



Florida Department of Transportation
Florida's Turnpike Enterprise

**DESIGN-BUILD
REQUEST FOR PROPOSAL**

for

**SR 821 (HEFT) Widening from north of SW 40th St. (Bird
Road) to SR 836 (Dolphin Expressway)**

Miami Dade County

Financial Projects Number: 415051-4-52-01

Federal Aid Project Number: N/A

Contract Number: E-8N67

DRAFT RFP August 12, 2014

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ATTACHMENTS

The Attachments listed below are hereby incorporated into and made a part of this Request for Proposal (RFP) as though fully set forth herein.

Attachment No. 1	Design-Build Bid Blank
Attachment No. 2	Design-Build Proposal of Proposer
Attachment No. 3	Design-Build Proposal Form
Attachment No. 4	Bid or Proposal Bond
Attachment No. 5	DBE Forms
Attachment No. 6	Design-Build Contract
Attachment No. 7	Design-Build Contract Bond
Attachment No. 8	Contract Affidavit
Attachment No. 9	Division I Design-Build Specifications
Attachment No. 10	Florida's Turnpike Enterprise (FTE) Field Operations Guide
Attachment No. 11	Project Advertisement
Attachment No. 12	Geometric Design Criteria Memorandum
Attachment No. 13	Typical Section Package
Attachment No. 14	Design Variations and Exceptions
Attachment No. 15	Minimum Pavement Design Requirements
Attachment No. 16	FDOT AADT Traffic Data and Equivalent Axle Loading (ESAL) Memorandum
Attachment No. 17	Pavement Coring and Evaluation Report
Attachment No. 18	Resilient Modulus Recommendations Report
Attachment No. 19	Project Traffic Forecast Memorandum (PTFM)
Attachment No. 20	Technical Memorandum Traffic Control Restrictions
Attachment No. 21	MDX Enhancement Manual
Attachment No. 22	MDX Roadway Lighting System Asset Identification
Attachment No. 23	SFWMD Permit
Attachment No. 24	USACE Permit
Attachment No. 25	Miami Dade DERM Class III Permit
Attachment No. 26	SFWMD ROW Occupancy Permits
Attachment No. 27	Noise Study Technical Memorandum
Attachment No. 28	Post and Panel Noise Wall Aesthetics
Attachment No. 29	Florida Gas Transmissions (FGT) Specification
Attachment No. 30	HEFT-SW 8th Street Interchange Landscaping Plans Record Set
Attachment No. 31	Values Added Specifications Section 475, Value Added Bridge Component
Attachment No. 32	Special Provisions Contractor Quality Control General Requirements (SP1050813DB) Structures Foundations (SP4550000DB)

Field Office (SP1090000)

Attachment No. 33	ITS Minimum Technical Requirements Memorandum
Attachment No. 34	Existing Bridges Load Rating Analysis
Attachment No. 35	FTE Maintenance and Access Requirements
Attachment No. 36	FTE Toll Facility Component Plans
Attachment No. 37	FTE Bridge Maintenance Repair Requirements
Attachment No. 38	Pipe Repairs
Attachment No. 39	Applicable Design Standards Turnpike Plans Preparation and Practices Handbook (TPPPH) Turnpike Drainage Manual Supplement Turnpike Design Website General Tolling Requirements (GTR) Florida Intersection Design Guide
Attachment No. 40	KMZ Files
Attachment No. 41	90 Percent Foundation Plans for Pier 2 Bridges Over SW 8th St and C-4 (870212 and 870415)
Attachment No. 42	Utility Work by Highway Contractor Agreement

REFERENCE DOCUMENTS

The following documents are being provided with this Request for Proposal (RFP). Except as specifically set forth in the body of this RFP, these documents are being provided for reference and general information only. They are not being incorporated into and are not being made part of the RFP, the contract documents or any other document that is connected or related to this Project except as otherwise specifically stated herein. No information contained in these documents shall be construed as a representation of any field condition or any statement of facts upon which the Design-Build Firm can rely upon in performance of this contract. All information contained in these reference documents must be verified by a proper factual investigation. The bidder agrees that by accepting copies of the documents, any and all claims for damages, time or any other impacts based on the documents are expressly waived.

1. Composite Project Overview
2. CADD Files (All Component Files)
3. Conceptual Roadway Plans (FPID 415051-4-52-01)
4. Conceptual Rdwy & Str Plans (FPID 429325-1-52-01)
5. Drainage Report
6. Signing Master Plan
7. Lighting Concept Report
8. ITS Concept Plans
9. Interim Express Lane Implementation Concept
10. MOT Concept Report
11. Technical Memorandum HEFT- SR 836 Managed Lanes Connector Ramps
12. ACM Testing Reports
13. Existing Record Plans

14. Top 30 Crash Ramp Safety Study 2011
15. Bridge Concept Report [Coral Way over HEFT (SR 821), SW 117th Ave., and Snapper Creek (C-2) Canal]
16. Bridge Concept Report [HEFT (SR 821) over Tamiami Trail (SW 8th Street) and Tamiami (C-4) Canal]
17. Bridge Concept Report [Ramp E over Snapper Creek (C-2) Canal]
18. Bridge Concept Report (HEFT (SR 821) over West Flagler Street)
19. Bridge Concept Report (HEFT – SR 836 Express Lanes Connector Ramps)
20. Bridge Development Report [Ramp SW over Tamiami (C-4) Canal]
21. Noise Wall Impact Assessment Memorandum
22. Geotechnical Report (Bridges)
23. Geotechnical Report (Roadway)
24. Geotechnical Report (Noise Walls & Retaining Walls)
25. Advanced Utility Coordination Documentation
26. Conceptual Landscape Analysis Roll Plot
27. Conceptual Landscape Opportunity Roll Plot
28. Not Used
29. Contamination Survey Reports
30. PD&E Study Documents
31. PD&E Study Re-evaluation Study Documents
32. Community Awareness Plan
33. Survey Documentation
34. Existing Sign Inventory
35. Sample Inventory for Welding Inspection
36. Crash Data (2008-2012)
37. FTE Production Design Website
38. Bridge Hydraulic Report [Ramp SW over Tamiami (C-4) Canal]
39. Not Used
40. Profilograph Data
41. SW 8th Street Design Traffic Report
42. HEFT Widening – Killian Parkway to the SR 836 Systems Interchange Justification Report (SIJR)

I. Introduction

Florida's Turnpike Enterprise (FTE), a District of Florida Department of Transportation (Department) has issued this Request for Proposal (RFP) to solicit competitive bids and proposals from Proposers for the design, widening and reconstruction of SR 821, the Homestead Extension of the Florida Turnpike (HEFT) from North of SW 40th Street (Bird Road) to SR 836 (Dolphins Expressway).

SR 821 (HEFT) is an urban Principal Arterial Expressway with a 65 mph design speed and extends from US 1 in southern Miami-Dade County to Florida's Turnpike (SR 91). It is also part of the National Highway System and Florida's Strategic Intermodal System (SIS) and is a designated hurricane evacuation route. Within its work program, FTE has programmed improvements to the HEFT between SW 288th Street and SR 836 (Dolphin Expressway). This Design-Build Project includes the limits from north of SW 40th Street (Bird Road) to SR 836 (Dolphin Expressway). The main objective of the SR 821 (HEFT) portion (FPID 415051-4-52-01) of the Project is to improve traffic flow on SR 821 (HEFT) by:

1. Widening the HEFT to include three (3) general purpose (GP) lanes and two (2) express lanes in each direction in addition to auxiliary lanes as required. A four (4) foot buffer that includes high performance tubular delineators will separate the express lanes from the GP lanes. The proposed express lanes to be built under this project are a continuation of the express lanes being constructed under project FPID 427146-1-50-01. The widening is to include twelve foot inside and outside paved shoulders.
2. Replacing the existing Coral Way (SW 24th Street) Bridge over SR 821 (HEFT), Bridge Number 870211.
3. Providing access to the new express lanes as follows:
 - a. Ingress and Egress at the SR 836 (Dolphin Expressway) Interchange. Two new single express lane connector ramps shall be constructed to connect SR 836 (Dolphin Expressway) to the new HEFT express lanes, as shown in Reference Document No. 11, Technical Memorandum HEFT-SR 836 Express Lanes Connector Ramps. Northbound HEFT to Eastbound SR 836 express lane connector ramp shall be designed to merge with the existing N-E connector ramp. The merging of the ramps shall be designed to not allow express lane access to SW 107 Ave.
 - b. A Southbound Ingress point to the express lane(s) south of NW 12th Street. A taper transition will be provided for access into a new express lane as shown in Reference Document No. 3, Conceptual Roadway Plans. (FPID 415051-4-52-01). Southbound taper transition shall end within 200 ft. of End Project Station 1931+44.21.
 - c. A Northbound Egress point from the express lanes to the GP lanes south of NW 12th Street. The northbound express lanes will transition into a GP lane by gradually eliminating the 4 ft. buffer area between the GP lanes and the express lane, as shown in Reference Document No. 3, Conceptual Roadway Plans. (FPID 415051-4-52-01). The express lane transition into a GP lane shall begin north of the NW 12th Street northbound off Ramp I gore area.
 - d. The proposed express lanes to be built under this project will continue south to Sunset Drive under a separate project (FPID 427146-1-52-01) and to Killian Parkway (FPID 415051-1-52-01) and will be let as Design-Build projects. North of Kendall Drive, provisions for egress in the southbound direction and ingress in the northbound direction will be provided.

4. Construct operational improvements at the SW 8th Street Interchange as shown on Reference Document No. 3 Conceptual Roadway Plans (FPID 415051-4-52-01) and Reference Document No. 4 Conceptual Rdwy & Str Plans. (FPID 429325-1-52-01).

The Design-Build Firm shall include a Landscape Architect duly authorized to practice Landscape Architecture in the State of Florida consistent with State Statute 481 part II. The Design-Build Firm's Landscape Architect (DBLA) shall review and identify future unencumbered landscape areas for this Project. This Project shall reserve landscape opportunities and implement the FDOT Highway Beautification Policy. Landscape construction will be performed by others and not included with this Project. Areas shall be identified in the Design-Build Firm's Proposal Plans as "future landscape areas to be constructed by others". Coordination will be required by the Design-Build Firm and the District Landscape Architect. Coordination between Design-Build Firm's Landscape Architect, the District Landscape Architect and Engineer will be required during the Design-Build plans development process to ensure landscape opportunities are accommodated within the project limits. The DBLA shall be included in the project kick-off meeting and subsequent progress meetings.

Any changes to requirements of the RFP by a Design-Build Firm must be approved by the Department through the Alternative Technical Concept (ATC) Proposal process, as described herein, prior to the information cut-off date.

Description of Work

The overall goal of the corridor improvements defined in the Project (FPID 415051-4-52-01) include improving capacity, operations and safety along SR 821 (HEFT) from North of SW 40th Street (Bird Road) Station 1765+00 (MP 24.03) to the SR 836 (Dolphin Expressway) Interchange, Station 1931+44.21 (MP 27.19) a distance of approximately 3.16 miles. To the south, the Project will connect to the ongoing Design-Build project between Sunset Drive (SW 72nd Street) and North of SW 40th Street (Bird Road) (FPID 427146-1-52-01).

A separate Design-Build project from North of SW 104th St. (Killian Parkway) to SW 72th St. (Sunset Drive) (FPID 415051-1-52-01) will be built consecutively and connects with (FPID 427146-1-52-01) on the south end. To the north, the Project will connect to the existing HEFT mainline just south of HEFT bridge over NW 12th Street. To the east, the project will connect to SR 836 through two new express lane connector ramps. All of the aforementioned projects will be under construction at the same time and proper coordination with the adjacent construction projects shall be performed. Refer to Reference Document No. 1 for a composite overview of the Project.

The following improvements shall be provided:

Roadway:

A. HEFT

- i. Provide three (3) general purpose lanes and two (2) express lanes, separated by a 4-foot buffer, in each direction from begin Project STA 1765+00 (connection with FPID 427146-52-01) to SR 836 Interchange STA 1931+44.21 Include auxiliary lanes per Concept Plans. See Reference Document No. 3 and Attachment No. 13.
- ii. Provide HEFT southbound access into express lanes immediately south of the bridge carrying HEFT over NW 12th Street.
- iii. Provide express lane egress access to the HEFT northbound GP Lanes south

- of NW 12th Street.
- iv. Extend auxiliary lanes in northbound and southbound direction between SW 40th Street (Bird Road) interchange and SW 8th Street Interchange.

B. Coral Way (SW 24th Street)

- i. Reconstruct segment of Coral Way, incidental to the replacement of the bridge carrying Coral Way over the HEFT mainline, SFWMD Canal (C-2) and SW 117th Avenue.
- ii. Construct new traffic signal at the Coral Way intersection with SW 115th Avenue.

C. SW 8th Street Interchange

Construct interchange improvements at SW 8th Street. The interchange traffic operations shall be the same or improved versus what is shown in the Roadway Concept Plan. See Reference Document No. 3 and Reference Document No. 4.

Reference Document No. 4 Concept Roadway Plans (FPID 429325-1-52-01) detail the replacement of the South to West (S-W) single lane Ramp free flow connection to SW 8th Street with a new ramp configuration that includes a new bridge, two right turn lanes, and the incidental work on SW 8th street. Reference Document No. 3 Concept Roadway Plans (FPID 415051-4-52-01) identifies all other interchange ramp improvements, including HEFT bridge widening over SW 8th Street, pier protection of new and existing piers, and installation of new tolling equipment.

Improvements include:

- i. Modify HEFT northbound off ramp geometric configuration to include new northbound auxiliary lane.
- ii. Replace northbound off ramp single lane free flow connection to SW 8th Street eastbound with a new signalized intersection that includes two right turn lanes.
- iii. Remove existing Northbound Off Ramp E merge lane into SW 8th Street Eastbound.
- iv. Construct new traffic signal at the HEFT northbound off ramp intersection with SW 8th Street.
- v. Widen HEFT southbound Off Ramp to two lanes.
- vi. Increase capacity of southbound off ramp intersection with SW 8th Street by adding a third right turn lane, immediately north of existing ramp tolling point.
- vii. Install new tolling equipment to support an additional lane on the southbound off ramp configuration.
- viii. Construct new traffic signal at the HEFT southbound off ramp intersection with SW 8th Street.
- ix. Replace South to West (S-W) single lane Ramp free flow connection to SW 8th Street with a new ramp configuration that includes two right turn lanes.
- x. Construct new traffic signal at the HEFT South to West (S-W) Ramp intersection with SW 8th Street.
- xi. Construct improvements to SW 8th Street as shown in Reference Document No. 4. Conceptual Roadway Plans. (FPID 429325-1-52-01) and Attachment No. 13 Typical Section Package.
- xii. Roadway improvements incidental to the construction of pier protection

- system.
- xiii. During construction of Ramps E, F, G and H, the Design-Build Firm shall request approval from FGT for vehicles and construction equipment which will cross over the 8-inch gas line. The Design-Build will only be allowed to use static roll machines above FGT's existing 8-inch gas line. Refer to Attachment No. 29 (FGT's Engineering and Construction Specifications) for additional information and requirements.
- D. West Flagler Street.
- i. Roadway improvements incidental to the construction of pier protection system.
- E. SR 836 Interchange
- i. Construct two new express lanes connector ramps to allow ingress/egress access from/to SR 836.
- ii. Reconstruct HEFT Mainline to allow for construction of the express lanes connector ramp bridges.
- F. SW 40th Street (Bird Road) Interchange
- i. Reconstruct Northbound on Ramp D north of tolling point to accommodate HEFT mainline widening.

The number of lanes and storage lengths for surface street and ramp turn lanes are depicted in the Conceptual Roadway Plans. Traffic volumes and analysis are provided in Attachment No. 19, Traffic Forecast Memorandum. Any changes to the interchange or intersection configurations and turn lane lengths must provide the same or lesser intersection delay and queue lengths for signalized intersection operations. The Design-Build firm shall use Synchro 7.0 Software to evaluate any changes to the interchange or intersection configurations. Any proposed changes will be verified by the Department through the ATC process. In addition to the intersection operational requirement, the Design-Build Firm must gain Miami-Dade County or FDOT District 6 concurrence to changes in the configuration of the turn lanes.

Structures:

- A. Bridges
- a. Coral Way (SW 24th Street) over HEFT (SR 821), SW 117th Avenue, and Snapper Creek (C-2) Canal:
- i. Replace the existing bridge. The new bridge(s) must provide two (2) 12-foot wide lanes, 4-foot wide shoulders and a minimum 5-foot wide sidewalk in both the eastbound and the westbound directions.
- ii. The End Bents and piers of the new bridge shall be set to accommodate the HEFT northbound and southbound roadway clear zone. Roadside barriers shall not be used to reduce the length of the bridges.
- iii. Provide a minimum of 16'-6" vertical clearance.
- iv. Develop a Bridge Hydraulics Report and Bridge Hydraulic Recommendation Sheet for this crossing of the Snapper Creek (C-2) Canal.

b. HEFT (SR 821) over Tamiami Trail (SW 8th Street) and Tamiami (C-4) Canal:

- i. Widen the existing bridges to provide a minimum of three (3) general purpose lanes and two (2) express lanes separated by a 4-foot buffer, and two auxiliary lanes in each direction. See Attachment No. 13.
- ii. 90% Foundation Plans have been developed for Pier 2 of the concept plan bridge widening (Attachment No. 41), which shows acceptable size and locations of foundations in the vicinity of the 8-inch gas line. Any changes to the foundation design require FGT and FTE approval. The Design-Build Firm is responsible for any additional costs incurred by making changes to the foundation.
- iii. The HEFT (SR 821) bridges must accommodate the proposed SW 8th Street Typical Section below.
- iv. Vertical clearance for the widened northbound bridge shall not be less than the existing vertical clearance of 16.5-feet.
- v. Vertical clearance for the widened southbound bridge shall not be less than 16.5-feet. Existing vertical clearance is 17.2-feet.
- vi. Provide pier protection for the existing piers which meets the requirements of FDOT Structures Design Guidelines (SDG) Section 2.6.
- vii. Develop a Bridge Hydraulics Report and Bridge Hydraulic Recommendation Sheet for this crossing of the Tamiami (C-4) Canal.

c. Ramp SW over Tamiami (C-4) Canal:

- i. Replace the existing bridge over Tamiami (C-4) Canal per Concept Plans and SFWMD R/W Occupancy Permit; See Reference Document No. 4 and Attachment No. 26, respectively. The new bridge must provide three 12-foot wide lanes with a 6-foot wide right shoulder and a 10-foot wide left shoulder.
- ii. Provide a minimum of 2-feet of vertical clearance above the Design Water Surface and a minimum of 6-feet of vertical clearance above the Optimum Water Surface.
- iii. The following information was developed for FPID 429325-1-52-1:
 1. Reference Document No. 4 – Concept Plans.
 2. Reference Document No. 20 – Bridge Development Report.
- iv. The SFWMD R/W Occupancy Permit sketches in Attachment No. 26 reflect recent changes to the configuration of the canal beneath the proposed bridge. These changes affect the canal typical section beneath the bridge and the north abutment. The Design-Build Firm will be required to modify the concepts reflected in Reference Document No. 4, accordingly.
- v. The excavation work required within the canal will need special equipment to address hard limestone (rock) condition with in the canal.

d. HEFT (SR 821) over West Flagler Street:

- i. Widen the existing bridges to provide a minimum of three (3) general purpose lanes and two (2) express lanes, separated by a 4-foot buffer, and two auxiliary lanes in each direction. See Attachment No. 13.
- ii. Vertical clearance for the widened northbound bridge shall not be less than the existing vertical clearance of 16.3-feet.
- iii. Vertical clearance for the widened southbound bridge shall not be less than 16.5-feet. Existing vertical clearance is 16.85-feet.
- iv. Provide pier protection for the existing piers which meets the requirements of FDOT Structures Design Guidelines (SDG) Section 2.6.

e. Ramp E over Snapper Creek (C-2) Canal

- i. Retrofit each existing railing (left and right) to TL-4 capacity.
- ii. Replace guardrail approach transitions at all four corners of the bridge with Thrie-Beam transitions in accordance with Index Number 402. Beam/Girder Scheme C, as presented in Section 3 of the Instructions for Design Standards for Index Number 402, will be required.
- iii. See Reference Document No. 17, Bridge Concept Report [Ramp E over Snapper Creek (C-2) Canal], for documentation of the elliptical steel tube retrofit concept and its acceptability for upgrading the existing style of traffic railing to TL-4 capacity.

f. HEFT – SR 836 Express Lane Connector Ramp Bridges

- i. Construct new express lanes connector ramp bridges.
- ii. Provide a minimum of 16'-6" vertical clearance over the roadway.

B. Walls

- a. Permanent Retaining Walls.
- b. Temporary Critical Walls.
- c. Sound Barrier.
- d. Protection of existing walls to remain and support calculation.

C. Miscellaneous Structures

- a. Box Culverts.
- b. Special Drainage Structures.
- c. Cantilever Sign Structures.
- d. Span Sign Structures.
- e. Multi-post ground mounted sign structures.
- f. Bridge Mounted Signs.
- g. Signal Structures.
- h. Light Poles.
- i. DMS Structures.
- j. CCTV Poles.
- k. MVDS Poles.
- l. TTS Poles.
- m. Pier Protection Barriers.

Architecture/Tolling Infrastructure and Toll Equipment Buildings

- A. No adjustment to the toll gantries and toll buildings are anticipated. However, All Electronic Tolling (AET) point site and adjacent ramp roadway sections for SR 821 HEFT Southbound exiting ramp at SW 8th Street Interchange are to be adjusted per the Conceptual Roadway Plans. See Attachment No. 36 Toll Facility Component Plans.

Other major work elements include drainage, permit modifications, traffic control, traffic signals, signing and pavement markings, lighting, landscaping and ITS (See Sections V and VI).

Adjoining projects will be built concurrently with this project. Therefore, coordination of all design elements and construction activities at these interface points will be imperative for safe traffic flow through the corridor. FPID 427146-1-52-01 is a Design-Build Project that will widen the HEFT to three (3) general purpose lanes and two (2) express lanes in each direction, separated by a 4 ft. buffer at the connection point to the south. MDX WP No 83625.030 and WP 83631.030 is Design-Build project by MDX that will implement open road tolling improvement to SR 836. These improvements will impact existing signs along the HEFT (SR 821) mainline.

The Design-Build Firm shall include a Landscape Architect duly authorized to practice landscape architecture in the State of Florida consistent with State Statute 481 part II. The Design-Build Firm Landscape Architect (DBFLA) shall review and identify future unencumbered landscape areas for this Project. This Project shall reserve landscape opportunities to implement the FTE BRAND Guidelines and the FDOT Highway Beautification Policy and be consistent with the Conceptual Landscape Opportunity Roll Plot (Conceptual Landscape Plan). Landscaping will be constructed by others and not included with this Project but should be considered during the Design-Build Proposal and design process and areas should be identified in the Design-Build Firm's Proposal Plans as "future landscape areas to be constructed by others". Coordination will be required by the Design-Build Firm with FTE Landscape Architect. Early and frequent interdisciplinary coordination between Design-Build Firm's Landscape Architect and Engineers will be required during the Design-Build plans development process to ensure landscape opportunities can be accommodated within the project limits. These disciplines include but are not limited to: roadway, environmental, drainage, lighting, signage, noise walls and ITS.

It is the intent to preserve existing vegetation, trees and palms that do not conflict with proposed improvements to the greatest extent possible. Continued coordination during the design process between the DBLA and other design disciplines are required to achieve this goal. Tree and palm protection shall comply with FDOT Standard Index 544 or other acceptable FTE methods. Protection areas and methods shall be included on the roadway plans. These locations shall be coordinated with the DBLA.

It is the intent to always preserve existing vegetation including trees and palms that do not conflict with proposed improvements. Tree and palm protection shall comply with FDOT Standard Index 544. Within the Project limits and within the Project right of way, it will be the responsibility of the Design-Build Firm to identify and remove all Category 1 invasive exotics as defined by the Florida Exotic Pest Plant Council (www.fleppc.org) and as identified in the Landscape Opportunity Plan.

Substantial coordination between the Department and Florida Gas Transmission (FGT) has taken place during the development of the Pier 2 90% Foundation Design and Plans, Attachment No. 41. Deviations from the Pier 2 90% Foundation Design and Plans will require FTE and FGT approval. The Design-Build Team shall be responsible for any additional costs arising from utilizing a foundation system modified in any way from the system presented in the Pier 2 90% Foundation Design and Plans.

A. Design-Build Responsibility

The Design-Build Firm shall be responsible for survey, geotechnical investigation, design, preparation of all documentation related to the acquisition of all permits not acquired by the Department, preparation of any and all information required to modify permits acquired by the Department if necessary, maintenance of traffic, demolition, and construction on or before the Project completion date indicated in the Proposal. The Design-Build Firm shall coordinate all utility relocations.

The Design-Build Firm shall be responsible for compliance with Design and Construction Criteria (Section VI) which sets forth requirements regarding survey, design, construction, and maintenance of traffic during construction, requirements relative to Project management, scheduling, and coordination with other agencies and entities such as state and local government, utilities and the public.

The Design-Build Firm shall be responsible for reviewing the approved Environmental Document of the PD&E Study.

The Design-Build Firm is responsible for coordinating with the District Environmental Office any engineering information related to Environmental Reevaluations. The Design-Build Firm will not be compensated for any additional costs or time associated with Reevaluation(s) resulting from proposed design changes.

The Design-Build Firm may propose changes which differ from the approved Interchange Proposal Report (if applicable) and/or the Project Development & Environment (PD&E) Study. Proposed changes must be coordinated through the Department. If changes are proposed to the configuration, the Design-Build Firm shall be responsible for preparing the necessary analyses and documentation required to satisfy requirements to obtain approval of the Department and the Design-Build Firm shall provide the required documentation for review and processing. Approved revisions to the configuration may also be required to be included in the Reevaluation of the National Environmental Policy act (NEPA) document or State Environmental Impact Report (SEIR) Reevaluations, per Section M (Environmental Services/Permits/Mitigation) of the RFP. The Design-Build Firm will not be compensated for any additional costs or time resulting from proposed changes.

The Design-Build Firm shall examine boring data, where available, and make their own interpretation of the subsoil investigations and other preliminary data, and shall base their bid on their own opinion of the conditions likely to be encountered. The submission of a proposal is prima facie evidence that the Design-Build Firm has made an examination as described in this provision.

The Design-Build Firm shall develop an inventory of Structural Welding, Metals and Coatings Inspection (Inventory) and provide this inventory to the Department's Materials office (Contact: Mr. Brad Biery, Turnpike Contract and Certification Manager – Metal & Coatings Specialist: Email: brad.biery@dot.state.fl.us) prior to RFC Plans. The inventory should include a list of components to be inspected and type of services requested. See the Sample Inventory for Welding Inspection in Reference Document No. 35

The Design-Build Firm shall demonstrate good Project Management practices while working on this Project. These include communication with the Department and others as necessary, management of time and resources, and documentation.

B. Department Responsibility

The Department will provide contract administration, management services, construction engineering inspection services, environmental oversight, and quality acceptance reviews of all work associated with

the development and preparation of the contract plans, permits, and construction of the improvements. The Department will provide Project specific information and/or functions as outlined in this document.

The Department will determine the environmental impacts and coordinate with the appropriate agencies during the preparation of NEPA or SEIR Reevaluations.

II. Schedule of Events.

Below is the current schedule of the events that will take place in the procurement process. The Department reserves the right to make changes or alterations to the schedule as the Department determines is in the best interests of the public. Proposers will be notified sufficiently in advance of any changes or alterations in the schedule. Unless otherwise notified in writing by the Department, the dates indicated below for submission of items or for other actions on the part of a Proposer shall constitute absolute deadlines for those activities and failure to fully comply by the time stated shall cause a Proposer to be disqualified. District Office is Florida's Turnpike Headquarters (Building No. 5315) at Turkey Lake Service Plaza at Milepost 263 of Florida's Turnpike in Ocoee, FL.

