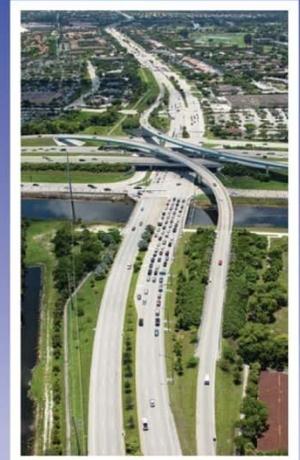




# **I-595 Express Corridor Improvements Project**



**September 14, 2011  
Paul A. Lampley, P.E.  
I-595 Project Manager**





## INTRODUCTIONS

- Paul Lampley, FDOT Construction Project Manager
- Kelley Hall, FDOT Project Engineer
- Ed Perez, Oversight CEI Resident Engineer
- Melanie Sexton, Oversight CEI PIO



# PROJECT VIDEO





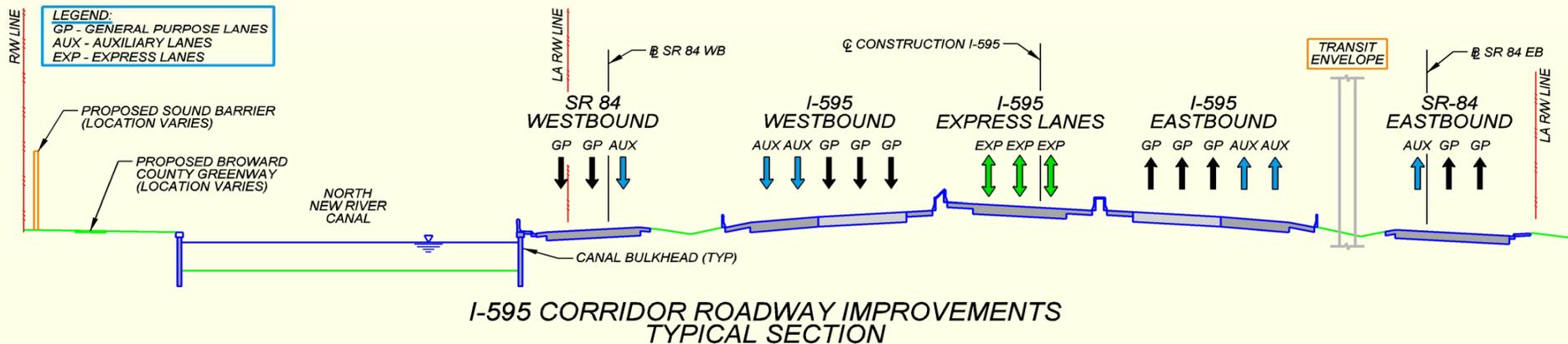
# PROJECT LIMITS



I-595 from I-75/Sawgrass Expressway Interchange  
to East of the I-95 Interchange



