

WORKING PAPER 5
IMPLEMENTATION PLAN &
FINANCIAL FEASIBILITY

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Prepared by RS&H for the
Chisholm Hibbing Airport Authority



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CHAPTER 4

*FINANCIAL FEASIBILITY &
IMPLEMENTATION PLAN*

4.1 INTRODUCTION

The preceding chapters of this Master Plan identified an aviation demand forecast and the future facilities needed to meet that forecast demand, as well as those needed to sustainably maintain/improve airport safety. This chapter identifies a financially feasible Capital Improvement Program (CIP) to implement Master Plan recommendations over the planning period. The comprehensive CIP can be used to guide future Airport development and position HIB to meet the established vision for ultimate facility development.

The future investments identified in the Airport CIP involve many interrelated components that must be identified and implemented in a coordinated manner. This chapter documents required development sequencing within identified development programs and at the individual project level.

Since development cannot occur without adequate funding, this chapter begins by identifying potential capital project funding sources and, with an understanding of historic Airport funding trends and Federal Aviation Administration (FAA) funding guidance, establishes realistic future funding expectations. This allows the CIP to be realistically sequenced with rough order-of-magnitude (ROM) costs based on reasonable design and construction estimations. This establishes a practical, fundable, and implementable plan that HIB can use to guide project timing and budgeting for facility improvements that meet future development needs.

In summary, this chapter:

- » Provides a phasing plan for the 5-year, 10-year, and 20-year planning horizons
- » Summarizes the updated 20-year CIP
- » Provides rough order-of-magnitude cost estimates for all CIP projects
- » Delivers detailed project descriptions with supporting justifications
- » Describes historical and projected Airport project funding sources
- » Analyzes impacts of the established CIP on airport finances and cost per enplanement (CPE)

4.1.1 Implementation Process

Several steps may be necessary prior to completing a capital improvement project at HIB. In the case of major improvements such as the Runway 13-31 extension, preparing for a facility improvement should begin a minimum of five years prior to the actual need for the facility. This lead-in time may be necessary for coordination with the FAA and/or MnDOT regarding funding, environmental entitlement, and other regulatory compliance requirements, as well as time to complete site or facility design, and time to complete facility construction. The major implementation steps for a complex, federally funded Airport Improvement Program (AIP) project are shown in **Figure 4-1**.

**FIGURE 4-1
TYPICAL STEPS TO COMPLETE AN AIRPORT PROJECT**

Typical Steps Four Years Prior to Construction

- Identify the project in the approved Airport Layout Plan and consult with FAA Airports District Office (ADO)
- Submit 5-year CIP (*by February 1st*)
- Validate project justification and funding eligibility and identify funding sources
- Determine probable level of environmental review (*planning may need to begin much earlier if EIS required*)
- Determine if ALP and/or Exhibit 'A' need updating
- Identify required flight procedure modifications and need for aeronautical survey
- Coordinate with local officials and airport users on project plans

Typical Steps Three Years Prior to Construction

- Refine project scope, cost estimates, and funding sources
- Determine if a Benefit/Cost Analysis or if FAA Letter of Intent (LOI) are necessary
- Determine if a reimbursable agreement is necessary for affected navigational aids (NAVAIDs)
- Initiate aeronautical survey as required
- Begin purchase or assembly of all necessary land for the project

Typical Steps Two Years Prior to Construction

- Refine project scope
- Solicit professional design services
- Prepare preliminary design, site planning, and cost estimates
- Initiate reimbursable agreements and coordinate any NAVAID requirements with the FAA
- Complete aeronautical survey and submit requests for new/modified flight procedures with the FAA
- Submit a request for airspace review of projects under non-rulemaking authority (NRA)
- Begin Benefit/Cost Analysis if determined to be necessary (*projects seeking over \$5M discretionary*)
- Initiate environmental assessment or categorical exclusion documentation
- Coordinate with local officials and airport users on refined project scope and schedule

Typical Steps One Year Prior to Construction

- Complete airspace study
- Complete project scope of work
- Complete environmental documentation
- Complete 90 percent design, plans, and specifications after FAA environmental findings are made
- Refine and update cost estimates
- Execute reimbursable agreements to support NAVAIDs, if relevant
- Prepare and coordinate Construction Safety Phasing Plan
- Initiate Safety Management Systems (SMS) process
- Secure all necessary local funding
- Secure environmental and other necessary permits
- Submit Benefit/Cost Analysis (*by March 1st*)
- Coordinate Safety Risk Management Panel with FAA-ATO or FAA-ARP, as necessary
- Finalize construction bidding, grant application, and grant acceptance schedules

(Figure continued next page)

Year of Construction

- Complete 100 percent design, plans, and specifications
- Complete FAA environmental documentation for current fiscal year (*by January 15th*)
- Advertise and secure bids according to ADO schedule
- Submit grant applications (*by May 1st, if discretionary funds expected bid by April 1st*)
- Accept federal grants (*within 30 days of offer*)
- Coordinate with local officials and airport users on the progress and schedule
- Issue notice-to-proceed
- Monitor environmental mitigation requirements during construction
- Provide weekly inspection reports

After Construction

- Submit final report and provide final test results (*within 60 days of construction end*)
- Close any accepted federal grants (*within 90 days of project acceptance*)
- Monitor environmental mitigation measures
- Submit final As-Built ALP and Exhibit 'A'

Source: Federal Aviation Administration - "Steps to AIP Funding for Your Airport Project: Quick Reference Guide", March 2016

4.1.2 NEPA Implementation Process

The environmental entitlement for projects within each development phase will need to be completed in advance of the design and construction to allow for project completion in accordance with applicable federal rules and regulations. FAA Order 1050.1F, *Policies and Procedures for Considering Environmental Impacts*, and 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airports*, require the evaluation of airport development projects as they relate to specific environmental impact categories. A complete evaluation of the impact categories identified in FAA Orders 1050.1F and 5050.4B is required during an Environmental Assessment (EA) or Environmental Impact Statement (EIS). Categorical Exclusions (CATEX) require evaluations of extraordinary circumstances to ensure that projects, typically causing minimal environmental effects, would not cause effects requiring more analyses in an EA, or possibly, an EIS.

There are two EAs identified within the HIB CIP. These will be addressed in greater detail later in this chapter and relate to the following two programs:

1. Runway 13-31 Extension
2. East Side General Aviation Development

4.2 AIRPORT FUNDING OUTLOOK

Typical airports cannot satisfy capital development funding needs strictly from their own internal funding sources. Federal, state, local, and private funding combine with airport funds and bond proceeds (supported by airport revenues and/or municipal support) to generate the funds required to undertake capital improvement projects. Federal funding sources include AIP grants which are subject to Congressional modification or other entities with jurisdictional control over a particular funding source.

Another important consideration when programming project funding is the availability of funds from each source. Specific project eligibility criteria also vary depending upon the funding source. This analysis identifies potential funding sources and examines each project element to determine (or estimate as appropriate) its eligibility for each program or funding source. The following sections describe primary external funding sources available to provide capital for the preferred development.

Range Regional Airport maintains a 5-year CIP aimed at expanding, maintaining, and improving airport infrastructure, which is kept on file with the Minnesota Department of Transportation (MnDOT). Funding is programmed with FAA and MnDOT for the coming three years. HIB projects with programmed funding have remained within the updated HIB CIP over the first three years with the exception of those which were directly altered by Master Plan analysis.

4.2.1 Federal Funding Outlook

Federal funding sources available to HIB include grants from FAA Airport Improvement Program (AIP) and the 2021 Bipartisan Infrastructure Law (BIL or Infrastructure Bill) and revenues from non-committed Passenger Facility Charges (PFCs).

4.2.1.1 Airport Improvement Program

Federal funding is available to airports through the AIP dependent upon the airport category designated in the National Plan of Integrated Airport Systems (NPIAS), and the priority of the improvement as determined within the national priority ranking system.

Categorized as a primary non-hub airport by the NPIAS, Range Regional Airport receives approximately \$1 million of AIP entitlement money per fiscal year through congressional authorizations as long as at least \$3.2 billion is available. Likewise, additional discretionary grants are offered through the AIP depending on the availability of funds and the FAA's assessment of need and priority ranking. Discretionary funding is based on a project's ranking in the National Priority List, as determined by the process found in FAA Order 5100.39A, *Airports Capital Improvement Plan*. Over the past ten years Range Regional Airport has secured discretionary funding on multiple projects. Most notably, the Airport received \$3.6 million in 2014 for expansion of the terminal building; \$2.3 million in 2015 for rehabilitating its apron; and \$3.7 million in 2017 for reconstructing the pavement on its primary runway and various other airfield related projects.

4.2.1.2 Bipartisan Infrastructure Bill

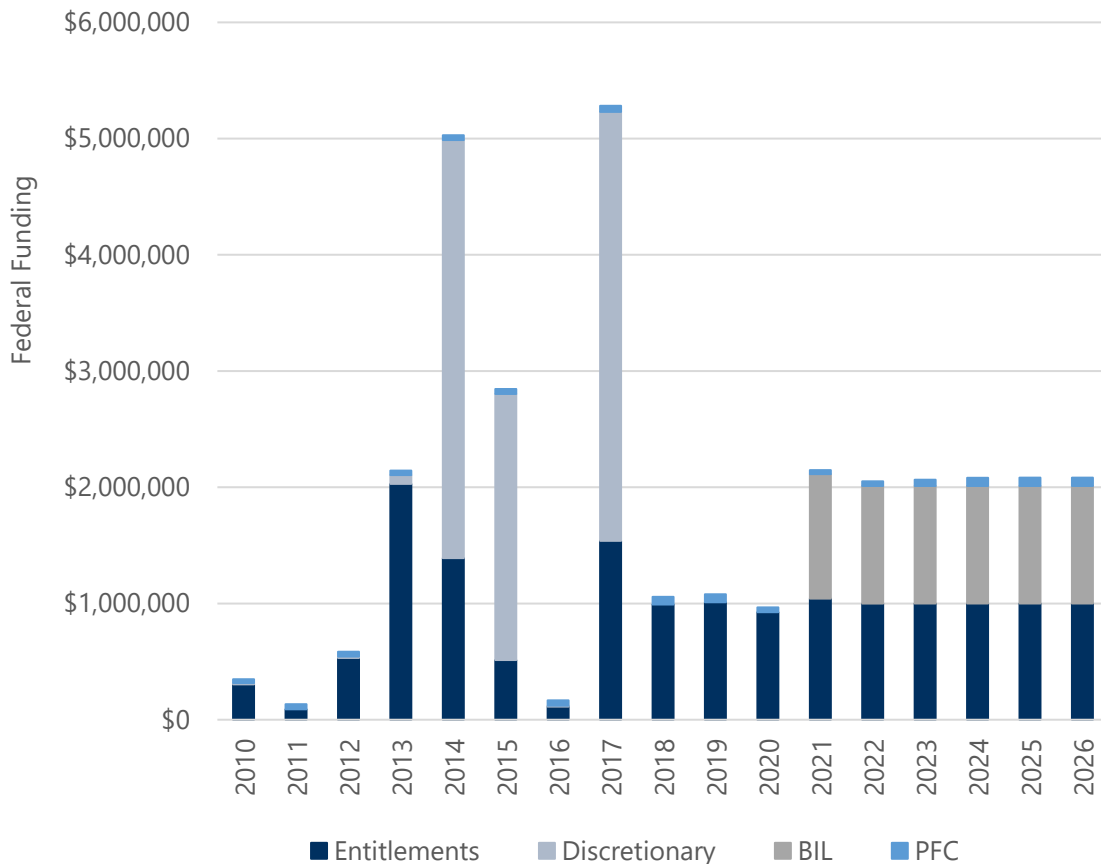
In November 2021, the Infrastructure Bill was signed by the President of the United States. The BIL includes \$15 billion (or \$3 billion per year from 2022-2026) which is to be used on airfield, sustainability & resiliency, terminal, and landside projects. Similar to the AIP process for allocating funds to airports, the BIL follows the same justification process as entitlements, which will enable Range Regional Airport to receive \$1,114,464 for FY 2022 and similar amounts for fiscal years 2023 through 2026 annually in addition to the roughly \$1 million it receives from AIP entitlement grants. The remaining \$5 billion of the BIL (or \$1 billion annually) will be distributed as follows: Not more than 55 percent shall be for large hub airports, not more than 15 percent shall be for medium hub airports, not more than 20 percent shall be for small hub airports, and not less than 10 percent shall be for non-hub and non-primary airports.

4.2.1.3 Passenger Facility Charges

In addition to AIP funds, HIB is also authorized by FAA to collect PFCs to support eligible projects which enhance safety, security, or capacity; reduce noise; or increase air carrier competition. Because passenger enplanement levels are still relatively low at HIB, PFCs make up only a small portion of financial support available to the Airport. Historically PFCs have been counted in the tens of thousands of dollars annually but grew steadily from roughly \$42,000 in 2014 to over \$69,000 in 2019 prior to dropping in 2020 under COVID-19 pandemic-related decreases in passenger traffic. However, PFCs can be accrued over long periods of time, amounting to significant funding over the planning period. Considering passenger demand forecasts for the 20-year planning period, at a \$4.50 PFC level, the Airport has the potential to collect an average of approximately \$50,000 annually which is projected to total more than \$1 million over the 20-year planning period. PFC funding is expected to be primarily used to supplement AIP entitlementment funds for eligible portions of projects like airfield improvements and airport support facilities included in the CIP over the planning period.

