



## Chapter 6

# Capital Improvement Program

The master plan concept presented in the previous chapter outlined airside and landside improvements for Baraboo-Wisconsin Dells Regional Airport (DLL) that provide the communities of Lake Delton with a plan to preserve and develop the airport to meet future aviation demands. Using the recommended master plan concept as a guide, this chapter will provide a description and overall cost estimates for the projects identified in the capital improvement program (CIP) and development schedule. The program has been evaluated from a variety of perspectives and represents a comparative analysis of basic budget factors, demand, and priority assignments.

The presentation of the capital program is organized into two sections. In the first section, the airport's CIP and associated cost estimates are presented in narrative and graphic form. The CIP has been developed following Federal Aviation Administration (FAA) guidelines for master plans and primarily identifies those projects that are likely eligible for FAA and Wisconsin Department of Transportation (WisDOT) – Bureau of Aeronautics (BOA) grant funding. The second section identifies and discusses capital improvement funding sources at the federal, state, and local levels. As a block grant state, the BOA is responsible for distributing FAA state apportionment and discretionary grant funds to general aviation (GA) airports, as well as their own state funding program. As such, the BOA serves as both the state and federal agency for grants at DLL.

With the recommended concept and specific needs and improvements for the airport having been established, the next step is to determine a realistic schedule for project implementation and the associated costs for the plan. The capital program considers the interrelationships among the projects in order to determine an appropriate sequence of development, while remaining within reasonable fiscal constraints.

The CIP is programmed by planning horizons and has been developed to cover the short- (1-5 years), intermediate- (6-10 years), and long-term (11-20 years) planning horizons. By using planning horizons instead of specific years, the Communities of Lake Delton will have greater flexibility to adjust capital needs as demand dictates. **Table 6A** summarizes the key aviation demand milestones projected at DLL for each of the three planning horizons.

TABLE 6A | Planning Horizon Activity Levels

	PLANNING HORIZON			
	Base Year (2022)	Short Term (1-5 Years)	Intermediate Term (6-10 Years)	Long Term (11-20 Years)
<b>ANNUAL OPERATIONS</b>				
<i>Itinerant</i>				
Air Carrier	0	0	0	0
Air Taxi	226	311	429	700
General Aviation	11,144	12,489	13,185	14,634
Military	1,000	1,000	1,000	1,000
<i>Local</i>				
General Aviation	7,430	8,090	8,232	8,532
Military	0	0	0	0
<b>Total Annual Operations</b>	<b>19,800</b>	<b>21,890</b>	<b>22,846</b>	<b>24,866</b>
<b>BASED AIRCRAFT</b>	<b>53</b>	<b>57</b>	<b>62</b>	<b>72</b>

Source: Coffman Associates analysis

A key aspect of this planning document is the use of demand-based planning milestones. The short-term planning horizon contains items of highest need and/or priority, some of which have been previously defined by airport management and existing CIP schedules. As short-term horizon activity levels are reached, it will be time to plan for the intermediate term, based on the next activity milestones. Likewise, when the intermediate milestones are reached, it will be time to plan for the long-term activity milestones.

Many development items included in the recommended concept will need to follow these demand indicators. For example, the plan includes expanding utility infrastructure and site preparation for constructing new landside facilities to support aircraft activity. Demand for new based aircraft will be a primary indicator for these projects. If based aircraft growth occurs as projected, additional hangars should be constructed to meet the demand. If growth slows or does not occur as forecast, some projects may be delayed. As a result, capital expenditures are planned to be made on an as-needed basis, leading to more responsible use of capital assets. Some development items do not depend on demand, such as airfield improvements to meet FAA design standards. These projects need to be programmed in a timely manner, regardless of changes in demand indicators, and should be monitored regularly by airport management.

At DLL, some hangars are owned and managed by the airport sponsor and leased to individual tenants, while others are privately owned and managed on land leased from the airport sponsor. Because of economic realities, many airports rely on private developers to construct new hangars. In some cases, private developers can keep construction costs lower, which, in turn, lowers the monthly lease rates necessary to amortize a loan. **The CIP for DLL assumes that development for many landside facilities will primarily be constructed privately through ground lease agreements with the sponsor.** This assumption does not preclude the possibility of the airport sponsor constructing new hangars. Furthermore, the airport sponsor may decide to provide the site preparation projects necessary to facilitate hangar construction, such as grading and utility installation. Ultimately, the communities of Lake Delton will determine – based on demand and the specific needs of a potential developer – whether to self-fund landside facility development or rely on private developers.

Because a master plan is a conceptual document, implementation of the capital projects should only be undertaken after further refinement of their design and costs through architectural and/or engineering analysis. Moreover, some projects may require additional infrastructure improvements (e.g., drainage, extension of utilities, etc.) that may increase the estimated cost of the project or the timeline for completion.

Once a list of necessary projects was identified and refined, project-specific cost estimates were prepared. These estimates include design, construction, administration, and contingency costs that may arise on the project. **Capital costs presented here should be viewed only as order-of-magnitude estimates that are subject to further refinement during any engineering and/or architectural design.** Nevertheless, they are considered sufficient for planning purposes. Cost estimates for each of the development projects in the CIP are based on present-day construction, design, and administration costs. Adjustments will need to be applied over time to account for inflation and changes in construction and capital equipment costs. Cost estimates for all projects are in current (2024) dollars. It should also be noted that the CIP and costs were prepared by the airport's engineering firm with assistance and input from the airport commission prior to presentation within this report.

**Exhibit 6A** presents the proposed 20-year CIP for DLL with a beginning year of 2024, as projects from that year are not yet complete. Most of the projects identified are eligible for federal and/or state grant funding but may not meet the eligibility funding threshold due to low priority rating. Projects that may not fully meet funding eligibility requirements are otherwise noted on **Exhibit 6A**. The point of the analysis is to identify possible funding opportunities, to be decided on a project-by-project basis. **BOA-funded projects, utilizing FAA block grant funds, are eligible for up to 90 percent of the total project cost. The remaining share (10 percent) must be funded locally by the airport sponsor; however, it should be noted that the state of Wisconsin maintains its own aviation funding program, which will match up to 50 percent of the airport or local share of all eligible items contained in BOA-funded projects.**

The BOA uses the FAA priority ranking system to help objectively evaluate potential airport projects. Projects are weighted toward safety, infrastructure preservation, standards, and capacity enhancement. The BOA will participate in the highest priority projects before considering lower priority projects, even if a lower priority project is considered a more urgent need by the local sponsor; nevertheless, such projects should remain a priority for the airport and funding support should continue to be requested in subsequent years.

The most important feature of the CIP is that future projects for which the airport may request BOA funding are included on the list. On a biennial basis, the CIP is updated and reviewed with the BOA. Projects on the CIP will be moved up and down, depending on priority and funding availability. Periodically, new projects will arise that can be added to the CIP and presented to the BOA.

Some projects identified in the CIP will require environmental documentation. The level of required documentation for each project must be determined in consultation with the FAA and BOA. There are three major levels of environmental review to be considered under the *National Environmental Policy Act* (NEPA): categorical exclusion (CatEx), environmental assessment (EA), and environmental impact statement (EIS). Each level requires more time to complete and more detailed information. Guidance on

what level of documentation is required for a specific project is outlined in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. The environmental overview presented in Chapter Five addresses NEPA and provides an evaluation of various environmental categories for DLL.

The following sections will describe, in greater detail, the projects identified for the airport over the next 20 years. The projects are grouped based on a detailed evaluation of existing and projected demand, safety, rehabilitation needs, and local priority. While the CIP identifies the priority ranking of the projects, the list should be evaluated and revised on a regular basis. It is also important to note that certain projects, while listed separately for purposes of evaluation in this study, could be combined with other projects during time of construction/implementation.

