



## 1.0 STUDY INTRODUCTION AND GOALS

This Airport Master Plan (AMP) for Front Range Airport ("FTG" or the "Airport") has been conducted to provide Adams County (the "Airport Sponsor" or "Sponsor") with a long-range plan for reasonable and orderly airport development designed to produce a safe, efficient, economical, and environmentally acceptable air transportation facility that meets existing and projected aviation demand levels in a thoughtful manner. This Master Plan along with the accompanying Airport Layout Plan (ALP) have been prepared in compliance with the Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*. The previous Front Range Airport Master Plan was completed in 2004. This study was funded by the FAA, the Colorado Department of Transportation (CDOT) Division of Aeronautics, and Adams County. Technical work was conducted by a study team led by Jviation and supported by Woolpert, Inc.

The ultimate goal of the AMP is to provide a carefully considered, systematic approach to the Airport's overall maintenance, development, and operation over a 20-year planning period. At its core, this planning effort is designed to identify and then plan for current and future airport facility needs well in advance of the actual demand for those facilities. The AMP is also designed to review and assess the Airport's current conformance with federal and state airport design and operational standards to help ensure that the Airport continues to operate as safely as possible. It will also ensure that FTG can appropriately coordinate project approvals, design, financing, and construction, while avoiding the potentially detrimental effects caused by inadequate or noncompliant airport facilities.

### 1.1 Master Plan Purpose and Objectives

The overall purpose of the FTG AMP is to define the Airport Sponsor's strategy for the long-term development of the Airport. This AMP provides the framework to guide future airport development that will cost-effectively satisfy current and future aviation demand in a logical and financially-feasible manner, while also considering relevant environmental and community factors. Consistent with this purpose, the project team coordinated with the Airport to establish general objectives for the AMP, listed below.

- Become an economic engine for Adams County and surrounding areas, providing jobs, revenue, and viable aviation services for a growing market.

---

*The FAA requires that an airport undertake a master plan effort every five to ten years. Funding is provided by a combination of federal, state and local sources.*

---

---

*An Airport Master Plan documents an airport sponsor's short-, mid-, and long-term strategies for operation and development over a 20-year period.*

---

---

*An effective Airport Master Plan will reflect the goals and purposes of the airport sponsor and its associated stakeholders.*

---

- Serve as a model airport for aircraft operations, efficiency, and safety.
- Provide its tenants, users, business community, and travelers with a professional experience.
- Guide the development of the Airport with the goal of providing a safe, efficient, and effective facility as aviation demand, market conditions, and technologies evolve.
- Continue to comply with all appropriate federal regulations, obligations, and design standards.
- Present a recommended course of action for helping the Airport achieve and maintain short- and long-term financial self-sustainability.
- Be consistent with Adams County's goals for its public-use facilities.
- Consider and potentially integrate other County-related development initiatives, including Spaceport Colorado.
- Analyze the condition of existing facilities and their effectiveness serving current and future aviation needs, as well as conformance with federal airport design and operational standards.
- Provide a planning document for the next 20 years that is technically accurate, realistically executable, and financially feasible.
- Focus on environmental sustainability.
- Consider the current and projected security requirements for general aviation airports.
- Incorporate public involvement throughout the AMP process to ensure that the Airport's future aligns with the values and vision of the community.

It should be acknowledged that these specific airport goals are also consistent with the descriptions provided by the 2011 Colorado Aviation System Plan of an efficient and well-functioning airport system. In essence, that plan notes that for an airport system to operate effectively, its individual airports must exhibit similar characteristics. Specifically, an ideal airport system (and by extension the airports that comprise that system) should be characterized by the following traits:

- Provides sufficient capacity to meet current and future needs;
- Possesses the ability to respond to unforeseen changes in the aviation industry or in the local market area;
- Supports the local and state economy;
- Leverages historic investment and makes the most out of future investment and
- Operates in such a way as to address security and safety considerations, relative to perceived risks.

In addition to addressing these objectives, the AMP must also fulfill the broad master planning goals established by the FAA in AC 150/5070-6B, *Airport Master Plans*. These goals include the following:

- Document issues that the proposed development will address.
- Justify the proposed development through the technical, economic, and environmental investigation of concepts and alternatives.

