



Flagler Street Premium Transit | PD&E Study

FM No: 437782-1-22-01 | Contract No: C-9P09

Alternatives Workshop



September 2017



Agenda

- Meeting Purpose
- Project Update
 - Corridor Workshops
 - Identification of Viable Alternatives
- Develop Recommended Alternative
 - Refine Viable Alternatives
 - Develop Conceptual Plans
 - Identify Transit Service, Station Locations
 - Evaluate Preliminary Cost
- Workshop Format
- Next Steps



Project Update – Corridor Workshops

1

November 10, 2016 – Central Project Corridor, West End Park

2

November 15, 2016 – West Project Corridor, Central Church Miami

3

November 17, 2016 – East Project Corridor, Manuel Adams Theater



Florida Department of Transportation

RICK SCOTT
GOVERNOR

1000 NW 111 Avenue
Miami, FL 33172

JIM BOXOLD
SECRETARY

October 20, 2016

SUBJECT: Project Corridor Workshops
State Road (SR) 968/Flagler Street Premium Transit
from SR 821/HEFT to SR 5/US 1/Biscayne Boulevard
Project Development and Environment (PD&E) Study
Miami-Dade County, Florida
Financial Management Number: 437782-1-22-01

Dear Elected Official:

The Florida Department of Transportation (FDOT), District Six, has scheduled three Project Corridor Workshops to discuss the PD&E Study along SR 968/Flagler Street from SR 821/HEFT to SR 5/US 1/Biscayne Boulevard in Miami-Dade County. The study will focus on implementation of a Premium Transit service and infrastructure along SR 968/Flagler Street, as well as providing multimodal street improvements.

The Project Corridor Workshops will be held on the following dates:

- **November 10, 2016 – Central Project Corridor Workshop (SR 968/Flagler Street from SW 87 Avenue to SW 42 Avenue) – 6:30 p.m. to 8:30 p.m., at West End Park, located at 250 SW 60 Avenue, Miami, FL 33144**
- **November 15, 2016 – West Project Corridor Workshop (SR 90/SW 8 Street from SW 147 Avenue to SW 107 Avenue; SR 968/Flagler Street from SR 821/HEFT to SW 87 Avenue) – 6:00 to 8:00 p.m., at Central Church Miami, located at 1300 SW 87 Avenue, Miami, FL 33174**
- **November 17, 2016 – East Project Corridor Workshop (SW 42 Avenue to SR 5/US 1/Biscayne Boulevard) – 6:00 p.m. to 8:00 p.m., at Manuel Artime Theater, located at 900 SW 1 Street, Miami, FL 33130**

Meeting invitations for each workshop will be sent to property owners within 300 feet of the proposed improvements. These workshops will provide an opportunity for the public to learn about the project and provide initial feedback on proposed alternatives. The workshops will be held in an informal, open house format. Attendees are encouraged to come at any time to review the proposed improvements. Department representatives will be available during the workshops to informally discuss the project and answer questions. Enclosed is a copy of the project fact sheet.

If you require further information concerning this project, please contact Ms. Teresita Alvarez, FDOT Project Manager, at 305-640-7557, or via email at Teresita.Alvarez@dot.state.fl.us. You may also visit the project website at www.fdotmiamidade.com/flaglerpremiumtransitstudy.

Sincerely,

James Wolfe, P.E.
District Secretary

Enclosure: Project Fact Sheet



Project Update – Tier 1 Alternatives Analysis



Alternative 1. (No-Build) - Local Bus, Mixed Traffic



Alternative 5. BRT - Concurrent Flow, Shared Right Side (BAT); Repurposed Lanes



Alternative 9a. BRT - Exclusive Repurposed Lanes, At-grade Median.



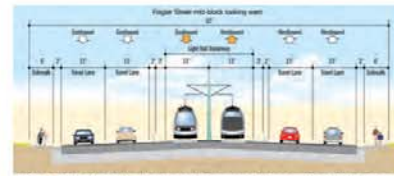
Alternative 11a. BRT - At-Grade, Side-of-Road.



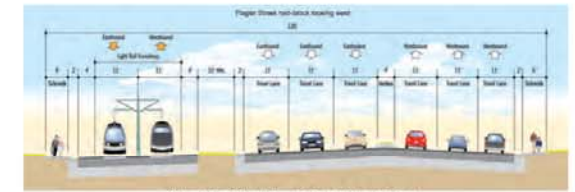
Alternative 2. (TSM) - Express Bus, Mixed Traffic



Alternative 6. BRT - Concurrent Flow, Exclusive Right Side Offset; Repurposed Lanes



Alternative 9b. LRT - Exclusive Repurposed Lanes, At-grade Median.