### **SHORT-TERM PROGRAM (0-5 YEARS)**

The short-term projects are those anticipated to be needed during the first five years of the 20-year CIP. The projects listed are subject to change, based on federal and state funding priorities. Projects relating to safety and maintenance generally have the highest priority. The short-term program presents 21 projects for the planning period between 2024 and 2028, as presented on **Exhibit 6A** and depicted on **Exhibit 6B**.

#### **FY 2024 PROJECTS**

##### **Project #1: Design Taxiway A (North)**

**Description:** This project is the design phase for routine maintenance of Taxiway A.

**Cost Estimate:** \$150,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

##### **Project #2: Design Taxiway A (North)**

**Description:** This project is the second design phase for routine maintenance of Taxiway A.

**Cost Estimate:** \$50,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

##### **Project #3: Rehabilitate Taxiway A (North)**

**Description:** As part of routine airport maintenance, this project is the rehabilitation of Taxiway A to ensure that the airport maintains existing infrastructure, as well as a safe operating environment.

**Cost Estimate:** \$1,600,000

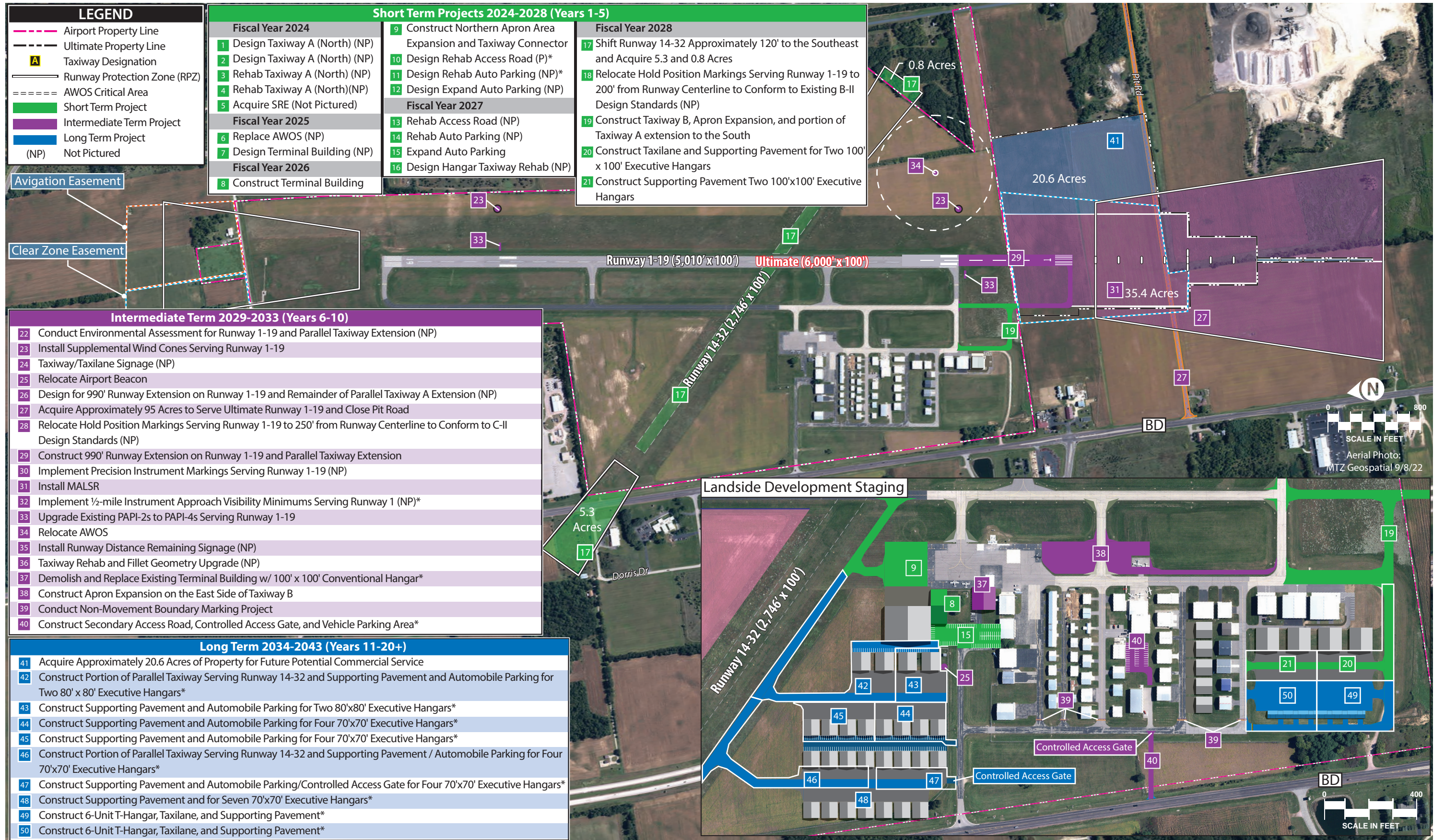
**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

##### **Project #4: Rehabilitate Taxiway A (North)**

**Description:** As part of routine airport maintenance, this is the second phase of the rehabilitation of Taxiway A to ensure that the airport maintains existing infrastructure, as well as a safe operating environment.

