

Chapter Five
Airport Development and Financial Plan



Steamboat Springs
Airport Master Plan

Chapter Five

Airport Development And Financial Plan



INTRODUCTION

Future development at the Steamboat Springs Airport, as included in this study, covers a twenty-year period. Development items are grouped into three stages. The stages (as defined in FAA AC 150/5070-6B) include short-term (0-5 years), medium-term (6-10 years) and long-term (11-20 years). The existing future and ultimate development shown on the Airport Layout Plan corresponds to the terms short-term, medium-term and long-term respectively. Estimated development costs based on the airport layout plan are included for each item in the Airport Development Plan. They are based on the recommended facility requirements discussed in Chapter Three and the development projects selected in Chapter Four, including safety and capacity related projects. The phasing of projects assists the airport sponsor in budgetary planning for construction improvements that are needed to provide safe and functional facilities for aviation demands. Phased development schedules also assist the airport sponsor in contingencies and construction. The recommended airport development items are summarized below.

RECOMMENDED AIRPORT DEVELOPMENT PROJECTS

Short-Term

- Repair/Replace Perimeter Fencing
- Acquire land for Approach Protection (RPZ Avigation Easements)
- Construct Taxilanes for Hangar Development (Phase I)
- Partial Parallel Taxiway Runway 32
- Bypass Taxiway Runway 14
- Pavement Preservation

Medium-Term

- Environmental Assessment for Runway Extension (Phase I)
- Runway Extension (Phase I)
- Airport Layout Plan Update
- Taxilane Expansion (Phase II)
- Update Airport Master Plan
- Pavement Preservation

Long-Term

- Environmental Assessment for Runway Extension (Phase II)
- Runway Extension (Phase II)
- Apron Expansion
- Pavement Preservation
- Replacement Snow Removal Equipment Building

DEVELOPMENT FUNDING

The estimated development costs for the aforementioned items are located in Table 5-1. The cost shares in Table 5-1 assume that the FAA will continue to provide 95 percent grant funding for eligible projects in the State of Colorado and that the Colorado Division of Aeronautics will continue to provide 2.5 percent grant funding for eligible projects. Grant eligible items typically include airfield and aeronautical related facilities such as runways, taxiways, aprons, lighting and visual aids, as well as land acquisition and environmental tasks needed to accomplish the improvements. Safety related projects typically receive a higher priority rating and are more likely to be funded with FAA and State grant funds; however, capacity projects may receive grant funds depending on the scope and cost of the project, economic, or operational benefit and availability of funds. Certain items, such as hangars and fuel facilities, are also eligible for federal funding. Despite eligibility for funding assistance, these development items represent a low priority in competition for funds and are generally funded by the sponsor or by third party sources.

TABLE 5-1 STEAMBOAT SPRINGS RECOMMENDED DEVELOPMENT PLAN

Sequence	Project Description	Total	Federal	State	Local
A1	S Replace/Repair Perimeter-Wildlife Fence	\$250,000	\$237,500	\$6,250	\$6,250
A2	S Land for Approach Protection	\$150,000	\$142,500	\$3,750	\$3,750
A3	C Taxilane Construction	\$570,000	\$541,500	\$14,250	\$14,250
A4	C Partial Parallel Taxiway Runway 32	\$7,000,000	\$6,650,000	\$175,000	\$175,000
A5	C Bypass Taxiway Runway 14	\$2,000,000	\$1,900,000	\$50,000	\$50,000
A6	S Pavement Preservation	\$175,000	\$166,250	\$4,375	\$4,375
	<i>Total Short-Term (0-5 years)</i>	<i>\$10,145,000</i>	<i>\$9,637,750</i>	<i>\$253,625</i>	<i>\$253,625</i>
B1	S ALP Update	\$125,000	\$118,750	\$3,125	\$3,125
B2	C EA for Runway 14/32 Extension	\$150,000	\$142,500	\$3,750	\$3,750
B3	C Extend Runway 14/32 (Phase I)	\$10,050,000	\$9,547,500	\$251,250	\$251,250
B4	C Apron Expansion (Phase I)	\$570,000	\$541,500	\$14,250	\$14,250
B5	S Pavement Preservation	\$175,000	\$166,250	\$4,375	\$4,375
B6	S Update Airport Master Plan	\$250,000	\$237,500	\$6,250	\$6,250
	<i>Total Medium-Term (6-10 years)</i>	<i>\$11,320,000</i>	<i>\$10,754,000</i>	<i>\$283,000</i>	<i>\$283,000</i>
C1	C EA for Runway 14/32 Extension	\$150,000	\$142,500	\$3,750	\$3,750
C2	C Extend Runway 14/32 (Phase II)	\$10,000,000	\$9,500,000	\$250,000	\$250,000
C3	C Apron Expansion (Phase II)	\$7,840,000	\$7,448,000	\$196,000	\$196,000
C4	S Pavement Preservation	\$175,000	\$166,250	\$4,375	\$4,375
C5	S Snow Removal Equipment	\$250,000	\$237,500	\$6,250	\$6,250
C6	S Replace Snow Removal Equipment Building	\$325,000	\$308,750	\$8,125	\$8,125
	<i>Total Long-Term (11-20 years)</i>	<i>\$18,740,000</i>	<i>\$17,803,000</i>	<i>\$468,500</i>	<i>\$468,500</i>
	TOTAL	\$40,205,000	\$38,194,750	\$1,005,125	\$1,005,125

