



Cottonwood Municipal Airport
MASTER PLAN UPDATE

Master Plan Advisory Committee
Meeting #3

AGENDA

- Team Reintroductions
- Airport Master Planning Process
- Recap: Forecasts & Facility Requirements
- Recap: Runway Alternatives
- Apron Development Alternatives
- Hangar Development Alternatives
- Project Phasing
- Next Steps

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TEAM REINTRODUCTIONS

Consultant

Kimley»Horn

Colin Wheeler – Project Manager

John Coliton – Deputy Project Manager

Airport / City of Cottonwood



Ron Corbin – Cottonwood City Manager

Rudy Rodriguez – Cottonwood Deputy City Manager

Jeffrey Cook – Contract/Purchasing Administrator

Master Planning Advisory Committee

- Tina Andres - Experimental Aircraft Association, Verde Valley Chapter
- Brenda Clouston - Owner, Colt Grill
- Scott Ellis - Community Development Director, City of Cottonwood
- Tosca Henry - Council Member, City of Cottonwood
- Tricia Lewis - Tourism & Economic Development Director, City of Cottonwood
- Jim Millis - President, Cottonwood Ranch HOA
- Jim Moeny - Chair, Cottonwood Airport Commission
- Christian Oliva del Rio - President/CEO, Cottonwood Chamber of Commerce
- Vernon Reed - Experimental Aircraft Association, Verde Valley Chapter
- Rob Sweeney - Interim Town Manager, Town of Clarkdale

RECAP: ADVISORY COMMITTEE ROLE & OBJECTIVES

- Provide local and technical expertise
- Facilitate a variety of viewpoints
- Provide individual perspectives on issues
- Review and provide comment on project deliverables



Source: Cottonwood Municipal Airport, 2020.

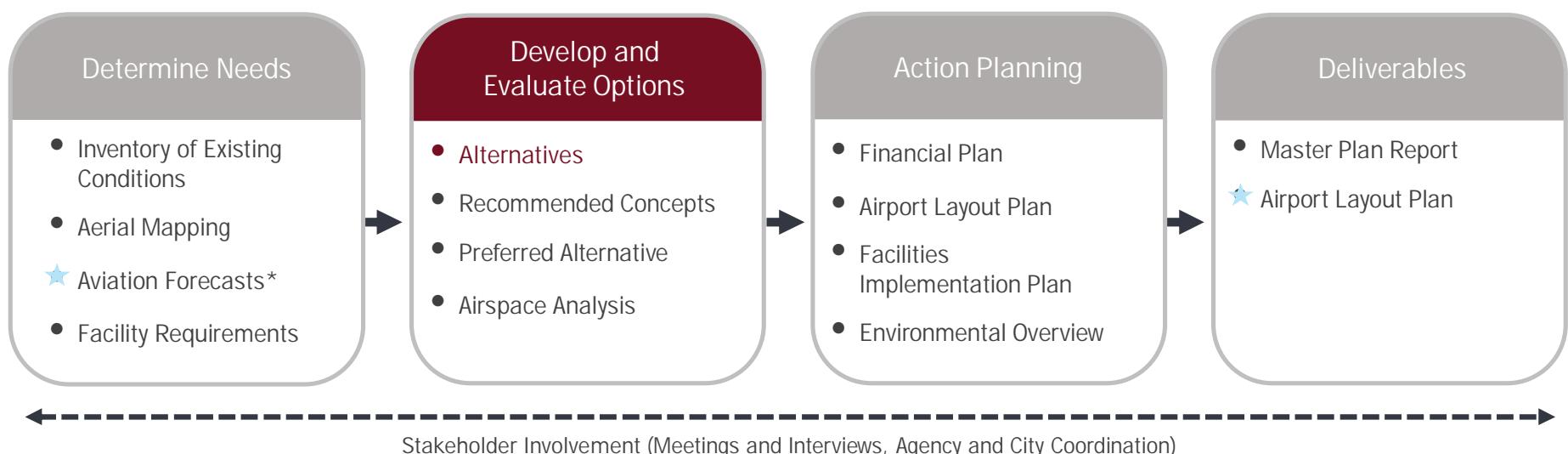
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AIRPORT MASTER PLANNING PROCESS



★ Requires FAA / ADOT Approval

* Aviation activity forecasts were submitted and approved by the FAA in December 2020.

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RECAP: AVIATION DEMAND FORECASTS

Year	Based Aircraft	GA Operations*
2019	64	18,800
2024	69	20,398
2029	75	22,132
2034	82	24,013
2039	89	26,054
AAGR 2019 - 2039	1.64%	1.64%

Sources:

FAA Terminal Area Forecast (issued January 2020).

FAA Traffic Flow Management System Counts database.

Cottonwood Municipal Airport Management.

Kimley-Horn, 2020.

Note: AAGR = Average annual growth rate.

**Based on new operations monitoring equipment (Virtower):*

- Approximately 39,900 annual aircraft operations in 2019
 - 55,300 annual operations are estimated by 2039

RECAP: CRITICAL AIRCRAFT FORECASTS

Existing

ARC:
A-I Small

Cessna Skyhawk 172



Piper Malibu Meridian



Future

ARC:
B-I Small

Cessna Citation I



Beechcraft King Air 90



Piper Cheyenne II



RECAP: FACILITY REQUIREMENTS

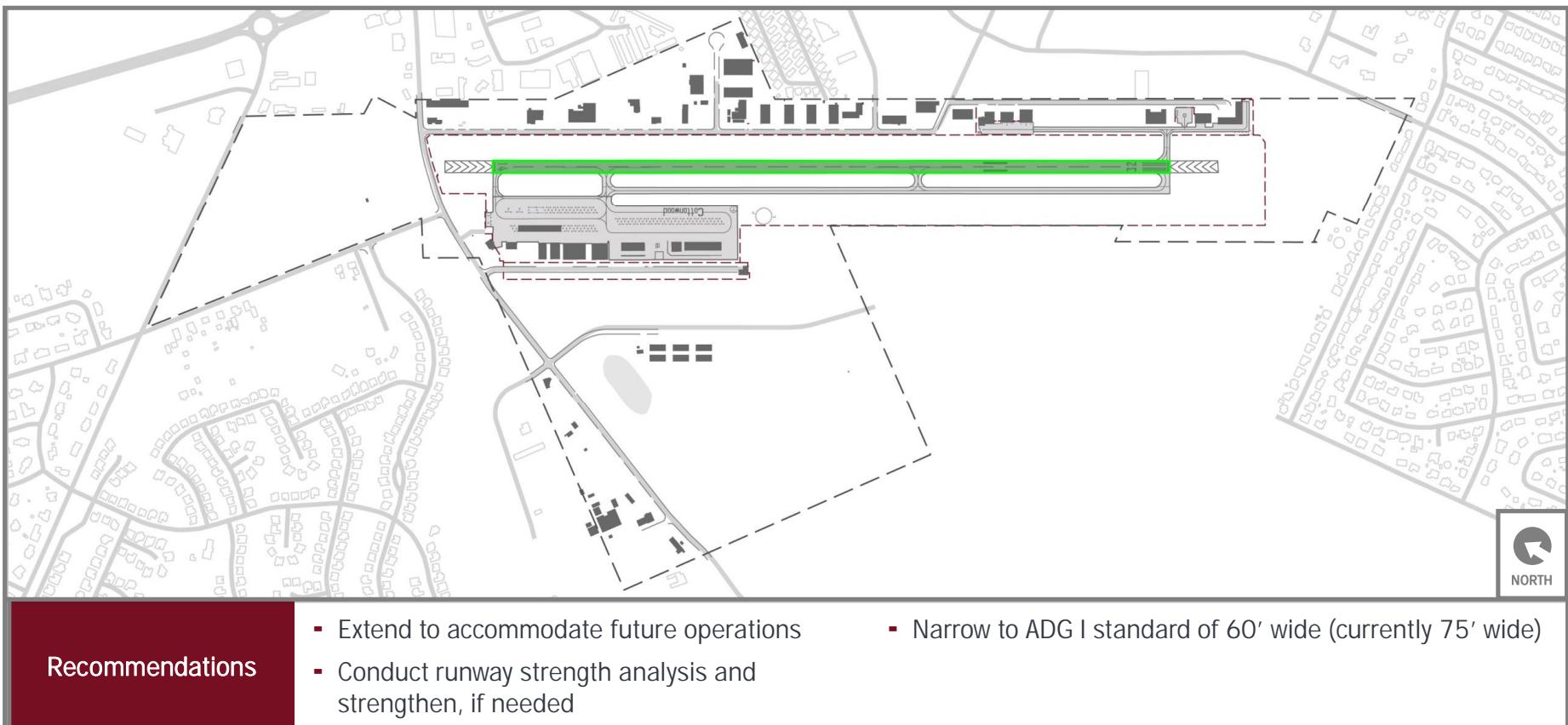
Focus Areas

- Runway length, width, and strength
- Taxiway system
- Runway, taxiway, and taxilane safety areas
- Aircraft parking apron



Source: Kimley-Horn, 2021.

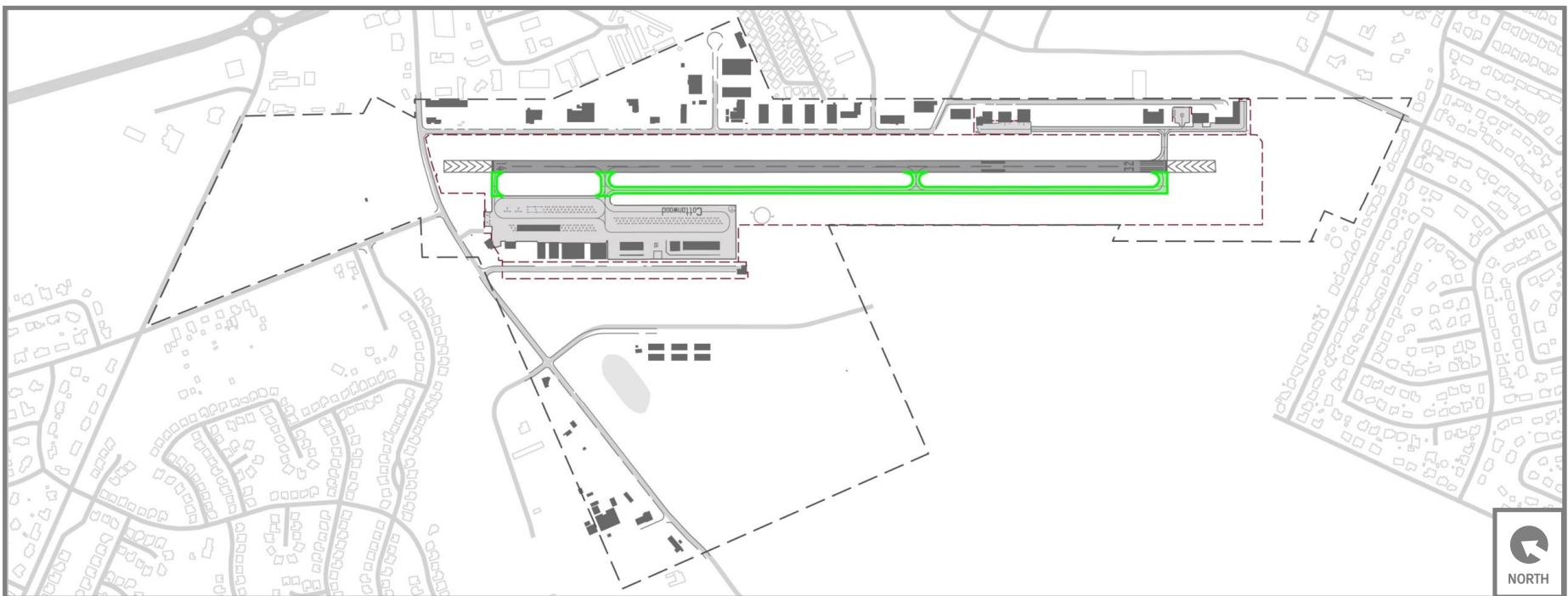
RUNWAY LENGTH, WIDTH & STRENGTH



Recommendations

- Extend to accommodate future operations
- Narrow to ADG I standard of 60' wide (currently 75' wide)
- Conduct runway strength analysis and strengthen, if needed

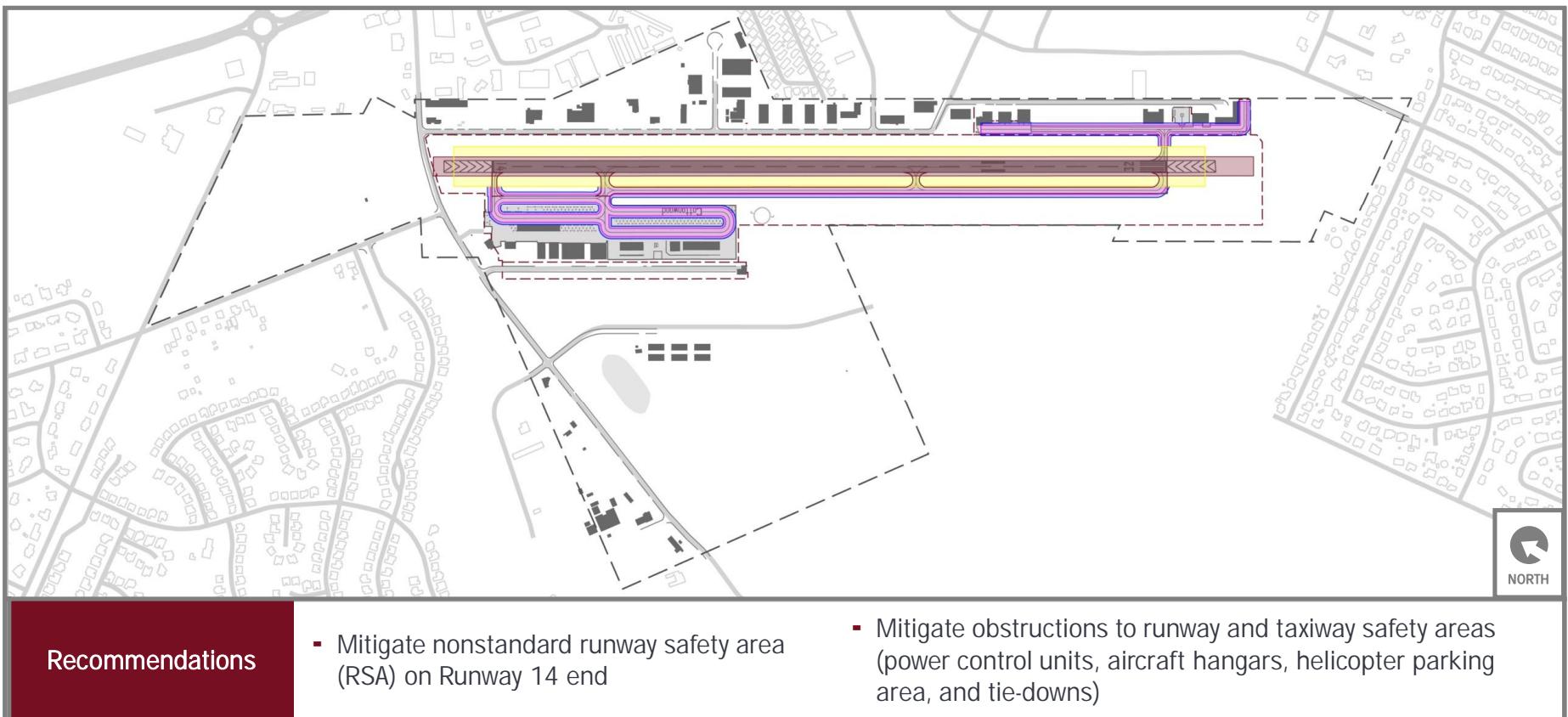
TAXIWAY SYSTEM



Recommendations

- Provide a full-length parallel taxiway (Taxiway A)
- Provide additional taxiway connectors to increase airfield efficiency
- Provide a run-up area
- Standardize taxiway geometry (width, fillets)

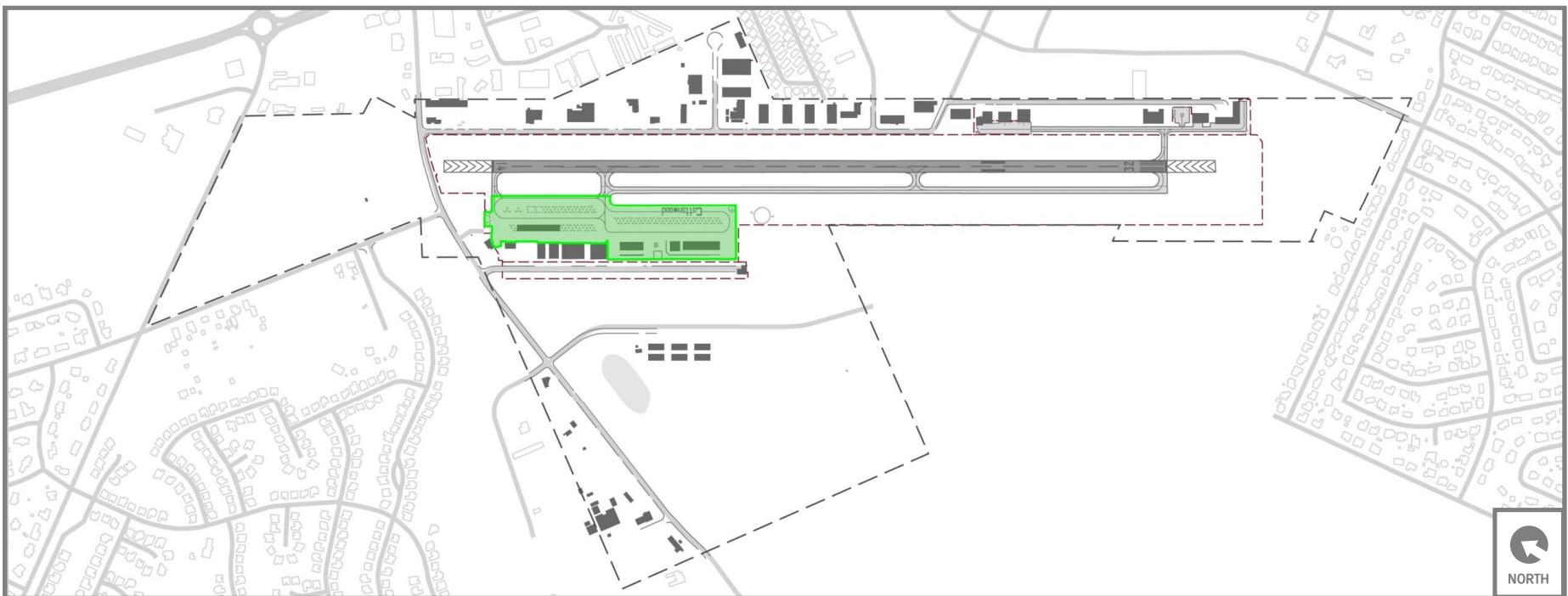
RUNWAY, TAXIWAY & TAXILANE SAFETY AREAS



Recommendations

- Mitigate nonstandard runway safety area (RSA) on Runway 14 end
- Mitigate obstructions to runway and taxiway safety areas (power control units, aircraft hangars, helicopter parking area, and tie-downs)

