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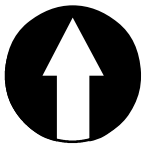
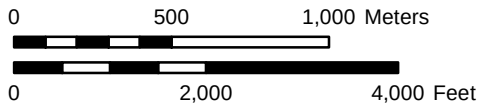
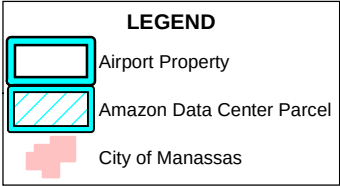
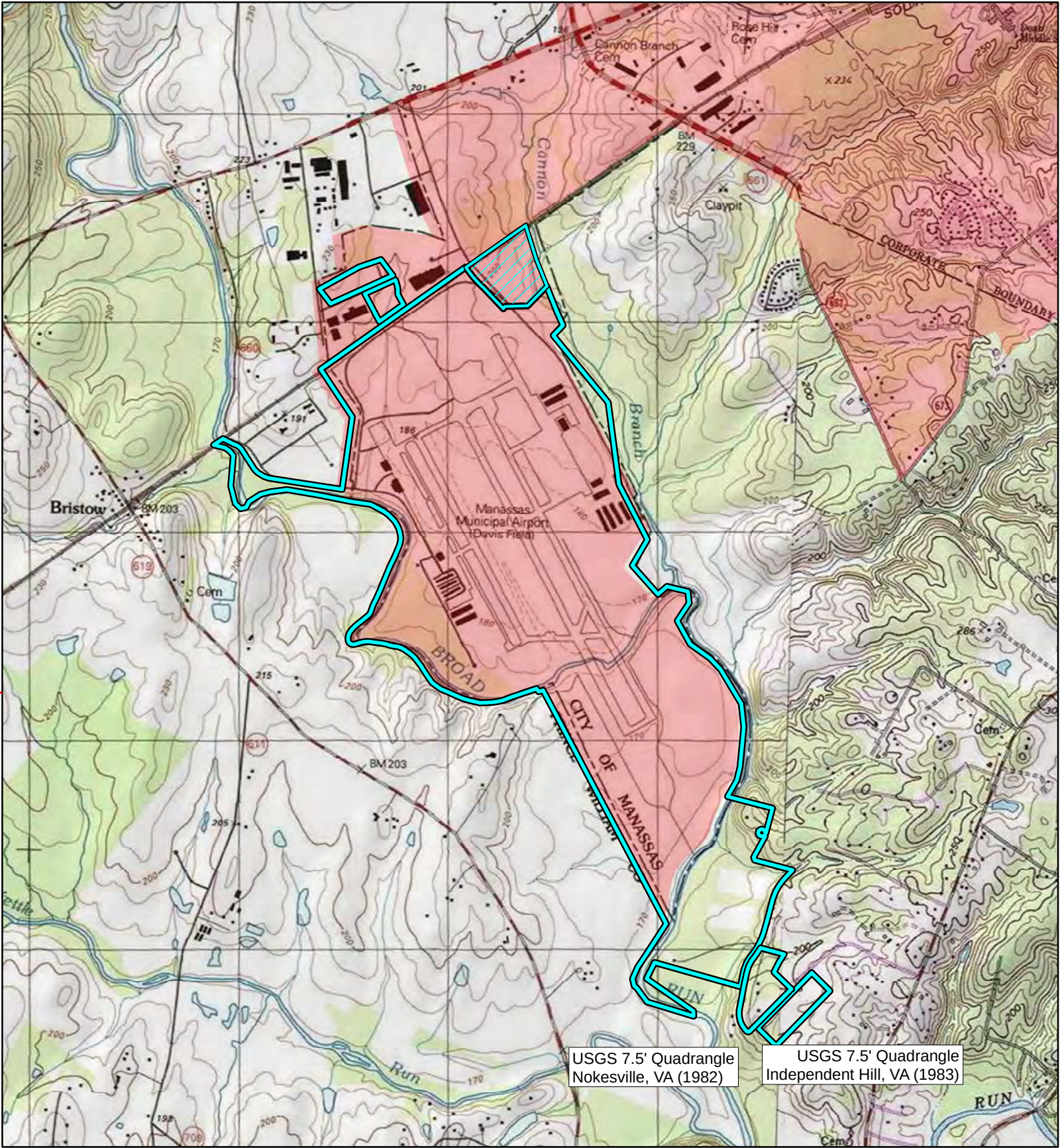
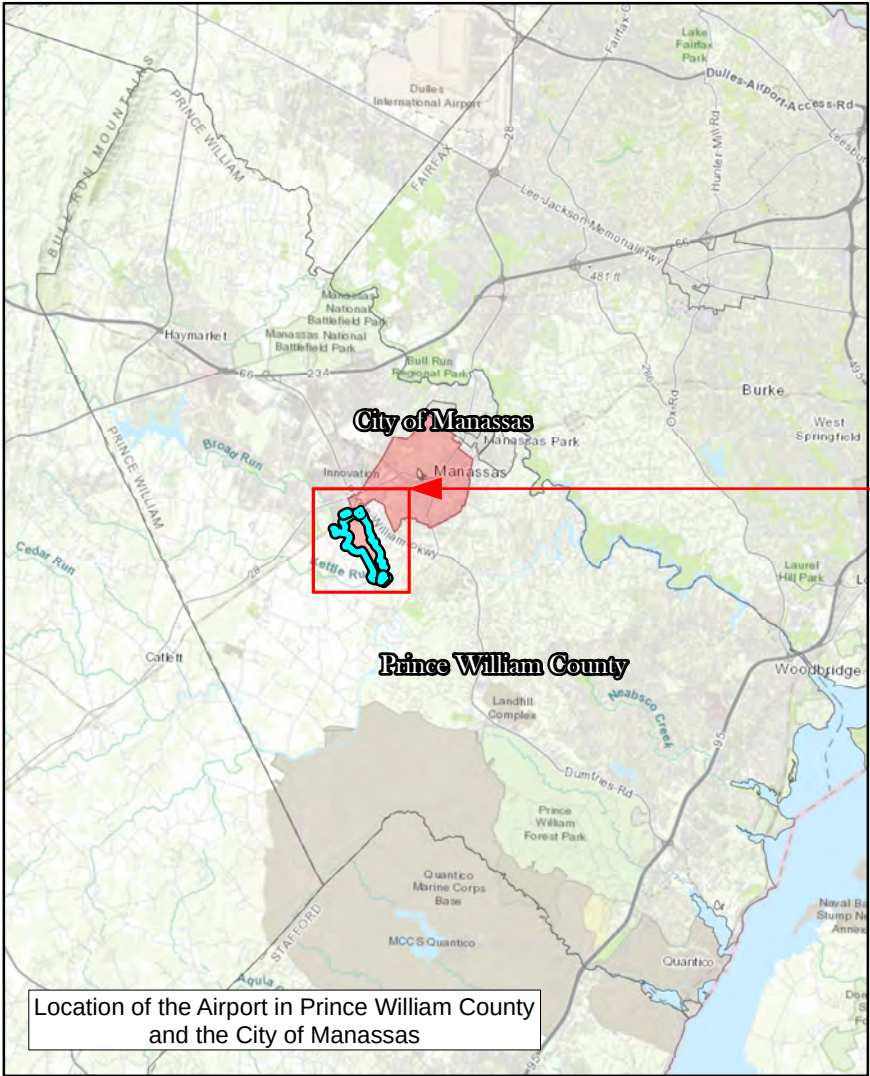
Figure A26: No Action Alternative (2036) 65-75 Noise DNL Contours

Figure A27: No Action Alternative (2041) 65-75 Noise DNL Contours

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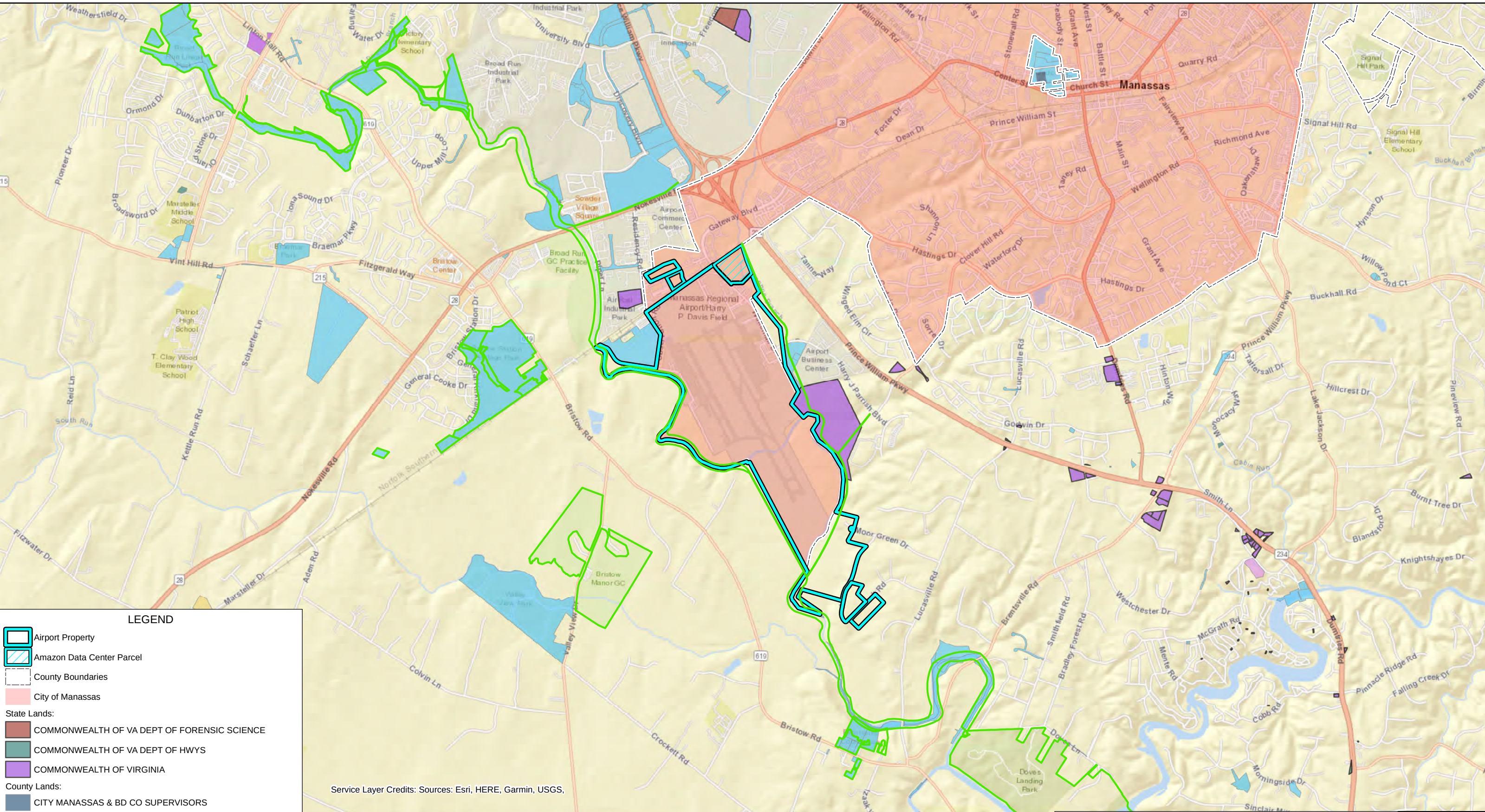
Figure A30: Preferred Alternative –Alternative #2 (2041) 65-75 Noise DNL Contours



**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program**

Location of the Airport

Figure
A1



LEGEND

Airport Property

Amazon Data Center Parcel

County Boundaries

City of Manassas

State Lands:

COMMONWEALTH OF VA DEPT OF FORENSIC SCIENCE

COMMONWEALTH OF VA DEPT OF HWYS

COMMONWEALTH OF VIRGINIA

County Lands:

CITY MANASSAS & BD CO SUPERVISORS

LAKE JACKSON VOLUNTEER FIRE DEPT

NOKESVILLE VOLUNTEER FIRE DEPT

PWC BOARD OF COUNTY SUPERVISORS

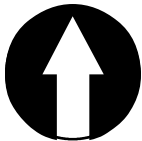
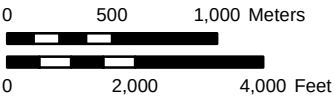
PWC BOARD OF COUNTY SUPERVISORS

PWC BOCS & NOKESVILLE VOLUNTEER FIRE & RESCUE DEPT

PWC SERVICE AUTHORITY

Park Boundaries

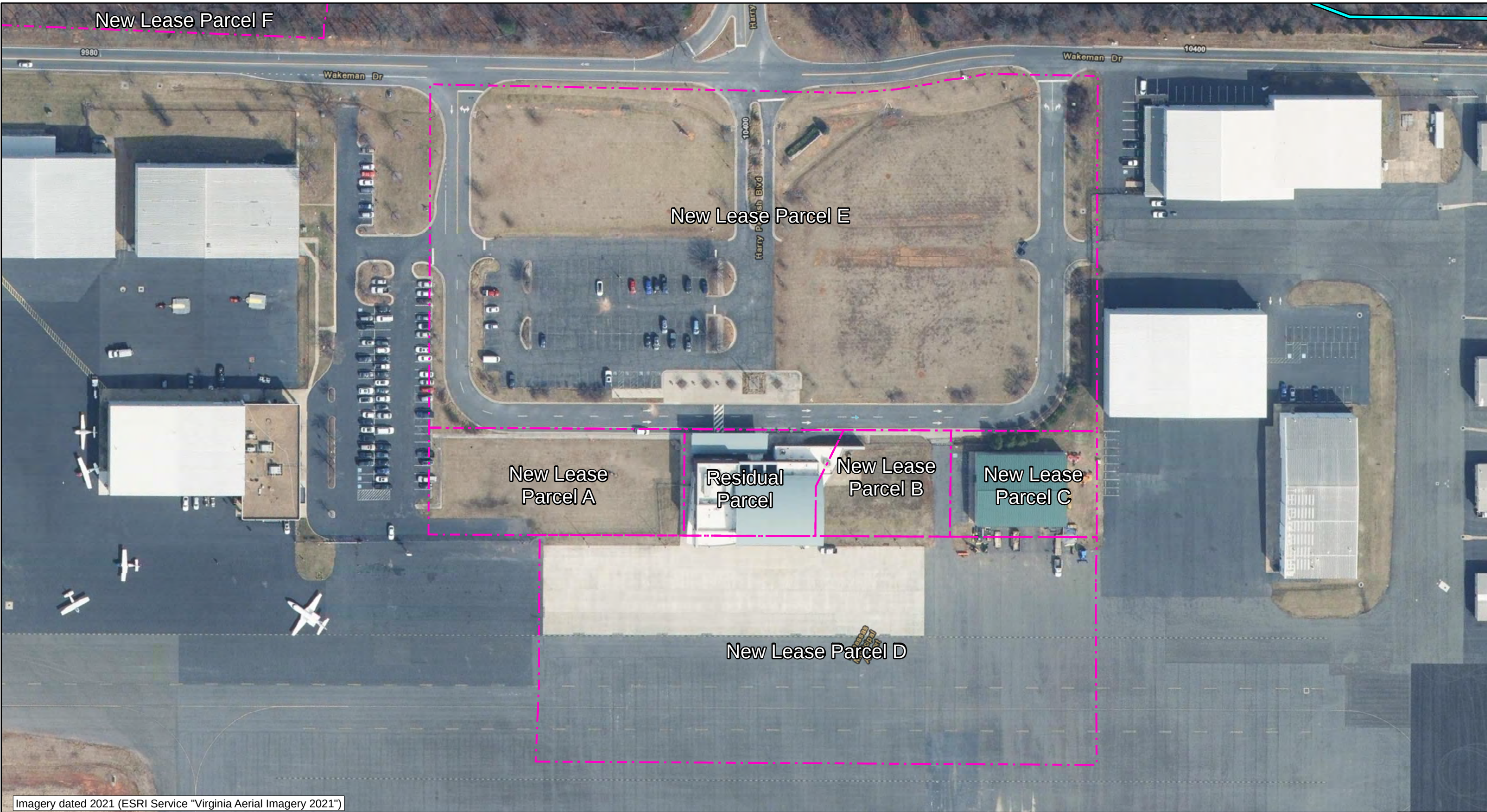
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS,



Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

State, County, and Local Jurisdictions

Figure
A2



Imagery dated 2021 (ESRI Service "Virginia Aerial Imagery 2021")

