7.0 FINANCIAL IMPLEMENTATION PLAN

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

The projections of airport revenues and expenses focus on the three planning periods of this AMP's Capital Improvement Program (CIP): Phase I (Short-term, 2017-2021), Phase II (Intermediate-term, 2022-2026), and Phase III (Long-term, 2027-2036). These planning periods are utilized to assist the Airport in financially supporting future capital projects either by contributing the local share of costs in coordination with FAA and CDOT grants, or by wholly funding them. The CIP and associated financial plan included in this chapter should be viewed as a guideline that is based on the circumstances and conditions that were current at the time of the completion of this Master Plan. Ultimately, capital projects should be undertaken when demand warrants and appropriate funding becomes available.

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

- Gathered and reviewed key Airport documents related to historical financial results, capital improvement plans, operating budgets, regulatory requirements, and Airport policies.
- Interviewed key Airport management personnel to gain an understanding of the existing operating and financial environment, as well as the overall financial management philosophy.
- Reviewed the AMP Capital Improvement Plan (CIP), project cost estimates, and development schedule anticipated for the three planning periods, to project the overall financial requirements to implement the CIP.

- Identified and analyzed the sources and timing of capital funding available to meet the financial requirements for funding the CIP.
- Analyzed historical and budgeted operating expenses, developed operations and maintenance expense assumptions, and projected future operating costs for the planning periods.
- Analyzed historical and budgeted operating revenues, developed operating revenue assumptions, and projected future operating revenues for the planning periods.
- Completed results of the analysis and evaluation in a Financial Plan Summary that provides conclusions regarding the financial feasibility of the CIP.

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

7.1 Capital Funding Sources

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

- Federal Aviation Administration (FAA) grants from its Airport Improvement Program (AIP)
- State of Colorado funding sources
- Local funding sources
- Other capital project funding sources, such as private parties

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

7.1.1 Federal Aviation Administration Grants

Airports included in FAA's National Plan of Integrated Airport Systems (NPIAS) are eligible to receive FAA grants. For general aviation airports, the FAA provides the most significant percentage of the funding required for the construction of eligible capital projects. Following World War II, the federal government recognized the need to develop airports to meet the nation's long-term aviation needs, and thereafter initiated a Grants-In-Aid Program for eligible airport sponsors. Following a series of federal airport funding programs, the Airport Improvement Program (AIP) was established by Congress on behalf of the FAA through the Airport and Airway Improvement Act of 1982.

AIP grants are generally available for planning, development, or noise compatibility projects at public-use airports included in the NPIAS. Eligible projects include improvements related to enhancing airport safety, capacity, security, and environmental concerns. Funds obligated for the AIP are drawn from the Airport and Airway Trust Fund, which itself is designed to support the improvement of the country's air transportation system by funding airport improvements, airport repair

projects, and modernizing the Air Traffic Control system. The Trust Fund receives revenue through taxes on aviation fuels, airline ticket sales, and air freight shipments.

The initial AIP legislation provided funding through FY 1992, but since then, the AIP has been reauthorized and amended multiple times, most recently through the FAA Extension, Safety, and Security Act of 2016[1]. That legislation has since expired, although Congress extended it for one year (i.e., through FY 2017 or September 30, 2017). In order for FAA to continue issuing grants after that date, Congress will ultimately need to authorize a new AIP program or else pass continuing resolutions as it has frequently done in the past. (Each time Congress reauthorizes AIP, it typically changes parts of the program including funding disbursements, project eligibility requirements, appropriation levels, etc. These changes and the debate they can generate often delay the AIP reauthorization, and also make it difficult for airports to know how much FAA funding will be available in the future, and what requirements may be in place to secure that funding.)

Under current legislation, the AIP will typically provide 90 percent of the total cost of an FAA-eligible capital project (with the balance often being covered through a combination of state and local funding), although this percentage can be reduced based on the size, complexity, and requirements of a specific project. FAA Order 5100.38D, *Airport Improvement Handbook* specifies the eligibility requirements for capital projects to receive FAA grants. In general, sponsors can apply AIP funds to most airfield capital improvements and preservation efforts, and in limited situations, for terminals, hangars, aprons, and other non-aviation development. Professional services that are necessary for eligible projects, such as planning, surveying, and engineering design, may also be eligible. In most cases, an airport's demand for capital improvements must be appropriately quantified and documented (such as through an airport master plan process), and each project must be shown on an approved Airport Layout Plan (ALP). Additionally, all proposed capital improvements must meet appropriate Federal environmental and procurement requirements. Projects related to revenue-generating improvements (such as privately owned or leased hangars and aprons, or those portions of a terminal building leased by airlines or concessions, etc.) are typically not eligible for AIP funding, nor are standard airport operations and maintenance costs (e.g., salaries, equipment, supplies, etc.).

AIP grants are generally divided into two categories: entitlements and discretionary. Entitlement Grants are allocated among NPIAS airports through a formula largely driven by passenger enplanements, landed cargo weights, and types of operations. Currently, "primary" airports, defined in the NPIAS as having a particular level of commercial air service (i.e. enplane more than 10,000 passengers annually), receive $1 million annually in entitlement funding. "Non-primary" airports, which include small commercial service airports and general aviation airports like FTG, are currently eligible for $150,000 of annual FAA entitlement funding. AIP grants must be expended within four years of being issued or be returned to the FAA. This means airports can accrue a maximum of three years' worth of annual entitlements to be applied towards eligible projects in the fourth year. There are also options potentially available to airports whereby they may "borrow" entitlements from future years to apply to a project in the near-term.

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

Similar to entitlements to individual airports, each state receives an annual apportionment from the FAA based on an area-population formula. These federal funds are utilized at the discretion of the individual states.

In addition to entitlement grants, the AIP also distributes discretionary grants, since the capital requirements of airports often will exceed the limits of their annual entitlement funding. National discretionary funding levels are established annually by the FAA, and result from federal funds that remain available after the distribution of entitlements. Congress sets the requirements for how discretionary funds are allocated by the FAA, with certain amounts set-asides for projects of special interest (e.g., airport safety, noise mitigation, the military airport program, etc.).

Each NPIAS airport development project is subject to eligibility and justification requirements as part of the normal AIP funding process. Generally, airports within similar categories (general aviation, reliever, primary, etc.) compete for these discretionary grants, which are typically awarded based on priority ratings given by the FAA to each potential project. Given the lack of adequate discretionary funding available, this prioritization process tries to ensure that the most important and beneficial projects (as viewed by the FAA) are given priority.

7.1.2 State of Colorado Funding Sources

Colorado Aviation Grant Program

In support of the Colorado Department of Transportation's (CDOT) stated goal to develop a forward-looking multi-modal transportation system for the 21st century, the Colorado Division of Aeronautics is charged with promoting partnerships with its public and private constituents to enhance aviation safety, aviation education, and the development of an effective air transportation system through the efficient administration of the Colorado Aviation Fund. Specifically, through the Colorado Aviation Grant program and at the discretion of the Colorado Aeronautical Board (CAB), the Division annually awards discretionary aviation grants to the state's public-use, publicly-owned airports from the Aviation Fund.

The chief priority for distributing these state grants is to leverage Federal AIP grants by providing a five percent match to state airports. The State awards half of the local match requirement up to a limit, recommended annually by the Division and approved by the CAB. Currently the grant cap is $150,000 through the year 2020, after which that cap may be raised to $250,000. Although the State is currently limiting grants to matches on AIP projects, it does have the statutory authority to give grants for overmatch on an AIP project that may be short of funds, as well as to award grants for State and Local projects without federal participation. In general, State funding is focused on non-revenue generating projects that are prioritized from the "runway out" – meaning that preference is given to projects related to runways, then taxiways, and then others.

The Colorado Aviation Fund is directly supported by revenues generated through a state sales tax on aviation fuel. This tax is indexed to a percentage of the cost of a gallon of commercial jet fuel. Therefore, as the cost of jet fuel increases, the size of the Colorado Aviation Fund increases, allowing for more state grant availability.

Conversely, when fuel prices decline, the fund will decrease in size, reducing state grant availability.

At the time of this document, the Colorado Aviation Fund was in process of recovering from a significant deficit that was precluding the State from actively funding programs other than matching funds for individual AIP projects. This recovery is anticipated to be complete in FY 2018 at which time the State will then be able to progressively start to reinstitute some of its former funding programs.

State Infrastructure Bank

The State Infrastructure Bank (SIB) Loan Program was enacted by the Colorado Legislature in 1998 and adopted by CDOT in 1999. This unique funding source is administered by the Colorado Transportation Commission and helps provide funding for all types of transportation facilities (including aviation) through a low-interest revolving loan program. For aviation needs, a separate fund has been established within the SIB so that airports only compete with other airports for funding.

Loans awarded to Colorado public-use airports from the SIB have been used to support funding for projects such as capital airport improvements, air traffic control towers, snow removal equipment, and airport pavement reconstruction. Additionally, these low-interest loans have been utilized for land acquisitions that have protected Colorado airports from incompatible land-use surrounding airports. These loans are awarded for a maximum of 10 years with an interest rate that is set every six months by the Transportation Commission. In November 2016, the interest rate was set at 2¼ percent and the aviation fund had an available balance of approximately $11,000,000.

State Aviation Fuel Tax Disbursements

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

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

Of the commercial jet fuel sales taxes collected annually, 65 percent are distributed back to the airport where the fuel was sold, with the remaining 35 percent being used to fund the Colorado Division of Aeronautics Program. Of the non-commercial jet fuel taxes collected, 100 percent is provided to the airport of origin. With respect to aviation gasoline tax revenues, 66 percent is sent to the airport, and the remaining 33 percent is applied to the State Aviation Program. **Table 7-1** shows the amount CDOT passed through to FTG from the aviation fuel taxes that were collected:

TABLE 7-1 - CDOT AVIATION FUEL TAX DISTRIBUTION TO FTG

Fiscal Year	Amount
2016	$27,284.77
2015	$25,985.73
2014	$18,289.45
2013	$21,693.45
2012	$25,332.11
2011	$27,927.91
2010	$20,660.54
2009	$23,997.65

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

7.1.3 Local Funding Sources

Local funding is typically generated from operating revenues accrued on a given airport and generally consist of user fees associated with leases, fuel sales, services, etc. The user fees are typically established by the airport based on market conditions in the area and vary from airport to airport. FTG has several sources for generating revenue including:

- Aircraft fuel sales
- Hangar leases
- Land leases
- Tie-down fees
- Other operating revenues, such as the restaurant in the terminal building
- Non-operating revenues, such as return on investments, interest payments, etc.

Landside facility development and levels of aviation activity are typically the primary factors affecting airport operating revenues. These revenues will normally increase as a function of usual inflationary growth as well as average annual increases associated with existing leases. Additionally, as additional airport development occurs, growth in the numbers of based aircraft and itinerant aircraft operational levels will often be realized. In general, land and building leases provide the most stable long-term sources of revenue at an airport. Fuel sales, tie-downs and other operational fees will fluctuate with traffic levels. Unlike commercial service airports, GA airports typically generate little to no revenue from auto parking, concessions (e.g. restaurants and shops), and terminal building tenants (airlines, rental car agencies).