AIRCRAFT PARKING APRON



Recommendations

- Reconfigure to accommodate TDG II standards
- Provide additional aircraft storage space (approximately 36,000 SF)
- Relocate and standardize helicopter parking area
- Relocate T-shade
- Relocate fuel tanks

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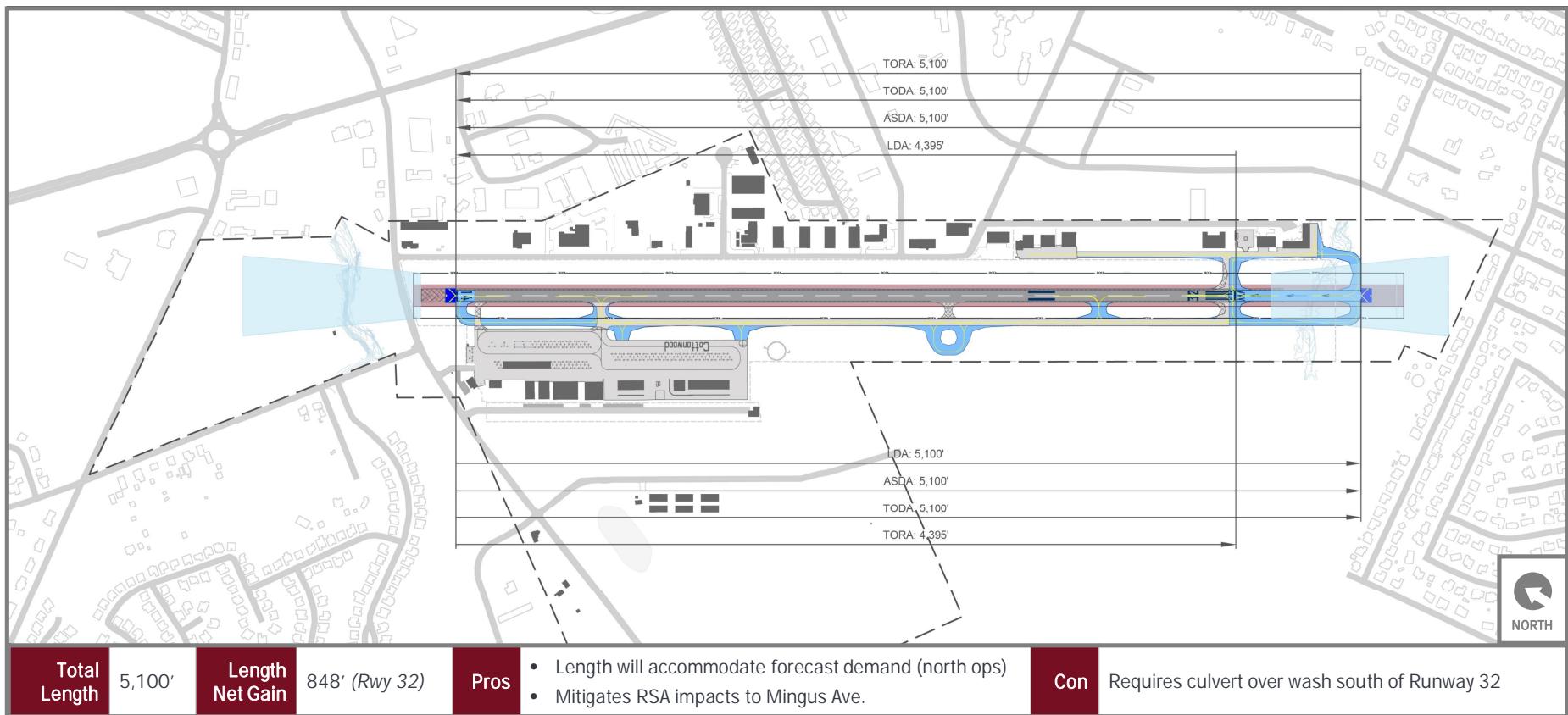
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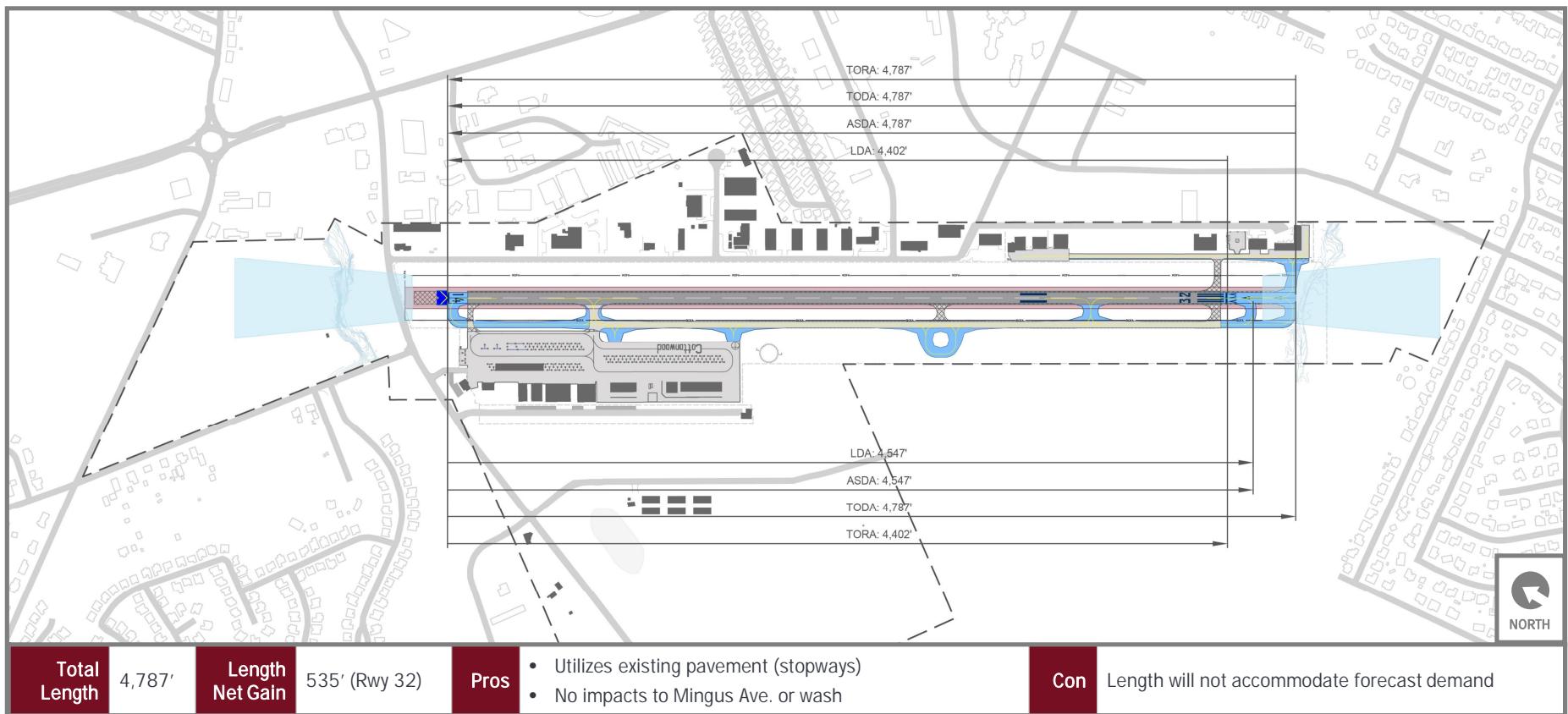
RECAP: RUNWAY ALTERNATIVES

- Runway length analysis recommendation:
5,100 feet
- Standard runway width (B-II Small): 60 feet
- Recommended alternative will influence:
 - Taxiway geometry
 - Aircraft parking aprons and hangars
 - Support facilities
- Considerations:
 - Airport property boundary
 - FAA design and safety standards
 - Compatible land uses:
 - Mingus Ave. north of Runway 14 end
 - Wash south of Runway 32 end
 - Residential land uses south of Airport

RUNWAY ALTERNATIVE: SOUTHERN EXTENSION WITH DECLARED DISTANCES



RUNWAY ALTERNATIVE: MAXIMUM BUILD-OUT WITH NO IMPACTS TO MINGUS AVE OR WASH



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APRON DEVELOPMENT ALTERNATIVES

Objectives

- Mitigate penetrations to taxilane safety areas
- Enhance safety and efficiency of apron circulation for aircraft, ground vehicles, and pedestrians
- Accommodate critical aircraft and forecast demand

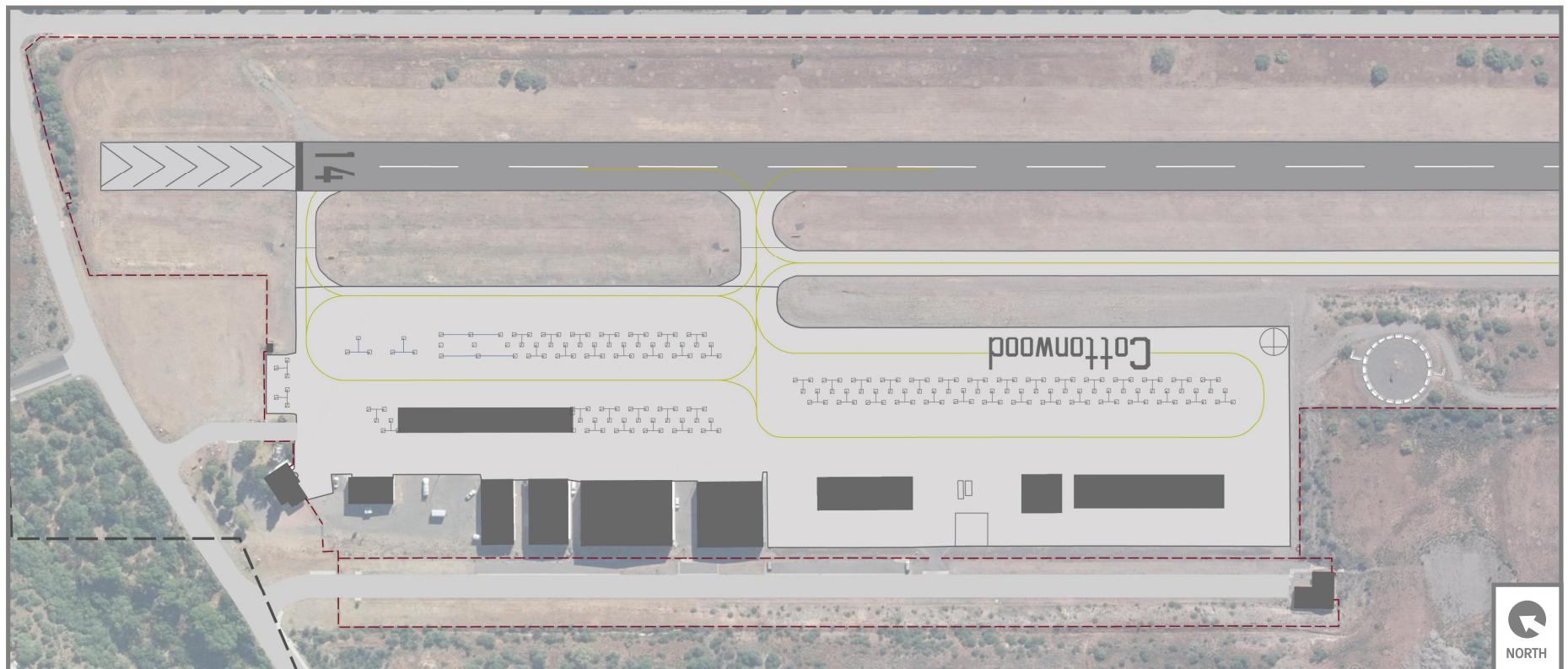
Considerations

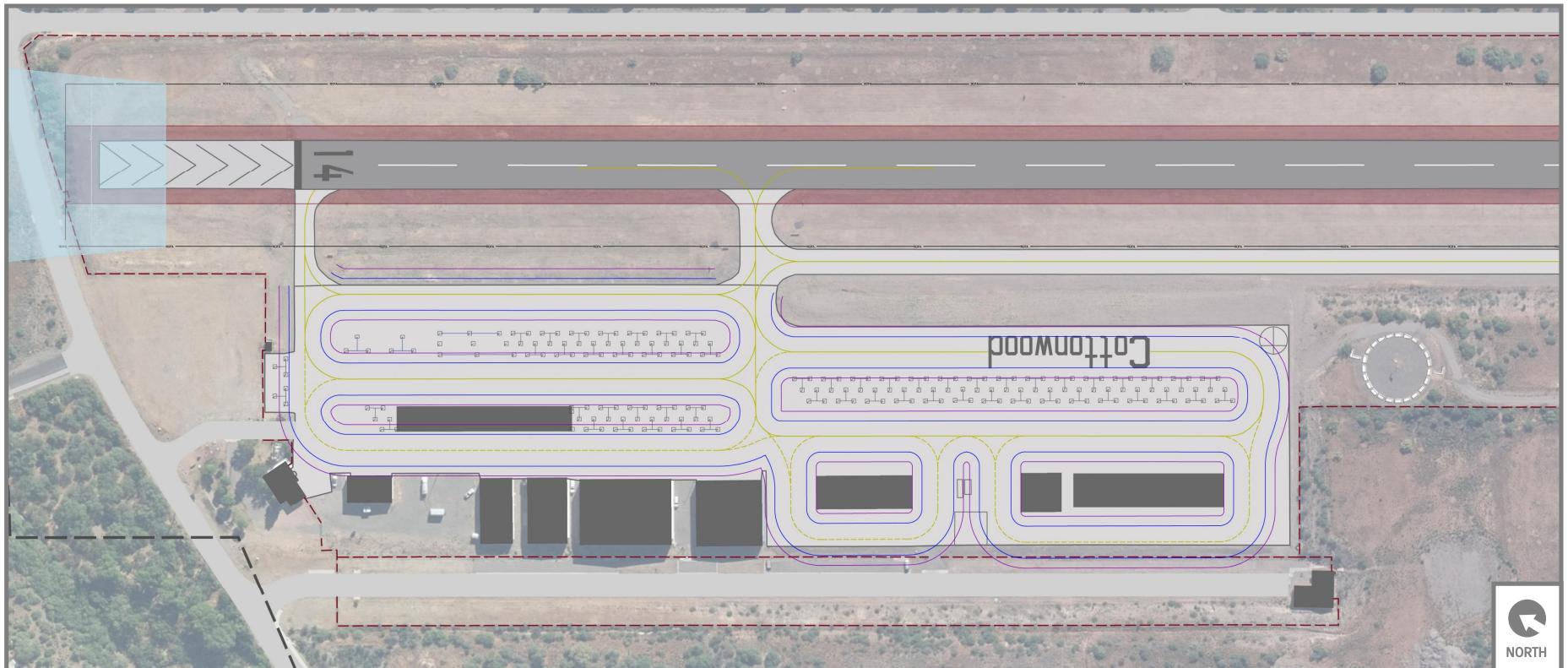
- FAA design and safety standards
- Operational needs of Airport users
- Recommended alternative for Runway 14-32