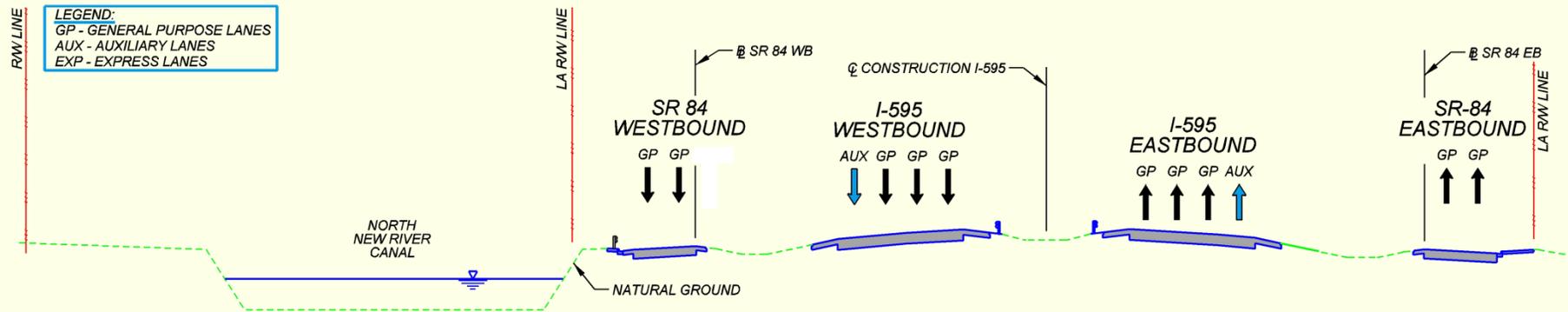
# PROJECT COMPONENTS



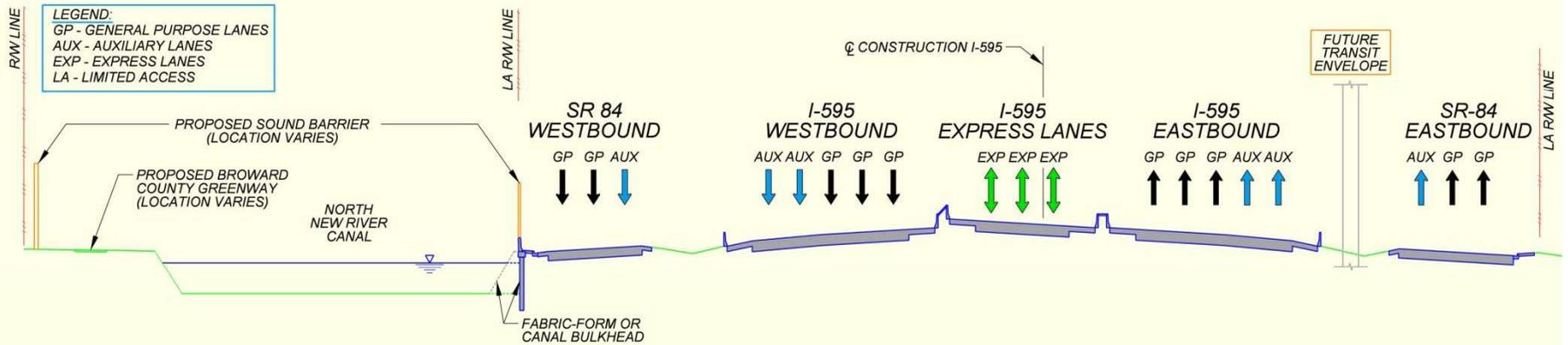
- Reversible Express Lanes
  - Direct Connect to Florida’s Turnpike
  - Open Road Tolling
- S.R. 84 Continuous Connection
- Turnpike Interchange
- Broward County Greenway
- Ramp Improvements
  - Auxiliary Lanes
  - Ramp Braids
  - Bypass Bridges
- Sound Barrier Walls
- Express Bus Service



