

NOTICE TO CONTRACTORS  
OFFICE OF THE STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
801 N. BROADWAY AVENUE  
BARTOW, FLORIDA 33830

**January 5, 2022**

District Procurement Office  
District One

**ADDENDUM No. 01**

PROJECT DESCRIPTION: I-75 (SR 93) AT SR 951  
FINANCIAL PROJECT NO.: 425843-2-52-01  
COUNTY: Collier County  
CONTRACT NO.: E1U79

The following is a list of the revisions made to the Request for Proposal Package.

Request For Proposal	Page	
Attachments	iii	A02_Division I Design-Build Specifications Changed <i>42584325201_Division I Design-Build Specifications.docx</i> to <i>42584325201_Division I Design-Build Specifications.pdf</i> .
Attachments	iv	A12_Right of Way Maps Added files; <i>Final Judgement 4258432 104 SOTSFJ.pdf</i> <i>Parcel 103FinalJudgement.pdf</i> <i>Parcel 104FinalJudgement.pdf</i> <i>Parcel 105FinalJudgement.pdf</i>
Attachments	v	A15_Bid Price Proposal Forms Replaced the forms and Changed filename from <i>1. Bid Blank (375-020-17): 37502017j_v001.pdf</i> to <i>1. Bid Blank (375-020-17k)</i> from <i>2. Design Build Proposal of Proposer (375-020-12): 37502012s_v001.pdf</i> to <i>2. Design Build Proposal of Proposer (375-020-12)</i> from <i>3. Design Build Bid Proposal Form (700-010-65): 70001065_v001.pdf</i> to <i>3. Design Build Bid Proposal Form (700-010-65)</i> from <i>4. Bid or Proposal Bond (375-020-34): 37502034_v001.pdf</i> to <i>4. Bid or Proposal Bond (375-020-34)</i> from <i>5. DBE Forms (as applicable): 27503011_v001.pdf; 27503011B_v001.pdf</i> to <i>5. Vendor Scrutiny-DBE Forms (375-030-60 &amp; 275-030-11, 11B)</i>
Attachments	v	Changed filename from <i>A17_SR 951_03030000_BMP 10.210 to EMP 15.963_FPID 425843-2_C2C_10-29-21.pdf</i> to <i>A17_SR 951_03030000_BMP 10.210 to EMP 15.963_FPID 425843-2_C3C_10-29-21.pdf</i> .
Attachments	v	A19_Emergency Shoulder Use Standard Operation Procedure added files; <i>A19_2021 SOP I-75 NB ESU – MM 101.8 – MM 234.3 6-4.pdf</i> <i>I75NB_NaplesToStateLine_ESU_ConceptPlans.pdf</i>

Attachments	v	Added file; <i>A22_Wavetronix Proprietary Product Approval.pdf</i>
Reference Documents	vi	R01_As-Built and Existing Plans Replaced the files in the <i>44632015201 I-75 Resurfacing</i> directory with the recent Phase IV submittal
Reference Documents	viii	R08_PD&E Documents Changed filename from <i>I75-SR951 Ichg Final Design PTR noApx.pdf</i> to <i>I75 at SR 951 Traffic Report.pdf</i> . Changed filename from <i>I-75_951 IMR Re-Evaluation Assessment Memo_112018.pdf</i> to <i>I-75 at SR 951 Traffic Validation Table.pdf</i> .
Reference Documents	ix	R09_Utility Coordination Added file <i>CR951 &amp; I-75 Crown Castle AS BUILT.pdf</i> Deleted the RFP reference to file <i>425843-2-52-01_Roadway Plans_Phase IIR_FPL Distribution_RGB Plans.pdf</i> .
	i.	Updated the Table of Contents
	all	Header updated to reference the Request for Proposal - <b>Addendum No. 01</b> and date of <b>January 4, 2022</b> .
	all	Footer updated total number of Pages to 98.

Attached to Addendum One is the RFP dated January 4, 2022.

Acknowledge receipt of Addendum Number One in the space provided on the proposal.

*Jhoanna Garces de Beltré*

Contracts Administrator

**PLEASE SIGN BELOW IN RECEIPT OF THIS NOTICE AND ADDITIONAL DOCUMENTS ANNOTATED ABOVE.**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company Name

Contract No. E1U79  
Addendum No. 01

FPID 425843-2-52-01  
January 5, 2022

*Florida Department of Transportation*  
*District 1*

**DESIGN-BUILD  
REQUEST FOR PROPOSAL  
for  
I-75 at SR 951 Interchange, Collier County**

**Financial Projects Number(s): 425843-2-52-01**

**Federal Aid Project Number(s): D121-092-B**

**Contract Number: E1U79**

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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.

A01\_E1U79-Official Ad.pdf

A02\_Division I Design-Build Specifications

42584325201\_Division I Design-Build Specifications.pdf

Award and Execution of Contract – Public Records (SP0030900DX)

sp0030900D1-122.pdf

Legal Requirements and Responsibility to the Public – Laws to be observed – General (Compliance with FHWA 1273)

sp0070101.pdf

Legal Requirements and Responsibilities to the Public – Laws to be Observed – Compliance with Federal Endangered Species Act and Other Wildlife Regulations (Gopher Tortoise)

sp0070104-3-122.pdf

Legal Requirements and Responsibility to the Public – Wage Rates for Federal-Aid Projects

Sp0071600.pdf

Legal Requirements and Responsibilities to the Public – E-Verify (SP0072900)

sp0072900-122.pdf

Legal Requirements and Responsibilities to the Public – Scrutinized Companies (SP0073000)

sp0073000-122.pdf

Legal Requirements and Responsibility to the Public – Title VI Assurance – DOT 1050.2A, Appendix A and Appendix E.

sp0073100.pdf

Prosecution and Progress – Prosecution of Work – General (Submission of Working Schedule) (SP0080302A)

sp0080302a-122.pdf

Prosecution and Progress - Prosecution of Work – Partnering (SP0080306)

sp0080306-122.pdf

Prosecution and Progress - Prosecution of Work – Disputes Review Board (SP0080307DRB)

sp0080307drb-122.pdf

Contaminated Material - Mercury-Containing Devices and Lamps (SP0080409)

sp0080409D1-122.pdf

Prosecution and Progress – Damage Recovery (SP0081200)

sp0081200-122.pdf

A03\_Divisions II and III Special Provisions identified by the Department to be used on the Project: Mobilization (SP1010000DB)

sp1010000db-1-22.pdf

Contractor Quality Control General Requirements (SP1050813DB)

sp1050813db-1-22.pdf

Structures Foundations (SP4550000DB)

sp4550000db-122.pdf

A04\_Value Added Developmental Specifications  
Value Added Bridge Component (DEV475)  
sp47500000db-1-22.pdf

A05\_Technical Special Provisions  
A05\_42584325201\_Technical Special Provision\_T456\_Micropiles.pdf

A06\_Pond Siting Report  
A06\_425843-2\_Final\_PSR\_March2017.pdf

A07\_Permits

A08\_Typical Section Package  
4258432\_ApprovedTypSectPkg\_07.19.16.pdf  
4258432\_TYPDRD03Revised.pdf

A09\_Pavement Design  
425843-2 Pavement Evaluation Report 1-12-2019.pdf  
425843-2-31-01 PCE Report - I-75 as SR 951, Collier Co (s).pdf  
425843-2\_ESAL.pdf  
425843-2\_DraftPavementDesignPackage\_10.16.18.pdf  
I 75 (425843-2) Collier Mr Report Aug 2015.pdf