- Provide an effective graphic presentation of the development of the Airport and anticipated land uses in the vicinity.
- Establish a realistic schedule for implementing the development proposed in the AMP, particularly the short-term capital improvement program.
- Propose an achievable financial plan to support the implementation schedule.
- Provide sufficient project definition and detail for subsequent environmental evaluations that may be required before the project is approved.
- Present a plan that satisfies local, state, and federal regulations.
- Document policies and future aeronautical demand to support municipal or local deliberations on spending, debt, land use controls, and other policies necessary to preserve the integrity of the Airport and its surroundings.
- Set the stage and establish the framework for a continuing planning process.

## 1.2 Overview of Airport Issue and Concerns

FTG's previous AMP was completed in 2004 by Washington Group International. Since that time, many of the Airport issues and focal points identified in that master planning effort have been addressed through the completion of specific projects and/or the updating of specific airport documents. Some issues may not have been addressed due to changing industry circumstances and/or master plan assumptions, or have still yet to be resolved.

The following issues and concerns have been identified for the 2016 AMP:

- **New Landside Development Areas:** The Airport must identify future potential development areas to meet demand for aviation-related businesses, hangars and other facilities such as airfield support storage and maintenance buildings. Similarly, FTG should identify areas on its property that could be made available for potential non-aviation related development to diversify the Airport's revenue streams and increase its economic benefit for the local area.
- **Regional Economic Development Initiatives:** Adams County is anticipated to realize significant population and economic growth as a result of several factors, including the Denver Aerotropolis/Airport City development initiative, the completion of the Regional Transportation District (RTD) University of Colorado "A" Line providing mass transit connections between downtown Denver and Denver International Airport, as well as Denver metro area development that continues to progress east. The potential impact of these factors on the Airport must be projected.
- **Pavement Strength:** FTG was explicitly designed as a General Aviation Reliever airport. The actual pavement design of the Airport's airfield infrastructure has strength ratings consistent with smaller general aviation aircraft. As corporate aircraft continue to increase in size and in frequency of operation at FTG, the pavement strength of this infrastructure must be reassessed.
- **Pavement Maintenance:** The Airport must establish a pavement maintenance program that considers the age and condition of existing

---

*When starting an Airport Master Plan, it is important to acknowledge the key issues to be addressed within the planning effort.*

---

airport pavements, options for maintenance or repair, and approximate costs for these improvements.

- **Colorado Spaceport Initiative:** FTG is the site of an exciting development initiative to establish the Airport as Colorado's first and only spaceport facility. While the specific details of that initiative are revisited within the AMP, consideration for its potential development requirements on the Airport must be anticipated.
- **Airport Security:** The Airport needs to evaluate its current security systems and policies, including airport fencing, cameras, security plans, etc.

All of these issues, as well as others that are uncovered during the planning process, are discussed in subsequent chapters.

### 1.3 Master Plan Communication & Coordination

---

*Critical to the success of any Airport Master Plan is an effective communication and coordination effort with the airport's key stakeholders.*

---

Public involvement is an integral part of any significant airport planning study since it encourages information sharing and collaboration among the community and the airport stakeholders that have a collective interest in the outcome of the study. Stakeholders typically include airport management, the airport sponsor, tenants, users, local businesses and residents, resource agencies, elected and appointed public officials, and the general public. With such a diverse stakeholder group, a variety of forums are often employed to enhance the effectiveness of the project coordination effort.

- A Planning Advisory Committee (PAC) was established to serve as a resource to ensure the Master Plan addressed the key issues facing the Airport and its surrounding community today and into the future. The PAC members represent:
  - Adams County Economic Development Council
  - Adams County Planning Department
  - Adjacent property owners
  - Airport businesses and tenants,
  - City of Aurora Planning Development Services Department
  - Denver International Airport
  - FTG Airport Advisory Board
  - Metro Denver Aviation Coalition
  - Regional Economic Advancement Partnership
  - Town of Bennett
  - CDOT Aeronautics
  - FAA

Their roles were to review and comment on draft study products, and to provide links to agencies and other constituencies represented by the PAC membership. Three PAC meetings were held throughout the project.

