

PROJECT ADVISORY TEAM
MEETING #5
MARCH 27, 2019

FDOT DISTRICT SIX



Corridor Planning Study



Corridor Planning Study

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Introductions

- **Project Management**

- Ken Jeffries – FDOT
- John McWilliams, P.E. – Kimley-Horn

- **Planning/Traffic Operations**

- Ian Rairden, P.E. – Kimley-Horn
- Gregg Letts, P.E. – C2S

- **Design**

- Ramon Breton, P.E. – Kimley-Horn
- Mark Bacal, P.E. – Kimley-Horn
- Victor Somohano, P.E. – AECOM
- Bayoan Ortiz, P.E. – AECOM

- **Public Involvement**

- Ric Katz – Kommunikatz
- Monica Diaz – ISC Group
- Gerdy St. Louis – ISC Group

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Meeting Agenda

- Project Background
- Project Update
 - Corridor Concepts 1 and 2
 - Cost Risk Analysis/Value Engineering Study (CRAVE)
- Corridor Concept 3
- Analysis Results
- Project Schedule
- Group Input

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Project Background

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Project Purpose

- Develop and evaluate improvement concepts and perform planning-level operational analysis
- Evaluate study interchanges, interchange influence areas, and ramp junctions
- Identify deficiencies focusing on recurring bottlenecks
- Develop a series of proposed improvements to address existing and future demands of the corridor
- Develop improvement concepts for the mainline and system-to-system connections

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Project Study Area

- Entire I-95 corridor within FDOT District 6
- 17.2 Miles, 20 +/- interchanges
 - 3 system-to-system interchanges
- Interchanges, influence areas, and ramp junctions
- General purpose lanes and express lanes



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Future 2045 Express Laneage Demand

Location	Southbound			Northbound		
	Express Lanes			Express Lanes		
	Existing	2045	Difference	Existing	2045	Difference
S of Broward County Line	1	2	1	1	2	1
S of Ives Dairy Road	1	2	1	1	2	1
S of Miami Gardens Drive	2	2	0	2	2	0
South of GGI	1	5	4	1	4	3
S of NW 151st Street	2	4	2	2	4	2
S of NW 135th Street	2	4	2	2	4	2
S of SR 924	2	4	2	2	4	2
S of NW 95th Street	2	4	2	2	4	2
S of SR 934	2	4	2	2	4	2
S of NW 69th Street	2	4	2	2	4	2
S of NW 62nd Street	2	4	2	2	4	2
S of I-195	2	2	0	2	3	1
S of NW 29th Street (New)	0	2	2	2	3	1
S of I-395	0	2	2	0	2	2
S of Miami Connector	0	1	1	0	1	1
S of SW 8th Street	0	1	1	0	1	1
S of SW 26th Street	0	0	0	0	0	0

