Chapter Nine

CIP & Implementation Plan

9.0 Introduction

The Capital Improvement Program (CIP) serves as a comprehensive roadmap for the strategic planning, prioritization, and implementation of infrastructure projects within an airport. It encompasses a range of capital investments and improvements aimed at enhancing the airport's operational efficiency, safety, capacity, and customer experience.

Airports are dynamic and complex environments that require ongoing maintenance and modernization to meet the evolving needs of passengers, airlines, and regulatory authorities. The CIP ensures that airports remain competitive, adaptable, and resilient in an ever-changing aviation industry.

The CIP is of vital importance to airports for several reasons:

- It enables systematic identification and evaluation of infrastructure needs and priorities. By conducting thorough assessments and engaging stakeholders, the CIP helps airports determine which projects should be pursued and in what order. This ensures that limited resources are allocated to the most critical and impactful initiatives.

- The CIP provides a framework for financial planning and resource allocation. It assists airport authorities in estimating project costs, securing funding from various sources, and establishing a sustainable budget. Effective financial management through the CIP is essential for maintaining fiscal responsibility and ensuring the timely execution of projects without undue strain on the airport's financial health.

- The CIP supports long-term planning and strategic decision-making. By aligning infrastructure improvements with the airport's overall vision and goals, the CIP enables airports to foster sustainable growth and respond to emerging trends and industry demands. It facilitates proactive measures to enhance the airport's capacity, functionality, and technological advancements, ultimately benefiting all stakeholders.

The following chapter describes the near-term, medium-term, and long-term physical development programs for SGF. The facility improvements identified in the previous chapters are necessary over the 20-year planning period to accommodate forecasted aviation demand and will be added to the Airport's CIP. The following Implementation Plan has been developed using 2023 dollars. Implementation of individual projects within their specific development years may require adjustments for inflation and specific funding resources available.

9.1 Capital Improvement Plan (CIP) and Schedule

The physical development program for the Airport has been separated into three planning phases, or planning activity levels (PAL):

- PAL 1: Short-term (0-5 years)
- PAL 2: Medium-term (6-10 years)
- PAL 3: Long-term (11-20 years) and demand-driven

The demand-driven planning phase included with the long-term projects represents a group of improvements that address capacity issues associated with potential future aviation demand but are still very speculative regarding the exact timing of the trigger point. While this group of projects has yet to be slotted into a program timeframe, estimated costs have been provided to understand the potential magnitude of the projects. As demand approaches the need for these improvements, it is recommended that a reevaluation be conducted to find the most appropriate improvement and a more specific timeframe for implementation.

It should also be noted that anything outside of the documented first years of the short-term CIP is an improvement or infrastructure upgrade that would be considered commensurate with a Planning Activity Level (PAL) as described in *Chapter 4 – Airport Facility Requirements* and *Chapter 5 – Terminal Facility Requirements* and would not necessarily be representative of a project implemented in a specific year.

9.1.1 Short-Term CIP (PAL 1)

The short-term CIP (PAL 1) will focus on airfield safety enhancements, commercial terminal area expansion and improvements, general aviation (GA) hangar capacity, and landside parking capacity.

Total development costs for projects identified in the short-term CIP are estimated at approximately $107 million. Table 9.1-1 provides a list of projects identified in the short-term CIP with total project costs. Also included is an anticipated detailed cost allocation table (federal, state, local participation) for the short-term CIP projects.