Date	Event
<u>07/28/2014</u>	Planned Advertisement (Inclusion of Draft RFP w/o attachments is encouraged). Planned Advertisement must be posted for a minimum of 10 Calendar Days before Posting of Official Advertisement.
<u>08/12/2014</u>	Official Advertisement (On a Monday or Tuesday. Include Draft RFP w/o attachments).
<u>09/02/2014</u>	Expanded Letters of Interest for Phase I of the procurement process due in District Office by 5:00 pm local time.
<u>09/30/2014</u>	Proposal Evaluators submit Expanded Letter of Interest Scores to Contracting Unit 5:00 pm local time.
<u>10/03/2014</u>	Contracting Unit provides Expanded Letter of Interest scores and Proposal Evaluators comments to Selection Committee 5:00 pm local time.
<u>10/06/2014</u>	Public Meeting of Selection Committee to review and confirm Expanded Letter of Interest scores 1:00 pm local time
<u>10/06/2014</u>	Notification to Responsive Design-Build Firms of the Expanded Letter of Interest scores 4:00 pm local time.
<u>10/08/2014</u>	Deadline for all responsive Design-Build Firms to affirmatively declare intent to continue to Phase II of the procurement process 5:00 pm local time.
<u>10/09/2014</u>	Shortlist Posting 2:00pm local time.
<u>10/13/2014</u>	Final RFP provided to Design-Build firms providing Affirmative Declaration of Intent to continue to Phase II of the procurement process.
<u>10/20/2014</u>	Mandatory Pre-proposal meeting at 11:00 am local time at the Turnpike Operations Center, Pompano Service Plaza (Milepost 65), Pompano Beach, Florida. All impacted utility agency owners that the Department contemplates an adjustment, protection, or relocation is possible are to be invited to the mandatory Pre-Proposal meeting.
<u>10/27/2014</u>	Deadline for Design-Build Firm to request participation in One-on-One Alternative Technical Concept Discussion Meeting No. 1.
<u>11/03/2014</u>	Deadline for Design-Build Firm to submit preliminary list of Alternative Technical Concepts prior to One-on-One Alternative Technical Concept

	Discussion Meeting No. 1.
<u>11/03/2014</u>	Deadline for Design-Build Firm to request participation in Utility Pre-Proposal Meeting facilitated by District Utility Engineer.
<u>11/12/2014</u>	One-on-One Alternative Technical Concept Discussion Meeting No. 1. 90 Minutes will be allotted for this meeting.
<u>11/12/2014</u>	Deadline for Design-Build Firm to request participation in One-on-One Alternative Technical Concept Discussion Meeting No. 2
<u>11/14/2014</u>	One-on-One Utility Pre-Proposal Meeting facilitated by the District Utility Engineer at FDOT District 6 - 1000 NW 111 th Avenue, Miami, FL.
<u>11/17/2014</u>	Deadline for Design-Build Firm to submit preliminary list of One-on-One Alternative Technical Concepts prior to Alternative Technical Concept Discussion Meeting No. 2
<u>11/24/2014</u>	One-on-One Alternative Technical Concept Discussion Meeting No. 2. 90 Minutes will be allotted for this Meeting .
<u>12/08/2014</u>	Deadline for submittal of Alternative Technical Concept Proposals 5:00 pm local time.
<u>12/08/2014</u>	Deadline for submittal of request for Design Exceptions or Variations 5:00 pm local time.
<u>01/05/2015</u>	Deadline for Design-Build Firms to submit questions (for which an answer is assured) in accordance with Specification 2-4 prior to the submittal of Technical Proposal .
<u>01/12/2015</u>	Deadline for the Department to post responses to the Pre-Bid Q&A website for questions submitted by the Design-Build Firms prior to the submittal of the Technical Proposal.
<u>01/20/2015</u>	Technical Proposals due in District Office by 5:00 pm local time
<u>01/20/2015</u>	Deadline for Design-Build for to “opt out” of Technical Proposal Page Turn meeting.
<u>01/26/2015</u>	Thirty-minute “Page Turn” of Design-Build Firm’s Proposal Page Turn meeting.
<u>02/20/2015</u>	Question and Answer Session. Times will be assigned during the pre-proposal meeting. One hour will be allotted for questions and responses.
<u>03/10/2015</u>	Deadline for Design- Build Firms to submittal of Written Clarification letter following Question and Answer Session by 5:00 pm local time.
<u>03/13/2015</u>	Deadline for Design-Build Firms to submit questions (for which an answer is assured) in accordance with Specification 2-4 prior to the submittal of the Bid Price Proposal.
<u>03/20/2015</u>	Deadline for the Department to post responses to the Pre-Bid Q&A website for questions submitted by the Design-Build Firms to the submittal of the Price Proposal
<u>03/24/2015</u>	Price Proposals due in District Office by 2:30pm local time.
<u>03/24/2015</u>	Public announcing of Technical Scores and opening of Price Proposals at 2:00 pm local time in District Office.
<u>03/31/2015</u>	Public Meeting of Selection Committee to determine intended Award 1:00p.m.
<u>03/31/2015</u>	Posting of the Department’s intended decision to Award (Final Selection Posting) by 4:00 pm local time.
<u>04/06/2015</u>	Anticipated Award Date
<u>04/24/2015</u>	FDOT executes the contract

III. Threshold Requirements.

A. Qualifications

Proposers are required to be pre-qualified in all work types required for the Project. The technical qualification requirements of Florida Administrative Code (F.A.C.) Chapter 14-75 and all qualification requirements of F.A.C. Chapter 14-22, based on the applicable category of the Project, must be satisfied.

B. Joint Venture Firm

Two or more firms submitting as a Joint Venture must meet the Joint Venture requirements of Section 14-22.007, Florida Administrative Code. Parties to a Joint Venture must submit a Declaration of Joint Venture and Power of Attorney Form No. 375-020-18, prior to the deadline for receipt of Letters of Interest.

If the Proposer is a Joint Venture, the individual empowered by a properly executed Declaration of Joint Venture and Power of Attorney Form shall execute the proposal. The proposal shall clearly identify who will be responsible for the engineering, quality control, and geotechnical and construction portions of the Work.

C. Price Proposal Guarantee

A Price Proposal guaranty in an amount of not less than five percent (5%) of the total bid amount shall accompany each Proposer's Price Proposal. The Price Proposal guaranty may, at the discretion of the Proposer, be in the form of a cashier's check, bank money order, bank draft of any national or state bank, certified check, or surety bond, payable to the Department. The surety on any bid bond shall be a company recognized to execute bid bonds for contracts of the State of Florida. The Price Proposal guaranty shall stand for the Proposer's obligation to timely and properly execute the contract and supply all other submittals due therewith. The amount of the Price Proposal guaranty shall be a liquidated sum, which shall be due in full in the event of default, regardless of the actual damages suffered. The Price Proposal guaranty of all Proposers' shall be released pursuant to 3-4 of the Division I Design-Build Specifications.

D. Pre-Proposal Meeting

Attendance at the pre-proposal meeting is mandatory. Any affirmatively declared proposer failing to attend will be deemed non-responsive and automatically disqualified from further consideration. The purpose of this meeting is to provide a forum for the Department to discuss with all concerned parties the proposed Project, the design and construction criteria, Critical Path Method (CPM) schedule, and method of compensation, instructions for submitting proposals, design exceptions/variations, and other relevant issues. In the event that any discussions at the pre-proposal meeting require, in the Department's opinion, official additions, deletions, or clarifications of the Request for Proposal, the Design and Construction Criteria, or any other document, the Department will issue a written addendum to this Request for Proposals as the Department determines appropriate. No oral representations or discussions, which take place at the pre-proposal meeting, will be binding on the Department. Proposers shall direct all questions to the Departments Question and Answer website:

<https://www3b.dot.state.fl.us/BidQuestionsAndAnswers/Proposal.aspx/SearchProposal>.

E. Technical Proposal Page-Turn Meeting

The Department will meet with each Proposer, formally for thirty (30) minutes, for a page-turn meeting. The purpose of the page-turn meeting is for the Design-Build Firm to guide the Technical Review Committee through the Technical Proposal, highlighting sections within the Technical Proposal that the Design-Build Firm wishes to emphasize. The page-turn meeting will occur between the date the Technical Proposal is due and the Question and Answer session occurs, per the Schedule of Events section of this RFP. The Department will terminate the page-turn meeting promptly at the end of the allotted time. The Department will audiotape record or videotape all or part of the page-turn meeting. All audiotape recordings or videotape recordings will become part of the Contract Documents. The page-turn meeting will not constitute discussions or negotiations. The Design-Build Firm will not be permitted to ask questions of the Technical Review Committee during the page-turn meeting. An unmodified aerial or map of the project limits provided by the Design-Build Firm is acceptable for reference during the page-turn meeting. The unmodified aerial or map may not be left with the Department upon conclusion of the page turn meeting. Use of other visual aids, electronic presentations, handouts, etc., during the page turn meeting is expressly prohibited. Upon conclusion of the thirty (30) minutes, the Technical Review Committee is allowed five (5) minutes to ask questions pertaining to information highlighted by Design-Build Firm. Participation in the page-turn meeting by the Design-Build Firm shall be limited to five (5) representatives from the Design-Build Firm. Design-Build Firms desiring to opt out of the page-turn meeting may do so by submitting a request to the Department.

F. Question and Answer Session

The Department may meet with each Proposer, formally, for a Question and Answer session. The purpose of the Q & A session is for the Technical Review Committee to seek clarification and ask questions, as it relates to the Technical Proposal, of the Proposer. The Department may terminate the Q & A session promptly at the end of the allotted time. The Department shall audiotape record or videotape all or part of the Q & A session. All audiotape recordings or videotape recordings will become part of the Contract Documents. The Q & A session will not constitute “discussions” or negotiations. Proposers will not be permitted to ask questions of the Department except to ask the meaning of a clarification question posed by the Department. No supplemental materials, handouts, etc. will be allowed to be presented in the Q & A session. No additional time will be allowed to research answers.

Within one (1) week of the Q & A session, the Design-Build Firm shall submit to the Department a written clarification letter summarizing the answers provided during the Q & A session. The Design-Build Firm shall not include information in the clarification letter which was not discussed during the Q&A session. In the event the Design-Build Firm includes additional information in the clarification letter which was not discussed during the Q&A session and is not otherwise included in the Technical Proposal, such additional information will not be considered by the Department during the evaluation of the Technical Proposal.

The Department will provide some (not necessarily all) proposed questions to each Design-Build Firm as it relates to their technical proposal approximately 24 hours before the scheduled Q & A session.

G. Protest Rights

Any person who is adversely affected by the specifications contained in this Request for Proposal must file a notice of intent to protest in writing within seventy-two hours of the posting of this Request for Proposals. Pursuant to Sections 120.57(3) and 337.11, Florida Statutes, and Rule Chapter 28-110, Florida Administrative Code, any person adversely affected by the agency decision or intended decision shall file with the agency both a notice of protest in writing and bond within 72 hours after the posting of the notice

of decision or intended decision, or posting of the solicitation with respect to a protest of the terms, conditions, and specifications contained in a solicitation and will file a formal written protest within ten days after the filing of the notice of protest. The formal written protest shall be filed within ten days after the date of the notice of protest if filed. The person filing the Protest must send the notice of intent and the formal written protest to:

Clerk of Agency Proceedings
Department of Transportation
605 Suwannee Street, MS 58
Tallahassee, Florida 32399-0458

Failure to file a notice of protest or formal written protest within the time prescribed in section 120.57(3), Florida Statutes, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under Chapter 120 Florida Statutes.

H. Non-Responsive Proposals

Proposals found to be non-responsive shall not be considered. Proposals may be rejected if found to be in nonconformance with the requirements and instructions herein contained. A proposal may be found to be non-responsive by reasons, including, but not limited to, failure to utilize or complete prescribed forms, conditional proposals, incomplete proposals, indefinite or ambiguous proposals, failure to meet deadlines and improper and/or undated signatures.

Other conditions which may cause rejection of proposals include evidence of collusion among Proposers, obvious lack of experience or expertise to perform the required work, submission of more than one proposal for the same work from an individual, firm, joint venture, or corporation under the same or a different name (also included for Design-Build Projects are those proposals wherein the same Engineer is identified in more than one proposal), failure to perform or meet financial obligations on previous contracts, employment of unauthorized aliens in violation of Section 274A (e) of the Immigration and Nationalization Act, or in the event an individual, firm, partnership, or corporation is on the United States Comptroller General's List of Ineligible Design-Build Firms for Federally Financed or Assisted Projects.

The Department will not give consideration to tentative or qualified commitments in the proposals. For example, the Department will not give consideration to phrases as "we may" or "we are considering" in the evaluation process for the reason that they do not indicate a firm commitment.

Proposals will also be rejected if not delivered or received on or before the date and time specified as the due date for submission.

I. Waiver of Irregularities

The Department may waive minor informalities or irregularities in proposals received where such is merely a matter of form and not substance, and the correction or waiver of which is not prejudicial to other Proposers. Minor irregularities are defined as those that will not have an adverse effect on the Department's interest and will not affect the price of the Proposals by giving a Proposer an advantage or benefit not enjoyed by other Proposers.

1. Any design submittals that are part of a proposal shall be deemed preliminary.
2. Preliminary design submittals may vary from the requirements of the Design and Construction Criteria. The Department, at their discretion, may elect to consider those

variations in awarding points to the proposal rather than rejecting the entire proposal.

3. In no event will any such elections by the Department be deemed to be a waiving of the Design and Construction Criteria.
4. The Proposer who is selected for the Project will be required to fully comply with the Design and Construction Criteria for the price bid, regardless that the proposal may have been based on a variation from the Design and Construction Criteria.
5. Proposers shall identify separately all innovative aspects as such in the Technical Proposal. An innovative aspect does not include revisions to specifications or established Department policies. Innovation should be limited to Design-Build Firm's means and methods, roadway alignments, approach to Project, use of new products, new uses for established products, etc.
6. The Proposer shall obtain any necessary permits or permit modifications not provided.
7. Those changes to the Design Concept may be considered together with innovative construction techniques, as well as other areas, as the basis for grading the Technical Proposals in the area of innovative measures.

J. Modification or Withdrawal of Technical Proposal

Proposers may modify or withdraw previously submitted Technical Proposals at any time prior to the Technical Proposal due date. Requests for modification or withdrawal of a submitted Technical Proposal shall be in writing and shall be signed in the same manner as the Technical Proposal. Upon receipt and acceptance of such a request, the entire Technical Proposal will be returned to the Proposer and not considered unless resubmitted by the due date and time. Proposers may also send a change in sealed envelope to be opened at the same time as the Technical Proposal provided the change is submitted prior to the Technical Proposal due date.

K. Department's Responsibilities

This Request for Proposal does not commit the Department to make studies or designs for the preparation of any proposal, nor to procure or contract for any articles or services.

The Department does not guarantee the details pertaining to borings, as shown on any documents supplied by the Department, to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated.

L. Design-Build Contract

The Department will enter into a Lump Sum contract with the successful Design-Build Firm. In accordance with Section V, the Design-Build Firm will provide a schedule of values to the Department for their approval. The total of the Schedule of Values will be the lump sum contract amount.

The terms and conditions of this contract are fixed price and fixed time. The Design-Build Firm's submitted bid (time and cost) is to be a lump sum bid for completing the scope of work detailed in the Request for Proposal.

IV. Disadvantaged Business Enterprise (DBE) Program.

A. DBE Availability Goal Percentage:

The Department of Transportation has an overall eight and six tenths percent (8.6%) race-neutral DBE goal. This means that the State's goal is to spend at least 8.6% of the highway dollars with Certified DBE's as prime Design-Build Firms or as subcontractors. Race-neutral means that the Department believes that the 8.6% overall goal can be achieved through the normal competitive procurement process. The Department has reviewed this Project and assigned a DBE availability goal shown on the bid blank/contract front page under "% DBE Availability Goal". Although not a contract requirement, the Department believes that this DBE percentage can realistically be achieved on this Project based on the number of DBE's associated with the different types of work that will be required.

Under 49 Code of Federal Regulations Part 26, if the 8.6% goal is not achieved, the Department may be required to return to a race-conscious program where goals are imposed on individual contracts. The Department encourages all of our Design-Build Firms to actively pursue obtaining bids and quotes from Certified DBE's.

The Department is reporting to the Federal Highway Administration the planned commitments to use DBE's. This information is being collected through the Department's Equal Opportunity Compliance (EOC) system.

B. DBE Supportive Services Providers:

The Department has contracted with a consultant, referred to as DBE Supportive Services Provider, to provide managerial and technical assistance to DBE's. This consultant is also required to work with prime Design-Build Firms, who have been awarded contracts, to assist in identifying DBE's that are available to participate on the Project. The successful Design-Build Firm should meet with the DBE Supportive Services Provider to discuss the DBE's that are available to work on this Project. The current Provider for the State of Florida is serviced by Blackmon Roberts Group and can be reached at (863) 802-1280 in Lakeland or (305) 777-0231 in Coral Gables.

C. Bidders Opportunity List:

The Federal DBE Program requires States to maintain a database of all Firms that are participating, or attempting to participate, on DOT-assisted contracts. The list must include all Firms that bid on prime contracts or bid or quote subcontracts on DOT-assisted Projects, including both DBE's and Non-DBE's.

A Bid Opportunity List should be submitted through the Equal Opportunity Compliance system which is available at the [Equal Opportunity Office Website](http://www3.dot.state.fl.us/EqualOpportunityCompliance/Account.aspx/LogIn?ReturnUrl=%2fEqualOpportunityCompliance%2f). This information should be returned to the Equal Opportunity Office within three days of submission.

<https://www3.dot.state.fl.us/EqualOpportunityCompliance/Account.aspx/LogIn?ReturnUrl=%2fEqualOpportunityCompliance%2f>

V. Project Requirements and Provisions for Work

A. Governing Regulations:

The services performed by the Design-Build Firm shall be in compliance with all applicable Manuals and

Guidelines including the Department, FHWA, FDOT currently adopted AASHTO, and additional requirements specified in this document. Except to the extent inconsistent with the specific provisions in this document, the current edition, including updates, of the following Manuals and Guidelines shall be used in the performance of this work. Current edition is defined as the edition in place and adopted by the Department at the date of advertisement of this contract with the exception of the Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications, Manual on Uniform Traffic Control Devices (MUTCD), Design Standards and Revised Index Drawings. The Design-Build Firm shall use the edition of the Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications, Design Standards and Revised Index Drawings in effect at the time the bid price proposals are due in the District Office. The Design-Build Firm shall use the 2009 edition of the MUTCD (as amended in 2012). It shall be the Design-Build Firm's responsibility to acquire and utilize the necessary manuals and guidelines that apply to the work required to complete this Project. The services will include preparation of all documents necessary to complete the Project as described in Section I of this document.

1. Florida Department of Transportation Roadway Plans Preparation Manuals (PPM)
<http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>
2. Florida Department of Transportation Design Standards
<http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm>
3. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications
<http://www.dot.state.fl.us/specificationoffice/Default.shtm>
4. Florida Department of Transportation Surveying Procedure
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/550030101.pdf>
5. Florida Department of Transportation EFB User Handbook (Electronic Field Book)
http://www.dot.state.fl.us/surveyingandmapping/doc_pubs.shtm
6. Florida Department of Transportation Drainage Manual
<http://www.dot.state.fl.us/rddesign/Hydraulics/ManualsandHandbooks.shtm>
7. Florida Department of Transportation Soils and Foundations Handbook
<http://www.dot.state.fl.us/structures/Manuals/SFH.pdf>
8. Florida Department of Transportation Structures Manual
<http://www.dot.state.fl.us/structures/DocsandPubs.shtm>
9. Florida Department of Transportation Current Structures Design Bulletins
<http://www.dot.state.fl.us/structures/Memos/currentbulletins.shtm>
10. Florida Department of Transportation Computer Aided Design and Drafting (CADD) Manual
<http://www.dot.state.fl.us/ecso/downloads/publications/Manual/default.shtm>
11. Florida Department of Transportation Computer Aided Design and Drafting (CADD) Production Criteria Handbook
<http://www.dot.state.fl.us/ecso/downloads/publications/CriteriaHandBook/>
12. Florida Department of Transportation Production Criteria Handbook CADD Structures Standards
<http://www.dot.state.fl.us/ecso/downloads/publications/CriteriaHandBook/>

13. Instructions for Design Standards
<http://www.dot.state.fl.us/structures/IDS/IDSportal.pdf>
14. AASHTO – A Policy on Geometric Design of Highways and Streets
https://bookstore.transportation.org/collection_detail.aspx?ID=110
15. MUTCD - 2009
<http://mutcd.fhwa.dot.gov/>
16. Safe Mobility For Life Program Policy Statement
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/000750001.pdf>
17. Traffic Engineering and Operations Safe Mobility for Life Program
<http://www.dot.state.fl.us/trafficoperations/Operations/SafetyisGolden.shtm>
18. Florida Department of Transportation American with Disabilities Act (ADA) Compliance – Facilities Access for Persons with Disabilities Procedure
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/625020015.pdf>
19. Florida Department of Transportation Florida Sampling and Testing Methods
<http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/fstm/disclaimer.shtm>
20. Florida Department of Transportation Flexible Pavement Coring and Evaluation Procedure
<http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf>
21. Florida Department of Transportation Design Bulletins and Update Memos
<http://www.dot.state.fl.us/rddesign/Bulletin/Default.shtm>
22. Florida Department of Transportation Utility Accommodation Manual
<http://www.dot.state.fl.us/specificationsoffice/utilities/UAM.shtm>
23. AASHTO LRFD Bridge Design Specifications
https://bookstore.transportation.org/category_item.aspx?id=BR
24. Florida Department of Transportation Flexible Pavement Design Manual
<http://www.dot.state.fl.us/rddesign/PM/publicationS.shtm>
25. Florida Department of Transportation Rigid Pavement Design Manual
<http://www.dot.state.fl.us/rddesign/PM/publicationS.shtm>
26. Florida Department of Transportation Pavement Type Selection Manual
<http://www.dot.state.fl.us/rddesign/PM/publicationS.shtm>
27. Florida Department of Transportation Right of Way Manual
<http://www.dot.state.fl.us/rightofway/Documents.shtm>
28. Florida Department of Transportation Traffic Engineering Manual
<http://www.dot.state.fl.us/TrafficOperations//Operations/Studies/TEM/TEM.shtm>
29. Florida Department of Transportation Intelligent Transportation System Guide Book
http://www.dot.state.fl.us/TrafficOperations/Doc_Library/Doc_Library.shtm
30. Federal Highway Administration Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Plans and Specifications

<http://www.fhwa.dot.gov/engineering/geotech/pubs/reviewguide/checklist.cfm>

31. AASHTO Guide for the Development of Bicycle Facilities
https://bookstore.transportation.org/collection_detail.aspx?ID=116
32. Federal Highway Administration Hydraulic Engineering Circular Number 18 (HEC 18).
http://www.fhwa.dot.gov/engineering/hydraulics/library_arc.cfm?pub_number=17
33. Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways
<http://www.dot.state.fl.us/rddesign/FloridaGreenbook/FGB.shtm>
34. Florida Department of Transportation Project Development and Environment Manual, Parts 1 and 2
<http://www.dot.state.fl.us/emo/pubs/pdeman/pdeman1.shtm>
35. Florida Department of Transportation Driveway Information Guide
<http://www.dot.state.fl.us/planning/systems/sm/accman/pdfs/driveway2008.pdf>
36. AASHTO Highway Safety Manual
<http://www.highwaysafetymanual.org/Pages/default.aspx>
37. Florida Statutes
<http://www.leg.state.fl.us/Statutes/index.cfm?Mode=View%20Statutes&Submenu=1&Tab=statutes&CFID=14677574&CFTOKEN=80981948>

B. Innovative Aspects:

All innovative aspects shall be identified separately as such in the Technical Proposal.

An innovative aspect does not include revisions to specifications, standards or established Department policies. Innovation should be limited to Design-Build Firm's means and methods, roadway alignments, approach to Project, etc.

1. Alternative Technical Concept (ATC) Proposals

The ATC process allows innovation, flexibility, time and cost savings on the design and construction of Design-Build Projects while providing the best value for the public. Any deviation from the RFP that the Design-Build Firms seeks to obtain approval prior to Technical Proposal submission is, by definition, an ATC. The proposed ATC shall provide an approach that is equal to or better than the requirements of the RFP, as determined by the Department. ATC Proposals which reduce scope, quality, performance, or reliability should not be proposed. A proposed concept does not meet the definition of an ATC if the concept is contemplated by the RFP.

The Department will keep all ATC submissions confidential prior to the Final Selection of the Proposer to the fullest extent allowed by law, with few exceptions. Although the Department will issue an addendum for all ATC Proposals contained in the list below, the Department will endeavor to maintain confidentiality of the Design-Build Firms specific ATC proposal. Prior to approving ATC's which would result in the issuance of an Addendum as a result of the item being listed below, the Design-Build Firm will be given the option to withdraw previously submitted ATC proposals. Any approved ATC Proposal related to following requirements described by this RFP shall result in the issuance of an Addendum to the RFP:

- Significant changes in scope as determined by the Florida Department of Transportation District (FDOT).
- Any changes to the design concept on the drill shaft foundation for Pier 2 of the proposed HEFT mainline bridges over SW 8th Street.
- Any design concept that will affect the existing 8" gas main line to be relocated or removed along SW 8th Street.

The following requirements described by this RFP shall not be modified by the Design-Build Firm

- Design Variations or Exceptions for design speed will not be permitted.
- Replacement of Coral Way Bridge over HEFT (SR 821).
- PD&E Commitments made for SR 821 (HEFT), as updated in the Environmental Reevaluation.
- Incorporation of Express Lanes.
- Length of turn lanes at each intersection.
- Commitments outlined in Section V.D.
- Deviation from the Concept Plans in the area of SW 8th Street bridge where an existing 8-inch Florida Gas Transmission (FGT) is located.

The Concept Roadway Plans (See Reference Document No. 3 and No. 4) and Conceptual Signing Master Plan (See Reference Document No. 6), represent the accommodations that FDOT District 6 developed during coordination with the Miami Dade County and MDX. If the Design-Build Firm pursues a deviation from the Concept Plans within Miami Dade County or MDX jurisdiction, the Design-Build Firm is responsible for documenting its coordination with the corresponding agency and presenting the proposed modifications to the Department during the ATC process and throughout the contract term. Any and all costs and/or schedule impacts of deviating from the Concept Plans within Miami Dade County or MDX jurisdiction will be the sole responsibility of the Design-Build Firm.

The following requirements described by this RFP may be modified by the Design-Build Firm provided they are presented in the One-on-One ATC discussion meeting and submitted to the Department for review and approval through the ATC process described herein. The Department may deem a Proposal Non-Responsive should the Design-Build Firm include but fail to present and obtain Department approval of the proposed alternates through the ATC process. Department approval of an ATC proposal that is related to the items listed below will NOT result in the issuance of an Addendum to the RFP.

- Alternate HEFT/SR 836 Connector Ramps geometric configuration.
- Alternate roadway and bridge alignment configuration for Coral Way over HEFT (SR 821).
- Alternate span arrangement for HEFT/SR 836 Connector Ramps.
- Alternate span arrangements for Coral Way Bridge over HEFT.

2. One-on-One ATC Proposal Discussion Meetings

One-on-One ATC discussion meetings may be held in order for the Design-Build Firm to describe proposed changes to supplied basic configurations, Project scope, design criteria, and/or construction criteria. Each Design-Build Firm with proposed changes may request a One-on-One ATC discussion meeting to describe the proposed changes. The Design-Build Firm shall provide, by the deadline shown in the Schedule of Events of this RFP, a preliminary list of ATC proposals to be reviewed and discussed during the One-on-One ATC discussion meetings. This list may not be inclusive of all ATC's to be discussed but it should be sufficiently comprehensive to allow the Department to identify appropriate personnel to participate in the One-on-One ATC discussion meetings. The purpose of the One-on-One ATC discussion meeting is to discuss the ATC proposals, answer questions that the Department may have

related to the ATC proposal, review other relevant information and when possible establish whether the proposal meets the definition of an ATC thereby requiring the submittal of a formal ATC submittal. The meeting should be between representatives of the Design-Build Firm and/or the Design-Build Engineer of Record and District/Central Office staff as needed to provide feedback on the ATC proposal. Immediately prior to the conclusion of the One-on-One ATC discussion meeting, the Department will advise the Design-Build Firm as to the following related to the ATC proposals which were discussed:

- The Proposal meets the criteria established herein as a qualifying ATC Proposal; therefore an ATC Proposal submission IS required, or
- The Proposal does not meet the criteria established herein as a qualifying ATC proposal since the Proposal is already allowed or contemplated by the original RFP; therefore an ATC Proposal submission is NOT required.

3. Submittal of ATC Proposals

All ATC submittals must be in writing and may be submitted at any time following the Shortlist Posting but shall be submitted prior to the deadline shown in the Schedule of Events of this RFP.

All ATC submittals are required to be on roll plots no larger than 36" or plan sheets and shall be sequentially numbered and include the following information and discussions:

- a) Description: A description and conceptual drawings of the configuration of the ATC or other appropriate descriptive information, including, if appropriate, product details and a traffic operational analysis.
- b) Usage: The locations where and an explanation of how the ATC would be used on the Project;
- c) Deviations: References to requirements of the RFP which are inconsistent with the proposed ATC, an explanation of the nature of the deviations from the requirements and a request for approval of such deviations along with suggested changes to the requirements of the RFP which would allow the alternative proposal.
- d) Analysis: An analysis justifying use of the ATC and why the deviation, if any, from the requirements of the RFP should be allowed.
- e) Impacts: A preliminary analysis of potential impacts on vehicular traffic (both during and after construction), environmental impacts, community impacts, safety, and life-cycle Project and infrastructure costs, including impacts on the cost of repair, maintenance, and operation.
- f) Risks: A description of added risks to the Department or third parties associated with implementation of the ATC.
- g) Quality: A description of how the ATC is equal or better in quality and performance than the requirements of the RFP.
- h) Operations: Any changes in operation requirements associated with the ATC, including ease of operations.

- i) Maintenance: Any changes in maintenance requirements associated with the ATC, including ease of maintenance.
- j) Anticipated Life: Any changes in the anticipated life of the item comprising the ATC.

4. Review and Approval of ATC Submittals

After receipt of the ATC submittal, the District Design Engineer (DDE), or designee, will communicate with the appropriate staff (i.e. District Structures Engineer, District Construction Engineer, District Maintenance Engineer, State Structures Engineer, State Roadway Design Engineer, FHWA, as applicable) as necessary, and respond to the Design-Build Firm in writing as to whether the ATC is acceptable, not acceptable, or requires additional information within 14 calendar days of receipt of the ATC submittal. If the DDE, or designee, determines that more information is required for the review of an ATC, questions should be prepared by the DDE, or designee, to request and receive responses from the Design-Build Firm. The review should be completed within 14 calendar days of the receipt of the ATC submittal. If the review will require additional time, the Design-Build Firm should be notified in advance with an estimated timeframe for completion.

Approved Design Exceptions or Design Variations required as part of an approved ATC submittal will result in the issuance of an addendum to the RFP notifying all Shortlisted Design-Build Firms of the approved Design Exception(s) or Design Variation(s). Such a change will be approved by FHWA, as applicable. Prior to approving ATC's which would result in the issuance of an Addendum as a result of a Design Exception and/or Design Variation, the Design-Build Firm will be given the option to withdraw previously submitted ATC proposals.

The Department reserves the right to disclose to all Design-Build Firms, via an Addendum to the RFP, any errors of the RFP that are identified during the One-on-One ATC meetings, except to the extent that the Department determines, in its sole discretion, such disclosure would reveal confidential or proprietary information of the ATC.

