



# Intermodal Center & Automated People Mover MTP Amendment Request

Citizens' Advisory Committee (CAC) Briefing | August 23, 2023

# Agenda



## Projects Overview

- **Projects History & Summary**

## Intermodal Center

- **Current Project Status**
- **Facility Program Summary**
- **Rough Order of Magnitude Cost Estimate**
- **Funding Opportunities**

## Automated People Mover

- **Current Project Status**
- **Facility Program Summary**
- **Rough Order of Magnitude Cost Estimate**
- **Funding Framework**

## Open Discussion





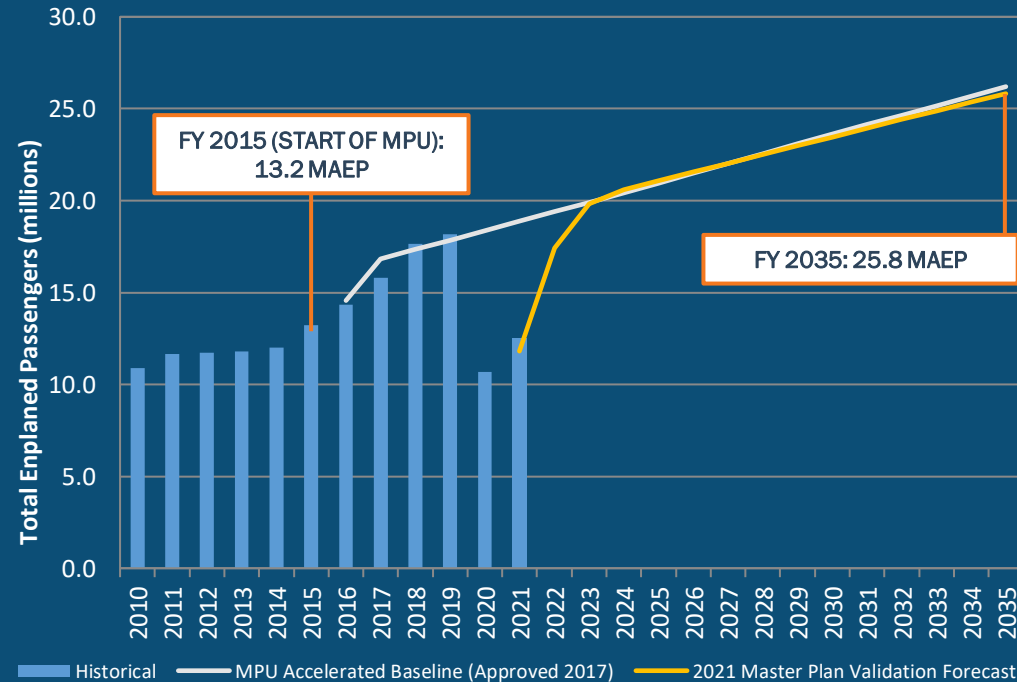
# Master Plan Process and Approvals Summary

## Key MPU Milestone Dates

- Board approval to submit MPU: November 5<sup>th</sup>, 2019
- FDOT approval: January 20<sup>th</sup>, 2021
- FAA approval: February 9<sup>th</sup>, 2021

## MPU Validation Due to COVID-19 Pandemic

- Board approval to amend MPU contract due to the emergence of COVID-19: September 22<sup>nd</sup>, 2020
- BCAD authorizes additional MPU validation analysis: February 21<sup>st</sup>, 2021
  - Task 1 – Update Aviation Activity & Recovery Forecast
  - Task 2 – Reassess Capital Improvement Program Requirements and Project Timing
  - Task 3 - Complete Financial Feasibility Assessment
- Completed: February 2023



### NOTES:

1/ Total passengers equals two times enplaned passengers.

SOURCES: Broward County Aviation Department (Historical); US DOT T100; Innovata; Ricondo & Associates, Inc.