Figure 4-2 shows the historical federal funding for Range Regional Airport, and the anticipated federal funding from combined AIP entitlements, PFCs, and BIL funds from 2022-2026.

FIGURE 4-2
FEDERAL ENTITLEMENT FUNDING AT RANGE REGIONAL AIRPORT (HISTORICAL AND PROJECTED)



Source: FAA; RS&H Analysis, 2021

4.2.2 State Funding Outlook

The state of Minnesota provides funding to airports through three Minnesota Department of Transportation (MnDOT) Aviation and Aeronautics programs¹:

- » **Airport Construction Grant Program** – The State Construction Grant Program funds most capital improvements at Minnesota state system airports based on a determination that the improvement is a justifiable benefit to the air-traveling public. State funding participation may vary from year to year.² State funding eligibility is based on criteria set forth in Minnesota Statute, Chapter 360. State funding participation is based on an airport’s NPIAS status and airport sponsor populations, which are published annually in the MnDOT “Rates Letter” using the most recent yearly estimate from the Minnesota State Demographic Center. Because Range Regional Airport meets eligibility requirements, is a part of the NPIAS, and has a sponsor population greater than 5,000, the Airport is eligible for the following state grant shares in FY 2022:
 - ♦ **State Grant Shares**
 - 70 percent share for construction, planning, zoning, environmental, land, navigation systems, and AWOS
 - 70 percent share for air service marketing
 - 75 percent share for maintenance and operations (M&O)
 - 100 percent share for M&O utilities in use by non-federal NAVAIDs
 - 70 percent share for fuel systems and fuel trucks
 - 70 percent share for equipment purchases (requires justification)
 - ♦ **Federal Grant Shares**
 - 5 percent share for projects that receive 90 percent of FAA funding
 - 2.5 percent share for projects that receive 95 percent of FAA funding

- » **Airport Maintenance and Operation Program** – State Airport Maintenance and Operation Grant Program provides State reimbursement to the state system airports for their documented, routine maintenance expenses up to a certain ceiling amount that is categorized by the type of airport infrastructure. The day-to-day labor, material, equipment, and utility expenses of maintaining airport pavements, airport grounds, lighting systems, buildings, and maintenance equipment are eligible costs. FY 2019 saw \$4.9 million distributed by MnDOT under this program statewide and, from FY 2015 through FY 2019, HIB has received an average of \$111,000 annually.

- » **Hangar Loan Revolving Account Program**³ – The State Hangar Loan Revolving Account Program provides an 80 percent interest-free loan to state system airports for building new hangars. The loans are paid back in equal monthly installments over 20 years. Payment receipts, as they become available, are then loaned out again to other airports needing hangars. The

¹ Minnesota Department of Transportation Aeronautics and Aviation (2021), <https://www.dot.state.mn.us/aero/airportdevelopment/fundingandgrants.html#cares-act>

² Minnesota Department of Transportation Aeronautics and Aviation (2021): FY 2022 Addendum <https://www.dot.state.mn.us/aero/airportdevelopment/documents/2022-addendum.pdf>

³ Minnesota Department of Transportation Aeronautics and Aviation (2021), <https://www.dot.state.mn.us/aero/planning/needsmeeting/Hangar%20Loan%20Handout.pdf>

hangar loan may be used to fund hangar site prep as well as the hangar building. Hangar site prep, including the hangar floor, may also be funded with a state grant at current participation rates, if funds are available. However, for site prep to be considered for a state grant, it must be shown as a proposed project in the Sponsor's Airport CIP in the state fiscal year of proposed construction.

4.2.3 Local Funding Outlook

Range Regional Airport generates the majority of its operating revenues, which are used to finance Airport operations, through land rent from lessees and fuel flowage fees. Additional revenue sources include user fees and charges, and other operating activities. The largest source of nonoperating revenues for the CHAA is a local property tax levied to ensure the Airport operating budget is met and to assist with meeting local match requirements for AIP funded projects.

Due to the significant investments CHAA has in capital assets, depreciation is one of the largest single annual operating expenses. Unlike the other expenses listed, depreciation is not a cash expense. The other significant operating expense is personnel compensation and benefits.

Table 4-1 shows historical and projected Airport revenues and expenses for the baseline forecast scenario and the low growth forecast scenario based on historical precedent and operating conditions.

4.2.4 Issuance of Debt

According to the 2020 Airport financial audit, during 2007 the CHAA entered into an agreement with the Iron Range Resources and Rehabilitation Board (IRRRB) establishing a promissory note in the amount of \$1,625,000 in conjunction with the financing for the construction of a hangar building. The loan has a stated interest rate of 1.5 percent. In 2013 the Authority entered into a lease agreement for the building and, as part of the agreement, made an expansion to the building to fit the tenant's needs. To finance the expansion, the Authority entered into an amended promissory note with the IRRRB raising the note to a total of \$9,160,000. The note has a stated interest rate of 1.5 percent and a maturity date of 21 years after the tenant occupancy commenced. The loan calls for monthly payments of \$5,000 to \$30,000 over the term of the loan and payment of the note is secured by a mortgage and an assignment of the rents and leases between the Authority and the IRRRB. The expansion was completed in 2014 and the tenant occupied the building. The notes mature in 2039. It is anticipated that CHAA will enter into another agreement to borrow \$5,500,000 from IRRRB at 1.5 percent interest to develop a new hangar facility. That note would likely mature in 2042. The Master Plan CIP programs east side hangar development in 2031 with anticipated loan funding from IRRRB of \$2,600,000.

Debt coverage ratio (DCR) analysis can be used to determine if revenue is available to cover debt service payments and DCR is used as an element of determining creditworthiness by financial lenders. The typical minimum lending institution threshold is 1.25 (for long-term debt backed by revenues or PFCs), however the IRRRB loan program does not contain the same strict requirements as a typical lending institution. Recent IRRRB loans for hangar improvements require payments which are covered by new lease revenues. The resulting DCR is anticipated to be 0.60 in 2023, increasing over the planning period as debt is serviced. **Table 4-2** shows historical and project DCR or the Airport.

TABLE 4-1
AIRPORT REVENUES AND EXPENSES (BASELINE AND LOW GROWTH) (HISTORICAL AND PROJECTED)

| | Historical | | | | | | | Projected | | | | | | | | | | | | | | | | | | | | |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--|
| | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020* | FY 2021* | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 | FY 2032 | FY 2033 | FY 2034 | FY 2035 | FY 2036 | FY 2037 | FY 2038 | FY 2039 | FY 2040 | FY 2041 | |
| Operating Revenues | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| User fees | \$38,328 | \$38,729 | \$28,588 | \$26,275 | \$26,810 | \$23,692 | \$27,696 | \$31,700 | \$32,800 | \$33,900 | \$35,100 | \$35,500 | \$35,900 | \$36,300 | \$36,700 | \$37,100 | \$37,500 | \$37,900 | \$38,300 | \$38,700 | \$39,100 | \$39,500 | \$39,900 | \$40,300 | \$40,700 | \$41,100 | \$41,500 | |
| Rental | \$401,657 | \$455,646 | \$549,977 | \$606,467 | \$706,147 | \$779,969 | \$795,135 | \$810,300 | \$841,900 | \$874,700 | \$908,800 | \$920,400 | \$932,100 | \$944,000 | \$956,000 | \$1,018,200 | \$1,030,000 | \$1,042,000 | \$1,054,100 | \$1,066,300 | \$1,078,700 | \$1,091,200 | \$1,103,900 | \$1,116,700 | \$1,129,700 | \$1,142,800 | \$1,156,100 | |
| Other | \$45,758 | \$131,496 | \$46,010 | \$58,246 | \$30,159 | \$34,351 | \$48,326 | \$62,300 | \$64,400 | \$66,600 | \$68,900 | \$69,700 | \$70,500 | \$71,300 | \$72,100 | \$72,900 | \$73,700 | \$74,500 | \$75,300 | \$76,100 | \$76,900 | \$77,700 | \$78,500 | \$79,300 | \$80,100 | \$80,900 | \$81,800 | |
| Fuel sales | \$809,716 | \$693,193 | \$545,657 | \$687,016 | \$769,346 | \$583,616 | \$642,308 | \$701,000 | \$725,200 | \$750,200 | \$776,100 | \$785,000 | \$794,000 | \$803,100 | \$812,300 | \$821,600 | \$830,300 | \$839,000 | \$847,800 | \$856,700 | \$865,700 | \$874,800 | \$884,000 | \$893,300 | \$902,700 | \$912,200 | \$921,800 | |
| Total Operating Revenues | \$1,295,459 | \$1,319,064 | \$1,170,232 | \$1,378,004 | \$1,532,462 | \$1,421,628 | \$1,513,464 | \$1,605,300 | \$1,664,300 | \$1,725,400 | \$1,788,900 | \$1,810,600 | \$1,832,500 | \$1,854,700 | \$1,877,100 | \$1,949,800 | \$1,971,500 | \$1,993,400 | \$2,015,500 | \$2,037,800 | \$2,060,400 | \$2,083,200 | \$2,106,300 | \$2,129,600 | \$2,153,200 | \$2,177,000 | \$2,201,200 | |
| Operating Expenses | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Personnel compensation and benefits | \$630,987 | \$618,545 | \$630,636 | \$712,052 | \$779,282 | \$763,807 | \$722,253 | \$680,700 | \$704,200 | \$728,500 | \$753,600 | \$762,200 | \$770,900 | \$779,700 | \$788,600 | \$847,600 | \$856,000 | \$864,500 | \$873,100 | \$881,700 | \$890,500 | \$899,300 | \$908,300 | \$917,300 | \$926,400 | \$935,700 | \$945,000 | |
| Communications and utilities | \$146,970 | \$161,631 | \$177,095 | \$194,037 | \$190,783 | \$197,029 | \$186,315 | \$175,600 | \$181,600 | \$187,900 | \$194,400 | \$196,600 | \$198,900 | \$201,100 | \$203,400 | \$205,700 | \$207,900 | \$210,100 | \$212,300 | \$214,500 | \$216,800 | \$219,100 | \$221,400 | \$223,700 | \$226,100 | \$228,500 | \$230,900 | |
| Supplies and materials | \$31,734 | \$27,831 | \$25,384 | \$34,261 | \$35,091 | \$34,839 | \$32,920 | \$31,000 | \$32,100 | \$33,200 | \$34,400 | \$34,800 | \$35,200 | \$35,600 | \$36,000 | \$36,400 | \$36,800 | \$37,200 | \$37,500 | \$37,900 | \$38,300 | \$38,700 | \$39,100 | \$39,600 | \$40,000 | \$40,400 | \$40,800 | |
| Contractual services | \$48,456 | \$45,557 | \$51,835 | \$65,525 | \$26,576 | \$52,777 | \$49,889 | \$47,000 | \$48,700 | \$50,300 | \$52,100 | \$52,700 | \$53,300 | \$53,900 | \$54,500 | \$55,100 | \$55,700 | \$56,300 | \$56,900 | \$57,500 | \$58,100 | \$58,700 | \$59,300 | \$59,900 | \$60,600 | \$61,200 | \$61,800 | |
| Insurance claims and settlements | \$94,392 | \$97,889 | \$97,718 | \$87,814 | \$83,654 | \$103,998 | \$98,349 | \$92,700 | \$95,900 | \$99,200 | \$102,600 | \$103,800 | \$105,000 | \$106,200 | \$107,400 | \$108,600 | \$109,700 | \$110,900 | \$112,100 | \$113,200 | \$114,400 | \$115,600 | \$116,900 | \$118,100 | \$119,300 | \$120,600 | \$121,900 | |
| Other | \$782,079 | \$730,243 | \$588,475 | \$705,474 | \$334,769 | \$695,972 | \$658,136 | \$620,300 | \$641,600 | \$663,800 | \$686,600 | \$694,500 | \$702,400 | \$710,400 | \$718,600 | \$726,800 | \$734,400 | \$742,100 | \$750,000 | \$757,900 | \$765,800 | \$773,900 | \$782,100 | \$790,300 | \$798,600 | \$807,000 | \$815,500 | |
| Total Operating Expenses | \$1,734,618 | \$1,681,696 | \$1,571,143 | \$1,799,163 | \$1,450,155 | \$1,848,422 | \$1,747,861 | \$1,647,300 | \$1,704,100 | \$1,762,900 | \$1,823,700 | \$1,844,600 | \$1,865,700 | \$1,886,900 | \$1,908,500 | \$1,980,200 | \$2,000,500 | \$2,021,100 | \$2,041,900 | \$2,062,700 | \$2,083,900 | \$2,105,300 | \$2,127,100 | \$2,148,900 | \$2,171,000 | \$2,193,400 | \$2,215,900 | |
| Operating Income (loss) without Depreciation | (\$439,159) | (\$362,632) | (\$400,911) | (\$421,159) | \$82,307 | (\$426,794) | (\$234,397) | (\$42,000) | (\$39,800) | (\$37,500) | (\$34,800) | (\$34,000) | (\$33,200) | (\$32,200) | (\$31,400) | (\$30,400) | (\$29,000) | (\$27,700) | (\$26,400) | (\$24,900) | (\$23,500) | (\$22,100) | (\$20,800) | (\$19,300) | (\$17,800) | (\$16,400) | (\$14,700) | |
| Low Growth Scenario Projection (80%) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Revenues | | | | | | | | \$1,284,240 | \$1,331,440 | \$1,380,320 | \$1,431,120 | \$1,448,480 | \$1,466,000 | \$1,483,760 | \$1,501,680 | \$1,519,840 | \$1,577,200 | \$1,594,720 | \$1,612,400 | \$1,630,240 | \$1,648,320 | \$1,666,560 | \$1,685,040 | \$1,703,680 | \$1,722,560 | \$1,741,600 | \$1,760,960 | |
| Operating Expenses | | | | | | | | \$1,641,100 | \$1,697,680 | \$1,756,260 | \$1,816,820 | \$1,837,640 | \$1,858,660 | \$1,879,780 | \$1,901,300 | \$1,922,920 | \$1,993,140 | \$2,013,660 | \$2,034,400 | \$2,055,120 | \$2,076,240 | \$2,097,560 | \$2,119,280 | \$2,140,980 | \$2,163,000 | \$2,185,320 | \$2,207,740 | |
| Operating Income (loss) without Depreciation | | | | | | | | (\$356,860) | (\$366,240) | (\$375,940) | (\$385,700) | (\$389,160) | (\$392,660) | (\$396,020) | (\$399,620) | (\$403,080) | (\$415,940) | (\$418,940) | (\$422,000) | (\$424,880) | (\$427,920) | (\$431,000) | (\$434,240) | (\$437,300) | (\$440,440) | (\$443,720) | (\$446,780) | |

