

**ST. PAUL  
DOWNTOWN AIRPORT**

Long-Term Plan 2045

# STP AIRPORT LONG-TERM PLAN

**Strategic Advisory Panel Meeting #1**

Date: May 13, 2025



# ST. PAUL DOWNTOWN AIRPORT

Long-Term Plan 2045

## WELCOME REMARKS

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Strategic Advisory  
Panel Meeting #1



**Kelly Gerads**  
Director of Reliever Airports  
Metropolitan Airports Commission





# AGENDA



**Introductions**



**Stakeholder Advisory Panel (SAP) Role**



**Long-Term Plan Overview**



**Existing Conditions**



**Preliminary Forecast**



**Facility Requirements Overview**



**Next Steps**





# METROPOLITAN AIRPORTS COMMISSION (MAC)



## **Eric Gilles**

Senior Airport Planner, LTP Project Manager



## **Blaine Peterson**

STP Airport Manager



## **Michele Ross**

Director, Stakeholder Engagement





# CONSULTANT TEAM | KIMLEY-HORN

Kimley»»Horn

**Colin Wheeler**

Senior Aviation Planner, Consultant Project Manager



**John Coliton**

Aviation Planner, Deputy Project Manager



**Zach Simons**

Aviation Planner, Production Lead





# STAKEHOLDER ADVISORY PANEL (SAP)

## SAP Members

- Name
- Organization & affiliation
- **Poll Question #1:** One thing you hope to achieve in being a part of this process





# AGENDA



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# STAKEHOLDER ADVISORY PANEL ROLE

## What is the role of a Stakeholder Advisory Panel (SAP)?

- Provide local and technical expertise
- Represent a broad range of stakeholder groups to provide a variety of viewpoints
- Share feedback and aspirations in the planning process
- Meet three (3) times during the LTP process:
  - SAP 1 – May 13<sup>th</sup>, 2025 (Today)
    - Existing conditions
    - Preliminary forecast analysis and methodology
    - Preliminary facility requirements overview





# STAKEHOLDER ADVISORY PANEL ROLE

## What is the role of a Stakeholder Advisory Panel (SAP)?

- Meet three (3) times during the LTP process:
  - SAP 2 – August/September 2025 (Tentative)
    - Forecast (continued)
    - Facility requirements (continued)
    - Preliminary alternatives analysis and concepts
  - SAP 3 – January/February 2026 (Tentative)
    - Draft preferred alternative
    - Preliminary cost estimates
    - Planning process next steps





# AGENDA



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## **Long-Term Plan Overview**



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# LONG-TERM PLAN (LTP) OVERVIEW

## What is an Airport Long-Term Plan (LTP)?

- A planning document that memorializes current and future needs of an airport
- Focuses on a 20-year horizon, with intermediate steps at 5 and 10 years
- FAA typically requires and update every 7-10 years
- The last LTP update for STP was completed in 2010
- Does not authorize construction
- Limited to immediate airport environment (on-airport property)



# ST. PAUL DOWNTOWN AIRPORT

Long-Term Plan 2045

## Polling Question #2

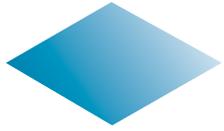
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Mentimeter  
Poll



**What is your level of experience with  
Airport Long-Term Plans / Master Plans?**

1. No experience
2. Very limited experience
3. Some experience
4. Much experience



# LONG-TERM PLAN (LTP) OVERVIEW

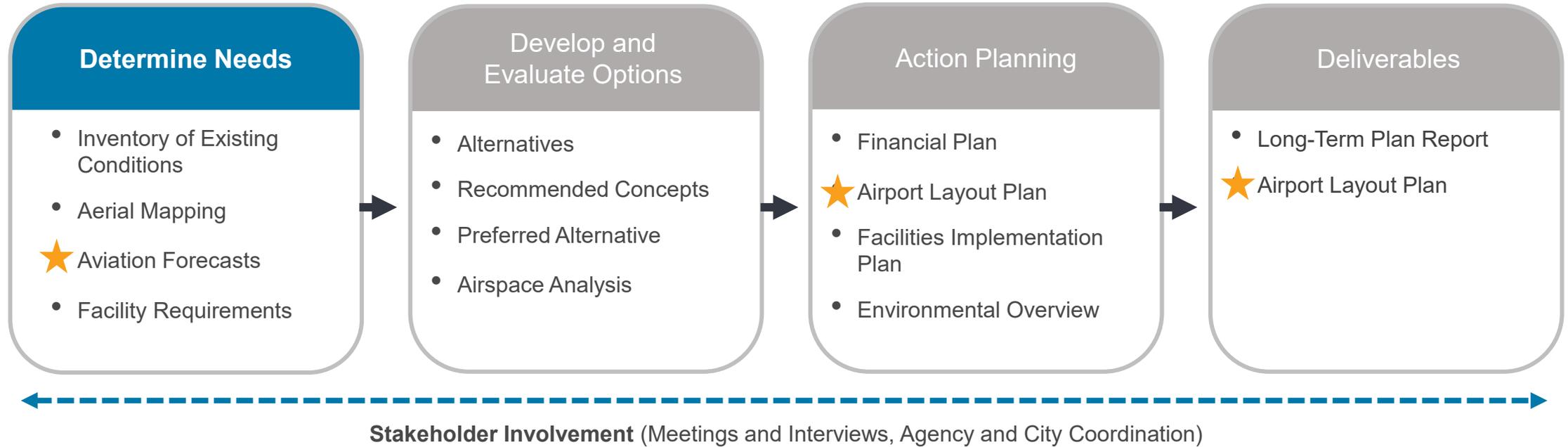
## Long-Term Plan (LTP) Goals and Objectives

- Enhance airport safety
- Preserve and, if possible, improve operational capabilities for the current family of aircraft using the airport
- Promote financial stability of the MAC reliever airport system by exploring revenue opportunities for aeronautical and non-aeronautical development





# LONG-TERM PLANNING PROCESS

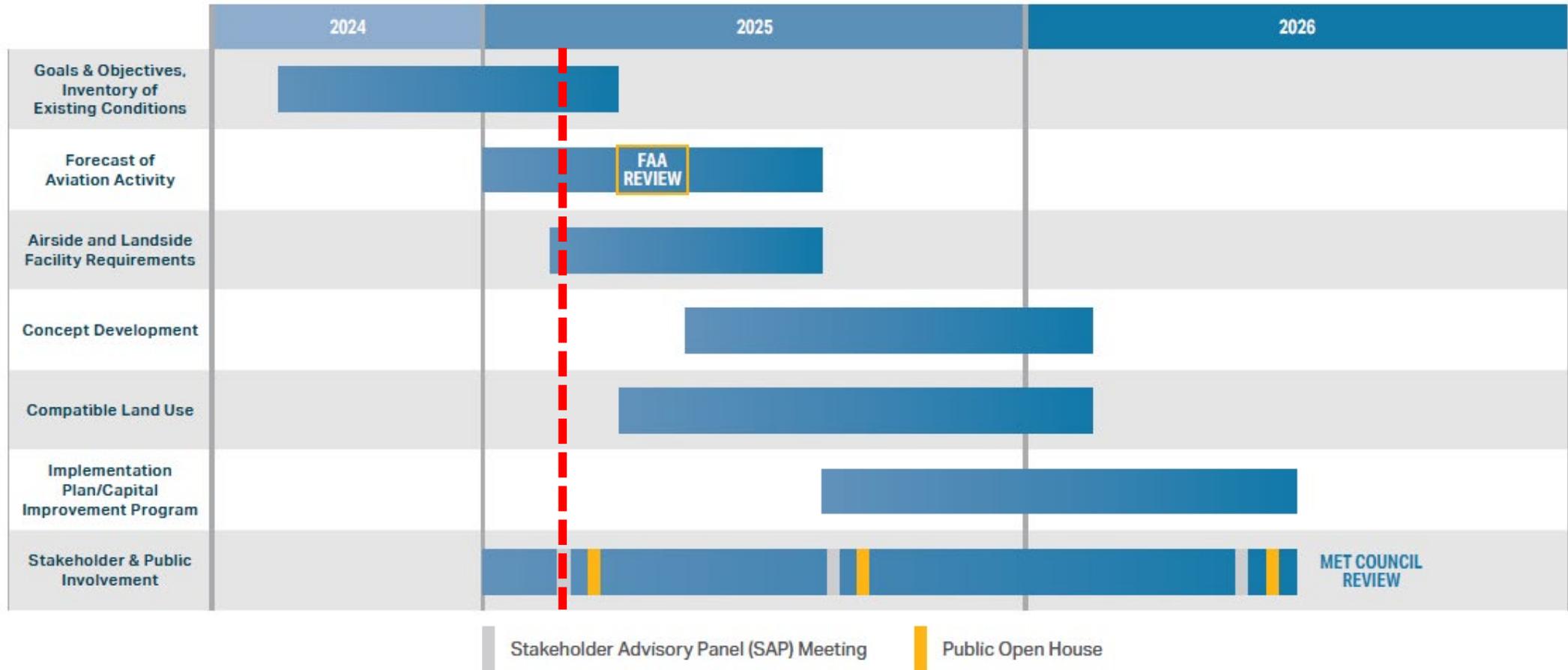


★ Requires FAA Approval





# PROJECT SCHEDULE





# AGENDA



Introductions



Stakeholder Advisory Panel (SAP) Role



Long-Term Plan Overview



**Existing Conditions**



Preliminary Forecast



Facility Requirements Overview



Next Steps





# 2024 (STP) ST. PAUL DOWNTOWN AIRPORT BY THE NUMBERS



**92**  
based aircraft



**24**  
leases



**38,167**  
annual flight operations

**\$312M**  
economic output annually

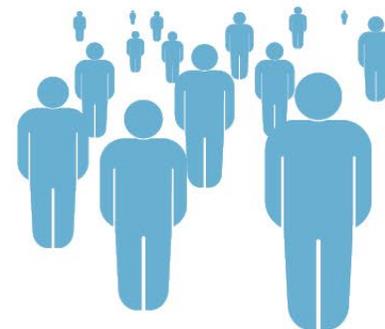


**\$3.82M**  
annual operating revenue

**576**  
acres

**2**  
fixed based operators (FBOs)

**1,430**  
jobs supported



**3**  
runways



**14,137**  
total feet of runway pavement

**700**  
runway and taxiway lights

**56**  
pieces of equipment

maintaining the airfield and airport grounds



**1.8** miles of flood wall



**1** restaurant  
Holman's Table

7 Full-time Airport Maintenance Staff › 1 Air Traffic Control Tower › 1 Army National Guard Facility › **On-site** public viewing area

