Stakeholder Advisory Panel

2040 Long-Term Comprehensive Plan (LTP) Update
Flying Cloud Airport (FCM)

May 2, 2023

Welcome Remarks

Bridget Rief

Metropolitan Airports Commission (MAC)
Vice President, Planning and Development

Agenda

- Goals, Objectives, and Project Schedule
- Facility Requirements
- Preliminary Airfield Alternatives
- Next Steps / Schedule

Meeting Agenda and Presentation are available at:

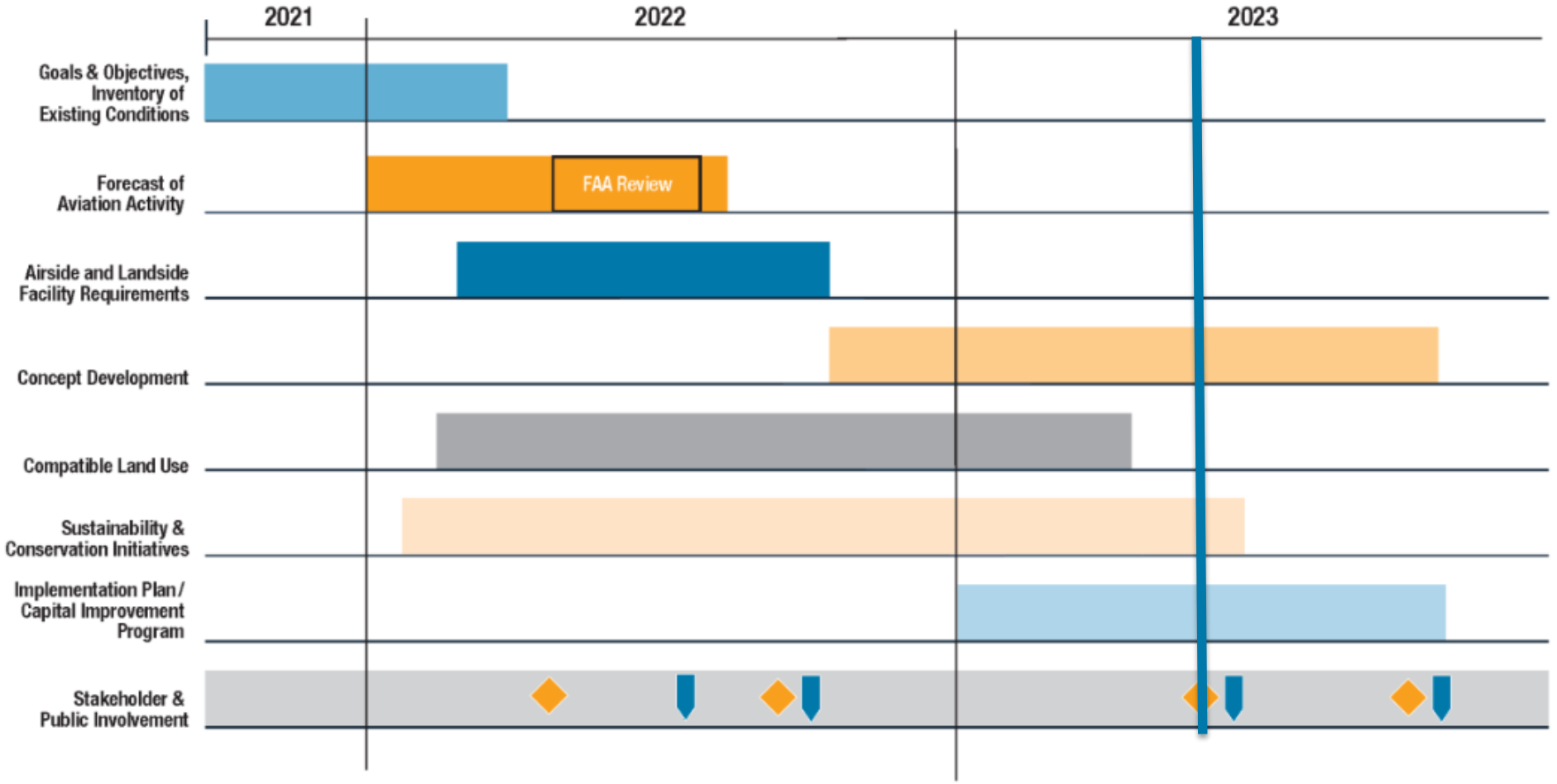
metroairports.org/fcm-long-term-plan-documents-and-links

Goals, Objectives, and Project Schedule

Goals and Objectives

1. Enhance airport safety
2. Preserve and, if possible, improve operational capabilities for the current aircraft using the airport
3. Promote financial stability of the MAC Reliever Airport system by exploring revenue opportunities for aeronautical and non-aeronautical development

Schedule



Stakeholder Advisory Panel (SAP) Meeting Public Open House

Updated: October 2022 - Timeline is subject to change.

Facility Requirements

Critical Design Aircraft – Aircraft Approach Category (AAC) B to C

- The existing and future critical design aircraft is the Challenger 350 (AAC C)
- The previous critical design aircraft was identified as the Citation 3 (AAC B)

Citation 3

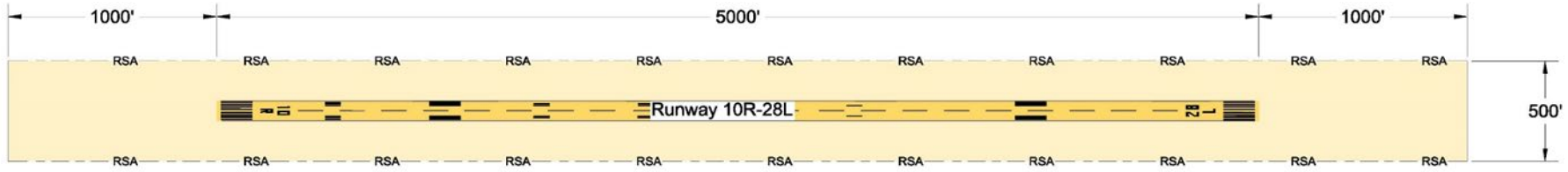
Wingspan: 53.5’
Tail Height: 17.25’
Max. Takeoff Weight: 22,000 lbs

Challenger 350

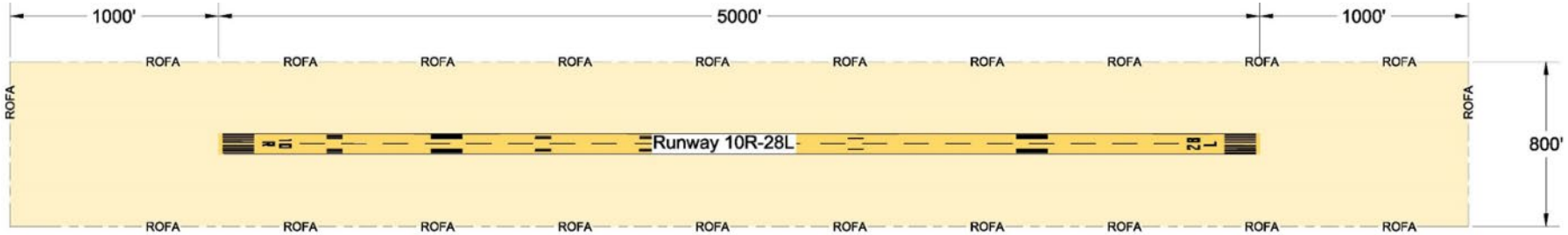
Wingspan: 69’
Tail Height: 20’
Max. Takeoff Weight: 40,600 lbs