Source: Airport Financial Records; FAA CATS; RS&H Analysis, 2022

Notes: Projected data rounded. (*) Estimated from available data.

TABLE 4-2
AIRPORT DEBT COVERAGE RATIO (HISTORICAL AND PROJECTED)

| Debt Coverage | Historical | | | | | | | Projected | | | | | | | | | | | | | | | | | | | |
|----------------------------------|------------------|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|
| | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020* | FY 2021* | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 | FY 2027 | FY 2028 | FY 2029 | FY 2030 | FY 2031 | FY 2032 | FY 2033 | FY 2034 | FY 2035 | FY 2036 | FY 2037 | FY 2038 | FY 2039 | FY 2040 | FY 2041 |
| Total Revenues | \$1,901,532 | \$2,542,752 | \$1,872,733 | \$2,113,026 | \$1,887,379 | \$2,063,484 | \$2,095,875 | \$2,129,220 | \$2,163,095 | \$2,197,510 | \$2,232,472 | \$2,267,990 | \$2,304,074 | \$2,340,731 | \$2,377,972 | \$2,415,805 | \$2,454,240 | \$2,493,286 | \$2,532,954 | \$2,573,253 | \$2,614,193 | \$2,655,784 | \$2,698,038 | \$2,740,963 | \$2,784,571 | \$2,828,873 | \$2,873,880 |
| Net Pledged Revenue | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 | \$155,396 |
| Total Expenses | \$1,734,618 | \$1,681,696 | \$1,571,143 | \$1,799,163 | \$1,450,155 | \$1,664,140 | \$1,956,524 | \$1,723,143 | \$1,748,881 | \$1,775,003 | \$1,801,516 | \$1,828,424 | \$1,855,734 | \$1,883,452 | \$1,911,585 | \$1,940,137 | \$1,969,116 | \$1,998,528 | \$2,028,379 | \$2,058,676 | \$2,089,425 | \$2,120,634 | \$2,152,309 | \$2,184,456 | \$2,217,085 | \$2,250,200 | \$2,283,810 |
| Net Revenues | \$322,310 | \$1,016,452 | \$456,986 | \$469,259 | \$592,620 | \$554,741 | \$294,747 | \$561,472 | \$569,610 | \$577,903 | \$586,352 | \$594,962 | \$603,735 | \$612,675 | \$621,783 | \$631,064 | \$696,440 | \$706,075 | \$715,892 | \$725,894 | \$736,084 | \$746,467 | \$757,045 | \$767,822 | \$778,803 | \$789,989 | \$801,386 |
| Total Outstanding Debt | \$9,459,254 | \$9,404,655 | \$9,303,855 | \$8,914,129 | \$9,568,486 | \$9,123,754 | \$8,729,191 | \$13,590,857 | \$12,942,949 | \$12,285,322 | \$11,617,830 | \$10,940,326 | \$10,252,660 | \$9,554,678 | \$8,846,227 | \$8,127,149 | \$7,397,285 | \$9,144,034 | \$8,277,985 | \$7,398,944 | \$6,506,718 | \$5,601,109 | \$4,681,915 | \$3,748,934 | \$2,801,957 | \$1,840,776 | \$1,396,598 |
| Annual Debt Service | - | \$69,109 | \$190,400 | \$255,400 | \$315,400 | \$425,348 | \$458,003 | \$586,378 | \$948,729 | \$948,729 | \$948,729 | \$948,729 | \$948,729 | \$948,729 | \$948,729 | \$948,729 | \$948,729 | \$1,100,168 | \$1,100,168 | \$1,100,168 | \$1,100,168 | \$1,100,168 | \$1,100,168 | \$1,100,168 | \$1,100,168 | \$1,045,210 | \$513,790 |
| Debt Coverage Ratio (DCR) | - | 14.71 | 2.40 | 1.84 | 1.88 | 1.30 | 0.64 | 0.96 | 0.60 | 0.61 | 0.62 | 0.63 | 0.64 | 0.65 | 0.66 | 0.67 | 0.73 | 0.64 | 0.65 | 0.66 | 0.67 | 0.68 | 0.69 | 0.70 | 0.71 | 0.76 | 1.56 |

Source: FAA CATS; Airport Financial Records; RS&H Analysis, 2022

Notes: (*) Operating revenues and expenses estimated for FY 2020 and FY 2021. Federal fiscal year and Airport fiscal years differ.

4.3 AIRPORT DEVELOPMENT PHASING AND FUNDING PLAN

The section outlines an airport development phasing and funding plan over near-, mid-, and long-term phases. Each phase presents detailed project descriptions, enabling projects, trigger points, and key implementation steps necessary to accomplish the objectives of the Airport. The near-term development phase recommends projects over the first five years of the twenty-year master planning horizon (2022-2026), the mid-term development phase completes years six through ten of the planning horizon (2027-2031), and long-term capital improvement projects include those which are expected to occur within the last ten years (2032-2041) of the master planning horizon.

A summary of the CIP project list by programmed term and budget year along with estimated costs is shown in **Table 4-3**. Planning-level cost estimates are provided for each project. Cost estimates are ROM, which considers gross areas multiplied by a realistic unit cost factor. An illustration of airfield capital projects included within the Airport's CIP is provided at the conclusion of this chapter in **Figure 4-5**.

The CIP is organized into the following six project programs:

- » Airfield Program
- » Runway Extension Program
- » East Side Development Program
- » Terminal Expansion Program
- » Planning/Environmental Program
- » Capital Expenditures Program

Implementing these programs requires close coordination with the FAA because AIP funding and environmental documentation will be required for key programs such as the Runway Extension Program and East Side Development Program. Implementation considerations are described for key projects within the programs. Project trigger points including levels of demand, facility lifecycles, and/or regulatory/policy changes are integrated into project descriptions. These project triggers vary dependent upon the type of facility included in the project.

Project "pull pages", provided in **Appendix E**, provide quick-reference project summaries for primary and supporting development projects including descriptions, trigger points, justifications, enabling projects, project durations, budgeted project costs, and maps of project locations.

The following sections describe the six airport development programs and the associated projects. Projects are phased strategically according to airport priority, enabling projects, and funding availability. Implementation of near-term development projects address airport operating safety, capacity constraints, and overall airport viability and sustainability. Some programs include a combination of "primary projects" that are key to the development of the program and "supporting projects" that position the Airport for future development. Additionally, some projects within one program also support another program.