ATC's are accepted by the Department at the Department's discretion and the Department reserves the right to reject any ATC submitted. The Department reserves the right to issue an Addendum to the RFP based upon a previously denied ATC Proposal, without regard to the confidentiality of the denied ATC Proposal.

The Project file will clearly document all communications with any Design-Build Firm.

5. Incorporation of Approved ATC's into the Technical Proposal

The Design-Build Firm will have the option to include any Department Approved ATC's in the Technical Proposal. The Proposal Price should reflect any incorporated ATC's. All approved ATC's that are incorporated into the Technical Proposal must be clearly identified in the Technical Proposal Plans and/or Roll Plots. The Technical Proposal shall also include a listing of the incorporated, approved ATCs.

By submitting a Proposal, the Design-Build Firm agrees, if it is not selected, to disclosure of its work product to the successful Design-Build Firm, only after receipt of the designated stipend (if applicable) or after award of the contract whichever occurs first.

C. Geotechnical Services:

1. General Conditions:

The Design-Build Firm shall be responsible for identifying and performing any geotechnical investigation, analysis and design of foundations, foundation construction, foundation load and integrity testing, and inspection dictated by the Project needs in accordance with Department guidelines, procedures and specifications. All geotechnical work necessary shall be performed in accordance with the Governing Regulations. The Design-Build Firm shall be solely responsible for all geotechnical aspects of the Project.

Based on past experience hard limestone formation will be encountered in this project. It will be difficult to excavate. Also, limestone is porous and dewatering in this stratum will be difficult.

Borings performed encountered organic and plastic soils. These soils can be encountered also under the existing paved shoulder areas.

D. Department Commitments:

The Design-Build Firm will be responsible for adhering to the project commitments identified below:

1. FTE will continue to coordinate with elected officials and agency/municipality representatives during the course of the Final Design phase of the project.
2. FTE will continue to coordinate with SFWMD during the final design regarding the Right-of-way Occupancy Permit for the construction of the new Coral Way Bridge over C-2 Canal, The replacement of the existing SW 8th Southbound to Westbound ramp bridge over the C-4 canal and the widening of Heft Bridge over SW 8th street and the C-4 canal.

E. Environmental Permits:

1. Storm Water and Surface Water:

Plans shall be prepared in accordance with Chapters 373 and 403 (F.S.) and Chapters 40 and 62 (F.A.C.).

2. Permits:

The Design-Build Firm shall be responsible for modifying the issued permits as necessary to accurately depict the final design. The Design-Build Firm shall be responsible for any necessary permit time extensions or re-permitting in order to keep the environmental permits valid throughout the construction period. The Design-Build Firm shall provide the Department with draft copies of any and all permit applications, including responses to agency Requests for Additional Information, requests to modify the permits and/or requests for permit time extensions, for review and approval by the Department prior to submittal to the agencies.

All applicable data shall be prepared in accordance with Chapter 373 and 403, Florida Statutes, Chapters 40 and 62, Florida Administrative Code; Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, 23 CFR 771, 23 CFR 636, and parts 114 and 115, Title 33, Code of Federal Regulations. In addition to these Federal and State permitting requirements, any dredge and fill permitting required by local agencies shall be prepared in accordance with their specific regulations. Preparation of all documentation

related to the acquisition of all applicable permits will be the responsibility of the Design-Build Firm. Preparation of complete permit packages will be the responsibility of the Design-Build Firm. The Design-Build Firm is responsible for the accuracy of all information included in permit application packages. As the permittee, the Department is responsible for reviewing, approving, and signing, the permit application package including all permit modifications, or subsequent permit applications. This applies whether the project is Federal or state funded. Once the Department has approved the permit application, the Design-Build Firm is responsible for submitting the permit application to the environmental permitting agency. A copy of any and all correspondence with any of the environmental permitting agencies shall be sent to the District Environmental Permits Office. If any agency rejects or denies the permit application, it is the Design-Build Firm's responsibility to make whatever changes necessary to ensure the permit application is approved. The Design-Build Firm shall be responsible for any necessary permit extensions or re-permitting in order to keep the environmental permits valid throughout the construction period. The Design-Build Firm shall provide the Department with draft copies of any and all permit applications, including responses to agency Requests for Additional Information, requests to modify the permits and/or requests for permit extensions, for review and approval by the Department prior to submittal to the agencies.

The Design-Build Firm will be required to pay all permit fees. Any fines levied by permitting agencies shall be the responsibility of the Design-Build Firm. The Design-Build Firm shall be responsible for complying with all permit conditions.

Wetland mitigation is required in the issued permits, which are based on the Conceptual Design Plans, and will be the responsibility of the Department. If any permit applications completed by the Design-Build Firm propose to increase the amount of wetland impact that requires mitigation, the Design-Build Firm shall be responsible for providing to the Department an update on the amount and type of wetland impacts as soon as the impacts are anticipated (including temporary impacts and/or any anticipated impacts due to construction staging or construction methods). The Department will direct the use of a mitigation site, private mitigation bank or the use of the water management district per 373.4137 F.S. The mitigation costs of any additional impacts proposed by the Design-Build Firm shall be the responsibility of the Design-Build Firm. If the Department directs use of a private mitigation bank, the Design-Build Firm shall pay the appropriate fee directly to the bank. If the Department directs use of 373.4137, F.S., the Design-Build Firm shall provide appropriate funds to the Department at the time of permit issuance and the Department will then transfer the mitigation funds to the SWFWMD.

The Design-Build Firm shall be solely responsible for all costs associated with these permitting activities and shall include all necessary permitting activities in their schedule.

However, notwithstanding anything above to the contrary, upon the Design-Build Firm's preliminary request for extension of Contract Time, pursuant to 8-7.3, being made directly to the District Construction Engineer, the Department reserves unto the District Construction Engineer, in their sole and absolute discretion, according to the parameters set forth below, the authority to make a determination to grant a non-compensable time extension for any impacts beyond the reasonable control of the Design-Build Firm in securing permits. Furthermore, as to any such impact, no modification provision will be considered by the District Construction Engineer unless the Design-Build Firm clearly establishes that it has continuously from the beginning of the Project aggressively, efficiently and effectively pursued the securing of the permits including the utilization of any and all reasonably available means and methods to overcome all impacts. There shall be no right of any kind on behalf of the Design-Build Firm to challenge or otherwise seek review or appeal in any forum of any determination made by the District Construction Engineer under this provision.

The Design-Build Firm shall be responsible for obtaining all permits from Miami Dade County associated with the transplanting of the palm trees, and written permission from adjacent property owners for any encroachment necessary to perform the palm relocation work.

- a. The tree relocation permit application will include but not be limited to:
 1. Permit Application Form.
 2. Work Information Form.
 3. Three (3) copies construction plans (signed and sealed).
 4. Temporary Traffic Control Plan.
 5. Transport Plan and any necessary road use permits.
 6. Tree Removal Form.

F. Railroad Coordination:

Should encroachment of the railroad rights-of-way be required, the Design-Build Firm must make the necessary arrangements with CSX Corporation prior to commencing work. The Department will conduct the required contract negotiations and plans review coordination. All required Railroad Reimbursement Agreements will be between CSX Corporation and the Department. Copies of the approved agreements will be made available to the Design-Build Firm. The Design-Build Firm must comply with the terms of these agreements.

G. Survey:

The Design-Build Firm shall perform all surveying and mapping services necessary to complete the Project. Survey services must also comply with all pertinent Florida Statutes and applicable rules in the Florida Administrative Code. All field survey data will be furnished to the District Surveyor in a Department approved digital format, readily available for input and use in CADD Design files. All surveying and mapping work must be accomplished in accordance with the Department's Surveying Procedure, Topic Nos. 550-030-101; Right-of-Way Mapping Procedure, Topic No. 550-030-015; Aerial Surveying Standards for Transportation Projects Procedure, Topic No. 550-020-002. This work must comply with the Minimum Technical Standards for Professional Surveyors and Mappers, Chapter 5J-17, F.A.C., pursuant to Section 472.027, F.S. This survey also must comply with Chapter 177, F.S.

H. Verification of Existing Conditions:

The Design-Build Firm shall be responsible for verification of existing conditions, including research of all existing Department records and other information.

By execution of the contract, the Design-Build Firm specifically acknowledges and agrees that the Design-Build Firm is contracting and being compensated for performing adequate investigations of existing site conditions sufficient to support the design developed by the Design-Build Firm and that any information is being provided merely to assist the Design-Build Firm in completing adequate site investigations. Notwithstanding any other provision in the contract documents to the contrary, no additional compensation will be paid in the event of any inaccuracies in the preliminary information.

I. Submittals:

1. Plans:

Plans must meet the minimum contents of a particular phase submittal prior to submission for review. The particular phase of each submittal shall be clearly indicated on the cover sheet. Component submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the component under review. In the event that the Design-Build Firm chooses to segment the project submittals geographically, an Overall 15% Line and Grade Submittal shall be added that clearly shows the segment boundaries and individual design constraints. A narrative accompanied with any needed details will be submitted with a roll plot that fully describes the continuity of the segments relating to geometrics, drainage, traffic control, signing, ITS, lighting, and tolling. The Overall 15% Line and Grade must be approved by FTE prior to submission of any segment. If a change to the approved Overall 15% Line and Grade is discovered during review of a subsequent segmented submittal, the submittal will be returned for corrections and the Overall 15% Line and Grade Submittal must be resubmitted and reapproved by FTE prior to FTE accepting any additional segmented submittals for review. Schedule impacts for any resubmittals or additional review times will be the responsibility of the Design-Build Firm.

Plans for improvements within Miami Dade County, roads will be developed in separate components sets (i.e. Coral Way). Likewise separate component sets will be developed for FDOT District 6 roadways (i.e. SW 8th Street). SW 8th Street and West Flagler Street are within the jurisdiction of both Miami Dade County and FDOT District 6, therefore a single component set can be developed. The Design-Build Firm shall obtain plans approval from Miami Dade County, FDOT District 6 and MDX

A Google Earth © ready KMZ file will be developed and submitted for all plan or roll plot submittals to the Department. The file will have both existing and proposed information for each discipline. See Attachment No. 40 for the KMZ Standard to be used.

The Design-Build Firm should note that to the maximum extent possible the Project documentation that is to be submitted for phase reviews should be directly created/printed electronically to an Adobe PDF format from the software that is used to produce the plan sheet(s), calculation sheet(s), report(s), etc. Creating the Project documentation electronically rather than simply scanning the documents from a hard copy will greatly aid in the reviews of Project submittals.

The Design-Build Firm shall refer to the revised Chapter 2 – Sequence of Plans Preparation – of the FDOT PPM Volume 2, which is available on the FDOT website. This revised Chapter 2 Section 3 shall be used by the Design-Build Firm to determine what is to be provided to the Department for review as part of the following submittals: the Technical Proposal, Preliminary Phase, and Final Phase.

In addition to what is identified as submittal requirements in Chapter 2 of the PPM, the Design-Build Firm shall submit a Landscape Opportunity Roll Plot with their Technical Proposal depicting the areas available for landscaping using their conceptual design.

The plans preparation for the toll facility component plans must follow Attachment No. 36, “FTE Toll Facility Component Plans.”

Submittals for Category I and II bridges are limited to the following component submittals: foundation, substructure, and superstructure. Bridge component submittals must be accompanied by all supplemental information required for a complete review, including Bridge Hydraulics Report and Bridge Hydraulics

Recommendation Sheet as required. Submittals for individual component elements (i.e. Pier 2, Abutment 1, Span 4, etc.) and incomplete submittals will not be accepted.

Category I and II bridge component submittals shall contain the following:

- Plan sheets for the component under review developed to the specified level of detail (i.e. 90% plans, Final plans, etc.).
- A complete set of the most developed plan sheets for all other major elements of the bridge. These sheets shall be marked "For Information Only" on the index sheet. In no case shall a plan sheet be less than 30% complete.
- Design documentation including a complete set of calculations, geotechnical reports, Bridge Hydraulics Reports, pertinent correspondence, etc. in support of the 90% and final component submittals.
- For Category II bridges component submittals shall also include independent peer review documentation.

The Design-Build Firm shall provide copies of required review documents as listed below:

90% Component Plans

- Two (2) hard copies of 11" X 17" and three (3) CD/DVD's of roadway plans and other component plans.
- Two (2) hard copies and three (3) CD/DVD's of Final Geotechnical Report.
- Two (2) hard copies and three (3) CD/DVD's of all documentation.
- One (1) hard copy and three (3) CD/DVD's of Technical Special Provisions.
- Two (2) hard copies and three (3) CD/DVD's of the Landscape Opportunity Plans.
- Three (3) CD/DVD's containing the CADD and Geopak support files.
- One (1) Mark-up on Constructability Review of all the plans.
Independent Peer reviewer's comments and comment responses .

Final Component Plans

- Two (2) hard copies of 11" X 17" and three (3) CD/DVD's of roadway plans and other component plans.
- Two (2) hard copies and three (3) CD/DVD's of the Landscape Opportunity Plans.
- Two (2) hard copies and three (3) CD/DVD's sets of final documentation.
- One (1) signed and sealed copy and one (1) CD/DVD's of Specifications Package.
- One (1) hard copy and two (2) CD/DVD's 2 sets of with electronic copies of Technical Special Provisions.
- CD(s)/DVD(s) containing all Final Component Plans noted above in PDF format.
- Three (3) CD/DVD's containing the CADD and Geopak support files.
- One (1) signed and sealed copy of the Bridge Loading Rating Calculations.
- One (1) signed and sealed copy of the Completed Bridge Load Rating Summary Detail Sheet.
- One (1) signed and sealed copy of the Load Rating Summary Form.
- Independent Peer Reviewer's signed and sealed cover letter that all comments have been addressed and resolved.

Construction Set:

1 set of 11”X 17” copies of the signed and sealed plans for the Department to stamp “Released for construction.”

Final signed and sealed plans will be delivered to the Department’s Project Manager prior to construction of any component. The Department’s Project Manager will send a copy of final signed and sealed plans to the appropriate office for review and comment. Once all comments have been satisfactorily resolved as determined by the Department, the Department’s Project Manager will initial, date and stamp each submittal as “Released for Construction”. Only signed and sealed plans which are stamped “Released for Construction” by the Department’s Project Manager are valid and all work that the Design-Build Firm performs in advance of the Department’s release of Plans will be at the Design-Build Firm’s risk. To work at risk, the Design-Build Firm must submit signed and sealed plans and can begin working prior to the Department’s Project Manager providing stamped “Release for Construction” plans. The Design-Build Firm shall notify the Department five (5) days prior to starting work at risk. All work that the Design-Build Firm performs in advance of the Department’s release of Plans will be at the Design-Build Firm’s risk.

As-Built Set:

The Design-Build Firm's Professional Engineer in responsible charge of the Project’s design shall professionally endorse (sign, seal, and certify) the As-Built Plans, the special provisions and all reference and support documents. The professional endorsement shall be performed in accordance with the Department Plans Preparation Manual.

The Design-Build Firm shall complete the As-Built Plans as the Project is being constructed. All changes made subsequent to the “Released for Construction” Plans shall be signed/sealed by the EOR. The As-Built Plans shall reflect all changes initiated by the Design-Build Firm or the Department in the form of revisions. The As-Built Plans shall be submitted prior to Project completion for Department review and acceptance as a condition precedent to the Departments issuance of Final Acceptance.

The Department shall review, certify, and accept the As-Built Plans prior to issuing Final Acceptance of the project in order to complete the As-Built Plans.

The Department shall certify the As-Built Plans per Chapter 5.12 of the Construction Project Administration Manual (TOPIC No. 700-000-000).

The Design-Build Firm shall furnish to the Department, upon Project completion, the following:

- One (1) set of 11” X 17” signed and sealed plans.
- Two (2) sets of 11 "X 17” copies of the signed and sealed plans.
- Two (2) sets of the Landscape Opportunity Plans.
- One (1) signed and sealed copy of the Bridge Load Rating based on as-built conditions.
- 1 sets of final documentation (if different from final component submittal).
- 2 (Two) Final Project CD(s)/DVD(s).
- Survey Information including electronic files on CD/DVD and field books.

2. Milestones:

Component submittals, in addition to the plan submittals listed in the previous section will be required. In addition to various submittals mentioned throughout this document the following milestone submittals will be required:

- Revised Typical Section Package.
- Pavement Design Package.
- Drainage Design Report.
- Plans review prior to submittal for environmental permits.
- Permit documentation and submittal.
- ITS Test Plans and Test Results.
- Other submittals identified by proposers in their Technical Proposal.

3. Railroad Coordination:

Three sets of certain plan sheets are required for review by the railroad. The sets are to be mailed to the District Rail Administrator. The required sheets are:

- Key Sheet.
- Typical Section(s).
- Plan & Profile Sheet(s).
- Signing and Pavement Marking Sheet(s).
- Cross Section Sheets.

J. Contract Duration:

The Design-Build Firm shall establish the Contract Duration for the subject Project. In no event shall the Contract Duration exceed 1380 calendar days. The Proposed Contract Duration shall be submitted with the Bid Price Proposal.

K. Project Schedule:

The Design-Build Firm schedule shall be in accordance with Sub-article 8-3.2 (Design-Build Division I Specifications). The Project Submittal schedule shall itemize all of the project's submittals through the design phase. This project Submittal Schedule is for the Department's use in resource loading for reviews. The Design-Build Firm's schedule shall allow for up to fifteen (15) calendar days (excluding weekends and Departments observed Holidays) review time for the Department's review of all submittals with the exception of Category II structures submittals. The review of Category II structures submittals require Central Office involvement and the Schedule shall allow for up to twenty (20) calendar days for these reviews (excluding weekends and Departments observed Holidays). The Project Submittal Schedule shall be updated monthly and is due to the Department's Design Project Manager by the end of the third week of each month for the upcoming month's submittals.

The Department will perform the review of Foundation Construction submittals in accordance with Section 455.

In addition to the non-working holidays identified in Specification 8-6.4, the following special events have been identified:

- Working day before Martin Luther King Jr. Day.
- Working Day before President's Day.

- Before/After Independence Day, July 3rd and July 5th.
- Friday before Easter.
- Friday before Memorial Day.
- Wednesday before Thanksgiving.
- Miami-Dade County Fair.

The minimum number of activities included in the Schedule shall be those listed in the Schedule of Values and those listed below:

- Anticipated Award Date.
- Design Submittals.
- Shop Drawing Submittals.
- Design Survey.
- Submittal Reviews by the Department and, FHWA and MDX as applicable.
- Design Review / Acceptance Milestones.
- Materials Quality Tracking.
- Geotechnical Investigation.
- Start of Construction.
- Clearing and Grubbing.
- Construction Mobilization.
- Embankment/Excavation.
- Environmental Permit Acquisition.
- Foundation Design.
- Foundation Construction.
- Substructure Design.
- Substructure Construction.
- Superstructure Design.
- Superstructure Construction.
- Walls Design.
- Walls Construction.
- Roadway Design.
- Roadway Construction.
- Signing and Pavement Marking Design.
- Signing and Pavement Marking Construction.
- Signalization and Intelligent Transportation System Design.
- Signalization and Intelligent Transportation System Construction.
- Lighting Design.
- Lighting Construction.
- Toll Facilities Design.
- Toll Facilities Construction.
- Landscape Opportunity Plan.
- Utility Coordination.
- Maintenance of Traffic Design.
- Permit Submittals.
- Maintenance of Traffic Set-Up (per duration).
- Erosion Control.
- Holidays and Special Events (shown as non-work days).

- Additional Construction Milestones as determined by the Design-Build Firm.
- Final Completion Date for All Work.

For the Preliminary Phase-90% and Final Phase-100% design submittals, comments and responses shall be exchanged using the Electronic Review Comment (ERC) System.

L. Key Personnel/Staffing:

The Design-Build Firm's work shall be performed and directed by key personnel identified in the expanded letter of interest and/or technical proposal by the Design-Build Firm. Any changes in the indicated personnel shall be subject to review and approval by the Department's Project Manager. The Design-Build Firm shall have available a professional staff that meets the minimum training and experience set forth in Florida Statute Chapter 455.

M. Meetings and Progress Reporting:

The Design-Build Firm shall anticipate periodic meetings with Department personnel and other agencies as required for resolution of design and/or construction issues. These meetings may include:

- Department technical issue resolution.
- Permit agency coordination.
- Local government agency coordination.
- Scoping Meetings.
- System Integration Meetings.

During design, the Design-Build Firm shall meet with the Department's Project Manager on a monthly basis and provide a one month look ahead of the activities to be completed during the upcoming month.

During construction, the Design-Build Firm shall meet with the Department's Project Manager on a weekly basis and provide a one-week look ahead for activities to be performed during the coming week.

The Design-Build Firm shall meet with the Department's Project Manager at least thirty (30) calendar days before beginning system integration activities. The purpose of these meetings shall be to verify the Design-Build Firm's ITS and signalization integration plans by reviewing site survey information, proposed splicing diagrams, IP addressing schemes, troubleshooting issues, and other design issues. In addition, at these meetings the Design-Build Firm shall identify any concerns regarding the Integration and provide detailed information on how such concerns will be addressed and/or minimized.

The Design-Build Firm shall provide all documentation required to support system integration meetings, including detailed functional narrative text, system and subsystem drawings and schematics. Also included shall be the documentation to demonstrate all elements of the proposed design which includes, but is not limited to: technical, functional, and operational requirements; ITS/communications; equipment; termination/patch panels; performance criteria; and details relating to interfaces to other ITS subsystems.

System Integration Meetings will be held on mutually agreeable dates.

All action items resulting from the System Integration Meeting shall be satisfactorily addressed by the Design-Build Firm and reviewed and approved by the Department.

The Design-Build Firm shall, on a monthly basis, provide written progress reports that describe the items of concern and the work performed on each task.

N. Public Involvement:

1. General:

Public involvement is an important aspect of the Project. Public involvement includes communicating to all interested persons, groups, and government organizations information regarding the development of the Project. A Public Involvement Consultant (PIC) has been hired by the Department to carry out an exhaustive Public Involvement Campaign and a marketing effort. The Design-Build Firm will continue to be part of the Public Involvement effort but on a limited basis as described below.

2. Community Awareness:

The Design-Build Firm will review and comment on a Community Awareness Program provided by the PIC for the Project.

3. Public Meetings:

The Design-Build Firm shall provide all support necessary for the PIC to hold various public meetings, which may include:

- Kick-off or introductory meeting.
- Metropolitan Planning Organization (MPO) Citizens Advisory Committee Meetings.
- MPO Transportation Technical Committee Meetings.
- MPO Meetings.
- Public Information Meetings.
- Elected and appointed officials.
- Special interest groups (private groups, homeowners associations, environmental groups, minority groups and individuals).

The Design-Build Firm shall include attendance at two meetings per month for the term of the contract to support the public involvement program.

For any of the above type meetings the Design-Build Firm shall provide all technical assistance, data and information necessary for the PIC to produce display boards, printed material, video graphics, computerized graphics, etc., and information necessary for the day-to-day exchange of information with the public, all agencies and elected officials in order to keep them informed as to the progress and impacts that the proposed Project will create. This includes workshops, information meetings, and public hearings.

The Design-Build Firm shall, on an as-needed basis, attend the meetings with an appropriate number of personnel to assist the Department's Project Representative/PIC. The Design-Build Firm shall forward all requests for group meetings to the PIC. The Design-Build Firm shall inform the PIC of any meetings with individuals that occur without prior notice.

4. **Public Workshops, Information Meetings:**

The Design-Build Firm shall provide all the support services listed in No. 3 above.

All legal/display ads announcing workshops, information meetings, and public meetings will be prepared and paid for by the PIC.

The Department will be responsible for the legal/display advertisements for design concept acceptance. The PIC will be responsible for preparing and mailing (includes postage) for all letters announcing workshops and information meetings.

5. **Public Involvement Data:**

The Design-Build Firm is responsible for the following:

- Coordinating with the Public Involvement Consultant.
- Identifying possible permit and review agencies and providing names and contact information for these agencies to the PIC.
- Providing required expertise (staff members) to assist the PIC on an as-needed basis.
- Preparing color graphic renderings and/or computer generated graphics to depict the proposed improvements for coordination with the Department, local governments, the Urban Design Guidelines Committee, and other agencies.

The collection of public input occurs throughout the life of the Project and requires maintaining files, newspaper clippings, letters, and especially direct contacts before, during and after any of the public meetings. Articles such as those mentioned shall be provided to the PIC for their use and records.

In addition to collecting public input data, the Design-Build Firm may be asked by the PIC to prepare responses to any public inquiries as a result of the public involvement process. The Department shall review all responses prior to mailing.

O. **Quality Management Plan (QMP):**

1. **Design:**

The Design-Build Firm shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications, geotechnical and other services furnished by the Design-Build Firm under this contract.

The Design-Build Firm shall provide a Design Quality Management Plan (QMP), which describes the Quality Control (QC) procedures to be utilized to verify, independently check, and review all design drawings, specifications, and other documentation prepared as a part of the contract. In addition the QMP shall establish a Quality Assurance (QA) program to confirm that the Quality Control procedures are followed. The Design-Build Firm shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The QMP may be one utilized by the Design-Build Firm, as part of their normal operation or it may be one specifically designed for this Project. The Design-Build Firm shall submit a QMP within fifteen (15) working days following issuance of the written Notice to Proceed. A marked up set of prints from the Quality Control review will be sent in with each review submittal. The responsible Professional Engineers or Professional Surveyor that

performed the Quality Control review, as well as the QA manager will sign a statement certifying that the review was conducted.

The Design-Build Firm shall, without additional compensation, correct all errors or deficiencies in the surveys, designs, drawings, specifications and/or other services.

No fabrication, casting, or construction will occur until all related design review and shop drawing review comments are resolved.

2. Construction:

The Design-Build Firm shall be responsible for developing and maintaining a Construction Quality Control Plan in accordance with Section 105 of Standard Specifications which describes their Quality Control procedures to verify, check, and maintain control of key construction processes and materials.

The sampling, testing and reporting of all materials used shall be in compliance with the Sampling, Testing and Reporting Guide (STRG) provided by the Department. The Design-Build Firm will use the Department's database(s) to allow audits of materials used to assure compliance with the STRG. The Department has listed the most commonly used materials and details in the Department's database. When materials being used are not in the Department's database list, the Design-Build Firm shall use appropriate material details from the STRG to report sampling and testing. Refer to the "Access Instruction for LIMS" for more information on how to gain access to the Department's databases: <http://www.dot.state.fl.us/statematerialsoffice/quality/programs/qualitycontrol/contractor.shtm>

Prepare and submit to the Engineer a Job Guide Schedule (JGS) using the Laboratory Information Management System (LIMS) in accordance with Section 105 of Standard Specifications.

Prepare and submit to the Engineer a Job Guide Schedule (JGS) for materials used within Miami-Dade County, FDOT District 6 and MDX right-of-ways.

The Department shall maintain its rights to inspect construction activities and request any documentation from the Design-Build Firm to ensure quality products and services are being provided in accordance with the Department's Materials Acceptance Program.

P. Liaison Office:

The Department and the Design-Build Firm will designate a Liaison Office and a Project Manager who shall be the representative of their respective organizations for the Project.

Q. Engineers Field Office:

The Design-Build Firm will provide an Engineer's Field Office in accordance with Special Provision 109. The Engineer's Field Office will be 1,500 square feet.

R. Schedule of Values:

The Design-Build Firm will be responsible for invoicing the Department based on current invoicing policy and procedure. Invoicing will be based on the completion or percentage of completion of major, well-defined tasks as defined in the schedule of values. Final payment will be made upon final acceptance by the Department of the Design-Build Project. Tracking DBE participation will be required

under normal procedures according to the CPAM. The Design-Build Firm must submit the schedule of values to the Department for approval. No invoices shall be submitted prior to Department approval of the schedule of values.

The Design-Build Firm will develop and submit for review a separate schedule of values for improvements within Miami Dade County right of way, Department, District 6 right of way and MDX right of way with the submittal of release for construction plans. This is required to determine final bonded project value and Department insurance requirements.

Upon receipt of the invoice, the Department's Project Manager will make judgment on whether or not work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

S. Computer Automation:

The Project shall be developed utilizing computer automation systems in order to facilitate the development of the contract plans. Various software and operating systems were developed to aid in assuring quality and conformance with Department of Transportation policies and procedures. Seed Files, Cell Libraries, User Commands, MDL Applications and related programs developed for roadway design and drafting are available for the MicroStation V8 format in the FDOT CADD Software Suite. However, it is the responsibility of the Design-Build Firm to obtain and utilize current Department releases of all CADD applications.

The Design-Build Firm's role and responsibilities are defined in the Department's CADD Manual. The Design-Build Firm will be required to submit final documents and files which shall include complete CADD design and coordinate geometry files in Intergraph / Micro station format, as described in the above referenced document.

The archived submittal shall also include either a TIMS database file, CADD Index file (generated from RDMENU) or documentation that shall contain the Project history, file descriptions of all (and only) Project files, reference file cross references, and plotting criteria a (e.g. batch, level symbology, view attributes, and display requirements). A printed directory of the archived submittal shall be included.

T. Construction Engineering and Inspection:

The Department is responsible for providing Construction Engineering and Inspection (CEI) and Quality Assurance Engineering.

The Design-Build Firm is subject to the Department's Independent Assurance (IA) Procedures.

U. Testing:

The Department or its representative will perform verification and resolution sampling and testing activities at both on site, as well as, off site locations such as pre-stress plants, batch plants, structural steel and weld, fabrication plants, etc. in accordance with the latest Specifications.

Testing of ITS and tolling equipment shall be in accordance with the requirements stated within those sections. Testing of the ITS System shall be completed by the Design -Build Firm.