7.1.4 Other Capital Project Funding Sources

The traditional funding sources described in previous sections (FAA and CDOT grants and airport revenue) are often insufficient to finance the full range of capital projects programmed for development during a CIP. In addition, some projects are not eligible for FAA or state grants. When the availability of traditional funding is lacking, other non-traditional sources need to be investigated and possibly utilized for the ultimate implementation of projects. (In this chapter, these sources have collectively been referenced as “Other Funding Sources.”) If funding sources cannot be ultimately

identified and obtained in the time frames planned, the associated projects should be delayed until appropriate funding can be identified and secured.

Non-traditional funding sources for an airport typically include general fund revenues, bond issues, and private funding. Of these, general fund revenues and general obligation bonds are by far the most common funding sources, particularly at commercial service airports. The ability of municipalities and counties to issue general obligation bonds for airport capital projects is directly affected by their debt level and ability to finance their existing and future debt load. As the debt burden increases, rating agencies often lower their credit ratings, which increases their interest payments. Revenue bonds supported by airport-generated revenues are seldom used by general aviation airports because most such airports do not generate enough income to pay operating expenses and the debt service of capital funding requirements.

Private funding sources such as FBOs, aircraft owners, investors, etc., often assume the responsibility of paying for hangars, fuel storage tanks, and sometimes for parking aprons, taxiways, and utility hookups. However, when private parties make capital investments in airports, they often try to negotiate reduced land and/or building lease rates to balance their capital investment. Additionally, they can seek to avoid property reversion clauses whereby ownership facilities constructed on an airport ultimately revert to the airport after a set period (often a minimum of 20).

General Fund Revenues

General fund revenues are those provided by the airport sponsor (county, municipality, or state) from their general tax revenues. Airport capital development expenditures from general fund sources have been somewhat difficult to obtain in recent years. One reason for this difficulty is the seemingly universal shortfall in local general fund revenues. Budgetary problems have created an environment where local funding is uncertain. The amount of general fund support for airport improvement projects varies by airport and is generally based upon the local tax base, the credit rating of the county, municipality, and state, priority of the development project, historical funding trends, and, of course, local attitudes concerning the importance of aviation.

Bond Funds

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

For an airport owned by a county, like FTG, bond issues funding the local share of airport development projects will often compete for the same attention and leadership consideration as other departments or divisions within the county government (i.e., schools, highways, sewer, etc.). As with the general fund

apportionment, bond issues supporting airport development depend greatly on the priority assigned to such projects by the local community.

Private Funds

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

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

7.2 Financial Analysis and Implementation Plan

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

7.2.1 Capital Improvement Program (CIP)

The following is a listing and brief description of the projects identified within this AMP for inclusion in FTG's CIP. The individual projects are listed in order of their CIP identifying letter and all projects are assumed to require some level of federal, state, and/or local funding, unless otherwise indicated. (Each project's associated "CIP ID" is not an indication of prioritization, importance, or funding participation, but simply a mechanism for tracking the individual projects.) Note that this listing is the best estimate of anticipated projects at the time of this AMP; however, it should be understood that many of these projects may change in scope or in timing based on future requirements. Therefore, the CIP must be reviewed, assessed and updated on a regular basis (typically annually). Additionally, as noted in **Chapter 5**, each description contains the environmental documentation that is anticipated to be required prior to the project being executed.

A. **Rehabilitate Taxilane A7 into the Hangar Area:** This project rehabilitates Taxilane A7 from the East Terminal ramp into the hangar areas. The pavement is currently failing. Anticipated environmental documentation = documented Categorical Exclusion (CatEx).

B. **Fog Seal[2] Terminal Ramp (East):** Pavements should have fog sealing applied and cracks repaired every five to seven years to extend pavement life. This project will help preserve the existing pavement until it is ultimately rehabilitated (see Projects M and KK). Anticipated environmental documentation = FAA Internal Memorandum.

[2] Fog seal is an application of a specially formulated asphalt emulsion (a thin liquid oil) to an existing asphalt pavement surface. As asphalt is subjected to traffic loads and weathering, it oxidizes and becomes more brittle, leading to cracks developing in the surface (oxidation is one of the reasons asphalt concrete pavement fades in color). Fog seal applications serve to seal narrow cracks and slightly restore lost flexibility to the pavement surface, helping to preserve the underlying pavement structure and extend pavement life. Fog seal can typically last five years before it should be reapplied.

C. **Acquire Airport Maintenance Equipment – Replace Loader:** As defined by the FAA, the useful life of airport maintenance and snow removal equipment (SRE) is 10 years, and therefore should be replaced on a regular schedule. All of FTG's current equipment is more than 10 years old, and the Airport should progressively replace those with newer equipment. There are options potentially available for FTG to acquire used equipment at significantly reduced costs. Anticipated environmental documentation = FAA Internal Memorandum.

D. **Construct Solar Farm:** FTG plans to lease 20 acres of airport property (located on Imboden Road) for the construction and operation of a solar farm by a third-party vendor. Costs associated with the project will be provided by the venture developer and FTG will realize land lease revenue. The property has already been released from aeronautical use by FAA. Anticipated environmental documentation = documented CatEx or a potential Environmental Assessment (EA).

E. **Construct Deicing Manufacturer:** FTG plans to lease airport property (located west of the Colorado National Guard facility) for the construction and operation of a deicing manufacturer. Costs associated with the project will be provided by the developer and FTG will realize land-lease revenue. The property has already been released from aeronautical use by FAA. Anticipated environmental documentation = documented CatEx or a potential EA.

F. **Construct Hangar Building:** FTG has long-term plans to accommodate the construction of future hangar facilities in accordance with its ALP. Costs associated with such development would be the responsibility of the developer with FTG realizing land lease revenue. Anticipated environmental documentation = documented CatEx.

G. **Fog Seal Terminal Ramp (West):** Pavement surfaces ideally should have fog sealing applied and cracks repaired every five to seven years to extend pavement life. CDOT has historically provided assistance to airports conducting fog sealing operations in the form of materials. Anticipated environmental documentation = FAA Internal Memorandum.

H. **Fog Seal Runway 8/26:** Pavements should have fog sealing applied and cracks repaired every five to seven years to extend pavement life. CDOT has historically provided assistance to airports conducting fog sealing operations in the form of materials. Anticipated environmental documentation = FAA Internal Memorandum.

I. **Acquire Airport Maintenance Equipment - Replace Loader and Snow Blower Attachment:** Airport maintenance and snow removal equipment should be replaced on a regular schedule. FTG's current equipment is older and should be progressively replaced with newer equipment. There are options potentially available for FTG to acquire used equipment at significantly reduced costs. Anticipated environmental documentation = FAA Internal Memorandum.

J. **Construct Hangar Building:** FTG has long-term plans to accommodate the construction of future hangar facilities in accordance with its ALP. Costs associated with such development would be the responsibility of the developer with FTG realizing land-lease revenue. Anticipated environmental documentation = documented CatEx.

K. **Fog Seal Taxiways A, B, and E:** Pavement surfaces ideally should have fog sealing applied and cracks repaired every five to seven years to extend pavement life.

CDOT has historically provided assistance to airports conducting fog sealing operations in the form of materials. Anticipated environmental documentation = FAA Internal Memorandum.

L. **Acquire Airport Maintenance Equipment – Replace SRE Truck:** Airport maintenance and snow removal equipment should be replaced on a regular schedule. FTG's current equipment is older and should be progressively replaced with newer equipment. There are options potentially available for FTG to acquire used equipment at significantly reduced costs. Anticipated environmental documentation = FAA Internal Memorandum.

M. **Rehabilitate Terminal Apron (East) (Phase 1):** The entire terminal apron is in need of rehabilitation. Because of the size of the apron and the associated costs, this rehabilitation has been broken down into three separate projects in this CIP (Projects I, BB, and JJ). Project I consists of the design and construction costs associated with the eastern half of the Terminal Apron (East) (defined as being the apron area that lies east of Taxiway A6). This project also includes painting islands on the apron to eliminate the direct runway access from the apron currently afforded by Taxiways A6 and A7. This is in conformance with FAA taxiway design criteria, as discussed in **Chapter 5**. This project also includes removal of the light stanchions currently located within the apron, installation of new lighting located off-pavement, and the start of implementing the aircraft parking redesign. Anticipated environmental documentation = FAA Internal Memorandum.

N. **Rehabilitate Taxiway C and Install Lighting on Taxiways A & C:** The useful pavement life of Taxiway C is rapidly nearing its end and is in very poor condition, having last been rehabilitated in 1999. This project consists of the design and construction costs associated with the rehabilitation of the entire taxiway. Additionally, as discussed in **Chapter 5**, the installation of Medium Intensity Taxiway Lights (MITL) was recommended for all taxiways to enhance overall airport safety by increasing a pilot's directional awareness. As a first step in that process, this project includes the installation of MITLs on the entire length of Taxiway C as well as all of Taxiway A, including connecting stubs. Anticipated environmental documentation = FAA Internal Memorandum.

O. **Acquire Airport Maintenance Equipment – Replace High-speed Runway Blower:** Airport maintenance and snow removal equipment should be replaced on a regular schedule. FTG's current equipment is older and should be progressively replaced with newer equipment. There are options potentially available for FTG to acquire used equipment at significantly reduced costs. Anticipated environmental documentation = FAA Internal Memorandum.

P. **Fog Seal Runway 17/35:** Pavement surfaces ideally should have fog sealing applied and cracks repaired every five to seven years to extend pavement life. CDOT has historically provided assistance to airports conducting fog sealing operations in the form of materials. Anticipated environmental documentation = FAA Internal Memorandum.

Q. **Acquire Airport Maintenance Equipment – Replace Runway Broom:** Airport maintenance and snow removal equipment should be replaced on a regular schedule. FTG's current equipment is older and should be progressively replaced with newer equipment. There are options potentially available for FTG

to acquire used equipment at significantly reduced costs. Anticipated environmental documentation = FAA Internal Memorandum.

R. **Construct Hangar Building:** FTG has long-term plans to accommodate the construction of future hangar facilities in accordance with its ALP. Costs associated with such development would be the responsibility of the developer with FTG realizing land-lease revenue. Anticipated environmental documentation = documented CatEx.

S. **Fog Seal Taxilane A7:** Pavement surfaces ideally should have fog sealing applied and cracks repaired every five to seven years to extend pavement life. CDOT has historically provided assistance to airports conducting fog sealing operations in the form of materials. Anticipated environmental documentation = FAA Internal Memorandum.

T. **Acquire Airport Maintenance Equipment – Replace SRE Truck:** Airport maintenance and snow removal equipment should be replaced on a regular schedule. FTG's current equipment is older and should be progressively replaced with newer equipment. There are options potentially available for FTG to acquire used equipment at significantly reduced costs. Anticipated environmental documentation = FAA Internal Memorandum.