TABLE 4-3
CAPITAL IMPROVEMENT PROGRAM

| Project Year | Project Name | Program | Totals | | | | Federal Funding | | | | | State Funding | | Local Funding | | | |
|-----------------------------------|---|--------------------------------|---------------------|--------------------|---------------------|---------------------|--------------------|---------------------|-----------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|------------|---------------------|
| | | | FAA | State | Local | Total Cost | AIP Entitlement | AIP Discretionary | PFC | CARES/Infra Bill | Other | State | Airport | IRRRB | IRRRB Loan | Bond | Other |
| Short-Term — 2022-2026 | | | | | | | | | | | | | | | | | |
| 2022 | Arrival/Depart Building Improvements | Terminal Expansion | \$0 | \$210,000 | \$90,000 | \$300,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$210,000 | \$90,000 | \$0 | \$0 | \$0 | \$0 |
| 2022 | Crack Seal | Airfield | \$0 | \$192,000 | \$48,000 | \$240,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$192,000 | \$48,000 | \$0 | \$0 | \$0 | \$0 |
| 2022 | DNR Bituminous Ramp Rehabilitation | East Side Development | \$0 | \$0 | \$800,000 | \$800,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$800,000 |
| 2022 | Hangar Construction | East Side Development | \$0 | \$0 | \$5,500,000 | \$5,500,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$5,500,000 | \$0 | \$0 | \$0 |
| 2022 | RSA Improvements | Airfield | \$4,500,000 | \$250,000 | \$250,000 | \$5,000,000 | \$775,000 | \$3,725,000 | \$0 | \$0 | \$0 | \$250,000 | \$250,000 | \$0 | \$0 | \$0 | \$0 |
| 2022 | RWY 13 Transition Surface - Easement E - 2.8 acres - FFY 2022 | Planning/Environmental | \$90,000 | \$0 | \$10,000 | \$100,000 | \$90,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$10,000 | \$0 | \$0 | \$0 | \$0 |
| 2022 | SWPPP Plan Update | Planning/Environmental | \$45,000 | \$2,500 | \$2,500 | \$50,000 | \$45,000 | \$0 | \$0 | \$0 | \$0 | \$2,500 | \$2,500 | \$0 | \$0 | \$0 | \$0 |
| 2022 | Tree Removal Project | Planning/Environmental | \$90,000 | \$5,000 | \$5,000 | \$100,000 | \$90,000 | \$0 | \$0 | \$0 | \$0 | \$5,000 | \$5,000 | \$0 | \$0 | \$0 | \$0 |
| 2023 | T-Hangar(s) Taxilane Rehabilitation | Airfield | \$0 | \$455,000 | \$195,000 | \$650,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$455,000 | \$195,000 | \$0 | \$0 | \$0 | \$0 |
| 2023 | T-Hangar(s) Taxiway Rehabilitation | Airfield | \$0 | \$350,000 | \$150,000 | \$500,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$350,000 | \$150,000 | \$0 | \$0 | \$0 | \$0 |
| 2023 | Fuel Farm Improvements | Airfield | \$0 | \$280,000 | \$120,000 | \$400,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$280,000 | \$120,000 | \$0 | \$0 | \$0 | \$0 |
| 2023 | ILS/GS Fiber Optic Repair | Airfield | \$67,500 | \$3,750 | \$3,750 | \$75,000 | \$67,500 | \$0 | \$0 | \$0 | \$0 | \$3,750 | \$3,750 | \$0 | \$0 | \$0 | \$0 |
| 2023 | Development of Minimum Standards | Planning/Environmental | \$0 | \$0 | \$75,000 | \$75,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$75,000 | \$0 | \$0 | \$0 | \$0 |
| 2023 | Safety Barricades and Lights | Airfield | \$0 | \$8,120 | \$3,480 | \$11,600 | \$0 | \$0 | \$0 | \$0 | \$0 | \$8,120 | \$3,480 | \$0 | \$0 | \$0 | \$0 |
| 2023 | Low Emission Vehicles and Ground Support Equipment | Capital Expenditures | \$510,000 | \$45,000 | \$45,000 | \$600,000 | \$0 | \$0 | \$0 | \$510,000 | \$45,000 | \$45,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2023 | Truck/Snow Blower | Capital Expenditures | \$720,000 | \$56,000 | \$24,000 | \$800,000 | \$720,000 | \$0 | \$0 | \$0 | \$0 | \$56,000 | \$24,000 | \$0 | \$0 | \$0 | \$0 |
| 2023 | Zoning Ordinance | Planning/Environmental | \$0 | \$84,000 | \$36,000 | \$120,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$84,000 | \$36,000 | \$0 | \$0 | \$0 | \$0 |
| 2024 | Taxiway A Rehabilitation | Airfield | \$2,250,000 | \$125,000 | \$125,000 | \$2,500,000 | \$0 | \$0 | \$0 | \$2,250,000 | \$0 | \$125,000 | \$125,000 | \$0 | \$0 | \$0 | \$0 |
| 2024 | Taxiway A/Fuel Farm Area Rehabilitation | Airfield | \$720,000 | \$56,000 | \$24,000 | \$800,000 | \$649,714 | \$0 | \$70,286 | \$0 | \$0 | \$56,000 | \$24,000 | \$0 | \$0 | \$0 | \$0 |
| 2024 | Highway 37 - Hughes Rd Traffic Study | East Side Development | \$0 | \$100,000 | \$0 | \$100,000 | \$0 | \$0 | \$0 | \$0 | \$100,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2024 | Truck/Sweeper | Capital Expenditures | \$765,000 | \$42,500 | \$42,500 | \$850,000 | \$0 | \$0 | \$0 | \$765,000 | \$0 | \$42,500 | \$42,500 | \$0 | \$0 | \$0 | \$0 |
| 2025 | Air Carrier Apron Expansion | Terminal Expansion | \$585,000 | \$32,500 | \$32,500 | \$650,000 | \$0 | \$0 | \$0 | \$585,000 | \$0 | \$32,500 | \$32,500 | \$0 | \$0 | \$0 | \$0 |
| 2025 | Lighted Windcone Installation | Terminal Expansion | \$180,000 | \$10,000 | \$10,000 | \$200,000 | \$180,000 | \$0 | \$0 | \$0 | \$0 | \$10,000 | \$10,000 | \$0 | \$0 | \$0 | \$0 |
| 2025 | Wildlife Fence Improvements | Airfield | \$1,800,000 | \$100,000 | \$100,000 | \$2,000,000 | \$0 | \$1,800,000 | \$0 | \$0 | \$0 | \$100,000 | \$100,000 | \$0 | \$0 | \$0 | \$0 |
| 2025 | Tractor with Boom Mower | Capital Expenditures | \$0 | \$142,313 | \$47,438 | \$189,750 | \$0 | \$0 | \$0 | \$0 | \$142,313 | \$47,438 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2025 | Truck/Plow/Spreader | Capital Expenditures | \$720,000 | \$56,000 | \$24,000 | \$800,000 | \$720,000 | \$0 | \$0 | \$0 | \$0 | \$56,000 | \$24,000 | \$0 | \$0 | \$0 | \$0 |
| 2025 | Tractor/Mower | Capital Expenditures | \$0 | \$175,000 | \$75,000 | \$250,000 | \$0 | \$0 | \$0 | \$0 | \$175,000 | \$75,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2026 | Multi-Purpose Truck Plow/Sweeper | Capital Expenditures | \$900,000 | \$70,000 | \$30,000 | \$1,000,000 | \$900,000 | \$0 | \$0 | \$0 | \$0 | \$70,000 | \$30,000 | \$0 | \$0 | \$0 | \$0 |
| 2026 | Truck/Blower | Capital Expenditures | \$720,000 | \$56,000 | \$24,000 | \$800,000 | \$720,000 | \$0 | \$0 | \$0 | \$0 | \$56,000 | \$24,000 | \$0 | \$0 | \$0 | \$0 |
| 2026 | Blast Pad Corrections | Airfield Design & Improvements | \$855,000 | \$47,500 | \$47,500 | \$950,000 | \$0 | \$0 | \$0 | \$855,000 | \$0 | \$47,500 | \$47,500 | \$0 | \$0 | \$0 | \$0 |
| 2026 | Airfield Pavement Design and Construction Phase I | Airfield Design & Improvements | \$5,229,000 | \$290,500 | \$290,500 | \$5,810,000 | \$0 | \$4,624,690 | \$0 | \$604,310 | \$0 | \$290,500 | \$290,500 | \$0 | \$0 | \$0 | \$0 |
| 2026 | Airfield Pavement Demolition Phase I | Airfield Design & Improvements | \$315,000 | \$17,500 | \$17,500 | \$350,000 | \$0 | \$315,000 | \$0 | \$0 | \$0 | \$17,500 | \$17,500 | \$0 | \$0 | \$0 | \$0 |
| 2026 | Fuel Truck | Capital Expenditures | \$0 | \$227,500 | \$97,500 | \$325,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$227,500 | \$97,500 | \$0 | \$0 | \$0 | \$0 |
| Short-Term Total (rounded) | | | \$21,060,000 | \$3,490,000 | \$8,350,000 | \$32,900,000 | \$4,960,000 | \$10,460,000 | \$70,000 | \$5,060,000 | \$510,000 | \$3,490,000 | \$2,050,000 | \$0 | \$5,500,000 | \$0 | \$800,000 |
| Mid-Term — 2027-2031 | | | | | | | | | | | | | | | | | |
| 2027 | Extend RWY 13-31 - Environmental Assessment | Runway Extension | \$315,000 | \$26,250 | \$8,750 | \$350,000 | \$315,000 | \$0 | \$0 | \$0 | \$0 | \$26,250 | \$8,750 | \$0 | \$0 | \$0 | \$0 |
| 2027 | Crack Seal | Airfield | \$0 | \$84,000 | \$36,000 | \$120,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$84,000 | \$36,000 | \$0 | \$0 | \$0 | \$0 |
| 2028 | East Side Development Area Environmental Assessment | East Side Development | \$900,000 | \$50,000 | \$50,000 | \$1,000,000 | \$900,000 | \$0 | \$0 | \$0 | \$0 | \$50,000 | \$50,000 | \$0 | \$0 | \$0 | \$0 |
| 2028 | Extend RWY 13-31 - Land Acquisition | Runway Extension | \$135,000 | \$0 | \$15,000 | \$150,000 | \$135,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$15,000 | \$0 | \$0 | \$0 | \$0 |
| 2029 | Extend RWY 13-31 & TWY C to 7,400' - Design and Construction | Runway Extension | \$6,300,000 | \$350,000 | \$350,000 | \$7,000,000 | \$0 | \$6,300,000 | \$0 | \$0 | \$0 | \$350,000 | \$350,000 | \$0 | \$0 | \$0 | \$0 |
| 2029 | Truck/Sweeper | Capital Expenditures | \$720,000 | \$40,000 | \$40,000 | \$800,000 | \$720,000 | \$0 | \$0 | \$0 | \$0 | \$40,000 | \$40,000 | \$0 | \$0 | \$0 | \$0 |
| 2030 | East Side Utility Extension | East Side Development | \$0 | \$0 | \$1,000,000 | \$1,000,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,000,000 | \$0 | \$0 | \$0 | \$0 |
| 2030 | Paving of Hughes Road to access East Side GA Area | East Side Development | \$0 | \$800,000 | \$0 | \$800,000 | \$0 | \$0 | \$0 | \$0 | \$800,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2030 | East Side GA Access Roads and Parking Construction | Terminal Expansion | \$0 | \$1,750,000 | \$750,000 | \$2,500,000 | \$0 | \$0 | \$0 | \$0 | \$1,750,000 | \$750,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2030 | Crack Seal | Airfield | \$0 | \$84,000 | \$36,000 | \$120,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$84,000 | \$36,000 | \$0 | \$0 | \$0 | \$0 |
| 2030 | Loader | Capital Expenditures | \$450,000 | \$25,000 | \$25,000 | \$500,000 | \$450,000 | \$0 | \$0 | \$0 | \$0 | \$25,000 | \$25,000 | \$0 | \$0 | \$0 | \$0 |
| 2030 | Maintenance Truck/Plow/Spreader 1 Ton | Capital Expenditures | \$0 | \$60,000 | \$20,000 | \$80,000 | \$0 | \$0 | \$0 | \$0 | \$60,000 | \$20,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2031 | GA Transient Apron Construction | Terminal Expansion | \$7,425,000 | \$1,650,000 | \$7,425,000 | \$16,500,000 | \$0 | \$7,425,000 | \$0 | \$0 | \$0 | \$1,650,000 | \$0 | \$0 | \$0 | \$0 | \$7,425,000 |
| 2031 | FBO Facility Construction | East Side Development | \$0 | \$0 | \$3,000,000 | \$3,000,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,000,000 |
| 2031 | FBO Fuel Farm Construction | East Side Development | \$2,250,000 | \$125,000 | \$125,000 | \$2,500,000 | \$2,250,000 | \$0 | \$0 | \$0 | \$0 | \$125,000 | \$125,000 | \$0 | \$0 | \$0 | \$0 |
| 2031 | Nested T-Hangar Construction | East Side Development | \$0 | \$0 | \$2,600,000 | \$2,600,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,600,000 | \$0 | \$0 |
| Mid-Term Total (rounded) | | | \$18,500,000 | \$5,040,000 | \$15,480,000 | \$39,020,000 | \$4,770,000 | \$13,730,000 | \$0 | \$0 | \$0 | \$5,040,000 | \$1,460,000 | \$1,000,000 | \$2,600,000 | \$0 | \$10,430,000 |
| Long-Term — 2032-2041 | | | | | | | | | | | | | | | | | |
| 2032 | Airport Master Plan Update | Planning/Environmental | \$900,000 | \$50,000 | \$50,000 | \$1,000,000 | \$900,000 | \$0 | \$0 | \$0 | \$0 | \$50,000 | \$50,000 | \$0 | \$0 | \$0 | \$0 |
| 2032 | Deice Truck | Capital Expenditures | \$0 | \$300,000 | \$100,000 | \$400,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$300,000 | \$100,000 | \$0 | \$0 | \$0 | \$0 |
| 2032 | TWY C Rehabilitation | Airfield | \$3,600,000 | \$200,000 | \$200,000 | \$4,000,000 | \$0 | \$3,600,000 | \$0 | \$0 | \$0 | \$200,000 | \$200,000 | \$0 | \$0 | \$0 | \$0 |
| 2033 | Airfield Pavement Design & Construction Phase II | Airfield Design & Improvements | \$900,000 | \$50,000 | \$50,000 | \$1,000,000 | \$900,000 | \$0 | \$0 | \$0 | \$0 | \$50,000 | \$50,000 | \$0 | \$0 | \$0 | \$0 |
| 2033 | Crack Seal | Airfield | \$0 | \$84,000 | \$36,000 | \$120,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$84,000 | \$36,000 | \$0 | \$0 | \$0 | \$0 |
| 2033 | Airfield Connector Pavement Demolition | Airfield Design & Improvements | \$270,000 | \$15,000 | \$15,000 | \$300,000 | \$270,000 | \$0 | \$0 | \$0 | \$0 | \$15,000 | \$15,000 | \$0 | \$0 | \$0 | \$0 |
| 2034 | Airport Support/Administration/ARFF Facility Relocation | East Side Development | \$3,600,000 | \$200,000 | \$200,000 | \$4,000,000 | \$482,786 | \$2,282,341 | \$834,873 | \$0 | \$0 | \$200,000 | \$200,000 | \$0 | \$0 | \$0 | \$0 |
| 2034 | Truck/Plow | Capital Expenditures | \$720,000 | \$56,000 | \$24,000 | \$800,000 | \$720,000 | \$0 | \$0 | \$0 | \$0 | \$56,000 | \$24,000 | \$0 | \$0 | \$0 | \$0 |
| 2035 | Airport Ops Vehicle | Capital Expenditures | \$0 | \$42,000 | \$18,000 | \$60,000 | \$0 | \$0 | \$0 | \$0 | \$42,000 | \$18,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2035 | Truck/Blower | Capital Expenditures | \$720,000 | \$56,000 | \$24,000 | \$800,000 | \$720,000 | \$0 | \$0 | \$0 | \$0 | \$56,000 | \$24,000 | \$0 | \$0 | \$0 | \$0 |
| 2036 | North Perimeter Road | Airfield | \$1,080,000 | \$60,000 | \$60,000 | \$1,200,000 | \$922,384 | \$0 | \$157,616 | \$0 | \$0 | \$60,000 | \$60,000 | \$0 | \$0 | \$0 | \$0 |
| 2036 | Crack Seal | Airfield | \$0 | \$84,000 | \$36,000 | \$120,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$84,000 | \$36,000 | \$0 | \$0 | \$0 | \$0 |
| 2037 | Electrical Vault Relocation | Terminal Expansion | \$315,000 | \$17,500 | \$17,500 | \$350,000 | \$315,000 | \$0 | \$0 | \$0 | \$0 | \$17,500 | \$17,500 | \$0 | \$0 | \$0 | \$0 |
| 2038 | Crack Seal | Airfield | \$0 | \$84,000 | \$36,000 | \$120,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$84,000 | \$36,000 | \$0 | \$0 | \$0 | \$0 |
| 2039 | Airport Parking Study | Planning/Environmental | \$0 | \$75,000 | \$25,000 | \$100,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$75,000 | \$25,000 | \$ | | | |

4.3.1 Airfield Program

The Airfield Program strategically phases projects that improve airport safety by bringing airfield conditions to meet FAA design standards. Airfield projects are timed to maximize optimal use of full pavement life and create a safer operating environment for pilots, passengers, and operators.

