Orange County's Advanced Air Mobility Planning

Presentation to MetroPlan Orlando's Transportation Systems Management and Operations Advisory Committee and Technical Advisory Committee

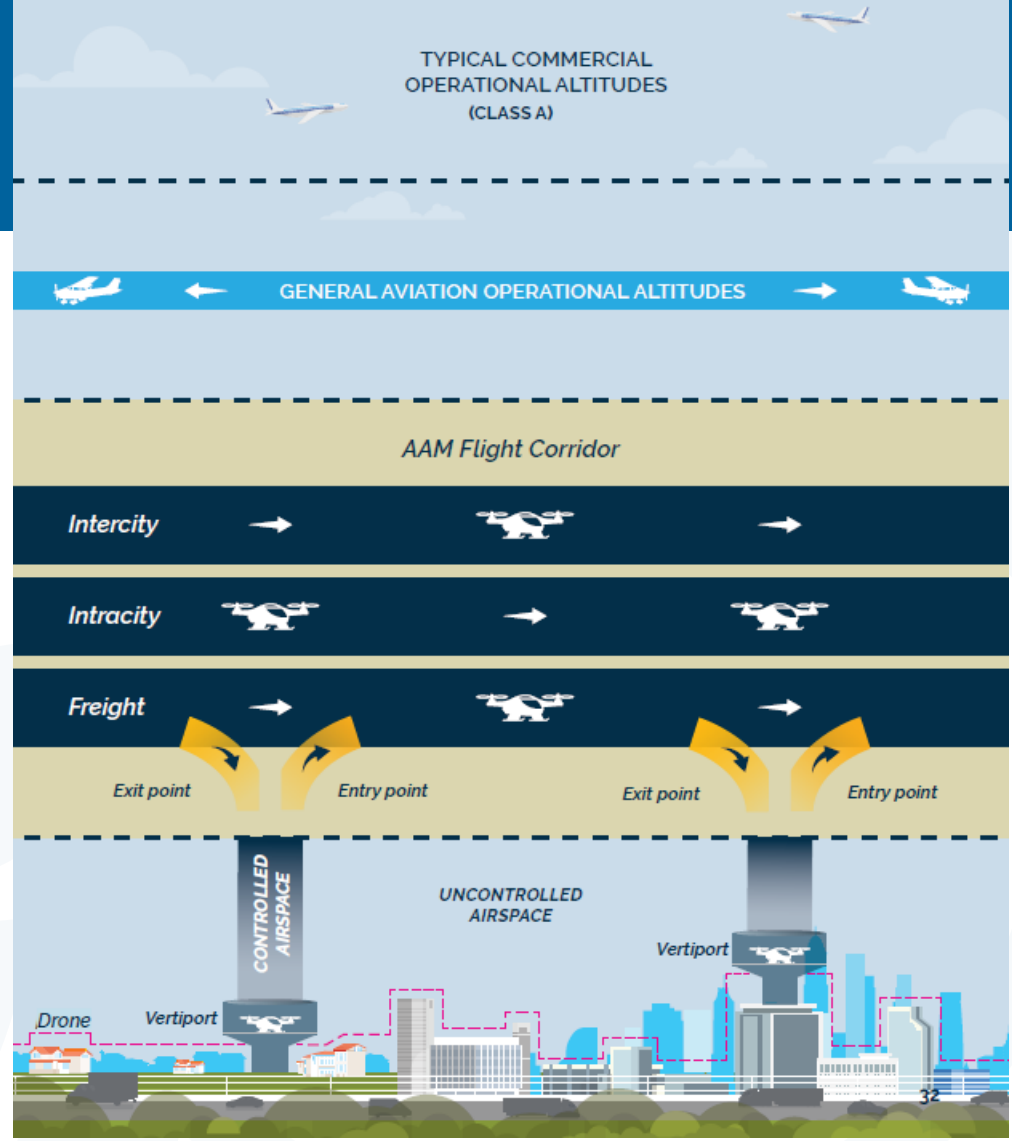
October 23, 2026

Alissa Barber Torres, PhD, FAICP, CLTD

Chief Innovation & Emerging Technology Officer

ADVANCED AIR MOBILITY

- Aviation based on new technologies and business models
- Small, low-altitude aircraft currently being certified for commercial operations
  - Electric Vertical Take-off and Landing (eVTOL)
  - 4-6 passenger “air taxis”
  - Cargo, logistics, medical, and emergency services
  - Flights less than 200 miles at 1,000 - 3,000 feet
- Most take-offs/landings at “vertiports”