LEGEND

- Airport Property
- New Lease Parcel Boundary

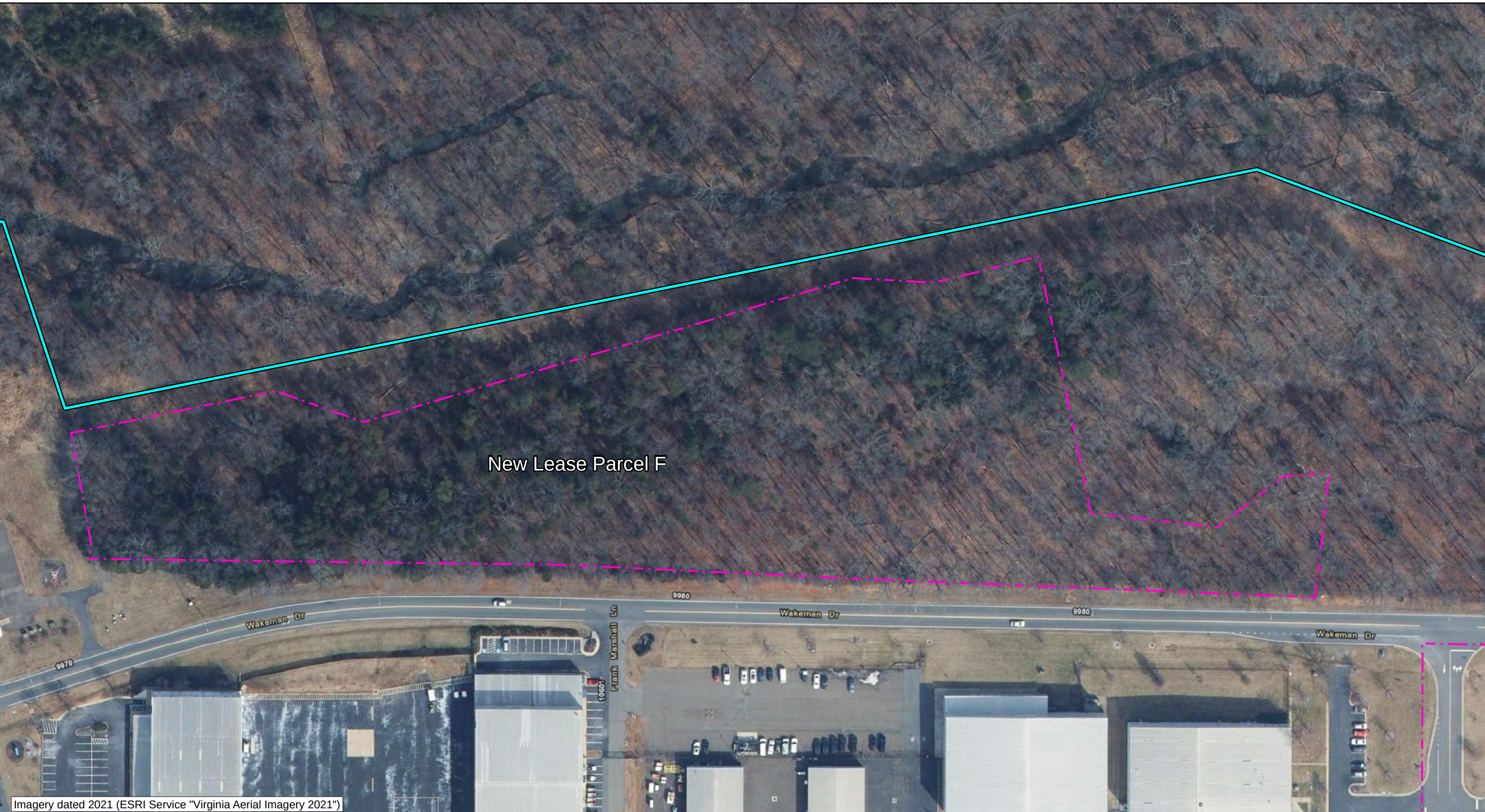
0 25 50 Meters

0 100 200 Feet



**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program
Franchise Agreement Lease Parcels
A, B, C, D, E.**

Figure
A3

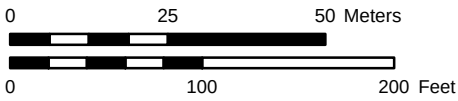


Imagery dated 2021 (ESRI Service "Virginia Aerial Imagery 2021")

LEGEND

 Airport Property

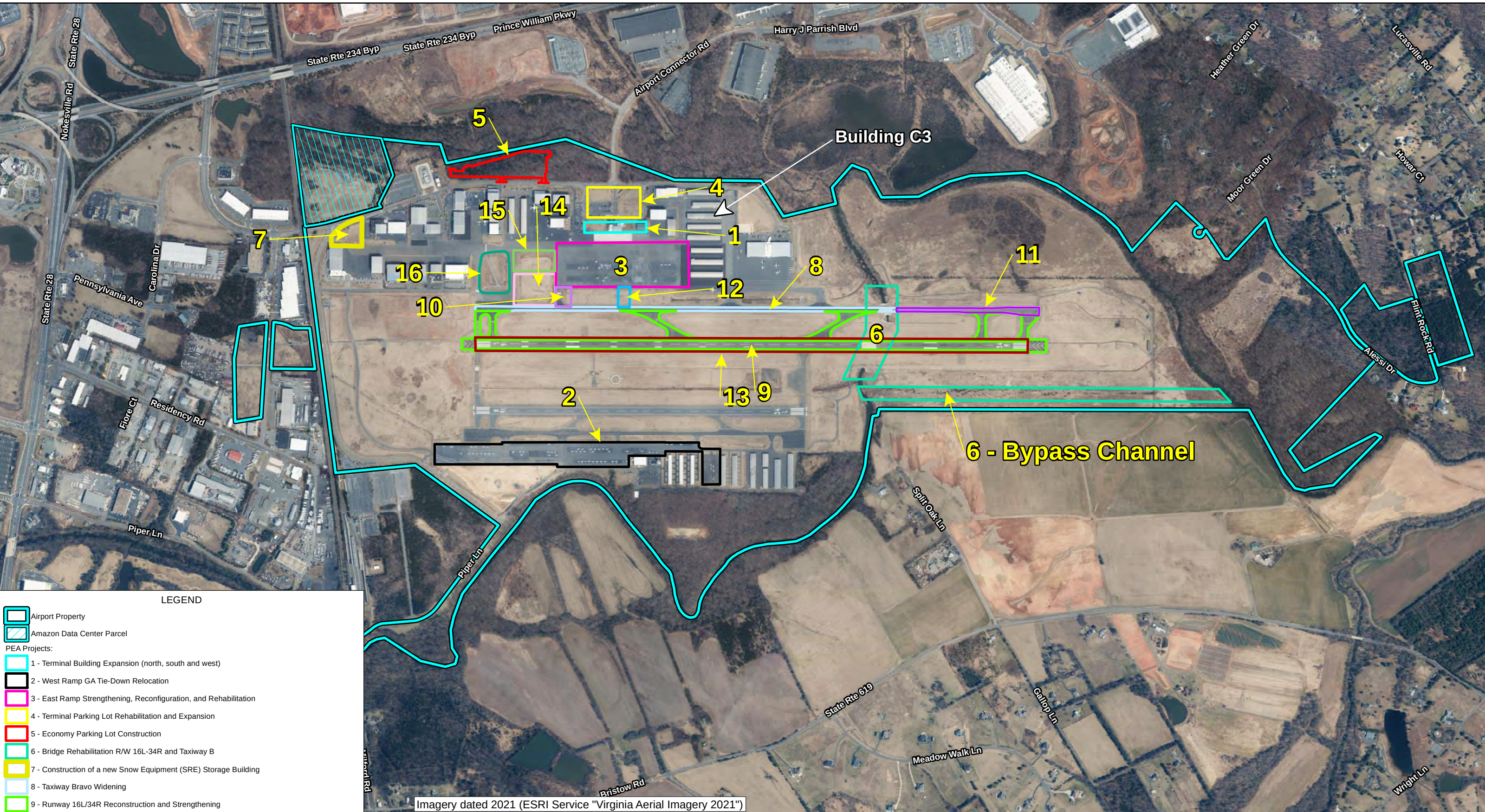
 New Lease Parcel Boundary



Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

Franchise Agreement Lease Parcel F

Figure
A4



LEGEND

Airport Property

Amazon Data Center Parcel

PEA Projects:

1 - Terminal Building Expansion (north, south and west)

2 - West Ramp GA Tie-Down Relocation

3 - East Ramp Strengthening, Reconfiguration, and Rehabilitation

4 - Terminal Parking Lot Rehabilitation and Expansion

5 - Economy Parking Lot Construction

6 - Bridge Rehabilitation R/W 16L-34R and Taxiway B

7 - Construction of a new Snow Equipment (SRE) Storage Building

8 - Taxiway Bravo Widening

9 - Runway 16L/34R Reconstruction and Strengthening

10 - Taxiway Echo Fillet Widening

11 - Taxiway B Reconstruction and Strengthening (South of the Bridge)

12 - Construction of a new East Ramp Taxiway

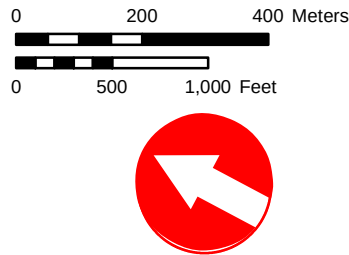
13 - Runway 16L/34R Widening

14 - Aircraft Deicing Pad and Apron Expansion between Taxiways D and E

15 - Construction of new Expanded East Ramp and Taxilane between Taxiways Delta and Echo

16 - Construction of a new ARFF Facility

Project #6 - Bypass Channel



Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

PEA Projects

Figure
A5

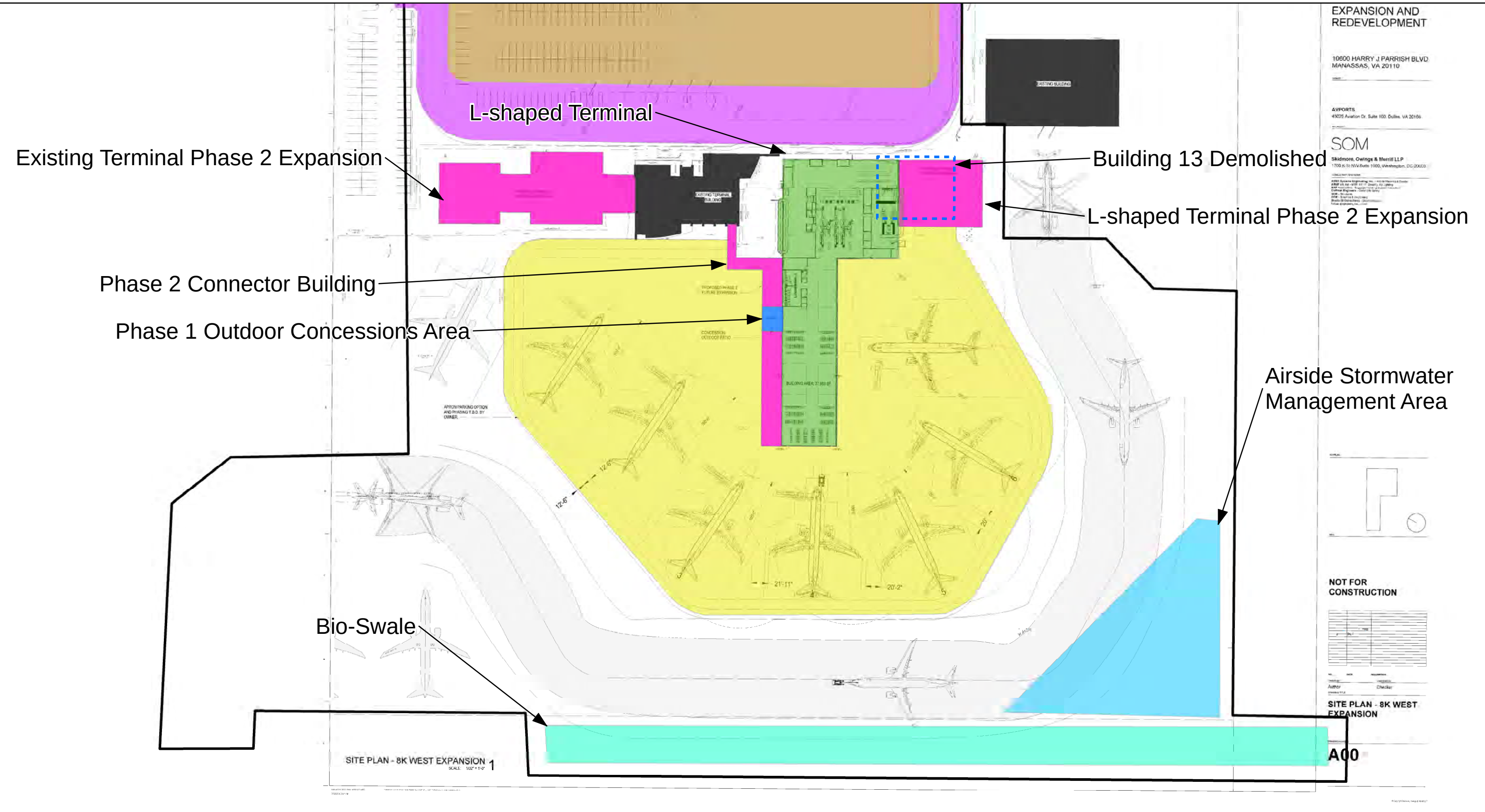
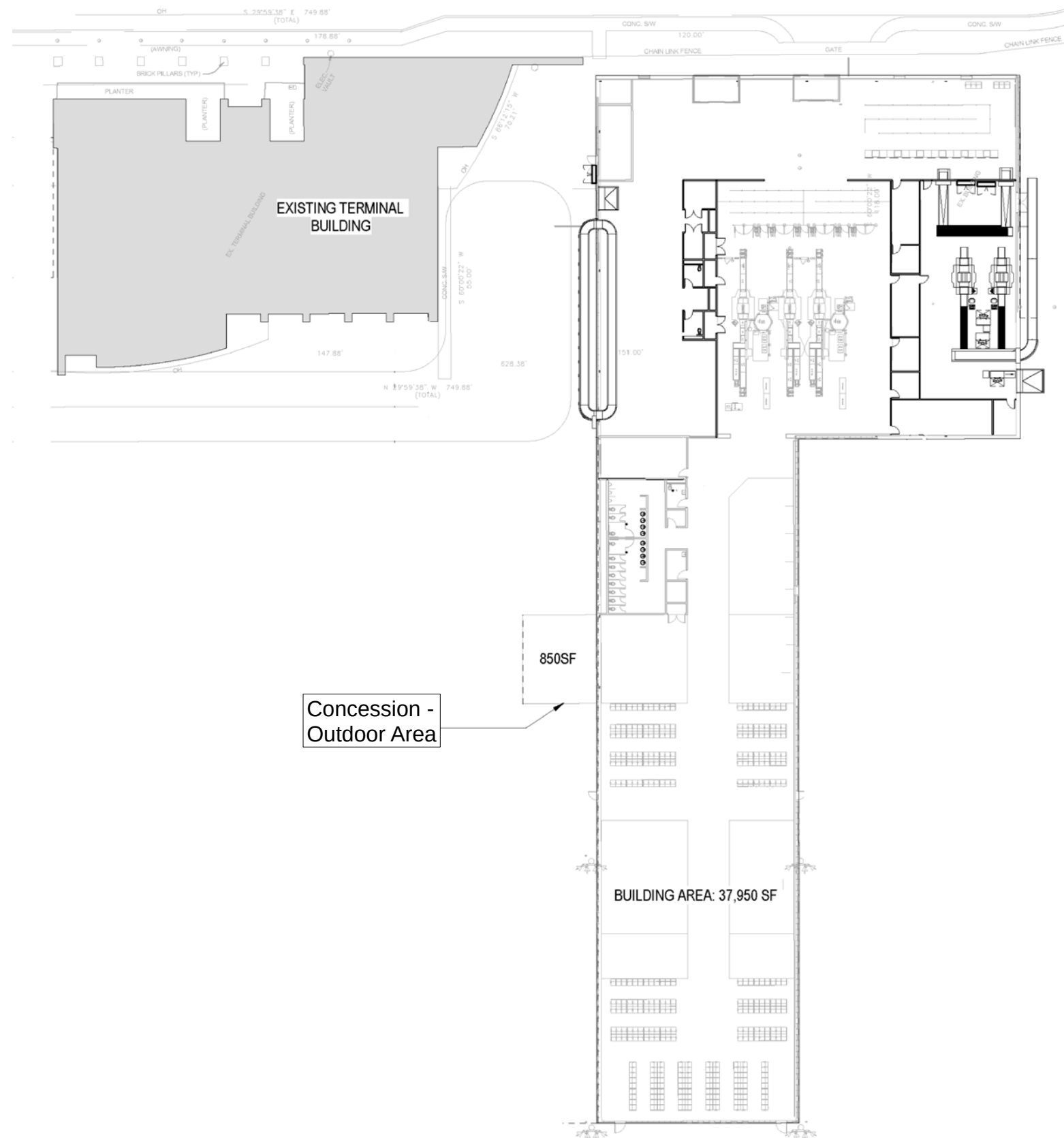