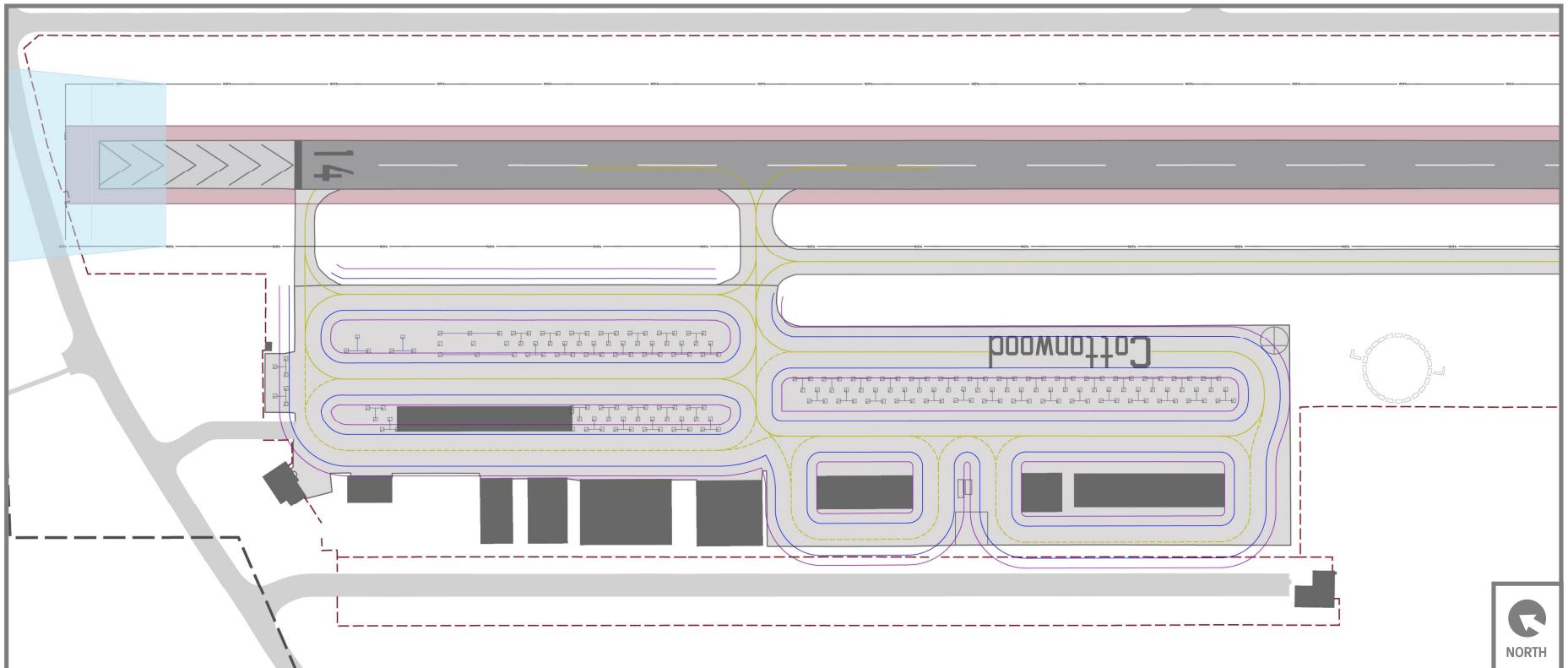


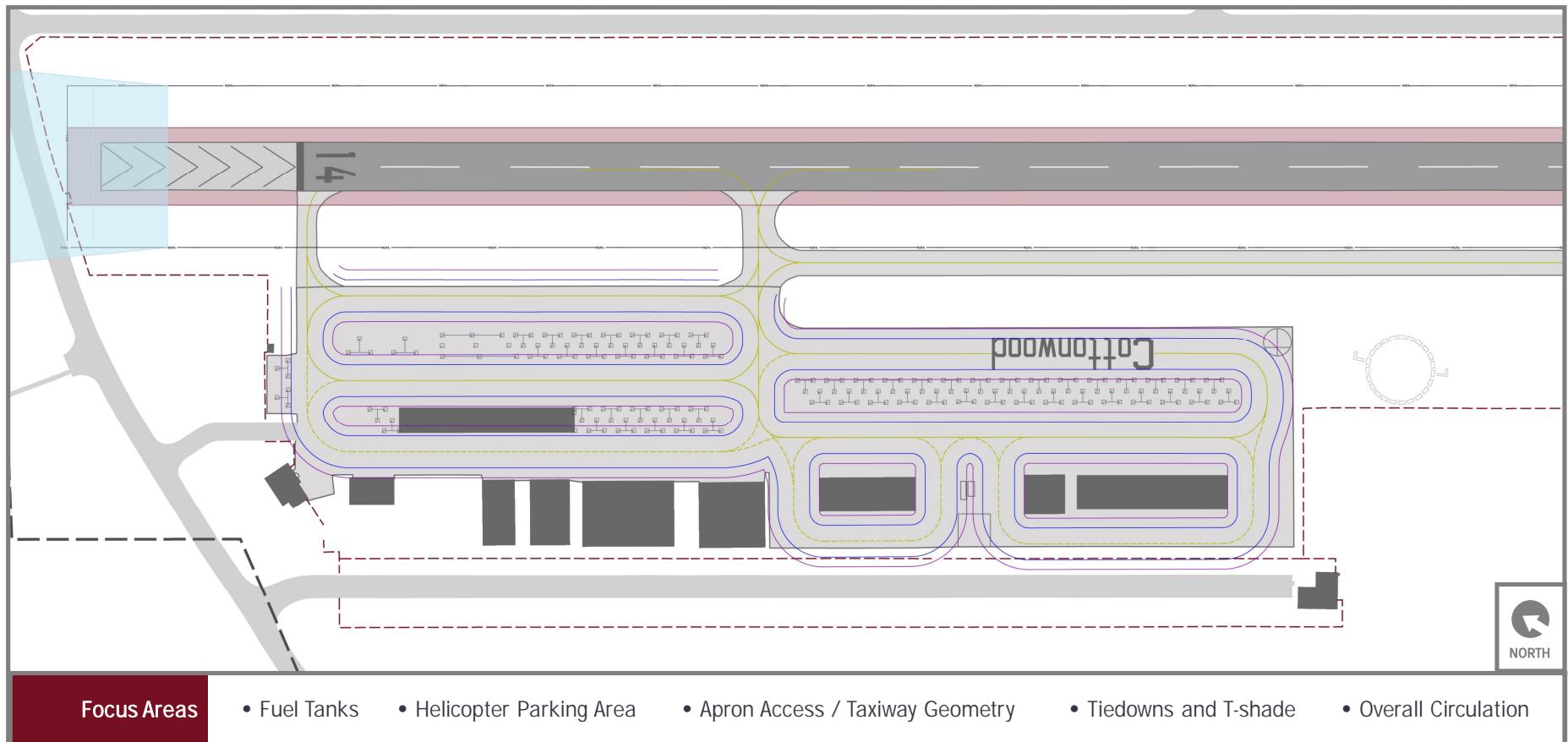
Source: Kimley-Horn, 2021.