In the community since **1926** › Owned by the MAC since **1944** › Longest runway in the MAC's system of Reliever Airports (**6,491'**)

Home to **MN State Patrol Flight Section** › Only Customs point of entry in the Reliever system › Home to the **Learning Jet**



# INVENTORY OF EXISTING CONDITIONS

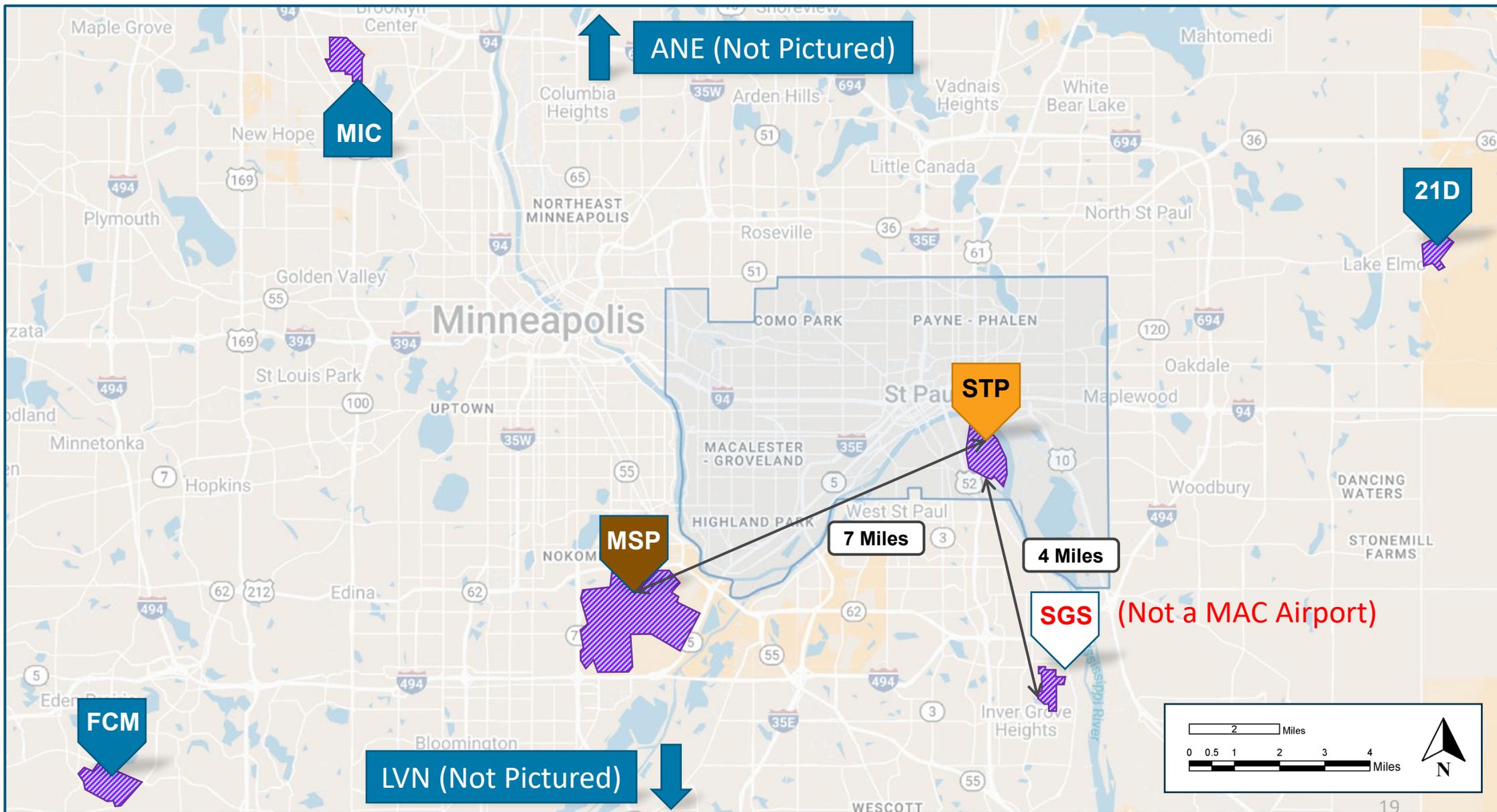
- Assembling of information, data, and mapping related to the Airport
- Interviews and desktop research
- Information collected includes:
  - History and background information
  - Regional setting and surrounding land uses
  - Physical facilities
  - Historical aviation activity
  - Design standards conformance



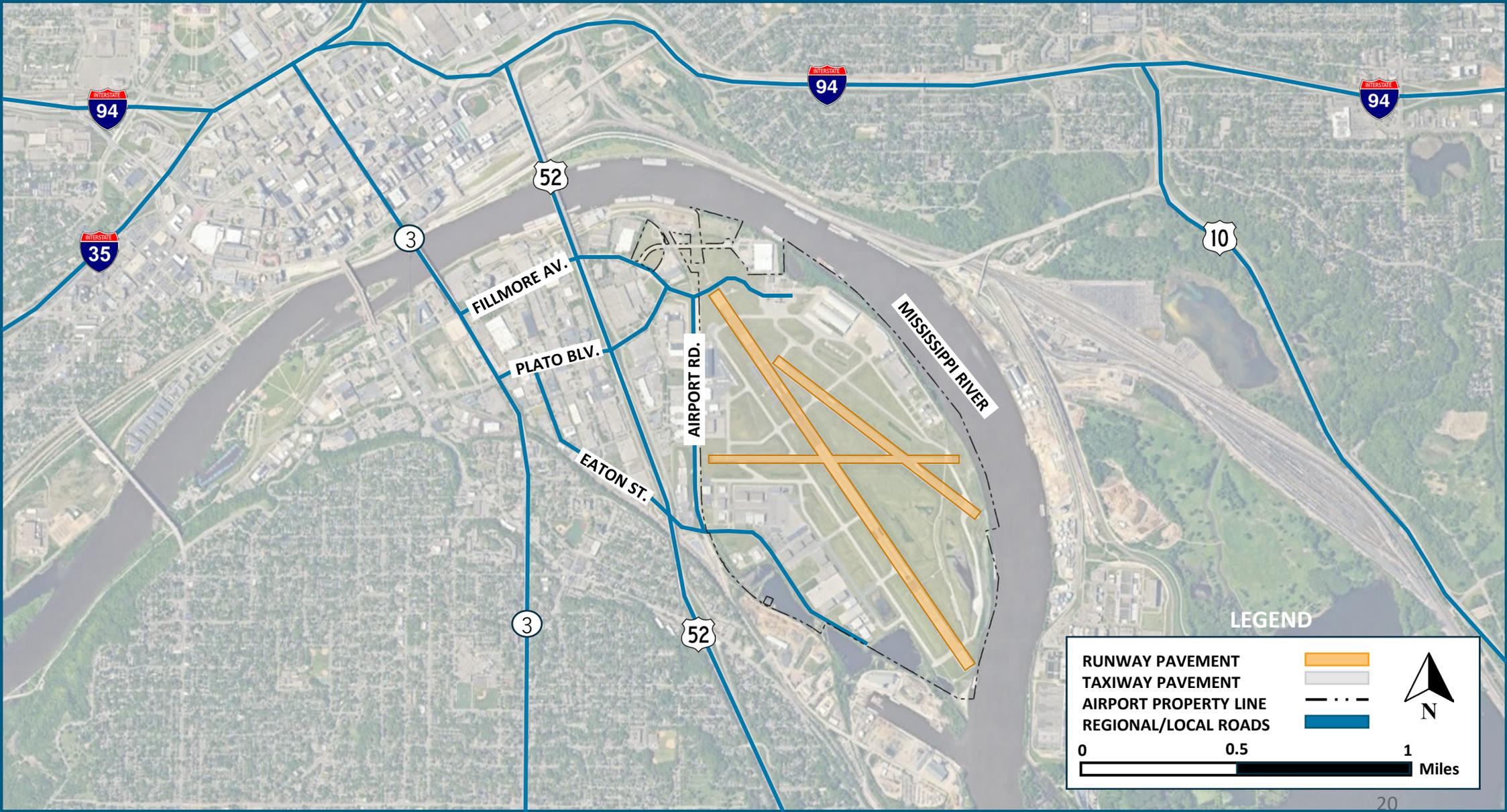
Source: Metropolitan Airports Commission