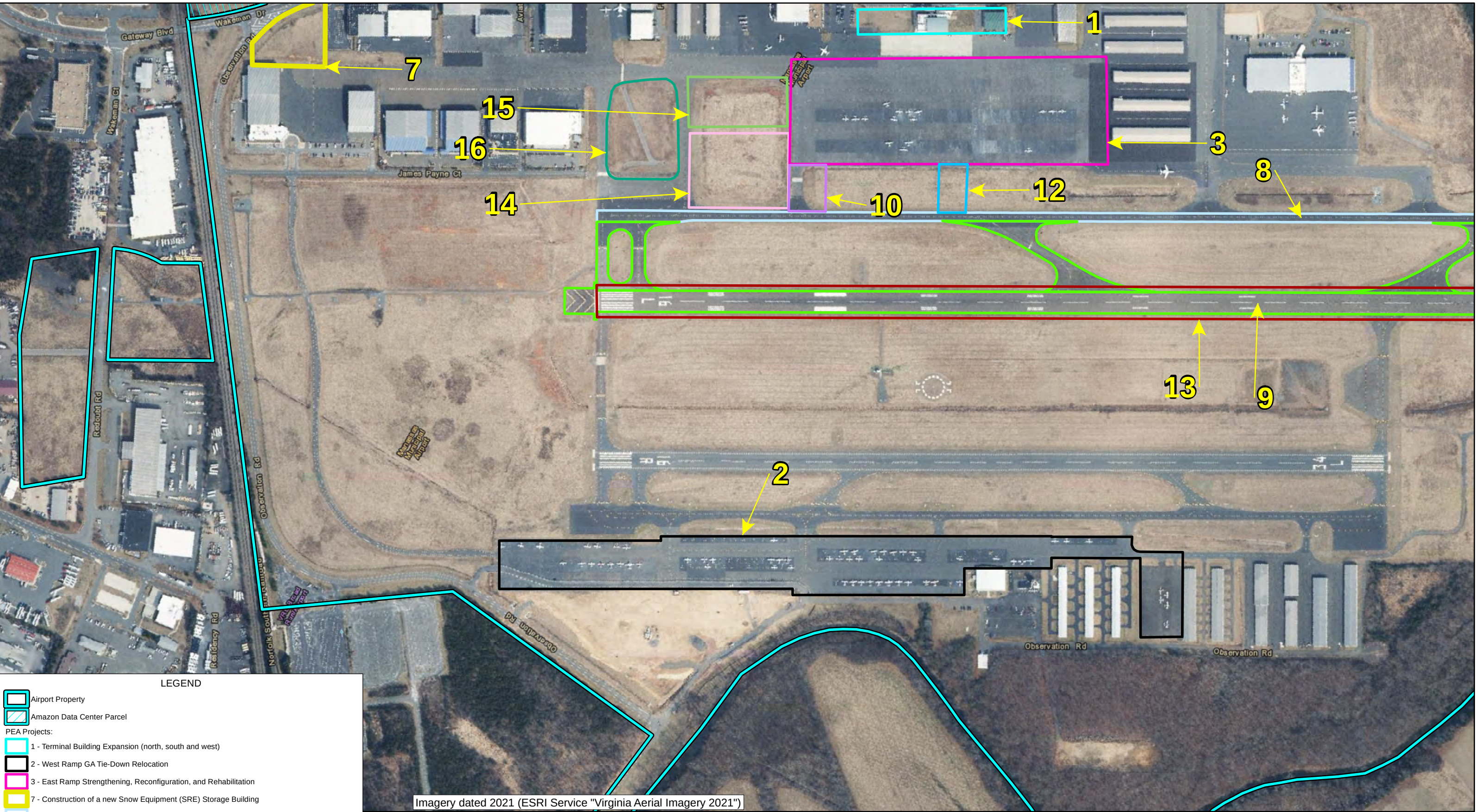
Figure
A6



**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program**

Phase 1 L-shaped Terminal Service Areas

Figure
A7



LEGEND

Airport Property

Amazon Data Center Parcel

PEA Projects:

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15 - Construction of new Expanded East Ramp and Taxilane between Taxiways Delta and Echo

16 - Construction of a new ARFF Facility

0100200

Meters

05001,000

Feet

AVION

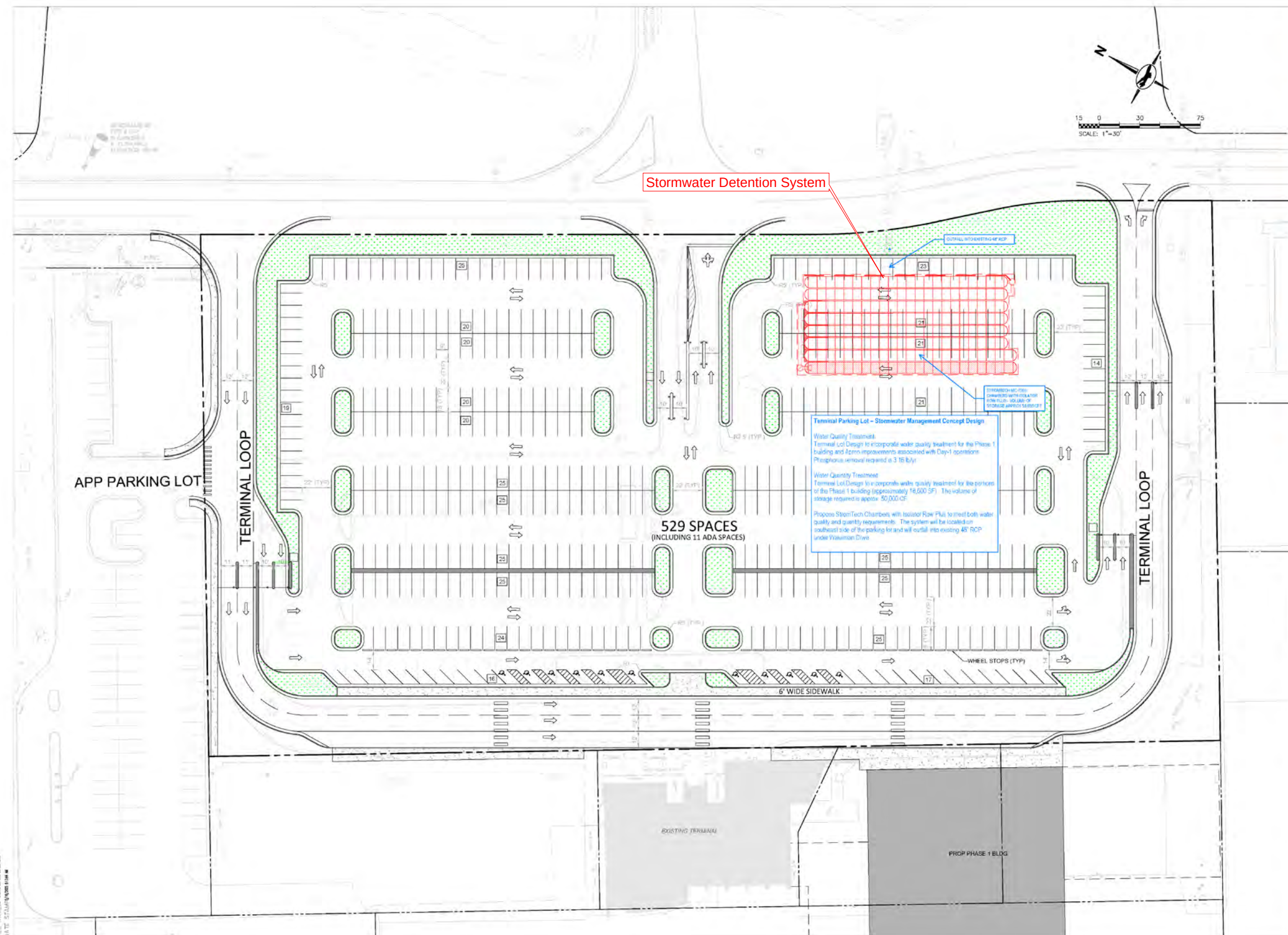
SOLUTIONS GROUP

LLC

Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

Extent of West Ramp to be Used for
GA Aircraft Tie-Down Locations

Figure
A8



AVPORTS
AVPORT MANASSAS LLC
45025 AVIATION DRIVE,
SUITE 100
DULLES, VA 20166-7524

PGAL
3131 BRIARPARK DRIVE
SUITE 200
HOUSTON, TX 77042
(713) 622 1444
www.pgal.com
PCAL TBPE REG. NO. F-2742

WT
WHITING-TURNER
THE WHITING-TURNER
CONTRACTING COMPANY
6305 IVY LANE, SUITE 800
GREENBELT, MD 20770
(310) 556-7800

ADCI
AIRPORT DESIGN
CONSULTANTS INC
8260 GREENSBORO DR
SUITE 120
MCLEAN, VA 22102
(714) 465 9600
www.adci-corp.com

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DRAWING HISTORY
REV. DESCRIPTION DATE

PROJECT NAME
TERMINAL LOT
CONFIGURATIONS

PROJECT LOCATION
WAKEMAN DRIVE
MANASSAS, VA
20110

PROJECT NUMBER

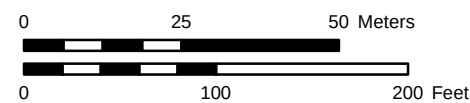
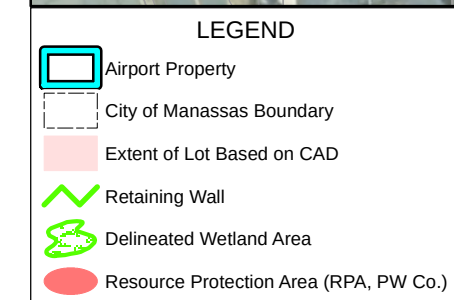
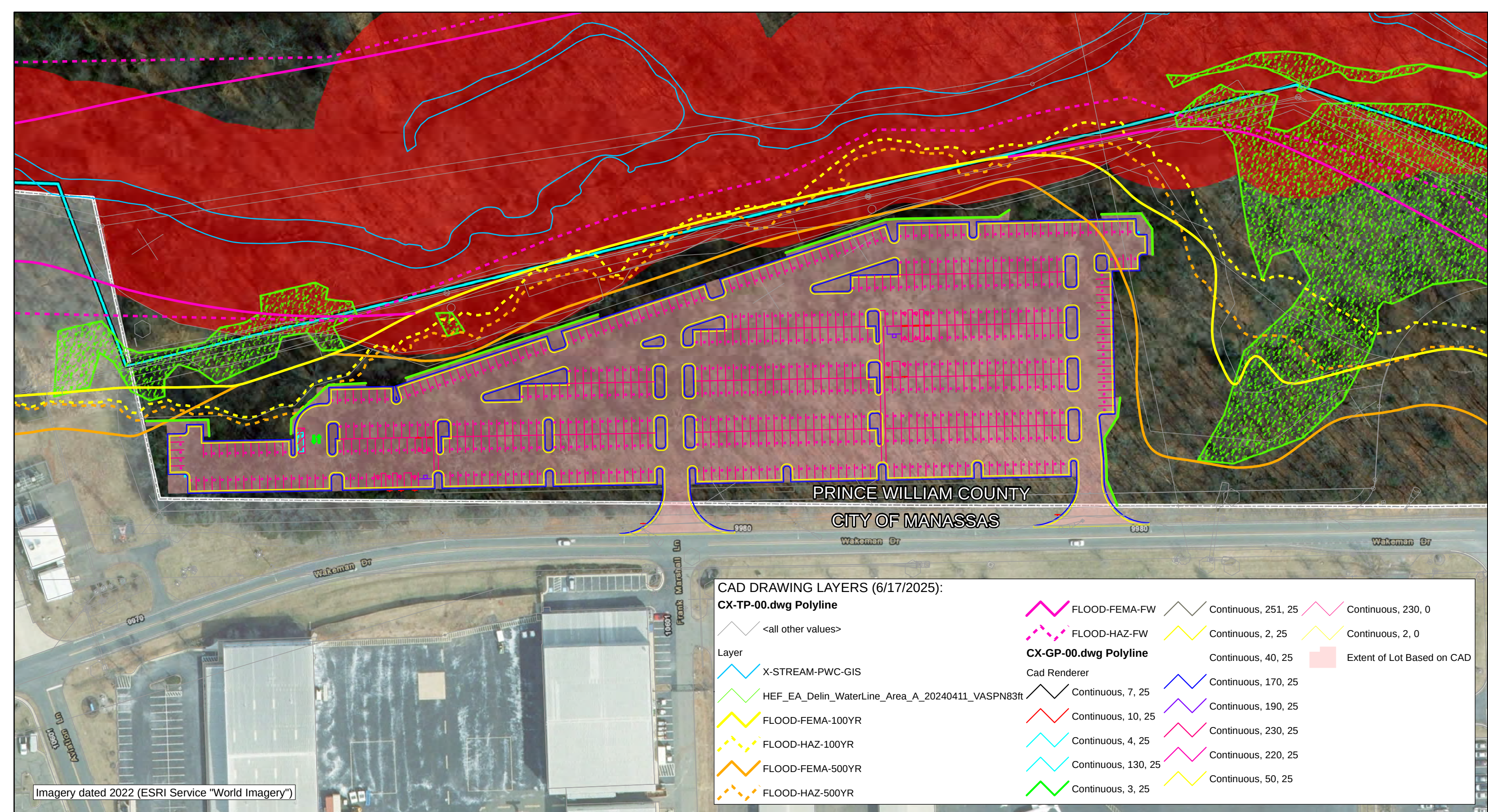
SHEET TITLE
TERMINAL
PARKING LOT
LAYOUT - Angled
Parking Close to
Terminal
MAY 13, 2025
SHEET NUMBER



Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

Proposed Terminal Parking Lot Detail

Figure
A9

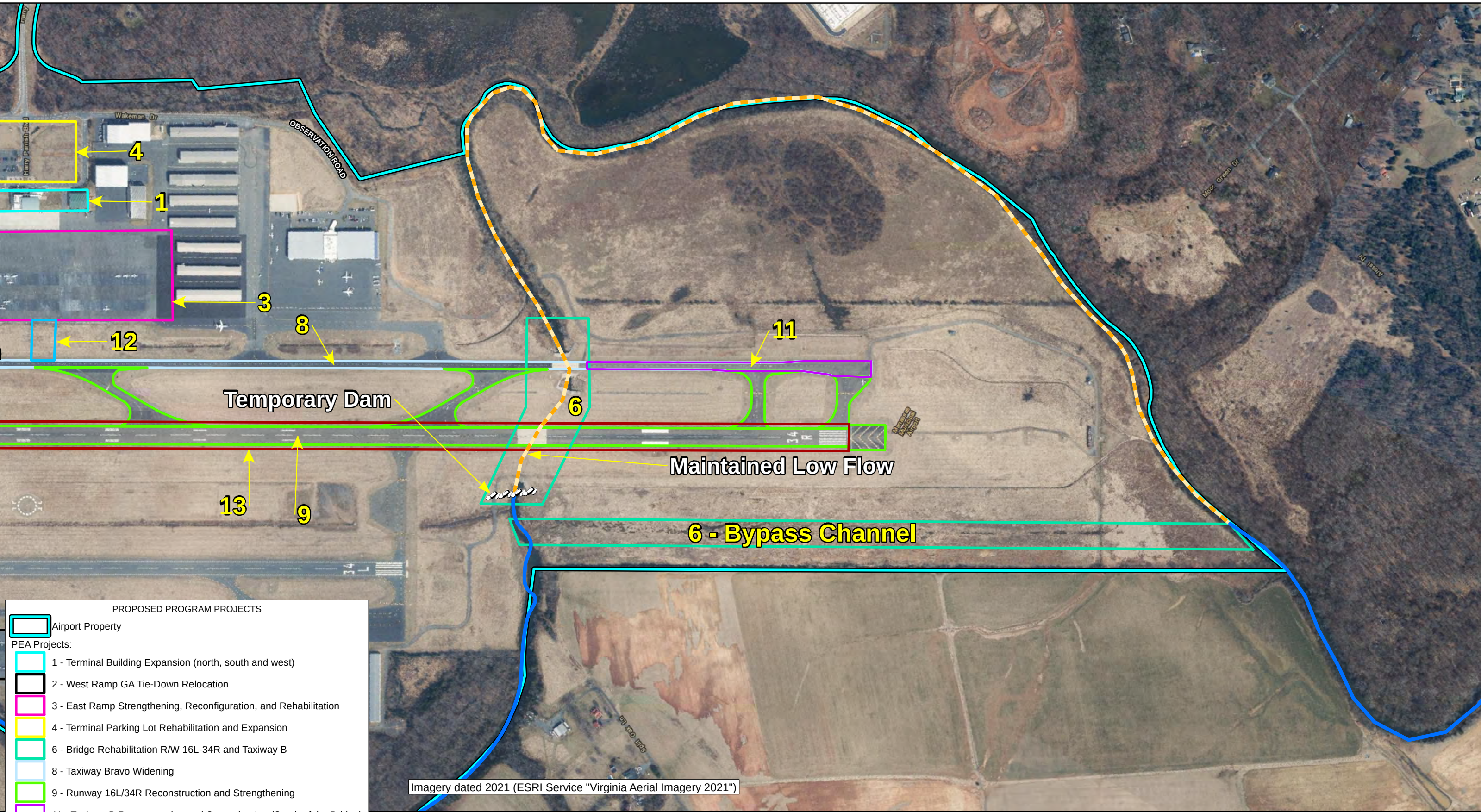


Project 23-98001.002, Version: 7/8/2026 @ 8:56:48 AM

Washington Manassas Airport (HEF) FAR Part 139 Certification & Terminal Redevelopment Program