# Program History & Summary

# Program Evolution

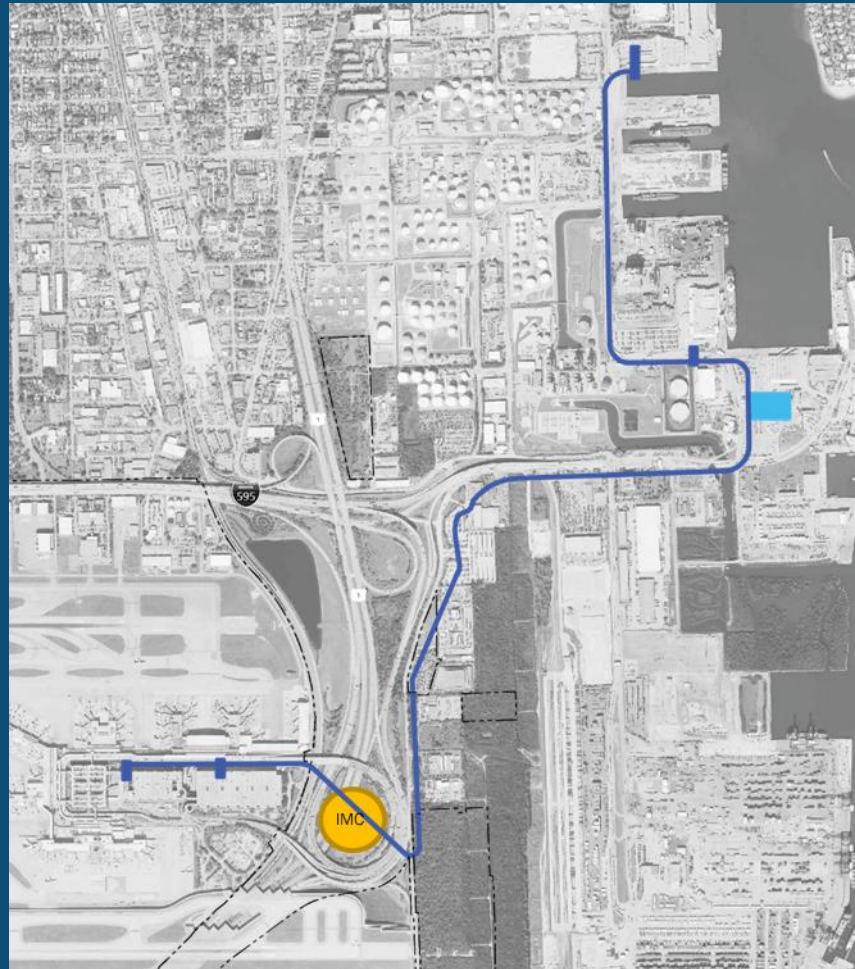
## Review of Previous Designation

### SunPort PD&E Study (June 2009)

- 1 Overall program
- 1 Lead agency – FHWA (supported by FTA)
- 1 NEPA action

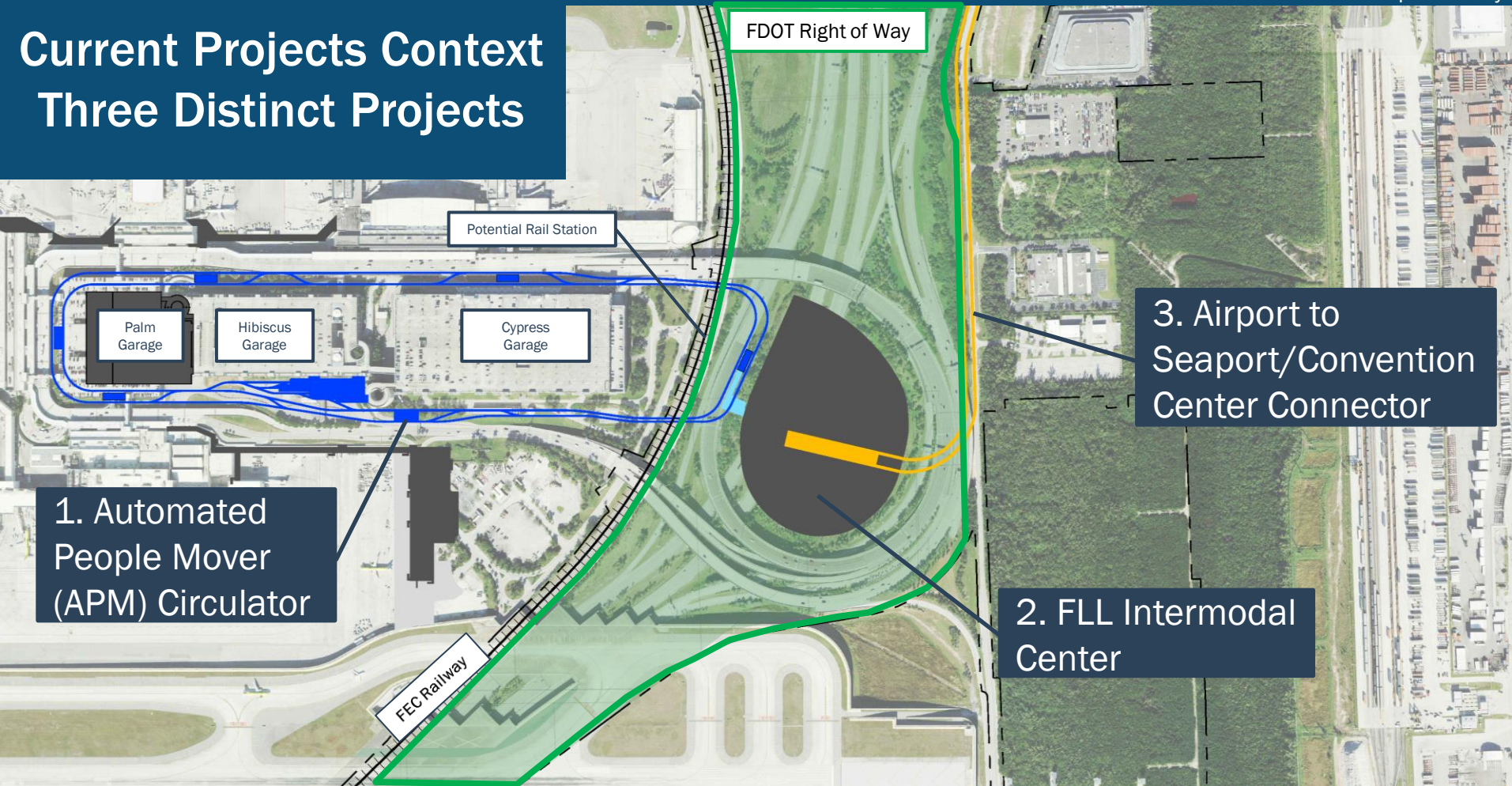
### Project Outcome:

- Technical Environmental Assessment / Preliminary Engineering were approved by FHWA (Lead agency)