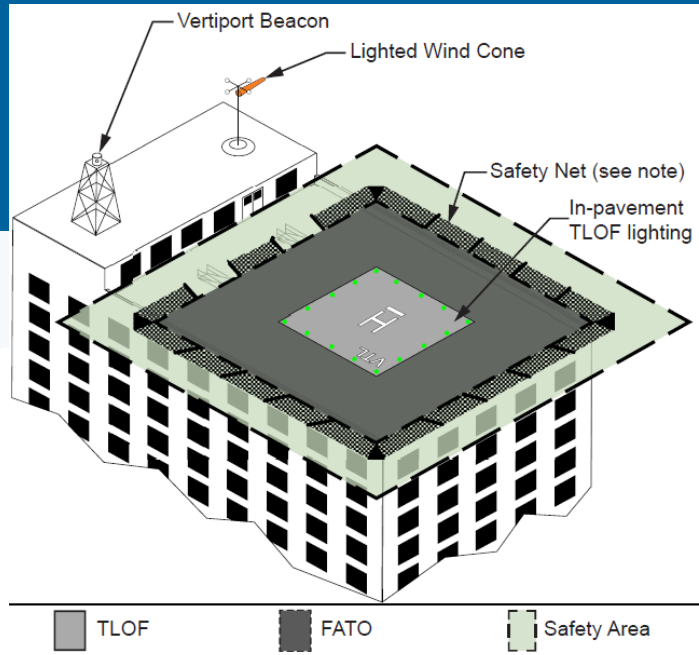


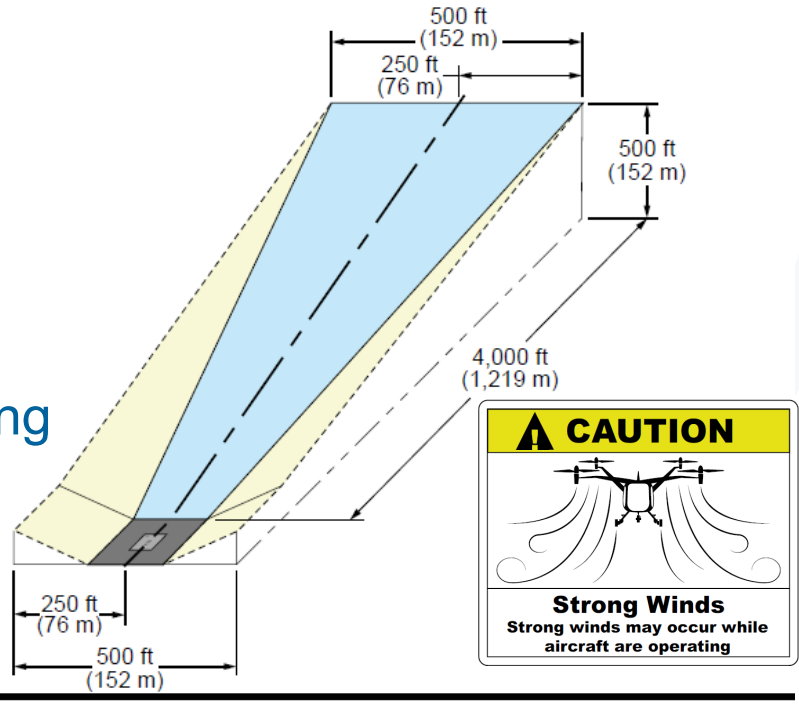
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Sources: FDOT, 2025; USDOT, 2025.

ADVANCED AIR MOBILITY

- Integration into urban areas and near all types of development raises issues
  - Not sufficient data to understand privacy, noise, safety, land use, mobility, and environmental impacts (USDOT, Dec. 2025)
  - Integration with transportation and utility infrastructure
  - Land use compatibility and property rights
  - Aircraft noise, although anticipated to be quieter than helicopters
  - Potential resident concerns about traffic, noise, privacy, visual impacts, equitable access, and autonomous flights
  - Permitting by local government staff unfamiliar with AAM, including building code and fire protection





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Sources: USDOT, 2025; FAA, 2024.

ADVANCED AIR MOBILITY

AAM COMPONENTS	FEDERAL GOVERNMENT	STATE GOVERNMENT	LOCAL GOVERNMENT	INFRASTRCTURE DEVELOPERS	SERVICE PROVIDERS
AIRSPACE	X				
FLIGHT SCHEDULING					X
VERTIPORT INSPECTIONS		X			
LAND USE COMPATIBILITY PLANNING			X		
PILOT / OPERATOR REGULATIONS	X				
COMMUNITY ENGAGEMENT			X	X	X
STATEWIDE AAM COORDINATION		X			
UTILITY COORDINATION			X	X	
VERTIPORT STANDARDS	X	X			
VERTIPORTS DEVELOPMENT				X	
ZONING PROTECTION			X		
AIRCRAFT CERTIFICATION	X				

Source: FDOT, 2025.

