



Department of Transportation and Public Works (DTPW)

SOUTH CORRIDOR RAPID TRANSIT PROJECT PROJECT UPDATE

**PREPARED FOR:
THE TOWN OF CUTLER BAY**

June 20, 2018

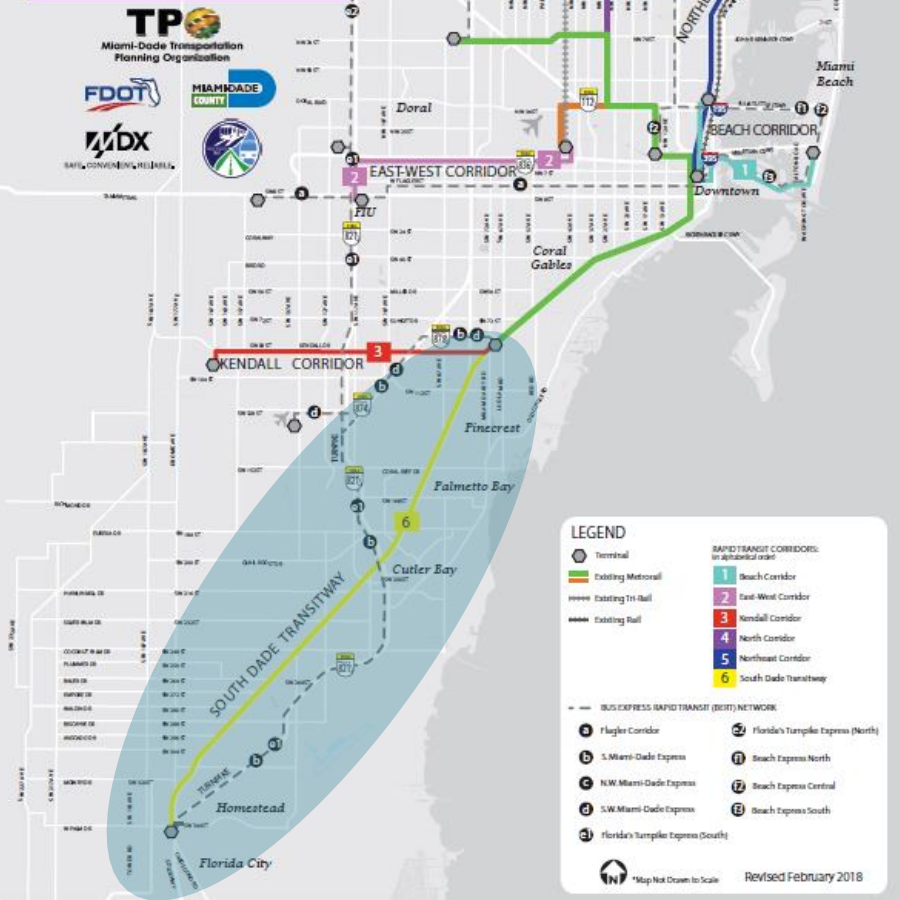
Meeting Overview

- Miami-Dade County SMART Plan
- South Corridor Description
- Project History and Timeline
- Study Objectives: Evaluate Transit Alternatives
- Public Engagement
- Selecting the Locally Preferred Alternative (LPA)
- Project Schedule
- Basic Facts
- Station Locations
- Transit Modes Comparison
- Current Federal Small Starts Opportunity
- Proposed Typical Section Plans
- Proposed Operation Plans
- Preliminary Station Renderings
- Preliminary Alternative Evaluation Matrix
- Next Steps
- Questions



Miami-Dade County SMART Plan

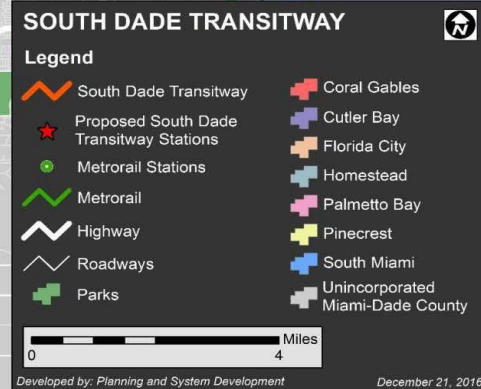
Strategic Miami Area Rapid Transit (SMART) Plan