U. **Fog Seal Taxiway D:** Pavement surfaces ideally should have fog sealing applied and cracks repaired every five to seven years to extend pavement life. CDOT has historically provided assistance to airports conducting fog sealing operations in the form of materials. Anticipated environmental documentation = FAA Internal Memorandum.

V. **Rehabilitate Runway 17-35 (Design):** Runway 17/35 was last rehabilitated in 2004 and will be eligible for federal funding in 2025. This project consists of the engineering design phase required for the pavement's ultimate rehabilitation, projected to occur the following year. Anticipated environmental documentation = FAA Internal Memorandum.

W. **Construct Hangar Building:** FTG has long-term plans to accommodate the construction of future hangar facilities in accordance with its ALP. Costs associated with such development would be the responsibility of the developer with FTG realizing land-lease revenue. Anticipated environmental documentation = documented CatEx.

X. **Rehabilitate Runway 17-35 (Construct):** Associated with Project V, this project encompasses the construction phase of the rehabilitation of Runway 17/35. This project will also include the updating of the Medium Intensity Runway Lighting (MIRL) and Runway End Identifier Lights (REILs). Anticipated environmental documentation = FAA Internal Memorandum.

Y. **Fog Seal Taxiway A, B, E:** Pavement surfaces ideally should have fog sealing applied and cracks repaired every five to seven years to extend pavement life. CDOT has historically provided assistance to airports conducting fog sealing operations in the form of materials. Anticipated environmental documentation = FAA Internal Memorandum.

Z. **Fog Seal Runway 8/26:** Pavement surfaces ideally should have fog sealing applied and cracks repaired every five to seven years to extend pavement life. CDOT has historically provided assistance to airports conducting fog sealing operations in the form of materials. Anticipated environmental documentation = FAA Internal Memorandum.

AA. Acquire Airport Maintenance Equipment – Replace ARFF Truck (Index B): Airport maintenance and snow removal equipment should be replaced on a regular schedule. FTG's current equipment is older and should be progressively replaced with newer equipment. There are options potentially available for FTG to acquire used equipment at significantly reduced costs. Anticipated environmental documentation = FAA Internal Memorandum.

BB. Install Airfield Perimeter Fencing: As discussed in **Chapter 5**, it is recommended that FTG install perimeter fencing to enhance general airport security, airport safety and limit wildlife activity on the Airport. While this fencing effort could be broken down into multiple phases, this project assumes encompassing the entire airfield with access control points in areas with the most direct public interface. Anticipated environmental documentation = documented CatEx.

CC. Construct Hangar Building: FTG has long-term plans to accommodate the construction of future hangar facilities in accordance with its ALP. Costs associated with such development would be the responsibility of the developer with FTG realizing land-lease revenue. Anticipated environmental documentation = documented CatEx.

DD. Fog Seal Taxiway A: Pavement surfaces ideally should have fog sealing applied and cracks repaired every five to seven years to extend pavement life. CDOT has historically provided assistance to airports conducting fog sealing operations in the form of materials. Anticipated environmental documentation = FAA Internal Memorandum.

EE. Construct Hangar Building: FTG has long-term plans to accommodate the construction of future hangar facilities in accordance with its ALP. Costs associated with such development would be the responsibility of the developer with FTG realizing land-lease revenue. Anticipated environmental documentation = documented CatEx.

FF. Rehabilitate Runway 8/26: Runway 8/26 was last rehabilitated in 2012 and will be eligible for federal funding in 2033. This project consists of the engineering design phase and construction phase required to rehabilitate the runway. This project will also include the updating of the MIRL and REILs. Anticipated environmental documentation = FAA Internal Memorandum.

GG. Construct Hangar Building: FTG has long-term plans to accommodate the construction of future hangar facilities in accordance with its ALP. Costs associated with such development would be the responsibility of the developer with FTG realizing land-lease revenue. Anticipated environmental documentation = documented CatEx.

HH. Fog Seal Runway 17/35: Pavement surfaces ideally should have fog sealing applied and cracks repaired every five to seven years to extend pavement life. CDOT has historically provided assistance to airports conducting fog sealing operations in the form of materials. Anticipated environmental documentation = FAA Internal Memorandum.

II. Reconstruct and Strengthen East Ramp (Phase 1) and Taxiway D7: As described in **Chapter 5**, Runway 17/35's pavement strength likely could allow larger general aviation aircraft to operate on it on a regular basis. Unfortunately, its associated taxiways and aprons do not have sufficient strength to accommodate such heavier aircraft. This project includes the required reconstruction of a portion of the East Ramp (last rehabilitated in 1992) as well as the strengthening

of that pavement to be consistent with Runway 17/35. This project would also strengthen Taxiway D7, the connecting taxiway between Runway 17/35 and the East Ramp. This pavement strengthening effort is also associated with Project JJ. Anticipated environmental documentation = documented CatEx.

JJ. Strengthen Taxiways D1 and D2: Related to Project II, this project will strengthen pavements for Taxiway D1, D2, and the connecting section of Taxiway D such that they are consistent with Runway 17/35. Strengthening these pavements will allow heavier aircraft to turn around on the Runway 35 approach end, facilitating their back-taxi operations on the runway. Anticipated environmental documentation = documented CatEx.

KK. Rehabilitate Terminal Apron (East) (Phase 2): Associated with Project II, Project KK consists of the design and construction costs associated with the western half of the Terminal Apron (East) (defined as being the apron area that lies to the east of Taxiway A6). This project also includes removal of any light stanchions currently located within the apron, installation of new lighting located off-pavement, the reconfiguration of the existing hardstand, and the completion of the aircraft parking redesign. Anticipated environmental documentation = FAA Internal Memorandum.

LL. Expand Existing SRE Facility: Per FAA criteria, FTG currently has an appropriate amount of covered space to house its airfield maintenance and snow removal equipment. However, in order to effectively maintain the airfield, the Airport has had to acquire additional equipment that it currently stores outside. That is not an ideal operating condition as equipment left outdoors will deteriorate faster than if it is stored inside. Therefore, this project encompasses the construction of a cold storage addition to the existing SRE facility to accommodate FTG's additional equipment. Anticipated environmental documentation = documented CatEx.

MM. Construct Taxiway E Holding Bay: At some point, FTG could experience an operational constraint and potential safety issue on Taxiway E. As described in **Chapter 5**, the recommended solution to this potential issue is the construction of a holding bay on the taxiway to allow aircraft to bypass each other. This project encompasses the design and construction of that holding bay. Anticipated environmental documentation = documented CatEx.

NN. Rehabilitate Taxilane A7D: This project anticipates the required design and construction of a Taxilane A7D rehabilitation. Anticipated environmental documentation = FAA Internal Memorandum.

OO. Rehabilitate Taxilane A8A: This project anticipates the required design and construction of a Taxilane A8A rehabilitation. Anticipated environmental documentation = FAA Internal Memorandum.

PP. Rehabilitate Taxilane A8B: This project anticipates the required design and construction of a Taxilane A8B rehabilitation. Anticipated environmental documentation = FAA Internal Memorandum.

QQ. Rehabilitate Taxilane A8C: This project anticipates the required design and construction of a Taxilane A8C rehabilitation. Anticipated environmental documentation = FAA Internal Memorandum.

RR. Construct New Taxiway from Taxiway A to Hangars: Module 3 is a proposed future hangar development area located to the east of the existing hangar complex. This project includes the design and construction of a new taxiway

from existing Taxiway A to the south into the future Module 3. Anticipated environmental documentation = documented CatEx.

SS. **Rehabilitate Terminal Apron (West):** Associated with Projects II and KK, this project consists of the design and construction costs associated with the entire the Terminal Apron (West) (defined as being the apron area that lies to the west of Taxiway A6). This project also includes removal of any light stanchions currently located within the apron. Anticipated environmental documentation = FAA Internal Memorandum.

TT. **Reconstruct East Apron (Phase 2):** Associated with Project II, this project completes the reconstruction of the East Ramp, last rehabilitated in 1992. Costs associated with this project include design and construction. Anticipated environmental documentation = documented CatEx.

UU. **Construct Large FBO Hangar:** This project encompasses the construction of a new large fixed base operator (FBO) hangar that would be constructed and operated by the Airport. Anticipated environmental documentation = documented CatEx.

7.2.2 Estimated Project Costs and Development Schedule

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

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

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

Each proposed capital improvement project within the planning horizon has been assigned to one of three specific planning periods: Phase I, Short-term (2017-2021); Phase II, Intermediate-term (2022-2026); and Phase III, Long-term (2027-2036). The assignment of these projects into appropriate periods are depicted in **Table 7-2**, **Table 7-3**, and **Table 7-4**, which show all proposed CIP projects (including AIP-funded, State-funded, Airport-funded, and privately-funded) and their estimated costs for each phase within the planning horizon. (As mentioned previously, reauthorization of the FAA AIP by Congress may change the funding formulas used in these tables.) The complete current CIP summary is found in **Table 7-11**, **Table 7-12.** (While the cost estimates for the individual projects are based on 2017 dollars, the CIP incorporates an assumed 3.0 percent annual escalation to compensate for future inflationary increases.)

TABLE 7-2 - CAPITAL IMPROVEMENT PROGRAM PHASE I (2017-2021)

CIP ID	Project	Primary Funding Source	Estimated Capital Costs*	Funding Sources			
				Federal	State	Local	Other/ Private
A	Rehab Taxilane A7 into Hangar Area	FAA	$500,000	$450,000	$25,000	$25,000	$0
B	Fog Seal Terminal Ramp (East)	Local	$379,225	$0	$0	$379,225	$0
C	Acquire Airport Maintenance Equipment – Replace Loader	Local	$200,000	$0	$0	$200,000	$0
D	Construct 20-acre Solar Farm (land lease)	Other	$10,000,000	$0	$0	$0	$10,000,000
E	Construct Deicing Manufacturer (land lease)	Other	$2,500,000	$0	$0	$0	$2,500,000
F	Construct Hangar Building (land lease)	Other	$600,000	$0	$0	$0	$600,000
G	Fog Seal Terminal Ramp (West)	Local	$416,764	$0	$0	$416,764	$0
H	Fog Seal Runway 8/26	Local	$780,319	$0	$0	$780,319	$0
I	Acquire Airport Maintenance Equipment - Replace Loader & Snow Blower Attachment	Local	$530,000	$0	$0	$530,000	$0
J	Construct Hangar Building (land lease)	Other	$636,000	$0	$0	$0	$636,000
K	Fog Seal Taxiways A, B, and E	Local	$331,420	$0	$0	$331,420	$0
L	Acquire Airport Maintenance Equipment – Replace SRE Truck	Local	$654,000	$0	$0	$654,000	$0
M	Rehabilitate Terminal Apron (East) (Phase 1)	FAA	$1,210,539	$1,089,485	$55,556	$65,498	$0
N	Rehabilitate Taxiway C & Install Lighting on Taxiways A & C	FAA	$2,015,925	$1,814,333	$100,796	$100,796	$0
O	Acquire Airport Maintenance Equipment – Replace High-speed Runway Blower:	Local	$672,000	$0	$0	$672,000	$0
	Phase I Program Totals		**$21,426,192**	**$3,353,818**	**$181,352**	**$4,155,022**	**$13,736,000**

Source: Jviation
* 2017 cost estimate with assumed 3.0 percent annual cost escalation from 2017.

