## I-4 Beyond the Ultimate Project Development & Environment (PD&E) Reevaluation Study

FROM WEST OF SR 25 (US 27)
TO WEST OF CR 532 (POLK/OSCEOLA COUNTY LINE)
POLK COUNTY, FLORIDA

Financial Project ID No: 201210-2-22-01 | Federal Aid Project No: 0041-227-I

PUBLIC HEARING | May 9, 2017







## Federal and State Laws and Regulations

This public hearing is being held in accordance with:

- Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21)
- Chapter 23 of the United States Code 128
- Title 40 of the Code of Federal Regulations, parts 1500 through 1508
- Title 23 of the Code of Federal Regulations part 771
- Florida Statute 120.525
- Florida Statute 286.011
- Florida Statute 335.199
- Florida Statute 339.155
- Americans with Disabilities Act of 1990 (ADA)
- Title VI of the Civil Rights Act of 1964, as amended
- 49 CFR Part 24, Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs
- Executive Order 11988, Floodplain Management
- Executive Order 11990, Protection of Wetlands





## **Title VI Compliance**

This hearing is being conducted without regard to race, color, national origin, age, sex, religion, disability or family status. Persons wishing to express their concerns relative to FDOT compliance with Title VI may do so by contacting:

#### **District Five**

Florida Department of Transportation District Five Title VI Coordinator Jennifer Smith 719 South Woodland Boulevard Deland, FL 32720-6834 (386) 943 – 5367 Jennifer.Smith2@dot.state.fl.us

#### **Central Office**

Florida Department of Transportation Statewide Title VI Coordinator Jacqueline Paramore 605 Suwannee Street, MS 65 Tallahassee, FL 32399-0450 (850) 414 – 4753 Jacqueline.Paramore@dot.state.fl.us

All inquiries or complaints will be handled according to FDOT procedure and in a prompt and courteous manner





## **Purpose of Hearing**

- Share information about the proposed improvements.
- Provide an opportunity for public input.
- All public comments will become part of the project's public record.





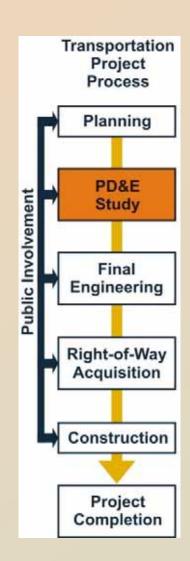




## What is a PD&E Study?

# Project Development & Environment (PD&E) Study

- A process followed by FDOT to evaluate:
  - Social, cultural and economic impacts associated with a planned transportation project
  - Engineering alternatives
- Part of the project development process as mandated by the National Environmental Policy Act (NEPA) of 1969
- Required to secure federal approval and funding







## **Key PD&E Study Elements**

- 1. Public Involvement
- 2. Engineering Analysis
- 3. Environmental and Socio-Economic Analysis









## **About the Project**

#### SR 400 (Interstate 4), Segment 5 (W. of SR 25/US27 to W. of CR 532)



- Approximately 4.5 miles in length
- Widen to ten lanes, 6 general use lanes + 4 Express Lanes
- Provision for a 44-foot rail corridor
- Bicycle and pedestrian facilities
- Rural Principal Arterial, SIS corridor
- 1 interchange Partial cloverleaf with ramp modifications
- Posner Boulevard Improvements





## **Local Planning Organization**



## **Polk Transportation Planning Organization (TPO)**

The Polk TPO works with the Florida Department of Transportation and local governments to fund and implement projects identified through various plans developed by the TPO





## **Planning Consistency**

 The I-4 BtU Segment 5 project is identified in the Long Range Transportation Plan's (Momentum 2040), amendments adopted 6/9/16, Cost Feasible Project list



http://polktpo.com/media/49219/Polk-Momentum-2040-Update-6-9-16-Appendix-A.pdf

Consistent with the State Transportation Improvement Program
 (STIP): <a href="http://www.fdot.gov/workprogram/Federal/STIP/stip\_dist\_01.pdf">http://www.fdot.gov/workprogram/Federal/STIP/stip\_dist\_01.pdf</a>

PAGE 368 AS-OF DATE: 09/01/2016		FLORIDA	A DEPARTMENT OF TO OFFICE OF WORK PO STIP REPORT	ROGRAM T			: 09/01/2016 JN: 09.52.06 MBRSTIP-1
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## **Purpose and Need**

