Welcome Remarks

Rick King

Metropolitan Airports Commission Chair

Bridget Rief

Vice President, Planning and Development

Agenda

- Introduction to the Planning Team
- Long-Term Plan (LTP) Goals & Schedule
- LTP Project Updates
  - Facility Requirements
  - Preliminary Airfield Alternatives
    - Runway
    - Hangar Development
    - Miscellaneous Items
- Next Steps
- Feedback / Survey

Use code to view presentation

Planning Team

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MAC Senior Airport Planner

Project Manager

Dana Nelson

MAC Director, Stakeholder Engagement

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MAC Airport Manager, FCM

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MAC Director, Reliever Airports

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Senior Project Manager, HNTB

Consultant Project Manager

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Vice President, Senior Aviation Consultant, HNTB

Technical Advisor

Frequent Flyer at FCM

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Long-Term Plan Goals & Schedule

What is a Long-Term Plan (LTP)?

- A document that records current and future needs of an airport

- Focuses on a 20-year horizon, with intermediate steps at 5- and 10-years

- The last LTP update for Flying Cloud Airport (FCM) was completed in 2010

- Does not authorize actual construction

Flying Cloud LTP Goals
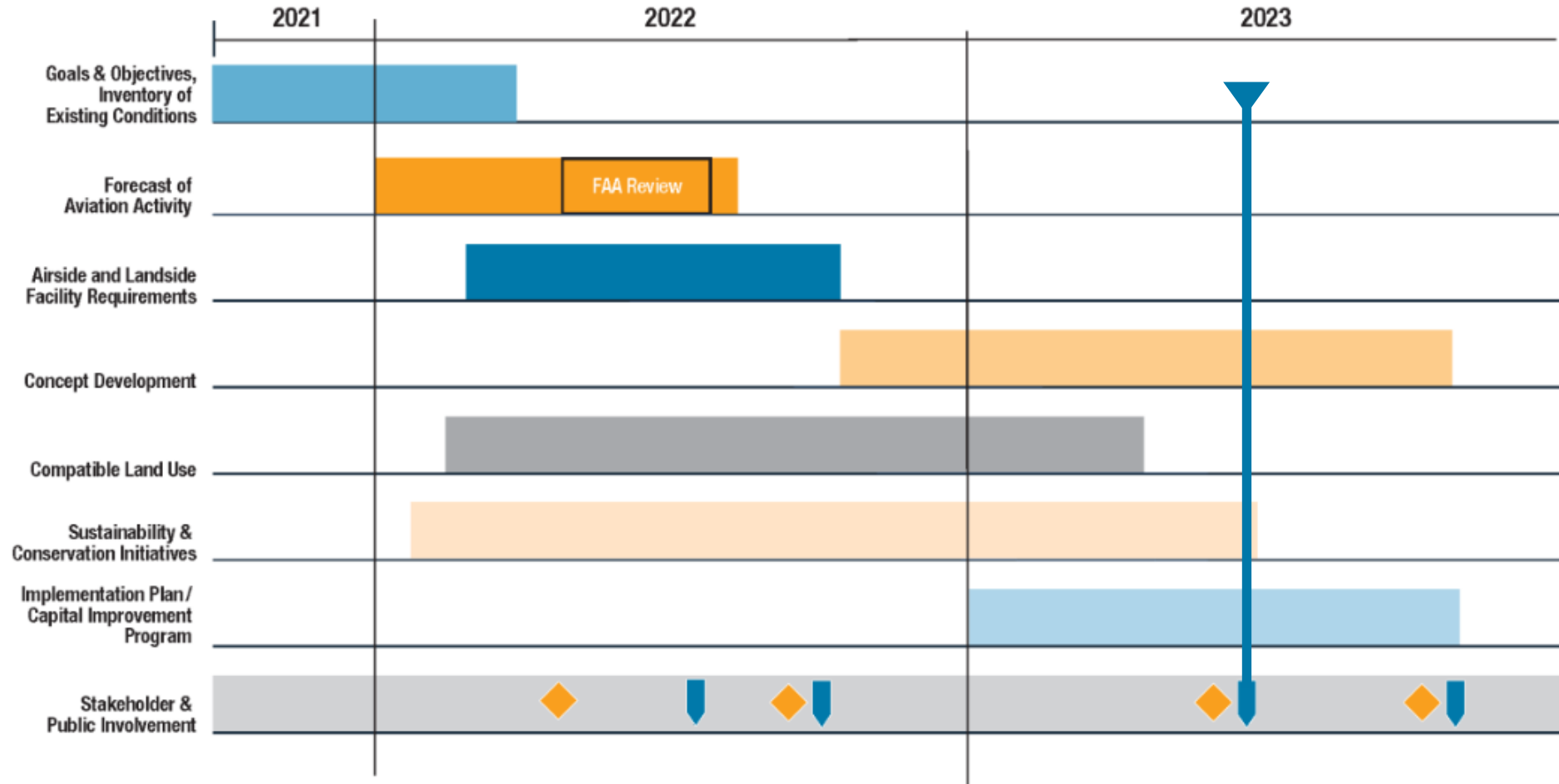
Enhance airport safety

Preserve and, if possible, improve operational capabilities for the current family of aircraft using the airport

Promote financial sustainability of the MAC Reliever Airport system by exploring revenue opportunities for aeronautical and non-aeronautical development

LTP Schedule

	2021	2022	2023
Goals & Objectives, Inventory of Existing Conditions			
Forecast of Aviation Activity		FAA Review	
Airside and Landside Facility Requirements			
Concept Development			
Compatible Land Use			
Sustainability & Conservation Initiatives			
Implementation Plan / Capital Improvement Program			
Stakeholder & Public Involvement			

◆ Stakeholder Advisory Panel (SAP) Meeting   ▮ Public Open House

Updated: October 2022 - Timeline is subject to change.