Economy Parking Lot Layout

Figure
A10



PROPOSED PROGRAM PROJECTS

Airport Property

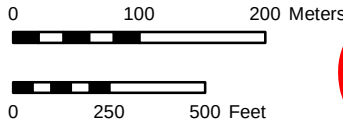
PEA Projects:

- 1 - Terminal Building Expansion (north, south and west)
- 2 - West Ramp GA Tie-Down Relocation
- 3 - East Ramp Strengthening, Reconfiguration, and Rehabilitation
- 4 - Terminal Parking Lot Rehabilitation and Expansion
- 6 - Bridge Rehabilitation R/W 16L-34R and Taxiway B
- 8 - Taxiway Bravo Widening
- 9 - Runway 16L/34R Reconstruction and Strengthening
- 11 - Taxiway B Reconstruction and Strengthening (South of the Bridge)
- 12 - Construction of a new East Ramp Taxiway
- 13 - Runway 16L/34R Widening

Broad Run Temporary Bypass:

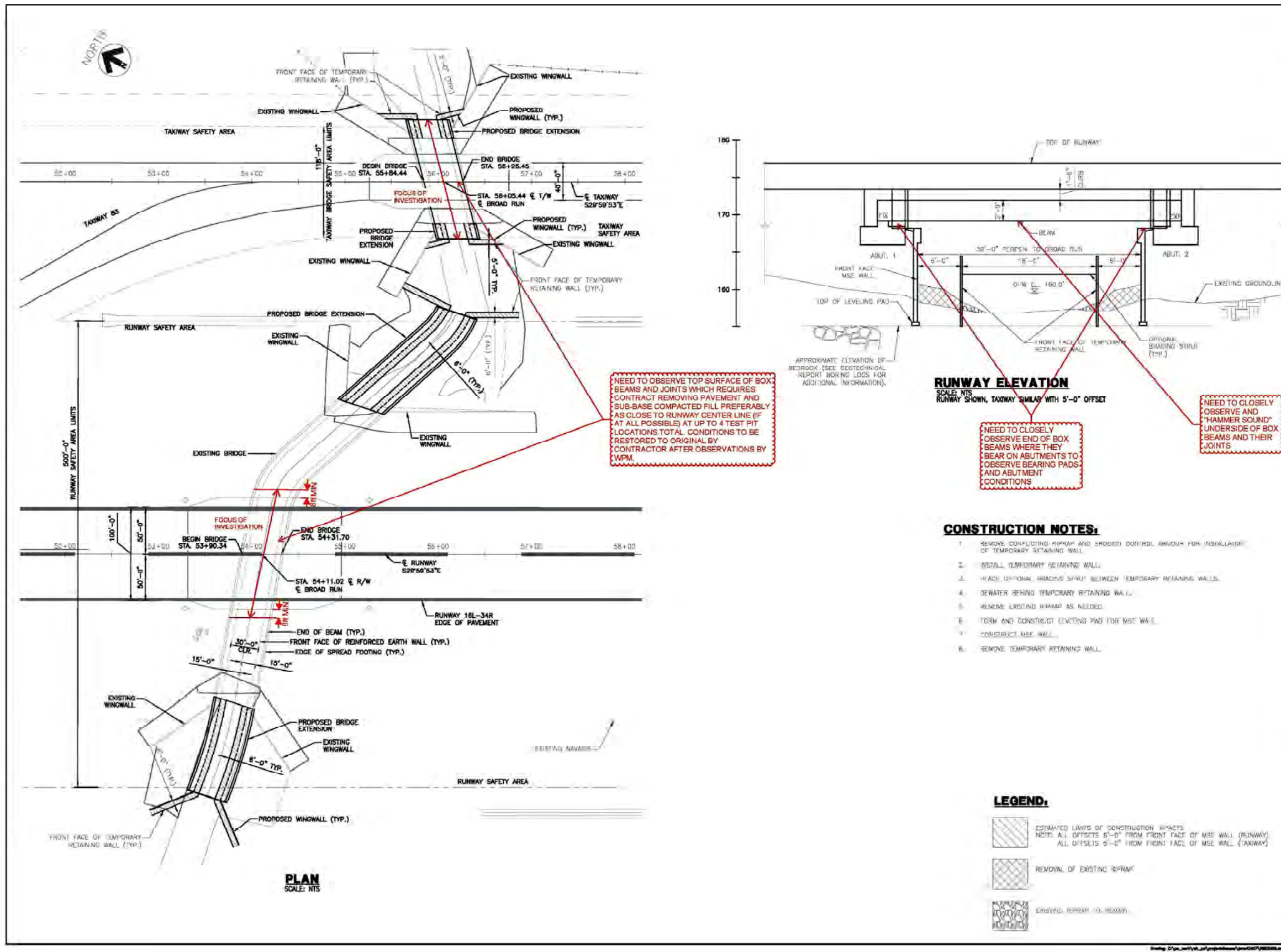
- Broad Run
- Maintained Low Flow
- Temporary Dam

Imagery dated 2021 (ESRI Service "Virginia Aerial Imagery 2021")



**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program
R/W 16L-34R and T/W B
Bridge Strengthening Action Areas**

Figure
A11



RS&H
IMPROVING YOUR WORLD

Reynolds, Smith and Hills, Inc.
800 North Washington Street, Suite 330
Alexandria, Virginia 22314
703-548-2472 FAX 703-548-2582
www.rsandh.com
Virginia Registration No. 602-000711-0001

MANASSAS REGIONAL AIRPORT
HARRY P. DAVIS FIELD

RUNWAY 34R EXTENSION AND RELATED WORK PACKAGE 2 BRIDGE STRUCTURE EXTENSIONS

CONSULTANTS

REVISIONS		
NO.	DESCRIPTION	DATE

DATE ISSUED: 3-18-12
REVIEWED BY: BMS
DRAWN BY: AWP
DESIGNED BY: AWP

AEP PROJECT NUMBER
222-1115-001

SHEET TITLE
BRIDGE STRUCTURES PERMIT PLAN

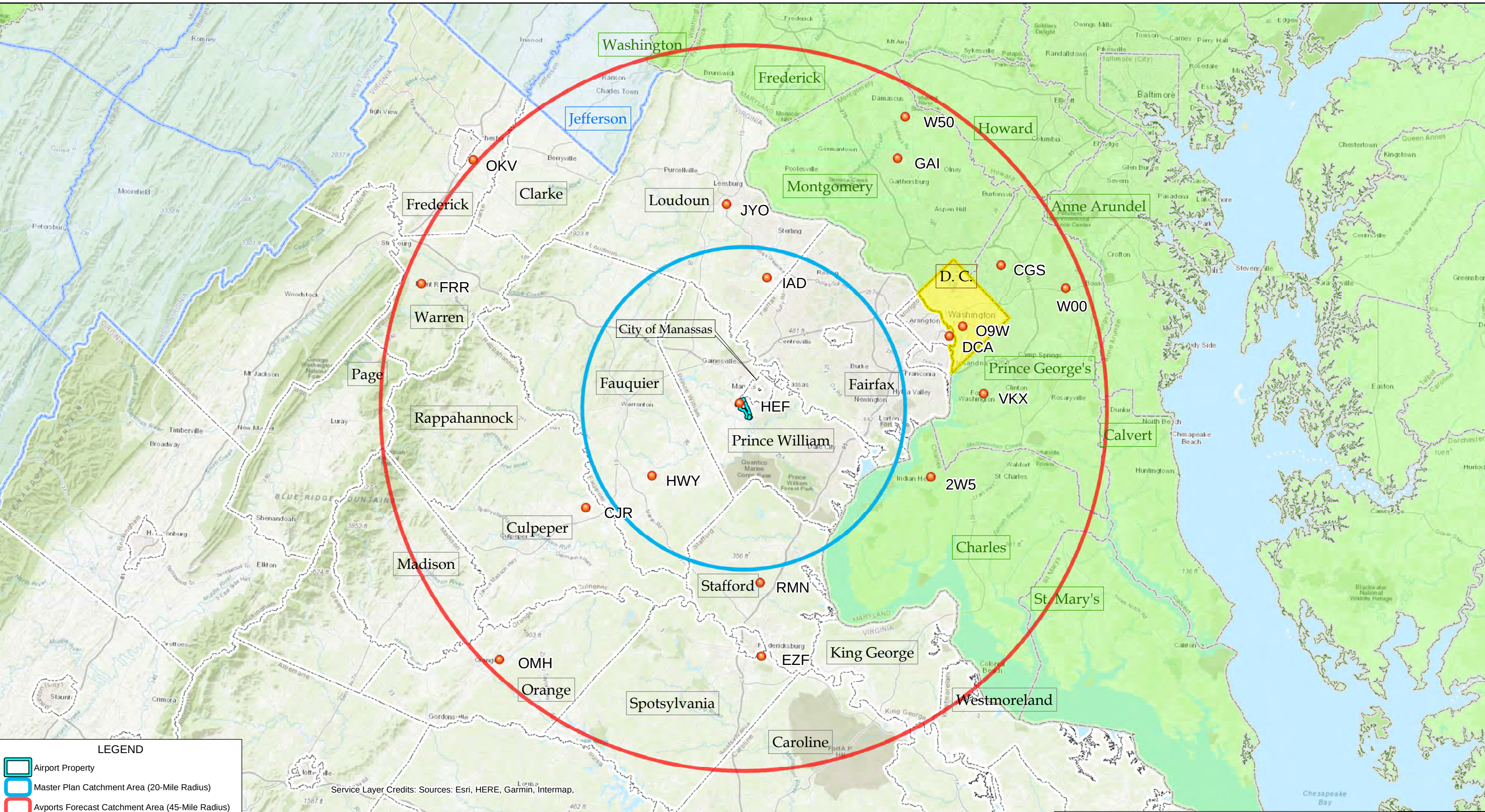
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S128
SHEET 48 OF 56
BID DOCUMENTS



Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

Bridge Action Area Detail

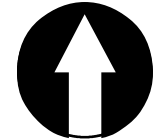
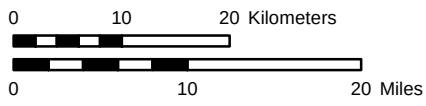
Figure
A12



LEGEND

- Airport Property
- Master Plan Catchment Area (20-Mile Radius)
- Airports Forecast Catchment Area (45-Mile Radius)
- Virginia Counties
- Washington D. C.
- Maryland Counties
- West Virginia Counties
- Public Use Airports within Catchment

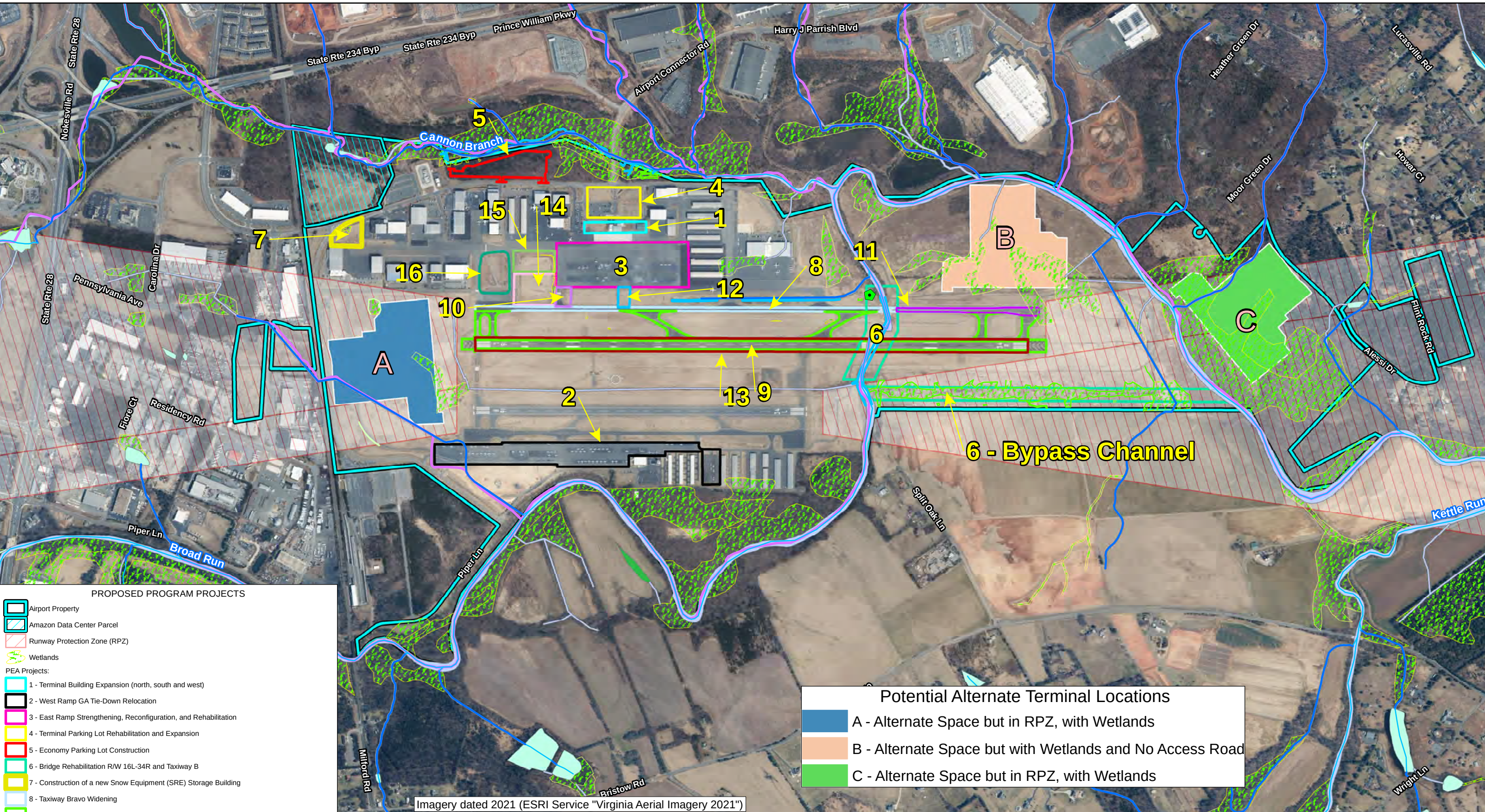
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap,



**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program**

Forecast Catchment Area Comparison

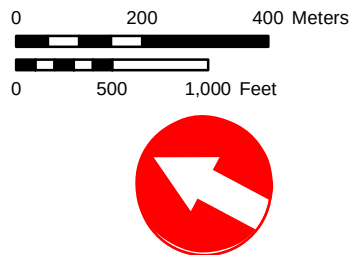
Figure
A13



- PROPOSED PROGRAM PROJECTS**
- Airport Property
 - Amazon Data Center Parcel
 - Runway Protection Zone (RPZ)
 - Wetlands
- PEA Projects:
- 1 - Terminal Building Expansion (north, south and west)
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 - 10 - Taxiway Echo Fillet Widening
 - 11 - Taxiway B Reconstruction and Strengthening (South of the Bridge)
 - 12 - Construction of a new East Ramp Taxiway
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 - 14 - Aircraft Deicing Pad and Apron Expansion between Taxiways D and E
 - 15 - Construction of new Expanded East Ramp and Taxilane between Taxiways Delta and Echo
 - 16 - Construction of a new ARFF Facility
 - Project #6 - Bypass Channel

