



CHAPTER 8 – AIRPORT LAYOUT PLAN (ALP) DRAWING SET

8.1 Introduction / Background

FAA Advisory Circular 150/5070-6B, *Airport Master Plans*, notes that:

“United States Code (USC) 47107(a) requires, in part, a current Airport Layout Plan (ALP) approved by both the sponsor and FAA prior to the approval of an airport development project. USC 47107(a)(16) requires that the airport sponsor maintain an ALP that ensures the safety, utility and efficiency of the airport. Grant assurance number 29 requires that the sponsor keep the ALP up to date at all times. As stated in Order 5100.38, an ALP remains current for a five-year period, or longer, unless major changes at the airport are made or planned.”

FAA’s AC also notes: The five primary functions of the ALP that define its purpose are:

- 1) An ALP creates a blueprint for airport development by depicting proposed facility improvements.
- 2) The ALP is 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.
- 3) The approved ALP enables 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 will also allow the FAA to protect the airspace required for facility or approach procedure improvements.
- 4) The ALP can be a working tool for the airport sponsor, including its development and maintenance staff.
- 5) An approved ALP is necessary for the airport to receive financial assistance under the terms of the Airport and Airway Improvement Act of 1982, as amended, and to be able to impose and use Passenger Facility Charges. An airport must keep its ALP current and follow that plan.

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

FAA has also adopted Standard Operating Procedure (SOP) 2.00, *Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs)*, 10/1/2013. “This SOP establishes uniform procedures for reviewing and approving Airport Layout Plans (ALPs). ALPs are drawings used to graphically depict current and future airport facilities. Standards for ALPs can be found in Advisory Circular 150/5070-6B, Airport Master Plans.”

The Gunnison Crested Butte Regional Airport Master Plan ALP drawing set consists of the drawings listed below. The drawings were prepared in AutoCAD, based on mapping compiled by Woolpert, Inc., in the fall of 2014. Woolpert also prepared the Airports GIS (AGIS) mapping for GUC, to FAA standards per FAA AC 150/5300-16, -17, and -18. The AGIS files were uploaded onto FAA’s AGIS web site, reviewed, and accepted by the National Geodetic Survey (NGS) and the FAA.

Gunnison Crested Butte Regional Airport Layout Plan (ALP) Drawing Set:

1. Cover Sheet

The cover sheet (Sheet 01 of 18) contains basic required information about the location of the airport along with an aerial overview of the airport’s setting. The index of drawings for the entire 18-sheet drawing set orients the reviewer with the location and order of each sheet.

2. Airport Data Sheet

For larger and more complicated airports, the required information shown on the ALP drawing may be provided on multiple sheets in order to enhance clarity and maintain a readable scale. For the GUC ALP set, tabulated data and wind roses have been included on a separate sheet (Airport Data - Sheet 02 of 18). These tables provide detail regarding the size, type, dimensions, and other design criteria applicable to the design standards GUC is planning to establish and maintain.

3. Airport Layout Plan

The Airport Layout Plan - Future (Sheet 03 of 18) graphically represents the existing and future airport facilities required to enable the Airport to accommodate future demand. It provides detailed information pertinent to airport and runway design criteria, which is necessary to define relationships with applicable standards.

4. Terminal Area (West) Plan

The Terminal Area Plan is an enlargement of the existing terminal area and proposed improvements that are shown on the ALP drawing. This drawing shows the proposed Terminal Development Program, including the terminal building, parking lot, and road access.

5. Terminal Area (East) Plan

This Terminal Area Plan shows the existing general aviation facilities, and the proposed GA development to the west of Runway 6-24, including expansion of the GA parking apron.

6. Terminal Area (South) Plan

This Terminal Area Plan shows the proposed GA T-hangar development to the south of Runway 6-24, adjacent to Runway 17-35.

7. Airport Airspace Drawing

The Airport Airspace Drawing is based upon CFR 14 Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace. The criteria contained in CFR 14 Part 77 have been established to provide guidance in controlling the height of objects within airport vicinities, and to protect an airport's airspace and approaches from hazards potentially affecting safe and efficient aircraft operations. CFR 14 Part 77 specifies dimensions of imaginary surfaces so that when an object penetrates a surface it may be identified as an obstruction to the airspace.