A10\_Approved Design Variations  
4258432\_HorizontalCurveRadius\_Form122A.pdf  
4258432\_HorizontalCurveRadiusVariationMemorandum.pdf  
4258432\_ShoulderWidth\_Form122A.pdf  
4258432\_ShoulderWidthVariationMemorandum.pdf  
4258432\_SUPHorizontalClearance\_Form122A.pdf  
4258432\_SUPHorizontalClearanceVariationMemorandum.pdf

A11\_Lane Closure Analysis  
A11\_4258432\_Lane Closure Analysis.pdf

A12\_Right of Way Maps  
03175-000\_4258432\_2020-01-10.pdf  
4258432 - Cert for Construction - Production.pdf  
Final Judgement 4258432 104 SOTSFJ.pdf  
Parcel 103FinalJudgement.pdf  
Parcel 104FinalJudgement.pdf  
Parcel 105FinalJudgement.pdf

A13\_Aesthetic Guidelines  
A13\_425843-2-52-01\_Aesthetics Guidelines.pdf

A14\_Signal Timing Requirements  
All Red Calculation Procedure.pdf

FDOT District 1 Guidelines for Signal Timing January 2017.pdf  
Signal Timing Report.pdf

A15\_Bid Price Proposal Forms:

1. Bid Blank (375-020-17k).pdf
2. Design Build Proposal of Proposer (375-020-12).pdf
3. Design Build Bid Proposal Form (700-010-65).pdf
4. Bid or Proposal Bond (375-020-34).pdf
5. Vendor Scrutiny-DBE Forms (375-030-60 & 275-030-11, 11B)  
.pdf

A16\_2021FDM121BrProjDev-Calculations Submittals-01-27-2021.docx

A17\_SR 951\_03030000\_BMP 10.210 to EMP 15.963\_FPID 425843-2\_C3C\_10-29-21.pdf

A18\_ Requirement Traceability Verification Matrix (RTVM)  
A18\_4258432 RTVM\_January 2021 Draft 01\_11\_21.xlsx

A19\_ Emergency Shoulder Use Standard Operating Procedure  
A19\_I-75 NB ESU - MM 101.8 - MM 234.3 - SOP - 6.23.2020 1129 with att.pdf  
A19\_2021 SOP I-75 NB ESU – MM 101.8 – MM 234.3 6-4.pdf  
I75NB\_NaplesToStateLine\_ESU\_ConceptPlans.pdf

A20\_ ITS Facility Management District One Implementation Plan  
A20\_ITS Facility Management District One Implementation Plan.pdf

A21\_SWC SR 951 Traffic Information  
I-75 (Collier Blvd) Feb 2019 Traffic Counts  
SR 951 – 2045 No Build Demand and Relative Flow.pdf

A22\_Wavetronix Proprietary Product Approval.pdf

## REFERENCE DOCUMENTS

The following documents are being provided with this 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.

R01\_As-Built and Existing Plans  
40631345201\_I-75 Mainline Widening

- 40631345201\_FINAL AS-BUILT LIGHTING PLANS.pdf
- 406031345201\_FINAL ASBUILT ROADWAY PLANS.pdf



- 406313425201\_FINAL AS BUILT SIGN & PVMT MARKINGS PLANS.pdf
- 42584315201\_I-75 at SR 951 Ramp Improvements
  - 42584315201RoadwayAsBuiltpdf.pdf
  - 42584315201Sig2AsBuiltpdf.pdf
  - 42584315201SigAsBuiltpdf.pdf
  - 42584315201SPMAsBuiltpdf.pdf
- 43325515201\_I-75 Milling and Resurfacing
  - 43325515201\_FINAL AS BUILT PLANS\_ROADWAY .pdf
  - 43325515201\_FINAL AS BUILT PLANS\_SPM .pdf
- Collier County Project 09-5274\_SR 84 from West of Radio Road to Collier Blvd
  - 19541655801\_SR84Drainage Plans.pdf
  - 19541655801\_SR84Roadway Plans.pdf
  - 19541655801\_SR84Striping Plan.pdf
- Collier County Project 60091 Collier Blvd from US 41 to Davis Blvd
  - 60001\_CR951 SIGNAL\_(SELECT SHTS)\_AS-BUILT\_6-11-10
    - 60001\_01\_KEY\_CR951 - TO SR84\_RDWY\_RECORDS\_6-11-10.pdf
    - CR951\_T-10\_MAST ARM TEAB\_RECORD\_6-11-10.pdf
    - CR951\_T-11\_TBL OF VAR FOR SPECIAL MAA\_RECORD.pdf
  - 60001\_CR951\_DRAINAGE\_(SELECT SHTS)\_AS-BUILT\_6-11-10
    - 60001\_01\_KEY\_CR951 - TO SR84\_RDWY\_RECORDS\_6-11-10.pdf
    - 60001\_74\_DRAINAGE STRUCTURE\_RECORD.pdf
    - 60001\_76 - 77\_DRAINAGE STRUCTURE\_RECORD.pdf
    - 60001\_82 - 84\_DRAINAGE STRUCTURE\_RECORD.pdf
    - 60001\_86 - 87\_DRAINAGE STRUCTURE\_RECORD.pdf
    - 60001\_90 - 91\_DRAINAGE STRUCTURE\_RECORD.pdf
    - 60001\_94\_DRAINAGE STRUCTURE\_RECORD.pdf
    - 60001\_99\_DRAINAGE STRUCTURE\_RECORD.pdf
    - 60001\_102 - 104\_DRAINAGE STRUCTURE\_RECORD.pdf
  - 60001\_CR951\_RDWY\_(SELECT SHTS)\_AS-BUILT\_6-11-10
    - 60001\_01\_KEY\_CR951 - TO SR84\_RDWY\_RECORDS\_6-11-10.pdf
    - 60001\_34\_P&P\_RECORD.pdf
    - 60001\_50\_P&P\_RECORD.pdf
- Collier County Project 60092 Collier Blvd from David Blvd to Golden Gate Main Canal
  - SR951 S&PM Plans.pdf
  - 60092\_CollierBlvd from SR84 to Golden Gate Main Canal.pdf
- 41641315201 I-75 FMS Lee-Collier
  - 416413-1-52-01 Final Fiber Splicing Diagrams Rev 6.13.2012.pdf
  - Pages from 416413-1-52-01 final as-built plans.pdf
- 19540325801 Collier-Naples ATMS
  - Pages from 195403-2-58-01 Collier-Naples ATMS DG2 final design plans.pdf
- 44632015201 I-75 Resurfacing
  - (1) 44632015201-PLANS-01-ROADWAY.pdf
  - (2) 44632015201-PLANS-02-SIGNINGMARKING.pdf
  - (3) 44632015201-ESTIMATES-QUANTITIES.pdf
  - (4) 44632015201-Utility-Matrix.pdf
  - (5) 44632015201-PLANS-01-ROADWAY-VERIFIEDUTILITIES.pdf
  - (6) 44632015201-ROADWAY-DESIGN-DOCS.pdf
  - (7) DrainageReport.pdf

