



Implementation Plan for Enhanced Bus Service along Flagler Street

Presented by:
Parsons Brinckerhoff, Inc.

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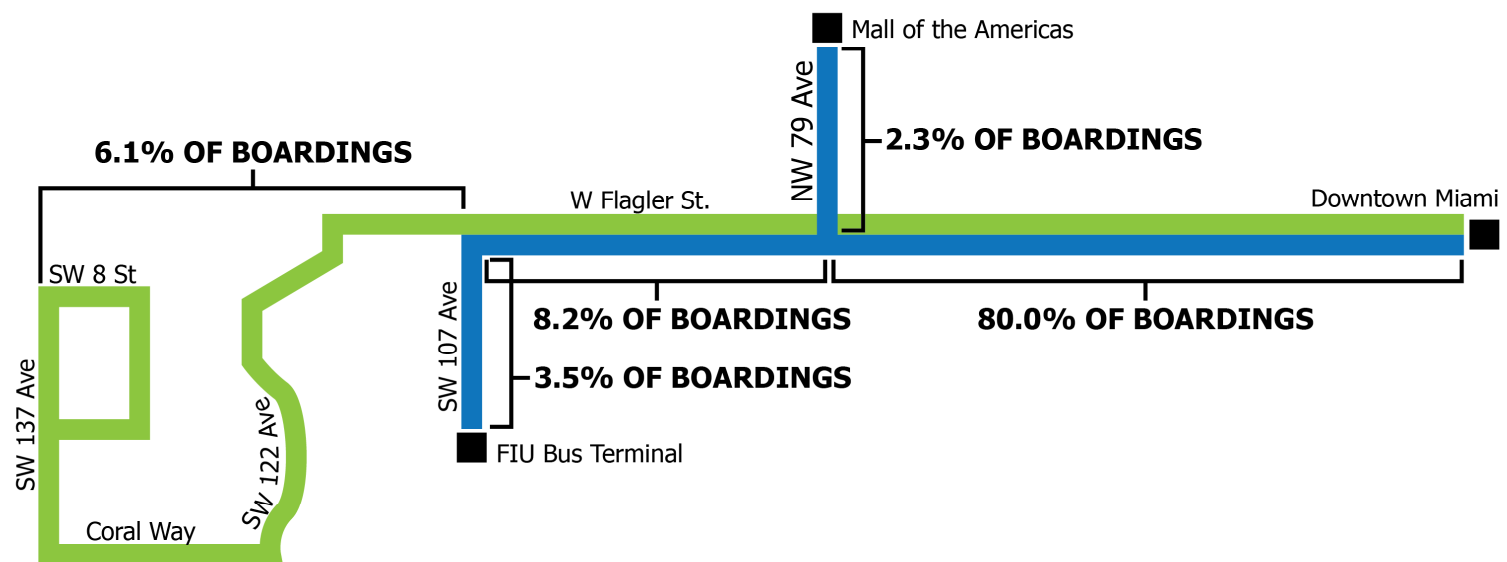


Today's Meeting



- Existing Corridor Characteristics
 - Passenger Movement
 - Traffic Conditions
 - Physical Constraints
 - Roadway Configuration Analysis
- EBS Recommendations
 - Service Plan
 - Station locations
 - Park-and-Ride locations
- EBS Implementation Plan

Existing Weekday Boarding Activity on Routes 11 and 51



Estimated Daily Boardings: 16,300

Flagler Routes

- Flagler Local Route 11
- Flagler MAX Route 51

Flagler Street EBS

Inbound Boardings

The map displays the Flagler Street EBS area with various transit routes. Inbound boardings are indicated by colored circles of varying sizes, corresponding to the distance from the station. The legend shows that white circles represent 0-25 miles, light blue circles represent 26-50 miles, medium blue circles represent 51-100 miles, dark blue circles represent 101-250 miles, and the largest dark blue circles represent more than 250 miles. The map also shows the locations of Routes 11 and 51 (black line), MDT Bus Routes (purple line), and MetroRail (grey line).