The Part 77 Airspace drawings (Sheets 7, 8, 9 of 19), provide plan and profile views that depict the imaginary surfaces and penetrations specific to DRO. This is an extremely important aspect of planning to ensure that the airspace remains unobstructed and efficiently utilized. As such, every object is identified and evaluated to determine whether it is a hazard to navigation. The volume of data collected at GUC requires this to be depicted on four sheets of the ALP set, as well as two sheets containing the obstacle data tables (Sheets 10, 11).

8. Airport Airspace Profile – Runway 6-24

See description above, Drawing No. 7

9. Airport Airspace Profile – Runway 17-35

See description above, Drawing No. 7

10. Airport Airspace Obstacle Table A

See description above, Drawing No. 7

11. Airport Airspace Obstacle Table B

See description above, Drawing No. 7

12. Inner Approach Surface Drawing – Runway 6

The Inner Portion of the Approach Surface Drawings (Sheets 12, 13, 14 and 15 of 19) provide a detailed view of the inner areas of the runway protection zone (RPZ) surfaces and CFR 14 Part 77 approach surfaces. The RPZ is an area off each runway end designed to enhance the protection of people and property on the ground. The RPZ begins 200 feet off the end of the runway, and extends along the runway centerline in a trapezoidal shape. Size of the RPZ is a function of the design aircraft, and visibility minimums of the runway's instrument approach capabilities.

The Inner Portion of the Approach Surface Drawings is based upon future planned approaches to each runway end and illustrates large-scale plan and profiles. The drawings identify roadways, railroads, structures, power lines, and other potential obstructions that may lie within the confines of each runway end's inner approach surface area. Sheets 13 and 14 depict the Inner Portion of the Approach Surface drawings.

13. Inner Approach Surface Drawing – Runway 24

See description above, Drawing No. 12

14. Inner Approach Surface Drawing – Runway 17

See description above, Drawing No. 12

15. Inner Approach Surface Drawing – Runway 35

See description above, Drawing No. 12

16. Runway Departure Surface Drawing – Runway 6

Departure Surface Drawings (Sheets 16 and 17 of 19) graphically depict applicable runway departure surfaces as defined in Table 3-2, Approach/Departure Standards Table in FAA AC 150/5300-13A, *Airport Design*. The departure surfaces are shown for each runway end that is primarily designated for instrument departures. Departure runway ends supporting air carrier operations show one-engine inoperative (OEI) obstacle identification surface (OIS) and vertically guided protection surfaces.

17. Runway Departure Surface Drawing – Runway 24

See description above, Drawing No. 16

18. Land Use Plan

The Land Use Plan (Sheet 18 of 19) graphically depicts the land uses on and adjacent to GUC. This is a primary planning document used to identify property

and land uses that may or may not be compatible with the sustained long term operation of GUC. It includes land within the future 65 day/night average sound level (DNL) noise contour, developed using FAA's AEDT model, a standard metric for identifying average noise levels, above which would not be compatible with noise sensitive uses.

The Land Use Plan provides guidance to local authorities to establish appropriate land use controls and/or zoning within the vicinity of GUC, as well as a plan for future uses of revenue-producing areas contained on airport property. The 65 DNL noise contour does not extend off of airport property.

However, some existing and future land uses adjacent to GUC may be relatively noise sensitive, and as a result it is recommended that both the County and City of Gunnison limit noise sensitive development adjacent to the airport, including residential and institutional land uses.

19. Exhibit A Property Map

The Exhibit A Airport Property Map (Sheet 19 of 19) illustrates the individual parcels that comprise the airport property, including the history of various tracts of land within airport boundaries. The Exhibit A drawing was prepared in conformance with FAA d Operating Procedure (SOP) 3.00, FAA Review of Exhibit 'A' Airport Property Inventory Maps, dated October 1, 2013. Specific required information is provided on Sheet 19 for analyzing both current and future aeronautical uses of land that have been acquired through federal funding.

The purpose of the Exhibit A is to certify to FAA that existing and future development has been or will be situated on land owned by the airport sponsor, and that the sponsor (Gunnison County) meets the requirements for being designated as the sponsor of the airport in relation to FAA grants and the Grant Assurances.

The Exhibit A graphically identifies individual parcels that have been acquired or transferred separately over time, and provides information useful for identifying the boundaries. The attached table provides detail about former ownership, current ownership, date of title transfer, recording data, purpose of the parcel, and information about which FAA grant(s) may have been used to acquire parcels.