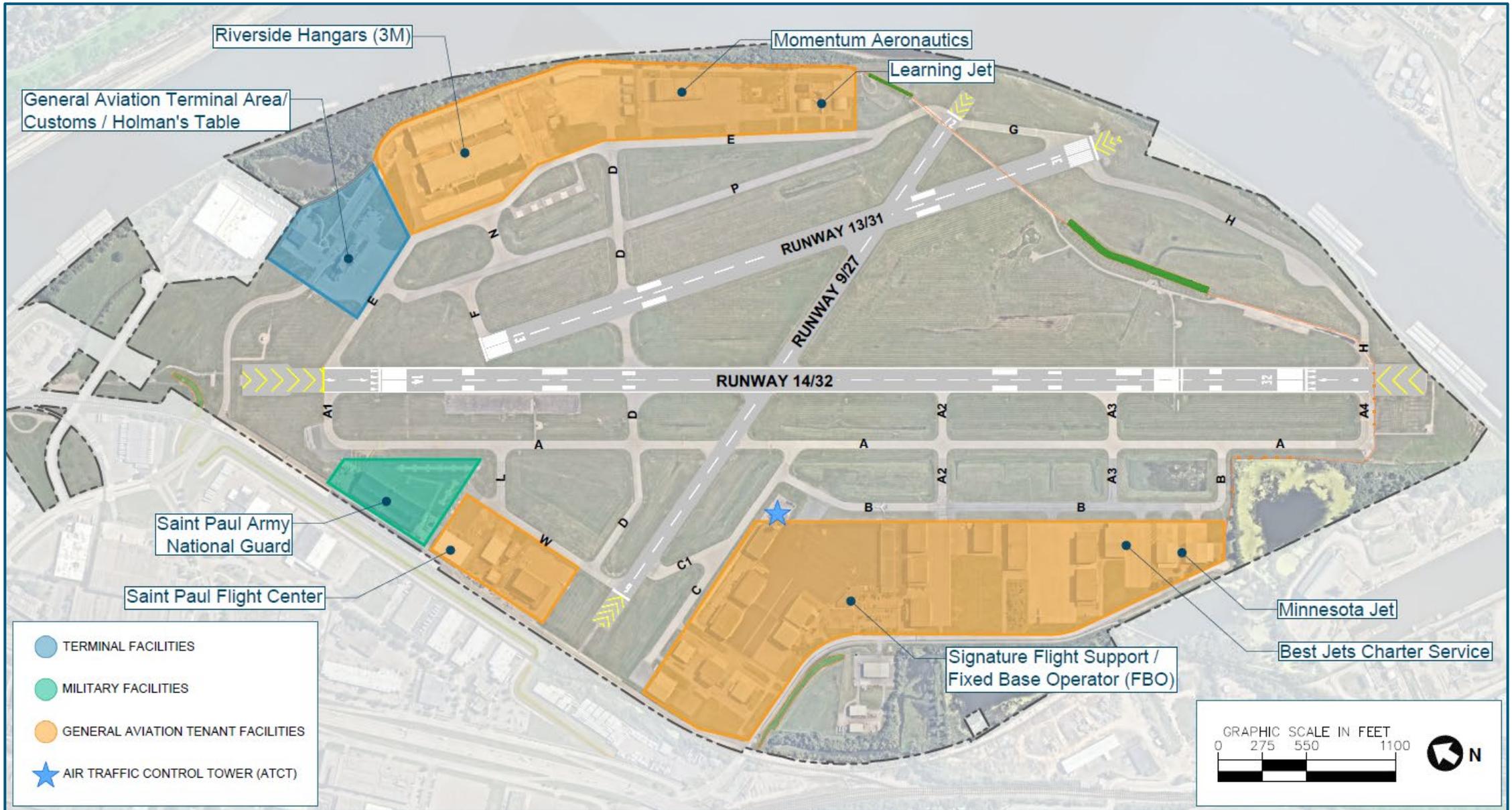
# AIRPORT VICINITY MAP



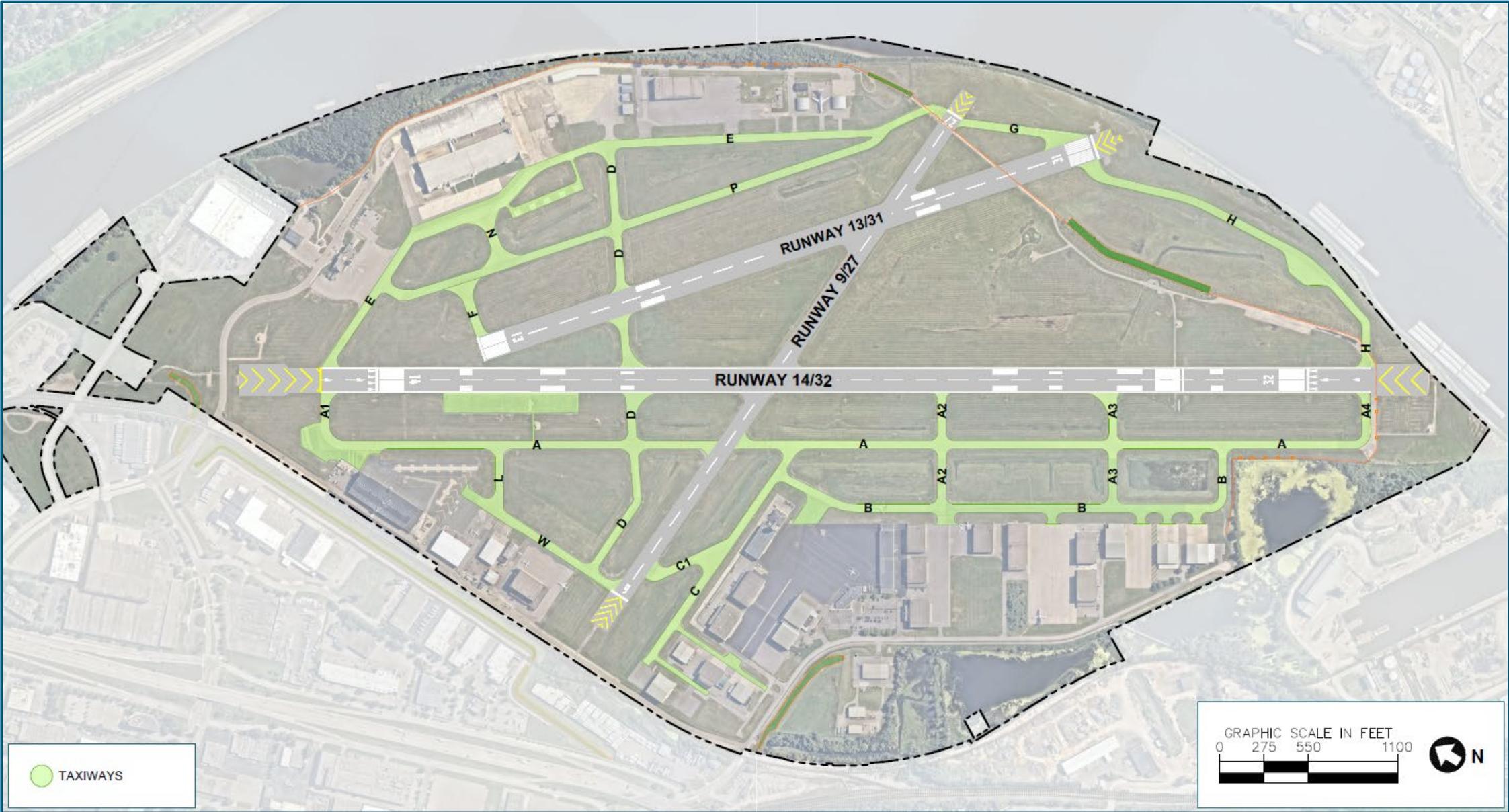
# LOCAL ROAD ACCESS



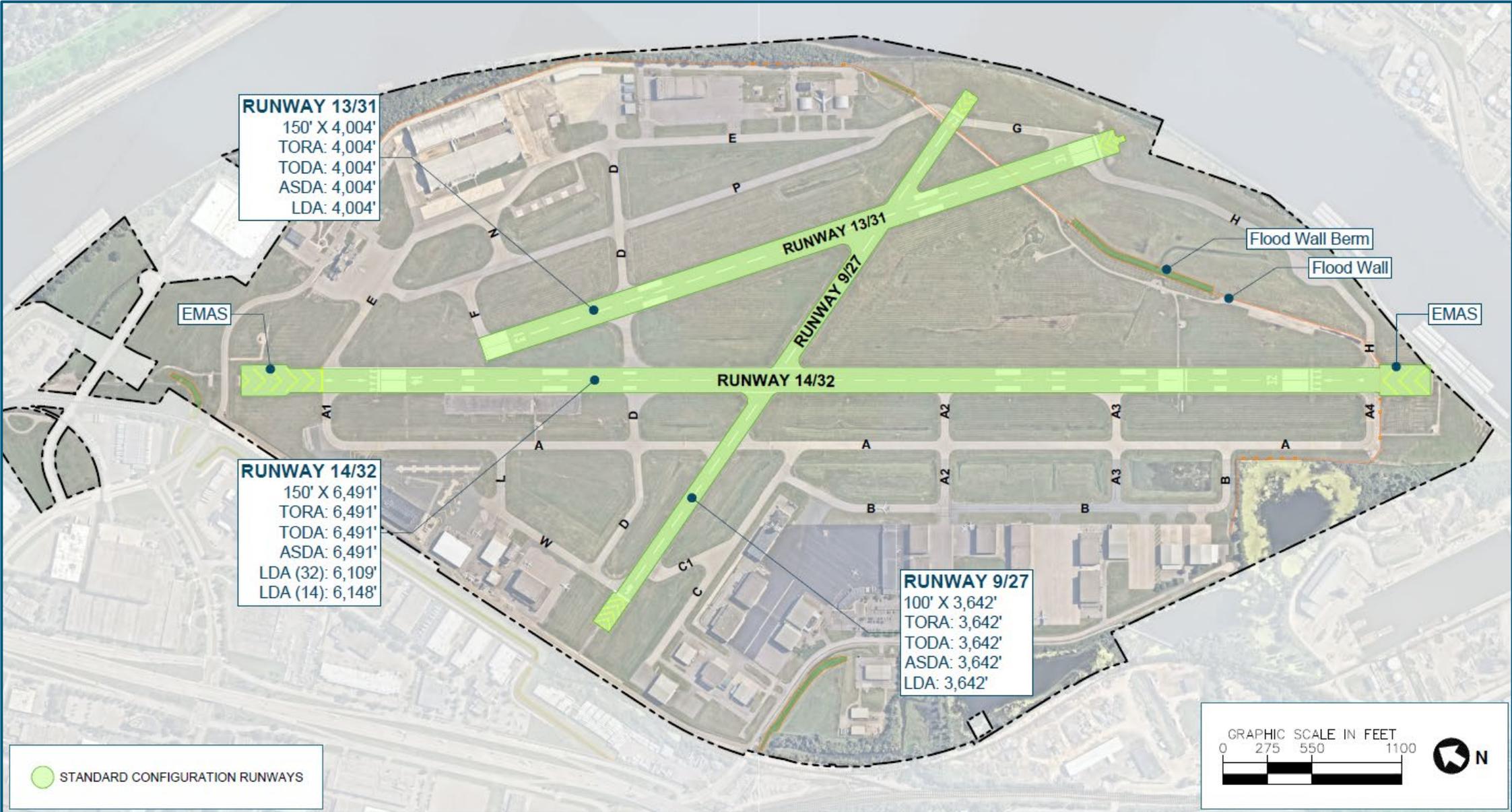
# INVENTORY OF EXISTING CONDITIONS: TENANTS



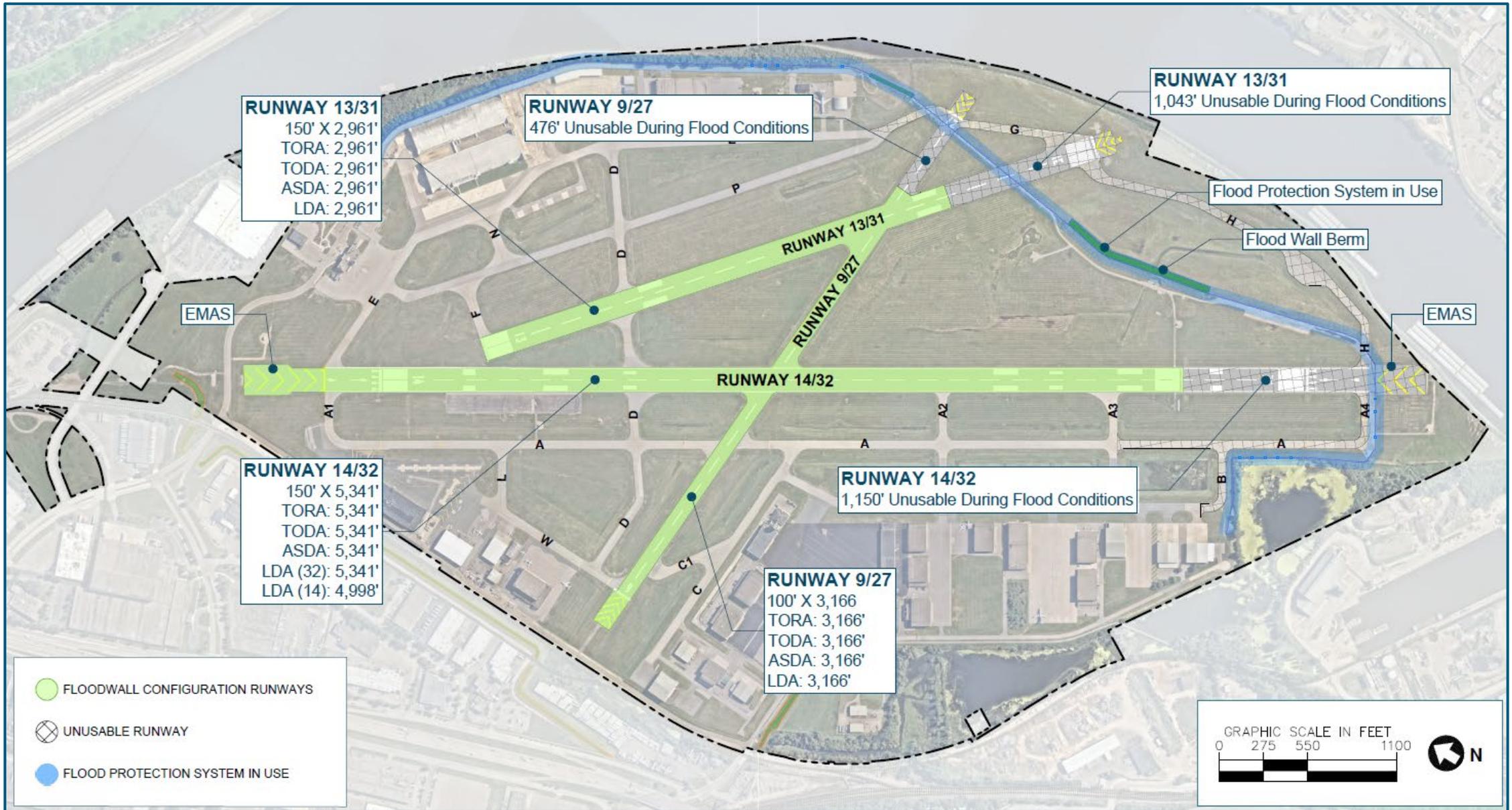
# INVENTORY OF EXISTING CONDITIONS: TAXIWAYS



# INVENTORY OF EXISTING CONDITIONS: RUNWAYS



# INVENTORY OF EXISTING CONDITIONS: FLOODWALL DEPLOYED



# ST. PAUL DOWNTOWN AIRPORT

Long-Term Plan 2045

## Polling Question #3

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Mentimeter  
Poll

**What is the most interesting  
piece of existing conditions  
information you heard?**

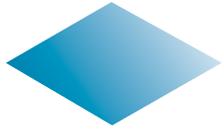


**ST. PAUL  
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Long-Term Plan 2045

**BREAK**





# AGENDA



Introductions



Stakeholder Advisory Panel (SAP) Role



Long-Term Plan Overview



Existing Conditions



**Preliminary Forecast**

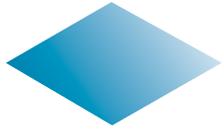