# Current Projects Context

## Three Distinct Projects





# Intermodal Center (IMC)



# IMC – Progression Towards Implementation



Validate IMC Functions and Requirements



Complete Environmental Documentation Requirements



Future Airport Parking Requirements



Ground Access/Egress Plan



Stormwater management considerations



Utilities requirements



Facility floor plan layout and flow diagrams



Roadway Simulation Modeling



Funding and Implementation Framework

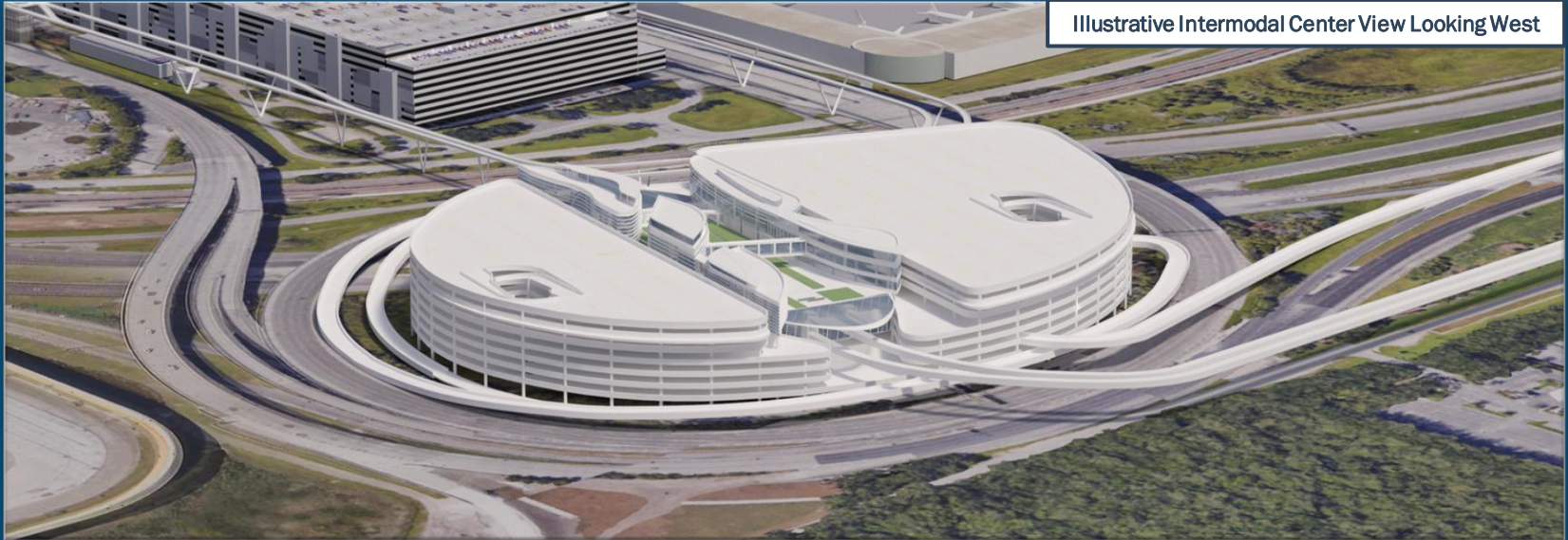
\* Memorandum of Understanding (MOU) between Broward County and the Florida Department of Transportation (FDOT) signed on January 11, 2022

An aerial rendering of a modern facility, possibly a stadium or arena, featuring two large, circular, multi-story buildings with curved facades. The buildings are surrounded by a complex network of roads and walkways. The entire scene is rendered in a light blue, semi-transparent style, overlaid on a darker blue background with a subtle grid pattern.

# Facility Program Summary

# Intermodal Center Uses/Functions

Illustrative Intermodal Center View Looking West



SOURCE: Illustrate My Design, inc, June 2019; Ricondo & Associates, Inc., June 2019.

**Transit And Intermodal/Multimodal**  
(1,343,200 s.f.)

Transit Passengers **(Level 1)**

Passenger Pick-up/Drop-off **(Level 1)**

Air/Cruise Passenger **(Levels 3-5)**

**Revenue-Generating Opportunities**  
(712,500 s.f.)

Concessions **(Levels 3)**

Potential Commercial Development **(Level 8)**

Potential Air Mobility / VTOL **(Rooftop)**

**Parking**  
(2,564,100 s.f.)

Parking (approx. 6,685 spaces) **(Levels 2-7)**



# Rough Order of Magnitude Cost Estimate



# Rough Order of Magnitude IMC Cost Estimate

## (in 2021 Dollars, Rounded)

IMC ROM Costs	Construction Costs	Allowance(s)	Contingency 15%	Soft Costs 18%	Total Component Costs
Planning, Programming, Environmental, and Procurement	-	-	-	-	\$19,733,000
IMC Building Structure ROM	\$398,349,000	\$15,250,000 <sup>1/</sup>	\$62,040,000	\$85,615,000	\$561,253,000
Utilities ROM	\$11,000,000	\$0	\$1,650,000	\$2,277,000	\$14,927,000
Roadways ROM	\$175,772,000	\$0	\$26,366,000	\$36,385,000	\$238,522,000
<b>TOTAL</b>	<b>\$585,121,000</b>	<b>\$15,250,000</b>	<b>\$90,056,000</b>	<b>\$124,277,000</b>	<b>\$834,435,000</b>

### Notes:

- 1 Allowances were developed for drainage/stormwater mitigation. Cost to be updated as mitigation strategy is further defined.
- 2 APM Station Costs are included under the FLL APM Project.
- 3 Office space is for shell construction only; build-out costs not included.
- 4 Seaport Connector guideway and station costs not included above. IMC structural hardening and requirements are included in IMC facility cost.
- 5 Costs are rounded to the nearest thousand. Unit pricing reflects a nearly 30% increase since beginning of 2021, specific for SE region Airports.