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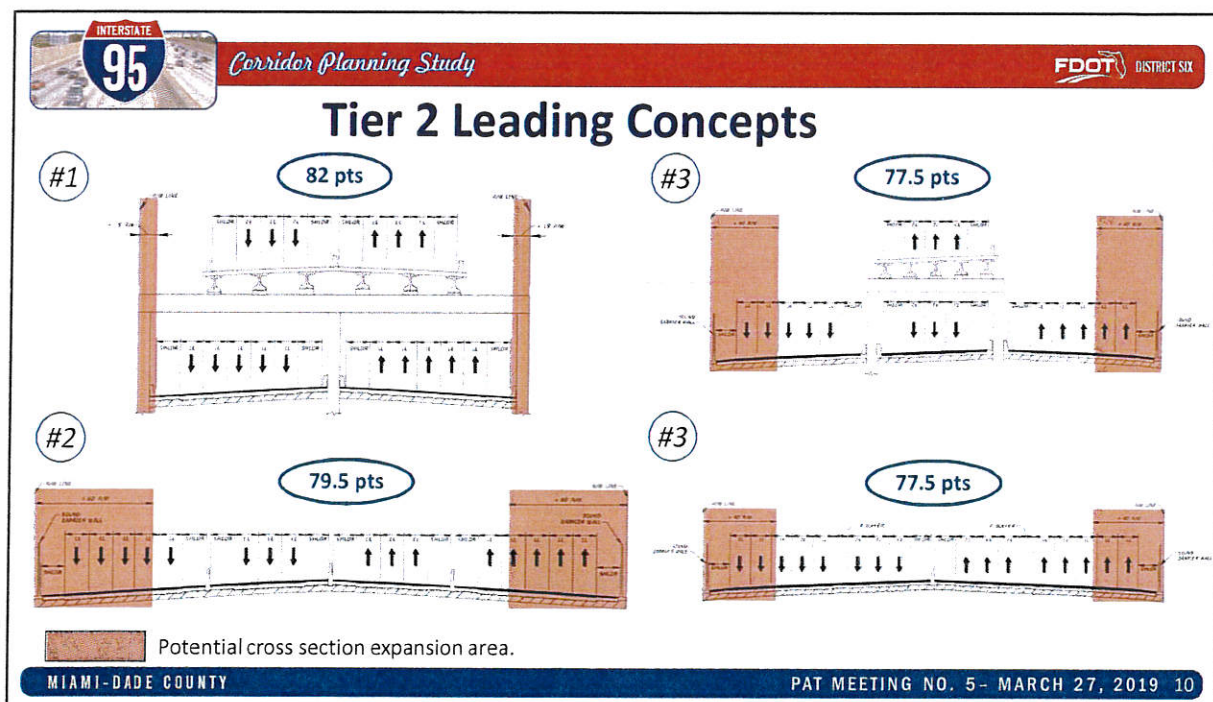
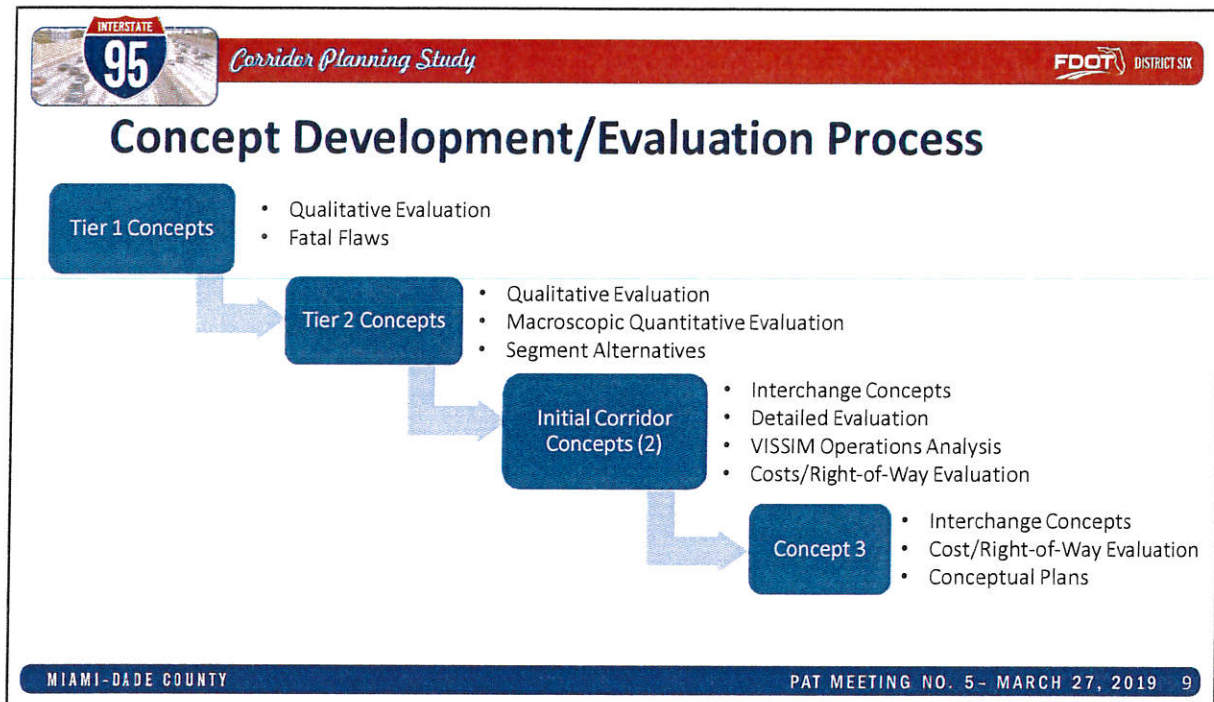
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Future 2045 General Purpose Laneage Demand

Location	Southbound			Northbound		
	General Purpose Lanes			General Purpose Lanes		
	Existing	2045	Difference	Existing	2045	Difference
S of Broward County Line	4	4	0	4	4	0
S of Ives Dairy Road	3	4	1	4	4	0
S of Miami Gardens Drive	3	3	0	3	4	1
South of GGI	4	5	1	3	5	2
S of NW 151st Street	4	4	0	3	4	1
S of NW 135th Street	4	4	0	4	4	0
S of SR 924	4	4	0	4	4	0
S of NW 95th Street	4	4	0	4	4	0
S of SR 934	4	4	0	4	4	0
S of NW 69th Street	4	4	0	4	4	0
S of NW 62nd Street	4	4	0	4	4	0
S of I-195	3	5	2	3	4	1
S of NW 29th Street (New)	4	5	1	3	4	1
S of I-395	3	4	1	3	4	1
S of Miami Connector	3	3	0	3	4	1
S of SW 8th Street	2	2	0	3	3	0
S of SW 26th Street	2	2	0	2	2	0