Facility Requirements Overview



Next Steps





# FORECASTS OF AVIATION DEMAND

## What are Aviation Demand Forecasts?

- Projections of future air traffic and related activities
- Based Aircraft, Aircraft Operations, Fleet Mix, Critical Aircraft

## How are Forecasts Used?

- Aid in determining future needs and timing of new/expanded facilities
- Help justify financial investments for improvements
- Factor into many other types of airport plans and projections





# FORECASTS OF AVIATION DEMAND

## Approach

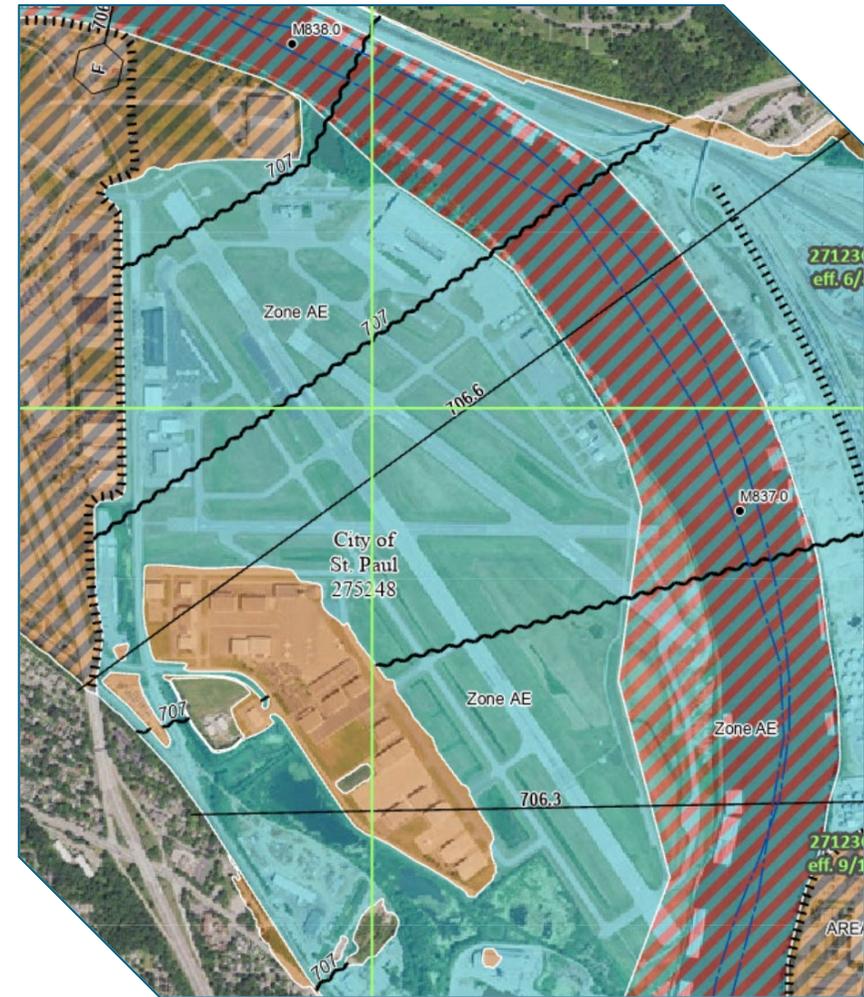
- 2023 base year with short-term (0-5 years), medium-term (5-10 years), and long-term (10-20 years) planning horizons
- Key inputs:
  - Historical aviation activity at STP
  - Federal and state forecasts (TAF, FAA Aerospace Forecast, MnSASP)
  - Socioeconomic trends
  - Historical market share statistics
  - Existing airport environment and constraints (Floodwall)





