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TASK ORDER Q  
ATTACHMENT TO  
PROFESSIONAL SERVICES AGREEMENT  
BETWEEN SPONSOR AND ENGINEER,  
DATED \_\_\_\_\_, 2022

FURTHER DESCRIPTION OF SERVICES OF ENGINEER

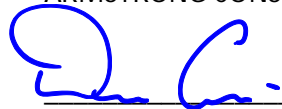
1. This Attachment is made a part of and incorporated by reference into the Professional Services Agreement made on December 17, 2019, between GRAND COUNTY, UTAH (Sponsor) and ARMSTRONG CONSULTANTS, INC., (Engineer) providing for professional engineering services. The Services of Engineer as described in Section 1 of the Agreement are amended or supplemented as indicated below and the time periods for the performance of certain services are stipulated as indicated below.
2. **WORK PROGRAM** - Attached
3. **FEES** - The fee will be as noted below. (Lump sum)

**Airport Layout Plan Update with Narrative Report: \$316,348**

SPONSOR:  
GRAND COUNTY, UTAH

\_\_\_\_\_  
Jacques Hadler, Commission Chair

ENGINEER:  
ARMSTRONG CONSULTANTS, INC.



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Dennis Corsi, President

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**CANYONLANDS REGIONAL AIRPORT  
MOAB, UTAH  
AIRPORT LAYOUT PLAN UPDATE WITH NARRATIVE REPORT  
FINAL SCOPE OF WORK**

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The Canyonlands Regional Airport desires to complete an Airport Layout Plan Update with Narrative Report to address key issues, objectives and goals pertinent to the airport's development. The following Scope of Work describes the effort required to successfully complete the Airport Layout Plan Update with Narrative Report, addressing the needs of the community and providing a program for realistic development. The scope includes updating the Airport Layout Plan drawing, a narrative, preparation of a 10-year Capital Improvement Plan (CIP) with recommended project years and a 20-year overall recommended development plan. The last Airport Master Plan for the airport was completed in 2015 and since that time the airport has undertaken significant development improvements including and upgrade in airport reference code and the introduction of regional jet airline service.

## **ELEMENT I - PROJECT INITIATION, COORDINATION, AND CONTROL**

### ***Task 1.0 - Coordination and Control***

Description: Completion of the Airport Layout Plan Update with Narrative Report will require contact with and input from the airport, community, airport users (pilots, passengers, tenants, etc.), the FAA, the Utah State Aeronautics Division and others.

Armstrong Consultants will retain responsibility for the technical aspects of the Airport Layout Plan Update with Narrative Report and will assure the coordination with and exchange of information between the Airport Sponsor, the Utah State Aeronautics Division, and the FAA in order that the overall project is completed in a timely and quality manner. Armstrong will provide regular progress reports to the airport sponsor, FAA and State these reports will be submitted at a minimum of quarterly. Armstrong will also provide a closeout report to the FAA upon conclusion of the project.

Ongoing coordination discussions will be held among Consultant team, the airport management, FAA and the state for purposes of project quality control, coordination and strategy.

Product: Airport Layout Plan Update with Narrative Report

### ***Task 1.1 Establish Airport Technical Advisory Committee***

Description: A Technical Advisory Committee (TAC), to consist of approximately five to ten (5-10) members, will be established, the composition of which will be evaluated and determined, as will the structure of the meetings, along with their location and coordination with other activities in the area. Members to serve on the TAC will be determined by Airport Management and sponsor staff. Typical membership consists of interested stakeholders and may include members with technical expertise and community interests such as representative(s) from: airport staff, airport advisory board, sponsor staff (such as public works, planning, zoning, or engineering department representatives), airport users, economic development agencies (i.e. chamber of commerce, local businesses, tourism board), local citizens, UDOT, FAA regional, state and federal agencies.

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The TAC will be organized as a resource entity throughout the course of the study. Additionally, the role of the TAC will involve working with the consultant team during the course of the study, providing input on the various elements and recommendations in the study through meeting and review of draft working papers, reports, and drawings. The TAC will serve in an advisory in capacity and decision-making authority lies with the airport management.

Product: An established TAC to provide input and review throughout the planning process.

