

Southwest Wyoming  
Regional Airport



# Master Plan Study Committee Meeting

November 2, 2023

# Flight Plan

- ➔ Project status update
- ➔ Review of facility requirements
- ➔ Preliminary alternatives
- ➔ Next steps
- ➔ Schedule
- ➔ Questions

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		(FAA USE ONLY) <input type="checkbox"/> PILOT BRIEFING <input type="checkbox"/> VNR		TIME STARTED	SPECIALIST INITIALS	
<b>FLIGHT PLAN</b>						
1. TYPE	2. AIRCRAFT IDENTIFICATION	3. AIRCRAFT TYPE/SPECIAL EQUIPMENT	4. TRUE AIRSPEED	5. DEPARTURE POINT	6. DEPARTURE TIME	7. CRUISING ALTITUDE
VFR					PROPOSED (Z)	ACTUAL (Z)
IFR						
DVFR			KTS			
<b>8. ROUTE OF FLIGHT</b>						
9. DESTINATION (Name of airport and city)		10. EST. TIME ENROUTE		11. REMARKS		
		HOURS	MINUTES			
12. FUEL ON BOARD		13. ALTERNATE AIRPORT(S)		14. PILOT'S NAME, ADDRESS & TELEPHONE NUMBER & AIRCRAFT HOME BASE		15. NUMBER ABOARD
HOURS	MINUTES			17. DESTINATION CONTACT/TELEPHONE (OPTIONAL)		
16. COLOR OF AIRCRAFT		<small>CIVIL AIRCRAFT PILOTS, FAR 91 requires you file an IFR flight plan to operate under instrument flight rules in controlled airspace. Failure to file could result in a civil penalty not to exceed \$1,000 for each violation (Section 901 of the Federal Aviation Act of 1958, as amended). Filing of a VFR flight plan is recommended as a good operating practice. See also Part 99 for requirements concerning DVFR flight plans.</small>				
<small>FAA Form 7233-1 (8-82) CLOSE VFR FLIGHT PLAN WITH _____ FSS ON ARRIVAL</small>						



# Project Status Update

The background features a series of overlapping, curved shapes in shades of blue and yellow. A dark blue shape starts from the bottom left and curves upwards towards the right. A lighter blue shape overlaps it from the top left. A bright yellow shape is at the bottom right, partially overlapping the dark blue shape. The overall effect is a modern, dynamic graphic design.

# Project Status Update

- ➔ Inventory – Complete
- ➔ Forecasts – Approved by FAA (September 2023)
- ➔ Facility Requirements – Complete pending committee review
- ➔ Preliminary alternatives – Complete for committee input
- ➔ Pavement evaluation study – Complete

# Facility Requirements

The background features a series of overlapping, curved geometric shapes. A large, dark blue shape starts from the bottom left and curves upwards towards the right. Below it, a lighter blue shape follows a similar path. In the bottom right corner, a yellow shape is partially visible, overlapping the blue shapes.

# Wind Coverage Evaluation

## FAA CROSSWIND STANDARDS

Runway Design Code	Allowable Crosswind Component
A-I and B-I (includes small aircraft)	10.5 knots
A-II and B-II	13 knots
A-III, B-III, C-I through C-III, and D-I through D-III	16 knots
A-IV, B-IV, C-IV, and D-IV through D-IV	20 knots

Source: FAA AC 150/1300-13B, Airport Design, March 2022

## RKS ALL WEATHER WIND COVERAGE

Runway Designation	20-Knot Crosswind Component	16-Knot Crosswind Component	13-Knot Crosswind Component	10.5 Knot Crosswind Component
Runway 3/21	99.00%	96.19%	91.23%	85.17%
Runway 9/27	98.58%	96.3%	91.9%	84.76%
Combined	99.94%	99.66%	98.82%	96.67%

Source: FAA Airport Data and Information Portal, ASOS

- ➔ Runway 3/21 justified for providing wind coverage for smaller aircraft (B-II)
- ➔ Runway 3/21 not intended for use by commercial airline operations

# Design Standards – Airport Reference Code

## AIRCRAFT APPROACH CATEGORY

Category	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: AC 150/5300-13B, Airport Design

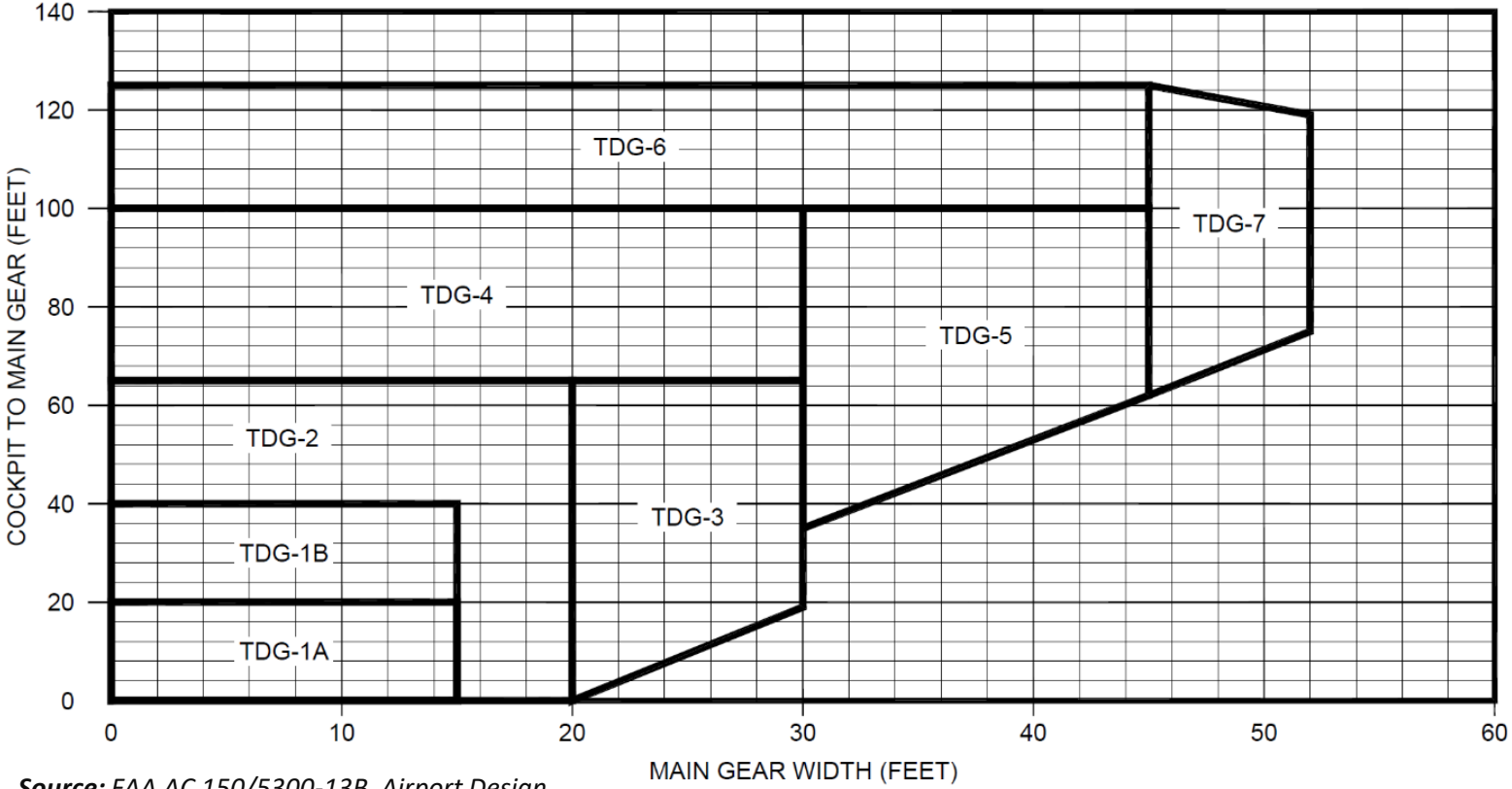
## AIRPLANE DESIGN GROUP

Group #	Tail Height (feet)	Wingspan (feet)
I	Less than 20'	Less than 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: AC 150/5300-13B, Airport Design



# Design Standards – Taxiway Design Group



Source: FAA AC 150/5300-13B, Airport Design



# ✈ Aircraft types operating at RKS

Existing / Future Rwy 3/21 Critical Aircraft

Existing Rwy 9/27 Critical Aircraft

Future Rwy 9/27 Critical Aircraft



**RDC A-I**  
Single-Engine Aircraft – 2 to 6 Seats  
Cessna 172, Beech Bonanza, Cirrus SR22

**RDC B-I**  
Twin-Piston Aircraft – 4 to 10 Seats  
PA 31-310 Navajo, Beech Baron 58, Cessna 414

**\*RDC B-II**  
Twin-Turboprop/Business Jet/Small Cabin Aircraft 6 to 12 Seats –  
Beach King Air 200, Pilatus PC-12

**RDC C/D-I**  
Business Jets- 6 to 12 Seats  
Lear 45, Hawker 400

**\*RDC C/D-II**  
Commercial/Business Jet – 6 to 70 Seats  
Bombardier CRJ-200, Embraer ERJ-145

**\*\*RDC C/D-III**  
Large Commercial/Businessjet – 14 to 177 Seats  
Embraer 175  
Bombardier BD-700 Global Express, Gulfstream G800



# Runway 9/27

## ✈ Length

- ▶ Recommended Length – 9,994 feet (existing 10,000 feet)

## ✈ Width

- ▶ Width for ARC C-II & C-III – 100 feet (existing 150 feet)

## ✈ Runway Safety Area

- ▶ Perimeter access roads located in RSA at either end of runway

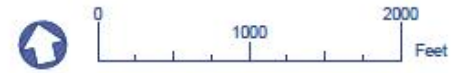
## ✈ Runway Object Free Area

- ▶ Perimeter fence & Airport Road / County Route 10 located in OFA (approach end Runway 9)

## ✈ Blast pads & paved shoulders

- ▶ Needed to meet ADG III standards (none currently)