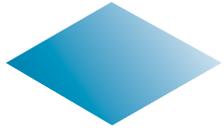
# FLOODWALL FEASIBILITY STUDY

- Airport currently located completely within Zone AE Flood Fringe
- Current floodwall generally follows floodway boundary



Source: FEMA Flood Map Service Center, 2024





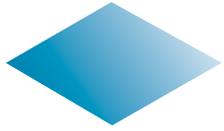
# FLOODWALL FEASIBILITY STUDY

- Develop long-term strategy for Airport development
- Incorporate Feasibility Study into LTP
- Study focus:
  - Ordinances and Restrictions
  - Impacts of Floodwall Configuration
  - Alternatives Analysis
  - Rough Order of Magnitude (ROM) costs



Source: Kimley-Horn, 2024





# FLOODWALL FEASIBILITY STUDY

## Constrained Development

- No change to FEMA Flood Zones onsite
- Remain as a Zone AE (within base flood plain)
- Redevelopments would comply with regulations associated with development in a floodplain for City of St. Paul and FEMA

## Unconstrained Development

- Development would require levee accreditation to change the flood zone to FEMA Zone X (area with reduced flood risk due to levee)
- Any future redevelopment would be able to take place unconstrained by floodplain zoning regulations



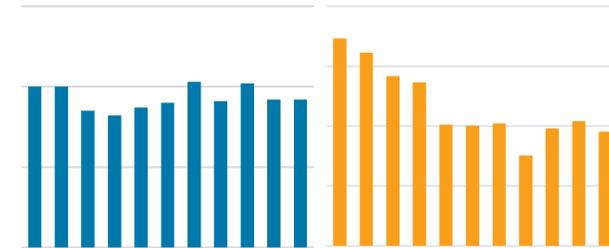
Source: Kimley-Horn, 2024



# FORECASTS OF AVIATION DEMAND

## Trends and Assumptions

- Decline in aviation activity at STP over the past 10 years
  - Based Aircraft (-0.83% CAGR)
  - Operations (-5.79% CAGR)
- COVID-19 negatively affected activity at STP and had a 1–2-year recovery period
- Minneapolis-St. Paul Metro Statistical Area projecting growth in all key socioeconomic forecast categories
- FAA’s STP Terminal Area Forecast (TAF) and nationwide Aerospace forecast both projecting modest growth

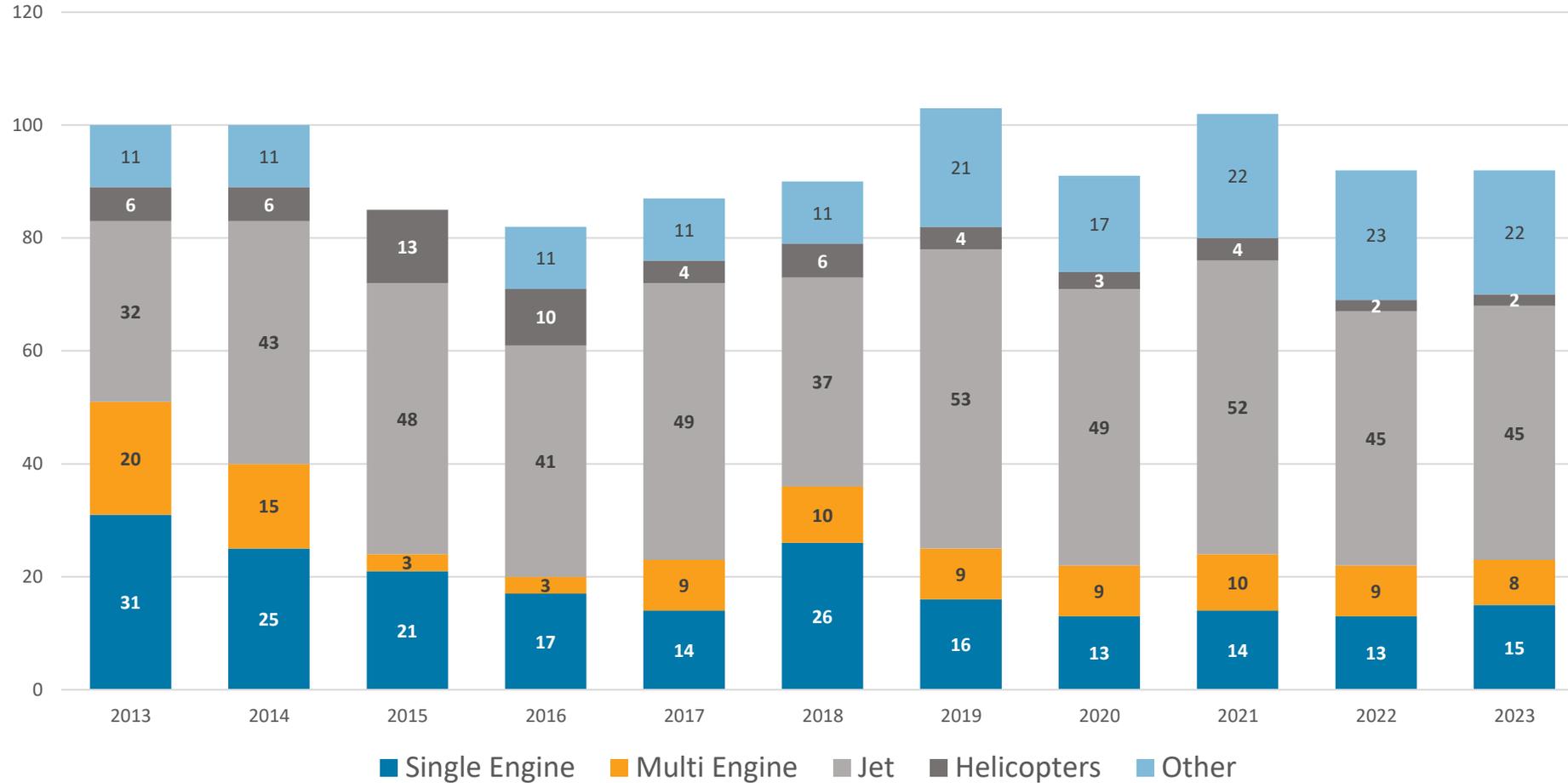


Year	Based Aircraft	Operations
2013	100	69,277
2014	100	64,539
2015	85	56,676
2016	82	54,548
2017	87	40,489
2018	90	40,116
2019	103	40,934
2020	91	30,188
2021	102	39,196
2022	92	41,592
2023	92	38,167





# HISTORICAL BASED AIRCRAFT BY TYPE





# FORECASTING CONSIDERATIONS

## Baseline Forecasts

- Most realistic and likely scenario for the future of an airport
- Assumes no major changes or constraints

## Scenario Forecasts

- Constrained scenario forecasts (e.g., Deployed Floodwall)
- Conceptual scenario forecasts (“What if” scenarios such as new air service or business tenants)

## FAA Reviews of Forecasts

- Evaluate methodologies used
- Ensure forecasts are reasonable and realistic
- Evaluate consistency with the FAA’s Terminal Area Forecast (TAF)



# ST. PAUL DOWNTOWN AIRPORT

Long-Term Plan 2045

## Polling Question #4

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Mentimeter  
Poll



**What is your perception of how aviation activity will change at STP?**

1. Increase Significantly
2. Increase Slightly
3. No Change
4. Decrease Slightly
5. Decrease Significantly

# ST. PAUL DOWNTOWN AIRPORT

Long-Term Plan 2045

## Polling Question #5

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Mentimeter  
Poll



**What other factors should be considered as a part of the forecasting process?**



# AGENDA



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Stakeholder Advisory Panel (SAP) Role



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**Facility Requirements Overview**



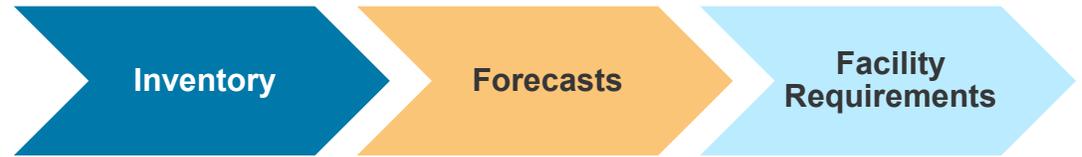
Next Steps





# FACILITY REQUIREMENTS

- Assessment and determination of what facilities are needed to meet FAA design standards and accommodate forecasted aviation activity
- Elements include:
  - Airfield capacity analysis
  - Airfield design standards assessment
  - Runway length
  - Apron and hangar space
  - Support facilities
  - Airspace and obstructions analysis



Source: Metropolitan Airports Commission (MAC)





# CRITICAL AIRCRAFT

## What is a Critical Aircraft?

- The most demanding aircraft that operates at least 500 times per year at the Airport, excluding touch-and-go activities.
- Determines design standards as well as physical requirements such as size of safety areas.