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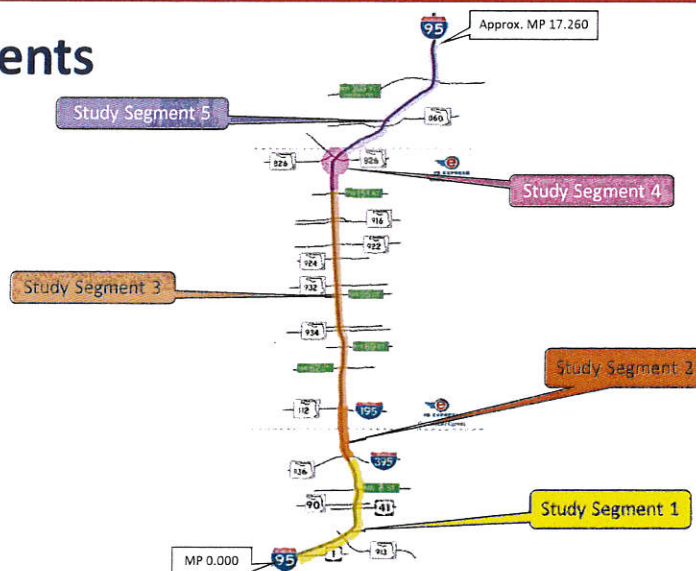


Conceptual Alternatives

- Corridor divided into five (5) segments:
 - Segment 1 – SR 5/US 1/Dixie Hwy to North of I-395/SR 836 (CBD)
 - Segment 2 – North of I-395/SR 836 to North of I-195/SR 112 (South)
 - Segment 3 – North of I-195/SR 112 to South of GGI (Central)
 - Segment 4 – Golden Glades Interchange (GGI)
 - Segment 5 – North of GGI to Broward County Line (North)
- Two (2) Leading Tier 2 concepts applied to each segment
- No typical section for Segment 4 (GGI)



Segments



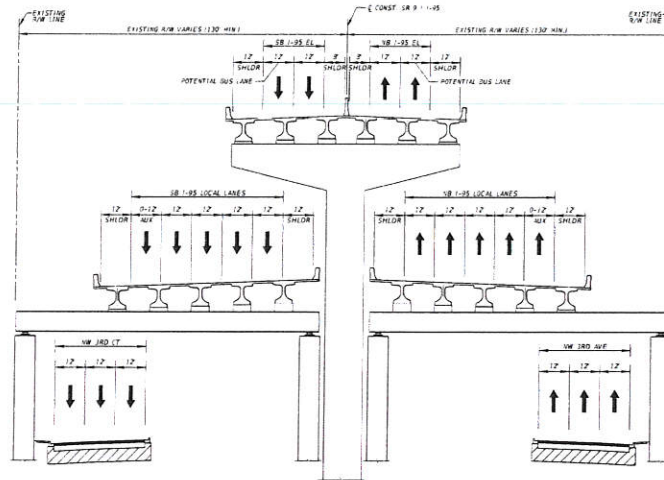


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Conceptual Corridor Concept 1 and 2

• Segment 1 (CBD) – US-1 to North of I-395



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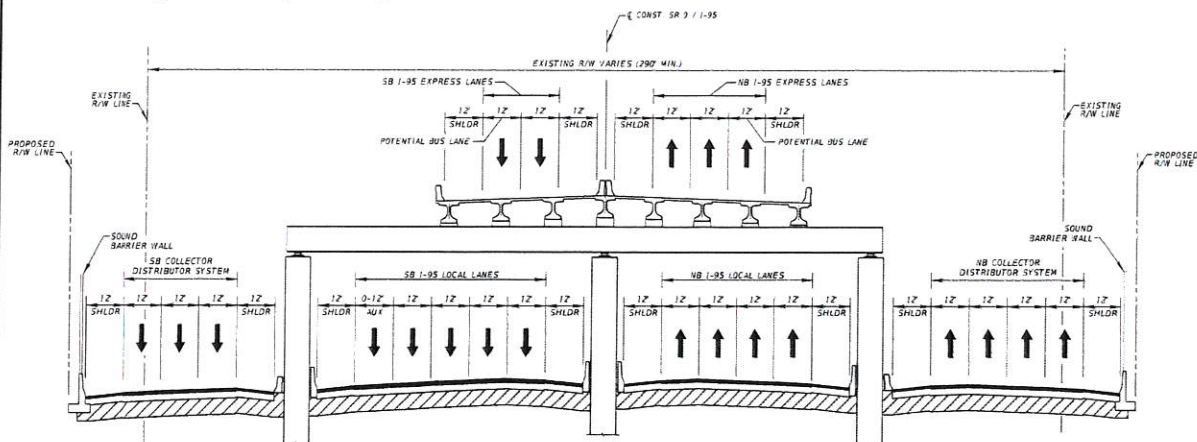