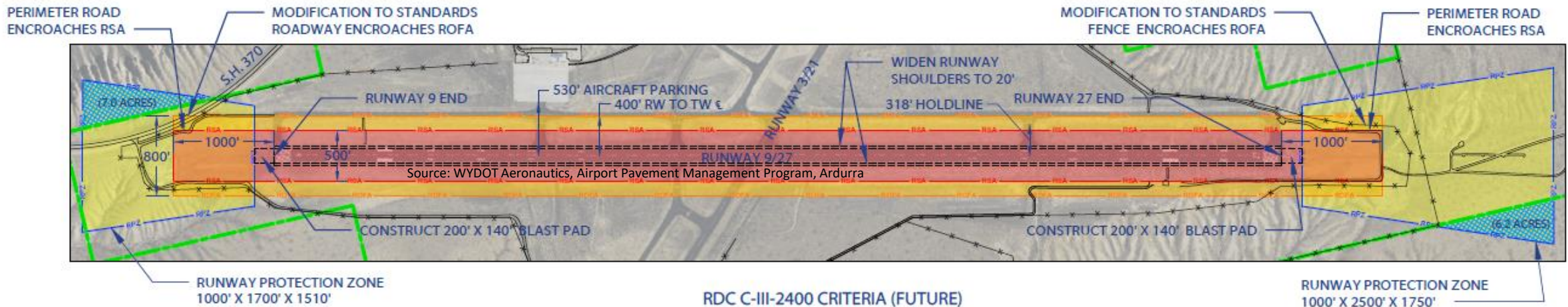
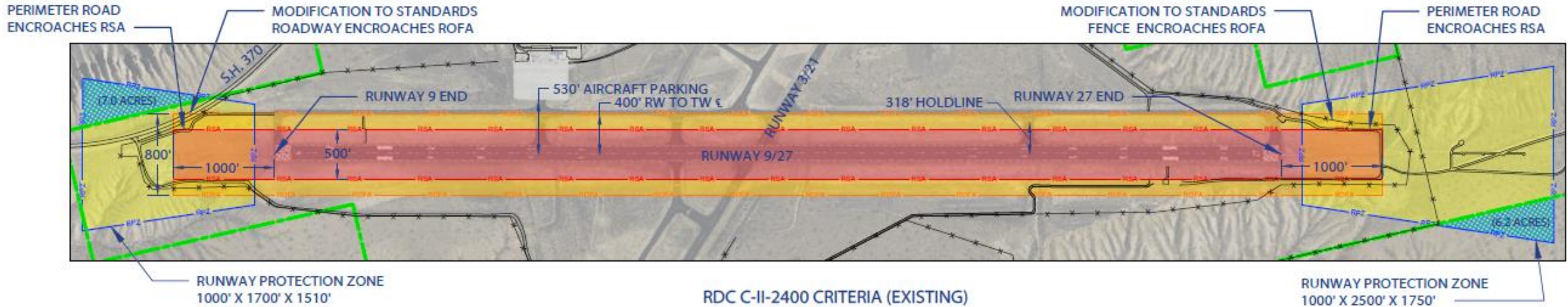
# ✈ Runway 9/27 Dimensional Criteria



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**LEGEND**

- RUNWAY PROTECTION ZONE
- RUNWAY SAFETY AREA
- RUNWAY OBJECT FREE AREA
- FUTURE AIRFIELD PAVEMENT
- UNOWNED RPZ
- AIRPORT PROPERTY
- AIRPORT FENCING
- PERIMETER ROAD

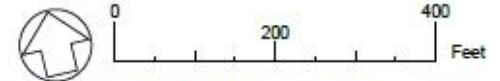


Source: WYDOT Aeronautics, Airport Pavement Management Program, Ardurra



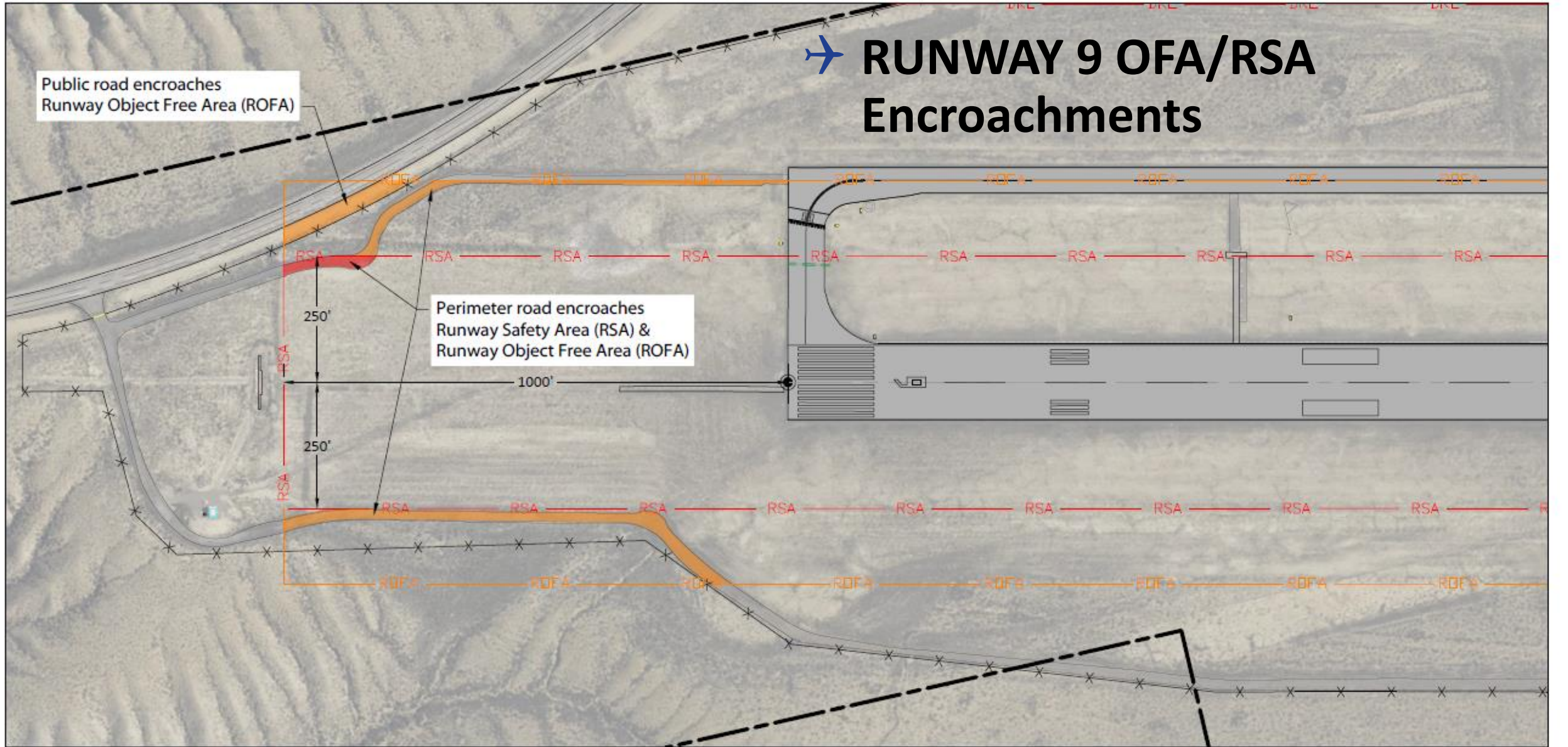
**LEGEND**

- EXISTING FENCE
- AIRPORT PROPERTY
- RSA RUNWAY SAFETY AREA (RSA)
- ROFA RUNWAY OBJECT FREE AREA (ROFA)
- BRL BUILDING RESTRICTION LINE (FROM ALP)



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# ✈️ RUNWAY 9 OFA/RSA Encroachments



Public road encroaches Runway Object Free Area (ROFA)

Perimeter road encroaches Runway Safety Area (RSA) & Runway Object Free Area (ROFA)

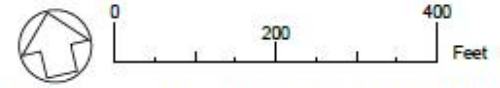
250'  
250'

1000'



**LEGEND**

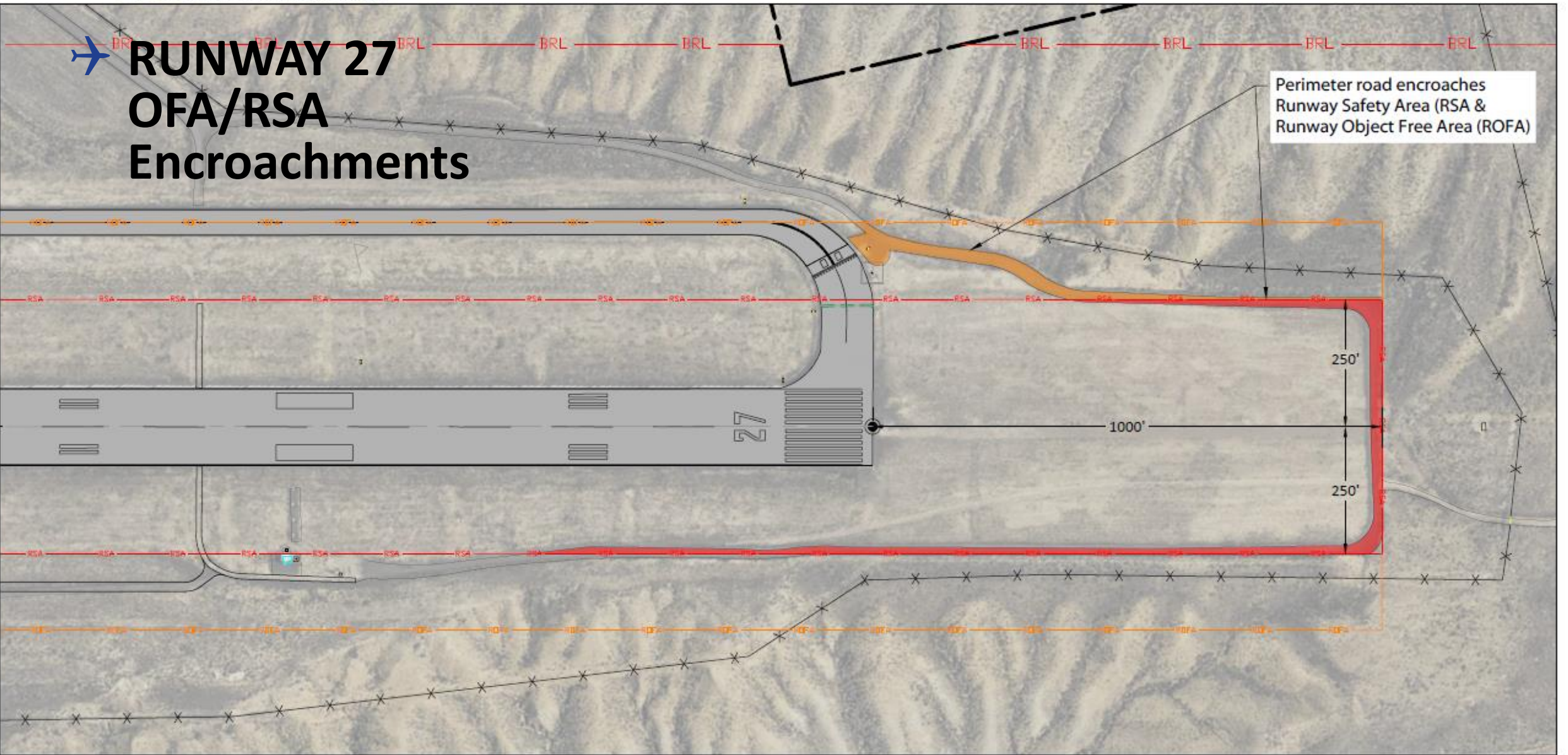
- X — EXISTING FENCE
- AIRPORT PROPERTY
- RSA — RUNWAY SAFETY AREA (RSA)
- ROFA — RUNWAY OBJECT FREE AREA (ROFA)
- BRL — BUILDING RESTRICTION LINE (FROM ALP)



