

## Chapter 6 - Capital Improvement Plan

Implementation of the recommended alternatives is guided by a Capital Improvement Plan (CIP) that establishes a timeline and cost estimate for each planned improvement. CIPs help identify the level of financial, staffing, and scheduling resources needed for each improvement while organizing the timing of necessary preliminary projects such as design plans, land acquisitions, and environmental reviews. CIPs also help illustrate the capital needs of an airport, assisting the funding allocation decisions of federal, state, and local officials.

The CIP prepared for the Hector International Airport (Airport) outlining projects identified in this Master Plan is contained in the Fiscal Year 2017-2030 Capital Improvement Plan and is presented in this Chapter in the following sections:

- 6.1 Capital Improvement Plans**
- 6.2 Estimated Costs for Future Development**
- 6.3 Funding Resources**
- 6.4 Summary**

### 6.1 Capital Improvement Plan

CIPs summarize –development plans of an airport, outlining infrastructure improvement projects such as runway and taxiway extensions, operational needs such as pavement rehabilitations, and equipment purchases such as Aircraft Rescue and Fire Fighting (ARFF) and snow removal equipment (SRE) vehicles. CIPs include the capital needs associated with each proposed project and are updated regularly based on changing conditions and priorities. CIPs must also be coordinated with projects identified in master plans and Airport Layout Plans (ALPs) and include projects both eligible and ineligible to receive federal funding. Projects eligible to receive federal funding from the Airport Improvement Program (AIP) must be identified on an airport’s CIP as this source of information updates the Federal Aviation Administration (FAA) database used in awarding funds. In addition to projecting the level of financial resources needed for each proposed project, CIPs also help balance scheduling conflicts, identify timelines for environmental review requirements, and address property needs such as leases, easements, and land acquisitions. However, the CIP will change over time due to changing priorities, needs, funding limitations, etc. and therefore, the timeframe to implement projects will change.

## 6.2 Estimated Costs for Future Development

As summarized in Table 6-1, over \$81 million in improvement projects, equipment purchases, and planning initiatives are listed on the Airport's CIP through 2030 with a breakdown of the funding share for each project also included. Costs are based 2016 construction dollars.

It should be noted that AIP funds typically account for 90 percent of eligible projects while the remaining 10 percent of costs are the responsibility of an airport sponsor and/or state. In North Dakota, up to 50% of the non-federal share of federally funded projects through the North Dakota Aeronautics Commission (NDAC). The NDAC may also fund up to 90% of total eligible cost on non-federally funded projects. It is assumed for the estimated costs contained in the CIP (Table 6-1) that the airport will not receive money from the NDAC. The reason is that state grant funds (5% of a federally eligible project and/or 90% of a non-federally eligible project) requested annually far exceed the funding available. In a typical year, several million dollars of state funding is requested, but the amount received by airport will vary greatly and is dependent on need, available funding and competition from other projects within the state. Therefore, the NDAC share is assumed to be 0% for planning purposes.

Table 6-1: Capital Improvement Plan

Year	Project	Total Cost	AIP Eligible	Potential Funding Sources			
				FAA Entitlement	FAA Discretionary	State Funds	Local
2017	Taxiway A Reconstruction (Taxiway C to Runway 18)	\$ 7,700,000	Yes	\$ 2,800,000	\$ 4,130,000	\$ -	\$ 770,000
2018	SRE Building Expansion	\$ 2,000,000	Yes	\$ 1,450,000	\$ 350,000	\$ -	\$ 200,000
2018	Runway 18-36 CL/TDZ Lighting	\$ 1,500,000	Yes	\$ 1,350,000	\$ -	\$ -	\$ 150,000
2018	Elevated Walkway	\$ 13,000,000	Yes	\$ -	\$ -	\$ -	\$ 13,000,000
2019	Cargo Apron Expansion	\$ 2,500,000	Yes	\$ 2,250,000	\$ -	\$ -	\$ 250,000
2019	Pavement Rehabilitation	\$ 500,000	Yes	\$ 450,000	\$ -	\$ -	\$ 50,000
2021	Terminal Building Expansion (Gate 6)	\$ 5,000,000	Yes	\$ 4,500,000	\$ -	\$ -	\$ 500,000
2022	Terminal Apron Reconstruction	\$ 11,000,000	Yes	\$ 2,800,000	\$ 7,100,000	\$ -	\$ 1,100,000
2023	Runway 18L-36R & Runway 9-27 EA	\$ 700,000	Yes	\$ 630,000	\$ -	\$ -	\$ 70,000
2023	Pavement Rehabilitation	\$ 500,000	Yes	\$ 450,000	\$ -	\$ -	\$ 50,000
2024	Runway 9-27 Strengthening & Widening	\$ 22,500,000	Yes	\$ 2,800,000	\$ 18,500,000	\$ -	\$ 1,200,000
2025	Taxiway C Strengthening & Widening	\$ 8,000,000	Yes	\$ 2,800,000	\$ 4,400,000	\$ -	\$ 800,000
2026	Runway 9-27 Extension	\$ 10,000,000	Yes	\$ 2,800,000	\$ 6,300,000	\$ -	\$ 900,000
2027	Taxiway C Extension	\$ 4,000,000	Yes	\$ 2,800,000	\$ 800,000	\$ -	\$ 400,000
2028	North GA Taxiway Extensions	\$ 1,000,000	Yes	\$ 900,000	\$ -	\$ -	\$ 100,000
2028	Pavement Rehabilitation	\$ 500,000	Yes	\$ 450,000	\$ -	\$ -	\$ 50,000
2028	Runway 18-36 Shoulder Construction	\$ 10,000,000	Yes	\$ 775,000	\$ 8,725,000	\$ -	\$ 500,000
2028	SRE Replacement	\$ 750,000	Yes	\$ 675,000	\$ -	\$ -	\$ 75,000
2029	Parking Lot Expansion	\$ 2,000,000	No	\$ -	\$ -	\$ -	\$ 2,000,000
2029	Access Control Systems & CCTV System Upgrades	\$ 500,000	Yes	\$ 450,000	\$ -	\$ -	\$ 50,000
2029	Perimeter Road Reconstruction/Rehabilitation	\$ 1,000,000	Yes	\$ 900,000	\$ -	\$ -	\$ 1,000,000
2030	East GA Expansion	\$ 2,000,000	Yes	\$ 1,800,000	\$ -	\$ -	\$ 200,000
2031	Taxiway D Reconstruction	\$ 3,500,000	Yes	\$ 2,800,000	\$ 350,000	\$ -	\$ 350,000
2032	Pavement Rehabilitation	\$ 500,000	Yes	\$ 450,000	\$ -	\$ -	\$ 50,000
2033	Runway 18L-36R Construction	\$ 8,000,000	Yes	\$ 2,800,000	\$ 4,400,000	\$ -	\$ 800,000
		\$ 118,650,000		\$ 33,055,000	\$ 35,630,000	\$ -	\$ 24,615,000