TABLE 7-3 - CAPITAL IMPROVEMENT PROGRAM PHASE II (2022-2026)

CIP ID	Project	Primary Funding Source	Estimated Capital Costs*	Funding Sources			
				Federal	State	Local	Other/ Private
P	Fog Seal Runway 17/35	Local	$828,782	$0	$0	$828,782	$0
Q	Acquire Airport Maintenance Equipment – Replace Runway Broom	Local	$690,000	$0	$0	$690,000	$0
R	Construct Hangar Building (land lease)	Other	$690,000	$0	$0	$0	$690,000
S	Fog Seal Taxilane A7	Local	$64,900	$0	$0	$64,900	$0
T	Acquire Airport Maintenance Equipment – Replace SRE Truck	Local	$708,000	$0	$0	$708,000	$0
U	Fog Seal Taxiway D	Local	$313,910	$0	$0	$313,910	$0
V	Rehabilitate Runway 17/35 (Design)	FAA	$413,333	$372,000	$20,666	$20,667	$0
W	Construct Hangar Building (land lease)	Other	$744,000	$0	$0	$0	$744,000
X	Rehabilitate Runway 17/35 (Construct)	FAA	$7,620,000	$6,858,000	$381,000	$381,000	$0
Y	Fog Seal Taxiway A, B, E	State	$386,150	$0	$347,535	$38,615	$0
	Phase II Program Totals		**$12,459,075**	**$7,230,000**	**$749,201**	**$3,045,874**	**$1,434,000**

Source: Jviation
* 2017 cost estimate with assumed 3.0 percent annual cost escalation from 2017.

TABLE 7-4 - CAPITAL IMPROVEMENT PROGRAM PHASE III (2027-2036)

CIP ID	Project	Primary Funding Source	Estimated Capital Costs*	Funding Sources			
				Federal	State	Local	Other/ Private
Z	Fog Seal 8/26	State	$979,080	$0	$881,172	$97,908	$0
AA	Acquire Airport Maintenance Equipment – Replace ARFF Truck (Index B)	Local	$1,064,000	$0	$0	$1,064,000	$0
BB	Install Airfield Perimeter Fencing	FAA	$3,950,100	$3,555,090	$197,505	$197,505	$0
CC	Construct Hangar Building (land lease)	Other	$798,000	$0	$0	$0	$798,000
DD	Fog Seal Taxiway A	State	$245,868	$0	$221,281	$24,587	$0
EE	Construct Hangar Building (land lease)	Other	$852,000	$0	$0	$0	$852,000
FF	Rehabilitate Runway 8/26	FAA	$6,859,800	$6,173,820	$342,990	$342,990	$0
GG	Construct Hangar Building (land lease)	Other	$906,000	$0	$0	$0	$906,000
HH	Fog Seal Runway 17/35	State	$1,109,847	$0	$998,862	$110,985	$0
II	Reconstruct & Strengthen East Ramp (Phase 1) & Taxiway D7	FAA	$9,180,300	$8,262,270	$459,015	$459,015	$0
JJ	Strengthen Taxiways D1 & D2	FAA	$3,140,000	$2,826,000	$157,000	$157,000	$0
KK	Rehabilitate Terminal Apron (East) (Phase 2)	FAA	$2,355,000	$2,119,500	$117,750	$117,750	$0
LL	Expand Existing SRE Facility	Local	$1,056,610	$0	$0	$1,056,610	$0
MM	Construct Taxiway E Holding Bay	FAA	$1,405,150	$1,264,635	$70,257	$70,258	$0
NN	Rehabilitate Taxilane A7D	FAA	$523,333	$471,000	$26,166	$26,167	$0
OO	Rehabilitate Taxilane A8A	FAA	$523,333	$471,000	$26,166	$26,167	$0
PP	Rehabilitate Taxilane A8B	FAA	$523,333	$471,000	$26,166	$26,167	$0
QQ	Rehabilitate Taxilane A8C	FAA	$523,333	$471,000	$26,166	$26,167	$0
RR	Construct New Taxiway from Taxiway A to Hangars	FAA	$2,355,000	$2,119,500	$117,750	$117,750	$0
SS	Rehabilitate Terminal Apron (West)	FAA	$4,710,000	$4,239,000	$235,500	$235,500	$0
TT	Reconstruct East Apron (Phase 2)	FAA	$15,700,000	$14,130,000	$785,000	$785,000	$0
UU	Construct Large FBO Hangar	Local	$6,280,000	$0	$0	$6,280,000	$0
	Phase III Program Totals		**$65,040,087**	**$46,573,815**	**$4,688,746**	**$11,221,526**	**$2,556,000**

Source: Jviation

* 2017 cost estimate with assumed 3.0 percent annual cost escalation from 2017.

TABLE 7-5 - FTG CIP SUMMARY

FRONT RANGE AIRPORT
WATKINS, CO
CAPITAL IMPROVEMENT PLAN
2017

YEAR	DESCRIPTION	TOTAL ESTIMATED PROJECT COST *2017* DOLLARS	TOTAL ESTIMATED PROJECT COST w/ Annual % Escalation *3%*	FUNDING SOURCES												
				FEDERAL				STATE			Local				Other		TOTAL PROPOSED FUNDING
				Total	Entitlement (% project funding) *90%*	Discretionary (% project funding) *90%*	State Apportionment *90%*	Total	Federal Match (% project funding) *5%*	CDAG Grant (% project funding) *90%*	Total	Federal Match (% project funding) *5%*	CDAG Grant Match (% project funding) *10%*	Other Local Funding	Private Investment	Unidentified	
2017	Rehab Taxilane A7 into Hangar Area	$ 500,000	$ 500,000	$ 450,000	$ 450,000	$ -		$ 25,000	$ 25,000		$ 25,000	$ 25,000					$ 500,000
2017	Fog Seal Terminal Ramp (East)	$ 379,225	$ 379,225					$ -			$ 379,225			$ 379,225			$ 379,225
2017	Acquire Airport Maintenance Equipment – Replace Loader	$ 200,000	$ 200,000					$ -			$ 200,000			$ 200,000			$ 200,000
2017	Construct 20-acre Solar Farm (land lease)	$ 10,000,000	$ 10,000,000					$ -			$ -			$ -	$ 10,000,000		$ 10,000,000
2017	Construct Deicing Manufacturer (land lease)	$ 2,500,000	$ 2,500,000					$ -			$ -			$ -	$ 2,500,000		$ 2,500,000
2017	Construct Hangar Building (land lease)	$ 600,000	$ 600,000					$ -			$ -			$ -	$ 600,000		$ 600,000
2017	**SUBTOTAL**	**$ 14,179,225**	**$ 14,179,225**	**$ 450,000**	**$ 450,000**	**$ -**	**$ -**	**$ 25,000**	**$ 25,000**	**$ -**	**$ 604,225**	**$ 25,000**	**$ -**	**$ 579,225**	**$ 13,100,000**	**$ -**	**$ 14,179,225**
2018	Fog Seal Terminal Ramp (West)	$ 404,625	$ 416,764					$ -			$ 416,764			$ 416,764			$ 416,764
2018	Payback NPE Funds for 2017	$ -	$ -	$ -		$ -		$ -	$ -		$ -	$ -					$ -
2018	**SUBTOTAL**	**$ 404,625**	**$ 416,764**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 416,764**	**$ -**	**$ -**	**$ 416,764**	**$ -**	**$ -**	**$ 416,764**
2019	Fog Seal Runway 8/26	$ 736,150	$ 780,319					$ -			$ 780,319			$ 780,319			$ 780,319
2019	Acquire Airport Maintenance Equipment - Replace Loader & Snow Blower Attachme	$ 500,000	$ 530,000					$ -			$ 530,000			$ 530,000			$ 530,000
2019	Construct Hangar Building (land lease)	$ 600,000	$ 636,000					$ -			$ -			$ -	$ 636,000		$ 636,000
2019	Roll NPE Funds to 2021	$ -	$ -	$ -		$ -		$ -	$ -		$ -	$ -					$ -
2019	**SUBTOTAL**	**$ 1,836,150**	**$ 1,946,319**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,310,319**	**$ -**	**$ -**	**$ 1,310,319**	**$ 636,000**	**$ -**	**$ 1,946,319**
2020	Fog Seal Taxiways A, B, and E	$ 304,055	$ 331,420					$ -			$ 331,420			$ 331,420			$ 331,420
2020	Acquire Airport Maintenance Equipment – Replace SRE Truck	$ 600,000	$ 654,000					$ -			$ 654,000			$ 654,000			$ 654,000
2020	Roll NPE Funds to 2021	$ -	$ -					$ -			$ -						$ -
2020	**SUBTOTAL**	**$ 904,055**	**$ 985,420**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 985,420**	**$ -**	**$ -**	**$ 985,420**	**$ -**	**$ -**	**$ 985,420**
2021	Rehabilitate Terminal Apron (East) (Phase 1)	$ 1,080,838	$ 1,210,539	$ 1,089,485	$ -	$ 589,485	$ 500,000	$ 55,556	$ 55,556		$ 65,498	$ 65,498					$ 1,210,539
2021	Rehabilitate Taxiway C & Install Lighting on Taxiways A & C	$ 1,799,933	$ 2,015,925	$ 1,814,333	$ 600,000	$ 1,214,333		$ 100,796	$ 100,796		$ 100,796	$ 100,796					$ 2,015,925
2021	Acquire Airport Maintenance Equipment – Replace High-speed Runway Blower:	$ 600,000	$ 672,000					$ -			$ 672,000			$ 672,000			$ 672,000
2021	**SUBTOTAL**	**$ 3,480,771**	**$ 3,898,464**	**$ 2,903,818**	**$ 600,000**	**$ 1,803,818**	**$ 500,000**	**$ 156,352**	**$ 156,352**	**$ -**	**$ 838,294**	**$ 166,294**	**$ -**	**$ 672,000**	**$ -**	**$ -**	**$ 3,898,464**
2022	Fog Seal Runway 17/35	$ 720,680	$ 828,782					$ -			$ 828,782			$ 828,782			$ 828,782
2022	Acquire Airport Maintenance Equipment – Replace Runway Broom	$ 600,000	$ 690,000					$ -			$ 690,000			$ 690,000			$ 690,000
2022	Construct Hangar Building (land lease)	$ 600,000	$ 690,000					$ -			$ -			$ -	$ 690,000		$ 690,000
2022	Payback NPE Funds for 2021	$ -	$ -					$ -			$ -						$ -
2022	**SUBTOTAL**	**$ 1,920,680**	**$ 2,208,782**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,518,782**	**$ -**	**$ -**	**$ 1,518,782**	**$ 690,000**	**$ -**	**$ 2,208,782**
2023	Fog Seal Taxilane A7	$ 55,000	$ 64,900					$ -			$ 64,900			$ 64,900			$ 64,900
2023	Acquire Airport Maintenance Equipment – Replace SRE Truck	$ 600,000	$ 708,000					$ -			$ 708,000			$ 708,000			$ 708,000
2023	Roll NPE Funds to 2025	$ -	$ -					$ -			$ -						$ -
2023	**SUBTOTAL**	**$ 655,000**	**$ 772,900**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 772,900**	**$ -**	**$ -**	**$ 772,900**	**$ -**	**$ -**	**$ 772,900**
2024	Fog Seal Taxiway D	$ 259,430	$ 313,910					$ -			$ 313,910			$ 313,910			$ 313,910
2024	Roll NPE Funds to 2025	$ -	$ -					$ -			$ -						$ -
2024	**SUBTOTAL**	**$ 259,430**	**$ 313,910**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 313,910**	**$ -**	**$ -**	**$ 313,910**	**$ -**	**$ -**	**$ 313,910**
2025	Rehabilitate Runway 17/35 (Design)	$ 333,333	$ 413,333	$ 372,000	$ 300,000	$ 72,000		$ 20,666	$ 20,666		$ 20,667	$ 20,667					$ 413,333
2025	Construct Hangar Building (land lease)	$ 600,000	$ 744,000					$ -			$ -			$ -	$ 744,000		$ 744,000
2025	Roll NPE Funds to 2026	$ -	$ -					$ -			$ -						$ -
2025	**SUBTOTAL**	**$ 933,333**	**$ 1,157,333**	**$ 372,000**	**$ 300,000**	**$ 72,000**	**$ -**	**$ 20,666**	**$ 20,666**	**$ -**	**$ 20,667**	**$ 20,667**	**$ -**	**$ -**	**$ 744,000**	**$ -**	**$ 1,157,333**