- Changes proposed in the Modified Build scenario (current Reevaluation study) as compared to the previously approved Original Build scenario(SAMR - April, 2000)
  - Proposed change in the project typical sections: switch from two HOV (High Occupancy Vehicle) lanes (one in each direction) in the median, to four Express Lanes (two in each direction)
  - Proposed changes to interchange configurations: Interchange configurations have been modified to better accommodate traffic volumes and improve interstate and cross-street operations
- Accommodate future traffic needs based on anticipated population and employment growth
  - Certain roadway segments are nearing capacity
  - Meet capacity needs for design year 2040 project traffic
- Enhance safety and mobility
  - Reduction in congestion is expected to positively impact occurrences of rear end crashes
  - Improvement to the interchanges along the corridor resulting in fewer congestion bottleneck locations
  - Additional Advanced Signage understanding that many in the corridor are visitors and are unfamiliar with the corridor
  - Provide sidewalks & bicycle lanes on State crossroads within study limits



## **Traffic Analysis**

- This study is developing design alternatives that would <u>efficiently accommodate traffic volumes</u> that are projected to occur in year <u>2040</u>
- Goal is to maintain an acceptable level of service through year 2040
  - Level of service measures to what extent cars are delayed when travelling through a given area



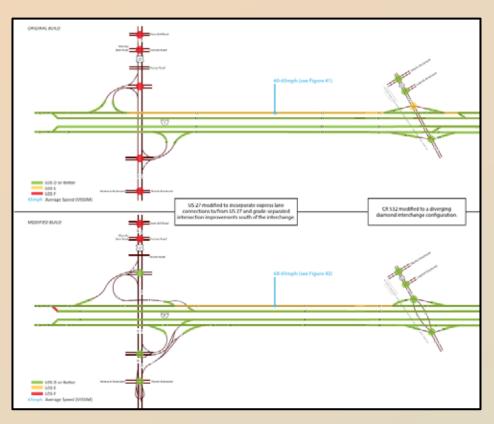
- As in grade school, "F" is failing (or highly congested) and "A" is the best (or free flowing)
- Traffic analysis is documented in the I-4 Beyond the Ultimate Systems Access Modification Report (SAMR) Re-Evaluation





## **Results of Traffic Analysis**

- Drivers will experience level of service E and F in the "Original Build" scenario along portions of I-4 Segment 5 and intersections along the cross streets
- Drivers will experience the same or better level of service in the "Modified Build" scenario along the majority of Segment 5 with improved average speeds and improved operations at most of the intersections along the cross streets
- 4 additional travel lanes and interchange modifications will be needed to accommodate projected 2040 traffic volumes

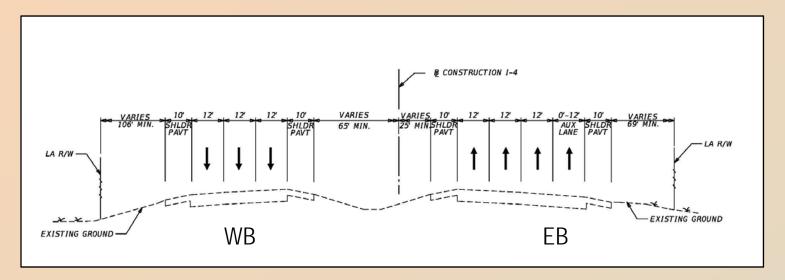


2040 PM Peak Hour Operations





## **Existing Roadway Typical Section**



- The existing right-of-way varies, but is typically 430-feet.
- Three 12-foot travel lanes in each direction.
- Outside and inside shoulders are 12 feet wide with 10 feet paved.
- Auxiliary lane(s) in some portions of the eastbound and westbound directions.





