

EXECUTIVE SUMMARY

STUDY BACKGROUND

The Airport Master Plan (AMP) study for the Portage Municipal Airport (FAA ID: C47) is developed to provide the Airport Sponsor (City of Portage) with a framework for future airport development at the existing airport site based upon aviation demand, facility needs, and the Sponsor's goals and vision. The last comprehensive AMP study was completed in 2011 and did not fully document non-standard conditions and actions needed to achieve compliance. A key driving factor to the completion of this AMP is to determine the viability of the existing airport site to meet the safety standards and the community's aviation needs. This study will enable the City of Portage to make an informed decision on future investments at the airport.

AIRPORT FACILITY

C47 is located in Columbia County and on the north edge of the City of Portage corporate limits. The airport is located adjacent to residential, industrial and commercial development and is surrounded by roads including Airport Road, Silver Lake Drive, County Highway CX and Interstate 39. C47 is part of the National Plan of Integrated Airport Systems (NPIAS), and is classified as a Local General Aviation airport by the Federal Aviation Administration (FAA). C47 features two paved runways – Runway 18-36 (3,768' x 60') and crosswind Runway 4-22 (2,510' x 40'). The airport also has visual navigational aids, a terminal/main hangar building, aircraft parking apron, AVGAS fuel facility, and several aircraft storage hangar buildings.



AIRPORT ACTIVITY

C47 sees a variety of aviation usage by recreational/flight training, including occasional use by business aviation and military operators. The airport has 25 based aircraft and over 3,500 annual operations, or about 9 takeoffs and landings per day. The airport is forecast to have nominal growth in based aircraft and operations through the year 2038. Growth in aviation activity including new based aircraft and larger business aviation aircraft is constrained by the size of the facilities. The constrained forecast of aviation activity at C47 is summarized in the table below.



**Critical Design Aircraft
Beechcraft Baron G58
FAA AAC-B, ADG-I**

C47 Aviation Activity Forecasts

Forecast Parameter	Forecast Year				Annual Growth
	2018	2023	2028	2038	
Based Aircraft	25	26	26	28	0.49%
Total Operations	3,700	3,826	3,960	4,255	0.70%

The critical design aircraft is the most demanding aircraft or grouping of aircraft with similar characteristics to regularly use the airport. Based on information collected from airport users, the existing and future critical design aircraft is expected to remain a small twin-engine piston aircraft throughout the planning period.

FACILITY NEEDS & RECOMMENDED DEVELOPMENT

C47 has several deficiencies to minimum FAA and state airport design standards, including objects in close proximity to the runways and numerous airspace obstructions to the runway approaches. Facility needs were identified to meet aeronautical demands. Major needs include:

- Correct existing FAA airport design standard deficiencies for both runways
- Mitigate airspace obstructions to all runway approaches to meet FAA standards
- Maintain a runway length of at least 3,300 feet with instrument approaches, if possible
- Rehabilitate or reconstruct airport pavements to extend their useful life
- Upgrade primary runway lighting and navigational aids
- Reconfigure taxiway and aircraft parking area geometry to meet current standards
- Provide additional aircraft storage hangar development areas to meet future needs
- Replace terminal building and fuel facility with new infrastructure

Anticipated long-term facility needs include a runway length of 3,800 feet or 5,500 feet to accommodate larger aircraft up to business jets.

Several development alternatives were analyzed to determine the on-airport and off-airport impacts of accommodate facility needs at the existing airport site. The analyzed concluded:

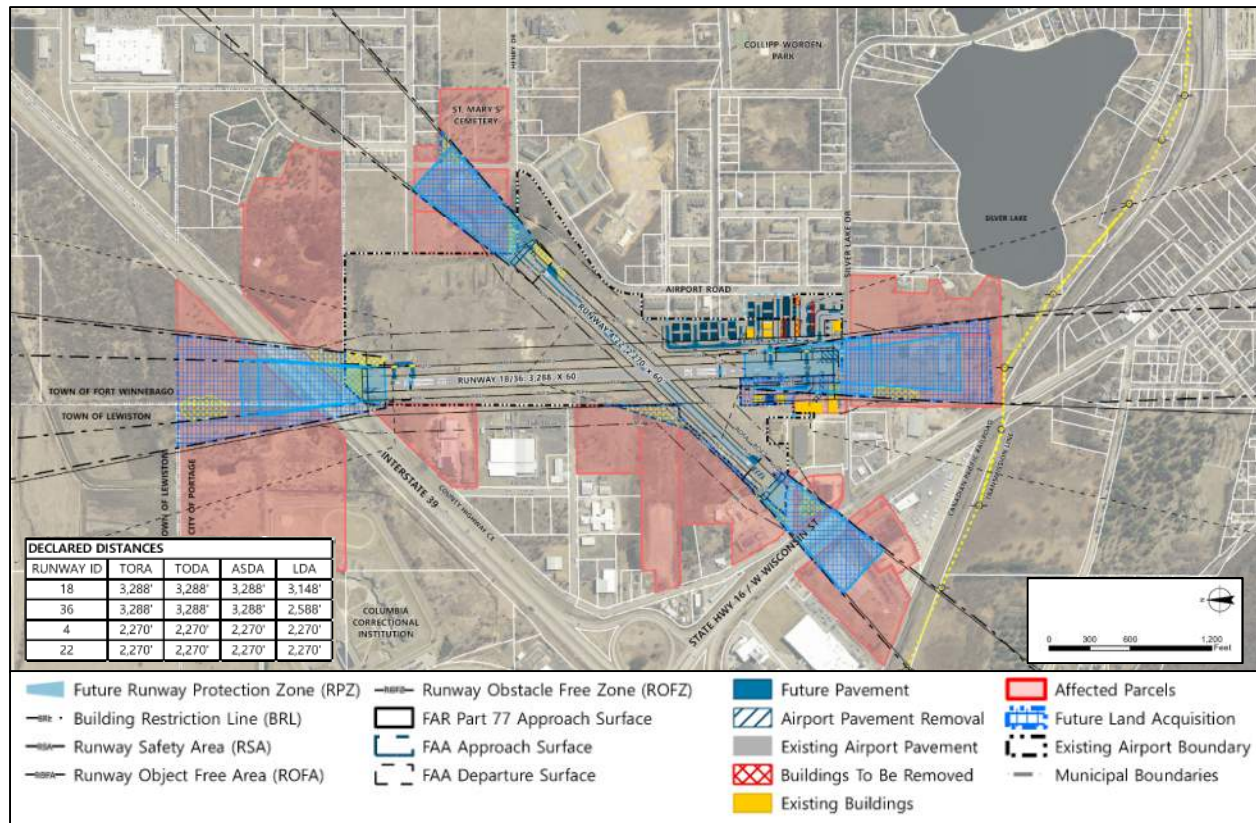
- The impacts and costs of building a 3,800-foot or 5,500-foot runway at the existing airport site are not feasible and warrant exploring a replacement airport site.