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# RUNWAY 27 OFA/RSA Encroachments

Perimeter road encroaches Runway Safety Area (RSA & Runway Object Free Area (ROFA))



# Runway 3/21

## → Length

- ▶ Recommended Length – 8,200 feet (existing 5,228 feet)
  - Geographical constraints limit ability to extend runway

## → Width

- ▶ Width for ARC B-II – 75 feet (existing 75 feet)

## → Runway Safety Area

- ▶ Perimeter access roads located in RSA at either end of runway








## → Runway Object Free Area

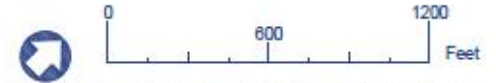
- ▶ Perimeter fence & road located in OFA at approach end Runway 21



# ✈ Runway 3/21 Dimensional Criteria

## LEGEND

-  RUNWAY PROTECTION ZONE
-  RUNWAY SAFETY AREA
-  RUNWAY OBJECT FREE AREA
-  UNOWNED RPZ
-  AIRPORT PROPERTY
-  AIRPORT FENCING
-  PERIMETER ROAD

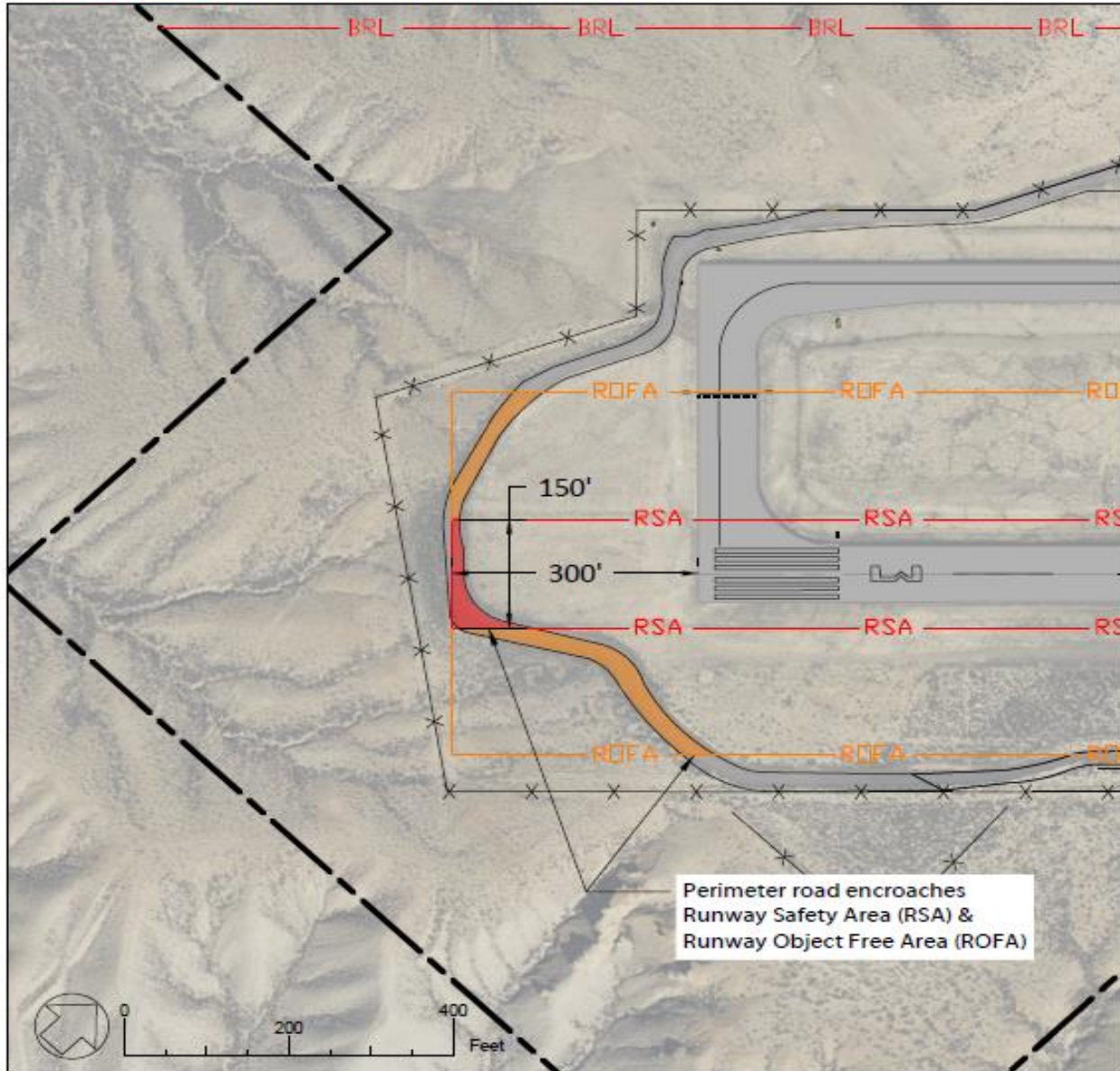


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**LEGEND**

-  EXISTING FENCE
-  AIRPORT PROPERTY
-  RUNWAY OBJECT FREE AREA (ROFA)
-  RUNWAY SAFETY AREA
-  BUILDING RESTRICTION LINE (FROM ALP)