V. Value Added:

The Design-Build Firm may provide a Value Added Project Features, in accordance with Article 5-14 of the Specifications for the following features:

- Roadway features.
- Roadway drainage systems.
- Approach slabs.
- Superstructure.
- Substructure.
- Concrete defects.
- Structural steel defects.
- Post-tensioning systems.
- Specified ITS field elements and software not listed in the APL.
- And any other products or features the Design-Build Firm desires.

The Design-Build Firm shall develop the Value Added criteria, measurable standards, and remedial work plans in the Design-Build Firm's technical proposal features proposed by the Design-Build Firm.

W. Adjoining Construction Projects:

The Design-Build Firm shall be responsible for coordinating construction activities with other construction Projects that are impacted by or impact this Project. These include projects under the jurisdiction of local governments, the Department, or other regional and state agencies and are identified in the following table:

FPID Number	Project Description	Department Contact	Design Status	Construction Status
427146-1-52-01	HEFT Widening from N. of Sunset Dr. to N. of Bird Road	Craig Bostic	RFP Development	Letting Date: 6/16/2014
MDX WP Nos. 83625.030, 83631.030, 30036.030	Design-Build Project for SR-836 Extension – Westbound Access Ramp, SR-836 Infrastructure Modifications for Open Road Tolling (West Section), and SR-836 Overhead Sign Structure Coating	Kevin Brown MDX	Ongoing	Ongoing

X. Design Issue Escalation:

The Department has established the issue escalation process for design questions and conflict resolution that the Design-Build Firm shall follow unless revised by the Partnering agreement. All issues are to be directed to the Department Project Manager. If the issue cannot be resolved at this level the Department Project Manager shall forward the issue to the next level in the process. The escalation process begins with the District Design Engineer, followed by the Director of Transportation Operations, and finally to the District Secretary. Each level shall have a maximum of three (3) calendar days (excluding weekends and Department observed holidays), to answer, resolve or address the issue. The three (3) calendar day (excluding weekends and Department observed holidays) period is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The Department Project Manager will respond in a timely manner but not to exceed three (3) calendar days (excluding weekends and Department observed holidays). The Design-Build Firm shall provide any available supporting documentation.

The Design-Build Firm shall provide a similar issue escalation process for their organization with personnel of similar levels of responsibility.

The District Secretary will have the final authority on design decisions.

Y. Construction Clarification, Conflict Resolution, and Issue Escalation:

In the event that construction problems occur, the resolution of those problems will be processed in one of the following two ways unless revised by a Partnering agreement:

- If the resolution does not change the original intent of the technical proposal/RFP, then the Design-Build Firm Engineer of Record (EOR) will be responsible for developing the design solution to the construction problem and the Resident Engineer will be responsible for review and response within ten (10)

calendar days (excluding weekends and Department observed holidays). The Resident Engineer will either concur with the proposed solution or, if the Resident Engineer has concerns, the issue will be escalated as described in the process below.

- If the resolution does alter the original intent of the technical proposal/RFP then the EOR will develop the proposed solution, copy in the Resident Engineer, and send it to the District Construction Office for review and response through the Department Project Manager. The District Construction Office will respond to the proposed solution within ten (10) calendar days (excluding weekends and Department observed holidays). The District Construction Office will either concur with the proposed solution or, if the Resident Engineer has concerns, the issue will be escalated as described in the process below. Changes to the original intent of the technical proposal/RFP will require a contract change order and FHWA approval.
- The Department has established the issue escalation process for construction questions and conflict resolution that the Design-Build Firm shall follow unless revised by the Partnering agreement. All issues are to be directed to the Department Project Manager. If the issue cannot be resolved at this level the Department Project Manager shall forward the issue to the next level in the process. The escalation process begins with the District Construction Engineer, followed by the Director of Transportation Operations, and finally to the District Secretary. Each level shall have a maximum of three (3) calendar days (excluding weekends and Department observed holidays) to answer, resolve or address the issue. The three (3) calendar day (excluding weekends and Department observed holidays) period is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The Department Project Manager will respond in a timely manner but not to exceed three (3) calendar days (excluding weekends and Department observed holidays). The Design-Build Firm shall provide any available supporting documentation.

The Design-Build Firm shall provide a similar issue escalation process for their organization with personnel of similar levels of responsibility.

Should an impasse develop, the Dispute Review Board shall assist in the resolution of disputes and claims arising out of the work on the Contract.

VI. Design and Construction Criteria.

A. General:

The Design-Build Firm shall be responsible for: detailed plan checking as outlined in the Plans Preparation Manual (PPM) and TPPPH; as described in the RFP; and the Design and Construction criteria package. This includes a checklist of the items listed in the PPM for each completed phase submittal. Bridge submittals may be broken into foundation, substructure, superstructure, approach spans and main channel spans. Roadway submittals may be broken down into grading, drainage, walls, ITS, signing & pavement marking, signalization, lighting and final geometry components. The component design must be in conformity with the Design and Construction Criteria requirements, approved preliminary layout

and concept as provided in the Technical Proposal.

Before construction activities can begin for a specific component signed and sealed design plans and calculations supporting the design for that component must be reviewed by the Department. Component submittals shall be complete submittals along with all the supporting information necessary for review. The work must represent logical work activities and must show impacts on subsequent work on this Project. Any modification to the component construction due to subsequent design changes as the result of design development is solely the Design-Build Firm's risk. Upon review by the Department, the plans will be stamped "Released for Construction" and initialed and dated by the reviewer. Any construction initiated by the Design-Build Firm prior to receiving signed and sealed plans stamped "Released for Construction" shall be at the sole risk of the Design-Build Firm. Work outside of Department right of way may not proceed at risk. Work in compliance with permit requirements may only begin after obtaining appropriate permit(s) from Miami-Dade and/or SFWMD as applicable.

The Design-Build Firm shall be responsible for selecting appropriate construction methods and techniques for various activities; including but not limited to pile driving, installation and extraction of casing, installation and extraction of sheet pile, vibratory compaction, and demolition work such that excessive vibration shall not occur at any building or appurtenant structures, such as garages or swimming pools, existing bridges, retaining walls and noise walls in the vicinity of the construction area, in accordance with FDOT Standard Specification for Road and Bridge Construction. Vibration levels from construction activities shall be limited such that the peak particle velocity does not exceed 0.20 in/sec when measured on the ground surface immediately outside any existing building or appurtenant structures, including structures located immediately adjacent to the proposed Coral Way Bridges.

Surveys of all building or appurtenant structures adjacent to the new Coral Way bridge structures should be conducted by the Design-Build Firm prior to commencing construction activities. The required survey is to include elevation survey and condition survey in accordance with FDOT Standard Specifications Section 455-1.1

Vibration levels from construction activities at MSE walls shall not exceed the threshold criteria established by the MSE wall supplier. Such activities include installation and/or extraction of sheet pile or soldier pile in the proximity. The threshold vibration criteria shall be provided to the Department as a required component of the MSE wall Shop Drawing.

Engage a Specialty Engineer to monitor vibration level during construction and submit all vibration data to the Department within 7 days after data collection. As a minimum, vibration monitoring shall be carried out by the Specialty Engineer whenever compaction of asphalt, base course, and earthwork are within 100 feet from any existing buildings or appurtenant structures and whenever installation and/or extraction of sheet pile or soldier pile occur within 100 feet from any permanent MSE walls, existing buildings or appurtenant structures. Before the end of the Project, submit to the Department a signed and sealed vibration report compiling all vibration monitoring data and clearly document the monitoring locations relative to the construction work areas using roadway baselines depicted on the "Released for Construction" Plans.

Prior to submittal to the Department, all Category level II bridge plans shall have a peer review analysis by an independent engineering firm not involved with the production of the design or plans, prequalified in accordance with Chapter 14-75. The peer review shall consist of an independent design check, a check of the plans, and a verification that the design is in accordance with AASHTO and FDOT criteria. The independent peer review engineer's comments and comment responses shall be included in the 90% plans

submittal. At the final plans submittal, the independent peer review engineer shall sign and seal a cover letter certifying the final design and stating that all comments have been addressed and resolved.

All design and construction work completed under the Contract shall be in accordance with the United States Standard Measures.

B. Geotechnical Services:

1. Control of Settlements

Design-Build Firm is responsible to design and construct proposed new and widened bridges such that settlement of existing bridges founded on spread footings and located adjacent to the proposed bridge work will not exceed 1/8 inch (0.125 inch). Submit signed and sealed calculations to demonstrate that construction of the proposed new and widened bridges will not cause the existing bridge foundation to settle more than 1/8 inch. As a minimum, a settlement monitoring point shall be established at every existing pier and bent immediately adjacent to proposed foundations. Perform settlement survey on all the monitoring points on the existing bridges following the requirement of Specification 455-1.1 and not less than two times in the week following any bridge construction work. Submit the details of the monitoring plan to the Department for concurrence prior to any bridge construction work. Underpinning or strengthening of the existing foundation, substructures and/or superstructure may be required to achieve the settlement requirement stated above. Should settlement exceed 1/8 inch (0.125 inch) at any monitoring location, all bridge construction work must be stopped immediately and the situation thoroughly reviewed by the Engineer of Record. Prior to resuming any construction work in the vicinity where settlement has exceeded 1/8 inch, the Engineer of Record must submit to the Department for concurrence, a signed and sealed mitigation plan and supporting calculations outlining provisions and details to prevent any additional settlement of the existing bridges and assuring the Department that further settlement of the existing bridges will not occur. Should settlement of the existing foundation continue to occur then the Design-Build Firm must stop bridge construction immediately again. Prior to resuming any bridge work the Design-Build Firm shall design and construct a deep foundation system that fully supports the affected existing bridge foundations. The Engineer of Record must submit to the Department for concurrence calculations to show that the deep foundation system shall generate its resistance at a depth where stress increases from the new bridge widening foundations will not cause additional settlement.

Based on the available existing bridge plans and the Geotechnical Reports for Bridges (Reference Document No. 22), the following bridges to be replaced or widened have piers with spread footings founded on the Miami Limestone Formation:

1. Coral Way (SW 24th Street) over SR 821 (HEFT) – Bridge No. 870211.
2. SR 821 (HEFT) over Tamiami Trail (SW 8th Street), Bridge Nos. 870415 NB & 870212 SB.
3. SR 821 (HEFT) over West Flagler Street, Bridge Nos. 870416 NB & 870214 SB.

2. Driven Pile Foundations for Bridges and Major Structures

The Design-Build Firm shall determine whether the resistance factors used for pile design will be based on static/statnamic load testing. Prepare a Technical Special Provision (TSP) for tests other than the Modified Quick Test, such as Osterberg Cell Load Test or Statnamic Load Test. For Osterberg Cell Load Tests use the same loading and unloading intervals, as well as the same loading times specified for the Modified Quick Test. Comply with the instrumentation requirements of 455-2.4. Before the resistance factors for static/statnamic load testing may be used for pile foundations in any of the following areas of

the Project, a minimum of one (1) successful load test must be performed for each bridge site in representative locations of that area.

The Design-Build Firm shall be responsible for the following:

1. Selection of pile type and size.
2. Selection of test pile lengths, locations and quantity of test piles.
3. Selection of pile testing methods.
4. Determining the frequency of such testing unless otherwise stated herein.
5. Performance of the selected test pile program, including dynamic load test personnel and equipment. The Department may observe the installation of test piles and all pile testing.
6. Preparing and submitting a Pile Installation Plan for the Department's acceptance.
7. Selection of production pile lengths.
8. Development of the driving criteria.
9. Driving piles to the required capacity and minimum penetration depth.
10. Inspecting and Recording the pile driving information.
11. Submitting Foundation Certification Packages.
12. Providing safe access, and cooperating with the Department in verification of the piles, both during construction and after submittal of the certification package.

3. Drilled Shaft Foundations for Bridges and Miscellaneous Structures

The Design-Build Firm shall determine whether the resistance factors used for drilled shaft design will be based on static/statnamic load testing. Prepare a Technical Special Provision (TSP) for tests other than the Modified Quick Test, such as Osterberg Cell Load Test or Statnamic Load Test. For Osterberg Cell Load Tests use the same loading and unloading intervals, as well as the same loading times specified for the Modified Quick Test. Comply with the instrumentation requirements of 455-2.4. Before the resistance factors for static/statnamic load testing may be used for drilled shafts in any of the following areas of the Project, a minimum of one (1) successful load test must be performed for each bridge site in representative locations of that area.

The Design-Build Firm shall be responsible for the following:

1. Evaluating geotechnical conditions to determine the drilled shaft diameter and length and construction methods to be used.
2. Performing the subsurface investigation and drilling pilot holes prior to establishing the drilled shaft tip elevations and socket requirements. For redundant drilled shaft bridge foundations, perform at least one test boring in accordance with the Soils and Foundations Handbook at each bent/pier.
3. Determining the locations of the load test shafts and the types of tests that will be performed.
4. Performing pilot borings for test holes (also known as test shafts or method shafts) and load test shafts and providing the results to the Department at least one (1) working day before beginning construction of these shafts.
5. Preparing and submitting a Drilled Shaft Installation Plan for the Department's acceptance.
6. Constructing the method shaft (test hole) and load test shafts successfully and conducting integrity tests on these shafts.

7. Providing all personnel and equipment to perform a load test program on the load test shafts.
8. Determining the production shaft lengths.
9. Documenting and providing a report that includes all load test shaft data, analysis, and recommendations to the Department.
10. Constructing all drilled shafts to the required tip elevation and socket requirement in accordance with the specifications.
11. Inspecting and documenting the construction of all drilled shafts in accordance with the specifications.
12. Performing Cross-Hole Sonic Logging (CSL) or Thermal Integrity tests on all nonredundant drilled shafts supporting bridges. For redundant drilled shaft bridge foundations and drilled shafts for miscellaneous structures, perform CSL or Thermal Integrity testing on any shaft suspected of containing defects.
13. Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging.
14. Submitting Foundation Certification Packages in accordance with the specifications.
15. Providing safe access, and cooperating with the Department in verification of the drilled shafts, both during construction and after submittal of the certification package.

4. Spread Footing Foundations

The Design-Build Firm shall be responsible for the following:

1. Evaluating geotechnical conditions and designing the spread footing.
2. Constructing the spread footing to the required footing elevation, at the required soil or rock material, and at the required compaction levels, in accordance with the specifications.
3. Inspecting and documenting the spread footing construction.
4. Submitting Foundation Certification Packages in accordance with the specifications.
5. Providing safe access, and cooperating with the Department in verification of the spread footing, both during construction and after submittal of the certification package.

5. Auger Cast Piles for Noise Walls

The Design-Build Firm shall be responsible for the following:

1. Evaluating geotechnical conditions and designing the foundations, including diameter and lengths.
2. Constructing all auger cast piles to the required tip elevation and socket requirements, in accordance with the specifications.
3. Preparing and submitting an Auger Cast Pile Installation Plan for the Department's acceptance.
4. Inspecting and documenting the auger cast pile installation.
5. Submitting Foundation Certification Packages in accordance with the specifications.
6. Providing safe access, and cooperating with the Department in verification of the auger cast piles, both during construction and after submittal of the certification package.

6. Organic Soils

The Design-Build Firm shall be required to remove all organic soils (A-8/Muck) and plastic soils per the details of Standard Index Nos. 500 and 505, for the design and construction of the proposed roadway

corridor (including shallow foundations for structures and MSE Walls). Any deviation shall be approved by the Department as part of the ATC process.

C. Utility Coordination:

The Design-Build Firm shall utilize a single dedicated person responsible for managing all utility coordination. This person shall be contractually referred to as the Utility Coordination Manager and shall be identified in the Design-Build Firm's proposal. The Design-Build Firm shall notify the Department in writing of any change in the identity of the Utility Coordination Manager. The Utility Coordination Manager shall have the following knowledge, skills, and abilities:

1. A minimum of 4 years of experience performing utility coordination in accordance with Department standards, policies, and procedures.
2. Knowledge of the Department plans production process and utility coordination practices.
3. Knowledge of Department agreements, standards, policies, and procedures.

The Design-Build Firm's Utility Coordination Manager shall be responsible for managing all utility coordination, including, but not limited to, the following:

1. Ensuring that all utility coordination and activities are conducted in accordance with the requirements of the Contract Documents.
2. Identifying all existing utilities and coordinating any new installations.
3. Reviewing proposed utility permit application packages and recommending approval/disapproval of each permit application based on the compatibility of the permit as related to the Design-Build Firm's plans.
4. Scheduling utility meetings, preparing and distributing minutes of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
5. Distributing all plans, conflict matrices and changes to affected Utility Agency/Owners and making sure this information is properly coordinated.
6. Identifying and coordinating the execution and performance under any agreement that is required for utility work needed in the Design-Build Project.
7. Preparing, reviewing, approving, signing, and coordinating the implementation of and submitting to the Department for review, all Utility Agreements.
8. Resolving utility conflicts.
9. Obtaining and maintaining all appropriate Sunshine State One Call Tickets.
10. Performing Constructability Reviews of plans prior to construction activities with regard to the installation, removal, temporary removal, de-energizing, deactivation, relocation, or adjustment of utilities.
11. Providing periodic Project updates to the Department Project Manager and District Utility Office as requested.
12. Coordination with the Department on any issues that arise concerning reimbursement of utility work costs.

The Utility Agency/Owners (UA/O's) listed in the following table have been identified by the Department as having facilities within the Project corridor. The table also includes a determination made by the Department as to the eligibility for reimbursement for each UA/O potentially impacted by the work shown in the Concept Plans. The Design-Build Firm shall be solely responsible for all costs incurred by the Firm for coordination efforts listed above and for all UA/O reimbursable costs identified as eligible

for reimbursement. These costs shall be included in the price proposal.

Table 1: Summary of Conceptual Utility Work.

UA/O	Eligible for Reimbursement (Yes/No)
AT&T Distribution Dade	No
Florida City Gas	No
Comcast	No
Florida Power and Light - Transmission	No
Florida Power and Light Dade – Distribution	No
FPL FiberNet, LLC.	No
Level 3 Communications	No
Miami-Dade Water and Sewer Department	Yes
Florida Gas Transmission	Yes

Notes:

1) Florida Gas Transmission (“FGT”) will not be relocated or adjusted with this Project. The Concept Plans for Roadway Plans, Reference Document No. 3, and 90% Bridge Widening Substructure Foundation Plans for Pier 2 (HEFT Bridge widening over SW 8th Street), Attachment No. 41, which are included in this RFP, represent the utility accommodations that FTE developed and FGT reviewed. Those utility accommodations include, but are not limited to, locations of proposed features, temporary features, and grading. Relocation, adjustment, or cost impacts to FGT are avoidable with the utility accommodations contained in the Concept Plans, Reference Document No. 3, and 90% Bridge Widening Substructure Foundation Plans, Attachment No. 41, for HEFT Bridge over SW 8th Street. If the Design-Build Firm pursues a deviation from the Concept Plans, Reference Document No. 3, or 90% Bridge Widening Substructure Foundation Plans, Attachment No. 41, for the HEFT Bridge over SW 8th Street, the Design-Build Firm shall document its coordination with FGT and submit to the Department during the ATC process and throughout the contract term those deviations from the Concept Plans and all correspondence from FGT. Any and all costs and/or schedule impacts of deviating from the Concept Plans regarding FGT’s facilities will be the sole responsibility of the Design/Build Firm proposing an alternate plan.

Miami-Dade Water and Sewer Department (M-D WASD) has claimed eligible for reimbursement for any impact to their facilities within Miami-Dade County Right of Way. Please refer to Survey Documentation, Reference Document No. 33 distinguishing jurisdictional limits (Department, Miami-Dade County and Utility Easement) throughout the corridor. Refer to Reference Document No. 25, Advanced Utility Coordination Documentation, for UA/O easements through the corridor.

Where the Department has identified the UA/O is eligible for reimbursement and their facilities are in direct conflict and must be relocated due to the Project’s work effort, the replacements for any impacted utilities shall be designed and constructed to provide service at least equal to that offered by the existing facilities (unless the UA/O specifies a lesser replacement), but shall not include any betterments, unless added to the Utility Adjustment Work through a Utility Agreement between the UA/O and the Design-Build Firm. UA/O’s may request the Department to allow the Design-Build Firm to perform additional

Utility Adjustment Work relating to betterments at the UA/O's expense.

DEVIATION FROM THE CONCEPTUAL ROADWAY PLANS: Should the Design- Build Firm choose to deviate from the conceptual plans causing a greater impact to a utility, the Design- Build Firm shall be solely responsible for all costs incurred by the utility owner associated with the increase in the scope of the impact, regardless of the utilities' reimbursement eligibility. The Design- Build Firm shall obtain an agreement from the utility owner being impacted which outlines the changes to the scope of the impact to a utility and shall be responsible for documenting its coordination with the utility. The agreement shall also address the Design- Build Firm's obligation to compensate the utility owner for the additional costs above the costs, which would have been incurred without the Design-Build Firm's increase in the scope of the impact to a utility. The Design- Build Firm shall also provide a draft utility permit application acceptable to the Department for the placement of the utility owner's facilities based on the final design. The Department shall not compensate or reimburse the Design-Build Firm for any cost created by a change in scope of the impact to a utility, or be liable for any time delays caused by a change in scope of the impact to a utility.

The relocation agreements, plans, work schedules and permit application are to be forwarded to the Department for review by the District Utility Office (DUO) and Department's Construction Manager. The DUO and Department's Construction Manager only review the documents and are not to sign them. Once reviewed, the utility permit application will be forwarded to the District Maintenance office for the permit to be signed and recorded or submitted through the Online System Permitting (OSP) system.

The acquisition of utility services and removal of utility services is covered below.

1. Electric Services

The primary circuits serving step-down transformers for Department owned facilities will be designed by FPL Distribution. FPL Distribution will own and maintain the primary circuits and the step-down transformers served by these primary circuits. The Design-Build Firm shall coordinate the plans and design documents with FPL Distribution. The coordination shall include but not be limited to demolition/relocation of existing primary circuiting and transformers, routing of the new primary circuiting, installation of pull boxes, and service points. The Design-Build Firm shall pay for the design, materials, and installation of the primary electric circuits and step-down transformers for ITS, Lighting, Signalization, and other Department owned facilities. ITS, Roadway lighting, and Signalization systems shall have separate utility meters for each system. Each utility meter will require a label showing the physical street address. The Design-Build Firm will apply for, and pay for acquiring the physical street address at each utility meter.

The Department will own and maintain the secondary circuits between the step-down transformer and the Department's facilities served by the secondary circuits. The Design-Build Firm shall be responsible for the design, materials, and installation of all secondary circuits powered from the step-down transformer.

2. Existing Utilities

The Department has conducted field surveys and early coordination with UA/O's for the entire corridor. The results of these efforts are in meeting minutes, as-built plans, utility owner mark-ups, above ground and subsurface utility surveys, potential utility conflicts matrix based on the concept plans, and a utility contact listing. These materials are provided in Reference Document No. 25 and shall be verified by the Design-Build Firm.

The Design-Build Firm will be responsible for removal of Department-owned utilities and also be responsible to pay for UA/O-owned utilities servicing the Department's facilities that are to be removed.

None of the utility components such as poles, wiring, cables, conduits, pipes, duct banks, vaults, manholes, transformers, lift stations, water or sewer pipes, and storm drains shall be abandoned in place, except for empty utility components that are installed under an operational road as defined herein. Utility components that are installed under an operational road shall have the contents removed from them and be grouted and capped at both ends using new materials listed or labeled for this purpose. The placed out of service portion of the utility components shall not extend more than 4 feet past the paved edge of the travel lane, ramp or shoulder. An operational road shall be defined as any active travel lane or ramp. Driveways and parking lots shall not be considered active roads.

The Design-Build Firm's EOR shall coordinate directly with the appropriate utility company(ies) to determine which portions of their utility(ies) laterals located outside of the Department's right-of-way will need to be removed as part of the demolition process. Coordination with M-D WASD "New-Business" Department will be required for removal of water and wastewater services.

It is the responsibility of the Design-Build Firm to coordinate with M-D WASD concerning pile driving operations within the vicinity of their existing large diameter Prestressed Concrete Cylinder Pipe (PCCP) which are located at/near the overpasses of Coral Way, and SW 117th Avenue. Through previous coordination efforts between the Department and M-D WASD it was agreed that the Design -Build Firm shall adhere to the following:

- Coordinate and obtain approval of a vibration monitoring plan from MD-WASD prior to the 90% submittal of Bridge plans which include pile driving operations in the vicinity of all PCCP.
- Pre-drill below the invert of the PCCP at a minimum horizontal distance of 10 feet from the outside wall of the PCCP.
- No large trees shall be planted above or within 3-feet horizontally of existing M-D WASD facilities.
- Only M-D WASD personnel shall operate existing water and wastewater valves.

Note special precautions are required when installing new foundations for noise walls in the vicinity of M-D WASD facilities. The Design-Build Firm shall coordinate all foundation construction with M-D WASD prior to installation of the noise walls.

The adjustment of existing M-D WASD valves and manholes to either temporary or permanent surfaces as required throughout construction shall be included in the cost proposal and remain accessible for M-D WASD operation. In the event of a conflict between the M-D WASD standards and any other documents, the Department shall determine which provisions apply based on the intent and purpose of the M-D WASD Utility Work.

3. Utility Location and Surveying

It is the Design-Build Firm's responsibility for verifying and locating all utility facilities, including any

SUE work that is required as part of the design process. In addition, the Design-Build Firm is responsible for designating the Department-owned facilities for Utility Companies that are performing work near the Department's facilities. The Design-Build Firm is responsible for all costs associated with all utility location and surveying including locating and surveying the Department-owned facilities (i.e., ITS, electric, fiber optic, water and sewer services and mains, lighting conduit and cable, etc.). Department-owned facilities are not located by Sunshine State One Call (Sunshine 811).

4. Utility Work by Highway Contractor

M-D WASD will enter into a Utility Work by Highway Contractor Agreement at M-D WASD expense (See Attachment No. 42) with the Department for all relocation work as well as adjustment of existing valves and manholes to either temporary or permanent surfaces as required throughout construction. The Design-Build Firm shall prepare a final engineering design, plans, technical special provisions, and a cost estimate for the Utility Work for the M-D WASD facilities in accordance with M-D WASD Design and Construction Standards, (latest edition). The plans shall be prepared in accordance with the FDOT Utility Accommodation Manual and the FDOT Plans Preparation Manual in effect at the time the Plans Package is prepared. The technical special provisions shall be prepared in accordance with the Department's guidelines on preparation of technical special provisions and shall not duplicate or change the general contracting provisions of the FDOT Standard Specifications for Road and Bridge Construction and any Supplemental Specifications, Special Provisions, or FDOT Developmental Specifications for the Project. In the event of a conflict between the M-D WASD standards and any other documents, the Department shall determine which provisions apply based on the intent and purpose of the M-D WASD Utility Work.

Along SW 8th Street the existing 24-in FM belonging to Miami-Dade Water and Sewer Department is in conflict with the proposed bridge foundation for the widening of the HEFT Mainline over SW 8th Street and shall be relocated by the Design-Build Firm. Refer to Attachment No. 42 for schematic relocation plan and scope of work for the 24-inch FM relocation. This information is provided for informational purposes only and the limits depicted are the minimum to be replaced. Should additional lengths be required to accommodate the proposed work or to protect from roadway construction methods, and then the additional length shall be included within the Design-Build Firm's scope.

D. Roadway Plans:

General:

The Design-Build Firm shall prepare the Roadway Plans Package. This work effort includes the roadway design and drainage analysis needed to prepare a complete set of Roadway Plans, Traffic Control Plans, Environmental Permits and other necessary documents. Optional Pipe Materials tabulation sheets shall be included in the Drainage Report to be submitted to the Department for review and approval as part of the 90% Plans submittal.

The current edition of the Design Standards Index 400 for guardrail installation will be the Design Standards Revision 2014 for Standard Index 400. All guardrail within the project limits will be brought into compliance with this design standard revision and the guidance in Roadway Design Bulletin 14-05 regardless of the implementation date referenced within the roadway design bulletin. The existing guardrail between the SFWMD C-2 Canal and southbound SW 117th Avenue may remain in place if transitions from the new guardrail to the existing guardrail comply with Standard Index 400 (Sheet 13B of 26).

Design Analysis:

The Design-Build Firm shall develop and submit a signed and sealed Typical Section Package, Pavement Design Package and Drainage Analysis Report for review and concurrence by the Department.

Any deviation from the Department's design criteria will require a design variation, or a Technical Memorandum if PPM is met but TPPPH criteria is not met. Any deviation from AASHTO will require a design exception. Design variations, exceptions or technical memorandums do not represent approval and shall be coordinated with the Department prior to preparation and submittal.

These packages shall include the following as a minimum:

1. Roadway Design:

See PPM Volume 2; Chapter 2 for Roadway Design sheets, elements and completion level required for each submittal.

2. Typical Section Package

Attachment No. 13 contains the preliminary approved Typical Section Package. Any deviation from the preliminary approved Typical Section Package or criteria must be approved by the Department as part of the ATC process and is the sole risk of the Design-Build Firm.

- Transmittal letter.
- Location Map.
- Roadway Typical Section(s).
 1. Minimum lane, shoulder, median widths.
 2. Lane and shoulder cross slopes.
 3. Slopes requirements.
- Bridge Typical section(s).
 1. Minimum Lane width, shoulder width, median widths.
 2. Cross Slope requirements.
- Data Sheet.
- Design Speed.
- Traffic Data.

The Department recognizes that the typical sections do not cover every aspect of the project and the Design-Build Firms may need to make deviations from the preliminary approved Typical Section Package. These deviations, if necessary, are intended to complement the project drainage approach, and to incorporate other applicable elements of the RFP requirements for the Technical Proposal and for the final design concept approval. The Department is clarifying its interpretation of the Typical Section Package. Chapter 16.2.3. of the PPM as also modified by TPPPH Chapter 16.2.3 defines all the critical elements for the Proposed Roadway Typical Section Drawings. Modifications to these items will require an ATC approval, unless otherwise noted. The following list identifies elements that may be modified as part of the Design-Build Firm's Technical Proposal and final design, without requiring an ATC.