○ 0 - 25 — Routes 11 and 51

● 26 - 50 — MDT Bus Routes

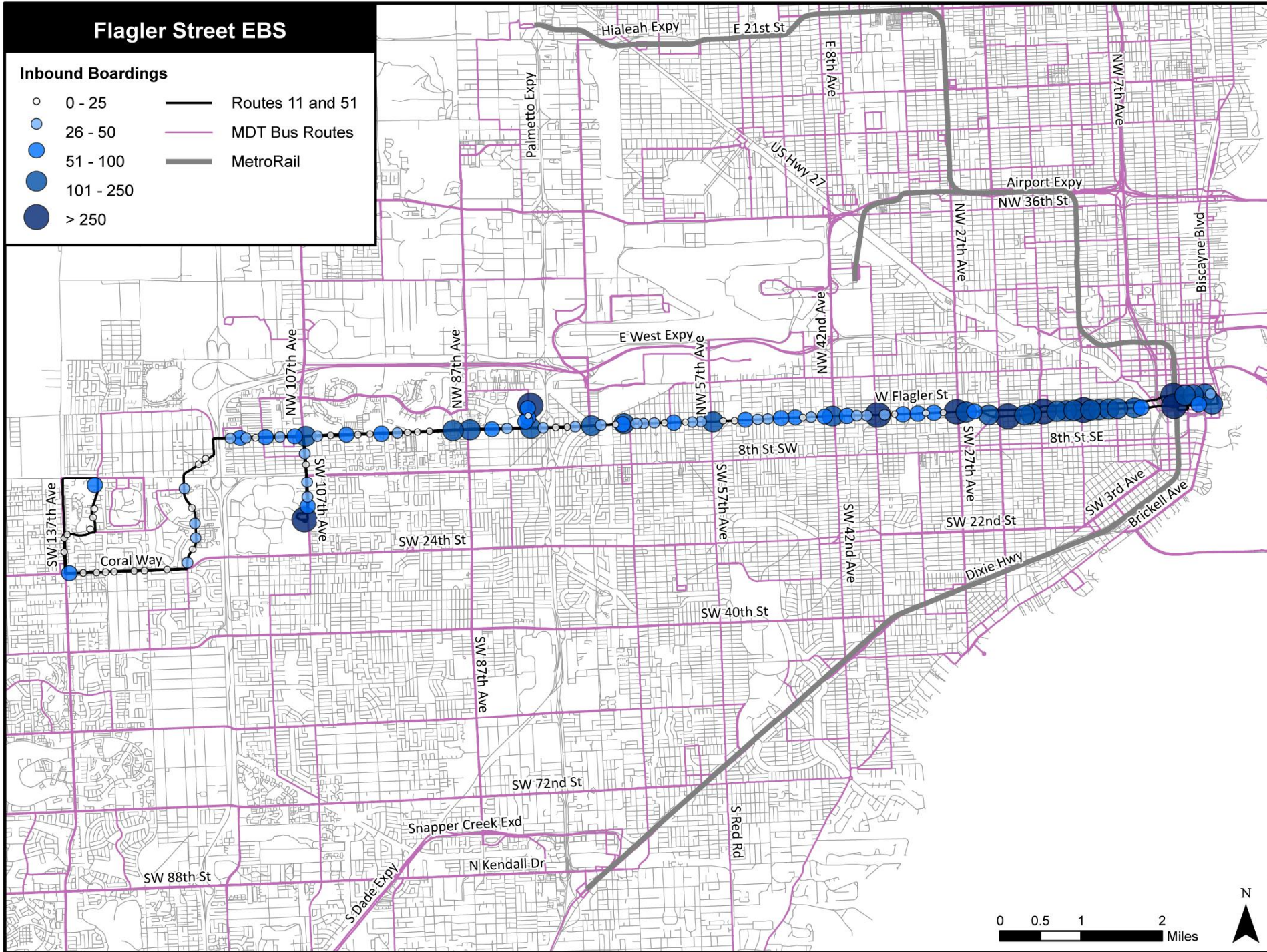
● 51 - 100 — MetroRail

● 101 - 250

● > 250

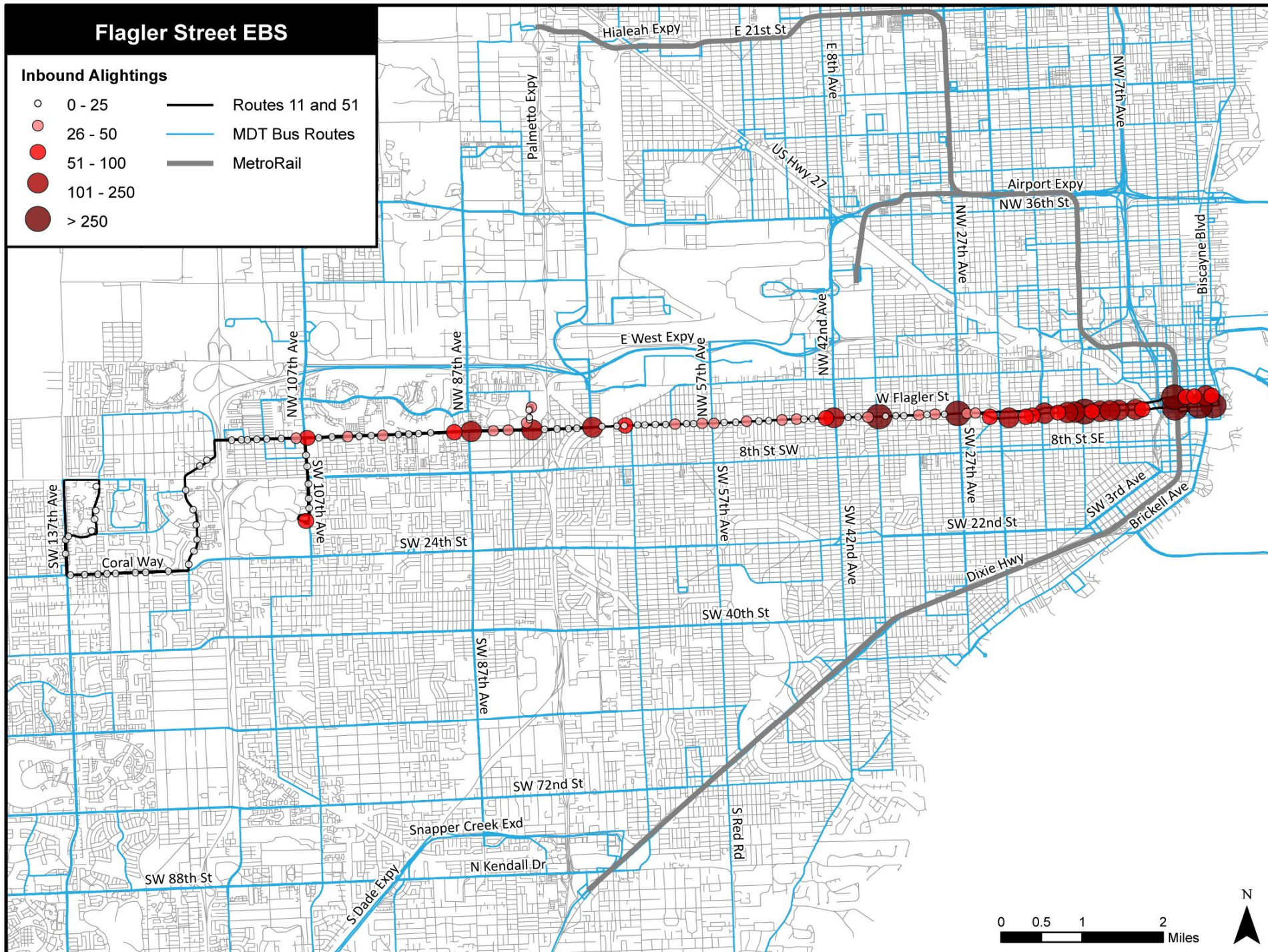
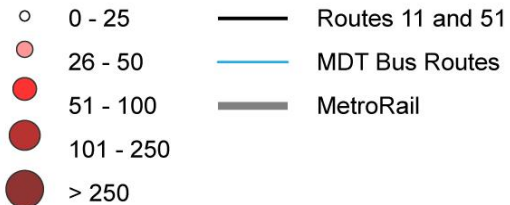
○ 0 - 25
 ● 26 - 50
 ● 51 - 100
 ● 101 - 250
 ● > 250