Source: Jviation, 2017

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

FRONT RANGE AIRPORT
WATKINS, CO
CAPITAL IMPROVEMENT PLAN
2017

JVIATION

YEAR	DESCRIPTION	TOTAL ESTIMATED PROJECT COST *2017* DOLLARS	TOTAL ESTIMATED PROJECT COST w/ Annual % Escalation *3%*	FUNDING SOURCES													
				FEDERAL				STATE			Local				Other		TOTAL PROPOSED FUNDING
				Total	Entitlement (% project funding) *90%*	Discretionary (% project funding) *90%*	State Apportionment *90%*	Total	Federal Match (% project funding) *5%*	CDAG Grant (% project funding) *90%*	Total	Federal Match (% project funding) *5%*	CDAG Grant Match (% project funding) *10%*	Other Local Funding	Private Investment	Unidentified	
2026	Rehabilitate Runway 17/35 (Construct)	$ 6,000,000	$ 7,620,000	$ 6,858,000	$ 300,000	$ 6,058,000	$ 500,000	$ 381,000	$ 381,000		$ 381,000	$ 381,000					$ 7,620,000
2026	Fog Seal Taxiway A, B, E	$ 304,055	$ 386,150					$ 347,535		$ 347,535	$ 38,615			$ 38,615			$ 386,150
2026	**SUBTOTAL**	**$ 6,304,055**	**$ 8,006,150**	**$ 6,858,000**	**$ 300,000**	**$ 6,058,000**	**$ 500,000**	**$ 728,535**	**$ 381,000**	**$ 347,535**	**$ 419,615**	**$ 381,000**	**$ -**	**$ 38,615**	**$ -**	**$ -**	**$ 8,006,150**
2027	Roll NPE Funds to 2028	$ -	$ -					$ -			$ -						$ -
2027	**SUBTOTAL**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
2028	Fog Seal 8/26	$ 736,150	$ 979,080					$ 881,172		$ 881,172	$ 97,908			$ 97,908			$ 979,080
2028	Acquire Airport Maintenance Equipment – Replace ARFF Truck (Index B)	$ 800,000	$ 1,064,000					$ -			$ 1,064,000			$ 1,064,000			$ 1,064,000
2028	Install Airfield Perimeter Fencing	$ 2,970,000	$ 3,950,100	$ 3,555,090	$ 600,000	$ 2,955,090		$ 197,505	$ 197,505		$ 197,505	$ 197,505					$ 3,950,100
2028	Construct Hangar Building (land lease)	$ 600,000	$ 798,000					$ -			$ -			$ -	$ 798,000		$ 798,000
2028	**SUBTOTAL**	**$ 5,106,150**	**$ 6,791,180**	**$ 3,555,090**	**$ 600,000**	**$ 2,955,090**	**$ -**	**$ 1,078,677**	**$ 197,505**	**$ 881,172**	**$ 1,359,413**	**$ 197,505**	**$ -**	**$ 1,161,908**	**$ 798,000**	**$ -**	**$ 6,791,180**
2029	Fog Seal Taxiway A	$ 180,785	$ 245,868					$ 221,281		$ 221,281	$ 24,587			$ 24,587			$ 245,868
2029	Payback NPE Funds for 2028	$ -	$ -					$ -			$ -						$ -
2029	**SUBTOTAL**	**$ 180,785**	**$ 245,868**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 221,281**	**$ -**	**$ 221,281**	**$ 24,587**	**$ -**	**$ -**	**$ 24,587**	**$ -**	**$ -**	**$ 245,868**
2030	Payback NPE Funds for 2028	$ -	$ -					$ -			$ -						$ -
2030	**SUBTOTAL**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
2031	Construct Hangar Building (land lease)	$ 600,000	$ 852,000					$ -			$ -			$ -	$ 852,000		$ 852,000
2031	Roll NPE Funds to 2033	$ -	$ -					$ -			$ -						$ -
2031	**SUBTOTAL**	**$ 600,000**	**$ 852,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 852,000**	**$ -**	**$ 852,000**
2032	Roll NPE Funds to 2033	$ -	$ -					$ -			$ -						$ -
2032	**SUBTOTAL**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
2033	Rehabilitate Runway 8/26	$ 4,635,000	$ 6,859,800	$ 6,173,820	$ 600,000	$ 5,573,820		$ 342,990	$ 342,990		$ 342,990	$ 342,990					$ 6,859,800
2033	**SUBTOTAL**	**$ 4,635,000**	**$ 6,859,800**	**$ 6,173,820**	**$ 600,000**	**$ 5,573,820**	**$ -**	**$ 342,990**	**$ 342,990**	**$ -**	**$ 342,990**	**$ 342,990**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 6,859,800**
2034	Construct Hangar Building (land lease)	$ 600,000	$ 906,000					$ -			$ -			$ -	$ 906,000		$ 906,000
2034	Payback NPE Funds for 2033	$ -	$ -					$ -			$ -						$ -
2034	**SUBTOTAL**	**$ 600,000**	**$ 906,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 906,000**	**$ -**	**$ 906,000**
2035	Fog Seal Runway 17/35	$ 720,680	$ 1,109,847					$ 998,862		$ 998,862	$ 110,985			$ 110,985			$ 1,109,847
2035	Roll NPE Funds to 2036	$ -	$ -					$ -			$ -						$ -
2035	**SUBTOTAL**	**$ 720,680**	**$ 1,109,847**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 998,862**	**$ -**	**$ 998,862**	**$ 110,985**	**$ -**	**$ -**	**$ 110,985**	**$ -**	**$ -**	**$ 1,109,847**
2036	Reconstruct & Strengthen East Ramp (Phase 1) & Taxiway D7	$ 5,847,325	$ 9,180,300	$ 8,262,270	$ -	$ 8,262,270		$ 459,015	$ 459,015		$ 459,015	$459,015					$ 9,180,300
2036	Strengthen Taxiways D1 & D2	$ 2,000,000	$ 3,140,000	$ 2,826,000	$ -	$ 2,826,000		$ 157,000	$ 157,000		$ 157,000	$157,000					$ 3,140,000
2036	Rehabilitate Terminal Apron (East) (Phase 2)	$ 1,500,000	$ 2,355,000	$ 2,119,500	$ -	$ 2,119,500		$ 117,750	$ 117,750		$ 117,750	$117,750					$ 2,355,000
2036	Expand Existing SRE Facility	$ 673,000	$ 1,056,610		$ -	$ -					$ 1,056,610	$1,056,610					$ 1,056,610
2036	Construct Taxiway E Holding Bay	$ 895,000	$ 1,405,150	$ 1,264,635	$ -	$ 1,264,635		$ 70,257	$ 70,257		$ 70,258	$70,258					$ 1,405,150
2036	Rehabilitate Taxilane A7D	$ 333,333	$ 523,333	$ 471,000	$ 300,000	$ 171,000		$ 26,166	$ 26,166		$ 26,167	$26,167					$ 523,333
2036	Rehabilitate Taxilane A8A	$ 333,333	$ 523,333	$ 471,000	$ -	$ 471,000		$ 26,166	$ 26,166		$ 26,167	$ 26,167					$ 523,333
2036	Rehabilitate Taxilane A8B	$ 333,333	$ 523,333	$ 471,000	$ -	$ 471,000		$ 26,166	$ 26,166		$ 26,167	$ 26,167					$ 523,333
2036	Rehabilitate Taxilane A8C	$ 333,333	$ 523,333	$ 471,000	$ -	$ 471,000		$ 26,166	$ 26,166		$ 26,167	$26,167					$ 523,333
2036	Construct New Taxiway from Taxiway A to Hangars	$ 1,500,000	$ 2,355,000	$ 2,119,500	$ -	$ 2,119,500		$ 117,750	$ 117,750		$ 117,750	$117,750					$ 2,355,000
2036	Rehabilitate Terminal Apron (West)	$ 3,000,000	$ 4,710,000	$ 4,239,000	$ -	$ 4,239,000		$ 235,500	$ 235,500		$ 235,500	$235,500					$ 4,710,000
2036	Reconstruct East Apron (Phase 2)	$ 10,000,000	$ 15,700,000	$ 14,130,000	$ -	$ 14,130,000		$ 785,000	$ 785,000		$ 785,000	$785,000					$ 15,700,000
2036	Construct Large FBO Hangar	$ 4,000,000	$ 6,280,000		$ -	$ -					$ 6,280,000			$ 6,280,000			$ 6,280,000
2036	**SUBTOTAL**	**$ 30,748,657**	**$ 48,275,392**	**$ 36,844,905**	**$ 300,000**	**$ 36,544,905**	**$ -**	**$ 2,046,936**	**$ 2,046,936**	**$ -**	**$ 9,383,551**	**$ 3,103,551**	**$ -**	**$ 6,280,000**	**$ -**	**$ -**	**$ 48,275,392**
	TOTALS 2017-2035	**$ 73,468,596**	**$ 98,925,354**	**$ 57,157,633**	**$ 3,150,000**	**$ 53,007,633**	**$ 1,000,000**	**$ 5,619,299**	**$ 3,170,449**	**$ 2,448,850**	**$ 18,422,422**	**$ 4,237,007**	**$ -**	**$ 14,185,415**	**$ 17,726,000**	**$ -**	**$ 98,925,354**

Source: Jviation, 2017

7.2.3 Airport Operating Revenues and Expenses

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

- Hangar Leases
- Ground Leases
- Aircraft Fuel Sales
- Tiedown/Ramp Fees
- Meeting Room and Office Rent
- Restaurant Lease
- Rental Car Commissions
- Direct Financial Contributions by Adams County

The amount of land and the number of buildings leased, the lease rates charged, and levels of aviation activity that generate fuel sales, parking and hangar storage, are the primary factors affecting operating revenues at the Airport. At FTG, the Airport also serves as the fixed base operator (FBO). As a result, the Airport receives the full mark-ups on fuel and other product sales, as opposed to receiving just fuel flowage fees from a third-party FBO. However, the higher revenues generated by the Airport acting as the FBO is somewhat offset by higher costs associated with staffing, wholesale fuel purchasing, maintaining fuel tanks and mobile fuelers, and associated insurance.