Proposed Roadway Typical Section Drawing item list eligible for modifications:

Item 2: Exact limits of the typical section may be adjusted by the Design-Build Firm provided the lane capacity requirements for the project and other criteria are met.

Item 3: Cross slopes in the roadway typical must meet the intent of the Cross Slope Design Variance.

Item 4: R/W Line label may be adjusted based on the ranges in the Border Width Design Variance.

Item 6: Curb modification may be adjusted to meet criteria and comply with project drainage needs.

Item 8: Centerline construction or other baselines may be adjusted by Design-Build Firm.

Item 9: Profile grade point may be adjusted by Design-Build Firm.

Item 10: Slopes may be adjusted provided they meet PPM and Drainage Manual requirements and the modification doesn't steepen beyond other stated RFP requirement(s).

Item 11: Border width may be adjusted within the requirements of the RFP and Border Width Variation.

Item 12: Ditches may be adjusted with Design-Build Firm drainage approach.

Item 13: Natural Ground Line.

Item 14: Pavement and Roadbed milling and resurfacing, reconstruction limits, and widening widths may be adjusted by the Design-Build Firm.

Item 16: Location of sidewalk or shared use path relative to the back of curb and gutter may be adjusted by the Design-Build Firm.

Allowed modifications to the Proposed Structure Typical Section Drawings without requiring an ATC are Items 4 (R/W Line), Item 8 (Centerline Construction) and 10 (Profile Grade Point).

SR 821 (HEFT)

HEFT from Milepost 0 to Milepost 27.5 is classified as an Urbanized Freeway and will have a design speed of 65 MPH in accordance to AASHTO design criteria, for horizontal and vertical curve length and stopping sight distance, with the exception of K-Values for crest vertical curves that shall meet or exceed the more stringent FDOT 60 MPH criteria. All other design elements shall conform to FDOT criteria.

The minimum lane widths along the SR 821 HEFT shall be 12-ft, except for the area north of Bird Road Interchange where the lane widths have been reduced to match the preliminary approved typical section at the connection point with project FPID 427146-1-52-01. Buffer widths separating the general purpose lanes and express lanes shall be 4-ft. wide.

Coral Way (SW 24th Street)

The proposed typical section for Coral Way has been included within Attachment No. 13 and was preliminarily approved by FTE and coordinated with Miami-Dade County. Any changes to the typical section must be coordinated and approved by Miami-Dade County prior to submittal to FTE for approval.

SW 8th Street

The proposed typical section for SW 8th Street has been included within Attachment No. 13 and was preliminarily approved by both FTE and FDOT District 6. Any changes to the typical section must be approved by FDOT District 6 prior to submittal to FTE for approval.

SR-826

Per decision by TPE and MDX, access to NW 107th Avenue from the new SR-836 EB Ramp (Express Lane Connector Ramp) will be restricted due to lack of weaving distance. The required weaving distance determined for this segment on EB SR-836 is 1000-ft per lane. It was concluded that eliminating this movement will provide a much safer traffic operation on this portion of SR-836. In addition, the existing overhead sign structure along this portion of the EB SR-836 will be impacted by the extended auxiliary lane to the Exit Ramp to NW 107th Avenue. This overhead sign structure replacement must follow the MDX design guidelines and aesthetic criteria in the MDX Enhancement Manual per Attachment No. 21.

3. Pavement Design Package:

The following documents have been provided by the Department in support of the Pavement Design Development:

1. Attachment No. 16 FDOT AADT Traffic Data and Equivalent Axle Loading (ESAL) Memorandum.
2. Attachment No. 17 Coring Survey and Evaluation Report.
3. Attachment No. 18 Resilient Modulus Recommendations Report.
4. Attachment No. 39 TPPPH Chapter 16.
5. Attachment No. 39 GTR Section 13.

The Design-Build Firm shall meet with the Department prior to pavement design report development. The Pavement Design shall provide the minimum structural number stipulated in Attachment No. 15, Minimum Pavement design Requirements for each facility (e.g. mainline widening and new construction, ramps, side streets, etc.). The Pavement Design Package for Coral Way and W. Flagler Street shall be approved by Miami-Dade County.

As a minimum include the following:

- Pavement Design.
 1. Minimum design period.
 2. Minimum ESAL's.
 3. Minimum design reliability factors.
 4. Roadbed resilient modulus.
 5. Minimum structural asphalt thickness.
 6. Cross slope.
 7. Identify the need for modified binder.
 8. Pavement coring and evaluation.

Other requirements include:

1. The Design-Build Firm is responsible for performing pavement cores as they deem necessary for pavement design. Cores shall go to the bottom of the stabilization layer. Pavement designs shall consider ground water impacts before submitting to the Department for review and consideration.
2. The pavement design for widening cannot be less in structural number than the pavement of the adjacent, existing travel lane per the current FDOT Flexible Pavement Design Manual.
3. In areas where the proposed base clearance will be less than 3-ft to the Design High Water, the Design-Build Firm shall reduce the Resilient Modulus in accordance with the Pavement Design Manual.
4. The structural and friction courses under the tolling points, Refer to FTE's 2010 Flexible Pavement Design Guide for Toll Plaza with Electronic Data Collection (See General Tolling Requirements (GTR), Attachment No. 39).
5. The use of FC-12.5 friction course shall be used at the tolling points, Refer to FTE's 2010 Flexible Pavement Design Guide for Toll Plaza with Electronic Data Collection (See GTR, Attachment No. 39).
6. Resilient Modulus (MR) was performed and the results are provided in the Resilient Modulus Recommendation Report (See Attachment No. 18) to assist the Design-Build Firm in developing the applicable Final Pavement Design.
7. Full depth pavement reconstruction is required for inside and outside shoulders at all TES locations. Milling and resurfacing of travel lanes at all TES locations are allowed. Refer to FTE's 2010 Flexible Pavement Design Guide for Toll Plaza with Electronic Data Collection (See GTR, Attachment No. 39).

Use of the Mechanistic-Empirical Pavement Design Guide (MEPDG) for pavement design shall not be allowed, as the Department has not fully accepted this method for use in Florida.

4. Design Variations and Exceptions:

The following Design Variations will be approved by the Department and are included in Attachment No. 14:

- Border Width.
- Cross Slope.
- Ramp Terminal.
- Shoulder Width.
- Shoulder Width – Sign Structures.
- Stopping Sight Distance.
- Superelevation Transition.
- Vertical Alignment.
- Vertical Clearance.

The following Design Exception will be approved by the Department under FPID 427146-1-52-01 and is included in Attachment No. 14:

- Lane Width.

Any deviation from the Department's criteria will require a design variation, or a Technical Memorandum if PPM is met but TPPPH criteria are not met. Any deviation from AASHTO will require a design Exception. All such Design Variations, Technical Memorandum and Exceptions must be approved.

Attachment No. 14 contains Design Variations and Exceptions that will be approved by the Department. Any deviation from the approved Design Variations and/or Exceptions must be approved by the Department as part of the ATC process and is at the sole risk of the Design-Build Firm. The Design-Build firm shall identify in writing their intention to use a design variation and/or exception during the ATC process and submit the design variation and/or exception along with the submission of the ATC proposal. Any Design Variation and/or Exception accepted as part of an approved ATC is considered only preliminarily approved. If the ATC is approved and incorporated into the design, the Design-Build Firm shall resubmit a written, comprehensive Design Variation and/or Exception with proper support documentation, using standard Department procedures, for final approval by the Turnpike Design Engineer. Additional Design Variations and/or Exceptions beyond those identified in this RFP are at the risk and solely responsibility of the Design-Build Firm to prepare. The acceptance of any proposed variation and/or exceptions is at the sole discretion of the Department.

5. Drainage Analysis:

The Design-Build Firm shall be responsible for designing the drainage and stormwater management systems. All design work shall be in compliance with the Department's Drainage Manual; Florida Administrative Code, chapter 14-86; Federal Aid Policy Guide 23 CFR 650A; and the requirements of the regulatory agencies. This work will include the engineering analysis necessary to design any or all of the following: cross drains, French drains, roadway ditches, outfall ditches, storm sewers, retention/detention facilities, interchange drainage and water management, other drainage systems and elements of systems as required for a complete analysis. Full coordination with all permitting agencies, the district Environmental Management section and Drainage Design section will be required from the outset. Full documentation of all meetings and decisions are to be submitted to the District Drainage Design section. These activities and submittals should be coordinated through the Department's Project Manager.

The exact number of drainage basins, outfalls and water management facilities (retention/detention areas, weirs, etc.) will be the Design-Build Firm's responsibility.

The objective is to obtain approved stormwater treatment/attenuation design. This service shall include, but is not limited to the following.

1. The Design-Build Firm shall prepare drainage plans in accordance with the Department criteria. Also, for the preliminary locations of drainage facilities refer to the conceptual drainage design contained in the Conceptual Roadway Plans provided in the Reference Documents No. 3. The conceptual design includes 15 basins and 20 stormwater management facilities, which are currently permitted. Open and closed conveyance systems are anticipated in the Project. There are also two cross drains to be extended, including a box culvert.
2. Permits from the South Florida Water Management District (SFWMD) and the US Army Corps of Engineers (USACE) have been obtained (See Attachment No. 23 and 24) and are in accordance with the Conceptual Design Plans and documentation provided in Reference Document No. 3 and No. 4 (Conceptual Roadway Plans) and Reference Document No. 5 (Drainage Report). The Design-Build Firm shall be responsible for modifying the issued permits as necessary to accurately depict the proposed final design. It should be noted that the permits reflect the regulations and conditions present at their date of issuance and the Design-Build Firm is responsible for accommodating any changes therein. Joint-use ponds or alternative stormwater management solutions can be considered; however the Design-Build Firm is responsible for all associated coordination, costs, permitting fees and fines, as well as any time extensions. The Design-Build Firm shall design appropriate water treatment and

discharge attenuation in accordance with the South Florida Water Management District and the Department criteria for each existing and proposed basin within the Project limits.

3. Perform design and generate construction plans documenting the permitted systems function to criteria.

For purposes of determining base clearance, the Design-Build Firm may use the seasonal high groundwater table as the design high water if Type A Hydrologic Soils is present. Exfiltration trenches or other suitable methods may be used as an alternative to drawdown the water treatment volumes in no more than a 24 hour period with the approval of the FTE Drainage Engineer.

FTE has evaluated the condition of existing cross drains and storm sewers that may remain for adequate hydraulic capacity and design life. Refer to Attachment No. 38 (Pipe Repairs) for a schedule of the necessary repairs to existing pipes if they are to remain operational. All repairs shall be made in accordance with the requirements of this RFP. If the Design-Build Firm's final design requires other existing pipes to remain, the conditions of those pipes will have to be evaluated by the Design- Build firm.

The Design-Build Firm shall ensure that sound barriers will not impact off-site or on-site drainage. Sound barrier openings for conveyance of off-site drainage may require a special design if the inverts of the standard sound barrier openings are not at the elevation meeting the drainage requirements.

If deck drains are proposed on the bridges, they shall be closed systems with no direct discharge to the canals or roadway facilities beneath the bridges. All deck drain dimensions and pipe sizes shall be in accordance with the Department criteria. The minimum pipe size for the deck drain conveyance system shall be six inches in diameter. In addition, any pipes running along the bridge deck to the piers should have a minimum slope of two percent.

The inlets on bridge decks and approach slabs, if any, should be sized and spaced based on an assumed 50 percent blockage. The minimum grate area should be six square feet; orifice flow and pipe flow should be considered to ensure the hydraulic grade line is kept at or below the grate elevation.

The use of trench drains is not preferred, but will be allowed if the diameter is 12 inches or larger.

The Design-Build Firm will consider optional culvert materials in accordance with the Department's Drainage Manual Criteria and the following requirements:

The documentation supporting the optional pipe material including the Culvert Service Life Estimator Program analysis shall meet the requirements of Chapter 6 of the FDOT Drainage Manual and the FTE Drainage Manual Supplement. The Design-Build Firm can only use the optional pipe materials tabulated for a given structure. The Design-Build Firm shall only use one type of pipe materials on pipe runs between structures. Dissimilar materials shall be constructed in accordance with the Standard Indexes. PVC pipes shall be installed within two years from the date of manufacture. Pipe more than two years of age may not be used unless it can be demonstrated to the satisfaction of the Engineer that the pipe has been stored adequately protected from direct exposure to sunlight. Pipe material type installed in the projects shall be indicated on the as-built drawings.

All precast storm sewer manholes and inlets near the MSE walls shall be provided with resilient connectors as specified in Article 942-3 of the FDOT Standard Specifications for Road and Bridge Construction. It is the responsibility of the Design-Build Firm to communicate the type of pipe chosen

and the type of resilient connector to be used to the precast provider, prior to the fabrication of any applicable structures. It is recommended that the contractor includes the type of resilient connectors and any required pipe adaptors for each structure in the drainage structure shop drawing submittal.

The Design-Build Firm will provide grading details for all design features encroaching into the proposed drainage facilities to ensure that appropriate drainage solutions and outfalls are provided at each location.

Prior to proceeding with the Drainage Design, the Design-Build Firm may meet with the District Drainage Engineer for the Turnpike, FDOT 6 District 6 and Miami Dade County Public Works to provide information that will better coordinate the Preliminary and Final Drainage design efforts. This meeting is optional and should occur prior to any submittals containing drainage components. Information regarding the preparation for this meeting is available in the FTE webpage.

The Design-Build Firm shall provide the department's District Drainage Engineer for each associated agency a signed and sealed Drainage Design Report. It shall be a record set of all drainage computations, both hydrologic and hydraulic. The engineer shall include all necessary support data. The Drainage Report will include, at a minimum, a clear description of the overall storm water management system, pond routing calculations in ICPR or equivalent software with a node-reach diagram, justifications of all tailwaters utilized, storm sewer tabulations in FDOT format reporting the adequate pipe sizes to meet the FDOT design criteria, pond recovery calculations, spread calculations, special gutter grade calculations, structure and liner flotation calculations, ditch conveyance calculations, skimmer calculations, cross drain calculations and other calculations relative to drainage or any changes or additions to the drainage solutions. If the final drainage solution includes new outfalls or peak outfall increase into off-site properties, the critical storm analysis will be required. All calculations shall require the approval from the District FTE's Drainage Engineer for the Turnpike, FDOT District 6 and Miami Dade County Public Works.

Exfiltration Trench (French Drains) shall not be placed within 100 feet of any existing and/or new spread footing.

E. Geometric:

The Design-Build Firm shall prepare the geometric design for the Project using the Design Standards that are most appropriate with proper consideration given to the design traffic volumes, adjacent land use, design consistency, aesthetics, ADA requirements, and this document.

The design elements shall include, but not be limited to, the horizontal and vertical alignments, lane widths, shoulder widths, median widths, cross slopes, borders, sight distance, side slopes, front slopes and ditches. The geometric design developed by the Design-Build Firm shall be an engineering solution that is not merely an adherence to the minimum AASHTO and/or Department standards.

At each of the signalized intersections, the Design-Build Firm shall adhere to the Florida Intersection Design Guide for establishing proper intersection geometrics. The required Design Vehicles shall be used in particular at intersections with dual or triple left turns and opposing turning movements. The Design-Build Firm shall abide by the queue lengths provided in Attachment No. 19, Traffic Forecast Memorandum.

The use of Urban criteria with 5% maximum superelevation rates is permitted at the at grade intersections where pedestrian mobility is expected in order to comply with ADA and FDOT standards.

The Design-Build Firm shall coordinate with Miami Dade County for all work pertaining to existing and proposed bus stops. Work elements include installation of new bus shelters, signs, benches, pads; removal of existing shelters, etc.

F. Design Documentation, Calculations, and Computations:

The Design-Build Firm shall submit to the Department design documentation, notes, calculations, and computations to document the design conclusions reached during the development of the construction plans.

The design notes and computation sheets shall be fully titled, numbered, dated, indexed, and signed by the designer and the checker. Computer output forms and other oversized sheets shall be folded to a standard size 8½" x 11". The data shall be in a hard-back folder for submittal to the Department. At the Project completion, a final set of design notes and computations, signed by the Design-Build Firm, shall be submitted with the As-Built Plans and tracings.

The design documentation, notes, calculations and computations shall include, but not be limited to the following data:

1. Design Standards used for the Project
2. Geometric design calculations for horizontal alignments
3. Vertical geometry calculations
4. Documentation of decisions reached resulting from meetings, telephone conversations or site visits. For additional design documentation requirements, the Design-Build Firm shall utilize the FTE Production Design website in Reference Document No. 37.

G. Structure Plans:

The Design-Build Firm shall prepare a component set of Structures Plans as part of the Plans Package for review and approval by the Department. All plans are to be prepared in accordance with the latest design standards and practices and shall be accurate, legible, complete, drawn to scale and furnished in reproducible form.

Refer to Section VII for submittal requirements.

The structural design shall include, but not be limited to, widening of existing bridges, existing bridge rehabilitations (if necessary), new bridge construction, walls (retaining walls, sound barrier, etc.), sign structures, modifications to existing AET not accessible gantry, and other structures, as identified in this RFP. The Design-Build Firm shall ensure that all required final geotechnical and hydraulic recommendations and reports required for structure design are submitted with the 90% plans. Plans for the Tolling Points including the gantry structure(s) and supporting infrastructure for the tolling point site will be packaged as part of an Architectural Component Set.

If the Design-Build Firm proposes to remove and replace any existing toll equipment structures with new toll equipment structures then the Toll Facility Plans shall also address the removal of existing toll equipment structures and the implementation of the new toll equipment structures. The structural design developed by the Design-Build Firm shall be an engineering solution and not merely an adherence to minimum criteria. The Design-Build Firm is encouraged to develop and provide innovative solutions that

can reduce costs and time for the Project.

1. Bridge Design Analysis:

- a. The Design-Build Firm shall submit to the Department final signed and sealed design documentation prepared during the development of the plans.
- b. The Design-Build Firm shall insure that the final geotechnical and hydraulic recommendations and reports required for bridge design are submitted with the 90% bridge plans.
- c. Load Ratings of the existing bridges are provided in Attachment No. 34, Existing Bridge Load Rating Analyses. Design-Build Firm shall "Load Rate" all bridges in accordance with the Department Procedure 850-010-035 and the Structures Manual. The Bridge Load Rating Calculations, the Completed Bridge Load Rating Summary Detail Sheet, and the Load Rating Summary Form shall be submitted to the Department for review with the 90% superstructure submittal. The final Bridge Load Rating Summary Sheet and Load Rating Summary Form shall be submitted to the Department for review with the Final superstructure submittal. A final, signed and sealed Bridge Load Rating, updated for as-built conditions, shall be submitted to the Department for each phase of the bridge construction prior to placing traffic on the completed phase of the bridge. A final, signed and sealed Bridge Load Rating, updated for the as-built conditions as part of the As-Built Plans submittal shall be submitted to the Department before any traffic is placed on the bridge. The Bridge Load Rating shall be signed and sealed by a Professional Engineer licensed in the State of Florida.
- d. The Design-Build Firm shall evaluate scour on all bridges over water using the procedures described in HEC 18.
- e. The Engineer of Record for bridges shall analyze the effects of construction related loads on the permanent structure. These effects include but are not limited to: construction equipment loads, change in segment length, change in construction sequence, etc. The Engineer of Record shall review all specialty engineer submittals (camber curves, falsework systems, etc.) to ensure compliance with the contract plan requirements and intent.

2. Criteria:

The Design-Build Firm shall incorporate the following into the design of this facility:

All plans and designs are to be prepared in accordance with AASHTO LRFD Bridge Design Specifications, Department Standard Specifications, Structures Manual, Plans Preparation Manual, Turnpike Plans Preparation and Practices Handbook (TPPPH), Department Standard Drawings, Supplemental Specifications, Special Provisions, FTE General Tolling Requirements, and directions from the State Structures Design Engineer, Temporary Design Bulletins, Structures Design Office and / or District Structures Design Engineer.

a. Bridges

1. For each bridge, all beams are to be constructed of a single material (i.e., all concrete beams

- or all structural steel beams). A combination of steel spans and concrete spans is not allowed.
2. The Design-Build Firm shall coordinate and obtain any necessary permits from SFWMD for shoring, turbidity and any other restricted construction activities related to demolition or new construction over the Snapper Creek Canal (C-2) and the Tamiami Canal (C-4).
 3. Firm shall coordinate and confirm clearances and substructure locations within the canal limits from the SFWMD for the proposed bridge carrying Ramp SW over the Tamiami Canal (C-4).
 4. Widening of existing bridges, in general, shall match the existing as per the Department Structures Manual.
 5. Depth of the fascia beams shall be constant for the full length of bridges to create a uniform appearance. For dual bridges widened to the median where the final gap between copings is less than 20', the constant fascia beam depth requirement will not apply.
 6. Open expansion joints are not allowed.
 7. GRS walls or abutments are prohibited.
 8. The Design-Build Firm shall use an operational importance factor equal to 1.0 for all bridges.
 9. Grade of bridge sidewalks shall be 5% or less. Refer to SDG Section 1.1.6 for additional ADA requirements.
 10. Proposed bridges with sidewalks shall be designed for all design cases of SDG Section 6.9.
 11. No utilities shall be attached to the bridges.
 12. New bridges are required to have wrap-around walls at the abutments to facilitate the possibility of future bridge widening.
 13. The following environmental classifications shall be used for the bridges:
 - Coral Way (SW 24th Street) over SR 821
New bridge numbers are to be obtained by the Design-Build team. New dual bridges replace existing Bridge No. 870211.
 - Superstructure: Slightly Aggressive.
 - Substructure: Steel – Extremely Aggressive (Resistivity = 838 ohm-cm).
Concrete – Moderately Aggressive (Resistivity = 838 ohm-cm).
 - SR 821 NB Off Ramp over Snapper Creek Canal (C-2), Bridge No. 870213
 - Superstructure: Slightly Aggressive.
 - Substructure: Not Required.
 - SR 821 over Tamiami Trail (SW 8th St.) & Tamiami Canal (C-4)
Bridge Nos. 870212 SB and 870415 NB
 - Superstructure: Slightly Aggressive.
 - Substructure: Steel – Extremely Aggressive (Resistivity = 790 ohm-cm).
Concrete – Moderately Aggressive (Resistivity = 790 ohm-cm).
 - Ramp SW over Tamiami Canal (C-4)
New bridge number is to be obtained by the Design-Build team. The new bridge replaces Bridge No. 870752.
 - Superstructure: Slightly Aggressive.
 - Substructure: Steel – Moderately Aggressive (Resistivity = 1,430 ohm-cm).

Concrete – Moderately Aggressive (Resistivity = 1,430 ohm-cm).

- SR 821 over W. Flagler Street
Bridge Nos. 870214 SB and 870416 NB.
 - Superstructure: Slightly Aggressive.
 - Substructure: Steel – Extremely Aggressive (Resistivity = 985 ohm-cm).
Concrete – Moderately Aggressive (Resistivity = 985 ohm-cm).
- NB Express Lanes to EB SR 836 Connector Ramp Bridge
New bridge number is to be obtained by the Design-Build team.
 - Superstructure: Slightly Aggressive.
 - Substructure: Steel – Extremely Aggressive (Resistivity = 610 ohm-cm).
Concrete – Moderately Aggressive (Resistivity = 610 ohm-cm).
- WB SR 836 to SB Express Lanes Connector Ramp Bridge
New bridge number is to be obtained by the Design-Build team.
 - Superstructure: Slightly Aggressive.
 - Substructure: Steel – Extremely Aggressive (Resistivity = 610 ohm-cm).
Concrete – Moderately Aggressive (Resistivity = 610 ohm-cm).

The Design-Build Firm may calculate their own environmental classifications instead of using those provided by the Department, but under no circumstances will they be allowed to be less aggressive than those presented above.

14. For widening superstructures the new deck slab shall be 8-inches thick. The new bridge floor finish shall match that of the existing bridge deck surface (see TPPP Volume 1, Section 26.19.3). Furthermore, the deck surface does not need to meet profilograph requirements.
15. Remove each existing expansion joint seal in its entirety, across the entire width of the existing bridges to be widened or retrofitted, for replacement with a poured joint seal with backer rod system in conformance with Index 21110, which shall also extend integrally for the full length of the proposed final bridge width. The existing concrete joint headers are to be repaired and/or reconstructed as necessary to accommodate proper installation of the required seal material.
16. Uncoated weathering steel is required for new steel bridges.
17. Intermediate bents/piers are not allowed in the center of the Snapper Creek (C-2) Canal or the Tamiami (C-4) Canal.
18. For all bridges, open scuppers will not be allowed. If deck drainage is required it shall consist of bridge deck inlets with a closed piping system hidden from view. See Section VI.D.5, Drainage Analysis, for additional information.
19. Two (2) – 2” diameter conduits with expansion fittings and embedded junction boxes in accordance with Design Standard Index 21210 shall be installed in all new traffic railings mounted on bridges and retaining walls.
20. The existing columns of the following bridges to be widened do not have adequate capacity to resist the required vehicular collision force, and the calculated annual frequency for the pier to be hit by a heavy vehicle is greater than or equal to 0.0001:
 - SR 821 over Tamiami Trail (Bridge No. 870212 SB; Bridge No. 870415 NB).

- SR 821 over West Flagler Street (Bridge No. 870214 SB; Bridge No. 870416 NB).

The pier protection requirements of FDOT Structures Design Guidelines (SDG) Section 2.6 must be met. At the bridges listed above, Standard Index 411 Pier Protection Barriers may have conflicts between the top of existing pier footings and the bottom of the pier protection barrier footing. The Design-Build Team shall be responsible for design of modified pier protection barriers, or an acceptable retrofit/strengthening scheme, as allowed by SDG Section 2.6.4.E.

21. Structural steel bolts for uncoated weathering steel bridges shall be ASTM A325, Type 3. All other structural steel bolts, anchor bolts, rods, nuts, washers and other associated tie-down hardware shall be mechanically galvanized in accordance with the specifications.
22. All proposed widenings are classified as Minor Widenings in accordance with Structures Design Guidelines Section 7.2.
23. The Design-Build Team shall perform required maintenance repairs on existing bridges to be widened as described in the Bridge Maintenance Repair Requirements memorandum, included in Attachment No. 37.
24. Existing minimum vertical clearances at the SR 821 bridges over Tamiami Trail are 16.50-feet at Bridge No. 870415 (NB) and 17.20-feet at Bridge No. 870212 (SB), as documented in the Final Bridge Analysis Report dated September 2008, developed as part of the PD&E Study for this corridor. These clearances were confirmed by field surveys conducted as part of the RFP development. The proposed bridge widening shall not reduce the vertical clearance below the existing value at the northbound bridge or below 16.5-feet at the southbound bridge. The Design-Build team shall field verify existing vertical clearances and follow up any action for deviation.
25. Existing minimum vertical clearances at the SR 821 bridges over West Flagler Street are 16.30-feet at Bridge No. 870416 (NB) and 16.85-feet at Bridge No. 870214 (SB), as documented in the Final Bridge Analysis Report dated September 2008, developed as part of the PD&E Study for this corridor. These clearances were confirmed by field surveys conducted as part of the RFP Development. A Design Variance (see Attachment No. 14) has been obtained for the existing clearance at the northbound bridge. The proposed bridge widening shall not reduce the existing vertical clearance below that in the Design Variance at the northbound bridge or below 16.5-feet at the southbound bridge. The Design-Build team shall field verify existing vertical clearances and follow up any action for deviation.
26. Minimum vertical clearance to new or replacement bridges shall be 16.50-feet.
27. Critical existing utilities exist at the following bridge location(s):
 - Coral Way over HEFT – Florida Power and Light (FPL) Distribution and Transmission has an overhead line located above the eastern end of the existing and proposed bridges, which runs north-south along SW 117th Avenue.

- Coral Way over SW 117th Avenue– Miami-Dade Water and Sewer Department (M-D WASD), 36” Concrete water main crossing under the bridge carrying Coral Way over SW 117th Avenue. Due to the critical nature of this utility it is very important to avoid damaging it during construction. Therefore, control of vibrations during pile driving operations is critical. The MD-WASD has established a criteria that there shall be a minimum 10-foot clear distance from the outside face of their concrete pipe utilities and the nearest driven pile. This, and procedures for protection of existing structures in FDOT Standard Specifications for Road and Bridge Construction, Section 455-1.1 shall be strictly followed.
 - HEFT over Tamiami Trail (SW 8th Street) – An 8-inch diameter Florida Gas Transmission (FGT) line is located behind Pier 2, running parallel to Tamiami Trail. VVH test holes have been performed and are included with the CADD Files in the Reference Documents No. 2. Due to the critical nature of this utility it is very important to avoid damaging it during construction.
 - HEFT over West Flagler Street – Florida Power and Light (FPL) Distribution and Transmission has a 138-kV overhead line located above span 1 of the bridges and running along West Flagler Street. This overhead line will need to be de-energized to allow relocation of pole(s) as needed for the proposed widening.
28. The Department will obtain Right-of-Way Occupancy Permit applications from South Florida Water Management District for the construction of a new SB off Ramp bridge over the Tamiami Canal (C-4) at SW 8th Street Interchange, a new Coral Way Bridge over the C-2 Canal, and HEFT bridge widenings over the Tamiami Canal (C-4) (See Attachment No. 26). In addition, a Class III permit application will be obtained from Miami Dade County DERM for the construction of a culvert extension under the new N-E Express Lane Connector Ramp in the Miami Dade County Snapper Creek Canal extension at SR 836 interchange (See Attachment No. 25), in accordance with the Conceptual Design Plans and documentation provided in Reference Document No. 3 (Conceptual Roadway Plans). The Design-Build Firm is responsible for all associated coordination, costs, permitting fees and fines, as well as any time extensions.
29. In cases where a bridge widening foundation is proposed adjacent to an existing pier with spread footing, the proposed embedment depth of footing may match the existing embedment depth of footing in lieu of Structures Design Bulletin (SDB) 14-01 which requires a minimum of 3-feet of embedment. Any proposed widening adjacent to piers with pile caps or other foundation types must comply with SDB 14-01. See section VI.B for additional requirements.
- b. Walls**
1. The Design-Build Firm is responsible for the design and construction of any required retaining walls, both temporary and permanent.
 2. Critical Temporary Retaining Walls: Whenever the construction of a component requires excavation that may endanger the public or an existing structure that is in use the Design-Build Firm must protect the existing facility and the public. If a critical temporary retaining wall is, therefore, required during the construction stage only, it may be removed and reused after completion of the work. Such systems as steel sheet pilings, soldier beams and lagging

or other similar systems are commonly used. In such cases, the Design-Build Firm is responsible for designing and detailing the wall in the set of contract plans. These plans and calculations must be signed and sealed by the Structural Engineer in responsible charge of the wall design.