- Routes 11 and 51
- MDT Bus Routes
- MetroRail



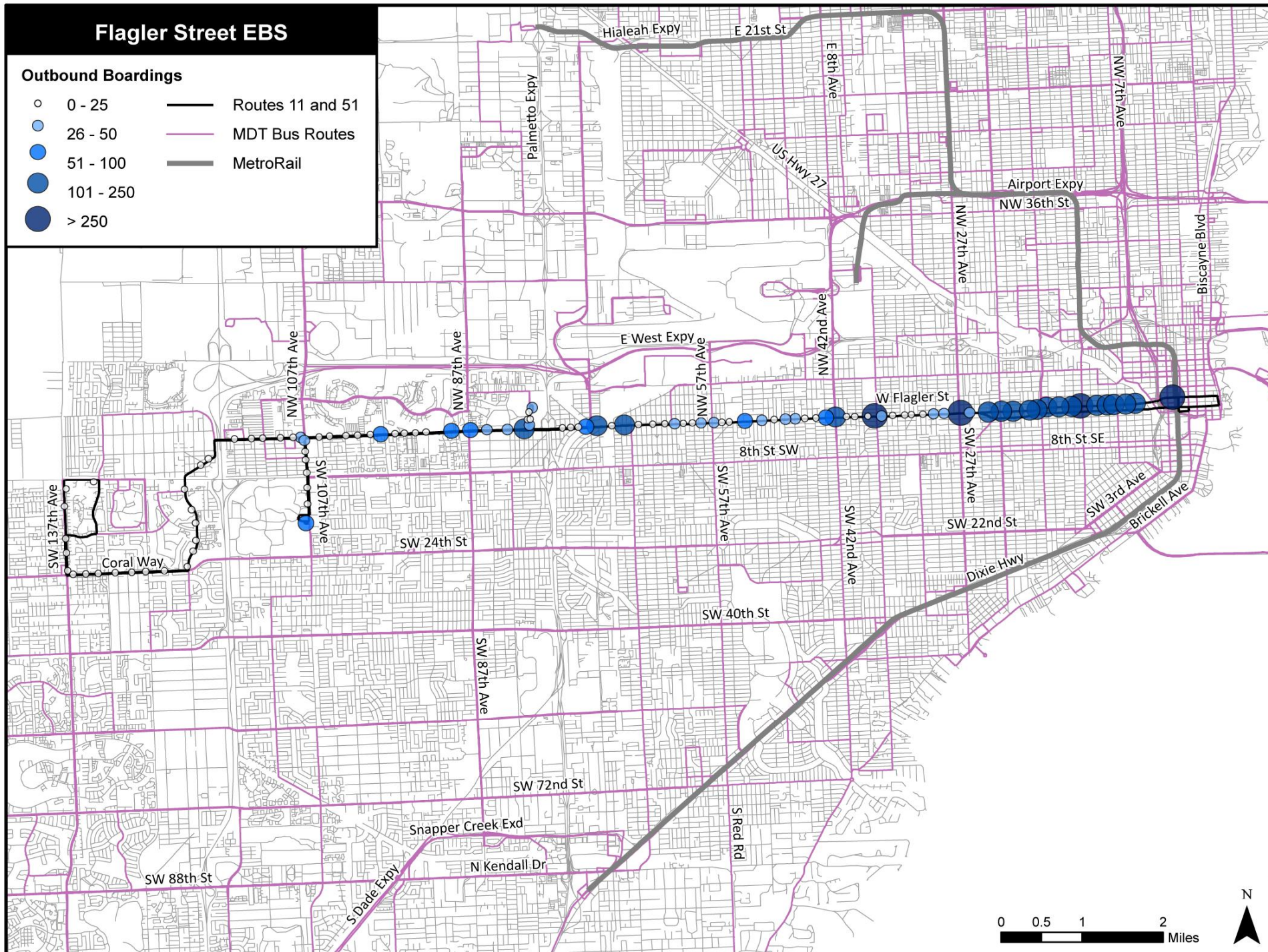
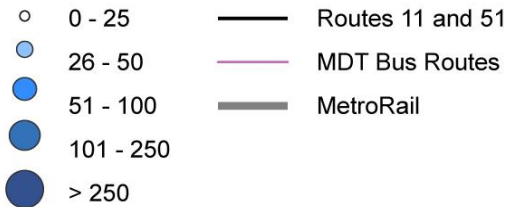
Flagler Street EBS

Inbound Alightings



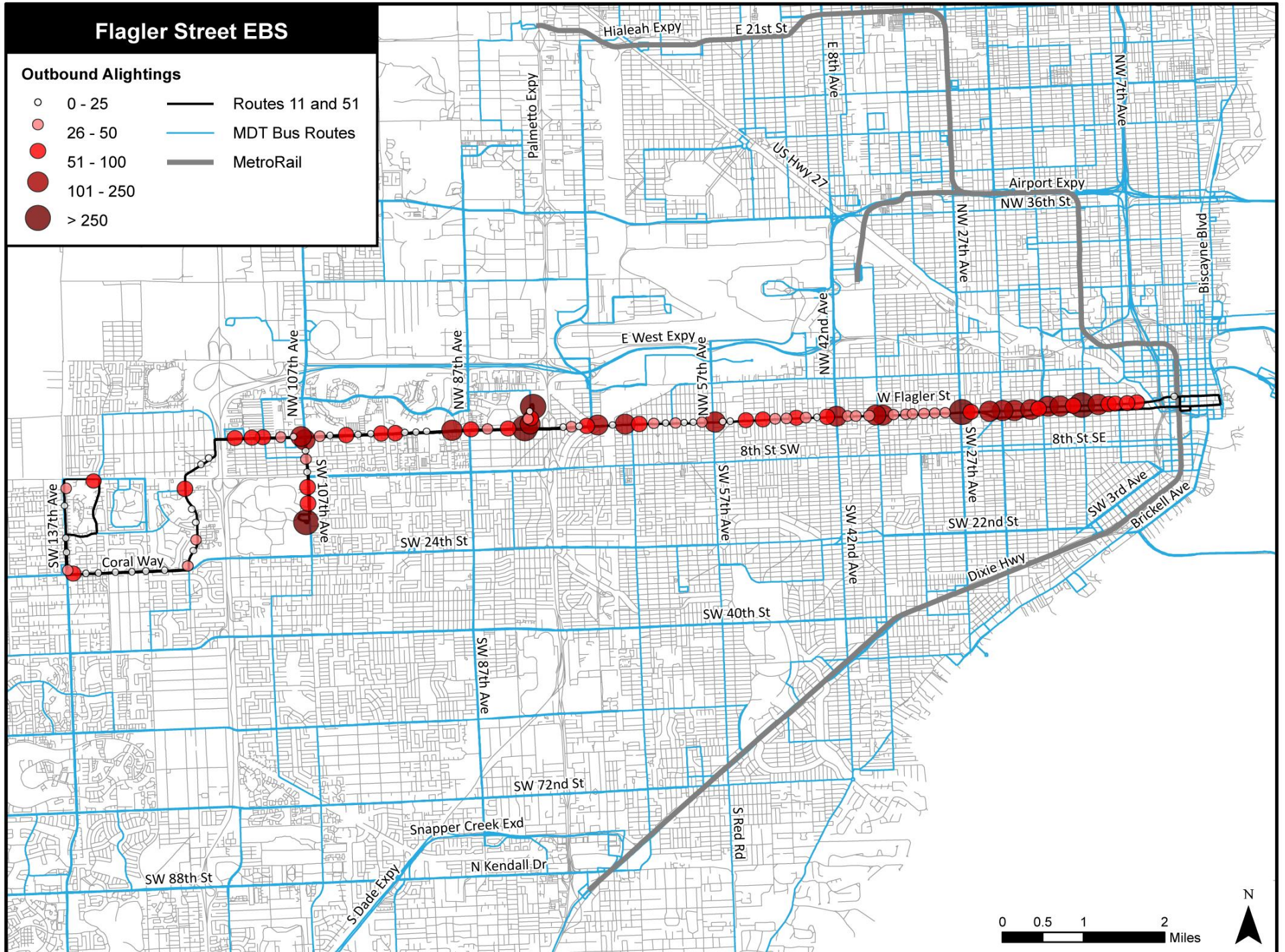
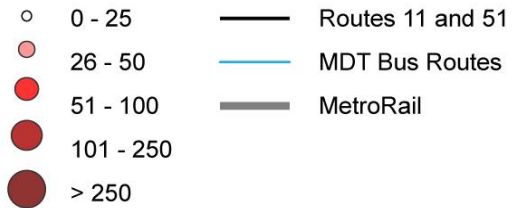
Flagler Street EBS