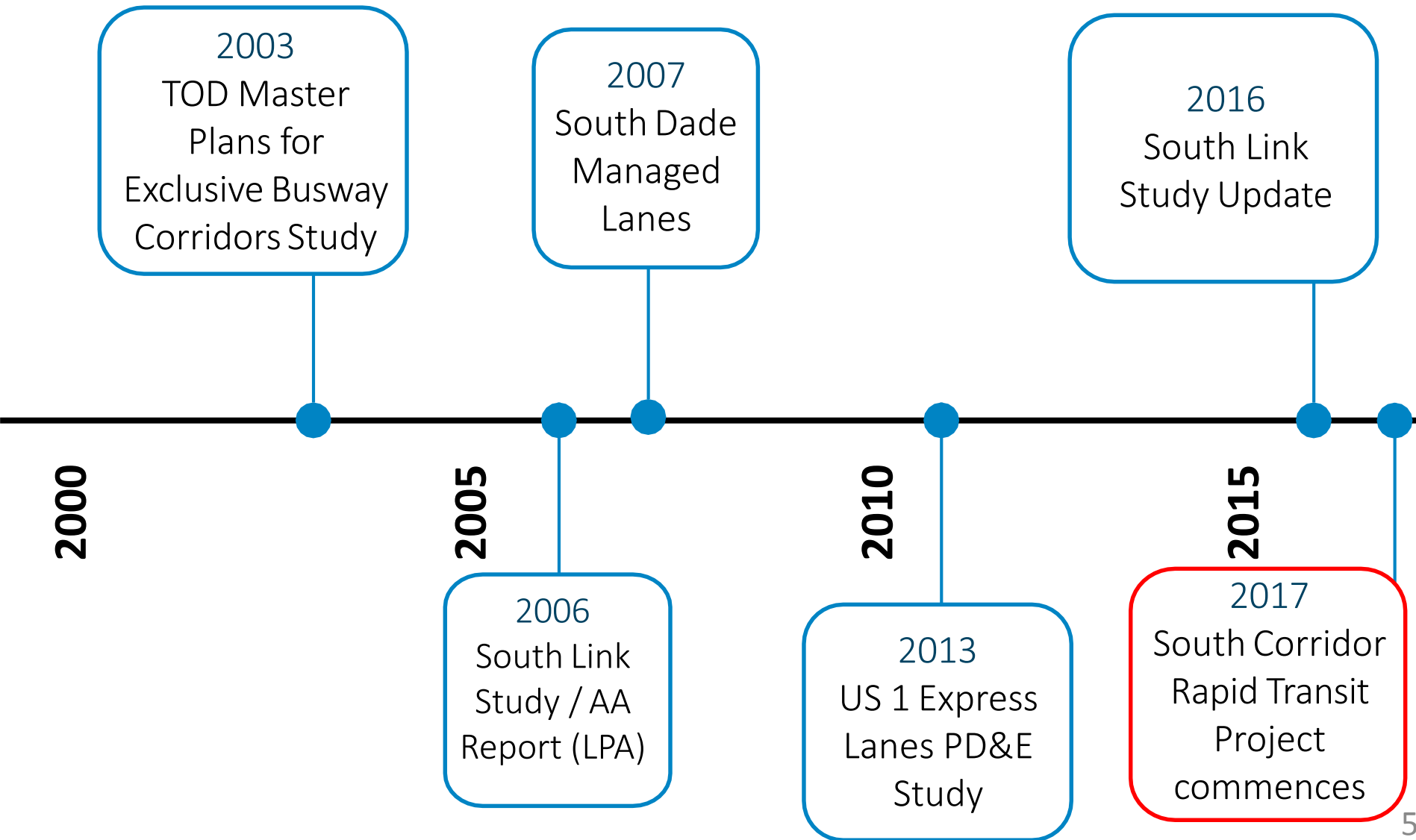
Six Corridors:

- Beach Corridor
- East-West Corridor
- Kendall Corridor
- North Corridor
- Northeast Corridor
- **South Corridor**

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Project History and Timeline



Study Objectives: Evaluate Transit Alternatives

- At-Grade Metrorail Extension (HRT)
- At-Grade Bus Rapid Transit (BRT)
- At-Grade Light Rail Transit (LRT)
- Connected and Autonomous Vehicle (CAV)



Light Rail Transit
(LRT)



Heavy Rail Transit
(HRT)



Bus Rapid Transit
(BRT)



Connected and
Autonomous Vehicle
(CAV)