Source: Lea+Elliott, Inc., April 2022; Kimley-Horn and Associates, Inc., April 2022; Ricondo & Associates, Inc., April 2022



# Funding Opportunities



# Funding Opportunities

Space Category	Funding Source	Eligible Funding Sources				Surtax Eligible
		Federal		State		
		Grants	Loans	Grants	Loans	
<b>Transit AND Intermodal/ Multi-Modal Uses</b> (Includes public parking utilities, and drainage/stormwater mitigation)	-	BIL, RAISE, CRISI, MEGA	TIFIA, RRIF	SIS, TRIP	SIB	YES
<b>Roadways</b> (All access/egress roadways)	-	BIL, RAISE, CRISI, MEGA	TIFIA, RRIF	SIS, TRIP	SIB	YES
<b>Parking</b> (Public/Employee, includes TNC pick-up area)	GARBs	-	-	-	-	YES <sup>1/</sup>
<b>Other Commercial or Revenue-Producing Spaces</b> (support, office, leasable)	Third Party	-	-	-	-	NO

## Acronyms

**RAISE** – Rebuilding American Infrastructure with Sustainability and Equity

**TIFIA** – Transportation Infrastructure Finance and Innovation Act

**SIS** – Strategic Intermodal System

**SIB** – State Infrastructure Bank

**MEGA** – National Infrastructure Project Assistance Program

<sup>1/</sup>Parking garages are SURTAX eligible for facilities serving public transportation projects provided the parking fees to not exceed costs associated with operating and maintaining the facility.

**RRIF** – Railroad Rehabilitation and Improvement Financing

**CRISI** – Consolidated Rail Infrastructure and Safety Improvements

**GARBs** – General Airport Revenue Bonds

**TRIP** – Transportation Regional Incentive Grant Program



The background image shows an airport terminal with a blue tint. In the center, a white automated people mover train is stopped at a platform. Several people are standing on the platform, some with luggage. Above the train, there are directional signs: one pointing left for 'TERMINAL 4 INTERMODAL CENTER' and another pointing right for 'TERMINAL 1-3 RIVER CREST'. The overall scene is a conceptual rendering of a modern airport transit system.

# Automated People Mover



# APM – Progression Towards Implementation



Final PDD Completed  
(December 2022)



Ridership Analysis



Complete Facility Interfacing with Existing Terminals and Parking Garages



Future Provision for Rail Connectivity (Brightline and BCR)



