program, time is a primary concern. Airline staff or cleaning service providers have limited time to clean an aircraft before it is scheduled for another departure. A program with easily accessible collection receptacles (dumpsters, compactors, etc) and clear instructions make it easier for airlines to actively participate in recycling.

Working with Tenants

Establishing and maintaining consistent recycling practices and educating airport tenants (food/beverage, concessions, airlines and others) are key components of an airport's recycling program. Educational material that is readily available for easy distribution to all new employees allows tenants to stay involved.

Source: EPA, Developing and Implementing an Airport Recycling Program, April 2009







Source: FAA, Recycling, Reuse and Waste Reduction at Airports: A Synthesis Document, April 24, 2013



Strengths	Limitations
Records Examination	
 Provides weights and volumes of waste generated Tracks major potential waste from the point of origin Identifies the expensive or valuable components of an organization's waste Documents financial benefits of reuse and recycling including total revenues and avoided disposal costs Requires the least time and effort Establishes baseline for metrics 	 Lack of quantitative data for specific waste components Does not provide qualitative data on how or why wastes are generated Substantial effort necessary to collect and analyze data
 Facility Walk-Through Requires less time and effort than waste sorts Allows first-hand examination of facility operations Provides qualitative information about major waste components and waste-generating processes Reveals waste reduction activities Develops appreciation of logistics and obstacles tenants encounter in their efforts to recycle 	 Limited identification of wastes generated Multiple attempts may be necessary for comprehensive evaluation Relies on estimates of waste generation
 Waste Sort Provides quantitative data on total waste generation and specific waste components Allows problem solving and design of recycling program to be site specific 	 Requires more time and effort than other approaches Multiple attempts may be necessary for comprehensive evaluation Does not provide qualitative data on how or why wastes are generated

FIGURE 6-4 - WASTE ASSESSMENT APPROACHES

Source: USEPA, Business Guide for Reducing Solid Waste, 1993.



						WHE	ERE						
		Public Terminals	Ticketing	Security Gates	Food Service Areas	Offices	Cargo Shipping	Maintenance Areas	Airport Grounds	Aircraft	Airfield Ramps	Construction Areas	Concessionaires, Retailers, Rental Car Facilities
	Corrugated Cardboard				×	×	×	×		×			×
	Mixed Paper	×	×	×	×	×	×	×	×	×	×		×
	Newspaper	×	×	×		×				×			
	Glass	×	×	×	×	×	×	×		×			
	Aluminum Cans	×	×	×	×	×	×	×		×			
н	Plastic Bottles	×	×	×	×	×	×	×		×			
HA	Pallets						×						
N	Food Waste & Cooking Oil	×			×	×							
	Organics/ Green Waste								×				
	Electronics					×							
	Used Tires							×					
	Used Oil							×					
	Scrap Metal						×	×				×	
	Concrete											×	
	Lumber											×	
	Batteries					×							
	Toner Cartridges					×							×
	Plastic (non-bottles, e.g. film)						×	×					×

FIGURE 6-5 - COMMON RECYCLABLE MATERIALS FOUND AT AIRPORTS

Source: EPA, Developing and Implementing an Airport Recycling Program, April 2009

7.0 AIRPORT LAYOUT PLAN DRAWING SET

7.1 Introduction

The Federal Aviation Administration (FAA) requires, in part, a current Airport Layout Plan (ALP) that has been approved by both the airport sponsor (Carbon County) and the FAA prior to the approval of an airport development project. The FAA further requires that the airport sponsor maintain an ALP that ensures the safety, utility and efficiency of the airport. FAA sponsor grant assurance number 29 also requires that the airport sponsor keep the ALP up to date at all times. As stated in FAA Order 5100.38, *Airport Improvement Program Handbook*, an ALP remains current for a five-year period, or longer, unless major changes at the airport are made or planned.

As noted in FAA Advisory Circular 150/5070-6B, *Airport Master Plans*, the five primary functions of the ALP are:

- Create a blueprint for airport development by depicting proposed facility improvements. The ALP provides a guideline by which the airport sponsor can ensure that development maintains airport design standards and safety requirements, and is consistent with airport and community land use plans.
- A public document that serves as a record of aeronautical requirements, both present and future, and as a reference for community deliberations on land use proposals and budget resource planning.
- To enable the airport sponsor and the FAA to plan for facility improvements at the airport. It also allows the FAA to anticipate budgetary and procedural needs. The approved ALP also allows the FAA to protect the airspace required for facility or approach procedure improvements.
- To serve as a working tool for the airport sponsor, particularly its development and maintenance staff.
- Requirement for the airport sponsor to receive financial assistance from the FAA.

The PUC ALP drawing set was developed in conformance with FAA SOP 2.00, ALP Review Checklist, dated October 1, 2013. The specific drawings included in the ALP set are determined by a number of factors, including the number of runways at the airport, and the type of instrument approaches.

7.2 Airport Layout Plan Drawing Set

The following is a brief description of the ALP drawing sheets. FAA SOP 2.00 provides a detailed checklist of items required to be included in each drawing.

- *Cover Sheet* A separate cover sheet, with approval signature blocks, airport location maps, and other pertinent information as required by the local FAA Airports office.
- *Airport Layout Plan* The drawing depicting the existing and future airport facilities. The drawing should include the depiction of all applicable design standards contained in the



latest version of Advisory Circular 150/5300-13, including but not limited to, landing areas, movement areas and aircraft parking areas (e.g., runways, taxiways, helipads, aprons, etc.), required facility identifications, description labels, imaginary surfaces, Runway Protection Zones, Runway and Taxiway Safety Areas, Runway and Taxiway Object Free Areas, Runway Obstacle Free Zones and basic airport and runway data tables. The various data tables are on a separate sheet.

- *Terminal Area Plan(s)* This plan present a large-scale depiction of areas with significant terminal facility development. The Terminal Area drawing is an enlargement of a portion of the ALP.
- *Airport Airspace Drawing* –14 CFR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*, defines the five imaginary surfaces that are depicted for each runway and the airport as a whole. This drawing depicts the obstacle identification surfaces for the full extent of all airport development. It also depicts airspace obstructions for the portions of the surfaces excluded from the Inner Portion of the Approach Surface Drawing.
- Inner Portion of the Approach Surface Drawing is the plan and profile view of the inner portion of the approach surface to the runway end, as well as a tabular listing of all of the imaginary surface penetrations. The drawing depicts the obstacle identification approach surfaces contained in 14 CFR Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace. The drawing also depicts other approach surfaces including the threshold-siting surface and those surfaces associated with United States Standards for Instrument Procedures (TERPS).
- *Land Use Drawing*—depicts the land uses within the airport property boundary. It also depicts land uses and zoning districts in the area around the airport, outside of the airport property boundary.
- *Airport Property Map Exhibit A* depicts the Airport property boundary, the various tracts of land that were acquired to develop the airport, and the methods of acquisition (where appropriate). Obligations that were incurred by the airport sponsor as a result of obtaining property, or an interest therein, for the airport are noted. The obligations that stem from Federal grant or an FAA-administered land transfer program, such as surplus property programs, are also noted. The drawing also depicts easements beyond the airport boundary. An airport property map is not a substitute for an Exhibit A unless it is prepared in accordance with AC 150/5100-17, *Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects.*
- *Runway Departure Surface Drawing* This drawing depicts the applicable departure surfaces as defined in FAA AC 150/5300-13A, *Airport Design*. The departure surfaces are shown for runway end(s) designated primarily for instrument departures. At Carbon County Airport, the FAA does not allow instrument departures on Runway 8 due to obstacles in the vicinity of the departure surface (source: FAA Aeronautical Information Services, *IFR Takeoff Minimums And (Obstacle) Departure Procedures)*.



CARBON COUNTY REGIONAL AIRPORT PRICE, UTAH

AIRPORT LAYOUT PLAN DRAWING SET







VICINITY MAP NOT TO SCALE

	INDEX OF DRAWINGS	
SHEET NO.	TITLE	REVISION DATE
01	COVER SHEET	
02	AIRPORT DATA SHEET	
03	AIRPORT LAYOUT PLAN	
04	TERMINAL AREA PLAN	
05	AIRPORT AIRSPACE DRAWING	
06	AIRPORT AIRSPACE PROFILE - RUNWAY 1/19	
07	AIRPORT AIRSPACE PROFILE - RUNWAY 15/33	
08	AIRPORT AIRSPACE PROFILE - RUNWAY 8/26	
09	AIRPORT AIRSPACE OBSTACLE TABLE - 1	
10	AIRPORT AIRSPACE OBSTACLE TABLE - 2	
11	AIRPORT AIRSPACE OBSTACLE TABLE - 3	
12	INNER APPROACH SURFACE DRAWING - RUNWAY 1	
13	INNER APPROACH SURFACE DRAWING - RUNWAY 19	
14	INNER APPROACH SURFACE DRAWING - RUNWAY 15	
15	INNER APPROACH SURFACE DRAWING - RUNWAY 33	
16	INNER APPROACH SURFACE DRAWING - RUNWAY 8	
17	INNER APPROACH SURFACE DRAWING - RUNWAY 26	
18	RUNWAY DEPARTURE SURFACE DRAWING - RUNWAY 1	
19	RUNWAY DEPARTURE SURFACE DRAWING - RUNWAY 19	
20	RUNWAY DEPARTURE SURFACE DRAWING - RUNWAY 15	
21	RUNWAY DEPARTURE SURFACE DRAWING - RUNWAY 33	
22	RUNWAY DEPARTURE SURFACE DRAWING - RUNWAY 26	
23	LAND USE PLAN	
24	EXHIBIT A - AIRPORT PROPERTY INVENTORY MAPS	

C	OVER SHEET		SHEET NO. 01 of 24
AIP PROJ. NO. 3-49-0026-016-2015			
		.,	



	IFR WEATHER WINDROSE						
RUNWAY DESIGNATION	16 KNOT CROSSWIND COMPONENT	13 KNOT CROSSWIND COMPONENT	10.5 KNOT CROSSWIND COMPONENT				
RUNWAY 1/19	99.39%	98.35%	97.04%				
RUNWAY 15/33	99.37%	98.77%	98.10%				
RUNWAY 8/26	99.34%	98.47%	97.28%				
*AGE OF WIND DATA: 2006-20	15						



	ALL WEATHE	ALL WEATHER WINDROSE					
RUNWAY DESIGNATION	16 KNOT CROSSWIND COMPONENT	13 KNOT CROSSWIND COMPONENT	10.5 KNOT CROSSWIND COMPONENT				
RUNWAY 1/19	98.51%	95.36%	91.88%				
RUNWAY 15/33	99.20%	97.71%	95.59%				
RUNWAY 8/26	98.66%	96.16%	92.93%				
*AGE OF WIND DATA: 2006-20	15						

					RUNWAY	DATA TABLE	
		RUNWA	Y 1/19			RUNWAY	15/33
	EXIS	EXISTING FUTURE			EXIS	STING	, í
RUNWAY IDENTIFIER	1	19	1	19	15	33	
RUNWAY DESIGN CODE (RDC)	C-II-4,000	C-II-VISUAL	SAME	SAME	B-II-VISUAL	B-II-VISUAL	
RUNWAY REFERENCE CODE (RRC)	C-II	C-II	SAME	SAME	B-II	B-II	
RUNWAY WIDTH AND LENGTH	100' X 8,311.56'	100' X 8,311.56'	SAME	SAME	75' X 4,510.90'	75' X 4,510.90'	
RUNWAY SURFACE COMPOSITION	ASPHALT- GROOVED	ASPHALT- GROOVED	SAME	SAME	ASPHALT	ASPHALT	9
PAVEMENT DESIGN STRENGTH (LBS)							
SINGLE WHEEL GEAR (SWG)	30,000	30,000	SAME	SAME	13,000	13,000	9
DUAL WHEEL GEAR (DWG)	30,000	30,000	SAME	SAME	N/A	N/A	
PERCENT EFFECTIVE GRADIENT	1.75%	1.75%	SAME	SAME	1.06%	1.06%	
PCN	18/F/B/X/U	18/F/B/X/U	SAME	SAME	13/F/B/X/U	13/F/B/X/U	
SURFACE TREATMENT	GROOVED	GROOVED	SAME	SAME	NONE	NONE	5
PERCENT WIND COVERAGE							
10.5 KNOT ALL WEATHER	91.88%	91.88%	SAME	SAME	95.51%	95.51%	5
13 KNOT ALL WEATHER	95.36%	95.36%	SAME	SAME	97.71%	97.71%	5
16 KNOT ALL WEATHER	98.51%	98.51%	SAME	SAME	99.20%	99.20%	5
TOUCHDOWN ZONE ELEVATION (TDZE)	5,862.29	5,956.60	SAME	SAME	5,860.64	5,847.00	5
RUNWAY SAFETY AREA (RSA)							
LENGTH BEYOND RUNWAY END	1,000'	1,000'	SAME	SAME	300'	300'	
RUNWAY SAFETY AREA (RSA)							
WIDTH	500'	500'	SAME	SAME	150'	150'	,
RUNWAY OBJECT FREE AREA (ROFA)							
LENGTH BEYOND RUNWAY END	1,000'	1,000'	SAME	SAME	300'	300'	ç
RUNWAY OBJECT FREE AREA (ROFA)							
WIDTH	800'	800'	SAME	SAME	500'	500'	9
OBSTACLE FREE ZONE (OFZ)	400' X 10,113'	400' X 10,113'	SAME	SAME	250' X 4,911'	250' X 4,911'	5
RUNWAY END COORDINATES	LAT: 39'36'17.72'N LON: 110'45'18.77"W	LAT: 39*37'35.69'N LON: 110'44'45.32"W	SAME	SAME	LAT: 39'36'55.37'N LON: 110'45'24.25'W	LAT: 39'36'13.84"N LON: 110'45'03.31"W	5
RUNWAY LIGHTING	HIRL	HIRL	SAME	SAME	MIRL	MIRL	
APPROACH RUNWAY PROTECTION ZONE (RPZ)							
LENGTH	1,700	1,700'	SAME	SAME	1,000'	1,000	
INNER WIDTH	1,000	500'	SAME	SAME	500'	500'	
OUTER WIDTH	1,510	1.010'	SAME	SAME	700'	700'	
ACRES	48.978	29.465	SAME	SAME	13.770	13.770	
DEPARTURE RUNWAY PROTECTION ZONE (RPZ)							
LENGTH	1,700'	1,700'	SAME	SAME	1,000'	1,000	
INNER WIDTH	500'	500'	SAME	SAME	500'	500'	
OUTER WIDTH	1.010	1.010'	SAME	SAME	700'	700'	
ACRES	29.465	29.465	SAME	SAME	13.770	13.770	
RUNWAY MARKING	PRECISION	BASIC	SAME	SAME	BASIC	BASIC	
APPROACH CATEGORY	50:1	20:1	SAME	SAME	20:1	20:1	
APPROACH TYPE	PRECISION	VISUAL	SAME	SAME	VISUAL	VISUAL	
VISIBILITY MINIMUMS	3/4 MILE	VISUAL	SAME	SAME	VISUAL	VISUAL	
TYPE OF AERONAUTICAL SURVEY FOR APPROACH	VGS	NVGS	SAME	SAME	NVGS	NVGS	
THRESHOLD SITING SURFACE (TSS)	NO TSS PENETRATIONS	NO TSS PENETRATIONS	SAME	SAME	NO TSS PENETRATIONS	NO TSS PENETRATIONS	
RUNWAY DEPARTURE SURFACE	YES	YES	SAME	SAME	YES	YES	
VISUAL AND INSTRUMENT NAVAIDS	PAPI, REIL, MALSF, GLIDESLOPE	PAPI, REIL, LOCALIZER	SAME	SAME	NONE	NONE	

		EXISTING		FUTURE	
AIRPORT REFERENCE CODE		C-II		SAME	TAXIWAY DESIGN GROUP (TDG)
MEAN MAX. TEMP HOTTEST MONTH		89'F		SAME	WIDTH
AIRPORT ELEVATION (NAD 83) LONG.		5957.40		SAME	SAFETY AREA WIDTH (TSA)
AIRPORT & TERMINAL NAVAIDS	SEGMENTED CIR BEACON,	RCLE, WIND SOCK VOR, GPS, DME,	. ROTATING ASOS	SAME	OBJECT FREE AREA (TOFA) TAXIWAY EDGE SAFETY MARGIN (TESM)
AIRPORT REFERENCE POINT (ARP)	LAT: 39'36'54.82"N LON: 110'45'04.06"W			SAME	SEPARATION DISTANCE (CENTERLINE TO FIXED/MOVEABLE OBJECT)
CRITICAL AIRCRAFT	(1/19) GULFSTREAM G350	(15/33) KING AIR 200	(8/26) CESSNA 210	SAME	OBJECTS WITHIN TAXIWAY SAFETY AREA LIGHTING
WINGSPAN	77.8	54.5'	37.2'	SAME	
TAIL HEIGHT	25.2	15.0	12.6	SAME	
MAX. T.O. WEIGHT	70,900 LBS	12,500 LBS	2,900 LBS	SAME	
APPROACH SPEED	140 KTS	75 KTS	51 KTS	SAME	
MAGNETIC VARIATION		10.92° E		SAME	
NPIAS SERVICE LEVEL		G.A.		SAME	1
NDIAC STATE FOUNALENT SERVICE DOLE	01.050(0)/0			CIME	

	DECLARED DISTANCES							
DUNIWAY	TAKEOF	F RUN	TAKEOF	F DIST.	ACCELER	ATE STOP	LANDING DIST.	
RUNWAT	AVAILABLE (TORA)		AVAILABLE (TODA)		DIST. AVAILABLE (ASDA)		AVAILABLE (LDA)	
	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE
1	8,311.56'	SAME	8,311.56	SAME	8,311.56	SAME	8,311.56	SAME
19	8,311.56'	SAME	8,311.56	SAME	8,311.56	SAME	8,311.56	SAME
15	4,510.90	SAME	4,510.90	SAME	4,510.90	SAME	4,510.90	SAME
33	4,510.90	SAME	4,510.90	SAME	4,510.90	SAME	4,510.90	SAME
8	3,150.20'	SAME	3,150.20	SAME	3,150.20	SAME	3,150.20	SAME
26	3,150.20'	SAME	3,150.20	SAME	3,150.20	SAME	3,150.20	SAME

	MODIFICATION	TO STANDARDS	
APPROVAL DATE	AIRSPACE CASE NO.	STANDARD TO BE MODIFIED	DESCRIPTION
FEBRUARY 1, 1994	93-ANM/D-227-NRA RUNWAY LONGITUDINAL GRADE - RUNWAY 1/19	MAX GRADE - ± 1.5%	MAX GRADE - ± 2.03%
FEBRUARY 1, 1994	93-ANM/D-227-NRA RUNWAY LONGITUDINAL GRADE - RUNWAY 1/19	MAX GRADE WITHIN FIRST AND LAST QUARTER OF RUNWAY $ \pm$ 0.8%	MAX GRADE - ± 1.81%

	Fil I I	E. Marine	76	
	VFR WEATHE	ER WINDROSE		
	16 KNOT	13 KNOT	10.5 KNOT	
RUNWAY DESIGNATION	COMPONENT	COMPONENT	COMPONENT	
RUNWAY 1/19	98.46%	95.20%	91.60%	
RUNWAY 15/33	99.20%	97.66%	95.48%	
RUNWAY 8/26	98.62%	96.01%	92.67%	

*AGE OF WIND DATA: 2006-2015



102 Lobe



DES	R.L.B.					
		NO.	BY	DATE	DESCRIPTION	
DR:	R.L.B.					AIRPO
CH:	CIG					LAYOUT
-	0.2.0.	THE PREPA	RATION OF THIS	DOCUMENT MAY HAVE BEEN SU	PPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL	
APP	:S.V.B.					

ORT PLAN

_					-
	AIRPO	ORT DATA SHE	ET	SHEET NO. 02 of 24	
	AIP PROJ. NO.	JVIATION PROJ. NO.	DATE:		
	3-49-0026-016-2015	2015.PUC.01	JANUARY, 2017		

5. THE SITE PLAN LINEWORK AND AERIAL IMAGE IS BASED ON THE PLANIMETRIC MAPPING & ORTHO - IMAGERY INFORMATION COMPILED BY WOOLPERT, INC. IN MARCH, 2016.

- ALL HORIZONTAL COORDINATES NAD83/ 2011 ALL VERTICAL COORDINATES NAVD88
- INFORMATION SHOWN IN DATA TABLES WAS TAKEN FROM THE AIRPORT LAYOUT PLAN FOR CARBON COUNTY AIRPORT. PREPARED BY CREAMER & NOBLE ENGINEERS IN MARCH, 2004.

- SOURCE 1. NCDC, STATION 724700, ANNUAL PERIOD OF RECORD: 2006-2015

RUNWAY 8/26

EXISTING

A/B-I-VISUAL

92.93% 96.16% 98.66% 5,890.00'

240'

120'

240'

700'

,000 500

PAPI, REIL

400' 400' 250' X 3,550' 250' X 3,550' LAT: 39'36'54.47'N LAT: 39'36'54.55'N LON: 10'4'4'3.30'W NONE NONE

NVGS NVGS NO TSS PENETRATIONS NO TSS PENETRATIONS NO YES

SAME

SAME

SAME

SAME

SAME

SAME SAME SAME SAME

SAME SAME SAME

SAME SAME SAME SAME

SAME

SAME

SAME

SAME

SAME

SAME SAME

SAME SAME SAME SAME

SAME

0 A/B-I-VISUAL A/B-I 60' X 3,150.20'

ASPHAL

12,500

92.93% 96.16% 98.66% 5,889.00'

240'

120'

240'

1,00

700'

1,000

700'

13.770 BASIC

PAPI, REIL

SAM SAM SAM

SAME

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SAME SAME SAME SAME SAME SAME SAME

SAME

N/A

NONE

TAXIWAY DATA TABLE EXISTING

- 2. MAGNETIC VARIATION NATIONAL CENTER FOR ENVIRONMENTAL INFORMATION (NCEI) 10/24/2016.



PORT FACILITY	LIST			AIRPORT FACILITY	LIST	
Μ	ELEVATION	FUTURE ID	EXISTING ID	ITEM	ELEVATION	FUTURE ID
RT MANAGER OFFICES	5909'			HANGAR	5864'	13
	5870'			HANGAR	5862'	14
	5913'			HANGAR	5864'	15
	5886'			HANGAR	5866'	16
	5866'			HANGAR	5868'	17
ING	5864'			HANGAR	5850'	18
	5874'		(19)	RUNWAY END LIGHTS	5814'	
	5863'		20	RUNWAY END LIGHTS	5862'	
	5863'		21	RUNWAY END LIGHTS	5862'	
	5863'		22	MALSF	5812'	
	5891'		23	MALSF	5804'	
	5893'		24	PAPI	5827'	
	1	12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25	WINDCONE	5856'	
		No.	26	PAPI	5871'	
		201123	20	PAPI	5887'	
		Service Services	28	RUNWAY END LIGHTS	5892'	
		12000	29	RUNWAY END IDENTIFIER LIGHTS (REIL)	5892'	
		A State Par	30	PAPI	5946'	

AIP PROJ. NO.	JVIATION PROJ. NO.	DATE:	1
3-49-0026-016-2015	2015.PUC.01	JANUARY, 2017	
			-

VIR CRITCAL SWETY AREA VOR CRITCAL SWETY AREA 072 072 072 072 074 074 074 074 075 077 077 077 07	- 072 _	RUNWAY 1/19 100' X 8,311.56' TRUE BEARING 17.52' 072 072 072 072 072 072 072 072 072 072	HZ 04Z 04Z 04Z 04Z 04Z 04Z 04Z 04Z 04Z 04
a a		TAXINAY "A"	73.0°
BOX BOX <th>NOTA NOTA <th< th=""><th>RZ RZ R</th><th></th></th<></th>	NOTA NOTA <th< th=""><th>RZ RZ R</th><th></th></th<>	RZ R	
DRAWING LEGEND	A ENTRANCE ROA	AD HITTANCE ROAD	
		A STATE OF A	and a state of the
BULDING/HANGAR	and the second		And the second s
REMOVE			and the second sec
RUNNAY PROTECTION ZONE (RP2)	AIRPORT FACILITY LIST	N FUTURE ID	
BULLWING KESTROTION UNE BRL RUNNAY OBJECT FREE AREA (ROFA) Rofra DINAWAY (SWITHY ZONE Image: Control of the control	(1) 1+80, HANGAR & AIRPORT MANAGER OFFICES 5909' (2) MOBILE HOME 5870' (3) BERLEYON 5870'		
Toolment Tool Tool TAXMAY SAFET (RSA) RSA	U DELCON 3913 (4) FUEL FARM 5886' (5) STORAGE BULDING 6886'		
TAXIMAY SAFETY AREA (TSA) TSA OBJECT FRE ZONE - RUNNAY (ROFZ) Rorz	0 0006 (6) CONLAR PAROL BUILDING 5864' (7) HANGAR 5874'	NOTES	
APPROACH SURFACE (20:1)	8 T-HANGARS 5863' 9 T-HANGARS 5863'	1. EXISTING AND FUTURE CONDITIONS ARE SHOWN AS (E)(F). 2. ELEVATIONS SHOWN IN MSL.	
APPROACH SURFACE (50:1)	Image: T-HANGARS 566.3' II HANGAR 5691'		
RUNNAY END LIGHT RUNNAY END IDENTIFIER LIGHTS (REIL)	12 HANDAR 589.3' HANDAR 5864' 5864'	SOURCE	
ROTATING BEACON 🔺 MALSF 🔹	HANGAR 5862' HANGAR 5864'	1. THE SITE PLAN LINEWORK AND AERIAL IMAGE IS BASED ON THE PLANMETRIC MAPPING & ORTHO IMAGERY INFORMATION COMPLED BY WOOLPERT, INC. IN MARCH, 2016.	
PAPI WINDCONE	HNNCAR 5866' HNNCAR 5866'	16 2. ALL HORIZONTAL COORDINATES - NAD83/2011 ALL VERTICAL COORDINATES - NAVD88	
AIRPORT REFERENCE POINT (ARP)	HANGAR 5850'		

UC/PUC-ALP-2016\CAD/PUAK 2UC-ALP-TERM.dwg 177_2017 = 9:30am





					the state of the post
DES: R.L.B.				ISSUE RECORD	
	NO.	BY	DATE	DESCRIPTION	
DR: R.L.B.					1
					1
CH: C.L.G.					
	THE PREPA	RATION OF THIS	DOCUMENT MAY HAVE BEEN SU	IPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL	1
APP: S.V.B.	ACCEPTANCI DEVELOPMEI ACCORDANC	E OF THIS AIRPO NT DEPICTED THE E WITH APPROPR	RT LAYOUT PLAN BY THE FAA REIN NOR DOES IT INDICATE T HATE PUBLIC LAWS.	add, Bolinn 4709, the contrast do not received radiating to the other states to participate in any Does not in Any Mar Constitute a communication the part of the United States to participate in Any Hat the proposed development is environmentally acceptable or would have justification in	

AIRPORT LAYOUT PLAN







_10.92° E



SHEET NO.