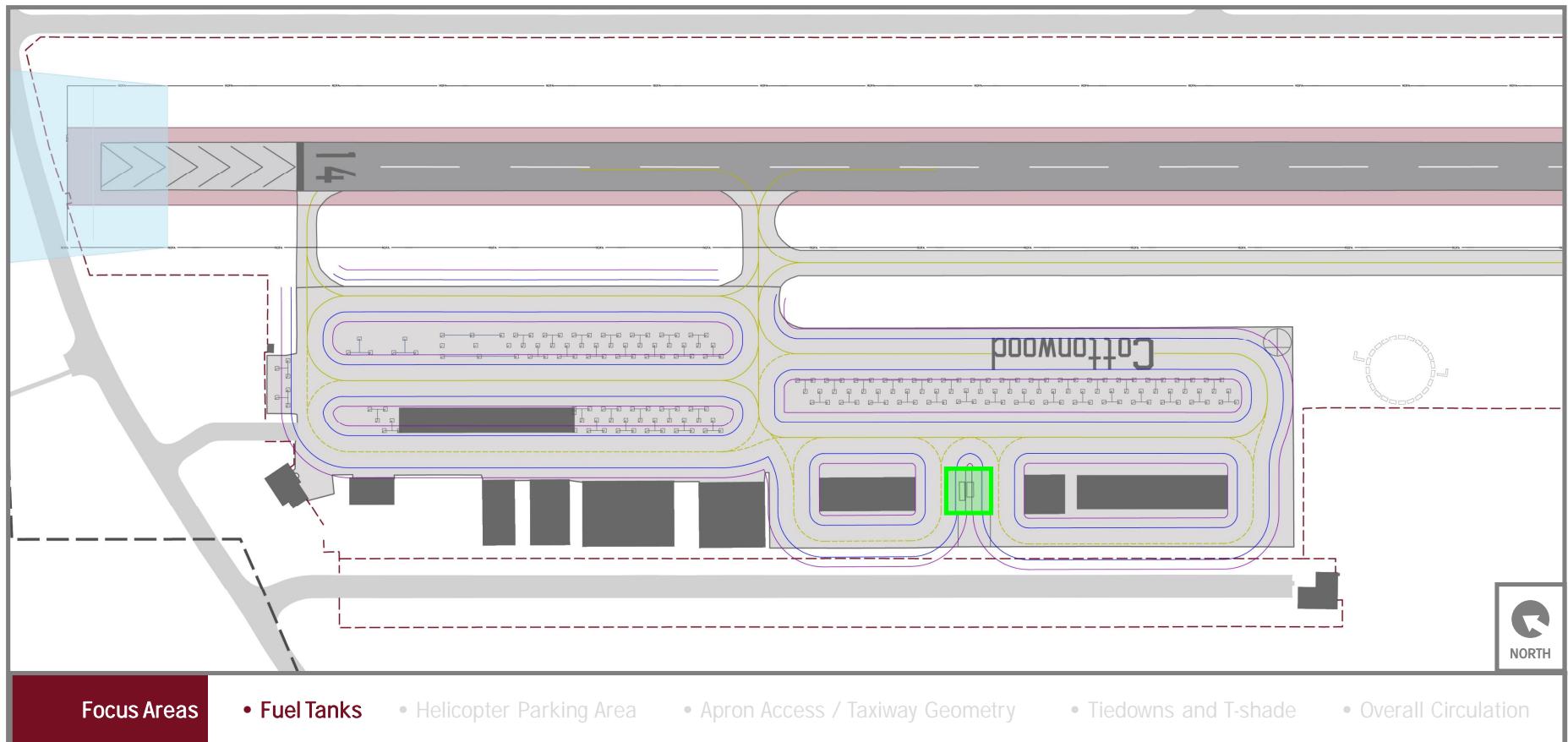


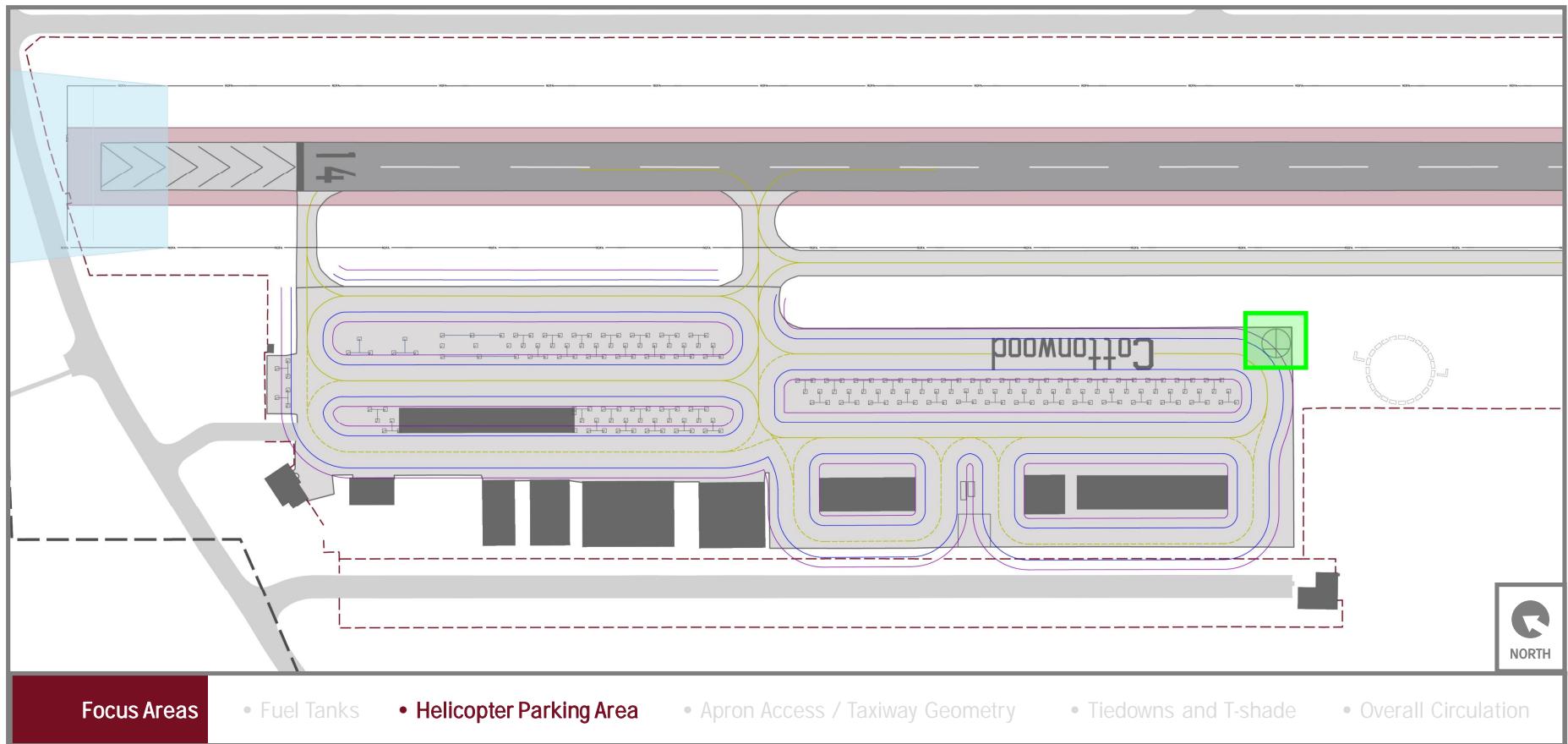


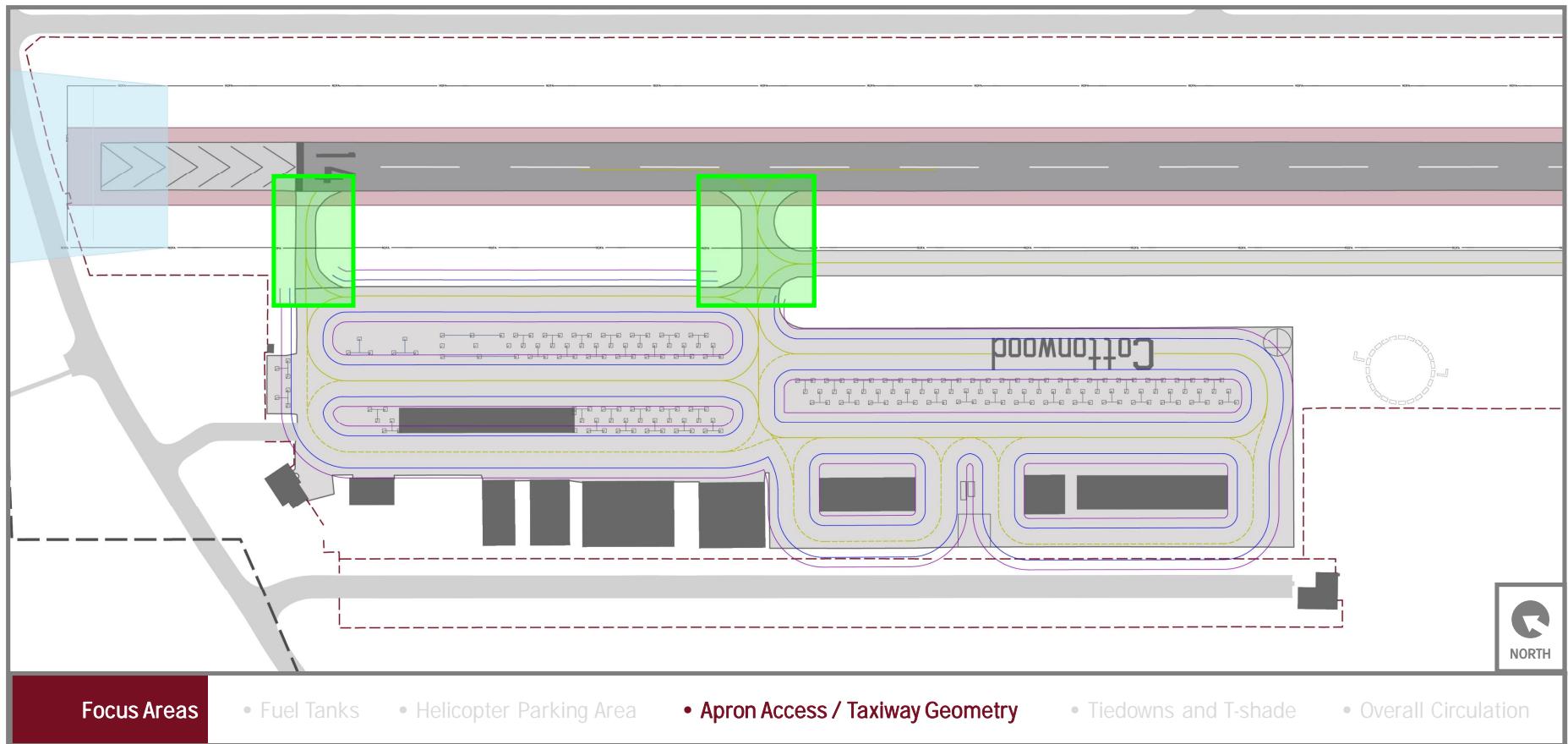


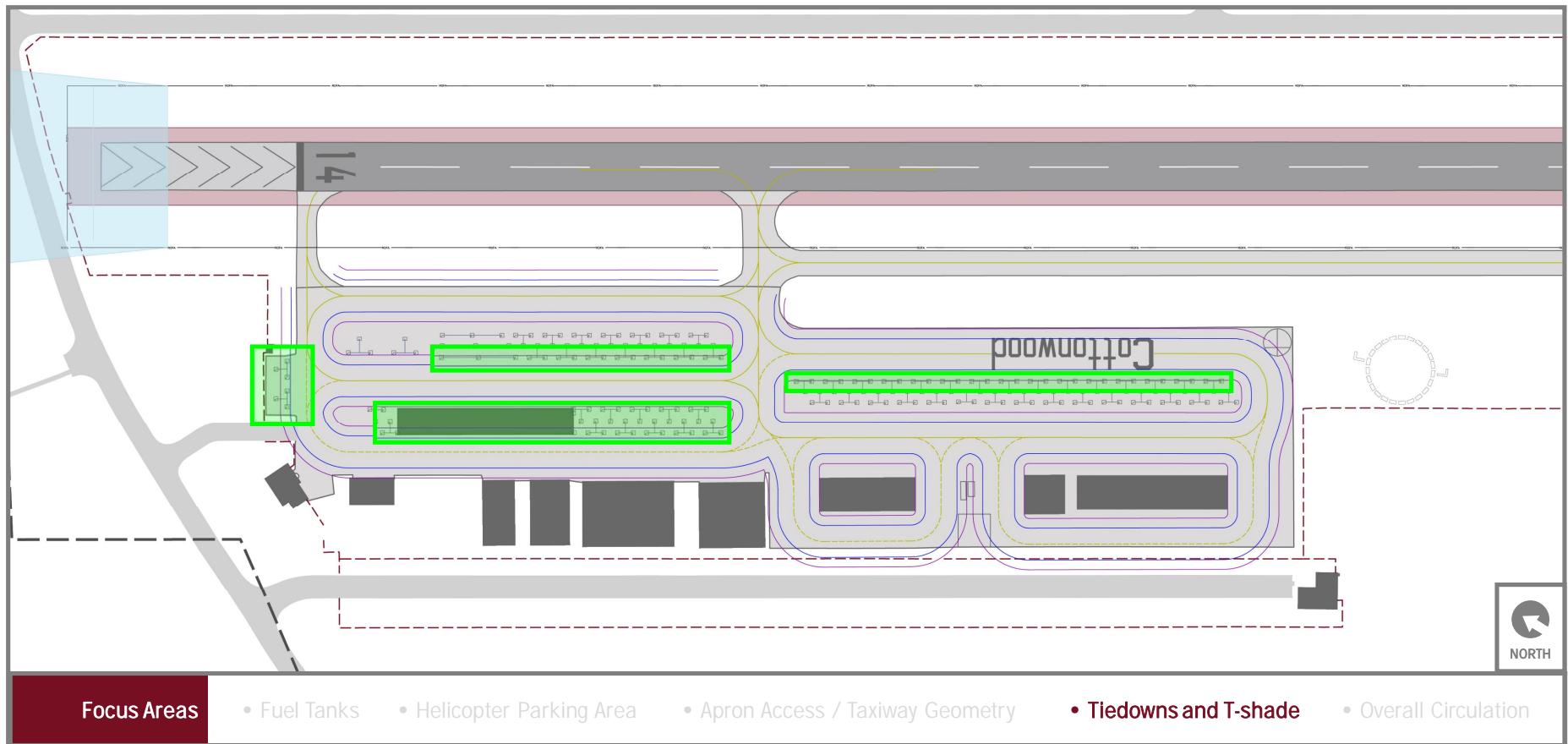


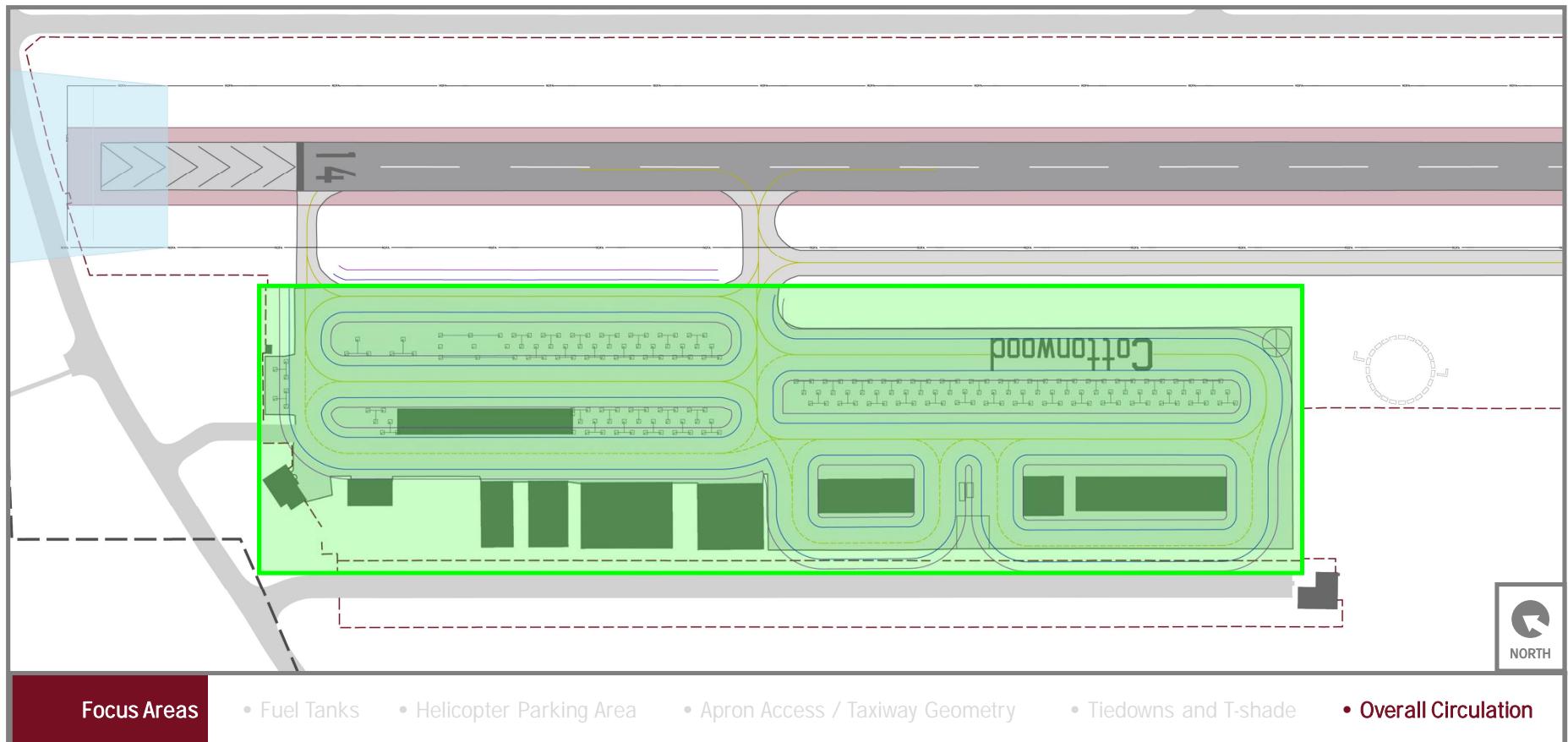


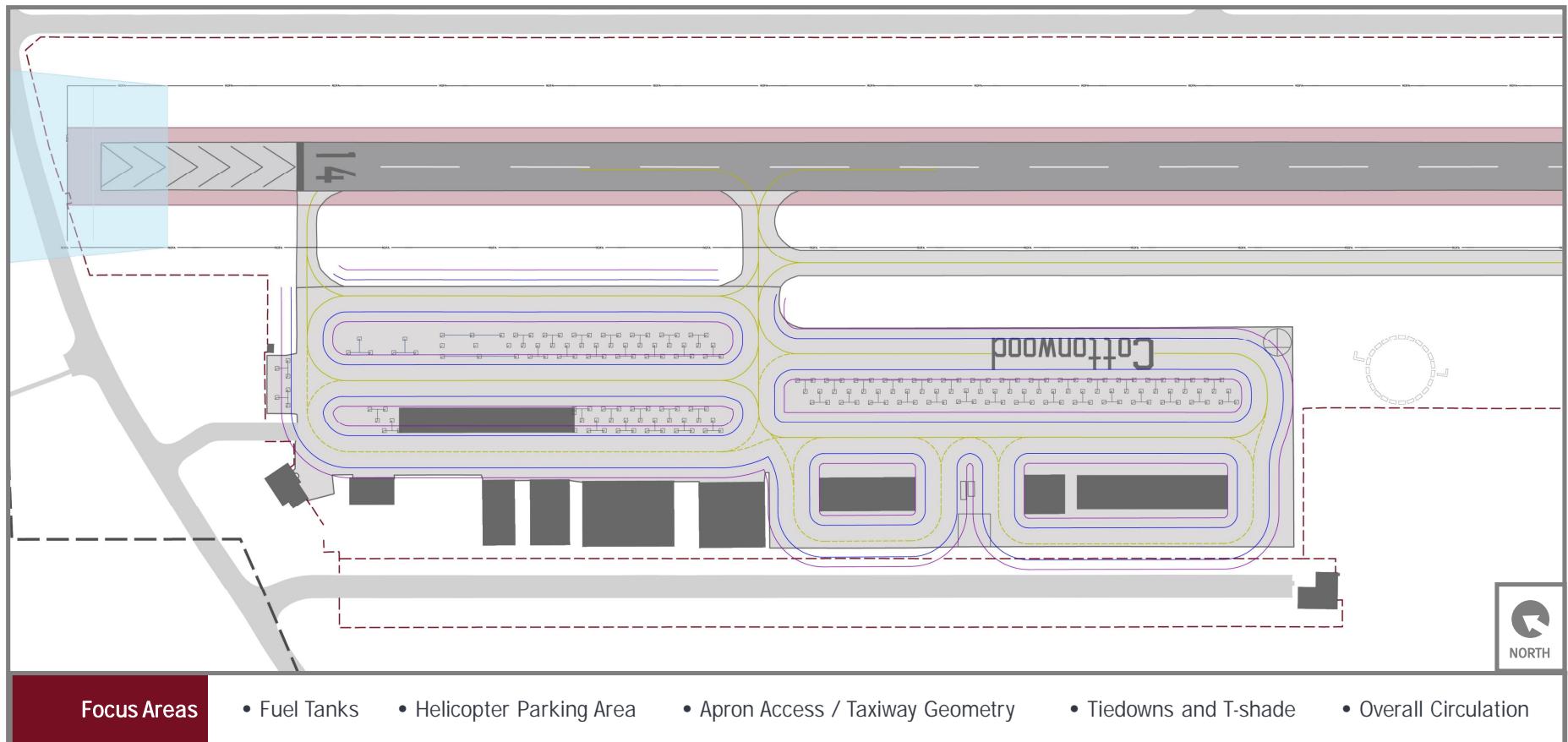


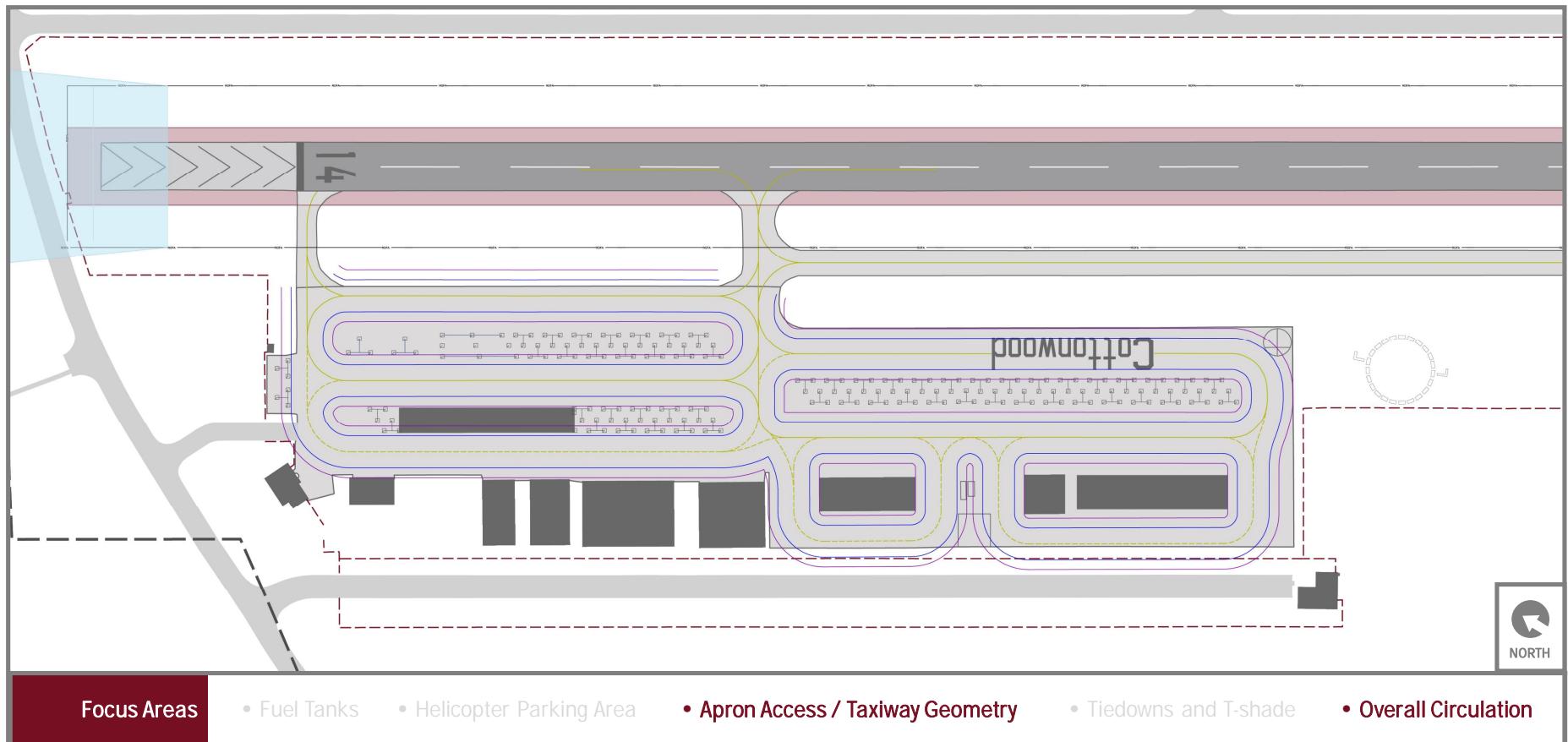


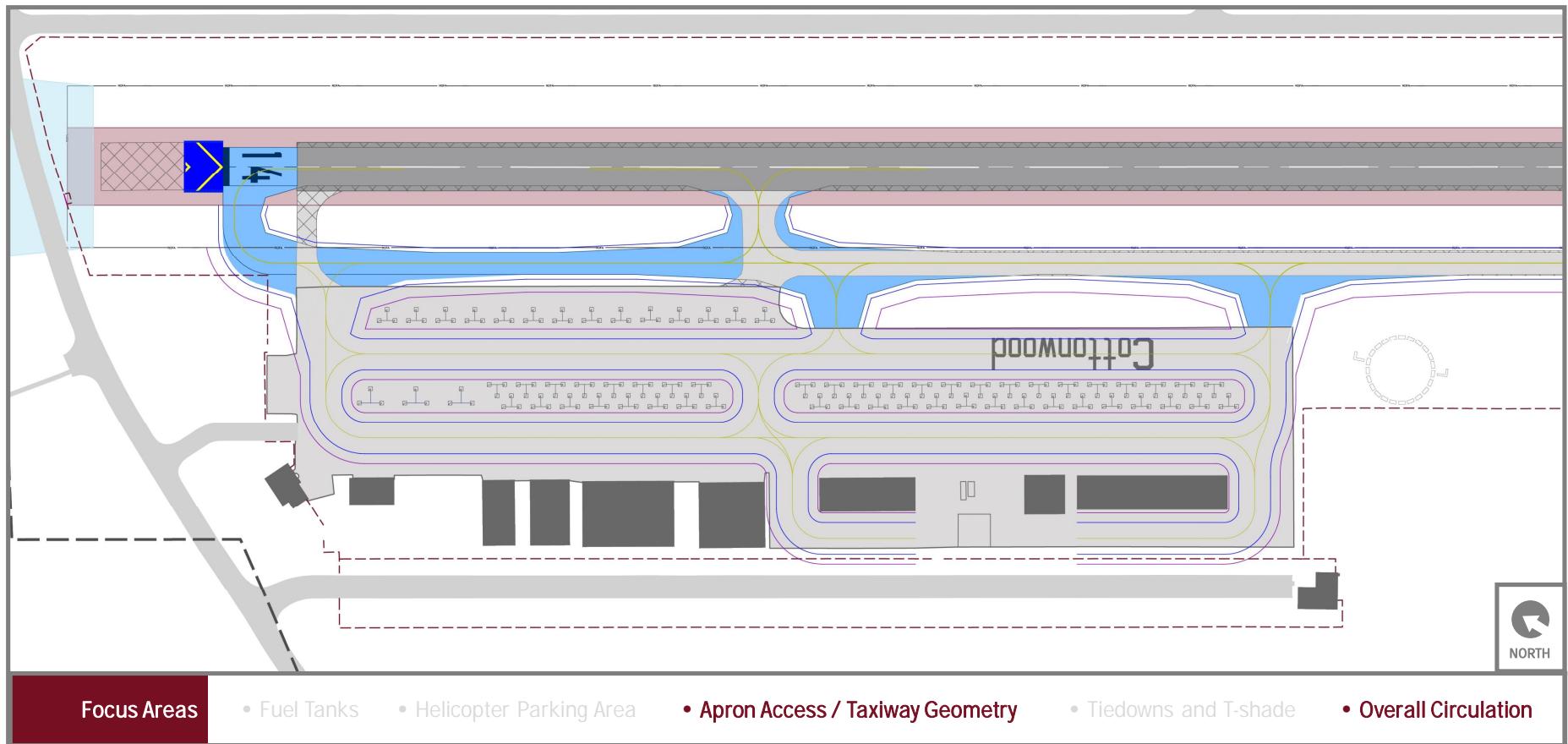




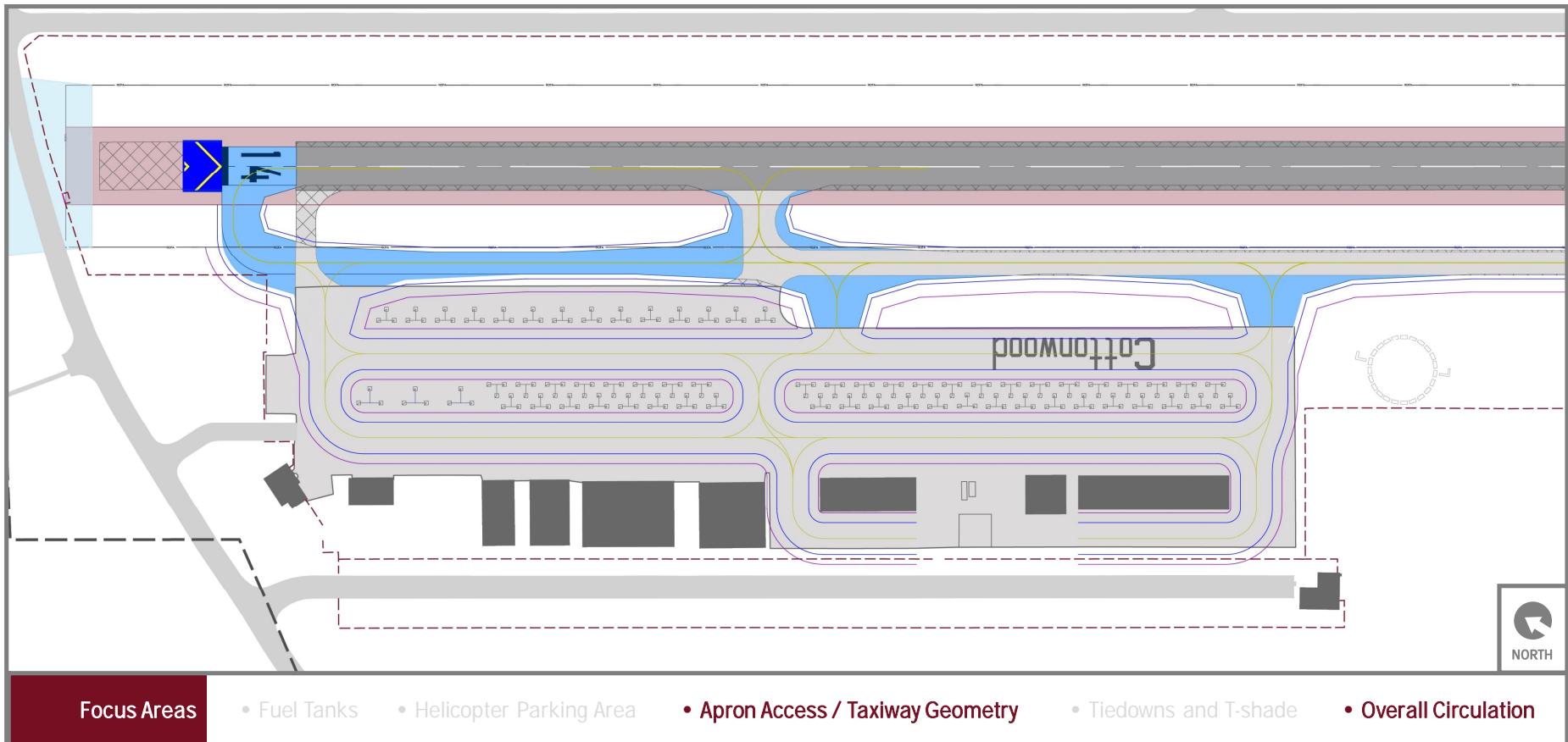




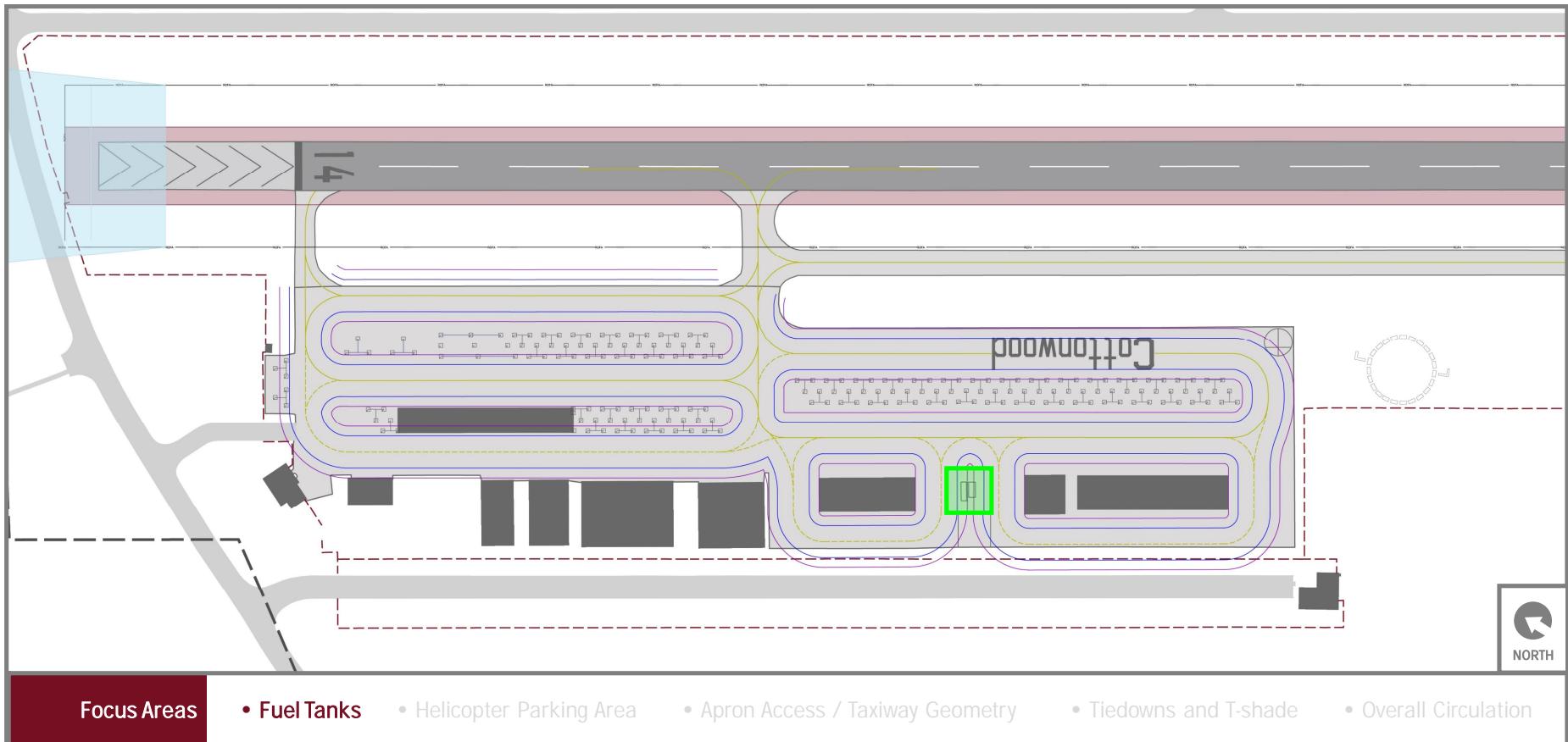




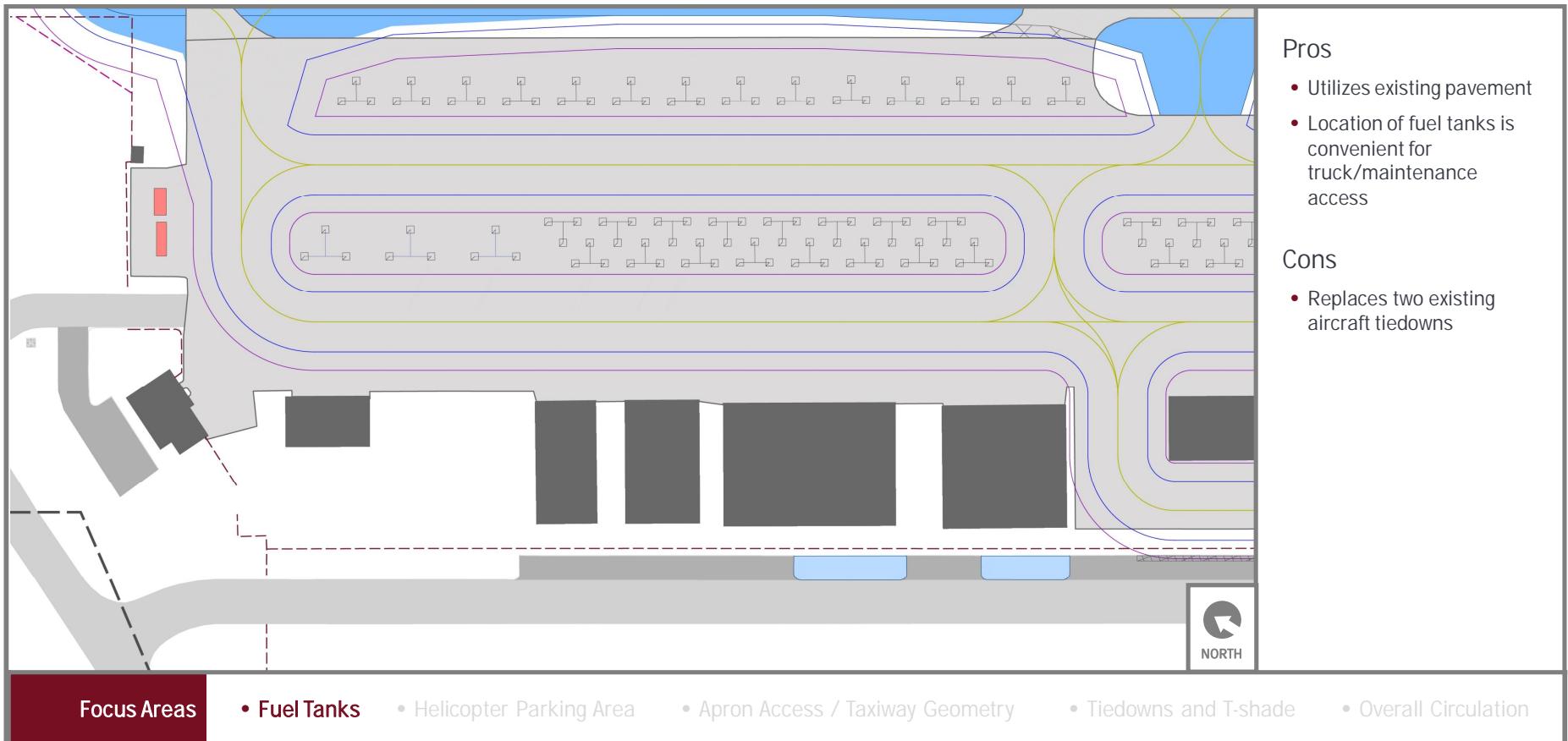
APRON ALTERNATIVES: BASE APRON CONFIGURATION



APRON ALTERNATIVES: FUEL TANKS



APRON ALTERNATIVES: FUEL TANKS - ALTERNATIVE 1



APRON ALTERNATIVES: FUEL TANKS - ALTERNATIVE 2

Focus Areas

- Fuel Tanks
- Helicopter Parking Area
- Apron Access / Taxiway Geometry
- Tiedowns and T-shade
- Overall Circulation

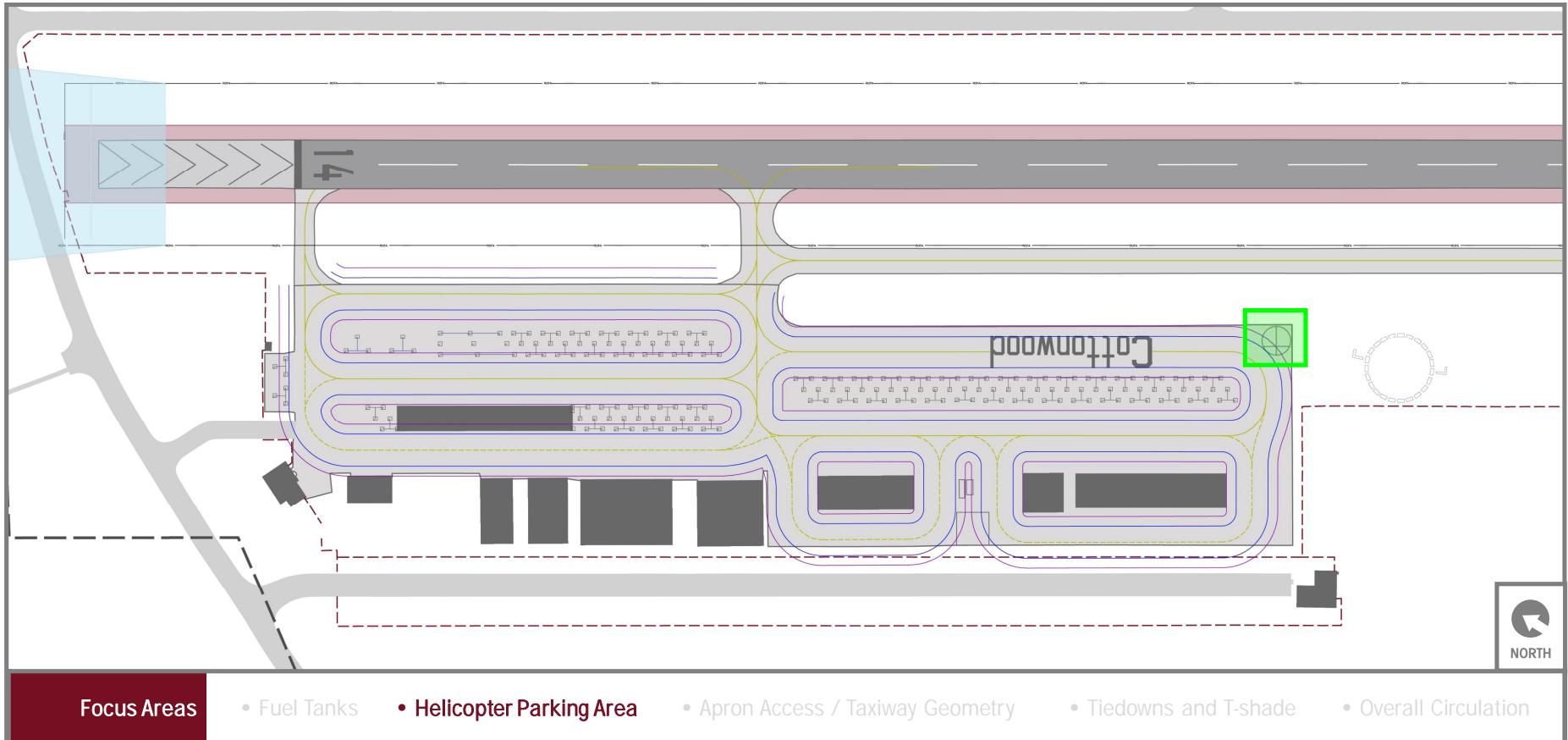
Pros

- Location of fuel tanks is convenient for truck/maintenance access

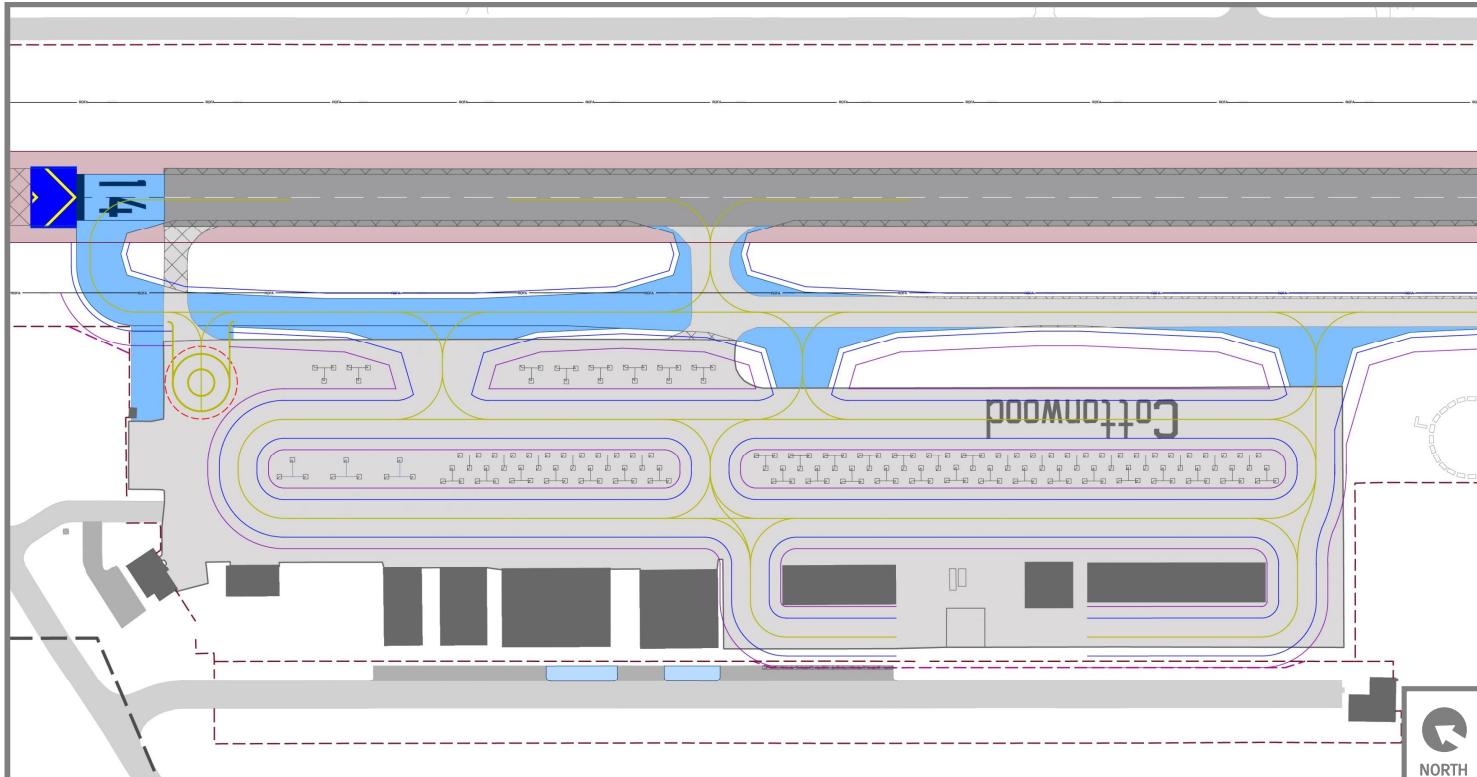
Cons

- Requires grading and new pavement