3. Permanent Retaining Walls: All permanent retaining walls shall be full height walls. All permanent retaining walls shall have a concrete facing which must be designed for both short and long-term imposed loads as applicable. Retaining wall heights shall not exceed 40 feet (MSE wall height shall be measured from the top of the natural ground to the top of the highest coping). Partial height walls, as shown in FDOT Structures Design Guidelines Section 3.12, such as perched (walls founded on fill above the elevation of the natural ground line, or located within a fill slope between the toe of slope and the top of slope) and toe walls (walls that preserve a portion of an existing fill slope, or eliminate only a portion of sloped embankment at the bottom of the slope) are not permitted, with the following exception: gravity toe walls may be used at HEFT over Tamiami Trail and HEFT over W. Flagler Street to relocate the existing sidewalks if required for construction of pier protection barriers.

MSE retaining walls on fill shall not be considered perched walls when the following criteria are met:

- A level area of fill is provided in front of the wall at a minimum elevation of 2-feet above the top of leveling pad.
- This level area shall extend laterally from the front face of wall, and longitudinally from the begin and end of wall, for a minimum horizontal distance equal to the MSE wall height.

For these walls, the wall height can be measured from the top of leveling pad to top of highest coping.

4. Flowable fill backfill behind MSE walls shall meet the requirements of the Structures Design Guidelines.
5. Construction of MSE walls in areas where the Design High Water Elevation (DHW) is above the adjacent ground surface shall be done in accordance with the requirements of the Structures Design Guidelines.
6. New MSE wall panels that are tied to an existing MSE wall shall use the same panel shape as the existing MSE wall panels.
7. Sound barrier as per TPPPH Chapter 32 shall be designed and constructed so as to satisfy the Noise Study Technical Memorandum (See Attachment No. 27). During the design of the noise walls, the Design-Build Firm shall include maintenance access points in accordance with the FTE Maintenance and Access Requirements Memorandum (See Attachment No. 35). The Design-Build Firm shall account for access points for fire service as well as mount street name signs where required. If the Design-Build Firm alters the horizontal and/or vertical alignment depicted in the concept plans, the Design-Build Firm shall submit to the Department all the CADD information required to reevaluate the noise study presented in this RFP. If the change in horizontal and/or vertical alignment results in the modification of the current sound barrier dimensions, the Design-Build Firm shall be responsible to absorb the

additional design and construction costs. The Department will be responsible for the final noise analysis and will determine if any adjustments are required to the final noise study.”

8. The following environmental classifications shall be used for retaining and noise walls:
 - i. Superstructure – Slightly Aggressive.
 - ii. Substructure:
 - o Steel – Extremely Aggressive (Resistivity = 610 ohm-cm).
 - o Concrete – Moderately Aggressive (Resistivity = 610 ohm-cm).

The Design-Build Firm may calculate their own environmental classifications instead of using those provided by the Department, but under no circumstances will they be allowed to be less aggressive than those presented above.

c. Sign Structures

1. All sign structures that are removed as part of this Project shall become the property of the Design-Build Firm and shall be disposed of properly. For a listing of existing sign structures see Reference Document No. 34, Inventory of Existing Sign Structures.
2. Reuse of sign structures shall be defined to mean any work performed as part of this Project which modifies the structure in any way, including sign panel changes and removal and re-installation at another location. Reused sign structures shall be brought into compliance with current FDOT.
3. Existing sign structure 87T123 cannot be reused on the Project. This sign structure has experienced weld cracking in the past. The cracking occurred at the interface between the horizontal plate and a vertical stiffener plate for the connection of the truss bottom chord to the upright.
4. Existing sign structure 87T199 has excessive anchor bolt stand-off distance (unsupported anchor bolt length from the top of the foundation to the bottom of the leveling nut). If this existing sign structure is to remain in place (i.e. not be removed and/or relocated by the Design-Build team), the Design-Build team shall mitigate this issue to provide an acceptable anchor bolt stand-off distance. The Design-Build team may consider the construction of a structural grout pad and/or other means to correct the issue.
5. The Design-Build Firm shall provide signed and sealed design calculations documenting the acceptability for the proposed use of any existing sign structures the Design-Build Firm proposes to reuse. Repairs to all existing sign structures approved for reuse shall be performed as determined necessary by the FTE Structures Maintenance Engineer. Repairs may include:
 - All hardware (nuts, bolts, clips, etc.) which exhibits corrosion or is missing shall be replaced in kind with new hardware.
 - Clean and Repair Galvanizing for all structural elements (Columns, Chords, Bracing Members, Plates, etc.) which exhibit localized areas of corrosion.
 - Tighten or replace all loose hardware.
 - Check-out and testing of electrical and lighting systems is required.

- Repair or replace broken electrical conduit, reconnect grounding system, align lights, etc.
6. A Signing Master Plan concept has been provided as Reference Document No. 6. The plan contains the location of proposed overhead sign structures required in advance of the new express lanes in each direction of travel. Some structures contained mixed static / dynamic message signs. The sign structures design shall take into consideration all of the proposed loading conditions.
 7. There are new sign structures required outside the Project limits (See Reference Document No. 6). The Design-Build Firm is responsible for design and construction of these sign structures. Coordination with the adjacent Design-Build Firms will be necessary for proper and efficient installation and construction.
 8. The following environmental classifications shall be used for sign structures:
 - Superstructure – Slightly Aggressive.
 - Substructure:
 - Steel – Extremely Aggressive (Resistivity = 610 to 985 ohm-cm).
 - Concrete – Moderately Aggressive (Resistivity = 610 to 985 ohm-cm).

The Design-Build Firm may calculate their own environmental classifications instead of using those provided by the Department, but under no circumstances will they be allowed to be less aggressive than those presented above.

3. Bridge Structures:

The following list of bridge structures identify existing and new bridges and related Reference Documents describing viable alternatives that may be used as a guideline as to what satisfies the requirements and expectations of the Department:

- a. Coral Way (SW 24th Street) over HEFT (SR 821), SW 117th Ave. and Snapper Creek (C-2) Canal. A new bridge or bridges (Bridge Numbers to be obtained by the Design-Build Team) shall replace the existing bridge (Bridge No. 870211). Refer to Reference Document No. 15, Bridge Concept Report [Coral Way (SW 24th Street) over HEFT (SR 821), SW 117th Ave. and Snapper Creek (C-2) Canal].
- b. Ramp E over Snapper Creek (C-2) Canal, Bridge No. 870213. The existing traffic railings are to be upgraded to TL-4 capacity using the steel elliptical tube retrofit concept. Refer to Reference Document No. 17, Bridge Concept Report [Ramp E over Snapper Creek (C-2) Canal] for details and approval documentation for this traffic railing retrofit concept.
- c. HEFT (SR 821) over Tamiami Trail (SW 8th Street) and Tamiami (C-4) Canal, Bridge Nos. 870415 NB & 870212 SB. Existing bridges proposed to be widened. Refer to Reference Document No. 16, Bridge Concept Report [HEFT (SR 821) over Tamiami Trail (SW 8th Street) and Tamiami (C-4) Canal].
- d. Ramp SW over Tamiami (C-4) Canal. A new bridge (Bridge Number to be obtained by the Design-Build Team) shall replace the existing bridge (Bridge No. 870752). Refer to Reference Document No. 20, Bridge Development Report [Ramp SW over Tamiami (C-4) Canal].

- e. HEFT (SR 821) over West Flagler Street, Bridge Nos. 870416 NB & 870214 SB. Existing bridges proposed to be widened. Refer to Reference Document No. 18, Bridge Concept Report [HEFT (SR 821) over West Flagler Street].
- f. HEFT – SR 836 Express Lane Connector Ramp Bridges. Two new bridges are required to connect the SR 821 Express Lanes to SR 836. Bridge numbers are to be obtained by the Design-Build Team. Refer to Reference Document No. 19, Bridge Concept Report (HEFT – SR 836 Express Lane Connector Ramps).

4. Other Structures:

- a. The structures criteria in this section of the RFP is not intended to apply to building/architectural structures. Refer to other sections of this RFP as appropriate.
- b. Design-Build Firm shall be responsible for all coordination issues and other structures that are required to perform the work as identified in this RFP.
- c. Tolling facilities are to remain in place with only the installation of new tolling equipment and retrofitting the equipment configuration to accommodate additional lanes.

5. Aesthetic Criteria

Aesthetic Level 1, in accordance with PPM Volume 1, Chapter 26 and TPPPH Chapter 26 shall apply to all structures.

Aesthetic requirements by structure location / type are as follows:

- a. **Coral Way (SW 24th Street) over SR 821 (HEFT) – Bridge Replacement:**
 - All concrete elements in the replacement bridge shall be smooth.
 - Bridge Coating: No coating.
- b. **HEFT NB Off-Ramp at SW 8th Street over C-2 Canal – Bridge Improvements:**
 - Bridge Coating: No coating.
 - Clean the existing structure.
- c. **HEFT over Tamiami Trail (SW 8th Street) – Bridge Widening:**
 - All concrete elements in widened bridges shall be smooth.
 - Bridge Coating: No coating.
 - Clean the existing structure.
- d. **Ramp SW over C-4 (Tamiami) Canal – Bridge Replacement:**
 - All concrete elements in the replacement bridge shall be smooth.
 - Bridge Coating: No coating.
- e. **HEFT over West Flagler Street – Bridge Widening:**
 - All concrete elements in widened bridges shall be smooth.
 - Bridge Coating: No coating.
 - Clean the existing structure.

- f. Express Lane Flyover Connectors from HEFT to SR 836 (New Bridges):**
 - All concrete elements in the new bridges shall be smooth.
 - Bridge Coating: No coating.

- g. Existing Ground Mounted Noise Walls (to remain):**
 - Pressure Wash (Roadway Side Only).

- h. Proposed Ground Mounted Noise Walls:**
 - Wall Type: Post and Panel, Recessed panel.
 - Post and Panel Texture: Ashlar Stone (formed on roadway side) and Ashlar Stone (formed, rolled or pressed on non-roadway side). Both faces of the post and the top border of panels shall be smooth. Steel posts are not acceptable. See Attachment No. 28 for details.
 - Coating: No Coating.
 - Graphics: No Graphics.

- i. Proposed Shoulder Mounted Noise Walls:**
 - Texture: Ashlar Stone finish on back side, smooth finish on front side (reference Index 5200 for textures).
 - Coating: No Coating.
 - Graphics: No Graphics.

- j. Retaining Walls:**
 - All retaining wall concrete elements shall have a smooth finish, unless otherwise noted.
 - Coating: No Coating.
 - Graphics: No Graphics.
 - All permanent walls shall have a concrete facing and a concrete cap.
 - Exposed steel wales are not permitted and shall be encased in concrete if proposed.

- k. Retaining Wall with Noise Wall:**
 - Texture: Ashlar stone finish on back side, smooth finish on front side (reference index 5200 for textures). Retaining wall and noise wall texture shall match.
 - Color: None.

- l. Anti-Graffiti Coating:**
 - Anti-Graffiti coatings shall not be utilized on this project.

6. Inventory for Welding Inspection

Prepare a List of Components of all steel structures that need welding inspection to be included in the Inventory for Welding Inspection. For example – steel bridges, cantilever sign structures with span lengths greater than 41-feet, span sign structures, gantry structures, bridge-mounted sign structures, and any structures with field welds, etc. See Reference Document No. 35 for a Sample Inventory for Welding Inspection.

H. Specifications:

Department Specifications may not be modified or revised. The Design-Build Firm shall also include all Technical Special Provisions, which will apply to the work in the proposal. Technical Special Provisions shall be written only for items not addressed by Department Specifications, and shall not be used as a means of changing Department Specifications.

Before construction activities can begin, the Design-Build Firm shall prepare and submit a signed and sealed Construction Specifications Package for the Project, containing all applicable Division II and III Special Provisions and Supplemental Specifications from the Specifications Workbook in effect at the time the Bid Price Proposals were due in the District Office. The Specifications Package shall be prepared, signed and sealed by the Design-Build Firms Engineer of Record who has successfully completed the mandatory Specifications Package Preparations Training.

The website for completing the training is at the following URL address:

<http://www2.dot.state.fl.us/SpecificationsEstimates/PackagePreparation/TrainingConsultants.aspx>

Specification Workbooks are posted on the Department's website at the following URL address:

<https://www2.dot.state.fl.us/SpecificationsPackage/Utilities/Membership/login.aspx?ReturnUrl=%2fspecificationspackage%2fDefault.aspx>.

The signed and sealed Specifications Package shall also include individually signed and sealed Technical Special Provisions for any and all work not addressed by Department Specifications. Any Technical Special Provisions included in the signed and sealed Construction Specifications Package which had not been included in the proposal phase, may require a contract cost modification as a condition of approval.

Upon review by the Department, the Construction Specifications Package will be stamped "Released for Construction" and initialed and dated by the reviewer.

Any subsequent modifications to the Construction Specifications Package shall be prepared, signed and sealed as a Supplemental Specifications Package, subject to the same process for submittal, review, and, release for construction, as described above, for the original Construction Specifications Package. Construction work affected by Supplemental Specifications Packages shall not begin until stamped "Released for Construction" Supplemental Specification Package is obtained.

To work at risk, the Design-Build Firm must submit signed and sealed specifications and can begin working prior to the Department's Project Manager providing stamped "Release for Construction" specifications. The Design-Build Firm shall notify the Department five (5) days prior to starting work at risk. All work that the Design-Build Firm performs in advance of the Department's release of Specifications will be at the Design-Build Firm's risk.

I. Shop Drawings:

The Design-Build Firm shall be responsible for the preparation and approval of all Shop Drawings. Shop Drawings shall be in conformance with the Department's Division I Specifications for Design-Build Contracts, TPPPH and FDOT Plans Preparation Manual when submitted to the Department and shall bear the stamp and signature of the Design-Build Firm's Engineer of Record (EOR) and Specialty Engineer, as appropriate. The Department shall review the Shop Drawing(s) to evaluate compliance with Project

requirements and provide any findings to the Design-Build Firm. The Department's procedural review of shop drawings is to assure that the Design-Build Firm's EOR has approved and signed the drawing, the drawing has been independently reviewed and is in general conformance with the plans. The Department's review is not meant to be a complete and detailed review. Upon review of the shop drawing, the Department will stamp "Released for Construction" or "Released for Construction as noted" and initialed and dated by the reviewer.

Shop Drawing submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the Shop Drawing(s) submitted for review.

For shop drawing coordination, contact the Department's Shop Drawing Review Office at (407) 532-3999.

J. Sequence of Construction:

The Design-Build Firm shall construct the work in a logical manner and with the following objectives as guides:

1. Expedite construction of sound barriers.
2. Expedite construction of Coral Way Bridge over HEFT (SR 821).
3. Maintain or improve, to the maximum extent possible, the quality of existing traffic operations, both in terms of flow rate and safety, throughout the duration of the Project.
4. Minimize the number of different Traffic Control Plan (TCP) phases, i.e., number of different diversions and detours for a given traffic movement.
5. Utilize newly constructed portions of the permanent facility as soon as possible when it is in the best interest of traffic operations and construction activity.
6. Maintain reasonable direct access to adjacent properties at all times, with the exception in areas of limited access right-of-way where direct access is not permitted.
7. Proper coordination with adjacent construction Projects and maintaining agencies.
8. Obtain permits for work within Miami-Dade County Right of Way prior to submittal to FTE. MOT on Miami-Dade County roadways cannot commence until permit is approved.
9. Perform all installation of new structures, and demolition of existing facilities, as described in the RFP.
10. Maintain functionality of existing ITS equipment during design and construction of new ITS equipment to support express lanes.
11. Perform ITS testing.

12. Allow the Department's Toll Equipment Contractor (TEC) to install and test the toll equipment system.
13. Implement AET express lanes.

AET express lanes will be implemented upon completion of work under FPID 427146-1-52-01 after the operational testing performed by the Department. An interim design per Reference Document No. 9 constructed by the south segment under FPID 427146-1-52-01 will be transitioned to the existing typical at the begin project limit of this project. Upon project completion, there will be overlapped construction works in the adjacent project to the south. The additional construction limits for the overlapped interim areas shall include the extended project limits along mainline HEFT to approximately 3000-ft NB and 1500-ft SB into the south segment under FPID 427146-1-52-01 for resurfacing, final pavement markings, and final tubular delineators for the express lanes per Typical Sections. Upon completion of this project, the Department will perform operation testing until such time that the AET express lanes are functioning properly and ready to open. Implementation of AET express lanes will require the followings:

1. Installation and testing of new tolling equipment, to be provided by FTE's TEC. Adjustment of the new tolling equipment during the interim phase and final phase will be necessary for proper function.
2. On the day AET express lanes are implemented for the Interim Phase per Reference Document No. 9, all toll related signage per Interim Express Lane Implementation Concept under this project shall be furnished and installed. All conflicting and non-relevant signage shall be covered. Pavement markings for the express lane(s) per Interim Express Lane Implementation Concept shall also be implemented. All toll related signage for the Interim Phase shall be removed and be replaced with the toll related signage required by Conceptual Signage Plans when final AET express lanes are implemented.
3. On the day of final AET express lanes are implemented, all toll related signage required by the Conceptual Signing Plans in the final condition shall be furnished and installed and uncovered. All conflicting and non-relevant signage shall be covered or removed. Pavement markings for the express and general purpose lanes per Conceptual Signing Plans, and all roadway features per Typical Sections and Roadway / Bridge Concept Plans shall also be implemented.
4. When toll related signs are placed prior to AET express lane implementation, these signs shall be covered until AET express lanes implementation. Refer to Section VI.Q for details.
5. The actual date of AET express lanes implementation shall be as directed by the Department upon confirmation that all activities required for the safe and coordinated implementation can be performed.

K. Stormwater Pollution Prevention Plans (SWPPP):

The Design-Build Firm shall prepare a Storm Water Pollution Prevention Plan (SWPPP) as required by the National Pollution Discharge Elimination System (NPDES). The Design-Build Firm shall refer to the Department's Project Development and Environment Manual and Florida Department of Environmental Protection (FDEP) Rule 62-621.300(4)(a) for information in regard to the SWPPP. The SWPPP and the

Design-Build Firm's Certification (FDEP Form 62-621.300(4)(b) **NOTICE OF INTENT (NOI) TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES**) shall be submitted for Department review and approval. Department approval must be obtained prior to beginning construction activities.

L. Temporary Traffic Control Plan:

a. Traffic Control Analysis:

The Design-Build Firm shall design a safe and effective Temporary Traffic Control Plan to move vehicular traffic during all phases of construction. Topics to be addressed shall include, but are not limited to, construction phasing, utility relocation, drainage structures, signalization, ditches, front slopes, back slopes, drop offs within clear zone, and traffic monitoring sites. Special consideration shall be given to the drainage system when developing the construction phases. Positive drainage must be maintained at all times.

The Temporary Traffic Control Plan shall address how to assist with maintenance of traffic throughout the duration of the contract.

The Temporary Traffic Control Plan shall be prepared by a certified designer who has completed the Department's training course, and in accordance with the Department's Design Standards and the Roadway Plans Preparation Manual and TPPP.

Transportation Management Plans (TMPs) are required for significant Projects which are defined as:

1. A Project that, alone or in combination with other concurrent Projects nearby, is anticipated to cause sustained work zone impacts.
2. All Interstate system Projects within the boundaries of a designated Transportation Management Area (TMA) that occupy a location for more than three days with either intermittent or continuous lane closures shall be considered as significant Projects.

For significant Projects a TMP will consist of three components:

- (1) Temporary Traffic Control (TTC) plan component;
- (2) Transportation Operations (TO) component; and
- (3) Public Information (PI) component.

Additional information can be found in chapter 10 of the PPM and TPPP as well as the FTE production design website Maintenance of Traffic General Notes in Referenced Document No. 37, FTE Production Design Website.

b. Hurricane Readiness Plan:

Refer to the FTE's Field Operations Guide (Attachment No. 11) for requirements of the Design-Build Firm as related to the implementation of Hurricane Operations on the FTE System.

c. Temporary Traffic Control Plans:

a. General

1. The Design-Build Firm shall utilize Index Series 600 of the Department's Design Standards and the Turnpike's Supplemental Standards where applicable. Should these standards be inadequate, a detailed Temporary Traffic Control Plan shall be developed. The Design-Build Firm shall prepare plan sheets, notes, and details to include the following: typical section sheet(s), general notes and construction sequence sheet(s), typical detail sheet(s) and traffic control plan sheet(s).
2. The Design-Build Firm shall utilize Index Series 600 of the Department's Design Standards for Miami Dade County and FDOT District 6 MOT.
3. The Design-Build Firm shall prepare additional plan sheets such as detours, cross sections, profiles, drainage structures, retaining wall details, and sheet piling as necessary for proper construction and implementation of the Temporary Traffic Control Plan.
4. The Design-Build Firm shall design a safe and effective TCP to ensure that all vehicular traffic can be accommodated through the construction zones with minimum delay and exposure to unsafe conditions during all phases of construction. The work shall include, but not be limited to, overall phase planning, temporary static signs and portable changeable message signs (PCMS), utility relocation, temporary lighting, temporary drainage structures, ditches, front slopes, back slopes, drop-offs within clear zone, traffic monitoring sites and provide an open area for the staging of disabled vehicles.

This section defines the minimum requirements noted below:

- Number of Lanes: The minimum number of lanes along the mainline should be equal to the existing number of lanes. Lane closures are only allowed as noted in section e (below), Traffic Control Restrictions.
- Lane Width: Per the FDOT Standard Index 600 Series.
- Shoulder Width: Refer to TPPP Chapter 10 Volume I, Section 10.12.6
- Cross slopes: The proposed cross slopes shall match existing or the proposed slopes. There should not be a break in the cross slope along a travel lane. Overbuild shall be used on the shoulders to match the slope(s) of the adjacent lane(s). A temporary pavement design shall be approved by FTE prior to implementation in the traffic control plans.
- Median Barriers: Temporary Concrete Barrier wall, or an approved equivalent, should be used in all cases to separate traffic in opposing directions along the HEFT.
- Superelevation: Refer to TPPP Chapter 10, Volume I, Section 10.12.5
- Emergency Pull Off Area: Refer to TPPP Chapter 10 Volume I, Section 10.12.6.1

Refer to the Turnpike Plans Preparation and Practice Handbook Volume I Chapter 10 for other requirements and guidance on the Turnpike MOT Policy.

5. Special consideration shall be given for temporary drainage for each construction phase. Positive drainage must be maintained at all times. Gutter spread calculations at the temporary barrier walls shall be performed. Temporary barrier walls adjacent to a travel lane shall be placed so that the resulting gutter spread due to the temporary barrier wall does not encroach beyond the temporary pavement stripe.
6. The Temporary Traffic Control Plan shall include:
 - a. Accommodation for traffic impacts associated with local events.
 - b. A written plan detailing each activity involved in a lane closure, including back-up plans for activities critical to re-opening the lanes to traffic.
 - c. Locations and details for work zone access.
 - d. Emergency contact information shall be provided to the engineer, appropriate agencies and adjacent project managers.
7. The Design-Build Firm shall maintain a median barrier (permanent or temporary) on the HEFT during all phases of construction.
8. The Design-Build Firm shall use only paint for temporary pavement markings on asphalt pavement. Refer to TPPP Volume I Chapter 10, Section 10.12.21 for use of Low profile reflective pavement markers.
9. Overlays or milling with overlays will be the only acceptable method(s) to achieve positive means for the obliteration of existing pavement markings in areas such as long term crossovers, diversions, and in some cases tangent sections that provide a rough riding pavement.
10. High pressure water blasting is the only acceptable method for the removal of conflicting pavement markings in those areas not mentioned above. When removing pavement marking messages via water blasting, the entire area within the pavement message, including the interior of the message that is not painted or have thermoplastic, shall be water blasted so that the message outline is completely obliterated and drivers are not able to read or see the scar outlining former message.
11. Throughout the milling operations, the Design-Build Firm shall use a self-contained vacuum type mobile broom for cleanup of milled dust material.
12. The final pavement lift of any paving operation, including temporary overbuilding of existing shoulders, shall be constructed with a paving machine to insure adequate rideability.
13. The Design-Build Firm shall ensure that street name signs are visible in order to facilitate emergency vehicle traffic.
14. All commercial material for temporary driveway maintenance shall be milled asphalt.

15. The Design-Build Firm shall provide a dedicated crew for the installation, maintenance and removal of the temporary traffic control devices. This crew shall consist of at least three members of the work force whose sole responsibility is the installation, maintenance and removal of the temporary traffic control devices. This crew shall have immediate access to a work vehicle to aid in these activities.
16. The Design-Build Firm shall ensure that all logo signs are displayed to the travelling public at all times during the Project. The Design-Build Firm shall coordinate any relocation of the signs with Andrew Hennosy of Florida Logos, Inc. at 888-608-0833.
17. The Design-Build Firm shall operate and maintain existing signals for the entire Project duration or until the signal is no longer necessary and removed from service. New signals shall be operated and maintained commencing with the need for the new signal and continuing through to the Project completion.
18. The Design-Build Firm shall notify a property owner 96 hours prior to clearing and grubbing any existing privately constructed sprinkler systems, signs or landscaping within the Project limits.

b. Temporary Lighting Notes and Criteria

1. The Design-Build Firm shall maintain lighting throughout all phases of construction either by maintaining the existing lighting system, providing temporary lighting, or activating the proposed lighting system.
2. Temporary lighting shall comply with criteria shown in section 7.3.1 and section 7.3.1.4 of the TPPPH.
3. Provide a temporary lighting system on existing illuminated sections and where new lighting is being constructed with in the Project at all times. The Design-Build Firm shall provide a temporary lighting design signed and sealed by a professional engineer registered in the State of Florida. The Design-Build Firm shall provide voltage drop calculations, conductor and conduit sizes, load center drawings and wiring diagrams for temporary power service.
4. All structure calculations and drawings must be signed and sealed by a professional engineer registered in the State of Florida.
5. Furnish, install and maintain and remove the temporary lighting system in accordance with the National Electric Code and National Electric Safety Code requirements.
6. Provide overhead wiring wherever possible, however, the use of underground conduit and conductors shall be provided where overhead wiring would interfere with construction.
7. Provide all maintenance of temporary lighting equipment, including existing load centers, once they are connected to the temporary lighting system.
8. Coordinate all temporary lighting work with the Design-Build Firm and Traffic Control Plans for the appropriate sequence of construction.

9. The overhead electrical supply conductors shall be a minimum of 15 feet above the highest construction grade level during all phases of construction.
10. The nominal height of the temporary light poles shall not exceed the nominal height of the existing light poles.
11. Install temporary or proposed lighting fixtures and modifications to existing systems during daylight hours. Those poles replaced or installed by the Design-Build Firm shall be operational at night. The Design-Build Firm may elect to remove/install poles at night, but shall provide sufficient lighting per the Temporary Lighting criteria (provided above) to compensate for the down poles.
12. All components of the temporary lighting systems that are not part of the proposed lighting system shall be removed when no longer needed and disposed of by the Design-Build Firm.
13. Prior to any equipment order, submit for approval of equipment specifications or design data for all material proposed for the temporary lighting design. These must specifically include:
 - a. Luminaire photometrics, including electronic IES photometric files
 - b. Pole strength calculations
 - c. Pole frangibility test
 - d. Temporary service points
 - e. Calculations and drawings for temporary barrier wall light poles and mountings.
 - f. Load center electrical equipment, including wiring schematics
 - g. Design calculations, including voltage drops and load analysis

c. Temporary ITS Requirements

1. The temporary ITS system shall be installed and demonstrated by the Design-Build Contractor to the Engineer's satisfaction to be a fully functioning ITS system before the existing ITS system is removed from service.
2. The Design-Build Contractor furnish and install additional temporary poles with wireless radios as needed in order to obtain full communications to all work zone ITS (WZITS) locations.
3. The Design-Build Contractor may field adjust WZITS locations in order to avoid construction activity conflicts. Submit new locations to the Engineer for approval.
4. Temporary WZITS CCTV cameras shall be installed a minimum of 40' above the adjacent roadway's final grade elevation at the WZITS camera location.