Primary projects:

- » RSA Improvements (2022)
- » T-Hangar(s) Taxiway and Taxilane Rehabilitation (2023)
- » Taxiway A Rehabilitation (2024)
- » Taxiway A/Fuel Farm Area Rehabilitation (2024)
- » Air Carrier Apron Expansion (2025)
- » Wildlife Fence Improvements (2025)
- » Blast Pad Corrections (2026)
- » Airfield Pavement Design and Construction Phase I (2026)
- » Airfield Pavement Demolition Phase I (2026)
- » Taxiway C Rehabilitation (2032)
- » Airfield Pavement Design and Construction Phase II (2033)
- » Airfield Connector Pavement Demolition (2033)
- » North Perimeter Road (2036)

Supporting projects:

- » Lighted Windcone Installation (2025)

4.3.1.1 Airfield Program Project Descriptions

RSA Improvements (2022)

The Runway Safety Area (RSA) for Runway 13-31 does not meet approved grades under current FAA design standards per AC 150/5300-13A. Technical memorandum "Range Regional Airport Existing Runway Safety Area Drainage Analysis" dated August 27, 2021 provides technical analysis of deficiencies and justification for bringing the area into compliance with FAA standards.

T-Hangar(s) Taxiway and Taxilane Rehabilitation (2023)

Taxiway and taxilane pavement conditions for the T-hangar area have reached the end of useful life expectancy. The 2017 pavement condition index study showed conditions from "fair" to "poor" for the older T-hangar area pavement. This project rehabilitates those pavement areas to provide safe operating conditions.

Taxiway A Rehabilitation (2024)

A segment of Taxiway A has pavement that has reached the end of useful life expectancy. The 2017 pavement condition index study showed conditions as "poor". This project rehabilitates that pavement to provide safe operating conditions.

Taxiway A and Fuel Farm Area Rehabilitation (2024)

Pavement surfaces for Taxiway A (where tie-downs and fueling are located) has reached the end of useful life expectancy. The 2017 pavement condition index study showed conditions from “fair” to “poor” for the area pavement. This project rehabilitates those pavement areas to provide safe operating conditions.

Air Carrier Apron Expansion (2025)

This project adds new pavement in the terminal air carrier apron area to provide additional space for the movement and storage of aircraft. This project supports the future reconstruction/realignment project for Taxiway A (Airfield Pavement Design and Construction Phase I (2026)) to bring it into compliance with FAA design standards set forth in AC 150/5300-13A.

Lighted Windcone Installation (2025)

This project supports airfield development by relocating the lighted windcone to a new location. Installation of a co-located segmented circle is recommended by FAA, but not required at non-towered airports.

Wildlife Fence Improvements (2025)

Wildlife is currently finding ways to bypass existing wildlife and security fencing, creating safety concerns for airfield operations. Improvements should be made to this fence to address those safety issues.

Blast Pad Corrections (2026)

This project is programmed to occur in coordination with the future reconstruction/realignment project for Taxiway A and brings the blast pad for Runway 22 into compliance with FAA design standards set forth in AC 150/5300-13A.

Airfield Pavement Design and Construction Phase I (2026)

This project includes the reconstruction/realignment of portions of Taxiway A and Taxiway B that are not in compliance with FAA design standards set forth in AC 150/5300-13A. This project is necessary to improve safe airfield operating conditions.

Airfield Pavement Demolition Phase I (2026)

This project is programmed to occur in coordination with the reconstruction/realignment of portions of Taxiway A and Taxiway B (Airfield Pavement Design and Construction Phase I (2026)) that are not in compliance with FAA design standards set forth in AC 150/5300-13A. This project removed existing pavement that is no longer required and could create situational awareness concerns if left in place.

Taxiway C Rehabilitation (2032)

The southern end of Taxiway C has pavement that will have reached the end of useful life expectancy. The 2017 pavement condition index study showed conditions as “fair” and by 2032 these conditions are anticipated to deteriorate to “poor”. This project rehabilitates those pavement areas to provide safe operating conditions.

Airfield Pavement Design and Construction Phase II (2033)

The Runway 13-31 taxiway connector "Taxiway B" does not meet current FAA design standards set forth in AC 150/5300-13A. The location angle in relation to the runway is acute and the location is within the middle third "high energy" area of the runway. This connector needs to be relocated outside of the middle third of the runway and at a 90-degree orientation perpendicular to Runway 13-31 and Taxiway C. The precise location should be studied further and coordinated with the final constructed length of the runway extension project. Relocating and reorienting the taxiway connector will improve airfield operational safety.

Airfield Connector Pavement Demolition (2033)

Only after, or in coordination with, the Runway 13-31 taxiway connector "Taxiway B" being replaced under the "Airfield Pavement Design and Construction Phase II (2033)" project should this pavement removal project occur. This project removes the old taxiway connector that does not meet FAA design standards set forth in AC 150/5300-13A. Removal of noncompliant pavement will improve situational awareness and airfield operational safety.

North Perimeter Road (2036)

Construction of a North Perimeter Road is necessary to improve airfield operations access and provide safe passage from the east and west areas of the airfield. This will improve operational safety and security during routine daily support operations.

4.3.2 Runway Extension Program

The HIB runway extension program sets a strategic path to lengthen Runway 13-31 to support existing aircraft operations.

Primary projects:

- » Extend RWY 13-31 - Environmental Assessment (2027)
- » Extend RWY 13-31 & TWY C to 7,400' - Design and Construction (2029)
- » Extend RWY 13-31 - Land Acquisition (2028)

4.3.2.1 Runway Extension Project Descriptions**Extend Runway 13-31 - Environmental Assessment (2027)**

The extension of Runway 13-31 triggers the need for an environmental assessment (EA) under federal NEPA process. The EA studies the extension of Runway 13-31 as it relates to the potential for causing significant environmental effects. EAs generally include the purpose and need, alternatives (as required by section 103(2)(E) of NEPA), environmental impacts of proposed action and alternatives, and a listing of agencies and persons consulted. Within the context of the master plan, it is known that development of this area could impact existing delineated wetlands.

Extend RWY 13-31 - Land Acquisition (2028)

To extend Runway 13-31 and meet FAA Runway Protection Zone requirements land would need to be acquired south of the airport property boundary. Need to purchase the land is driven by the extension of

the runway, but also by best airport management practices which protect runway approach and departure surfaces by controlling land immediately off the runway ends.

Extend Runway 13-31 & Taxiway C to 7,400' - Design and Construction (2029)

Prior to extending Runway 13-31 an EA must be completed at which time the exact extension length required will be determined. The need to extend runway 13-31 is driven by aircraft performance demands and aircraft certification requirements for operating at HIB as described in detail within Master Plan **Appendix B**. The runway extension will ensure air carrier operators can safely perform landings and takeoffs at HIB.

4.3.3 East Side Development Program

The East Side Development Program includes projects to begin the process of separating commercial and general aviation facilities.

Primary projects:

- » East Side Development Area Environmental Assessment (2028)
- » East Side Utility Extension (2030)
- » Paving of Hughes Road to Access East Side GA Area (2030)
- » East Side GA Access Roads and Parking Construction (2030)
- » GA Transient Apron Construction (2031)
- » FBO Facility Construction (2031)
- » FBO Fuel Farm Construction (2031)
- » Nested T-Hangar Construction (2031)
- » Airport Support/Administration/ARFF Facility Relocation (2034)
- » Aircraft Wash Facility (2041)

Supporting projects:

- » Development of Minimum Standards (2023)
- » Highway 37 - Hughes Rd Traffic Study (2024)

4.3.3.1 East Side Development Project Descriptions

Development of Minimum Standards (2023)

A Minimum Standards policy is a critical airport management and compliance document that establishes a set of requirements at HIB that commercial operators must meet or exceed in order to conduct business at the Airport. It is important that airport lease agreements reference Minimum Standards. Developing new/updated airport Minimum Standards prior to undertaking new development is highly recommended.

Highway 37 - Hughes Rd Traffic Study (2024)

Traffic safety concerns already exist at the intersection of Mn-37 and Hughes Road. As the east side of the airport develops further, it is important for CHAA and Airport leadership to coordinate with MnDOT to understand the impacts of development on the safe movement of vehicles in the area. A traffic study of conditions at this location should be conducted to identify improvements that ensure life safety and the efficient movement of vehicles and pedestrians.

East Side Development Area Environmental Assessment (2028)

Development of the east side of the airport triggers the need for an environmental assessment (EA) under federal NEPA process. The EA studies development of the airport's east side as it relates to the potential for causing significant environmental effects. EAs generally include the purpose and need, alternatives (as required by section 103(2)(E) of NEPA), environmental impacts of proposed action and alternatives, and a listing of agencies and persons consulted. Within the context of the master plan, it is known that development of this area could impact existing delineated wetlands.

East Side Utility Extension (2030)

Development of the east side of the airport will require additional utility extensions south of existing end points.

Paving of Hughes Road to Access East Side GA Area (2030)

Vehicle access to development on the east side of the airport paving of Hughes Road. This project requires coordination with MnDOT.

East Side GA Access Roads and Parking Construction (2030)

With the paving of Hughes Road, access roads and parking facilities can be constructed to meet new/future east side aeronautical and non-aeronautical facilities. This must be done in coordination with future FBO, fuel farm, and GA facility development projects (FBO Facility Construction (2031), FBO Fuel Farm Construction (2031), Nested T-Hangar Construction (2031)).

GA Transient Apron Construction (2031)

Developing general aviation (GA) facilities on the east side of the airport separates air carrier operations from general aviation operations and improves overall safety within the airport operations area. In addition, additional aircraft parking is needed to serve the FAA-approved forecast based aircraft and operations. Development of this new general aviation area and apron fulfills those safety and demand needs. This project is required to be coordinated with development of the new east side FBO, fuel farm, and nested T-hangars projects (all 2031 projects).

FBO Facility Construction (2031)

Developing a new FBO on the east side of the airport (separate from air carrier operations) is the preferred path forward at HIB. The existing FBO will have exceeded its expected useful life and is located where it constrains the preferred terminal expansion plan. The new east side FBO project must be coordinated with development of the new general aviation transient apron, fuel farm, and nested T-hangars projects (all 2031 projects).

FBO Fuel Farm Construction (2031)

Developing GA facilities, including a new FBO, on the east side of the airport necessitates construction of fuel storage facilities. It is possible existing fuel storage tanks could be moved and repurposed within the new fuel storage facility. The fuel farm construction project must be coordinated with development of the

new general aviation transient apron, the new FBO facility, and nested T-hangars projects (all 2031 projects).

Nested T-Hangar Construction (2031)

Developing new GA facilities on the east side of the airport should include new t-hangars placed in orientation with Runway 13-31. The location allows T-hangar development in line with new east side GA facilities and the existing Taxiway B. Future projects programmed beyond the 20-year planning period will ultimately remove/replace Taxiway B with new taxiways meeting FAA design standards. Development of new T-hangars on the east side of the airport must be coordinated with development of the new general aviation transient apron, the new FBO facility, and the new fuel farm (all 2031 projects).

Airport Support/Administration/ARFF Facility Relocation (2034)

Current airport administration, support facilities (maintenance and SRE storage) and ARFF facilities are spread across the north terminal area end of the airport. This project consolidates airport support facilities into a new campus location to better meet management and operational needs.

Aircraft Wash Facility (2041)

General aviation tenants and aircraft owners appreciate the availability of an aircraft wash facility, and it helps ensure aircraft washing is being done within accordance of any water quality standards. This project provides a new east side aircraft wash facility for aircraft owners of smaller general aviation aircraft.

4.3.4 Terminal Expansion Program

Primary projects:

- » Air Carrier Apron Expansion (2025)
- » Landside Expansion (2040)
- » Terminal Building Expansion (2042+)

Supporting projects:

- » Lighted Windcone Installation (2025)
- » GA Transient Apron Construction (2031)
- » FBO Facility Construction (2031)
- » FBO Fuel Farm Construction (2031)
- » Nested T-Hangar Construction (2031)
- » Electrical Vault Relocation (2037)
- » Airport Parking Study (2039)

4.3.4.1 Terminal Expansion Project Descriptions

Air Carrier Apron Expansion (2025) *(Repeated project from Airfield Program)*

This project adds new pavement in the terminal air carrier apron area to provide additional space for the movement and storage of aircraft. This project supports the future reconstruction/realignment project for Taxiway A (Airfield Pavement Design and Construction Phase I (2026)) to bring it into compliance with FAA design standards set forth in AC 150/5300-13A.

Lighted Windcone Installation (2025) *(Repeated project from Airfield Program)*

This project supports airfield development by relocating the lighted windcone to a new location. Installation of a co-located segmented circle is recommended by FAA, but not required at non-towered airports.

GA Transient Apron Construction (2031) *(Repeated project from East Side Development Program)*

Developing general aviation (GA) facilities on the east side of the airport separates air carrier operations from general aviation operations and improves overall safety within the airport operations area. In addition, additional aircraft parking is needed to serve the FAA-approved forecast based aircraft and operations. Development of this new general aviation area and apron fulfills those safety and demand needs. This project is required to be coordinated with development of the new east side FBO, fuel farm, and nested T-hangars projects (all 2031 projects).