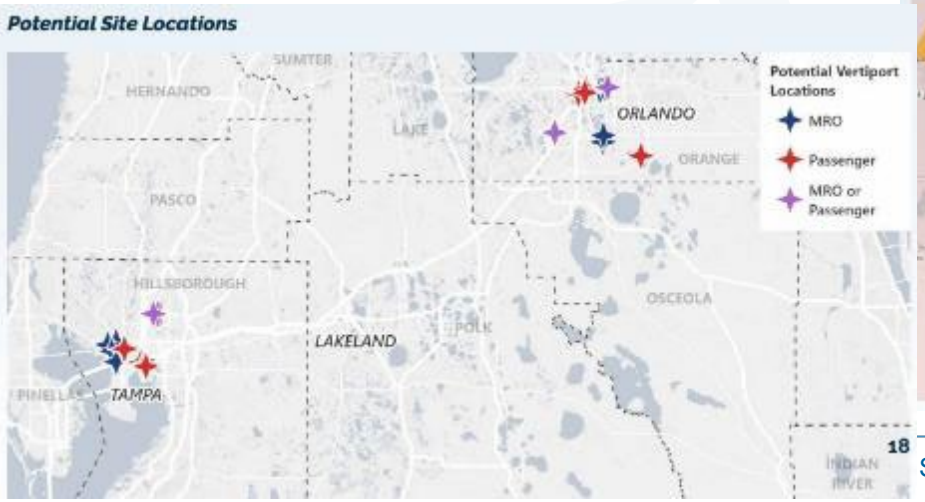
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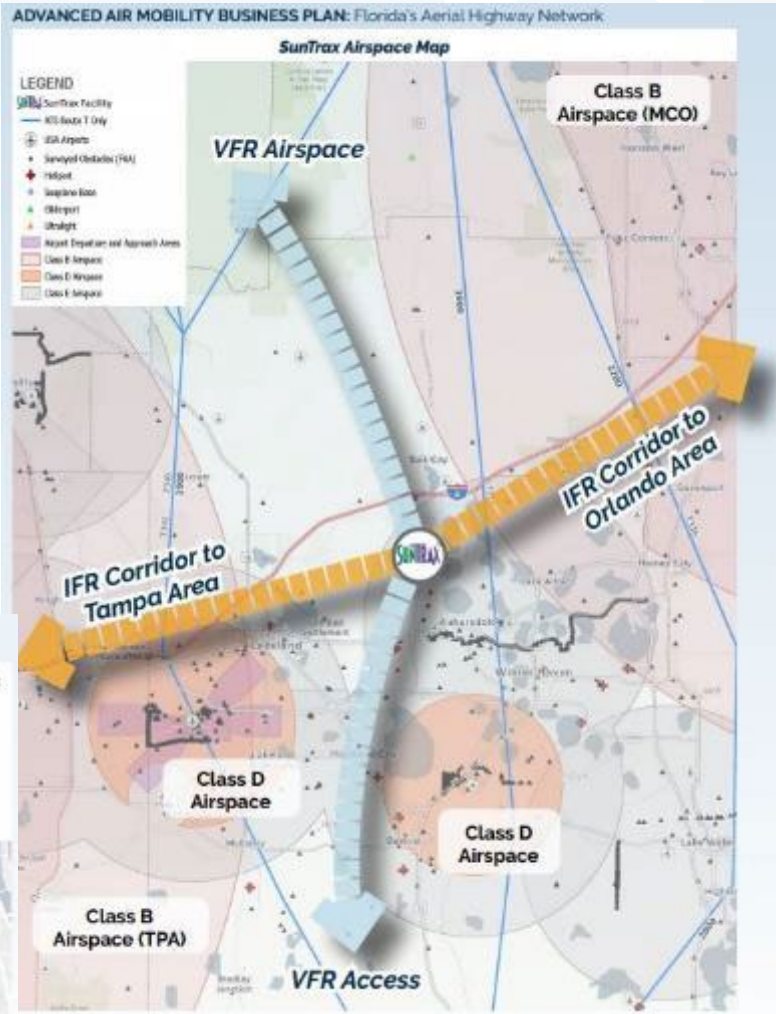
FDOT

ADVANCED AIR MOBILITY

- FDOT part of USDOT pilot to test AAM operations in Central Florida this year
  - FDOT plan includes potential locations in County
- Greater Orlando Aviation Authority planning facilities and regional networks
- County working on several AAM readiness efforts based on agency and market interest







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Sources: FDOT, 2025; GOAA, 2025.

COUNTY AAM PLANNING

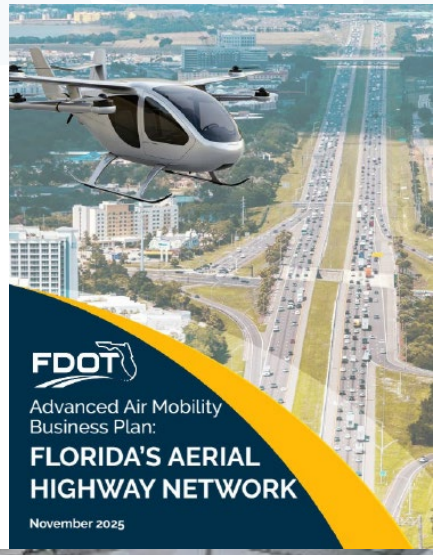


- 1.54M Orange County residents (2025)
- 76.7M annual visitors (2025)
- Market interest in I-Drive/ Orange County Convention Center (OCCC) for AAM
  - 7M square feet - second-largest in U.S.
  - 185 events with 2.3M attendees (FY2026)
  - $560M Phase 5A expansion underway
  - OCCC leadership has not taken a position on AAM to date but is engaged

Source: Orange County, 2025.