# TYPICAL SECTIONS



I-595 CORRIDOR EXISTING TYPICAL SECTION



I-595 CORRIDOR ROADWAY IMPROVEMENTS TYPICAL SECTION

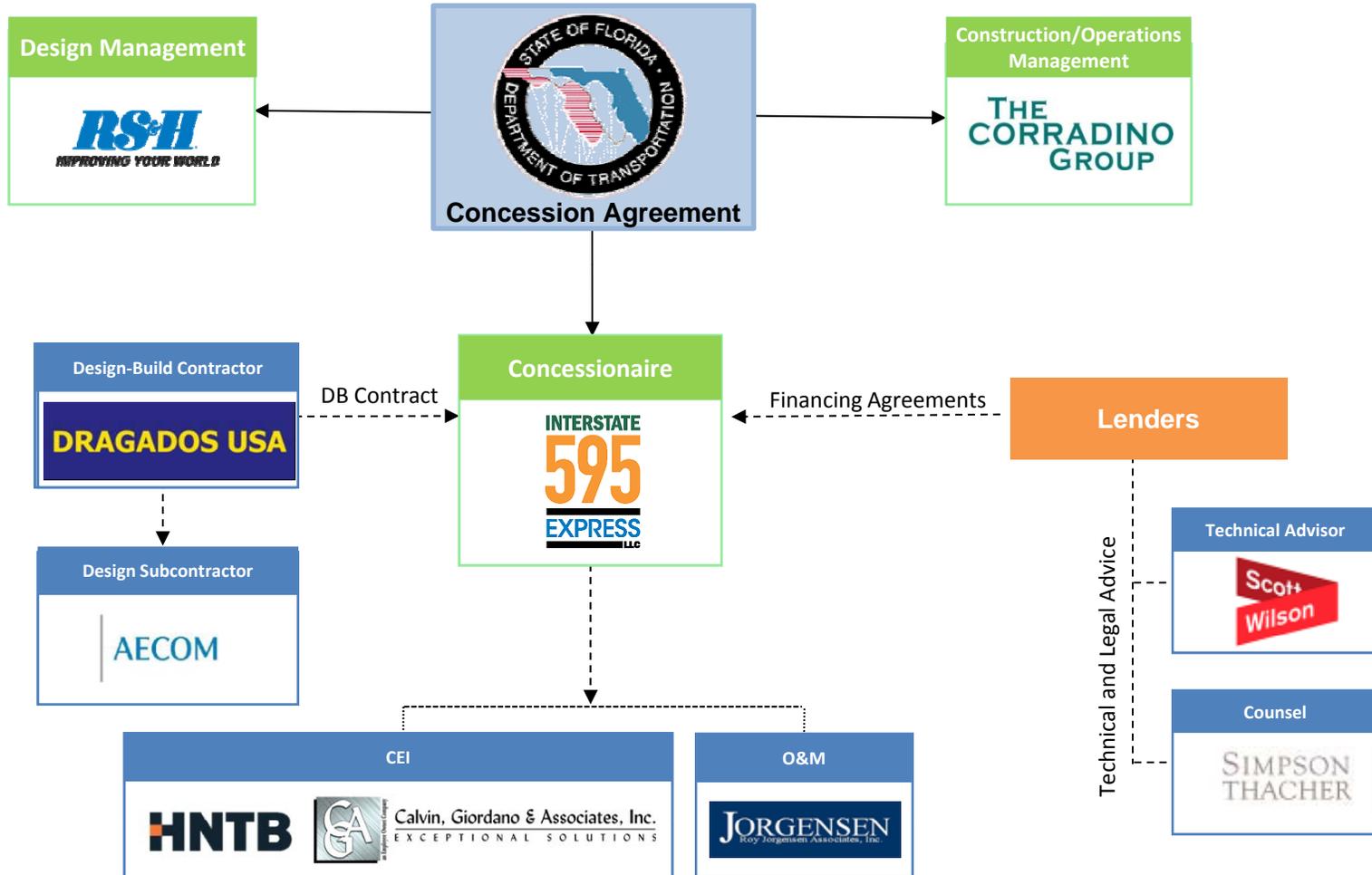


## INNOVATIONS

- 1<sup>st</sup> DBFOM Public Private Partnership (P3) in Florida
- 1<sup>st</sup> Availability Payment P3 in the US
- Reversible toll lanes (six lanes for the price of three)
- Congestion pricing
- State of the art emergency access and infrastructure
  - Fire suppression system
  - Emergency access gates
- 35-year Operations and Maintenance
- Direct connections to Florida's Turnpike
- Oversight CEI
- Express Bus Service
- Shared-use drainage