Table 9.1-1 – Short-Term (PAL 1) CIP Project Table

	Project	Estimated Project Cost	Federal	State	Local*
2024					
Terminal	Terminal Apron Expansion - Phase 1	$10,200,000	$9,180,000	-	$1,020,000
	Terminal Improvements (FY24 ATP Application) - PBB Replacement (5)	$6,875,000	$6,531,250	-	$343,750
	Terminal Improvements - Terminal Flooring	$3,900,000	-	-	$3,900,000
	Terminal Building Entitlement Reimbursement	$3,888,889	$3,500,000	-	$388,889
	Rental Car Electric Vehicle Charging Stations	$1,100,000	-	-	$1,100,000
	Parking Garage Feasibility Study	$180,000	-	-	$180,000
Cargo/MRO	Cargo Apron Reconstruction	$9,620,000	$8,658,000	-	$962,000
GA	North T-Hangar Taxilane & Site Preparation	$1,700,000	-	$1,530,000	$170,000
	Design and Install Improvements to Lester Jones Sewer Lift Station	$1,300,000	-	-	$1,300,000
	2024 Total	$38,763,889	$27,869,250	$1,530,000	$9,364,639
2025					
Airfield	Taxiways N, D, S Reconstruction – Design	$1,340,000			
	Taxiway D Reconstruction North of RY 14-32 RSA to Taxiway N – Construction	$6,220,000			
	Taxiway N Reconstruction North of Taxiway D to Taxiway C – Construction	$5,620,000	$16,767,000	-	$1,863,000
	Taxiway N Reconstruction Within RY 14-32 RSA and South of Taxiway D - Construction	$3,480,000			
	Taxiway S and D Reconstruction Within Runway 14-32 RSA – Construction	$1,970,000			
	Runway 14 Pavement Maintenance - Joint Seal and Slab Replacement on RY 14 End and RY 2-20	$880,000	-	-	$880,000
Other	Aviation Fuel System Modifications	$900,000	-	-	$900,000
Terminal	Terminal Improvements (FY25 ATP Application) - TBD	TBD	-	-	-
	Commercial Vehicle, Taxi, and TNC Parking Improvements	$100,000	-	-	$100,000
	Public Parking Electric Vehicle Charging Stations ($300K through OTO MPO)	TBD	-	-	-
GA	Design and Install Improvements to GA Avenue Sewer Lift Station	$400,000	-	-	$400,000
	2025 Total	$20,910,000	$16,767,000	$0	$4,143,000
2026					
Airfield	Taxiways N and S Reconstruction – Design	$965,000			
	Taxiway S Reconstruction from RY 14-32 to Taxiway N – Construction	$7,280,000	$12,613,500	-	$1,401,500
	Taxiway N Reconstruction from RY 14-32 to Taxiway S – Construction	$5,770,000			
Terminal	Parking Garage - Design	$3,240,000	-	-	$3,240,000
	2026 Total	$17,255,000	$12,613,500	$0	$4,641,500
2027					
Airfield	Reconstruct GA Apron – Design	$350,000	$3,500,000	-	$388,889
	Reconstruct GA Apron – Construction	$3,538,889			
	2027 Total	$3,888,889	$3,500,000	$0	$388,889
2028					
Airfield	Construct New/Relocated SRE Facility	$10,500,000	$9,450,000	-	$1,050,000
	Rehabilitate Runway 2-20 Lighting System	$1,790,000	$1,611,000	-	$179,000
	Construct and Rehabilitate Perimeter Road	$2,000,000	-	$1,800,000	$200,000
	Runway 32 OFA and Approach Grading Improvements	$1,600,000	$1,440,000	-	$160,000
Terminal	Terminal "Node" Expansion - Design	$4,000,000	$3,000,000	-	$1,000,000
GA	Corporate/GA Campus Site Development Phase 1 - Access Road & Taxiway	$6,200,000	-	$5,000,000	$1,200,000
	2028 Total	$26,090,000	$15,501,000	$6,800,000	$3,789,000
	Short-Term Total	**$106,907,778**	**$76,250,750**	**$8,330,000**	**$22,327,028**

**5% local match for ATP; 10% local match for Entitlements, Discretionary, and BIL*
Source: CMT

9.1.2 Medium-Term CIP (PAL 2)

The medium-term CIP is intended to be a list of projects that would be candidates for inclusion in the short-term CIP in future years. Specific years or priorities are not assigned to these projects to provide SGF with the flexibility to configure future short-term CIPs as future conditions permit. This project list includes a wide array of project types which includes airfield safety enhancement projects, terminal parking expansion, cargo campus expansion, and general aviation (GA) apron reconstruction and expansion.