- (8) 44632015201-PLANS-02-MULTIPOSTCALCS.pdf
- (9) 446320-1 Ancillary Structures Report.pdf
- (10) 446320-1 Bridge Tech Memo.pdf
- (11) 446320-1 Boring Report.pdf
- (12) 446320-1 Pavement Condition Report.pdf
- (13) 446320-1 Flexible Pavement Design Package\_signed.pdf
- (14) 44632015201-ProjectKMZFile.kmz
- (15) 44632015201-CADD.zip

R02\_CADD Files

42584325201-CADD.zip

R03\_Concept Plans

42584325201-PLANS-01-ROADWAY.pdf  
42584325201-ConceptPlan-TrafficOps.pdf  
42584325201-PLANS-08-STRUCTURES.pdf

R04\_Bridge Development Reports and Wall Reports

4258432\_B1\_RampsA3\_C2\_FinalBDR\_122116.pdf  
4258432\_B1\_RampsA3\_C2\_FinalBDR\_Addendum\_041917.pdf  
4258432\_B2\_RampC2\_FinalBDR\_122116.pdf  
4258432\_B2\_RampC2\_FinalBDR\_Addendum\_041917.pdf  
4258432\_B3\_RampA1\_FinalBDR\_122116.pdf  
4258432\_B3\_RampA1\_FinalBDR\_Addendum\_041917.pdf  
4258432\_WallJustificationReport\_122116.pdf

R05\_Design Reports

4258432\_Phase IIR RdwyDoc.pdf  
4258432\_PhaseIIR DrainDoc.pdf  
4258432\_PhaseIIR\_LDAR.pdf  
Lighting\_Utility Coordination.pdf  
PhaseIIRComments\_ThreadReport09.13.19.pdf

R06\_Existing Bridge Plans

R06\_03175\_3409\_Bridges.pdf

R07\_Geotechnical Data

425843-2-52-01\_Geotech Bridge and Wall Data Report.pdf  
425843-2-52-01\_Geotech Roadway Data Report.pdf

R08\_PD&E Documents

Contamination

- Contamination.Memorandum\_425843-2.pdf
- Final.L1.PSR.CSER\_03.09.2017.pdf
- Final\_CSER.pdf

Cultural Resources

- CRAS\_I-75\_at\_SR\_951\_Ultimate\_Interchange.pdf
- I-75\_\_SR\_951\_SHPO\_CRAS\_Approval\_3\_7\_2013.pdf

- Draft CRAS Tech Memo I-75 at SR 951, Collier Co.pdf
- Preliminary pond memo I-75 at SR 951.pdf

Noise

- Final\_NSR\_I75-SR\_951\_rev\_062013.pdf
- I-75\_SR951\_NSRA\_Mar 3 2020.pdf

Reevaluations

- 2015 ROW Reeval
  - I-75 at SR 951 State SIGNED ROW 12-21-15\_wAppA.pdf
- 2017 Reeval FDOT signed August 2017
  - 2017\_08\_29\_09\_33\_46.pdf
  - 425843-2 DC&ROW Reevaluation - OEM approved 8\_21\_17 (full).pdf
  - PROJECT\_COMMITMENTS from 425843-2 DC&ROW Reevaluation - OEM approved 8\_21\_17 (full).pdf
- 2020 Construction Advertisement Design Change
  - 42584322201-CE2-D1-SIGNED\_REEVALUATION\_COMPLETEWITHAPP\_I-75\_(SR\_9-2020-1218.pdf

Traffic

- 2020 IMR Assessment
  - I-75\_951 IMR Re-Evaluation Assessment Memo\_112018.pdf
  - I-75 at SR951 IMR Assessment Appendix.zip
- Design Traffic Technical Memo
  - FINAL DTTM I-75 at SR 951\_2016.zip
- PD&E Traffic Reports
  - I75 at SR 951 Traffic Report.pdf
  - I75-SR951 Ichg Mod Report\_v7 with App\_Fig.pdf
- I-75 at SR 951 Traffic Validation Table.pdf

Other

- ESBA\_Complete\_03-05-14[1].pdf
- FBB Concurrence Ltr for I-75 & CR951\_I-75 Lee Co.L to Tuckers & SR70.pdf
- Final\_Air\_Quality\_Tech\_Memo.pdf
- LHR\_Final\_111313.pdf
- PER FM425843-2 Final v4-3\_wApp 072814.pdf
- PSR\_FINAL\_111313.pdf
- USFWS ESBA Response 5\_8\_2013.pdf
- WER\_Complete\_02-05-14[1].pdf
- 425843 - Type 2 CatEx Signed.pdf

R09\_Utility Coordination

CenturyLink National

- 42584325201-PLANS-01-Roadway-Phase IIR Greenlines.pdf
- century link map.pdf

CenturyLink Local

- GLGCFLXA\_68-0163.02 210615 RGB\_I75 at CollierBlvd.kmz
- utprrd01\_CTL.dgn
- 68-0163.02 RGB-CenturyLink.pdf
- 425843 UWS CTL Phs IIR\_I75 at CR951\_210615.pdf

Collier County Water Sewer

- CollierCountyDesignBuild project
  - I75DB Record Drawing Seg 2.2 8-9 20210903.pdf
  - I75DB FDOT Complete As-Builts Reduced.pdf
- 425843-2-52-I75 AT SR 951 UWS\_r5\_10-08-21.pdf
- 42584325201-Phase IIR\_Collier County Water RGB r5\_Optimized.pdf
- COMPENSABLE WORK BY FDOT HIGHWAY CONTRACTOR.pdf
- NON-COMPENSABLE WORK BY FDOT HIGHWAY CONTRACTOR.pdf

Comcast

- 425843-2-PHASE I - Comcast green line.pdf

Fibernet dba Crown Castle

- 42584325201-PLANS-01-Roadway-Phase IIR RGB.pdf
- CR951 & I-75 Crown Castle AS BUILT.pdf

Florida Government Utility Authority

- 425843-2I75 at SR 951FGUA.pdf

FPL Distribution

- 425843-2 UWE\_FPL Distribution\_PhaseIIR\_10-8-2021.pdf
- 425843-2 UWS\_Phase II R\_FPL Distribution.pdf425843-2-52-01\_Roadway Plans\_Phase IIR\_FPL Distribution\_RGB Plans\_Reimbursable Areas.pdf
- 3442461 OR-3609 PG-0058.pdf
- 3452405 OR-3618 PG-3769.pdf
- 4001762 OR-4212 PG-1810.pdf
- 425843-2 FPL Designated POS.pdf
- 425843\_FPL\_SUBORDINATED\_ROW\_Maps.pdf
- 4258132FPL executed SUBORDINATION P100, 104,105 FPL.pdf

FPL Transmission

- 425843-2\_NoConflictLtr\_72817-signed.pdf
- FPL Transmission Phase IIR.pdf

Hotwire

- Hotwire.pdf

Summit Broadband

- 425843-2-25-01 UWSSummit.pdf
- Summit -Phase IIR-part RGB(10-15-19) (1).pdf

TECO Peoples Gas

- teco peoples gas 425843-PHASE IIR RGB'S.pdf

R10\_District One Lane Closure Policy\_(6-8-20).pdf

## **I. Introduction.**

The Florida Department of Transportation (Department or “FDOT”) has issued this Request for Proposal (RFP) to solicit competitive bids and proposals from Proposers for the design and construction of the I-75 at SR 951 Interchange in Collier County.