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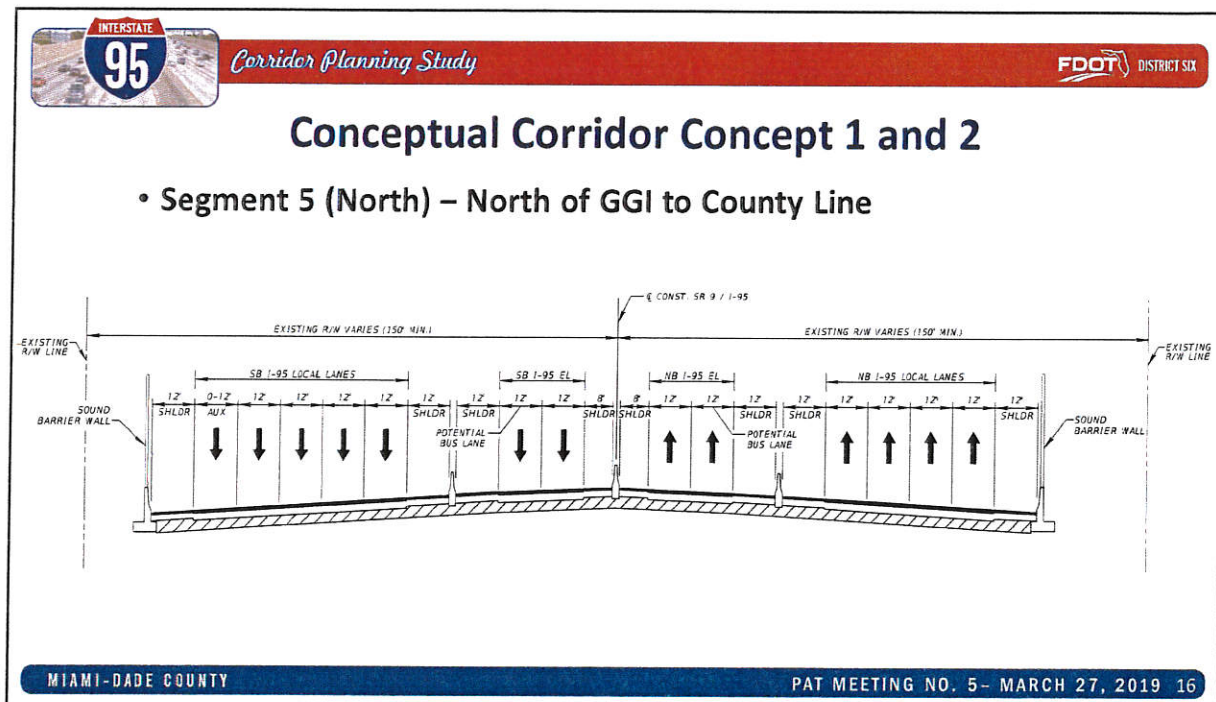
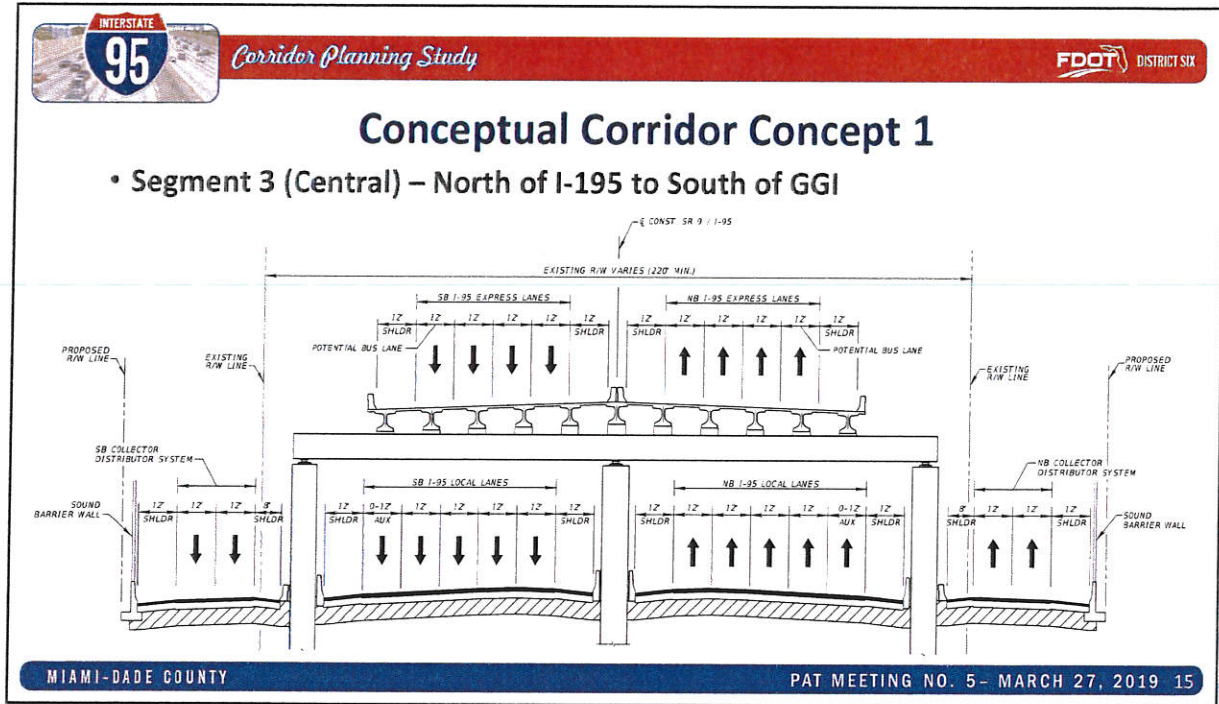
Conceptual Corridor Concept 1


• Segment 2 (South) – North of I-395 to North of I-195




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Project Update

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Corridor Concepts 1 and 2 Summary