Source: Hector International Airport, Mead & Hunt, Inc. (2016)

## 6.3 Funding Resources

Several funding resources are available to accommodate the capital demands of the Airport to implement projects listed in their CIP plan. These funding sources range from federal and state programs to local revenue streams. The following section reviews these resources and identifies projects included in the CIP plan that are eligible to receive funding from each.

### 6.3.a Airport Improvement Program

AIP was created by the Airport and Airway Improvement Act of 1982 and is administered by the FAA. AIP funds originate from the Airport and Airway Trust fund, which draws support from user fees, fuels taxes, and other revenue sources. Federal funding from this program is distributed for eligible non-revenue producing projects at an airport, including planning, airfield construction, navigational aids (NAVAIDs), and environmental mitigation. AIP funds are distributed to different categories of public-use airports owned by public entities that are included in the National Plan of Integrated Airport Systems (NPIAS), with some exceptions made for public use airports under private ownership identified in the NPIAS.

Airports supporting commercial airline service are classified as Primary (over 10,000 enplanements) or Non-Primary (from 2,500 up to 10,000 enplanements) based on the number of annual enplanements. Primary commercial service airports are further classified based on the percentage of annual passenger enplanements in comparison with all passenger enplanements that occur annually at airports in the U.S. Since the Airport boards more than between 0.05 percent and .25 percent of all annual enplanements in the United States, it is categorized as a small-hub airport. Both entitlement and discretionary AIP funds are available to small-hub airports with entitlement amounts awarded based on the level of annual enplanements and discretionary amounts awarded on a project-by-project basis based upon project priorities within the national airport system. Small-hub airports, such as Hector International Airport are generally eligible to receive 90% of AIP eligible expenses.

Utilization of this funding source can be applied to all the projects identified on the CIP plan except for parking lot projects.

### 6.3.b NDAC Funding Assistance

The North Dakota Aeronautics Commission administers state funding distributed to airports across North Dakota. State funding is generated through a combination of fuel taxes, excise taxes and aircraft registration fees. These funds are typically used to pay for up to a maximum of 90% of a non-federal project and 5% of the non-federal share of federally eligible project. Airports apply for state grants on an annual basis and all projects are subject to a state priority rating.

### 6.3.c Passenger Facility Charges

Passenger Facility Charges (PFCs) allow an airport to collect a fee from each enplaned passenger to help fund projects that preserve or enhance safety, security, and capacity; reduce the impacts of aircraft noise; or provide enhanced competition between air carriers. This funding mechanism helps an airport raise local funds for improvement projects that can be used in conjunction with other federal and state resources. Currently, federal regulations allow an airport to collect a PFC fee up to \$4.50 per enplaned passenger.

Fees collected from PFCs for each enplaned passenger at the Airport could be applied to safety and security improvement projects included on the CIP. In addition to helping the Airport meet the local share necessary to receive federal funding for the Airport Improvements Program, PFCs could help finance most projects listed on the CIP with or without the participation of AIP funds. An increase in the \$4.50 limit per enplaned passenger (which is being discussed by industry and government officials) would benefit the Airport as additional local funds could be generated for improvement projects.

## 6.4 Summary

Development of a CIP allows an Airport to create an implementation schedule addressing the timing of future capital needs for proposed infrastructure improvements. In addition to identifying the level of financial, staffing, and scheduling resources needed for each improvement project, CIPs help demonstrate financial needs of an airport to federal, state, and local officials. Several funding resources made available through federal and NDAC programs or local mechanisms such as PFCs are available to assist the Airport in raising the necessary capital for each improvement project. Periodic updates of the CIP to reflect changing demands and priorities throughout the planning period will position the Airport well to continually meet the aviation demands of the users of Hector International Airport.