Total estimated development cost for projects identified in the medium-term CIP equals approximately $127 million. Table 9.1-2 provide details of the projects identified in the medium-term CIP with total estimated project costs. Anticipated funding sources have been included, but funding levels and participation levels/eligibility in future federal and state regulations may be subject to change.

Table 9.1-2 – Medium-Term CIP (PAL 2) Project Table

	Project	Estimated Project Cost	Federal	State	Local*
Medium-Term (2028-2033)					
Airfield	Taxiway N Reconstruction and Realignment	$10,300,000	$9,270,000	-	$1,030,000
	Taxiway A and P Direct Access Mitigation at Taxiway N	$3,160,000	$2,844,000	-	$316,000
	Taxiway R Reconstruction	$1,630,000	$1,467,000	-	$163,000
	Runway 20 Runup Pad	$2,250,000	$2,025,000	-	$225,000
Terminal	Parking Garage - Construction (~1,800 stalls)	$54,000,000	-	-	$54,000,000
Cargo/MRO	Cargo Campus Expansion North Apron Infill	$4,800,000	$4,320,000	-	$480,000
GA	Delta Apron Reconstruction	$4,800,000	$4,320,000	-	$480,000
	GA Apron Reconstruction East of Taxiway N	$13,100,000	$11,790,000	-	$1,310,000
	GA Apron Reconstruction East of Taxiways T and R	$11,900,000	$10,710,000	-	$1,190,000
	Corporate/GA Campus Site Development Phase 2	$20,800,000	-	$5,000,000	$15,800,000
	Medium-Term Total	**$126,740,000**	**$46,746,000**	**$5,000,000**	**$74,994,000**

**5% local match for ATP; 10% local match for Entitlements, Discretionary, and BIL*
Source: CMT

9.1.3 Long-Term (PAL 3) & Demand-Driven CIP

The long-term CIP is a mixture of airfield pavement projects combined with terminal, cargo/MRO, and GA projects generated from the master planning process. The total estimated development cost for projects identified in the long-term CIP equals approximately $292 million.

The demand-driven CIP focuses primarily on increasing airfield capacity through the construction of a future parallel runway as well as expanding capacity for GA/corporate users. Project timeframes, justifications, and funding sources will be reassessed at such a time that future aviation demand warrants the implementation of these projects. Total estimated development costs for the projects identified in the demand-driven CIP are approximately $156 million.

Table 9.1-3 provides details on projects identified in the long-term and demand-driven CIPs with total estimated project costs.