Alternative 11b. LRT - At-Grade, Side-of-Road.



Alternative 3. BRT - Concurrent Flow, Exclusive Right Side Repurposed Lanes



Alternative 7. BRT - Concurrent Flow, Shared Right Side Offset (BAT); Repurposed Lanes.



Alternative 10a. BRT - Exclusive New Lanes, Elevated Median.



Alternative 12a. BRT - Contraflow, Exclusive Repurposed Lane.



Alternative 4. BRT - Concurrent Flow, Exclusive Left Side, Repurposed Lanes



Alternative 8. BRT - Reversible Repurposed Lane.



Alternative 10b. LRT - Exclusive New Lanes, Elevated Median.



Alternative 12b. LRT - Contraflow, Exclusive Repurposed Lane.

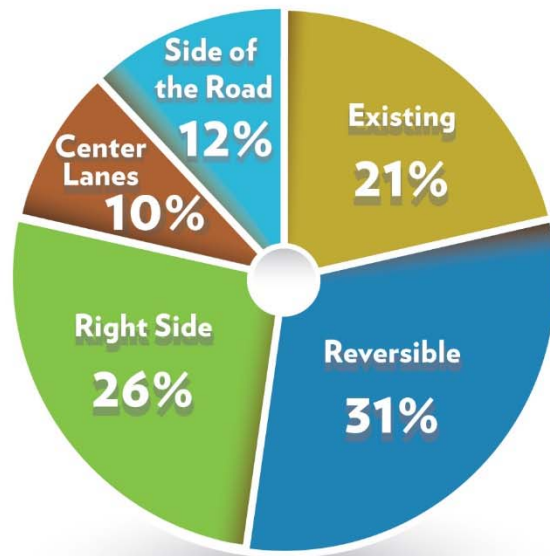
TYPICAL SECTIONS OF PROJECT ALTERNATIVES



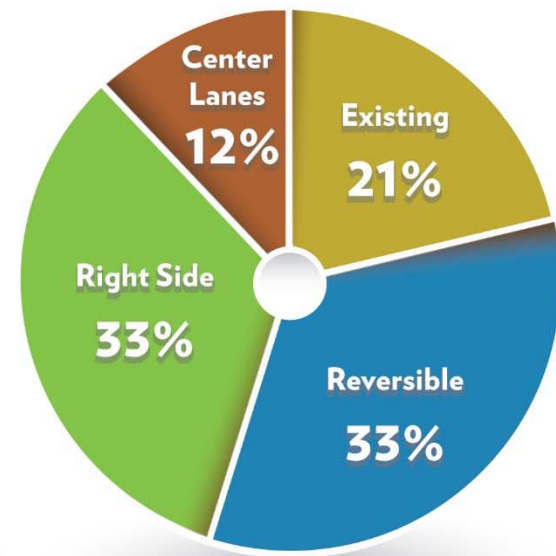
Viable Alternative – Tier 1 Alternatives Analysis

Tier 1 Alternatives			Alternative Number	Typical Sections			Goals				
				Six Lanes	Four Lanes	One-Way Pair	Improve Mobility	Provide Efficient Transit Service	Preserve the Environment	Stimulate Economic Development	Achieve Modal Balance
Local Bus	No-Build (Existing)		1	✓	✓	✓					
	Transportation System Mgt. (TSM)		2	✓	✓	✓					
Enhanced Bus (EBS)	Mixed Traffic	Center Median Reversible (Center)	3	✓	✓	✓					
		Right Side	4	✓	✓	—					
			5	✓	✓	✓					
Bus Rapid Transit (BRT)	Existing Lane Repurposed to Bus Only Lane	Center Median Reversible (Center)	6	✓	✓	✓					
		Right Side	7	✓	✓	—					
		Right/Left Side Offset	8	✓	✓	✓					
			9	✓	—	✓					
	New Lanes	Center Median Reversible (Center)	10	✓	✓	—					
		Elevated	11	✓	✓	—					
		Right/Left of the Road	12	✓	✓	—					
			13	✓	—	—					

