

# Warren Municipal Airport

Public Open House- November 1, 2023



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## Why was an Airport Master Plan Needed?

- Last Airport Layout Plan (ALP) was approved in 2013
- Evaluate planned Parallel Taxiway
- Evaluate and Forecast Airport Activity
- Review Zoning to protect the Airport (Land Use and Height)
- Review Terminal Area Layout
- ALP to current design standards



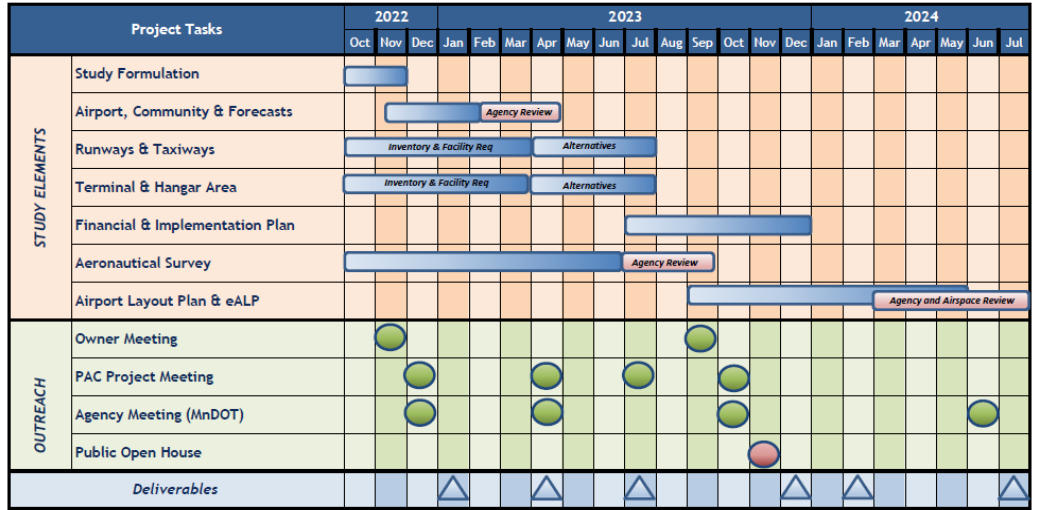
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### Warren Municipal: Airport Master Plan



## Planning Timeline



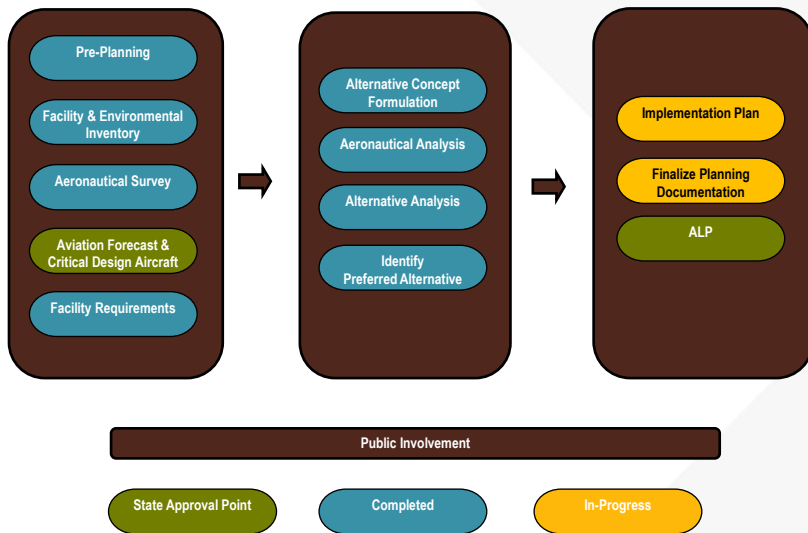
\*Schedule depicts estimated FAA review periods