Outbound Boardings



Flagler Street EBS

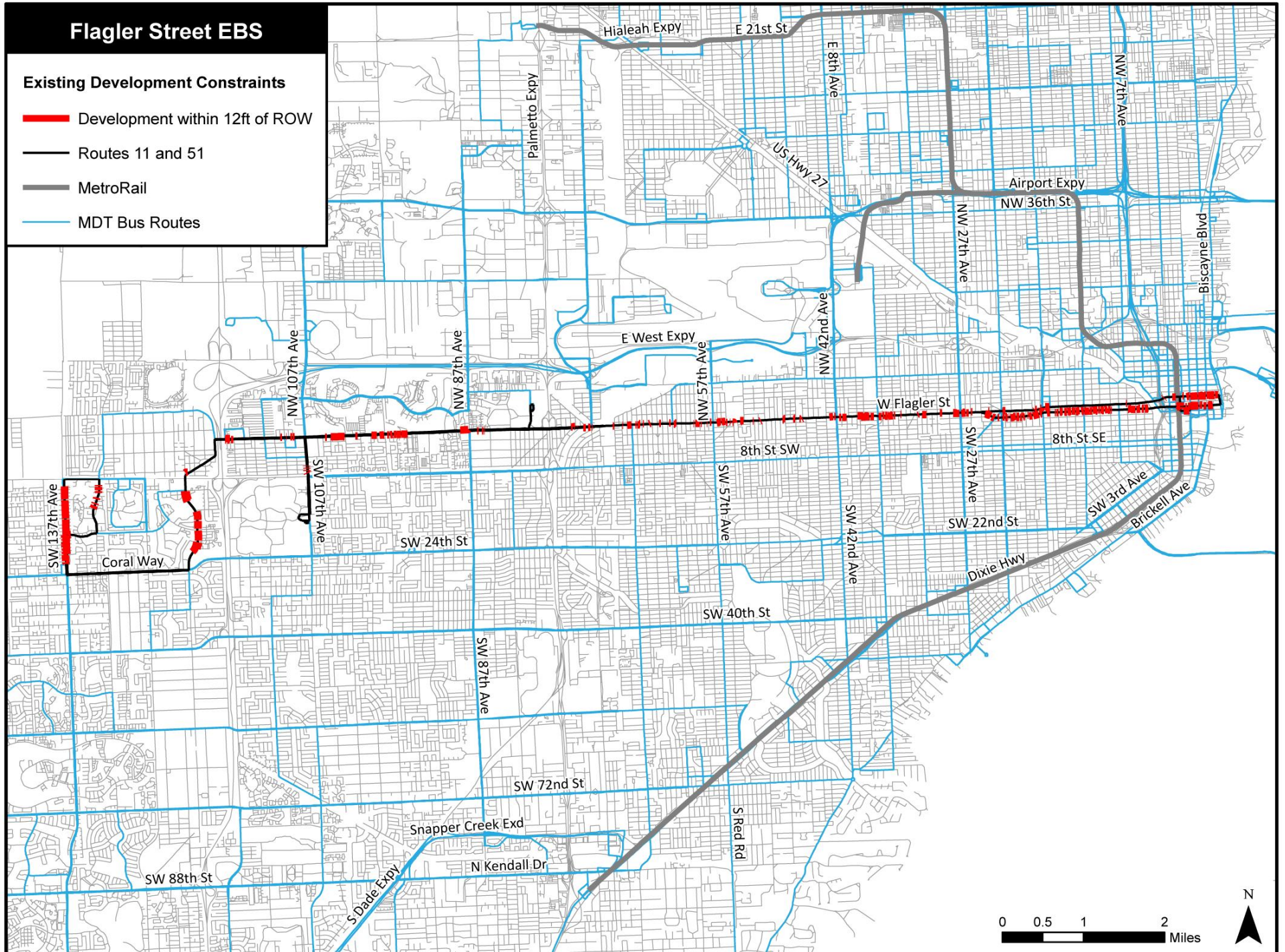
Outbound Alightings



Flagler Street EBS

Existing Development Constraints

- Development within 12ft of ROW
- Routes 11 and 51
- MetroRail
- MDT Bus Routes



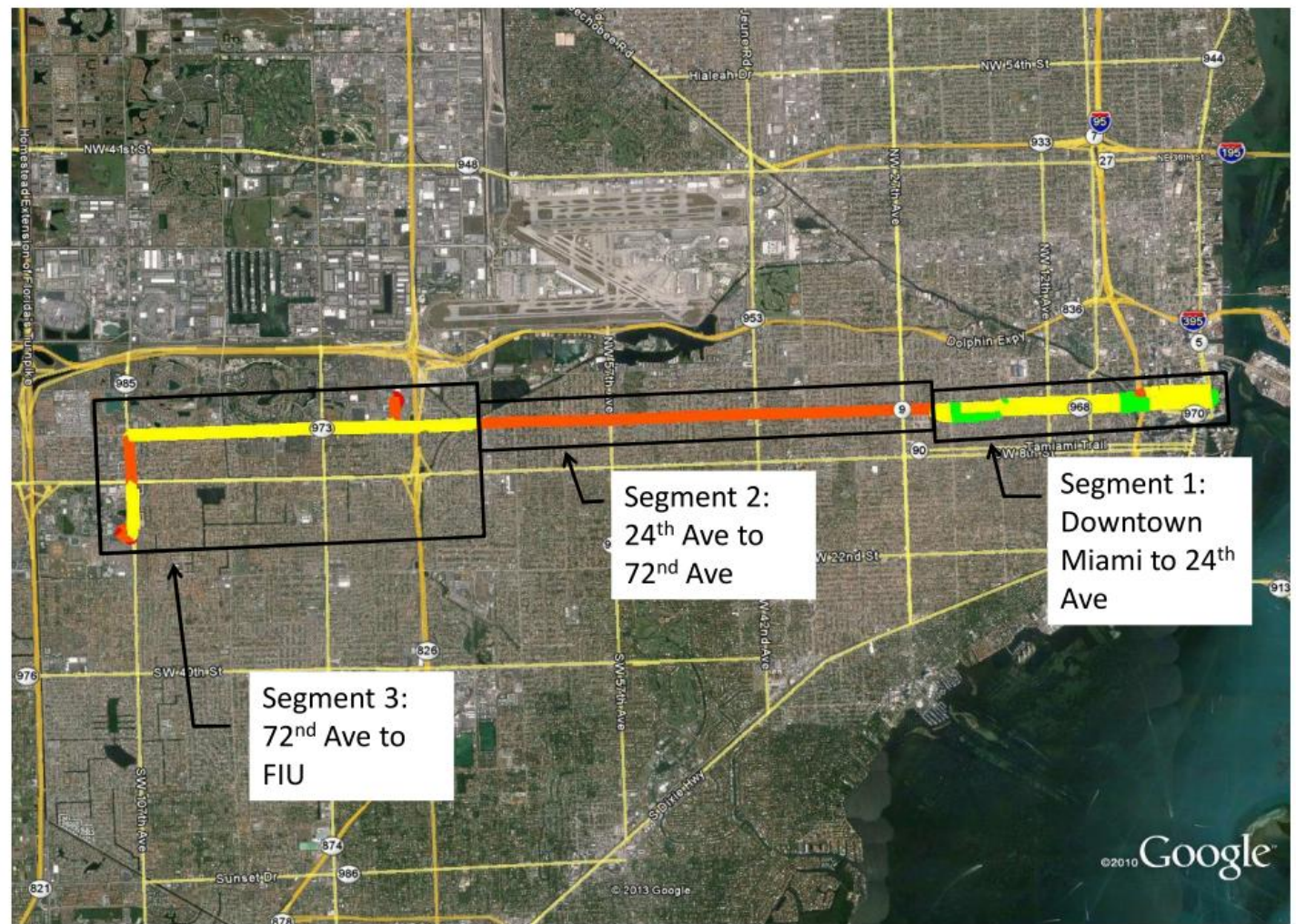


Roadway Configuration Analysis



Directional
through lanes

	Green: 4
	Yellow: 3
	Orange: 2
	Red: 1





Traffic Analysis



Segment	Description	EB Capacity	WB Capacity	AM EB Demand	AM WB Demand	PM EB Demand	PM WB Demand	Can we take a lane?			
								AM EB	AM WB	PM EB	PM WB
1	Two-way segment along Flagler St. from NW 107th Ave. to NW 87th Ave.	1,950	1,950	1,950	1,000	1,250	2,100	No	Yes	Yes	No
2	Two-way segment along Flagler St. from NW 87th Ave to Palmetto Expy.	2,859	2,859	1,950	1,250	1,700	2,150	No	Yes	Yes	No
3	Two-way segment along Flagler St. from Palmetto Expy to NW 72nd Ave.	2,859	2,859	2,300	1,300	1,800	2,550	No	Yes	Yes	No
4	Two-way segment along Flagler St. from NW 72nd Ave to NW 57th Ave.	1,888	1,888	1,200	1,250	1,300	1,800	No	No	No	No
5	Two-way segment along Flagler St. from NW 57th Ave to Le Jeune Rd.	1,888	1,888	1,100	800	1,200	1,400	No	Yes	No	No
6	Two-way segment along Flagler St. from Le Jeune Rd to NW 24th Ave.	1,888	1,888	1,150	900	1,150	1,250	No	Yes	No	No