Facility Requirements

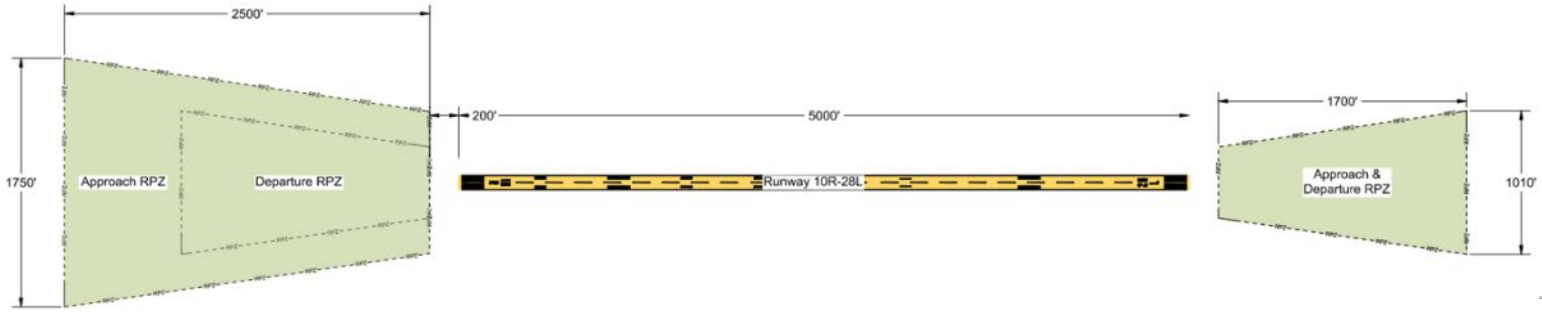
- **Runway Safety Area (RSA):** The area surrounding the runway consisting of a prepared surface suitable for reducing the risk of damage to an aircraft in the event of an undershoot, overshoot, or excursion from the runway.



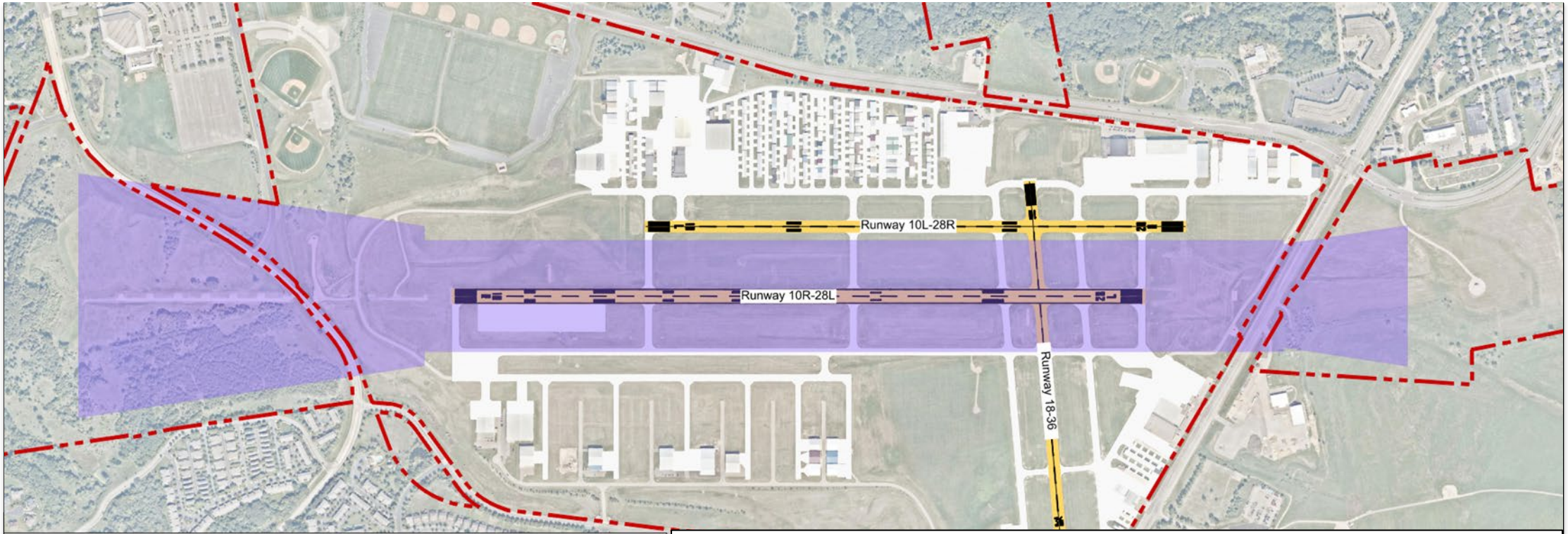
- **Runway Object Free Area (ROFA):** The area centered on the surface of the runway provided to enhance the safety of aircraft by remaining clear of objects, except for objects that are fixed-by-function in the OFA for air navigation or aircraft ground maneuvering purposes.



- **Runway Protection Zone (RPZ):** The 2-dimensional trapezoidal area which is intended for land-use compatibility control. The function of the RPZ is to protect people and property on the ground due to undershoots and overshoots of aircraft arriving and departing the runway.