9.1.4 Implementation Plan Summary

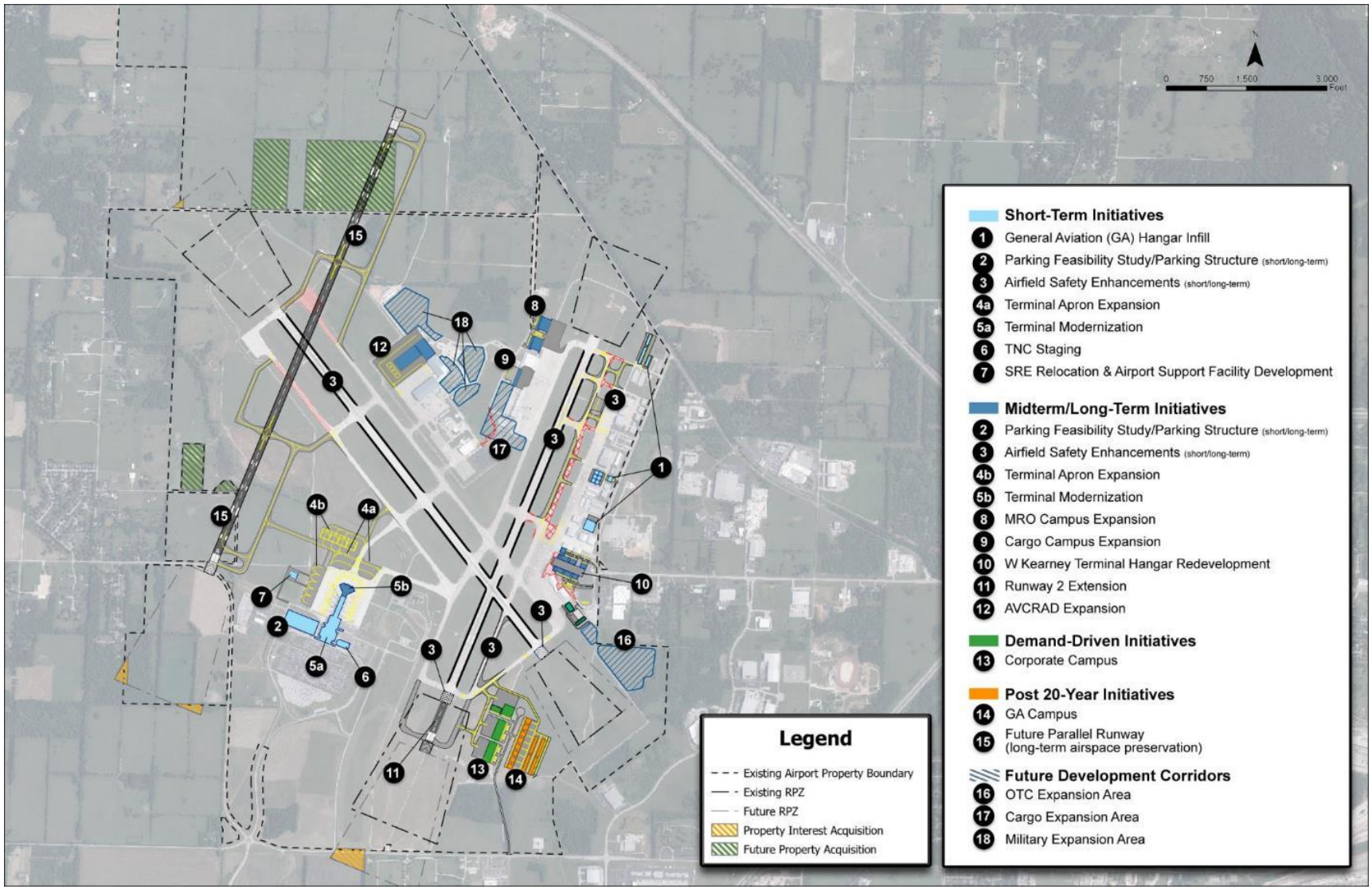
Exhibit 9.1-1 provides a visual summary of the CIP projects outlined in this chapter.

Table 9.1-3 – Long-Term (PAL 3)/Demand-Driven CIP Project Table

	Project	Estimated Project Cost	Federal	State	Local*
Long-Term (2034-2042)					
Airfield	RY 2-20 and Connecting Taxiways Reconstruction with Addition of 25' Shoulders and 200'x200' Blast Pad	$51,050,000	$45,945,000	-	$5,105,000
	Runway 2 1,000' Extension	$11,900,000	$10,710,000	-	$1,190,000
	RY 14-32 Reconstruction and Addition of 25' Shoulders and 200'x200' Blast Pad	$47,950,000	$43,155,000	-	$4,795,000
	Taxiway D Reconstruction West of RY 2-20	$27,300,000	$24,570,000	-	$2,730,000
	Taxiway U Reconstruction North of RY 14-32	$13,200,000	$11,880,000	-	$1,320,000
	Taxiway U Reconstruction South of RY 14-32	$12,300,000	$11,070,000	-	$1,230,000
	Taxiway E Reconstruction	$8,300,000	$7,470,000	-	$830,000
	Runway 32 MALS Installation	$1,500,000	$1,350,000	-	$150,000
Terminal	Terminal "Node" Expansion - Construction	$50,000,000	$37,500,000	-	$12,500,000
	Terminal Apron Expansion - Phase 2 (Deice Pad & RON)	$32,000,000	$28,800,000	-	$3,200,000
Cargo/MRO	Cargo Apron Southern Expansion	$4,750,000	$4,275,000	-	$475,000
	MRO Expansion Site Preparation	$21,700,000	-	-	$21,700,000
GA	W Kearney Redevelopment (post-2036) Site Development	$9,900,000	-	-	$9,900,000
	Long-Term Total	**$291,850,000**	**$226,725,000**	**$ 0**	**$65,125,000**
Post 20-Year/Demand-Driven					
Airfield	Future Parallel Runway (taxiways, blast pads, perimeter fencing, perimeter roadway, ILS (no land acquisition or roadway relocation))	$140,000,000	$126,000,000	-	$14,000,000
GA	Corporate/GA Campus Site Development Phase 3 (pavements and utilities)	$16,300,000	-	$5,000,000	$11,300,000
	Post 20-Year/Demand-Driven Total	**$156,300,000**	**$126,000,000**	**$5,000,000**	**$25,300,000**