# I-595 TEAM ORGANIZATION



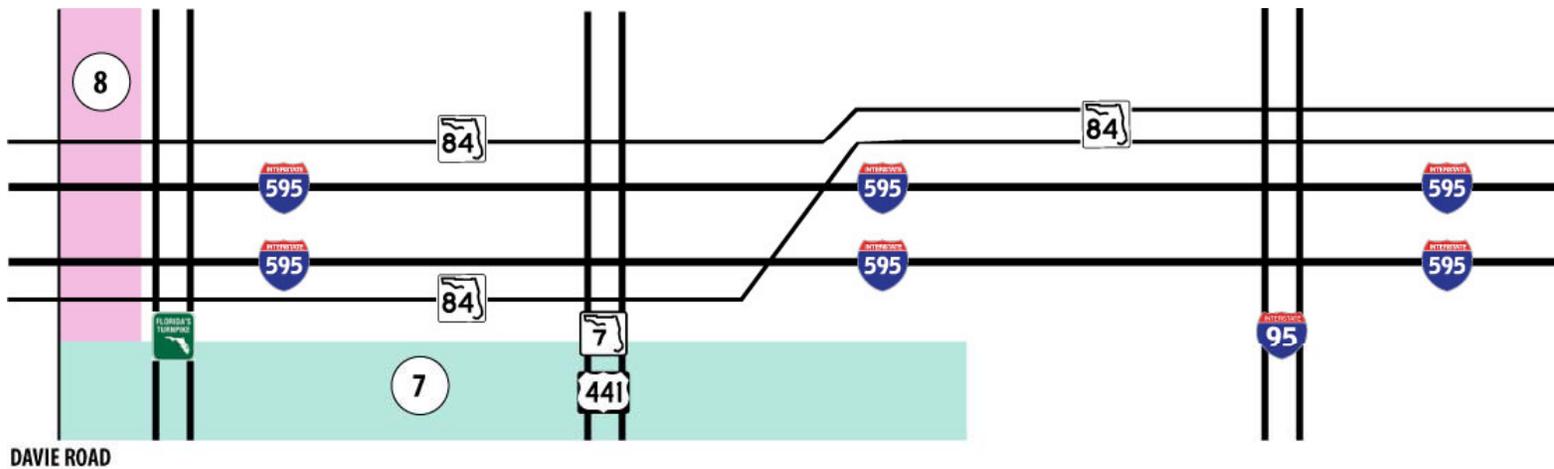
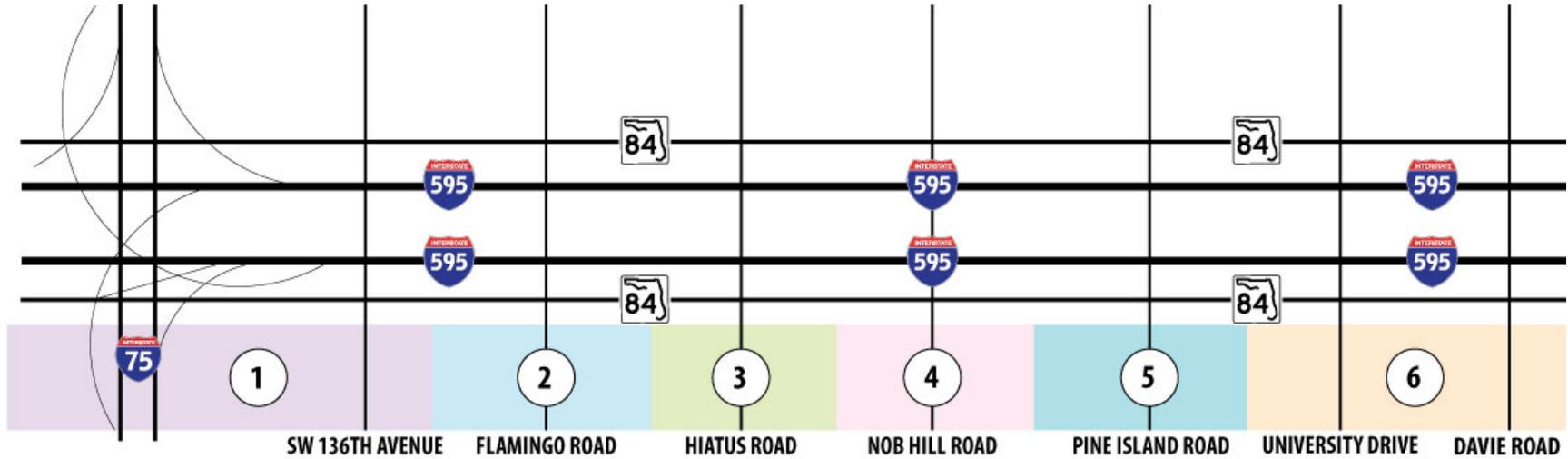


# CONSTRUCTION OVERSIGHT OPTIONS

- No Owner Oversight
- Independent Engineer
- Oversight Construction, Engineering and Inspection
- Traditional Construction, Engineering and Inspection