It is the Department’s intent to promote the use of innovative design concepts, components, details, and construction techniques for bridge structures as discussed in Part 1, Chapter 121 of the FDOT Design Manual (FDM). The Design-Build Firm may submit a Technical Proposal that includes innovative concepts if they are discussed with the Department and approved in accordance with Part 1, Chapter 121 of the FDM using the Alternative Technical Concept (ATC) process.

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.

It is the Department’s intent that all Project construction activities be conducted within the existing Right of Way. The Design-Build Firm may submit a Technical Proposal that requires the acquisition of additional Right of Way if the subject acquisition was approved during the Alternative Technical Concept (ATC) process. Any Technical Proposal that requires the acquisition of additional Right of Way will not extend the contract duration as set forth in the Request for Proposal under any circumstances. The Department will have sole authority to determine whether the acquisition of additional Right of Way on the Project is in the Department’s best interest, and the Department reserves the right to reject the acquisition of additional Right of Way.

If a Design-Build Firm intends to submit a Technical Proposal that requires the acquisition of additional Right of Way, the Design-Build Firm shall discuss such a proposal with the Department as part of the ATC process. If a Design-Build Firm submits a Technical Proposal that requires the acquisition of additional Right of Way and the Design-Build Firm fails to obtain Department approval as part of the ATC process, then the Department will not consider such aspects of the Proposal during the Evaluation process. If the Design-Build Firm’s Technical Proposal requires additional Right of Way approved by the ATC process, the additional Right of Way will be required to be directly acquired by the Department. The Design-Build Firm shall submit, along with the Technical Proposal, Right of Way maps and legal descriptions including area in square feet of any proposed additional Right of Way parcels in the Technical Proposal. The additional Right of Way will be acquired by the Department in accordance with all applicable state and federal laws, specifically including but not limited to the Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs (42 USC Chapter 61) and its implementing regulations. This includes completing a State Environmental Impact Report (SEIR) or National Environmental Policy Act (NEPA) evaluation as appropriate. All costs concerning the acquisition of additional Right of Way will be borne solely by the Design-Build Firm. These costs include, but are not limited to consultant acquisition, appraisal services, court fees, attorney and any expert fees, property cost, etc. The Department will have sole discretion with respect to the entire acquisition process of the additional

## Right of Way.

If the Design-Build Firm's Technical Proposal requires additional Right of Way, the acquisition of any such Right of Way shall be at no cost to the Department, and all costs associated with securing and making ready for use such Right of Way for the Project shall be borne solely by the Design-Build Firm as a part of the Design-Build Firm's Lump Sum Price Bid. The Department will not advance any funds for any such Right of Way acquisition and the Design-Build Firm shall bear all risk of delays in the acquisition of the additional property, regardless of cause or source. No additional contract time will be granted.

The Design Build Firm shall provide to the Department an estimate of the purchase price of the land from the property owner and any conditions related to the purchase. The Department will provide to the successful Design-Build Firm an estimate of all costs related to the acquisition and use of the additional Right-of-Way for the project. At the time the Design-Build Firm returns the executed contract to the Department, the Design-Build Firm will provide the Department funds equal to the amount of the Department's estimate along with a Letter of Credit approved by the Department in an amount equal to 100% of the Department's estimate. If additional funds beyond the Department's estimate are anticipated, the Design-Build Firm shall be solely responsible for all such costs and provide the same to the Department upon ten (10) days written notice from the Department. The Letter of Credit is for the purpose of securing the obligations of the Design-Build Firm with respect to the acquisition and use of additional Right-of-Way. The Letter of Credit will be released upon the Department's determination that all costs related to the acquisition of and making ready for use of the additional Right-of-Way have been satisfied. Any remaining funds provided will be returned to the Design-Build Firm.

Any additional Right of Way must be acquired prior to the commencement of any construction on or affecting the subject property. The Design-Build Firm waives any and all rights or claims for information, compensation, or reimbursement of expenses with respect to the Design-Build Firm's payment to the Department for costs associated with the acquisition of the additional Right of Way. The additional Right-of-Way cannot be used for any construction activity or other purpose until the Department has issued an applicable parcel clear letter or a Right of Way Certification for Construction.

If the Department's attempt to acquire the additional Right of Way is unsuccessful, then the Design-Build Firm shall provide a design of the Project within existing Right of Way and be required to complete the Project solely for the Lump Sum Price Bid, with no further monetary or time adjustments arising therefrom. Under no circumstances will the Department be liable for any increase in either time or money impacts the Design-Build Firm suffers due to the Design-Build Firm's proposed acquisition of additional Right of Way, whether or not the acquisition is successful.

### **Description of Work**

This project consists of the reconstruction of the I-75 at SR 951 Interchange from the existing Diamond Interchange to a Partial Cloverleaf Interchange with two connection ramps over SR 84/Davis Boulevard, from and to CR 951 (Collier Boulevard), to provide for the "Ultimate Configuration". The existing I-75 bridges over SR 951 shall remain. New bridges to accommodate ramp traffic shall be constructed adjacent to the existing mainline bridges as well as new bridges on SR 951 over Davis Boulevard shall be constructed for direct interstate access.

The Context Classification is C3C.

The proposed ramp design ties to the existing southbound exit ramp pavement at the I-75 gore point. A four-foot paved inside shoulder and eight-foot paved outside shoulder shall be provided to meet FDM requirements for a two-lane ramp. A parallel exit ramp to Ramp A-1 shall be provided. Ramp A-1 merges

with the southbound CR 951 lanes at-grade at the intersection with Business Circle North. This intersection includes a split signal for the Ramp A-1 and southbound CR 951 lanes and a signalized directional median opening for the northbound CR 951 lanes. All right turns shall be signed for “No Turn on Red” due to sight distance limitation and conflicting movements in accordance with the Design Traffic Technical Memorandum (Reference Document R08). The Ramp A-1 lanes merge into the outside through lane and auxiliary lane approximately 250 feet south of Business Circle North. The auxiliary lane ends at Business Circle South where it becomes a dedicated right turn lane. Due to limited space, the Ramp A-1 bridge shall include signal and sign attachments for the roadways below.

The alignment of Ramp C-2 (northbound SR 951 to northbound I-75) will require the Henderson Creek Canal to be shifted to the east. Collier County will maintain ownership of the Henderson Creek Canal, however FDOT will maintain the revetment/articulating block on the front side of the canal slope. An updated typical section with the fill slope for the Henderson Creek Canal as shown in the Concept Plans is provided in Reference Document R03. Ramp C-2 crosses over the Collier County fresh water supply well in the southeast corner of the CR 951/Davis Boulevard intersection.

The Department has committed to including 1.93 lane miles of rigid pavement construction on this project. This commitment was originally based on constructing the new interchange ramps with concrete pavement.

The typical section along Collier Boulevard varies throughout the project limits. South of SR 84/Davis Boulevard the approved typical section consists of six 11-foot travel lanes, an 11-foot auxiliary lane in the southbound direction, seven-foot buffered bike lanes in each direction, and a ten-foot shared-use path along the west side of the corridor. A 19.5-foot median shall be maintained per the FDM. The approved typical section for SR 951 beneath I-75 consists of four through lanes in each direction with a 24-foot median, a southbound auxiliary lane to Ramp A-3, and Ramp C-2 adjacent to the northbound SR 951 lanes. The barrier wall separating Ramp C2 from NB SR 951 shall be carried through the existing I-75 bridge underpass.