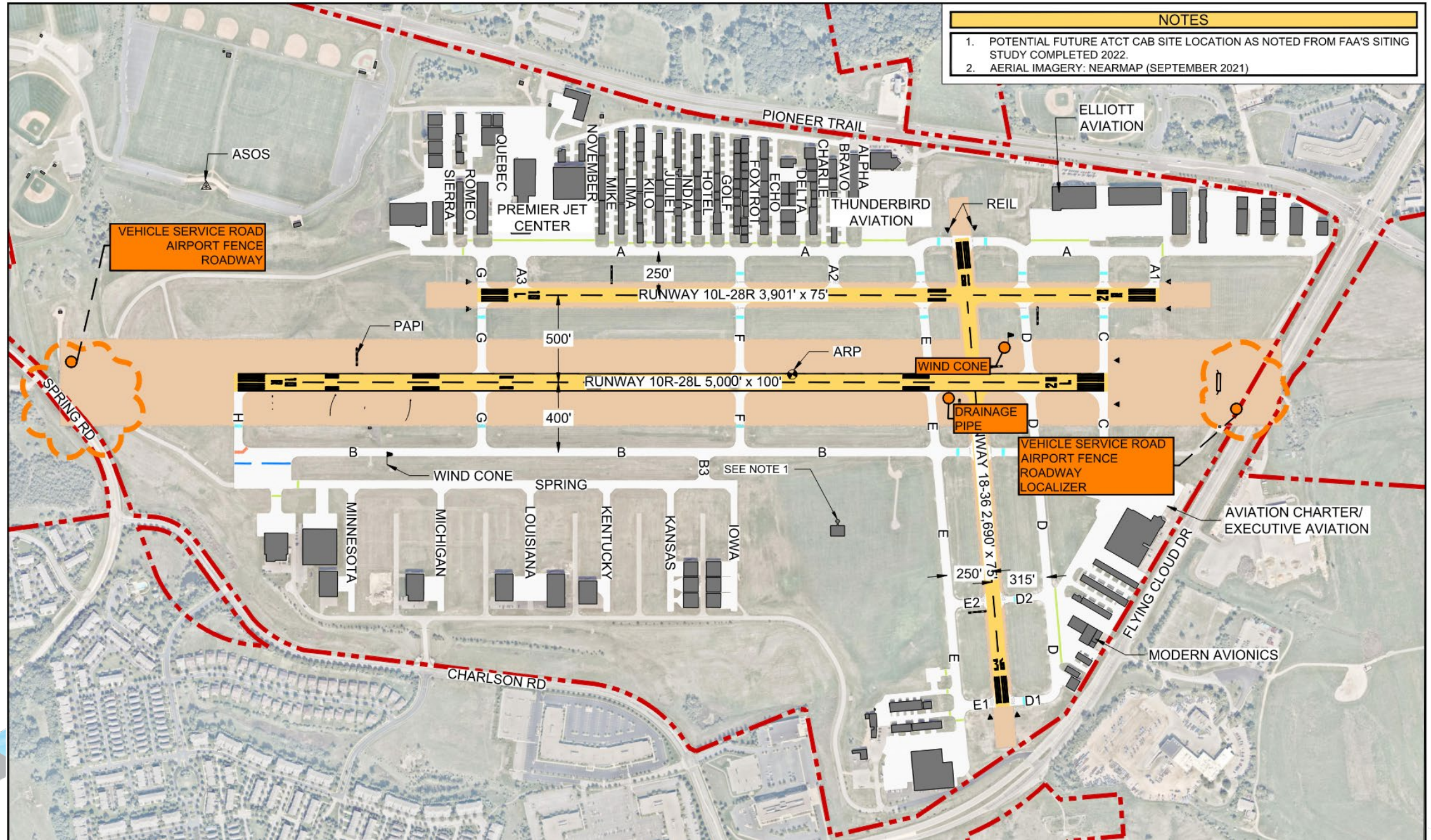
Critical Aircraft Focus Area



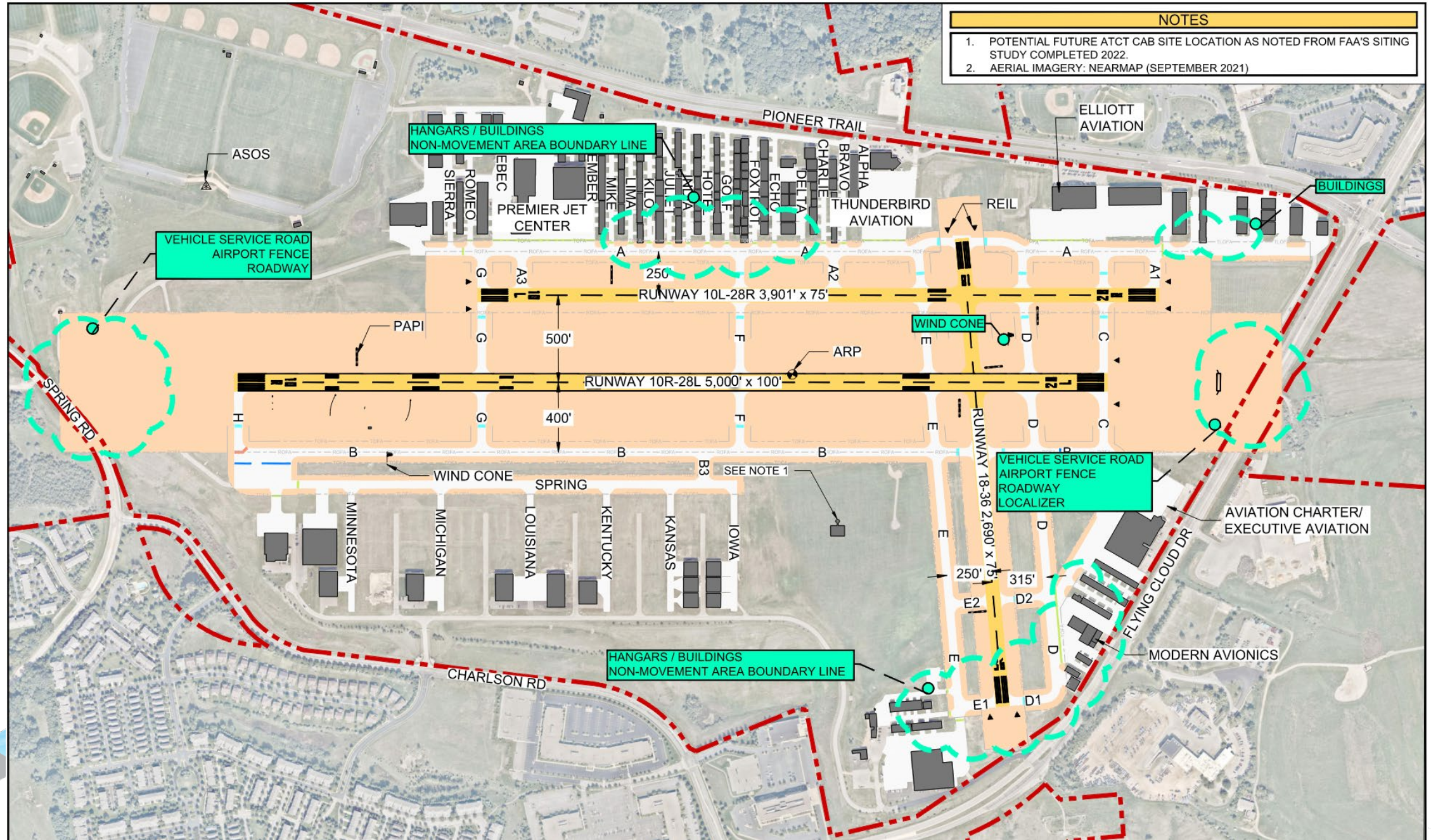
DRAWING LEGEND	
RUNWAY PAVEMENT	
TAXIWAY / APRON PAVEMENT	
C-II FOCUS AREA	
AIRPORT PROPERTY	

- Runway length is capped at 5,000 feet per Minnesota Legislation
- Minnesota Statute Section 473.641 prohibits MAC from extending the runway length at minor airports beyond 5,000 feet.