Six-lane Selection



Four-lane Selection



One Way Street





Viable Alternatives – Identification

Analysis

1. Transit ridership
2. Transfer points
3. Traffic volumes
4. Intersection configuration
5. Level of service
6. Crash data
7. Roadway capacity
8. On-street parking location
9. Connection to activity centers
10. Safety – transit, traffic, peds, bikers
11. Bike lanes
12. Pedestrian facilities
13. Available right-of-way
14. Historic sites
15. Noise sensitive sites
16. Contaminated sites
17. Potential costs (low, medium, high)
18. Economic development
19. Local and regional plans
20. Access to school, employment, homes
21. Existing and future plans

Public Input

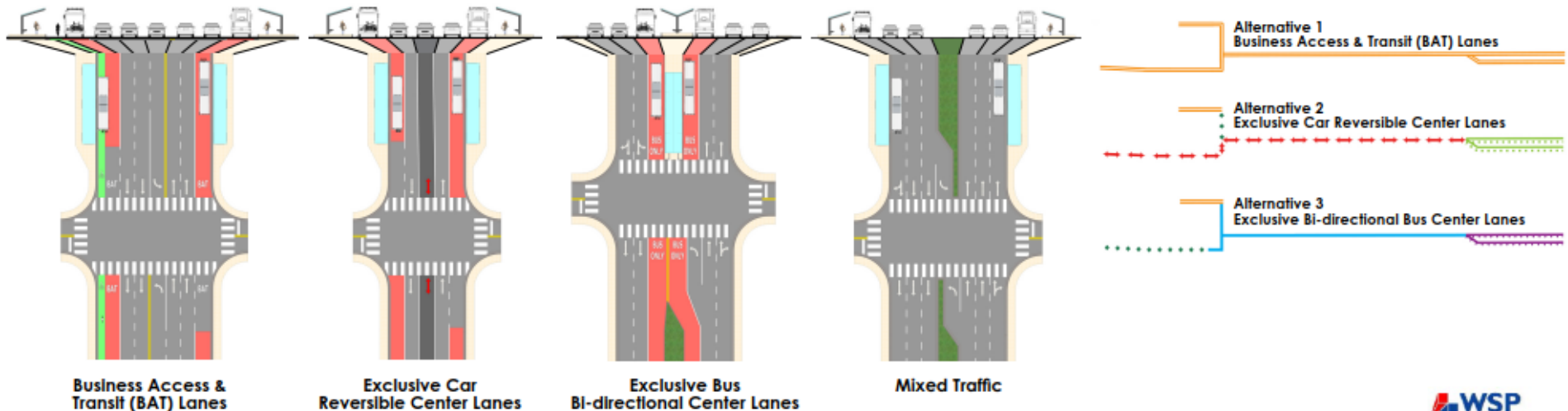
1. Vehicle Type – Local/MAX, Enhanced, BRT
2. Running way location – right, left, center
3. Running way type – mixed traffic/shared lane, exclusive
4. Transit service frequency – how often
5. Station spacing
6. Walk distances
7. Stops/stations amenities – fare collection, information panel, wi-fi
8. Intersection priority
9. Connection to activity centers

Viable Alternatives

Various options
tailored to specific
locations



Viable Alternatives – Recommendation





Viable Alternatives – Transit Improvements



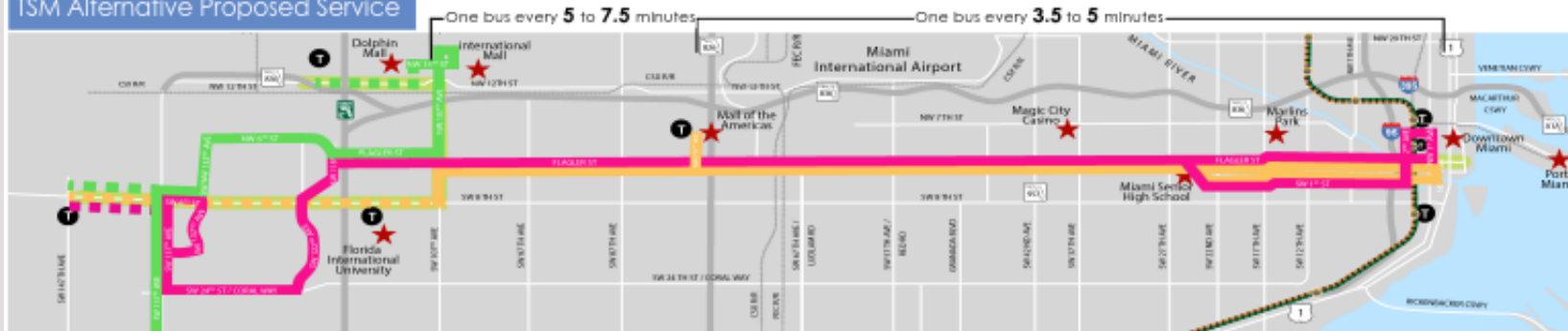
30 to 45
minutes

Time Saving

Existing Service



TSM Alternative Proposed Service



BRT Alternatives Proposed Service



LEGEND BRT Station Flagler Corridor Transit Terminal Activity Center Metrorail Green Line Metrorail Orange Line