**Cost Estimate:** \$300,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent



#	Project Description	Estimated Cost	Federal/BOA Share	State Match	Airport Sponsor/Local Share	#	Project Description	Estimated Cost	Federal/BOA Share	State Match	Airport Sponsor/Local Share
<b>SHORT TERM (0-5 Years)</b>						<b>LONG TERM (0-5 Years)</b>					
<b>Fiscal Year 2024</b>						<b>Fiscal Year 2024</b>					
1	Design Taxiway A (North) (Not Pictured)	\$150,000.00	\$135,000.00	\$7,500.00	\$7,500.00	41	Acquire Approximately 20.6 Acres of Property for Future Potential Commercial Service	\$750,000.00	\$675,000.00	\$37,500.00	\$37,500.00
2	Design Taxiway A (North) (Not Pictured)	\$50,000.00	\$45,000.00	\$2,500.00	\$2,500.00	42	Construct Portion of Parallel Taxiway Serving Runway 14-32 and Supporting Pavement and Automobile Parking for Two 80'x80' Executive Hangars*	\$1,000,000.00	\$900,000.00	\$50,000.00	\$50,000.00
3	Rehab Taxiway A (North) (Not Pictured)	\$1,600,000.00	\$1,440,000.00	\$80,000.00	\$80,000.00	43	Construct Supporting Pavement and Automobile Parking for Two 80'x80' Executive Hangars*	\$200,000.00	\$180,000.00	\$10,000.00	\$10,000.00
4	Rehab Taxiway A (North) (Not Pictured)	\$300,000.00	\$270,000.00	\$15,000.00	\$15,000.00	44	Construct Supporting Pavement and Automobile Parking for Four 70'x70' Executive Hangars*	\$300,000.00	\$270,000.00	\$15,000.00	\$15,000.00
5	Acquire SRE (Not Pictured)	\$350,000.00	\$315,000.00	\$17,500.00	\$17,500.00	45	Construct Supporting Pavement and Automobile Parking for Four 70'x70' Executive Hangars*	\$300,000.00	\$270,000.00	\$15,000.00	\$15,000.00
<b>Fiscal Year 2025</b>						<b>Fiscal Year 2025</b>					
6	Replace AWOS	\$184,000.00	\$165,600.00	\$9,200.00	\$9,200.00	46	Construct Portion of Parallel Taxiway Serving Runway 14-32 and Supporting Pavement / Automobile Parking for Four 70'x70' Executive Hangars*	\$1,100,000.00	\$990,000.00	\$55,000.00	\$55,000.00
7	Design Terminal Building	\$170,000.00	\$153,000.00	\$8,500.00	\$8,500.00	47	Construct Supporting Pavement and Automobile Parking/Controlled Access Gate for Four 70'x70' Executive Hangars*	\$200,000.00	\$180,000.00	\$10,000.00	\$10,000.00
<b>Fiscal Year 2026</b>						<b>Fiscal Year 2026</b>					
8	Construct Terminal Building	\$2,500,000.00	\$2,250,000.00	\$125,000.00	\$125,000.00	48	Construct Supporting Pavement and for Seven 70'x70' Executive Hangars*	\$200,000.00	\$180,000.00	\$10,000.00	\$10,000.00
9	Construct Northern Apron Area Expansion and Taxiway Connector	\$800,000.00	\$720,000.00	\$40,000.00	\$40,000.00	49	Construct 6-Unit T-Hangar, Taxilane, and Supporting Pavement*	\$2,300,000.00	\$2,070,000.00	\$115,000.00	\$115,000.00
10	Design Rehab Access Road*	\$50,000.00	\$45,000.00	\$2,500.00	\$2,500.00	50	Construct 6-Unit T-Hangar, Taxilane, and Supporting Pavement*	\$2,000,000.00	\$1,800,000.00	\$100,000.00	\$100,000.00
11	Design Rehab Auto Parking *	\$40,000.00	\$36,000.00	\$2,000.00	\$2,000.00	<b>Long-Term CIP Subtotal</b>		<b>\$8,350,000.00</b>	<b>\$7,515,000.00</b>	<b>\$417,500.00</b>	<b>\$417,500.00</b>
12	Design Expand Auto Parking	\$30,000.00	\$27,000.00	\$1,500.00	\$1,500.00	<b>CAPITAL IMPROVEMENT PROGRAM TOTAL</b>		<b>\$27,824,000.00</b>	<b>\$24,951,600.00</b>	<b>\$1,386,200.00</b>	<b>\$1,486,200.00</b>
<b>Fiscal Year 2027</b>						<b>Fiscal Year 2027</b>					
13	Rehab Access Road	\$265,000.00	\$238,500.00	\$13,250.00	\$13,250.00						
14	Rehab Auto Parking	\$400,000.00	\$360,000.00	\$20,000.00	\$20,000.00						
15	Expand Auto Parking	\$300,000.00	\$270,000.00	\$15,000.00	\$15,000.00						
16	Design Hangar Taxiway Rehab	\$150,000.00	\$135,000.00	\$7,500.00	\$7,500.00						
<b>Fiscal Year 2028</b>						<b>Fiscal Year 2028</b>					
17	Shift Runway 14-32 Approximately 120' to the Southeast and Acquire 5.3 and 0.8 Acres	\$400,000.00	\$360,000.00	\$20,000.00	\$20,000.00						
18	Relocate Hold Position Markings Serving Runway 1-19 to 200' from Runway Centerline to Conform to Existing B-II Design Standards	\$5,000.00	\$4,500.00	\$250.00	\$250.00						
19	Construct Taxiway B, Apron Expansion, and portion of Taxiway A extension to the South	\$1,140,000.00	\$1,026,000.00	\$57,000.00	\$57,000.00						
20	Construct Taxilane and Supporting Pavement for Two 100'x100' Executive Hangars	\$500,000.00	\$450,000.00	\$25,000.00	\$25,000.00						
21	Construct Supporting Pavement Two 100'x100' Executive Hangars	\$75,000.00	\$67,500.00	\$3,750.00	\$3,750.00						
<b>Short-Term CIP Subtotal</b>		<b>\$9,459,000.00</b>	<b>\$8,513,100.00</b>	<b>\$472,950.00</b>	<b>\$472,950.00</b>						
<b>INTERMEDIATE TERM (6-10 Years)</b>											
22	Conduct Environmental Assessment for Runway 1-19 and Parallel Taxiway Extension	\$200,000.00	\$180,000.00	\$10,000.00	\$10,000.00						
23	Install Supplemental Wind Cones Serving Runway 1-19	\$100,000.00	\$-	\$-	\$100,000.00						
24	Taxiway/Taxilane Signage	\$40,000.00	\$36,000.00	\$2,000.00	\$2,000.00						
25	Relocate Airport Beacon	\$80,000.00	\$72,000.00	\$4,000.00	\$4,000.00						
26	Design for 990' Runway Extension on Runway 1-19 and Remainder of Parallel Taxiway A Extension	\$150,000.00	\$135,000.00	\$7,500.00	\$7,500.00						
27	Acquire Approximately 95 Acres to Serve Ultimate Runway 1-19 and Close Pit Road	\$3,000,000.00	\$2,700,000.00	\$150,000.00	\$150,000.00						
28	Relocate Hold Position Markings Serving Runway 1-19 to 250' from Runway Centerline to Conform to C-II Design Standards	\$20,000.00	\$18,000.00	\$1,000.00	\$1,000.00						
29	Construct 990' Runway Extension on Runway 1-19 and Parallel Taxiway Extension	\$1,860,000.00	\$1,674,000.00	\$93,000.00	\$93,000.00						
30	Implement Precision Instrument Markings Serving Runway 1-19	\$20,000.00	\$18,000.00	\$1,000.00	\$1,000.00						
31	Install MALSR	\$500,000.00	\$450,000.00	\$25,000.00	\$25,000.00						
32	Implement 1/2-mile Instrument Approach Visibility Minimums Serving Runway 1*	\$500,000.00	\$450,000.00	\$25,000.00	\$25,000.00						
33	Upgrade Existing PAPI-2s to PAPI-4s Serving Runway 1-19	\$100,000.00	\$90,000.00	\$5,000.00	\$5,000.00						
34	Relocate AWOS	\$200,000.00	\$180,000.00	\$10,000.00	\$10,000.00						
35	Install Runway Distance Remaining Signage	\$30,000.00	\$27,000.00	\$1,500.00	\$1,500.00						
36	Taxiway Rehab and Fillet Geometry Upgrade	\$200,000.00	\$180,000.00	\$10,000.00	\$10,000.00						
37	Demolish and Replace Existing Terminal Building w/ 100'x100' Conventional Hangar*	\$2,000,000.00	\$1,800,000.00	\$100,000.00	\$100,000.00						
38	Construct Apron Expansion on the East Side of Taxiway B	\$500,000.00	\$450,000.00	\$25,000.00	\$25,000.00						
39	Conduct Non-Movement Boundary Marking Project	\$15,000.00	\$13,500.00	\$750.00	\$750.00						
40	Construct Secondary Access Road, Controlled Access Gate, and Vehicle Parking Area*	\$500,000.00	\$450,000.00	\$25,000.00	\$25,000.00						
<b>Intermediate-Term CIP Subtotal</b>		<b>\$10,015,000.00</b>	<b>\$8,923,500.00</b>	<b>\$495,750.00</b>	<b>\$595,750.00</b>						

Cost estimates were prepared by Strand Associates in January 2024.

\* Project may not be eligible for grant funding.



**Project #5: Acquire Snow Removal Equipment (SRE)**

**Description:** To ensure safe and efficient airport operation during snow-covered conditions, this project is for the acquisition of additional SRE.

**Cost Estimate:** \$350,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**FY 2025 PROJECTS**

**Project #6: Replace Airport Weather Observation System (AWOS)**

**Description:** As part of routine airport maintenance, this project has been included to ensure safe and proper operation of the AWOS.

**Cost Estimate:** \$184,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #7: Design Terminal Building**

**Description:** At present, increased use of the terminal building and facilities by transient and local operators has put a strain on the service capacity of the building. As such, this project is for the design of a new terminal building to allow for increased capacity and efficiency.