7	One-way EB along SW 1st St. and One-way WB along Flagler St between NW 24th Ave and NW 12th Ave	2,340	2,340	2,250	1,100	1,700	2,000	No	Yes	No	No
8	One-way EB along SW 1st St. and two-way segment along Flagler St. from NW 12th Ave to NW 6th Ave.	2,340	2,340	1,350	950	1,050	1,200	Yes	Yes	Yes	Yes
9	One-way EB along SW 1st St. and One-way WB along Flagler St. from NW 6th Ave to I-95.	3,120	2,340	650	150	550	450	Yes	Yes	Yes	Yes
10	One-way EB along SW 1st St. and One-way WB along Flagler St. from I-95 to NW 2nd Ave.	2,340	780	675	150	550	475	Yes	No	Yes	No
11	One-way EB along SW 1st St. and two-way segment along Flagler St. from NW 2nd Ave to Biscayne Blvd.	2,340	780	500	200	600	400	Yes	No	Yes	No



Roadway Configuration Analysis



	Restricted Curbside Bus Lanes							Mixed Traffic
	Median Busway	Reversible Center Bus Lane	Curbside Busway	Restricted Curbside Bus Lane with Reversible Center Lane for Autos	Restricted Curbside Bus Lane (All Times)	Restricted Curbside Bus Lane (Peak Periods; Both Directions)	Restricted Curbside Bus Lane (Peak Periods; Peak Directions)	
Segment 1 Flagler Street and SW 1st Street One-Way Pair								
Segment 2 Flagler Street between NW 24th Avenue and NW 72nd Avenue								
Segment 3 Flagler Street between NW 72nd Avenue and SW 107th Avenue to FIU								

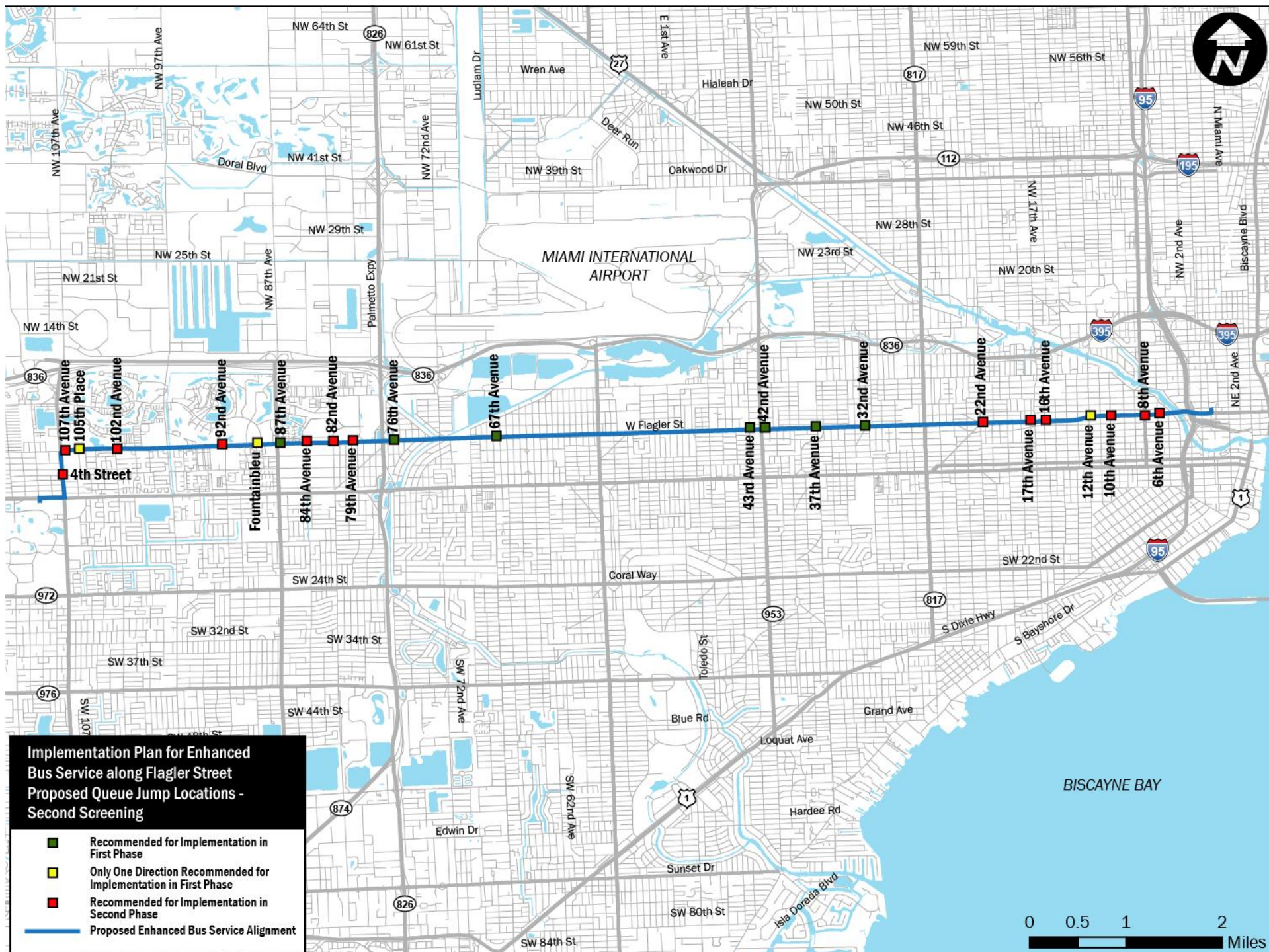
Key: Red: Unlikely; Yellow: Possible; Green: Most Likely