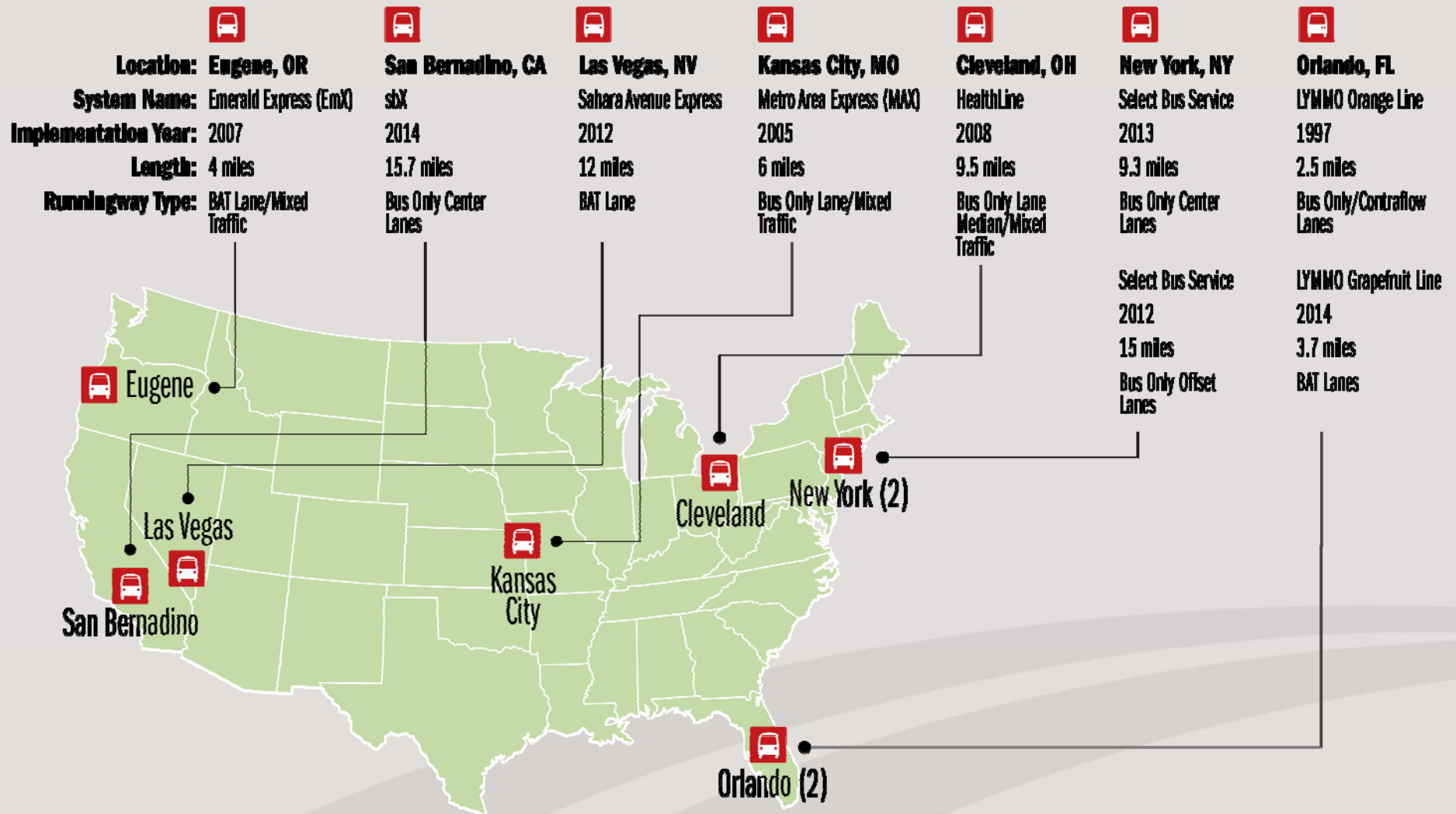
Route 11
Route 51
Route 137

Route 11
Route 51
Route 137
Extended Service

Route 11
Route 137
BRT Dolphin
BRT Panther
BRT Iamiami



Rapid Transit Systems in the United States





Benefits of Rapid Transit Systems

New York City

71%

Increase in retail
sales

Fordham Avenue
Curb Bus Lane



Cleveland, OH

\$4-5B

In investment
since start of
service on
October 2008

HealthLine
Curb Center Lane



Eugene, OR

\$100M

New Development
projects near the
line

Franklin Emerald Express
(EmX)
Center Lane





Rapid Transit Options – Simulation

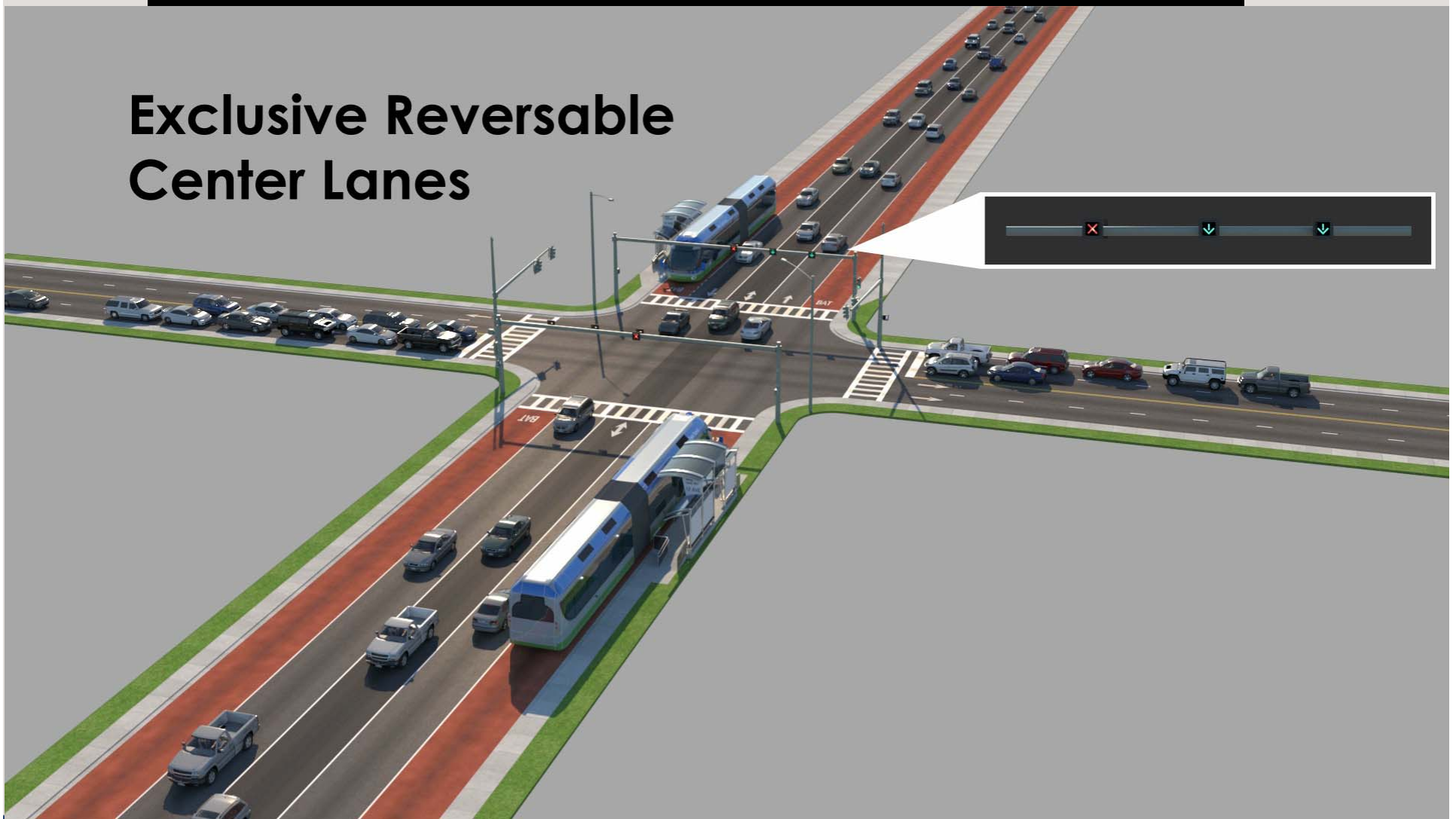
Business Access & Transit (BAT) Lanes





Rapid Transit Options – Simulation

Exclusive Reversible Center Lanes





Rapid Transit Options – Simulation

Exclusive Center Lanes





Rapid Transit Options – Simulation

Mixed Traffic





Viable Alternatives – Evaluation

Evaluation Criteria	No-Build	Transportation System Management & Operations (TSMO)	Proposed (Build) Alternatives		
			Alternative 1 Business Access and Transit (BAT) Lanes	Alternative 2 Exclusive Reversible Car Center Lanes	Alternative 3 Exclusive Bi-Directional Bus Center Lanes
Natural, Environmental & Physical Impacts	No Improvement	No Improvement	Least Impact	Least Impact	Most Impact
Threatened and endangered species	none	none	none	none	none
Recreational impacts (Section 4(f))	none	none	none	none	none
Social & neighborhood impacts	medium	low	enhanced	enhanced	enhanced
Floodplain impacts	none	none	none	none	none
Wetland impacts	none	none	none	none	none
Potential contamination sites	none	none	none	none	4