## Airport Reference Code (ARC)

**ARC** = Aircraft Approach Category (**AAC**) + Airplane Design Group (**ADG**)

*Aircraft Approach Category (AAC)*

AAC	Approach Speed
A	Approach speed less than 91 knots
B	Approach speed 91 knots or more but less than 121 knots
C	Approach speed 121 knots or more but less than 141 knots
D	Approach speed 141 knots or more but less than 166 knots
E	Approach speed 166 knots or more

Source: FAA Advisory Circular 150/5300-13B, Change 1, Airport Design, 2024.

*Airplane Design Group (ADG)*

ADG	Tail Height (feet)	Wingspan (feet)
I	< 20	< 49'
II	20' - < 30'	49' - < 79'
III	30' - < 45'	79' - < 118'
IV	45' - < 60'	118' - < 171'
V	60' - < 66'	171' - < 214'
VI	66' - < 80'	214' - < 262'

Source: FAA Advisory Circular 150/5300-13B, Change 1, Airport Design, 2024.



# CRITICAL AIRCRAFT

14/32

ARC: D-III



Design Aircraft: **Gulfstream V**

13/31

ARC: A-I Small



Design Aircraft: **Cessna 172**

9/27

ARC: A-I Small



Design Aircraft: **Cessna 172**

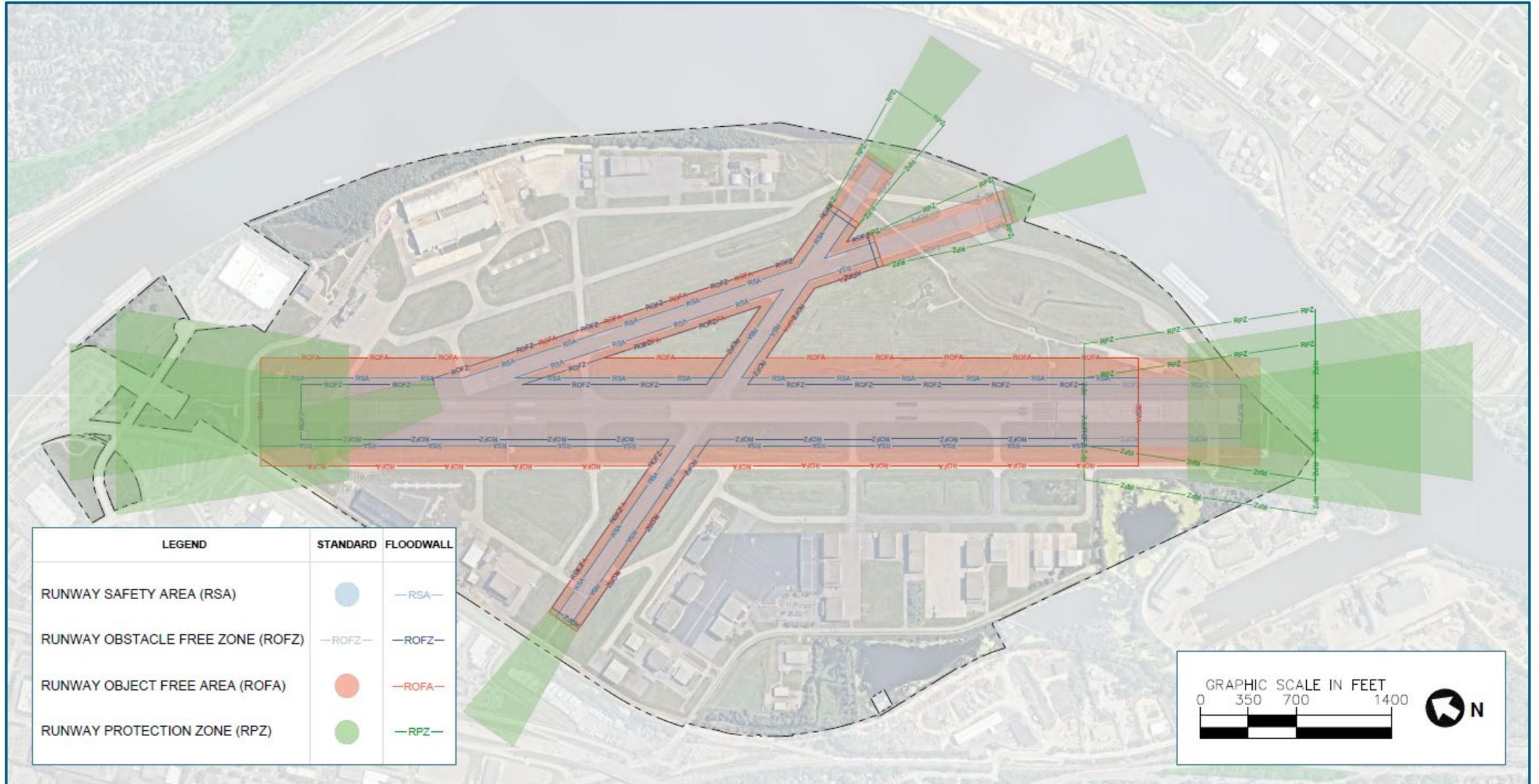
## 2023 ARC Summary By Runway

RWY	UKN	HELO	A-I Ops	A-II Ops	B-I Ops	B-II Ops	B-III Ops	C-I Ops	C-II Ops	C-III Ops	D-II Ops	D-III Ops	Design Aircraft
14/32	628	1379	13842	943	1450	7611	145	466	3321	586	200	982	GLF5
13/31	134	369	283	12	7	33		3	3	1	1	1	C172
9/27	110	238	266	8	2	16						1	C173
<b>Total</b>	<b>872</b>	<b>1986</b>	<b>14391</b>	<b>963</b>	<b>1459</b>	<b>7660</b>	<b>145</b>	<b>469</b>	<b>3324</b>	<b>587</b>	<b>201</b>	<b>984</b>	

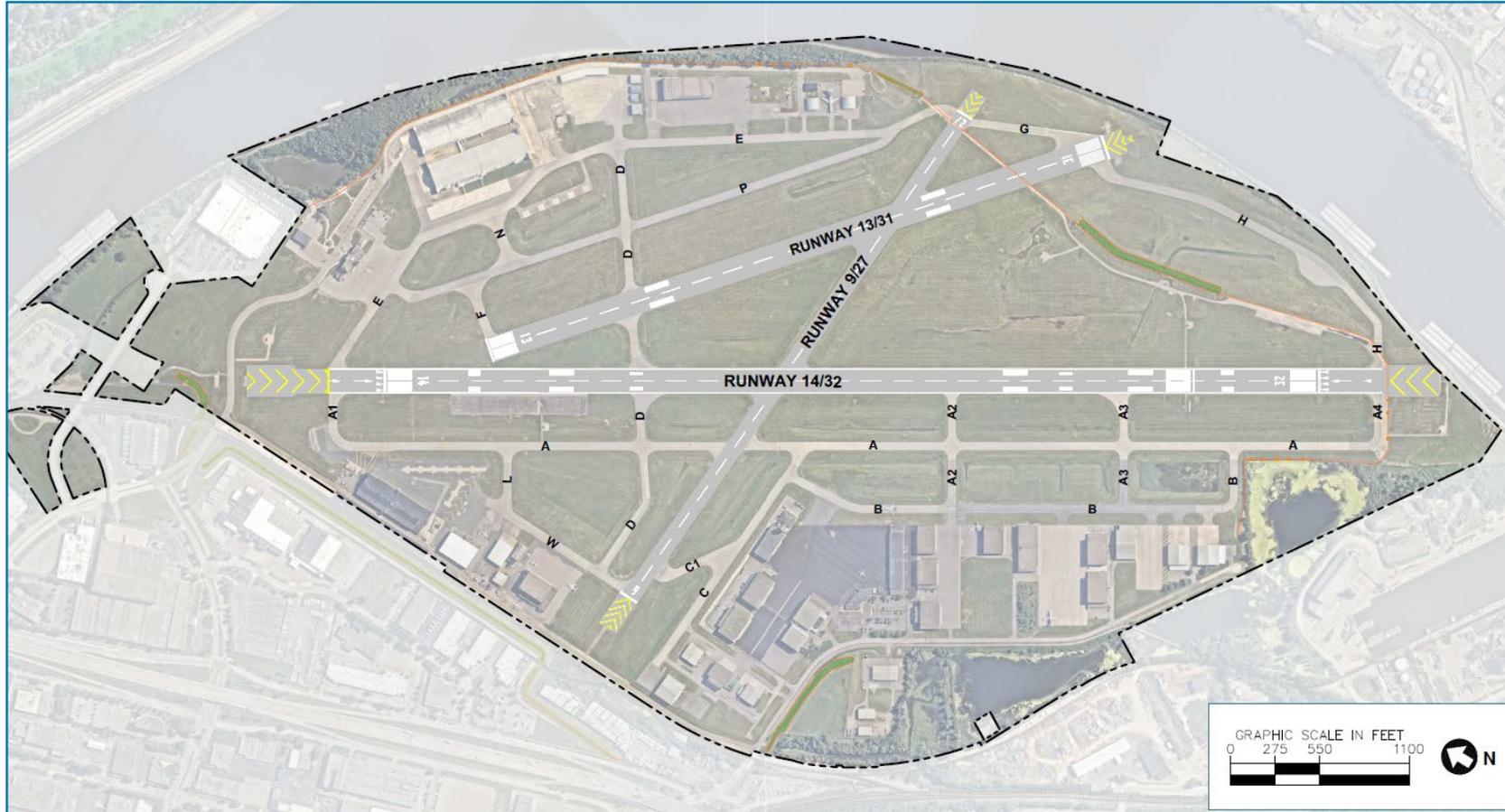
Data Source: MAC Noise and Operations Monitoring System (MACNOMS)