- Fuel tanks occupy area that may be otherwise utilized for hangar development
- Existing light pole will need to be removed/relocated

APRON ALTERNATIVES: HELICOPTER PARKING AREA



APRON ALTERNATIVES: HELICOPTER PARKING AREA - ALTERNATIVE 1



Pros

- Utilizes existing pavement (New pavement required to reduce rotor wash, dust, and potential FOD)
- Proximity to Runway 14 end
- Location near access road conducive for medevac and tour operations
- Standardized helicopter parking area markings

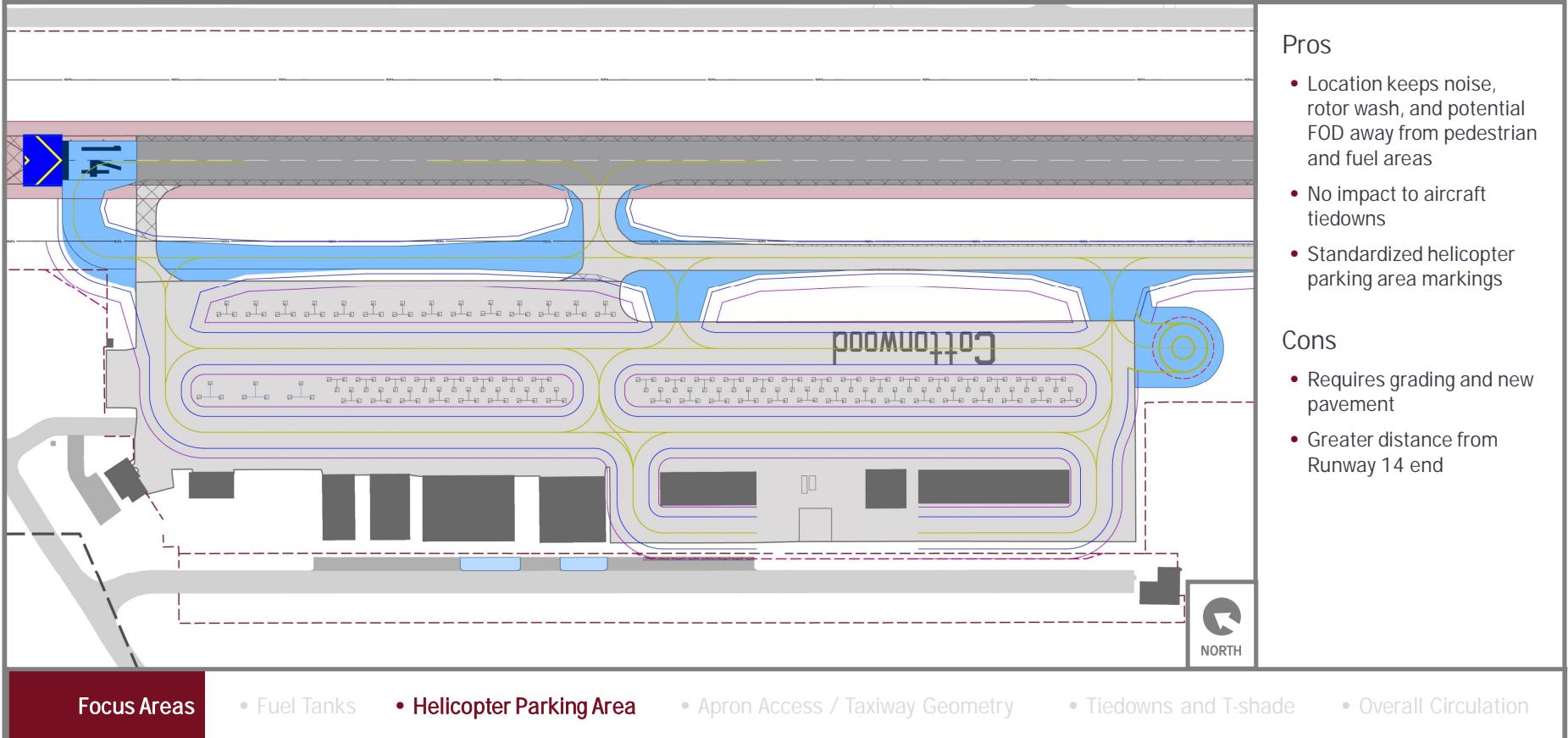
Cons

- Noise, rotor wash, and potential FOD in proximity to Mingus Ave., admin. building, beacon, aircraft tiedowns, and fuel tanks
- Loss of 9 aircraft tiedowns

Focus Areas

- Fuel Tanks
- Helicopter Parking Area
- Apron Access / Taxiway Geometry
- Tiedowns and T-shade
- Overall Circulation

APRON ALTERNATIVES: HELICOPTER PARKING AREA - ALTERNATIVE 2



Focus Areas

- Fuel Tanks
- **Helicopter Parking Area**
- Apron Access / Taxiway Geometry
- Tiedowns and T-shade
- Overall Circulation