Archaeological/historic site impacts	none	none	none	none	medium
Environmental benefits	none	low	medium	medium	medium
Business Impacts	No Improvement	Minimum Improvement	Least Impact	Least Impact	Most Impact
Number of business relocations	none	none	none	none	4
Number of business impacts	none	none	none	none	51
Number of parking spaces impacted	none	none	7 out of 1,100	7 out of 1,100	12 out of 1,100
Residential Impacts	None	None	None	None	None
Number of residential relocations	No Residential Impacts				
Number of residences impacted					
Right of Way Impacts	No Improvement	Minimum Improvement	Least Impact	Least Impact	Most Impact
Total number of parcels impacted	none	none	none	none	51
Total right of way area for acquisition	none	none	none	none	59,855 sf
Mobility Impacts	No Improvement	Minimum Improvement	Medium Improvement	Medium Improvement	Most Improvement
Average Daily Ridership (+/- 13,000 to 15,000 Existing)	14,000 to 19,000	18,000 to 25,000	22,000 to 30,000	23,000 to 31,000	23,000 to 31,000
Vehicle Miles Travelled (VMT) (% Reduction)	142,632,620	0.04%	0.05%	0.01%	0.06%
Vehicle Hours Traveled (VHT) (% Reduction)	4,185,480	0.06%	0.09%	0.03%	0.10%
Mode Shift from Auto to Transit (% Increase over No-Build)	319,570	1.50%	5.50%	5.70%	7.25%
Traffic Operation Impacts	Worse than Existing	Least Impact	Medium Impact	Most Impact	Most Impact
Estimated Travel Time (min)	Worse than Existing	Least Improvement	Medium Improvement	Medium Improvement	Most Improvement
Panther Station to Government Center	130	120	85	85	80
Dolphin Transit Terminal to Government Center	No direct service	130	95	95	90