## **ELEMENT 2 - INVENTORY EXISTING CONDITIONS**

The purpose of this element is to prepare, assemble, and organize basic information, data, and mapping to be used throughout the study. This element will maximize the use of existing information and only existing information will be assembled. Comprehensive plans, studies, regulations, ordinances, and policies from involved communities, and state agencies will be used to assure that recommendations of the study will be consistent with the current and long-range objectives, goals, and needs of the various governmental levels and jurisdictions. The collection of information and documents will serve as a data base for source material to be used throughout the project.

### ***Task 2.0 TAC Meeting No. 1***

Description: A kickoff meeting with the consultant team, airport management, sponsor staff and appropriate officials, TAC Members and other official and interested parties, all of which in effect compose the planning team for the development of the updated plan, will be held at the very beginning of the project. The purpose of such a meeting will be to develop team relationships, establish early direction for the study effort, and ensure a thorough understanding of the master planning process, its benefits, and use of the plan in the decision-making process.

Product: An introductory meeting to establish team relationships and initial direction for the airport planning effort.

### ***Task 2.1 - Evaluate Existing Documents***

Description: This task will evaluate existing documents and previous planning efforts. This will involve a review of airport records pertaining to historical traffic activity, construction programs, lease operations, etc.

Product: Revisions and summaries of previous documents for input to future tasks.

### ***Task 2.2 - Airport Physical Facilities***

Description: The physical facilities inventory of Canyonlands Regional Airport will include an examination of plans and documents, as well as a thorough on-site inspection of each physical facility to determine its type, size, condition, adequacy and use. An inventory of as-built conditions will be made to be incorporated into the Airport Layout Plan.

- Airfield: Runway and taxiway configuration to include pavement design/construction/maintenance history and condition; lighting; and

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navigational aids, specifically with the goal of determining, by visual inspection, areas requiring further study and/or testing.

- FBO/GA Services: Fixed base operators and general aviation services will be inventoried. Structural use and hangar utilization will be identified.
- Terminal Area: Provide an overview of both airside and landside components of the current terminal facility. This includes identifying limiting factors associated with the facility. On the landside portion, parking facilities and access roads will be inventoried.
- Airport Property: The airport property information will be obtained based on deeds, legal descriptions, and plat maps provided by the airport sponsor.
- Fuel Facilities: Storage and dispensing facilities will be inventoried to determine existing capacities and adequacy of storage tanks and dispensing equipment including refueling vehicles.
- Utilities: Existing utilities will be identified based on information provided by the airport sponsor.

Product: Tabulated airport facilities inventory for use in the Airport Layout drawing.

### ***Task 2.3 - Inventory of Nonstandard Conditions***

Description: This task will include the inventorying of conditions on the airport and surrounding environs which result in a listing of conditions which are non standard with respect to FAA Advisory Circular 150/5300-13A, Change 1, Airport Design.

Product: Input for later tasks.

### ***Task 2.4 Obtain Historic and Existing Operational, Based Aircraft and Enplanement Data***

Description: Available historic and existing air traffic data for the airport will be collected and reviewed including:

- a. Historic aviation activity, including fuel sales
- b. Based aircraft
- c. Enplanements
- d. Traffic counts
- e. Operations by aircraft type and volume
- f. Fleet mix
- g. Critical aircraft and Runway Design Codes (RDC) will be identified.

The FAA requires the use of validated based aircraft counts from its National Based Aircraft Database. The Consultant will work with the sponsor to update the database and resolve any discrepancies.

Product: Input for later tasks.

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## **ELEMENT 3 - FORECASTS OF AVIATION DEMAND**

Description: The forecast of aviation demand will provide the basis for the facility requirements, recommendations for airport development, and future business decisions. The forecast will be provided for the short (5-year), intermediate (10-year), and long (20-year) periods. The base year for the forecast will use 2021 enplanement numbers. The forecast will take into account enplanement numbers before COVID-19 and will consider what impact has occurred and how the airport is recovering.

### ***Task 3.0 Evaluate Factors Influencing Aviation Demand***

Description: Review local, regional and national trends influencing and affecting aviation demand at the airport. Economic characteristics, demographic characteristics and geographic attributes of the service area will be considered along with aviation-related factors, such as fleet trends and other factors such as the role of the airport within the community will be considered and factored into the forecasts.

Product: Information to be used in forecast development.

### ***Task 3.1 Operational and Fleet Forecasts for the Twenty-Year Planning Period***

Description: Review previous forecasts including FAA National Plan of Integrated Airport Systems (NPIAS), TAF, State Aviation Systems Plans (SASP), and previous Airport Master Plans (AMP), and apply selected methodologies to develop short, medium and long-term aviation forecasts for passenger enplanements, total annual operations, and based aircraft.