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Facility Requirements

Critical Aircraft

- FAA defines "Critical Aircraft" as the most demanding aircraft with greater than 500 annual operations at an airport

- The critical aircraft sets dimensional requirements of the airport

- Accurate critical aircraft determination helps ensure proper development of airport facilities

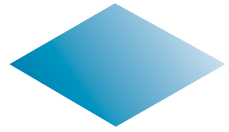# Critical Design Aircraft

Citation 3
(Previous)

Challenger 350
(Existing and Future)

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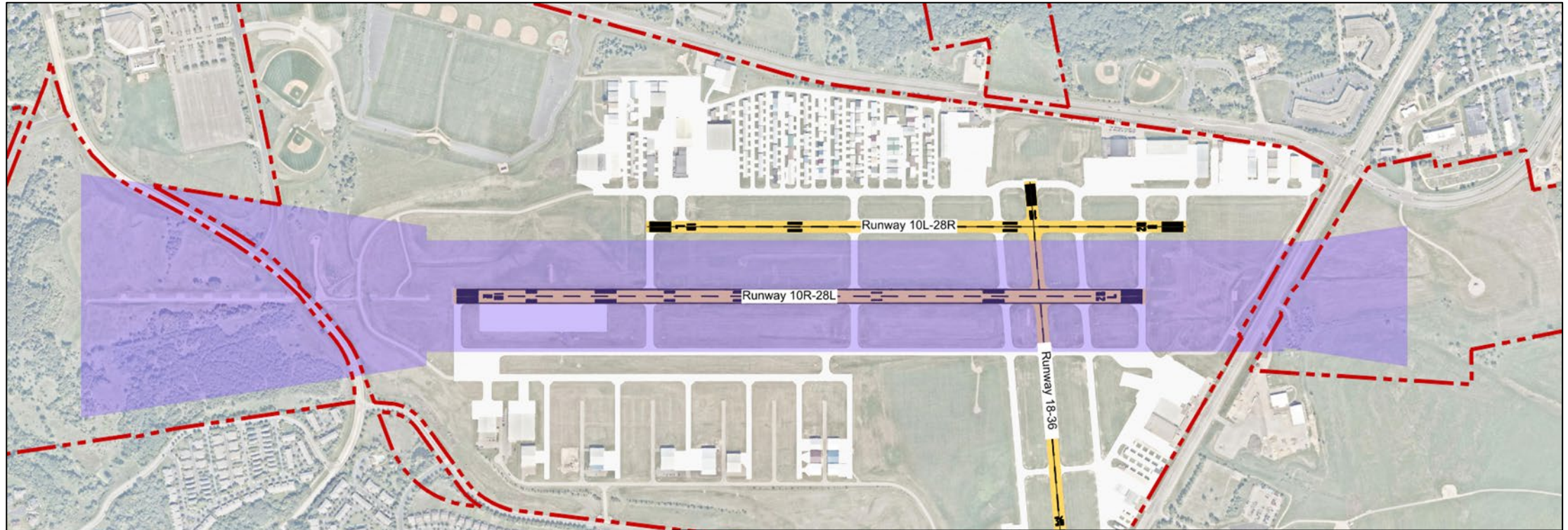Tail Height: 17.25'
Max. Takeoff Weight: 22,000 lbs

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

Operations by C-II aircraft accounted for approximately 2% of total operations at FCM in 2021

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.
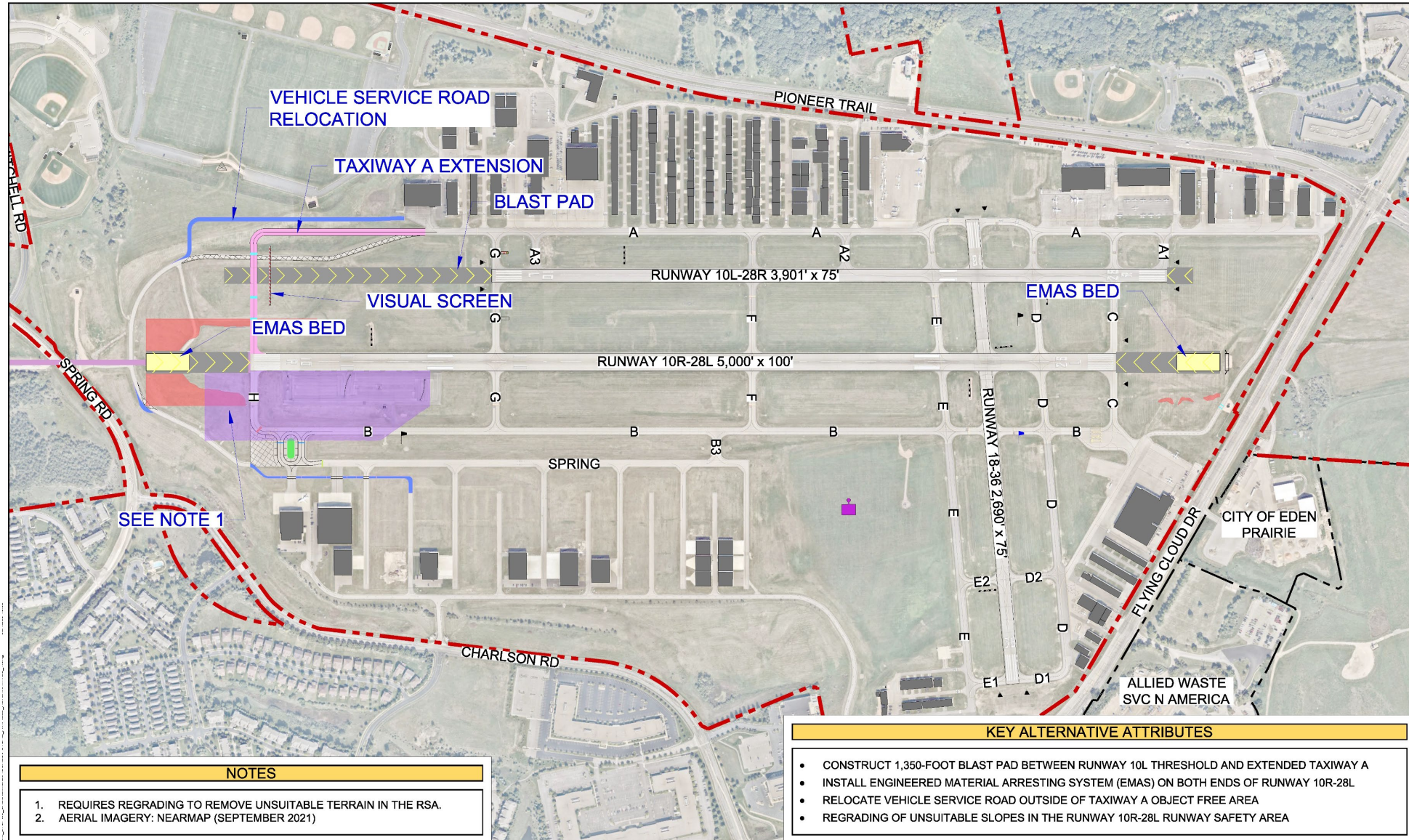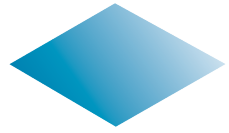
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Preliminary Airfield Alternatives: Runways