5. The Design-Build Contract shall submit all WZITS equipment to the Engineer for approval.
6. Temporary WZITS locations shall be submitted to the Engineer for approval. They shall remain in place in that phase throughout the duration of construction unless relocation is needed due to a conflict.
7. Temporary WZITS DMS shall be installed within 20' of the outside travel lane at a height that is visible to all lanes of oncoming traffic.
8. All WZITS equipment installed in the clear zone that is not protected by a permanent traffic railing or guardrail shall be protected by temporary barrier wall.
9. At the Design-Build Contractor's discretion, WZITS equipment shall be installed on temporary poles or mobile trailers fitted with vertical masts. The Design-Build Contractor shall construct temporary mounds as needed to meet installation location and height requirements.
10. All WZITS CCTV cameras shall be able to be viewed and controlled by Adtech Steelbox software.
11. All CCTV video shall be encoded MPEG-2.
12. The Design-Build Contractor shall be responsible to integrate the temporary WZITS DMS's into the FTE Turkey Lake and Pompano Sunguide Systems. DMS's shall be Sunguide compatible and shall provide full functionality (DMS control) through the Sunguide software. The Design-Build Contractor shall be responsible to integrate the temporary WZITS CCTV cameras into the FTE Turkey Lake and Pompano TMCs Steelbox software systems. All CCTV cameras shall be Adtech Steelbox software compatible and shall provide full functionality (CCTV video and control) through the Steelbox software. The Design-Build Contractor shall coordinate with FTE TMC personnel for access to the TMC and network configuration information (i.e. IP addresses, port numbers, security settings, etc.).
13. The Design-Build Contractor shall be responsible for the removal of all temporary WZITS items after Department acceptance of the permanent ITS system.

d. Temporary Signal

1. Temporary signals may be required along Coral Way and SW 8th Street. The Design-Build Firm shall coordinate and gain approval from Miami Dade County Traffic Division for use of temporary signals.
2. Temporary signal details shall be provided with the Traffic Control Plans associated with each facility.

e. Traffic Control Restrictions:

The Design-Build Firm shall maintain the existing number of lanes on all roadways at all times, except for during permissible lane closures and detours. A lane may only be closed during active work periods.

All lane closures, including ramp closures, must be reported to the local emergency agencies, the media and the District PIO and shall be in accordance with Florida's Turnpike Enterprise Lane Closure Policy. Also, the Design-Build Firm shall develop the Project to be able to provide for all lanes of traffic to be open in the event of an emergency or if the lane closure causes a driver delay greater than 20 minutes. For Lane Closure Restrictions refer to Attachment No. 20.

Dual lane closures will be allowed during milling and resurfacing operations of the center travel lane in order to avoid bifurcation of the travel lanes. NO DUAL LANE CLOSURES ALLOWED between the hours of 6:00 A.M. and 11:30 P.M. Dual lane closures will not be permitted on facilities that carry less than three lanes in each direction.

Due to the close proximity of the Sun Life Stadium and the Homestead speedway, traffic volumes are expected to fluctuate when events are held at these venues. In addition to the lane closure restriction contain herein, lane closures and ramp closures are restricted from two hours before any events, during any events and until two hours after any events at the Sun Life Stadium and Homestead Speedway.

All ramp closures should be accompanied by the appropriate detours; however, these closures shall be restricted. Ramp closures shall be allowed between 11:30 pm and 6:00 am. A maximum of five 5 night time closures will be permitted for each ramp (tolled and non-tolled).

f. Anticipated Closures:

The proposed improvements require temporary closures of the mainline, entrance/exit ramps and arterial underpasses during overhead construction for safety and constructability purposes. Table 1 lists the crossroads subject to potential closure along with the responsible maintaining agency. The Design-Build Firm (DBF) should seek approval from FTE as well as local road agencies prior to any closures taking place. The request should include the frequency of night closures, the closure date(s), and the closure duration along with backup information specifying the type of construction work to be done during the closure period. The detour routes shown in Reference Document No. 10 have been coordinated with the maintaining agencies. In the event alternate detour routes are proposed, the Design-Build Firm shall seek approval from the local agency prior to implementation. Once approved, an early public awareness program should be implemented. Electronic Message Signs should be posted two weeks in advanced of the actual work to promote public awareness about the scheduled closure(s). Closures can only be performed during the hours noted in Attachment No. 20.

Ramp closures of both on ramps or off ramps simultaneously shall not be allowed at each individual interchange.

Closure of all ramps simultaneously or in any other combination is not permitted. Only close those ramps that are intended to be worked on each evening. Coordinate ramp closures with any adjacent construction at adjoining interchanges.

All ramp closures shall be accompanied by the appropriate detours; however, these closures shall be restricted. Ramp closures shall be allowed between 11:30 am and 6:00 am. A maximum of five (5) nights the closure will be permitted for each ramp, toll and non-toll.

Table 2: Cross Roads under or over the HEFT (SR 821) requiring nighttime closure(s)

Road		Roadway Characteristic	No. of Lanes	Maintenance Agency	
Name	Limits			West of TPK	East of TPK
SW 8 th Street	East of TPK to West of TPK	Urban Arterial	6-lane Divided	FDOT	FDOT
W. Flagler St	SW 118 th Ave. to SW 117 th Ave.	Urban Arterial	4-lane Divided	Miami-Dade	Miami-Dade
Coral Way	West of TPK to SW 118 th 115 th Ave.	Urban Arterial	4-lane Divided	Miami-Dade	Miami-Dade

Construction activities should be performed in a manner that minimizes mainline, ramp or side street closures. When closures are deemed necessary, the Design-Build Firm (DBF) should detour traffic along nearby routes. The following activities are anticipated to require closures:

- Installation of full span sign structures over the HEFT mainline.
- Beam erection and demolition, setting of deck formwork (stay-in place forms and deck overhang forms), and bridge railing work at the following locations:
 - over mainline as part of Coral Way bridge construction.
 - over HEFT Mainline NB as part of N-E Express Lane Connector Ramp.
 - over HEFT Mainline SB as part of W-S Express Lane Connector Ramp.
 - over SW 8th Street and W. Flagler Street.
- Paving operations of all single lane ramps.
- Erection of overhead Sign Structure Trusses along HEFT Mainline

Detour routes should avoid penalizing customers by avoiding routes that will create additional toll charges. Also, proposed detour routes should take into consideration FTE revenue loss.

All detours should be coordinated and approved by Miami-Dade County.

Pacing operations will only be permitted for beam erection.

Existing signs or messages in conflict with the proposed detour routes shall be covered to minimize confusion.

M. Environmental Services/Permits/Mitigation:

The Department has submitted permit applications to South Florida Water Management District (Environmental Resource Permits and Right-of-Way Occupancy Permits), Miami Dade County Regulatory and Economic Resources (Class III), and the United States Army Corps of Engineers (Dredge and Fill) but has not yet obtained the permits for this project. The permitting application documents can be found in Attachment No. 23, 24, 25, and 26. The Design-Build Firm will be responsible for obtaining final permits which will address the final design and any necessary modifications for this project.

The Design-Build Firm will be responsible for preparing designs and proposing construction methods that are permissible. The Design-Build Firm will be responsible for any required permit fees. All permits required for a particular construction activity will be acquired prior to commencing the particular

construction activity. Delays due to incomplete or erroneous permit application packages, agency rejections, denials, processing time, or any permit violations, except as provided herein, will be the responsibility of the Design-Build Firm; and will not be considered sufficient reason for a time extension or additional compensation. As the permittee, Department is responsible for reviewing, approving, signing, and submitting the permit application package including all permit modifications, or subsequent permit applications.

The following Project specific Environmental Services/Permits have been identified as specific requirements for this project:

1. Cultural Resources.
2. Wetlands and Mitigation.
3. Wildlife and Habitat.
4. Contaminated Materials.

There are species identified within the Project limits that must be protected. The Design-Build Firm shall be responsible for compliance with all Endangered Species Permit Requirements identified in the Federal Dredge & Fill Permit. The Design-Build Firm shall also be responsible for the assessment of potential impacts to federal and state listed species for any modifications as required.

The Design-Build Firm will comply with construction noise requirements of 23 C.F.R. 772.19 and Chapter 17 (Section 17-9) of the Florida Department of Transportation Project Development & Environment Manual (PD&E Manual). The 23 C.F.R. 772 and FDOT PD&E Manual requirements for traffic noise impact analysis and the permanent noise abatement measures have been investigated by the Department and are set forth in this RFP. Noise walls within the Project limits will be constructed as soon as practical.

This Project is bordered by a high density of residential property. Major noise generating activities, such as sheet pile installation and pile driving, will be limited to the hours of 6 am and 10 pm during allowable work days.

A Level II Contamination Impact Assessment was performed and a report is included in Reference Document No. 29.

The Design-Build Firm shall comply with the following USCG requirements that apply to the new south bound exit ramp to SW 8th Street bridge over the C-4 Canal, the HEFT mainline bridges over the C-4 Canal at SW 8th Street interchange and the Coral Way Bridge over C-2 Canal

- a. Upon completion of design and finalization of the location, the Seventh Coast Guard District Bridge branch shall be contacted regarding approval of lights and other signals that may be required under 33 CFR 118. Approval of said lighting or waiver of it shall be obtained prior to construction.
- b. Upon completion of construction, the bridge owner shall submit "as built" drawings (8 1/2 X 11") showing clearances through the bridge and sufficient data to allow this office to prepare a completion report to Mr. Michael Lieberum. Also submit an 8 1/2 X 11" photo of the completed bridge for our bridge file and database.
- c. The contact for the Seventh Coast Guard District Bridge Branch is Evelyn Smart, Environmental Protection specialist, U.S. Coast Guard Seventh

District, Bridge administration Brach, (305) 415-6889,
Evelyn.Smart@uscg.mil

N. Signing and Pavement Marking Plans:

The Design-Build Firm shall prepare a component set of Signing and Pavement Marking Plans as part of the Plans Package for review and in accordance with Department criteria. Plans are to be prepared in accordance with the criteria listed in Section V, Sub-Section A of this RFP and shall be accurate, legible, complete in design, drawn to scale indicated in the Department's manuals and furnished in reproducible form.

A Signing Master Plan (Reference Document No. 6) was prepared identifying potential signing locations. Signing within the project limits of FPID 427146-1-52-01 and MDX SR836 Open Road Tolling Signing Master Plan are also displayed on the Signing Master Plan. Not all of the required sign assemblies (e.g., regulatory, warning, informational, recreational, post interchange sequence, etc.), pavement messages, and delineators that the Design-Build Firm shall provide are shown in the Signing Master Plan. The Design-Build Firm shall reference the Signing Master Plan and use it as a guide as to where signs are to be placed and as a guide as to messages to be placed on each sign.

On concrete bridge decks all longitudinal markings (edge lines and skip lane lines) shall be high performance tape. Transverse lines (gore markings and chevrons); directional arrows and pavement messages shall be standard preformed tape. White skip lines, arrows and pavement messages shall all have a black preformed border.

On concrete pavement (non-bridge decks), high performance contrast tape is required for longitudinal skip pavement markings. Arrows and pavement messages shall be standard preformed tape with black preformed borders. All solid lines (longitudinal edge lines, lane lines and transverse lines) shall be paint.

See Standard Specification Section 710 and 713.

Pavement markings on asphalt surfaces shall be paint (per Standard Specifications Section 710).

The express lanes shall be striped as shown on the Signing Master Plan (See Reference Document No. 6) as well as coordination with the Department regarding acceptance of this striping at the time of design and implementation. High performance tubular delineators shall be placed within the buffer areas as shown in Reference Document No. 6. The Design-Build Firm should anticipate lane closures of the inside General Purpose lanes for the final delineator placement.

The Design-Build Firm's Signing and Pavement Marking EOR shall prepare signed and sealed thermoplastic pavement marking plans. The plans shall consist of a key sheet, general notes, tabulation of quantities, details and pavement marking sheets. These plans shall represent the final as-built condition. The thermoplastic plans shall adhere to the standards and specifications that are applicable to the anticipated thermoplastic letting date. The Department will notify the Design-Build Firm of the proposed letting day 90 days before contract completion. These plans will be let separately as a District Maintenance contract and constructed by others.

All interchange guide signs for example (1 mile, ½ mile, and exit signs) on the HEFT shall be mounted overhead.

All lane designation signs on the HEFT exit ramps shall be mounted overhead.

All guide signs on local roads with ramp access to the HEFT shall be mounted overhead per Section 2D.45 of the MUTCD. All sign installations on local roads and SR836 shall be coordinated with the appropriate maintaining agencies. These agencies include but are not limited to FDOT District 6, Miami-Dade Expressway Authority and Miami-Dade County.

The Design-Build Firm shall reference the Master Signing Plans and use it as a guide as to where signs are to be placed and as a guide as to messages to be placed on each sign. All header panels for Express Lanes shall have a purple background with the legend "SunPass Only". All header panels on guide signs leading to an AET Facility (HEFT) shall have a white background with the legend "SunPass or Toll-By-Plate". All guide sign layouts shall be reviewed and approved by the Department.

Express Lane signage shall consist of the advanced overhead guide signs and overhead toll schedule signs. All express lane signs shall be installed over the express lane and centered to the extent possible. The guide signs shall be equipped with a 1-line DMS; the toll schedule signs shall have a DMS cut out for the toll pricing on the Express Lane. All ITS components associated with these DMS signs are to be included with these signs. These DMS components shall be full color.

If the Design-Build Firm chooses to replace existing sign panels on existing overhead sign structures, a structural analysis must be completed and accepted by the Department's Structural Engineer. If a variation or exception is required, reference section VI.G-3c of this document (Design Variations, Exceptions under the Roadway Plans section). Also see Section VI. G-1c regarding additional limitations on reuse of existing signs.

Several overhead guide signs with uprights located in the median are required. A Design Variation for Shoulder Width has been provided for several locations where a reduced median shoulder width is required to accommodate the proposed overhead sign uprights. See Section VI - D, and Attachment No. 14.

Existing single and multi-post sign assemblies impacted by construction shall be entirely replaced and upgraded to meet current standards if necessary. Existing sign assemblies not impacted by construction can remain.

Sign Lighting shall be in accordance with TPPPH Volume I, Chapter 7, Section 7.3.1 and FDOT DCE Memorandum 23-13. See RFP Section VI, Subsection O. Lighting Plans, for more information.

O. Lighting Plans:

The Design-Build Firm shall prepare lighting plans in accordance with Department criteria.

a. General Lighting Requirements

The Design-Build Firm shall provide all of the professional services and complete all of the associated tasks necessary to prepare the lighting portion of the construction plans and documents for all work within the limits of the Project. Services shall include, but are not limited to: preparation of the lighting design analysis report, key sheet, general notes, legend, pole data, underdeck luminaire data, sign luminaire data, lighting plans for temporary and permanent facilities, underdeck lighting plan sheets, underdeck lighting section/detail sheets, load center schematic one line diagram, power riser diagram, service point details,

panel schedules, grounding details, and miscellaneous details. The Design-Build Firm shall identify all poles affected by the Project construction that require extra foundation depth and/or a non-standard design. Plans shall be accurate, legible, complete in design, and drawn to scale.

The Design-Build Firm shall provide a continuous roadway lighting system that provides uniform lighting on the mainline and direct connection and complete interchange lighting of all interchanges within the Project limits.

The Design-Build Firm shall provide the lighting design prepared in accordance with all applicable criteria in the Governing Documents and Attachments, of this RFP and instructions issued by the Department to the Design-Build Firm.

The Design-Build Firm shall comply with the requirements of each jurisdictional authority within the Project limits. Included with compliance are meetings, field work and special deliverables to the jurisdictional authority. Jurisdictions include FTE, FDOT District 6 Miami-Dade Expressway Authority and Miami-Dade County. Refer to Reference Document No. 7, Lighting Concept Report, for jurisdictional authorities of intersecting roads.

The Design-Build firm shall submit to the Turnpike a Lighting Design Analysis Report and lighting plans to ensure the proposed lighting design meets all current criteria over the existing and widened portions of the roadway, as well as, for all overhead signs affected by the Project construction. In addition, the proposed lighting design (pole layout – locations, roadway characteristics) shall meet all standards and criteria for the application and roadway classification. As a part of the lighting design analysis report the Design-Build firm shall take into special consideration underpass lighting. Photometric analysis and lighting design (including underpass lighting) shall be analyzed on all intersecting streets, roads and pedestrian walkways/trails to meet the design criteria of the respective jurisdictional area. The results of this analysis shall also be included in the Lighting Design Analysis Report.

All proposed lighting equipment and materials shall be new. No reuse of salvage equipment is allowed.

All lighting for signs shall follow the TPPPH Volume I, Chapter 7, Section 7.3.1. Sign lighting shall also comply with FDOT DCE Memorandum 23-13 except as noted below:

- Lighting on sign panels along a span truss shall all be of a single type. If an existing panel is being replaced on a span truss with several other existing sign panels which have lighting then the panel being replaced shall also have lighting or all panels along the span truss shall be replaced with Type XI sheeting provided all other requirements of FDOT DCE Memorandum 23-13 are satisfied.

Underpasses requiring only night time lighting shall have an average illumination level and uniformity ratios as indicated in the TPPPH Chapter 7.3.1.

Review and evaluate all existing load centers. This review includes: conductors, conduit, distribution equipment, grounding, enclosure, voltage, height, pull boxes, etc. New and modified load centers shall comply with current code and all design criteria identified in Section V.A. of this RFP. Modified load centers shall be renovated to like new condition.

Where existing light circuit sources are being removed, the Design-Build Firm shall either:

- Provide a new load center per current codes and all design criteria identified in Section V.A., Governing Regulations, of this RFP.
- Identify an existing load center capable of feeding the proposed lighting while meeting all current codes and all design criteria identified in Section V.A of this RFP. Any existing load center being used to feed the proposed lighting shall be made into like new condition.

Where new electrical service is required, the Design-Build Firm shall coordinate location of distribution transformer and service pole with local electrical utility to minimize service conductors/conduit lengths. Refer to Utility Electrical Section of this RFP, Section C.1, for additional requirements for new electrical services.

The Design-Build Firm shall perform a detail field review and identify all existing light poles, fixtures, electrical boxes, load centers, circuit routing, signs and sign structures and document these items for review by the Turnpike. This includes circuits outside the scope of work that originates or touches this Project's scope of work.

For light pole to light pole power runs, two different circuits shall be run; alternating the circuits between each luminaire in the run.

All new and modified sign structures shall comply with current code and all design criteria identified in all applicable criteria in the Governing Documents and Attachments, of this RFP.

b. Scope of Work

- HEFT Mainline

The widening of the HEFT (SR 821) within the Project limits will require demolition of the existing lighting system and installation of new lighting. The Design-Build Firm shall provide new conventional lighting along the mainline from North of Bird Road (MP 24.03) to State Road 863 (MP 27.11).

There are four existing load centers powering lighting along the HEFT (SR 821) with the project boundaries. The first load center is located at the toll plaza of the Bird Road NB entrance ramp. This load center powers lighting circuits from just north of Bird Road up to Coral Way (SW 24th Street). The second and third load centers, 25A and 25B are located at SW 8th Avenue. These load centers power lighting circuits on the mainline from Coral Way to Flagler Street. The last load center is located on Flagler Street under the mainline and power lighting circuits just north of Flagler Street to SR 836.

All load centers within the project boundaries are to be replaced.

Underpass lighting shall be provided for the following intersecting roads as indicated:

1. SR 821 and Coral Way (SW 24th Street). No existing lighting, provide new nighttime lighting.
2. SR 821 and SW 8th Avenue. Existing fixtures shall be demolished and provide new nighttime lighting.
3. SR 821 and Flagler Street. Existing fixtures shall be demolished and provide new nighttime lighting.
4. SR 821 and SR 836. Existing fixtures shall be demolished and provide new nighttime lighting.

- SW 8th Street Interchange Ramps:

Demolition of the existing lighting system and installation of a new conventional lighting system will be required for all entrance and exit ramps.

- SW 8th Street Improvements:

Due to bridge widening and roadway improvements existing light poles and luminaires shall be demolished and a new conventional lighting system and nighttime underpass lighting shall be installed within the improvement area of the project limits. The Design-Build Firm shall demolish the existing load center serving the area and provide a new load center. All work and design shall be in accordance with FDOT District 6 standards and requirements.

- Coral Way Improvements:

Due to the bridge replacement and roadway improvements existing light poles and luminaires shall be demolished and a new conventional lighting system and nighttime underpass lighting shall be installed within the improvement area of the project limits. The Design-Build Firm shall demolish the existing load center serving the area and provide a new load center. All work and design shall be in accordance with Miami-Dade County standards and requirements

- Flagler Street Improvements:

Due to bridge widening and roadway improvements existing light poles and luminaires shall be demolished and a new conventional lighting system and nighttime underpass lighting shall be installed within the improvement area of the project limits. The Design-Build Firm shall demolish the existing load center serving the area and provide a new load center. All work and design shall be in accordance with Miami-Dade County standards and requirements

- SR 836 Ramps onto the HEFT:

Modification of the lighting at the SR 836 interchange shall consist of demolition of the existing fixtures on the connector ramps and installation of a new conventional lighting system. The Design-Build Firm shall install and design the lighting in accordance with Miami-Dade Expressway standards and requirements, careful consideration shall be taken to minimize any impacts to the existing HEFT SB on Ramp connector at SR836. Nighttime underpass lighting shall be required to be installed over the mainline underpasses.

c. FTE-Specific Lighting Requirements

Where new conventional roadway lighting is required, new lighting shall be continuous. Intermixing new and existing poles and luminaires in an area is not allowed. Luminaires shall be of the Mongoose type. No deviation from the luminaire type will be allowed unless approved by the Turnpike. No high mast lighting shall be allowed.

Longer sections (greater than 4 poles affected) of roadway shall be reviewed for compliance with current lighting criteria. All deficiencies within the Project scope of work shall be addressed and corrected. Deficiencies outside the Project scope of work shall be brought to the attention of the FDOT's Design Project Manager and District Electrical Engineer.

Shorter sections (4 poles or less) of roadway shall maintain the same lighting level as the existing adjacent roadway.

All removed lighting components within the Turnpike right of way will become the property of the Design-Build Firm.

All road crossings shall be provided with a spare (2) 4" conduit and a pull box at each end of the crossing road.

The Design-Build Firm shall coordinate with Turnpike maintenance to identify existing equipment such as light poles, luminaires and other electrical equipment for salvage. Those items identified by Turnpike maintenance as salvage equipment shall be removed, transported and unloaded by the Design-Build Firm at a location determined by Turnpike maintenance. Existing electrical equipment that Turnpike maintenance elects not to salvage shall be removed and disposed of by the Design-Build Firm.

Work associated with the widening of the Mainline, ramps, underpasses and associated side-streets next to the mainline shall include, but is not limited to:

1. The Design-Build Firm shall provide all lighting necessary to meet the Turnpike requirements from the shoulder of the roadway. Median lighting will not be allowed. The Design-Build Firm shall include all conduits, pull boxes, load centers, light poles, light pole pilasters and other apparatus required to achieve compliance with FDOT standards and the TPPPH.
2. The Design-Build Firm shall perform detailed review of local ordinances to identify areas inside of the Project limits that require minimum light spillage onto adjacent properties. The Design-Build Firm shall provide a photometric analysis indicating compliance with all local ordinances for light spillage onto adjacent properties where required. Where no ordinances govern light spillage onto adjacent properties, the Design-Build Firm shall provide photometric analysis indicating illumination levels at the boundary of the adjacent property.
3. The Design-Build Firm shall perform a detailed analysis of lighting requirements necessary for Maintenance of Traffic and temporary lighting in accordance with FDOT and Turnpike standards.

d. Miami-Dade County – Specific Lighting Requirements

1. The Design-Build Firm shall perform a detailed photometric study and analysis of the intersections of the HEFT and the following streets: Coral Way, and Flagler Street. The detailed photometric analysis shall propose new lighting layouts that show compliance with all applicable criteria in the Governing Documents and Attachments.
2. The Design-Build Firm shall include in the component plans all conduits, pull boxes, load centers, light poles, light pole pilasters and other apparatus required to achieve compliance with Miami-Dade County criteria for lighting.
3. The Design-Build Firm shall coordinate separate load centers for all lighted circuits in the Miami-Dade jurisdiction and maintenance limits and shall be integrated with the corresponding lighting system assuring that the appropriate agency will not be in conflict with the jurisdiction of their maintenance agreements.
4. The Design-Build Firm shall conduct a lighting analysis to determine existing lighting levels and existing conditions for all side streets and under-passes. This analysis shall propose new lighting layouts for side streets and underpasses that are impacted by any temporary or permanent

widening work required.

e. FDOT District 6 – Specific Lighting Requirements

1. The Design-Build Firm shall include in the component plans all conduits, pull boxes, load centers, light poles, light pole pilasters and other apparatus required to achieve compliance with all applicable criteria in the Governing Documents and Attachments.
2. The Design-Build Firm shall coordinate separate load centers for all lighted circuits in the FDOT District jurisdiction and maintenance limits and shall be integrated with the corresponding lighting system assuring that the appropriate agency will not be in conflict with the jurisdiction of their maintenance agreements.
3. The Design-Build Firm shall conduct a lighting analysis to determine existing lighting levels and existing conditions for all side streets and under-passes. This analysis shall propose new light layouts for side streets and under-passes that are impacted by any temporary or permanent widening work required.

f. MDX-Specific Lighting Requirements

The lighting design from NB SR 821 (HEFT) to SR 836 (Dolphin Expressway) Ramp Connector is within MDX jurisdiction and maintenance limits and shall be designed to accommodate the MDX Enhancements Manual (Attachment No. 21), which requires the use of Hestia Luminaire or equivalent.

The Design-Build Firm shall include in the component plans all conduits, pull boxes load centers and light pole pilasters (if lighting is on the ramp, not applicable for high mast lighting), and any lighting requirements for closed box superstructure (if applicable) within the FTE right-of-way. Light poles and conductors (applicable if lighting is on the ramp proper, not applicable for high mast lighting) shall not be constructed as part of the project on the MDX Ramp Connectors.

The Design-Build Firm shall coordinate separate load centers for all lighted circuits on the MDX Ramp Connectors and they shall be integrated with the corresponding lighting system assuring that the appropriate agency, MDX, and FDOT will not be in conflict with the jurisdiction of their maintenance agreements.

The Design-Build Firm shall adhere to the MDX Roadway Lighting System Asset Identification Nomenclature (Attachment No. 22).

All lighting and ITS pull boxes, within MDX jurisdiction and maintenance limits, shall be constructed on the traffic side of the traffic railing in the MDX facility.

The Design-Build Firm shall furnish and install aluminum identification tag on each lighting system element (roadway lighting pole, illuminated sign structure, under deck luminaire, high mast light, aesthetic light, and lighting load center cabinet). Dimensions, location, and characteristics of the Tag shall be according to the MDX Standard “Lighting System Assets Identification Tagging”; such document will be provided by the engineer upon request. Field changes in the lighting circuits’ distribution or configuration (either in “to remain” elements or proposed elements) might impact the tags legends; therefore if any change, the Tags ID numbers shall be reviewed by the engineer of records before being installed.

P. Signalization Plans:

The Design-Build Firm shall prepare a component set of Signalization Plans as part of the Plans Package for review and in accordance with Department criteria. All plans are to be prepared in accordance with the criteria set forth in Section V.A of this RFP and shall be accurate, legible, complete in design, drawn to scale indicated in the Department's manuals and furnished in reproducible form.

Plans shall include notes, plan sheets, and details. The Design-Build Firm shall coordinate with Miami-Dade County to include their required notes, details and other signalization conventions, and get written approval of the proposed signalization plans. The Design-Build Firm shall coordinate with Miami-Dade County for the placement of loops along the exit ramps that are being milled and resurfaced as part of this Project. Preliminary signal mast arm locations are shown on Reference Document No. 3 Conceptual Roadway Plans (FPID 415051-4-52-01) and Reference Document No. 4 Conceptual Roadway Plans (FPID 429325-4-52-01) for reference. Signalization Plans shall be prepared for the following intersections:

1. SW 24th Street/Coral Way and SW 115th Avenue.
2. SW 8th Street/Tamiami Trail and HEFT NB Exit Ramp E.
3. SW 8th Street/Tamiami Trail and HEFT SB Exit Ramp G.
4. SW 8th Street/Tamiami Trail and HEFT SW Exit Ramp .

The following environmental classifications shall be used for mast arms:

- Superstructure – Slightly Aggressive.
- Substructure:
 - Steel – Extremely Aggressive (Resistivity = 610 to 985 ohm-cm).
 - Concrete – Moderately Aggressive (Resistivity = 610 to 985 ohm-cm).

The Design-Build Firm may calculate their own environmental classifications instead of using those provided by the Department, but under no circumstances will they be allowed to be less aggressive than those presented above.

Q. Intelligent Transportation System Plans

1. General

The Design-Build Firm shall prepare Intelligent Transportation System Plans in accordance with Department criteria and Attachment No. 33, ITS Minimum Technical Requirements.

The Design-Build Firm shall prepare design plans and provide necessary documentation for the procurement and installation of the Intelligent Transportation System devices as well as overall system construction and integration. The construction plan sheets shall be in accordance with Department requirements and include, but not be limited to:

- Key Sheet.
- General notes and legend.
- Project Layout / Overview sheets outlying the locations of field elements .
- Detail sheets on:

- DMS structure, attachment, and display/layout.
- CCTV structure, attachment, and operation/layout.
- MVDS structure, attachment, and operation/layout.
- TTS structure, attachment, and operation/layout.
- Fiber optic splice and conduit.
- Generator and Power service distribution.
- Wiring and connection details.
- Conduit, pull box, and splice box installations.
- Communication Hub and Field Cabinets.
- System-level block diagrams.
- Device-level block diagrams.
- Field hub/router cabinet configuration details.
- Fiber Optic Splicing Diagrams.
- System configuration/Wiring diagram/Equipment Interface for field equipment at individual locations and communications hubs.
- Maintenance of communications (MOC) plan.

The Design-Build Firm shall detail existing Intelligent Transportation System equipment and report which devices will be removed, replaced, or impacted by Project work.

2. Existing Conditions

This section is intended to provide a general overview of the existing conditions of the Department's ITS System and its components such as the fiber optic network (FON) communications infrastructure within the Project limits. Refer to the concept plan for existing ITS equipment locations. In addition, the Design-Build Firm shall refer to the ITS As-Built Plans provided with this RFP as Reference Documents for additional information and shall be responsible for field verifying all existing site conditions within the Project limits.