Potential Alternate Terminal Locations

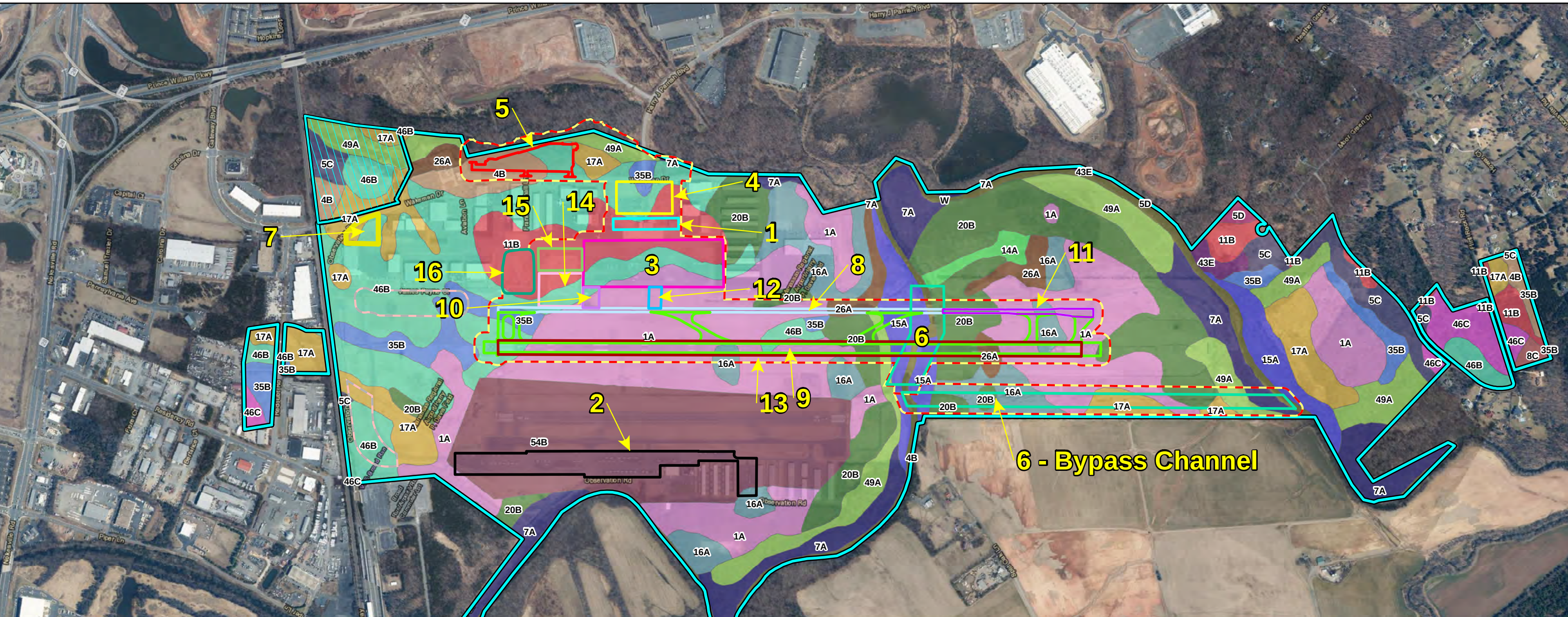
- A - Alternate Space but in RPZ, with Wetlands
- B - Alternate Space but with Wetlands and No Access Road
- C - Alternate Space but in RPZ, with Wetlands



**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program**

**Alternative #5: New Terminal Construction
Alternate Location**

Figure
A14



LEGEND

Airport Property

Amazon Data Center Parcel

Area of Investigation, Current Projects

Former Projects, No Longer Active

PEA Projects:

1 - Terminal Building Expansion (north, south and west)

2 - West Ramp GA Tie-Down Relocation

3 - East Ramp Strengthening, Reconfiguration, and Rehabilitation

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10 - Taxiway Echo Fillet Widening

11 - Taxiway B Reconstruction and Strengthening (South of the Bridge)

12 - Construction of a new East Ramp Taxiway

13 - Runway 16L/34R Widening

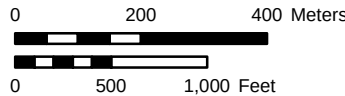
14 - Aircraft Deicing Pad and Apron Expansion between Taxiways D and E

15 - Construction of new Expanded East Ramp and Taxilane between Taxiways Delta and Echo

16 - Construction of a new ARFF Facility

Aerial imagery dated 2021
(ESRI Service "Virginia Aerial Imagery 2021")

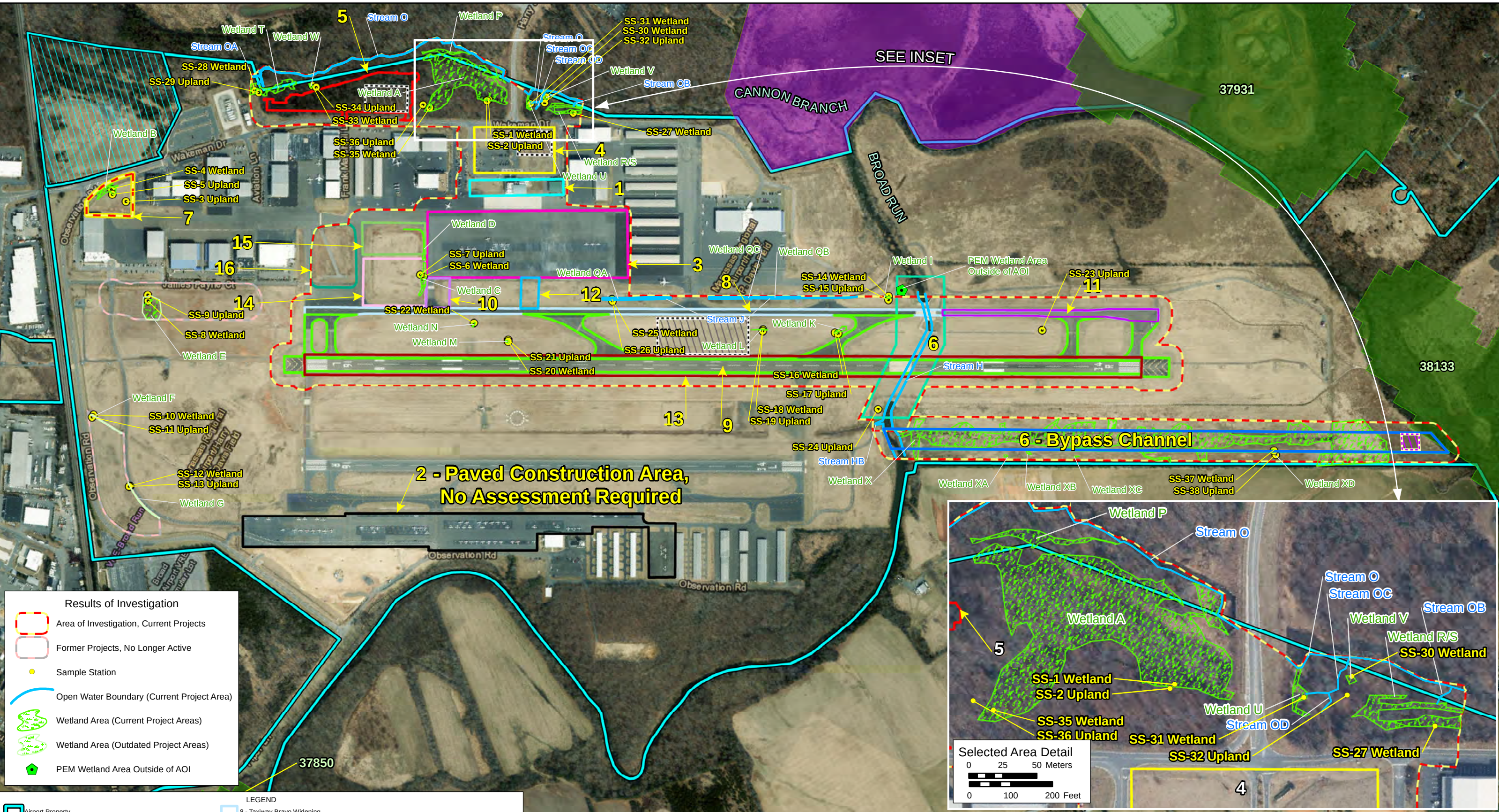
11B - Calverton silt loam, 0 to 7 percent slopes	16A - Delanco fine sandy loam, 0 to 4 percent slopes	20B - Elsinboro sandy loam, 2 to 7 percent slopes	Soil Series	
14A - Codorus loam, 0 to 2 percent slopes	17A - Dulles silt loam, 0 to 2 percent slopes	26A - Hatboro silt loam, 0 to 2 percent slopes	43E - Nestoria gravely silt loam, 25 to 50 percent slopes	49A - Rowland silt loam, 0 to 2 percent slopes
15A - Comus loam, 0 to 2 percent slopes	1A - Aden silt loam, 0 to 2 percent slopes	35B - Manassas silt loam, 2 to 7 percent slopes	46B - Panorama silt loam, 2 to 7 percent slopes	5C - Arcola- Nestoria complex, 7 to 15 percent slopes
			46C - Panorama silt loam, 7 to 15 percent slopes	5D - Arcola- Nestoria complex, 15 to 25 percent slopes
				7A - Bermudian silt loam, 0 to 2 percent slopes
				8C - Braddock loam, 7 to 15 percent slopes
				W - Water



**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program**

**Airport Soils,
Natural Resource Conservation Service (NRCS)
Soil Survey Geographic Database (SSURGO)**

Figure
A15



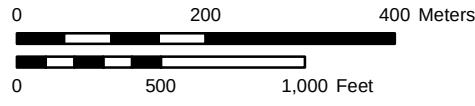
Results of Investigation

- Area of Investigation, Current Projects
- Former Projects, No Longer Active
- Sample Station
- Open Water Boundary (Current Project Area)
- Wetland Area (Current Project Areas)
- Wetland Area (Outdated Project Areas)
- PEM Wetland Area Outside of AOI

LEGEND

PEA Projects:

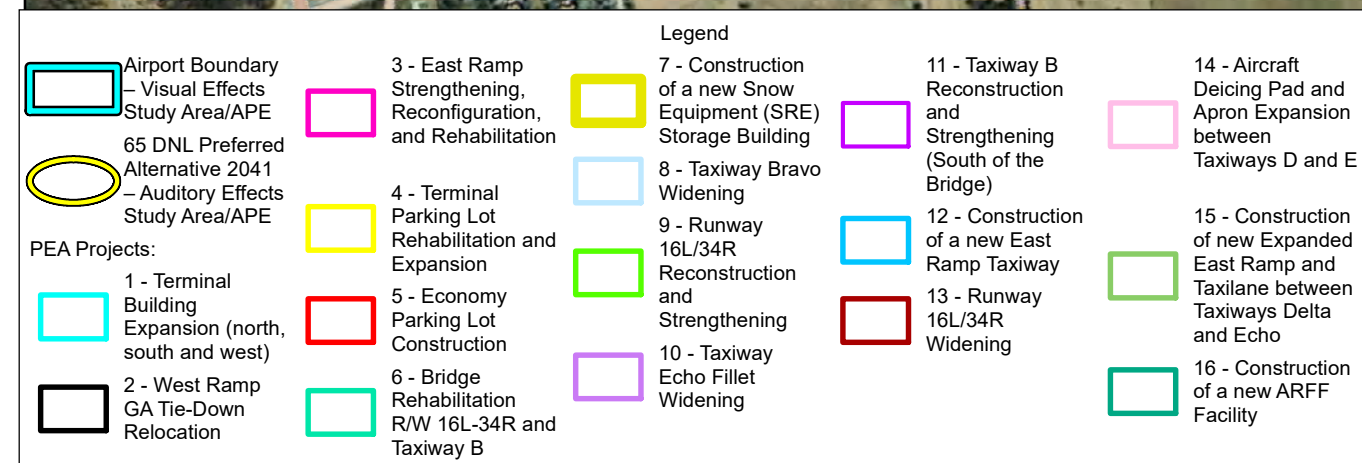
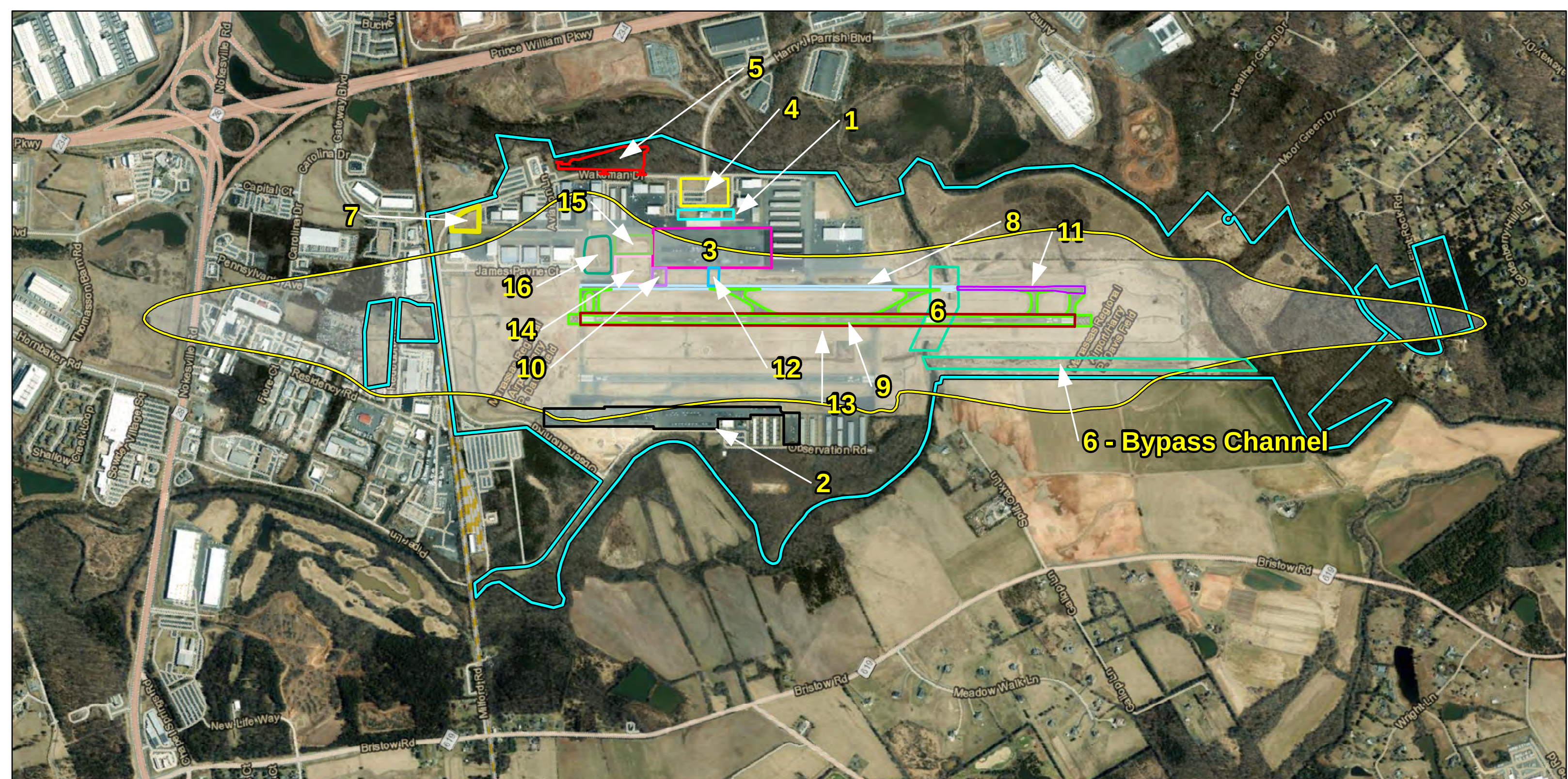
- 1 - Terminal Building Expansion (north, south and west)
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- 15 - Construction of new Expanded East Ramp and Taxiway between Taxiways Delta and Echo
- 16 - Construction of a new ARFF Facility
- Project #6 - Bypass Channel
- Approximate Location of Proposed Underground Detention Area for New Hardscaped Surfaces
- Approximate Location of Soil Removal for Floodplain Balancing