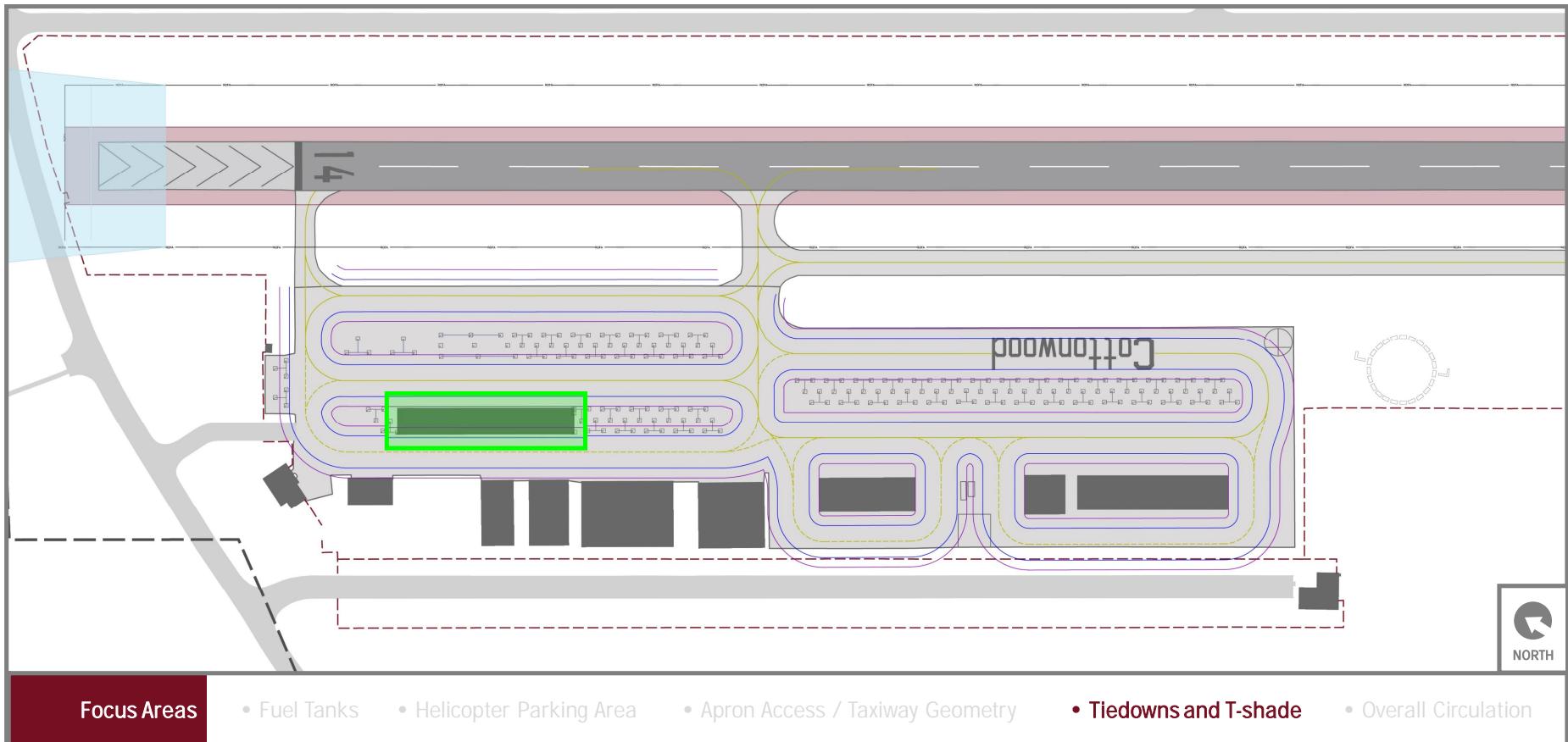
Pros

- Location keeps noise, rotor wash, and potential FOD away from pedestrian and fuel areas
- No impact to aircraft tiedowns
- Standardized helicopter parking area markings

Cons

- Requires grading and new pavement
- Greater distance from Runway 14 end

APRON ALTERNATIVES: T-SHADE RELOCATION



APRON ALTERNATIVES: T-SHADE RELOCATION - ALTERNATIVE 1

The site plan illustrates the layout of the airport apron, featuring several fuel tanks, a helicopter parking area, and a large terminal building labeled "Cottonwood". The apron is marked with various colors (blue, yellow, purple) and patterns (hatching, dots) representing different zones and standards. A north arrow is located in the bottom right corner of the plan area.

Focus Areas

- Fuel Tanks
- Helicopter Parking Area
- Apron Access / Taxiway Geometry
- Tiedowns and T-shade
- Overall Circulation

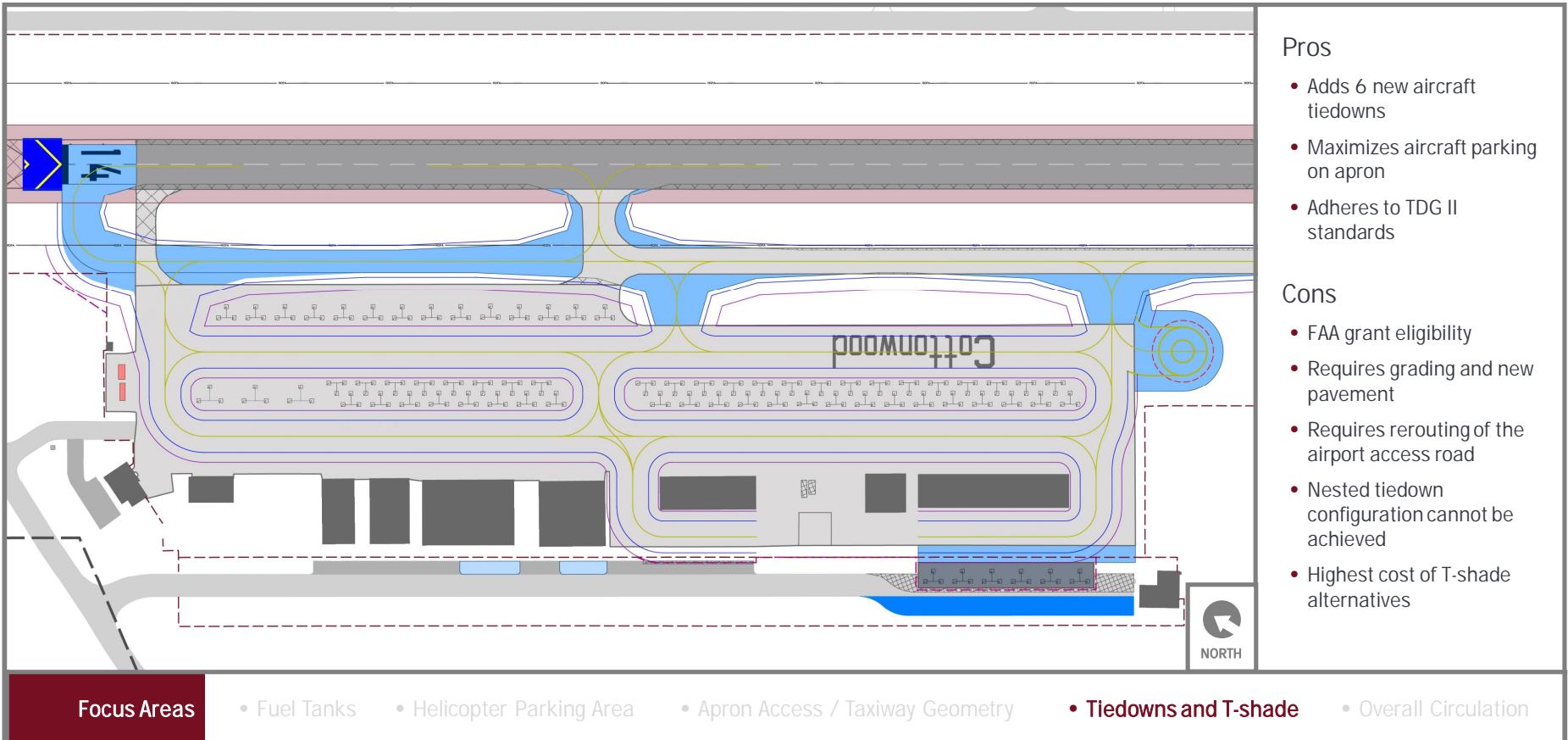
Pros

- Utilizes existing pavement
- Adheres to TDG II standards

Cons

- FAA grant eligibility
- Pavement maintenance and cost

APRON ALTERNATIVES: T-SHADE RELOCATION - ALTERNATIVE 2



The site plan illustrates the layout of the airport, including the apron area with various aircraft parking positions, fuel tanks, helicopter parking areas, and taxiways. The plan is annotated with labels such as 'Cottonwood' and 'NORTH'.

Focus Areas

- Fuel Tanks
- Helicopter Parking Area
- Apron Access / Taxiway Geometry
- Tiedowns and T-shade
- Overall Circulation

Pros

- Adds 6 new aircraft tiedowns
- Maximizes aircraft parking on apron
- Adheres to TDG II standards

Cons

- FAA grant eligibility
- Requires grading and new pavement
- Requires rerouting of the airport access road
- Nested tiedown configuration cannot be achieved
- Highest cost of T-shade alternatives

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HANGAR DEVELOPMENT ALTERNATIVES

Objectives

- Accommodate forecast demand for aircraft storage space (approximately 36,000 SF)
- Enhance safety and efficiency of apron circulation for aircraft, ground vehicles, and pedestrians
- Earmark land for future hangar/apron development

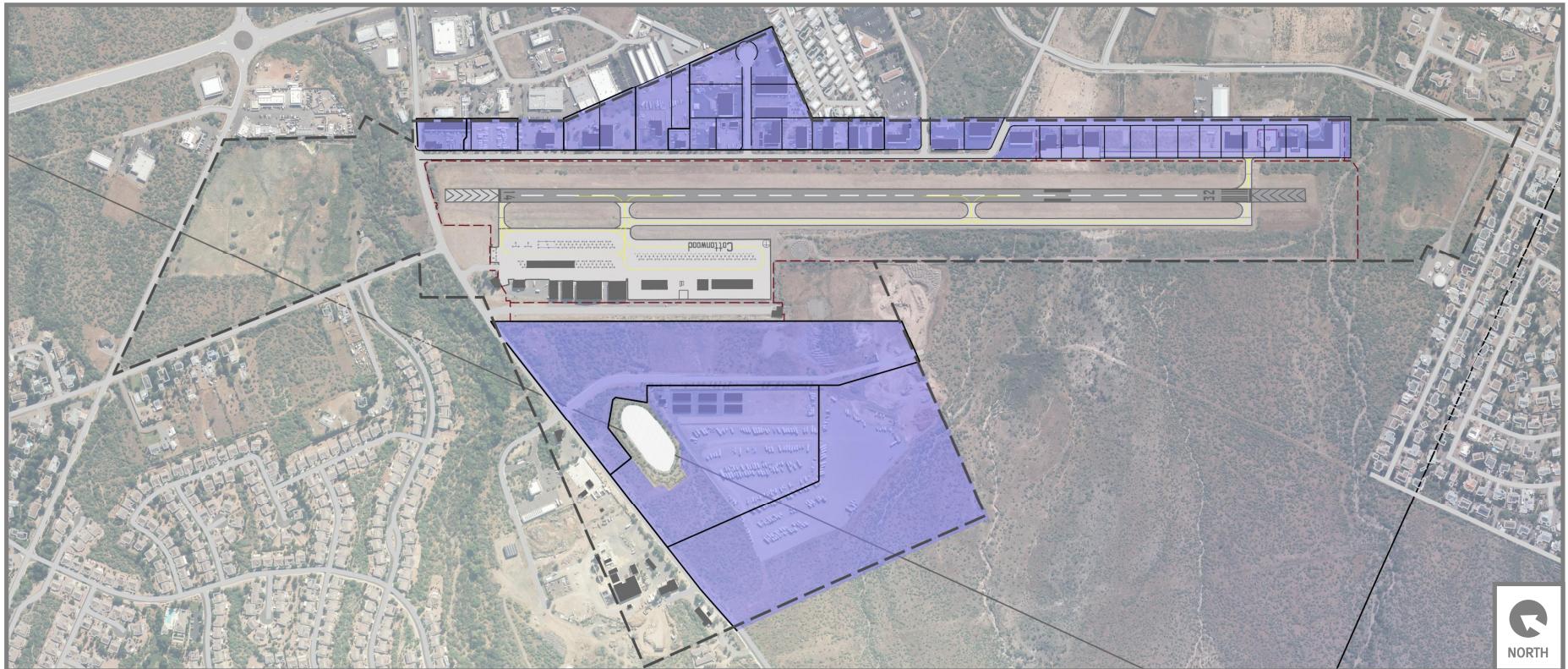
Considerations

- FAA design and safety standards
- Operational needs of Airport users
- Apron development alternatives
- Available space for development (e.g., Airport property boundary, BRL, Airport leaseholds)

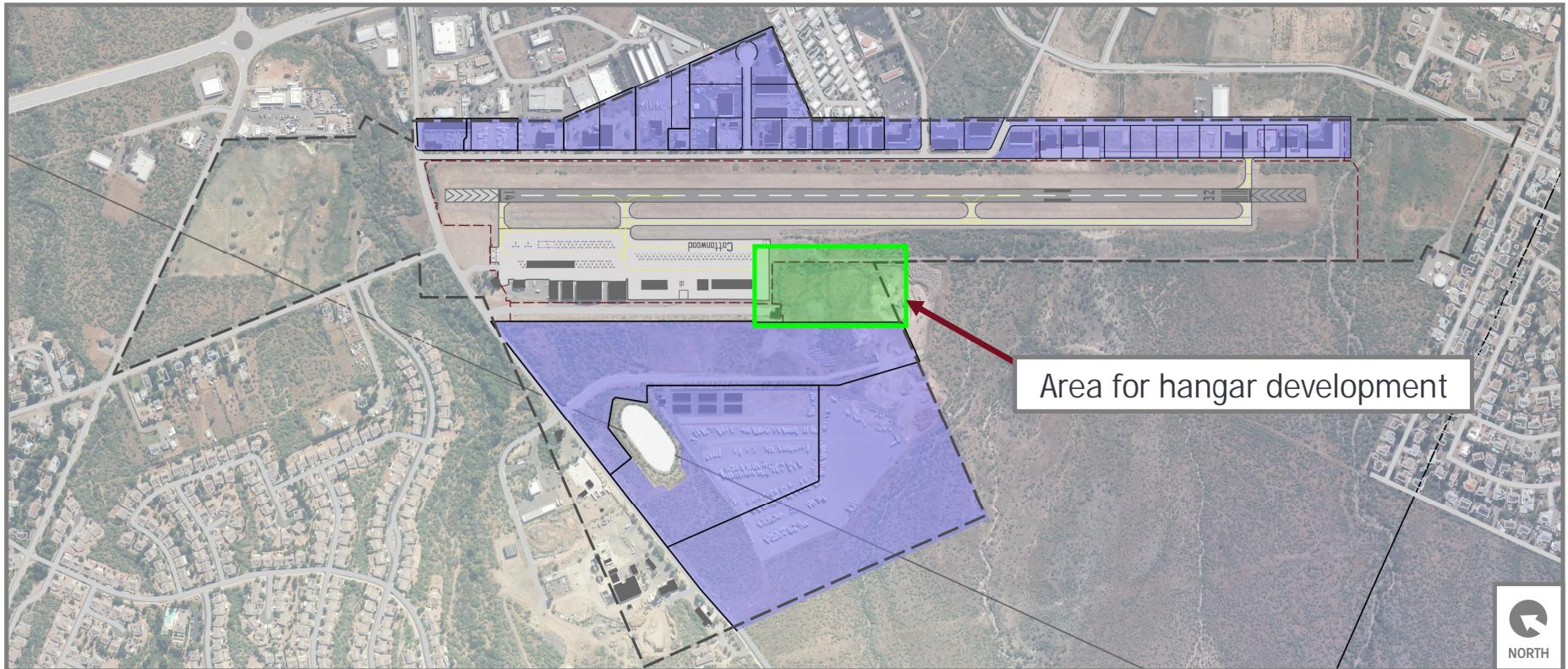


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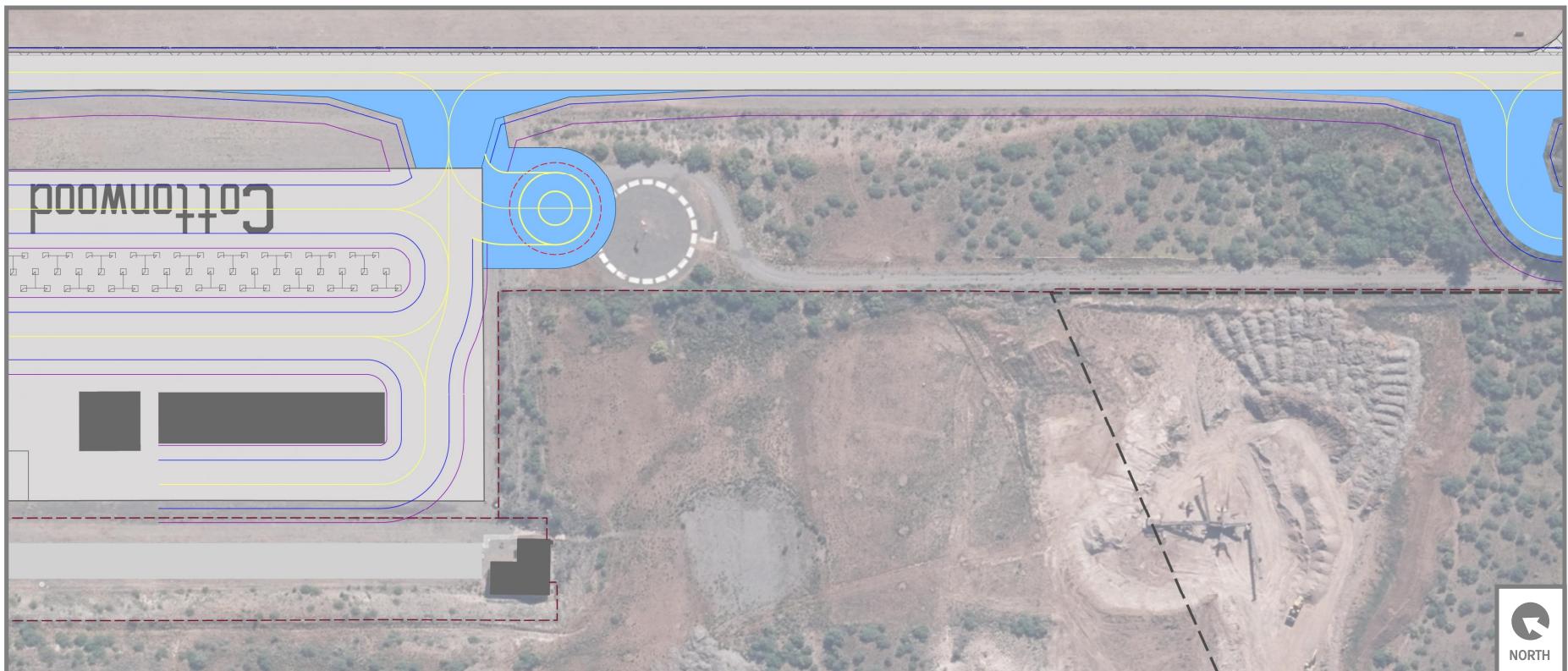
AIRPORT LEASEHOLDS