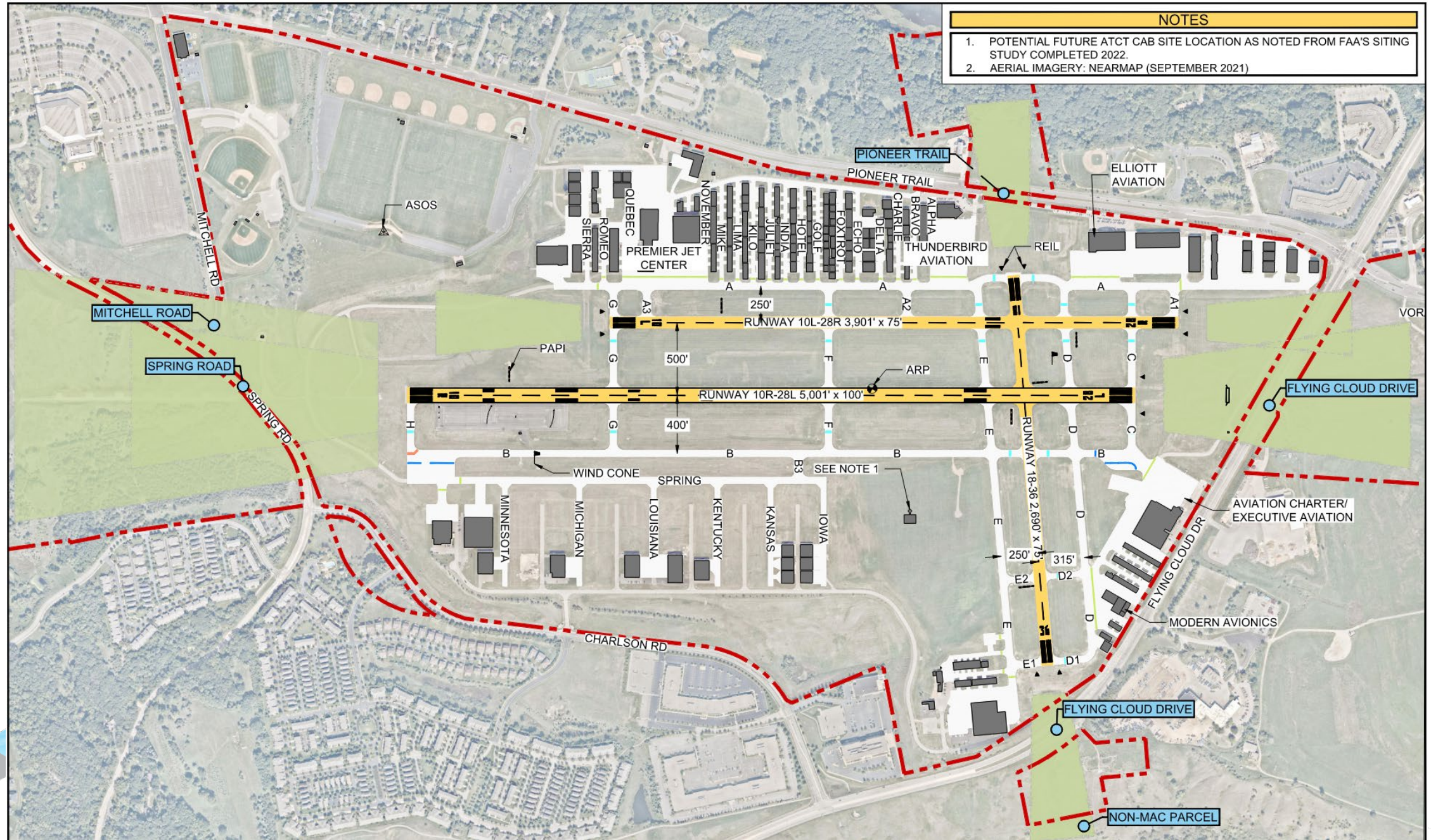
Gap Standards Analysis – Runway Safety Area



Gap Standards Analysis – Object Free Area

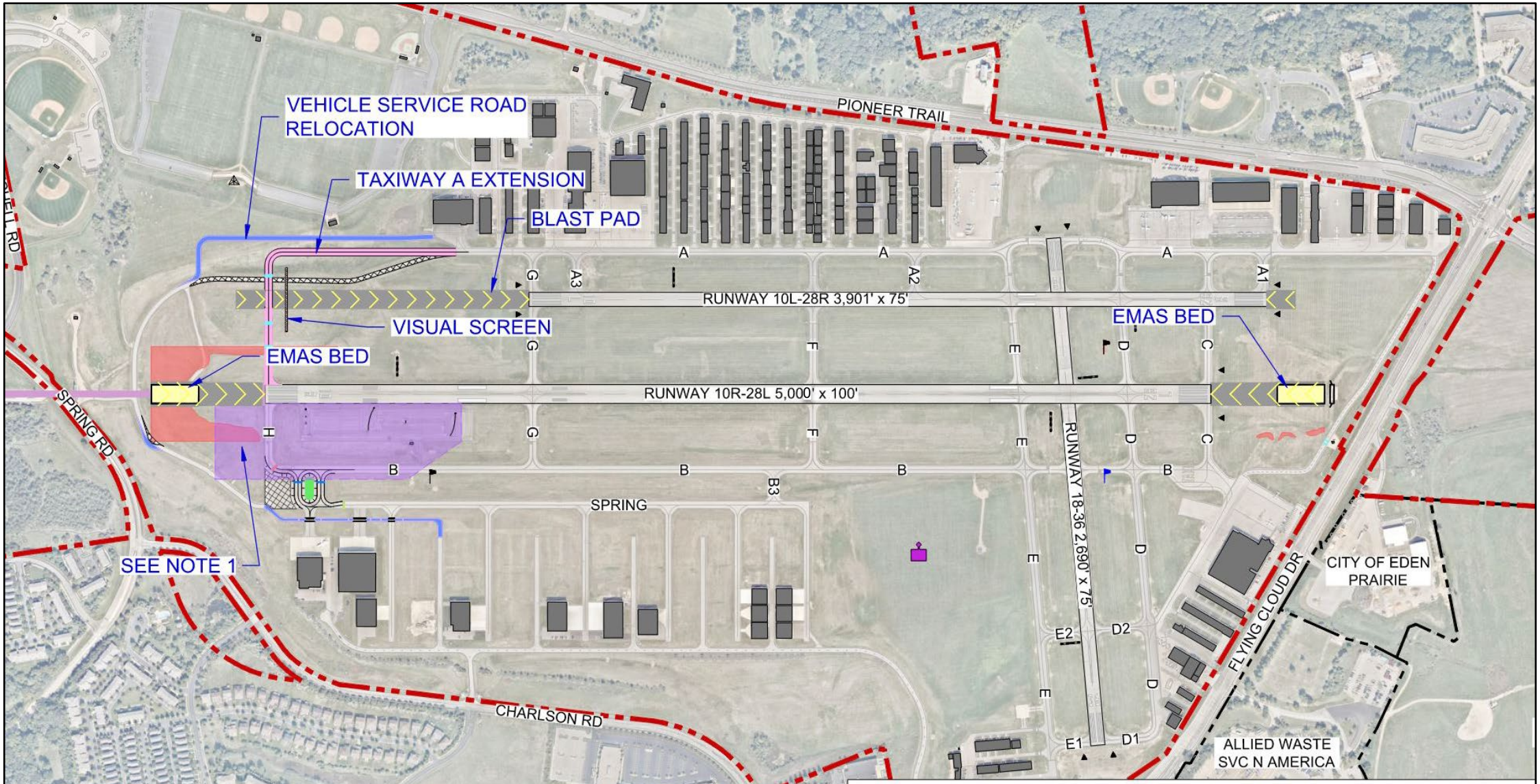


Gap Standards Analysis – Runway Protection Zone



Preliminary Airfield Alternatives (Runways)

Runway Alternative 1 – 10R & 28L EMAS Beds



NOTES

1. REQUIRES REGRADING TO REMOVE UNSUITABLE TERRAIN IN THE RSA.
2. AERIAL IMAGERY: NEARMAP (SEPTEMBER 2021)

KEY ALTERNATIVE ATTRIBUTES

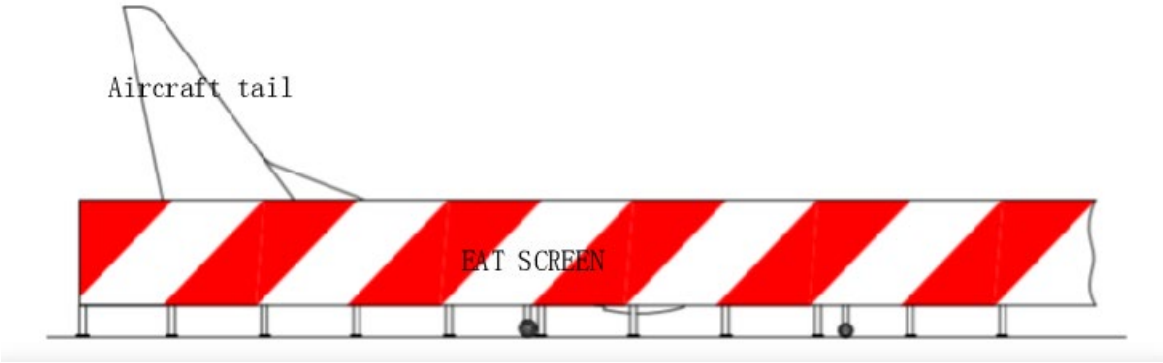
- CONSTRUCT 1,350-FOOT BLAST PAD BETWEEN RUNWAY 10L THRESHOLD AND EXTENDED TAXIWAY A
- INSTALL EMAS ON BOTH ENDS OF RUNWAY 10R-28L
- RELOCATE VSR OUTSIDE OF TAXIWAY A TOFA
- REGRADING OF UNSUITABLE SLOPES IN THE RUNWAY 10R-28L RSA