To accommodate the proposed typical section beneath the existing I-75 bridges over SR 951, the existing tied-back cast-in-place retaining walls shall be reconstructed closer to the existing bridge end bents. Mechanically Stabilized Earth (MSE) walls shall abut and extend from the reconstructed tied-back cast-in-place retaining walls to wrap-around the two new ramp bridges over SR 951.

The shared-use path crossing at Ramp A-3 shall maintain clear zone from SR 951 to the shared-use path bollards.

The proposed southbound interchange terminal intersection shall include a dual left turn from northbound SR 951 to the northbound I-75 entrance ramp. The excess existing Ramp D pavement shall be removed to provide two receiving lanes and a yield controlled southbound SR 951 to northbound I-75 ramp. The ramp shall merge to one lane prior to the ramp terminal at I-75 where the proposed design meets the existing I-75 six-lane pavement.

The existing eastbound SR 84 to southbound CR 951 dedicated right turn ramp shall be converted to a shared-use path. The existing outside SR 84 travel lane shall become a through/right turn lane at the intersection per the approved PD&E Study and IMR. The existing right turn lane along SR 84 shall terminate into the existing driveway for the abandoned commercial development at Davis Crossings.

East of the existing driveway, the curb line along SR 84 shall be reconstructed to allow the bike lane to transition to a ten-foot shared-use path located adjacent to the curb as shown in the Concept Plans. The ramp from the bike lane to the shared-use path shall be placed just east of the commercial driveway and

shall be constructed of 6-inch concrete sidewalk. The shared-use path east of the existing cross walk shall utilize the existing ramp pavement adjacent to the inside barrier wall. The additional existing pavement, curb and gutter, and sidewalk along the outside of the path shall be removed, regraded, and sodded. The existing gravity wall and drainage system along the outside shall remain in place.

Full crosswalks with landing pads shall be provided at the Collier Boulevard/SR 84 intersection. A crosswalk with landing pads shall be provided on the southside of the SR 951 and Magnolia Pond Drive/City Gate Drive intersection to complete the full intersection crosswalks. The existing crosswalks at Business Circle South shall remain in place.

Stormwater treatment and attenuation facilities shall be constructed to meet the requirements of the appropriate permitting agencies. The design of associated conveyance systems shall be compatible with the proposed typical section applicable locations and shall convey stormwater runoff into the stormwater management facilities.

A 22-foot-tall ground mounted noise barrier (approximately 3550 feet in length) was determined to be a reasonable and feasible noise abatement measure for the Tuscan Isle Apartments and the Palm Springs neighborhood.

Construct guide signs, lane use advisory signs, and advance toll plaza signs as shown in the Concept Signing Plan roll plot (Reference Document R03). Install pavement shields, pavement messages, and pavement arrows to guide motorists into appropriate travel lanes.

Install signage for Emergency Shoulder Use (ESU) as shown in the Emergency Shoulder Use Standard Operating Procedure (Attachment A19). The Design-Build Firm shall provide a northbound paved inside shoulder that is equal to or greater than the width of the existing paved inside shoulder through the project limits included in the Emergency Shoulder Use Standard Operating Procedure for the duration of the project.

Provide permanent, conventional lighting for all roadways, shared-use paths and pedestrian cross walks at signalized intersections. Provide permanent underdeck lighting beneath bridges that cross roadways or shared-use paths. Replace existing high mast lighting with conventional lighting. Provide roadway lighting for the duration of the project.

Replace existing Department owned and Collier County owned Intelligent Transportation Systems (ITS) infrastructure impacted by the construction. Provide generator backup power for Department owned ITS infrastructure at the I-75 at SR 951 Interchange. Connect all signalized intersections to the Collier County signal communication system.

Construct a new signal at the Collier Boulevard and Business Circle North intersection. Replace existing mast arm signals along Collier Boulevard at SR 84 and the I-75 Interchange. Attach all signal heads using rigid mounting hardware. Install backplates with yellow reflective borders on mast arms at the Business Circle South Intersection.

All removals of existing foundations shall be deep removal.

The Design-Build Firm shall provide wildlife fencing along the I-75 Limited Access Right of Way line and median ditches west of the SR 951 Interchange to channelize wildlife to the existing I-75 box culverts as noted in Section VI. G Geometric Design.



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 Plans for Road and Bridge Construction (Standard Plans), Index 110-100. Within the construction 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](http://www.fleppc.org)) and as identified in the Landscape Opportunity Plan.

The intent of this Project is to replace, repair or rehabilitate all deficiencies noted in the RFP within the Project limits such that maintenance work required upon Final Acceptance is limited to routine work.

#### **A. Design-Build Responsibility**

The Design-Build Firm shall be responsible for survey, geotechnical investigation, subsurface utility engineering, 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 on 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 Access Request (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 documentation required for the Department to analyze and satisfy requirements to obtain approval of the Department and the Office of Environmental Management (OEM) for the NEPA document, or FHWA for the potential reevaluation of the Interchange Access Request document (IMR, in this case) depending on the magnitude of the proposed changes from the approved IMR concept. The Design-Build Firm must be able to demonstrate that the new proposed concept shall perform equal to or better than the approved IMR concept. The Design-Build Firm shall provide the required documentation for review and processing. Approved revisions to the configuration will also be required to be included in the Reevaluation of the NEPA document, per Section O (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 the Contract Documents and the site of the proposed work carefully before submitting a Proposal for the work contemplated and shall investigate the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished and as to the requirements of all Contract Documents. Written notification of differing site conditions discovered during the

design or construction phase of the Project will be given to the Department's Project Manager.

The Design-Build Firm shall examine geotechnical 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 facia evidence that the Design-Build Firm has made an examination as described in this provision.

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.

The Design-Build Firm will provide litter removal and mowing within the project limits in accordance with Specification Section 107 with a 30-day mowing frequency and a 30-day litter removal frequency.

### **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.

In accordance with 23 CFR 636.109 of the FHWA, in a Federal Aid project, the Department shall have oversight, review, and approval authority of the permitting process.

The Department will determine the environmental impacts and coordinate with the appropriate agencies during the preparation of NEPA Reevaluations. For federal projects, NEPA Reevaluations will be processed by the Department's EMO Office for approval by OEM pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 and executed by the FHWA and the Department.

## **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.

<b>Date</b>	<b>Minimum # of Days</b>	<b>Event</b>
October 22, 2021	0	Planned Advertisement
November 1, 2021	10	Current Advertisement
November 22, 2021	21	Letters of Interest for Phase I of the procurement process due in District Office by 5:00 pm local time
December 9, 2021	17	Proposal Evaluators submit Letter of Interest Scores to Contracting Unit 09:00 am local time
December 10, 2021	1	Contracting Unit provides Letter of Interest scores and Proposal Evaluators comments to Selection Committee 10:00 am local time
December 14, 2021		Public Meeting of Selection Committee to review and confirm