Runway Alternative 1

VEHICLE SERVICE ROAD RELOCATION

TAXIWAY A EXTENSION

BLAST PAD

VISUAL SCREEN

EMAS BED

EMAS BED

SEE NOTE 1

RUNWAY 10L-28R 3,901' x 75'

RUNWAY 10R-28L 5,000' x 100'

RUNWAY 18-36 2,690' x 75'

PIONEER TRAIL

SPRING RD

MITCHELL RD

CHARLSON RD

FLYING CLOUD DR

CITY OF EDEN PRAIRIE

ALLIED WASTE SVC N AMERICA

SPRING

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 ENGINEERED MATERIAL ARRESTING SYSTEM (EMAS) ON BOTH ENDS OF RUNWAY 10R-28L
- RELOCATE VEHICLE SERVICE ROAD OUTSIDE OF TAXIWAY A OBJECT FREE AREA
- REGRADING OF UNSUITABLE SLOPES IN THE RUNWAY 10R-28L RUNWAY SAFETY AREA

What is an EMAS Bed?

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

- EMAS - Engineered Material Arresting System

- Lightweight, crushable material placed at the end of a runway to safely stop an aircraft that overruns the end of the runway

- An FAA approved mitigation strategy when it is not practical to achieve the full standard Runway Safety Area

- The size varies and is based on dimensions of the runway safety area and aircraft using the airport

What is a Blast Pad?

Image showing an example of a Blast Pad at Crystal Airport (MIC)

- A surface adjacent to the ends of runways provided to reduce the erosive effect of jet blast and propeller wash

- Not usable pavement for aircraft operations

- Cannot be used in the calculation of aircraft performance

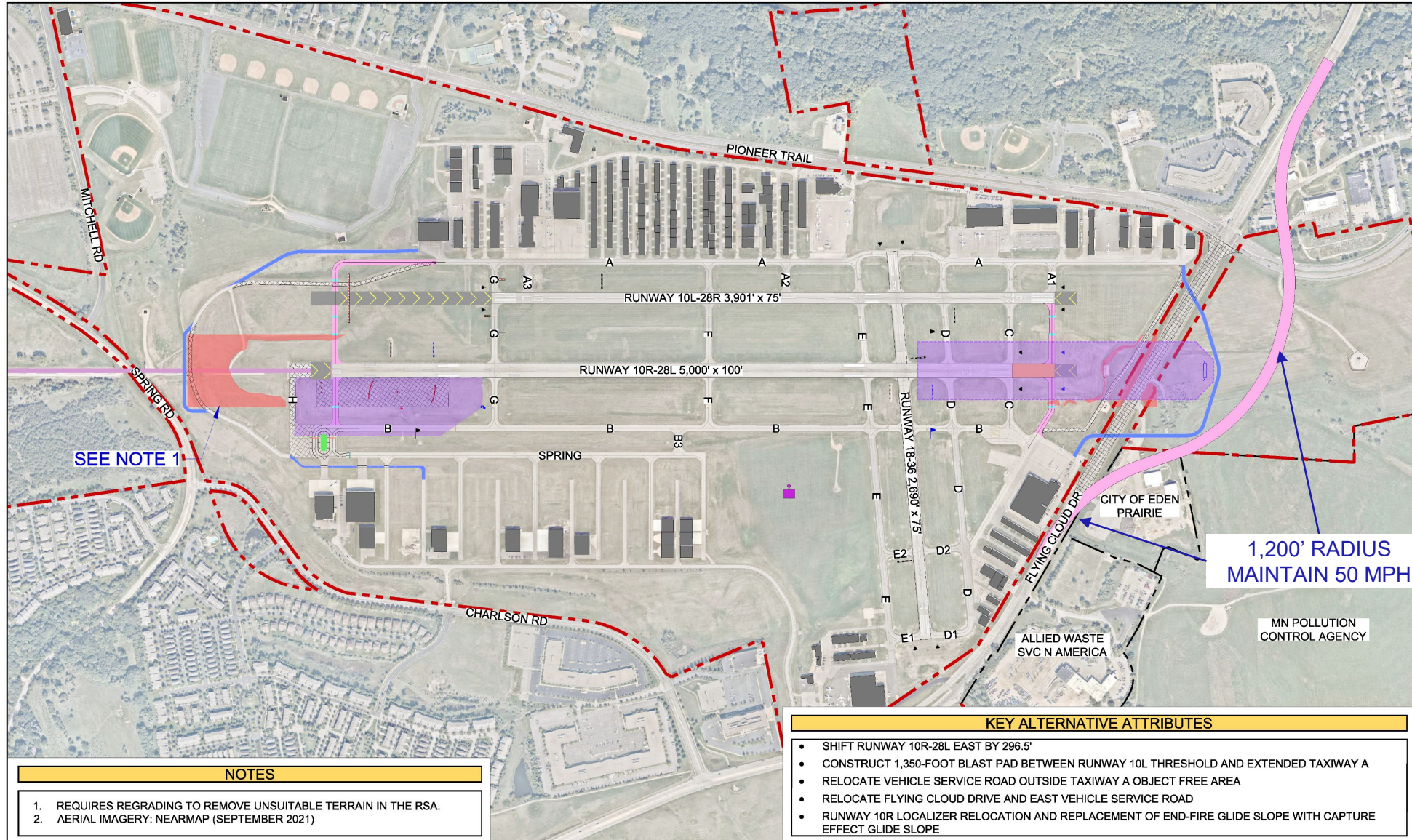- They do not change the published runway length
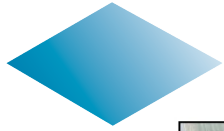
What is a Visual Screen?