Ground Level Interfacing for Construction



APM System Technology Assessment



Utilities requirements



APM Station Program and Associated Floorplans



Preliminary Structural Analysis and Requirements



Funding and Implementation Framework

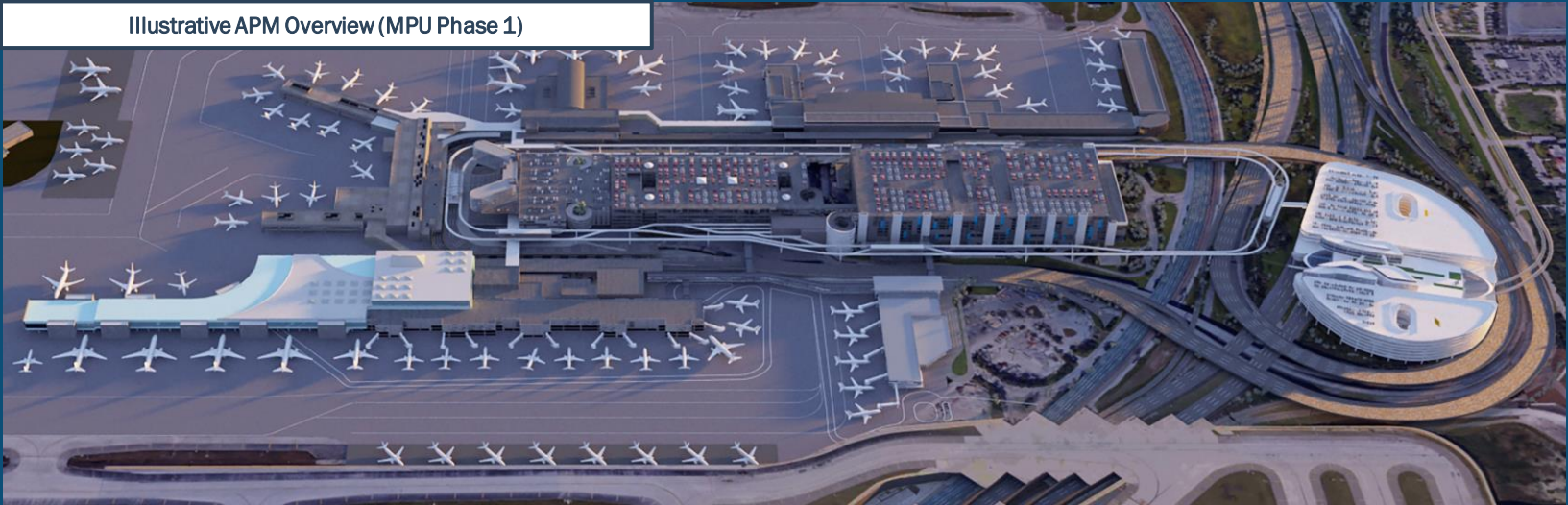




# Facility Program Summary

# Automated People Mover Program Overview

Illustrative APM Overview (MPU Phase 1)



SOURCE: Illustrate My Design, inc, June 2019; Ricondo & Associates, Inc., June 2019.

## Connectivity

- Interfaces with Terminals 1-4, future Terminal 5, Palm / Hibiscus Garages, Rental Car Center / Cypress Garage and the future Intermodal Center
- Potential connectivity to Rail