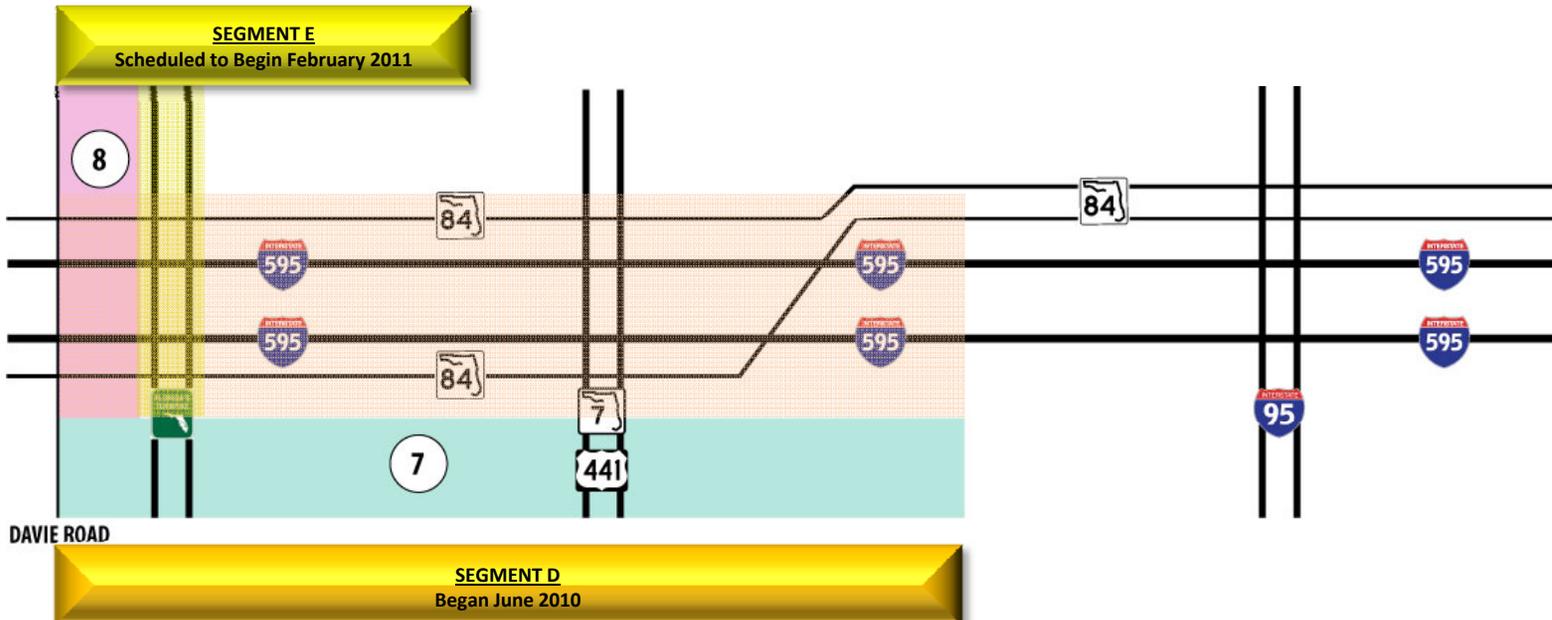
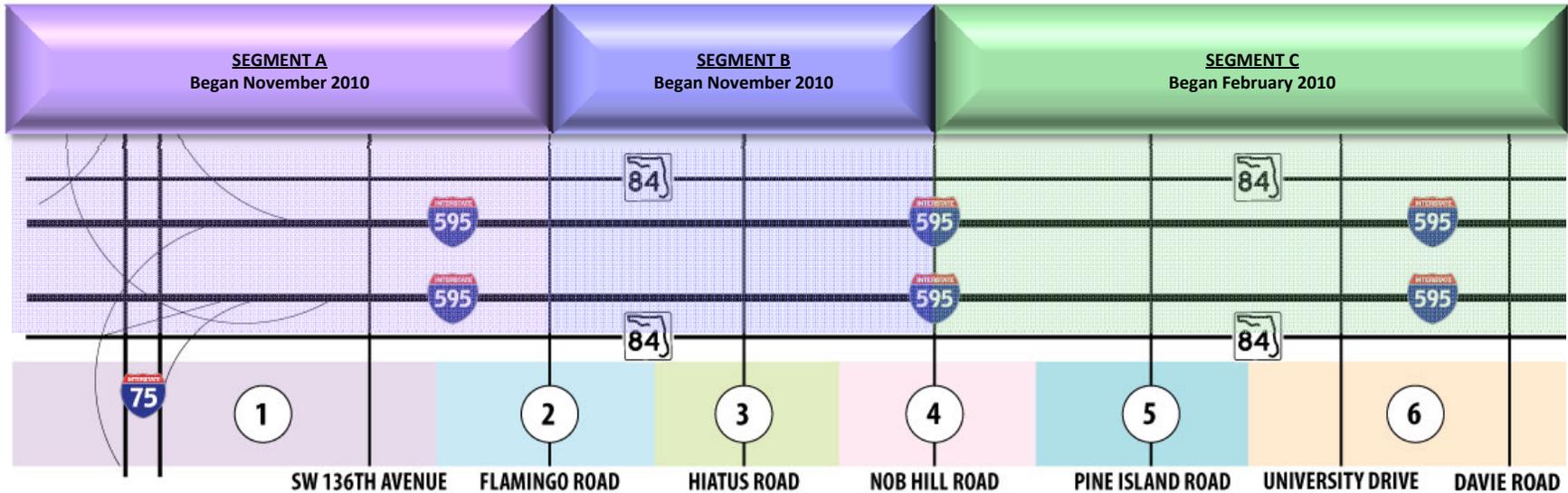