- Blocks the sight of aircraft using a taxiway

- Prevent pilots who are departing the runway from thinking an aircraft is crossing the active runway
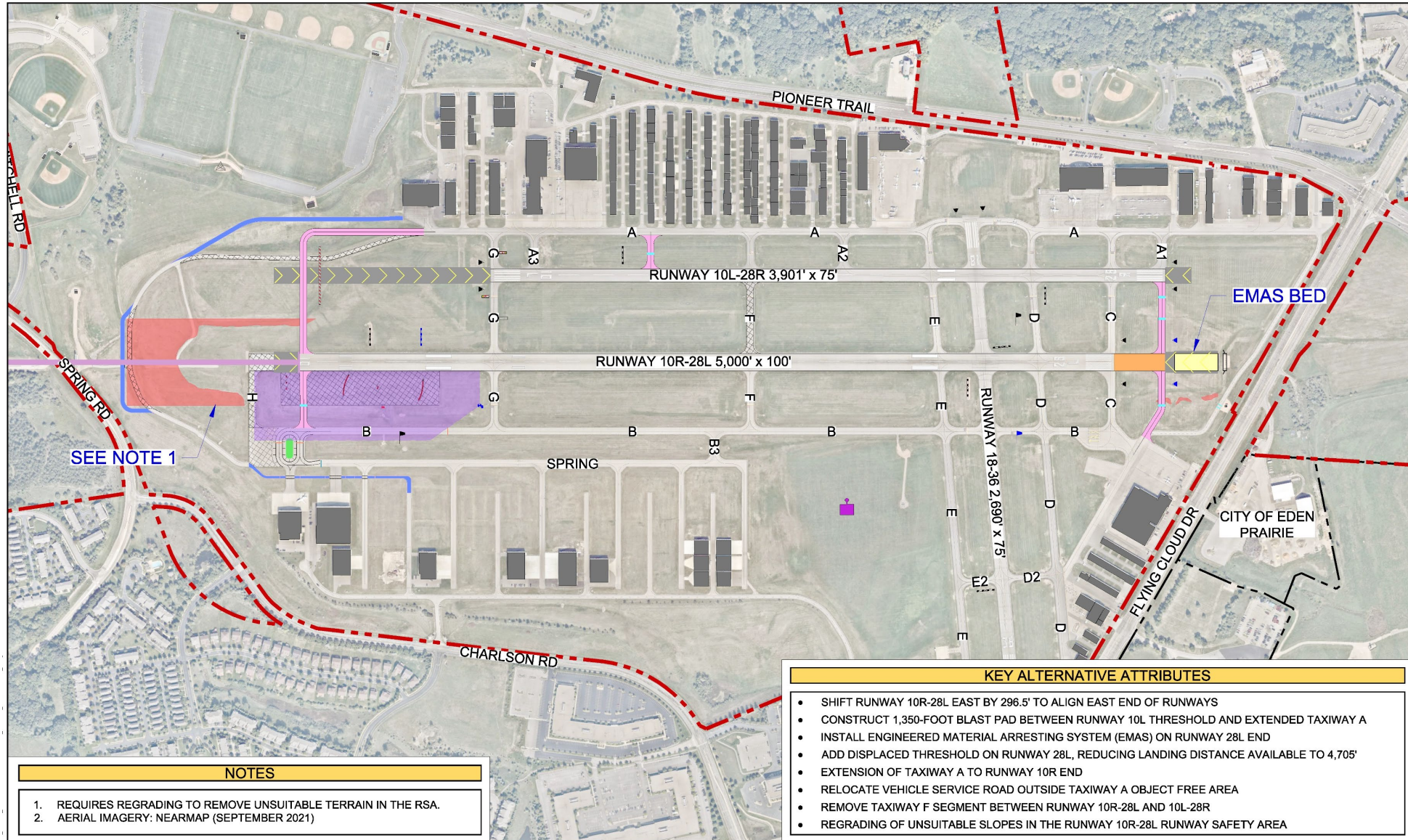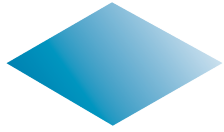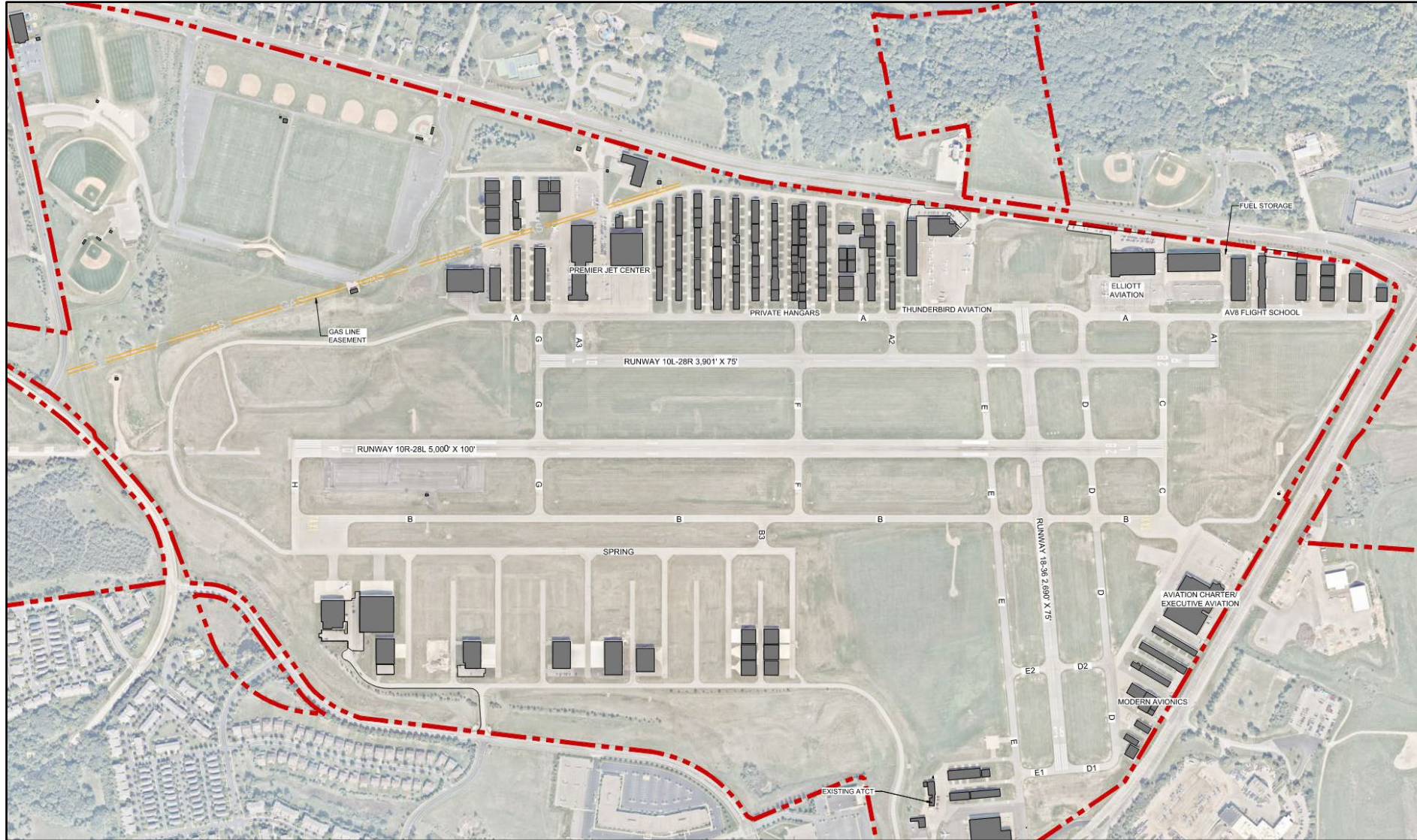
Runway Alternative 2