COUNTY AAM PLANNING

- Agency engagement
  - Coordination with City of Orlando on their AAM plan
  - Coordination with Central Florida agencies
  - Participation in tabletop exercises
  - Staff from various departments at FDOT training
  - Comments on FDOT handbook for local governments
  - Consultant interview for next FDOT guidebook's case studies
  - Meeting with FDOT leadership
- Stakeholder engagement
  - Economic development trip to Farnborough Air Show (2024)
  - 2025 Economic Summit with Chuck Martin
  - GOAA coordination - industry event, South Korean delegation
  - Advanced Air Mobility Association (AAMA) membership
  - Ongoing meetings with industry to discuss needs



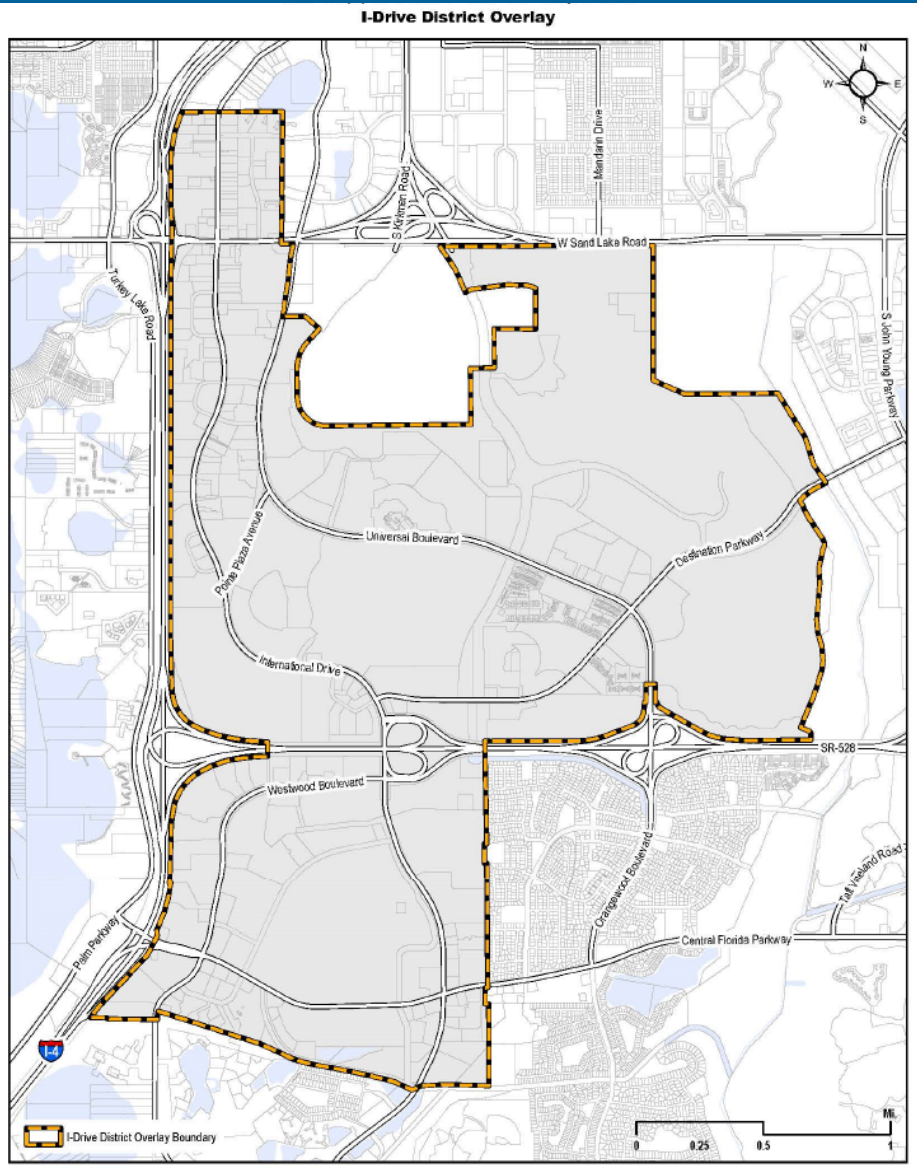


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Sources: Orange County, 2024; FDOT, 2025.

COUNTY AAM PLANNING

- County staff training
  - Introduction to AAM – Nov. 2024
  - Development review webinar with AAMA – Aug. 2026
  - Development review – Nov. 2026
  - CustomGPT tool as resource
- Vertiport standards
  - Allowed in Orange County Code now in some zoning districts
  - I-Drive District Overlay zoning has limitations
  - New Orange Code has more provisions – still pending
  - Coordinated with GOAA
- Orange County AAM Feasibility Study
  - Accepted by BCC on June 30, 2026



Source: Orange County, 2020.