All alternatives will consider grade separations at major intersections

- Agency Kick-Off Meeting held on May 5th, 2017
- Public Kick-Off Meeting held on May 31st, 2017
- Corridor Workshops
 - #1 The Falls Mall (10-23-17)
 - #2 Southland Mall (10-25-17)
 - #3 Miami-Dade College – Homestead Campus (12-12-17)
- Meetings with stakeholders
- Project Advisory Group (PAG) – 3 meetings
 - #1 South Dade Regional Library (10-02-17)
 - #2 Naranja Branch Library (01-30-18)
 - #3 Palmetto Bay Village Center (05-14-18)
- One-on-One Meetings Leading to Alternatives Workshops
 - City of Florida City and City of Homestead (05-07-18)
 - County Commissioner Levine Cava (05-08-18)
 - Village of Pinecrest and Village of Palmetto Bay (05-09-18)
 - County Commissioner Moss (05-10-18)
 - Town of Cutler Bay (05-11-18)
- Alternatives Workshops
 - #1 Palmetto Bay Golf Course (05-22-18)
 - #2 Florida City Council Chambers (05-23-18)
 - #3 Southland Mall (05-24-18)
- Project email, website, and social media listed below

Selecting the Locally Preferred Alternative (LPA)



Purpose and Need

- Identify the need for transit investment
- Determine project goals and objectives
- Define evaluation criteria

Tier 1 Definition and Evaluation: Qualitative

- Identify the universe of alternatives
- Qualitative evaluation to determine feasibility

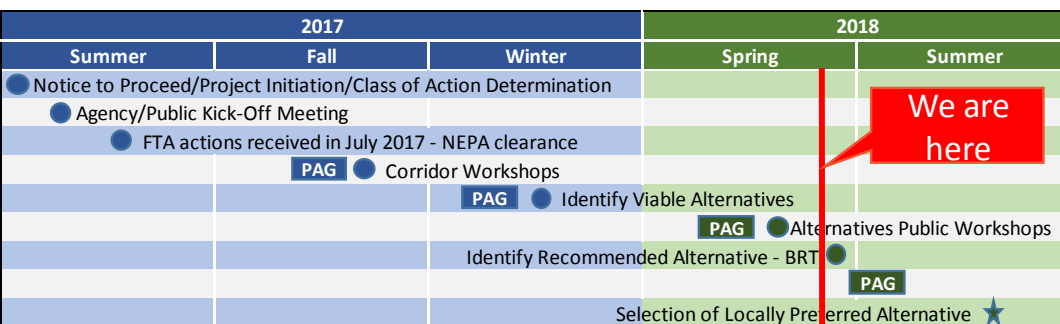
Tier 2 Definition and Evaluation: Quantitative

- Define the remaining alternatives in detail:
 - Develop operating plan
 - Generate ridership forecast
 - Estimate capital and O&M costs
- Evaluate the alternatives in detail

Selection of Locally Preferred Alternative (LPA)

2017			2018				2019	
Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer
● Notice to Proceed/Project Initiation/Class of Action Determination								
● Agency/Public Kick-Off Meeting								
● FTA actions received in July 2017 - EA for Rail								
	PAG ● Corridor Workshops/Initiate EA							
		PAG ● Identify Viable Alternatives						
			PAG ● Alternatives Public Workshops					
				● Identify Recommended Alternative - Rail				
				PAG ★ Selection of Locally Preferred Alternative		● Draft Eng./Env. Reports/Publish EA		
						● NEPA Public Hearing	● FTA Response-EA	
							● Prepare Final EA	
							FTA Approval-EA/Issuance FONSI*	●

Typical Schedule BRT²



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Basic Facts

Length of Corridor

- 20 Miles

Population

- 89,040 (1/2-mile radius)
- 326,000 (2-mile radius)
 - Source: American Community Survey 2015