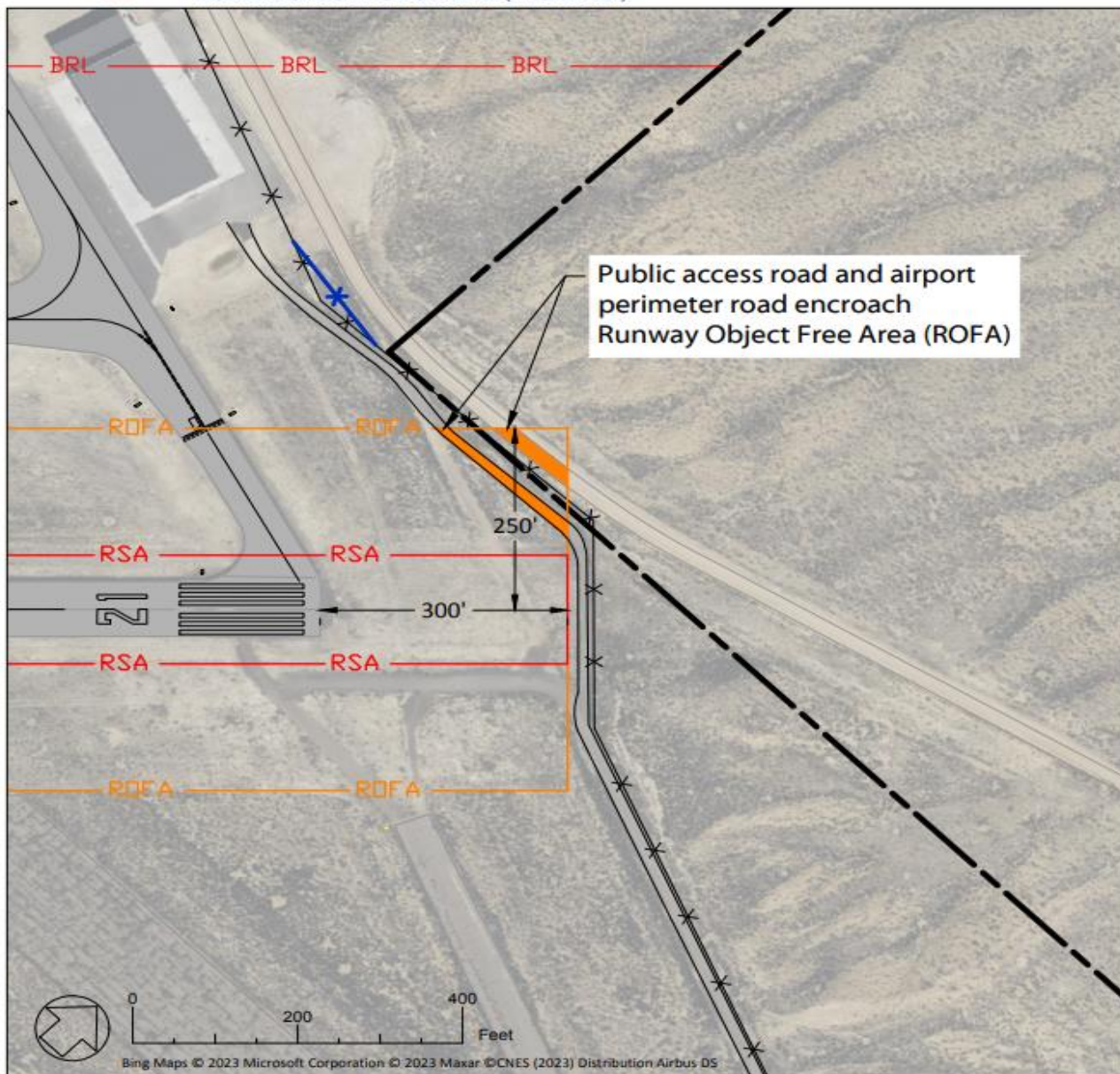


✈️ **RUNWAY 3 OFA/RSA Encroachments**



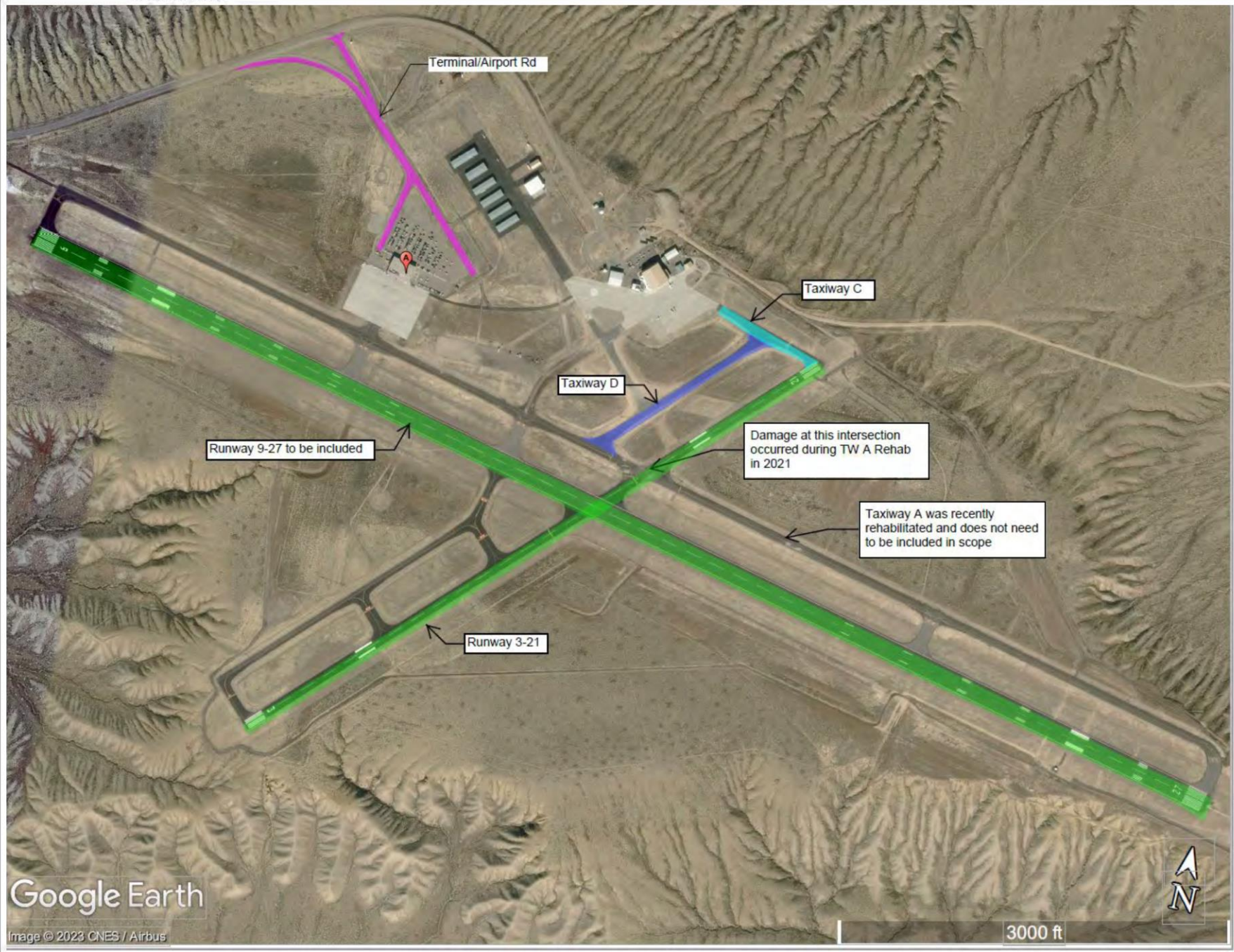
LEGEND

- EXISTING FENCE
- AIRPORT PROPERTY
- ROFA RUNWAY OBJECT FREE AREA (ROFA)
- RSA RUNWAY SAFETY AREA
- BRL BUILDING RESTRICTION LINE (FROM ALP)



✈️ RUNWAY 21  
OFA/RSA  
Encroachments





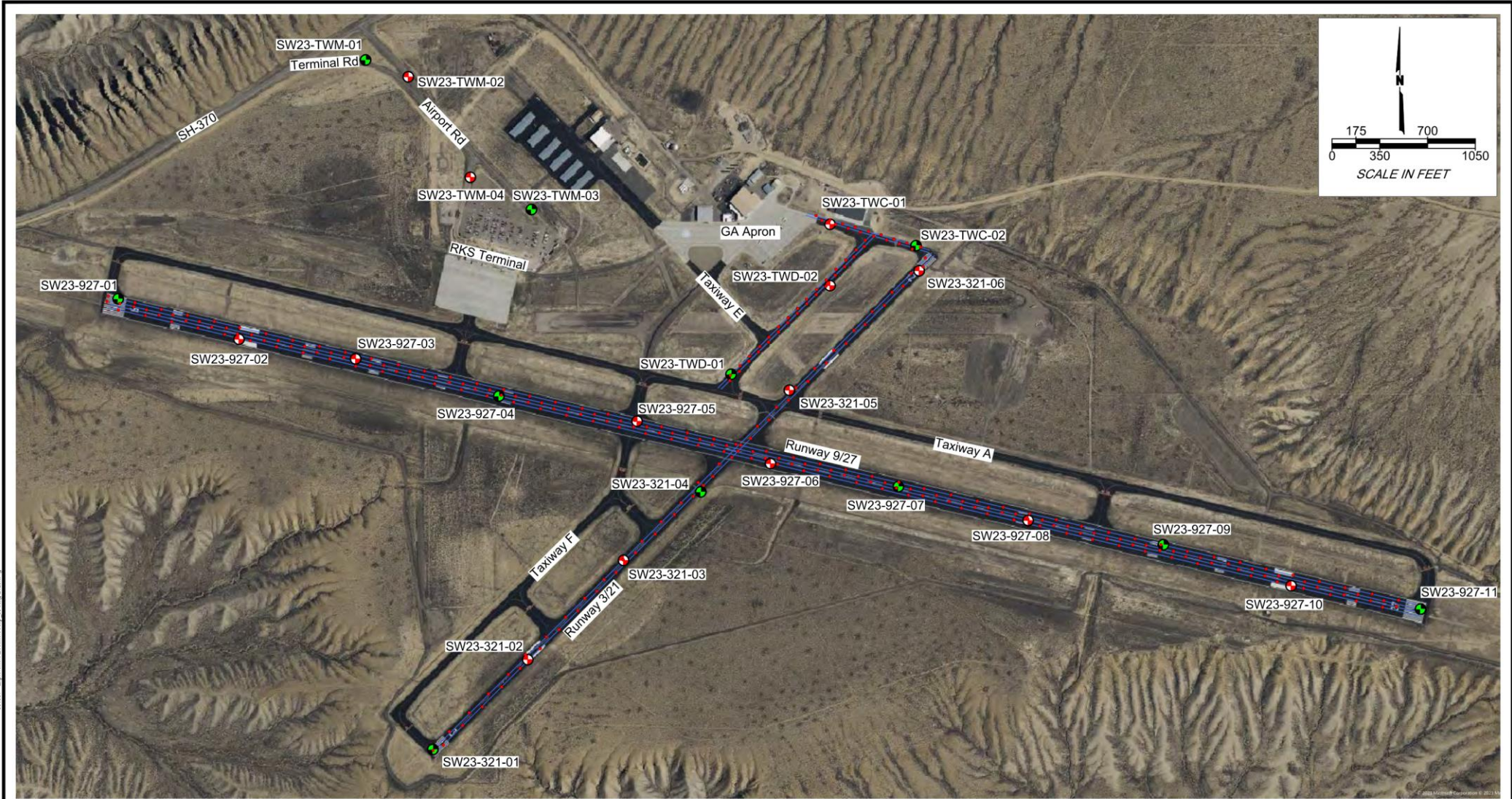
Prep: JS  
QC: SY

RKS Master Plan  
SW Wyoming Regional Airport  
Sweetwater County, Wyoming

### Airfield Site Map

August 17, 2023 71-110339





110339 - Exploration Location Map - 15-AUG-2023.dwg

8/16/2023 12:29:44

QC: JS

**LEGEND**

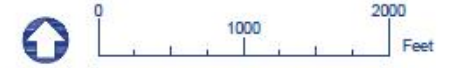
- B-1** Boring Designation and Location
- B-1** Boring with Dynamic Cone Penetrometer (DCP) Test Designation and Location
- FWD Test Location
- GPR Scan Lines

RKS Master Plan SW WY Regional Airport Sweetwater County, Wyoming	
<b>EXPLORATION LOCATION MAP</b>	
August 17, 2023	71-110339
SHANNON & WILSON	<b>Fig. 3</b>