**5% local match for ATP; 10% local match for Entitlements, Discretionary, and BIL. Source: CMT*

Exhibit 9.1-1 – CIP Summary Map



Source: CMT

9.2 Financial Feasibility

The following section will provide information on the financial framework of the Airport, potential funding sources, and a detailed cost allocation analysis for projects identified in the short-term CIP.

9.2.1 Financial Framework

SGF is owned and operated by the City of Springfield, Missouri. The Airport's financial structure is designed to comply with Federal, State, and local law, as well as the terms and conditions of the existing lease and use agreements. References in this section to lease agreements, FAA grant program requirements, and various other agreements are not comprehensive or definitive and represent general concepts under which the Airport operates.

9.2.2 Funding Sources

The following funding sources may be utilized during the implementation of the Airport's CIP.

FEDERAL FUNDING

Airport Improvement Program (AIP)

The AIP is a cost-sharing program that assists in the development of a nationwide system of public-use airports by providing funding for airport planning and development projects, including runways, taxiways, aprons, land purchases, airport access roads, safety and security projects, and certain terminal development. Funds obligated for AIP are drawn from the Airport and Airway Trust fund, which is supported by ticket taxes, fuel taxes, and other similar revenues sources. AIP funding is administered through both entitlement and discretionary grant programs.

Entitlement

The entitlement program for primary commercial service airports is apportioned based on their annual passenger enplanement levels. SGF's annual entitlement is close to $3.5 million.

Discretionary

Discretionary funds are distributed based upon a system of set-aside categories and national priority ratings. Airport projects must compete for these funds based upon their national priority, a value based upon both the type of project and airport. AIP funding can only be used on construction and planning related projects. AIP funding cannot be used for maintenance items, operating expenses or debt repayment. The federal share of eligible projects seeking AIP entitlement and/or discretionary funding is currently 90% for Small Hub Primary airports like SGF.

SGF was awarded over a combined $5.5 million in discretionary funds in FYs 2022 and 2023 for an array of planning and design/construction projects.

Bipartisan Infrastructure Law (BIL) – Airport Infrastructure

The BIL provides a total of $15 billion over five years for airport-related projects as defined under the existing Airport Improvement Grant and Passenger Facility Charge Criteria. This money can be invested into runways, taxiways, safety and sustainability projects, as well as terminal, airport-transit connections and roadway projects. The level of funding received by each airport per year is determined by the respective airport's NPIAS designation. In the case of SGF, the designation of "Small Hub" has resulted in almost $11.8 million of BIL allocations over the past three years.

Fiscal Year	Annual Allocation[1]
FY 22	$3,922,519
FY 23	$3,927,011
FY 24	$3,913,647
BIL Allocations Through FY 24	**$11,763,177**

Bipartisan Infrastructure Law (BIL) – Airport Terminals Program (ATP)

The BIL also provides a total of $5 billion over five years for competitive grants for airport terminal development projects that address the aging infrastructure of the nation's airports. These grants will fund safe, sustainable, and accessible airport terminals, on-airport rail access projects and airport-owned airport traffic control towers. Projects may also include multimodal development.