Employment

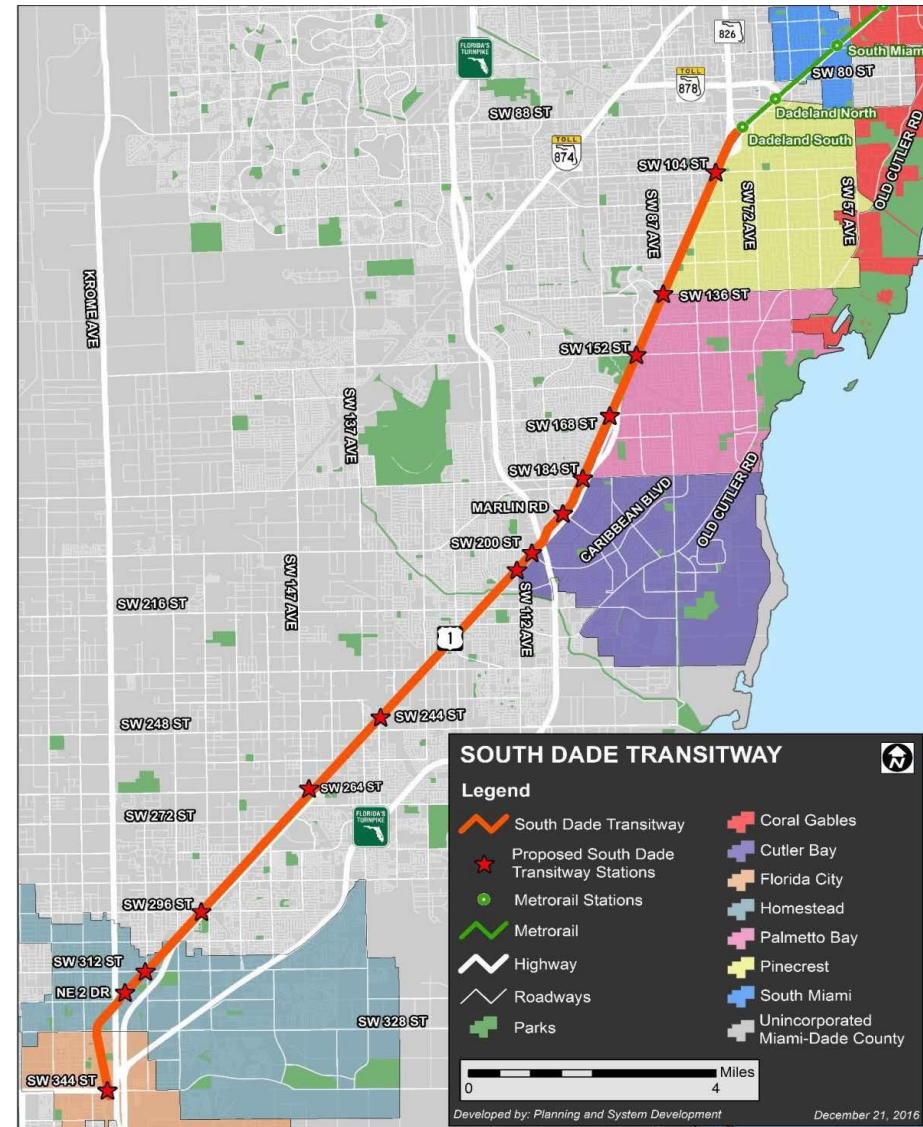
- 55,229 (1/2-mile radius)
- 87,000 (2-mile radius)
 - Source: LEHD Origin-Destination Employment Statistics 2015

Daily Traffic on US-1 (AADT)

- 95,000 vehicles at SR-826
 - Source: FDOT (2016)

Transitway Usage Today

- About 16,000 riders per day
 - Source: Miami-Dade DTPW (May, 2016)



Station Locations – Original 14 Stations

- Dadeland South (existing Metrorail Station)
 - SW 104th St. 
 - SW 136th St. (Howard Dr. / The Falls Mall)
 - SW 152nd St. (Coral Reef Dr.)
 - SW 168th St. (Richmond Dr.) 
 - SW 184th St. (Eureka Dr.)
 - Marlin Road
 - SW 200th St. (Caribbean Blvd.)
 - SW 112th Ave. (Allapattah Rd. / Target Lot)
 - SW 244th St.
 - SW 264th St. (Bauer Dr.)
 - SW 296th St.
 - SW 312th St. (Campbell Dr.)
 - NE 2nd St. (Homestead City Hall) 
 - SW 344th St. (Palm Dr.)
- *SW 112th St. – SW 117th St.
Requested by Pinecrest*
 - *Hibiscus St. / Franjo Triangle
Requested by Palmetto Bay*
 - *SW 177th Ave. / Krome Ave.
Requested by Homestead*