Engineered Material Arresting System

Image showing an example of EMAS at St. Paul Downtown Airport (STP)

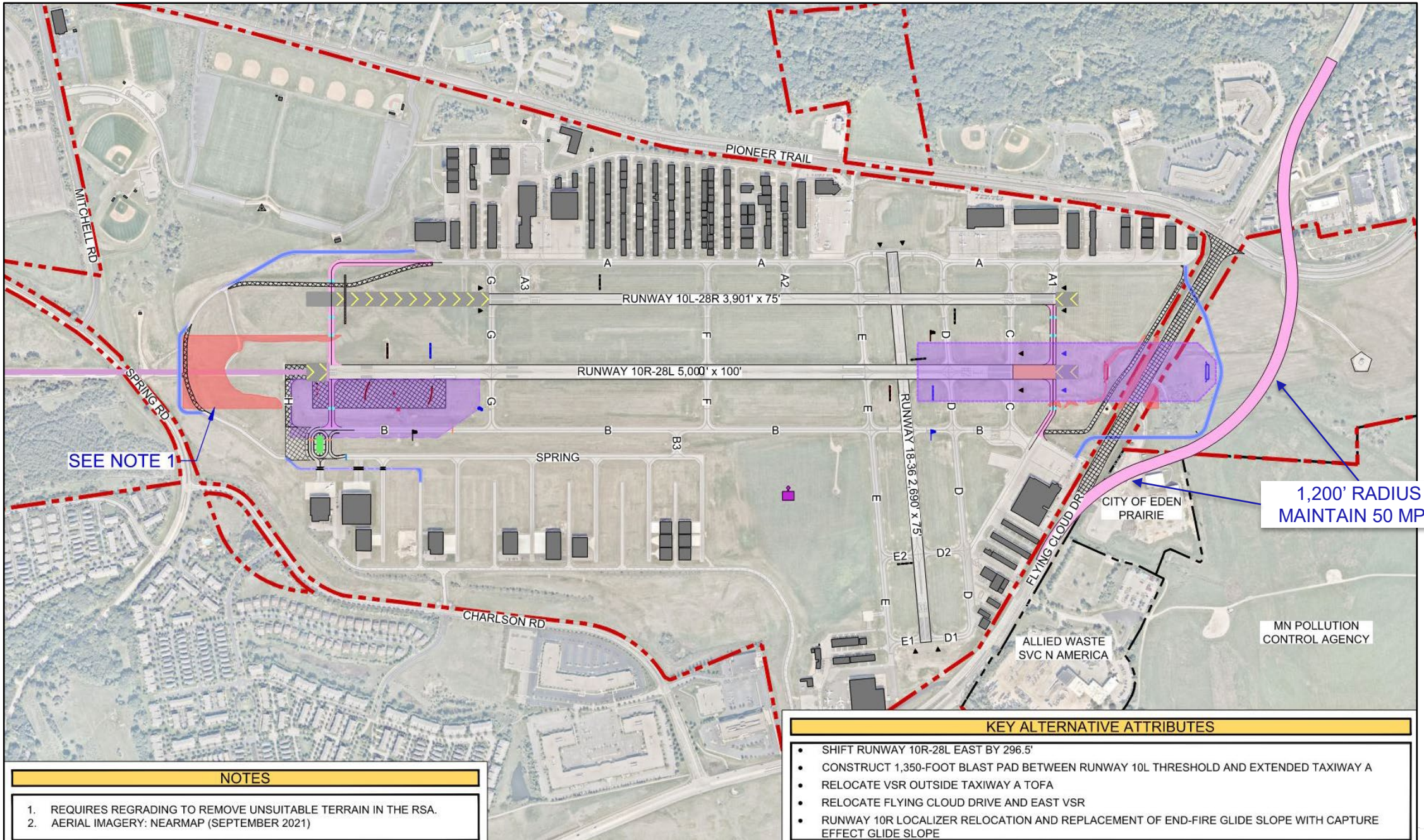
- An Engineered Material Arresting System (EMAS) bed is comprised of lightweight, crushable material placed at the end of a runway to safely stop an aircraft that overruns the end of the runway
- EMAS beds are an FAA approved mitigation strategy when it is not practical to achieve the full standard runway safety area beyond the end of a runway
- The size of EMAS beds vary and is based on dimensions of the runway safety area and aircraft fleet using the airport

Visual Screen

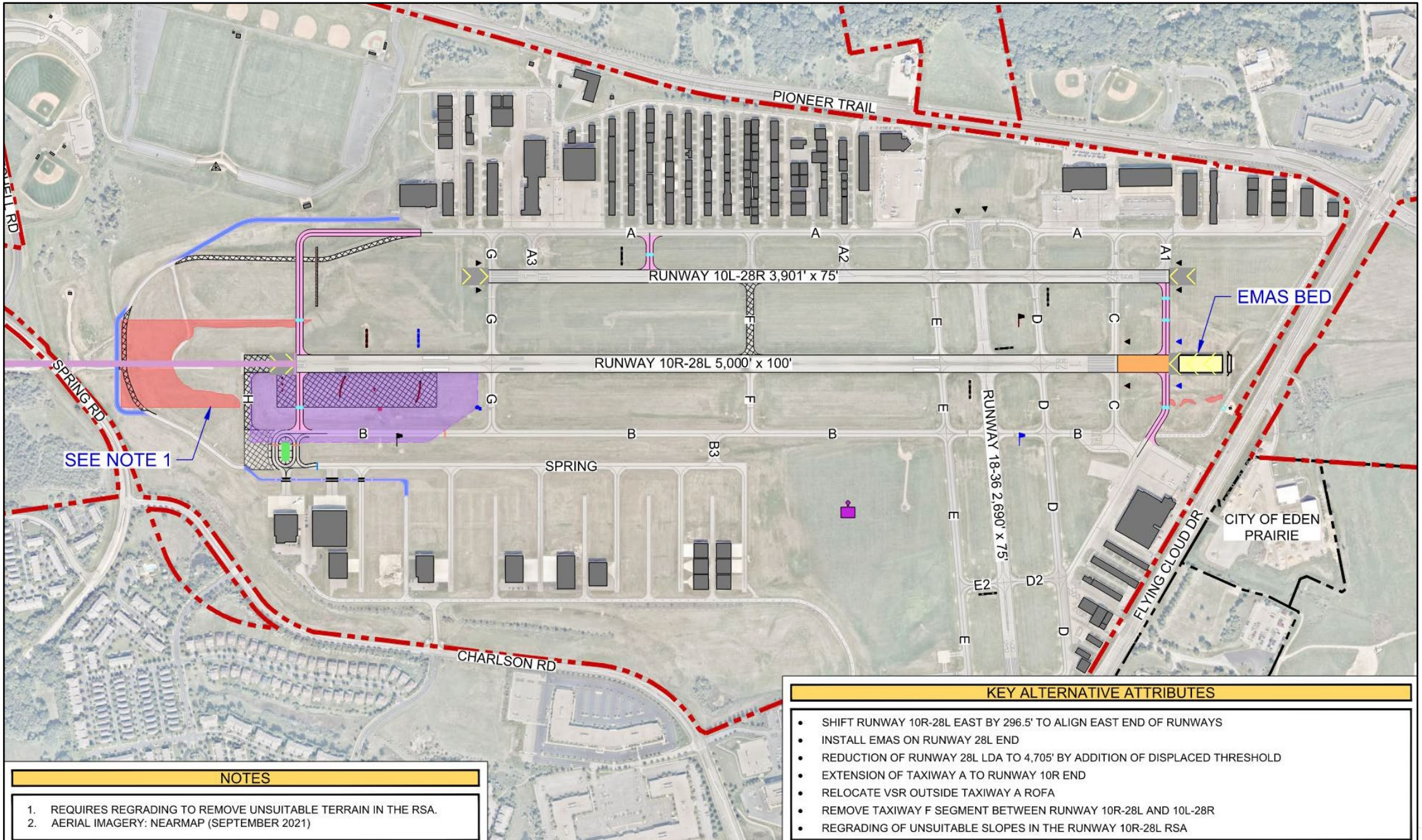


- A visual screen obscures aircraft using an end around taxiway to prevent pilots of departing aircraft from thinking an aircraft is crossing the active runway