PIONEER TRAIL

MITCHELL RD

SPRING RD

SEE NOTE 1

CHARLSON RD

RUNWAY 10L-28R 3,901' x 75'

RUNWAY 10R-28L 5,000' x 100'

RUNWAY 18-36 2,690' x 75'

SPRING

FLYING CLOUD DR

CITY OF EDEN PRAIRIE

1,200' RADIUS MAINTAIN 50 MPH

MN POLLUTION CONTROL AGENCY

ALLIED WASTE SVC N AMERICA

KEY ALTERNATIVE ATTRIBUTES
- SHIFT RUNWAY 10R-28L EAST BY 296.5'
- CONSTRUCT 1,350-FOOT BLAST PAD BETWEEN RUNWAY 10L THRESHOLD AND EXTENDED TAXIWAY A
- RELOCATE VEHICLE SERVICE ROAD OUTSIDE TAXIWAY A OBJECT FREE AREA
- RELOCATE FLYING CLOUD DRIVE AND EAST VEHICLE SERVICE ROAD
- RUNWAY 10R LOCALIZER RELOCATION AND REPLACEMENT OF END-FIRE GLIDE SLOPE WITH CAPTURE EFFECT GLIDE SLOPE

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

Runway Alternative 3

PIONEER TRAIL

RUNWAY 10L-28R 3,901' x 75'

RUNWAY 10R-28L 5,000' x 100'

EMAS BED

SEE NOTE 1

RUNWAY 18-36 2,690' x 75'

SPRING

CITY OF EDEN PRAIRIE

FLYING CLOUD DR

CHARLSON RD

SPRING RD

KEY ALTERNATIVE ATTRIBUTES

- SHIFT RUNWAY 10R-28L EAST BY 296.5' TO ALIGN EAST END OF RUNWAYS
- CONSTRUCT 1,350-FOOT BLAST PAD BETWEEN RUNWAY 10L THRESHOLD AND EXTENDED TAXIWAY A
- INSTALL ENGINEERED MATERIAL ARRESTING SYSTEM (EMAS) ON RUNWAY 28L END
- ADD DISPLACED THRESHOLD ON RUNWAY 28L, REDUCING LANDING DISTANCE AVAILABLE TO 4,705'
- EXTENSION OF TAXIWAY A TO RUNWAY 10R END
- RELOCATE VEHICLE SERVICE ROAD OUTSIDE TAXIWAY A OBJECT FREE AREA
- REMOVE TAXIWAY F SEGMENT BETWEEN RUNWAY 10R-28L AND 10L-28R
- REGRADING OF UNSUITABLE SLOPES IN THE RUNWAY 10R-28L RUNWAY SAFETY AREA

NOTES

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

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Preliminary Airfield Alternatives: Hangar Development