Queue Jump Lane Analysis

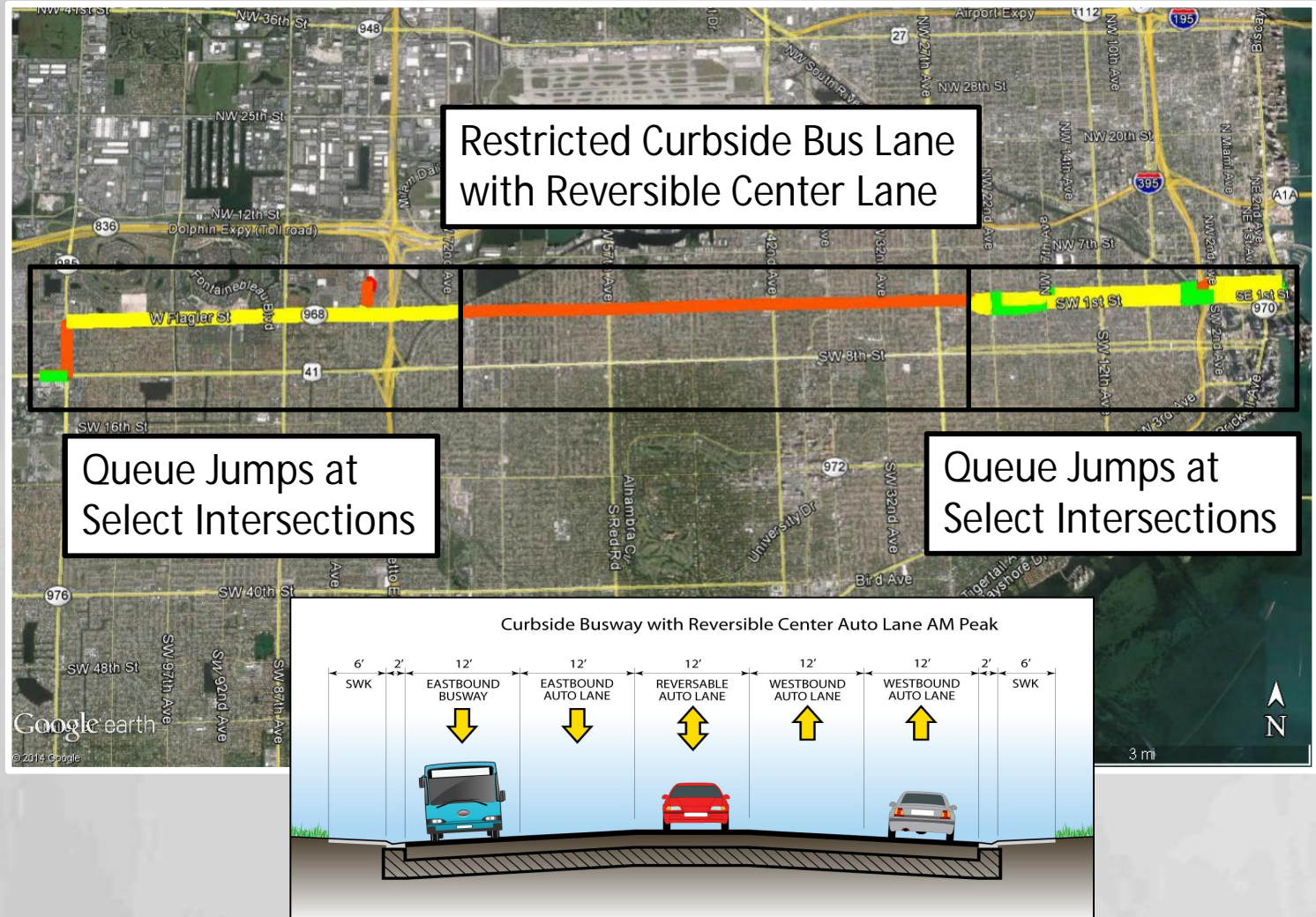


- Preliminary Screening
 - Station location
 - Segment Level of Service (LOS)
 - Availability of a right turn lane
 - Availability of right-of-way
- Secondary Screening:
 - AM/PM Peak period field observations
 - Queue length
 - Station location
 - Right-of-way constraints





Recommended Roadway Configuration Analysis



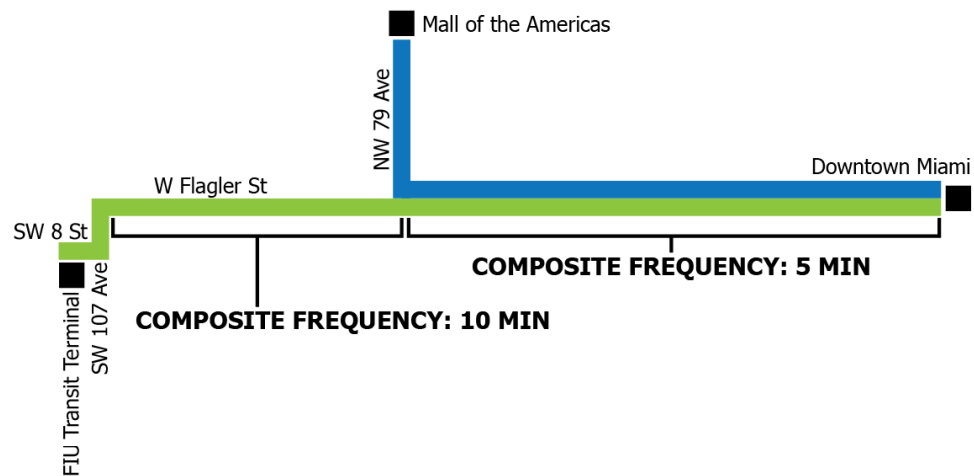


Service Plan Analysis





- Recommendation:
 - Concentrate all EBS service between FIU and Downtown Miami
 - Will improve travel times by:
 - Increasing frequency in some segments
 - Shifting trips to Limited Stop EBS service