Methodologies for developing forecasts may include:

- a. Comparative analysis of the previous and existing forecasts listed above.
- b. Trend analysis of historical activity levels projected forward.
- c. Market share analysis using a top-down relationship between national, regional, state and local activity levels. Historical market shares will be calculated and used as a basis for projecting future market shares.
- d. Per Capita Analysis correlating future growth to future population growth
- e. Cohort analysis or a combination of the other forecasting analysis

Forecasts will be presented in Excel spreadsheet format as in Appendix B and C templates in "Forecasting Aviation Activity by Airport, and shall include:

- a. Passenger enplanements
- b. Annual aircraft operations
- c. Based aircraft
- d. Aircraft fleet mix, critical aircraft and Runway Design Code (RDC)
- e. Peaking characteristics

Product: Forecasts of aviation activity projected for the twenty-year planning range.

### ***Task 3.2 Forecasts Coordination and Approval***

Description: Forecasts will be submitted to FAA and UDOT for review and approval. The general

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requirement for FAA approval of the master plan study's forecasts is that they are supported by an acceptable forecasting analysis and are consistent with the TAF. Forecast results shall be compared with the most recent TAF using FAA's template contained in FAA guidance, *Forecasting Aviation Activity by Airport*.

Product: Forecasts will be submitted for FAA approval prior to completing the next Element.

## **ELEMENT 4 - FACILITY REQUIREMENTS**

The objective of this element is to determine existing and future facility requirements. Element 4 will include consideration of runways, taxiways, instrumentation, lighting and marking, approach and protection zones, and those areas of development required for landside facilities. This Element will also provide a development plan which is divided into two phases. Phase I is the short-term (0-5 years), Phase II is the intermediate-term (6-10 years), Phase III is the long-term (11-20 years).

### ***Task 4.0 Demand/Capacity Analysis***

Description: This analysis will involve a comparison of the forecasts prepared in Element 3 to both airside and landside capacity. Airside capacity will include an analysis of existing and future airfield layouts, area meteorology, instrumentation, and aircraft operational demand on Annual Service Volume (ASV) and peak hour demand. Methodologies outlined in FAA Advisory Circular 150/5060-5 *Airport Capacity and Delay* will be used.

Product: An analysis of existing and forecasted aircraft operations to both landside and airside capacity.

### ***Task 4.1 Airside Requirements***

Description: Based on the forecasts prepared in Element 3, the demand/capacity analysis, and other applicable data, an analysis of airside facility needs will be made.

#### ***4.1.1 Runways***

Including length, width, dimensional criteria, safety critical areas and approach and transitional surfaces, orientation, crosswind or secondary runway needs, pavement type, condition and strength; based on ARC/RDC and critical aircraft.

#### ***4.1.2 Taxiways***

The taxiway system will be analyzed for geometry, pavement type, condition, strength, capacity, and safety enhancements, including FAA recommendations for locations of intersections.

#### ***4.1.3 Aircraft Parking Aprons***

The sizing needs for general aviation and commercial service aprons will be determined based on forecasted activity levels and fleet mix, as well as the need for special amenities such as hard stands or deicing pads.

#### ***4.1.4 Navigation Aids***

Evaluate existing electronic and visual aids to navigation including VOR, REILs, PAPIs, AWOS etc. and determine if any new or replacement equipment is needed.

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#### **4.1.5 Airspace Requirements**

Airspace requirements will be determined. This will include required setbacks for future airport related development based on future recommended instrument approach procedures.

#### **4.1.6 Non-Standard Conditions and Modifications to Design Standards**

Needs for correcting existing non-standard conditions or modifications to design standards will be identified.

Product: Detailed description of the airside facilities required to meet aviation demand throughout the twenty-year planning period. Provide a recommended development plan for the future.

### **Task 4.2 Landside Requirements**

Description: Landside facility requirements will be based on the demand/capacity analysis and the evaluation of existing conditions to provide an appropriate airside/landside balance compatible with identified airfield requirements.

#### **4.2.1 Passenger Terminal Building**

The functional areas of the passenger building will be evaluated to determine if they adequately accommodate the demand of existing airline service and future air carrier operations determined by the Aviation Forecasts. Recommendations for the passenger terminal building will be identified including the potential relocation of the terminal building over the planning period.