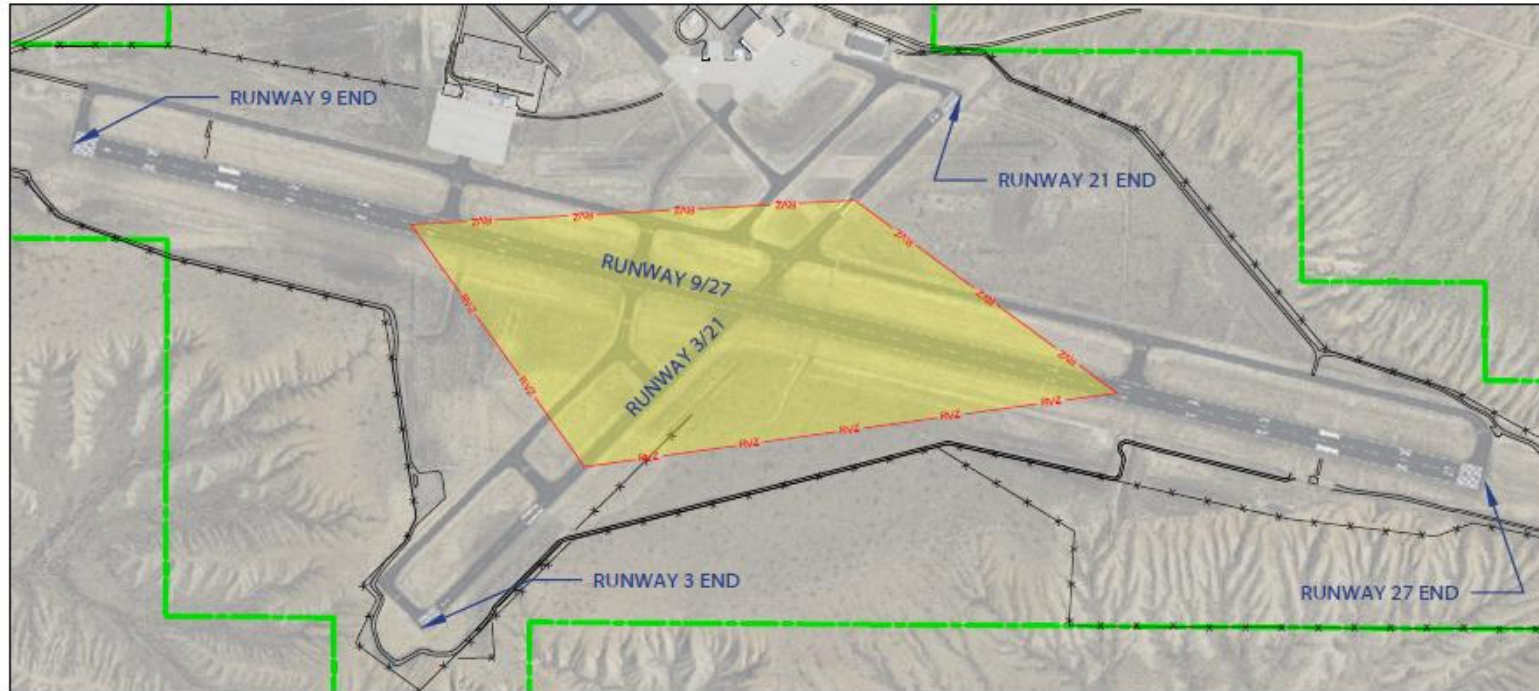


### LEGEND

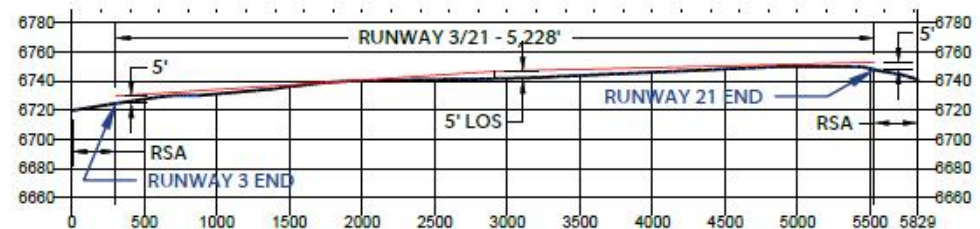
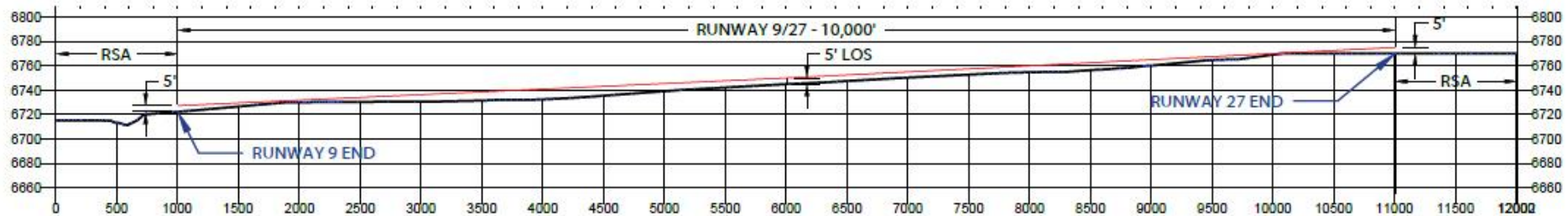
-  RUNWAY VISIBILITY ZONE
-  AIRPORT PROPERTY
-  AIRPORT FENCING



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# ✈ Runway Visibility Zone and Line of Sight



# Taxiway System

- **Pavement condition improvements**
  - ▶ Twy C & Twy D
- **Taxiway intersection geometry**
  - ▶ Twy C & Rwy 3/21
- **Direct apron/runway access**
  - ▶ Twy A2 & Twy C

# Navigational Aids (NAVAIDs)

- ➔ No improvements needed to existing visual & electronic NAVAIDs to meet future demand
- ➔ Incorporation of future GPS-based instrument approaches may dictate NAVAID changes

# Aprons

➔ Additional apron space needed to support aircraft parking



# Hangars

- ➔ **Additional large box-style & small hangars needed**
  - ▶ Additional large FBO hangar to support itinerant aircraft activity
  - ▶ Large box hangars for future based corporate turboprop & jet aircraft
  - ▶ Small hangars to support based single- and multi-piston aircraft



# Aircraft Rescue & Fire Fighting

- Alteration / expansion of existing facility may be needed to support larger next generation ARFF vehicles when purchased

# Aeronautical / Non-Aeronautical Development

- ➔ Preservation of space recommended to support additional aeronautical & non-aeronautical development opportunities

# Sustainability Considerations

## → Water

- ▶ Future development is limited due to water storage capacity
- ▶ Consider installing a pressurized sewer system and a direct water line

## → Direct Air Capture and Storage (DACs)

- ▶ RKS land meets the Class VI well criteria for CO<sub>2</sub> sequestration
- ▶ Ideal candidate for deploying DACs on-site, potential financial benefit by gaining a position in the Carbon Markets

## → Solar Farm

- ▶ Consider recommendations from recent Solar Feasibility Study in the development of the capital improvement plan

## → Land Use

- ▶ Advertise opportunities for developments on airport property for financial sustainability
- ▶ RKS to continue to collaborate and engage with neighboring landowners

# Preliminary Alternatives

The background features a series of overlapping, curved shapes in shades of blue and yellow. A large, dark blue shape curves upwards from the bottom left towards the top right. Below it, a lighter blue shape follows a similar path. In the bottom right corner, a yellow shape is partially visible, overlapping the blue shapes.





**LEGEND**

■ ■ ■ ■ ■ FUTURE ROADWAY

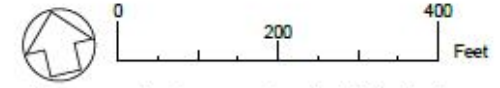
— X — EXISTING FENCE

— — — AIRPORT PROPERTY

— RSA — RUNWAY SAFETY AREA (RSA)

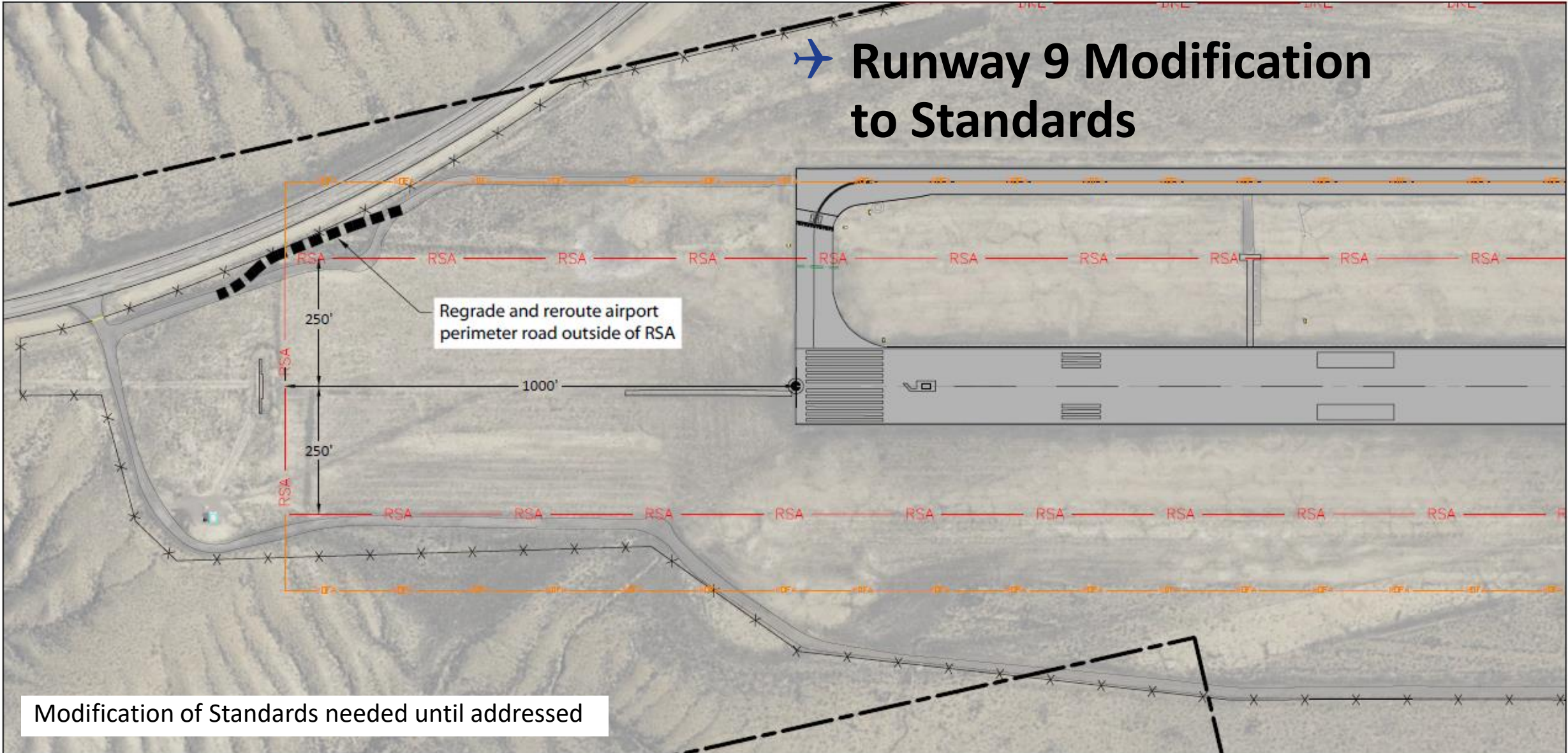
— ROFA — RUNWAY OBJECT FREE AREA (ROFA)