ORANGE CODE

Table 4-1.1(1): Permitted Uses By Zone

	T2 Rural			T3 Sub-Urban			T4 General			T5 Center			T6 Urban Core			CZ Civic		SZ Special Zones				
	1	2	3	1	2	3	1	2	3	1'	2	3	1	2	3	CF	OS	LI	HI	EN	MH	ED
Transportation & Infrastructure (see "4-5.8 Transportation and Infrastructure" for Additional Standards)																						
Airport	S																	S	S			
Communication Tower	P*/S			P*/S			P*/S			P*/S			P*/S			P*/S		P*	P*	S*	S*	S*
Public Parking (Principal Use)								P*		P*			P*			P*	P*	P	P	P		
Transit Facility	P*			P*			P*			P			P			A	A	P	P	P	P*	A
Truck Stop																		P	P			
Renewable Energy	A			A*			A*			A*			A*			S*	S*	P	P	A*	A*	A*
- Large scale installations	P																	P	P			
Utilities	P*/S			P*/S			P*/S			P*/S			P*/S			P*/S		P*	P*	P*/S	P*/S	P*/S
Vertiports, Heliports, and Sea Plane Bases	S									S			S					P	P	S		

Vertiports.

(1) Prior to submittal of any application or permit for a vertiport, a prospective applicant shall request a pre-application conference with the Zoning Division.

(2) Vertiports shall be common use and public facilities per Federal Aviation Administration (FAA) guidelines and meet all requirements of the FAA's vertiport site development standards.

(3) Vertiport applications shall document the specific aircraft that would be hosted at the facility, the utility infrastructure needed to charge the aircraft, and location and type of all fire safety equipment in a plan that is consistent with National Fire Protection Association standards for vertiports and energy storage and that shall be reviewed by the Orange County Fire Rescue Department.

(4) Pursuant to Section 125.022, Florida Statutes, issuance of this development permit by the County does not in any way create any rights on the part of the applicant to obtain a permit from a state or federal agency and does not create any liability on the part of the County for issuance of the permit if the applicant fails to obtain requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law. Pursuant to Section 125.022, the applicant shall obtain all other applicable state or federal permits before commencement of development.

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Source: Orange County, 2025.

AAM FEASIBILITY STUDY

- Existing conditions, including parcels that allow vertiports under current Code
- 3 County subareas and I-Drive CRA analysis with new feasibility tool
- Development review regulations and resources
- Stakeholder input
  - I-Drive CRA
  - Planning and Zoning Commission
  - Transportation Mobility Advisory Commission
  - Emerging professionals and UCF students



Source: VHB, Inc., 2026.

AAM FEASIBILITY STUDY

AAM Feasibility Screening Workflow

Data: \\vhb.com\gbl\Client\064844.003\05_Work\03_Analysis\OCAAM.ppkx

Goal: create a heat map of potential vertiport subareas (not parcel specific) based on the criteria below

	Criteria	Metric (Points, Y/N)	Scoring Notes
1	**Land Use**		
	Zoning District - Orange County Code (in effect)		
✓	By right (I-1A, I-1, I-2, I-3, I-4, I-5)	5	
✓	Special exception (A-1, A-2, A-R, RCE-5, RCE-2, RCE, C-1, C-2, C-3)	3	
2	**Environmental/Screens**		
✓	Solid Waste Facilities	Y/N	Exclude parcels within 10,000' buffer
✓	Wetlands	Y/N	Exclude any parcel that is fully within wetlands
✓	Floodplain	Y/N	Exclude any parcel that is fully within floodplain
	I-Drive Overlay		
✓	Other Zoning District	0	Make filter
3	**Connectivity & Access**		
	Roads & Transit		
✓	SunRail Stations (Meadow Woods and Sand Lake Road)	2	1/2 mile buffer
✓	Innovation Way Mixed-Mode Transportation Network (MMTN)	1	1/2 mile buffer
	Intercity rail station	2	1/2 mile buffer
✓	Lynx existing/proposed transit centers	2	1/2 mile buffer
✓	Lynx park and ride locations	2	1/2 mile buffer
	Proximity to Minor/principal arterial, expressway	1	1/2 mile buffer
	Future Lynx Transit Routes	1	1/2 mile buffer
	Land Uses		
	Major Transit trip generators (more than 100 trips)	1	1/2 mile buffer
✓	Activity Center	2	1/2 mile buffer
	Warehouse and Distribution Terminal (DOR Code 48)	2	1/2 mile buffer