Costs in FY 2007 Dollars

C=Capacity

S=Safety

The Airport and Airways Act of 1982 created and authorized the Airport Improvement Program (AIP) to assist in the development of a nationwide system of public-use airports adequate to meet the projected growth of civil aviation. The Act provides funding for airport planning and development projects at airports included in the National Plan of Integrated Airport Systems (NPIAS).

It is not uncommon for the airport development needs to exceed the level of FAA and State grant funding available. Airports typically submit their unconstrained list of funding needs to the

FAA. This list is compiled into the National Plan of Integrated Airports Systems (NPIAS) report that is then submitted to Congress on a biennial basis. The FAA and State then select those projects from the NPIAS list that fall within their priority and funding capacity and enter them (i.e. program them) into the Airports Capital Improvement Program (ACIP). The ACIP includes those projects that are reasonably expected (but not guaranteed by the FAA) to be funded over the next six years.

Table 5-1 represents the recommended NPIAS project list. Since the airport competes for a limited amount of grant funding all of the recommended projects, especially the high cost capacity projects, may not make it into the ACIP. In that case the City could choose to fund the project with local funds, in-kind services or materials or seek third-party funding to complete the projects; or to continue to operate in its existing configuration until grant funds can be obtained. Therefore despite the eligibility for federal and state funding of the development items shown in Table 5-1, the actual availability of funding for the projects is not guaranteed, nor is the City obligated to undertake any of the listed projects. Projects shown in the development plan are based on the needs determined by the existing conditions and forecasted demand. The sequence of projects may change over time depending on actual demand.

STATE GRANT ASSISTANCE

The Colorado Department of Transportation (CDOT) Division of Aeronautics participates in funding airport development and maintenance projects. CDOT normally contributes 80 to 90 percent to projects without Federal participation and contributes 2.5 percent matching funds to the FAA's 95 percent funding of federally eligible capital improvement projects. The resulting local share is generally 2.5 percent for FAA and State funded projects and 10 to 20 percent for State only funded projects.

FUNDING THE LOCAL SHARE

The airport sponsor has several methods available for funding the capital required to meet the local share of airport development costs. The most common methods involve airport revenues, general fund appropriations, debt financing which amortizes the debt over the useful life of the project, force accounts, in-kind service, third-party support and donations.

Airport Revenues: Airport Revenue is generated by airport user fees for services which consist of land leases, tie down fees, fuel flowage fees and landing fees. As part of the acceptance of FAA grant funding the sponsor agrees to grant assurances and included in these assurances is an assurance that the airport takes necessary steps toward becoming self sufficient.

General Fund Appropriations: Depending on their financial position, the airport sponsor may have the resources to directly allocate the funds needed for the local share of capital projects. These allocations are normally included in the annual budgeting process for the various city or county departments. Early planning and identification of the funds needed helps the sponsor prepare for these allocations.

Bank Financing: Some airport sponsors use bank financing as a means of funding airport development. Generally, two conditions are required. First, the sponsor must have the ability to repay the loan plus interest and second, the cost of capital improvements must be less than the value of the present facility or some other collateral must be used to secure the loan. These are standard conditions that are applied to almost all bank loan transactions.