— BRL — BUILDING RESTRICTION LINE (FROM ALP)



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# ✈ Runway 9 Modification to Standards



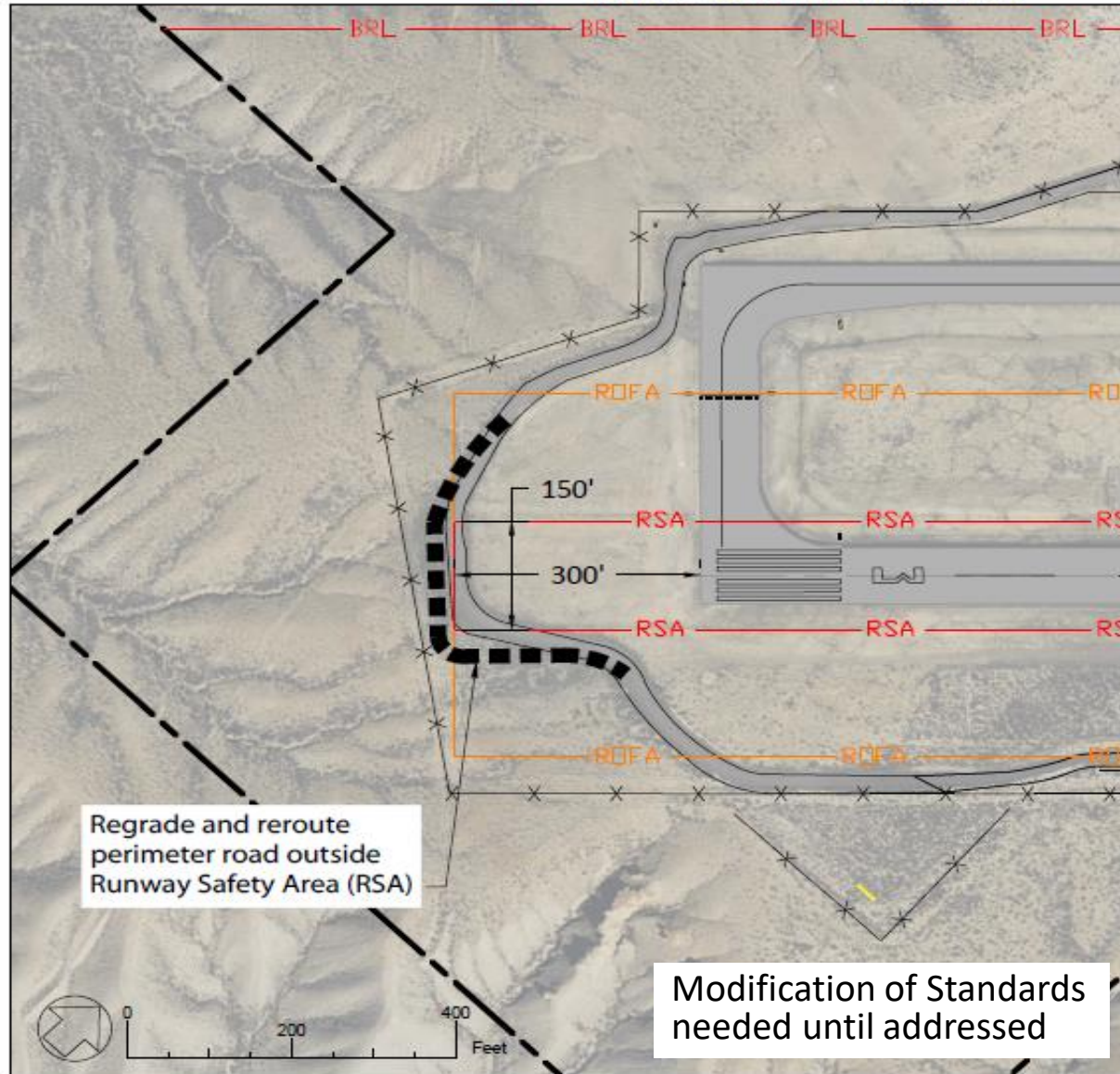
Regrade and reroute airport perimeter road outside of RSA

Modification of Standards needed until addressed



**LEGEND**

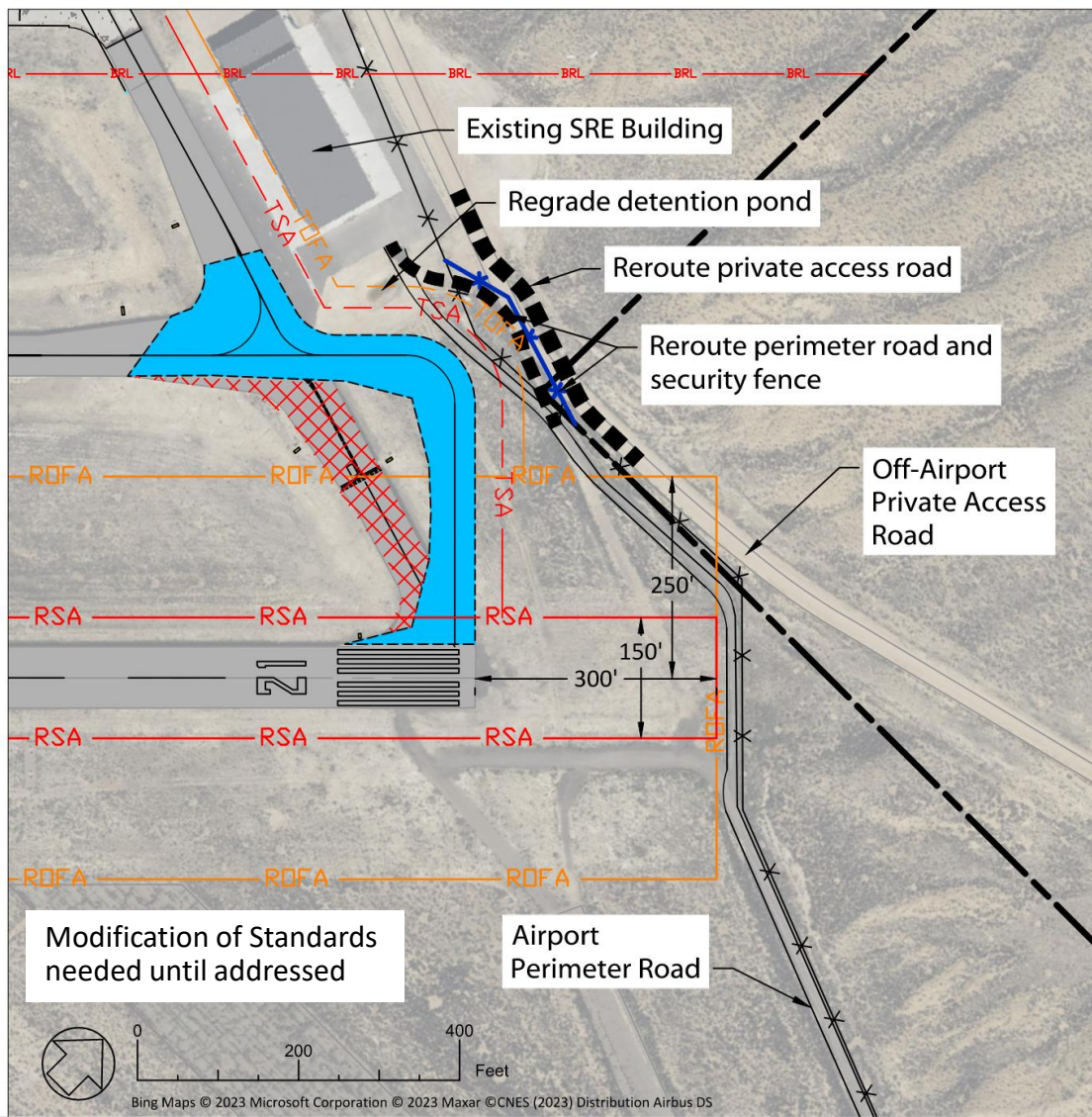
- FUTURE ROADWAY
- X — EXISTING FENCE
- — AIRPORT PROPERTY
- ROFA — RUNWAY OBJECT FREE AREA (ROFA)
- RSA — RUNWAY SAFETY AREA
- BRL — BUILDING RESTRICTION LINE (FROM ALP)



✈ Runway 3  
Modification  
to Standards

LEGEND

- FUTURE AIRFIELD PAVEMENT
- AIRFIELD PAVEMENT TO BE REMOVED
- FUTURE ROADWAY
- FUTURE FENCE
- TSA** FUTURE TAXIWAY SAFETY AREA (TSA)
- TOFA** FUTURE TAXIWAY OBJECT FREE AREA (TOFA)
- EXISTING FENCE
- AIRPORT PROPERTY
- ROFA** RUNWAY OBJECT FREE AREA (ROFA)
- RSA** RUNWAY SAFETY AREA (RSA)
- BRL** BUILDING RESTRICTION LINE (FROM ALP)