**Cost Estimate:** \$170,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**FY 2026 PROJECTS**

**Project #8: Construct Terminal Building**

**Description:** Following the design of the new terminal building, this project is the construction of the new facility, which will allow for increased capacity and efficiency for transient and local users.

**Cost Estimate:** \$2,500,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #9: Construct Northern Apron Area Expansion and Taxiway Connector**

**Description:** To ease current constraints along the northern portion of the existing apron area, this project is the construction of approximately 5,900 square yards (sy) of additional apron area near the new terminal building. This project also considers the construction of a taxiway connector serving the northernmost side of the proposed apron.

**Cost Estimate:** \$800,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #10: Design for Rehabilitation of Access Road**

**Description:** As part of routine maintenance, this project has been included to ensure that the airport maintains existing infrastructure.

**Cost Estimate:** \$50,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #11: Design for Rehabilitation of Auto Parking**

**Description:** As part of routine maintenance, this project has been included to ensure that the airport maintains existing infrastructure.

**Cost Estimate:** \$40,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #12: Design for Expansion of Auto Parking**

**Description:** To ensure automobile parking needs are met through the long-term planning horizon, this project is the design for additional automobile parking to serve the new terminal building and surrounding hangars.

**Cost Estimate:** \$30,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**FY 2027 PROJECTS**

**Project #13: Rehabilitate Access Road**

**Description:** As part of routine maintenance, this project is the construction phase of the access road rehabilitation and has been included to ensure that the airport maintains existing infrastructure.

**Cost Estimate:** \$265,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #14: Rehabilitate Auto Parking**

**Description:** As part of routine maintenance, this project is the construction phase of the automobile parking rehabilitation and has been included to ensure that the airport maintains existing infrastructure.

**Cost Estimate:** \$400,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #15: Expand Auto Parking**

**Description:** To ensure automobile parking needs are met through the long-term planning horizon, this project is the construction of additional automobile parking to serve the new terminal building and surrounding hangars.

**Cost Estimate:** \$300,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #16: Design for Hangar Taxiway Rehabilitation**

**Description:** As part of routine maintenance, this project is the design phase for rehabilitating the existing taxilanes serving the GA hangars and has been included to ensure that the airport maintains existing infrastructure.

**Cost Estimate:** \$150,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent



**FY 2028 PROJECTS****Project #17: Shift Runway 14-32 Approximately 120' to the Southeast and Acquire 5.3 and 0.8 Acres**

**Description:** Currently, the runway object free area (ROFA) and runway obstacle free zone (ROFZ) serving Runway 14-32 extend beyond airport property to the northwest and are obstructed by a fence adjacent to County Highway BD. It is recommended that Runway 14-32 be shifted approximately 120 feet to the southeast in an effort to contain the ROFA and ROFZ within the bounds of airport property, thereby resolving the ROFA and ROFZ incompatibilities. Additionally, this project includes the acquisition of aviation easements for 5.3 and 0.8 acres of uncontrolled property within the ultimate Runway 14 and 32 runway protection zones (RPZs), respectively.

**Cost Estimate:** \$400,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #18: Relocate Hold Position Markings Serving Runway 1-19 to 200' from Runway Centerline to Conform to Existing B-II Design Standards**

**Description:** Under existing runway design code (RDC) B-II, the FAA requires hold position markings to be placed at a minimum of 200 feet from the runway centerline. At present, the hold position markings serving Runway 1-19 are located 190 feet from the runway centerline. As such, this project is for the relocation of Runway 1-19 hold position markings to 200 feet.

**Cost Estimate:** \$5,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #19: Construct Taxiway B Extension, Apron Expansion, and Portion of Taxiway A Extension to the South**

**Description:** Given recent demand for additional hangar development on the southwestern side of the existing landside development, this project is the extension and widening of Taxiway B to the south, as well as an extension to Taxiway A to the south, with an east-west connector taxiway linking the two. This project will provide access to the airfield and apron areas for new hangars constructed in this area.

**Cost Estimate:** \$1,140,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #20: Construct Taxilane and Supporting Pavement for Two 100' x 100' Executive Hangars**

**Description:** The construction of this project will provide aircraft access via taxilane supporting two 100-by-100-foot hangars. It should be noted that the hangars are assumed to be developed privately.

**Cost Estimate:** \$500,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #21: Construct Supporting Pavement for Two 100' x 100' Executive Hangars**

**Description:** The construction of this project will provide continued aircraft access via taxilane supporting two additional 100-by-100-foot hangars. It should be noted that the hangars are assumed to be developed privately.

**Cost Estimate:** \$75,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

## Short-Term Program Summary

The short-term CIP, detailed on **Exhibit 6A**, includes projects that enhance the overall safety, efficiency, and maintenance of the airfield, while also implementing landside improvements. The total investment necessary for the short-term CIP is approximately \$9.5 million. Of the total short-term program, approximately \$8.5 million is eligible for federal or BOA funding assistance, while the state match program is eligible for approximately \$500,000 and the airport (or local) share is nearly \$500,000.

## *INTERMEDIATE-TERM PROGRAM (6-10 YEARS)*

The intermediate-term projects are those that are anticipated to be necessary generally between 2029 and 2033. These projects are not tied to specific years of implementation; instead, they have been prioritized so that airport management has the flexibility to determine when they need to be pursued, based on current conditions. It is not unusual for certain projects to be delayed or advanced based on changing conditions, such as funding availability or changes in the aviation industry. This planning horizon includes 19 projects, as listed on **Exhibit 6A** and depicted on **Exhibit 6B**. The following section includes a description of each project.

### **Project #22: Conduct Environmental Assessment for Runway 1-19 and Parallel Taxiway Extension**

**Description:** This project is for the environmental documentation required for the runway extension and associated property acquisition prior to extending Runway 1-19.

**Cost Estimate:** \$200,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

### **Project #23: Install Supplemental Wind Cones Serving Runway 1-19**

**Description:** This project is for the installation of supplemental wind cones serving Runway 1-19 to aid pilots in situations where viewing the primary wind cone may be difficult. When this project takes place, supplemental wind cones must be placed outside of the existing and ultimate ROFA for Runway 1-19.

**Cost Estimate:** \$100,000

**Funding Eligibility:** FAA/BOA – 0 percent, Airport/Local – 100 percent

### **Project #24: Taxiway/Taxilane Signage**

**Description:** This project is the installation of a taxiway/taxilane signage system to enhance pilot situational awareness when taxiing on the airfield, as well as communicating with other pilots and position reporting.

**Cost Estimate:** \$40,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

### **Project #25: Relocate Airport Beacon**

**Description:** This project is the relocation of the airport beacon approximately 100 feet south of its existing location to create additional space for hangar development and automobile access.

**Cost Estimate:** \$80,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #26: Design for 990' Runway Extension on Runway 1-19 and Remainder of Parallel Taxiway A Extension**

**Description:** Prior to extending Runway 1-19, this project is for the engineering and design required before physical construction can take place.

**Cost Estimate:** \$150,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #27: Acquire Approximately 95 Acres to Serve Ultimate Runway 1-19 and Close Pit Road**

**Description:** In order to remove incompatibilities associated with the ultimate Runway 1-19, this project is for the acquisition of approximately 95 acres of property and the closure of Pit Road within the ultimate RPZ serving the extended Runway 1-19.

**Cost Estimate:** \$3,000,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #28: Relocate Hold Position Markings Serving Runway 1-19 to 250' from Runway Centerline to Conform to C-II Design Standards**

**Description:** Under ultimate RDC C-II, the FAA requires hold position markings to be placed at a minimum of 250 feet from the runway centerline. As such, this project is for the relocation of Runway 1-19 hold position markings to 250 feet.