Transit Modes Comparison



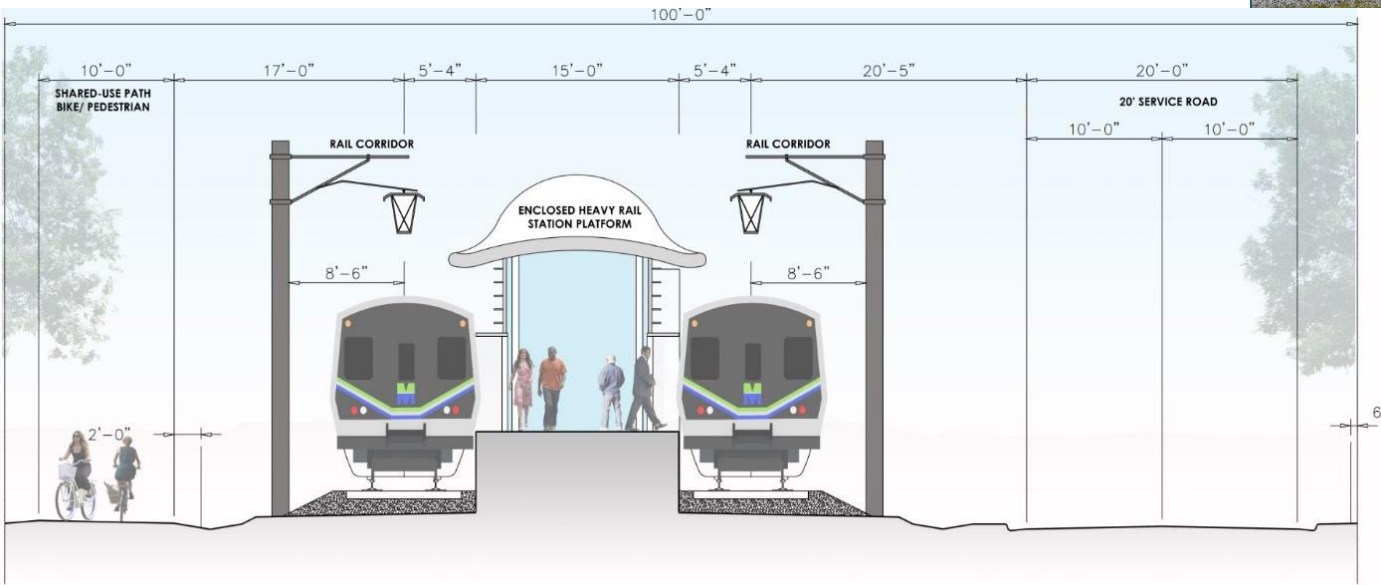
Alternative	1	2	3	4	5
Name	Rapid Transit Service (RTS)	Connected Autonomous Vehicles (CAV)	Light Rail Transit (LRT)	Heavy Rail Transit (HRT / Metrorail) At Grade*	No Build
Project Development Duration (Years)	2 - 3	3 - 4	4 - 6	8 - 10	NA
Service Frequency	5 - 10 Minute Peak / 15 Minute Off-Peak	On Demand	10 Minute Peak / 15 Minute Off-Peak	9 Minute Peak / 12 - 15 Minute Off-Peak	5 - 10 Minute Peak / 15 Minute Off-Peak
Line Length (Miles)	20	20	20	20	20
Speed Range (MPH)	20 - 45	30 - 65	30 - 45	30 - 45	20 - 45
Right-of-Way	Semi-Exclusive	Shared Lanes	Semi-Exclusive	Semi-Exclusive	Semi-Exclusive
Stop Spacing (Miles)	0.5 - 2	On Demand with Express Service	0.5 - 2	0.5 - 2	0.5 - 2
Guideway Infrastructure	Dedicated Lanes	Smart Roadway and Infrastructure	At-Grade with Overhead Power Line	At-Grade with Overhead Power Line	Dedicated Lanes
Other Infrastructure	Stations, Level Boarding, Durable Roadway Paving	High Number of Vehicles, ITS, Boarding Zones	Stations, Power Generation and Maintenance Facility	Stations, Power Supply	Existing
Preliminary Total Capital Cost (Millions)	\$ 250 - 275	\$ 500 – 600	\$ 1,300 – 1,430	\$ 1,200 - 1,350	NA
Operating Cost (per Revenue Hour)	\$ 100 - 150	Variable	\$ 180 - 230	\$ 230 - 270	\$ 100 - 150
Passenger Capacity (per train)	100 - 300	Variable	250 - 300	450 - 600	60 - 100

* Elevated Heavy Rail Transit (HRT / Metrorail) was not reevaluated due to the cost feasibility of the alternative.