	4	Letter of Interest scores 10:00 am local time
December 14, 2021	0	Shortlist Posting Date
December 15, 2021	1	Final RFP provided to Design-Build Firms continuing to Phase II of the procurement processes. 05:00pm local time
December 22, 2021	7	Virtual Mandatory Pre-Proposal meeting at 09:00 am local time. All Utility Agency/Owners that the Department contemplates an adjustment, protection, or relocation is possible are to be invited to the Mandatory Pre-Proposal Meeting.
December 23, 2021	0	Virtual Utility Pre-Proposal Meeting facilitated by the District Utility Engineer at 08:30 am local time.
December 29, 2021	7	Deadline for Design-Build Firm to request participation in One-on-One Alternative Technical Concept Discussion Meeting No. 1 05:00pm local time
January 5, 2022	7	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 05:00pm local time
January 12, 2022	7	Virtual One-on-One Alternative Technical Concept Discussion Meeting No. 1. 90 Minutes will be allotted for this Meeting.
January 27, 2022	15	Deadline for submittal of Alternative Technical Concept Proposals 05:00pm local time.
January 27, 2022	0	Final deadline for submission of requests for Design Exceptions or Design Variations. 05:00pm local time
February 10, 2022	14	Deadline for Department Responses to Alternative Technical Concept Proposals
February 23, 2022	13	Addendum issued for approved Design Exceptions. 05:00pm local time
February 28, 2022	5	Deadline for Design-Build Firm to request participation in One-on-One Alternative Technical Concept Discussion Meeting No. 2 05:00pm local time
March 7, 2022	7	One-on-One Alternative Technical Concept Discussion Meeting No. 2. 60 Minutes will be allotted for this Meeting. This ATC meeting is for continuing discussion on ATCs submitted prior to for which the Department requested additional information and were not approved or for new ATCs that are a direct response to an Addendum issued on or after <b>February 28, 2022</b> .
March 14, 2022	7	Deadline for submittal of Alternative Technical Concept Proposals for which the Department requested additional information and were not approved or for new ATCs that are a direct response to an Addendum issued on or after. Deadline is 5:00 pm local time.
March 28, 2022	14	DDE completes review of ATCs and notifies Design-Build Firms.
April 11, 2022	14	Deadline for submittal of questions, for which a response is assured, prior to the submission of the Technical Proposal. All questions shall be submitted to the Pre-Bid Q&A website.
April 18, 2022	7	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.
April 21, 2022	3	Technical Proposals due in District Office by 05:00 p.m. local time
April 21, 2022	0	Deadline for Design-Build Firm to “opt out” of Technical Proposal Page Turn meeting.

April 28, 2022	7	Technical Proposal Page Turn Meeting. Times will be assigned during the Pre-Proposal Meeting. 30 Minutes will be allotted for this Meeting.
May 18, 2022	20	Question and Answer Written Responses. Deadline for the Department to provide a list of questions/clarifications for the Design-Build Firm to answer.
May 26, 2022	8	Deadline for submittal of Question and Answer Written Responses to the Department's questions/clarifications from the Design-Build Firm. 05:00pm local time
June 2, 2022	7	Deadline for submittal of follow up questions to previously submitted Question and Answer Written Responses to the Department's questions/clarifications from the Design-Build Firm. 05:00 pm local time
June 9, 2022	7	Deadline for submittal of Question and Answer Written Responses to the Department's follow up questions. 05:00pm local time.
June 9, 2022	0	Deadline for submittal of questions, for which a response is assured, prior to the submission of the Price Proposal. All questions shall be submitted to the Pre-Bid Q&A website.
June 13, 2022	4	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 Price Proposal.
June 13, 2022	0	Deadline for the Design-Build Firm to submit a written statement per Section III. Threshold Requirements, F. Question and Answer Written Responses
June 15, 2022	2	Price Proposals due in District Office by 11:00 am local time.
June 15, 2022	0	Public announcing of Technical Scores and opening of Price Proposals at 11:00 am local time in 801 N. Broadway Ave., Bartow, FL, 33830.
June 21, 2022	6	Public Meeting Date of Selection Committee to determine intended Award
June 21, 2022	0	Final Selection Posting Date
June 28, 2022	7	Anticipated Award Date
July 15, 2022	17	Anticipated Execution Date

### 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, F.A.C. 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. The Joint Venture shall provide an Affirmative Action Plan specifically for the Joint Venture.

### **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 Short-Listed Design-Build Firm failing to attend will be deemed non-responsive and eliminated from further consideration. This public meeting will be conducted virtually via GoToMeeting, at the dates/times noted in the project Advertisement Schedule under the [All Advertisements](#) link. If interested in attending public meetings, members of the public shall email the applicable District designated email account at least 24 hours in advance of the subject meeting (Saturdays, Sundays, and state holidays shall be excluded in the computation of the 24-hour time), to obtain the teleconference number and Access Code information in order to virtually attend. The designated email account for District 1 is [d1.designbuild@dot.state.fl.us](mailto:d1.designbuild@dot.state.fl.us). 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, Design Variations, and other relevant issues. In the event that any discussions at the pre-proposal meeting require 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 is appropriate. No oral representations or discussions, which take place at the pre-proposal meeting, will be binding on the Department. FHWA will be invited on Projects of Division Involvement (PoDIs), in order to discuss the Project in detail and to clarify any concerns. Proposers shall direct all questions to the Departments Question and Answer website:

<https://fdotwp1.dot.state.fl.us/BidQuestionsAndAnswers/>

Failure by a Proposer to attend or be represented at the pre-proposal meeting will constitute a non-responsive determination of their bid package. Bids found to be non-responsive will not be considered. All Proposers must be present and accounted for prior to the start of the mandatory pre-proposal meeting. The convener of the meeting will call attendance at the time the meeting was advertised to begin. Once all Proposers have identified themselves with the firm they represent, the meeting will "officially" begin. Any Proposer not signed in at the "official" start of the meeting will be considered late and will not be allowed to propose on the Project.

### **E. Technical Proposal Page-Turn Meeting**

The Department will meet with each Proposer, formally for thirty (30) minutes, for a page-turn meeting. **FHWA will be invited on Projects of Division Involvement (PoDIs).** 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 Written Response 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 record all of the page-turn meeting. All 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. Roll plots submitted with the Technical Proposal and an unmodified aerial or map of the construction 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. **The use of the electronic screen will be permitted for display of the Technical Proposal, roll plots, and unmodified aerial or map of the project limits.** 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 eight (8) 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 Written Responses**

The Department will provide all proposed questions to each Design-Build Firm as it relates to their Technical Proposal approximately 1 (one) week before the written Q&A letter is due.

The Design-Build Firm shall submit to the Department a written letter answering the questions provided by the Department. The questions and written answers/clarifications will become part of the Contract Documents and will be considered by the Department as part of the Technical Proposal. **In the event the Design-Build Firm includes additional information in the written response which was not discussed as part of the Department's questions and is otherwise not included in the Technical Proposal, such additional information will not be considered by the Department during the evaluation of the Technical Proposal.**

One (1) week prior to the Price Proposal due date the Design-Build Firm shall submit to the Department a written statement as follows: “[insert name of the Design-Build Firm] confirms that, despite any provision in the Design-Build Firm’s Technical Proposal or any Q&A written response letter that may be inconsistent with the other requirements of the Contract Documents, [insert name of the Design-Build Firm] intends to comply fully with the requirements otherwise provided for in the Contract Documents, except for, pursuant to Subsection 5-2 Coordination of Contract Documents of the Design-Build Division I Specifications, any [insert name of Design-Build Firm]’s statements, terms, concepts or designs that can reasonably be interpreted as offers to provide higher quality items than otherwise required by the other Contract Documents or to perform services or meet standards in addition to or better than those otherwise required which such statements, terms, concepts and designs are the obligations of [insert name of the Design-Build Firm].” In case of the failure of the Design-Build Firm to timely provide such a written statement, the Department may determine the Design-Build Firm to be deemed non-responsive.