Flagler EBS: Peak Service Plan



Proposed Peak Service Frequencies

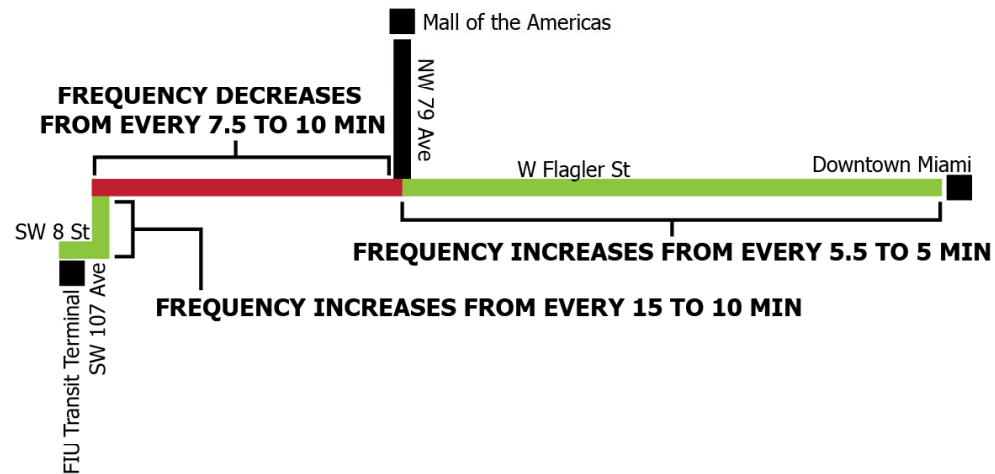
-  Flagler EBS - Every 10 minutes
-  Local - Every 10 minutes



Proposed Flagler EBS Service Plan



Flagler EBS: Peak Service Changes



Proposed Change in Service Levels

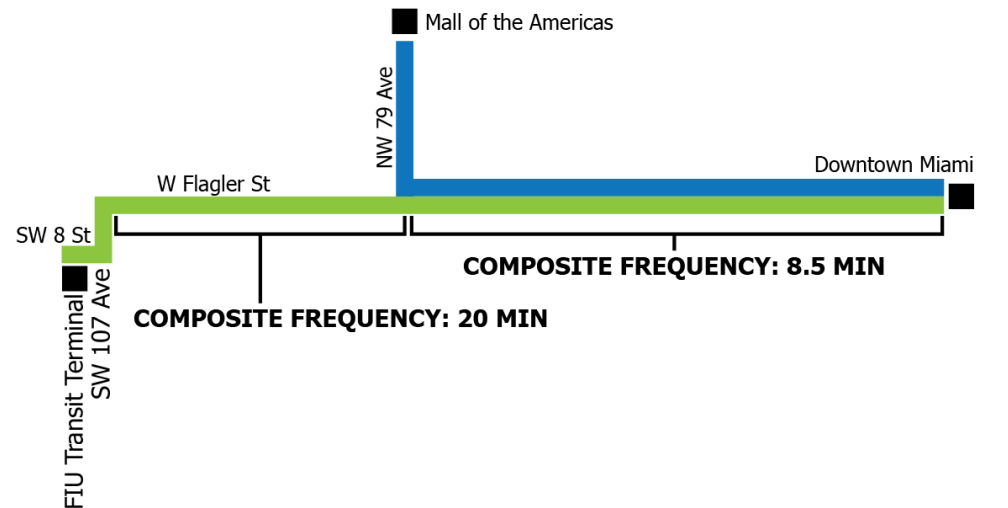
- Service Level Increase
- Service Level Decrease
- No Change in Service Level



Proposed Flagler EBS Service Plan



Flagler EBS: Off-Peak Service Plan



Proposed Off-Peak Service Frequencies

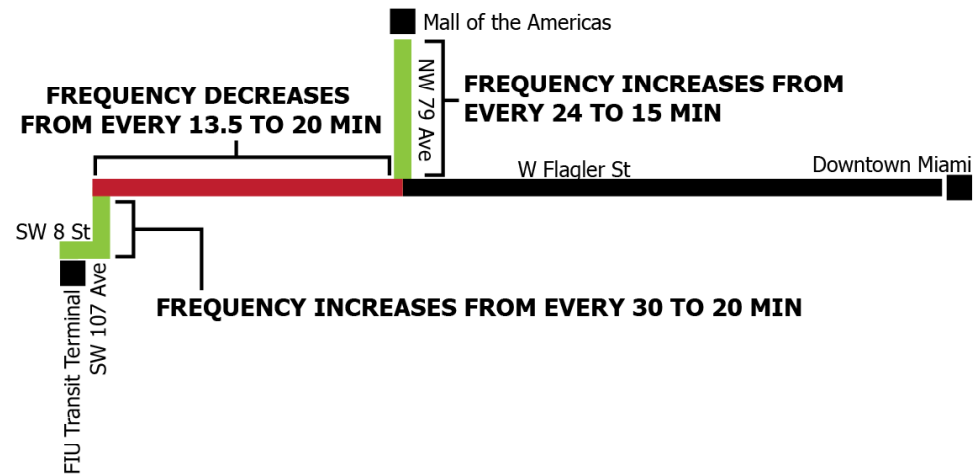
- Flagler EBS - Every 20 minutes
- Local - Every 15 minutes






Proposed Flagler EBS Service Plan



Flagler EBS: Off-Peak Service Changes



Proposed Change in Service Levels

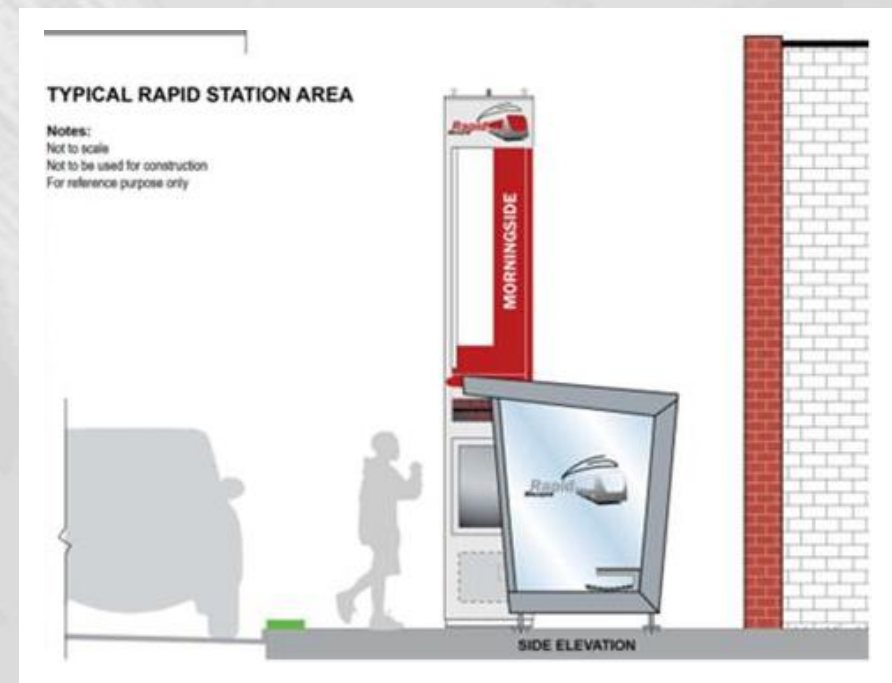
-  Service Level Increase
-  Service Level Decrease
-  No Change in Service Level