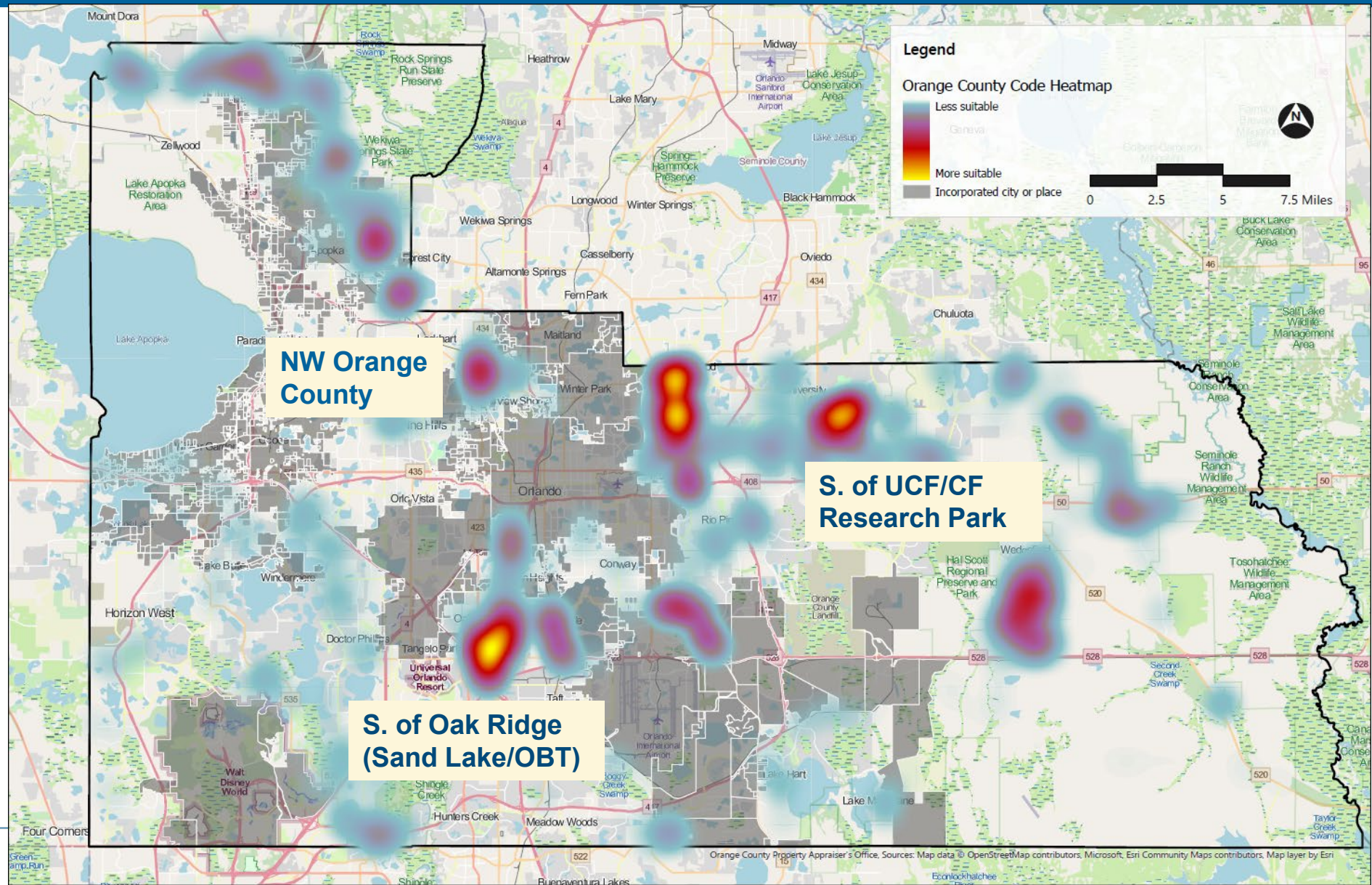
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Source: VHB, Inc., 2026.

AAM FEASIBILITY STUDY

Suitability Analysis – Current Zoning

- **653 parcels** - By Right
- **4,355 parcels** - By Special Exception
- **3 Major Subareas**