## **Local Agency & Other Stakeholder Meetings\***

- Polk County Planning Division
- Polk County TPO
- North Ridge Community Redevelopment Agency
- Utility companies
- Southwest Florida Water Management District (SWFWMD)

\*list is not all-inclusive





#### **Public Involvement**

Project website:

www.i4express.com

- Alternatives Public Workshop
  - November 20, 2014
  - 14 citizens & 23 project team members attended
  - One written comment was received









#### **Alternatives Considered**

- 'No-Build' or 'Do Nothing' Alternative
  - No corridor/capacity improvements
  - Remains as an alternative throughout the PD&E study
- 'Build' Alternative
  - Widen road to ten lanes, 5 travel lanes in each direction (3 general use lanes + 2 Express Lanes)
  - 70 MPH Design Speed
  - Express Lane direct connections on the east side of the SR 25/US 27 interchange
  - Partial cloverleaf interchange at SR 25/US 27
  - Provide 7-ft buffered bicycle lanes on SR 25/US 27 through the interchange
  - Locate potential pond sites





## **Alternatives Evaluation Matrix**

					US 27 Alternatives			
		1	2	3	4	5	6	7*
Summary of Impacts <sup>†</sup>	I-4 Mainline*	Partial Cloverleaf w/direct access to/from EL at US 27 bridge	Partial Cloverleaf w/US 27 off-alignment & direct access to/from EL at US 27 bridge	Partial Cloverleaf w/direct access to/from EL at US 27 bridge & U-turns at I- 4 WB ramp terminal	Partial Cloverleaf w/access between GUL and CD Roads, direct access to/from EL at US 27 bridge & U-turns at I-4 WB ramp terminal	Partial Cloverleaf w/direct access to/from EL at US 27 ramps	Partial Cloverleaf w/direct access to/from EL at US 27 ramp terminals & Posner Blvd. improvements	Partial Cloverleaf w/ramp modifications & Posner Blvd. improvements
Roadway ROW Area to be acquired (Acres)	1.08	1.32	1.85	1.48	5.61	3.24	9.61	9.56
Pond or Floodplain Compensation ROW Area to be	Ponds^: 16.86	0	0	0	0	0	0	0
acquired (Acres)	FPC: 4.24	0	0	0	0	0	0	0
Floodplain Impacts (Acre-Feet)	18.65	0	0	0	0	0	0	0
Impacted Noise Sensitive Sites	90	15	15	15	15	15	15	15
Wetland Impacts (Acres)	19.01 (13.77 Forested Wetlands & 5.24 Herbaceous Wetlands)	0	0	0	0	0	0	0
Wettanu impacts (Acres)	1.82 (Other Surface Waters)	U	U	U	Ü	Ü	Ü	Ü
Section 4(f)	No Section 4(f) properties impacted.	None	None	None	None	None	None	None
Potential Historic Sites	Three historic structures constructed before 1971 within APE <sup>‡</sup> ; none are NRHP eligible.	0	0	0	0	0	0	0
	15 structures constructed between 1971 and 1974	0	0	0	0	0	0	0
	Sites within 300' study area: 4 low risk, 1 med. risk and 1 high risk	9 low risk 10 med. risk 1 high risk	9 low risk 10 med. risk 1 high risk	9 low risk 10 med. risk 1 high risk	9 low risk 10 med. risk 1 high risk	9 low risk 10 med. risk 1 high risk	9 low risk 10 med. risk 1 high risk	9 low risk 10 med. risk 1 high risk
Potential Contamination Sites	Proposed pond sites 1 Low Risk: FPC 506 10 Medium Risk: 500, FPC 500C, FPC 500D, 504, 505A3, 505B2, 506, Regional Pond 1, Regional Pond 2, Pond 100 (Segment 1)	Ponds: 1 Low Risk: 501C 7 Med. Risk: 501A, 501B, 502, 503A, 503B, 503C, 503D	Ponds: 1 Low Risk: 501C 7 Med. Risk: 501A, 501B, 502, 503A, 503B, 503C, 503D	Ponds: 1 Low Risk: 501C 7 Med. Risk: 501A, 501B, 502, 503A, 503B, 503C, 503D	Ponds: 1 Low Risk: 501C 7 Med. Risk: 501A, 501B, 502, 503A, 503B, 503C, 503D	Ponds: 1 Low Risk: 501C 7 Med. Risk: 501A, 501B, 502, 503A, 503B, 503C, 503D	Ponds: 1 Low Risk: 501C 7 Med. Risk: 501A, 501B, 502, 503A, 503B, 503C, 503D	Ponds: 1 Low Risk: 501C 7 Med. Risk: 501A, 501B, 502, 503A, 503B, 503C, 503D
Potential to Improve Traffic Operations	High	Low	Low	-	-	Low	-	High
Area of Bridges (SQ FT)	0	83,848	79,283	82,256	87,833	136,060	365,101	355,114
Parcels Impacted	4	4	7	4	4	4	25	25
Potential Relocations	0	1	3	1	1	1	5	5
Constructability	High	High	High	High	High	High	High	High
Construction Cost**	102,168,705	40,681,102	40,799,770	41,211,824	46,116,646	60,853,020	152,117,115	172,164,444