One industry trend of note affecting airports and FBOs in general is the ability of corporate aircraft to 'tanker' fuel due to their increasingly fuel-efficient engines. Because turbine powered aircraft can buy between 500 to 2,000 gallons of fuel at one time, corporate operators often negotiate the retail price per gallon before buying fuel at a given airport. If they do not reach agreement with the FBO on the discount they will not buy fuel, relying on their fuel reserves to fly to another airport that offers lower fuel prices. As a result, a given FBO is competing not just with adjacent airports for fuel sales, but also against airports located hundreds of miles away that may offer lower fuel prices. Some FBOs have noted that although overall corporate aircraft activity has risen, their fuel sales have not increased as quickly due to their inability to compete other FBOs on price.

As additional airport development occurs, the number of based aircraft and itinerant aircraft operations should reasonably be expected to increase, resulting in a commensurate increase in airport operating revenues. (Note that revenues associated with fuel sales, aircraft tiedowns and transient hangar rentals are directly influenced by traffic levels). Additionally, as new leases are enacted and existing leases are updated to reflect prevailing rates and terms, the Airport's most stable source of revenue will continue to increase over the long term.

In that the Airport accepts AIP grants with the stipulation that it abide by FAA grant assurances, it is important that the Airport continue to consider the following with respect to the future establishment of lease rates and other income generating fees:

- FAA Grant Assurance 22, *Economic Nondiscrimination*, states: "It [the airport sponsor] will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport."
- FAA Grant Assurance 22 also states that the sponsor, as well as airport tenants who enter into an agreement with the sponsor, will "furnish said services on a reasonable, and not unjustly discriminatory, basis to all users" and "charge reasonable, and not unjustly discriminatory prices."
- FAA Grant Assurance 22 also states that "each fixed-based operator at the airport shall be subject to the same rates, fees, rentals, and other charges as are uniformly applicable to all other fixed-based operators making the same or similar uses of such airport and utilizing the same or similar facilities."
- The FAA considers any lease with a term of greater than 20 years to be "long-term", and a lease with a term of 50 years or greater to be in violation of FAA policy (per FAA Order 5160.9B, *Airport Compliance Manual*). The FAA considers 50-year lease terms as equivalent to the sale of airport property, which FAA allows only under very specific circumstances. FAA recommends that lease terms extend no longer than the end of the amortization period and/or useful life of the facility.

It should be noted that the potential future operation of the Colorado Spaceport may ultimately have a significant impact on the revenues generated at Front Range Airport. However, this Master Plan did not analyze the potential revenues to be generated by the Spaceport, or the timeframe within which they might be realized.

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

- Personnel Services
- Airport Supplies
- Aviation Fuel
- Equipment Maintenance
- Utilities

At FTG, fuel and personnel services typically account for the largest percentage of expenses incurred on an annual basis. In FY 2014, combined they represented just over 75 percent of the Airport's total operating expenses, decreasing to approximately 61 percent in FY2016. It should be noted that in addition to the operating expenses, FTG does also incur depreciation expenses, but they are not reflected in this analysis.

The historical operating revenues and expenses for FTG between 2014 and 2016 are presented below in **Table 7-7**. With respect to this table, it is important to note the following. First, FTG was owned and operated by the Front Range Airport Authority until January 2014, the Airport and all its employees merged with Adams County, becoming its own department. Totals reflected for FY2014 in the following table are reflective of that transition period. Second, FY2016 actuals reflect unaudited totals. At the time of this writing, those figures had not yet been confirmed.

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

	FY2014 (actual)	FY2015 (actual)	FY2016 (actual*)
Airport Operating Revenues			
Operating Revenues (Aviation Fuel)	$1,207,747	$922,943	$910,731
Operating Revenues (Hangar & Land Rental)	$1,823,034	$1,108,224	$1,090,424
Operating Revenues (Other)	$170,474	$187,263	$330,762
Non-Operating Revenues	-$136,693	$24,964	$3,110
Adams County Contribution	$698,560	$560,000	$500,000
Total Operating Revenues:	**$3,763,122**	**$2,803,395**	**$2,835,027**
Airport Operating Expenses			
Personnel Services	$895,585	$1,037,014	$1,090,711
O&M (less aviation fuel)	$72,579	$112,164	$73,530
O&M (aviation fuel)	$1,032,350	$730,545	$673,824
Charges & Services (Utilities)	$188,140	$164,971	$154,130
Charges & Services (Repairs & Maintenance)	$143,571	$165,802	$324,678
Charges & Services (Other)	$178,698	$234,815	$462,634
Capital Outlay	$0	$0	$89,902
Other Financing Uses	$44,800	$0	$0
Total Operating Expenses:	**$2,555,723**	**$2,445,311**	**$2,869,409**
NET OPERATING INCOME:	**$1,207,399**	**$358,084**	**-$34,382**

Source: Adams County
Note: * 2016 financial data from Adams County is unaudited and therefore could be subject to change.

In addition to the Airport itself, the wastewater treatment plant located on airport property also incurs both operational revenues, expenses, and debt service that are all maintained in an account separate from the Airport. The historical operating revenues and expenses for the water treatment plant between 2014 and 2016 are presented below in **Table 7-8**. Note that there are two important clarification to make with respect to this table. First, direct personnel services were outsourced in 2015, resulting the those costs dropping to $0 by 2016. This is anticipated to continue into the future. Second, as reported by the Airport, the net operating income identified in the table is applied directly to the outstanding debt balance for the original wastewater facility construction. That debt is scheduled to be retired in 2017.

TABLE 7-8 - WATER TREATMENT PLANT OPERATING REVENUES AND EXPENSES (HISTORICAL)

	FY2014 (actual)	FY2015 (actual)	FY2016 (actual*)
Water Treatment Plant Operating Revenues			
Charges for Services	$17,881	$21,263	$21,024
Adams County Contribution	$348,925	$304,125	$329,752
Total Operating Revenues:	**$366,806**	**$325,388**	**$350,776**
Water Treatment Plant Operating Expenses			
Personnel Services	$79,321	$15,688	$0
O&M and Services	$56,438	$89,304	$111,703
Debt Service	$21,173	$15,478	$12,113
Total Operating Expenses:	**$156,932**	**$120,470**	**$123,816**
NET OPERATING INCOME:	**$209,874**	**$204,918**	**$226,960**

Source: Adams County
Note: * 2016 financial data from Adams County is unaudited and therefore could be subject to change.

7.2.4 Projected Operating Revenues and Expenses

The continued growth of FTG in terms of activity, tenants, new leases and facility development will impact the Airport's operating revenues and expenses over the 20-year planning period. Projections developed in this evaluation depict future airport operating revenues and expenses based on recent financial results, budgeted revenues and expenses, forecasted increases in airport based and itinerant aircraft activities, as well as airport tenant population trends identified in previous chapters of this Master Plan. Projections of future airport operating revenues and expenses at FTG for the periods 2017 through 2036 are presented below in **Table 7-9.**

Specifically, the estimates for future operating revenues were established through close consideration of historical trends, as well as proposed airport development initiatives and how they might impact those future revenues. In most instances, revenue projections resulted from normal, conservative growth factors refined to more closely reflect the circumstances of the Airport. These revenues were projected to increase between 2.0 percent and 3.5 percent annually with an average at the standard 3.0 percent annual growth rate. The exception to these rates may be miscellaneous revenues that could be realized through the one-time sales of airport assets, such as easement rights or other assets. Additionally, since the Airport is projected to continue to hangar construction throughout the planning period, increased revenue growth associated with hangar and land leases was identified in selected years.

On the operating expenses side, increases in salaries and wages, as well as overall operational activities are based on accepted inflationary growth rates (ranging from 2.0 percent to 3.5 percent average annual growth) with the higher growth factors being applied to fuel costs to account for some volatility in the supply market.

TABLE 7-9 - AIRPORT OPERATING REVENUES AND EXPENSES (PROJECTED)

	FY2016 (actual*)	FY2017	FY2021	FY2026	FY2036
Airport Operating Revenues					
Operating Revenues (Aviation Fuel)	$910,731	$933,499	$1,045,560	$1,241,797	$1,751,677
Operating Revenues (Hangar & Land Rental)	$1,090,424	$1,123,137	$1,313,669	$1,552,474	$2,253,227
Operating Revenues (Other)	$330,762	$340,684	$383,443	$444,515	$597,391
Non-Operating Revenues	$3,110	$10,000	$11,038	$12,489	$16,785
Adams County Contribution	$500,000	$447,127	$436,439	$422,162	$377,515
Total Operating Revenues:	**$2,831,917**	**$2,854,447**	**$3,190,149**	**$3,673,437**	**$4,996,595**
Airport Operating Expenses					
Personnel Services	$1,090,711	$1,123,432	$1,264,432	$1,465,823	$1,969,944
O&M (less aviation fuel)	$73,530	$75,369	$84,417	$97,863	$131,521
O&M (aviation fuel)	$673,824	$690,669	$773,580	$896,791	$1,265,012
Charges & Services (Utilities)	$154,130	$157,983	$176,949	$205,133	$275,683
Charges & Services (Repairs & Maintenance)	$324,678	$332,794	$367,343	$415,616	$558,554
Charges & Services (Other)	$462,634	$474,200	$523,428	$592,211	$795,881
Capital Outlay	$89,902	$0	$0	$0	$0
Other Financing Uses	$0	$0	$0	$0	$0
Total Operating Expenses:	**$2,869,409**	**$2,854,447**	**$3,190,149**	**$3,673,437**	**$4,996,595**
NET OPERATING INCOME:	**-$34,382**	**$0**	**$0**	**$0**	**$0**

Source: Jviation, 2016
Note: * 2016 financial data from Adams County is unaudited and therefore could be subject to change.

Based on projected activity growth and assumptions regarding future aviation activity and tenant growth, and overall development at Front Range Airport, airport revenues are projected to increase from $2,831,917 in FY2016 to $4,996,595 by FY2036. Similarly, operations and maintenance expenses are projected to increase from $2,869,409 in FY2016 to $4,996,595 by FY 2036. When combined, these projections reflect a balanced airport operations and maintenance budget throughout the planning period.