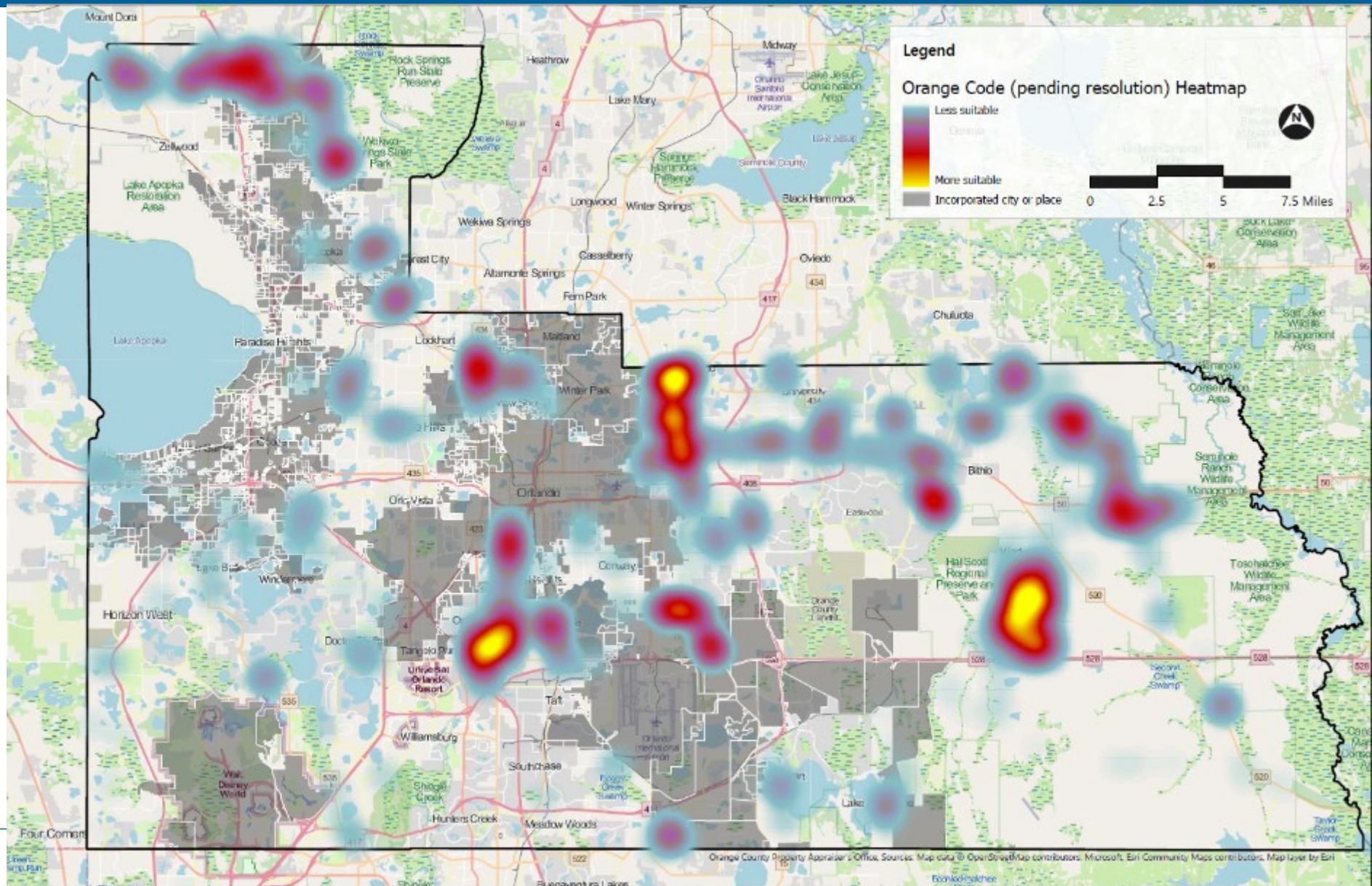
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Source: VHB, Inc., 2026.

AAM FEASIBILITY STUDY

Suitability Analysis – New Orange Code (Pending)

- **1,140 parcels** permitted with additional standards
- **7,520 parcels** permitted by Special Exception



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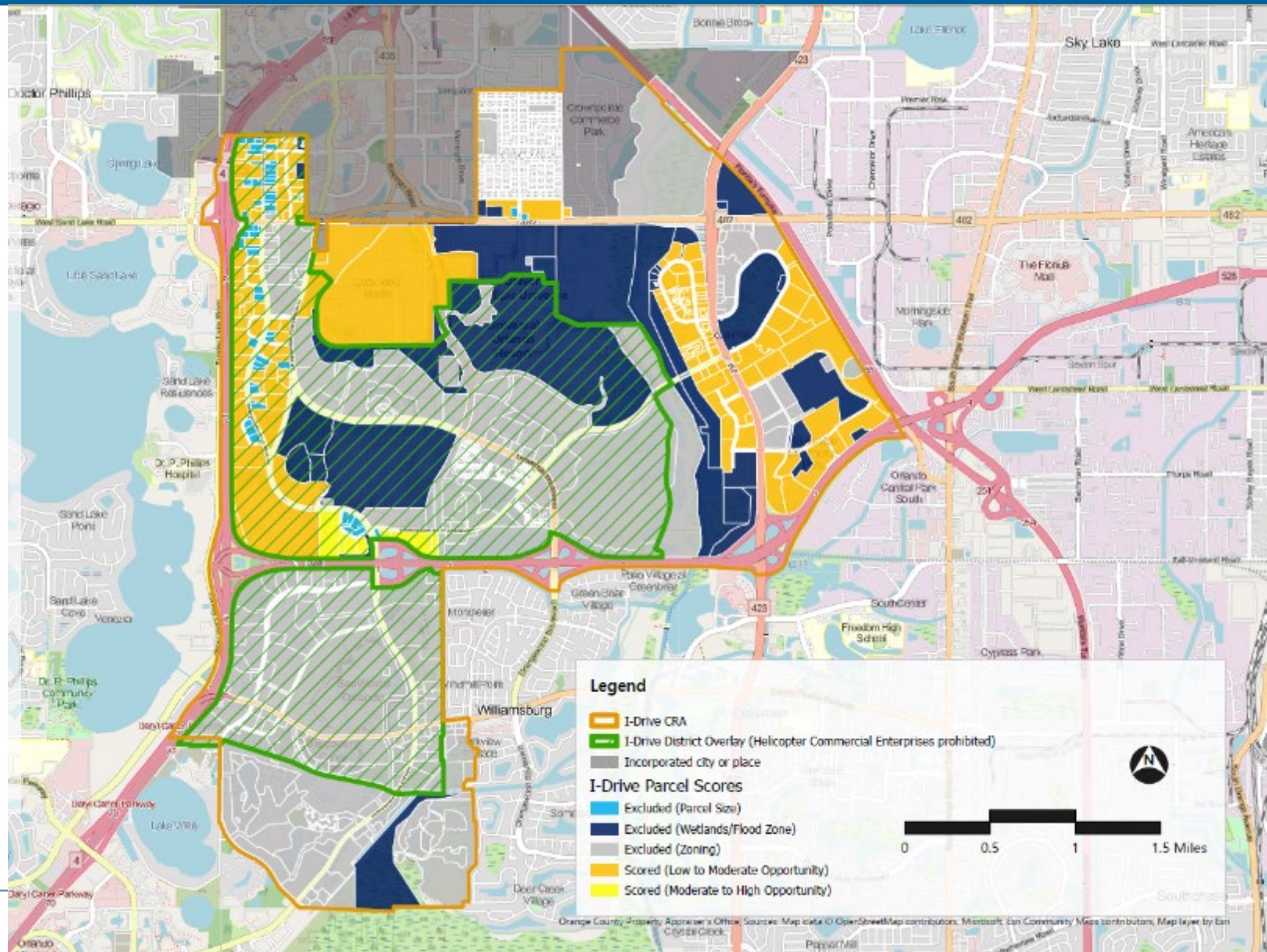
Source: VHB, Inc., 2026.