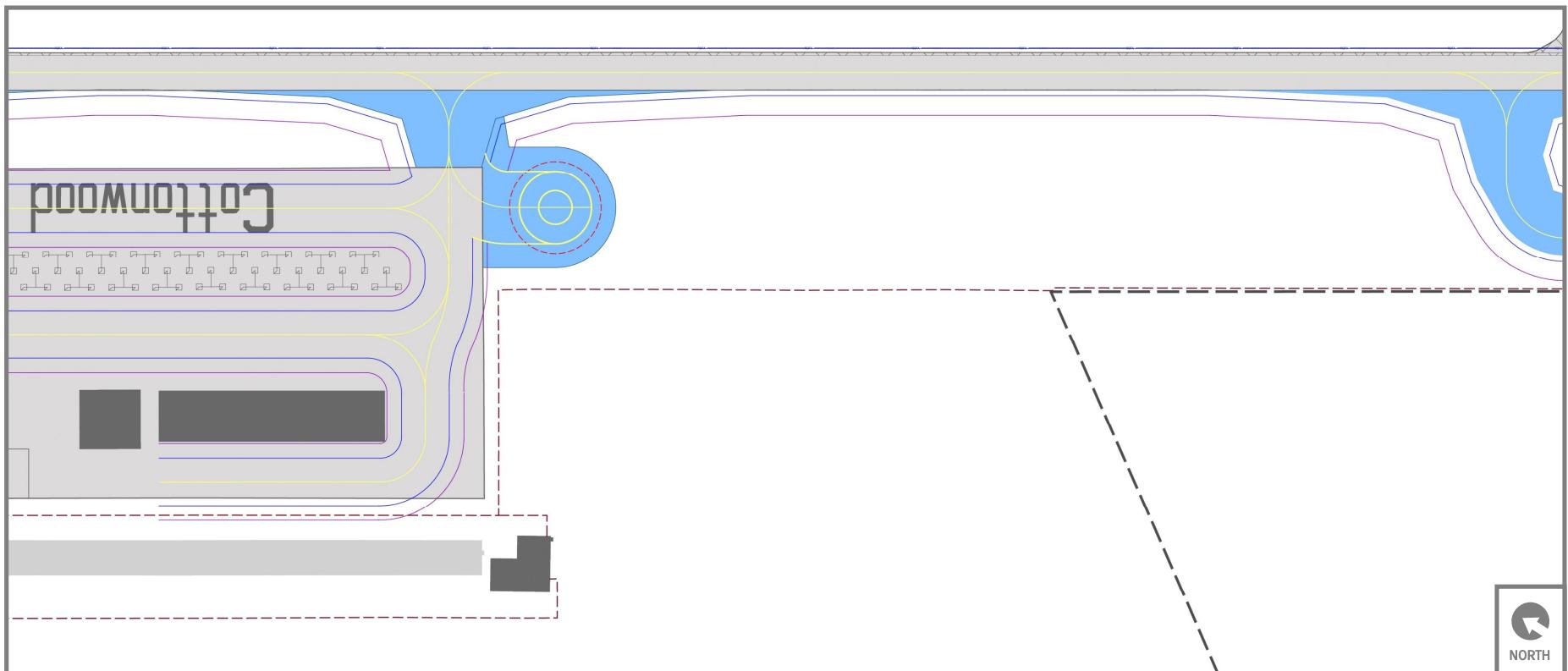


AIRPORT LEASEHOLDS

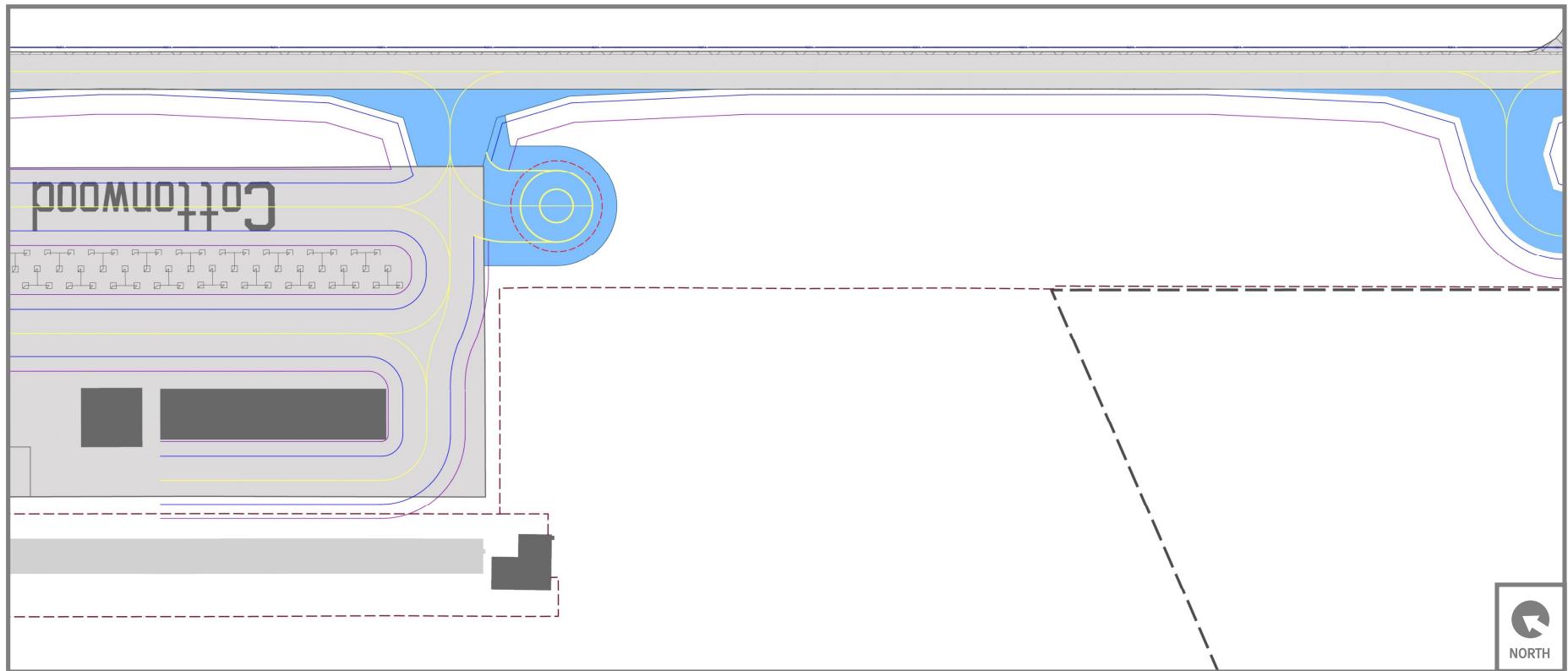




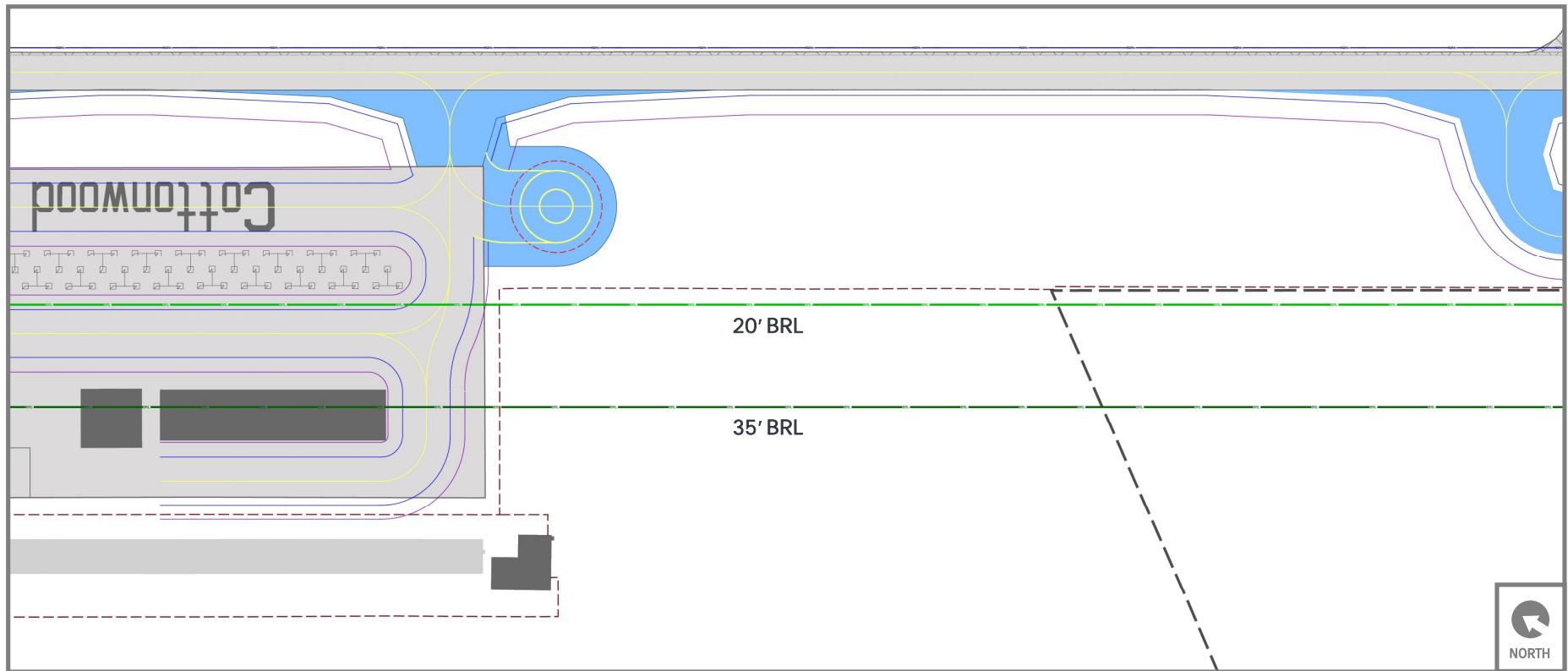




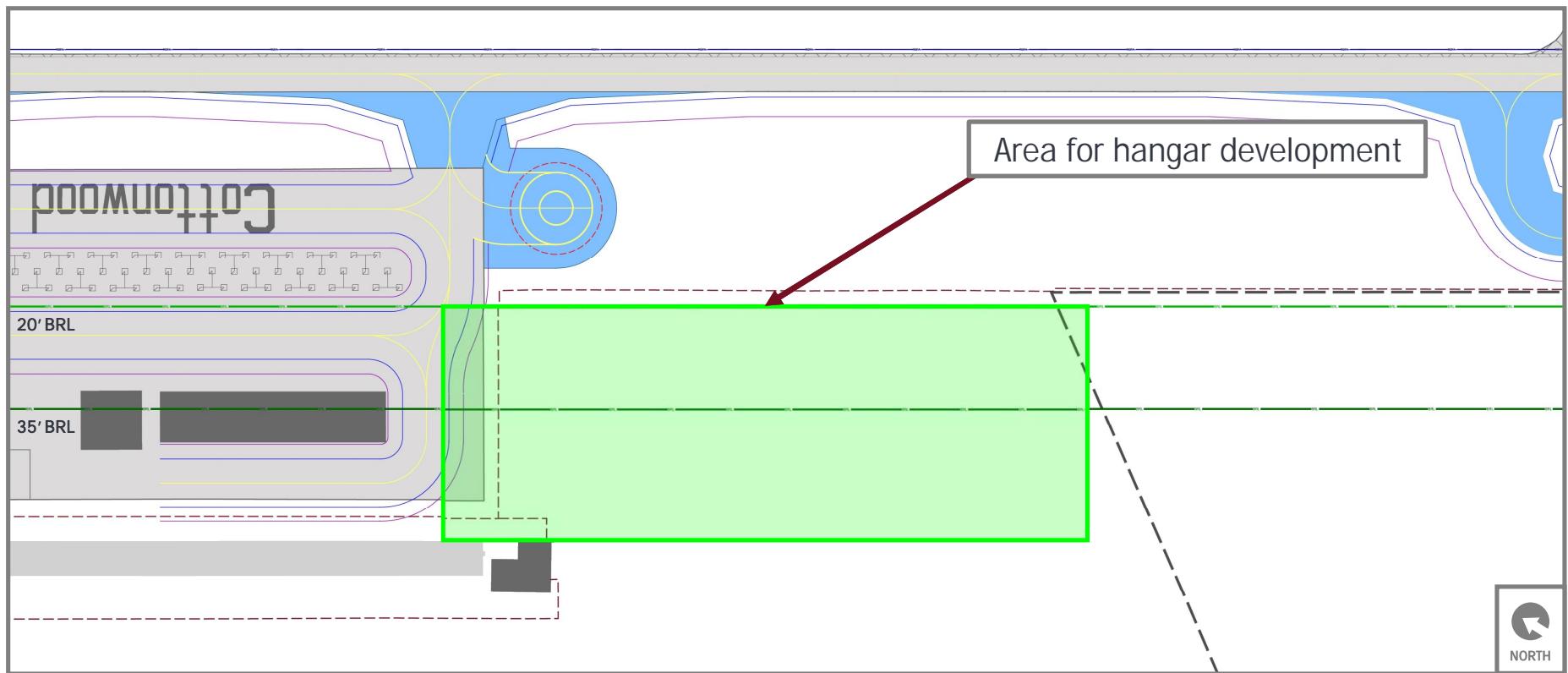
BUILDING RESTRICTION LINE (BRL)

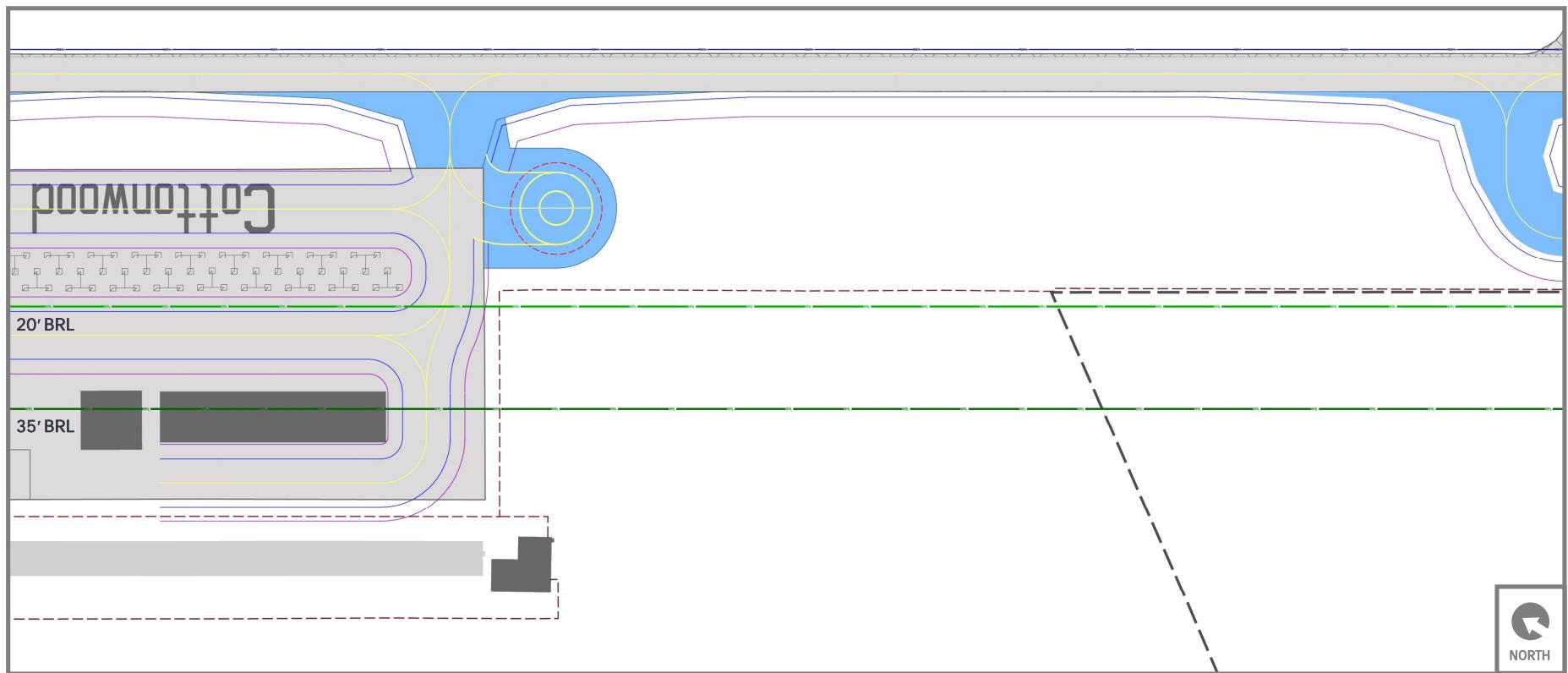


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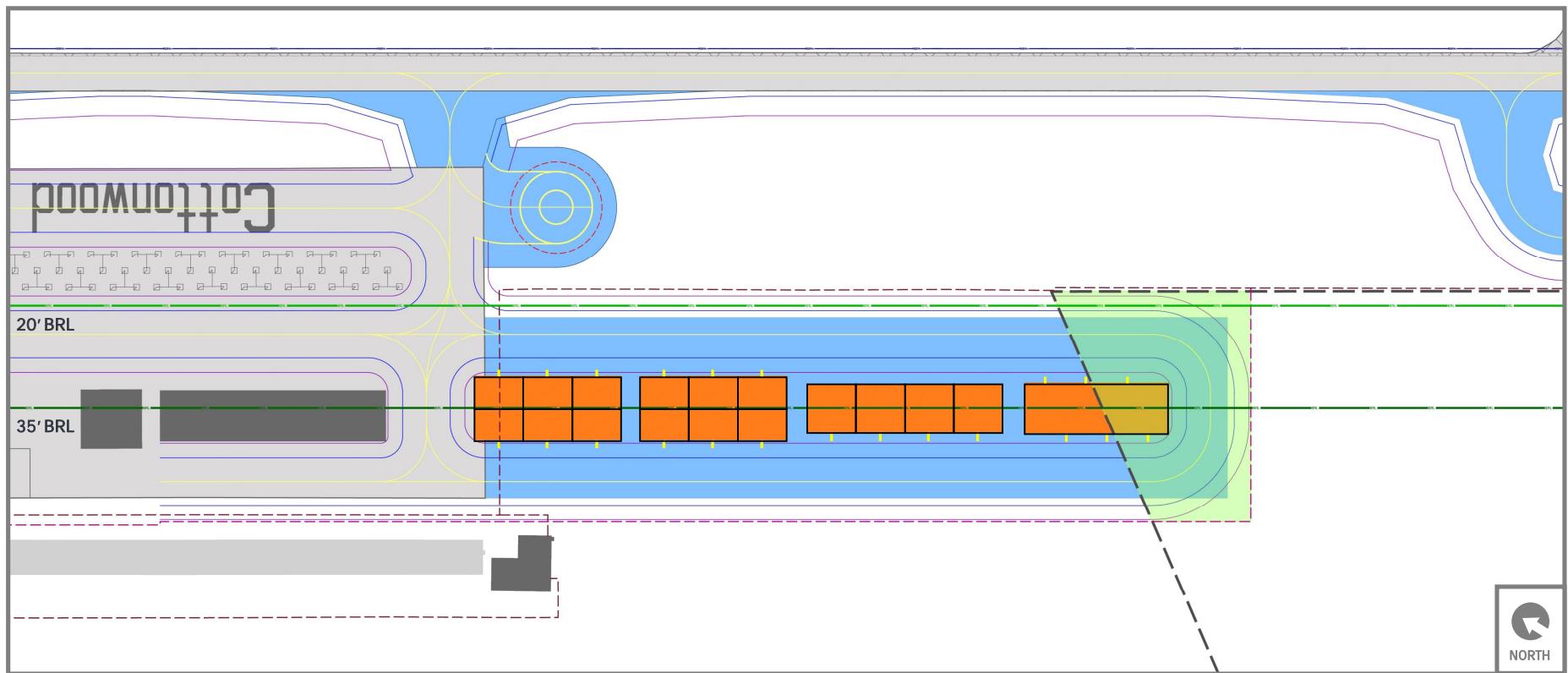