AIP PROJ. NO.	JVIATION PROJ. NO.	DATE:	







DES: R.L.B.					
	NO.	BY	DATE	DESCRIPTION	
DR: R.L.B.					AIRPO
CH: CLG					LAYOUT I
APP:S.V.B.	THE PREPA AVIATION AL ACCEPTANC DEVELOPME ACCORDANC	RATION OF THIS DMINISTRATION AS E OF THIS AIRPO NT DEPICTED THE CE WITH APPROPR			

RT PLAN <u>PROFILE</u> HORIZ: 1" = 1,000' VERT: 1" = 100'

NN. OROLID SUEFACE ELEVATION (MSL) (ACL) TOP OF OBJECT (ACL) TOP OF OBJECT ELEVATION (MSL) (ACL) TOP OF OBJECT (ACL) SUEFACE (ACL) SUEFACE (ACL) SUEFACE (ACL) SUEFACE (ACL) SUEFACE (ACL) SUEFACE (ACL) DISPOSITION 0.0.0000 5956.27 18.76 61116 RUMWY 18 APPROACH 0.67 YTO BE REMOVED, JOWERD, OR LIGHT VTO BE REMOVED, JOWERD, OR LIGHT ACL) NO 68.97 YTO BE REMOVED, JOWERD, OR LIGHT ACL NO 88.97 YTO BE REMOVED, JOWERD, OR LIGHT ACL NO NO NO 98.97 YTO BE REMOVED, JOWERD, OR LIGHT ACL NO NO NO NO NO 98.97 YTO BE REMOVED, JOWERD, OR LIGHT ACL NO NO		AIRSPACE OBSTACLE TABLE										
OL ON DIME 5952-40" 18.76" 6011 19" RUNNAY 13 APPROACH 8.87 TO BE REMOVED, LOWERED, OR LIGHT MATURAL INFORMT 5956 52" 2.00" 5585 52" RUNNAY 13 APPROACH 0.55" TO BE REMOVED, LOWERED, OR LIGHT BUSH 5965 57" 2.97" 5585 55" RUNNAY 13 APPROACH 5.18" TO BE REMOVED, LOWERED, OR LIGHT BUSH 5963 57" 3.34" 5581 67" RUNNAY 13 APPROACH 6.87" TO BE REMOVED, LOWERED, OR LIGHT BUSH 5963 34" 2.39" 5681 65" RUNNAY 13 APPROACH 0.87" TO BE REMOVED, LOWERED, OR LIGHT BUSH 5963 41" 1.74" 5698 58" RUNNAY 14 APPROACH 0.88" TO BE REMOVED, LOWERED, OR LIGHT IREE - 6101 46" RUNNAY 14 APPROACH 48.11" T IREE - 6101 460" RUNNAY 14 APPROACH 48.13" T IREE - 6101 40" RUNNAY 14 APPROACH 48.13" T IREE - 6101 40" RUNNAY 14 APPROACH 48.13" T	N NO.	OBJECT TYPE	GROUND SURFACE ELEVATION (MSL)	ABOVE GROUND LEVEL (AGL)	TOP OF OBJECT ELEVATION (AMSL)	SURFACE REFERENCED	EXISTING SURFACE PENETRATION	DISPOSITION				
NATURAL HIGH FORT 5569 527 0.007 5559 527 RUNWAY 14 APPROACH 0.957 ************************************		OL ON DME	5992.40'	18.76	6011.16'	RUNWAY 19 APPROACH	8.69'	*TO BE REMOVED, LOWERED, OR LIGHTED				
BUSH 5982.59" 2.97" 5986.59" RUNNW 19 APPROACH 5.16" YTO BE REMOVED, LOWERED, OR LIGHT BUSH 5987.37" 3.34" 5987.07" RUNNW 19 APPROACH 6.87" YTO BE REMOVED, LOWERED, OR LIGHT BUSH 5989.34" 2.29" 5981.63" RUNNW 19 APPROACH 0.87" YTO BE REMOVED, LOWERED, OR LIGHT BUSH 5989.31" 1.74" 5989.85" RUNNW 19 APPROACH 0.87" YTO BE REMOVED, LOWERED, OR LIGHT TREE - - 6101.45" RUNNW 19 APPROACH -841.1" TREE - - 6106.45" RUNNW 19 APPROACH -841.1" TREE - - 6106.45" RUNNW 19 APPROACH -841.1" TREE - - 6106.45" RUNNW 19 APPROACH -841.1" TREE - - 6108.42" RUNNW 19 APPROACH -841.1" TREE - - 6108.20" RUNNW 19 APPROACH -847.1" MATURAL INGH POINT 598.50" 0.00" 5986.50" RUNNW 19 APPROACH		NATURAL HIGH POINT	5959.52'	0.00'	5959.52'	RUNWAY 19 APPROACH	0.56'	*TO BE REMOVED, LOWERED, OR LIGHTED				
BUBH 598.75 3.4' 597.70' RUNNW' 14 APPROACH 6.97' YTO BE REMOVED, DUWERED, OR LIGHT BUBH 598.34' 2.29' 598.16'' RUNNW' 14 APPROACH 0.87'' YTO BE REMOVED, JUWERED, OR LIGHT BUBH 598.11'' 1.74'' 598.65'' RUNNW' 14 APPROACH 0.87''' YTO BE REMOVED, JUWERED, OR LIGHT TREE - 610.45'' RUNNW' 14 APPROACH 4.84''' YTO BE REMOVED, JUWERED, OR LIGHT TREE - 610.65'' RUNNW' 14 APPROACH 4.81'' YTO BE REMOVED, LOWERED, OR LIGHT TREE - 610.63'' RUNNW' 14 APPROACH 4.81'' YTO BE REMOVED, LOWERED, OR LIGHT TREE - 610.42'' RUNNW' 14 APPROACH -77.15'' YTO BE REMOVED, LOWERED, OR LIGHT MAURAL HIGH POINT 598.50'' 0.00'' 598.65'' RUNNW' 14 APPROACH -77.15'' TREE - 610.03''' RUNNW' 14 APPROACH 2.86'''' YTO BE REMOVED, LOWERED, OR LIGHT MAURAL HIGH POINT 598.65''' RUNNW' 14 APPROACH 5.98''''''''''''''''''''''''''''''''''''		BUSH	5962.59'	2.97"	5965.56'	RUNWAY 19 APPROACH	5.18'	*TO BE REMOVED, LOWERED, OR LIGHTED				
BUBH 5569 34 2.29' 558 53' RUNWY 19 APPROACH 0.87' YTO BE REMOVED, LOWERED, OR LIGHT BUBH 5598 11' 1.74' 5586 57' RUNWY 19 APPROACH 0.57' YTO BE REMOVED, LOWERED, OR LIGHT TREE - 6191 45' RUNWY 19 APPROACH -981 15' TREE - 6106 50' RUNWY 19 APPROACH -981 15' TREE - 6106 50' RUNWY 19 APPROACH -88 15' TREE - 6106 36' RUNWY 19 APPROACH -88 01' TREE - 6106 30' RUNWY 19 APPROACH -84 01' TREE - 6106 30' RUNWY 19 APPROACH -84 01' TREE - 6106 30' RUNWY 19 APPROACH -84 01' MATURAL INGH POINT 5985 50' 0.00' 5686 50' RUNWY 19 APPROACH -81 01' MATURAL INGH POINT 5986 50' 0.00' 5686 50' RUNWY 19 APPROACH -81 01' -71 05' MATURAL INGH POINT </td <td></td> <td>BUSH</td> <td>5963.75'</td> <td>3.34'</td> <td>5967.09'</td> <td>RUNWAY 19 APPROACH</td> <td>6.93'</td> <td>*TO BE REMOVED, LOWERED, OR LIGHTED</td>		BUSH	5963.75'	3.34'	5967.09'	RUNWAY 19 APPROACH	6.93'	*TO BE REMOVED, LOWERED, OR LIGHTED				
BUBH 5988 11' 1.4' 5988 85' RUNNAV 14 APPROACH 0.95' YTO BE REMOVED, LOWERED, OR LIGHT TREE - 6104 50' RUNNAV 14 APPROACH 484.1' TREE - 6105 80' RUNNAV 14 APPROACH 484.1' TREE - 6105 80' RUNNAV 14 APPROACH 484.0' TREE - 6106 30' RUNNAV 14 APPROACH 484.0' TREE - 6104.20' RUNNAV 14 APPROACH -77.10' TREE - 6104.20' RUNNAV 14 APPROACH -77.10' MATURAL HIGH POINT 5986 50' 0.00' 5986 50' RUNNAV 14 APPROACH 2.60' APPORT ACCES RADOL 0.00' 5986 50' RUNNAV 14 APPROACH 2.60' TO BE REMOVED, LOWERED, OR LIGHT		BUSH	5959.34'	2.29'	5961.63'	RUNWAY 19 APPROACH	0.89'	*TO BE REMOVED, LOWERED, OR LIGHTED				
TREE - 6/01/45 RUNWAY 19 APPROACH -84.17 TREE - 6/01/657 RUNWAY 19 APPROACH -86.17 TREE - 6/01/657 RUNWAY 19 APPROACH -86.17 TREE - 6/01/657 RUNWAY 19 APPROACH -86.017 TREE - 6/01/627 RUNWAY 19 APPROACH -86.017 TREE - 6/01/2037 RUNWAY 19 APPROACH -81.73 TREE - 6/01/2037 RUNWAY 19 APPROACH -77.157 NATURAL HIGH POINT 5988.507 0.007 5568.507 RUNWAY 19 APPROACH 2.667 APPROF.MCACES RADD 5686.647 RUNWAY 19 APPROACH 5.587 *TO BE REMOVED, LOWERED, OR LIGHTT		BUSH	5968.11'	1.74	5969.85'	RUNWAY 19 APPROACH	0.58'	*TO BE REMOVED, LOWERED, OR LIGHTED				
TREE - 605.827 RUNAV 14 APPROACH 481.9 TREE - 605.89 RUNAV 14 APPROACH 484.07 TREE - 6014.29 RUNAV 14 APPROACH -48.07 TREE - 6010.32 RUNAV 14 APPROACH -47.79 TREE - 6010.32 RUNAV 14 APPROACH -77.19 NATURAL HIGH POINT 5686.507 0.007 5686.507 2.66 +70.08 ERMOVED, LOWERED, OR LIGHT APPORT ACCESS RADD 5696.647 0.007 5666.647 RUNAV 14 APPROACH 2.56 +70.08 ERMOVED, LOWERED, OR LIGHT		TREE			6101.45'	RUNWAY 19 APPROACH	-94.11'					
TREE - 6108.99 RUNWW 19.4PPR0ACH -84.01 TREE - 6104.29 RUNWW 19.4PPR0ACH -81.72 TREE - 6100.33 RUNWW 19.4PPR0ACH -81.72 TREE - 6100.33 RUNWW 19.4PPR0ACH -77.16 NATURAL HIGH FOINT 598.809 0.007 5988.69 RUNWW 19.4PPR0ACH 2.86 APPR074ACCESS ROAD 5686.64 RUNWY 19.4PPR0ACH 5.88 *TO BE REMOVED, LOWERED, OR LIGHTE		TREE			6105.83'	RUNWAY 19 APPROACH	-86.13'					
TREE - 6104.29 RUMAVE 18 APPROACH -017.19 TREE - 6100.33 RUMAVE 18 APPROACH -77.19 NATURAL HIGH-POINT 5686.50 0.007 5686.50 RUMAVE 18 APPROACH 2.66 AAPDRET ACCESS RADD 5066.67 0.007 5686.67 RUMAVE 18 APPROACH 5.58 TO BE REMOVED, LOWERED, OR LIGHT		TREE			6106.95'	RUNWAY 19 APPROACH	-84.01'					
TREE 6103.33 RUNWY 19 APPROACH 77.18 NATURAL HIGH POINT 5686.50' 0.00' 5686.50' RUNWY 19 APPROACH 2.66' *TO BE REMOVED, LOWERED, OR LIGHT ARPORT ACCESS ROAD 5686.64' RUNWY 19 APPROACH 5.58' *TO BE REMOVED, LOWERED, OR LIGHT		TREE			6104.26'	RUNWAY 19 APPROACH	-81.73					
NATURAL HIGH POINT 5988.50' 0.00' 5968.50' RUNNAY 19 APPROACH 2.66' *TO BE REMOVED, LOWERED, OR LIGHTE AIRPORT ACCESS ROAD 5986.64' 0.00' 5966.64' RUNNAY 19 APPROACH 5.98' *TO BE REMOVED, LOWERED, OR LIGHTE		TREE			6100.33'	RUNWAY 19 APPROACH	-77.18					
AIRPORT ACCESS ROAD 5966.64' 0.00' 5966.64' RUNWAY 19 APPROACH 5.98' *TO BE REMOVED, LOWERED, OR LIGHTE		NATURAL HIGH POINT	5968.50'	0.00'	5968.50'	RUNWAY 19 APPROACH	2.66'	*TO BE REMOVED, LOWERED, OR LIGHTED				
		AIRPORT ACCESS ROAD	5966.64'	0.00'	5966.64'	RUNWAY 19 APPROACH	5.98'	*TO BE REMOVED, LOWERED, OR LIGHTED				
BUSH 5972.16' 5.40' 5977.56' RUNWAY 19 APPROACH 4.24' *TO BE REMOVED, LOWERED, OR LIGHTF		BUSH	5972.16'	5.40'	5977.56'	RUNWAY 19 APPROACH	4.24'	*TO BE REMOVED, LOWERED, OR LIGHTED				
49-020947-POLE-61 FT AGL 6021.76' 61.00' 6082.76' RUNWAY 19 APPROACH 5.29' *TO BE REMOVED, LOWERED, OR LIGHTF		49-020947-POLE-61 FT AGL	6021.76'	61.00'	6082.76'	RUNWAY 19 APPROACH	5.29'	*TO BE REMOVED, LOWERED, OR LIGHTED				
49-020948-POLE-49 FT AGL 6037 36" 49.00" 6086 36" RUNIWAY 19 APPROACH 2.79" *TO BE REMOVED, LOWERED, OR LIGHTF		49-020948-POLE-49 FT AGL	6037.36'	49.00'	6086.36'	RUNWAY 19 APPROACH	2.79'	*TO BE REMOVED, LOWERED, OR LIGHTED				

*FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW

AIP PROJ. NO.

1. EXISTING AND FUTURE CONDITIONS SHOWN AS (E)(F).

ALL HORIZONTAL COORDINATES – NAD83/2011 ALL VERTICAL COORDINATES – NAVD88.

AIRPORT AIRSPACE PROFILE-

RUNWAY 1/19

3-49-0026-016-2015 2015.PUC.01

JVIATION PROJ. NO. DATE:

- ONLY TOP OF OBJECT ELEVATION IS SHOWN FOR OBJECTS IN DENSE AREAS OUTSIDE OF THE INNER APPROACH SURFACES

NOTES

SOURCE OBSTRUCTION SURVEY DATA COMPILED BY WOOLPERT, INC IN MARCH, 2016.

JANUARY, 2017

SHEET NO.

06 of 24









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	DES: R.L.B.					
		NO.	BY	DATE	DESCRIPTION	
	DR: R.L.B.					AIRPOR
	CH: C.L.G.					LAYOUT PL
		THE PREPA	RATION OF THIS	DOCUMENT MAY HAVE BEEN SU	UPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL	
	APP:S.V.B.	ACCEPTANCI DEVELOPMEI ACCORDANC	E OF THIS AIRPO NT DEPICTED THE	RT LAYOUT PLAN BY THE FAA REIN NOR DOES IT INDICATE T MATE PUBLIC LAWS.	AND SOCIONAL YOUR INCOMENTATION OF THE CARACTERISTIC REPLECTING OF ADDRESS OF THE AND ADDRESS OF THE ADDRESS OF THE ADDRESS OF THE ADDRESS OF THE ADDRESS ADDRESS OF ADDRESS OF THE ADDRESS OF ADDRESS	

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PROFILE HORIZ: 1" = 1,000' VERT: 1" = 100'

AIRSPACE OBSTACLE TABLE											
JECT TYPE GROUND SURFACE ABOVE GROUND TOP OF OBJECT SURFACE ELEVATION (MSL) LEVEL (AGL) ELEVATION (AMSL) REFERENCED PENETRATION DISPOSITION											
ROAD +15'	5800.00'	15.00'	5815.00'	RUNWAY 33 APPROACH	-7.08"						
IOAD +15' 5800.00' 15.00' 5815.00' RUNWAY 33 APPROACH -15.56'											
MARY ROAD	5802.03	15.00'	5817.03	RUNWAY 33 APPROACH	1.65'	*TO BE DEMOVED I OMEDED, OD LIGHTED					

*FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW

1.	EXISTING	AND	FUTURE	CONDITIONS	SHOWN	AS	(E)(F).

- 2. ONLY TOP OF OBJECT ELEVATION IS SHOWN FOR OBJECTS IN DENSE AREAS OUTSIDE OF THE INNER APPROACH SURFACES

NOTES

- - SOURCE
- OBSTRUCTION SURVEY DATA COMPILED BY WOOLPERT, INC IN MARCH, 2016.
- 2. ALL HORIZONTAL COORDINATES NAD83/2011 ALL VERTICAL COORDINATES NAVD88.

AIRPORT R	AIRSPACE PR UNWAY 15/33	OFILE-	SHEET NO. 07 of 24
AIP PROJ. NO.			
3-49-0026-016-2015			







DES: R.L.	В.						
		NO.	BY	DATE	DESCRIPTION		
DR: R.L.	.В.					AIRPC	
CH CL	G					LAYOUT	
APP:S.V.B. DEFICIENT THE PREPARATION OF THE DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE ARPORT INFROMEMENT PROCEMENT PROCEME							

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OBJECT NTIFICATION N GROUND SURFACE ELEVATION (MSL) CE ABOVE GROUND TOP OF OBJECT SURFACE L) LEVEL (AGL) ELEVATION (AMSL) REFERENCED EXISTING SURFACE PENETRATION OBJECT TYPE DISPOSITION ROAD +15 ROAD +15 ROAD +15 5894.07 5896.42 5902.97 5891.49 5909.00' 5913.42' 5917.90' RUNWAY 26 APPROA RUNWAY 26 APPROA RUNWAY 26 APPROA *TO BE REMOVED, LOWERED, OR LIGHTED 0.73' -0.50' -0.86' *TO BE REMOVED, LOWERED, OR LIGHTED *TO BE REMOVED, LOWERED, OR LIGHTED *TO BE REMOVED, LOWERED, OR LIGHTED 5858.1

AIRPORT AIRSPACE PROFILE-

RUNWAY 8/26

 AIP PROJ. NO.
 JVIATION PROJ. NO.
 DATE:

 3-49-0026-016-2015
 2015.PUC.01
 JANUARY, 2017

AIRSPACE OBSTACLE TABLE

*FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW

AIP PROJ. NO.

2. ALL HORIZONTAL COORDINATES - NAD83/2011 ALL VERTICAL COORDINATES - NAVD88.

- 2. ONLY TOP OF OBJECT ELEVATION IS SHOWN FOR OBJECTS IN DENSE AREAS OUTSIDE OF THE INNER APPROACH SURFACES

SOURCE OBSTRUCTION SURVEY DATA COMPILED BY WOOLPERT, INC IN MARCH, 2016.

SHEET NO.

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OBJECT IDENTIFICATION NO.	OBJECT TYPE	GROUND SURFACE ELEVATION (MSL)	ABOVE GROUND LEVEL (AGL)	TOP OF OBJECT ELEVATION (AMSL)	SURFACE REFERENCED	EXISTING SURFACE PENETRATION	DISPOSITION
6	ROAD +15'	5800.00'	15.00'	5815.00'	RUNWAY 33 APPROACH	-7.08	
7	ROAD +15'	5800.00'	15.00'	5815.00'	RUNWAY 33 APPROACH	-15.56'	
8	ROAD +15'	5894.00'	15.00'	5909.00'	RUNWAY 26 APPROACH	0.73'	*TO BE REMOVED, LOWERED, OR LIGHTE
9	ROAD +15 ROAD +15	5902.90	15.00	5913.42	RUNWAY 26 APPROACH	-0.50	
5500	WSK	5851.02	34.71'	5885.73'	TRANSITIONAL	5.84'	*TO BE REMOVED, LOWERED, OR LIGHTE
5501	OL ON DME	5992.40"	18.76'	6011.16'	RUNWAY 19 APPROACH	8.69'	*TO BE REMOVED, LOWERED, OR LIGHTE
5502	OL ON GS 01	5822.93'	35.38'	5858.31'	PRIMARY	33.18'	*TO BE REMOVED, LOWERED, OR LIGHTE
400003	TREE	5807.55	7.50'	5815.05'	TRANSITIONAL	1.19'	*TO BE REMOVED, LOWERED, OR LIGHTE
400004	TREE	5809.19	5.99'	5815.18'	PRIMARY	3.51'	*TO BE REMOVED, LOWERED, OR LIGHTE
400372	NATURAL HIGH POINT	5878.42	0.00'	5878.42'	PRIMARY	2.49'	*TO BE REMOVED, LOWERED, OR LIGHTE
400376	NATURAL HIGH POINT	5878.42	0.00"	5878.42'	PRIMARY	1.35'	*TO BE REMOVED, LOWERED, OR LIGHTE
400379	NATURAL HIGH POINT	5876.66	0.00'	5876.66'	PRIMARY	0.48'	*TO BE REMOVED, LOWERED, OR LIGHTE
400381	NATURAL HIGH POINT	5959.52	0.00'	5959.52'	RUNWAY 19 APPROACH	0.56'	*TO BE REMOVED, LOWERED, OR LIGHTE
401464	BUSH	5821.54	2.06"	5823.60'	PRIMARY	1.05'	*TO BE REMOVED, LOWERED, OR LIGHTE
401474	BUSH	0810.79 5920.27	2.47	5818.26	PRIMARY	0.11	*TO BE REMOVED, LOWERED, OR LIGHTE
401470	BUSH	5830.98	3.11	5033.40	PRIMART	2.25	*TO BE REMOVED, LOWERED, OR LIGHTE
401482	BUSH	5860.59	2.42	5863.01'	PRIMARY	1.95'	*TO BE REMOVED LOWERED OR LIGHT
401483	BUSH	5860.04	1.92	5861.96'	PRIMARY	0.97'	*TO BE REMOVED, LOWERED, OR LIGHTE
401485	BUSH	5868.40'	1.83'	5870.23'	PRIMARY	1.49'	*TO BE REMOVED, LOWERED, OR LIGHTE
401486	BUSH	5871.41'	2.29	5873.70'	PRIMARY	1.57'	*TO BE REMOVED, LOWERED, OR LIGHTE
401491	BUSH	5877.33'	1.83'	5879.16'	PRIMARY	3.20'	*TO BE REMOVED, LOWERED, OR LIGHTE
401495	BUSH	5837.33	2.93"	5840.26'	PRIMARY	0.99'	*TO BE REMOVED, LOWERED, OR LIGHTE
401501	BUSH	5836.04"	2.24"	5838.28'	PRIMARY	0.77'	*TO BE REMOVED, LOWERED, OR LIGHT
401512	BUSH	5838.99'	4.03"	5843.02'	PRIMARY	2.56'	*TO BE REMOVED, LOWERED, OR LIGHTE
401517	BUSH	5841.41'	1.83'	5843.24'	PRIMARY	0.42'	*TO BE REMOVED, LOWERED, OR LIGHTE
401520	BUSH	5935.36	2.33'	5937.69'	PRIMARY	1.42'	*TO BE REMOVED, LOWERED, OR LIGHT
401523	BUSH	5938.37	5.08"	5943.45'	PRIMARY	0.75	*TO BE REMOVED, LOWERED, OR LIGHT
401524	BUSH	5938.30'	2.42	5940.72	PRIMARY	1.43'	*TO BE REMOVED, LOWERED, OR LIGHT
401525	BUSH	5931.95	5.03'	5936.98'	PRIMARY	0.91	*TO BE REMOVED, LOWERED, OR LIGHT
401526	BUSH	5934.49	4.12	5938.61	PRIMARY	1.91	*10 BE REMOVED, LOWERED, OR LIGHT
401527	BUSH	5929.82	4.12	5933.94'	PRIMARY	1.31	TO BE REMOVED, LOWERED, OR LIGHT
401528	BUSH	5918.92	3.16"	5922.08'	PRIMARY	1.35'	TO BE REMOVED, LOWERED, OR LIGHT
401539	BUSH	5962.59	2.97	5965.56	KUNWAY 19 APPROACH	5.18'	TO BE REMOVED, LOWERED, OR LIGHT
401540	BUSH	5903.75	3.34	5967.09	RUNWAY 19 APPROACH	6.93	TO BE REMOVED, LOWERED, OR LIGHT
401041	BUSH	0909.34	2.29	5961.63	RUNWAY 19 APPROACH	0.69	TO BE REMOVED, LOWERED, OR LIGHT
401343	BUSH	5854.43	1.74	5959.85	TRANSITIONAL TRANSITIONAL	11.67	*TO BE REMOVED LOWERED, OR LIGHTE
404230	TANK	3034.43	10.00	50/ 5.23 6306 04'	HODIZONITAL	218.74	TO BE REMOVED, LOWERED, OR LIGHTE
404346	TANK		-	6153.02	CONICAL	45.85	*TO BE REMOVED LOWERED, OR LIGHTE
404370	TELEPHONE PYLON/POLE			6164.09/	CONICAL	36.39	*TO BE REMOVED LOWERED, OR LIGHT
404371	TELEPHONE PYLON/POLE			6273.07	CONICAL	92.45'	*TO BE REMOVED LOWERED, OR LIGHT
404373	TELEPHONE PYLON/POLE			6344.41'	CONICAL	126.21'	*TO BE REMOVED LOWERED OR LIGHT
404376	TELEPHONE PYLON/POLE			6167.04'	HORIZONTAL	59.55'	*TO BE REMOVED LOWERED OR LIGHT
404377	TELEPHONE PYLON/POLE			6308.13'	HORIZONTAL	200.64'	*TO BE REMOVED, LOWERED, OR LIGHT
404383	TELEPHONE PYLON/POLE			6170.70'	HORIZONTAL	63.20'	*TO BE REMOVED, LOWERED, OR LIGHT
404384	TELEPHONE PYLON/POLE			6186.63'	HORIZONTAL	79.14'	*TO BE REMOVED, LOWERED, OR LIGHT
404388	TELEPHONE PYLON/POLE			6169.62'	HORIZONTAL	62.12'	*TO BE REMOVED, LOWERED, OR LIGHT
404390	TELEPHONE PYLON/POLE		-	6139.32'	HORIZONTAL	31.83'	*TO BE REMOVED, LOWERED, OR LIGHTE
404395	TELEPHONE PYLON/POLE		-	6149.97'	HORIZONTAL	42.48'	*TO BE REMOVED, LOWERED, OR LIGHT
404397	TELEPHONE PYLON/POLE		-	6120.43'	HORIZONTAL	12.93'	*TO BE REMOVED, LOWERED, OR LIGHT
404445	TELEPHONE PYLON/POLE		-	6113.33'	HORIZONTAL	5.83'	*TO BE REMOVED, LOWERED, OR LIGHTE
404446	TELEPHONE PYLON/POLE			6115.00'	HORIZONTAL	7.51'	*TO BE REMOVED, LOWERED, OR LIGHT
404448	TELEPHONE PYLON/POLE		-	6121.37	HORIZONTAL	13.87	*TO BE REMOVED, LOWERED, OR LIGHT
404449	TELEPHONE PYLON/POLE	-	-	6128.29'	HORIZONTAL	20.80'	*TO BE REMOVED, LOWERED, OR LIGHTE
404451	TELEPHONE PYLON/POLE		-	6123.04'	HORIZONTAL	15.55'	*TO BE REMOVED, LOWERED, OR LIGHT
404494	TREE	5819.67	5.03'	5824.70'	TRANSITIONAL	5.26'	*TO BE REMOVED, LOWERED, OR LIGHTE
404500	TREE	5810.54	10.80'	5821.34	TRANSITIONAL	3.94'	*TO BE REMOVED, LOWERED, OR LIGHT
404501	TREE	5809.99	14.37'	5824.36'	PRIMARY	12.69	*TO BE REMOVED, LOWERED, OR LIGHTE
404502	TREE	5813.08	5.58	5818.66'	PRIMARY	6.99	*TO BE REMOVED, LOWERED, OR LIGHTE
40450/	TPTT	5613./3	/.05	5820.78	TRANSITIONAL	1./8'	TO BE REMOVED, LOWERED, OR LIGHT
404034	TPEE	30 (9.61 5854 70	7.14	5850.54	TRANSITIONAL	1.83	TO BE REMOVED, LOWERED, OR LIGHT
40400/	TPEE	5850.02	7.75	5859.54	DDIMADV	4.52	TO BE REMOVED, LOWERED, OR LIGHT
404600	TRFF	5833.75	11.80	5845.55'	PRIMART	7.34	*TO BE REMOVED LOWERED, OR LIGHT
404611	TREE	5855.08	5.03	5860 11	TRANSITIONAL	2.40	*TO BE REMOVED LOWERED, OR LIGHT
404612	TRFF	5856.38	5.00	5861.87	PRIMARY	3,51	*TO BE REMOVED LOWERED, OR LIGHT
404622	TRFF	5867 49	5.40	5873.30	PRIMARY	1,93'	*TO BE REMOVED, LOWERED, OR LIGHT
404639	TREE	5813.13	12 72'	5825 85'	TRANSITIONAL	1.27'	*TO BE REMOVED, LOWERED, OR LIGHT
404640	TREE	5814.34	8.10	5822.44'	PRIMARY	6.73	*TO BE REMOVED, LOWERED, OR LIGHT
404641	TREE	5817.82	5.72	5823.54	PRIMARY	5.81	*TO BE REMOVED, LOWERED, OR LIGHT
404642	TREE	5820.48	7.91	5828.39'	TRANSITIONAL	6.30'	*TO BE REMOVED, LOWERED, OR LIGHT
404814	TREE		-	6380.83'	CONICAL	82.36'	*TO BE REMOVED, LOWERED, OR LIGHT
404817	TREE			6547.84'	CONICAL	293.99'	*TO BE REMOVED, LOWERED, OR LIGHT
404818	TREE		-	6591.10'	CONICAL	311.67	*TO BE REMOVED, LOWERED, OR LIGHT
404844	TREE		-	6336.01'	CONICAL	54.26'	*TO BE REMOVED, LOWERED, OR LIGHT
404846	TREE		-	6280.50'	CONICAL	23.33'	*TO BE REMOVED, LOWERED, OR LIGHT
404849	TREE		-	6228.62	CONICAL	21.95	*TO BE REMOVED, LOWERED, OR LIGHT
404857	TREE	•	-	6467.86'	CONICAL	195.31'	*TO BE REMOVED, LOWERED, OR LIGHT
404859	TREE		-	6319.81	CONICAL	69.36'	*TO BE REMOVED, LOWERED, OR LIGHT
404864	TREE		-	6571.29'	CONICAL	337.53	*TO BE REMOVED, LOWERED, OR LIGHT
404866	TREE		-	6498.10'	CONICAL	291.38'	*TO BE REMOVED, LOWERED, OR LIGHT
404867	TREE		-	6307.25'	CONICAL	124.49'	*TO BE REMOVED, LOWERED, OR LIGHT
404869	TREE			6542.90'	CONICAL	335.77	*TO BE REMOVED, LOWERED, OR LIGHT
404871	TREE		-	6280.63'	CONICAL	119.77	*TO BE REMOVED, LOWERED, OR LIGHT
404872	TREE	· ·	-	6619.53'	CONICAL	330.05'	*TO BE REMOVED, LOWERED, OR LIGHT
404885	TREE	•	-	6369.24'	CONICAL	181.40	*TO BE REMOVED, LOWERED, OR LIGHT
404887	TREE		-	6499.98'	CONICAL	325.32	*TO BE REMOVED, LOWERED, OR LIGHT
404888	TREE		-	6522.27	CONICAL	323.69	*TO BE REMOVED, LOWERED, OR LIGHT
404889	TREE	•	-	6560.64'	CONICAL	311.82	*TO BE REMOVED, LOWERED, OR LIGHT
404890	TREE			6564.63'	CONICAL	290.49	*10 BE REMOVED, LOWERED, OR LIGHT
404893	TREE			6507.86	CONICAL	241.09	*10 BE REMOVED, LOWERED, OR LIGHT
404895	TREE	· ·	-	6528.26'	CONICAL	238.78	*TO BE REMOVED, LOWERED, OR LIGHT
404921	TREE	· ·	-	6492.09'	CONICAL	316.20	TO BE REMOVED, LOWERED, OR LIGHT
404923	IREE		-	64/4.90'	CONICAL	255.65	TO BE REMOVED, LOWERED, OR LIGHT
404928	TREE			6359.10'	CONICAL	201.15	TO BE REMOVED, LOWERED, OR LIGHT
404831	TPTT			04 (U.44) 6446 50/	CONICAL	200.10	TO BE REMOVED, LOWERED, OR LIGHTE
40493/	IKEE		-	0440.09	UUNICAL	203.57	TO BE REMOVED, LOWERED, OR LIGHTE
404540	intte			0492.75	CONICAL	209.78	TO BE REMOVED, LOWERED, OR LIGHT