- An online survey of key airport stakeholders (including users, tenants, based aircraft owners/pilots, transient pilots, and airport users at large) was conducted to solicit feedback regarding a variety of topics, including their

existing and projected activities at the Airport; FTG strengths, weaknesses, opportunities, and threats; and the future vision for FTG. The survey results were utilized to help guide planning actions documented in **Chapter 4, Airfield Capacity & Facility Requirements**.

- Various public outreach materials were created and methods employed to generate public awareness of the AMP. The materials and outreach program served as important sources of information for interested parties to keep them informed of the planning process, to solicit input, and to facilitate decision making during the process. The outreach materials included a [project website](#), press releases for local media, meeting advertisements, and social media publications.
- Finally, in addition to the PAC, other forms of public involvement included regular public briefings to the Adams County Board of County Commissioners, as well as a public information meeting/workshop. The workshop provided an opportunity to engage the public in meaningful conversation about the Airport and the AMP. Other additional briefings and technical meetings were organized with key agencies, stakeholders, and public officials as required. Notes from meetings are included in **Appendix D**.

## 1.4 Master Plan Study Elements

The FTG AMP has been prepared consistent with the guidance provided in FAA AC 150/5070-6B, *Airport Master Plans*, and other industry-accepted principles and practices. Specifically, this Master Plan’s chapters are designed to identify future facility requirements and provide the supporting rationale for their implementation.

**Chapter 1, Study Introduction** provides an overview of the AMP, including its purpose, objectives, and work products, and the overall structure of the project.

**Chapter 2, Inventory** establishes a sound basis for plan and program development. The inventory compiles essential data regarding the physical, operational, and functional characteristics of FTG, its sub-components, and its environs. Environmental data is included and considered throughout the master planning process and potential follow-on environmental efforts.

**Chapter 3, Aviation Activity Forecast** serves as the hub of the AMP by utilizing local socioeconomic information and national air transportation trends to project the levels of aviation activity that can reasonably be expected at FTG over the 20-year planning period. Assessing future airport utilization and operational activity levels trends is especially important. Because many of the proposals and recommendations in the AMP are principally based on aviation activity demand forecasts, it is critical that the forecasts are reasonable and defensible. *The aviation forecasts must be officially reviewed and approved by the FAA.*

**Chapter 4, Airfield Capacity & Facility Requirements** utilizes the results of the Forecasts to assess the ability of existing airside and landside facilities to meet the projected level of demand for the five-, ten-, and twenty-year planning horizons. This analysis defines requirements for additional facilities, expansion to existing facilities, and determines whether the facilities will meet the forecast of demand over the 20-year planning period. Beyond this, airport facilities are examined with respect to

---

*While an Airport Master Plan must follow the federally-defined airport planning process, the FAA only approves the aviation activity forecasts and the Airport Layout Plan.*

---

improvements needed to safely serve the type of aircraft expected to operate at the Airport in the future, including compliance with FAA design standards, as well as navigational aids to increase the safety and efficiency of operations.

**Chapter 5, Development Alternatives & Recommended Plan** considers a variety of solutions to accommodate the anticipated facility needs identified within the Facility Requirements analysis. Through this process, various facility and site plan alternatives are proposed and weighed with respect to their ability to meet the projected facility needs. This analysis ultimately results in the preferred alternative that is deemed to best meet the facility requirements in the most efficient and appropriate manner available to achieve the Airport's long-term goals. As a tool for the alternatives review and evaluation, matrices are employed to help identify the strengths and weaknesses of each proposed development alternative in order to determine a single direction for development. This evaluation method focuses on several key criteria, including cost, efficiency, feasibility, operational effectiveness, and other measures. An environmental screening of the preferred development plan is also included in this chapter.

**Chapter 6, Airport Layout Plan** provides both a graphic and narrative description of the recommended plan for the use, development, and operation of the Airport. *Note that the Airport Layout Plan set must be officially reviewed, approved and signed by the FAA.*

**Chapter 7, Financial Plan** focuses on the capital improvement program which defines the schedules, costs, and funding sources for the recommended development plan. It is important that the development program is practical, reasonable, and capable of enhancing the economic viability for the Airport.