#### **4.2.2 Aircraft Storage Requirements**

The type and quantity of hangars, sunshades or other facilities required to accommodate existing and future demand will be identified.

#### **4.2.3 Snow Removal Equipment (SRE) and Storage Building**

Current and future SRE vehicle, storage building and facility needs will be determined in accordance with the guidance provided in accordance with FAA AC 150/5220-20 *Airport Snow and Ice Control Equipment*, AC 150/5220-18A *Buildings for Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials*.

#### **4.2.4 Fuel Storage and Dispensing**

Discussions with airport management and fuel suppliers, and review of fuel sales data, will be conducted to determine if fuel storage is adequate. Evaluate the existing fuel system and determine if additional fuel facilities, including bulk storage, self-serve, or mobile refuelers are need during the planning period.

#### **4.2.5 Utilities**

The requirements for water, sewer, gas, telephone, and WiFi will be evaluated to determine needs for expansion and extension into future landside development areas.

#### **4.2.6 Vehicle Parking and Rental Car Facilities**

Future tenant, employee, passenger, rental car parking/wash bay and visitor parking requirements will be identified.

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#### **4.2.7 Access and Airport Circulation**

Future vehicle circulation, access road needs, and courtesy car/taxi/transportation network company availability will be evaluated for general aviation, commercial businesses and tenants.

#### **4.2.8 Airport Security/Public Safety and Emergency Response**

Future airport fencing and security will be evaluated to ensure adequate airport security and to keep the general public out of aircraft operation areas. The existing emergency response and potential need for Aircraft Rescue and Firefighting (ARFF) will be identified and recommendations for the future will be provided.

#### **4.2.9 Non-Aeronautical Revenue Generation**

Future parcels which would not serve an aeronautical purpose to the airport will be identified along with recommendations for potential use.

Product: Detailed description of landside facilities required to meet aviation demands at the airport through the twenty-year planning period. Provide a recommended development plan for the future.

### **ELEMENT 5 - DEVELOPMENT ALTERNATIVES**

Alternative development concepts will be derived for meeting FAA safety and design standards and for meeting the facility requirements for both airside and landside facilities. Reasonable and feasible alternatives to implement will be considered for further evaluation. Alternatives considered, but later rejected will be discussed.

#### **Task 5.0 Airside Development Alternatives**

Description: The airside facility requirements developed in the previous Tasks will be translated into a series of alternative plans for comparative evaluation in relation to established planning criteria. The alternatives will address available options including development of new facilities, expansion of existing facilities, or abandonment of excess or deteriorated facilities. The alternatives with the greatest potential for meeting airside demands will be evaluated to establish costs, environmental impacts, and operational considerations.

An evaluation of the impacts associated with the alternative airside development options will be addressed. This will include consideration of:

- Operational Performance: Including capacity, capability and efficiency.
- Best Planning Tenets and Other Factors: Including safety & security, conformance with design standards, flexibility, alignment with sponsor's strategic vision and social and political feasibility.
- Environmental Factors: Utilizing the information gathered in Element 4, consider potential environmental impacts, including land acquisition, associated with each alternative.
- Fiscal Factors: Including estimated development costs determined by applying estimated unit prices to estimated construction unit quantities taken from existing base mapping.

Product: Evaluation of "no action" alternative and up to three development alternatives for meeting airside facility requirements for the twenty-year planning period.



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**Task 5.1 Landside/Terminal Area Development Alternatives**

Description: The landside/terminal airside facility requirements developed in the previous Tasks will be translated into a series of alternative plans for comparative evaluation in relation to established planning criteria. The alternatives will address available options including development of new facilities, expansion of existing facilities, or abandonment of excess or deteriorated facilities including general aviation, air cargo and other related facilities. The existing on-airport land uses will be evaluated to determine recommended configuration for the future which may include the relocation of existing facilities. The alternatives with the greatest potential for meeting airside demands will be evaluated to establish costs, environmental impacts, and operational considerations.

An evaluation of the impacts associated with the alternative airside development options will be addressed. This will include consideration of:

- Operational Performance: Including capacity, capability and efficiency
- Best Planning Tenets and Other Factors: Including safety & security, conformance with design standards, flexibility, alignment with sponsor’s strategic vision and social and political feasibility
- Environmental Factors: Including potential significant environmental impacts and land acquisition, if any.
- Fiscal Factors: Including estimated development costs determined by applying estimated unit prices to estimated construction unit quantities taken from existing base mapping.