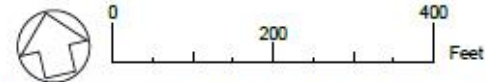
# ✈ Runway 21 Taxiway Modifications



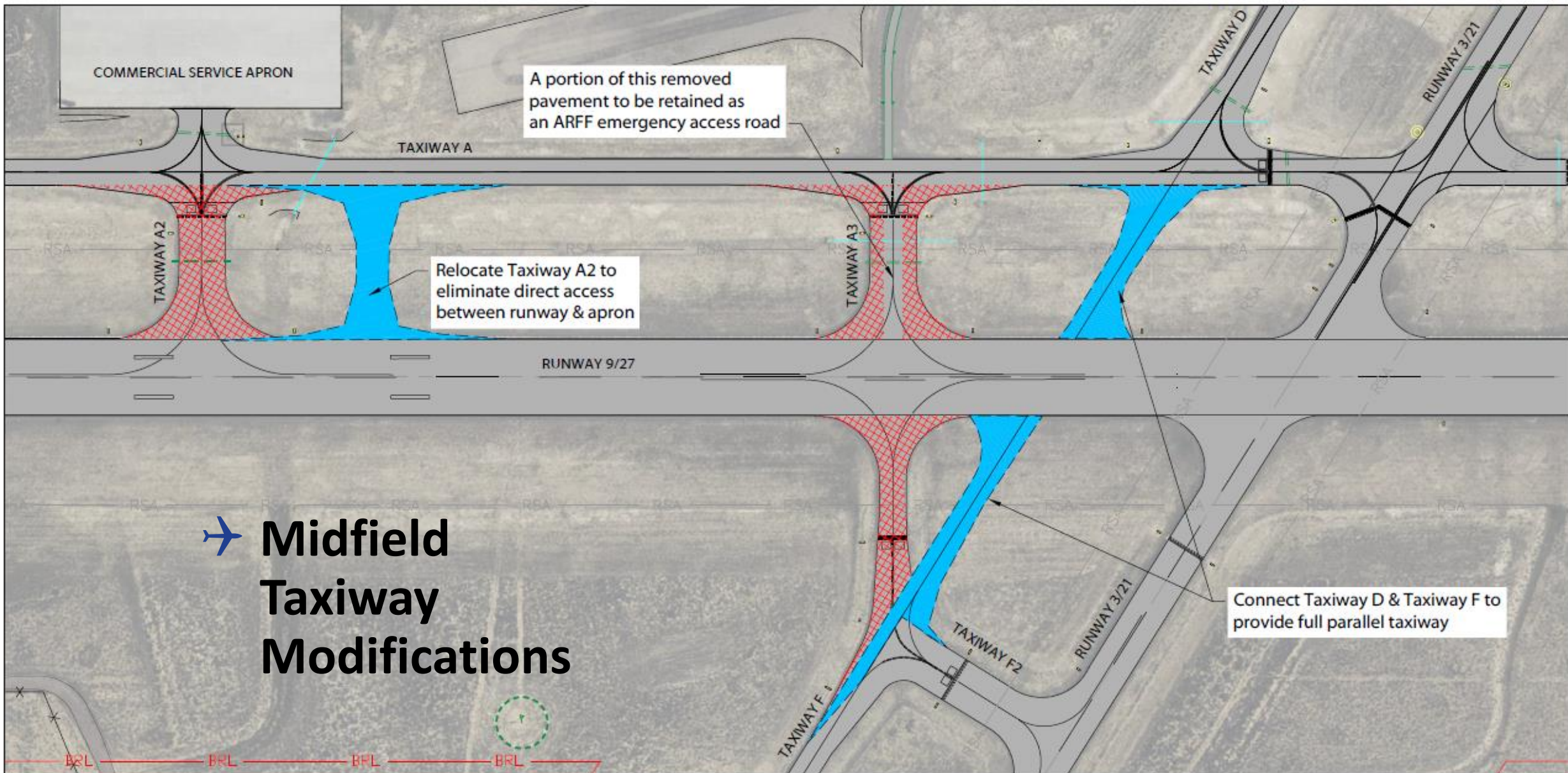
LEGEND

-  FUTURE AIRFIELD PAVEMENT
-  AIRFIELD PAVEMENT TO BE REMOVED

-  EXISTING FENCE
-  AIRPORT PROPERTY
-  BUILDING RESTRICTION LINE (FROM ALP)







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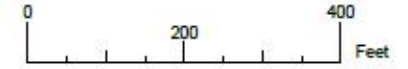
✈ **Midfield  
Taxiway  
Modifications**



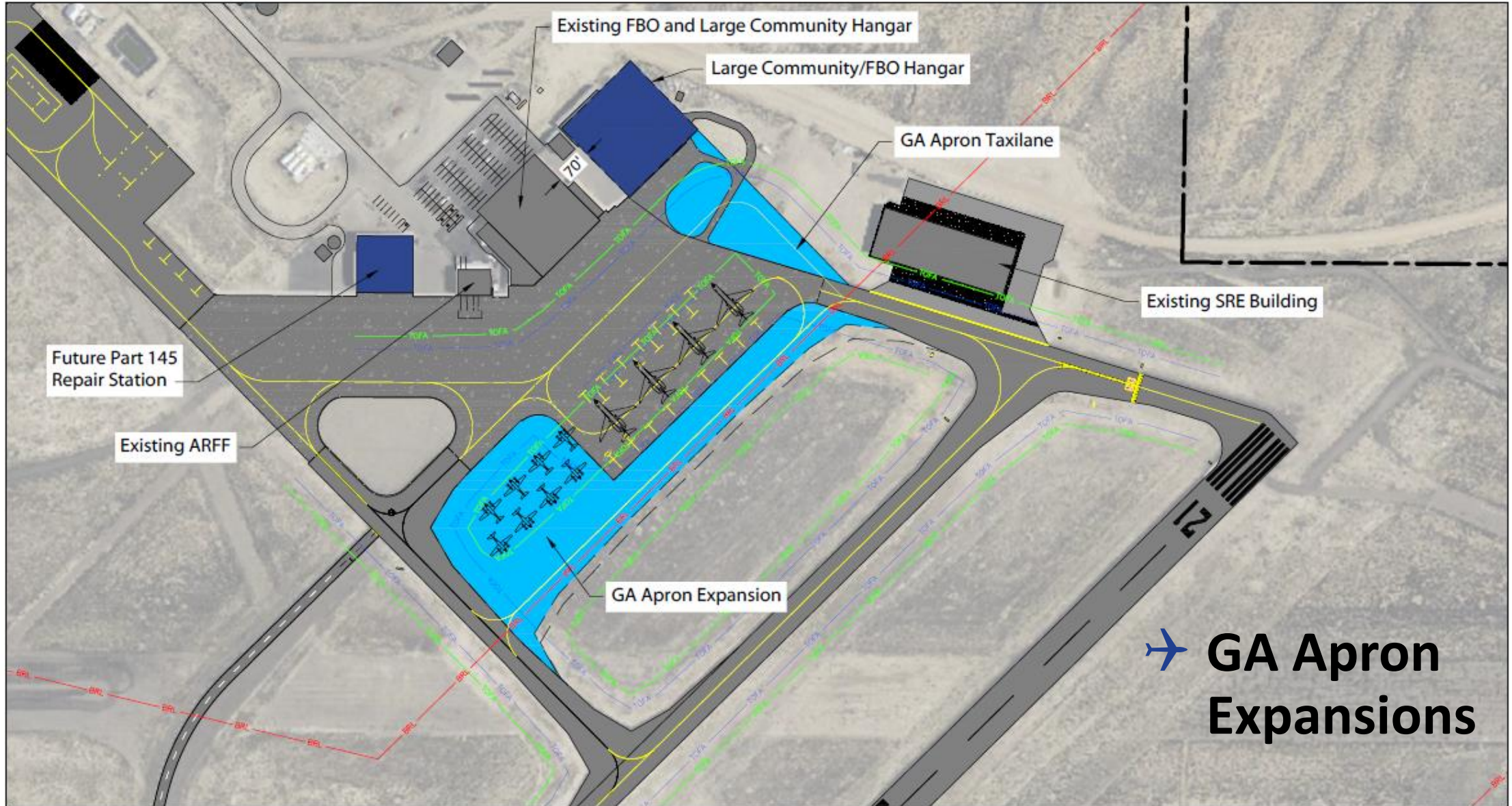
LEGEND

-  FUTURE AIRFIELD PAVEMENT
-  FUTURE BUILDINGS
-  TOFA — ADG II TAXILANE OBJECT FREE AREA
-  TOFA — ADG III TAXILANE OBJECT FREE AREA

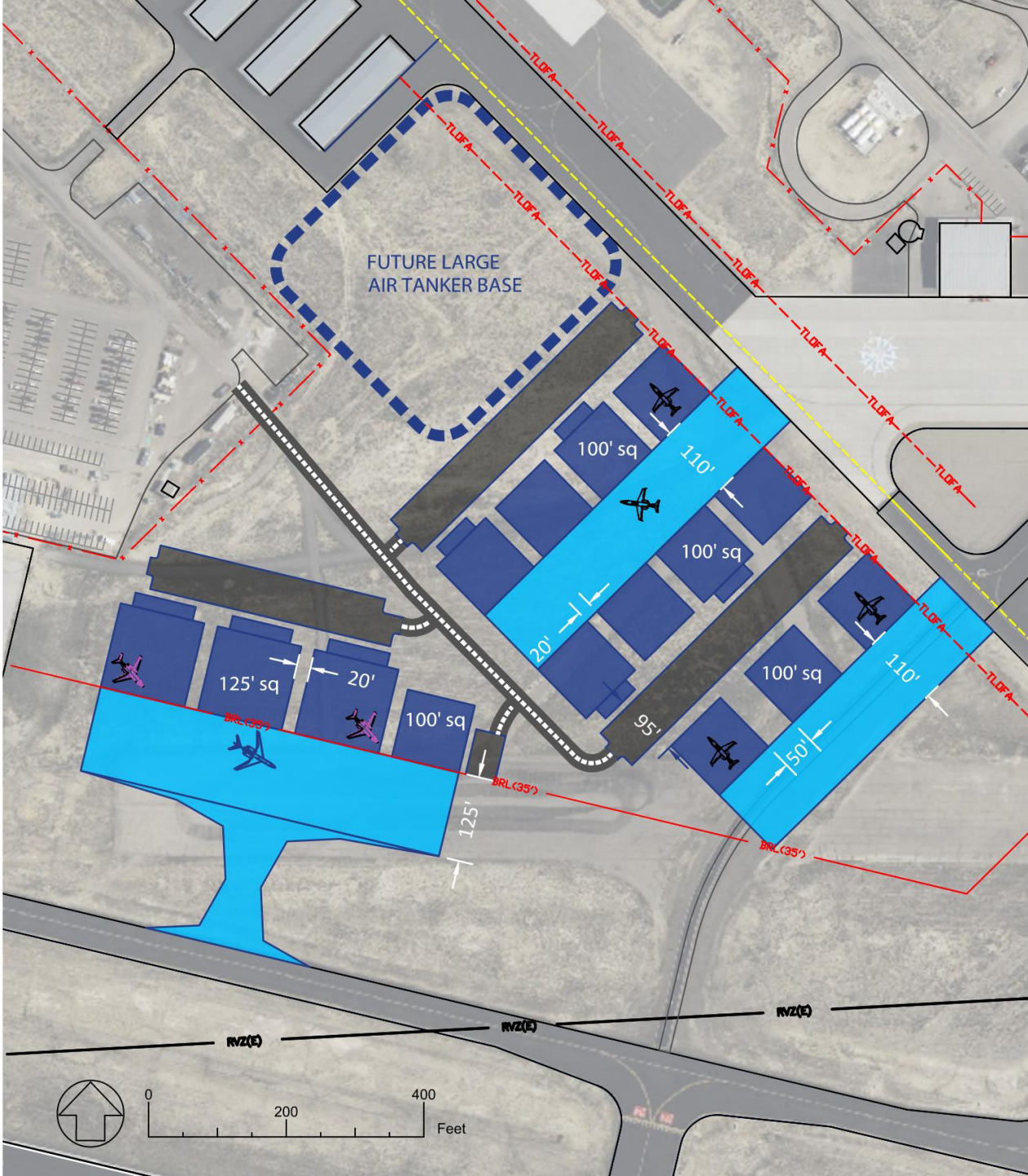
-  AIRPORT PROPERTY
-  ROFA — RUNWAY OBJECT FREE AREA
-  BRL — BUILDING RESTRICTION LINE (FROM ALP)