AAM FEASIBILITY STUDY

Suitability Analysis – International Drive CRA

- Potential vertiport suitability based on existing zoning and connectivity:
  - **Destination Parkway / S. John Young Parkway**
  - **Lockheed Martin**
  - **S. of Tangelo Park**

- I-Drive District Overlay Zone's helicopter/helitour restrictions affect AAM operations in most of I-Drive CRA



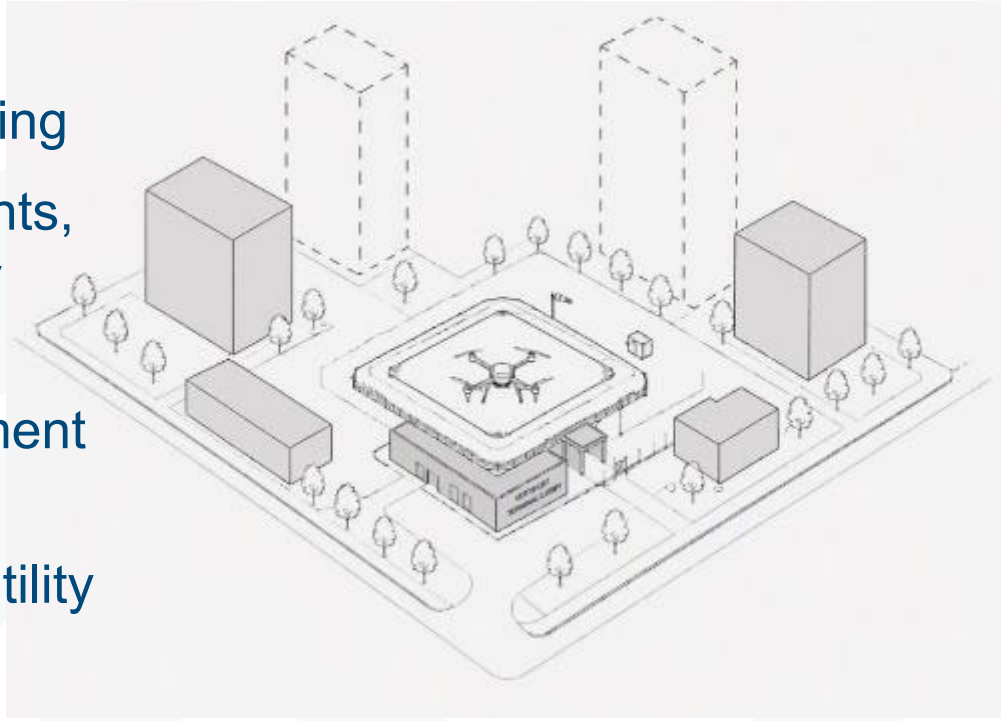
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Source: VHB, Inc., 2026.

AAM FEASIBILITY STUDY

Major Recommendations

- Evaluate effects on air rights/future development under higher-intensity Orange Code
- Provide public notice within 1 mile and hold community meeting
- Require traffic study, anticipated eVTOL trips/passenger counts, and projected demand for support services like micromobility and shuttles
- Require Fire Safety Plan and Hazardous Materials Management Plan (NFPA 400 and 418)
- Require Utility Capacity Analysis for projected demand and utility coordination
- Continue extensive agency coordination



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Source: VHB, Inc., 2026.

NEXT STEPS

- Additional consultant task
  - Noise assessment methodology
  - Staff exercise focused on hypothetical vertiport site's effect on County-owned sites
- Code implementation
  - Vertiport standards still pending
  - Update of aircraft noise regulations/contours in future
- Agency/industry coordination
- Community outreach
  - Planned when vertiport application submitted for permitting
  - Focus on analysis of potential development site with new County tools
  - Must plan to provide education on AAM - likely also drones, autonomous vehicles, and personal delivery devices

Source: FDOT, 2025.