# RUNWAY PROTECTION AREAS BASED ON DESIGN AIRCRAFT



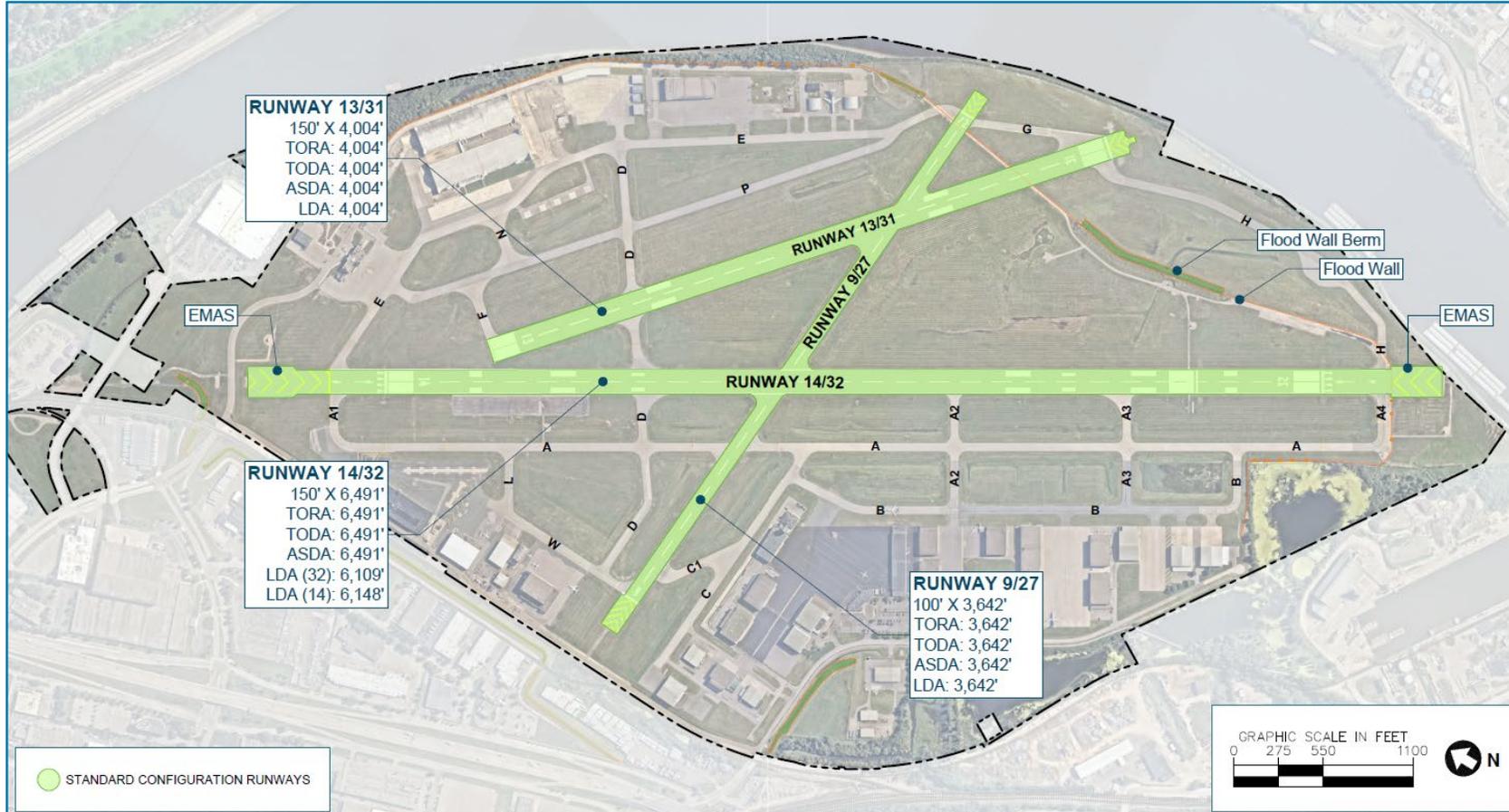
# FACILITY REQUIREMENTS



## Focus Areas (FA)

- Runway Environment
- Taxiways
- Tenant Needs
- Advanced Air Mobility (AAM)

# FACILITY REQUIREMENTS

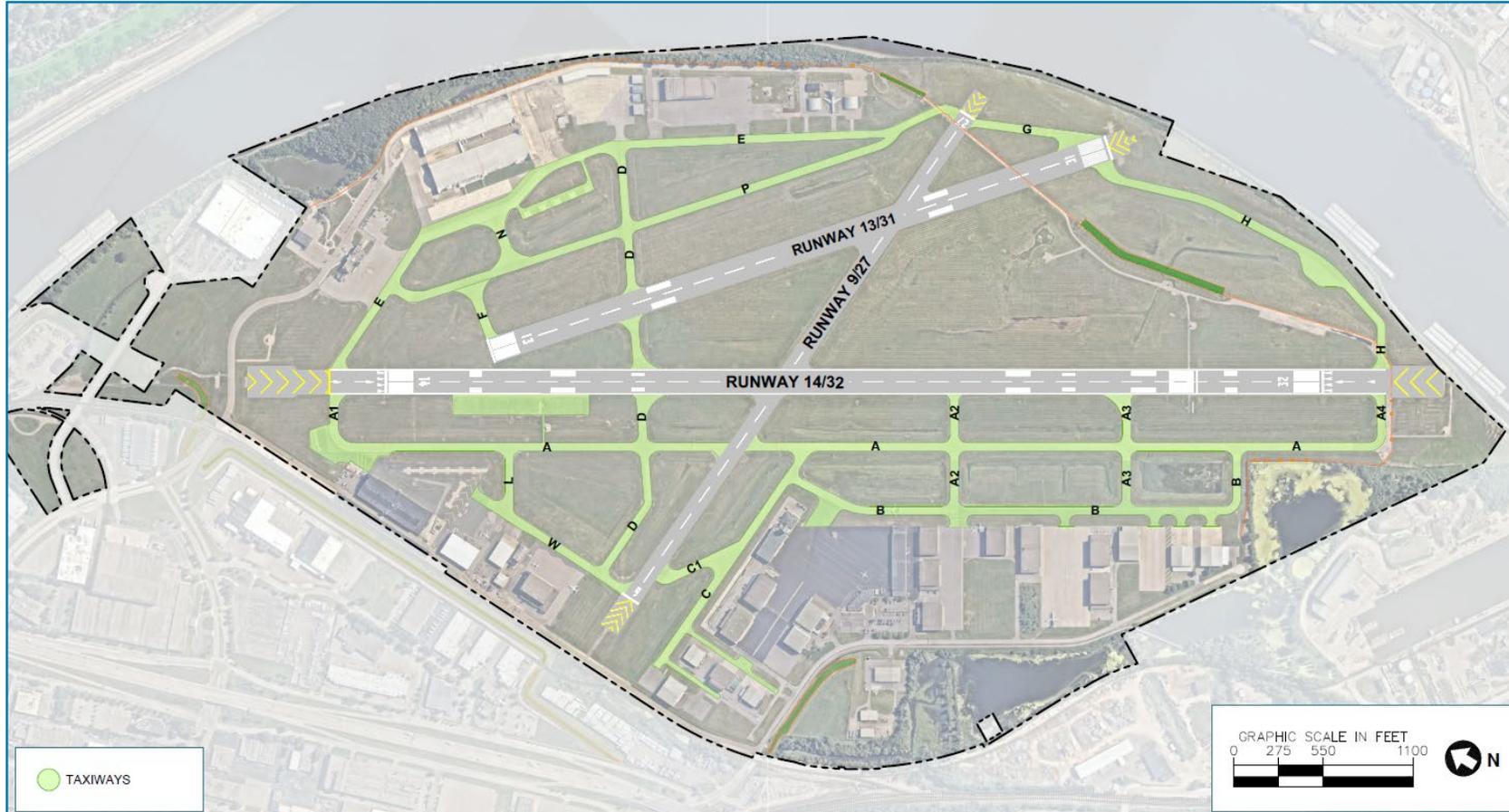


## FA #1: Runway Environment

- Runway 14-32
  - Two existing conditions
  - Does current length meet existing/future demand?
- Crosswind runway viability
  - Are both needed?
  - Are both eligible?
- Runway 14-32 / 13-31 alignment
  - Does the close alignment cause pilot confusion?