Product: Evaluation of “no action” alternative and up to three development alternatives for meeting the landside/terminal area requirements identified in previous Tasks.

**Task 5.2 Conduct TAC Meeting No. 2**

Description: A TAC meeting will be held to present and discuss the development alternatives and to receive input for the preferred development alternative(s) and recommended development plan.

Product: TAC Meeting. Input for preferred alternative.

**Task 5.3 Public Information Meeting No. 1**

Description: A public information meeting will be held to present and discuss the development alternatives, provide information on the first phase of this study, and to receive public input for the preferred alternative(s) and recommended development plan. If so desired by the Sponsor, the first portion of the meeting may be held open-house style.

Product: Documented Public Information Meeting. Input for preferred alternative.

**Task 5.4 Selection of Preferred Alternative**

Description: The results of the previous Tasks, along with input from the working group, FAA and State will be provided to the Sponsor for the selection of the preferred alternative and development plan. The selected alternative will be carried forward and form the basis of the Airport Layout, Financial and Implementation Plans including the Airport Capital Improvement Plan (CIP).

Product: Selection of the preferred alternative to be used in the remaining Master Plan Tasks.

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## **ELEMENT 6 – FINANCIAL PLAN**

### ***Task 6.0 Prepare Cost Estimates***

Description: Cost estimates of planned projects, based on current dollars, will be prepared for the first five-year period; a more generalized cost breakdown will be prepared for the ten-year period; and a facility breakdown with costs prepared for the twenty-year period. These facility requirements include potentially such items as the runways, taxiways, aprons, hangars, access roads, perimeter roads, safety areas, lighting and signing, fencing, buildings and hangars, auto parking, airport maintenance, fuel facilities, among others as appropriate. Facility costs will be prepared using unit prices extended by the size of the particular facility tempered with some specific considerations. Cost estimates are intended to be used for planning purposes only and are not to be construed as engineering construction estimates.

Product: Conceptual project cost estimates will provide sufficient detail to allow project time schedules to be established and programmed into the appropriate Capital Improvement Plan funding programs.

### ***Task 6.1 Capital Improvement Program Coordination with FAA/State and Sponsor***

Description: Prepare and coordinate the capital improvement plan (CIP) with the FAA and state for funding availability.

Product: Development of a recommended CIP for the selected development plan concepts for the planning period.

### ***Task 6.2 Airport Funding Sources***

Description: Project funding sources, including FAA and State grant programs, will be evaluated to assist in identifying the appropriate funding sources available for future capital improvement projects listed on the recommended CIP.

Product: Identifying funding sources.

## **ELEMENT 7 - AIRPORT LAYOUT PLANS**

This study element will produce a current Airport Layout Plan (ALP) Drawing set that depicts existing and the recommended airport development, in accordance with FAA standards, including AC 150/5070.6B, *Airport Master Plans*; FAA Airports Standard Operating Procedures (SOP), Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs) (ARP SOP 2.00); FAA Standard Operating Procedure (SOP) for FAA Review of Exhibit 'A' Airport Property Inventory Maps (ARP SOP 3.00); and AC 150/5300-13A, Change 1, *Airport Design*. Sources of information for these drawings will include previous ALP and master planning documentation, new planimetrics and topographic data collected, surveyed, and developed as part of the AGIS component of the recent runway construction project will be used for Part 77 analysis and development of the ALP, in accordance with required tasks for an Airport Layout Plan (ALP) contained in FAA Advisory Circular 150/5300-18B, Table 2-1, Survey Requirements Matrix, obstruction charts, USGS mapping, legal descriptions, existing property surveys, local and regional government mapping, FAA databases, and any other secondary sources readily available to the

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Sponsor/Consultant. Computer aided drafting will be used to generate the new drawing set.

FAA approval of the ALP Drawing set is required.

Product: Airport Layout Plan drawing set for FAA airspace review and approval. The drawing set shall include, at minimum:

- Cover Sheet
- Airport Layout Plan
- Data Sheet
- Terminal Area Plan
- Airport Airspace Drawing
- Inner Portion of the Approach Surface Drawing
- Runway Departure Surfaces Drawing
- On-Airport Land Use Drawing
- Off-Airport Land Use Drawing
- Exhibit A, Airport Property Map

### ***Task 7.0 Cover Sheet***

Description: An ALP drawing set Cover Sheet will be prepared which shall include the name and location of the airport and sponsor, location and vicinity maps, numbered list of drawing sheets contained within the set and the date of the set.