		1	7411401		THEE		
OBJECT DENTIFICATION NO.	OBJECT TYPE	GROUND SURFACE ELEVATION (MSL)	ABOVE GROUND LEVEL (AGL)	TOP OF OBJECT ELEVATION (AMSL)	SURFACE REFERENCED	EXISTING SURFACE PENETRATION	DISPOSITION
404946	TDEE			6424.00'	CONICAL	222.80	*TO BE REMOVED LOWERED OF LIGHT
404940	TREE			6391.71	CONICAL	222.00	*TO BE REMOVED LOWERED, OR LIGHT
404949	TREE			6432.59	CONICAL	202.51	*TO BE REMOVED, LOWERED, OR LIGHT
404950	TREE			6426.97'	CONICAL	218.62'	*TO BE REMOVED, LOWERED, OR LIGHT
404951	TREE			6408.68'	CONICAL	176.50'	*TO BE REMOVED, LOWERED, OR LIGHT
404952	TREE		-	6422.56'	CONICAL	167.89'	*TO BE REMOVED, LOWERED, OR LIGHT
404953	TREE		-	6471.04'	CONICAL	176.33'	*TO BE REMOVED, LOWERED, OR LIGHT
404972	TREE		-	6402.62'	CONICAL	107.67	*TO BE REMOVED, LOWERED, OR LIGHT
404974	TREE		-	6385.13'	CONICAL	218.99	*TO BE REMOVED, LOWERED, OR LIGHTI
404977	TREE			6365.74'	CONICAL	152.21'	*TO BE REMOVED, LOWERED, OR LIGHTI
404979	TREE			6335.04'	CONICAL	156.31	*TO BE REMOVED, LOWERED, OR LIGHT
404983	TREE			6437.77'	CONICAL	136./2	*TO BE REMOVED, LOWERED, OR LIGHT
404991	TREE		-	6420.04	CONICAL	219.41	*TO BE REMOVED, LOWERED, OR LIGHT
405005	TREE			6522.21	CONICAL	313.00	TO BE REMOVED, LOWERED, OR LIGHT
405007	TREE			6542.00	CONICAL	311.20	TO BE REMOVED LOWERED, OR LIGHT
405104	TDEE	+		6460 74'	CONICAL	156.17	*TO BE REMOVED LOWERED, OR LIGHT
405107	TREE			6538.34'	CONICAL	277 14'	*TO BE REMOVED LOWERED, OR LIGHT
405108	TREE			6448.01'	CONICAL	187.18	*TO BE REMOVED LOWERED OR LIGHT
405110	TREE			6471.36'	CONICAL	192.40'	*TO BE REMOVED, LOWERED, OR LIGHT
405115	TREE		-	6400.96'	CONICAL	154.68'	*TO BE REMOVED, LOWERED, OR LIGHT
405116	TREE			6467.60'	CONICAL	214.01'	*TO BE REMOVED, LOWERED, OR LIGHT
405141	TREE			6328.94'	CONICAL	182.05'	*TO BE REMOVED, LOWERED, OR LIGHT
405152	TREE			6433.85'	CONICAL	297.28'	*TO BE REMOVED, LOWERED, OR LIGHT
405166	TREE			6455.76'	CONICAL	299.89'	*TO BE REMOVED, LOWERED, OR LIGHT
405167	TREE	-		6298.50'	CONICAL	131.17	*TO BE REMOVED, LOWERED, OR LIGHT
405168	TREE	-	-	6354.72'	CONICAL	179.77'	*TO BE REMOVED, LOWERED, OR LIGHT
405169	TREE		-	6410.39'	CONICAL	217.76	*TO BE REMOVED, LOWERED, OR LIGHT
405170	TREE		-	6258.99'	CONICAL	86.71'	*TO BE REMOVED, LOWERED, OR LIGHT
405171	TREE	-	-	6358.71'	CONICAL	179.88'	*TO BE REMOVED, LOWERED, OR LIGHT
405173	TREE			6488.08'	CONICAL	342.49'	*TO BE REMOVED, LOWERED, OR LIGHT
405174	TREE			6471.92'	CONICAL	296.98'	*TO BE REMOVED, LOWERED, OR LIGHT
405177	TREE	· ·	-	6484.09'	CONICAL	266.79	*TO BE REMOVED, LOWERED, OR LIGHT
405180	TREE	· ·		6334.14'	CONICAL	150.31'	*TO BE REMOVED, LOWERED, OR LIGHT
405182	TREE		-	6450.67'	CONICAL	216.94	*TO BE REMOVED, LOWERED, OR LIGHT
405183	TREE			6431.86'	CONICAL	220.56	*TO BE REMOVED, LOWERED, OR LIGHT
405184	TREE			6466.28	CONICAL	182.64	*TO BE REMOVED, LOWERED, OR LIGHT
405185	TREE		-	6413.15'	CONICAL	163.65	*TO BE REMOVED, LOWERED, OR LIGHT
405193	TREE	· ·		6453.03	CONICAL	158.05'	TO BE REMOVED LOWERED, OR LIGHT
405195	TREE			6452.33	CONICAL	100.00	TO BE REMOVED, LOWERED, OR LIGHT
405196	TREE	+		6419.12	CONICAL	182.08'	*TO BE REMOVED LOWERED, OR LIGHT
405198	TREE			6400.65	CONICAL	130.25'	*TO BE REMOVED LOWERED, OR LIGHT
405201	TREE			6401.20'	CONICAL	168.79	*TO BE REMOVED LOWERED, OR LIGHT
405202	TREE			6379.29	CONICAL	181.45	*TO BE REMOVED LOWERED, OR LIGHT
405204	TREE			6348.30	CONICAL	146.31'	*TO BE REMOVED LOWERED OR LIGHT
405205	TREE			6348.86'	CONICAL	170.12'	*TO BE REMOVED. LOWERED, OR LIGHT
405207	TREE			6376.52'	CONICAL	154.53'	*TO BE REMOVED, LOWERED, OR LIGHT
405211	TREE			6223.58'	CONICAL	72.21'	*TO BE REMOVED, LOWERED, OR LIGHT
405212	TREE		-	6329.16'	CONICAL	153.66'	*TO BE REMOVED, LOWERED, OR LIGHT
405213	TREE			6344.10'	CONICAL	145.81'	*TO BE REMOVED, LOWERED, OR LIGHT
405226	TREE		-	6427.21'	HORIZONTAL	319.72'	*TO BE REMOVED, LOWERED, OR LIGHT
405231	TREE		-	6408.51'	HORIZONTAL	301.01	*TO BE REMOVED, LOWERED, OR LIGHT
405248	TREE			6435.51'	HORIZONTAL	328.02'	*TO BE REMOVED, LOWERED, OR LIGHT
405272	TREE		-	6432.96'	HORIZONTAL	325.47'	*TO BE REMOVED, LOWERED, OR LIGHT
405311	TREE			6286.95'	HORIZONTAL	179.46'	*TO BE REMOVED, LOWERED, OR LIGHT
405331	TREE		-	6313.81'	HORIZONTAL	206.32	*TO BE REMOVED, LOWERED, OR LIGHT
405346	TREE		-	6422.29'	HORIZONTAL	314.79'	*TO BE REMOVED, LOWERED, OR LIGHT
405410	TREE		-	6278.93'	HORIZONTAL	171.43'	*TO BE REMOVED, LOWERED, OR LIGHT
405422	TREE			6282.58	HORIZONTAL	1/5.08	*TO BE REMOVED, LOWERED, OR LIGHT
405452	TREE			6260.03	HORIZONTAL	152.53	*TO BE REMOVED, LOWERED, OR LIGHT
405468	TREE		-	6256.66	HORIZONTAL	149.17	*TO BE REMOVED, LOWERED, OR LIGHT
40349/	TPEE	· ·		0292.4/' 630F 07'	HURIZONTAL	104.98	TO BE REMOVED, LOWERED, OR LIGHT
405514	TPEE	-		6303.07	CONICAL	13/.30	TO BE REMOVED, LOWERED, OR LIGHT
405538	TREE	+ :		6296.45	CONICAL	187.31	*TO BE REMOVED, LOWERED, OR LIGHT
405560	TRFF			6315.24'	HORIZONITAL	207 75'	*TO BE REMOVED LOWERED, OR LIGHT
405584	TREE	· ·		6268.38'	HORIZONTAL	160.88'	*TO BE REMOVED. LOWERED. OR LIGHT
405624	TREE	· ·	-	6284 40'	HORIZONTAL	176.91'	*TO BE REMOVED LOWERED OF LIGHT
405677	TREE	· ·		6293.14'	HORIZONTAL	185.64'	*TO BE REMOVED, LOWERED, OR LIGHT
405684	TREE			6417.71'	CONICAL	242.95'	*TO BE REMOVED, LOWERED, OR LIGHT
405687	TREE	-		6447.00'	CONICAL	265.10'	*TO BE REMOVED, LOWERED, OR LIGHT
405695	TREE	· ·		6357.06'	CONICAL	134.29	*TO BE REMOVED, LOWERED, OR LIGHT
405699	TREE		-	6340.40'	CONICAL	62.67'	*TO BE REMOVED, LOWERED, OR LIGHT
405701	TREE			6360.02'	CONICAL	91.16'	*TO BE REMOVED, LOWERED, OR LIGHT
405702	TREE			6390.26'	CONICAL	95.64'	*TO BE REMOVED, LOWERED, OR LIGHT
405711	TREE	-	-	6403.62'	CONICAL	102.01'	*TO BE REMOVED, LOWERED, OR LIGHT
405714	TREE		-	6363.85'	CONICAL	79.61'	*TO BE REMOVED, LOWERED, OR LIGHT
405715	TREE			6349.61'	CONICAL	90.05'	*TO BE REMOVED, LOWERED, OR LIGHT
405716	TREE	· ·		6339.64'	CONICAL	63.43'	*TO BE REMOVED, LOWERED, OR LIGHT
405730	TREE			6343.47'	CONICAL	44.83'	*TO BE REMOVED, LOWERED, OR LIGHT
405732	TREE		-	6319.15'	CONICAL	24.44	*TO BE REMOVED, LOWERED, OR LIGHT
405736	TREE			6306.44'	CONICAL	51.80'	*TO BE REMOVED, LOWERED, OR LIGHT
405/65	TREE	· ·		6247.86'	HORIZONTAL	140.37	10 BE REMOVED, LOWERED, OR LIGH
405793	TREE	· ·		6226.16'	HORIZONTAL	118.67	*10 BE REMOVED, LOWERED, OR LIGH
405802	TREE	· ·		621/.84	HORIZONTAL	110.35'	TO BE REMOVED, LOWERED, OR LIGHT
405831	IREE			62/1.4/	HURIZONTAL	163.98	TO BE REMOVED, LOWERED, OR LIGHT
405862	IREE	· ·		6286.11	HURIZONTAL	180.62	TO BE REMOVED, LOWERED, OR LIGHT
405913	IREE			6319.14'	HORIZONTAL	211.65'	TO BE REMOVED, LOWERED, OR LIGHT
405920	IREE	· ·		6356 501	HURIZONTAL	223.57	TO BE REMOVED, LOWERED, OR LIGH
405955	IREE	· ·		6306.58	HURIZONTAL	249.09	TO BE REMOVED, LOWERED, OR LIGHT
403906	TPCC			6300.95	LIODIZONITAL	206.41	TO BE REMOVED, LOWERED, OR LIGH
403903	IREE			6385 30V	HURIZONTAL	202.32	TO BE REMOVED, LOWERED, OR LIGHT
400004	TPEE	+		6337.47	HURIZONTAL	220.07	TO BE REMOVED, LOWERED, OR LIGHT
406052	TPCC	+ .		6312 DP	HURIZONTAL	229.97	TO BE REMOVED, LOWERED, OR LIGHT
autouro 3	IREE			6307.24	HURIZONTAL	204./9	TO BE REMOVED, LOWERED, OR LIGHT
406063	a sof ballet	1 1		0307.34	HURIZUNTAL	138.04	TO BE REMOVED, LOWERED, OR LIGHT
406063	TREE			6207.44	HODIZONITAL	100.001	TO DE DEMOVED 1 CONFORD OF 11211
406063 406078 406089	TREE	-		6297.44' 6310.27'	HORIZONTAL	189.95' 211 P7'	*TO BE REMOVED, LOWERED, OR LIGHT

404940 TREE
*FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW

C-ALP-OBST.dwg 2017 - 10:15am

Jan Jan





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	DES: R.L.B.					
		NO.	BY	DATE	DESCRIPTION	
	DR: R.L.B.					AI
	CH: C.L.G.					LAIC
	APP: S.V.B.	AVIATION AD ACCEPTANCE DEVELOPMEN ACCORDANCE	MINISTRATION AS E OF THIS AIRPO T DEPICTED THE E WITH APPROPR	PROVIDED UNDER TITLE 49 U. RT LAYOUT PLAN BY THE FAA REIN NOR DOES IT INDICATE T INTE PUBLIC LAWS	Provided, W Park, Infoldent IIE, Amford IMPROVEMENT PHOLONAM HANGOR ASSISTANCE FROM THE FUERA S.G. SECTION ATALON. THE CONTRIBUTE DO NOTI NEESSANY REFILCT THE OFFICAL VERSE OF POLICY OF THE FAA DOES NOTI IN ANY NAY CONSTITUTE A COMMINENT ON THE MART OF THE LANGED STATES TO PARTICIPATE IN ANY NAT THE PROPORED DEVELOPMENT IS DEMINONMENTAL ACCEPTIBLE OF NOULD HAVE JUSTICATION IN	

IRPORT OUT PLAN

			AIRSI	PACE OBSTACLE	E TABLE		
OBJECT	OBJECT TYPE	GROUND SURFACE	ABOVE GROUND	TOP OF OBJECT	SURFACE REFERENCED	EXISTING SURFACE PENETRATION	DISPOSITION
406113	TREE			6296 77	HORIZONTAL	189.27	*TO BE REMOVED LOWERED OR LIGHTED
406114	TREE	-	-	6360.29	CONICAL	244.06'	*TO BE REMOVED, LOWERED, OR LIGHTED
406156	TREE			6337.69	HORIZONTAL	230.20'	*TO BE REMOVED, LOWERED, OR LIGHTED
406197	TREE			6385.92	CONICAL	265.99	*TO BE REMOVED, LOWERED, OR LIGHTED *TO BE REMOVED, LOWERED, OR LIGHTED
406227	TREE		-	6325.78'	HORIZONTAL	218.28'	*TO BE REMOVED, LOWERED, OR LIGHTED
406272	TREE		-	6333.08'	HORIZONTAL	225.59	*TO BE REMOVED, LOWERED, OR LIGHTED
4062/6	TREE		-	6328.92	HORIZONTAL	221.43'	*TO BE REMOVED, LOWERED, OR LIGHTED
406323	TREE			6237.07	HORIZONTAL	129.57	*TO BE REMOVED, LOWERED, OR LIGHTED
406344	TREE			6326.11'	CONICAL	173.22'	*TO BE REMOVED, LOWERED, OR LIGHTED
406348	TREE		-	6350.51'	CONICAL	226.54	*TO BE REMOVED, LOWERED, OR LIGHTED
406349	TREE			6385.81	HORIZONTAL	246.03	*TO BE REMOVED, LOWERED, OR LIGHTED *TO BE REMOVED LOWERED, OR LIGHTED
406399	TREE			6140.50'	HORIZONTAL	33.01'	*TO BE REMOVED, LOWERED, OR LIGHTED
406422	TREE		-	6196.53'	HORIZONTAL	89.03'	*TO BE REMOVED, LOWERED, OR LIGHTED
406440	TREE		-	6355.97'	HORIZONTAL	248.48'	*TO BE REMOVED, LOWERED, OR LIGHTED
406462	TREE			6418.02'	HORIZONTAL	310.53'	*TO BE REMOVED, LOWERED, OR LIGHTED
406494	TREE			6462.80'	CONICAL	322.74	*TO BE REMOVED, LOWERED, OR LIGHTED
406506	TREE		-	6459.96'	CONICAL	323.03'	*TO BE REMOVED, LOWERED, OR LIGHTED
406507	TREE	-		6481.55	CONICAL	327.30'	*TO BE REMOVED, LOWERED, OR LIGHTED
406512	TREE	· · ·		6251.08	CONICAL	111.44'	*TO BE REMOVED, LOWERED, OR LIGHTED
400515	TRFF		-	6208.57	CONICAL	30.12	*TO BE REMOVED LOWERED, OR LIGHTED
406519	TREE	1 .		6191.57	CONICAL	29.09'	*TO BE REMOVED, LOWERED, OR LIGHTED
406520	TREE			6164.61'	CONICAL	27.92'	*TO BE REMOVED, LOWERED, OR LIGHTED
406524	TREE		-	6126.38	HORIZONTAL	18.89'	*TO BE REMOVED, LOWERED, OR LIGHTED
406526	TREE			6120.12	HORIZONTAL	12.63' 40.81'	*TO BE REMOVED, LOWERED, OR LIGHTED
400526	TREE			6201.75	CONICAL	40.81 64.77	*TO BE REMOVED, LOWERED, OR LIGHTED
406531	TREE			6208.92	CONICAL	60.27	*TO BE REMOVED, LOWERED, OR LIGHTED
406532	TREE	-	-	6163.07	CONICAL	5.50'	*TO BE REMOVED, LOWERED, OR LIGHTED
406533	TREE	· · ·		6240.88'	CONICAL	78.41	*TO BE REMOVED, LOWERED, OR LIGHTED
400534 406536	TRFF		-	6356.13	CONICAL	99.81	*TO BE REMOVED LOWERED, OR LIGHTED
406541	TREE	· ·	-	6148.67	CONICAL	31.05'	*TO BE REMOVED, LOWERED, OR LIGHTED
406543	TREE		-	6192.86'	HORIZONTAL	85.36'	*TO BE REMOVED, LOWERED, OR LIGHTED
406545	TREE	· ·		6129.13	HORIZONTAL	21.63'	*TO BE REMOVED, LOWERED, OR LIGHTED
406548	TREE		-	6438.13' 6455.62'	CONICAL	2/7.92	*TO BE REMOVED, LOWERED, OR LIGHTED
406554	TREE			6471.53	CONICAL	284.48	*TO BE REMOVED, LOWERED, OR LIGHTED
406556	TREE			6488.12'	CONICAL	284.84'	*TO BE REMOVED, LOWERED, OR LIGHTED
406560	TREE		-	6510.72	CONICAL	306.00'	*TO BE REMOVED, LOWERED, OR LIGHTED
406561	TREE		-	6560.03'	CONICAL	332.62	*TO BE REMOVED, LOWERED, OR LIGHTED
406566	TREE			6340.20	CONICAL	32.48'	*TO BE REMOVED, LOWERED, OR LIGHTED *TO BE REMOVED LOWERED, OR LIGHTED
406570	TREE		-	6258.98'	CONICAL	28.16'	*TO BE REMOVED, LOWERED, OR LIGHTED
406571	TREE		-	6238.07'	CONICAL	13.19'	*TO BE REMOVED, LOWERED, OR LIGHTED
406572	TREE		-	6413.02'	CONICAL	240.77	*TO BE REMOVED, LOWERED, OR LIGHTED
406579	TREE			6411.21	CONICAL	221.13	*TO BE REMOVED, LOWERED, OR LIGHTED
406585	TREE		-	6368.19	CONICAL	210.19	*TO BE REMOVED, LOWERED, OR LIGHTED
406588	TREE	-	-	6399.97'	CONICAL	277.17	*TO BE REMOVED, LOWERED, OR LIGHTED
406592	TREE		-	6369.09'	HORIZONTAL	261.60'	*TO BE REMOVED, LOWERED, OR LIGHTED
406596	TREE			6348.13'	HORIZONTAL	240.64	*TO BE REMOVED, LOWERED, OR LIGHTED *TO BE REMOVED LOWERED, OR LIGHTED
406603	TREE	1		6314.10	HORIZONTAL	206.61	*TO BE REMOVED, LOWERED, OR LIGHTED
406617	TREE		-	6291.45'	HORIZONTAL	183.96'	*TO BE REMOVED, LOWERED, OR LIGHTED
406619	TREE		-	6290.21'	HORIZONTAL	182.72	*TO BE REMOVED, LOWERED, OR LIGHTED
406668	TREE			6188.56	HORIZONTAL	81.07	*TO BE REMOVED, LOWERED, OR LIGHTED
400672	TREE			6259.50'	HURIZONTAL	or./2 152.00'	*TO BE REMOVED, LOWERED, OR LIGHTED
406687	TREE		-	6376.18	HORIZONTAL	268.69'	*TO BE REMOVED, LOWERED, OR LIGHTED
406688	TREE	-	-	6400.27	HORIZONTAL	292.78'	*TO BE REMOVED, LOWERED, OR LIGHTED
406711	TREE		-	6310.79	HORIZONTAL	203.30	*TO BE REMOVED, LOWERED, OR LIGHTED
406/76	TREE			6284.51	HURIZONTAL	51.47	*TO BE REMOVED, LOWERED, OR LIGHTED
406802	TREE	· ·	-	6189.90'	HORIZONTAL	82.40'	*TO BE REMOVED, LOWERED, OR LIGHTED
406805	TREE	-	-	6258.45'	HORIZONTAL	150.95'	*TO BE REMOVED, LOWERED, OR LIGHTED
406811	TREE	•	-	6234.88	HORIZONTAL	127.38	*TO BE REMOVED, LOWERED, OR LIGHTED
405845	TREE		-	6138.91	HURIZONTAL	30.95'	TO BE REMOVED LOWERED, OR LIGHTED
406881	TREE		-	6104.26	RUNWAY 19 APPROACH	-102.96	- and change that, softwarding, on short the
406882	TREE		-	6101.45'	RUNWAY 19 APPROACH	-104.40'	
406917	TREE			6101.45	RUNWAY 19 APPROACH	-94.11'	
405927	TPEE		-	6102.55	RUNIAL RUNIAL RUNIAL 19 ADDDOACU	20.46	TO BE REMOVED, LOWERED, OR LIGHTED
406935	TREE		-	6105.83	RUNWAY 19 APPROACH	-86.13	
406939	TREE			6106.95	RUNWAY 19 APPROACH	-84.01'	
406947	TREE		-	6104.26	RUNWAY 19 APPROACH	-81.73*	
406952	TREE		-	6127.39	HORIZONTAL	19.89'	*TO BE REMOVED, LOWERED, OR LIGHTED
400954 406956	TREE	<u> </u>		6100.33	RUNWAY 19 APPROACH	9.12'	TO BE REMOVED, LOWERED, OR LIGHTED
406980	TREE			6154.68	HORIZONTAL	47.18'	*TO BE REMOVED, LOWERED, OR LIGHTED
407016	TREE		-	6183.08	HORIZONTAL	75.59'	*TO BE REMOVED, LOWERED, OR LIGHTED
407019	TREE	-	-	6198.24'	HORIZONTAL	90.75'	*TO BE REMOVED, LOWERED, OR LIGHTED
407050	TREE		-	6169.95	HORIZONTAL	62.45'	*TO BE REMOVED, LOWERED, OR LIGHTED
40/101	TPEE	-	-	6189.26	HURIZONTAL	47.97	*TO BE REMOVED LOWERED, OR LIGHTED
407141	TREE			6226.65'	HORIZONTAL	119.16'	*TO BE REMOVED, LOWERED, OR LIGHTED
407194	TREE		-	6191.84'	HORIZONTAL	84.35'	*TO BE REMOVED, LOWERED, OR LIGHTED
407211	TREE		-	6167.36	HORIZONTAL	59.87	*TO BE REMOVED, LOWERED, OR LIGHTED
407235	TREE			6187.69'	HORIZONTAL	80.19'	*TO BE REMOVED, LOWERED, OR LIGHTED
407287	TREF		-	6270.55	HORIZONTAL	163.06'	*TO BE REMOVED, LOWERED, OK LIGHTED
407292	TREE		-	6252.25	HORIZONTAL	144.75	*TO BE REMOVED, LOWERED, OR LIGHTED
	TREE		-	6151.08'	HORIZONTAL	43.58'	*TO BE REMOVED, LOWERED, OR LIGHTED
407331							
407331 407351	TREE		-	6212.72	HORIZONTAL	105.23'	*TO BE REMOVED, LOWERED, OR LIGHTED