**Cost Estimate:** \$20,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #29: Construct 990' Runway Extension on Runway 1-19 and Parallel Taxiway Extension**

**Description:** As discussed in Chapter Five, additional runway length could benefit larger and faster business jet operators by making the airport more accessible during hot summer months, providing the opportunity for aircraft to depart with more fuel and allowing for longer stage lengths and an increase in usable payload. Additional runway length would also improve landing situations for business jets operating under Part 91K or Part 135, especially during wet or contaminated runway conditions. As such, this project is for the extension of Runway 1-19 to an ultimate length of 6,000 feet.

**Cost Estimate:** \$1,860,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #30: Implement Precision Instrument Markings Serving Runway 1-19**

**Description:** Under ultimate conditions, Runway 1 is planned to be served by instrument approach minimums down to ½-mile, which requires precision instrument runway markings.

**Cost Estimate:** \$20,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #31: Install Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR)**

**Description:** As part of the runway extension and corresponding instrument approach minimum improvements, this project is the installation of a MALSR serving the Runway 1 end, as runways served by instrument approach minimums below ¾-mile are required to have an approach lighting system (ALS).

**Cost Estimate:** \$500,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #32: Implement ½-Mile Instrument Approach Visibility Minimums Serving Runway 1**

**Description:** Chapter Four examined multiple instrument approach enhancement alternatives serving each runway end. Ultimately, increased instrument approach capabilities for Runway 1 are planned at not lower than ½-mile. This will permit additional operational capacity of the airport during inclement weather or poor visibility conditions.

**Cost Estimate:** \$500,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #33: Upgrade Existing Two-Light Precision Approach Path Indicator (PAPI-2) to PAPI-4 Serving Runway 1-19**

**Description:** Under ultimate conditions, Runway 1 is planned to be served by instrument approach minimums not lower than ½-mile, and instrument approach minimums serving Runway 19 are planned to remain at not lower than 1-mile. As such, this project is to upgrade the existing PAPI-2s to PAPI-4s serving Runway 1-19.

**Cost Estimate:** \$100,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #34: Relocate Automated Weather Observation System (AWOS)**

**Description:** The AWOS is surrounded by an FAA-defined critical area with a radius of 500 feet. Although buildings and objects are permissible within this area, they must not obstruct the operation of the AWOS sensors. As such, this project is for the relocation of the AWOS to the southeast portion of the airfield, which is a more suitable location for the AWOS operational requirements.

**Cost Estimate:** \$200,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #35: Install Runway Distance Remaining Signage**

**Description:** Given the capabilities of the ultimate Runway 1-19 in terms of runway length and instrument approach visibility minimums, this project is for the implementation of runway distance remaining signage serving Runway 1-19.

**Cost Estimate:** \$30,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #36: Taxiway Rehabilitation and Fillet Geometry Upgrade**

**Description:** As part of routine airport maintenance, this project has been included to ensure that the airport maintains existing infrastructure, as well as a safe operating environment. At this time, taxiway fillets can be upgraded to current FAA taxiway fillet geometry standards.

**Cost Estimate:** \$200,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #37: Demolish and Replace Existing Terminal Building with 100' x 100' Conventional Hangar**

**Description:** Because a new terminal building is planned to be constructed as part of Project #8, this project is for the demolition and redevelopment of the old terminal building.

**Cost Estimate:** \$2,000,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #38: Construct Apron Expansion on the East Side of Taxiway B**

**Description:** Given the need for additional apron area, this project is for the expansion of the apron area along Taxiway B, encompassing an additional 9,000 sy.

**Cost Estimate:** \$500,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #39: Conduct Non-Movement Boundary Marking Project**

**Description:** This project is to establish non-movement boundary markings on taxilanes to better segregate automobile and aircraft traffic operating in and around the GA hangars.

**Cost Estimate:** \$15,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #40: Construct Secondary Access Road, Controlled Access Gate, and Vehicle Parking Area**

**Description:** To alleviate automobile congestion on the main airport entrance road, this project is for the construction of a secondary entrance road with a controlled access gate and an additional 12,300 sf of automobile parking directly east of the SRE building.

**Cost Estimate:** \$500,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Intermediate-Term Program Summary**

The total costs associated with the intermediate-term program are estimated at \$10.0 million. Of this total, approximately \$8.9 million could be eligible for federal or BOA funding, while the state match program could be eligible for nearly \$500,000 and the airport (or local) share is projected at approximately \$600,000.

***LONG-TERM PROGRAM (10-20 YEARS AND BEYOND)***

The long-term planning horizon considers 10 projects for the final 10-year period (and beyond) that are mainly demand-driven. The projects and their associated costs are listed on **Exhibit 6A** and presented on **Exhibit 6B**.

**Project #41: Acquire Approximately 20.6 Acres of Property for Future Potential Commercial Service**

**Description:** Given the draw of tourism to the Lake Delton area, this project considers the purchase of property to be reserved for the long-term potential for commercial service at the airport.

**Cost Estimate:** \$750,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #42: Construct Portion of Parallel Taxiway Serving Runway 14-32 and Supporting Pavement and Automobile Parking for Two 80' x 80' Executive Hangars**

**Description:** Should demand warrant, this project is for the construction of a section of parallel taxiway serving Runway 14-32 that would provide access to new hangar development areas on the north and

west side of the terminal area. In addition, the construction of supporting taxilanes and automobile parking are also included in this project. It should be noted that hangar development in this area is assumed to be funded through private funding mechanisms and ultimate hangar layouts may vary from what is depicted on the development concept.

**Cost Estimate:** \$1,000,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #43: Construct Supporting Pavement and Automobile Parking for Two 80' x 80' Executive Hangars**

**Description:** Should demand warrant, this project considers the construction of supporting taxilanes and automobile parking for continued hangar development on the northwest side of the terminal area. It should be noted that hangar development in this area is assumed to be funded through private funding mechanisms and ultimate hangar layouts may vary from what is depicted on the development concept.

**Cost Estimate:** \$200,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #44: Construct Supporting Pavement and Automobile Parking for Four 70' x 70' Executive Hangars**

**Description:** Should demand warrant, this project considers the construction of supporting taxilanes and automobile parking for continued hangar development on the northwest side of the terminal area. It should be noted that hangar development in this area is assumed to be funded through private funding mechanisms and ultimate hangar layouts may vary from what is depicted on the development concept.

**Cost Estimate:** \$300,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #45: Construct Supporting Pavement and Automobile Parking for Four 70' x 70' Executive Hangars**

**Description:** Should demand warrant, this project considers the construction of supporting taxilanes and automobile parking for continued hangar development on the northwest side of the terminal area. It should be noted that hangar development in this area is assumed to be funded through private funding mechanisms and ultimate hangar layouts may vary from what is depicted on the development concept.

**Cost Estimate:** \$300,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #46: Construct Portion of Parallel Taxiway Serving Runway 14-32 and Supporting Pavement and Automobile Parking for Four 70' x 70' Executive Hangars**

**Description:** If the airport experiences continued demand for hangar development, this project is for the construction of an additional section of parallel taxiway serving Runway 14-32 that would provide access to new hangar development areas farther north and west of the terminal area. The construction of supporting taxilanes and automobile parking are also included in this project. It should be noted that hangar development in this area is assumed to be funded through private funding mechanisms and ultimate hangar layouts may vary from what is depicted on the development concept.

**Cost Estimate:** \$1,100,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #47: Construct Supporting Pavement, Automobile Parking, and Controlled Access Gate for Four 70' x 70' Executive Hangars**

**Description:** This project considers the continued development of the northwest terminal area with construction of supporting taxilanes and automobile parking for continued hangar development on the northwest side of the terminal area. Automobile access to these hangars could be controlled via an access gate. It should be noted that hangar development in this area is assumed to be funded through private funding mechanisms and ultimate hangar layouts may vary from what is depicted on the development concept.