In FY 2024, SGF was awarded $5.3 million in ATP funds for the improvement of the passenger terminal building by replacing up to five (5) passenger boarding bridges that have exceeded their useful life. [2]

Passenger Facility Charge (PFC) Program

The PFC Program allows commercial service airports to impose a fee against enplaning passengers for the purpose of funding approved projects at that airport. SGF is currently authorized by the FAA to collect the maximum allowable PFC of $4.50 for every eligible enplaning passenger. This authorization ends in 2036. [3]

Airports electing to impose a PFC may use the revenues for one or more of the following:

- Pay all or part of the allowable cost of an FAA approved project
- Pay debt service and financing costs associated with bond issuance
- Combine PFC funds with Federal Grant funds (e.g. AIP) to accomplish an approved project
- Apply PFC funds to meet non-federal share of the cost of projects funded under the Federal Airport Grant Program

Eligible PFC projects must preserve or enhance safety, security, or capacity of the national air transportation system; reduce noise or mitigate noise impacts resulting from an airport; or furnish opportunities for enhanced competition between or among air carriers.

Congressionally Directed Spending (CDS)

This funding opportunity allows Members of Congress to request funds in the annual federal budget to be allocated for specific projects in their states and is an opportunity for eligible entities to obtain a one-

1 https://www.faa.gov/bil/airport-infrastructure

2 https://www.faa.gov/bil/airport-terminals

3 https://www.faa.gov/sites/faa.gov/files/2024-04/arp-pfc-monthly-reports-airports-20240430.pdf

time allocation of funds for projects. In FY 2023, SGF was awarded $6,400,000 in CDS funds to expand the existing terminal ramp and apron to provide for terminal expansion.[4]

STATE FUNDING

The primary State funding agency for airports in Missouri is the Missouri Department of Transportation (MoDOT) Aviation team. MoDOT provides an additional funding source for all federally eligible aviation developments and may provide certain levels of funding for ineligible or low priority projects. In normal activities, MoDOT uses several funding options. Additional description of these options is as follows:

- State Matching on Federal Fund Sources (AIP entitlement and discretionary funds)

  These funding options can be used to reduce the Airport Sponsor's total financial participation. Normally, funding percentages are 90% Federal Share, 5% State Share and 5% Local Share. These funding percentages can vary depending on the availability of State funds.

- State-Local Funding Using General Revenue/Aviation Fuel Tax Funds

  MoDOT administers a cost-sharing program called the State Aviation Trust Fund (ATF). Funds for this program are provided from a tax on aviation fuel within the state, up to $10 million per year. The program assists local airport sponsors in the planning, purchase, construction, or improvement of public-use airports. Under this cost-sharing program, eligible projects qualify for 90 percent state funding, with the remaining 10 percent representing the local sponsor's share. Like the AIP program, it is critical that the local match be secured to fully leverage available state participation.

- State-Local Funding Using Loans

  MoDOT also maintains a Statewide Transportation Assistance Revolving (STAR) fund. The STAR fund provides loans to local entities for non-highway projects such as rail, waterway, and air travel infrastructure. The STAR fund can assist in the planning, acquisition, development, and construction of facilities for transportation by air, water, rail or mass transit; however, STAR fund monies cannot fund operating expenses.

LOCAL FUNDING

The balance of capital project costs, after consideration has been given to FAA grants, State, and other funding sources, must be funded through Airport resources. This direct payment of capital costs is accomplished using airport operating revenues or reserves. If bonds or other borrowings are used, they are also repaid by collecting rent, fees, and other charges. Revenue sources include hangar rent, fuel flowage fees, land leases, etc. If additional funds are required to cover local costs, SGF may choose to pursue other funding sources.

4 https://www.appropriations.senate.gov/congressionally-directed-spending-requests-fy2023-chart

BONDS

An airport sponsor may obtain the required local share of a project through bonds. SGF has bonding capacity through its ownership by the City of Springfield. The information included below is based on common industry standards and practices.