NOTES ONLY TOP OF OBJECT ELEVATION IS SHOWN FOR OBJECTS IN DENSE AREAS OUTSIDE OF THE INNER APPROACH SURFACES. SOURCE 1. OBSTRUCTION SURVEY DATA COMPILED BY WOOLPERT, INC IN MARCH, 2016. ALL HORIZONTAL COORDINATES – NAD83/2011 ALL VERTICAL COORDINATES – NAVD88. SHEET NO. AIRPORT AIRSPACE OBSTACLE TABLE - 1 09 of 24

AIP PROJ. NO.	JVIATION PROJ. NO.	DATE:
3-49-0026-016-2015	2015.PUC.01	JANUARY, 2017
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OBJECT		GROUND SUPERIOF	ABOVE OPOLIND	TOP OF OR JECT	SUPEACE	EVISTING SUPEACE	
DENTIFICATION NO.	OBJECT TYPE	ELEVATION (MSL)	LEVEL (AGL)	ELEVATION (AMSL)	REFERENCED	PENETRATION	DISPOSITION
407400	TREE			6241.47	HORIZONTAL	133.97'	*TO BE DEMOVED LOWERED OF LICH
407417	TREE			6240.68	HORIZONTAL	133.19'	*TO BE REMOVED LOWERED, OR LIGH
407441	TREE			6267.86	HORIZONTAL	160.36	*TO BE REMOVED. LOWERED, OR LIGH
407483	TREE			6175.35'	HORIZONTAL	67.86'	*TO BE REMOVED, LOWERED, OR LIGH
407514	TREE			6211.96"	HORIZONTAL	104.49'	*TO BE REMOVED, LOWERED, OR LIGH
407549	TREE			6197.93*	HORIZONTAL	90.43'	*TO BE REMOVED, LOWERED, OR LIGH
407567	TREE			6203.35'	HORIZONTAL	95.86'	*TO BE REMOVED, LOWERED, OR LIGH
407575	TREE			6210.32	HORIZONTAL	102.83'	*TO BE REMOVED, LOWERED, OR LIGH
407578	TREE			6195.71'	HORIZONTAL	88.22'	*TO BE REMOVED, LOWERED, OR LIGH
407645	TREE			6231.24'	HORIZONTAL	123.74'	*TO BE REMOVED, LOWERED, OR LIGH
407646	TREE			6231.90'	HORIZONTAL	124.41'	*TO BE REMOVED, LOWERED, OR LIGH
407650	TREE			6237.21	HORIZONTAL	129.72'	*TO BE REMOVED, LOWERED, OR LIGH
407668	TREE			6246.62'	HORIZONTAL	139.13'	*TO BE REMOVED, LOWERED, OR LIGH
407682	TREE	•		6252.60'	HORIZONTAL	145.10'	*TO BE REMOVED, LOWERED, OR LIGH
407701	TREE			6258.40'	HORIZONTAL	150.90'	*TO BE REMOVED, LOWERED, OR LIGH
407762	TREE		-	6394.85'	HORIZONTAL	287.36	*TO BE REMOVED, LOWERED, OR LIGH
40/7/8	TREE			6242.02	HORIZONTAL	134.52	*TO BE REMOVED, LOWERED, OR LIGH
407700	TREE			0101.00	HURIZONTAL	34.07	TO BE REMOVED, LOWERED, OR LIGH
407700	TREE			0100.47	HURIZONTAL	40.90	TO BE REMOVED, LOWERED, OR LIG
40/799	TREE			6177.17	HURIZONTAL	69.67	TO BE REMOVED, LOWERED, OR LIG
407806	TREE			6163.92	HURIZONTAL	70.42	TO BE REMOVED, LOWERED, OR LIGHT
407807	TREE			6195.96	HURIZUNTAL	00.49	TO BE REMOVED, LOWERED, OR LIGH
40/80/	TREE			6318.38	HURIZONTAL	210.09	TO BE REMOVED, LOWERED, OR LIGH
40/808	TREE			6372.10	HORIZONTAL	204.01	TO BE REMOVED, LOWERED, OR LIGH
407811	TPEE	+	· · ·	0303.41		249.04	*TO BE REMOVED, LOWERED, OR LIGH
407812	TPEE		· ·	6380.00	CONICAL	267.18'	TO BE REMOVED LOWERED, OR LIGH
407819	TREE	+ .		6265.54	HORIZONITAL	158.05'	*TO BE REMOVED, LOWERED, OR LIGH
407820	TPEE	+		0203.04	HORIZONITAL	63.78	*TO BE REMOVED, LOWERED, OR LIGH
407821	TREE	1		6295.03	CONICAL	166.90'	TO BE REMOVED LOWERED, OR LIGHT
407824	TREE	1		6248.75	CONICAL	123.55'	*TO BE REMOVED, LOWERED, OR LIGH
407826	TREE	+		0240./0 6273.00	CONICAL	129.00	*TO BE REMOVED, LOWERED, OR LIGH
407020	TPEE	-	· · ·	62/2.96	CONICAL	128.10 138.79	*TO BE REMOVED, LOWERED, OR LIGH
407032	TPEE			630/./3 6204.00 ⁴	CONICAL	130.72	TO BE REMOVED, LOWERED, OR LIGHTO BE REMOVED LOWERED, OR LIGHT
40/03/	TPCC	-		62/91.06	CONICAL	10.63	TO BE REMOVED, LOWERED, OR LIGHTO BE REMOVED LOWERED, OR LIGHT
407847	TPEE	+	· · ·	024/./0	CONICAL	105.05'	*TO BE REMOVED, LOWERED, OR LIGH
407047	TREE			0217.20	LIODIZONTAL	103.55	TO BE REMOVED, LOWERED, OR LIGH
407054	TREE			6100.47	CONICAL	6.39	TO BE REMOVED, LOWERED, OR LIGHT
407063	TREE			0123.13	LICONTONE	20.54	TO BE REMOVED, LOWERED, OR LIGH
407864	TREE			6137.00	HORIZONTAL	37.07	TO BE REMOVED, LOWERED, OR LIGH
407965	TREE			6122.46	HORIZONTAL	25.98'	TO BE REMOVED, LOWERED, OR LIG
407966	TREE			6110.02	HORIZONTAL	10.44	TO BE REMOVED, LOWERED, OR LIGHT
407867	TREE			6113.55	HORIZONTAL	6.11	TO BE REMOVED, LOWERED, OR LIGH
407007	TREE			6113.00	HORIZONTAL	0.11	TO BE REMOVED, LOWERED, OR LIGHT
407070	TREE			6149.77	HURIZONTAL	42.20	TO BE REMOVED, LOWERED, OR LIG
407072	TREE			6127.24	HURIZUNTAL	19.75	TO BE REMOVED, LOWERED, OR LIGHT
407074	TREE			0132.00	HURIZONTAL	23.19	TO BE REMOVED, LOWERED, OR LIGH
40/0/0	TREE			0121.00	HURIZONTAL	14.03	TO BE REMOVED, LOWERED, OR LIG
408040	TREE			0230.21	HURIZONTAL	150.72	TO BE REMOVED, LOWERED, OR LIGHT
408040	TREE			6209.65	HURIZUNTAL	152.34	TO BE REMOVED, LOWERED, OR LIGHT
408005	TREE			6248.91	HURIZONTAL	141.42	TO BE REMOVED, LOWERED, OR LIG
40803	TREE			6230.00	HURIZONTAL	129.10	TO BE REMOVED, LOWERED, OR LIG
400110	TREE			6227.60	HURIZONTAL	120.33	TO BE REMOVED, LOWERED, OR LIGHT
408152	TREE			6170.20	HORIZONTAL	40.56'	TO BE REMOVED, LOWERED, OR LIGHT
400132	TREE			0140.00	HURIZONTAL	40.00	TO BE REMOVED, LOWERED, OR LIG
400170	TREE	-		6004.04	HORIZONTAL	02.72	TO BE REMOVED, LOWERED, OR LIGH
408188	TDEE			6195 57	CONICAL	72.14	TO BE REMOVED, LOWERED, OR LIGH
408102	TREE			6150.31	HODIZONTAL	51.91	TO BE REMOVED, LOWERED, OR LIG
408100	TREE			0109.01	CONICAL	56.44	TO BE REMOVED, LOWERED, OR LIG
408202	TPEE	1	· · ·	01/9.20	CONICAL	6.201	*TO BE REMOVED, LOWERED, OR LIGH
408204	TREE	5952.44	4 007	5957.34	TRANSITIONAL	8.32	*TO BE REMOVED, LOWERED, OR LIGH
408209	TREE	592.44	4.80	5035.90	TRANSITIONAL	3.20	*TO BE REMOVED, LOWERED, OR LIGH
408210	TPEE	5919.67	13.32	5022.00	TRANSITIONAL	3.44	*TO BE REMOVED, LOWERED, OR LIGH
408243	TREE		10.00	6463.30	CONICAL	340.72	*TO BE REMOVED LOWERED, OR LIGH
408310	TREE	1		6447.36	CONICAL	247 20'	TO BE REMOVED LOWERED, OR LIGHT
408335	TPFF	1		6196 37	HORIZONITAL	78 77	*TO BE REMOVED LOWERED, OR LIGH
408340	TPEE	5883.50	12.901	5800.27	DDIMADV	2 801	TO BE REMOVED LOWERED, OR LIGH
408352	TREE	5891.49	6.45	5897.04*	RUNWAY 26 ADDDOACH	0.92	TO BE REMOVED LOWERED, OR LOP
408360	TREE	5890 72	3.61	5894 33	RUNWAY 26 APPROACH	2.43	*TO BE REMOVED LOWERED, OR LIGH
408390	TREE	-		6588.73	CONICAL	333.72	*TO BE REMOVED LOWERED OR LIG
408391	TREE	1 .		6612.31	CONICAL	311.57	*TO BE REMOVED LOWERED OR LIGH
408407	NATURAL HIGH POINT	5819.12'	0.00'	5819.12	PRIMARY	0.83'	*TO BE REMOVED LOWERED OR LIGH
408414	NATURAL HIGH POINT	5814.20'	0.00	5814.20	PRIMARY	1,61'	*TO BE REMOVED I OWERED OR LOA
408420	NATURAL HIGH POINT	5861.10	0.00	5861 10	PRIMARY	1,37	*TO BE REMOVED I OWERED OF LIS
408426	NATURAL HIGH POINT	5863.64'	0.00'	5863.64'	PRIMARY	0.92	*TO BE REMOVED LOWERED, OR LIG
408428	NATURAL HIGH POINT	5864.52'	0.00'	5864.52'	PRIMARY	0.50'	*TO BE REMOVED. LOWERED. OR LIGH
408435	NATURAL HIGH POINT	5870.47	0.00'	5870.47"	PRIMARY	0.33'	*TO BE REMOVED, LOWERED, OR LIGH
408437	NATURAL HIGH POINT	5872.89'	0.00'	5872.89'	PRIMARY	0.87'	*TO BE REMOVED. LOWERED. OR LIGH
408439	NATURAL HIGH POINT	5875.09'	0.00'	5875.09'	PRIMARY	1.04"	*TO BE REMOVED, LOWERED, OR LIGH
408492	NATURAL HIGH POINT	5882.03'	0.00'	5882.03	PRIMARY	0.01"	*TO BE REMOVED, LOWERED, OR LIGH
408507	NATURAL HIGH POINT	5956.02'	0.00'	5956.02'	PRIMARY	2.61"	*TO BE REMOVED, LOWERED, OR LIGH
408531	NATURAL HIGH POINT	5850.76'	0.00'	5850.76'	PRIMARY	0.19'	*TO BE REMOVED, LOWERED, OR LIGH
408592	NATURAL HIGH POINT	5852.34'	0.00'	5852.34'	PRIMARY	1.58'	*TO BE REMOVED, LOWERED, OR LIGH
408598	NATURAL HIGH POINT	5834.47	0.00'	5834.47"	PRIMARY	5.47'	*TO BE REMOVED, LOWERED, OR LIGH
408602	NATURAL HIGH POINT	5837.16'	0.00'	5837.16"	TRANSITIONAL	1.22'	*TO BE REMOVED, LOWERED, OR LIGH
408672	NATURAL HIGH POINT	5874.95'	0.00'	5874.95'	PRIMARY	3.77'	*TO BE REMOVED, LOWERED, OR LIGH
408673	NATURAL HIGH POINT	5875.28'	0.00'	5875.28	TRANSITIONAL	1.54"	*TO BE REMOVED, LOWERED, OR LIGH
408674	NATURAL HIGH POINT	5876.93'	0.00'	5876.93'	PRIMARY	2.62	*TO BE REMOVED LOWERED, OR LIG
408703	GROUND	6289.85'	0.00'	6289.85'	CONICAL	1.43'	*TO BE REMOVED LOWERED, OR LIG
408709	GROUND	6237.57	0.00	6237 57	CONICAL	32.10	*TO BE REMOVED I OWERED OR LIG
408710	GROUND	6204 15'	0.00	6204 15'	CONICAL	20 50'	*TO BE REMOVED LOWERED OF LISE
408727	GROUND	6539.91'	0,00	6539.91'	CONICAL	309.42'	*TO BE REMOVED LOWERED OR LIGH
408728	GROUND	6539.13'	0.00	6539.13	CONICAL	315.59	*TO BE REMOVED I OWERED OR LIG
408730	GROUND	6517.62	0.00	6517.62	CONICAL	272.81	*TO BE REMOVED LOWERED, OR LOW
408748	GROUND	6427.63	0.00	6427.6%	CONICAL	204.31	TO BE REMOVED LOWERED, OR LIGHT
408749	GROUND	6449.67	0.00	6449.67	CONICAL	175.40	*TO BE REMOVED LOWERED, OR LIGH
408769	GROUND	6559 56'	0.00	6559.58	CONICAL	311.81	TO BE REMOVED LOWERED, OR LIGH
408771	GROUND	6586 38	0.00	6586.38	CONICAL	301 93'	TO BE REMOVED LOWERED, OR LOP
408862	GROUND	6473.58	0.00	6473.58	CONICAL	184 53'	*TO BE REMOVED LOWERED, OR LIGH
400002	CROUND	0470.50 0470.64	0.00	6470.44	CONICAL	104.00	TO BE REMOVED LOWERED, OR LIGH
	2		1.00			1.000	and the second s

OBJECT	OBJECT TYPE	GROUND SURFACE	ABOVE GROUND	TOP OF OBJECT	SURFACE	EXISTING SURFACE	
ENTIFICATION NO.	OBJECT TYPE	ELEVATION (MSL)	LEVEL (AGL)	ELEVATION (AMSL)	REFERENCED	PENETRATION	DISPOSITION
408888 408902	GROUND	6443.03'	0.00'	6442.48	CONICAL	308.99	*TO BE REMOVED, LOWERED, OR LIG *TO BE REMOVED, LOWERED, OR LIG
408923	GROUND	6231.44'	0.00'	6231.44	CONICAL	78.71'	*TO BE REMOVED, LOWERED, OR LIG
408925 408954	GROUND	6496.05' 6410.28'	0.00'	6496.05' 6410.28'	CONICAL HORIZONTAL	330.21' 302.78'	*TO BE REMOVED, LOWERED, OR LIG *TO BE REMOVED. LOWERED, OR LIG
408976	GROUND	6400.87'	0.00'	6400.87'	HORIZONTAL	293.38'	*TO BE REMOVED, LOWERED, OR LIG
409029	GROUND	6326.24'	0.00'	6326.24'	CONICAL	211.34'	*TO BE REMOVED, LOWERED, OR LIG *TO BE REMOVED, LOWERED, OR LIG
409100	GROUND	6298.23'	0.00'	6298.23	HORIZONTAL	190.74'	*TO BE REMOVED, LOWERED, OR LIG
409199	GROUND	6316.78'	0.00'	6316.78'	HORIZONTAL	209.29'	*TO BE REMOVED, LOWERED, OR LIG
409223	GROUND	6380.19'	0.00'	6380.19'	CONICAL	250.59'	*TO BE REMOVED, LOWERED, OR LIG *TO BE REMOVED, LOWERED, OR LIG
409282	GROUND	6338.14'	0.00'	6338.14	HORIZONTAL	230.65'	*TO BE REMOVED, LOWERED, OR LIG
409298	GROUND	6350.06'	0.00'	6350.06'	HORIZONTAL	242.57	*TO BE REMOVED, LOWERED, OR LIG
409378	GROUND	6392.00'	0.00'	6392.00'	CONICAL	258.65'	*TO BE REMOVED, LOWERED, OR LIG
409365	GROUND	6423.93'	0.00'	6423.93	CONICAL	313.88'	*TO BE REMOVED, LOWERED, OR LIC *TO BE REMOVED. LOWERED, OR LIC
409468	GROUND	6436.55'	0.00'	6436.55'	CONICAL	317.70'	*TO BE REMOVED, LOWERED, OR LIG
409501	GROUND	6179.71	0.00'	6179.71	CONICAL	45.21	*TO BE REMOVED, LOWERED, OR LIC
409506	GROUND	6113.07	0.00'	6113.07'	CONICAL	5.58	*TO BE REMOVED, LOWERED, OR LIG *TO BE REMOVED. LOWERED, OR LIG
409515	GROUND	6363.57'	0.00'	6363.57	CONICAL	179.71	*TO BE REMOVED, LOWERED, OR LIG
409541	GROUND	6228.71'	0.00'	6228.71'	HORIZONTAL	121.22'	*TO BE REMOVED, LOWERED, OR LIG
409543	GROUND	6142.48'	0.00'	6142.48	HORIZONTAL	34.99'	*TO BE REMOVED, LOWERED, OR LIC
409000	GROUND	6108.08'	0.00'	6108.08	HORIZONTAL	0.58'	*TO BE REMOVED, LOWERED, OR LIG
409842	GROUND	6234.85'	0.00'	6234.85'	HORIZONTAL	127.36'	*TO BE REMOVED, LOWERED, OR LIC
409932 409056	GROUND	6212.25'	0.00'	6212.25	HORIZONTAL	104.75	*TO BE REMOVED, LOWERED, OR LIC
409957	GROUND	6193.43'	0.00'	6193.43	HORIZONTAL HORIZONTAL	09.34 85.94	*TO BE REMOVED, LOWERED, OR LIC *TO BE REMOVED. LOWERED. OR LIC
409961	GROUND	6155.92'	0.00'	6155.92'	HORIZONTAL	48.42'	*TO BE REMOVED, LOWERED, OR LI
409965	GROUND	6264.45'	0.00'	6264.45'	CONICAL	152.35'	*TO BE REMOVED, LOWERED, OR LI
409969	GROUND	6119.53'	0.00'	6119.53	HORIZONTAL	12.04'	*TO BE REMOVED, LOWERED, OR LIN
409994	GROUND	6132.98'	0.00	6132.98	CONICAL	25.46	*TO BE REMOVED, LOWERED, OR LIN *TO BE REMOVED, LOWERED, OR LIN
409994	GROUND	6132.98'	0.00'	6132.98'	HORIZONTAL	25.46'	*TO BE REMOVED, LOWERED, OR LI
409996	GROUND	6136.13'	0.00'	6136.13'	HORIZONTAL	28.63'	*TO BE REMOVED, LOWERED, OR LI
409999	GROUND	6130.78'	0.00'	6130.78'	HORIZONTAL	23.28	*TO BE REMOVED, LOWERED, OR LI *TO BE REMOVED, LOWERED, OR LI
410008	GROUND	6114.81	0.00'	6114.81	HORIZONTAL	7.32	*TO BE REMOVED, LOWERED, OR LI
410671	GROUND	6135.35'	0.00'	6135.35'	HORIZONTAL	27.85'	*TO BE REMOVED, LOWERED, OR LI
410693	GROUND	6261.44'	0.00'	6261.44	CONICAL	84.49'	*TO BE REMOVED, LOWERED, OR LIN
410749	NATURAL HIGH POINT	5961.98'	0.00'	5968.50 5961.98'	PRIMARY	2.66	*TO BE REMOVED, LOWERED, OR LI *TO BE REMOVED LOWERED, OR LI
410769	NATURAL HIGH POINT	5963.64'	0.00'	5963.64'	PRIMARY	6.15'	*TO BE REMOVED, LOWERED, OR LI
410806	NATURAL HIGH POINT	5962.32'	0.00'	5962.32	TRANSITIONAL	5.16'	*TO BE REMOVED, LOWERED, OR LI
410808	NATURAL HIGH POINT	5954.47'	0.00'	5954.47'	PRIMARY	0.23'	*TO BE REMOVED, LOWERED, OR LI
410835	NATURAL HIGH POINT	5953.70'	0.00'	5953.70"	PRIMARY	5.89'	*TO BE REMOVED, LOWERED, OR LIN
410840	NATURAL HIGH POINT	5948.72'	0.00'	5948.72	TRANSITIONAL	0.11'	*TO BE REMOVED, LOWERED, OR LI
410841	NATURAL HIGH POINT	5945.41'	0.00'	5945.41'	PRIMARY	4.30'	*TO BE REMOVED, LOWERED, OR LI
410805	NATURAL HIGH POINT	5940.66	0.00'	5924.86'	PRIMARY	3.03'	*TO BE REMOVED, LOWERED, OR LIN
410869	NATURAL HIGH POINT	5927.39'	0.00'	5927.39'	PRIMARY	1.95'	*TO BE REMOVED, LOWERED, OR LI
410872	NATURAL HIGH POINT	5917.56'	0.00'	5917.56'	PRIMARY	0.37'	*TO BE REMOVED, LOWERED, OR LI
410924	NATURAL HIGH POINT	5955.81'	0.00'	5955.81'	PRIMARY	0.19'	*TO BE REMOVED, LOWERED, OR LIN *TO BE REMOVED LOWERED, OR LIN
410928	NATURAL HIGH POINT	5907.94'	0.00'	5907.94	PRIMARY	0.31'	*TO BE REMOVED, LOWERED, OR LI
410930	NATURAL HIGH POINT	5858.52'	0.00'	5858.52'	PRIMARY	0.47'	*TO BE REMOVED, LOWERED, OR LI
411001	PRIMARY ROAD	5823.47'	15.00'	5838.47'	TRANSITIONAL	0.54'	*TO BE REMOVED, LOWERED, OR LI
411044	PRIMARY ROAD	5913.09'	15.00	5924.79	PRIMART	13.88'	*TO BE REMOVED, LOWERED, OR LI
411052	PRIMARY ROAD	5912.10'	15.00'	5927.10'	PRIMARY	10.16'	*TO BE REMOVED, LOWERED, OR LI
411089	AIRPORT ACCESS ROAD	5812.20'	0.00'	5812.20'	PRIMARY	0.51	*TO BE REMOVED, LOWERED, OR LI
411142	PRIMARY ROAD PRIMARY ROAD	5802.03'	15.00'	5817.03'	RUNWAY 33 APPROACH TRANSITIONAL	1.65'	*TO BE REMOVED, LOWERED, OR LI *TO BE REMOVED LOWERED, OR LI
412151	PRIMARY ROAD	6589.37'	15.00'	6604.37'	CONICAL	310.59	*TO BE REMOVED, LOWERED, OR LI
412157	PRIMARY ROAD	6568.11'	15.00'	6583.11'	CONICAL	313.47	*TO BE REMOVED, LOWERED, OR LI
412162	PRIMARY ROAD	6556.27'	15.00'	6571.27'	CONICAL	314.38' 330 38'	*TO BE REMOVED, LOWERED, OR LI
412252	PRIMARY ROAD	6449.28'	15.00	6464.28'	CONICAL	191.07	*TO BE REMOVED, LOWERED, OR LI
412258	PRIMARY ROAD	6408.03'	15.00'	6423.03'	CONICAL	247.28'	*TO BE REMOVED, LOWERED, OR LI
412269	PRIMARY ROAD	6434.59'	15.00'	6449.59	CONICAL	248.46'	*TO BE REMOVED, LOWERED, OR LI
412272 412282	PRIMARY ROAD	6459.93'	15.00	6454.32 6474.93	CONICAL	247.25	*TO BE REMOVED, LOWERED, OR LI *TO BE REMOVED LOWERED, OR LI
412294	PRIMARY ROAD	6479.32'	15.00'	6494.32	CONICAL	239.61	*TO BE REMOVED, LOWERED, OR LI
412312	PRIMARY ROAD	6505.54'	15.00'	6520.54"	CONICAL	234.33'	*TO BE REMOVED, LOWERED, OR LI
412441	PRIMARY ROAD	6577.20'	15.00'	6592.20'	CONICAL	321.95	*TO BE REMOVED, LOWERED, OR LI
412520	PRIMARY ROAD	6569.87'	15.00'	6584.87	CONICAL	281.11	*TO BE REMOVED, LOWERED, OR LI
412651	PRIMARY ROAD	6254.15'	15.00'	6269.15'	CONICAL	-29.78	
412660	PRIMARY ROAD	6253.01	15.00'	6268.01'	CONICAL	-2.04'	ITO DE DEMONER L'OMERER
412758	PRIMARY ROAD	6333.03'	15.00'	6348.03	CONICAL	171.27	*TO BE REMOVED, LOWERED, OR LI
412792	PRIMARY ROAD	6407.78'	15.00'	6422.78	CONICAL	285.43'	*TO BE REMOVED, LOWERED, OR LI
412813	PRIMARY ROAD	6415.62'	15.00'	6430.62	CONICAL	291.86'	*TO BE REMOVED, LOWERED, OR LI
412830	PRIMARY ROAD	6400.05'	15.00	6415.05'	CONICAL	268.21	*10 BE REMOVED, LOWERED, OR LI
412969	PRIMARY ROAD	6121.71	15.00	6136.71	HORIZONTAL	29.22'	*TO BE REMOVED, LOWERED, OR LI
412976	PRIMARY ROAD	6112.50'	15.00'	6127.50'	HORIZONTAL	20.00'	*TO BE REMOVED, LOWERED, OR LI
412982	PRIMARY ROAD	6103.96'	15.00'	6118.96	HORIZONTAL	11.47'	*TO BE REMOVED, LOWERED, OR LI
413012	PRIMARY ROAD	6118.41'	15.00'	6133.41'	HORIZONTAL	25.92'	*TO BE REMOVED, LOWERED, OR LI
413035	PRIMARY ROAD	6158.12'	15.00	6173.12	HORIZONTAL	65.62'	*TO BE REMOVED, LOWERED, OR LI
413036	PRIMARY ROAD	6160.39'	15.00'	6175.39	CONICAL	65.18	*TO BE REMOVED, LOWERED, OR LI
413066	PRIMARY ROAD	6153.44'	15.00'	6168.44"	HORIZONTAL	60.95'	*TO BE REMOVED, LOWERED, OR LI
413077	PRIMARY ROAD	6237.20/	15.00'	6195.49'	HORIZONTAL	87.99'	TO BE REMOVED, LOWERED, OR LI
413159	PRIMARY ROAD	6349.82	15.00	6364.82	HORIZONTAL	257.33'	*TO BE REMOVED, LOWERED, OR LI
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*FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW







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	DES: R.L.B.					
	NO.	BY	DATE	DESCRIPTION		
	DR: R.L.B.					A
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	APP: S.V.B.	ACCEPTANCE DEVELOPMEN ACCORDANC	e of this airpo nt depicted the e with appropr	RT LAYOUT PLAN BY THE FAA REIN NOR DOES IT INDICATE T NATE PUBLIC LAWS.	DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY HAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE OR WOULD HAVE JUSTIFICATION IN	

IRPORT OUT PLAN

OBJECT IDENTIFICATION N

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		AIR	SPACE OBSTAC	LE TABLE		
	GROUND SURFACE	ABOVE GROUND	TOP OF OBJECT	SURFACE	EXISTING SURFACE	DIODOOTTON
OBJECT TYPE	ELEVATION (MSL)	LEVEL (AGL)	ELEVATION (AMSL)	REFERENCED	PENETRATION	DISPOSITION
PRIMARY ROAD	6379,60'	15.00'	6394.60'	HORIZONTAL	287.10	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6398.23'	15.00'	6413.23' 6246.40/	HORIZONTAL	305.74	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6502.71	15.00	6517.71	CONICAL	207.39	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6489.23'	15.00'	6504.23'	CONICAL	338.57	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6470.10'	15.00'	6485.10'	CONICAL	343.24	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6457.06	15.00'	6472.06	CONICAL	346.62	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6438.27'	15.00'	6453.27	HORIZONTAL	345.78	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6455.18'	15.00	6470.18	CONICAL	355.64	TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6430.20'	15.00	6445.20	CONICAL	321.21	*TO BE REMOVED LOWERED, OR LIGHTED
PRIMARY ROAD	6363.22'	15.00'	6378.22	CONICAL	232.69	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6440.93'	15.00"	6455.93'	CONICAL	158.61'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6412.38'	15.00'	6427.38'	CONICAL	166.40'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6382.28'	15.00'	6397.28'	CONICAL	148.77	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6316.54	15.00'	6331.54'	CONICAL	124.41	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6273.04	15.00	6288 M	HORIZONITAL	180.54	TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6287.99	15.00	6302.99	HORIZONTAL	195.50	*TO BE REMOVED LOWERED, OR LIGHTED
PRIMARY ROAD	6306.67'	15.00'	6321.67	HORIZONTAL	214.18	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6379.35'	15.00'	6394.35'	CONICAL	261.29	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6362.45'	15.00'	6377.45'	CONICAL	259.90	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6344.64'	15.00'	6359.64'	HORIZONTAL	252.15	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6124.69	15.00'	6139.69	HORIZONTAL	32.20'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6224.27'	15.00'	6239.27	HORIZONTAL	131.77	TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6158.57	15.00	6173.67	HURIZONTAL	03.46 66.08'	TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6106.87	15.00	6121.87	HORIZONTAL	14.37	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6117.03	15.00	6132.03	HORIZONTAL	24.53	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6121.49'	15.00'	6136.49'	HORIZONTAL	28.99'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6111.95'	15.00'	6126.95'	HORIZONTAL	19.45'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6223.31'	15.00'	6238.31'	CONICAL	73.80'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6261.35'	15.00'	6276.35'	CONICAL	87.94"	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6278.78	15.00'	6293.78'	CONICAL	100.78	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6299.29	15.00'	6314.29	CUNICAL	116.21	TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6182.22	15.00	6197.22	CONICAL	32.42	TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6166.83'	15.00	6181.83	CONICAL	5.63	TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6097.16	15.00	6112.16	HORIZONTAL	4.67	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6120.09'	15.00'	6135.09'	HORIZONTAL	27.60'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6134.29'	15.00'	6149.29	HORIZONTAL	41.79'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6147.50'	15.00'	6162.50'	HORIZONTAL	55.01'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6164.42'	15.00'	6179.42	CONICAL	63.19'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6183.97'	15.00"	6198.97	CONICAL	81.82	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMART RUAD	6144.88	15.00	6159.88	CONICAL	40.90	TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6155.25'	15.00	6170.25	HORIZONTAL	62.76	TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6116.66'	15.00'	6131.66'	HORIZONTAL	24.16'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6131.94'	15.00'	6146,94'	HORIZONTAL	39.44'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6117.98'	15.00'	6132.96'	HORIZONTAL	25.48'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6108.44'	15.00'	6123.44'	HORIZONTAL	15.94'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6101.78'	15.00'	6116.78	HORIZONTAL	9.28	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6097.89'	15.00'	6112.89	HORIZONTAL	5.40'	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6095.96'	15.00'	6110.96	HORIZONTAL	3.47	*TO BE REMOVED, LOWERED, OR LIGHTED
IPPOPT ACCESS POAD	6115.73	15.00	6130.73	HURIZON FAL	23.23	*TO BE REMOVED, LOWERED, OR LIGHTED
RPORT ACCESS ROAD	5965.31'	0.00	5965.31	PRIMARY	7.82	*TO BE REMOVED LOWERED, OR LIGHTED
RPORT ACCESS ROAD	5966.64'	0.00	5966.64'	RUNWAY 19 APPROACH	5.98'	*TO BE REMOVED LOWERED, OR LIGHTED
RPORT ACCESS ROAD	5922.81'	0.00'	5922.81'	TRANSITIONAL	3.01'	*TO BE REMOVED, LOWERED, OR LIGHTED
RPORT ACCESS ROAD	5922.15'	0.00'	5922.15'	PRIMARY	2.36	*TO BE REMOVED, LOWERED, OR LIGHTED
PRIMARY ROAD	6102.05'	15.00'	6117.05'	HORIZONTAL	9.55'	*TO BE REMOVED, LOWERED, OR LIGHTED
FENCE	5817.77'	3.02"	5820.79'	PRIMARY	5.36'	*TO BE REMOVED, LOWERED, OR LIGHTED
FENCE	5820.98'	3.16"	5824.14'	PRIMARY	3.25	*TO BE REMOVED, LOWERED, OR LIGHTED
FENCE	5823.64	3.75	5827.39	PRIMARY	2.44'	TO BE REMOVED, LOWERED, OR LIGHTED
AIRFIELD LIGHT	5902.60	0.50	5903.00	PRIMARY	0.38	TO BE REMOVED, LOWERED, OR LIGHTED
AIRFIELD LIGHT	5811.69	1.00	5812 88	PRIMARY	1.21	*TO BE REMOVED LOWERED OR LIGHTED
AIRFIELD LIGHT	5868.00'	0.46'	5868.46'	PRIMARY	0.32'	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRFIELD LIGHT	5868.17'	1.56'	5869.73	PRIMARY	2.20	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRFIELD LIGHT	5876.96'	0.64"	5877.60'	PRIMARY	0.46'	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRFIELD LIGHT	5824.04'	2.97	5827.01'	PRIMARY	1.96°	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRPORT SIGN	5814.93'	2.29	5817.22'	PRIMARY	2.20	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRPORT SIGN	5957.19	1.83	5959.02	PRIMARY	2.38'	TO BE REMOVED, LOWERED, OR LIGHTED
AIRPORT SIGN	58/5.46'	2.45	5807.20	PRIMARY	3.00	TO BE REMOVED, LOWERED, OR LIGHTED
AIRPORT SIGN	5883.42	2.10	5885 FF	PRIMARY	1.77	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRPORT SIGN	5852.96'	2.70	5855.66'	PRIMARY	2.34"	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRPORT SIGN	5861.42'	1.33'	5862.75	PRIMARY	1.58'	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRPORT SIGN	5925.36'	2.24"	5927.60'	PRIMARY	1.32	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRPORT SIGN	5872.95'	2.06	5875.01'	PRIMARY	1.07	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRPORT SIGN	5871.20'	4.35	5875.55'	PRIMARY	0.91	*TO BE REMOVED, LOWERED, OR LIGHTED
AIRPORT SIGN	5879.51'	2.38"	5881.89	PRIMARY	3.12	*TO BE REMOVED, LOWERED, OR LIGHTED
PARKING LOT	58/0.90'	15.00'	5885.90'	TRANSITIONAL	2.04'	TO BE REMOVED, LOWERED, OR LIGHTED
PARKING LOT	5844 55'	15.00	5859 55'	TDANGITI/VALAL	10.48	TO BE REMOVED, LOWERED, OR LIGHTED
PARKING LOT	5841.91'	15.00	5856 91'	TRANSITIONAL	12.72	TO BE REMOVED, LOWERED, OR LIGHTED
UTILITY POINT	5937.00'	2.61	5939.61	PRIMARY	1.69	*TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5827.53'	1.88	5829.41'	PRIMARY	1.71	*TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5822.81'	2.24"	5825.05'	PRIMARY	1.92'	*TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5830.62'	4.39'	5835.01'	PRIMARY	3.61'	*TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5833.37'	2.42	5835.79	PRIMARY	1.86	*TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5836.42'	1.60'	5838.02'	PRIMARY	1.88	*TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5852.57'	4.58	5857.14'	PRIMARY	2.68"	*TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5842.93'	4.35'	5847.28'	PRIMARY	1.57	*TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5841.94	3.29	5845.23	PRIMARY	1.20	*TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5041.31	3.25	5842.45	PRIMARY	0.11	TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5839.02'	2.00	5842.91'	PRIMARY	1.44'	TO BE REMOVED, LOWERED, OK LIGHTED
BUSH	5838.94'	4.85	5843.79	PRIMARY	3.00'	*TO BE REMOVED, LOWERED, OR LIGHTED
BUSH	5835.21'	3.07"	5838.28'	PRIMARY	2.07	*TO BE REMOVED, LOWERED, OR LIGHTED

*FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW

 ONLY TOP OF OBJECT ELEVATION IS SHOWN FOR OBJECTS IN DENSE AREAS OUTSIDE OF THE INNER APPROACH SURFACES. SOURCE 1. OBSTRUCTION SURVEY DATA COMPILED BY WOOLPERT, INC IN MARCH, 2016. ALL HORIZONTAL COORDINATES - NAD83/2011 ALL VERTICAL COORDINATES - NAVD88. SHEET NO. AIRPORT AIRSPACE OBSTACLE TABLE - 2 10 of 24

NOTES

AIP PROJ. NO. JVIATION PROJ. NO. DATE: 3-49-0026-016-2015 2015.PUC.01 JANUARY, 2017

Т				NOL ODOTAULE	. INULL		. <u> </u>
OBJECT DENTIFICATION NO.	OBJECT TYPE	GROUND SURFACE	ABOVE GROUND	TOP OF OBJECT ELEVATION (AMSL)	SURFACE REFERENCED	EXISTING SURFACE PENETRATION	DISPOSITION
400040	PLIQU	FOR ON	100	FORD 4		1 21211011011	
426646	BUSH	5845.84	4.30	5850.14	PRIMARY	2.24	*TO BE REMOVED, LOWERED, OR LIGHTE
42004/	BUSH BUSU	5848.07	9.21	30%6.38 5851.46	PRIMARY	1.15	*TO BE REMOVED LOWERED, OR LIGHTS
426652	BUSH	5849.15'	4.85	5854.00	PRIMARY	3.02	*TO BE REMOVED LOWERED OR LIGHT
426654	BUSH	5853.58'	4.16	5857.74	PRIMARY	1.67	*TO BE REMOVED LOWERED, OR LIGHT
426657	BUSH	5853.94'	4.85'	5858.79	TRANSITIONAL	2.07	*TO BE REMOVED, LOWERED, OR LIGHT
426658	BUSH	5854.65'	4.25'	5858.90'	PRIMARY	1.88'	*TO BE REMOVED, LOWERED, OR LIGHTI
426661	BUSH	5857.27'	3.39	5860.66'	PRIMARY	1.08'	*TO BE REMOVED, LOWERED, OR LIGHT
426666	BUSH	5858.67'	3.96'	5862.65'	PRIMARY	2.00'	*TO BE REMOVED, LOWERED, OR LIGHT
426667	BUSH	5858.13'	2.20'	5860.33'	RUNWAY 8 APPROACH	0.71'	*TO BE REMOVED, LOWERED, OR LIGHT
426671	BUSH	5859.73'	2.70'	5862.43'	PRIMARY	1.78'	*TO BE REMOVED, LOWERED, OR LIGHT
426672	BUSH	5880.54'	2.70'	5883.24	PRIMARY	0.93'	*TO BE REMOVED, LOWERED, OR LIGHT
426709	BUSH	5874.76'	2.20	5876.96"	PRIMARY	2.30'	*TO BE REMOVED, LOWERED, OR LIGHT
426724	BUSH	5880.77'	2.47	5883.24"	PRIMARY	1.22	*TO BE REMOVED, LOWERED, OR LIGHT
426726	BUSH	5882.82'	2.29	5885.11"	PRIMARY	1.84'	*TO BE REMOVED, LOWERED, OR LIGHT
426734	BUSH	5883.87'	2.24'	5886.11'	PRIMARY	1.09'	*TO BE REMOVED, LOWERED, OR LIGHT
426820	BUSH	5893.97'	2.38	5896.35	PRIMARY	1.47	*TO BE REMOVED, LOWERED, OR LIGHT
426823	BUSH	5694.34	3.11'	5897.45	PRIMARY	1.62	*TO BE REMOVED, LOWERED, OR LIGHT
426824	BUSH	5897.30	2.24	5899.54	PRIMARY	1.58	*TO BE REMOVED, LOWERED, OR LIGHT
420020	BUSH	5090.90	1.97	5900.87	PRIMARY	3.04	TO BE REMOVED, LOWERED, OR LIGHT
426027	BUGH	5001.07	2.20	5902.06	PRIMART	2.03	TO BE REMOVED, LOWERED, OR LIGHT
426830	BUSH	5902.32	2.00	5004.64	DOIMADY	2.32	*TO BE REMOVED, LOWERED, OR LIGHT
426833	BUSH	5902.52	1.8%	5904.01	PRIMADV	2.00	TO BE REMOVED LOWERED, OR LIGHT
426839	BUSH	5906.26'	1.00	5908.14	PRIMARY	3,61'	*TO BE REMOVED LOWERED OF LIGHT
426841	BUSH	5909.13	2,207	5911.33	PRIMARY	4.66'	*TO BE REMOVED LOWERED OF LIGHT
426842	BUSH	5906.84'	2,29	5909.13	PRIMARY	3.44'	*TO BE REMOVED LOWERED OR LIGHT
426846	BUSH	5910.97'	1.35'	5912.32	PRIMARY	3.78'	*TO BE REMOVED. LOWERED. OR LIGHT
426849	BUSH	5911.53'	2.33'	5913.86	PRIMARY	3.96'	*TO BE REMOVED, LOWERED, OR LIGHT
426851	BUSH	5912.75'	1.88'	5914.63'	PRIMARY	4.01'	*TO BE REMOVED, LOWERED, OR LIGHT
426854	BUSH	5914.66'	1.19	5915.85	PRIMARY	1.72	*TO BE REMOVED, LOWERED, OR LIGHT
426857	BUSH	5917.65'	2.93'	5920.58	PRIMARY	2.63'	*TO BE REMOVED, LOWERED, OR LIGHT
426860	BUSH	5953.09'	5.44'	5958.53	PRIMARY	7.80'	*TO BE REMOVED, LOWERED, OR LIGHT
426862	BUSH	5846.11	2.33'	5848.44	PRIMARY	0.14'	*TO BE REMOVED, LOWERED, OR LIGHT
426867	BUSH	5848.67'	2.42	5851.09'	PRIMARY	2.32	*TO BE REMOVED, LOWERED, OR LIGHT
426869	BUSH	5846.59'	3.39'	5849.98'	PRIMARY	0.55'	*TO BE REMOVED, LOWERED, OR LIGHT
426872	BUSH	5851.52	3.20'	5854.72	PRIMARY	0.73'	*TO BE REMOVED, LOWERED, OR LIGHT
426874	BUSH	5853.09'	2.84'	5855.93'	PRIMARY	0.80'	*TO BE REMOVED, LOWERED, OR LIGHT
426878	BUSH	5847.10'	3.66"	5850.76	PRIMARY	0.39'	*TO BE REMOVED, LOWERED, OR LIGHT
426879	BUSH	5848.79'	4.39	5853.18'	PRIMARY	3.96'	*TO BE REMOVED, LOWERED, OR LIGHT
426882	BUSH	5847.41'	5.44'	5852.85'	PRIMARY	6.19'	*TO BE REMOVED, LOWERED, OR LIGHT
426883	BUSH	5849.17'	3.57	5852.74"	TRANSITIONAL	1.21'	*TO BE REMOVED, LOWERED, OR LIGHT
426909	BUSH	5849.11'	3.52	5852.63'	PRIMARY	4.44'	*TO BE REMOVED, LOWERED, OR LIGHT
426923	BUSH	5851.11'	2.84'	5853.95'	PRIMARY	3.86'	*TO BE REMOVED, LOWERED, OR LIGHT
420924	BUSH	5852.51	3.20	5855.71	TRANSITIONAL	0.12	*TO BE REMOVED, LOWERED, OR LIGHT
426926	BUSH	5851.98	3.07	5855.05	PRIMARY	3.60	*TO BE REMOVED, LOWERED, OR LIGHT
420927	BUSH	5853.04	3.66	5855.70	PRIMARY	4.10	TO BE REMOVED, LOWERED, OR LIGHT
426949	BUSH	5856.50	3.20	5859.70	TRANSITIONAL	1.25	10 BE REMOVED, LOWERED, OR LIGHT
426930	BUSH	5654.62	2.19	5657.61	PRIMARY	3.26	TO BE REMOVED, LOWERED, OR LIGHT
426952	BUGH	5030.24	3.02	3039.20 E950.15	PRIMART	2.40	TO BE REMOVED, LOWERED, OR LIGHT
426955	BUSH	5858.84'	3.39	5862.23	TRANSITIONAL	4.04'	*TO BE REMOVED LOWERED, OR LIGHT
426957	BUSH	5860.30'	4.25	5864.55	PRIMARY	2.23'	*TO BE REMOVED LOWERED, OR LIGHT
426958	BUSH	5859.15'	2.97	5862.12	PRIMARY	0.79'	*TO BE REMOVED. LOWERED, OR LIGHT
426960	BUSH	5863.60'	2.93'	5866.53'	PRIMARY	1.10'	*TO BE REMOVED. LOWERED, OR LIGHT
426961	BUSH	5865.25'	4.03'	5869.28	PRIMARY	2.25'	*TO BE REMOVED. LOWERED, OR LIGHT
426962	BUSH	5866.87'	3.84'	5870.71	PRIMARY	1.99′	*TO BE REMOVED, LOWERED, OR LIGHT
426963	BUSH	5867.72'	3.96'	5871.70'	PRIMARY	1.57'	*TO BE REMOVED, LOWERED, OR LIGHT
426964	BUSH	5869.10'	3.16'	5872.26	PRIMARY	0.87'	*TO BE REMOVED, LOWERED, OR LIGHT
426966	BUSH	5871.69'	3.96'	5875.67	PRIMARY	0.84'	*TO BE REMOVED, LOWERED, OR LIGHT
426967	BUSH	5857.57	2.29	5859.86	PRIMARY	0.88'	*TO BE REMOVED, LOWERED, OR LIGHT
426968	BUSH	5825.10'	2.56'	5827.66	PRIMARY	0.67'	*TO BE REMOVED, LOWERED, OR LIGHT
426971	BUSH	5827.73'	2.79	5830.52	PRIMARY	2.38'	*TO BE REMOVED, LOWERED, OR LIGHT
426973	BUSH	5825.17'	1.28'	5826.45	PRIMARY	0.85'	*TO BE REMOVED, LOWERED, OR LIGHT
426975	BUSH	5822.82'	1.42	5824.24	PRIMARY	0.49'	*TO BE REMOVED, LOWERED, OR LIGHT
426978	BUSH	5810.42'	4.03'	5814.45	PRIMARY	1.65'	*TO BE REMOVED, LOWERED, OR LIGHT
426987	BUSH	5812.40'	2.38'	5814.78	PRIMARY	1.76'	*TO BE REMOVED, LOWERED, OR LIGHT
426988	BUSH	5819.76'	3.29	5823.05	PRIMARY	0.44'	*TO BE REMOVED, LOWERED, OR LIGHT
426990	BUSH	5816.55'	1.88'	5818.43	PRIMARY	1.26'	*TO BE REMOVED, LOWERED, OR LIGHT
426991	BUSH	5832.65'	3.61'	5836.26	PRIMARY	3.11	TO BE REMOVED, LOWERED, OR LIGHT
426992	BUSH	5630.94'	3.34'	5834.28	PRIMARY	2.68'	TO BE REMOVED, LOWERED, OR LIGHT
420334	BUSH	5628.46	1.97	5830.43	PRIMARY	1.52	TO BE REMOVED, LOWERED, OR LIGHT
420990	BUSH	5824.40	3.61	5635.05	PRIMARY	2.64	TO BE REMOVED, LOWERED, OR LIGHT
420997	BUSH	5034.10	2.95	5837.03	PRIMARY	2.53	TO BE REMOVED, LOWERED, OR LIGHT
427007	RUSH	5812.661	1.30	581/ 67	PRIMARY	1.20	*TO BE REMOVED LOWERED, OR LIGHT
427009	BUSH	5812.14	1.87	5813.07	PRIMADV	1.05	*TO BE REMOVED LOWERED, OR LIGH
427011	BUSH	5816.98'	2,38'	5819.36	PRIMARY	0,96'	TO BE REMOVED LOWERED, ON LIGHT
427012	BUSH	5818.54'	1.37	5819.91	PRIMARY	0.27	*TO BE REMOVED LOWERED OF LIGHT
427025	BUSH	5821.93'	2.38'	5824.31	PRIMARY	1,31'	*TO BE REMOVED LOWERED OF LIGHT
427031	BUSH	5836.25'	2.84'	5839.09	PRIMARY	2.37	*TO BE REMOVED LOWERED OF LIGHT
427032	BUSH	5826.43'	2.06'	5828.49	PRIMARY	2.65'	*TO BE REMOVED LOWERED OF LIGHT
427039	BUSH	5829.20'	2.93'	5832.13	PRIMARY	1.63'	*TO BE REMOVED. LOWERED. OR LIGHT
427041	BUSH	5833.56'	1.65'	5835.21'	PRIMARY	1.07'	*TO BE REMOVED. LOWERED. OR I IGHT
427043	BUSH	5837.61'	2.33'	5839.94	PRIMARY	1.84'	*TO BE REMOVED, LOWERED, OR LIGHT
427044	BUSH	5839.00'	2.15	5841.15'	TRANSITIONAL	1.15'	*TO BE REMOVED, LOWERED, OR LIGHT
427049	BUSH	5836.34'	3.71'	5840.05'	PRIMARY	3.20'	*TO BE REMOVED. LOWERED. OR I IGHT
427051	BUSH	5834.49'	4.12	5838.61'	PRIMARY	2.83'	*TO BE REMOVED, LOWERED, OR LIGHT
427056	BUSH	5823.26'	1.83'	5825.09	PRIMARY	0.60'	*TO BE REMOVED, LOWERED, OR LIGHT
427057	BUSH	5825.21'	1.97	5827.18	PRIMARY	1.13'	*TO BE REMOVED, LOWERED, OR LIGHT
427058	BUSH	5826.71'	1.35'	5828.06	PRIMARY	2.05'	*TO BE REMOVED, LOWERED, OR LIGHT
427059	BUSH	5826.95'	2.65'	5829.60'	PRIMARY	2.59'	*TO BE REMOVED, LOWERED, OR LIGHT
427072	BUSH	5812.50'	2.42	5814.92	PRIMARY	1.66'	*TO BE REMOVED, LOWERED, OR LIGHT
427076	BUSH	5815.27'	3.39'	5818.66'	PRIMARY	2.30'	*TO BE REMOVED, LOWERED, OR LIGHT
427079	BUSH	5817.35'	2.52	5819.87	PRIMARY	1.42'	*TO BE REMOVED, LOWERED, OR LIGHT
427083	BUSH	5819.24'	2.06'	5821.30'	PRIMARY	0.77'	*TO BE REMOVED, LOWERED, OR LIGHT
427086	BUSH	5822.91'	1.92'	5824.83	PRIMARY	1.10'	*TO BE REMOVED, LOWERED, OR LIGHT
427088	BUSH	5824.00'	2.70'	5826.70"	PRIMARY	1.63'	*TO BE REMOVED, LOWERED, OR LIGHT
427121	BUSH	5826.42'	2.01'	5828.43'	PRIMARY	1.34'	*TO BE REMOVED, LOWERED, OR LIGHT