Product: ALP drawing set Cover Sheet drawing.

### ***Task 7.1 Airport Layout Plan (ALP)***

Description: In accordance with ARP SOP 2.00, the Airport Layout Plan will be prepared to reflect existing and future physical features and development, wind data, location of airfield facilities (runway, taxiways, NAVAIDs) and terminal/building area development. In addition, critical areas for all NAVAIDs will be shown, as well as a table describing non-standard conditions and modifications to standards and the disposition of each condition or modification. The ALP will only show future conditions through the twenty-year planning range. Anything beyond the twenty-year planning range will have to be shown on a separate ultimate ALP that the FAA will not approve. The FAA's approval of the ALP is limited to the twenty-year planning range, unless otherwise authorized by FAA.

Product: ALP drawing for the Airport that meets FAA requirements and guidelines. A separate data sheet containing required airport and runway data tables and wind roses will follow the ALP sheet. All comments and conditions resulting from FAA's airspace review will be addressed to FAA's satisfaction.

### ***Task 7.2 Terminal/Building Area Layout Plan***

Description: Specific terminal/building area plans will be developed which reflect recommended development of future aviation needs, as identified in this study. Existing and future building heights will be provided in a table. Access and parking facilities for the airport will also be included in this drawing.

Product: Terminal/Building Area Layout Plan reflecting development of building areas at the airport,

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surface access, security fencing and other airport facilities.

### ***Task 7.3 Airport Airspace Drawing***

Description: This drawing will depict obstacle identification surfaces for the ultimate airport development configuration. It will also depict airspace obstructions for the portions of the surfaces excluded from the Inner Portions of the Approach Surface Drawing.

Per criteria outlined in ARP SOP 2.00, a topographic drawing will be prepared depicting a plan view of the ultimate airport 14 CFR Part 77 (Part 77) surfaces and a small-scale profile view of the Part 77 approach surfaces. Natural and manmade obstructions to the airspace surrounding the Airport will be identified. The data obtained in the aeronautical survey completed during the runway design project will be used as a basis for developing the drawing. Airspace case studies for proposed structures in the vicinity of the airport will be reviewed for potential new objects and/or obstructions within Part 77 Airspace. This task will result in a depiction of the Part 77 Airspace surfaces and known obstructions from best available data and is not intended to produce a new or updated obstruction survey or Obstruction Chart.

Product: Airport airspace drawing.

### ***Task 7.4 Inner Portion of the Approach Surfaces and Runway Protection Zone Drawings***

Description: Drawings containing the plan and profile view of the inner portion of the approach surface to the runway and a tabular listing of all surfaces penetrations. The drawing will depict the obstacle identification approach surfaces contained in 14 CFR Part 77. A large-scale plan and profile drawing will be prepared of the existing and ultimate inner portion of the 14 CFR Part 77 approach surfaces for each runway end. The plan and profile views for each runway end will be shown on the same sheet. The data obtained in the aeronautical survey completed during the runway design project will be used as the basis for developing the drawing. The drawing will include aerial photography as the base drawing and will depict the Runway Protection Zones and location, elevation, penetration, and disposition of obstructions exceeding Part 77 criteria. Included with these drawings will also be a runway centerline profile for the entire runway length.

Product: Inner Portion of the Approach Surfaces and Runway Protection Zone drawing.

### ***Task 7.5 Runway Departure Surfaces Drawing***

Description: A large-scale plan and profile drawing will be prepared of the existing and planned instrument runways. The data obtained in the aeronautical survey from the runway design project will be used as the basis for developing this drawing. The drawing will include aerial photography as the base drawing and will depict the runway end location, 40:1 Runway Departure Surfaces and location, elevation, penetration, and disposition of obstructions exceeding departure surface criteria.

Responsibilities:

Product: Departure surface drawings for existing and proposed instrument runway ends.

### ***Task 7.6 On-Airport Land Use Drawing***

Description: A land use plan for the area within the existing and future airport property boundary will be prepared depicting recommended areas for aeronautical use, general aviation development,

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revenue generation, airport support services, and other uses appropriate to the airport.