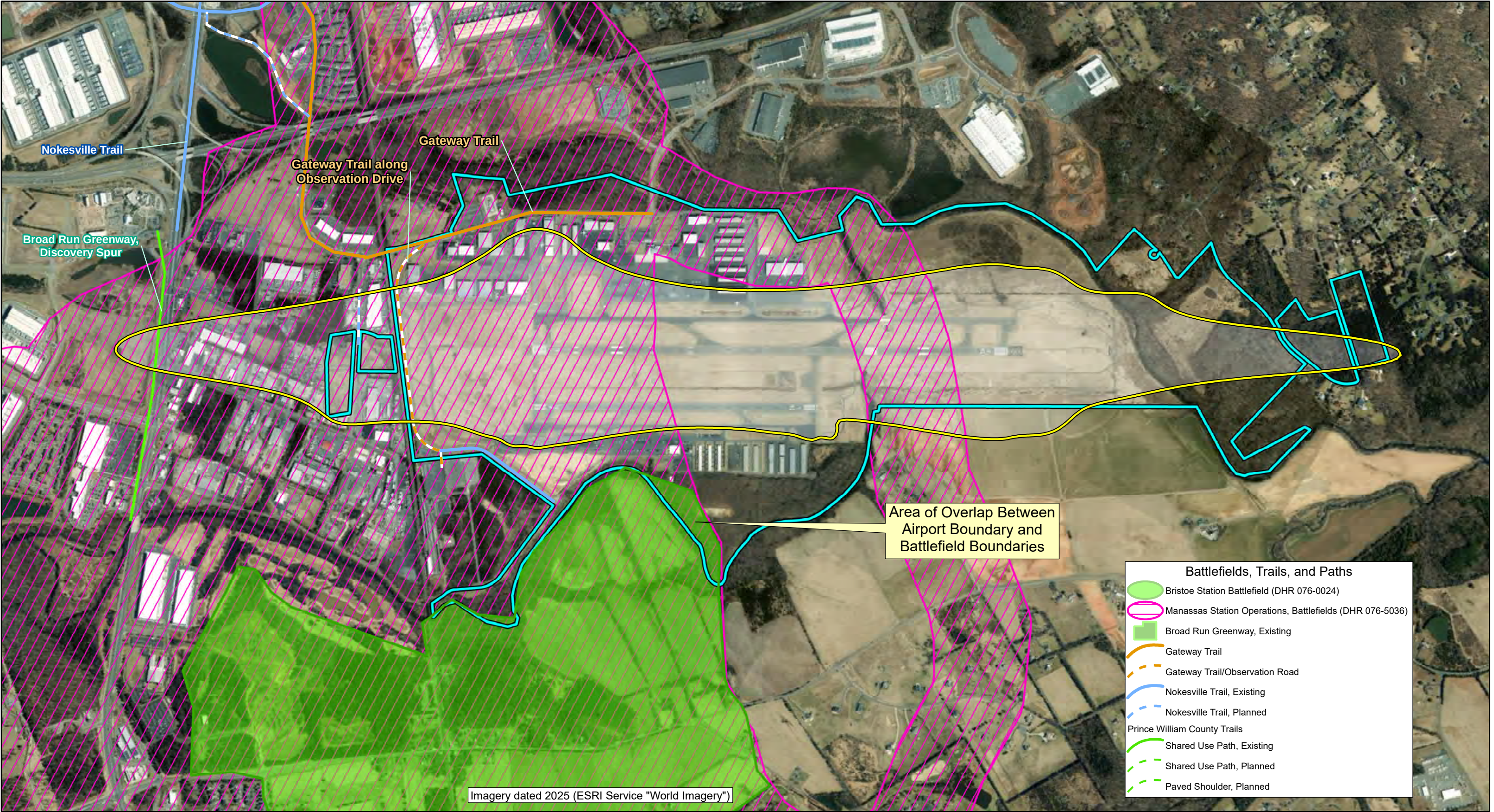


**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program**

Delineated Features

**Figure
A16**





Legend

Airport Boundary – Visual Effects Study Area

65 DNL Preferred Alternative 2041 – Auditory Effects Study Area

0250500 Meters

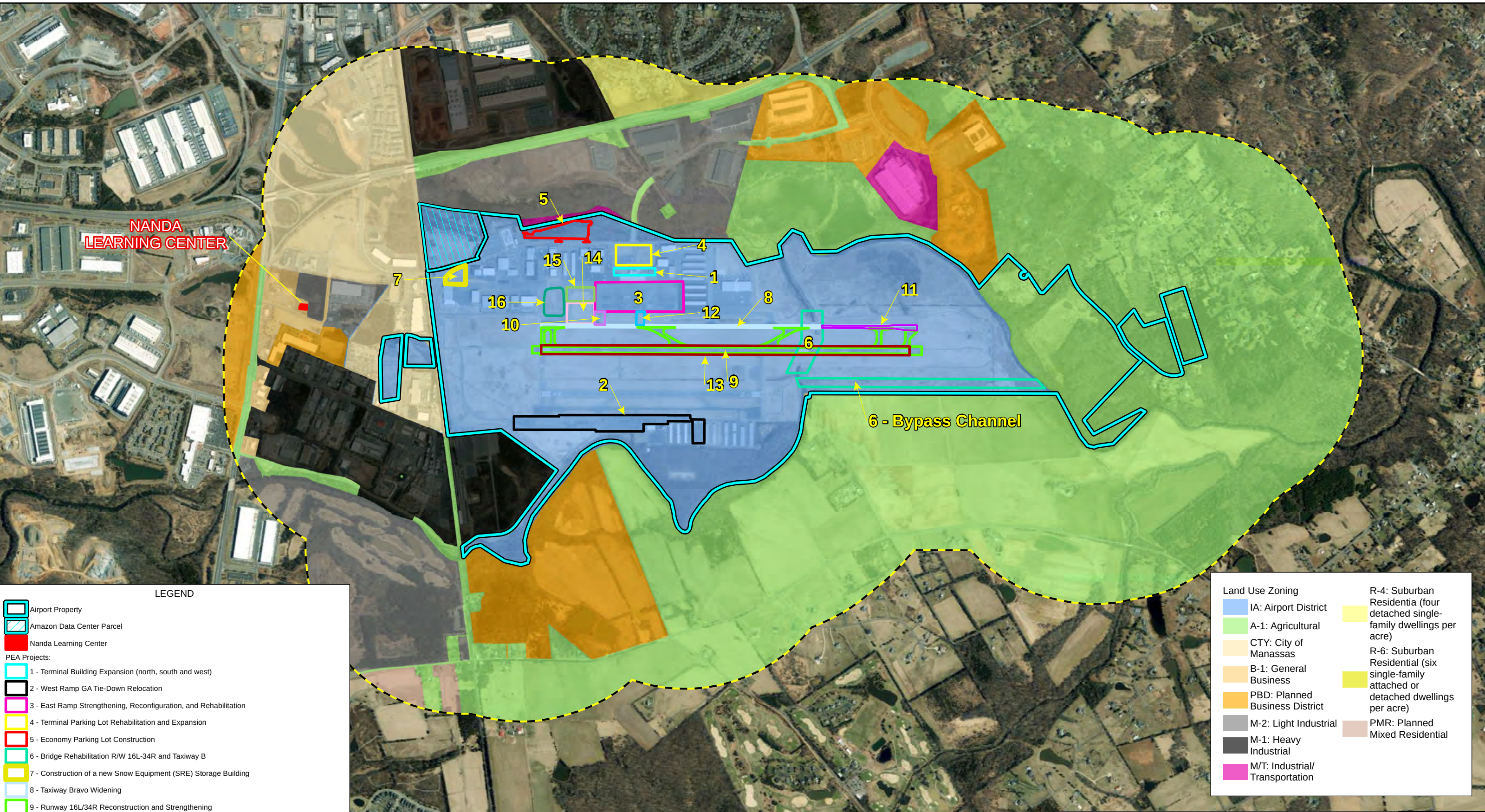
01,0002,000 Feet



Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

Section 4(f) Recreation Areas and
HAAC Battlefields in the Study Area

Figure
A18



LEGEND

Airport Property

Amazon Data Center Parcel

Nanda Learning Center

PEA Projects:

1 - Terminal Building Expansion (north, south and west)

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13 - Runway 16L/34R Widening

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15 - Construction of new Expanded East Ramp and Taxilane between Taxiways Delta and Echo

16 - Construction of a new ARFF Facility

Half-Mile Buffer of Airport

Land Use Zoning

IA: Airport District

A-1: Agricultural

CTY: City of Manassas

B-1: General Business

PBD: Planned Business District

M-2: Light Industrial

M-1: Heavy Industrial

M/T: Industrial/Transportation

R-4: Suburban Residential (four detached single-family dwellings per acre)

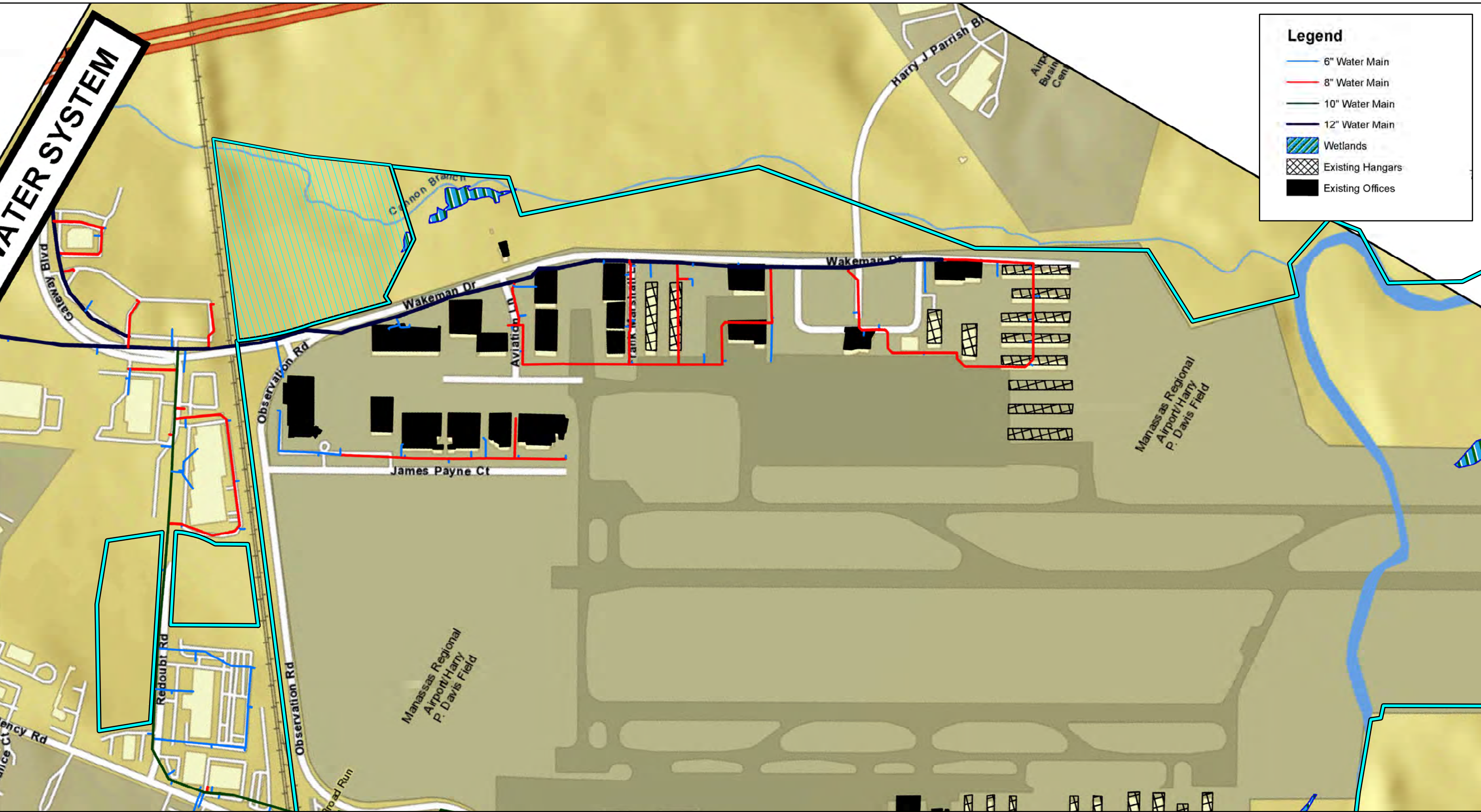
R-6: Suburban Residential (six single-family attached or detached dwellings per acre)

PMR: Planned Mixed Residential

Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program
Land Use in the Vicinity
(Prince William County and
City of Manassas Combined)

Figure
A19

Project 23-98001.002, Version: 7/8/2026 @ 9:14:39 AM



Legend

6" Water Main

8" Water Main

10" Water Main

12" Water Main

Wetlands

Existing Hangars

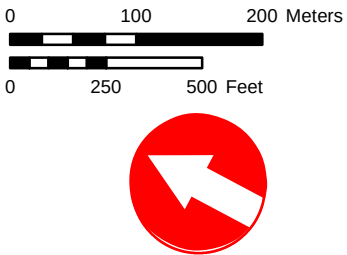
Existing Offices

LEGEND

Airport Property

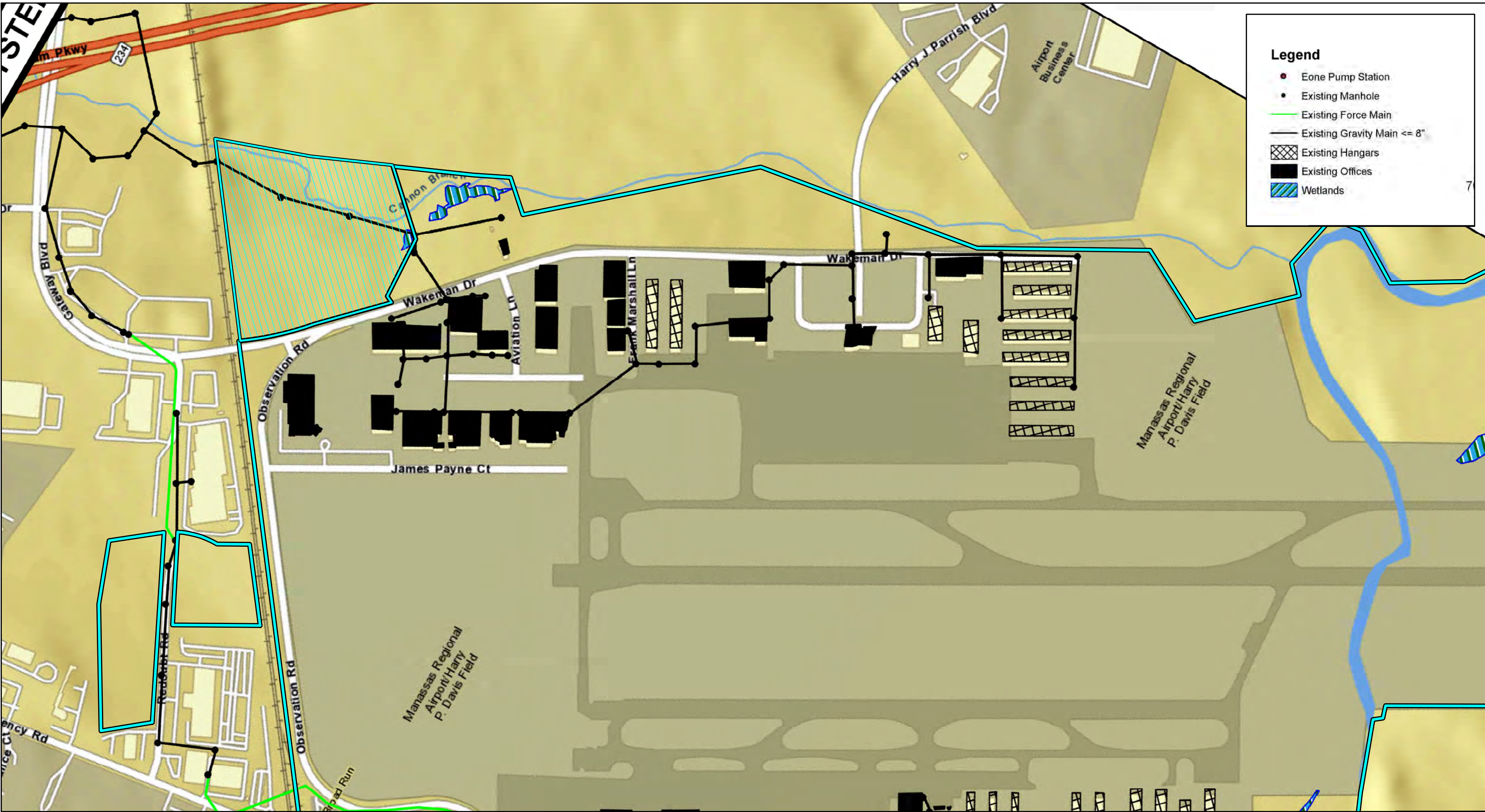
Amazon Data Center Parcel

Figure 2.2 from
Kimley Horn
2021 Manassas Regional Airport
Water and Sanitary Sewer



Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

East Side Water Lines



Legend

● Eone Pump Station

● Existing Manhole

— Existing Force Main

— Existing Gravity Main <= 8"