AIRSPACE OBSTACLE TABLE										
OBJECT IDENTIFICATION NO.	OBJECT TYPE	GROUND SURFACE ELEVATION (MSL)	ABOVE GROUND LEVEL (AGL)	TOP OF OBJECT ELEVATION (AMSL)	SURFACE REFERENCED	EXISTING SURFACE PENETRATION	DISPOSITION			
427126	BUSH	5831.92'	2.84'	5834.76'	PRIMARY	0.74'	*TO BE REMOVED, LOWERED, OR LIGHTED			
42/12/	BUSH	5827.73	3.43	5831.16'	PRIMARY	1./3	*TO BE REMOVED, LOWERED, OR LIGHTEL			
42/132	BUSH	5880.43	1.69	5881.00'	PRIMARY	3.26	*TO BE REMOVED, LOWERED, OR LIGHTEL *TO BE REMOVED LOWERED, OR LIGHTEL			
427154	BUSH	5882.58	4.48'	5887.06'	PRIMARY	2.63	*TO BE REMOVED LOWERED, OR LIGHTED			
427157	BUSH	5883.53'	3.75	5887.28'	PRIMARY	1.71	*TO BE REMOVED, LOWERED, OR LIGHTED			
427159	BUSH	5884.51'	2.33'	5886.84'	PRIMARY	0.50'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427160	BUSH	5885.46'	2.93'	5888.39'	PRIMARY	1.17	*TO BE REMOVED, LOWERED, OR LIGHTED			
427163	BUSH	5887.55'	2.93'	5890.48'	PRIMARY	1.10'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427179	BUSH			6475.56'	CONICAL	203.97'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427334	BUSH	5972.16'	5.40'	5977.56'	RUNWAY 19 APPROACH	4.24'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427356	BUSH	5936.22'	2.56'	5938.78'	PRIMARY	3.39'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427357	BUSH	5937.79	2.20'	5939.99'	TRANSITIONAL	2.69'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427359	BUSH	5934.01'	2.56'	5936.57'	PRIMARY	4.56'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427360	BUSH	5934.49'	3.07'	5937.56'	TRANSITIONAL	0.90'	*TO BE REMOVED, LOWERED, OR LIGHTED			
42/366	BUSH	5928.56	2.93	5931.49'	TRANSITIONAL	2.41	*TO BE REMOVED, LOWERED, OR LIGHTED			
42/413	BUSH	5918.45	2.84	5921.29	PRIMARY	5.86	*TO BE REMOVED, LOWERED, OR LIGHTED			
42/414	BUSH	5917.00	2.97	5919.97'	TRANSITIONAL	0.70	*TO BE REMOVED, LOWERED, OR LIGHTEL			
42/415	BUSH	5914.50	2.15	5916.65	PRIMARY	4./0	TO BE REMOVED, LOWERED, OR LIGHTEL			
42/416	BUSH	5913.44	2.33	5915.//*	TRANSITIONAL	4./6	*TO BE REMOVED, LOWERED, OR LIGHTEL			
42/41/	BUSH	5913.22 5040.40	2.33	5915.55	TRANSITIONAL	0.64	*TO BE REMOVED, LOWERED, OR LIGHTEL			
42/419	pJoH DJoH	5909.931	2.06	5912.55	TRANSITIONAL	0.09	ATO BE REMOVED, LOWERED, OR LIGHTEL			
427420	BUSH	5907.00	2./5	5000.031	DDIMADY	6.26	TO BE REMOVED, LOWERED, OR LIGHTEL			
427429	RIGH	5905.281	2.95	5007 7E	TRANSITIONAL	5.20	TO BE REMOVED, LOWERED, OR LIGHTEL			
427470	RUSH	5902.71	2.41	5905.45	TRANSITIONAL	4.22	TO BE REMOVED LOWERED, OR LIGHTED			
427471	BUSH	5898.87	3.20	5902.97	PRIMARY	2 0/7	TO BE REMOVED LOWERED, OR LIGHTE			
427473	RUSH	5897.55	2.01	5800 56'	TRANSITIONAL	1.00	TO BE REMOVED LOWERED, OR LIGHTER			
427493	BUSH	5891.64'	2.01	5894.43'	TRANSITIONAL	1.37	TO BE REMOVED LOWERED, OR LIGHTER			
427557	BUSH	5889 58	2.58	5892 14'	TRANSITIONAL	2.62	*TO BE REMOVED OWERED OR LIGHTER			
427566	BUSH	5884.57	3,207	5887 77'	PRIMARY	2.88'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427568	BUSH	5883.62	1.97	5885 59'	PRIMARY	2.07	*TO BE REMOVED, LOWERED, OR LIGHTER			
427572	BUSH	5961.09	3,52	5964.61'	PRIMARY	7.12	*TO BE REMOVED, LOWERED, OR LIGHTED			
427573	BUSH	5936.17	3.61	5939 78'	PRIMARY	1.91	*TO BE REMOVED OWERED, OR LIGHTED			
427575	BUSH	5939.08'	3.57	5942.65'	PRIMARY	1.63'	*TO BE REMOVED LOWERED OF LIGHTED			
427578	BUSH	5943.57	1.74	5945.31'	PRIMARY	1.61'	*TO BE REMOVED LOWERED, OR LIGHTED			
427579	BUSH	5947.24	3.48'	5950 72'	PRIMARY	2.44'	*TO BE REMOVED I OWERED OR LIGHTED			
427581	BUSH	5945.48'	2.15	5947.63'	PRIMARY	1,95'	*TO BE REMOVED. LOWERED. OR LIGHTED			
427588	BUSH	5947.24	2.38'	5949.62'	PRIMARY	0.56'	*TO BE REMOVED LOWERED, OR LIGHTED			
427591	BUSH	5943 25'	4 16'	5947 41'	PRIMARY	2.21'	*TO BE REMOVED I OWERED OR LIGHTED			
427595	BUSH	5948.10'	2.52	5950.62'	PRIMARY	1.62	*TO BE REMOVED. LOWERED. OR LIGHTED			
427599	BUSH	5950.90'	1.37	5952 27'	PRIMARY	1.45'	*TO BE REMOVED LOWERED, OR LIGHTED			
427600	BUSH	5952.76'	2.61'	5955.37'	PRIMARY	2.85'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427601	BUSH	5952.38'	1.88'	5954.26'	PRIMARY	2.40'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427602	BUSH	5951.32	3.16'	5954.48'	PRIMARY	3.16'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427605	BUSH	5926.14	2.93'	5929.07'	PRIMARY	1.56'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427606	BUSH	5931.59	3.43'	5935.02'	PRIMARY	1.81'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427607	BUSH	5956.33'	3.11'	5959.44'	PRIMARY	2.01'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427608	BUSH	5947.67	2.88'	5950.55'	PRIMARY	0.87	*TO BE REMOVED, LOWERED, OR LIGHTED			
427615	BUSH	5959.04'	1.92'	5960.96'	PRIMARY	3.47"	*TO BE REMOVED, LOWERED, OR LIGHTED			
427616	BUSH	5957.59	1.60'	5959.19'	PRIMARY	1.70'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427618	BUSH	5955.61'	2.47	5958.08'	PRIMARY	1.10'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427619	BUSH	5954.10'	2.88'	5956.98'	PRIMARY	1.20'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427621	BUSH	5952.60'	4.16'	5956.76'	PRIMARY	0.97"	*TO BE REMOVED, LOWERED, OR LIGHTED			
427625	BUSH	5951.06'	3.25'	5954.31'	PRIMARY	1.62'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427626	BUSH	5948.35'	2.97	5951.32'	PRIMARY	0.71'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427630	BUSH	5909.21	4.67'	5913.88'	PRIMARY	6.39	*TO BE REMOVED, LOWERED, OR LIGHTED			
427632	BUSH	5855.17'	4.12'	5859.29'	PRIMARY	1.27	*TO BE REMOVED, LOWERED, OR LIGHTED			
427638	BUSH	5809.90'	2.70'	5812.60'	PRIMARY	0.93'	*TO BE REMOVED, LOWERED, OR LIGHTER			
427641	BUSH	5888.55'	3.16'	5891.71'	PRIMARY	1.19'	*TO BE REMOVED, LOWERED, OR LIGHTER			
427643	BUSH	5889.30'	2.52	5891.82'	PRIMARY	1.30'	*TO BE REMOVED, LOWERED, OR LIGHTER			
427644	BUSH	5888.53'	3.84'	5892.37'	PRIMARY	1.85'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427647	BUSH	5887.48	2.52	5890.00'	PRIMARY	0.75'	*TO BE REMOVED, LOWERED, OR LIGHTER			
427648	BUSH	5887.93'	2.84'	5890.77'	PRIMARY	0.72	*TO BE REMOVED, LOWERED, OR LIGHTER			
427652	BUSH	5866.43'	2.79'	5869.22'	PRIMARY	1.24'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427659	BUSH	5863.20'	3.52'	5866.72'	TRANSITIONAL	5.22	*TO BE REMOVED, LOWERED, OR LIGHTED			
427660	BUSH	5813.01	3.66'	5816.67'	PRIMARY	2.65'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427661	BUSH	5816.74	3.67"	5820.41'	PRIMARY	2.61'	*TO BE REMOVED, LOWERED, OR LIGHTED			
427662	BUSH	5819.87	2.75'	5822.61'	PRIMARY	2.15'	*TO BE REMOVED, LOWERED, OR LIGHTED			
430558	OIL RIG			6291.04	HORIZONTAL	183.54	*TO BE REMOVED, LOWERED, OR LIGHTED			
430561	OIL RIG		-	6132.73'	HORIZONTAL	25.24'	*TO BE REMOVED, LOWERED, OR LIGHTED			
430562	OIL RIG			6279.27	CONICAL	107.44	*TO BE REMOVED, LOWERED, OR LIGHTED			
430576	OIL RIG			6233.44'	CONICAL	90.93'	*10 BE REMOVED, LOWERED, OR LIGHTED			
430579	OIL RIG			6350.45'	HORIZONTAL	242.96	*TO BE REMOVED, LOWERED, OR LIGHTED			
430580	OIL RIG		-	6436.30'	CONICAL	273.39	*TO BE REMOVED, LOWERED, OR LIGHTED			
430581	OIL RIG			6155.72'	HORIZONTAL	48.23	*10 BE REMOVED, LOWERED, OR LIGHTED			
430590	ANTENNA	5862.37	51.17	5913.54	TRANSITIONAL	19.30'	*TO BE REMOVED, LOWERED, OR LIGHTED			
430591	AWOS	5834.19	28.67	5862.86'	TRANSITIONAL	25.96"	*TO BE REMOVED, LOWERED, OR LIGHTED			
480001	BUILDING	5847.61	12.67	5860.28'	TRANSITIONAL	5.40'	*10 BE REMOVED, LOWERED, OR LIGHTE			
500007	49-020920-POLE-43 FT AGL	6335.23'	43.00'	6378.23'	CONICAL	257.15	*TO BE REMOVED, LOWERED, OR LIGHTED			
500008	49-020921-POLE-57 FT AGL	6337.00'	57.00'	6394.00'	CONICAL	243.86	*TO BE REMOVED, LOWERED, OR LIGHTE			
500009	49-020922-POLE-41 FT AGL	6369.00'	41.00'	6410.00'	CONICAL	229.44"	*TO BE REMOVED, LOWERED, OR LIGHTE			
500010	49-020923-POLE-57 FT AGL	6385.00'	57.00'	6442.00'	CONICAL	230.41'	*TO BE REMOVED, LOWERED, OR LIGHTE			
500011	49-020924-POLE-48 FT AGL	6416.00'	48.00'	6464.00'	CONICAL	213.91'	*TO BE REMOVED, LOWERED, OR LIGHTE			
500017	49-020930-POLE-46 FT AGL	6441.00'	46.00'	6487.00'	CONICAL	198.75	*TO BE REMOVED, LOWERED, OR LIGHTER			
500021	49-020934-POLE-74 FT AGL	6294.00'	74.00'	6368.00'	HORIZONTAL	260.51'	*TO BE REMOVED, LOWERED, OR LIGHTER			
500022	49-020935-POLE-66 FT AGL	6294.00'	66.00'	6360.00'	HORIZONTAL	252.51'	*TO BE REMOVED, LOWERED, OR LIGHTED			
500034	49-020947-POLE-61 FT AGL	6021.76	61.00'	6082.76'	RUNWAY 19 APPROACH	5.29	*TO BE REMOVED, LOWERED, OR LIGHTED			
500035	49-020948-POLE-49 FT AGL	6037.36'	49.00'	6086.36'	RUNWAY 19 APPROACH	2.79'	*TO BE REMOVED, LOWERED, OR LIGHTED			
500037	49-020950-POLE-58 FT AGL	6040.00'	58.00'	6098.00'	TRANSITIONAL	8.55'	*TO BE REMOVED, LOWERED, OR LIGHTED			
500043	49-020956-RIG-36 FT AGL	6512.00'	36.00'	6548.00'	CONICAL	349.10	*TO BE REMOVED, LOWERED, OR LIGHTED			
500044	49-020957-RIG-26 FT AGL	6378.00'	26.00'	6404.00'	CONICAL	147.91'	*TO BE REMOVED, LOWERED, OR LIGHTED			

*FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW

427125 BUSH 583
+FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW





DES: R.L.B.					
	NO.	BY	DATE	DESCRIPTION	
DR: R.L.B.					AIRF
CH: C.L.G.					LAYOU
	THE PREPAR	RATION OF THIS	DOCUMENT MAY HAVE BEEN SU	PPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL	
APP: S.V.B.	AVIATION AD ACCEPTANCE DEVELOPMEN ACCORDANCE	ministration as E of this airpo NT depicted the F with appropr	PROVIDED UNDER TITLE 49 U RT LAYOUT PLAN BY THE FAA REIN NOR DOES IT INDICATE T MATE PUBLIC LAWS	.s.c., 5:c.;un 4:104. The contents do not necessanly replect the opposite states to participate in the FAU. Does not in XMY way constitute a commitment on the part of the united states to participate in Any hat the proposed development is environmentally acceptable or would have justification in	

PORT UT PLAN NOTES

ONLY TOP OF OBJECT ELEVATION IS SHOWN FOR OBJECTS IN DENSE AREAS OUTSIDE OF THE INNER APPROACH SURFACES.

SOURCE

1. OBSTRUCTION SURVEY DATA COMPILED BY WOOLPERT, INC IN MARCH, 2016.

ALL HORIZONTAL COORDINATES - NAD83/2011 ALL VERTICAL COORDINATES - NAVD88.

		SHEET NO.		
				11 of 24
ł	AIP PROJ. NO.	DATE:		
	3-49-0026-016-2015	2015.PUC.01	JANUARY, 2017	













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DES: R.L.B.				ISSUE RECORD	
	NO.	BY	DATE	DESCRIPTION	
DR: R.L.B.					AIRPORT
	·				LAYOUT PLAN
CH: C.L.G.	THE PREPA	RATION OF THIS I	L DOCUMENT MAY HAVE BEEN SU		
APP: S.V.B.	AVIATION AE ACCEPTANCE DEVELOPME	Deninistration as E of this airpoint Depicted the	PROVIDED UNDER TITLE 49 U RT LAYOUT PLAN BY THE FAA REIN NOR DOES IT INDICATE T		





DISPOSITION



* FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW





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RUNWAY 1 DEPARTURE OBSTACLE TABLE GROUND SURFACE ABOVE GROUND TOP OF OBJECT ELEVATION (MSL) LEVEL (AGL) ELEVATION (AMSL) SURFACE REFERENCED OBJECT DENTIFICATION N EXISTING SURFACE PENETRATION OBJECT TYPE DISPOSITION *TO BE REMOVED, LOWERED, OR LIGHTED
 5815.05"
 RUNWAY 1 DEPARTURE

 5815.18"
 RUNWAY 1 DEPARTURE

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 400003 400004 5807.55' 5809.19' 1.00' 3.01' 9.60'

BUSH * FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW

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DES: R.L.B.					
	NO.	BY	DATE	DESCRIPTION	
DR: R.L.B.					AIRPORT
	1				
CH: C.L.G.					
	THE PREPA AVIATION AL	RATION OF THIS MINISTRATION AS	DOCUMENT MAY HAVE BEEN SU PROVIDED UNDER TITLE 49 U		
APP: S.V.B.	ACCEPTANCI DEVELOPMEI ACCORDANC	E OF THIS AIRPO NT DEPICTED THE	RT LAYOUT PLAN BY THE FAA REIN NOR DOES IT INDICATE T	DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY HAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE OR WOULD HAVE JUSTIFICATION IN	

-RDSD.dwg 10:48am UC-ALP-2017 -

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ISSUE RECORD NO. BY DATE DESCRIPTION DR: R.L.B. AIRPORT LAYOUT PLAN CH: C.L.G. THE PREPARATION OF THIS DOCUMENT MAY HAVE BED SUPPORTED, IN PART, THROUGH THE ARPORT INPROVEMENT PROGRAM FRANKAM, ASSISTANCE FROM THE FEDERAL AWAITON ADMINISTRATION AS PROVIDED UNDER THE 49 U.S.C., SECTION 47104, THE CONTINUES DO NOT NECESSARILY REFLECT THE CONTUNE VAN BO ACCEPTINCE OF THIS ARPORT LAURCH UPUN BY THE FAD ADDES NOT IN AN WAY CONSTITUE A COMMUNENT ON THE PARTOF THE UNITED STATES TO PARTOPATE IN AN DEVELOPMENT DEVICED THEREIN NOR DOCS IT MIDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE OR WOULD HAVE JUSTIFICATION IN ACCORDINGE WITH APPROPRIATE LPUNC LAWS. APP: S.V.B.

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DEPARTURE SURFACE (E)(F) 40:1

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DATE: 10/24/2016 ANNUAL RATE OF CHANGE: 0°6' W SOURCE: U.S. NCEI

	RUNWAY 15 DEPARTURE OBSTACLE TABLE										
OBJECT IDENTIFICATION NO.	OBJECT TYPE	GROUND SURFACE ELEVATION (MSL)	ABOVE GROUND LEVEL (AGL)	TOP OF OBJECT ELEVATION (AMSL)	SURFACE REFERENCED	EXISTING SURFACE PENETRATION	DISPOSITION				
404376	TELEPHONE PYLON/POLE	6127.04	40.00'	6167.04	RUNWAY 15 DEPARTURE	67.22	*TO BE REMOVED, LOWERED, OR LIGHTED				
404377	TELEPHONE PYLON/POLE	6268.13	40.00'	6308.13'	RUNWAY 15 DEPARTURE	202.64	*TO BE REMOVED, LOWERED, OR LIGHTED				
404445	TELEPHONE PYLON/POLE	6073.33	40.00'	6113.33'	RUNWAY 15 DEPARTURE	3.28"	"TO BE REMOVED, LOWERED, OR LIGHTED				
404446	TELEPHONE PYLON/POLE	6075.00'	40.00'	6115.00'	RUNWAY 15 DEPARTURE	3.00'	*TO BE REMOVED, LOWERED, OR LIGHTED				
406617	TREE			6291.45'	RUNWAY 15 DEPARTURE	181.68'	*TO BE REMOVED, LOWERED, OR LIGHTED				
406668	TREE	1 A A A A A A A A A A A A A A A A A A A	1 A A A A A A A A A A A A A A A A A A A	6188.56'	RUNWAY 15 DEPARTURE	77.99	"TO BE REMOVED, LOWERED, OR LIGHTED				
406672	TREE			6195.21	RUNWAY 15 DEPARTURE	82.37	*TO BE REMOVED, LOWERED, OR LIGHTED				
408040	TREE			6259.83*	RUNWAY 15 DEPARTURE	159.74	"TO BE REMOVED, LOWERED, OR LIGHTED				
408041	TREE			6248.91'	RUNWAY 15 DEPARTURE	152.84'	*TO BE REMOVED, LOWERED, OR LIGHTED				
408152	TREE	1 A A A A A A A A A A A A A A A A A A A	1 A A A A A A A A A A A A A A A A A A A	6148.05'	RUNWAY 15 DEPARTURE	57.32	"TO BE REMOVED, LOWERED, OR LIGHTED				
408420	NATURAL HIGH POINT	5861.10'	0.00'	5861.10'	RUNWAY 15 DEPARTURE	1.34"	*TO BE REMOVED, LOWERED, OR LIGHTED				
410671	GROUND	6135.35'	0.00'	6135.35'	RUNWAY 15 DEPARTURE	57.32	"TO BE REMOVED, LOWERED, OR LIGHTED				
426666	BUSH	5858.67'	3.98"	5862.65'	RUNWAY 15 DEPARTURE	2.71'	*TO BE REMOVED, LOWERED, OR LIGHTED				
426667	BUSH	5858.13'	2.20	5860.33'	RUNWAY 15 DEPARTURE	-1.31'					
426671	BUSH	5859.73	2.70*	5862.43'	RUNWAY 15 DEPARTURE	-0.07"					
427659	BUSH	5863.20"	3.52	5866.72'	RUNWAY 15 DEPARTURE	4.52'	*TO BE REMOVED, LOWERED, OR LIGHTED				

* FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW







-RDSD.dwg 12:53pm

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DES: R.L.B.					
DR: R.L.B.	NO.	BY	DATE	DESCRIPTION	
					AIRPORT
CH: C.L.G.					LAYOUT PLAN
	THE PREPAR	RATION OF THIS I	DOCUMENT MAY HAVE BEEN SU		
APP: S.V.B.	AVIATION AD ACCEPTANCE DEVELOPMEN ACCORDANCE				



(IN FEEL)) DATE: 10/24/2016 ANNUAL RATE OF CHANGE: 0'6' W SOURCE: U.S. NCEI

RUNWAY 33 DEPARTURE OBSTACLE TABLE									
OBJECT IDENTIFICATION NO.	OBJECT TYPE	GROUND SURFACE ELEVATION (MSL)	ABOVE GROUND LEVEL (AGL)	TOP OF OBJECT ELEVATION (AMSL)	SURFACE REFERENCED	EXISTING SURFACE PENETRATION	DISPOSITION		
6	ROAD +15'	5785.00'	15.00'	5800.00*	RUNWAY 33 DEPARTURE	-22.34			
7	ROAD +15'	5785.00'	15.00'	5800.00'	RUNWAY 33 DEPARTURE	-26.61'			
411142	PRIMARY ROAD	5802.03'	15.00'	5817.03'	RUNWAY 33 DEPARTURE	-1.96'			
427009	BUSH	5812.14	1.83'	5813.97"	RUNWAY 33 DEPARTURE	0.83'	*TO BE REMOVED, LOWERED, OR LIGHTED		

* FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW









DES: R.L.B.					
	NO.	BY	DATE	DESCRIPTION	
DR: R.L.B.					AIRPORT
CH: C.L.G.					LAYOUT PLAN
0.2.0.	THE PREPAR	RATION OF THIS I	DOCUMENT MAY HAVE BEEN SU		
APP: S.V.B.	AVIATION AD ACCEPTANCE DEVELOPMEN ACCORDANCE	MINISTRATION AS OF THIS AIRPO IT DEPICTED THE	PROVIDED UNDER TITLE 49 U. RT LAYOUT PLAN BY THE FAA REIN NOR DOES IT INDICATE T	S.C., SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VERIS OR POLICY OF THE FAA. DOES NOT IN AVIY WAY CONSTITUET A COMMITMENT ON THE PART OF THE LUTRED STATES TO PARTICIPATE IN ANY HAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE OR WOULD HAVE JUSTIFICATION IN	

(PUC-ALP-2016/CAD) PUC-ALP-RDSD.dwg 2017 - 12:55pm ell

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	RUNWAY DEPARTURE SURFACE DRAWING-	
	RUNWAY 33	21 of 24
	AIP PROJ. NO. JVIATION PROJ. NO. DATE:	
	3-49-0026-016-2015 2015.PUC.01 JANUARY, 2017	

NOTES 1. EXISTING AND FUTURE CONDITIONS SHOWN AS (E)(F) SOURCE

1. THE SITE PLAN LINE WORK AND AERIAL IMAGERY IS BASED ON THE PLANMETRIC MAPPING COMPILED BY WOOLPERT, INC. IN MARCH 2016. 2. OBSTRUCTION SURVEY DATA COMPILED BY WOOLPERT, INC. IN MARCH, 2016.

 ALL HORIZONTAL COORDINATES - NAD83/2011 ALL VERTICAL COORDINATES - NAVD88.





 RUNWAY 26 DEPARTURE OBSTACLE TABLE

 OBJECT DENTFICATION
 OBJECT TYPE ELEVATION (MSL)
 OBOVE GROUPS LEVATION (MSL)
 OF 07 GUECT LEVATION (MSL)
 SURFACE ELEVATION LEVATION (MSL)
 EXISTING SURFACE ELEVATION (MSL)
 DISPOSITION

 8
 0800-19
 5910 0°
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 SIGLATY
 PLEVATION (MSL)
 DISPOSITION

 9
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 5910 0°
 1500
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 -1622

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 000-19'
 5980 0°
 1500'
 SIGLATY
 PLANMY 30 DEPARTURE REFERENCE
 -1627

 9
 000-19'
 5980 0°
 1500'
 SIGLATY
 PLANMY 30 DEPARTURE - 407
 -167

 40350
 TEEE
 5980 10°
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 PLANMY 30 DEPARTURE - 407
 -407

 40352
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 5980 10°
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 PLANMY 30 DEPARTURE - 407'
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 RUNMY 30 DEPARTURE - 407'''
 -407'''

* FINAL DETERMINATION PENDING FAA AERONAUTICAL REVIEW

JVIATION®







DES: R.L.B.					
	NO.	BY	DATE	DESCRIPTION	
DR: R.L.B.					AIRPORT
					LAYOUT PLAN
CH: C.L.G.	THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL				
APP: S.V.B.	AVIATION AE ACCEPTANCI DEVELOPMEI ACCORDANC	MINISTRATION AS E OF THIS AIRPO NT DEPICTED THE E WITH APPROPR	PROVIDED UNDER TITLE 49 U. RT LAYOUT PLAN BY THE FAA REIN NOR DOES IT INDICATE T HATE PUBLIC LAWS.		

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RUNWAY DEPARTURE SURFACE DRAWING-	SHEET NO.
RUNWAY 26	22 of 24
AIP PROJ. NO. JVIATION PROJ. NO. DATE: 3-49-0026-016-2015 2015.PUC.01 JANUARY, 2017	



AIP PROJ. NO. JVIATION PROJ. NO. DATE: 3-49-0026-016-2015 2015.PUC.01 JANUARY, 2017 AIP PROJ. NO.