General Obligation Bonds: General Obligation Bonds (GO) are a common form of municipal bonds whose payment is secured by the full faith credit and taxing authority of the issuing

agency. GO bonds are instruments of credit and because of the community guarantee, reduce the available debt level of the sponsoring community. This type of bond uses tax revenues to retire debt and the key element becomes the approval by the voters of a tax levy to support airport development. If approved, GO bonds are typically issued at a lower interest rate than other types of bonds.

Self-Liquidating General Obligation Bonds: As with GO Bonds, Self-Liquidating General Obligation Bonds are secured by the issuing government agency. They are retired, however, by cash flow from the operation of the facility. Providing the state court determines that the project is self-sustaining, the debt may be legally excluded from the community's debt limit. Since the credit of the local government bears the ultimate risk of default, the bond issue is still considered, for the purpose of financial analysis, as part of the debt burden of the community. Therefore, this method of financing may mean a higher rate of interest on all bonds sold by the community. The amount of increase in the interest rate depends, in part, upon the degree of risk of the bond. Exposure risk occurs when there is insufficient net airport operating income to cover the level of service plus coverage requirements, thus forcing the community to absorb the residual.

Revenue Bonds: Revenue Bonds are payable solely from the revenues of a particular project or from operating income of the borrowing agency, such as an airport commission which lacks taxing power. These types of bonds are common with passenger terminal developments in which there is a contracted stream of revenue from airlines, rental car agencies and other tenants. Generally, they fall outside of constitutional and statutory limitations and in many cases do not require voter approval. Because of the limitations on the other public bonds, airport sponsors are increasingly turning to revenue bonds whenever possible. However, revenue bonds normally carry a higher rate of interest because they lack the guarantees of municipal bonds.

Combined Revenue/General Obligation Bonds: These bonds, also know as "Double-Barrel Bonds", are secured by a pledge of back-up tax revenues to cover principal and interest payments in cases where airport revenues are insufficient. The combined Revenue/General Obligation Bond interest rates are usually lower than Revenue Bonds, due to their back-up tax provisions.

Force Accounts, In-Kind Service, Donations: Depending on the capabilities of the sponsor, the use of force accounts, in-kind service or donations may be approved by the FAA and the State for the sponsor to provide their share of the eligible project costs. An example of force accounts would be the use of heavy machinery and operators for earthmoving and site preparation of runways or taxiways, the installation of fencing or the construction of improvements to access roads. In-kind service may include surveying, engineering or other services. Donations may include land or materials, such as gravel or water, needed for the project. The value of these items must be verified and approved by the FAA prior to initiation of the project.

Third-Party Support: Several types of funding fall into this category. For example, individuals or interested organizations; may contribute portions of the required development funds. Although not a common means of airport financing, the role of private financial contributions not only increases the financial support of the project, but also stimulates moral support to airport development from local communities. Because of the existing and projected demand for aircraft hangars, private developers may be persuaded to invest in hangar development.

PAVEMENT MAINTENANCE PLAN

Periodic maintenance is necessary to prolong the useful life of the airport pavements. The affects of weather damage, oxidation and usage cause the pavement to deteriorate. The accumulation of moisture in the pavement causes heaving and cracking and is one of the greatest causes of pavement distress. The sun's ultraviolet rays oxidize and break down the asphalt binder in the pavement mix. This accelerates raveling and erosion and can reduce asphalt thickness.

The appropriate pavement maintenance will minimize the affects of weather damage and oxidation. Crack sealing is accomplished to keep moisture from accumulating inside and underneath the pavement and should be accomplished at least every five years and prior to fog sealing or overlaying the pavements. Fog seals, slurry seals and coal tar emulsion (fuel resistant) seals are spread over the entire paved area to replenish the binder lost through oxidation and to seal, rejuvenate and waterproof the pavement. Slurry seals also include an aggregate to increase the friction coefficient of the pavement. Asphalt overlays are accomplished near the end of the useful life of the pavement. A layer of new asphalt is placed over the existing pavement to renew the life of the pavement and to recover lost strength due to deterioration. Unless specially designed, the overlay is not intended to increase the weight bearing capacity of the pavement. Overlays may be supplemented with a porous friction course or grooving to increase friction and minimize hydroplaning. Marking of the pavement is required following a fog seal or overlay.