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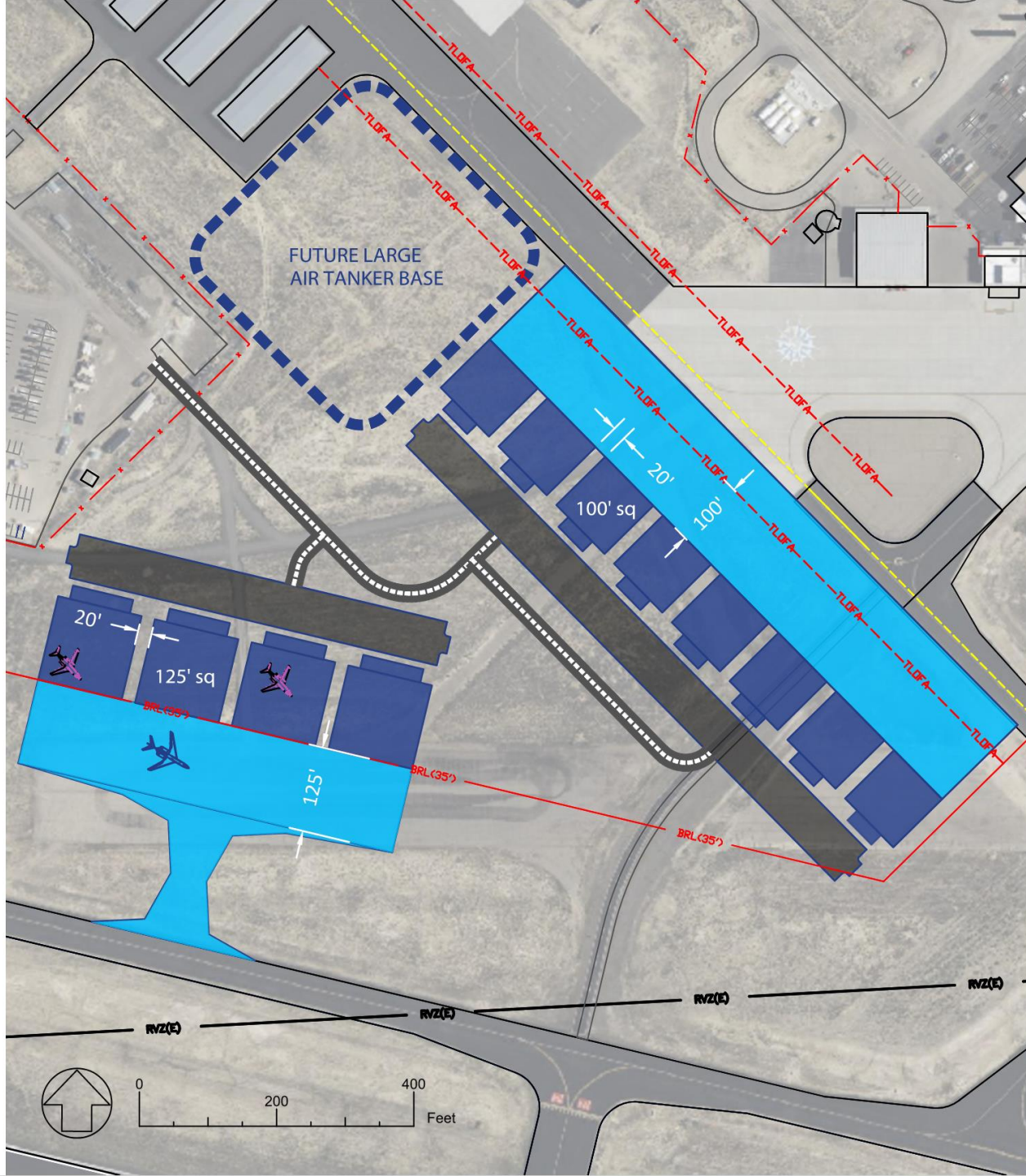




✈ Large Hangar  
Alternative  
One







✈ Large Hangar Alternative Two







✈ Small Hangar  
Alternative  
Layout



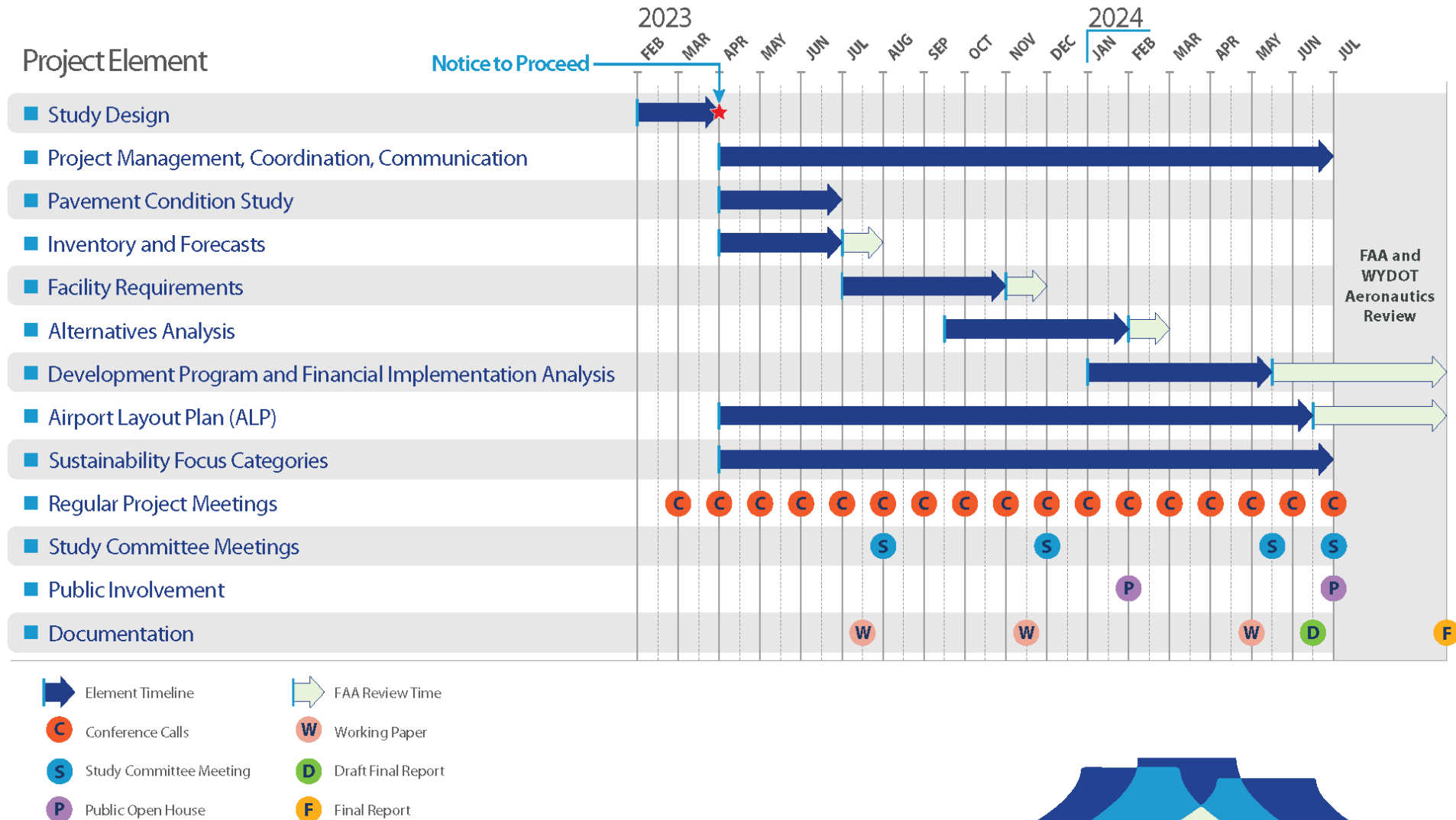
The background features a series of overlapping, curved geometric shapes. A light blue gradient shape is at the top, followed by a dark blue shape, then a medium blue shape, and finally a yellow shape at the bottom right. The text 'Next Steps' is positioned on the left side of the image.

Next Steps

# Next Steps

- **Complete alternatives evaluation**
  - ▶ Includes potential inclusion of additional alternatives
  - ▶ Identification of recommended alternatives
- **Hold public outreach event**
  - ▶ Date / event logistics to be determined
- **Develop financial implementation analysis**
- **Continue ongoing Airport Layout Plan work**
- **Next Study Committee meeting**
  - ▶ Date to be determined

# Schedule





# Questions & Comments

The background features a series of overlapping, curved geometric shapes. On the left, there is a light blue gradient. This transitions into a dark blue shape that curves upwards and to the right. Below this, there is a medium blue shape that also curves upwards and to the right. At the bottom right, there is a small yellow shape. The overall composition is clean and modern.

# Thank You!