APPENDICES

APPENDIX	TITLE
1	PUC INSTRUMENT APPROACH CHARTS & TAKEOFF PROCEDURES
2	FAA INFORMATION - PUC AIRPORT
3	FAA TERMINAL AREA FORECAST (TAF) PUC AIRPORT
4	FAA NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS (NPIAS) & GA ASSET
5	PAVEMENT CONDITION INDEX (PCI)
6	UTAH CONTINUOUS AIRPORT SYSTEM PLAN
7	CIP PROJECT COST ESTIMATES

PUC INSTRUMENT APPROACH CHARTS & TAKEOFF PROCEDURES

SOURCE: FAA









JVIATION





TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND

16203

DIVERSE VECTOR AREA (RADAR VECTORS) INSTRUMENT APPROACH PROCEDURE CHARTS

✓ IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

PRICE, UT CARBON COUNTY RGNL/BUCK DAVIS FIELD (PUC) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 5 15064 (FAA) TAKEOFF MINIMUMS: **Rwy 1**, std. w/min. climb of 400' per NM to 6800 or 3300-3 for climb in visual conditions. Rwy 8, NA - obstacles. Rwy 33, std. w/min. climb of 370' per NM to 6700 or 3300-3 for climb in visual conditions. DEPARTURE PROCEDURE: **Rwy 1**, climb to 6400 then climbing right turn on a heading between 144° CW to 187°, maintain 210 KIAS until completion of turn, thence. **Rwy 15,** climb on a heading between 129° CW to 196°, thence . . . **Rwy 19,** climb on a heading between 195° CCW to 128°, thence . . . **Rwy 26**, climb on a heading between 179° CCW to 127°, thence . . . **Rwy 33**, climb to 6300 then climbing left turn on a heading between 178° CCW to 148°, thence continue climb to assigned altitude for direction of flight. VCOA: **Rwys 1, 33,** obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Carbon County RGNL airport/Buck Davis Field at or above 9100 before proceeding on course. NOTE: **Rwy 1**, multiple trees and poles beginning 164' from DER, left and right of centerline, up to 64'

JVIATION

FAA INFORMATION - PUC AIRPORT

U.S. DEP	ARTMENT OF TRANS		ORT MAST	ER F	RECORD	PRINT DATE: AFD EFF FORM APPRC	8/9/2016 07/21/2016 OVED OMB 2120-0015			
> 1 ASSOC CITY: > 2 AIRPORT NAME: 3 CBD TO AIRPORT	PRICE CARBON COUNT (NM): 03 E	4 STATE: UT Y RGNL/BUCK DAVIS FIELD 6 REGION/ADO:	ANM/DEN 7 SEC	D: PU JNTY: T AER(CARBON UT CARBON UT CHT: DENVER	FAA SITE NR:	: 25259.*A			
	GENERAL		SER	VICES		BASED AIR	CRAFT			
10 OWNERSHIP: > 11 OWNER: > 12 ADDRESS: > 13 PHONE NR: > 14 MANAGER: > 15 ADDRESS: > 16 PHONE NR: > 17 ATTENDANCE S	PUBLIC CARBON COUNTY 120 E MAIN ST. PRICE, UT 84501 435-636-3201 MARK FRANCIS P.O.BOX 786, 3095 EAS' PRICE, UT 84501 435-637-9556 CHEDIU E:	I AIRPORT ROAD	> 70 FUEL: 100LL > 71 AIRFRAME RPF > 72 PWR PLANT RF > 73 BOTTLE OXYGE > 74 BULK OXYGEN 75 TSNT STORAG 76 OTHER SERVIC CHTR, INSTR, F	A RS: PRS: EN: : E: E: CES: RNTL	MINOR MINOR NONE HIGH/LOW HGR, TIE	90 SINGLE ENG: 91 MULTI ENG: 92 JET: TOTAL: 93 HELICOPTERS 94 GLIDERS: 95 MILITARY: 96 ULTRA-LIGHT:	10 0 10 3: 0 0 0 0			
ALL	MON-FRI	0700-1800	FAC	ILITIES		OPERATION	15			
ALL 18 AIRPORT USE: 19 ARPT LAT: 20 ARPT LONG: 21 ARPT ELEV: 22 ACREAGE: > 23 RIGHT TRAFFIC > 24 NON-COMM LAN 25 NPLAS/FED AGR	SAT-SUN PUBLIC 39-36-50.10 110-45-05.2 5957.4 SUR 1,147 I NO IDING: NO FEMENTS: NGSY	0800-1700 DON ESTIMATED DOW /EYED	> 80 ARPT BCN: > 81 ARPT LGT SKE BCN LGT SKED: > 82 UNICOM: > 83 WIND INDICAT 84 SEGMENTED C 85 CONTROL TWF 86 FSS: 87 FSS ON ARPT: 88 FSS PHONE NE	D : DR: IRCLE:	CG SEE RMK SS-SR 122.800 YES NONE NO CEDAR CITY NO	100 AIR CARRIER 102 AIR TAXI: 103 G A LOCAL: 104 G A ITNRNT: 105 MILITARY: TOTAL: OPERATIONS FO 12 MONTHS ENDING:	2: 0 1,200 1,533 1,699 0 4,431			
> 26 FAR 139 INDEX:	EEMENTS. NOST		89 TOLL FREE NR	:	1-800-WX-BRIEF					
 > 30 RUNWAY INDEN > 31 LENGTH: > 32 WIDTH: > 33 SURF TYPE-COI > 34 SURF TYPE-COI 35 GROSS WT: S 36 (IN THSDS) D 37 220 	ND: NT:	01/19 8,310 100 ASPH-G GRVD 30.0 40.0	08/ 3,5 7: ASP 12	26 41 5 H-E		15/33 4,514 75 ASPH-G 13.0				
38 20 > 39 PCN:	0/2D2									
LIGHTING/ > 40 EDGE INTENSIT > 42 RWY MARK TYP > 43 VGSI: 44 THR COSSING F 45 VISUAL GLIDE A 45 VISUAL GLIDE A	APCH AIDS Y: E-COND: IGT.: NGLE:	HIGH PIR-G / BSC-G P4L / P2L 52 / 45 3.00 / 4.00 - / -	BSC - G P2L 40 3.00	/ BSC - / P2L / 40 / 3.00 / -	g bsc	MED - F / BSC - F / / /	- / - / / /			
 47 RVR-RVV: 48 REIL: 49 APCH LIGHTS: <u>OBSTRUC</u> 50 FAR 77 CATEGO 51 DISPLACED THE 	TION DATA	- / - / MALSF / PIR / B(V) /	Y A(V)	/ Y / A(V) / 228	A	- / - / / (V) / A(V)	· / · / /			
52 CTLG OBSTN: 53 OBSTN MARKED 54 HGT ABOVE RW 55 DIST FROM RW 56 CNTRLN OFFSE 57 OBSTN CLNC SL	D/LGTD: Y END: Y END: T: LOPE:	/ / / 50:1 / 20:1	50:1	ROAD 20 577 140L 18:1	5	/ ROAD / / / 0:1 / 20:1				
58 CLOSE-IN OBST DECLAREI 60 TAKE OFF RUN 61 TAKE OFF DIST 62 ACLT STOP DIST 63 LNDG DIST AVB 0 ARPT MGR PLEAS	N: <u>D DISTANCES</u> AVBL (TORA): AVBL (TODA): T AVBL (ASDA): L (LDA): I: ADVISE FSS IN ITEM 8	N / N / / 6 WHEN CHANGES OCCUR 1		 		N / N / /				
ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY > > 110 REMARKS 1033 RWY 01/19 SURFACE GRVD 1043 RWY 19 PAPI UNUSBL BYD 3NM DUE TO TERRAIN 1052 RWY 08 +60 FT DROP OFF 520 FT FM RY END. 1052 RWY 19 +20 FT DROP OFF 520 FT FM RY END. 1052 RWY 19 HIGH VOLTAGE TRANS LINE ON EXTENDED CENTERLINE 1070 24 HR SELF SVC FUEL AVBL WITH CREDIT CARD. 1081 ACTVT MALSF RY 01; REILS RY 08/26; PAPI RYS 01/19 AND 08/26; HIRL RY 01/19; MIRL RY 15/33 - CTAF										
111 INSPECTOR:	(\$)	112 LAST INS	P: 06/03/2015		113 LAST	INFO REQ:				





FAA National Based Aircraft Inventory Program

Status Report - Utah August, 2016.

Total Utah Airports in the Database	31
Airports with Aircraft in their BasedAircraft.com list	30
Airports Reporting 0 Aircraft at their facility	1
Non-reporting facilities	0

Note: A few airports participate voluntarily. Most of these have a service level of 'Primary' in the NPIAS now, but tend to move between Primary and Commercial Service frequently. Current Voluntary Participants: 0

Overall Aircraft Counts	
Validated SMJH* Aircraft in	1 0/1
BasedAircraft.com	1,041
Based aircraft SMJH* counts in FAA Form	1.039
5010	.,
Inventory versus Form 5010	2
Lists edited or confirmed in last 24 Months	31

Airport Name	Associated City	Loc Id	5010 * BA Count	Validated*	Reported 0 Aircraft	Voluntary	Last Edit Date	<u>Date</u> Confirmed
BEAVER MUNI	BEAVER	U52	3	3	No	No	10/09/2015	10/09/2015
BLANDING MUNI	BLANDING	BDG	13	13	No	No	10/01/2015	10/01/2015
BOLINDER FIELD-TOOELE VALLEY	TOOELE	TVY	15	15	No	No	05/05/2016	10/21/2015
BRIGHAM CITY	BRIGHAM CITY	BMC	90	89	No	No	10/01/2015	10/01/2015
BRYCE CANYON	BRYCE CANYON	BCE	6	6	No	No	10/01/2015	10/01/2015
CAL BLACK MEMORIAL	HALLS CROSSING	U96	6	6	No	No	10/01/2015	10/01/2015
CANYONLANDS FIELD	MOAB	CNY	34	34	No	No	10/07/2015	10/07/2015
CARBON COUNTY RGNL/BUCK DAVIS FIELD	PRICE	PUC	10	10	No	No	10/01/2015	10/01/2015
DELTA MUNI	DELTA	DTA	13	13	No	No	10/02/2015	10/02/2015
DUCHESNE MUNI	DUCHESNE	U69	13	13	No	No	10/01/2015	10/01/2015
ESCALANTE MUNI	ESCALANTE	1L7	4	4	No	No	10/01/2015	10/01/2015
GENERAL DICK STOUT FIELD	HURRICANE	1L8	54	55	No	No	10/02/2015	10/02/2015
GREEN RIVER MUNI	GREEN RIVER	U34	7	7	No	No	10/08/2015	10/08/2015
HANKSVILLE	HANKSVILLE	HVE	4	4	No	No	10/01/2015	10/01/2015
HEBER CITY MUNI - RUSS MCDONALD FIELD	HEBER	36U	80	80	No	No	10/02/2015	10/02/2015
KANAB MUNI	KANAB	KNB	19	19	No	No	10/02/2015	10/02/2015
LOGAN-CACHE	LOGAN	LGU	142	142	No	No	10/07/2015	10/07/2015
MANILA	MANILA	40U	0	0	Yes	No	01/18/2012	04/10/2015
MANTI-EPHRAIM	MANTI	41U	12	13	No	No	04/02/2016	04/02/2016
MILFORD MUNI/BEN AND JUDY BRISCOE FIELD	MILFORD	MLF	5	5	No	No	10/07/2015	10/07/2015
MONTICELLO	MONTICELLO	U64	9	9	No	No	10/07/2015	10/07/2015
NEPHI MUNI	NEPHI	U14	9	9	No	No	10/07/2015	10/07/2015
PANGUITCH MUNI	PANGUITCH	U55	4	4	No	No	10/07/2015	10/07/2015
PAROWAN	PAROWAN	1L9	16	16	No	No	10/07/2015	10/07/2015
RICHFIELD MUNI	RICHFIELD	RIF	25	25	No	No	02/12/2016	10/07/2015
ROOSEVELT MUNI	ROOSEVELT	74V	36	37	No	No	07/18/2016	07/18/2016
SOUTH VALLEY RGNL	SALT LAKE CITY	U42	224	224	No	No	05/23/2016	05/23/2016
SPANISH FORK-SPRINGVILLE- WOODHOUSE FIELD	SPANISH FORK	U77	151	151	No	No	10/13/2015	10/13/2015
VERNAL RGNL	VERNAL	VEL	23	23	No	No	10/09/2015	10/09/2015
WAYNE WONDERLAND	LOA	38U	4	4	No	No	10/08/2015	10/08/2015
WENDOVER	WENDOVER	ENV	8	8	No	No	10/08/2015	10/08/2015
	Total:	31	1,039	1,041	1	0	31	31



PRICE

CARBON CO RGNL/BUCK DAVIS FLD (PUC)(KPUC) 3 E UTC-7(-6DT) N39°36.84' W110°45.09' DENVER H-3E. L-9D 5957 B NOTAM FILE PUC RWY 01-19: H8310X100 (ASPH-GRVD) S-30, D-40 HIRL IAP RWY 01: MALSF. PAPI(P4L)-GA 3.0° TCH 52'. 1.7% up. RWY 19: PAPI(P2L)-GA 4.0° TCH 45'. 1.8% down. RWY 15-33: H4514X75 (ASPH) S-13 MIRL 1.1% up NW RWY 33: Road. RWY 08-26: H3541X75 (ASPH) S-12.5 1.0% up E RWY 08: REIL. PAPI(P2L)-GA 3.0° TCH 40'. RWY 26: REIL. PAPI(P2L)-GA 3.0° TCH 40'. Thid dsplcd 228'. Road. SERVICE: S2 FUEL 100LL, JET A 0X 1, 2 LGT ACTIVATE MALSF Rwy 01, REIL Rwy 08, Rwy 26, PAPI Rwy 01-19 and Rwy 08, Rwy 26, HIRL Rwy 01-19, MIRL Rwy 15-33-CTAF. Rwy 19 PAPI unusable beyond 3 NM due to terrain. AIRPORT REMARKS: Attended Mon-Fri 1400-0100Z‡, Sat-Sun 1500-0000Z‡. 24 hr self svc fuel avbl with credit card. Rwy 18 high voltage transmission line on extended cntrln. Rwy 07 + 60' drop off 520' from rwy end. Rwy 14 + 40' drop off 250' from thld. AIRPORT MANAGER: 435-637-9556 WEATHER DATA SOURCES: ASOS 135.425 (435) 637-2790. COMMUNICATIONS: CTAF/UNICOM 122.8 RC0 122.2 (CEDAR CITY RADIO) SALT LAKE CENTER APP/DEP CON 133.9 RADIO AIDS TO NAVIGATION: NOTAM FILE PUC. (H) VORW/DME 115.5 PUC Chan 102 N39°36.19' W110°45.21' at fld. 5830/14E. VOR portion unusable: 275°-300° byd 25 NM blo 12,000' 300°-330° byd 25 NM blo 13,500 330°-010° byd 25 NM blo 17,300' DME portion unusable: 275°-010° byd 27 NM blo 17,300' 275°-010° byd 35 NM VOR/DME unusable: 010°-070° byd 25 NM blo 14,000' 200°-275° byd 27 NM blo 13,000 ILS/DME 109.35 I-PUC Chan 30(Y) Rwy 01. Unmonitored.

Source: FAA Airport Facility Directory/Chart Supplement

Airport Details for KPUC - ACTIVE Chart Date: 03/31/2016 CARBON COUNTY RGNL/BUCK DAVIS FIELD PRICE

AL #: 681

_									
	State:		UTAH		Magnetic Variation/Year:	E11/2015	Weather Station:	YES	
	Country:		United States		Site Nbr:	25259	Control Tower:	NO	
	Category:		AERODROME	E ONLY	Data Source:	THIRD_PARTY (06/05/2015 THIRD_PARTY		
	FAR Part 13	39:	NO		Owner:	STATE	Use:	CIVIL	
	Reimbursat	ole Agreem	ent:				Military Type:		
	Coordinate	5			Office		Local Auto Weather		
Ш	Latitutde:		N 39° 36' 50.0	000"	Flight Inspection:	SAC	Weather Source:	ASOS	
	Longitude:		W 110° 45' 05	.8000"	Procedure Development:	130	Type:	3	
	Field Elevat	tion:	5957.6		Region Code:	NM	Frequency:	135.425	
	Ellipsoid Ele	evation:	5902.5 S		Service Area:	WEST	Service A:	N	
	Horizontal [Datum:	NAD83		OCC Code:	POCC	Phone number	(435)637-2	790
ΙL	Vertical Dat	tum:	NAVD88		International:	NO			
c	ONTACTS								
Co OV	ntact Role VNER		Last Name	First Name	Phone Number (435)637-9556	<u>E-mail</u>	R	emark	
AL	TIMETER	S							
	Туре	Primary	Airport ID	Field Alt Source	<u>ce</u>	<u>Latitude</u>	Longite	<u>ude</u>	Operational Timing
	L YES KPUC ASOS		N 38	9° 36' 31.9571"	W 110° 45'	W 110° 45' 19.6185" FU			
AL	TIMETER	COMME	NTS						
RI	JNWAYS								

01 (A) 19 (A) 08 (A) 26 (A) 15 (A) 33 (A)

Source: FAA AVN Flight Technologies & Procedures Division Flight Procedure Standards Branch

Landing Strip													
Chart Date: 03/31/	2016				Publicat	ion	Status: A					Pseud	Rwy: NO
Surface: ASPH 0	BOOD				Wi	dth	: 100					Physical Le	ngth: 8316
Rwy Number: 01						ſ	Rwy Number: 19	1					-
Use Category: RUN		KPUCO	1			1	Use Category: RUNV		к	PUC19			
Chart Date: 03/31/20	16 Pub. Status: A	VGSI	Lights				Chart Date: 03/31/20	16 Pub. Status: A	Г	VGSI Lia	hts		
Data Source: THIRD	PARTY 06/05/2015	VGSI	Lighte Tu				Data Source: THIRD	PARTY 06/05/2015	` -	VGSILia	hte Type	PAPI-2I	
Markings: PIR-G		Owne	r: S				Markings: BSC-G			Owner:	STAT	TE	
Threehold		Pilot	Cntl Freq:	122.800		I	Threshold			Pilot Cntl	Freq:	122,800	
Latitude:	N 39º 36' 17 7155"	Th Cr	oss Ht:	52.0			Latitude:	N 39° 37' 35 6868"		Th Cross	Ht:	45.0	
Longitude:	W 110° 45' 18 7701"	High	Angle:				Longitude:	W 110° 44' 45 3171"		High Ang	le:		
Elevation:	5811.7	Com.	Date:	08/14/2012			Elevation:	5957.6		Com. Da	te:		
Ellipsoid Elev:	5756.3 S	Com.	Angle:	3.00			Ellipsoid Elev:	5902.5 S		Com. An	gle:	4.00	
Ellipsoid Elev Model	NAVD88	DWB	Elev:				Ellipsoid Elev Model:	NAVD88		DWB Ele	v:		
Horz. Datum:	NAD83	DWB	Thres:				Horz. Datum:	NAD83		DWB Thr	es:		
Vert. Datum:	NAVD88	Ref P	t Lat:	N 39° 36' 25.	0700"		Vert. Datum:	NAVD88		Ref Pt La	t:	N 39° 37' 2	7.9670"
		Ref P	t Long:	W 110° 45' 1	5.6160"	1			1	Ref Pt Lo	ng:	W 110° 44'	48.6300"
Displaced Thresho	ld	Ref P	t Elev:	5825.1			Displaced Thresho	ld		Ref Pt El	ev:	5943.5	
Latitude:		Ref P	t Thres:	784			Latitude:			Ref Pt Th	res:	823	
Longitude:		Heigh	t Group:				Longitude:		ŀ	Height G	roup:		
Elevation:		Lights					Elevation:		Ŀ	Lights			
Ellipsoid Elev:			Len OV	ner Mil Type Com Dt	122 800		Ellipsoid Elev:		E	ontig Le	In Owner	r Mil Type Com D	122 800
Ellipsold Elev Model		MALSE	1600 NT	L 04/02/2009	122.800		Ellipsoid Elev Model		IC.	RL	NTL		122.800
Vert Datum:	UNKNOWN			-			Horz. Datum:	UNKNOWN	F				
Vert. Datum.							Vert. Datum:	UNKNOWN	1				
Landing Length:	8316						Landing Length:	8316					
FI RWY Length:	8316						FIRWY Length:	8316					
FIRWY Height:	5857.0						FIRWY Height:	5611.7					
Toz Elevation:	18 356						True Rearing:	108.36					
Et Dien Th	18.330						Ft Dien Th	190.00					
Gradient:	1.8%						Gradient:	-1.8%					
RVRTouchdown:	1.070						RVRTouchdown:	1.070					
MidPoint:							MidPoint:						
Rollout:							Rollout:						
Rail:	NO						Rail:	NO					
OIS Data Source:	VG 06/05/2015 THIF	RD_PAR	TY				OIS Data Source:	VG 06/05/2015 THIR		PARTY			
Assoc. Fac.:	PUC ILS (A)						Assoc. Fac.:						

RUNWAY LANDING ST	TRIP COMMENTS		
Topic	Priority	Date	Remark
LIGHTS		10/17/2014	MIRLS change to HIRL per NFDD 198 dtd 10/14/2014.
SURVEY	1	01/20/2016	WITH THIRD PARTY SURVEY DATED 6/5/2015. DO NOT ACTIVATE UNTIL NFDD ACTION HAS BEEN TAKEN.
RUNWAY 01 COMMEN	ITS		
Topic	Priority	Date	Remark
LIGHTS		05/28/2014	VGSI RWY 01 (FORMERLY RWY 36): TDZ ELEV USED IN LIEU OF RRP ELEV
RUNWAY 19 COMMEN	ITS		
Topic	Priority	Date	Remark
RESTRICTION		10/17/2014	PAPI UNUSE BYD 3.0NM DUE TO TERRAIN



RUNWAY DETAIL

Landing Strip								
Chart Date: 03/31/	2016			Publication	n Status: A			Pseudo Rwy: NO
Surface: ASPH P	OOR			Widt	h: 60			Physical Length: 3151
Rwy Number: 08	1				Rwy Number: 26	1		,
Use Category: RUNV	VAY ONLY	KPUC08			Use Category: RUNV	VAY ONLY	KPUC26	
Chart Date: 03/31/20	16 Pub. Status: A	VGSI Lights			Chart Date: 03/31/20	16 Pub. Status: A	VGSI Lights	
Data Source: THIRD	_PARTY 06/05/2015	VGSI Lights Ty	pe: PAPI-2L		Data Source: THIRD	PARTY 06/05/2015	VGSI Lights Type:	PAPI-2L
Markings: BSC-P		Owner: ST	TATE		Markings: BSC-P		Owner: STAT	E
Threshold		Pilot Cntl Freq:			Threshold		Pilot Cntl Freq:	
Latitude:	N 39° 36' 54.4719"	Th Cross Ht:	36.5		Latitude:	N 39° 36' 54.5475"	Th Cross Ht:	40.0
Longitude:	W 110° 45' 24.1566"	High Angle:			Longitude:	W 110° 44' 43.9008"	High Angle:	
Elevation:	5859.3	Com. Date:			Elevation:	5890.5	Com. Date:	
Ellipsoid Elev:	5804.1 S	Com. Angle:	3.00		Ellipsoid Elev:	5835.3 S	Com. Angle:	3.00
Ellipsoid Elev Model:	NAVD88	DWB Elev:			Ellipsoid Elev Model:	NAVD88	DWB Elev:	
Horz. Datum:	NAD83	DWB Thres:			Horz. Datum:	NAD83	DWB Thres:	
Vert. Datum:	NAVD88	Ref Pt Lat:	N 39° 36' 54.4	4890"	Vert. Datum:	NAVD88	Ref Pt Lat:	N 39° 36' 54.5280"
Displaced Threshol	d	Ref Pt Long:	5967.5	5.2080	Displaced Thresho	ld.	Ref Pt Long:	W 110 44 54.0000
Latitude:	N 39° 36' 54,4753"	Ref Pt Thres:	572		Latitude:	iu	Ref Pt Thres	844
Longitude:	W 110° 45' 22,5167"	Height Group:	572		Longitude:		Height Group:	
Elevation:	5861.0	Lights			Elevation:		Lights	
Ellipsoid Elev:	5805.8 S	Config Len Ow	vner Mil Type Com Dt	Pilot Cntrl	Ellipsoid Elev:		Config Len Owner	Mil Type Com Dt Pilot Cntrl
Ellipsoid Elev Model:	NAVD88	REIL ST	TATE	122.800	Ellipsoid Elev Model	WGS84	REIL STATE	122.800
Horz. Datum:	NAD83				Horz. Datum:	NAD83		
Vert. Datum:	NAVD88				Vert. Datum:	NAVD88		
Landing Length:	3023				Landing Length:	3151	1	
FI RWY Length:	3023				FI RWY Length:	3023		
FI RWY Height:	5890.5				FI RWY Height:	5861.0		
Tdz Elevation:	5890.4				Tdz Elevation:	5890.5		
True Bearing:	89.858				True Bearing:	269.864		
Ft Disp Th:	128				Ft Disp Th:			
Gradient:	1.0%				Gradient:	-1.0%		
RVRTouchdown:					RVRTouchdown:			
MidPoint:					MidPoint:			
Rollout:					Rollout:			
Rail:	NO				Rail:	NO		
OIS Data Source:	VG 06/05/2015 THIP	D_PARTY			OIS Data Source:	VG 06/05/2015 THIR	D_PARTY	
ASSOC. Fac.:					ASSOC. Fac			
	G STRIP COMMEN	TS						
Tanla	Drive			Demo				
	Priorit	y Date	<u>e</u> 17/2014	MIRL	IK Owner: Carbon County			
SURVEY	4	10/1	20/2016	WITH	THIRD PARTY SURVE			
OORVET		01/2	10/2010	HAS B	EEN TAKEN.	1 DATED 0/0/2015. D	O NOT ACTIVATE OF	THE REDUCTION

			has been taken.
RUNWAY 08 COMMENTS			
<u>Topic</u> OWNER SURVEY	<u>Priority</u> 1	Date 10/17/2014 01/20/2016	Remark REIL & PAPI Owner: Carbon County RWY 08 PAPI TCH MODIFIED TO 36.5 PER THIRD PARTY SURVEY DATA DATED 6/5/2015.
RUNWAY 26 COMMENTS			
Topic OWNER	Priority	<u>Date</u> 10/17/2014	Remark REIL & PAPI Owner: Carbon County



BUILDING AND	DETAIL
RUNWAY	DETAIL

Landing Strip													
Chart Date: 02/21	2016					Bublice	tion Status: A					Decude	Buse NO
Chart Date: 03/31	2016					Publica	tion Status: A					Pseudo	Rwy: NO
Sunace. ASPH C						**	idui. 75					Physical Len	gth: 4513
Rwy Number: 15			_				Rwy Number: 33						
Use Category: RUN	WAY ONLY	KPUC1	5				Use Category: RUN	IWAY ONLY	KPUC	33			
Chart Date: 03/31/20	016 Pub. Status: A	Lights					Chart Date: 03/31/2	016 Pub. Status: /	Light	s			
Data Source: THIRD	_PARTY 06/05/2015	Config	Len	Owner	Mil Type Com Dt	Pilot Cntrl	Data Source: THIRI	D_PARTY 06/05/2015	Config	Len	Owner	Mil Type Com Dt	Pilot Cntrl
Markings: BSC-F		MIRL		NIL		122.800	Markings: BSC-F		MIRL		NIL		122.800
Threshold							Threshold]				
Latitude:	N 39° 36' 55.3742"						Latitude:	N 39° 36' 13.8352"	1				
Longitude:	W 110° 45' 24.2460"						Longitude:	W 110° 45' 03.3150"					
Elevation:	5860.6						Elevation:	5812.6					
Ellipsoid Elev:	5805.5 S						Ellipsoid Elev:	5757.2 S					
Ellipsoid Elev Model	NAVD88						Ellipsoid Elev Mode	el: NAVD88					
Horz. Datum:	NAD83						Horz. Datum:	NAD83					
Vert. Datum:	NAVD88						Vert. Datum:	NAVD88					
Displaced Thresho	ld						Displaced Thresh	old	1				
Latitude:							Latitude:		1				
Longitude:							Longitude:						
Elevation:							Elevation:						
Ellipsoid Elev:							Ellipsoid Elev:						
Ellipsoid Elev Model							Ellipsoid Elev Mode	el:					
Horz. Datum:	UNKNOWN						Horz. Datum:	UNKNOWN					
Vert. Datum:	UNKNOWN						Vert. Datum:	UNKNOWN					
Landing Length:	4513						Landing Length:	4513	-				
FI RWY Length:	4513						FI RWY Length:	4513					
FI RWY Height:	5812.6						FI RWY Height:	5860.6					
Tdz Elevation:	5860.7						Tdz Elevation:	5847.3					
True Bearing:	158.705						True Bearing:	338.708					
Ft Disp Th:							Ft Disp Th:						
Gradient:	-1.1%						Gradient:	1.1%					
RVRTouchdown:							RVRTouchdown:						
MidPoint:							MidPoint:						
Rollout:							Rollout:						
Rail:	NO						Rail:	NO					
OIS Data Source:	VG 06/05/2015 THIF	RD_PAR	ΓY				OIS Data Source:	VG 06/05/2015 THIF	RD_PAR	TY			
Assoc. Fac.:							Assoc. Fac.:						
RUNWAY LANDIN	G STRIP COMMEN	TS											
Topic	Priorit	Х		Date		Ren	nark						
SURVEY	1			01/20/2	2016	WIT HAS	'H THIRD PARTY SURV 5 BEEN TAKEN.	'EY DATED 6/5/2015.	DO NOT	ACTI	VATE U	INTIL NFDD AC	TION
RUNWAY 15 COM	MENTS												
RUNWAY 33 COM	MENTS												
COMAT OF COM													

FAA TERMINAL AREA FORECAST - PUC AIRPORT

FAA TERMINAL AREA FORECAST - CARBON COUNTY AIRPORT (PUC)