FBO Facility Construction (2031) *(Repeated project from East Side Development Program)*

Developing a new FBO on the east side of the airport (separate from air carrier operations) is the preferred path forward at HIB. The existing FBO will have exceeded its expected useful life and is located where it constrains the preferred terminal expansion plan. The new east side FBO project must be coordinated with development of the new general aviation transient apron, fuel farm, and nested T-hangars projects (all 2031 projects).

FBO Fuel Farm Construction (2031) *(Repeated project from East Side Development Program)*

Developing GA facilities, including a new FBO, on the east side of the airport necessitates construction of fuel storage facilities. It is possible existing fuel storage tanks could be moved and repurposed within the new fuel storage facility. The fuel farm construction project must be coordinated with development of the new general aviation transient apron, the new FBO facility, and nested T-hangars projects (all 2031 projects).

Nested T-Hangar Construction (2031) *(Repeated project from East Side Development Program)*

Developing new GA facilities on the east side of the airport should include new T-hangars placed in orientation with Runway 13-31. The location allows T-hangar development in line with new east side GA facilities and the existing Taxiway B. Future projects programmed beyond the 20-year planning period will ultimately remove/replace Taxiway B with new taxiways meeting FAA design standards. Development of new T-hangars on the east side of the airport must be coordinated with development of the new general aviation transient apron, the new FBO facility, and the new fuel farm (all 2031 projects).

Electrical Vault Relocation (2037)

Expansion of the terminal to the west requires relocation of the existing electrical vault. The preferred location at this time is on the southeast of the existing airport maintenance building. Because a new master plan will likely be completed prior to any necessary relocation of the electrical vault, this location should be reevaluated/vetted at that time.

Airport Parking Study (2039)

Parking at HIB is currently free, but circumstances may dictate facility expansion and/or assignment of a parking rate program to support operations and maintenance of terminal landside facilities. This study is programmed to precede expansion of the terminal building.

Landside Expansion (2040)

Project to improve/increase capacity for landside facilities in coordination with terminal expansion. Facility needs should be studied prior to design and construction of any landside facilities.

4.3.5 Planning/Environmental Program

Planning and environmental projects support airport development by properly allocating resources, providing direction to current and future Airport leaders, and ensuring federal, state, and local regulations are followed.

4.3.5.1 Planning/Environmental Project Descriptions**Stormwater Pollution Prevention Plan (SWPPP) Update (2022)**

A SWPPP is required to receive a National pollutant Discharge Elimination System (NPDES) permit from the Environmental Protection Agency (EPA) and the Minnesota Pollution Control Agency (MPCA). As part of this permit application, the owner and operator must create a Stormwater Pollution Prevention Plan (SWPPP) that explains how they will control stormwater. The SWPPP will be updated as part of the Runway Safety Area (RSA) grading project.

Zoning Ordinance (2023)

In Minnesota, communities in the airport influence area enact zoning. A set of procedural steps is prescribed that meets the requirements set forth in Minnesota Statutes Chapter 360 sections 360.061 to 360.074. Land use safety zones and other Airport Zoning Standards are established in the Minnesota Rules Chapter 8800.2400. These zones are intended to restrict land uses that may be hazardous to the operational safety of aircraft using the airport, and to protect the safety and property of people on the ground in the area near the airport.

Development of Minimum Standards (2023) *(Repeated project from East Side Development Program)*

A Minimum Standards policy is a critical airport management and compliance document that establishes a set of requirements at HIB that commercial operators must meet or exceed in order to conduct business at the Airport. It is important that airport lease agreements reference Minimum Standards. Developing new/updated airport Minimum Standards prior to undertaking new development is highly recommended.

Extend Runway 13-31 - Environmental Assessment (2027) *(Repeated project from Runway Extension Program)*

The extension of Runway 13-31 triggers the need for an environmental assessment (EA) under federal NEPA process. The EA studies the extension of Runway 13-31 as it relates to the potential for causing significant environmental effects. EAs generally include the purpose and need, alternatives (as required by section 103(2)(E) of NEPA), environmental impacts of proposed action and alternatives, and a listing of

agencies and persons consulted. Within the context of the master plan, it is known that development of this area could impact existing delineated wetlands.

East Side Development Area Environmental Assessment (2028) *(Repeated project from East Side Development Program)*

Development of the east side of the airport triggers the need for an environmental assessment (EA) under federal NEPA process. The EA studies development of the airport's east side as it relates to the potential for causing significant environmental effects. EAs generally include the purpose and need, alternatives (as required by section 103(2)(E) of NEPA), environmental impacts of proposed action and alternatives, and a listing of agencies and persons consulted. Within the context of the master plan, it is known that development of this area could impact existing delineated wetlands.

Airport Master Plan Update (2032)

Airport master plans are conducted approximately every 10 years and are necessary to inform the development of an FAA-approved forecast and Airport Layout Plan. These items enable FAA funding for Airport Improvement Program (AIP) eligible projects based on the forecast growth and timing for the runway extension. The ideal timing for this study is shortly after Runway 13-31 extension construction begins.

4.3.6 Capital Expenditures Program

Recurring capital projects to maintain airfield pavement and ensure availability of safe and reliable support equipment are also programmed into the CIP.

4.3.6.1 Capital Project Descriptions

Crack Sealing *(Recurring)*

Necessary routine maintenance to ensure safe airfield pavement conditions. Budgeting for this helps provide flexibility to meet the existing maintenance needs and complete projects over multiple years. Crack sealing and seal coats have a typical useful life of 3 years and can be completed in sections. For financial and implementation planning, this project is budgeted for every 2-5 years, circumstance dependent, to extend pavement life.

Operations and Maintenance Equipment *(Recurring)*

Necessary equipment purchases to replace aging equipment that has reached the end of its expected useful life. New/replacement equipment may include: Aircraft Rescue and Firefighting equipment, snow removal equipment, ground maintenance equipment, air carrier ground services equipment, deicing trucks, fuel trucks, operations vehicles, and any other vehicle or equipment necessary to maintain or operate the airport in compliance with 14 CFR Part 139 – Airport Certification requirements. Equipment replacements are programmed into the CIP at appropriate replacement times.

Low Emission Vehicles and Ground Support Equipment (2023)

Purchase of low emission vehicles to support ground operations can be assisted using federal Voluntary Airport Low Emissions program. Created in 2004, VALE helps airport sponsors meet their state-related air

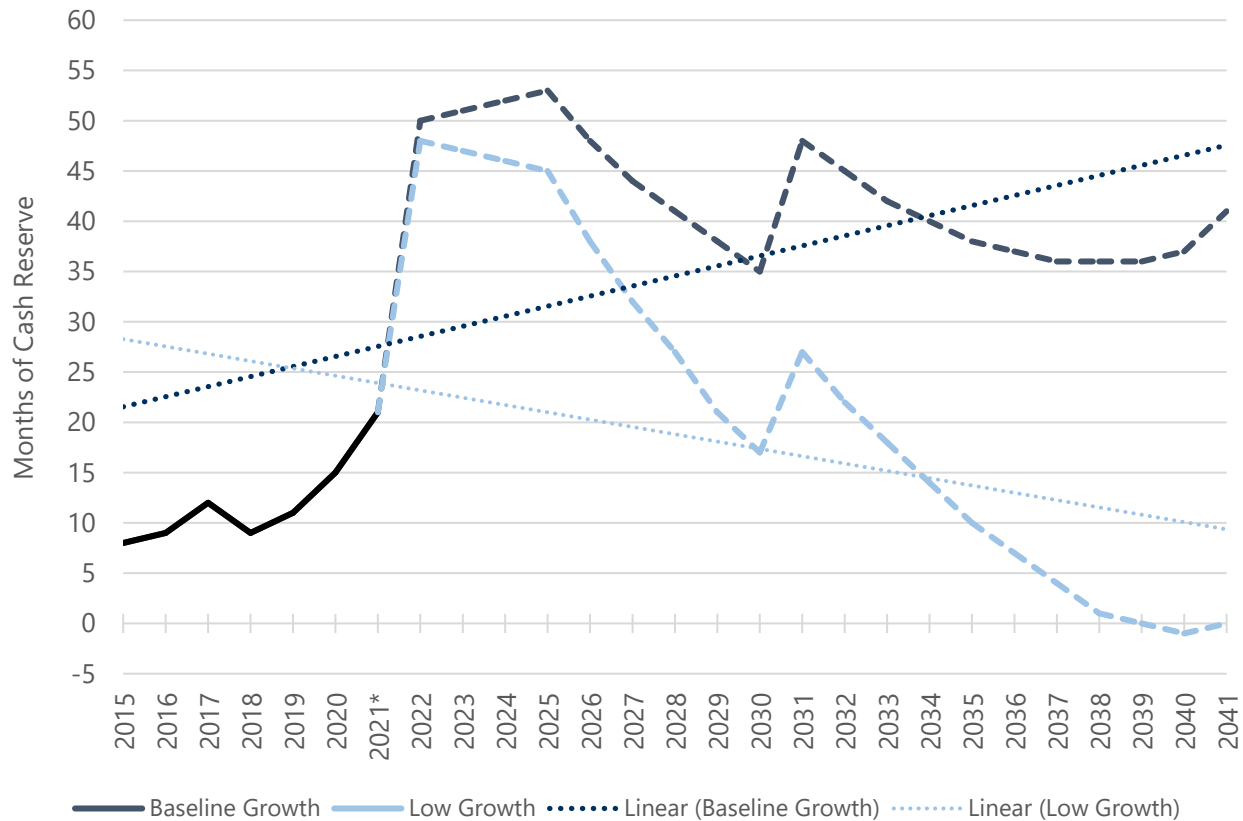
quality responsibilities under the Clean Air Act. Through VALE, airport sponsors can use AIP and PFCs to finance low emission vehicles, refueling and recharging stations, gate electrification, and other airport air quality improvements. Additional information can be found online [here](#).

4.4 DEVELOPMENT PHASING AND FUNDING PLAN IMPACT

4.4.1 Cash Flow Analysis and Unmet Needs Assessment

The audited CHAA financial statements contain information regarding the Airport’s financial position. One important element of these statements is the Cash Flow Statement which accounts for how money comes into the airport (revenues) and how that money is spent (expenses). This report was used to analyze and program optimal timing of projects within the Master Plan CIP and determine overall impacts of the plan to projected future Airport finances. **Figure 4-3** shows the program impacts to available cash reserves to support operations and **Table 4-4** shows historical and projected cash flow analysis, including an analysis of cash flows under a low growth scenario based on historical precedent and operating conditions. Analysis indicates that, under the low growth scenario, additional financial support could be needed to support the programmed CIP at the end of the planning period. Alternatively, select projects beginning in CIP year 2039 may be deferred to later years.

FIGURE 4-3
MONTHS CASH RESERVE TO SUPPORT OPERATIONS (HISTORICAL AND PROJECTED)



Source: CHAA Financial Records; RS&H Analysis, 2022

Note: (*) 2021 estimated. Projected data depicted as dashed lines.

TABLE 4-4
CASH FLOW ANALYSIS (HISTORICAL AND PROJECTED)