The ITS System components along the HEFT are owned, operated and maintained by the FTE. The majority of the ITS System components and also existing toll plazas (mainline and ramp plazas) are connected to the backbone for connectivity with the Local Hubs along the corridor and FTE Operations Center in Pompano (Milepost 65), the FTE Tolls Data Center in Boca Raton (Milepost 75), and FTE Headquarters in Ocoee (Milepost 263). The following is an overview of the existing ITS System components including communications infrastructure along the HEFT.

The ITS components shall be defined as follows:

- **Closed Circuit Television (CCTV) Camera System:** The CCTV Camera System on the HEFT consists of pan-tilt-zoom (PTZ) cameras along the corridor typically spaced at one (1) mile intervals. The CCTV cameras are used by FTE Traffic Management Center (TMC) staff for incident management and traffic monitoring. The cameras are integrated and communicate with Local Hubs along the corridor and FTE Operations Center in Pompano via the 96-count single mode FOC communications backbone installed along the corridor.
- **Travel Time System (TTS):** The TTS provides travel time information from vehicles equipped with the SunPass Automatic Vehicle Identification (AVI) toll transponders. The system's field components consist of AVI antennas and readers placed at intermediate locations and interchanges along the corridor. The TTS field devices are typically thirteen (13) feet or closer to the edge of travel lane and are installed on concrete poles, existing DMS structures or other ITS components along the corridor.

The TTS are connected and communicate with the FTE Operations Center via the 96-count single mode FOC communications backbone installed along the corridor.

- Dynamic Message Sign System (DMS). The DMS consists of both mainline and arterial dynamic message signs (ADMS) and provide roadway information and travel times. The mainline DMS are located at select locations along the corridor. The ADMS are located on each approach of major arterials to SR 821. The mainline DMS are connected and communicate with the FTE Operations Center via the 96-count single mode FOC communications backbone installed along the corridor. The ADMS communicate with the FTE Operations Center via wireless radios to a hub site connected to the 96-count single mode FOC communications backbone installed along the corridor.
- Vehicle Detection Systems (VDS): The VDS consists of non-intrusive, microwave technology sensors used to collect vehicle volume, speed and occupancy data from mainline travel lanes. The detectors are typically located at approximately one-half (1/2) mile intervals. The detectors are installed on stand-alone concrete poles and/or attached to other ITS device structures in a side-fired configuration to detect data on a lane by lane basis. The VDS is used for incident detection by TMC's Operations staff and communicate with the FTE Operations Center via the 96-count single mode FOC communications backbone installed along the corridor.
- Fiber Optic Network (FON): The HEFT FON infrastructure provides communications for FTE's ITS and Tolls components. The FON is composed of the FOC communications backbone, lateral connections and communications equipment including but not limited to field and HUB Ethernet switches, port servers, routers, fiber patch panels installed at the various ITS device(s) serving as a LHUB and at existing toll plazas along SR 821 (HEFT).
- For clarification purposes, any reference in this RFP to the mainline fiber optic backbone that is installed along the corridor shall be defined as the "backbone". The fiber optic cable between the backbone and a building (ramp and mainline locations) shall be defined as the "Tolls lateral". The fiber optic cable between the backbone and ITS components shall be defined as the "ITS lateral".
- The FOC communications backbone consists of a 96-count single mode fiber optic cable and four (4), 1.25-inch HDPE conduit, locate tone wire, warning tape, fiber route markers, pull boxes, and splice boxes installed along the southbound side of the corridor. Three (3) of the four (4), 1.25-inch HDPE conduits are spare conduits. The backbone provides access points for the various ITS and Toll System components along the corridor for network connectivity as previously described. Additionally, the FTE Pompano Operations Center is also connected with the FTE Headquarters in Ocoee via the FTE Mainline FOC communications backbone.
- The majority of ITS components are connected to the backbone through a lateral twelve (12) count single mode fiber optic cable inside two (2), 1.25-inch HDPE conduits of which one is a spare.
- The FTE Tolls Communications Network includes but is not limited to the fiber optic drops from the backbone to each toll plaza as well as fiber optic cable that interconnects ramp toll plazas within the various interchanges and all other associated communications elements. The lateral drops for the existing toll plaza consist of a twenty-four (24) count single mode fiber optic cable for ramp plazas and forty-eight (48) count single mode fiber optic cable for mainline toll plazas. The mainline and ramp toll plaza lateral drops typically consist of two (2), 2 inch underground conduits of which one is a spare. For additional details and requirements for Toll Plaza communications infrastructure, refer to the GTR (See Attachment No. 39).

3. Design and Engineering Services:

The Design-Build Firm shall be responsible for all ITS design and engineering services relating to the Project. All ITS system components shall be new unless otherwise identified for relocation.

The design of the new system shall integrate with the existing devices where applicable. The design shall include the necessary infrastructure and components to ensure proper connection of the new sub-systems. This shall include but not be limited to all proposed sub-systems of this Project as well as existing sub-systems that remain or are re-deployed as the final Project.

At a minimum, the ITS work in this Project consists of the following major components:

- Replacement of any ITS System components that are impacted by the Design-Build Firm's scope of work as approved by the Department. All equipment shall be new unless otherwise specified.
- DMS – Includes sign support structures, static signs, and mounting brackets for lane control, lane status, toll amount, travel time and full size DMS.
- CCTV – Includes concrete poles, camera lowering devices and mountings to provide 100% CCTV coverage of the Project corridor. In addition, each express lane DMS shall have a dedicated verification CCTV.
- MVDS - Includes concrete poles and mountings to detect all general purpose and express lanes along the Project corridor. MVDS devices shall be spaced at ½ mile intervals on each side of the roadway.
- TTS – Includes concrete poles and mountings to detect toll transponders at the identified locations.
- Ensure the continuous operation of all existing ITS System components including the HEFT ITS fiber optic cable (FOC) communications backbone (backbone) and the FOC lateral drops (lateral drops) to all ITS System components and toll plazas within the Project limits until such time a similar replacement device is in place and operational as approved by the Department.
- Power Generator System and Power Report.
- Removal of any ITS System components that are impacted by the Design-Build Firms scope of work as approved by the Department.
- Provision of lateral drops from the backbone to the new ITS Equipment, toll equipment buildings and Gantries. See the GTR, Attachment No. 39, for additional information.
- Removal of the existing lateral drops from the backbone to the existing ramp toll facilities that will or may be removed as part of this Project. The lateral drops disconnected from the backbone shall be re-spliced "in-kind" to match respective fiber strand(s) and buffer tube(s) as approved by the Department. The existing lateral drop conduit(s) pull boxes and splice boxes shall be removed as described in Section C - Utility Coordination of this RFP.
- Testing of fiber optic backbone and lateral drops furnished and installed or modified by the Design-Build Firm.
- Testing of the Intelligent Transportation System.
- Testing of the end-to-end express lanes system.
- Coordinate with the Design-Build Firm to avoid conflicts with landscape plans within the Department Right of Way. While procedures are being revised to facilitate this increased collaboration and cooperation, the Design-Build Firm is required to ensure that the design and construction of each ITS Project and each landscape Project is entirely coordinated with existing and proposed ITS facilities and landscapes. Both programs have been determined to be important components of the state transportation system. The Design-Build Firm shall design ITS power and communication conduits in a manner that they align parallel and in close proximity to the ROW and/or edge of roadway pavement within clear zones to maximize landscaping opportunity areas to greatest extent possible.
- Refer to Section VI.L.c for Temporary ITS requirements.

- See Attachment No. 33, ITS Minimum Technical Requirements for additional requirements.

R. Existing Tolling Infrastructure

The following list of Department-owned and operated toll collection facilities which are unmanned Toll Equipment Buildings with Non-Accessible Gantries and are to remain:

- a) Bird Road (SW 40th Street) Northbound On Ramp.
- b) SW 8th Street Northbound Off Ramp E.
- c) SW 8th Street Southbound Off Ramp G.
- d) SW 8th Street Southbound to Eastbound Off Ramp.

It is the Department's requirement that these existing tolling points and sites will remain in service and operational throughout construction. The Design-Build Firm shall be responsible for protecting and maintaining the existing tolling facilities and infrastructure. The Design-Build Firm is also responsible for the development of a traffic control plan that allows for continuous tolling during all modifications to the roadway in the vicinity of the tolling points.

SW 8th Street Southbound off Ramp G will be widened from a single lane to two lanes with a third lane being added at the intersection with SW 8th Street. This widening work will impact the existing tolling infrastructure requiring the temporary closure of the tolled ramp and suspension of tolls.

The Design-Build Firm shall prepare the maintenance of traffic plan and sequence of work that minimizes ramp closures and suspension of tolls.

S. Landscaping Plans

It is the intent of this work item to preserve the opportunity to provide for significant landscape planting areas within the Project limits that meet the intent of FDOT Highway Beautification Policy. The landscape design shall adhere to the FDOT Highway Beautification Policy with the intent of creating a unified landscape theme for the project.

The Design-Build Firm shall provide the necessary site inventory and site analysis and shall prepare a "Landscape Opportunity Plan" (Opportunity Plan) as part of the roadway plan set. The Landscape Opportunity Plan shall consider the Design-Build Firm's proposed roadway improvements, utilities, setbacks and clear zone dimensions, community commitments and other Project needs in identifying future landscape planting areas. Landscape opportunity areas should be preserved in accordance with the Departments "Bold" initiative.

The Opportunity Plans shall include the following:

1. Proposed improvements and existing elements to remain as associated with the Project.
2. Vegetation disposition depicting existing plant material to be removed, relocated or to remain.
3. Wetland jurisdictional lines.
4. Proposed drainage retention areas and easements.
5. Proposed utilities and existing utilities to remain.
6. Graphically depicted on-site and off-site desired or objectionable views.
7. Locations of landscape opportunity planting areas in a bubble format which identifies various vegetation groupings in a hatched or colorized manner. Examples are: "trees/palms/shrubs", "shrubs only", "buffer plantings", etc.

8. Provided and labeled applicable clear zone, horizontal clearance, setback dimensions on the plans and in chart form which reflect AASHTO, FDOT and Department guidelines for landscape installation and maintenance operations, including those that have been coordinated with other disciplines.
9. Identified outdoor advertising locations, owners and contacts and shown 1000 ft. view zone.
10. Indicated potential area(s) for wildflower plantings.

The Opportunity Plan shall match the scale and format used for the proposed roadway sheets. Should this format not convey design intent that is clearly legible, an alternate format may be considered. The Opportunity Plan shall be included with the Technical Proposal, and on the 90% and 100% Submittal Plans and Construction set. The Final Opportunity Plans do not need to be signed and sealed for the Final Construction set(s); however, they are required prior to the Department issuing "Release for Construction Plans".

Landscape construction documents and landscape installation are not included in this contract and shall be provided by others.

Disciplines that will have greatest impact to preserving landscape opportunities include environmental, drainage, utilities, signing, lighting and ITS. The DBLA shall identify potential conflicts relating to preserving opportunity landscape areas and provide suggested resolutions to preserve them. If conflicts cannot be resolved by the Design-Build Firm and the DBLA, they shall be discussed with the Department's Project Manager and District Landscape Architect for coordination and resolution.

The DBLA shall research and confirm any legally permitted outdoor advertising billboard (ODA) within 1,000-feet of the Project limits. The ODA sign(s) and 1,000-foot maximum vegetation protection zone limit shall be indicated on the plans. The Design-Build Firm's Landscape Architect shall provide a copy of all correspondence and attachments to the Department's District Landscape Architect.

The DBLA shall conduct a visual survey of existing vegetation within and adjacent to the right-of-way of the project. General locations of existing vegetation that will remain after roadway and associated improvements are completed shall be shown with notations of general plant species in each location on the Opportunity Plan. DBLA shall identify proposed buffer areas as needed.

The DBLA shall meet with the District Landscape Architect prior to the beginning of work for the purposes of coordination and to discuss adherence to the Highway Beautification Policy. No proposed planting areas indicated on the Opportunity Plan can occur in: federal and/or state jurisdictional wetlands or other surface waters; within open water bodies; in the bottom of stormwater management facilities; or use obligate wetlands or facultative wetland species within 25 feet of the seasonal high water of wetlands or other surface waters. Limited plantings may occur on the slopes and bottom of stormwater management facilities once coordinated with the District EMO office, District Drainage Engineer and the District Landscape Architect. Trees may not be planted within 5 feet of storm sewer pipes and utilities.

It will be the responsibility of the Design-Build Firm to remove all Category 1 invasive exotics as defined by the Florida Exotic Pest Plant Council (HYPERLINK "<http://www.fleppc.org>"www.fleppc.org) within the Project limits and within the Project right of way until final project acceptance.

All existing palms and trees scheduled to remain shall be kept vigorous, undamaged, free of pests and disease, hydrated and nourished. Palm and tree maintenance shall be in accordance with Florida Turnpike Roadside Vegetation Management Plan, pages 13-15, and shall be performed by an International Society

of Arboriculture (ISA) Certified Arborist. Keep landscape bed and tree ring edges correctly located and trimmed, mulch groomed and replenished, free of litter, debris, excess material, and undesirable vegetation. Continue mowing and litter pick up in turf areas associated with landscape, palms, and trees. At final acceptance, all existing landscape, palms, trees, shall be returned in equal or better condition. Photo documentation exhibiting current condition of sites, as well as as-built plans will be provided and used for comparison. Existing palms and trees to remain shall be protected in accordance with FDOT Standard Design Detail 544. Perform all necessary remedial work at no cost to the Department. If palms or trees are replaced use replacement plants of the same species and planting medium as the plant being replaced and establish to the satisfaction of the Department. Replacement plant size must match the size of adjacent grown-in plants of the same species and variety which may be larger than initially installed size. Replacement plants must be Florida Grade #1 or better.

As part of the plan submittals, the Design-Build Firm will prepare an impact matrix to identify and quantify the impacted landscaping opportunities, the reason for the impact and provide other project locations to mitigate for the lost opportunities. The Design-Build Firm shall also meet with FTE Landscape Architect within a week of the 90% plan submittal, 100% plan submittal and Final Plans to discuss:

1. Current Design.
2. Impact Matrix.
3. Impacts to the Landscape Opportunity Areas.
4. Design alternatives evaluated to lessen impacts to Landscape Opportunity Areas.
5. Mitigation Areas.
6. Action Items.

Areas of Special Concern:

1. Landscaping of HEFT interchange at SW 8th Street shall consider how it relates to Florida International University to the east and the residential neighborhoods to the west.
2. Landscape materials have recently been installed at SW 8th Street interchange area. This plant material shall remain. Should proposed improvements affect these materials, the Design-Build Firm shall contact the FTE Project Manager (PM) and FTE Landscape Architect (LA) for resolution.
3. Existing landscaping at HEFT interchange at SR 836 shall be preserved as much as possible and plant materials shall be evaluated for relocation if necessary.
4. Bold vision landscaping shall be utilized throughout project and particularly at ramps and intersections.

T. Maintenance Requirements

The intent of this Project is to replace, repair or rehabilitate all deficiencies within the Project limits such that maintenance work required upon final acceptance is limited to minor or routine work. Attachment No. 35, FTE Maintenance and Access Requirements Memorandum provides requirements that are based on interviews and field reviews with representatives of Florida's Turnpike Enterprise (FTE) Maintenance Department. The memorandum details general comments from the interviews with FTE Maintenance, as well as an outline that identifies the maintenance and access issues for each location along the corridor.

Attachment No. 37, FTE Bridge Maintenance Repair Requirements Memorandum, provides requirements that are based on interviews and field reviews with representatives of Florida's Turnpike Enterprise (FTE) Maintenance Department. The memorandum details general comments from the interviews with FTE Maintenance for bridge repairs.

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VII. Technical Proposal Requirements:

A. General:

Each Design-Build Firm being considered for this Project is required to submit a Technical Proposal. The proposal shall include sufficient information to enable the Department to evaluate the capability of the Design-Build Firm to provide the desired services. The data shall be significant to the Project and shall be innovative, when appropriate, and practical.

B. Submittal Requirements:

The Technical Proposal shall be bound with the information, paper size and page limitation requirements as listed herein.

A copy of the written Technical Proposal must also be submitted in .pdf format including bookmarks for each section on a CD. No macros will be allowed. Minimum font size of ten (10) shall be used. Times New Roman shall be the required font type.

Only upon request by the Department, provide calculations, studies and/or research to support features identified in the Technical Proposal. This only applies during the Technical Proposal Evaluation phase.

Submit 1 Original, 7 CD's/DVD's, and 7 hard copies of the Technical Proposal to:

Mr. Richard Nethercote
Turnpike Contract Administrator
Florida's Turnpike Enterprise
Phone (407) 264-3885
Fax: (407) 264-3058

The minimum information to be included:

Section 1: Project Approach

- Paper size: 8½" x 11". The maximum number of pages shall be **_15**, single-sided, typed pages including text, graphics, tables, charts, and photographs. Double-sided 8½" x 11" sheets will be counted as 2 pages. 11"X17" sheets are prohibited.
- Describe how the proposed design solutions and construction means and methods meet the project needs described in this Request for Proposal. Provide sufficient information to convey a thorough knowledge and understanding of the project and to provide confidence the design and construction can be completed as proposed.
- Provide the term, measureable standards, and remedial work plan for any proposed Value Added features that are not Value Added features included in this RFP, or for extending the Value Added period of a feature that is included in this RFP. Describe any material requirements that are exceeded.

- Provide a Written Schedule Narrative that describes the Design and Construction phases and illustrates how each phase will be scheduled to meet the project needs required of this Request for Proposal. Bar or Gantt charts are prohibited. Do not reveal or describe the Proposed Contract Time. Proposed Contract Time will be evaluated when Bid Price Proposals are received.
- Registered Landscape Architect is required to be responsible for landscape opportunity plan.

Section 2: Plans and Technical Special Provisions

- Plan and Profile views of the proposed improvements shall be submitted in roll-plot format. The maximum width of the roll-plots shall be 36". The maximum length of the roll-plot shall be 8'. Inclusion of additional information on the roll-plot, other than depictions of the Plan and Profile views, is allowed provided it clarifies the plan and profile views. However, the Department may determine that such additional information is excessive and may require the Design-Build Firm to revise and resubmit the roll-plots. If this occurs, the Design-Build Firm will have 2 business days to revise and resubmit the roll-plots upon notification by the Department. All other information not included on the roll plots, such as typical sections, special emphasis details, structure plans, etc., shall be provided on 11"x17" sheets.
- Provide Technical Proposal Plans in accordance with the requirements of the Plans Preparation Manual, except as modified herein.
- The Plans shall complement the Project Approach.
- Provide any Technical Special Provisions which apply to the proposed work. Paper Size: 8½" x 11".

In addition to the minimum information required to be submitted per PPM Volume II, Chapter 2 for Design-Build projects, submit the following:

Roadway Plans

- Master Plans of HEFT/SR 836 Interchange including profiles.
- Master Plans of Coral Way Reconstruction.
- Express lane ingress/egress layout.
- Plan & Profile –Plan View Existing Utility disposition.
- Roadway cross sections (critical locations).
- Major drainage infrastructure for interconnection of stormwater management facilities.
- MOT Typical Sections included in Phasing Plan.

Structure Plans

- Foundation submittal:
 - Show proximity at proposed to existing utility.
 - Preliminary aesthetic detail.

Signing and Pavement Marking Plans

- Future and interim signing requirements.

- Pavement Markings.
- Plan View Details for ingress/egress of express lanes including tubular delineator limits spacing and location.
- All existing guide signs to remain.
- DMS and express lane toll rate structure locations.

Lighting Plans

- Pole Layout depicting agency responsibilities.
- Under deck lighting.

ITS Plans

- Preliminary ITS conduit layout.
- ITS device locations.
- Power generator locations.

Landscaping Plans

- Opportunity Roll Plot.

Toll Facility Plans

- Preliminary Site Plan.
- Follow the requirements of Attachment No. 36, "Florida Turnpike Enterprise Toll Facility Component Plans."

C. Evaluation Criteria:

The Department shall evaluate the written Technical Proposal by each Design-Build Firm. The Design-Build Firm should not discuss or reveal elements of the price proposal in the written proposals. A technical score for each Design-Build Firm will be based on the following criteria:

<u>Item</u>	<u>Value</u>
1. Design	30
2. Construction	30
3. Innovation	10
4. Value Added	10
Maximum Score	80

The following is a description of each of the above referenced items:

1. **Design (30_ points)**

Credit will be given for the quality and suitability of the following elements:

- Structures design.
- Roadway design / and safety.
- Drainage design.
- Environmental Design and Permitting.
- Design coordination plan minimizing design changes.
- Geotechnical design and investigation plan.
- Geotechnical load test program.
- ITS Design.
- Minimizing impacts to adjacent properties and structures through design.
- Traffic Control Plan design which: provides shoulder to maximum extend practical to aid with incident management and disabled vehicles, provides for pedestrian and equestrian needs, provides for adequate temporary signing, includes guide and informational signs, minimizes impacts to local streets and maintains preconstruction speeds.
- Incident Management Plan.
- Aesthetics.
- Lighting design which is well integrated with other disciplines identifies approach to underdeck lighting and explain understanding of stakeholder's jurisdiction.
- Utility Coordination and Design that minimizes impacts to utilities.
- Landscaping design to embrace BOLD vision and ultimate needs for future landscaping program and coordination of design disciplines to keep landscaping areas free of other improvements or project needs.

Credit will be given for quality of roadway geometrics including pavement design, overbuild and overlap details, cross sectional elements, roadside elements and coordination with other disciplines, express lane layout and pedestrian provisions. Architectural treatments such as tiles, colors, emblems, etc. will not be considered as primary aesthetic treatments.

Credit will be given for design and utility coordination efforts that minimize the potential for adverse impacts and project delays due to utility involvement.

Credit will be given for development of design approaches which minimize periodic and routine maintenance. The following elements should be considered: access to provide adequate inspections and maintenance, access to structure's lighting system, access to ITS system, access to drainage and ponds, and impacts to long term maintenance costs, access to maintain items with short service life should be achieved without lane closures to the maximum extent practical.

Credit will be given for ITS design and construction that:

- Minimize disruption to current ITS operations.
- Improve system maintainability and reliability.
- Consider provisions made to allow ITS integration to be concurrent with the completion of the roadway construction.

2. **Construction (30_ points)**

Credit will be given for the quality and suitability of the following elements:

- Safety.
- Structures construction.
- Roadway construction.
- Drainage construction.
- Construction coordination plan minimizing construction changes.
- Minimizing impacts to adjacent properties and structures through construction.
- Implementation of the Environmental design and Erosion/Sediment Control Plan.
- ITS Construction.
- ITS testing with partially open roadway.
- Coordination of ITS relocation/installation with adjacent construction projects relocation and installation.
- Implementation of the Environmental design and Erosion/Sediment Control Plan.
- Implementation of the Maintenance of Traffic Plan that: minimizes disruptions to toll collections and operations, minimizes off system detours, minimizes reductions in lane widths and shoulders, maximize merges and transition distances, minimizes impacts to adjacent projects and minimizes impacts to adjacent property owners.
- Implementation of the Incident Management Plan.
- Utility Coordination and Construction.

Credit will be given for developing and deploying construction techniques that minimize disruptions to roadway traffic, the traveling public, business/property owners, enhance project durability, reduce long term and routine maintenance, and those techniques which enhance public and worker safety. This shall include, but not be limited to, minimization of lane and driveway closures, lane widths, visual obstructions, construction sequencing, and drastic reductions in speed limits.

Credit will be given for minimizing impacts to the environment during all phases of construction and insuring all environmental commitments are honored.

Credit will be given for construction and utility coordination efforts that minimize the potential for adverse impacts and project delays due to utility conflicts.

3. **Innovation (10_ points)**

Credit will be given for introducing and implementing innovative design approaches and construction techniques which address the following elements:

- Minimize or eliminate Utility relocations.
- Materials.
- Workmanship.
- Enhance Design and Construction aspects related to future expansion of the transportation facility.

4. **Value Added (10_ points)**

Credit will be given for the following Value Added features:

- Broadening the extent of the Value Added features of this RFP while maintaining existing threshold requirements.
- Exceeding minimum material requirements to enhance durability of project components.
- Providing additional Value Added project features proposed by the Design-Build Firm.

The following Value Added features have been identified by the Department as being applicable to this project. The Design-Build Firm may propose to broaden the extent of these Value Added features.

Value Added Feature	Minimum Value Added Period
Value Added Asphalt	3 years
Value Added Concrete Pavement	5 years
Value Added Bridge Components	5 years

D. Final Selection Formula:

The Selection Committee shall publicly open the sealed bid proposals and calculate an adjusted score using the following formula:

$$\frac{BPP}{TS} = \text{Adjusted Score}$$

BPP = Bid Price Proposal

TS = Technical Score (Combined Scores from ELOI and Technical Proposal)

Points will be added to the Technical Score, at the time of Bid Price Proposal opening, according to the Proposed Contract Time based on the following table. The number of days shown on the bid proposal form shall be the official Proposed Contract Time.

Proposed Contract Time (Days)	Points Awarded
1250 - 1215	0
1214 - 1179	1
1178 - 1143	2
1142 - 1107	3
1106 - 1071	4
1070 or less	5

The Design-Build Firm selected will be the Design-Build Firm whose adjusted score is lowest.

The Department reserves the right to consider any proposal as non-responsive if any part of the Technical Proposal does not meet established codes and criteria. If the Proposed Contract Time is greater than Maximum Contract Time of 1,250 calendar days the Bid Price Proposal will be considered non-responsive.

E. Final Selection Process:

After the sealed bids are received, the Department will have a public meeting for the announcement of the Technical Scores and opening of sealed Bid Price Proposals. This meeting will be recorded. At this meeting, the Department will announce the score for each member of the Technical Review Committee, by category, for each Proposer and each Proposer's average Technical Score. Following announcement of the technical scores, the sealed Bid Price Proposals will be opened and the adjusted scores calculated. The Selection Committee should meet a minimum of two (2) calendar days (excluding weekends and Department observed holidays) after the public opening of the Technical Scores and Bid Price Proposals. The Department's Selection Committee will review the evaluation of the Technical Review Committee and the Bid Price Proposal of each Proposer as to the apparent lowest adjusted score and make a final determination of the lowest adjusted score. The Selection Committee has the right to correct any errors in the evaluation and selection process that may have been made. The Department is not obligated to award the contract and the Selection Committee may decide to reject all proposals. If the Selection Committee decides not to reject all proposals, the contract will be awarded to the Proposer determined by the Selection Committee to have the lowest adjusted score.

F. Stipend Awards:

The Department has elected to pay a stipend to a limited number of non-selected Short-Listed Design-Build Firms to offset some of the costs of preparing the Proposals. The non-selected Short-Listed Design-Build Firms meeting the stipend eligibility requirements of the Project Advertisement and complying with the requirements contained in this section will ultimately be compensated. The stipend will only be payable under the terms and conditions of the Design-Build Stipend Agreement and Project Advertisement, copies of which are included with this Request for Proposal. This Request for Proposal does not commit the Department or any other public agency to pay any costs incurred by an individual firm, partnership, or corporation in the submission of Proposals except as set forth in the Design-Build Stipend Agreement. The amount of the stipend will be \$160,000 per non-selected Short-Listed Design-Build Firm that meets the stipend eligibility requirements contained in the Project Advertisement. The stipend is not intended to compensate any non-selected Short-Listed Design-Build Firm for the total cost of preparing the Technical and Price Proposals. The Department reserves the right, upon payment of stipend, to use any of the concepts or ideas within the Technical Proposals, as the Department deems appropriate.

In order for a Short-Listed Design-Build Firm to remain eligible for a stipend, the Short-Listed Design-Build Firm must execute with original signatures and have delivered to the Department no later than one (1) week after the Short-List has been posted, four (4) originals of the Design-Build Stipend Agreement, Form No. 700-011-14. The Short-Listed Design-Build Firm shall reproduce the necessary copies. Terms of said agreement are non-negotiable. A fully executed copy of the Design-Build Stipend Agreement will be returned to the Short-Listed Design-Build Firm.

A non-selected Short-Listed Design-Build Firm eligible for stipend compensation must submit an invoice for a lump sum payment of services after the selection/award process is complete. The invoice should include a statement similar to the following: "All work necessary to prepare Technical Proposal and Price Proposals in response to the Department's RFP for the subject Project". If a non-selected Short-Listed

Design-Build Firm eligible for stipend compensation is deemed to be non-responsive, as determined by the Department, then no stipend will be paid.

VIII. Bid Proposal Requirements

A. Bid Price Proposal:

Bid Price Proposals shall be submitted on the Bid Blank form attached hereto and shall include one lump sum price for the Project and the number of calendar days within which the Proposer will complete the Project. The lump sum price shall include all costs for all design, geotechnical surveys, architectural services, engineering services, Design-Build Firms quality plan, construction of the Project, and all other work necessary to fully and timely complete that portion of the Project in accordance with the Contract Documents, as well as all job site and home office overhead, and profit, it being understood that payment of that amount for that portion of the Project will be full, complete, and final compensation for the work required to complete that portion of the Project. One (1) hard copy Bid Price Proposal shall be hand delivered in a separate sealed package to the following:

Mr. Richard Nethercote
Turnpike Contract Administrator
Florida's Turnpike Enterprise
Turkey lake Service Plaza
Building 5315, MP 263
Ocoee, Florida 32761

The package shall indicate clearly that it is the Bid Price Proposal and shall identify clearly the Proposer's name, and Project description. The Bid Price Proposal shall be secured and unopened until the date specified for opening of Bid Price Proposals.

The following Bid Price Proposed Forms are included as attachments to the RFP.

1. Attachment No. 1 – Design-Build Bid Blank (375-020-17).
2. Attachment No. 2 – Design-Build Proposal of Proposer (375-020-12).
3. Attachment No. 3 – Design-Build Proposal Form.
4. Attachment No. 4 – Bid or Proposal Form (375-020-034).
5. Attachment No. 5 – DBE Forms (as applicable).