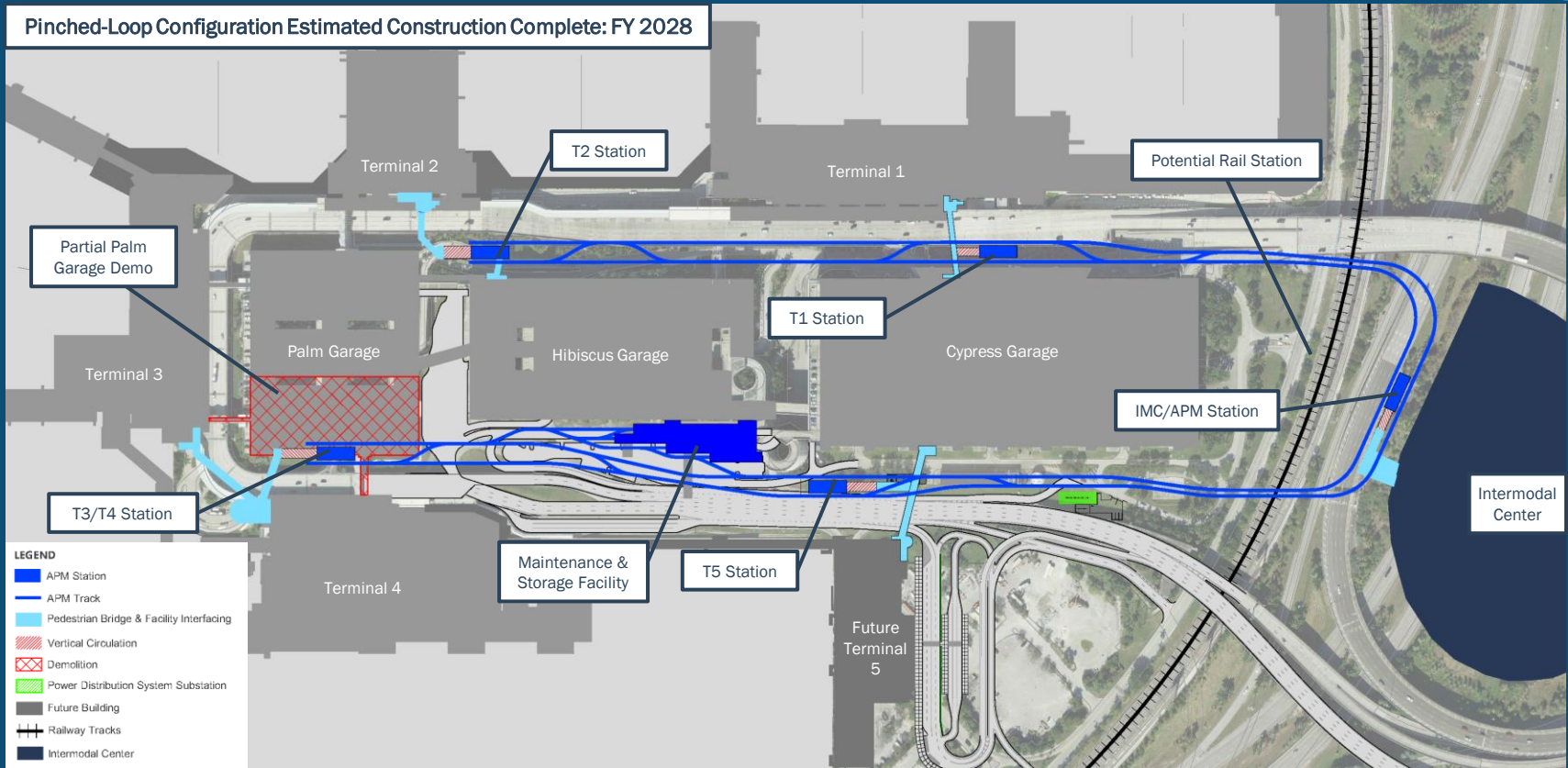
## Infrastructure

- Six APM stations (Approximately 4,200 s.f. each)
- 16,000 linear feet of dual guideway