Runway Alternative 2 – 10R & 28L RSA Grading



Runway Alternative 3 – 10R RSA Grading; 28L EMAS Bed



NOTES

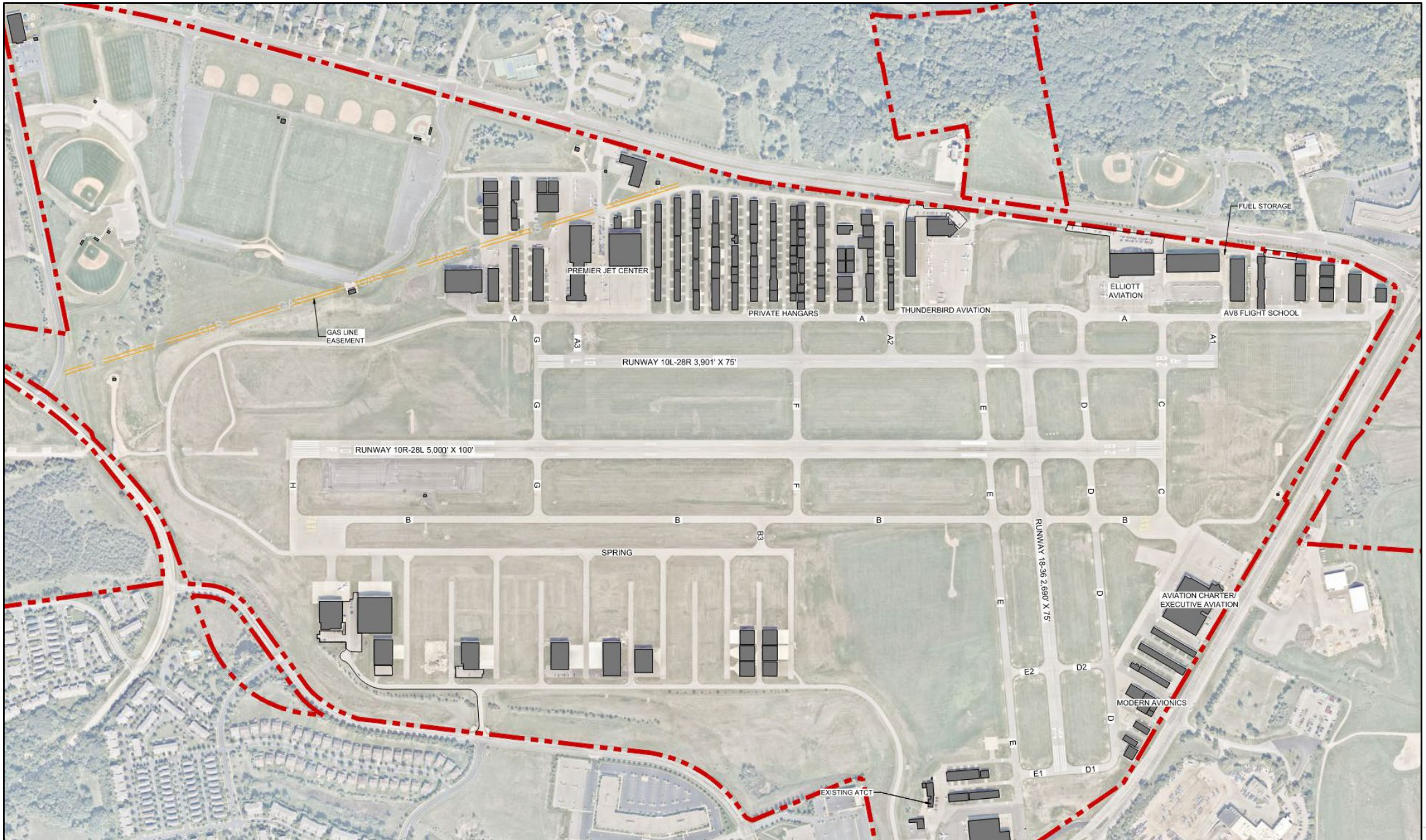
1. REQUIRES REGRADING TO REMOVE UNSUITABLE TERRAIN IN THE RSA.
2. AERIAL IMAGERY: NEARMAP (SEPTEMBER 2021)

KEY ALTERNATIVE ATTRIBUTES

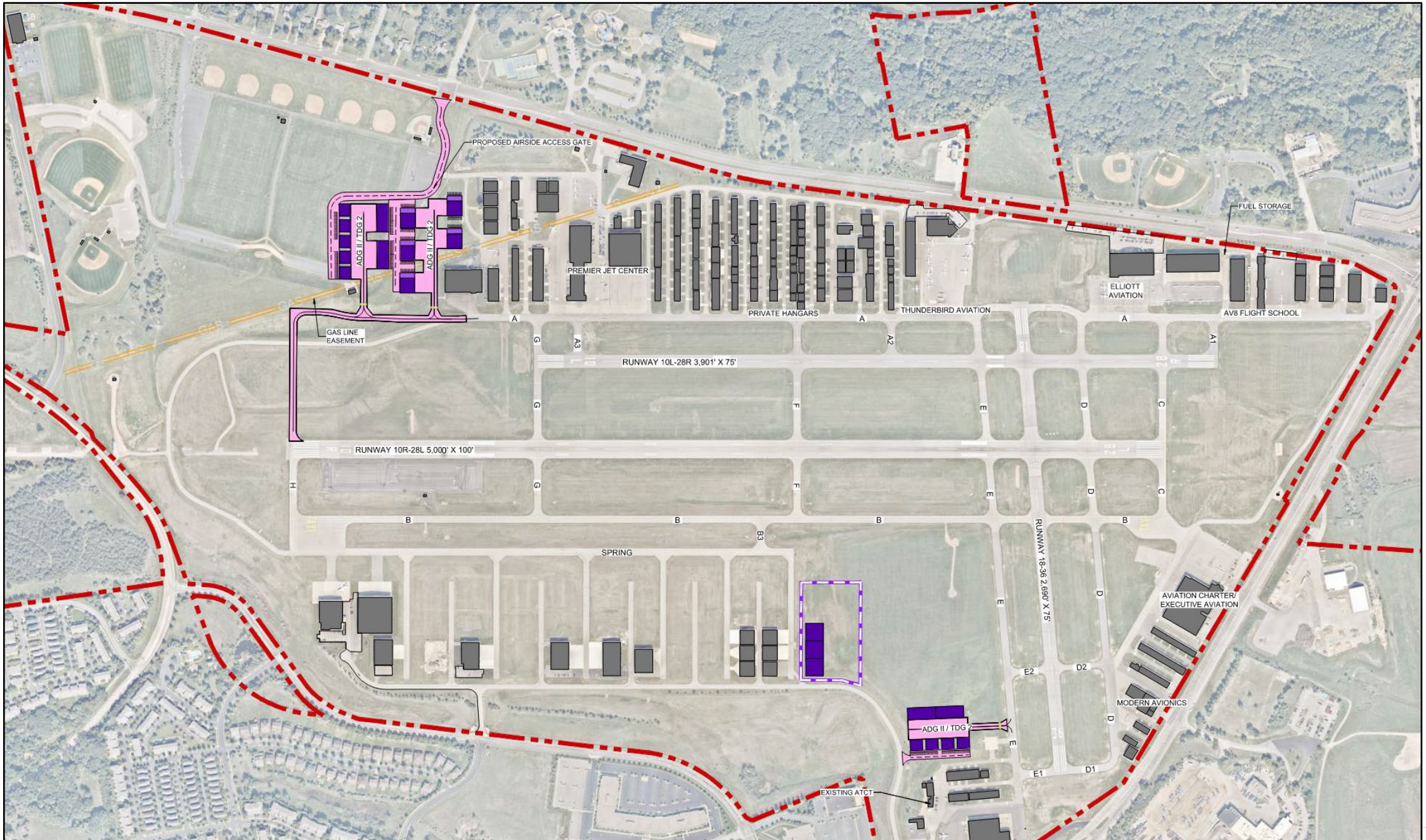
- SHIFT RUNWAY 10R-28L EAST BY 296.5' TO ALIGN EAST END OF RUNWAYS
- INSTALL EMAS ON RUNWAY 28L END
- REDUCTION OF RUNWAY 28L LDA TO 4,705' BY ADDITION OF DISPLACED THRESHOLD
- EXTENSION OF TAXIWAY A TO RUNWAY 10R END
- RELOCATE VSR OUTSIDE TAXIWAY A ROFA
- REMOVE TAXIWAY F SEGMENT BETWEEN RUNWAY 10R-28L AND 10L-28R
- REGRADING OF UNSUITABLE SLOPES IN THE RUNWAY 10R-28L RSA