### **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 Proposal. Pursuant to Sections 120.57(3) and 337.11, Florida Statutes, and Rule Chapter 28-110, F.A.C., 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 10 days after the filing of the notice of protest. The formal written protest shall be filed within 10 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 Department of Labor's System for Award Management (SAM) list.

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.

Any proposal submitted by a Proposer that did not sign-in at the mandatory pre-proposal meeting will be non-responsive.

### **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 only.
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 already provided.
7. Those changes to the Concept Design 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, race-neutral DBE goal. This means that the State's goal is to spend a portion 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 overall goal can be achieved through the normal competitive procurement process. The Department has reviewed this Project and assigned a DBE availability goal shown in the Project Advertisement and on the bid blank/contract front page under "% DBE Availability Goal". The Department has determined that this DBE percentage can 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 overall 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 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, as well as actual dollars paid to DBE's. This information is being collected through the Department's Equal Opportunity Compliance (EOC) system. Additional requirements of the Design-Build Firm may be found in Chapter 2 of the FDOT Equal Opportunity Construction Contract Compliance Manual.

#### **B. DBE Supportive Services Providers:**

The Department has contracted with consultants, one is referred to as DBE Supportive Services provider (DBE/SS), to provide managerial and technical assistance to DBE's. This consultant works with potential DBEs, certified DBEs and prime contractors and consultants in an effort to increase DBE utilization. The other consultant is referred to as the Specialized Development Program provider (SDP). This consultant works with short-listed Design Build firms prior to award, on projects over \$50 million dollars in an effort to identify DBE's with capacity to perform on the Project. The successful Design-Build Firm should meet with the DBE DBE/SS or SDP to discuss the DBE's that are available to work on this Project. The current Providers for the State of Florida can be found on the Equal Opportunity website at: <http://www.fdot.gov/equalopportunity/serviceproviders.shtm>

#### **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 DBEs and Non-DBEs.

All Contractors must enter their bid opportunity information in the Equal Opportunity Compliance (EOC) system within three business days of submission of the bid or proposal. The link to the EOC system is located in Chapter 1 Section 1.4, Directory of Compliance Websites & Addresses. Failure of bidders to enter Bid Opportunity List information is a violation of 49 C.F.R. 26.11 and grounds for compliance actions up to and including withholding of progress payments. Note: All registered primes submitting a bid will need to apply for EOC User ID and Password to gain access to the EOC system.

## 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, 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), and FDOT Standard Plans with applicable Interim Revisions. 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, FDOT Standard Plans and applicable Interim Revisions 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 Design Manual (FDM)  
<http://www.fdot.gov/roadway/FDM/>  
Note: the use of FDM Part 9 requires approval by the District Design Engineer
2. Florida Department of Transportation Specifications Package Preparation Procedure  
<http://www.fdot.gov/programmanagement/PackagePreparation/Handbooks/630-010-005.pdf>
3. Florida Department of Transportation Standard Plans for Road and Bridge Construction  
<http://www.fdot.gov/design/standardplans/>
4. Standard Plans Instructions (Refer to Part I, Chapter 115, FDM)  
<http://www.fdot.gov/roadway/FDM/>
5. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications  
<https://www.fdot.gov/programmanagement/Implemented/SpecBooks/default.shtm>
6. Florida Department of Transportation Surveying Procedure 550-030-101  
<http://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/FormsA>

- [ndProcedures/ViewDocument?topicNum=550-030-101](#)
7. Florida Department of Transportation EFB User Handbook (Electronic Field Book)  
[http://www.fdot.gov/geospatial/doc\\_pubs.shtm](http://www.fdot.gov/geospatial/doc_pubs.shtm)
  8. Florida Department of Transportation Drainage Manual  
<http://www.fdot.gov/roadway/Drainage/ManualsandHandbooks.shtm>
  9. Florida Department of Transportation Soils and Foundations Handbook  
<http://www.fdot.gov/structures/Manuals/SFH.pdf>
  10. Florida Department of Transportation Structures Manual  
<http://www.fdot.gov/structures/DocsandPubs.shtm>
  11. Florida Department of Transportation Computer Aided Design and Drafting (CADD) Manual  
<http://www.fdot.gov/cadd/downloads/publications/CADDManual/default.shtm>
  12. AASHTO – A Policy on Geometric Design of Highways and Streets  
[https://bookstore.transportation.org/collection\\_detail.aspx?ID=110](https://bookstore.transportation.org/collection_detail.aspx?ID=110)
  13. MUTCD - 2009  
<http://mutcd.fhwa.dot.gov/>
  14. Safe Mobility for Life Program Policy Statement  
<http://www.fdot.gov/traffic/TrafficServices/PDFs/000-750-001.pdf>
  15. Traffic Engineering and Operations Safe Mobility for Life Program  
<http://www.fdot.gov/traffic/TrafficServices/SafetyisGolden.shtm/>
  16. Florida Department of Transportation American with Disabilities Act (ADA) Compliance – Facilities Access for Persons with Disabilities Procedure 625-020-015  
<https://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/?viewBy=0&procType=pr>
  17. Florida Department of Transportation Florida Sampling and Testing Methods  
<http://www.fdot.gov/materials/administration/resources/library/publications/fstm/disclaimer.shtm>
  18. Florida Department of Transportation Flexible Pavement Coring and Evaluation Procedure  
<http://www.fdot.gov/materials/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf>
  19. Florida Department of Transportation Design Bulletins and Update Memos  
<http://www.fdot.gov/roadway/Bulletin/Default.shtm>
  20. Florida Department of Transportation Utility Accommodation Manual  
[https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/programmanagement/utilities/docs/uam/uam2017.pdf?sfvrsn=d97fd3dd\\_0](https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/programmanagement/utilities/docs/uam/uam2017.pdf?sfvrsn=d97fd3dd_0)
  21. AASHTO LRFD Bridge Design Specifications  
[https://bookstore.transportation.org/category\\_item.aspx?id=BR](https://bookstore.transportation.org/category_item.aspx?id=BR)
  22. Florida Department of Transportation Flexible Pavement Design Manual  
<http://www.fdot.gov/roadway/PM/publicationS.shtm>
  23. Florida Department of Transportation Rigid Pavement Design Manual