# DESIGN ZONES





# CONSTRUCTION SEGMENTS





## PROJECT ADMINISTRATION

- Design Submittals (1445 to date)
  - 536 structural submittals
  - 559 roadway and other disciplines submittals
  - 350 Shop Drawings
- Audits
  - Construction Audits
    - 678 Construction audits completed on I-595
    - Construction Average Audit Rating is 94.3%
    - 88 In-Depth Proficiency reviews conducted
  - O&M Audits
    - 106 O&M audits completed on I-595 to date
    - 100% of Audits Passed
  - Materials
    - 6128 samples have been taken with 19 failures
    - 100 open samples (or, 1.6% open samples )



## EFFORTS TO ADVANCE THE PROJECT

- Over 140 Work at Risk Packages
- 21-day design review time
- More workshops – less rigid communication protocol
- Defined Roles and Responsibilities for delegation of “Engineer”
- Empowering the CCEI and EOR to make field decisions to keep project moving
- Modified Shop Drawing approval process
- Released packages with caveats



## EFFORTS TO ADVANCE THE PROJECT

- Coordination Workshops with FTE
- Weekly Coordination with SFWMD
- Allowed Release of Traffic Control Plans in Phases
- Allowed daytime Lane Closures on SR 84 & SR 7
- RFI Process established
- Weekly Structures Comment Resolution meetings
- Established Witness & Hold CCEI Process
- Streamlined Foundation Certification process



## EFFORTS TO ADVANCE THE PROJECT

- Daily Workshops
- Partnering with Contractors
- Partnering (OCEI and CCEI)
- Weekly Coordination meeting (OCEI and CCEI)
- Integrated CCEI into the OCEI audit process
- Weekly lane closure review (OCEI, CCEI, DUSA)
- Weekly Executive Progress Meeting
- Monthly Sr. Executives Meeting (FDOT and I595E)
- Bimonthly Sr. Executives Meeting (FDOT, I595E, DUSA, AECOM)



## EMPLOYMENT STATUS

- Over 160 companies
- Over 2326 employees
- DBE Participation (On track for 8.1% goal )
  - 08/09 - 9.0%
  - 09/10 - 9.2%
  - 10/11 - 8.7%
- Trainees: 118 planned, 60 Graduated, 18 more actively enrolled



## PROJECT SCHEDULE / STATUS

As of August 31, 2011 the project is:

- 33% Complete / Cost
- 36% Complete / Time

Overall Schedule:

- Execution of Agreement March 3, 2009
- NTP 1 March 3, 2009
- Advance Construction Activities June 15, 2009
- NTP 2 (Take over O&M) July 31, 2009
- Major Construction Feb. 26, 2010
- Interim Milestones (50% Contract Time) Sept. 2011
- Interim Milestones (75% Contract Time) Dec. 2012
- Substantial Completion March 2014
- Final Acceptance June 2014