The recommended pavement maintenance cycle time frames are listed below. It should be noted that the time frames are recommendations only. Actual pavement deterioration will be affected by use of the airport and weather exposure. Maintenance actions should be programmed as necessary through close monitoring and inspection of the pavements. Table 5-2 shows the recommended pavement maintenance schedule.

TABLE 5-2 PAVEMENT MAINTENANCE SCHEDULE

Pavement Maintenance Cycle	Approximate Time Frames
Crack Seal Pavement	0 – 2 years
Crack Seal, Seal Coat and Remark Pavements	3 – 8 years
Overlay Pavement	15 – 18 years

FINANCIAL PLAN

The ultimate goal of any airport should be the provision of aeronautical services at a self-sustaining level. Facilities that are self-sustaining can provide services with minimal outside funding and reciprocal influence. Unfortunately, few airports are able to accomplish this objective. For example, it is difficult to break even when the fees received from hangar rentals and fuel flowage will not adequately amortize the local share cost of capital projects. This occurs with great frequency in communities that are attempting to balance increased traffic levels with the financial requirements needed to fund these levels. The cost of airport maintenance can, if left unchecked, reach levels where airport needs begin to compete with other local or regional programs. Airport sponsors should, consequently, strive to become a vehicle for economic development and self-sufficiency.

There are intrinsic values that an airport offers to a community that must also be considered in financial planning. In other words, funds spent in the community or in the region by airport users contribute to the local economy and tax base. Furthermore, Steamboat Springs Airport provides access for valuable services to Steamboat Springs and surrounding communities.

EXPENDITURES

Airport operating expenditures typically include insurance, utilities, maintenance and management costs. Insurance costs include liability insurance for the airport and property insurance for any real property on the airport owned by the City of Steamboat Springs. Utility expenses primarily consist of power costs to operate airfield lighting and visual aids and water for public use areas or irrigation. Pavement maintenance consists of crack sealing on a semi-annual basis and seal coating and remarking the pavements every three to eight years. Facility maintenance consists of mowing, snow removal and repair and replacement of parts and equipment such as light bulbs, light fixtures, fences, et cetera. Management costs may include a full-time or part-time manager and staff or contract services provided by a third party or the FBO. At Steamboat Springs, the City serves as the FBO. This situation may change in the future, necessitating financial consideration.

REVENUES

Airport revenues generally consist of land leases, tie down fees, fuel flowage fees and landing fees. A summary of the current level of rates and charges at Steamboat Springs Airport is listed in Table 5-3.

TABLE 5-3 STEAMBOAT SPRINGS AIRPORT EXISTING RATES AND CHARGES

Source	Rate
Land Leases	\$.22/ sq. ft. / year - \$.56/sq.ft / year
Hangar Nightly Fee	\$300 1 st night, \$250/night thereafter for large hangars \$175 1 st night, \$150/night thereafter for small hangars
Hangar Monthly Rent	\$.39/ sq. ft./month - \$.45/ sq.ft./month
Tiedown Fees (Monthly)	\$80-\$200/month
Transient Overnight Tie Down Fees	\$10-\$30/night
Fuel Markup Fee	\$1.01/gallon
Fuel Flowage Fees	\$0.15/gallon
Ramp Facility Fee (Day use)	\$5-\$25/daily
Ramp Facility Fee (Annual Day use)	\$480-\$1,200/year
Vehicle Parking Lot Fee	\$5/night, \$30/month, \$300/year
Gate Fee (ramp access fee)	\$5

Land Leases: Property on the airport that is not devoted to airfield use, vehicle parking or contained within areas required to be cleared of structures may be leased to individual airport users or aviation related businesses. Typically, the individual is provided a long-term lease on which to construct a hangar, business or other facility. Land lease rates at Steamboat Springs Airport range from \$.22 to \$.56 per square foot per year.

Tiedown Fee: A fee is typically established for the use of fixed ramp tie-downs on paved apron areas. The fees are usually established on a monthly or annual basis for based aircraft and on an overnight basis for transient aircraft. Currently, Steamboat Springs Airport charges \$80 for monthly and \$10 for overnight single engine piston tiedowns, \$130 for monthly and \$15 for nightly helicopter tiedowns, \$130 for monthly and \$15 for nightly multiengine piston aircraft and \$200 for monthly and \$30 for nightly turbine cabin class aircraft.