Tamiami Transit Terminal to Government Center	No direct service	150	110	110	105
Preliminary Estimated Project Costs (Millions)	\$40 to \$60	\$60 to \$80	\$200 to \$240	\$220 to \$270	\$230 to \$300
Roadway Improvement Costs	\$0.00	\$4.10	\$72.30	\$90.00	\$88.30
Right-of-Way Costs	\$0.00	\$10.00	\$15.00	\$15.00	\$30.00
Transit Capital Costs (Millions)	\$38.40	\$50.40	\$113.90	\$113.90	\$112.10
Operating and Maintenance Costs (Millions/Year)	\$25 to \$30	\$35 to \$45	\$45 to \$55	\$45 to \$55	\$50 to \$60

All values are preliminary and subject to change with further detailed analysis.

September 2017



Viabile Alternatives Discussion

Your Feedback!



Next Steps - Schedule

Major Project Tasks	2016			2017				2018		
	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer
Project Initiation										
Elected Officials/Agency/Public Kick-Off Meeting										
Environmental and Engineering Analysis								We are here		
Alternatives Public Meetings										
Identify Recommended Alternatives										
Federal Environmental Class of Action Determination (NEPA)										
Draft Preliminary Engineering Report (PER)/CatEx (CE)										
Public Hearing										
Selection of Locally Preferred Alternative (LPA)										
FTA Acceptance into Project Development										
Final Engineering and Environmental Documents										
Public Involvement - TOC, PAC, Workshops, Mtgs										



We are here



Next Steps – Next Meeting



FTA Class of
Action
Determination

Selection of
Locally
Preferred
Alternative

FTA
Acceptance
into Project
Development

Final
Engineering
and
Environmental
Documents

Thank you!