- ➔ Constructing a 3,300-foot runway to meet design standards on an existing or new runway alignment resulted in significant impacts and costs to the Sponsor.
- ➔ Improving the existing airport site to meet basic safety and compliance standards best satisfies aeronautical needs while considering potential operational, socioeconomic, environmental, and fiscal impacts in the short-term - is not a long-term solution to meet unconstrained future demand
- ➔ Exploring a replacement airport site is recommended considering the cost and impacts of improving the existing airport to meet the community’s long-term aviation needs.

The recommended airport development for the existing airport site provides the Sponsor with a plan to address the highest priority safety items and maintain existing infrastructure, yet plan for future development if the airport remains at the existing site. It results in relocating runway ends/thresholds to meet critical safety standards. Runway 18-36 is reduced to 3,288 feet in length and Runway 4-22 is reduced to 2,270 feet in length with displaced thresholds established. Other recommended development includes reconfiguring critical taxiway/apron pavement geometry, acquiring land, and removing obstructions. The plan also maximizes available expandability options if the existing airport site remains.

In January 2021, the Portage Common Council approved seeking a replacement airport site and making priority safety improvements to the existing airport site until a new site is commissioned.

C47 Long-Term Development Plan



IMPLEMENTATION & FINANCIAL PLAN

Recommended projects are identified in the airport's implementation plan. These are sequenced based on priority actions, scheduled maintenance, available funding and demand triggers to provide the airport sponsor with a realistic implementation plan. The actual accomplishment of the projects may change based upon federal funding obligations, Sponsor priorities, regulatory justification, on available funding (federal, state and local).

The airport development plan within the next 10 years includes the following major preservation and safety/standards projects:

- Update Airport Layout Plan (ALP) for interim improvements to existing airport site
- Conduct airport feasibility study for a replacement airport site
- Relocate Runway 18-36 & 4-22 ends/thresholds and lighting
- Construct taxiway to new Runway 36 end, relocate aircraft parking and fuel facility
- Reconstruct taxiway pavements in poor condition
- Reconstruct Runway 18-36 and replace lighting when it is due for major work
- Reconstruct primary access taxiway
- Reconstruct aircraft parking apron pavement
- Reconstruct and widen Runway 4-22

The preferred airport development plan for the next 10 years provides the basis for the airport to update the Capital Improvement Plan (CIP).

The proposed 10-year financial plan identifies over \$8.6 million in airport improvements at C47 with a net local share of over \$660,000, or 7.6% of the total. Federal and state grants are projected to cover the remainder of the project cost share through the year 2030. The Sponsor should maximize on-airport revenue generating opportunities and work with agency partners to secure federal, State, and other funding to the extent possible.

C47 Project Financial Plan

Planning Period	Total Cost	FAA Share	State Share	Local Share
Short-Term (0-5 Years)	\$2,651,668	\$1,470,751	\$895,583	\$285,333
Mid-Term (6-10 Years)	\$6,000,000	\$4,950,000	\$675,000	\$375,000
TOTAL	\$8,651,668	\$6,420,751	\$1,570,583	\$660,333



PUBLIC & AGENCY INVOLVEMENT

Key stakeholders associated with or that may be affected by C47 airport development were asked to participate to provide input in the airport planning process before decisions were made. Input received influenced the direction of the study's conclusions. Various public and agency engagement tools were used to share information and collect feedback, including:



- Technical Advisory Committee (TAC) meetings (4)
- Open house meetings and/or public information meetings (3)
- Project update newsletters (3)
- Project website with video summaries after each TAC meeting (4)
- Wisconsin Bureau of Aeronautics and FAA coordination meetings/teleconferences