Existing Hangars

Hangar Development – Pre-Tower Relocation
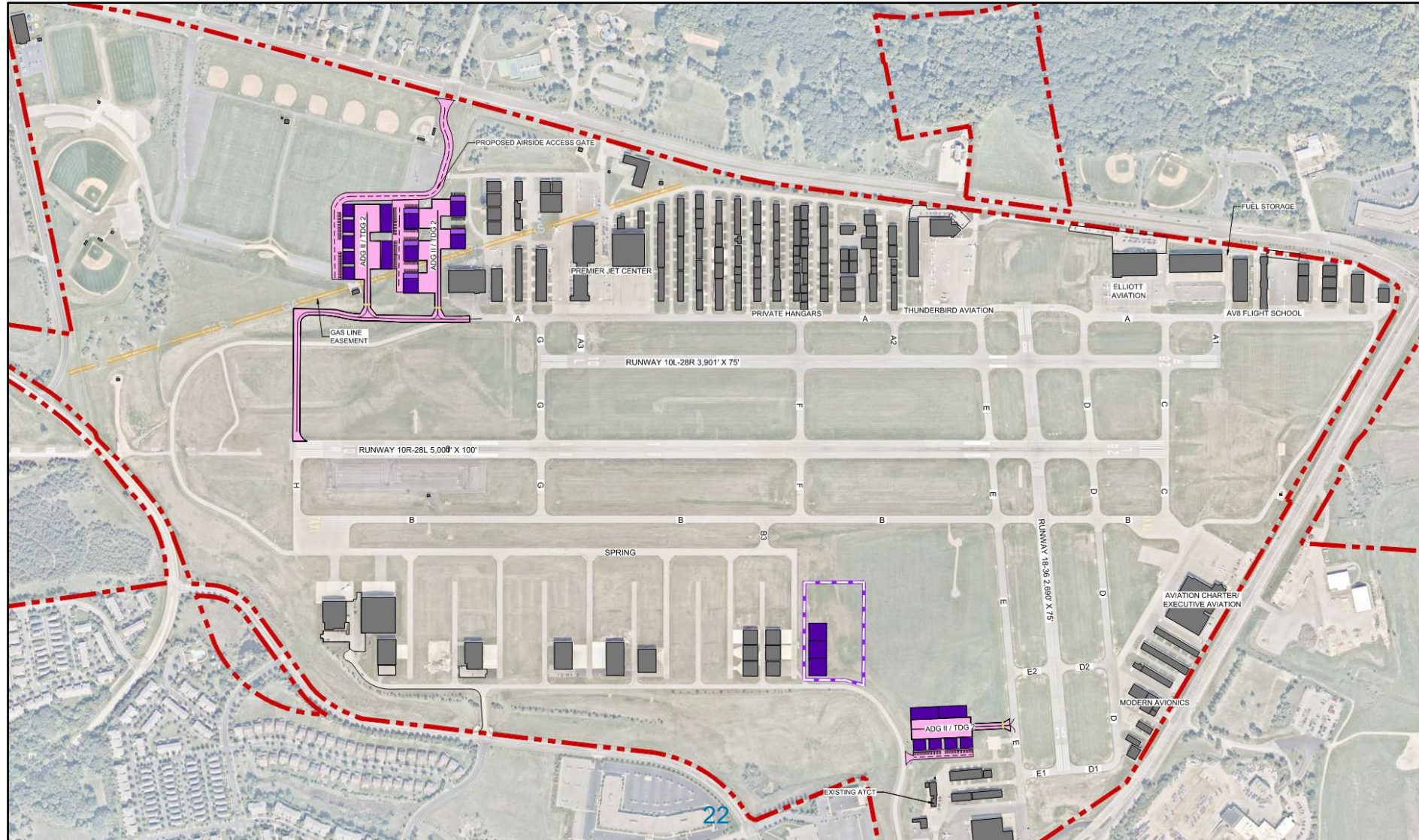
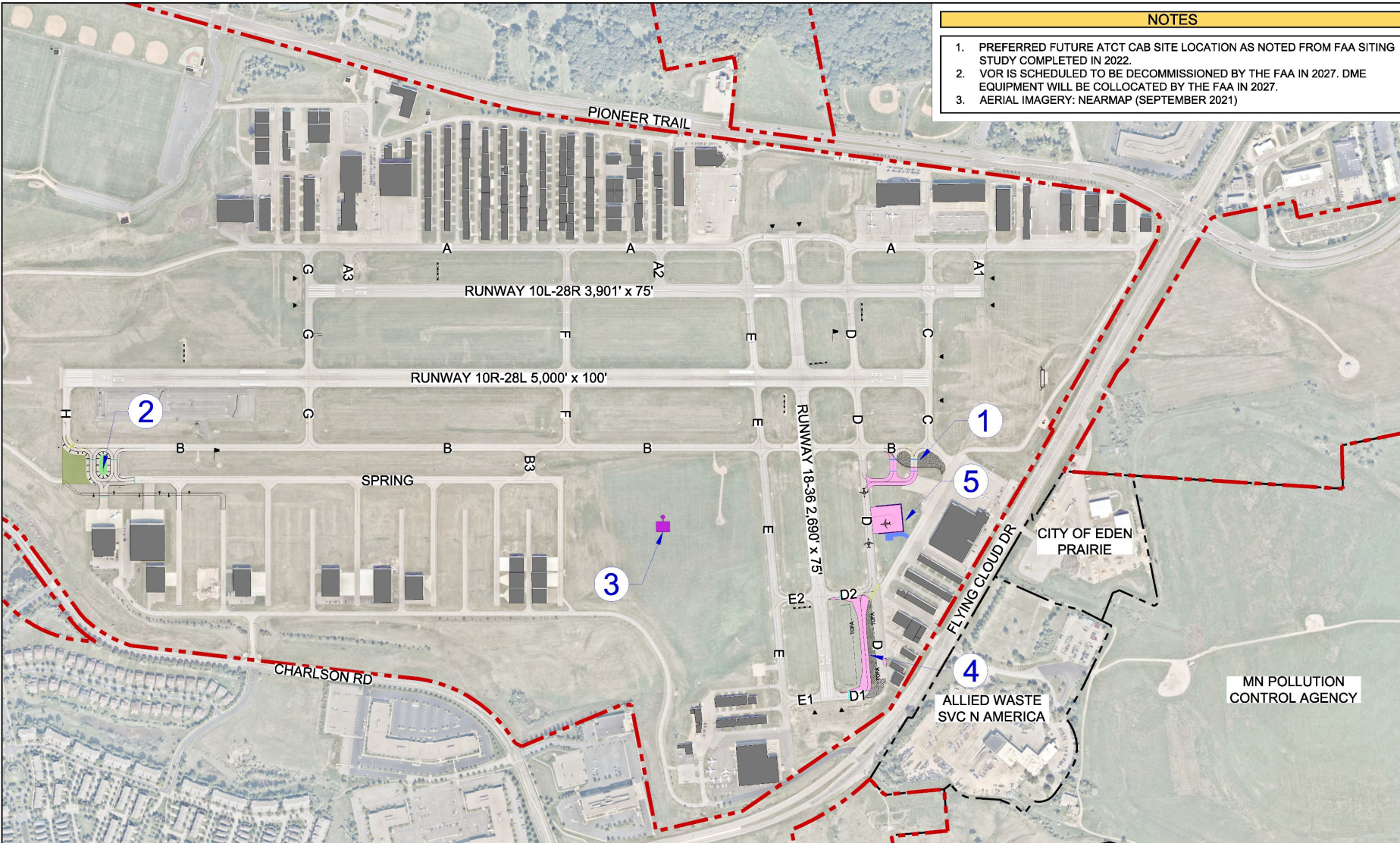