Hangar Development

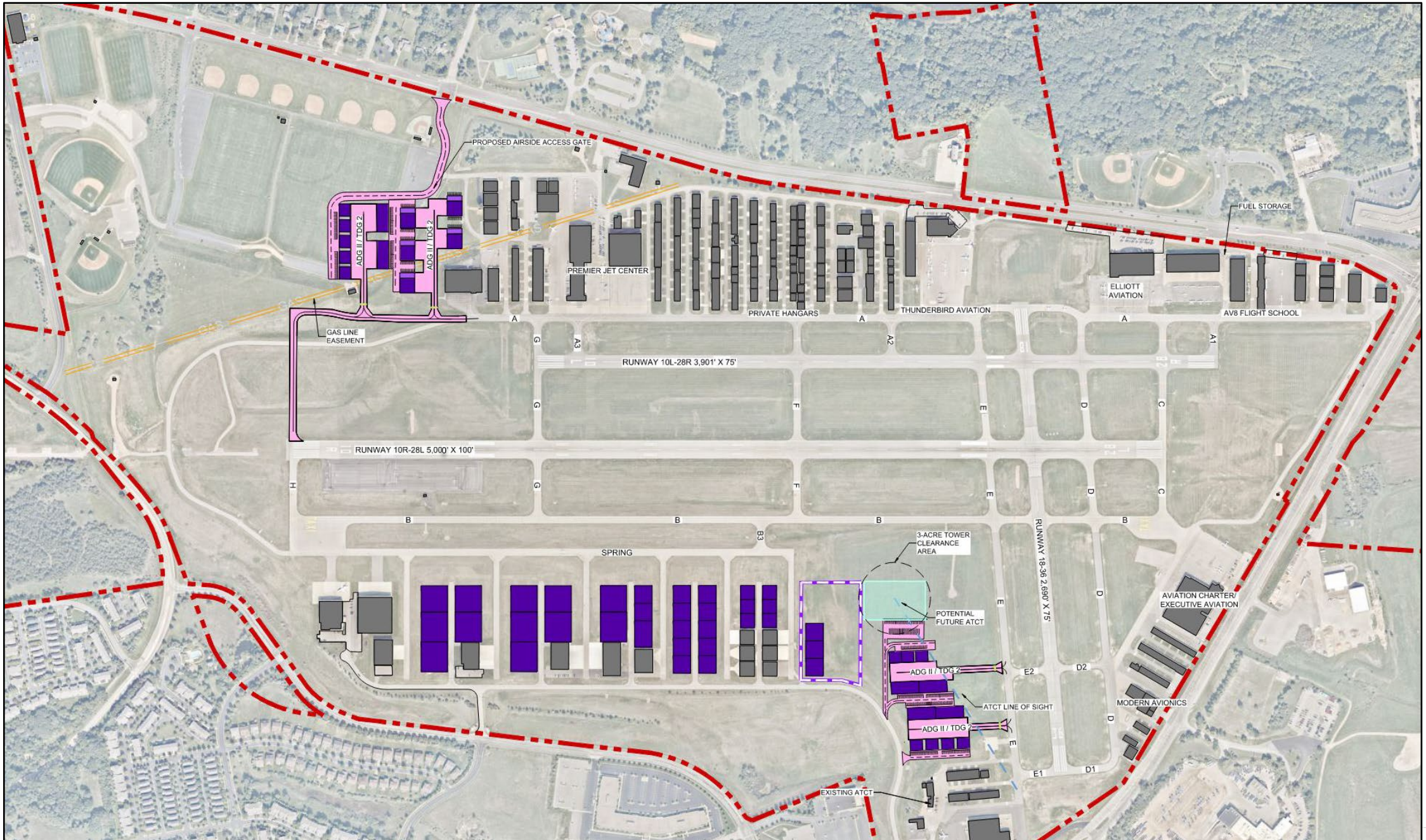
Existing Hangars



Hangar Development – Pre-Tower Relocation

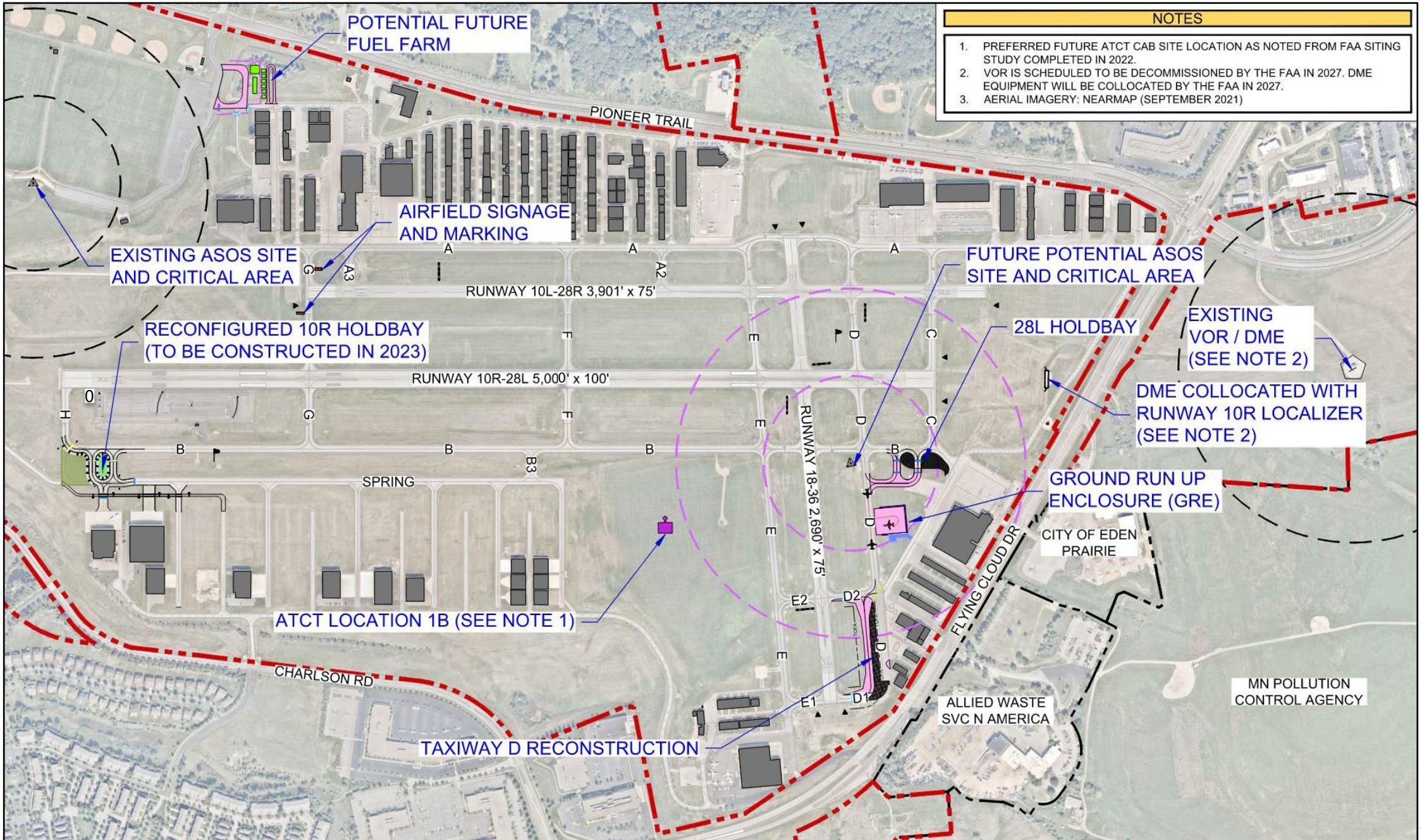


Hangar Development – Post-Tower Relocation



Preliminary Airfield Alternatives (Miscellaneous Facilities)

Proposed Miscellaneous Facilities

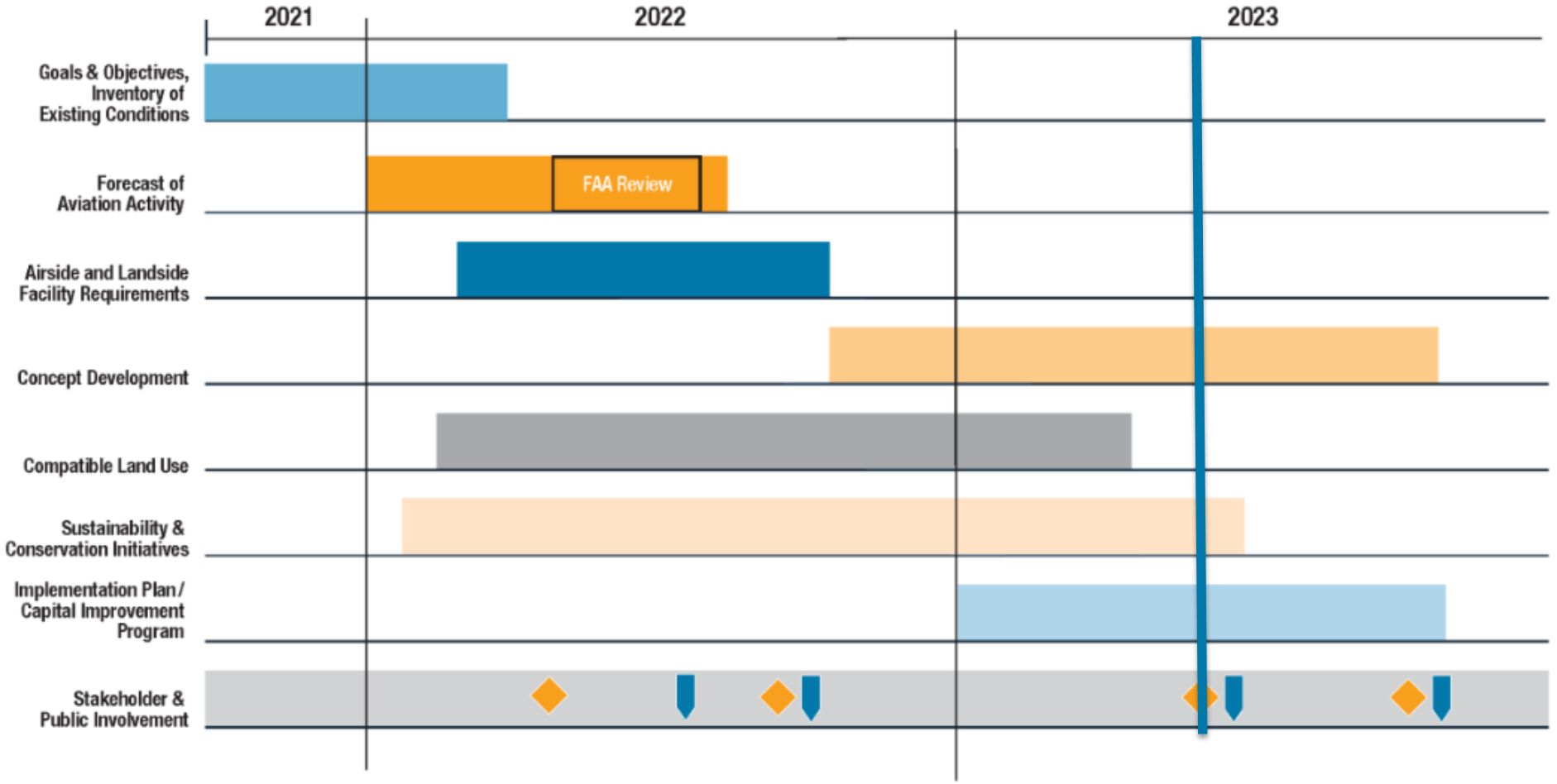


Next Steps/Schedule

Next Steps - Tasks

- Discover Flying Cloud Meeting # 3 (May 24, 2023)
- Evaluate Alternatives
  - Cost Estimates (ACIP)
  - Potential Project Phasing
  - Environmental Considerations
- Preferred Alternative
  - Final SAP meeting (Preferred Alternative)
  - Discover Flying Cloud Meeting # 4

Next Steps - Schedule



Join us for an open house and presentation to learn more about Flying Cloud Airport and how the Metropolitan Airports Commission (MAC) is planning for its future.

Also enjoy displays from airport partners.

WHEN: Wednesday, May 24, 2023 - 4:30 - 7:00 p.m.
Presentation begins at 5:30 p.m.

WHERE: Hennepin Technical College - Eden Prairie Campus
13100 College View Dr, Eden Prairie, MN 55347

Free parking available onsite.

Scan this QR code to learn more about the planning process and future public events.

Discover Flying Cloud Airport is a series of four events for the public to learn about the Flying Cloud Airport long-term planning process and to provide input into the process. The MAC welcomes your interest and input throughout.

Questions/Discussion

Please complete the post-event survey

May 2, 2023

Thank you for participating!

2040 Long-Term Plan (LTP) Update
Flying Cloud Airport (FCM)

Please complete the post-event survey

May 2, 2023