- On-Airport maintenance & storage facility
- Power distribution substations



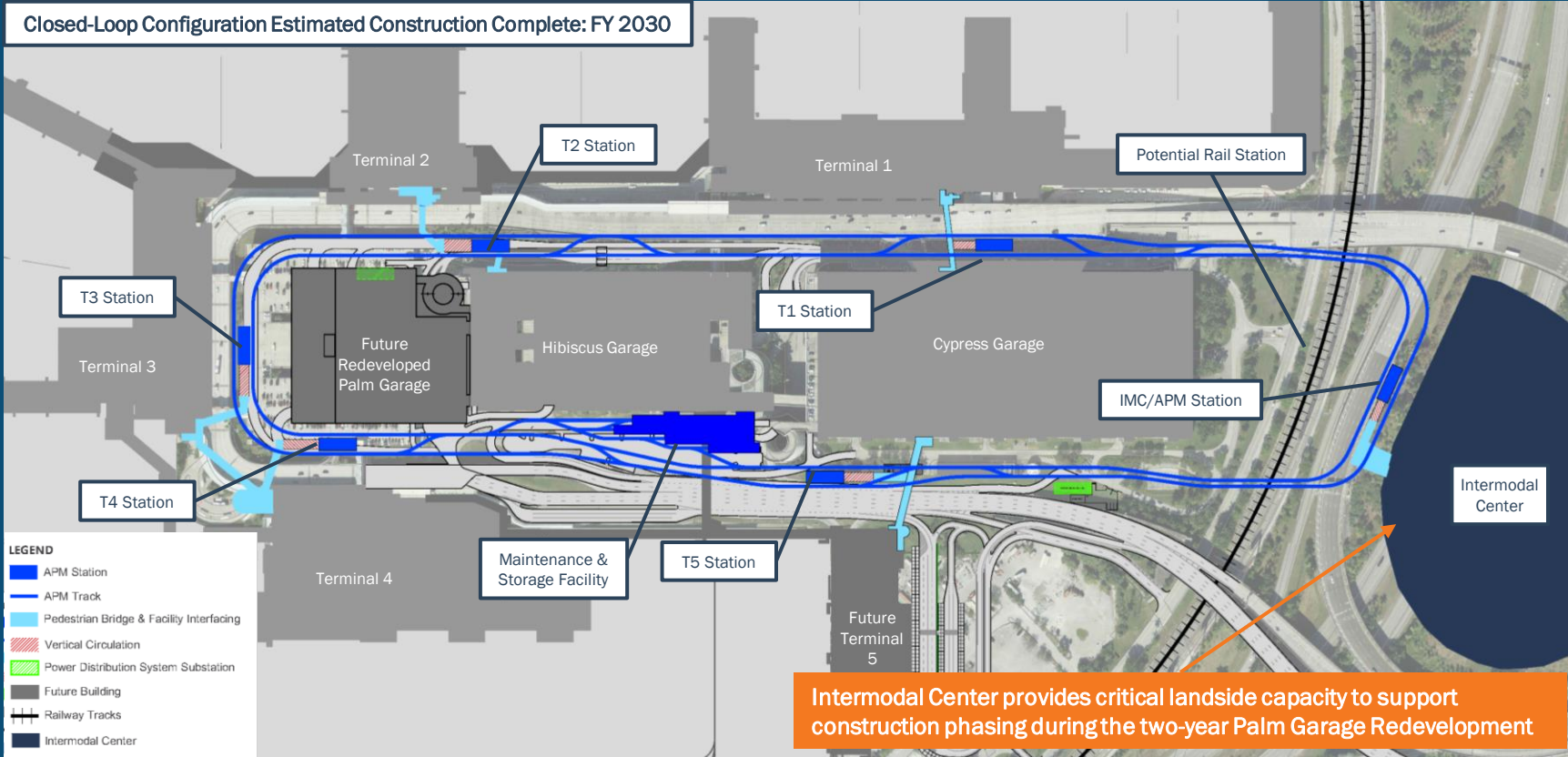
# Automated People Mover – Pinched-Loop Configuration