- Need to buy land and build a new Vehicle Maintenance Facility
- LRT is not a mode currently in use by Miami Dade County
- Completely new fleet of vehicles required
- Cannot operate on the existing Metrorail system – transfer still required
- Transit Operating and Maintenance staff retraining required

- Small Starts program is geared toward faster delivery
- Does not overload the annual national funding availability of about \$2.2 Billion
- Project Cost under \$250 million yields automatic Medium rating in 3 categories
- Opportunity to apply for federal funding in the coming Fiscal Year
- Project delivery/start of operations as early as 2021

Metrorail Alternative (HRT)



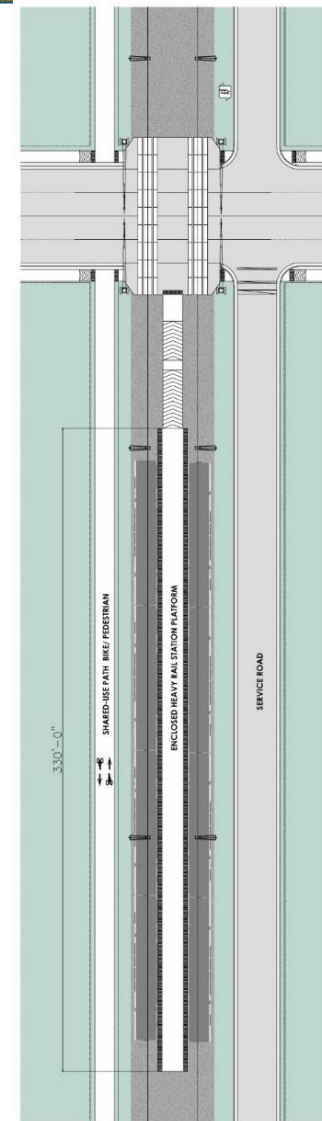
Center Platform Height: 43 inches

Center Platform Width: 15 feet

Center Platform Length: 330 to 456 feet

Configuration: Center platform end loaded from north side

Special needs: None, interlines with existing Metrorail at Dadeland South, a spur track will be needed between the mainline and the Storage and Maintenance Facility



Proposed Operation Plan - HRT



Operation Types	Headway Peak / Off-Peak (Min)	Station Locations	Dadeland South	SW 104 St (Target)	SW 112 St (Killian Dr)	SW 120 St (Montgomery Dr)	SW 124 St (Champion Field Dr)	SW 128 St	SW 136 St (Howard Dr / The Falls Mall)	SW 144 St (Mitchell Dr)	SW 152 St (Coral Reef Dr)	SW 160 St (Colonial Dr)	SW 168 St (Richmond Dr)	SW 174 St (Banyan St)	W Indigo St	SW 184 St (Eureka Dr)	Marlin Rd	SW 200 St (Caribbean Blvd)	SW 112 Ave (Allapattah Rd / Southland Mall)	SW 216 St (Hainlin Mill Dr)	SW 220 St (W Old Cutler Rd)	SW 232 St (Silver Palm Dr) / SW 127 Ave	SW 244 St (Coconut Palm Dr)	SW 264 St (Bauer Dr)	SW 272 St (Epmore Dr)	SW 280 St (Waldin Dr)	SW 296 St	SW 312 St (Campbell Dr)	NE 2 Dr (Homestead City Hall)	SW 324 St / SW 4 St	SW 328 St / SW 8 St (Lucy St)	SW 344 St (Palm Dr / Florida City)
			(P)	(FP)					(FP)		(P)		(P)			(P)		(FP)	(FP)	(P)			(P)				(P)	(FP)	(FP)			(P)
Ridership	Aug-17		3,788	100	75	89	75	91	298	154	492	220	371	197	206	347	277	543	464	116	96	39	316	308	127	144	224	501	293	158	149	329
Ridership Ranking	Aug-17		1	-	-	-	-	-	-	-	4	-	6	-	-	7	-	2	5	-	-	-	9	10	-	-	-	3	-	-	-	8
Heavy Rail Transit (HRT)	9 / 15		●	●					●		●		●			●	●		●				●	●			●	●	●			●