Existing Hangars

Existing Offices

Wetlands

LEGEND

Airport Property

Amazon Data Center Parcel

Figure 2.7 from
Kimley Horn
2021 Manassas Regional Airport
Water and Sanitary Sewer

0 100 200 Meters

0 250 500 Feet



Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

Airport Force and Gravity Mains

Figure
A21



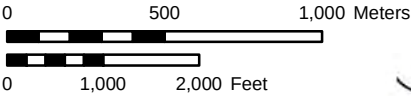
LEGEND

Airport Property

Amazon Data Center Parcel

Noise Contour:

- DNL55
- DNL60
- DNL65
- DNL70
- DNL75
- DNL80
- DNL85



**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program**

Aircraft Noise Contours: Existing Condition

**Figure
A22**



Imagery dated 2021 (ESRI Service "Virginia Aerial Imagery 2021")

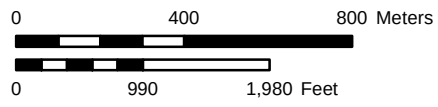
LEGEND

Airport Property

Amazon Data Center Parcel

Half-Mile Buffer of Airport

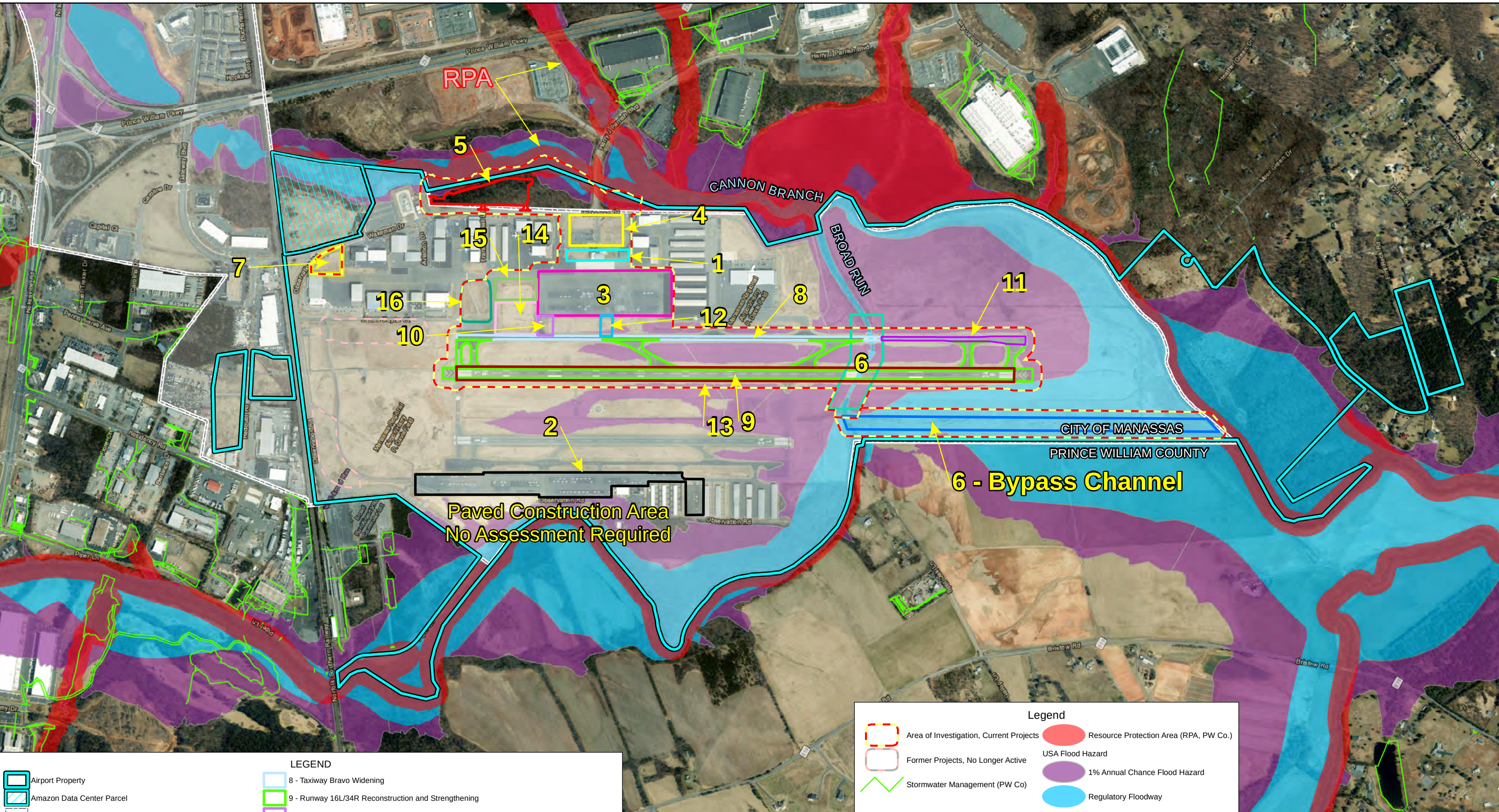
Census Tract Boundary



Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

Census Tracts

Figure
A23



Airport Property

Amazon Data Center Parcel

City of Manassas

PEA Projects:

1 - Terminal Building Expansion (north, south and west)

2 - West Ramp GA Tie-Down Relocation

3 - East Ramp Strengthening, Reconfiguration, and Rehabilitation

4 - Terminal Parking Lot Rehabilitation and Expansion

5 - Economy Parking Lot Construction

6 - Bridge Rehabilitation R/W 16L-34R and Taxiway B

7 - Construction of a new Snow Equipment (SRE) Storage Building

LEGEND

8 - Taxiway Bravo Widening

9 - Runway 16L/34R Reconstruction and Strengthening

10 - Taxiway Echo Fillet Widening

11 - Taxiway B Reconstruction and Strengthening (South of the Bridge)

12 - Construction of a new East Ramp Taxiway

13 - Runway 16L/34R Widening

14 - Aircraft Deicing Pad and Apron Expansion between Taxiways D and E

15 - Construction of new Expanded East Ramp and Taxilane between Taxiways Delta and Echo

16 - Construction of a new ARFF Facility

Project #6 - Bypass Channel

Area of Investigation, Current Projects

Former Projects, No Longer Active

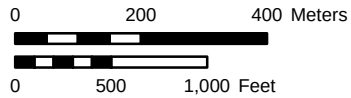
Stormwater Management (PW Co)

Resource Protection Area (RPA, PW Co.)

USA Flood Hazard

1% Annual Chance Flood Hazard

Regulatory Floodway

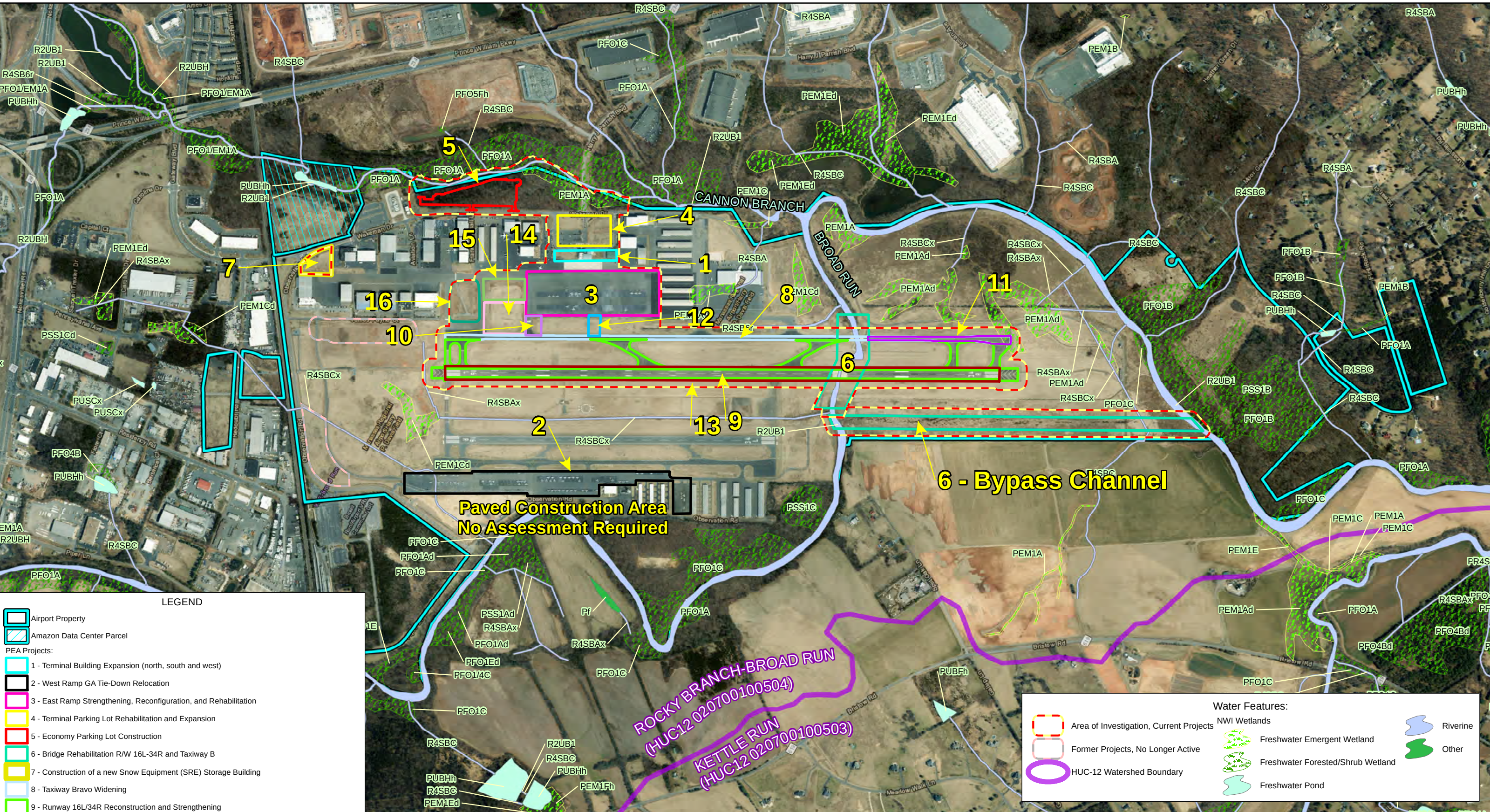


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Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

State and Local Water Features
in the Vicinity of the Airport

Figure
A24



LEGEND

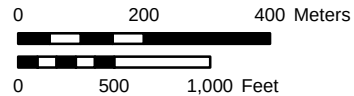
Airport Property

Amazon Data Center Parcel

PEA Projects:

- 1 - Terminal Building Expansion (north, south and west)
- 2 - West Ramp GA Tie-Down Relocation
- 3 - East Ramp Strengthening, Reconfiguration, and Rehabilitation
- 4 - Terminal Parking Lot Rehabilitation and Expansion
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- 13 - Runway 16L/34R Widening
- 14 - Aircraft Deicing Pad and Apron Expansion between Taxiways D and E
- 15 - Construction of new Expanded East Ramp and Taxilane between Taxiways Delta and Echo
- 16 - Construction of a new ARFF Facility
- Project #6 - Bypass Channel

Wetland classification for NWI based on Cowardin, L.M., V. Carter V., F.C. Golet, and E.T. LaRoe.
1979 Classification of Wetlands and Deepwater Habitats of the United States.
U.S. Fish and Wildlife Service Report No. FWS/OBS/- 79/31. Washington, D.C.



Water Features:

NWI Wetlands

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

Other

Riverine

Area of Investigation, Current Projects

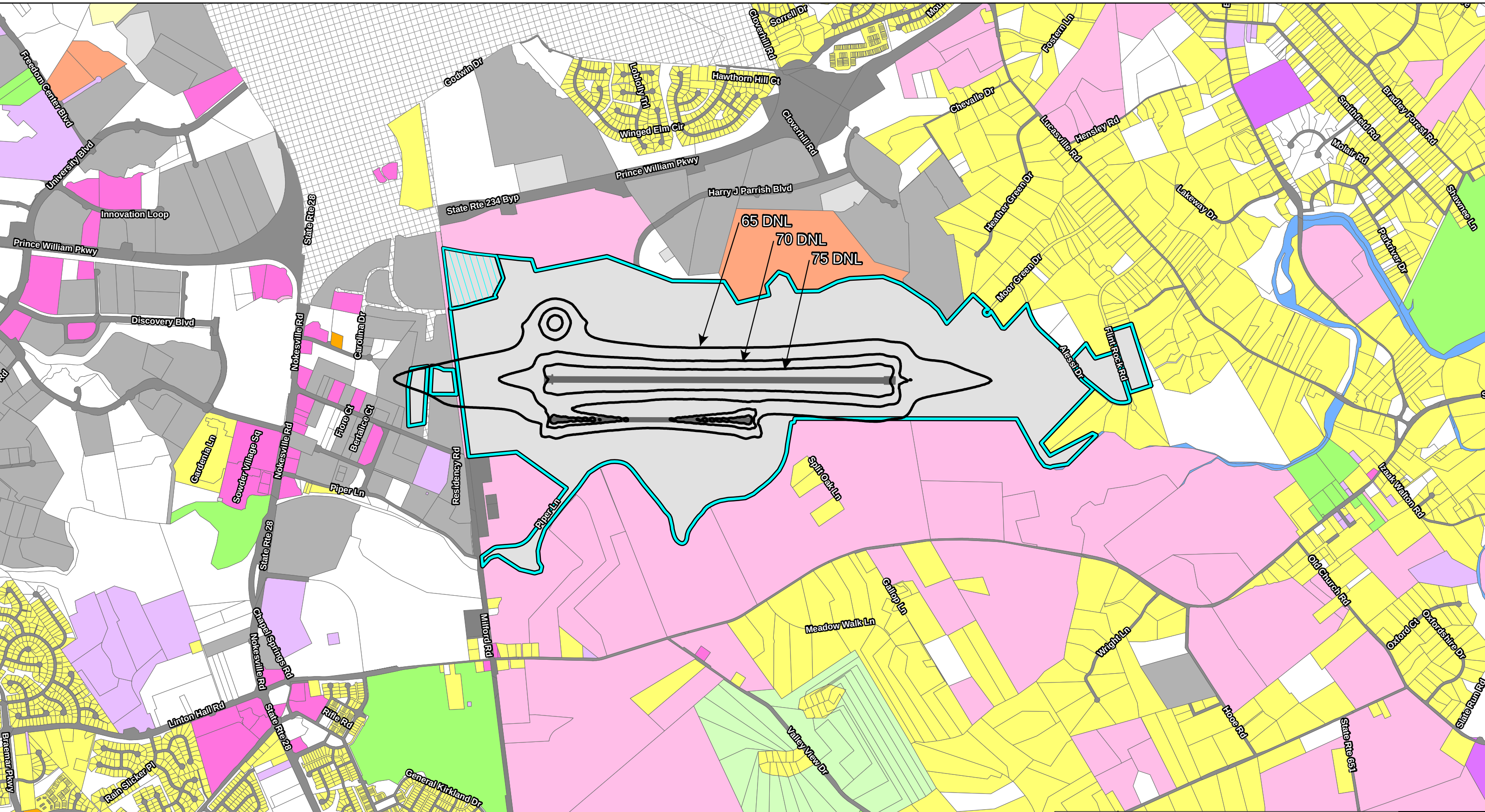
Former Projects, No Longer Active

HUC-12 Watershed Boundary

Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

NWI Water Features and Watersheds
on the Airport

Figure
A25



Airport Property

Amazon Data Center Parcel

Runway

Noise Contour (DNL) - No Action, 2036

Land Use

Agriculture

Airport

Commercial

Golf Course

LEGEND

Industrial

Institutional

City of Manassas

Open Space

Residential

Rail

Recreational

Rural Crossroads

School (Private)