The airport sponsor will select the appropriate bond to acquire the necessary financing based upon the number of projects requiring local share monies and the type of airport. Airports typically use one of two types of bonds to fund capital development projects:

- General Obligation (GO) Bonds – Payments to the bondholders are secured by the full faith, credit, and taxing power of the issuing governmental entity. An advantage of general obligation bonds is that they are typically issued at a lower interest rate due to the governmental guarantee. However, there are typically limits on the amount of general obligation debt that can be incurred, and many states require voter approval before issuing general obligation debt. In addition, typically GO bonds can only be financed for 10-15 years, increasing the monthly payment.
- General Airport Revenue Bonds (GARBs) – The debt service from these bonds is paid solely from the revenue received from the facility that was constructed with the proceeds of the bonds. This type of financing presents an opportunity to construct facilities without increasing the debt burden of the airport, since the debt is backed solely by the revenue generated by the facility. Because these bonds are not backed by an additional government guarantee and are therefore perceived as a greater risk, they typically have interest rates that are higher than GO bonds. One advantage of GARBs is they typically can be financed for a greater amount of time (25–30-year terms) resulting in lower monthly debt payments.

9.3 Key Actions and Responsibilities

9.3.1 Project Development Tasks

Capital improvements at airports require several steps to be completed prior to the initiation of construction activities. The following actions should be assessed to determine if they are required for each project and to what degree:

- Sponsor Approval – depending on agreements signed with air carriers and/or tenants, the Airport may be required to receive approval by the air carriers and/or tenants for the proposed capital improvement project.
- Funding Applications – the Airport or their representing engineering firm must submit federal and state applications for funding well in advance of the anticipated construction date. Federal funding for capital improvement projects at airports is extremely competitive.
- Section 163 Determination – recent changes in federal law have required the FAA to revisit whether FAA approval is needed for certain types of airport projects throughout the nation. The FAA retains authority to:

- Ensure safe and efficient operations of aircraft or the safety of people or property on the ground related to aircraft operations.
- Regulate land or a facility that was acquired or modified using federal funding.
- Ensure an airport owner or operator receives not less than fair market value (FMV) in the context of a commercial transaction for the use, lease, encumbrance, transfer, or disposal of land, any facilities on such land, or any portion of such land or facilities.
- Ensure that an airport owner or operator pays nor more than FMV in the context of commercial transaction for the acquisition of land or facilities on such land.
- Enforce any terms contained in a Surplus Property Act instrument or transfer.
- Exercise any authority contained in 49 U.S.C. § 40117, dealing with passenger facility charges (PFCs).

- Environmental Documentation – the Airport, under the National Environmental Protection Act (NEPA), and in accordance with FAA policies, must submit the necessary environmental documentation and receive approval by the appropriate agencies prior to federal funding being allocated to the proposed capital improvement project. Environmental documentation should be submitted early in the planning/design stage of a project due to the amount of time required to complete the environmental review process.
- Aeronautical Study Determination – the FAA must formally approve the airspace for Airport development/improvement projects. The Airport must submit the necessary airspace information and receive approval from the FAA as part of the FAA's grant assurances. Like environmental documentation, the airspace submittal should also be submitted early in the project planning/design stage due to the lengthy airspace review process.
- Land Acquisition – the Airport must secure any additional land resources (fee simple or avigation easement) necessary for the proposed capital improvement project prior to construction beginning. The Airport should begin the land acquisition process as soon as practicable as this process can take anywhere from nine months to 2 or 3 years to complete depending on the level of complexity.
- Project Design – this process involves the design of the proposed capital improvement project and typically takes between 36 and 60 weeks to complete depending on the level of complexity and the level of agency coordination.
- Agency Coordination Activities – depending on the size and complexity of the proposed capital improvement project, coordination and permitting with several agencies may be required. The time to complete coordination and permitting efforts with agencies is dependent on specific project details.
- Public Coordination Activities – depending on the size and complexity of the proposed capital improvement project (i.e., new runway or runway expansion), the Airport may need to complete a public outreach program to identify the benefits of the project and allow the public to provide critical feedback on potential impacts. The level of effort necessary to conduct a public outreach program is dependent on specific project details.