Fuel Markup Fee: This fee is typically charged by the fuel provider on the airport, which is currently the City of Steamboat Springs. The fee is charged per gallon of fuel sold at the airport and covers the costs associated with providing fuel. The fuel markup fee is imposed on both Jet-A and AvGas. The average gross mark up fee for 2006 was \$1.01 per gallon.

Fuel Flowage Fee: This fee is typically imposed by the airport sponsor on all aircraft fuels delivered to the airport and would include all fuels used by aircraft including AvGas, Jet-A and MoGas. The fee would apply to fixed base operators, self-fueling users (if authorized) and through-the-fence operators who conduct self-fueling. The fuel flowage fee is for permitted entities that provide/pump their own fuel from fixed dispensers. Typical fuel flowage fees range from \$0.10 to \$0.15 per gallon.

Hangar Lease Rate: The City of Steamboat Springs leases ten hangars on the field, the lease rates vary from \$.39 per square foot per month to \$.45 per square foot per month. The City of Steamboat Springs also has hangar space available for nightly rental; the City charges \$300 for large hangars for the first night and \$250 per night thereafter, \$175 for small hangars for the first night and \$150 per night thereafter and the hourly rate for heat is \$30/hour additional charge.

Ramp Fee: The City of Steamboat Springs charges transient aircraft for the use of the aircraft parking ramp. The charge for day use of the ramp is \$5 for single engine piston, \$12 for multiengine piston and helicopter and \$25 for turbine cabin class aircraft. The charge for annual use of the ramp is \$480 for single engine piston, \$780 for multiengine piston and helicopter and \$1,200 for turbine cabin class aircraft.

Vehicle Parking Lot Fee: The City of Steamboat Springs charges \$5 for night use, \$30 for monthly use and \$300 for annual use of the airport vehicle parking lot.

Gate Fee: The City of Steamboat Springs charges \$5/airside pick up for ramp access for taxi service and rental cars.

State Fuel Tax Refund: The fuel taxes collected by CDOT Aeronautics are dispersed on the formula of \$.04 per gallon on aviation gasoline and jet fuel and 65 percent of the sales taxes collected on jet fuel used for commercial operations. Moneys are reimbursed monthly and are based on reporting from airports and verification by Colorado Department of Revenue of taxes received into the Aviation Fund.

Sales Tax: While direct airport revenues are required to be used for airport expenses, indirect revenues may be placed in the City's general fund and used for other purposes. During 2006 the local sales taxes collected on Jet-A sales were approximately \$7,600. This represents approximately 4% of the revenue for sales of Jet-A. This money generated on the fuel taxes goes directly to the City general fund.

Non-Aeronautical Revenue Generating Leases: Areas on the airport not currently needed for aeronautical use may be leased, with FAA approval, for non-aeronautical uses. The land used for non-aeronautical revenue must be identified on the Airport Layout Plan drawings and must not be needed for aeronautical use. The leases for non-aeronautical use must charge fair market value and all revenue generated by the by the lease must remain on the airport. The revenue generated by non-aeronautical leases can be used to help offset operational, maintenance and development costs of the airport. The existing lease of the terminal building by Smartwool is an existing non-aeronautical revenue generating lease since there is not an existing identified aeronautical use for the terminal building.

Table 5-4 shows the annual revenues and expenses for the Steamboat Springs Airport. The projections assume a private FBO taking over at the airport, therefore a fuel flowage fee for each gallon of fuel pumped at the airport (i.e. \$.15/gallon) was added. The projected revenues and expenses also assume that the City would keep an airport manager for daily airport

operations including, leases, minor maintenance and repair and maintaining the Capital Improvement Plan for the airport. The snow removal would continue to be conducted by the City of Steamboat Springs, thus seasonal part time help is included in the operating expenses. The increased revenue shown for the terminal building assumes that the City would vacate the building and that Smartwool, or another entity, would lease the entire building at the current or higher lease rate for the 20 year planning period. The increased revenue from land leases was calculated by determining the number of hangar spaces available on each landside development phase and projecting the existing land lease rate of \$.56/sqft/year would continue. The revenue generated by the fuel flowage fee was calculated by taking the number of gallons sold in 2005 by the number of based aircraft and projecting the ratio using forecasted based aircraft from Chapter 2 and increased fuel sales from increased development such as runway and landside development. The calculations assumed that the City of Steamboat Springs would collect \$.15 per gallon of fuel sold at the airport.