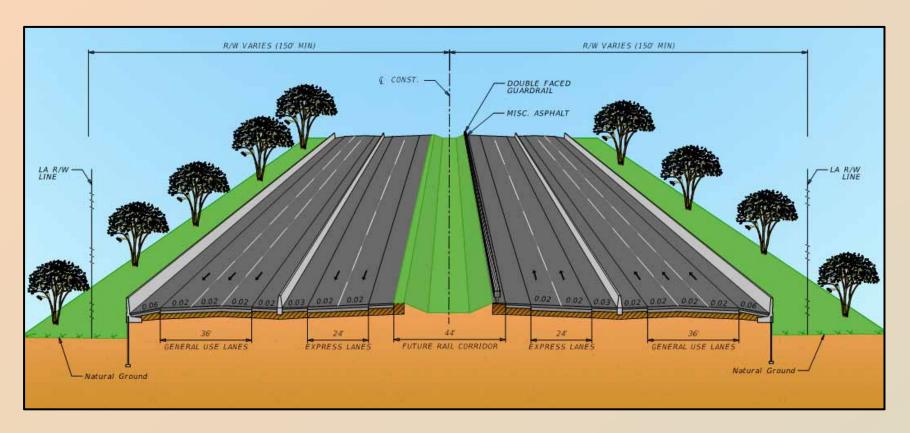
Notes: This document is a working draft; data provided is a work in progress and may be updated or replaced

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## **Proposed Roadway Typical Section**



I-4 Segment 5 (Design Speed = 70 MPH)
6 General Use Lanes + 4 Express Lanes with Rail Corridor





#### **Recommended Alternative**

- I-4 Mainline from W. of SR 25/US 27 to W. of CR 532

- The proposed roadway typical section is recommended to follow the existing alignment of the Interstate
- Additional right-of-way required primarily for recommended stormwater and floodplain compensation pond sites







#### **Recommended Alternative**

- SR 25/US 27 Interchange

#### Recommended Alternative:

- Partial cloverleaf interchange with loop ramps in NW and SE quadrants
- Provides direct connect access between I-4 Express Lanes and general use lanes and US
   27 on the east side of the interchange
- Grade separation with US 27 going over Posner Boulevard
- Additional right-of-way is required







## **Drainage Analysis**

- The existing drainage systems will be enhanced to accommodate stormwater runoff from roadway improvements
  - Modifying existing ponds
  - Constructing ponds (within FDOT right-of-way)
  - Constructing offsite ponds
  - Enhanced Water Quality (Treatment)
  - Enhanced Water Quantity (Attenuation)
- Modify several existing SWFWMD Permits







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## **Pond Siting Evaluation & Design Criteria**

#### **Pond Site Evaluation Criteria**

Residential, business, and unimproved properties

**Community Facilities** 

Section 4(f) / Public Lands

Historic / Archaeological

Wetlands

**Upland Areas** 

Aquatic Preserves / Outstanding Florida Waters

Wild and Scenic Rivers

Floodplains

Threatened and Endangered Species

**Farmlands** 

Noise

Contamination

Utilities

Right-of-Way Acquisition and Cost

## Pond Site Design Criteria

- Governed by the rules and criteria set forth by the SWFWMD and the FDOT
- Water Quality and Pond Recovery
  - Wet Detention
  - Dry Retention
- Water Quantity
  - Open Basin
  - Closed Basin (without an outfall)
- Pond Design
  - Minimum horizontal clearance
  - Rounded corner radii
  - Minimum 1-foot of freeboard







#### **Recommended Pond Site Locations**



There are a total of nine drainage basins within the project limits which will require 16 existing or proposed ponds to achieve water quality treatment and attenuation of project runoff.





## **Executive Orders & Federal Requirements**

To comply with various Executive Orders and other federal and state requirements, engineering and environmental information was reviewed and evaluated to determine if there were any substantial impacts to social and economic, cultural, physical, and natural resources that may result from construction of the proposed improvements.