Segment	Design Features Summary	
	Corridor Concept 1	Corridor Concept 2
Segment 1	Elevated EL Extension to US 1 at Level 3+ over Miami River At-Grade EL from SW 8 Street to US 1	
Segment 2	Elevated EL, Wynwood Interchange, C-D System, I-195 EL Connections	At-Grade EL, I-195 EL Connections
Segment 3	Elevated EL, Interchange Consolidation	At-Grade EL, Interchange Consolidation
Segment 4	Elevated EL (Flyover Widening), SR 826 EL Connections (NB to WB, EB to SB)	
Segment 5	At Grade EL	
Construction Costs	\$6.9 Billion	\$3.4 Billion
Right-of-Way Acquisition	176 Acres	280 Acres

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Corridor Concepts 1 and 2 - Feedback/Concerns

- Overall construction costs for Concept 1
- Right-of-way acquisition impacts/costs for Concept 2
- Maintenance of traffic (MOT) during construction for Concept 1
- Potential programmed 'throw away' improvements for both concepts
- Current regional emphasis on transit infrastructure investments (SMART Plan)



Cost Risk Analysis/Value Engineering (CRAVE) Study

- Conducted May/June 2018
- Estimated risk-loaded cost between \$7 and \$9 billion
- Identified 32 independent project risks
- Identified 79 potential VE options for project
- Identified 16 final VE recommendations
- Approximate projected cost savings of \$2.5 billion



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Key CRAVE Study Recommendations

- Eliminate 'throw away' programmed improvements
- Consider constructing elevated EL on separate structures on outside of GPL
- Minimize right-of-way acquisition in Segment 1
- Consider a separate connection from SR 836 EB to SR 970/ Downtown Distributor

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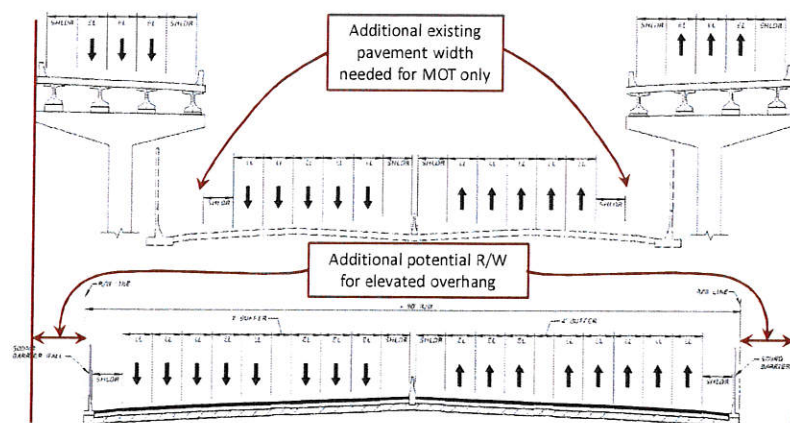
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CRAVE Study Recommendation Analysis



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Corridor Concept 3 Development

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Corridor Concept 3 Objectives

- Minimize right-of-way acquisition
- Avoid impacts to programmed improvements where feasible
- Provide 4' EL marked buffer
 - Reduced footprint vs. hard barrier/shoulders
- Provide I-195 direct access to EL for Miami Beach
- Consolidate closely spaced interchanges
- Apply CRAVE recommendations where possible

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Overall Corridor Design Goals – Mainline

- Meet AASHTO standards where feasible
- Add EL capacity (3NB/3SB) from I-195 to GGI (outside elevated vs. inside at-grade)
- Widen GGI HOV Flyover to (2NB/2SB)
- Provide continuous EL section from GGI to Broward County (2NB/2SB)
- Harmonize with existing programmed improvements at GGI, SR 924 East, SW 7th/8th Street, I-395/SR 836

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Overall Corridor Design Goals – EL Network

- Construct missing EL direct connections to/from Miami Beach at I-195 (SB to EB and WB to NB) and to/from SR 826 (NB to WB and EB to SB)
- Maintain existing EL south terminus at south of SR 112/I-195
- Minimize right-of-way acquisition for accommodation of the EL network

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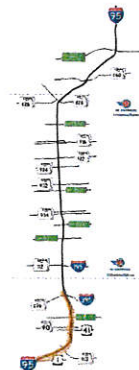
Overall Corridor Design Goals – Interchanges

- Construct interchange (full/partial) at Wynwood/Health District in proximity to NW 29th Street
- Improve Downtown area ramps where feasible
- Consolidate/Eliminate interchanges where feasible
- Improve remaining corridor interchanges while minimizing right-of-way acquisition



Segment 1 Design Features

- No mainline capacity improvements
- Match SW 7th/8th Street interchange PD&E concepts
- Match programmed I-395/SR 836 improvements
- Interchange improvements at Rickenbacker Causeway on-ramp, SR 970/Downtown Distributor
- Maintain SR 970/Downtown Distributor ramps as elevated
- Address geometric deficiencies where feasible