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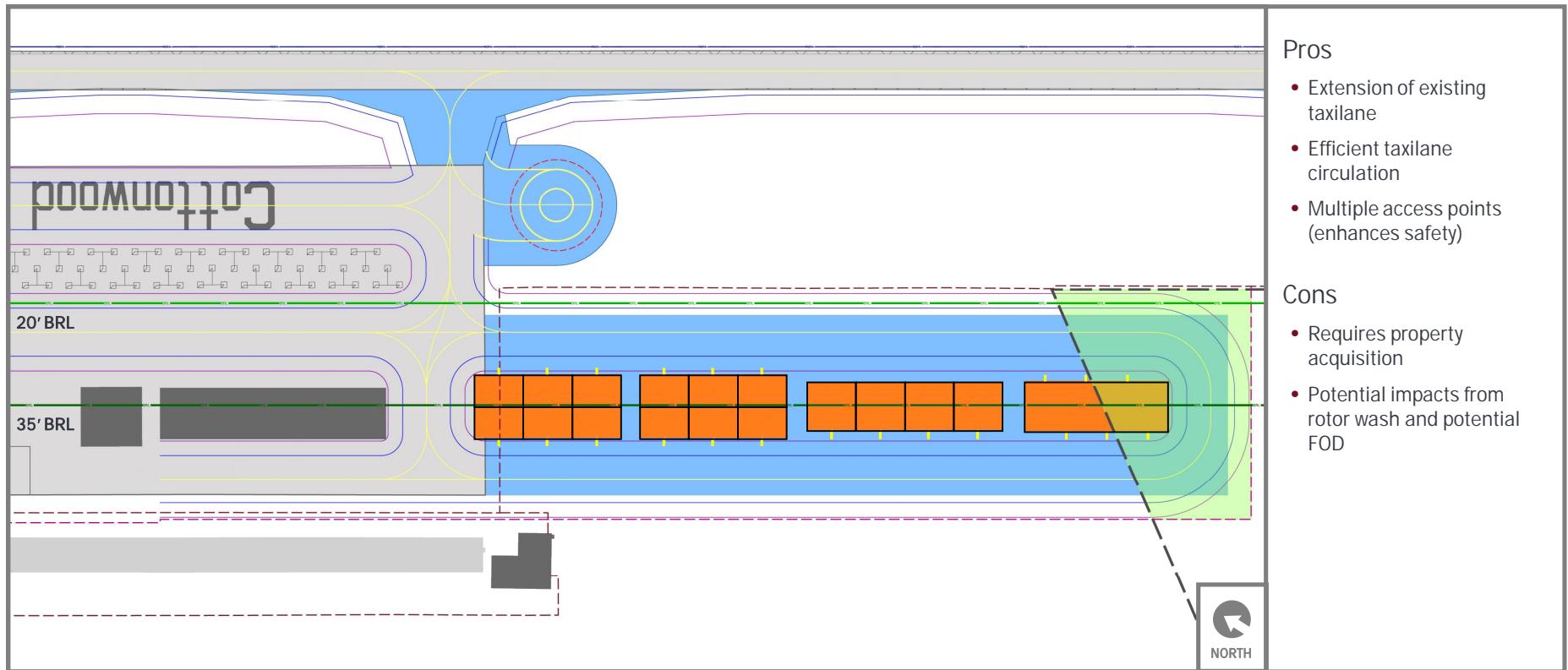




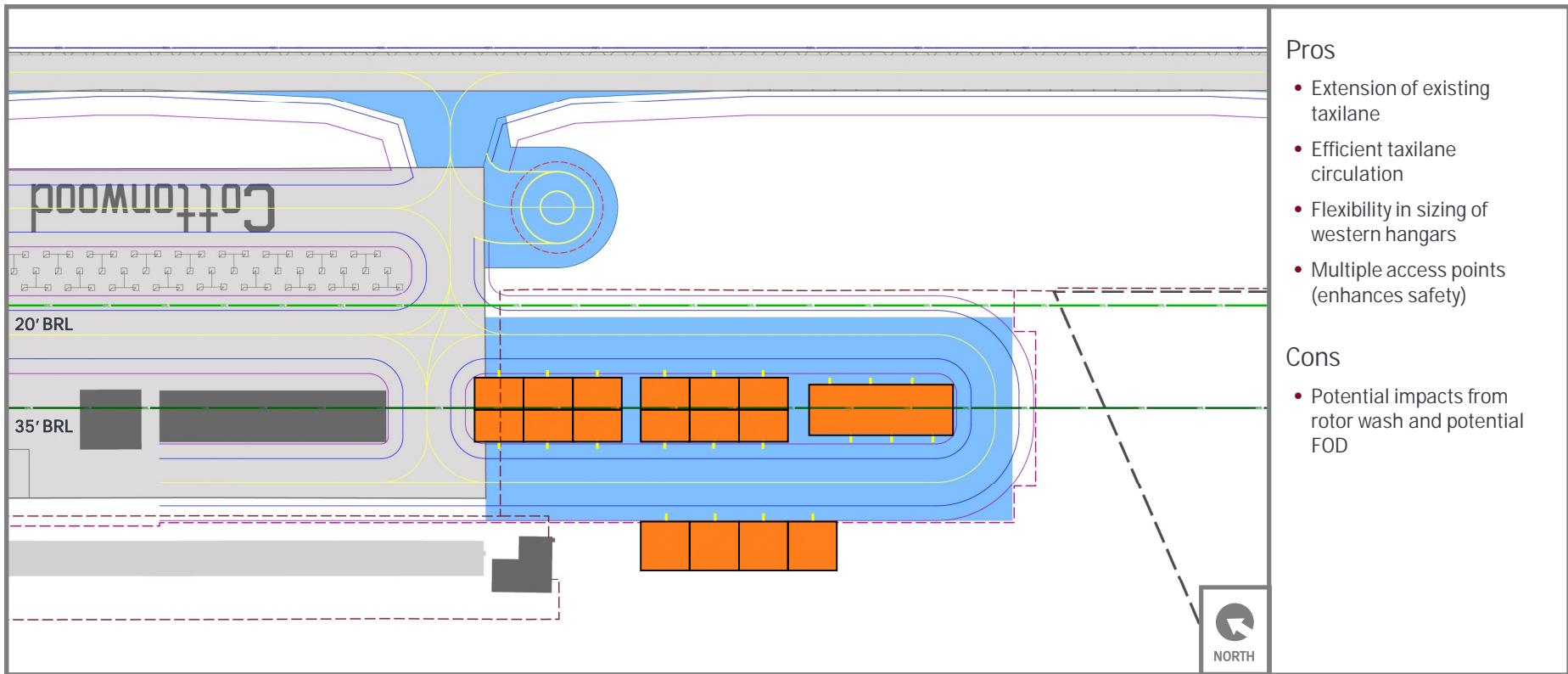
HANGAR DEVELOPMENT ALTERNATIVES: ALTERNATIVE 1



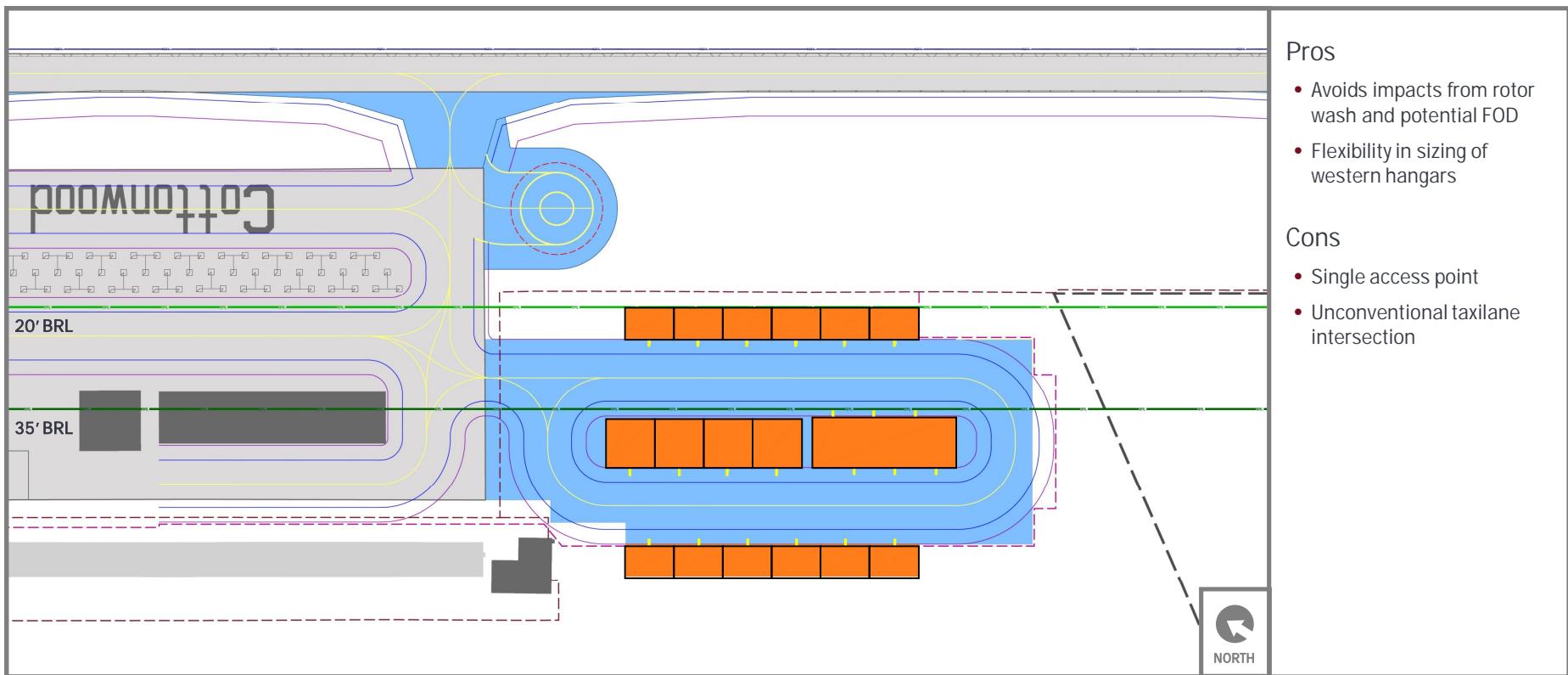
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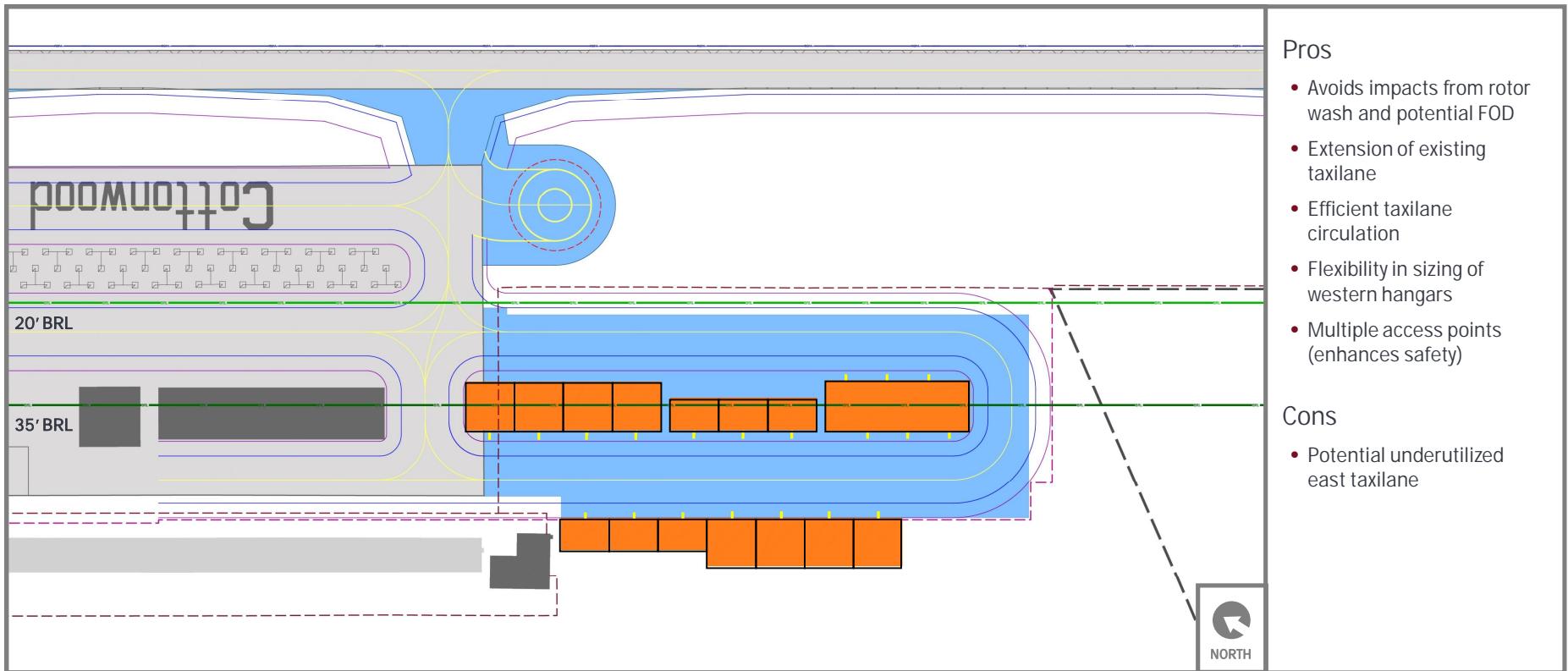
HANGAR DEVELOPMENT ALTERNATIVES: ALTERNATIVE 2



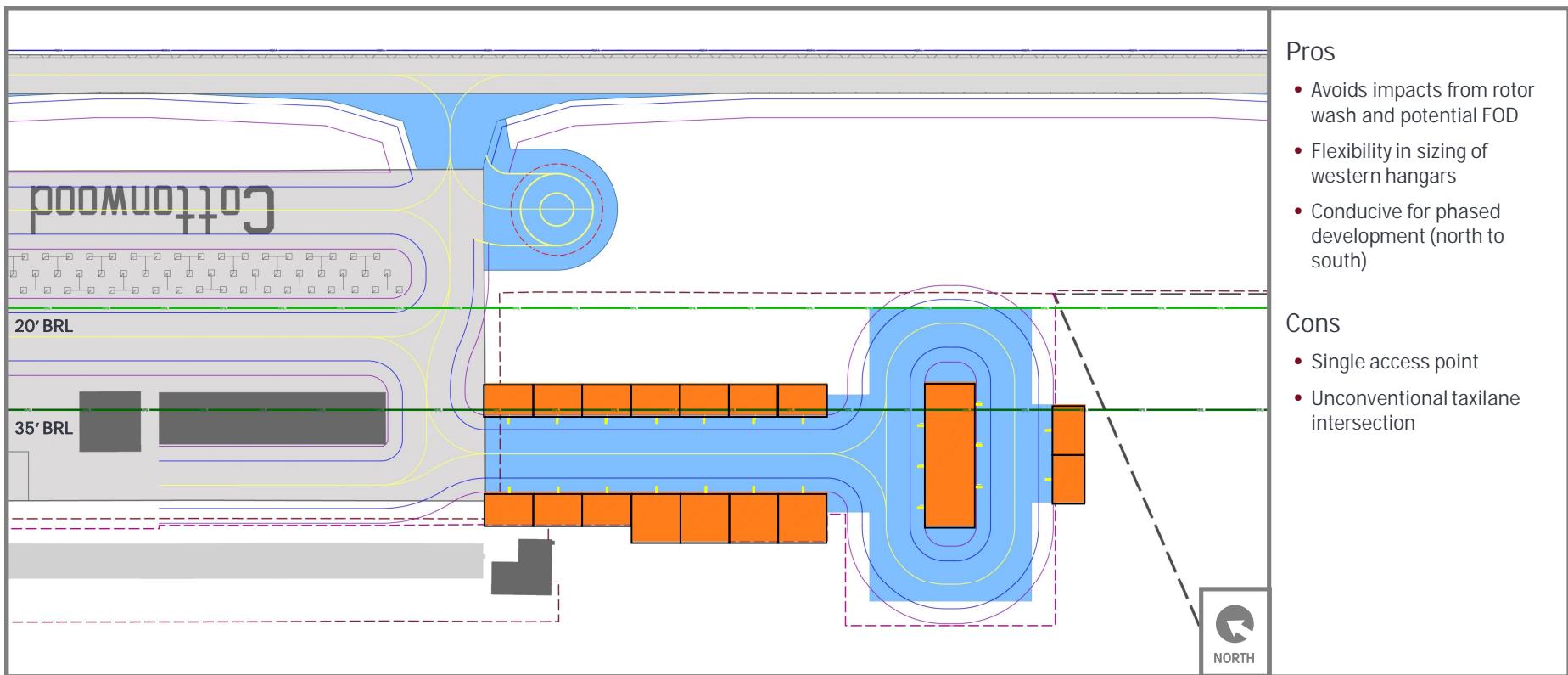
HANGAR DEVELOPMENT ALTERNATIVES: ALTERNATIVE 3



HANGAR DEVELOPMENT ALTERNATIVES: ALTERNATIVE 4



HANGAR DEVELOPMENT ALTERNATIVES: ALTERNATIVE 5



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PROJECT PHASING

Recommended Projects

- **Taxiway A reconstruction** and extension (includes associated taxiway connectors)*
- **Runway 14-32 extension**, narrowing, and strengthening*
- **Run-up area** construction*
- **Helicopter parking area** relocation*
- **Fuel tank** relocation
- **T-shade** relocation
- **Hangar** development

**Project eligible for FAA funding*

Discussion

- Near term (0-5 years)
 - Taxiway A reconstruction and extension
- Intermediate term (6-10 years)
- Long term (11-20 years)

CJ31 **May scrap depending on time**
Coliton, John, 11/15/2021

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NEXT STEPS

- Send draft Master Plan chapters for PAC review
- Integrate input/feedback into development alternatives
- Draft Alternatives working paper
- Meet with FAA to discuss Recommended Development Plan (RDP)
- Draft Implementation and Financial Analysis working paper
- Draft Airport Layout Plan (ALP)
- **Ongoing Stakeholder Involvement - PAC Meeting and Public Information Meeting: Est. February 2022**

QUESTIONS / COMMENTS

Please send additional questions and comments to:

colin.wheeler@kimley-horn.com

john.coliton@kimley-horn.com



THANK YOU!

Kimley»Horn