Recommended EBS Station Location Plan



- 28 mainline stations
- 1 Transit Center - New Panther Station at FIU
- 14 connecting stations at cross routes (eastbound and westbound):
 - 12th Avenue
 - 17th Avenue
 - 27th Avenue
 - 37th Avenue
 - Le Jeune/42nd Avenue
 - 57th Avenue
 - 107th Avenue

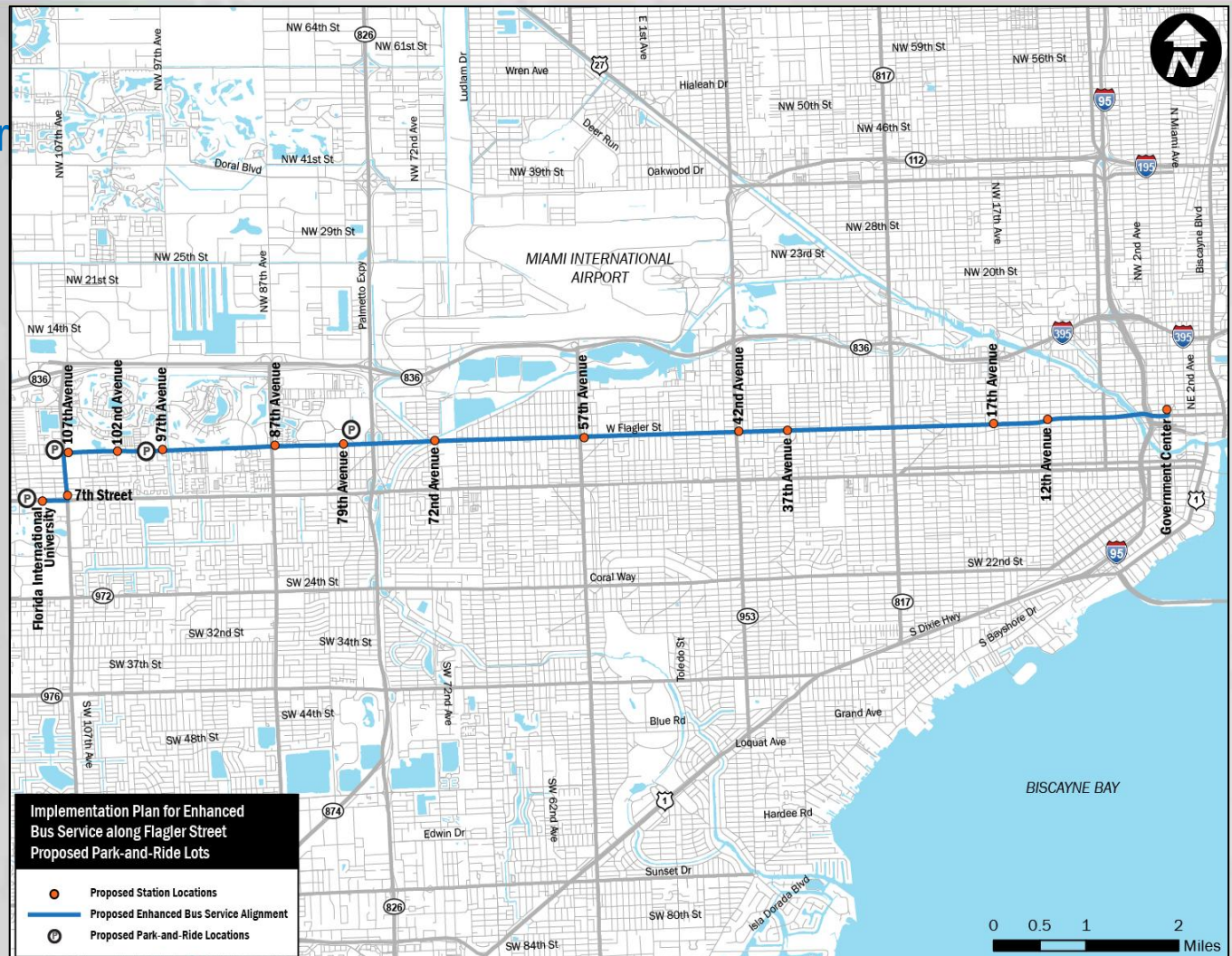




Proposed Park-and-Ride Locations



- Panther Transit Center at FIU
- Flagler Street at 107th Avenue
- Flagler Street at SW 99th Street
- Mall of the Americas

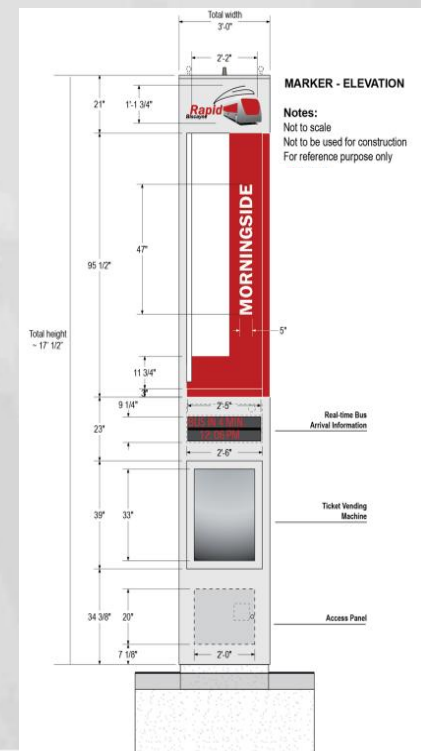




Proposed EBS Implementation Plan



- EBS Branded Service
- Immediate to Short Term (5 years)
 - EBS and local service
 - Peak period curbside lane east of NW 24th Avenue
 - Implement Transit Signal Priority
 - First tier of Queue jump locations
 - Park-and-Ride lots
- Short to Medium Term (5-10 years)
 - Peak period curbside lane with reversible center lane between 72nd Avenue and 24th Avenue
 - Second Tier of Queue Jump Lanes





EBS Implementation Plan



•Estimated Existing Operating Costs

	Revenue Hours	Cost per Revenue Hour	Revenue Miles	Cost per Revenue Mile	Operations Cost
Existing Route 11	67,424	\$52.65	725,979	\$3.16	\$5,843,975
Existing Route 51 - Flagler Max	24,718	\$52.65	380,205	\$3.16	\$2,502,851
Total	92,142	-	1,106,184	-	\$8,346,826

•Projected Project Operating Costs

	Revenue Hours	Cost per Revenue Hour	Revenue Miles	Cost per Revenue Mile	Operations Cost
Proposed Flagler EBS	28,013	\$52.65	430,899	\$3.16	\$2,836,504
Proposed Local Service	74,462	\$52.65	801,353	\$3.16	\$6,452,712
Total	102,475	-	1,232,252	-	\$9,289,216



EBS Implementation Plan



- Estimated Capital Costs and Projected Change in Operating Costs

Total Capital Costs	Net Projected Change in Total Annual O&M Costs
\$35,592,000	\$942,391



Questions?