#### Social & Economic Effects:

- Land use changes
- Economic impacts
- Relocations of residences or businesses

#### **Cultural Effects:**

Historic & archaeological sites

#### **Physical Effects:**

- Noise and air
- Contamination
- Utility Relocations

#### Natural Effects:

- Wetlands
- Threatened and endangered species
- Water quality
- Floodplains





## Socio-Economic

- Improves mobility
- Relieves congestion
- Provides regional economic benefits

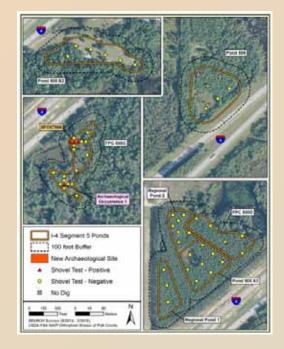






#### **Cultural and Historic Resources**

- A Cultural Resource Assessment Survey was performed within the within the project Area of Potential Effect (APE).
- The APE includes the existing ROW along I-4 and was extended to a distance of no more than 100 meters (330 feet) from the proposed ROW and includes the proposed pond footprints plus a 100-foot buffer
- Pedestrian surface inspection and excavation of 62 shovel tests
- Five prehistoric ceramic artifacts were recovered from three shovel tests within FPC 500C and one archaeological occurrence was identified in FPC 500C; none of these meet the criteria for significance required for inclusion in the National Register of Historic Places (NRHP)
- Three historic resources constructed before 1971 located within the I-4 Segment 5 APE; none are recommended eligible for NRHP inclusion
- No adverse effects to any cultural resources are anticipated





Resource 8PO07962, ca. 1967 Masonry Vernacular Building





## Wetlands

- In accordance with Executive Order 11990 "Protection of Wetlands"
  - Estimated 19.01 Acres of Direct Wetland Impacts
  - Estimated 1.82 Acres of Jurisdictional Other Surface Water Impacts











## **Threatened and Endangered Species**

- In accordance with Title 50 Code of Federal Regulations Part 402 of the Endangered Species Act of 1973, as amended
- Field surveys were conducted to assess 33 animal species and 71 plant species that may potentially occur within Polk County
- The proposed I-4 Segment 5 project "may affect" these federally listed species:
  - Sand skink
  - Blue-tailed mole skink
  - Scrub plum
- FDOT has completed consultation with the U.S. Fish and Wildlife Service (USFWS) in a Biological Opinion issued on February 21, 2017.
   FDOT has made commitments to address and mitigate impacts to the affected listed species.





## **Water Quality**

- The proposed stormwater facilities will be designed to meet the current requirements of the SWFWMD
- Stormwater treatment will be provided by wet detention or dry retention ponds which may be onsite or off-site









## **Floodplains**

- In accordance with Executive Order 11988 "Floodplain Management"
- Floodplain impacts
   (18.65 acre-feet) are
   anticipated in two
   drainage basins
- 19.13 acre-feet of compensation is provided







## **Noise Analysis**

- In accordance with the Code of Federal Regulation Part 772
- The recommended barrier for the Phase I Festival Orlando Resort within Noise Sensitive Area C includes either:
  - a 16-foot tall, 898-foot long ground mounted barrier (estimated cost \$430,862 for an average cost of \$13,464 per benefited receptor), or
  - a 14-foot tall, 954-foot long shoulder mounted barrier (estimated cost \$400,523 for an average cost of \$12,516 per benefited receptor)
- The recommended barrier for the Phase II Festival Orlando Resort within Noise Sensitive Area C includes either:
  - a 16-foot tall, 1,157-foot long ground mounted barrier (estimated cost \$555,597 for an average cost of \$11,575 per benefited receptor), or
  - a 12-foot tall, 1,552-foot long shoulder mounted barrier (estimated cost \$558,711 for an average cost of \$7,550 per benefited receptor)



#### **Potential Contamination Sites**

- 38 sites identified as potential contamination sites: one rated high risk, 13 rated medium risk and 24 rated low risk
- Out of 19 potential pond sites (existing or new/proposed), 14 rated medium risk, five rated low risk and none rated high risk







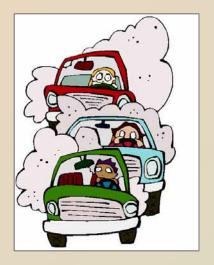
## **Air Quality**

- An air quality analysis, specifically an analysis of carbon monoxide (CO) concentrations, has been performed on the recommended alternative
- The analysis has been conducted using the established FDOT Air Quality Screening Model