Table 5-5 shows the annual revenues and expenses for the Steamboat Springs Airport assuming no capital improvements with the exception of the Phase I taxiway development and routine maintenance to keep the airport operational. Table 5-6 show the annual revenues and expenses for the Steamboat Springs Airport assuming that the City elects not to implement a private FBO at the airport.

CONCLUSIONS AND RECOMMENDATIONS

Increasing aircraft storage hangars at the airport would result in increased direct revenues generated through property leases and increased indirect revenue through increased use of airport services and facilities, such as increased fuel purchases. Locations for additional nested T-hangars and individual box hangars have been identified on the terminal area drawing (TAD), included in Chapter 7. This Chapter has outlined proposed capital improvement projects and provides a guide for implementing future development of the Steamboat Springs Airport. The plan outlines capital improvement projects in sequence and estimated financial costs to be shared by the federal, state government and the airport sponsor. The objective of this financial analysis is to determine the most likely plan for funding capital improvement projects for the next twenty years.

The Airport's goal is to provide a safe and efficient airport to serve Steamboat Springs by providing aircraft storage, maintenance and fueling. Therefore it is recommended that the airport be able to accommodate existing and forecasted demand by airport users.

In Table 5-4 during the first five years the airport operations shows a decrease in the amount of subsidy due to increased fuel tax refund, new hangar development and the development of a new fee structure. The FBO shows increased surplus due to increased fuel sales. At the end of the third year the revenue and expenses of the FBO are shown as zero which anticipates the development of a private FBO. The expense shown on the S-Tax Bonds for the terminal building would be gone at the end of the third year from being paid off. The costs shown in the capital improvements are items such as the partial parallel taxiway, runway extension and hangar development areas along with routine maintenance items.

In Table 5-5 the airport operations are shown as a subsidy over the entire planning period due to a decrease in the amount of revenue generated by the additional runway length and increase landside development area for land leases. The net is a surplus from 2010 on due to no large development projects taking place.

In Table 5-6 the City of Steamboat Springs FBO makes a profit from the increased fuel sales and projected increased aircraft operations at the airport. Table 5-6 shows increased revenue for the airport during the 20 year projected planning period. By showing a City run FBO the subsidy required during large capital improvement projects is also reduced.

COMMUNITY SUPPORT

While it would certainly be advantageous for an airport to support itself, the indirect and intangible benefits of the airport to the community's economy and growth must be considered. People are directly or indirectly employed on the airport by the City and individual businesses. As airport activity increases, it is expected that employment on the airport will also grow throughout the planning period. The local construction industry will also benefit directly from implementation of the development programs. Other community benefits typically involve business growth and development that is enhanced by the availability of air transportation including corporate and private aviation. The airport also provides several other benefits to the local community including access for air ambulance operations, the civil air patrol for search and rescue operations, the U. S. Forest Service for wildfire control, recreation, aerospace education and flight training.

The use of corporate and business aircraft is an increasing trend across the United States. The ability of a community to provide convenient access to corporate aircraft will be reflected not only in benefits to existing businesses and industries but will be a strong factor in attracting new industry to the community.

CONTINUOUS PLANNING PROCESS

Airport planning is a continuous process that does not end with the completion of a major project. The fundamental issues upon which this master plan is based are expected to remain valid for several years; however, several variables, such as based aircraft, annual aircraft operations and socioeconomic conditions are likely to change over time. The continuous planning process necessitates that Steamboat Springs consistently monitor the progress of the airport in terms of growth in based aircraft and annual operations, as this growth is critical to the timing and need for new airport facilities. The information obtained from this monitoring process will provide the data necessary to determine if the development schedule should be accelerated, decelerated or maintained as scheduled.

Periodic updates of the Airport Layout Plan, Capital Improvement Plan and Airport Master Plan are recommended to document physical changes to the airport, review changes in aviation activity and to update development plans for the airport. Figure 5-1 shows the recommended sequence of future airport development as shown in the recommended development table.