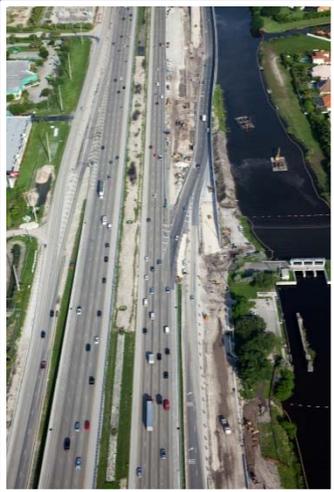
## CONSTRUCTION SCHEDULE

- All Five Construction Segments under Construction
  - “C”: Bergeron Land Development (started Feb. 2010), 42% Complete
  - “D”: Ranger Construction (started May 2010), 38% Complete
  - “A/B”: Prince Contracting (started Nov. 2010), 24% Complete
  - “E”: Ranger Construction (started April 2011), 13% Complete
  - Overall 33% Complete
- Corridor Wide Construction
  - Bridges: Dragados/Baker Joint Venture
  - Bridges: GLF Construction
  - MSE Walls: Bonn J Contracting
  - Sheetpile/Pile Driving: Ebsary Foundation

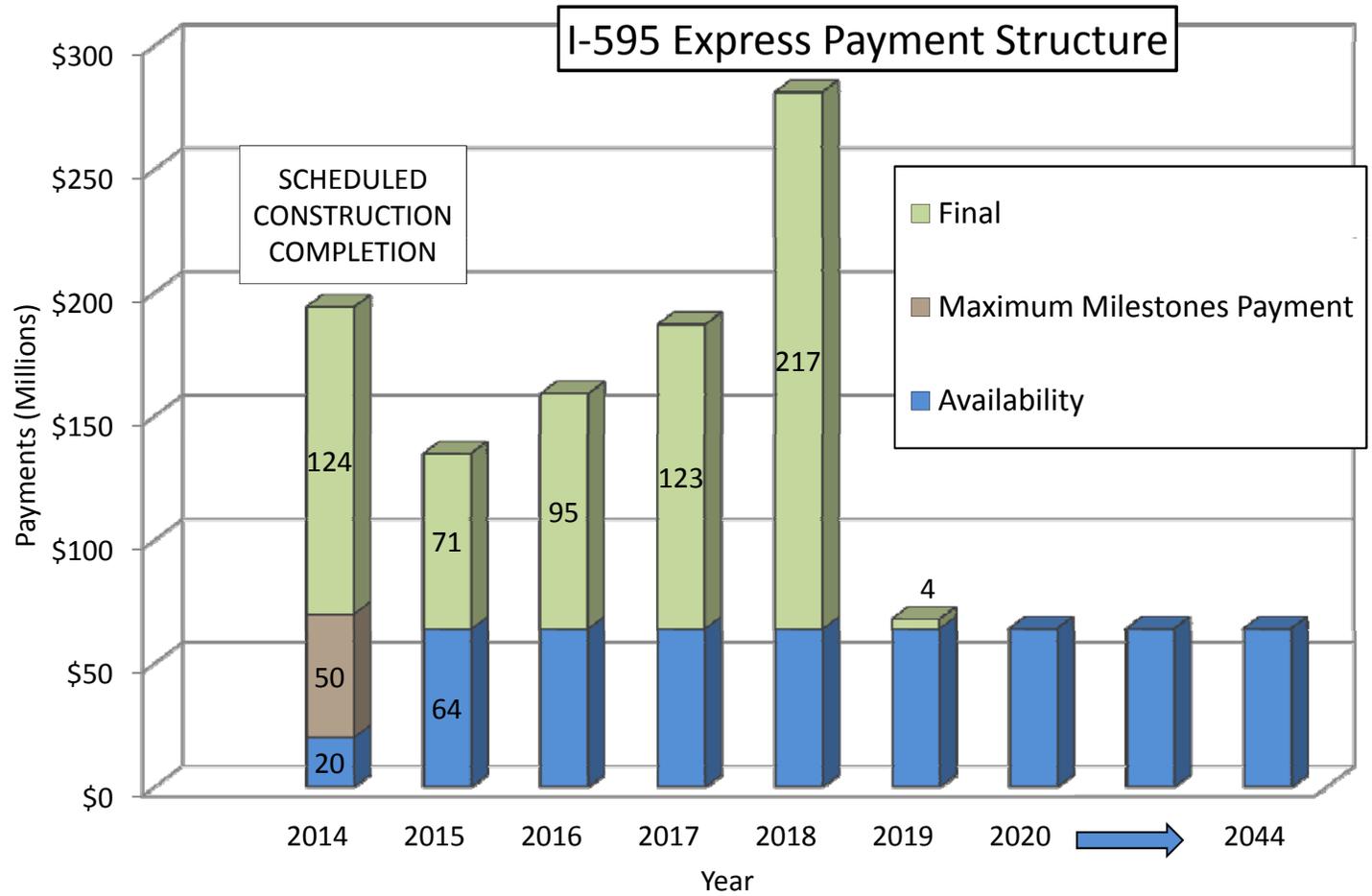


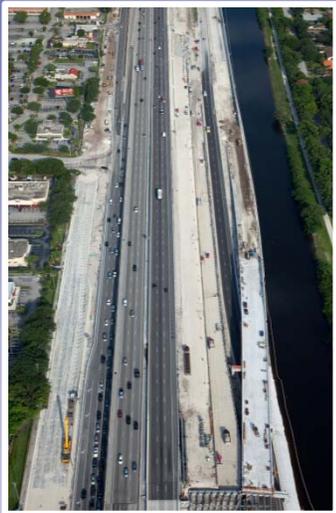
## OPERATIONS & MAINTENANCE

- Traffic Management Center (TMC)
  - Staffed 24/7 – 365 days
  - Manage/ Monitor Traffic Cameras & Incidents on I-595
  - Coordinate with Local Agencies
    - FHP / Fire Rescue / Local Authorities / BSO
- Road Ranger Services
  - Operate 24/7 – 365 days
  - Responding to an average of 1200 incidents/month
  - Responding in less than 5 minutes
- Severe Incident Response Vehicle (SIRV) Operations
- Rapid Incident Scene Clearance (RISC) Operations



# PAYMENTS TO CONCESSIONAIRE





## P3 BENEFITS

- Innovative ideas (35 year term)
- Possible private equity
- Access to global capital markets
- Transfer of appropriate risk
- Long term relationships
- Can provide “stability” in pricing
- Contract outlines the “deal”



## PROJECT SUCCESSES

- Co-location
- Community Outreach
- EEO/OJT/DBE
- O&M
- Advanced Construction Activities



## P3 CHALLENGES

- Loss of control or perceived loss of control
  - Day to Day Management
  - Setting toll rates, performance standards, etc.