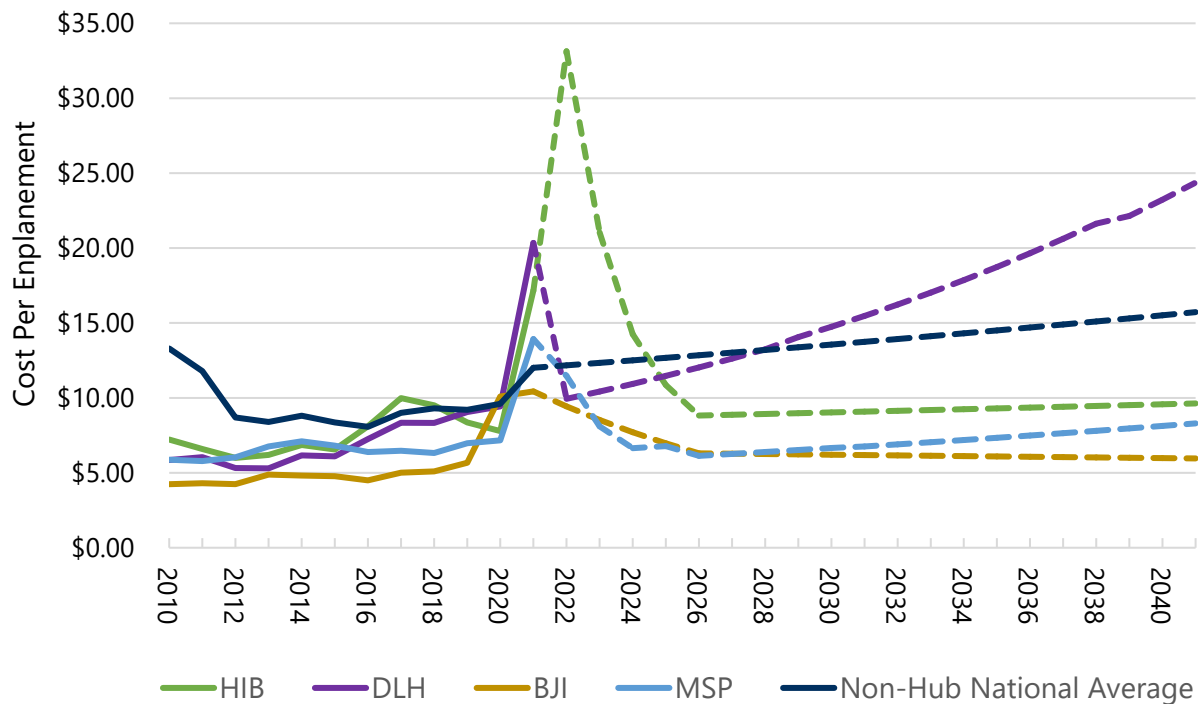
| | Historical | | | | | | | Projected | | | | | | | | | | | | | | | | | | | | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021* | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | |
| Cash flows from operating activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Receipts from customers | \$1,304,809 | \$1,315,945 | \$1,184,394 | \$1,362,241 | \$1,546,081 | \$1,417,415 | \$1,437,106 | \$1,457,070 | \$1,537,311 | \$1,558,668 | \$1,597,634 | \$1,637,575 | \$1,678,515 | \$1,720,478 | \$1,763,489 | \$1,807,577 | \$1,852,766 | \$1,955,005 | \$2,003,880 | \$2,053,977 | \$2,105,327 | \$2,157,960 | \$2,211,909 | \$2,267,207 | \$2,323,887 | \$2,381,984 | \$2,441,534 | |
| Payments to suppliers | (\$1,137,825) | (\$1,103,607) | (\$934,701) | (\$1,104,865) | (\$1,119,531) | (\$1,094,693) | (\$1,087,665) | (\$1,080,682) | (\$1,073,744) | (\$1,066,851) | (\$1,059,520) | (\$1,052,240) | (\$1,045,010) | (\$1,037,830) | (\$1,030,699) | (\$1,023,617) | (\$1,016,584) | (\$1,009,599) | (\$1,002,662) | (\$995,773) | (\$988,931) | (\$982,136) | (\$975,388) | (\$968,686) | (\$962,030) | (\$955,420) | (\$948,855) | |
| Payments to employees | (\$619,883) | (\$608,527) | (\$629,058) | (\$700,703) | (\$790,207) | (\$734,589) | (\$755,672) | (\$777,361) | (\$799,672) | (\$823,587) | (\$848,218) | (\$873,586) | (\$899,712) | (\$926,619) | (\$954,331) | (\$982,872) | (\$1,012,266) | (\$1,042,540) | (\$1,073,719) | (\$1,105,830) | (\$1,138,902) | (\$1,172,963) | (\$1,208,042) | (\$1,244,171) | (\$1,281,380) | (\$1,319,702) | (\$1,359,170) | |
| Net cash used in operating activities | (\$452,899) | (\$396,189) | (\$379,365) | (\$443,327) | (\$363,657) | (\$411,867) | (\$406,232) | (\$400,973) | (\$336,104) | (\$331,770) | (\$310,104) | (\$288,251) | (\$266,207) | (\$243,972) | (\$221,541) | (\$198,913) | (\$176,084) | (\$97,134) | (\$72,501) | (\$47,626) | (\$22,506) | \$2,861 | \$28,479 | \$54,350 | \$80,477 | \$106,862 | \$133,509 | |
| Cash flows from non-capital financing activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Property taxes and related credits received | \$555,663 | \$693,430 | \$694,230 | \$733,302 | \$770,047 | \$749,299 | \$779,271 | \$810,442 | \$842,859 | \$876,574 | \$911,637 | \$948,102 | \$986,026 | \$1,025,467 | \$1,066,486 | \$1,109,146 | \$1,153,511 | \$1,199,652 | \$1,247,638 | \$1,297,543 | \$1,349,445 | \$1,403,423 | \$1,459,560 | \$1,517,942 | \$1,578,660 | \$1,641,806 | \$1,707,479 | |
| State maintenance grants received | \$74,267 | \$148,879 | \$130,975 | \$107,552 | \$78,598 | \$41,834 | \$99,443 | \$101,929 | \$104,477 | \$107,089 | \$109,766 | \$112,511 | \$115,323 | \$118,206 | \$121,162 | \$124,191 | \$127,295 | \$130,478 | \$133,740 | \$137,083 | \$140,510 | \$144,023 | \$147,624 | \$151,314 | \$155,097 | \$158,974 | \$162,949 | |
| Other grants and aids received | \$6,547 | \$25,532 | \$25,207 | \$52,986 | \$70,060 | \$895,465 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$37,148 | \$38,263 | \$39,411 | \$40,593 | \$41,811 | \$43,065 | \$44,357 | \$45,688 | \$47,058 | \$48,470 | \$49,924 | \$51,422 | \$52,965 | \$54,554 | \$56,190 | \$57,876 | | |
| Net cash provided by non-capital financing activities | \$636,477 | \$867,841 | \$850,412 | \$893,840 | \$918,705 | \$1,686,598 | \$1,878,714 | \$1,912,371 | \$1,947,337 | \$1,983,663 | \$2,021,403 | \$1,097,761 | \$1,139,613 | \$1,183,085 | \$1,228,241 | \$1,275,147 | \$1,323,872 | \$1,374,487 | \$1,427,065 | \$1,481,685 | \$1,538,426 | \$1,597,370 | \$1,658,606 | \$1,722,221 | \$1,788,311 | \$1,856,971 | \$1,928,303 | |
| Cash flows from capital and related financing activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acquisition and construction of capital assets | (\$9,089,319) | (\$4,744,985) | (\$1,790,769) | (\$5,920,562) | (\$3,703,577) | (\$597,829) | (\$4,307,840) | (\$5,683,906) | (\$4,451,884) | (\$4,600,743) | (\$4,754,581) | (\$4,913,562) | (\$5,077,859) | (\$5,247,650) | (\$5,423,119) | (\$5,604,454) | (\$5,791,853) | (\$5,985,518) | (\$6,185,659) | (\$6,392,492) | (\$6,606,241) | (\$6,827,137) | (\$7,055,419) | (\$7,291,335) | (\$7,535,139) | (\$7,787,095) | (\$8,047,476) | |
| Proceeds from the sale of assets | \$0 | \$0 | \$15,658 | \$0 | \$29,420 | \$9,967 | \$9,174 | \$9,449 | \$9,733 | \$10,025 | \$10,326 | \$10,635 | \$10,954 | \$11,283 | \$11,622 | \$11,970 | \$12,329 | \$12,699 | \$13,080 | \$13,473 | \$13,877 | \$14,293 | \$14,722 | \$15,163 | \$15,618 | \$16,087 | \$16,570 | |
| Capital grants received | \$8,458,740 | \$4,281,790 | \$2,086,728 | \$5,341,634 | \$2,462,173 | \$389,821 | \$3,836,814 | \$3,961,511 | \$4,090,260 | \$4,223,193 | \$4,360,447 | \$4,502,162 | \$4,648,482 | \$4,799,558 | \$4,955,543 | \$5,116,598 | \$5,282,888 | \$5,454,582 | \$5,631,856 | \$5,814,891 | \$6,003,875 | \$6,199,001 | \$6,400,468 | \$6,608,483 | \$6,823,259 | \$7,045,015 | \$7,273,978 | |
| Passenger facility charges received | \$42,028 | \$44,904 | \$53,057 | \$65,891 | \$69,125 | \$40,771 | \$33,751 | \$39,502 | \$52,669 | \$70,286 | \$70,989 | \$71,699 | \$72,416 | \$73,140 | \$73,871 | \$74,610 | \$75,356 | \$76,110 | \$76,871 | \$77,640 | \$78,416 | \$79,200 | \$79,992 | \$80,792 | \$81,600 | \$82,416 | \$86,178 | |
| Interest paid | (\$6,129) | (\$18,710) | (\$155,000) | (\$103,392) | (\$21,480) | (\$18,129) | (\$136,856) | (\$213,438) | (\$203,863) | (\$190,469) | (\$184,280) | (\$174,267) | (\$164,105) | (\$153,790) | (\$143,320) | (\$132,693) | (\$121,907) | (\$109,959) | (\$97,161) | (\$84,170) | (\$70,984) | (\$57,601) | (\$44,017) | (\$30,229) | (\$16,234) | (\$2,029) | (\$27,612) | |
| Proceeds from the issuance of long-term debt | \$233,466 | \$0 | \$0 | \$0 | \$1,094,566 | \$0 | \$221,339 | \$5,500,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,600,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Payments on long-term debt | (\$46,200) | (\$54,600) | (\$50,400) | (\$147,008) | (\$325,551) | (\$407,219) | (\$171,830) | (\$586,378) | (\$948,729) | (\$948,729) | (\$948,729) | (\$948,729) | (\$948,729) | (\$948,729) | (\$948,729) | (\$948,729) | (\$948,729) | (\$1,100,168) | (\$1,100,168) | (\$1,100,168) | (\$1,100,168) | (\$1,100,168) | (\$1,100,168) | (\$1,100,168) | (\$1,100,168) | (\$1,100,168) | (\$1,045,210) | (\$513,790) |
| Net cash used in capital and related financing activities | (\$407,414) | (\$491,601) | \$159,274 | (\$763,437) | (\$395,324) | (\$582,618) | (\$515,448) | \$3,026,740 | (\$1,451,814) | (\$1,436,437) | (\$1,445,828) | (\$1,452,063) | (\$1,458,841) | (\$1,466,189) | (\$1,474,132) | (\$1,482,698) | \$1,108,084 | (\$1,692,255) | (\$1,701,181) | (\$1,710,827) | (\$1,721,226) | (\$1,732,412) | (\$1,744,422) | (\$1,757,293) | (\$1,771,063) | (\$1,730,817) | (\$1,212,152) | |
| Cash flows from investing activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interest received | \$3,148 | \$2,369 | \$3,134 | \$4,998 | \$3,915 | \$2,377 | \$3,373 | \$3,424 | \$3,475 | \$3,527 | \$3,580 | \$3,634 | \$3,689 | \$3,744 | \$3,800 | \$3,857 | \$3,915 | \$3,974 | \$4,033 | \$4,094 | \$4,155 | \$4,217 | \$4,281 | \$4,345 | \$4,410 | \$4,476 | \$4,543 | |
| Net increase (decrease) in cash | (\$220,688) | (\$17,580) | \$633,455 | (\$307,926) | \$163,639 | \$694,490 | \$960,408 | \$4,541,562 | \$162,893 | \$218,983 | \$269,051 | (\$638,918) | (\$581,747) | (\$523,332) | (\$463,632) | (\$402,607) | \$2,259,786 | (\$410,928) | (\$342,583) | (\$272,674) | (\$201,151) | (\$127,963) | (\$53,057) | \$23,623 | \$102,134 | \$237,493 | \$854,203 | |
| Cash, Beginning year | \$1,472,425 | \$1,251,737 | \$1,234,157 | \$1,867,612 | \$1,559,686 | \$1,723,325 | \$2,417,815 | \$3,378,223 | \$7,919,785 | \$8,082,678 | \$8,301,661 | \$8,570,713 | \$7,931,795 | \$7,350,047 | \$6,826,715 | \$6,363,083 | \$5,960,477 | \$8,220,263 | \$7,809,335 | \$7,466,752 | \$7,194,078 | \$6,992,927 | \$6,864,964 | \$6,811,907 | \$6,835,531 | \$6,937,665 | \$7,175,158 | |
| Cash, End of year | \$1,251,737 | \$1,234,157 | \$1,867,612 | \$1,559,686 | \$1,723,325 | \$2,417,815 | \$3,378,223 | \$7,919,785 | \$8,082,678 | \$8,301,661 | \$8,570,713 | \$7,931,795 | \$7,350,047 | \$6,826,715 | \$6,363,083 | \$5,960,477 | \$8,220,263 | \$7,809,335 | \$7,466,752 | \$7,194,078 | \$6,992,927 | \$6,864,964 | \$6,811,907 | \$6,835,531 | \$6,937,665 | \$7,175,158 | \$8,029,361 | |
| Cash as of Dec 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cash | \$328,580 | \$600,579 | \$766,423 | \$758,054 | \$950,382 | \$1,145,111 | \$1,528,493 | \$3,583,343 | \$3,657,045 | \$3,756,125 | \$3,877,859 | \$3,588,777 | \$3,325,563 | \$3,088,779 | \$2,879,007 | \$2,696,845 | \$3,719,296 | \$3,533,370 | \$3,378,366 | \$3,254,994 | \$3,163,982 | \$3,106,085 | \$3,082,079 | \$3,092,768 | \$3,138,979 | \$3,246,433 | \$3,632,922 | |
| Designated cash - Economic development | \$474,530 | \$138,629 | \$551,425 | \$183,770 | \$83,506 | \$540,987 | \$662,870 | \$1,554,009 | \$1,585,972 | \$1,628,940 | \$1,681,733 | \$1,556,366 | \$1,442,216 | \$1,339,529 | \$1,248,555 | \$1,169,556 | \$1,612,969 | \$1,532,337 | \$1,465,116 | \$1,411,612 | \$1,372,142 | \$1,347,034 | \$1,336,623 | \$1,341,258 | \$1,361,299 | \$1,407,900 | \$1,575,510 | |
| Designated cash - Airport improvements | \$297,201 | \$343,069 | \$397,374 | \$464,897 | \$535,897 | \$577,845 | \$879,063 | \$2,060,843 | \$2,103,230 | \$2,160,213 | \$2,230,224 | \$2,063,968 | \$1,912,589 | \$1,776,410 | \$1,655,767 | \$1,551,003 | \$2,139,032 | \$2,032,102 | \$1,942,957 | \$1,872,003 | \$1,819,661 | \$1,786,363 | \$1,772,557 | \$1,778,704 | \$1,805,281 | \$1,867,080 | \$2,089,356 | |
| Designated cash - Retirement benefits | \$151,426 | \$151,880 | \$152,390 | \$152,965 | \$153,540 | \$153,872 | \$307,798 | \$721,590 | \$736,431 | \$756,383 | \$780,897 | \$722,684 | \$669,679 | \$621,998 | \$579,755 | \$543,073 | \$748,967 | \$711,526 | \$680,313 | \$655,469 | \$637,141 | \$625,482 | \$620,648 | \$622,801 | \$632,106 | \$653,745 | \$731,573 | |
| | \$1,251,737 | \$1,234,157 | \$1,867,612 | \$1,559,686 | \$1,723,325 | \$2,417,815 | \$3,378,223 | \$7,919,785 | \$8,082,678 | \$8,301,661 | \$8,570,713 | \$7,931,795 | \$7,350,047 | \$6,826,715 | \$6,363,083 | \$5,960,477 | \$8,220,263 | \$7,809,335 | \$7,466,752 | \$7,194,078 | \$6,992,927 | \$6,864,964 | \$6,811,907 | \$6,835,531 | \$6,937,665 | \$7,175,158 | \$8,029,361 | |
| Low Growth Scenario | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Net cash used in operating activities | | | | | | | | (\$692,387) | (\$643,567) | (\$643,504) | (\$629,631) | (\$615,766) | (\$601,910) | (\$588,067) | (\$574,239) | (\$560,428) | (\$546,638) | (\$488,135) | (\$473,277) | (\$458,421) | (\$443,572) | (\$428,731) | (\$413,903) | (\$399,091) | (\$384,301) | (\$369,535) | (\$354,798) | |
| Net cash provided by non-capital financing activities | | | | | | | | \$1,912,371 | \$1,947,337 | \$1,983,663 | \$2,021,403 | \$1,097,761 | \$1,139,613 | \$1,183,085 | \$1,228,241 | \$1,275,147 | \$1,323,872 | \$1,374,487 | \$1,427,065 | \$1,481,685 | \$1,538 | | | | | | | |