Updated: October 2022

- Project Meeting
- Public Meeting
- △ Document Deliverable

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## Planning Process

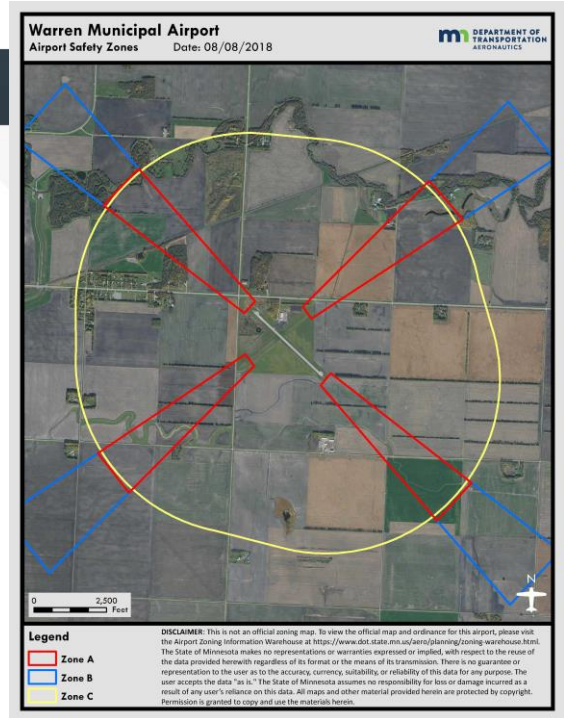
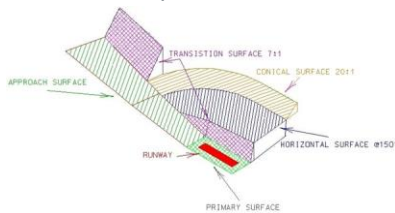


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# Warren Airport Zoning

## MnDOT Safety Zoning Standards

- **Zone A:** No structures, assembly of people, anything to cause interference with aircraft communications, lighting that impairs pilots views
- **Zone B:** No building site less than 3 acres, assembly of more than 15 people/Sq. acre, certain communication & lighting interference restrictions
- **Zone C:** Nothing to interfere with aircraft communication or pilot views



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# Critical Design Aircraft

<b>ARC A-I/Small Aircraft</b> Cessna 172 	<b>ARC A-II/Small Aircraft</b> Pilatus PC-12 
<b>ARC B-I/Small Aircraft</b> Beech King Air B200 	<b>ARC B-II Aircraft</b> Air Tractor 802 (Design aircraft) 

Photography Source: Airlines.net

- A critical design aircraft must operate at least 500 annual operations at the airport to be considered "regular" use
- The AT-802 is the current and future critical design aircraft
  - AAC-B
  - ADG-II
  - TDG 1-B



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# Operations and Aircraft Forecast

## General Aviation Operations Forecast

Source: KJL Analysis, CAGR = Compounded Annual Growth Rate

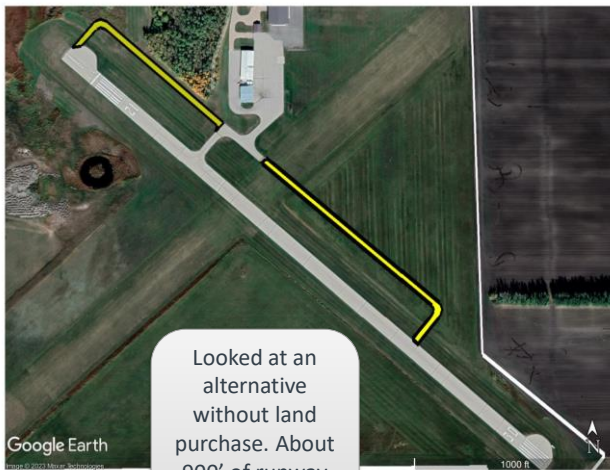
Metric	2021	2026	2031	2036	2041	CAGR
Local Operations	9,000	9,530	10,090	10,684	11,313	1.15%
Itinerant Operations	10,000	10,588	11,211	11,871	12,569	1.15%
<b>Total Operations</b>	<b>19,000</b>	<b>20,118</b>	<b>21,302</b>	<b>22,555</b>	<b>23,882</b>	<b>1.15%</b>

## Based Aircraft Forecast

Source: KJL Analysis, CAGR = Compounded Annual Growth Rate

Aircraft	2021	2026	2031	2036	2041	CAGR
Single Engine	7	7	7	8	8	0.50%
Multi Engine	1	1	1	1	1	
<b>Total</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>9</b>	<b>9</b>	

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Looked at an alternative without land purchase. About 900' of runway would be used to taxi back.

## Taxiway Alternatives



With land needed for the Runway Object Free Area (ROFA) and the taxiway safety areas, roughly around five acres (within the green line) will need to be purchased and/or traded.

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## Airfield Alternative

- AWOS to the South
- Land Control for Runway Protection Zones and MnDOT Clear Zones
- Land Acquisition/Trade needed on the Runway 30 End
  - Current runway safety areas
  - Future parallel taxiway



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## Terminal Alternative

- "A" hangar area is intended for agricultural spray operations
- 7 planned tiedown spots
- Hangar row "C" is for immediate construction
- Fuel farm conveniently located next to the terminal
- Removal of current hangar row and south box hangar at the end of their useful life



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## Questions/Comments

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