- “Cherry picking” by the private sector
- Learning curve in negotiating and managing P3s
- “Real” transfer of risk (will cost real money)
- Long term relationships



## PROJECT CHALLENGES

- Communications
- Procurement vs. Implementation Team
- Aggressive Schedule
- Teamwork
- FDOT in Oversight Role



## LESSONS LEARNED

- Pick the right projects
- Be flexible in procurement, contracting, and finance process
- Secure government and community stakeholders' support
- Be patient and start at the right time
- Secure outside experts with P3 experience
- Be transparent and have an interactive process
- Be flexible, clear, consistent and persistent



## BEST PRACTICES

- Established project specific Business Plan
- Materials: Established a well-defined process for quality control and quality assurance
- Co-location: FDOT, Concessionaire, Contractor, Designer, and OCEI
- O&M: Performance Based Program
- Customer service: PIO on both the concessionaire and FDOT side
- Proper balance of performance and prescriptive requirements
- Appropriate Risk allocation
- Audits to verify project performance



## FUTURE RECOMMENDATIONS

- Develop contract specifications tailored to Public-Private Partnerships (DBFOM)
- Roles and Responsibilities of engineer delegates
- Develop project administration procedures (CPAM) specific to Public-Private Partnerships (DBFOM)
- Develop a materials model specifically for Public-Private Partnerships (DBFOM)
- Develop guidelines for shop drawing approval authority
- Establish construction phase performance metrics, similar to the current O&M metrics
- Develop an audit process for design reviews
- Develop guidance in PPM and Design Standards



**Thank You!**