Pinched-Loop Configuration Estimated Construction Complete: FY 2028





# Automated People Mover – Closed-Loop Configuration



A blue-tinted photograph of an airport terminal. In the center, a white bus is stopped at a platform. Several people are standing around the bus, some with luggage. Above the bus, there are directional signs. One sign on the left points left and says "TERMINAL 4 INTERMODAL CENTER". Another sign on the right points right and says "TERMINAL 1-3 RIVER CROSSING". The background shows the terminal's structure and a clear sky.

# Rough Order of Magnitude Cost Estimate



# Rough Order of Magnitude APM Cost Estimate

ITEM DESCRIPTIONS	ROM UNESCALATED (2022 Dollars)	ROM ESCALATED (2026 Dollars)
Planning and Programming <sup>1/</sup>		\$5,775,000
APM Pinched-Loop Configuration		
Operating Systems	\$184,900,000	\$225,400,000
Infrastructure <sup>2/</sup>	\$430,550,000	\$514,180,000
APM Closed-Loop Configuration		
Operating Systems	\$55,400,000	\$67,300,000
Infrastructure	\$34,780,000	\$42,320,000
<b>Total</b>	<b>\$705,630,000</b>	<b>\$854,975,000</b>

## Notes:

- 1 Planning and Programming costs include project definition and design criteria package development.
- 2 APM infrastructure includes site civil and utility costs as well as an allowance for utility and code compliance work that may be required due to facility interfacing with existing terminals and parking garages.
- 3 The demolition of the southern portion of Palm Garage is not included in the cost above and may be included within the APM budget as an enabling project at BCAD's discretion. An additional \$16.4 million dollars for Phase 1 (Kimley-Horn, Advanced Planning for Palm Garage Demolition, April 2023).

Source: Lea & Elliott, Inc., June 2022; Ricondo & Associates, Inc., June 2022

A blue-tinted photograph of an airport terminal. In the center, a white bus is stopped at a platform. Several people are standing around the bus, some with luggage. Above the bus, there are directional signs. One sign on the left points left and says "TERMINAL 4 INTERMODAL CENTER". Another sign on the right points right and says "TERMINAL 1-3 RIVER CHANGING". The background shows the terminal's structure and a clear sky.

# Funding Framework



# Funding Framework

## FUNDING ALLOCATION TO DATE

- Funding participation has been limited to FDOT to date (50% of the sponsor's matching share)
- BCAD Cash expended approximately \$1M for planning and programming
- Two grants under FDOT aviation work program totaling \$64M (total includes 50% BCAD match) have been executed to date
- Current FDOT funding allocation is \$135M for APM project (does not include local match)

## ADDITIONAL FUNDING OPPORTUNITIES

- FDOT Grants
- Airport Improvement Program (AIP) Grants
- Bi-partisan Infrastructure Law (BIL)
  - Airport Infrastructure Grant (AIG)
  - Airport Terminal Program (ATP)
- Broward County SURTAX
- Bonds

A blue-tinted photograph of an airport terminal. In the foreground, a white bus is parked at a curb. Several people are standing around the bus, some appearing to be boarding or disembarking. In the background, there are signs for "TERMINAL 4 INTERMODAL CENTER" and "TERMINAL 1-3 RIVER CHANGING". The overall scene is a busy airport environment.

**Thank You!**