It is important to recognize a key assumption to this analysis. FTG has historically operated at a deficit, with its operational expenses outpacing its revenues. Since 2014, this annual deficit has been accounted for through direct financial contributions by Adams County. As noted previously, FAA states in the sponsor grant assurances that airports should be as financially self-sufficient as possible given their particular circumstances. It has been assumed that the County annual contributions will continue throughout the planning period to support Front Range, albeit at reduced levels as airport revenues start to overtake expenses.

Additionally, as described above, the wastewater treatment plant located on airport property also incurs both operational revenues, expenses, and debt service that are all maintained by in an account separate from the Airport. The projected operating revenues and expenses for the water treatment plant between 2017 and 2036 are presented below in **Table 7-10**. Note that revenues and expenses were both

projected to increase at the standard 3.0 percent annual growth rate. In addition, with the facility debt being retired in 2017, the debt service will be eliminated and the Adams County contribution will be reduced to a consistent $200,000 annually to anticipate continued facility maintenance and updates.

TABLE 7-10 – WATER TREATMENT PLANT OPERATING REVENUES AND EXPENSES (PROJECTED)

	FY2016 (actual*)	FY2017	FY2021	FY2026	FY2036
Water Treatment Plant Operating Revenues					
Charges for Services	$21,025	$21,655	$24,373	$12,489	$37,973
Adams County Contribution	$329,752	$330,000	$200,000	$200,000	$200,000
Total Operating Revenues:	**$350,777**	**$351,655**	**$224,373**	**$212,489**	**$237,973**
Water Treatment Plant Operating Expenses					
Personnel Services	$0	$0	$0	$0	$0
O&M and Services	$111,703	$115,054	$129,495	$150,119	$201,749
Debt Service	$12,113	$12,113	$0	$0	$0
Total Operating Expenses:	**$123,816**	**$127,167**	**$129,495**	**$150,119**	**$201,749**
NET OPERATING INCOME:	**$226,960**	**$224,488**	**$94,878**	**$62,370**	**$36,224**

Source: Adams County
Note: * 2016 financial data from Adams County is unaudited and therefore could be subject to change.

7.3 Financial Plan Summary

The primary goal is for FTG to evolve into a facility that will best serve the air transportation needs of Adams County, while simultaneously maintaining itself as a self-sustaining economic generator. This Airport Master Plan can best be described as the road map to helping the Airport and the County achieve these goals. In order to realize those goals through the successful implementation of airport development projects, the Airport must make sound and measured decisions. Two of the most important factors influencing the decision to move forward with a specific improvement are airport activity levels (i.e., demand) and funding availability. Both factors must be considered in the implementation of the CIP, because while airport activity levels provide the "what" and the "why" in implementing future airport improvements, the timing of funding provides the "how." The "what" and the "why" have been discussed in detail in previous chapters.

This chapter has addressed the "how" by providing an overview of the practical financial realities required to implement this overall airport development program. While every effort has been made in this chapter to conservatively estimate when facility development may be required, aviation demand and the availability of financial resources for capital projects will ultimately dictate when facility improvements need to be implemented, accelerated or delayed.

The financial plan presented in this chapter and summarized in **Table 7-11**, **Table 7-12**, and **Table 7-13** includes projection totals for operating revenues, operating expenses, capital expenditures, capital funding, and cash flow that result from the projections presented above. Based on the assumptions identified within the

previous sections, and subject to the availability of FAA and CDOT funding (identification of a potential funding source does not guarantee its availability), and the identification of Unidentified Funding for Capital Expenditures described in the analysis, implementation of FTG's Master Plan CIP is financially feasible.

The most significant concern of implementing this CIP is the identification of the Unidentified Funding for Capital Expenditures. However, it should be noted that this funding gap could be addressed through two primary means. First, much of this unidentified funding is related to locally-funded projects, and while the project cost estimates are based on industry standards, FTG could realize significant project cost savings through use of local and County resources, as it has historically for other projects. Second, several of these projects could be shifted to later phases until funding can be secured or is made available by accumulating airport revenue.

Key assumptions supporting the financial plan relate to the availability and timeliness of the funding sources. Continuation of the AIP entitlement program at authorized funding levels is essential. Additionally, securing federal funding of approximately $3,353,818 during Phase I, $7,230,000 during Phase II and $46,573,815 during Phase III is critical to the financial feasibility of implementing these projects. Without these levels of funding, these projects are not feasible and would need to be delayed or cancelled unless another source of funds could be acquired.

As noted previously, when Congress reauthorizes the FAA's AIP, the funding formulas shown in the FTG CIP may change. If that happens, the CIP should be adjusted accordingly and the feasibility of implementing the projects in the time frame shown should be reconfirmed. After a new AIP program has been authorized, discussions will need to be held between FTG and the Denver Airports District Office (ADO) to determine the ADO's funding availability based on the new formulas and stipulations set by Congress. Similarly, CDOT funding levels and formulas change over time and need to be monitored, and close coordination with CDOT be maintained to ensure that state funding will be available when anticipated.

However, it should be recognized that planning is a continuous process that does not end with the completion of the Master Plan—the fundamental issues that have driven this planning effort will remain valid for many years. Therefore, the ability to continuously monitor actual revenues and expenses, as well as aviation activity levels, will be key to maintaining a sound financial position. Actual future financial outcomes will be determined by a variety of factors, many of which are difficult to identify at this time, such as future FAA and CDOT funding formulas, and potential revenues associated with currently unforeseen sources (e.g., Spaceport Colorado).

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TABLE 7-11 - ACTUAL, BUDGETED, AND PROJECTED OPERATING REVENUES

Revenues	Historical Data (2014-2016) Actual 2014	2015	2016	Phase I (2017-2021) Projected 2017	2018	2019	2020	2021	Total	Phase II Projected 2022-2026	Phase III Projected 2027-2036
Airport Annual Revenues											
Non-Airport Contributions											
Adams County Contribution	$698,560	$560,000	$500,000	$421,127	$418,333	$426,799	$410,796	$418,830	*$2,095,885*	*$2,053,848*	*$4,098,173*
Annual Growth Rate		-19.8%	-10.7%	-15.8%	-0.7%	2.0%	-3.7%	2.0%	-16.2%	*-1.2%*	*0.5%*
Total Non-Airport Contributions	*$698,560*	*$560,000*	*$500,000*	*$421,127*	*$418,333*	*$426,799*	*$410,796*	*$418,830*	*$2,095,885*	*$2,053,848*	*$4,098,173*
Airport Operating Revenues				-15.8%	-0.7%	2.0%	-3.7%	2.0%	-16.2%	*-1.2%*	*0.5%*
Operating Revenues (Aviation Fuel)	$1,207,747	$922,943	$910,731	$933,499	$956,836	$985,541	$1,015,107	$1,045,560	*$4,936,543*	*$5,803,017*	*$15,077,892*
Annual Growth Rate		-23.6%	-1.3%	2.5%	2.5%	3.0%	3.0%	3.0%	*2.8%*	*3.5%*	*3.5%*
Operating Revenues (Hangar & Land Rental)	$1,823,034	$1,108,224	$1,090,424	$1,149,137	$1,195,102	$1,230,955	$1,292,503	$1,331,278	*$6,198,975*	*$7,360,033*	*$19,102,625*
Annual Growth Rate		-39.2%	-1.6%	3.0%	4.0%	3.0%	5.0%	3.0%	*4.1%*	*3.5%*	*3.4%*
Operating Revenues (Other)	$170,474	$187,263	$330,761.58	$340,684	$350,905	$361,432	$372,275	$383,443	*$1,808,739*	*$2,096,821*	*$5,248,742*
Annual Growth Rate		$0	$1	3.0%	3.0%	3.0%	3.0%	3.0%	*3.0%*	*3.0%*	*3.0%*
Total Airport Operating Revenues	$3,201,255	$2,218,431	$2,331,917	$2,423,320	$2,502,843	$2,577,928	$2,679,885	$2,760,281	$12,944,257	$15,259,871	$39,429,259
Total Annual Revenues	$3,899,815	$2,778,431	$2,831,917	$2,844,447	$2,921,176	$3,004,727	$3,090,681	$3,179,111	$15,040,142	$17,313,719	$43,527,432
Annual Growth Rate			1.9%	0.4%	2.7%	2.9%	2.9%	2.9%	*2.3%*	*2.9%*	*3.1%*
Total Non-Operating Revenues											
Non-Operating Revenues	-$136,693	$24,964	$3,110	$10,000	$10,250	$10,506	$10,769	$11,038	*$52,563*	*$59,471*	*$147,473*
Annual Growth Rate			-87.5%	2.5%	2.5%	2.5%	2.5%	2.5%	*28.8%*	*2.5%*	*3.0%*
Total Annual Airport Revenues	$3,763,122	$2,803,395	$2,835,027	$2,854,447	$2,931,426	$3,015,233	$3,101,450	$3,190,149	*$15,092,705*	*$17,373,190*	*$43,674,905*
Annual Growth Rate			1.1%	0.7%	2.7%	2.9%	2.9%	2.9%	*2.4%*	*2.9%*	*3.1%*
Water & Wastewater Annual Revenues											
Non-Airport Contributions											
Adams County Contribution	$348,925	$304,125	$329,752	$330,000	$200,000	$200,000	$200,000	$200,000	*$1,130,000*	*$1,000,000*	*$2,000,000*
Annual Growth Rate		-12.8%	8.4%	0.1%	-39.4%	0.0%	0.0%	0.0%	-39.3%	*0.0%*	*0.0%*
Total Non-Airport Contributions	*$348,925*	*$304,125*	*$329,752*	*$330,000*	*$200,000*	*$200,000*	*$200,000*	*$200,000*	*$1,130,000*	*$1,000,000*	*$2,000,000*
Water & Watewater Operating Revenues				0.1%	-39.4%	0.0%	0.0%	0.0%	-39.3%	*0.0%*	*0.0%*
Charges for Services	$17,881	$21,264	$21,025	$21,655	$22,305	$22,974	$23,663	$24,373	*$114,970*	*$133,281*	*$333,631*
Annual Growth Rate		18.9%	-1.1%	3.0%	3.0%	3.0%	3.0%	3.0%	*3.0%*	*3.0%*	*3.0%*
Total Water &Wastewater Operating Revenues	$17,881	$21,264	$21,025	$21,655	$22,305	$22,974	$23,663	$24,373	$114,970	$133,281	$333,631
Total Annual Water & Wastewater Revenues	$366,806	$325,389	$350,777	$351,655	$222,305	$222,974	$223,663	$224,373	*$1,244,970*	*$1,133,281*	*$2,333,631*
Annual Growth Rate		-11.3%	7.8%	0.3%	-36.8%	0.3%	0.3%	0.3%	*-8.5%*	*0.3%*	*0.4%*