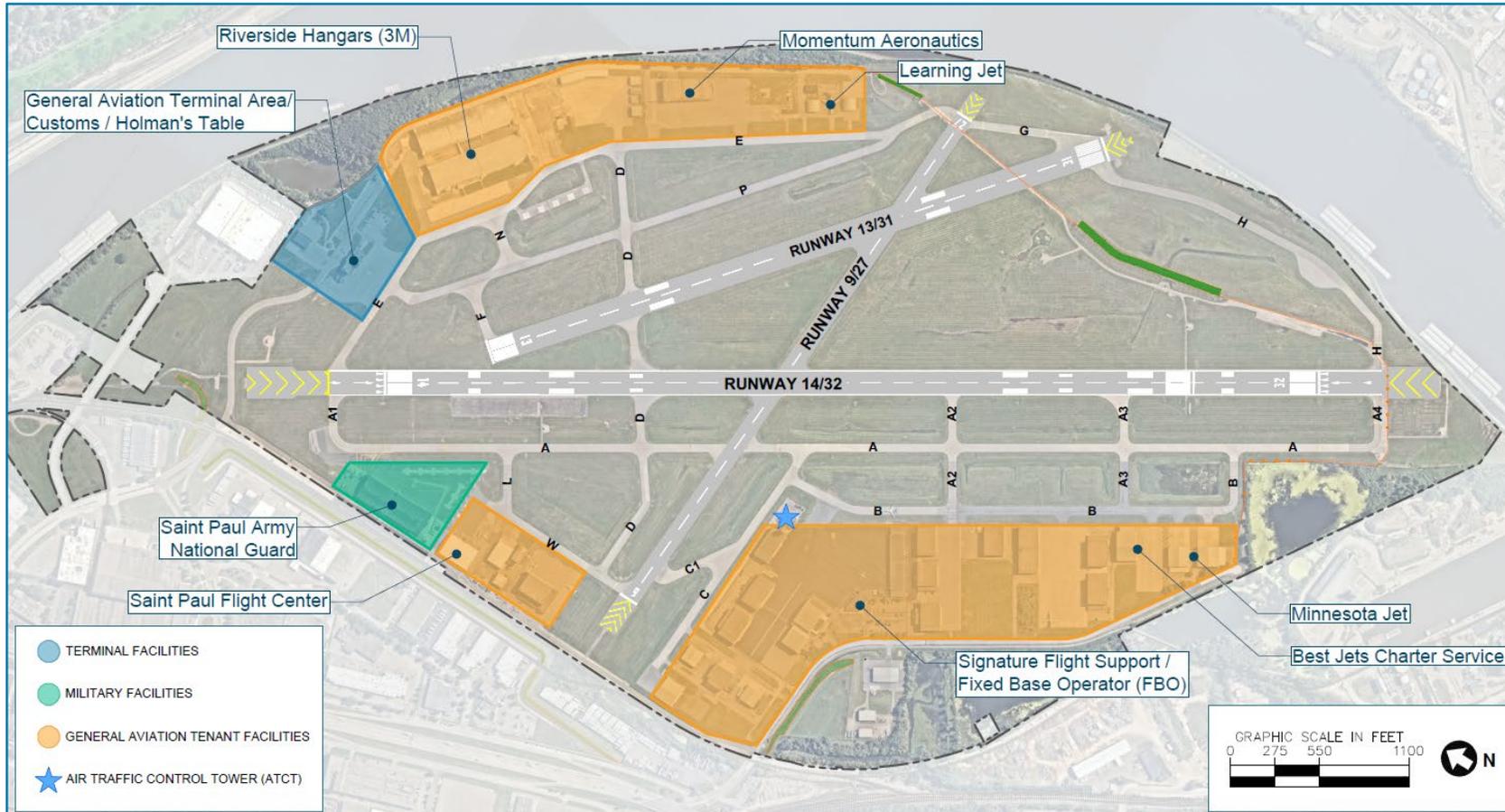
# FACILITY REQUIREMENTS



## FA #2: Taxiways

- Does the current layout meet standards?
- Can the efficiency of aircraft movements be improved?

# FACILITY REQUIREMENTS

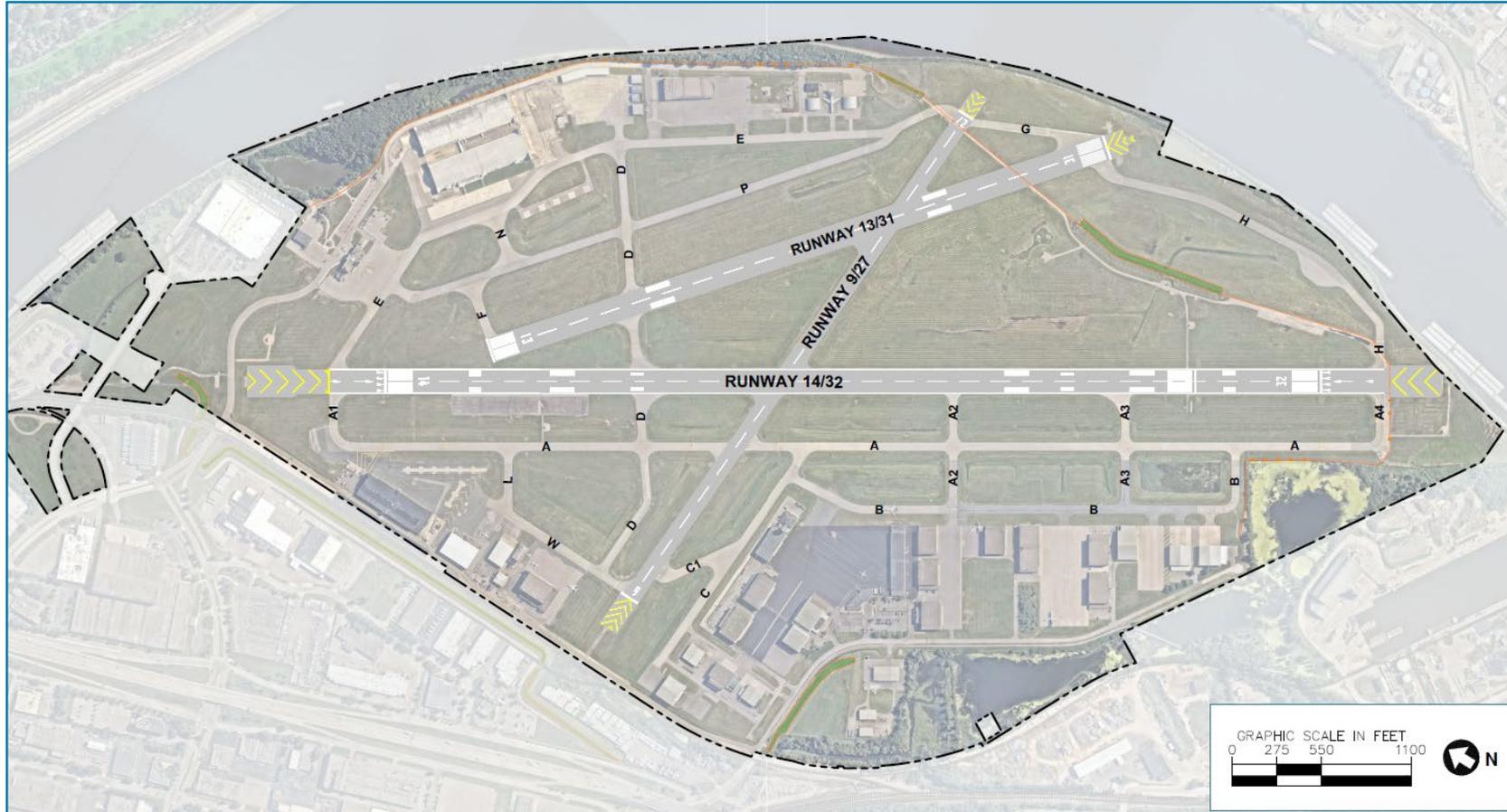


## FA #3: Tenant Needs

- Apron space / availability and transient aircraft parking requirements
- Based aircraft or future based aircraft hangar needs



# FACILITY REQUIREMENTS



## FA #4: Advanced Air Mobility

- Define needs
- Understand environment
- Barriers to entry
- Highest and best use of land



# ST. PAUL DOWNTOWN AIRPORT

Long-Term Plan 2045

## Polling Question #6

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Mentimeter  
Poll

**What specific needs or gaps should be prioritized at STP to better serve its users?**





# AGENDA



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**Next Steps**





# NEXT STEPS

## LTP Development



- Inventory of Existing Conditions: *complete*
- Forecasts: *in development*
- Facility Requirements
- Alternatives Analysis
- ALP Development

## Stakeholder Engagement



- **Discover STP #1: June 23, 2025**
- SAP and Discover STP Meetings: *Aug./Sept. 2025*
- SAP and Discover STP Meetings: *Jan./Feb. 2026*

# ST. PAUL DOWNTOWN AIRPORT

Long-Term Plan 2045

## QUESTIONS / COMMENTS

Please send additional questions and comments to:  
[eric.gilles@mspm.org](mailto:eric.gilles@mspm.org) | MAC Project Manager



**ST. PAUL  
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**THANK YOU!**