**Cost Estimate:** \$200,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #48: Construct Supporting Pavement for Seven 70' x 70' Executive Hangars**

**Description:** To complete landside development of the northwest terminal area, this project considers the construction of supporting taxilanes for continued hangar development. It should be noted that hangar development in this area is assumed to be funded through private funding mechanisms and ultimate hangar layouts may vary from what is depicted on the development concept.

**Cost Estimate:** \$200,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #49: Construct Six-Unit T-Hangar, Taxilane, and Supporting Pavement**

**Description:** Should the airport experience continued demand for T-hangar storage, this project includes the construction of a six-unit T-hangar storage facility, as well as taxilane access and apron area to support aircraft movements.

**Cost Estimate:** \$2,300,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Project #50: Construct Six-Unit T-Hangar, Taxilane, and Supporting Pavement**

**Description:** If demand warrants, this project is for the construction of an additional six-unit T-hangar storage facility, as well as taxilane access and apron area to support aircraft movements.

**Cost Estimate:** \$2,000,000

**Funding Eligibility:** FAA/BOA – 90 percent, State Match – 5 Percent, Airport/Local – 5 percent

**Long-Term Program Summary**

The total investment necessary for the long-term CIP is approximately \$8.4 million. Roughly \$7.5 million is eligible for federal or BOA assistance, with the state match program and airport/local share of the long-term projects estimated at more than \$400,000, respectively. As noted previously, eligibility and actual funding of individual projects will be determined year to year and on a case-by-case basis.

**CAPITAL IMPROVEMENT PROGRAM SUMMARY**

The CIP is intended as a road map of improvements to help guide the Community of Lake Delton and the BOA. The plan, as presented, will help accommodate increased demand at DLL over the next 20 years and beyond. The sequence of projects may change due to availability of funds or changing priorities,

based on the annual review by airport management, the airport sponsor, and the BOA; nevertheless, this is a comprehensive list of capital projects the airport should consider in the next 20 years and beyond.

The total CIP proposed is approximately \$27.8 million in airport development needs. Of this total, approximately \$24.9 million could be eligible for federal or BOA funding assistance. The state match program could be eligible for approximately \$1.4 million. The local funding estimate for the proposed CIP is estimated to be a minimum of \$1.5 million, which could increase if individual projects are not offered federal grants.

## CAPITAL IMPROVEMENT FUNDING SOURCES

There are generally four different sources of funds used to finance airport development, which include:

- Airport cash flow
- Revenue and general obligation bonds
- Federal/state/local grants
- Passenger facility charges (reserved for commercial service airports)

Access to these sources of financing varies widely among airports, with some large airports maintaining substantial cash reserves, while smaller commercial service and general aviation airports often require subsidies from local governments to fund operating expenses and finance modest improvements.

Financing capital improvements at DLL will not rely solely on the financial resources of the airport sponsor. Capital improvement funding is available through various grant-in-aid programs on both the federal and state levels. Historically, the airport has received both federal and state grants. While more funds could be available some years, the CIP was developed with project phasing to remain realistic and within the range of anticipated grant assistance. The following discussion outlines key sources of funding potentially available for capital improvements at the airport.

## FEDERAL GRANTS

Through federal legislation over the years, various grant-in-aid programs have been established to develop and maintain a system of public-use airports across the United States. The purpose of this system and its federally based funding is to maintain national defense and promote interstate commerce. The *FAA Modernization and Reform Act of 2012*, enacted on February 17, 2012, authorized the FAA's Airport Improvement Program (AIP) at \$3.35 billion for fiscal years (FY) 2012 through 2015. The law was then extended through a series of continuing resolutions. In 2016, U.S. Congress passed legislation (H.R. 636, *FAA Extension, Safety, and Security Act of 2016*) amending the law to expire on September 30, 2017. Subsequently, U.S. Congress passed a bill (H.R. 3823, *Disaster Tax Relief and Airport and Airway Extension Act of 2017*) authorizing appropriations to the FAA through March 31, 2018, and the *Consolidated Appropriations Act, 2018* extended the FAA's funding and authority through September 30, 2018. In October 2018, U.S. Congress passed legislation, the *FAA Reauthorization Act of 2018*, to fund the FAA's AIP at \$3.35 billion annually until 2023. This bill reauthorizes the FAA for five years, at a cost of \$97 billion,



and represents the longest funding authorization period for the FAA since 1982. At the time of this writing (January 2024), the bill has not been reauthorized. A reauthorization bill was introduced in June 2023 but has not yet been approved, and the AIP is currently being funded through an extension until March 2024, which was granted in December 2023.

The source for AIP funds is the Aviation Trust Fund. Established in 1970, the Aviation Trust Fund provides funding for aviation capital investment programs (aviation development, facilities and equipment, and research and development). The Aviation Trust Fund also finances the operation of the FAA. It is funded by user fees, including taxes on airline tickets, aviation fuel, and various aircraft parts.

Several projects identified in the CIP are eligible for FAA funding through the AIP, which provides entitlement funds to airports based (in part) on their annual enplaned passengers and pounds of landed cargo weight. Additional AIP funds, designated as discretionary, may also be used for eligible projects, based on the FAA’s national priority system. Although the AIP has been reauthorized several times and the funding formulas have been periodically revised to reflect changing national priorities, the program has remained essentially the same. Public-use airports that serve civil aviation – like DLL – may receive AIP funding for eligible projects, as described in the FAA’s *Airport Improvement Program Handbook*. The airport must fund the remaining projects’ costs using a combination of other funding sources, which are discussed in the following sections.

**Table 6B** presents the approximate distribution of the AIP funds as described in FAA Order 5100.38D, Change 1, *Airport Improvement Program Handbook*, issued February 26, 2019. DLL is eligible to apply for grants that may be funded through state apportionments, the small airport fund, discretionary funds, and/or set-aside categories.

**TABLE 6B | Federal AIP Funding Distribution**

Funding Category	Percent of Total	Amount <sup>1</sup>
<b>Apportionment/Entitlement</b>		
Passenger Entitlements	27.01%	\$904,840,000
Cargo Entitlements	3.50%	\$117,250,000
Alaska Supplemental	0.67%	\$22,450,000
Nonprimary Entitlements	12.01%	\$402,340,000
State Apportionment	7.99%	\$267,670,000
Carryover	22.85%	\$765,480,000
<b>Small Airport Fund</b>		
Small Hubs	2.33%	\$78,060,000
Nonhubs	4.67%	\$156,450,000
Nonprimary (GA and Reliever)	9.33%	\$312,560,000
<b>Discretionary</b>		
Capacity/Safety/Security/Noise	4.36%	\$146,060,000
Pure Discretionary	1.45%	\$48,580,000
<b>Set-Asides</b>		
Noise and Environmental	3.37%	\$112,900,000
Military Airports Program	0.39%	\$13,070,000
Reliever	0.06%	\$2,010,000
<b>Total</b>	<b>100.00%</b>	<b>\$3,350,000,000</b>

<sup>1</sup>FAA Reauthorization Act of 2018

Source: FAA Order 5100.38D, Change 1, *Airport Improvement Program Handbook*

Funding for AIP-eligible projects is undertaken through a cost-sharing arrangement in which the FAA/BOA provides up to 90 percent of the cost and the airport sponsor invests the remaining 10 percent. In exchange for this level of funding, the airport sponsor is required to meet various grant assurances, including maintaining the improvement for its useful life, usually 20 years.

Another source of federal grants is the ***Bipartisan Infrastructure Law (BIL)***, which was signed into law in 2022 and plans for \$25 billion to be invested into airports in the United States over the next five years. BIL funds are sourced from the U.S. Treasury General Fund and are split into two funding buckets: \$20 billion for Airport Infrastructure Grants (AIG) and \$4.85 billion for the Airport Terminal Program (ATP). **Under the BIL, DLL can receive \$294,000<sup>1</sup> in allocated AIG funding for fiscal year 2024.** Beginning in FY2022, the BIL became available to be used for repair and maintenance of existing infrastructure or construction of new facilities (e.g., airfield pavement, navigational aids, lighting, terminal buildings, etc.).