Updated: 21-May-18



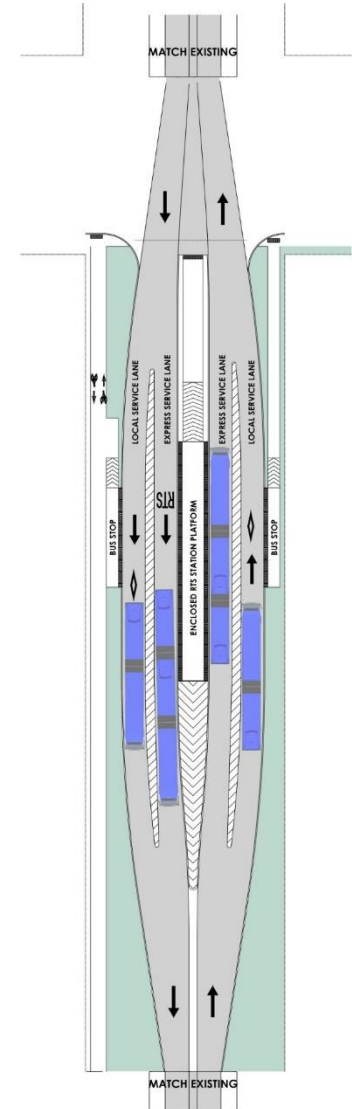
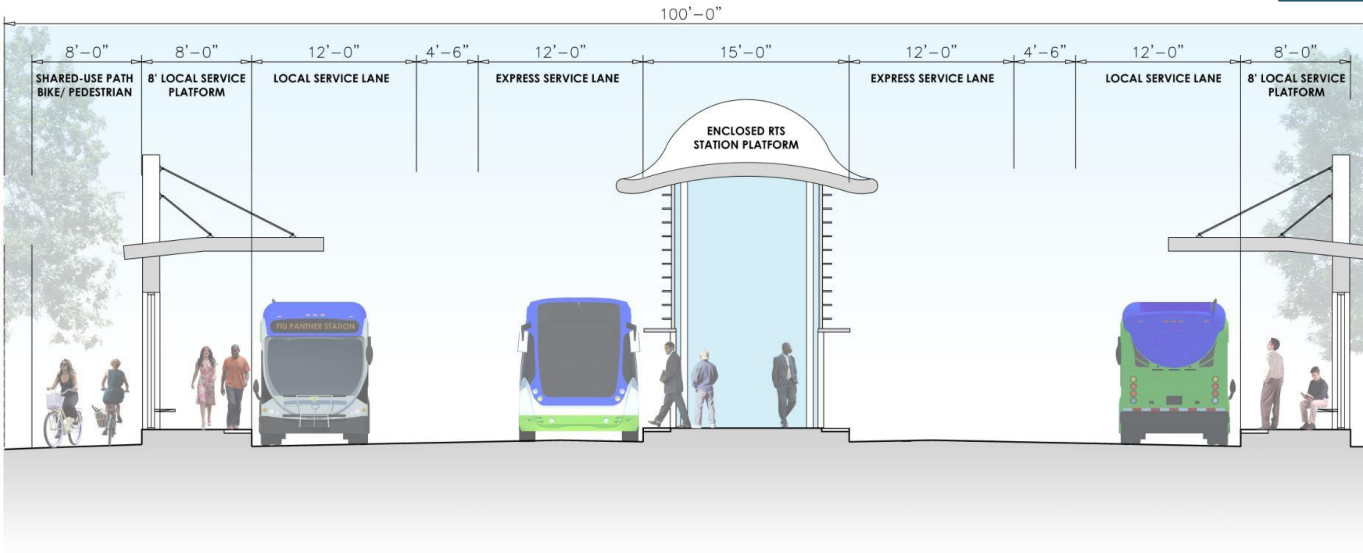
Existing Park and Ride



Future Park and Ride



Bus Rapid Transit (BRT)



Center Platform Height: 12 inches

Center Platform Width: 15 feet

Center Platform Length: 120 to 150 feet

Configuration: Center platform with bypass lanes, convertible for rail or other future technologies