Federal Land

Utility

State Land

Right-of-Way

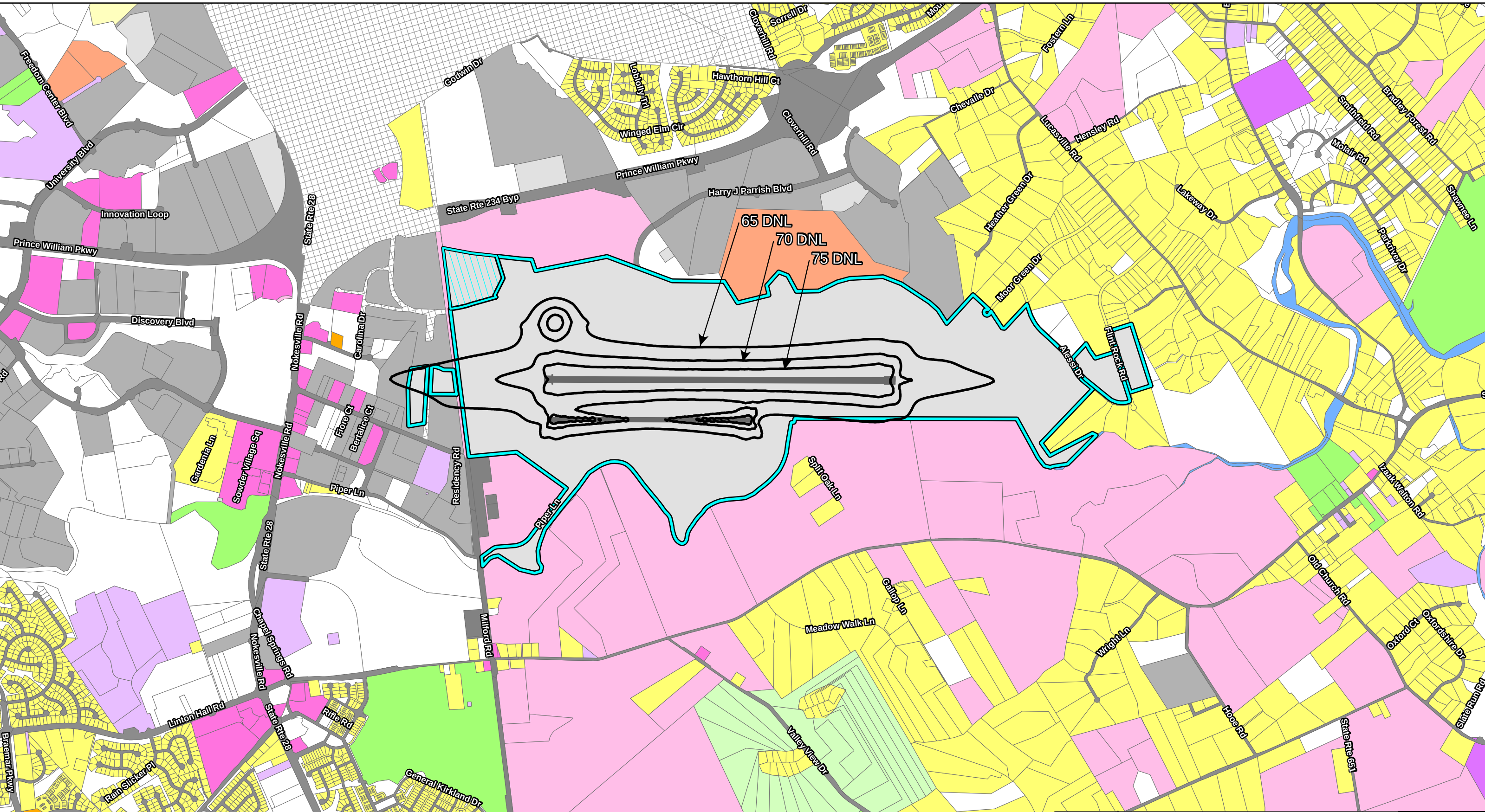
Water

**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program**

**No Action Alternative (2036)
65-75 Noise DNL Contours**

Figure
A26

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Airport Property

Amazon Data Center Parcel

Runway

Noise Contour (DNL) - No Action, 2041

Land Use

Agriculture

Airport

Commercial

Golf Course

LEGEND

Industrial

Institutional

City of Manassas

Open Space

Residential

Rail

Recreational

Rural Crossroads

School (Private)

Federal Land

Utility

State Land

Right-of-Way

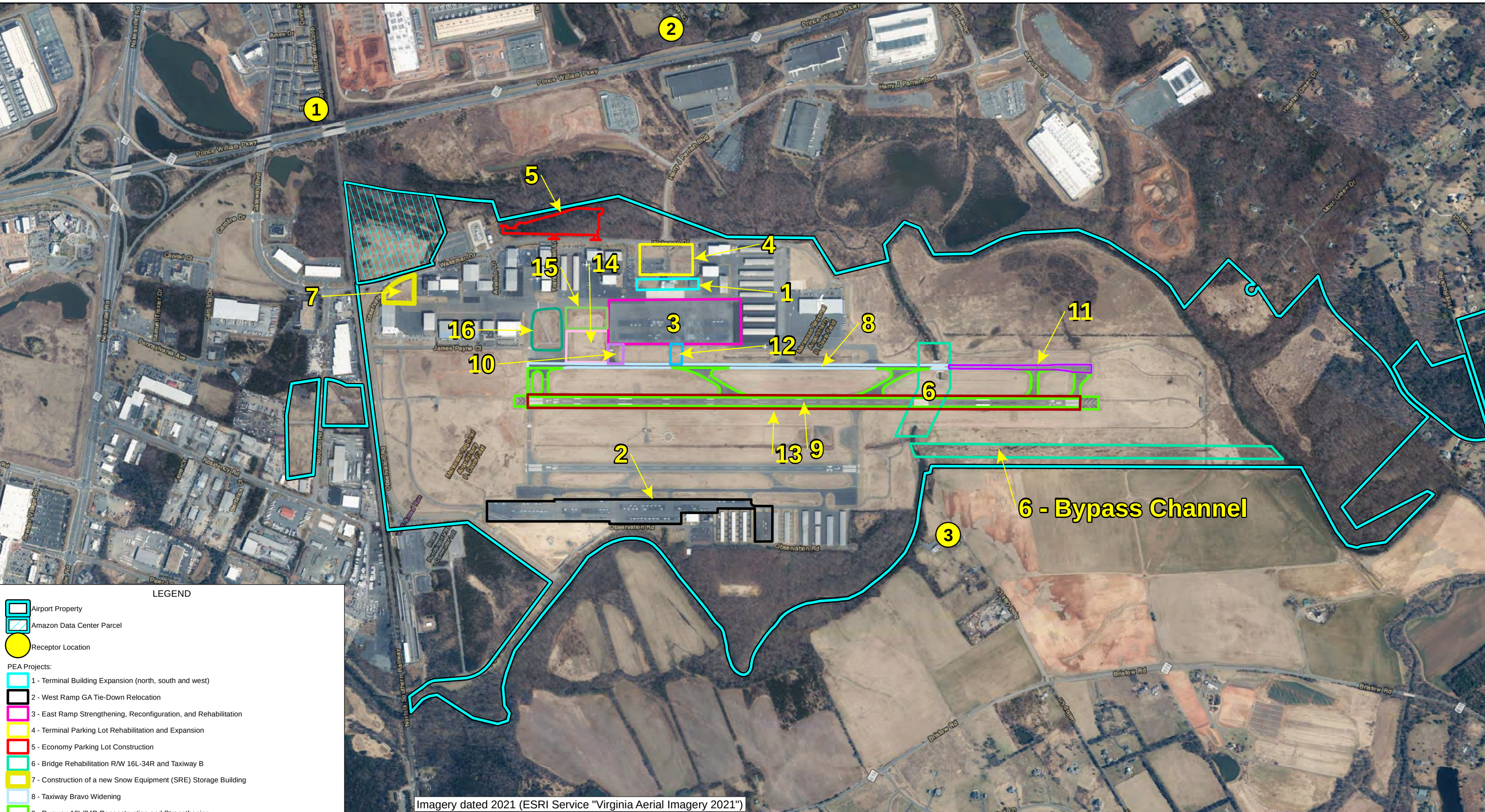
Water

**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program**

**No Action Alternative (2041)
65-75 Noise DNL Contours**

Figure
A27

Project 23-98001.002, Version: 7/8/2026 @ 9:48:18 AM



LEGEND

Airport Property

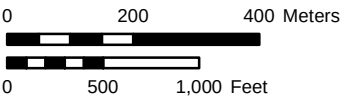
Amazon Data Center Parcel

Receptor Location

PEA Projects:

- 1 - Terminal Building Expansion (north, south and west)
- 2 - West Ramp GA Tie-Down Relocation
- 3 - East Ramp Strengthening, Reconfiguration, and Rehabilitation
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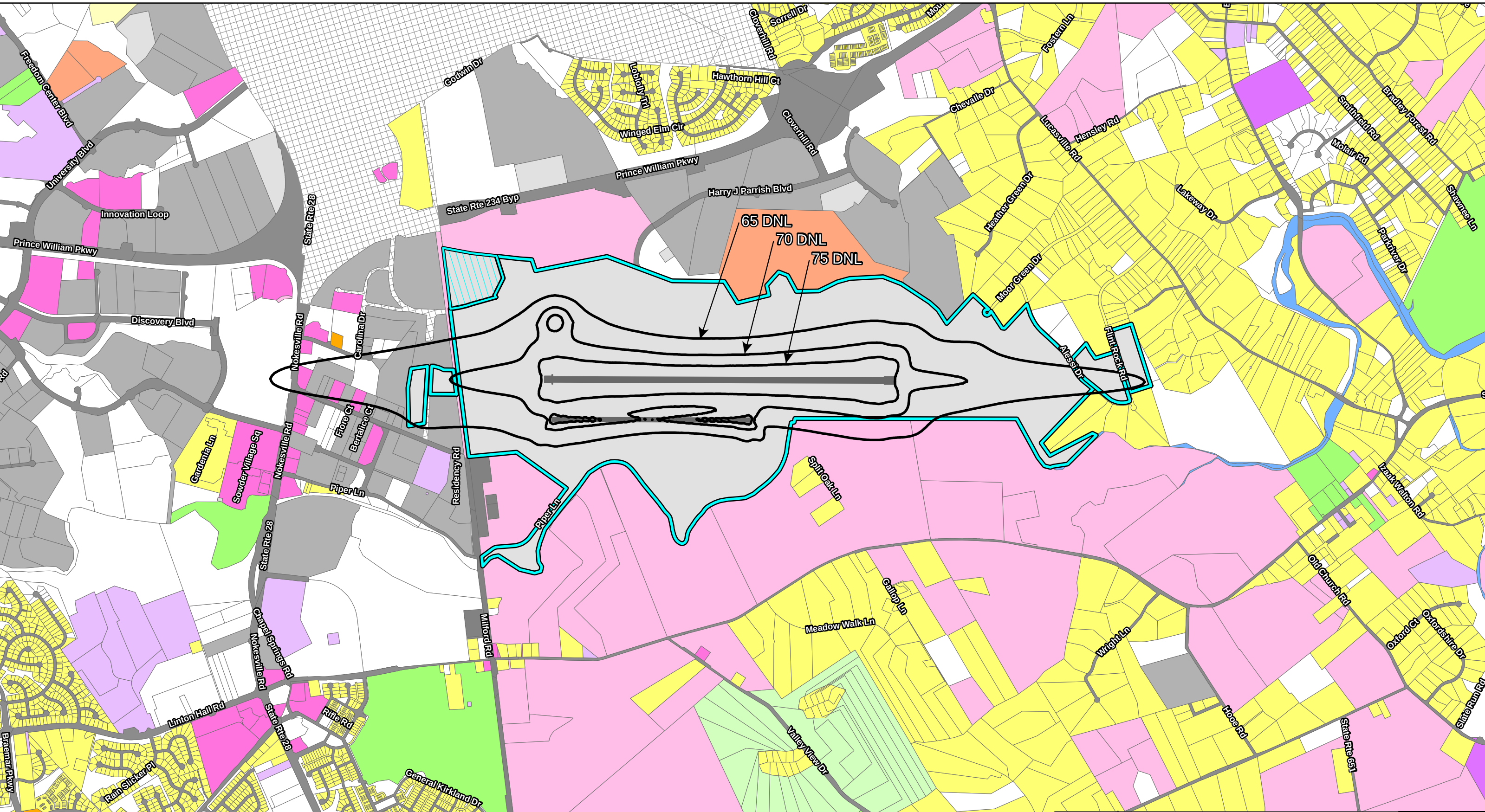
Imagery dated 2021 (ESRI Service "Virginia Aerial Imagery 2021")



**Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program**

Receptor Locations

Figure
A28



Airport Property

Amazon Data Center Parcel

Runway

Noise Contour (DNL) - Preferred Action, 2036

LEGEND

Land Use

Agriculture

Airport

Commercial

Golf Course

Industrial

Institutional

City of Manassas

Open Space

Residential

Rail

Recreational

Rural Crossroads

School (Private)

Federal Land

Utility

State Land

Right-of-Way

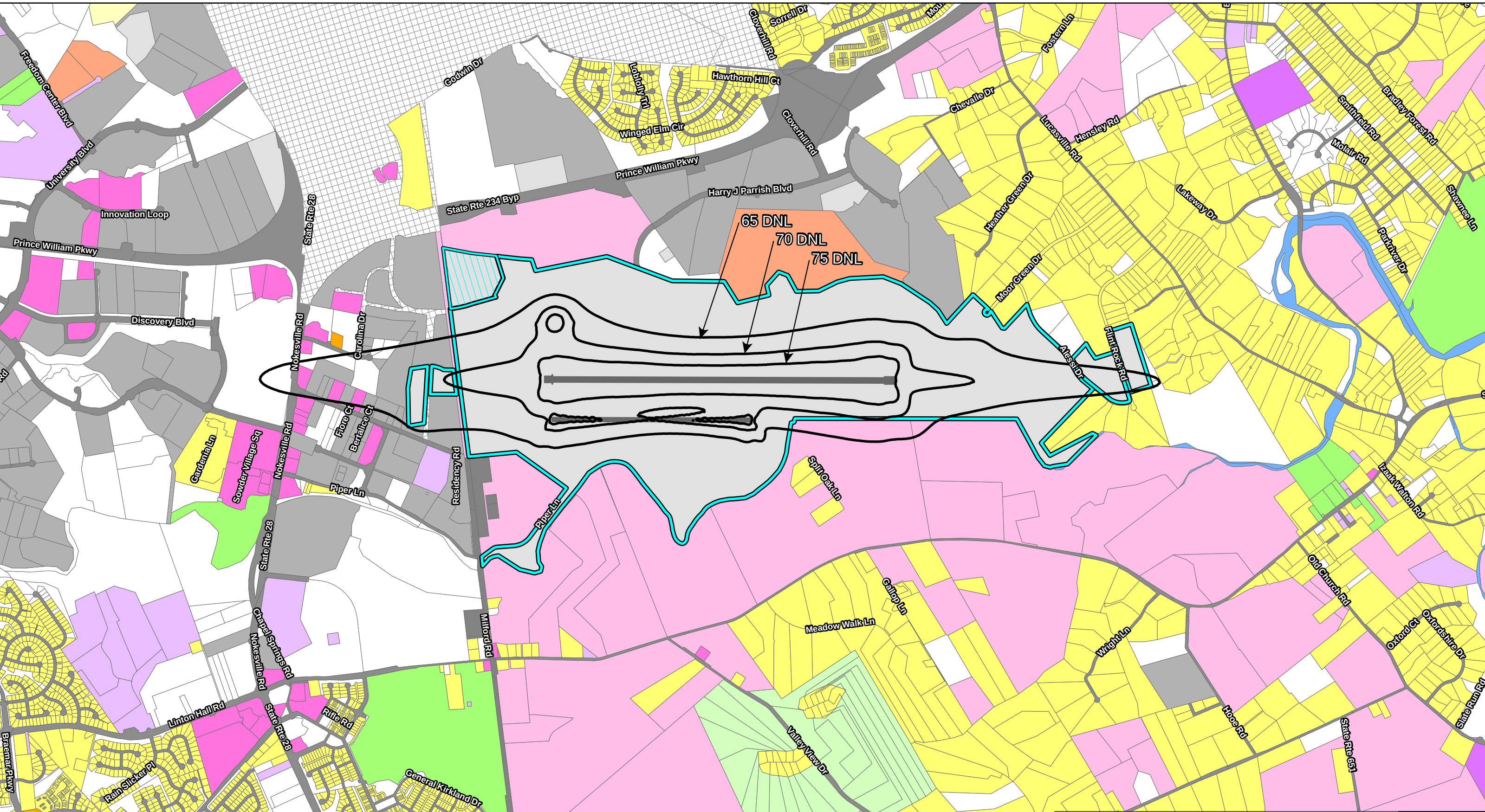
Water

Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

Preferred Alternative – Alternative #2 (2036)
65-75 Noise DNL Contours

Figure
A29

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Airport Property

Amazon Data Center Parcel

Runway

Noise Contour (DNL) - Preferred Action, 2041

LEGEND

Land Use

Agriculture

Airport

Commercial

Golf Course

Industrial

Institutional

City of Manassas

Open Space

Residential

Rail

Recreational

Rural Crossroads

School (Private)

Federal Land

Utility

State Land

Right-of-Way

Water

Washington Manassas Airport (HEF)
FAR Part 139 Certification &
Terminal Redevelopment Program

Preferred Alternative – Alternative #2 (2041)
65-75 Noise DNL Contours

Figure
A30

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