ATP grants can be used for multimodal terminal development and relocating, reconstructing, repairing, or improving an airport traffic control tower. The federal share for AIG is the same as an AIP grant – 90 percent with a 10 percent local match – while the federal share for ATP grants is 95 percent for non-primary airports. The same grant assurances that apply to AIP grants will also apply to BIL grants. BIL and AIP grants cannot be combined into a single grant.

### Apportionment (Entitlement) Funds

AIP provides funding for eligible projects at airports through an apportionment (entitlement) program. Non-primary airports that are included in the *National Plan of Integrated Airport Systems (NPIAS)*, such as DLL, receive a guaranteed minimum level of up to \$150,000 each year in non-primary entitlement (NPE) funds. These funds can be carried over and combined for up to four years, thereby allowing for the completion of a more expensive project.

The FAA also provides a state apportionment based on a federal formula that considers land area and population. For the State of Wisconsin, the BOA distributes these funds for projects at various airports throughout the state.

### Small Airport Fund

If a large- or medium-hub commercial service airport chooses to institute a passenger facility charge (PFC) – which is a fee of up to \$4.50 per airline ticket for funding of capital improvement projects – its apportionment is reduced. A portion of the reduced apportionment goes to the small airport fund. The small airport fund is reserved for small-hub primary commercial service airports, non-hub commercial service airports, reliever airports, and general aviation airports. As a general aviation airport, DLL is eligible for funds from this source.

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

## Discretionary Funds

In several cases, airports face major projects that will require funds that total more than the airport's annual entitlements; thus, additional funds from discretionary apportionments under the AIP become desirable. The primary feature of discretionary funds is that they are distributed on a priority basis. The priorities are established with a code system by the FAA. Under this system, projects are ranked by their purpose. Projects ensuring airport safety and security are ranked as the most important priorities, followed by maintaining current infrastructure development, mitigating noise and other environmental impacts, meeting design standards, and increasing system capacity.

It is important to note that competition for discretionary funding is not limited to airports within the State of Wisconsin or those within the FAA Great Lakes Region. The funds are distributed to all airports in the country and, as such, are more difficult to obtain. High-priority projects will often fare favorably, while lower priority projects may not receive discretionary grants.

## FAA Facilities and Equipment (F&E) Program

The Airway Facilities Division of the FAA administers the Facilities and Equipment (F&E) Program. This program provides funding for the installation and maintenance of various navigational aids and equipment of the National Airspace System. Under the F&E Program, funding is provided for FAA airport traffic control towers, enroute navigational aids, on-airport navigational aids, and approach lighting systems.

While the F&E Program still installs and maintains some navigational aids, on-airport facilities at general aviation airports have not been a priority; therefore, airports often request funding assistance for navigational aids through the AIP and then maintain the equipment on their own.<sup>2</sup>

## STATE FUNDING PROGRAMS

The State of Wisconsin participates in the federal State Block Grant Program. Under this program, the FAA annually distributes general aviation state apportionment and discretionary funds to the BOA, which, in turn, distributes grants to airports within the state. In compliance with the BOA's legislative mandate that it "apply for, receive, and disburse" federal funds for general aviation airports, the BOA acts as the agent of the local airport sponsor. Although these grants are distributed by the BOA, they contain all federal obligations.

All publicly owned airports and federally designated privately-owned reliever airports are eligible for state financial aid; however, the state's designation of airport classification in the state aviation system plan (SASP) determines the extent to which an airport can be developed with these funds. Development beyond these guidelines may not be eligible for funding, depending on the justification of need for the specific development. This determination is made on a case-by-case basis. State financial aid is available

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<sup>2</sup> Guidance on the eligibility of a project for federal AIP grant funding can be found in FAA Order 5100.38D, *Airport Improvement Program Handbook, Change 1*, effective February 26, 2019.

through the BOA and is provided by the issuance of a finding approved by the governor. Appropriation of funds depends on individual airport needs and BOA priorities. For projects receiving federal financial aid, the airport owner and BOA equally share the non-federal costs.

For projects not involving federal financial aid, the state normally pays:

- 80 percent of the cost of eligible airside and landside development; and
- 50 percent of some planning projects.

The state's contribution toward the cost of eligible buildings is limited to \$1.25 million. The state cannot participate in the cost of hangars.

In addition, the State of Wisconsin provides a five percent funding match for airport projects that are federally funded. The five percent state funding match covers a portion of the 10 percent local match, leaving the airport sponsor responsible for the remaining five percent of the project cost. This state-funded portion of the local match greatly increases the affordability of projects for many airport sponsors throughout the State of Wisconsin.

### **Advance Land Acquisition Loan Program**

The Advance Land Acquisition Loan Program was created to lend state funds to the owners of public-use airports included in the SASP. These funds are used for purchasing land essential for airport development and approach protection. It is BOA policy that all land needed for airport development projects seeking state or federal aid be purchased prior to funding approval. The program is available to airport owners to assist them in meeting this requirement. It also assists airport owners with purchasing properties when they come up for sale and the airport owner has not budgeted for the purchase. The program operates as a revolving fund wherein loan repayments are made available for future loans. Acquisition of land before receipt of federal financial aid allows construction to begin at the earliest possible date and minimizes the need for funding amendments caused by land cost overruns. In addition to property acquisition costs, other costs associated with the project are eligible for loans through this program.

These costs include:

- Feasibility studies;
- Land surveys;
- Airport layout plan updates;
- Environmental studies (including agricultural impact statements);
- Project plans and specifications;
- Other incidental expenses of acquisition, such as appraisals, relocation plans, hazardous materials surveys, and closing costs; and
- Legal services associated with land acquisition.

Loans are available for up to 80 percent of eligible costs, for a maximum term of five years, with simple interest payable annually at the rate of four percent on the unpaid balance. The airport owner must provide 20 percent of the estimated eligible project costs up front.

### **Funding Flow**

For land loan projects, the airport owner's share of the project is used to begin the preliminary work. The funds for the preliminary work are then applied to the airport owner's share of the land loan and, ultimately, the state or federal aid project. This procedure allows work to begin on a project before state or federal airport development funds are available. As previously stated, funds for preliminary work are also applied to the airport owner's share. In some cases, a third party (i.e., private corporation, individual) may donate funds toward the airport owner's share. The airport owner must commit its share of the project funds before state and federal funds can be secured. An airport owner may include one or several listed items in a request for financial aid. Funding consideration is given for each work item listed. Priority is given to work that will enhance safety or keep the airport operational.

### **Five-Year Airport Improvement Program**

Even though a work item may be eligible for funding, it does not guarantee funding, or funding on the airport's stated schedule. The BOA always has more funding requests than it can cover. The state and federal priority systems help the BOA make decisions about what work to include in the Five-Year Airport Improvement Program, as well as the schedule of work included. The Five-Year Airport Improvement Program is the BOA's tool for scheduling individual airport projects that are eligible for federal and state assistance. Projects with the highest priority will be included in the program for early consideration. The first two years of the program's five-year schedule primarily include projects that have been formally petitioned by the airport owner. Many of the projects in the last three years of the program are tentative. The program is dynamic in that it changes due to fluctuating funding levels at federal, state, and local levels of government.

### **LOCAL FUNDING**

After consideration has been given to grants, the balance of project costs must be funded through local resources. A goal for any airport is to generate enough revenue to cover all operating and capital expenditures, if possible. There are several local financing options to consider when funding future development at airports, including airport revenues, issuance of a variety of bond types, leasehold financing, implementing a customer facility charge (CFC), pursuing non-aviation development potential, and collecting money from special events. These strategies could be used to fund the local matching share or complete a project if grant funding cannot be arranged. Below is a brief description of the most common local funding options.