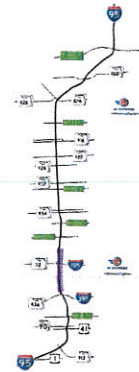


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Segment 2 Design Features

- No mainline capacity improvements
- Incorporate 4' EL/GPL striped buffer
- New Wynwood/Health District (NW 29th Street) interchange
 - Utilize existing I-95 NB braided flyover ramp footprint
- Major interchange improvements at I-195/SR 112
- New direct EL connections to/from I-195 (SB to EB/WB to NB)
- Address geometric deficiencies where feasible



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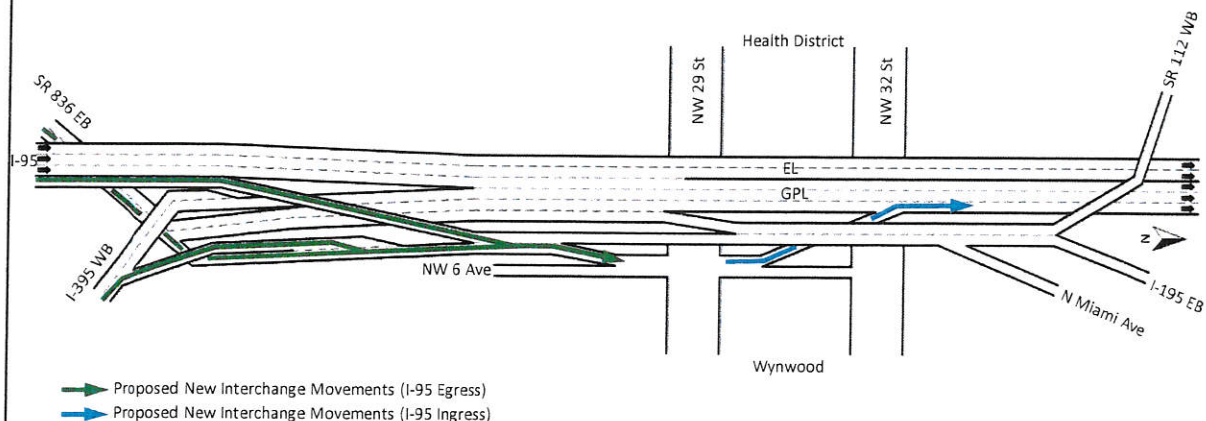
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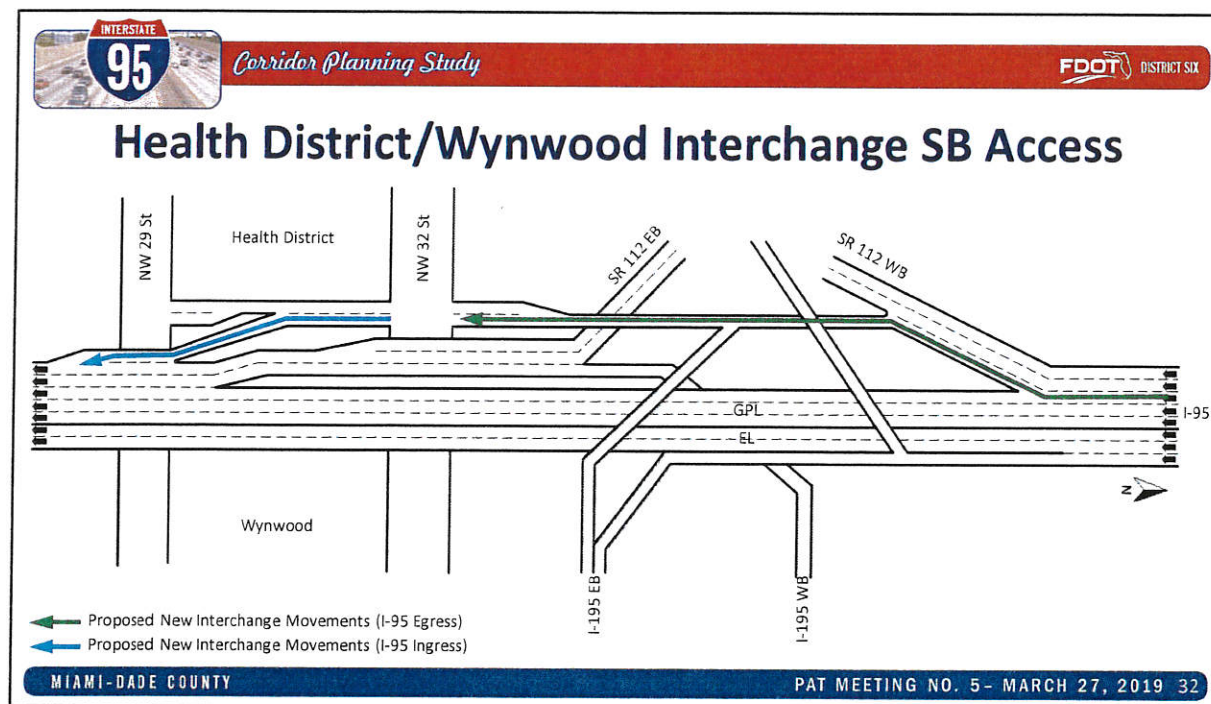
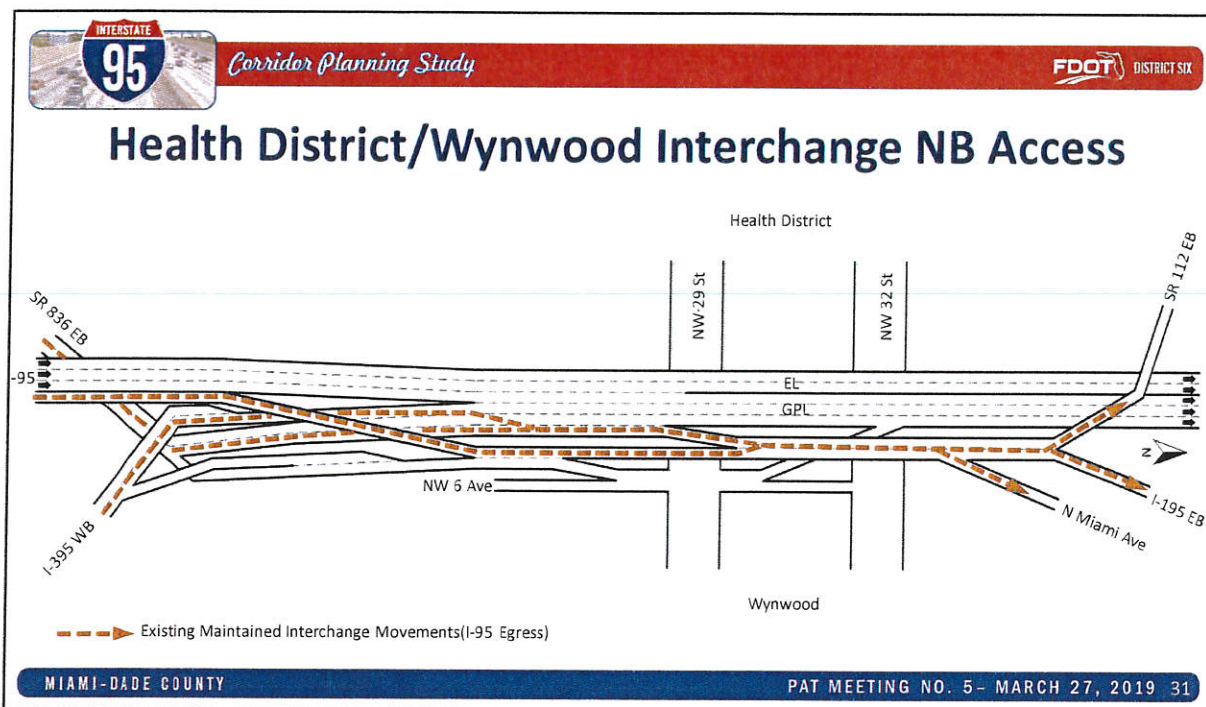
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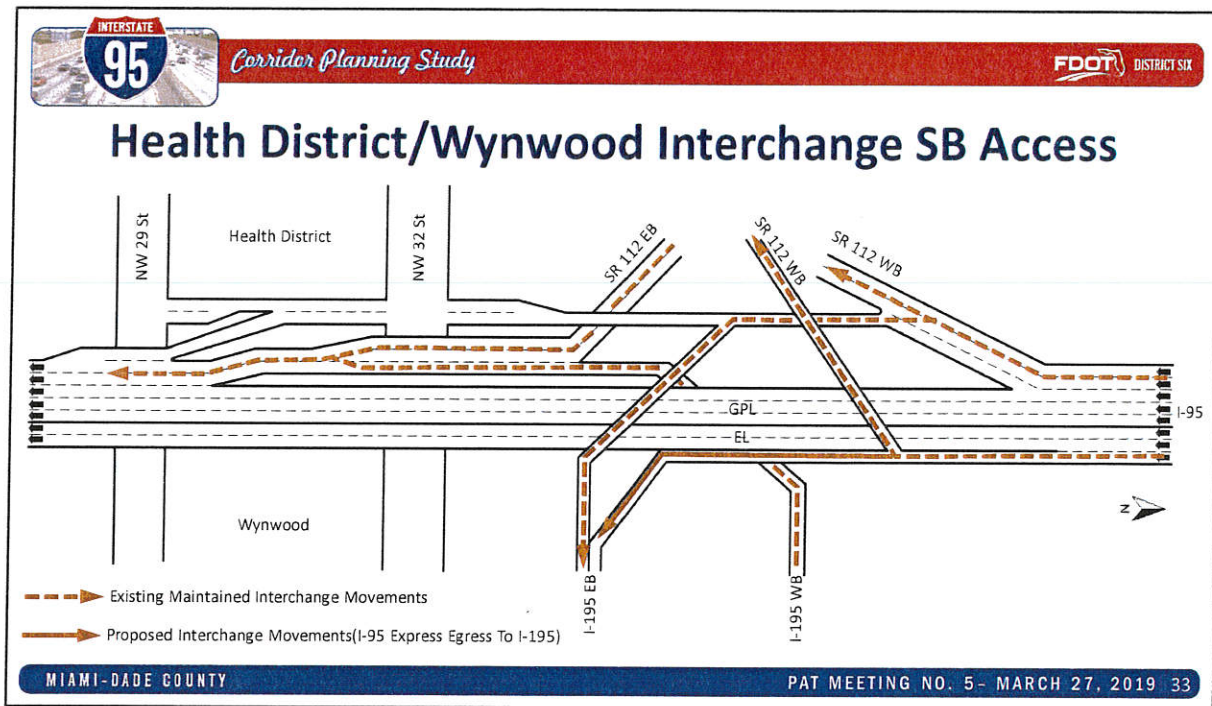
Health District/Wynwood Interchange NB Access