Special needs: Storage and Light Maintenance Facility

Proposed Operation Plan - BRT



Operation Types	Headway Peak / Off-Peak (Min)	Station Locations	Dadeland North	Dadeland South	SW 104 St (Target)	SW 112 St (Killian Dr)	SW 120 St (Montgomery Dr)	SW 124 St (Champion Field Dr)	SW 128 St	SW 136 St (Howard Dr / The Falls Mall)	SW 144 St (Mitchell Dr)	SW 152 St (Coral Reef Dr)	SW 160 St (Colonial Dr)	SW 168 St (Richmond Dr)	SW 174 St (Banyan St)	W Indigo St	SW 184 St (Eureka Dr)	Marlin Rd	SW 200 St (Caribbean Blvd)	SW 112 Ave / Allapattah Rd (Target)	Southland Mall	SW 216 St (Hainlin Mill Dr)	SW 220 St (W Old Cutler Rd)	SW 232 St (Silver Palm Dr) / SW 127 Ave	SW 244 St	SW 264 St (Bauer Dr)	SW 272 St (Epmore Dr)	SW 280 St (Waldin Dr)	SW 296 St	SW 312 St (Campbell Dr)	NE 2 Dr (Homestead City Hall)	SW 324 St / SW 4 St	SW 328 St / SW 8 St (Lucy St)	SW 344 St (Palm Dr / Florida City)	Walmart (US-1 & SW 336 St/Davis Pkwy)	
BRT Zonal Express Alt.			P	P	FP					FP		P		P			P		FP	FP		P			P				P	FP	FP				P	
Ridership	Aug-17			3,788	100	75	89	75	91	298	154	492	220	371	197	206	347	277	543	464	269	116	96	39	316	308	127	144	224	501	293	158	149	329	128	
Ridership Ranking	Aug-17			1	-	-	-	-	-	-	-	4	-	6	-	-	7	-	2	5	-	-	-	-	9	10	-	-	-	3	-	-	-	8	-	
Local Service (All-Stops)	10 / 15		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Bus Rapid Transit (BRT - Limited Stops)	10 / 15			●	●					●		●		●			●	●	●	●					●	●			●	●	●				●	
BRT- North Xpress	10 / 20			●	●					●		●		●																						
252 - Coral Reef MAX	10 / 20			●	●					●																										
BRT- Mid Xpress	10 / 20			●													●	●	●	●	●															
BRT- South Xpress	10 / 20			●																					●	●					●	●			●	

(P) Existing Park and Ride
(FP) Future Park and Ride

Updated: 30-May-18

BUS
COMMUTER
TRAIN
RAPID-TRANSIT
SOUTH-CORRIDOR
RIDER
COMFORT
ICONIC
RECOGNIZABLE
EXPANDABLE
NEIGHBORHOOD-CONTEXT

Preliminary Station Renderings (Alt. #1 – BRT)



Preliminary Station Renderings (Alt. #1 – HRT)



Preliminary Station Renderings (Alt. #1 – BRT)



Preliminary Station Renderings (Alt. #1 – HRT)



Preliminary Station Renderings (Alt. #2 – BRT)



Preliminary Station Renderings (Alt. #2 – HRT)



Preliminary Station Renderings (Alt. #2 – BRT)



Preliminary Station Renderings (Alt. #2 – HRT)



Preliminary Alternative Evaluation Matrix

Build Alternative			Ridership (STOPS)	Travel Time (minutes)	Environmental Impact					COST			Non-Federal Funding Required (in millions) ²	Time needed to build and begin service in years	Is a transfer required to Downtown Miami ?
					Traffic	Noise Vibration	Contamination	Bridge Replacement	Right of Way ¹	Capital Cost (in millions)	Operations & Maintenance (in millions)	Life Cycle Costs			
	NO BUILD Make no improvements	Dadeland South to Florida City	TBD	Bus: 45 to 50 Car: 60 to 90	○	○	○	○	○	\$0	\$0	TBD	N/A	0 years	Yes
	Dual Mode - Metrorail Extension (HRT) Extend existing Metrorail running at ground level	Dadeland South to Florida City	●	40 to 45	◐	◐	◐	●	◐	\$1,200 to \$1,350	\$100 to \$120	TBD	\$720 to \$810	8 to 10 years	No
	Bus Rapid Transit (BRT) running on the existing Transitway at ground level	Dadeland South to Florida City	◐	40 to 45	◐	◑	◑	○	○	\$250 to \$275	\$20 to \$25	TBD	\$150 to \$175	2 to 3 years	Yes
	Connected and Autonomous Vehicles (CAV) running on the existing Transitway at ground level	Dadeland South to Florida City	TBD, same as No Build	30 to 45	◐	◑	◐	●	○	\$500 to \$600	TBD	TBD	\$500 to \$600	3 to 4 years	TBD

1. HRT Needs Light Maintenance Facility South of 344th Street

2. HRT assumes 40% Federal Share. BRT assumes \$100 M Federal Share. CAV assumes \$ 0 Federal Share.

Legend

None	○
Low	◑
Moderate	◐
Moderate to High	◐
High	●

- 1. Finalize Technical Reports**
- 2. Identify Recommended Alternative**
- 3. Present to TPO Committees**
- 4. PAG Meeting #4**
- 5. Present to TPO Board**
 - **LPA Selection**

Questions

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