## **Airport Revenues**

An airport's daily operations are conducted through the collection of various rates and charges. These airport revenues are generated specifically by airport operations. There are restrictions on the use of revenues collected by the airport. All receipts – excluding bond proceeds or related grants and interest – are irrevocably pledged to the punctual payment of operating and maintenance expenses, payment of debt service for as long as bonds remain outstanding, or for additions or improvements to airport facilities.

All airports should establish standard base rates for various leases. All lease rates should be set to adjust to a standard index, such as the consumer price index (CPI), to ensure that fair and equitable rates continue to be charged in the future. Many factors will impact what the standard lease rate should be for a particular facility or ground parcel. For example, ground leases for aviation-related facilities should have a different lease rate than for non-aviation leases. When airports own hangars, a separate facility lease rate should be charged. The lease rate for any individual parcel or hangar may vary due to availability of utilities, condition, location, and other factors; nevertheless, standard lease rates should fall within an acceptable range.

## **Bonding**

Bonding is a common method to finance large capital projects at airports. A bond is an instrument of indebtedness of the bond issuer to the bond holders; a bond is a form of loan or "IOU." While bond terms are negotiable, the bond issuer is typically obligated to pay the bond holder interest at regular intervals and/or repay the principal at a later date.

## **Leasehold/Third-Party Financing**

Leasehold or third-party financing refers to a developer or tenant financing improvements under a long-term ground lease. The advantage of this arrangement is that it relieves the airport of the responsibility of having to raise capital funds for the improvement. As an example, a hangar developer might consider constructing hangars and charging fair market lease rates while paying the airport sponsor for a ground lease. A fuel farm can be undertaken in the same manner, with the developer of the facility paying the airport a fuel flowage fee.

Many airports use third-party funding when the planned improvements will primarily be used by a private business or other organization. Such projects are not ordinarily eligible for federal funding. Projects of this kind typically include hangars, fixed base operator facilities, fuel storage, exclusive aircraft parking aprons, industrial aviation-use facilities, non-aviation office/commercial/industrial developments, and other similar projects. Private development proposals are considered on a case-by-case basis. Often, airport funds for infrastructure, preliminary site work, and site access are required to facilitate privately developed projects on airport property.

## Customer Facility Charge (CFC)

A CFC is the imposition of an additional fee charged to customers for the use of certain facilities. The most common example is when an airport constructs a consolidated rental car facility and imposes a fee for each rental car contract. That fee is then used by the airport to pay down the debt incurred from building the facility. A landing fee is another example, where operators of aircraft pay the airport a set amount for using the airfield. Often, this can be waived with the purchase of aviation fuel, which offers another revenue source for the airport.

## Non-Aeronautical Development

In addition to generating revenue from traditional aviation sources, airports with excess land can permit compatible non-aeronautical development. Generally, an airport will extend a long-term lease for land not anticipated to be needed for aviation purposes in the future. The developer then pays the monthly lease rate and constructs and uses the compatible facility. The recommended concept plans for approximately 6.4 acres to be designated as non-aeronautical land use along the west side of the existing land-side development area. This area is considered for non-aeronautical use because it is separate enough from the airside facilities that it does not pose a risk to airport operations. It should be noted that any future non-aviation development must be reviewed and approved by both the FAA and BOA.

## Special Events

Another common revenue-generating option is permitted use of airport property for temporary or single events. A pancake “fly-in” or an airshow are two popular examples of a special event. Airports can also permit portions of their facilities to be used for non-aviation special events, such as car shows or video production of commercials. This type of revenue generation must be approved by the FAA.

## Airport Rates and Fees Information

Each year, the BOA completes a survey of public-use airports in Wisconsin to gauge the rates, charges, and related activities for state airports. Per Wisconsin Administrative Code Trans 55, airports are required to submit responses as a condition of receiving state funding. The survey offers a comparative tool to help airports gauge financial practices and needs. Of the 97 system plan airports, 93 provided a response to the survey. Complete rates and charges survey data can be found on the BOA’s website at <https://wisconsin.gov/av-pubs>. DLL qualifies as a medium general aviation airport, with summary averages and/or detailed information for specific rates/fees included in **Table 6C**.

**TABLE 6C | BOA Rates and Charges Survey Results (2022) – Medium GA Airports**

<b>100LL</b>	
<i>Available at 100% of Responding Medium GA Airports</i>	
100LL Price on 12/31/2022	\$5.79
Gallons of 100LL Sold	19,000
<b>Jet A</b>	
<i>Available at 73% of Responding Medium GA Airports</i>	
Jet A Price on 12/31/2022	\$5.55
Gallons of Jet A Sold	55,000
<b>Landing Fees</b>	
<i>Charged at 13% of Responding Medium GA Airports</i>	
<b>Tiedown Fees</b>	
<i>Charged at 29% of Responding Medium GA Airports</i>	
Daily Tiedown Rate for a Cessna 172	\$8
Monthly Tiedown Rate for a Cessna 172	\$83
Daily Tiedown Rate for a Beechcraft King Air	\$24
Daily Tiedown Rate for a Hawker 800	\$79
<b>Rented T-Hangars</b>	
<i>Available at 56% of Responding Medium GA Airports</i>	
Non-Heated, T-Hangar – Monthly Rate for a Cessna 172	\$148
Heated, T-Hangar – Monthly Rate for a Cessna 172	\$246
<b>Community Hangars</b>	
<i>Available at 49% of Responding Medium GA Airports</i>	
Non-Heated, Community Hangar – Daily Rate for a Cessna 172	\$30
Non-Heated, Community Hangar – Monthly Rate for a Cessna 172	\$182
Heated, Community Hangar – Daily Rate for a Cessna 172	\$63
Heated, Community Hangar – Monthly Rate for a Cessna 172	\$283
<b>Ground Leases</b>	
<i>Available at 100% of Responding Medium GA Airports</i>	
Private Hangar Rate	\$0.09 per ft <sup>2</sup>
Corporate Hangar Rate	\$0.14 per ft <sup>2</sup>
Commercial Hangar Rate	\$0.30 per ft <sup>2</sup>
<b>Financial Self-Sustainability</b>	
<i>80% of Responding Medium GA Airports Required Local Subsidy</i>	
Local Tax Levy Subsidy	\$85,000

## MASTER PLAN IMPLEMENTATION

To implement the master plan recommendations, it is key to recognize that planning is a continuous process and does not end with approval of this document. The airport should implement measures that allow it to track various demand indicators, such as based aircraft, hangar demand, and operations. The issues on which this master plan is based will remain valid for a number of years. The primary goal is for DLL to best serve the air transportation needs of the region, while achieving economic self-sufficiency. The CIP and phasing program presented will change over time. An effort has been made to identify and prioritize all major capital projects that would require federal or state grant funding; nevertheless, the airport and the BOA should review the five-year CIP on an annual basis.



The primary value of this study is that it keeps the issues and objectives at the forefront of the minds of decision-makers. In addition to adjustments in aviation demand, decisions on when to undertake any projects or improvements recommended in this master plan will impact how long this plan remains valid. The format of this plan reduces the need for formal and costly updates by simply adjusting the timing of project implementation. Updates can be done by airport management, thereby improving the effectiveness of the master plan; nevertheless, airports are typically encouraged to update their master plans every seven to 10 years, or sooner if significant changes occur in the interim.

In summary, the planning process requires the airport sponsor to constantly monitor the progress of the airport. The information obtained from continually monitoring activity will provide the data necessary to determine if the development schedule should be accelerated or decelerated.