Source: Adams County, Jviation

TABLE 7-12 - ACTUAL, BUDGETED, AND PROJECTED OPERATIONS AND MAINTENANCE EXPENSES

Expenses	Historical Data (2014-2016) Actual 2014	2015	2016	Phase I (2017-2021) Projected 2017	2018	2019	2020	2021	*Total*	Phase II Projected 2022-2026	Phase III Projected 2027-2036
Airport Operations & Maintenance Expenses											
Personnel Services	$895,585	$1,037,014	$1,090,711	$1,123,432	$1,157,135	$1,191,849	$1,227,604	$1,264,432	*$5,964,452*	$6,914,432	$17,308,143
Annual Growth Rate		15.8%	5.2%	3.0%	3.0%	3.0%	3.0%	3.0%	*3.0%*	3.0%	3.0%
O&M (less aviation fuel)	$72,579	$112,164	$73,530	$75,369	$77,253	$79,571	$81,958	$84,417	*$398,568*	$461,631	$1,155,552
Annual Growth Rate		54.5%	-34.4%	2.5%	2.5%	3.0%	3.0%	3.0%	*2.8%*	3.0%	3.0%
O&M (aviation fuel)	$1,032,350	$730,545	$673,824	$690,669	$707,936	$729,174	$751,049	$773,580	*$3,652,408*	$4,230,252	$10,888,827
Annual Growth Rate		-29.2%	-7.8%	2.5%	2.5%	3.0%	3.0%	3.0%	*2.8%*	3.0%	3.5%
Charges & Services (Utilities)	$188,140	$164,971	$154,130	$157,983	$161,933	$166,791	$171,795	$176,949	*$835,451*	$967,630	$2,422,175
Annual Growth Rate		-12.3%	-6.6%	2.5%	2.5%	3.0%	3.0%	3.0%	*2.8%*	3.0%	3.0%
Charges & Services (Repairs & Maintenance)	$143,571	$165,802	$324,678	$332,794	$341,114	$349,642	$358,383	$367,343	*$1,749,276*	$1,979,151	$4,907,510
Annual Growth Rate				2.5%	2.5%	2.5%	2.5%	2.5%	*2.5%*	$0	$0
Charges & Services (Other)	$178,698	$234,815	$462,634	$474,200	$486,055	$498,206	$510,661	$523,428	*$2,492,550*	$2,820,094	$6,992,698
Annual Growth Rate				2.5%	2.5%	2.5%	2.5%	2.5%	*2.5%*	$0	$0
Capital Outlay	$0	$0	$89,902	$0	$0	$0	$0	$0	*$0*	$0	$0
Annual Growth Rate				0.0%	0.0%	0.0%	0.0%	0.0%	*-100.0%*		
Other Financing Uses	$44,800	$0	$0	$0	$0	$0	$0	$0	*$0*	$0	$0
Annual Growth Rate		-100.0%		0.0%	0.0%	0.0%	0.0%	0.0%			
Total O&M Expenses/Expenditures	$2,555,723	$2,445,311	$2,869,409	$2,854,447	$2,931,426	$3,015,233	$3,101,450	$3,190,149	*$15,092,705*	$17,373,190	$43,674,905
Annual Growth Rate		-4.3%	17.3%	-0.5%	2.7%	2.9%	2.9%	2.9%	*2.1%*	2.9%	3.1%
Charges & Services (Depreciation)	$1,619,900	$1,600,112	$1,588,881	$1,588,881	$1,588,881	$1,588,881	$1,588,881	$1,588,881	*$7,944,405*	$7,944,405	$15,888,810
Annual Growth Rate		-1.2%	-0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	*0.0%*	$0	$0
Total Airport Expenses/Expenditures	$4,175,623	$4,045,423	$4,458,290	$4,443,328	$4,520,307	$4,604,114	$4,690,331	$4,779,030	*$23,037,110*	$25,317,595	$59,563,715
Annual Growth Rate		-3.1%	10.2%	-0.3%	1.7%	1.9%	1.9%	1.9%	*1.4%*	1.9%	2.3%
Water & Wastewater Operations & Maintenance Expenses											
Personnel Services	$79,322	$15,688	$0	$0	$0	$0	$0	$0	*$0*	$0	$0
Annual Growth Rate		-80.2%	-100.0%	3.0%	3.0%	3.0%	3.0%	3.0%			
O&M and Services	$56,438	$89,304	$111,703	$115,054	$118,506	$122,061	$125,723	$129,495	*$610,839*	$708,129	$1,772,586
Annual Growth Rate		58.2%	25.1%	3.0%	3.0%	3.0%	3.0%	3.0%	*3.0%*	3.0%	3.0%
Debt Service	$21,173	$15,478	$12,113	$12,113	$0	$0	$0	$0	*$12,113*	$0	$0
Annual Growth Rate		-26.9%	-21.7%	0.0%	-100.0%	0.0%	0.0%	0.0%	*-100.0%*		
Total O&M Expenses/Expenditures	$156,933	$120,471	$123,816	$127,167	$118,506	$122,061	$125,723	$129,495	*$622,952*	$708,129	$1,772,586
Annual Growth Rate		-23.2%	2.8%	2.7%	-6.8%	3.0%	3.0%	3.0%	*0.9%*	3.0%	3.0%
Charges & Services (Depreciation)	$53,167	$53,167	$53,167	$53,167	$53,167	$53,167	$53,167	$53,167	*$265,835*	$265,835	$531,670
Annual Growth Rate		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	*0.0%*	$0	$0
Total Wastewater Expenses/Expenditures	$210,100	$173,637	$176,983	$180,334	$171,673	$175,228	$178,890	$182,662	*$888,787*	$973,964	$2,304,256
Annual Growth Rate		-17.4%	1.9%	1.9%	-4.8%	2.1%	2.1%	2.1%	*0.6%*	2.2%	2.3%

Source: Adams County, Jviation

TABLE 7-13 - BUDGETED AND PROJECTED NET REVENUES, CAPITAL FUNDING, AND CAPITAL EXPENDITURES

Operating and Capital Cash Flow	Historical Data (2014-2016) Actual			Phase I (2017-2021) Projected						Phase II Projected	Phase III Projected
	2014	2015	2016	2017	2018	2019	2020	2021	Total	2022-2026	2027-2036
Airport Operating Cash Flow											
Revenues:											
Total Operating Revenues	$3,201,255	$2,218,431	$2,331,917	$2,423,320	$2,502,843	$2,577,928	$2,679,885	$2,760,281	$12,944,257	$15,259,871	$39,429,259
Total Non-Operating Revenues	($136,693)	$24,964	$3,110	$10,000	$10,250	$10,506	$10,769	$11,038	$52,563	$59,471	$147,473
County Contributions (Direct)	$698,560	$560,000	$500,000	$421,127	$418,333	$426,799	$410,796	$418,830	$2,095,885	$2,053,848	$4,098,173
Total Revenues	$3,763,122	$2,803,395	$2,835,027	$2,854,447	$2,931,426	$3,015,233	$3,101,450	$3,190,149	$15,092,705	$17,373,190	$43,674,905
Expenses:											
Total Operation and Maintenance Expenses	$2,555,723	$2,445,311	$2,869,409	$2,854,447	$2,931,426	$3,015,233	$3,101,450	$3,190,149	$15,092,705	$17,373,190	$43,674,905
Net Operating Cash Flow	$1,207,399	$358,084	($34,382)	$0	$0	$0	$0	$0	$0	$0	$0
Total Operating Airport Funds Available for Capital Expenditures	$1,207,399	$358,084	($34,382)	$0	$0	$0	$0	$0	$0	$0	$0
Airport Capital Cash Flow											
Capital Improvement Program (CIP):											
AIP-Eligible Expenditures		$0	$0	$500,000	$0	$0	$0	$3,226,464	$3,726,464	$8,033,333	$52,805,292
CDAG-Eligible Expenditures				$0	$0	$0	$0	$0	$0	$347,535	$2,101,315
Expenditures Ineligible for Fed/State Grants				$13,679,225	$416,764	$1,946,319	$985,420	$672,000	$17,699,728	$4,078,207	$10,133,480
Total Public/Airport Capital Expenditures		$0	$0	$14,179,225	$416,764	$1,946,319	$985,420	$3,898,464	$21,426,192	$12,459,075	$65,040,087
Non-CIP Capital Expenditures (airport projects)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Capital Funding Sources:											
AIP Entitlement Grants (Primary + Rollover)				$450,000	$0	$0	$0	$600,000	$1,050,000	$600,000	$1,500,000
AIP Discretionary Grants				$0	$0	$0	$0	$1,803,818	$1,803,818	$6,130,000	$45,073,815
State Apportionment				$0	$0	$0	$0	$500,000	$500,000	$500,000	$0
CDOT Aeronautics Division				$25,000	$0	$0	$0	$156,352	$181,352	$749,201	$4,688,746
Private or Unknown Capital Funding Source				$13,100,000	$0	$636,000	$0	$0	$13,736,000	$1,434,000	$2,556,000
Total Capital Funding Sources	$0	$0	$0	$13,575,000	$0	$636,000	$0	$3,060,170	$17,271,170	$9,413,201	$53,818,561
Total Funds Available for Capital Expenditures	$1,207,399	$358,084	-$34,382	$13,575,000	$0	$636,000	$0	$3,060,170	$17,271,170	$9,413,201	$53,818,561
Unidentified Funding Required for Capital Expenditures	$0	$0	$0	$604,225	$416,764	$1,310,319	$985,420	$838,294	$4,155,022	$3,045,874	$11,221,526
FAA AIP Entitlement Rollover				$0	$150,000	$300,000	$450,000	$0			
Ending Airport Fund Balance	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Water & Wastewater Operating Cash Flow											
Revenues:											
Total Operating Revenues	$17,881	$21,264	$21,025	$21,655	$22,305	$22,974	$23,663	$24,373	$114,970	$133,281	$333,631
Adams County Contribution	$348,925	$304,125	$329,752	$330,000	$200,000	$200,000	$200,000	$200,000	$1,130,000	$1,000,000	$2,000,000
Total Revenues	$366,806	$325,389	$350,777	$351,655	$222,305	$222,974	$223,663	$224,373	$1,244,970	$1,133,281	$2,333,631
Expenses:											
Total Operation and Maintenance Expenses	$135,760	$104,993	$111,703	$115,054	$118,506	$122,061	$125,723	$129,495	$610,839	$708,129	$1,772,586
Debt Service	$21,173	$15,478	$12,113	$12,113	$0	$0	$0	$0	$12,113	$0	$0
Total Revenues	$156,933	$120,471	$123,816	$127,167	$118,506	$122,061	$125,723	$129,495	$622,952	$708,129	$1,772,586
Net Operating Cash Flow	$209,873	$204,918	$226,960	$224,488	$103,799	$100,913	$97,940	$94,878	$622,018	$425,152	$561,045
Total Adams County Contribution (Airport & Water/Wastewater)											
Total Adams County Contribution	$1,047,485	$864,125	$829,752	$751,127	$618,333	$626,799	$610,796	$618,830	$3,225,885	$3,053,848	$6,098,173

Source: Adams County, Jviation