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INTERSTATE 95 Corridor Planning Study FDOT DISTRICT SIX

Segment 3 Design Features

- At-grade widening to provide for 3 ELs in each direction
- Incorporate 4' EL/GPL striped buffer
- Minimize impacts to SR 924 East PD&E concept
- Interchange improvements where cost feasible
- Eliminate NW 69th Street interchange
- Consolidate closely spaced interchanges
 - C-D system from NW 95th Street to NW 135th Street/Opa-Locka Boulevard

The map shows the proposed design features for Segment 3 of the Interstate 95 Corridor Planning Study. It highlights the area from NW 95th Street to NW 135th Street/Opa-Locka Boulevard. The map includes labels for various interchanges and design features, such as:

- Interchanges: 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200.
- Design features: At-grade widening, 4' EL/GPL striped buffer, Interchange improvements, Eliminate NW 69th Street interchange, Consolidate closely spaced interchanges.

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Corridor Concept 3/Segment 3 - Typical Section



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Segment 4 Design Features

- Widen EL flyover to provide 2 ELs in each direction*
- Match GGI planned/programmed improvements
- Minimize 'throw away' GGI improvements
- New direct EL connections to/from SR 826 (NB to WB/EB to SB)
- Interchange ramp improvements where cost feasible and not currently programmed

*Feasibility currently under detailed evaluation



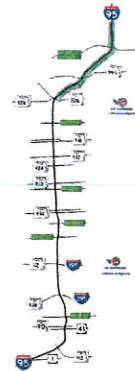
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Segment 5 Design Features

- At-grade widening to provide for continuous 2 ELs in each direction
- Interchange improvements at Miami Gardens Drive and Ives Dairy Road (DDI)
- Improve GPL SB merge area at Ives Dairy Road
- Address geometric deficiencies where feasible



Concept 3 Design Features

Segment No.	Mainline	EL Network Connections	Interchanges
Segment 1	Minimal Geometric Improvements	N/A	Minor Improvements to Rickenbacker Causeway and SR 970
Segment 2	New 4' EL Buffer	I-195 EL Connections	New full Wynwood interchange
Segment 3	Additional EL (3+3)	N/A	Consolidate some interchanges from NW 95 Street to NW 135 Street via frontage roads; Eliminate NW 69 Street interchange
Segment 4	Additional EL (3+3)	New SR 826 EL Connections (NB to WB + EB to SB)	N/A
Segment 5	Continuous EL (2+2)	N/A	Reconfiguration at Miami Gardens Drive and at Ives Dairy Road (DDI)
Construction Costs	\$2.3 Billion		
ROW Acquisition	~99 Acres		



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Corridor Concept 3 Cost/Right-of-Way Estimate

Segment No.	Preliminary Construction Cost Estimate	Preliminary Right-of-Way Needs Estimate
1	\$353 Million	< 1 Acre
2	\$634 Million	10.2 Acres
3	\$932 Million	85.0 Acres
4	\$175 Million	2.3 Acres
5	\$218 Million	< 1 Acre
Total	\$2.3 Billion	~99 Acres

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Right
of
Way
estimates



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Construction Cost/Right-of-Way Comparison

Concept	Preliminary Construction Cost Estimate	Preliminary Right-of-Way Needs Estimate
1	\$6.9 Billion	176 Acres
2	\$3.4 Billion	280 Acres
3	\$2.3 Billion	99 Acres

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Overall Corridor Concept Comparison

Corridor Concept	Capacity/Safety Improvement	Community Impacts	Construction Costs	Right-of-Way Needs
1	High	High	High	Medium
2	High	High	Medium	High
3	Medium	Low	Low	Low



Analysis Results

- Year 2045 capacity needs along corridor are substantial even with regional transit investment
- Future improvements must balance capacity needs, community impacts, and fiscal constraints
- Corridor Concepts 1 and 2 more fully address capacity/safety improvements, but cause substantial community impacts and require significant funding
- Corridor Concept 3 provides moderate capacity improvement and addresses safety issues while reducing community impacts/overall costs



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Project Schedule

- Project Advisory Team Meeting #5 – March 2019
- Public Officials Outreach – March to May 2019
- Public Workshops – May 2019
- Conceptual Design Plan Completion – June 2019
- Final Report – August 2019
- PD&E* Advertisement – March 2020
- PD&E* Notice to Proceed – January 2021

* PD&E for north section (NW 151 St to Broward County Line). PD&E for central and south section programmed for FY 2022

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Comments/Questions?



DRIVING DOWN
FATALITIES

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