# Hangar Development – Post-Tower Relocation
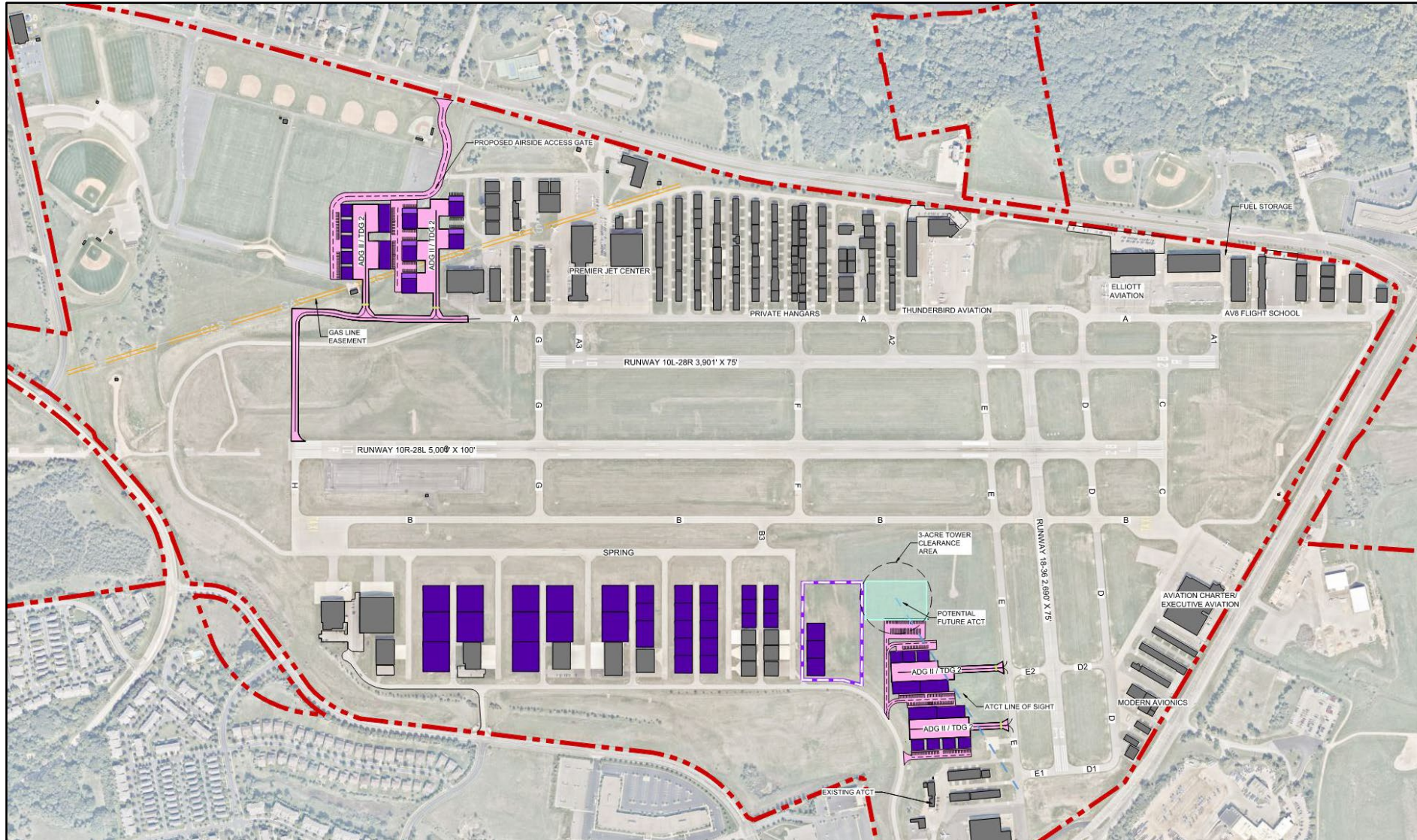
Miscellaneous Items