Air quality impacts are not expected to occur as a result

of this project







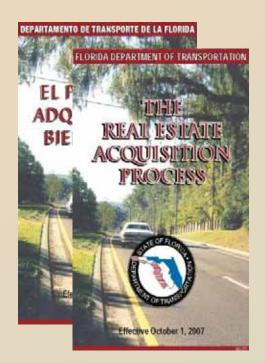


## **Right-of-Way Requirements**

- Approximately eleven (11) acres of additional right-of-way is anticipated for roadway improvements
- Approximately 21 acres of additional rightof-way is anticipated for off-site ponds
- 5 potential relocations (commercial) are anticipated
- No residential relocations are anticipated

#### Florida Statute 330.09

Federal Uniform Relocation
Assistance and Real Property
Acquisition Act of 1970
(Public law 91-646 as amended
by public law 100-17)

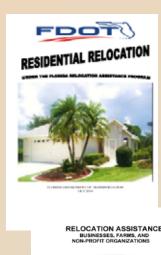






## **Right-of-Way and Relocations**

- You will be contacted by an appraiser who will inspect your property
- Be present and provide information about the value of your property
- Eligibility for relocation advisory services and payment benefits
- You may appeal relocation determination
- If you move before notification is received, benefits may be jeopardized
- Relocation specialists will answer any questions









## **Project Cost Estimates**

Estimated Project Co	osts for I-4 Segment 5*
LRE Subtotal	\$206,035,114.00
MOT (15%)	\$30,905,267.00
Mobilization (10%)	\$23,694,038.00
Project Unknowns (10%)	\$26,063,442.00
Project Non-bid Subtotal	\$150,000.00
Construction Subtotal	\$286,847,861.00
Design (8%)	\$22,935,829.00
CEI (8%)	\$22,935,829.00
ROW	\$47,700,000.00
Utilities	\$3,400,000.00
Permits	\$3,200,000.00
Total	\$387,019,518.00





## **Schedule and Funding**

- Obtain EA/FONSI Reevaluation approval from the FHWA
  - Anticipated end May 2017
- Design
  - Funded FY2016-2017
- Permit/MIT
  - Unfunded
- Right-of-Way Purchase
  - Unfunded
- Utilities
  - Unfunded
- Construction
  - Unfunded
- Construction Engineering and Inspection (CEI)
  - Unfunded





## **Draft Study Documents**

- Draft documents were available for review starting April 18, 2017 and will remain on display until May 19, 2017 at:
  - The Cagan Crossings Community Library, located at 16729 Cagan Oaks, Clermont, FL 34714
  - Project website: www.i4express.com



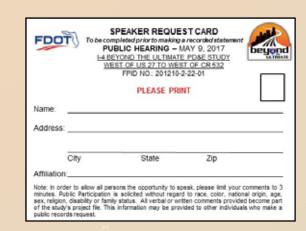




#### **Public Comments**

- Make an oral statement
  - To the court reporter
  - During the public comment period, after completing a "Speaker Card"
- Submit written comments
  - During the Public Hearing
  - Mail to the FDOT Project Manager:
     Beata Stys-Palasz, P.E.
    - Florida Department of Transportation
       719 South Woodland Boulevard
       Deland, FL 32720

Comment Period Ends on May 19, 2017



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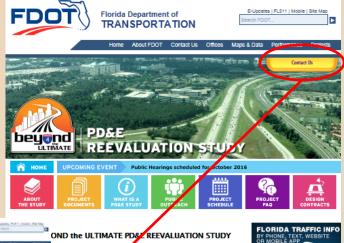


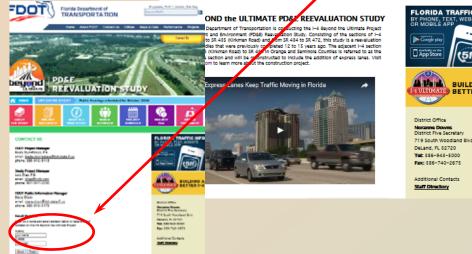


#### **Public Comments**

- Email or call
  - (386) 943-5418 orbeata.stys-palasz@dot.state.fl.us
- Visit <u>www.i4express.com</u>
  - Click on the Contact Us link
  - Fill out the form and click submit
  - All comments become public record











## Thank you for attending!

### **PUBLIC HEARING**

# I-4 Beyond the Ultimate PD&E Reevaluation Study