					Foreca	st Issued	l January	2015					
						А	IRCRAFT OF	PERATIONS	5				
	PA	X Enplaneme	nts		Itinera	ant Operat	ions		Loc	al Operatio	ons		
Fiscal	Air			Air	Air Taxi &						_		Based
Year	Carrier	Commuter	Total	Carrier	Commuter	GA	Military	Total	Civil	Military	Total	Total Ops	Aircraft
1990	0	423	423	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	33
1991	0	70	70	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	16
1992	0	39	39	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	16
1993	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	16
1994	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	12
1995	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	12
1996	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	0
1997	0	17	17	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	20
1998	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	20
1999	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	20
2000	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	20
2001	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	20
2002	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	20
2003	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	20
2004	0	0	0	0	4,200	10,000	150	14,350	12,000	0	12,000	26,350	30
2005	0	0	0	0	1,500	2,000	100	3,600	4,000	0	4,000	7,600	30
2006	0	0	0	0	100	3,850	50	4,000	6,000	0	6,000	10,000	34
2007	0	0	0	0	100	3,850	50	4,000	6,000	0	6,000	10,000	34
2008	0	0	0	0	2,010	852	0	2,862	9,580	0	9,580	12,442	20
2009	0	0	0	0	2,010	852	0	2,862	9,580	0	9,580	12,442	20
2010	0	0	0	0	2,010	852	0	2,862	9,580	0	9,580	12,442	14
2011	0	0	0	0	2,010	852	0	2,862	9,580	0	9,580	12,442	14
2012	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2013	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2014	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2015	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2016	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2017	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2018	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2019	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2020	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2021	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2022	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2023	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2024	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2025	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2026	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2027	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2028	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2029	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2030	0	0	0	0	1,200	1,698	0	2,898	1.533	0	1.533	4,431	15
2031	0	0	0	0	1.200	1.698	0	2,898	1.533	0	1.533	4.431	15
2032	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
2033	0	0	0	0	1.200	1.698	0	2,898	1.533	0	1.533	4.431	15
2034	0	0	0	0	1.200	1,698	0	2.898	1.533	0	1.533	4.431	15
2035	õ	0	0	ō	1.200	1,698	0	2.898	1.533	0	1.533	4.431	15
2036	0	0	0	0	1.200	1,698	0	2.898	1.533	0	1.533	4.431	15
2037	0	0	0	0	1.200	1,698	0	2.898	1.533	0	1.533	4.431	15
2038	0	0	0	0	1.200	1,698	0	2.898	1.533	0	1.533	4.431	15
2039	0	0	0	0	1,200	1,698	0	2,898	1.533	0	1,533	4,431	15
2040	0	0	0	0	1,200	1,698	0	2,898	1,533	0	1,533	4,431	15
							-						





NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS (NPIAS)

GENERAL AVIATION: A NATIONAL ASSET

SOURCE: FAA



Utah



Utah

City	Airmont	LeelD	Owner-	Link	Dala	Service	e Level	Current Ai	rcraft	2015-2019
City	Airport	LOCID	ship	dun	Role	Current	Year 5	Enplaned	Based	Dev Estimate
Beaver	Beaver Municipal	U52	PU		Basic	GA	GA	0	3	\$2,783,279
Blanding	Blanding Municipal	BDG	PU		Basic	GA	GA	8	13	\$3,322,371
Brigham City	Brigham City	BMC	PU		Local	GA	GA	0	91	\$2,616,544
Bryce Canyon	Bryce Canyon	BCE	PU		Basic	GA	GA	78	7	\$4,652,727
Cedar City	Cedar City Regional	CDC	PU	Ν		Р	Р	15,881	56	\$21,421,056
Delta	Delta Municipal	DTA	PU		Basic	GA	GA	1	11	\$3,690,870
Duchesne	Duchesne Municipal	U69	PU		Basic	GA	GA	0	15	\$2,635,718
Escalante	Escalante Municipal	1L7	PU		Basic	GA	GA	2	4	\$1,170,877
Green River	Green River Municipal	U34	PU		Basic	GA	GA	126	9	\$2,033,087
Halls Crossing	Cal Black Memorial	U96	PU		Basic	GA	GA	0	5	\$2,437,412
Hanksville	Hanksville	HVE	PU		Basic	GA	GA	0	4	\$5,415,210
Heber	Heber City Municipal - Russ McDonald Field	36U	PU		Regional	GA	GA	55	79	\$2,382,631
Hurricane	General Dick Stout Field	1L8	PU		Basic	GA	GA	0	56	\$7,447,980
Kanab	Kanab Municipal	KNB	PU		Local	GA	GA	315	20	\$2,523,780
Loa	Wayne Wonderland	38U	PU		Basic	GA	GA	0	3	\$2,052,631
Logan	Logan-Cache	LGU	PU		Regional	GA	GA	1,076	116	\$6,098,584
Manila	Manila	40U	PU		Basic	GA	GA	0	0	\$0
Manti	Manti-Ephraim	41U	PU		Basic	GA	GA	0	9	\$2,409,871
Milford	Milford Municipal/ Ben and Judy Briscoe Field	MLF	PU		Unclassified	GA	GA	0	4	\$0
Moab	Canyonlands Field	CNY	PU		Local	CS	CS	7,955	11	\$3,551,520
Monticello	Monticello	U64	PU		Basic	GA	GA	0	9	\$841,158
Nephi	Nephi Municipal	U14	PU		Basic	GA	GA	0	10	\$1,353,385
Ogden	Ogden-Hinckley	OGD	PU		Regional	CS	CS	4,290	238	\$8,466,356
Panguitch	Panguitch Municipal	U55	PU		Basic	GA	GA	12	2	\$3,788,819
Parowan	Parowan	1L9	PU		Local	GA	GA	0	13	\$766,920
Price	Carbon County Regional/ Buck Davis Field	PUC	PU		Basic	GA	GA	10	15	\$1,382,204

FAA - GENERAL AVIATION AIRPORTS - A NATIONAL ASSET



Appendix B-2: List of General Aviation Airports in the Four New Categories

State	City	Airport	Locid	Public/Private	Service Level	Category
UT	Price	Carbon County Rgnl/Buck Davis Field	PUC	PU	Gen Avia	Basic

Basic airports are often able to fulfill their role with a single runway, helipads, seaplane, and limited infrastructure. Forty-three states have basic airports. These 668 airports fulfill the role of a community airport providing a means for private general aviation flying and linking the community to the national airport system. Basic airports account for approximately 7 percent of the total flying at general aviation airports and 2 percent of flying with flight plans. Most of the flying is self-piloted for business and personal reasons using propeller-driven aircraft. A fair amount of air charter (taxi) services is provided at these airports. There are three heliports and 20 seaplane bases in this category.

Criteria Used to Define the New Basic Category (all numbers are annualized)

- 1. 10+ based aircraft; or
- 2. 4+ based helicopters, or
- 3. The airport is located 30+ miles from the nearest NPIAS airport; or
- 4. The airport is identified and used by the U.S. Forest Service, or U.S. Marshals, or
- 5. U.S. Customs and Border Protection (designated, international, or landing rights), or U.S. Postal Service (air stops), or has Essential Air Service; or
- 6. The airport is a new or replacement facility activated after January 1, 2001; and
- 7. Publicly owned or privately owned and designated as a reliever with a minimum of 90 based aircraft.



PAVEMENT CONDITION ANALYSIS REPORT

SEPTEMBER, 2016

SOURCE: JVIATION







Pavement PCN Number

In accordance with FAA AC 150/5335-5C Standard Method of Reporting Pavement Strength-PCN, a PCN analysis was completed using COMFAA software (version 3.0) and the supporting Excel spreadsheet. The following assumptions were made to provide the most accurate PCN analysis based on available information.

The PCN for Runway 1/19 was arrived at with the Using Aircraft Method as described in section 4.3 of FAA AC 150/5335-5C. The aircraft used for this method were based on fleet mixes used previously on other projects. This fleet mix can be found in Appendix A of this report. Without detailed knowledge of the pavement structure and subgrade classification, the PCN number is derived from the largest ACN of the assumed aircraft using this runway. Assuming a subgrade classification of "B" as recommended by Section 4.3, and using the tire pressures available for the using aircraft, the PCN value for Runway 1/19 can be reported as **18/F/B/X/U**. The ACNs used for this analysis can be found in Appendix B of this report.

The PCN for Runway 15/33 was arrived at with the Using Aircraft Method as described in section 4.3 of FAA AC 150/5335-5C. The aircraft used for this method were based on fleet mixes used previously on other projects. This fleet mix can be found in Appendix A of this report. Without detailed knowledge of the pavement structure and subgrade classification, the PCN number is derived from the largest ACN of the assumed aircraft using this runway. Assuming a subgrade classification of "B" as recommended by Section 4.3, and using the tire pressures available for the using aircraft, the PCN value for Runway 15/33 can be reported as 13/F/B/X/U. The ACNs used for this analysis can be found in Appendix B of this report.

The PCN for Runway 8/26 was arrived at with the Using Aircraft Method as described in section 4.3 of FAA AC 150/5335-5C. The aircraft used for this method were based on fleet mixes used previously on other projects. This fleet mix can be found in Appendix A of this report. Without detailed knowledge of the pavement structure and subgrade classification, the PCN number is derived from the largest ACN of the assumed aircraft using this runway. Assuming a subgrade classification of "B" as recommended by Section 4.3, and using the tire pressures available for the using aircraft, the PCN value for Runway 8/26 can be reported as <u>3/F/B/Z/U</u>. The ACNs used for this analysis can be found in Appendix B of this report.

The above PCN values to be reported for Runways 1/19, 15/33, and 8/26 at the Carbon County Regional Airport are only as accurate as the assumptions described within this analysis. If the Airport wishes to obtain more accurate PCN values for Runways 1/19, 15/33, and 8/26, investigations should be conducted to:

- 1. Verify pavement section thicknesses, conditions, and underlying materials.
- 2. Obtain actual CBR values for underlying soils.
- 3. Obtain data to create an accurate airport fleet mix, including annual departures.

When this data is obtained, a complete PCN value for in-situ conditions using the Technical Method can be reported for Runways 1/19, 15/33, and 8/26.

It is recommended that if there are any aircraft traffic modifications for any runway, the PCN be reevaluated to determine how the pavement will perform to the modified traffic. Airport staff should also continually monitor the condition of all airfield pavement to ensure excessive damage is not occurring.

PCN Analysis September 20, 2016 Jviation, Inc. Carbon County Regional Airport



1

APPENDIX A – CURRENT AIRCRAFT FLEET MIX

Runway 1/19 Fleet Mix

COMFAA Aircraft Name	Gross Weight (lbs.)	Annual Departures
Dual Wheel 75	70,000	112
Citation-X	36,000	112
Learjet-35A/65A	18,000	112
SuperKingAir-350	15,100	1,215
Baron-E-55	5,424	1,855
Stationair-206	3,612	5,135

Runway 15/33 Fleet Mix

COMFAA Aircraft Name	Gross Weight (lbs.)	Annual Departures
Citation-X	36,000	112
Single Wheel 30	30,000	112
Learjet-35A/65A	18,000	112
SuperKingAir-350	15,100	1,215
Baron-E-55	5,424	1,855
Stationair-206	3,612	5,135

Runway 8/26 Fleet Mix

_

COMFAA Aircraft Name	Gross Weight (lbs.)	Annual Departures
Single Wheel 12.5	12,500	1,200
Baron-E-55	5,424	1,855
Stationair-206	3,612	5,135

*Aircraft used are based on fleet mix used for previous design projects.



APPENDIX B – ACN LISTING FOR THE CURRENT AIRCRAFT FLEET MIX

B1

PCN Analysis September 20, 2016

Jviation, Inc. Carbon County Regional Airport



Runway 1/19 ACNs

Unit Conversions	Sho w Alpha	Show Ext File	gle Aircraft ACN Flexible	Rigid C	her Calcula PCN (*	tion Modes ACN Ba	itch	Thickness	⊂ Life	C MGW	<u>B</u> ack
				Г	Save PO	CN Output	to a Te	d File			
lexible ACN	at Indic	ated Gross Wei	ght and Str	ength. Unit	ts = Enq	rlish.					
No. Aircraf	t Name	Gross Weight	% GW on Main Gear	Tire Pressure	ACN A(15)	at India B(10)	C(6)	D(3)			
1 Dual Whe	el 75	70.000	95.00	181.0	17.3	18.4	20.7	22 6			
2 Citation	-X	36,000	95.00	189.0	9.9	10.8	11.5	12.0			
3 Learjet-	35A/65A	18,000	95.00	171.0	4.3	4.4	5.0	5.6			
4 SuperKin	gAir-350	15,100	95.00	92.0	2.8	3.4	3.8	4.6			
5 Baron-E-	55	5,424	95.00	56.0	1.1	1.4	1.8	2.1			
6 Stationa	ir-206	3,612	95.00	52.0	0.7	0.9	1.2	1.4			

Unit Conversions	Show Alpha	Show Ext File	ingle Aircraft ACN	Rigid C	her Calcula PCN (*	tion Modes ACN Ba	atch 🔿	Thickness	C Life (MGW	<u>B</u> ack
				Г	Save PC	N Outpu	t to a Te	xt File			
lexible ACN No. Aircrai	V at Indic Et Name	ated Gross We Gross Weight	ight and Str % GW on Main Gear	rength. Uni Tire Pressure	ts = Eng ACN A(15)	lish. at Indi B(10)	cated C C(6)	ode D(3)			
1 Dual Whe	el 75	70.000	95.00	181 0	17.3	18.4	20.7	22 6			
2 Citation	1-X	36,000	95.00	189.0	9.9	10.8	11.5	12.0			
3 Learjet-	-35A/65A	18,000	95.00	171.0	4.3	4.4	5.0	5.6			
4 SuperKin	ngAir-350	15,100	95.00	92.0	2.8	3.4	3.8	4.6			
5 Baron-E-	-55	5,424	95.00	56.0	1.1	1.4	1.8	2.1			
6 Stationa	air-206	3,612	95.00	52.0	0.7	0.9	1.2	1.4			

Runway 15/33 ACNs

Unit Conversions	Show Alpha	Show Ext File	ingle Aircraft ACN Flexible	Rigid C	her Calcula PCN (•	ion Modes ACN Ba	itch C	Thickness	CLife	C MGW	<u>B</u> ack
				Ē	Save PC	N Output	to a Te	kt File			-
lexible ACN	at Indic	ated Gross We	ight and Str	ength. Unit	ts = Eng	lish.					
No. Aircraft	t Name	Gross	% GW on	Tire	ACN	at Indi	cated C	ode			
		Weight	Main Gear	Pressure	A(15)	B(10)	C(6)	D(3)			
1 Citation	-x	36,000	95.00	189.0	9.9	10.8	11.5	12.0			
2 Single W	heel 30	30,000	95.00	181.0	13.0	12.7	12.8	12.8			
3 Learjet-	35A/65A	18,000	95.00	171.0	4.3	4.4	5.0	5.6			
4 SuperKin	gAir-350	15,100	95.00	92.0	2.8	3.4	3.8	4.6			
5 Baron-E-	55	5,424	95.00	56.0	1.1	1.4	1.8	2.1			
6 Stationa:	ir-206	3,612	95.00	52.0	0.7	0.9	1.2	1.4			

Unit Conversions	Show Alpha	Show Ext File	-Single Aircra (* Flexible	RACN C Rigid	Other Calcula	tion Modes ACN Ba	atch C	Thickness	⊂ Life ⊂	MGW	<u>B</u> ack
					☐ Save Pt	CN Outpu	t to a Tex	t File			
lexible ACN	at Indic	ated Gross	Weight and	i Strength.	Units = Eng	lish.					
No. Aircraf	t Name	Weig	ns & GW Nain (on Tire Gear Pressu	re A(15)	B(10)	Cated Co C(6)	D(3)			
1 Citation	-x	36,0	00 95	.00 189.	0 9.9	10.8	11.5	12.0			
2 Single W	heel 30	30,0	00 95	.00 181.	0 13.0	12.7	12.8	12.8			
3 Learjet-	35A/65A	18,0	00 95	.00 171.	0 4.3	4.4	5.0	5.6			
4 SuperKin	gAir-350	15,1	.00 95	.00 92.	0 2.8	3.4	3.8	4.6			
5 Baron-E-	55	5,4	24 95	.00 56.	0 1.1	1.4	1.8	2.1			
6 Stationa	ir-206	3,6	12 95	.00 52.	0 0.7	0.9	1.2	1.4			

Runway 8/26 ACNs

Unit Conversions	Show Si Alpha Ex	how t File	ale Aircraft ACN	Rigid C	her Calcula PCN (•	tion Modes ACN Ba	tch C	Thickness	∩ Life (~ MGW	<u>B</u> ack
				F	Save PC	N Output	to a Te:	d File			
lexible ACN No. Aircraf	at Indicated t Name	i Gross Weig Gross Weight	ght and Str % GW on Main Gear	ength. Uni: Tire Pressure	ts = Eng ACN A(15)	lish. at Indic B(10)	cated C	ode D(3)			
1 Single W 2 Baron-E- 3 Stationa	heel 12.5 55 ir-206	12,500 5,424 3,612	95.00 95.00 95.00	50.0 56.0 52.0	2.3 1.1 0.7	3.0 1.4 0.9	4.0 1.8 1.2	4.7 2.1 1.4			

Unit Show Conversions Alpha I	Show Ext File	Other Calculation I Rigid PCN AC	Modes CN Batch C Thickness C Life C MGW	<u>B</u> ack
		🗂 Save PCN 0	Jutput to a Text File	
lexible ACN at Indicat No. Aircraft Name	ed Gross Weight and St Gross & GW on Weight Main Gear	rength. Units = Englis Tire ACN at Pressure A(15) B(nh. Indicated Code 10) C(6) D(3)	
1 Single Wheel 12.5 2 Baron-E-55	12,500 95.00 5,424 95.00	50.0 2.3 56.0 1.1	3.0 4.0 4.7 1.4 1.8 2.1	
3 Stationair-206	3,612 95.00	52.0 0.7	0.9 1.2 1.4	

UTAH CONTINUOUS AIRPORT SYSTEM PLAN

SOURCE: UDOT



System Plan Airport Classifications



JVIATION

Utah Continuous Airport System Plan 2007



Airside Facilities						
Facility Existing Minimum UCASP Objective Recommen						
Airport Reference Code	C-II	C-II or Greater	None			
Primary Runway Length	8,300'	75% of Large Airplanes at 60% Useful Load - 7,070'	None			
Primary Runway Width	100'	To Meet ARC	None			
Primary Runway Strength	30,000 lbs. SWG	30,000 lbs. SWG or DWG Equivalent	None			
Taxiway Type	Partial Parallel	Partial Parallel	None			
Navigational Aids	Non-Precision Straight-In Approach	Non-Precision Straight-In Approach	None			
Visual Aids	VASIs, REILs	GVGIs-General Visual Glideslope Indicators and REILs - Runway End Identifier Lights	None			
	MIRL	MIRL-Medium Intensity Runway Lighting	None			
Lighting	Beacon	Beacon	None			
	Windsock	Windsock	None			
Weather	ASOS	Automated Weather Reporting	None			

Price – Carbon County UCASP Role: Region								
	Landside Facilities							
Facility	Existing	Minimum UCASP Objective	Recommendation					
FBO	Full Service	FBO - Limited Service	None					
Maintenance Facilities/Hangar	Limited Service	Maintenance Facilities - Limited service	None					
Ground Communications	Phone	Phone	None					
Restrooms	Restrooms	Restrooms	None					
Ground Transportation	On-site Courtesy Car, Rental Cars Available	On-site Courtesy Car	None					
Terminal/Pilots' Lounge	Terminal	Terminal with Appropriate Facilities	None					
Aircraft Storage	15 Aircraft in Hangars	Hangars - 60% of Based Fleet & 25% of Overnight Aircraft	Construct 6 Additional Hangar Units					
Aircraft Storage	35 Tie-downs	Apron – 40% of Based Fleet & 50% for Transient	None					
Auto Parking	20 Spaces	Auto Parking - Equal to 33% of Based Aircraft	None					
Fencing	Partial	Perimeter Fencing	Install Full Perimeter Fencing					

Recommended Development Costs					
	Total Estimated	d Costs During Future Time Periods			
Project Description/Details	Cost	1-5 Year	6-10 Year	11-20 Year	
Pavement Maintenance	\$10,406,146	\$2,081,229	\$2,081,229	\$6,243,688	
Construct Parallel Taxiway Phase III	\$1,381,579	\$1,381,579	\$0	\$0	
Construct 6 Additional Hangar Units	\$347,369	\$0	\$347,369	\$0	
Expand North Apron	\$1,381,579	\$0	\$0	\$1,381,579	
Install Full Perimeter Fencing	Varies*	\$0	\$0	Varies*	
Subtotal Costs	\$13,516,673	\$3,462,809	\$2,428,598	\$7,625,266	

*Fencing construction and/or upgrade costs could not be determined without on-site inspection and therefore have not been included in the totals above.



CIP PROJECT COST ESTIMATES

SOURCE: JVIATION





Engineer's Preliminary Estimate

Project	Carbon County Regional Airport	Project No.			
	Price, UT	Date	April 12, 2017		
Owner	Carbon County	Sheet	1	of	1
		Estimate by	RAH		

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	ENGIN	EER'S ESTIMATE
				UNIT PRICE	TOTAL
GP-105	Mobilization	LS	1	\$ 144,700.00	\$ 144,700.00
P-140a	Asphalt Pavement Removal - Full Depth (3")	SY	37,700	\$ 2.00	\$ 75,400.00
P-152a	Unsuitable Material Excavation	SY	1,300	\$ 9.00	\$ 11,700.00
P-152b	Granular Embankment	CY	1,300	\$ 30.00	\$ 39,000.00
P-152c	Shouldering	SY	12,900	\$ 2.50	\$ 32,250.00
P-209a	Re-Compact Existing Base Course	SY	37,700	\$ 2.00	\$ 75,400.00
P-209b	Crushed Aggregate Base Course	CY	2,700	\$ 50.00	\$ 135,000.00
P-401a	Bituminous Surface Course	Ton	7,200	\$ 90.00	\$ 648,000.00
P-602a	Bituminous Prime Coat	Ton	38	\$ 1,000.00	\$ 38,000.00
P-620a	Temporary Runway Paint	SF	20,000	\$ 0.80	\$ 16,000.00
P-620b	Permanent Runway Paint	SF	20,000	\$ 1.00	\$ 20,000.00
L-108a	5 KV Cable	LF	9,200	\$ 1.25	\$ 11,500.00
L-108b	#6 AWG Ground Wire	LF	9,200	\$ 1.75	\$ 16,100.00
L-108c	#6 Counterpoise Wire	LF	9,200	\$ 2.00	\$ 18,400.00
L-108c	600 Volt THWN Cable	LF	19,200	\$ 2.00	\$ 38,400.00
L-110a	2' Conduit (DEB)	LF	15,600	\$ 6.00	\$ 93,600.00
L-115a	12-Inch Pull Can	EA	4	\$ 500.00	\$ 2,000.00
L-115b	Pull Box	EA	2	\$ 4,000.00	\$ 8,000.00
L-125a	Remove Existing Runway Edge Lights	EA	54	\$ 100.00	\$ 5,400.00
L-125b	Remove and Reinstall Existing Signs on New Bases	EA	5	\$ 800.00	\$ 4,000.00
L-125c	Runway Edge Light	EA	54	\$ 800.00	\$ 43,200.00
L-150a	PAPI Installation	EA	2	\$ 30,000.00	\$ 60,000.00
L-150b	REIL Installation	EA	2	\$ 15,000.00	\$ 30,000.00
L-931a	Lightning Arrestor	EA	4	\$ 500.00	\$ 2,000.00
T-901	Seeding	AC	4	\$ 1,500.00	\$ 6,000.00
					\$ -
	Flight Check - Commission PAPI's	LS	1	\$ 18,000.00	\$ 18,000.00
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SUBTOTAL					\$ 1,592,050.00

Contingency (20%)	\$ 318,400.00
Estimated Engineering Services (20%)	\$ 318,400.00

TOTAL \$ 2,228,000.00



Engineer's Preliminary Estimate

Project	Taxilane	Project No.			
	Carbon County Regional Airport	Date	April 12, 2017		
Owner	Carbon County	Sheet	1	of	1
	Price, UT	Estimate by	RAH	-	

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	ENGIN	EER'S ESTIMATE
				UNIT PRICE	TOTAL
GP-105	Mobilization	LS	1	\$ 37,100.00	\$ 37,100.00
P-101a	Asphalt Saw Cutting	LF	100	\$ 3.00	\$ 300.00
P-151a	Clearing and Grubbing	AC	1.2	\$ 2,400.00	\$ 2,880.00
P-152a	Unclassified Excavation	CY	2,800	\$ 10.00	\$ 28,000.00
P-152b	Subgrade Preparation	SY	5,500	\$ 4.00	\$ 22,000.00
P-154a	Subbase Course	CY	1,150	\$ 60.00	\$ 69,000.00
P-209a	Crushed Aggregate Base Course	CY	650	\$ 65.00	\$ 42,250.00
P-310a	Geotextile Fabric, Class 3 Non-Woven	SY	4,200	\$ 1.50	\$ 6,300.00
P-401a	Bituminous Surface Course	Ton	900	\$ 120.00	\$ 108,000.00
P-602a	Bituminous Prime Coat	Ton	4	\$ 1,500.00	\$ 6,000.00
P-603a	Bituminous Tack Coat	Ton	2	\$ 1,500.00	\$ 3,000.00
P-620a	Runway and Taxiway Painting	SF	650	\$ 4.00	\$ 2,600.00
P-926a	Unstabilizeed Permeable Subbase Course	CY	500	\$ 75.00	\$ 37,500.00
D-701a	12 Inch RCP Storm Drain Pipe	LF	80	\$ 65.00	\$ 5,200.00
D-705a	Subsurface Drainage Collection System	LF	800	\$ 40.00	\$ 32,000.00
D-751a	In-Line Cleanout	EA	4	\$ 1,500.00	\$ 6,000.00
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				SUBTOTAL	\$ 408,130.00

Contingency (20%)	\$ 81,600.00
Estimated Engineering Services (25%)	\$ 102,000.00

TOTAL \$ 591,000.00
Carbon County Regional Airport Master Plan



35 South 400 West, Suite 200, St. George, UT 84770 Main 435.673.4677 JVIATION.COM

Engineer's Preliminary Estimate

Project	Apron Expansion (150' X 60") Carbon County Regional Airport	Project No. Date	April 12, 2017		
Owner	Carbon County Price, UT	Sheet Estimate by	1 RAH	of	1
ſ					1
				ENGIN	EER'S ESTIMATE

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY		
				UNIT PRICE	TOTAL
GP-105	Mobilization	LS	1	\$ 9,600.00	\$ 9,600.00
P-101a	Asphalt Saw Cutting	LF	150	\$ 2.00	\$ 300.00
P-151a	Clearing and Grubbing	AC	0.5	\$ 2,400.00	\$ 1,200.00
P-152a	Unclassified Excavation	CY	800	\$ 10.00	\$ 8,000.00
P-152b	Subgrade Preparation	SY	1,700	\$ 4.00	\$ 6,800.00
P-154a	Subbase Course	CY	320	\$ 60.00	\$ 19,200.00
P-209a	Crushed Aggregate Base Course	CY	180	\$ 65.00	\$ 11,700.00
P-310a	Geotextile Fabric, Class 3 Non-Woven	SY	1,100	\$ 4.00	\$ 4,400.00
P-401a	Bituminous Surface Course	Ton	260	\$ 120.00	\$ 31,200.00
P-602a	Bituminous Prime Coat	Ton	1.1	\$ 1,500.00	\$ 1,650.00
P-603a	Bituminous Tack Coat	Ton	0.5	\$ 1,500.00	\$ 750.00
P-620a	Runway and Taxiway Painting	SF	150	\$ 5.00	\$ 750.00
P-926a	Unstabilized Permeable Subbase Course	CY	130	\$ 75.00	\$ 9,750.00
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 Contingency (20%)
 \$
 21,000.00

 Estimated Engineering Services (25%)
 \$
 26,300.00

TOTAL \$ 152,000.00

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