Potential LTP Projects

1. Runway 28L holdbay
2. Reconfigured Runway 10R holdbay (approved 2023 project)
3. Air Traffic Control Tower Relocation (see Note 1)
4. Taxiway D reconstruction
5. Ground Run Up Enclosure

Potential projects not labeled on map include relocating the airport weather sensor and updating airfield signage

What is a Ground Run Up Enclosure?

- A 3-sided, open top structure which can accommodate aircraft performing high-powered engine maintenance run ups

- They are acoustically and aerodynamically designed to dampen noise impact from engine maintenance run ups

26

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Next Steps/Schedule

Next Steps

Consider Feedback

- SAP #3 and today's public presentation
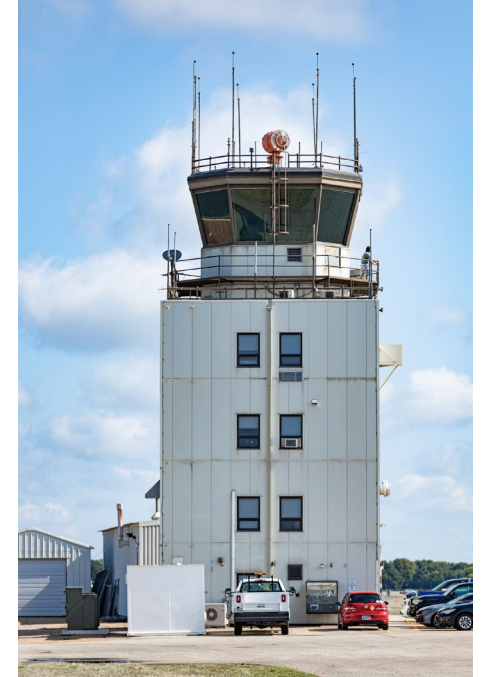- Make alternative refinements

Evaluate Preliminary Airfield Alternatives

- Estimate costs
- Consider project phasing
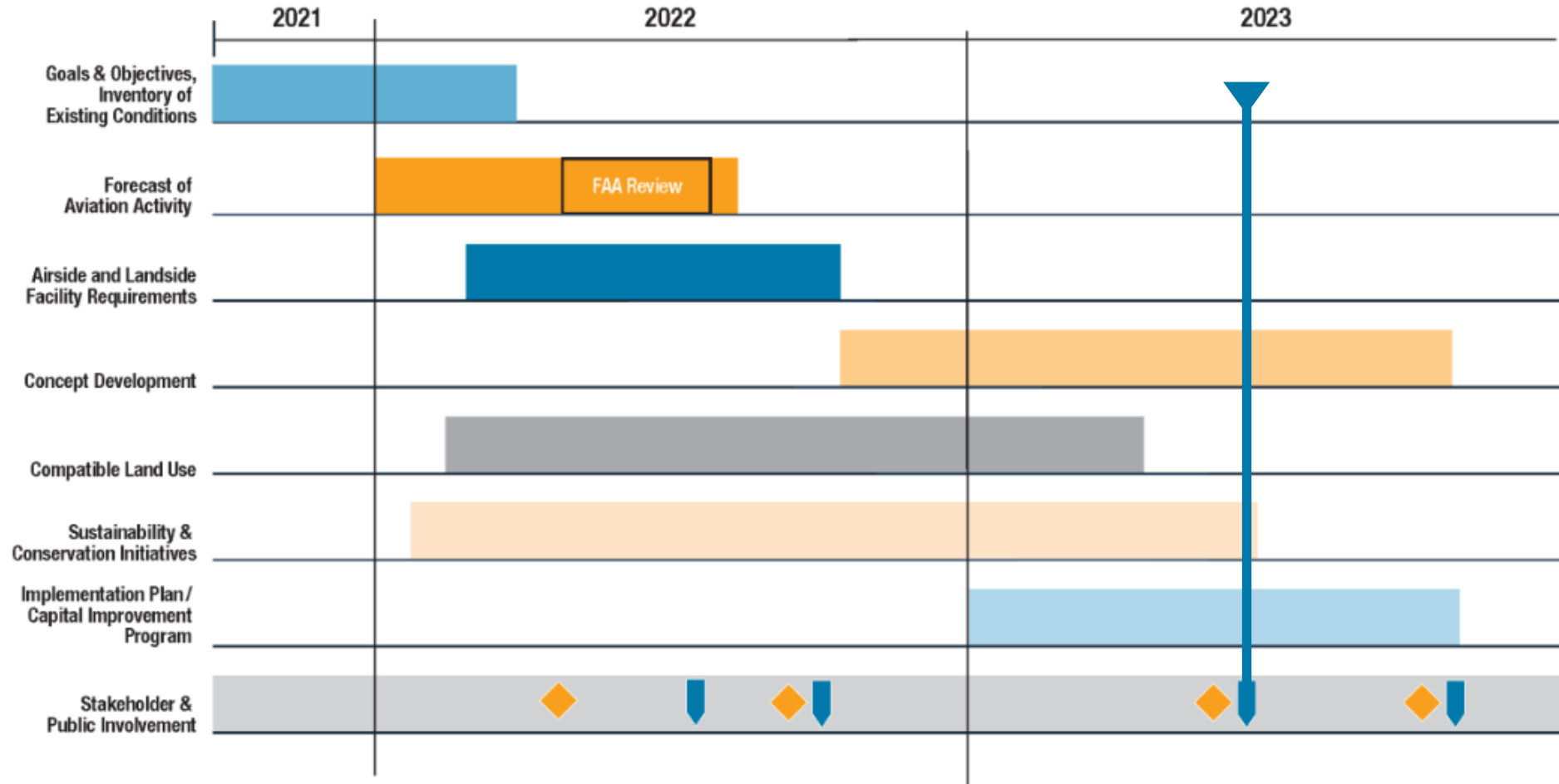- Conduct high-level evaluation of environmental considerations

Identify, Share and Take Public Comments on Preferred Alternative

- Engage SAP & Hold Discover Flying Cloud Public Event #4

LTP Schedule

Stakeholder Advisory Panel (SAP) Meeting   Public Open House

Updated: October 2022 - Timeline is subject to change.

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Thank you for attending

Please complete our survey