4.4.2 Airport Cost Per Enplanement

Cost per enplaned passenger (CPE) is the average cost paid by airlines to the Airport for use of facilities such as the commercial terminal and apron. The CPE is one indicator of a commercial Airport’s financial performance as it relates to providing air carrier services at a competitive cost. The value of measuring CPE becomes more critical for airports where aeronautical revenue represents a significant percentage of operating revenues, as is true of busier commercial airports.

Figure 4-4 shows historical and projected CPE for HIB with a comparison to other airports in the region. Varying airport rate structures were not considered as part of this analysis. Drastic drops in enplaned passenger counts nationally due to the global COVID-19 pandemic dramatically impacted CPE for all airports. This is shown by the sharp increase in 2020, which is forecasted to slowly correct to pre-pandemic levels by 2024 to 2025, dependent upon the airport. Large hubs like MSP will likely return faster than non-hubs like HIB as airlines must rebuild fleet and staff which were reduced during the pandemic.

FIGURE 4-4
COST PER ENPLANED PASSENGER COMPARISON (HISTORICAL AND PROJECTED)



Sources: FAA; RS&H Analysis, 2022

Notes: Projected CPE depicted as dashed lines. HIB passenger enplanements based on Master Plan forecast. HIB passenger airline aeronautical revenue projected growth rate based on operational revenue analysis and 1.59 percent projected growth rate. DLH passenger enplanements interpolated from 2019 DLH Master Plan forecast. DLH passenger airline aeronautical revenue projected growth rate based on 2006-20 CAGR of 6.25 percent. BJI passenger enplanements interpolated from 2015 BJI Master Plan forecast. BJI passenger airline aeronautical revenue projected growth rate based on 1.59 percent growth rate. MSP passenger enplanements interpolated from 2021 MSP Master Plan forecast. MSP passenger airline aeronautical revenue projected growth rate for 2022 based on average from 2012-2019, projected based on 3.56 percent CAGR from 2012-2019. Non-hub enplanements projected based on 2012-2019 CAGR of 3.77 percent. Non-hub airline aeronautical revenue projected growth rate based on 2012-2019 CAGR or 5.18 percent.

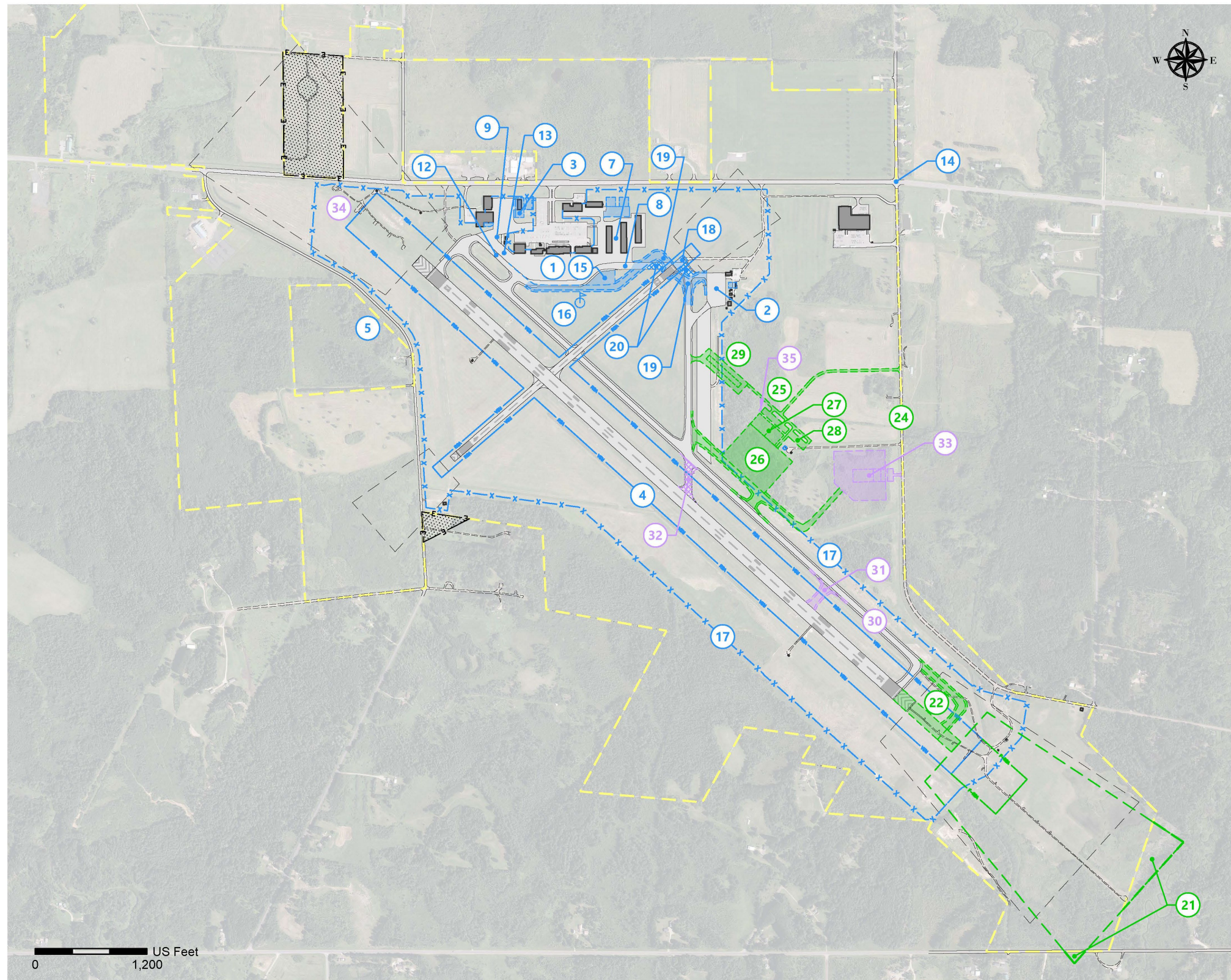
The CPE compound annual growth rate (CAGR) for HIB from 2012 to 2019 was 4.86 percent and is anticipated to slow after pandemic recovery to roughly a 1.02 percent CAGR. The 1.02 percent CAGR is comparable to the 2012 to 2019 non-hub national average CPE CAGR of 0.83 percent. As a whole, the non-hub national average CPE is anticipated to grow at a slightly faster rate (2.38 percent) than HIB between 2021 and 2041. While understanding and tracking CPE is one facet of measuring airport financial performance, the CPE at HIB does not hold as much significance as it does for an airport like MSP. Analysis shows the HIB CPE is within expectations for the NPIAS role served by the Airport and this is forecast to remain true within the planning period under the proposed CIP.

4.5 FINANCIAL FEASIBILITY AND IMPLEMENTATION SUMMARY

The analysis completed in this chapter indicates that funding will likely be available to plan, design, and construct the entirety of the projects identified and programmed within the Master Plan CIP. These projects will allow CHAA to develop facilities that work toward fulfilling the established vision for the Airport. The Airport development plan is grounded in financial realities and anticipates that CHAA will be able to meet its future financial obligations for HIB by both traditional project funding and other means such as IRRRB grants and loans used to accommodate future aviation activity at the Airport. This is dependent, however, on FAA participation for key projects such as the Runway 13-31 extension and the development of airfield facilities serving a new east side GA area.

When including recurring projects, a total of 66 capital projects have been identified in the CIP, with an additional 3 projects required beyond the planning period (most notably the terminal expansion). A total of 33 projects are programmed in the short-term between 2022 and 2026. Many of these projects will allow the Airport to adhere to airport safety standards set by the FAA, meet the facility demand requirements, and meet the strategic development goals of the Airport. Overall, this development plan will enable the CHAA to effectively continue to develop HIB as an important economic asset within northern Minnesota.

**FIGURE 4-5
DEVELOPMENT PHASING PLAN**



Short-Term - 2022-2026

- 1 Arrival/Depart Building Improvements (2022)
- 2 DNR Bituminous Ramp Rehabilitation (2022)
- 3 Hangar Construction (2022)
- 4 RSA Improvements (2022)
- 5 RWY 13 Transition Surface - Esmt E - 2.8 acres - FFY 2022 (2022)
- 6 Tree Removal Project (2022) *
- 7 T-Hangar(s) Taxilane Rehabilitation (2023)
- 8 T-Hangar(s) Taxiway Rehabilitation (2023)
- 9 Fuel Farm Improvements (2023)
- 10 ILS/GS Fiber Optic Repair (2023) *
- 11 Safety Barricades and Lights (2023) *
- 12 Taxiway A Rehabilitation (2024)
- 13 Taxiway A/Fuel Farm Area Rehabilitation (2024)
- 14 Highway 37 - Hughes Rd Traffic Study (2024)
- 15 Air Carrier Apron Expansion (2025)
- 16 Lighted Windcone Installation (2025)
- 17 Wildlife Fence Improvements (2025)
- 18 Blast Pad Corrections (2026)
- 19 Airfield Pavement Design and Construction Phase I (2026)
- 20 Airfield Pavement Demolition Phase I (2026)

Mid-Term - 2027-2031

- 21 Extend RWY 13-31 - Land Acquisition (2028)
- 22 Extend RWY 13-31 & TWY C to 7,400' - Design and Constr (2029)
- 23 East Side Utility Extension (2030) *
- 24 Paving of Hughes Road to access East Side GA Area (2030)
- 25 East Side GA Access Roads and Parking Construction (2030)
- 26 GA Transient Apron Construction (2031)
- 27 FBO Facility Construction (2031)
- 28 FBO Fuel Farm Construction (2031)
- 29 Nested T-Hangar Construction (2031)

Long-Term - 2032-2041

- 30 TWY C Rehabilitation (2032)
- 31 Airfield Pavement Design & Construction Phase II (2033)
- 32 Airfield Connector Pavement Demolition (2033)
- 33 Airport Support/Administration/ARFF Facility Relocation (2034)
- 34 North Perimeter Road (2036)
- 35 Electrical Vault Relocation (2037)
- 36 Airport Parking Study (2039) *
- 37 Landside Expansion (2040) *
- 38 Aircraft Wash Facility Construction (2041) *

* Project not shown in graphic

Source: RS&H Analysis, 2022