Product: On-Airport Land Use Drawing.

### ***Task 7.7 Off-Airport Land Use Drawing***

Description: The Consultant will prepare an existing off airport land use drawing depicting existing land uses and zoning provided by the sponsor. The off-airport land use drawing will show land uses and public facilities, such as schools, parks, and hospitals. The local zoning and land use controls will be noted on this drawing.

Product: Off-Airport Land Use Drawing.

### ***Task 7.8 Exhibit "A" Airport Property Map***

Description: The primary intent of the drawing is to identify and/or delineate all designated airport property owned or to be acquired by the airport owner. In accordance with FAA Standard Operating Procedure (SOP) for FAA Review of Exhibit 'A' Airport Property Inventory Maps (SOP 3.00), the drawing will inventory all of the parcels that currently make up the airport or are proposed for acquisition by the airport and a data table that provides for each parcel:

- Parcel numbers
- Grantor
- Type of interest acquired
- Acreage
- Type of conveyance instrument
- Liber/book and page of recording
- FAA grant number including year if acquired under a grant
- Surplus Property Transfer, Government Land Transfer
- Type of easement
- Date and Type of release/land use change approval
- Date of property disposal
- Public land references
- Any know encumbrances on the property
- Purpose of acquisition

This drawing will be prepared in accordance with FAA requirements and guidelines, using existing documents, maps, and land use plans furnished to Armstrong Consultants, Inc. or readily accessible through the County Assessor or Recorder Office. A survey will be conducted to validate the airport property line.

Product: Exhibit "A" Airport Property Map that meets FAA requirements and guidelines.

## **ELEMENT 8 - DOCUMENTATION**

### ***Task 8.0 – Draft Narrative Report***

Description: Report preparation will include writing, editing and typing the narrative report, determining the composition of the report with figures, charts, graphs and illustrations, and the

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printing and distribution of the report. A reduced sized (11"x17") draft Airport Layout Plan drawing will be included in the draft narrative report.

Product: A Draft Narrative Report for review and comment by the Sponsor, State, and FAA.

***Task 8.1 –Preliminary Draft Airport Layout Plan Drawing Set***

Description: A Preliminary Draft Airport Layout Plan drawing set and completed FAA ALP Checklist will be distributed to the Sponsor, State and FAA for initial review and comment.

Product: Preliminary Draft Airport Layout Plan Drawing Set.

***Task 8.2 –Draft Airport Layout Plan Drawing Set***

Description: Review comments from the Preliminary Draft Airport Layout Plan drawing set will be incorporated into the Draft Airport Layout Plan drawing which will be distributed back to the Sponsor and State for further review and ten (10) copies of the draft ALP will be sent to the FAA for Airspace Coordination.

Product: Draft Airport Layout Plan Drawing Set.

***Task 8.3 - Final Airport Layout Plan Drawing Set***

Description: Review comments will be incorporated into the Final ALP drawing set and will be submitted to the Sponsor for signature and approval. The Final ALP will be signed electronically and the Consultant will be responsible for coordination of the electronic signatures. The sponsor signed drawings will be submitted to the FAA for final approval. Approved copies will be distributed by the FAA to the Sponsor State and Consultant.

Product: Final Airport Layout Plan Drawing Set.

***Task 8.4 - Final Narrative Report***

Description: Review comments and input from the Draft Narrative Report will be incorporated into the Final Narrative Report and submitted for approval and adoption by the Sponsor.

Product: Final Narrative Report.

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### **SUMMARY OF DELIVERABLES**

The deliverables, which will be prepared at various stages throughout this study are outlined below. Deliverables will be provided in MS Word format (.doc), Adobe Acrobat format (.pdf) or AutoCAD format (.dwg).

<b>DELIVERABLE</b>	<b>SPONSOR</b>	<b>FAA</b>	<b>STATE</b>
Draft Narrative Report	5	2	1
Revised Draft Narrative Report	5	2	1
Pre-Draft ALP Drawing Set with Completed ALP Checklist	5	1	1
Draft ALP Drawing Set (print) with Completed ALP Checklist	5	7	1
Draft ALP Drawing Set (electronic)	1	1	1
Final ALP Drawing Set (print) with Completed ALP Checklist	5	2	1
Final ALP Drawing Set (electronic)	1	1	1
Final Narrative Report	5	2	1