- <http://www.fdot.gov/roadway/PM/publicationS.shtm>
24. Florida Department of Transportation Pavement Type Selection Manual  
<http://www.fdot.gov/roadway/PM/publicationS.shtm>
  25. Florida Department of Transportation Right of Way Manual  
<http://www.fdot.gov/rightofway/Documents.shtm>
  26. Florida Department of Transportation Traffic Engineering Manual  
<http://www.fdot.gov/traffic/TrafficServices/Studies/TEM/tem.shtm>
  27. Florida Department of Transportation Intelligent Transportation System Guide Book  
[http://www.fdot.gov/traffic/Doc\\_Library/Doc\\_Library.shtm](http://www.fdot.gov/traffic/Doc_Library/Doc_Library.shtm)
  28. 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>
  29. AASHTO Guide for the Development of Bicycle Facilities  
[https://bookstore.transportation.org/collection\\_detail.aspx?ID=116](https://bookstore.transportation.org/collection_detail.aspx?ID=116)
  30. Federal Highway Administration Hydraulic Engineering Circular Number 18 (HEC 18).  
[http://www.fhwa.dot.gov/engineering/hydraulics/library\\_arc.cfm?pub\\_number=17](http://www.fhwa.dot.gov/engineering/hydraulics/library_arc.cfm?pub_number=17)
  31. Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways  
<http://www.fdot.gov/roadway/FloridaGreenbook/FGB.shtm>
  32. Florida Department of Transportation Project Development and Environment Manual, Parts 1 and 2  
<http://www.fdot.gov/environment/pubs/pdeman/pdeman1.shtm>
  33. Florida Department of Transportation Driveway Information Guide  
<http://www.fdot.gov/planning/systems/programs/sm/accman/pdfs/driveway2008.pdf>
  34. AASHTO Highway Safety Manual  
<http://www.highwaysafetymanual.org/>
  35. Florida Statutes  
<http://www.leg.state.fl.us/Statutes/index.cfm?Mode=View%20Statutes&Submenu=1&Tab=statutes&CFID=14677574&CFTOKEN=80981948>
  36. Florida Department of Transportation Equal Opportunity Construction Contract Compliance Manual  
<http://www.fdot.gov/equalopportunity/contractcomplianceworkbook.shtm>
  37. Florida Department of Transportation Construction Project Administration Manual  
<https://www.fdot.gov/construction/manuals/cpam/cpammanual.shtm>

**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 Department has chosen to incorporate in the Design-Build method of project delivery the process whereby Design-Build Firms may propose innovative technical solutions for the Departments approval which meet or exceed the goals of the project. The process involves the submission of an Alternative Technical Concept (ATC) as outlined below. This process has shown to be very cost effective in providing the best-value solution which often times is a result of the collaborative approach of the contractor and their designer which is made possible with the Design Build project delivery method and the ATC process.

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 Firm seeks to obtain approval to utilize prior to Technical Proposal submission is, by definition, an ATC and therefore must be discussed and submitted to the Department for consideration through the ATC process. ATCs also include items defined in FDM, Part 1, Chapter 121.3.2. The proposed ATC shall provide an approach that provides equal to or better value 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 following are not permitted to be changed by the Design-Build Firms except where specifically allowed for in the RFP:

- Deck girders with longitudinal deck joints for bridges with two or more spans;
- Full-depth precast deck panels for interstate bridges.  
ATC proposals for full-depth precast deck panels on non-interstate bridges shall include detailed connection details, step-by-step construction sequences, grout/UHPC material requirements, connection mock-up requirements including mock-up acceptance criteria.
- Partial-depth precast deck panels;
- Reinforcing steels other than allowed by SDG 1.4.1.B except in drilled shafts and auger-cast piles. This is not intended to include non-corrosive materials that are allowed for by the RFP.
- Elimination of deck grooving;
- Replacing transverse bridge deck grooving with longitudinal bridge deck grooving;
- Elimination of deck planing;
- The elimination of cross frames in bays of steel bridges that are phase constructed;
- Partial depth deck removal of outside bays on steel bridge widenings in order to provide transverse reinforcing per SDG Table 4.2.5-1. Full depth removal is required to avoid unwanted deck stresses induced by the girder rebounding upward as it is unloaded;
- Non-framed, non-integral straddle pier caps that are not permanently anchored or stabilized on one end (e.g., pinned bolsters, sole plate and anchor bolts, pot or disc bearings etc.).
- full height MSE Wall panels (piano walls).

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:

- New Design Exceptions required.
- Significant changes in scope as determined by the Department.
- Modifications to the Typical Section Package not related to horizontal and/or vertical geometrics.

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, as defined below, 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.

- Modifications to the horizontal and/or vertical geometry requiring an ATC submittal as described in Section VI.F of this RFP
- Modifications to the Typical Section Package directly related to the horizontal and/or vertical geometry
- Modifications to the Approved Pavement Designs
- Station limits of the milling and resurfacing and reconstruction designs in the Department's Approved Pavement Design Package (Attachment A09) may be adjusted to meet the Design-Build Firm's means and methods. Milling depths and pavement layer thicknesses including stabilization, base groups, structural course, and friction course shall meet or exceed those in the Department's Approved Pavement Design Package.
- Modifications to the bridge foundation(s) including the micropile design.

## **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. FHWA should be invited to ATC meetings for all PoDI projects. 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.

The Department will return all handouts back to the Design-Build Firm except one copy to remain in the secure procurement file.

The virtual Alternative Technical Concept (ATC) meetings shall be held via GoToMeeting using webcam. Each Design-Build Firm will receive their own Microsoft Outlook meeting invitation with a unique GoToMeeting Link and phone number. The Design-Build Firm shall provide a list of attendees and their email addresses to the Procurement GoToMeeting Organizer to receive the invitation with your scheduled time slot. Time slots will be adjusted to allow the Procurement GoToMeeting Organizer to join the GoToMeeting 15 minutes prior to the start time to ensure proper functioning of audio/webcam and presenting options.

### **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 discussed and submitted prior to the deadline shown in the Schedule of Events of this RFP.

The Department will allow the submission of draft ATCs at any time following the Shortlist Posting until the date on which the last One-on-One ATC discussion meeting is held as defined in the Schedule of Events. The submission must be clearly marked as DRAFT. The Design-Build Firm, by submitting a Draft ATC, understands that the purpose of the submission is to provide information to facilitate the discussion during ATC meetings and that the Department will discuss the concept but is not obligated to reply to the draft submission as if it were a formal ATC submittal. However, at any time prior to the formal Alternative Technical Concept Proposal submittal, the Department may provide the Design-Build Firm with a draft written response. The draft written response shall be clearly marked as DRAFT.

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

- ) 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 as applicable;
- a) Usage: The locations where and an explanation of how the ATC would be used on the Project;
- b) 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;
- c) Analysis: An analysis justifying use of the ATC and why the deviation, if any, from the requirements of the RFP should be allowed. ATC's proposing horizontal and vertical alignment changes greater than 2 feet from the Concept Plans must include geometric information including curve data, superelevation calculations, horizontal stopping sight distance computations, and other pertinent data necessary to allow for a comprehensive review by the Department;

- d) Impacts: A preliminary analysis of potential impacts on vehicular traffic (during construction), environmental impacts, community impacts, safety, and life-cycle Project and infrastructure costs, including impacts on the cost of repair, maintenance, and operation;
- e) Risks: A description of added risks to the Department or third parties associated with implementation of the ATC;
- f) Quality: A description of how the ATC is equal or better in quality and performance than the requirements of the RFP including the traffic operational analysis if requested by the Department;
- g) Operations: Any changes in operation requirements associated with the ATC, including ease of operations;
- h) Maintenance: Any changes in maintenance requirements associated with the ATC, including ease of maintenance;
- i) 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 Design Engineer, District Construction Engineer, District Maintenance Engineer, State Structures Design Engineer, State Roadway Design Engineer, FHWA, (as applicable) as necessary, and respond to the Design-Build Firm in writing within 14 calendar days of receipt of the ATC submittal as to whether the ATC is acceptable, not acceptable, or requires additional information. 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 of the 14 day deadline with an estimated timeframe for completion.

Approved Design Exceptions 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). 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, 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.

Through the ATC process, the Design-Build Firm may submit, and the Department may consider, geometric modifications to the Concept Plans or other contract requirements that will provide an engineering solution that is better overall in terms of traffic flow and reduced congestion. The approval of ATCs related to improvements of traffic flow and reduced congestion is at the sole discretion of the Department. It is the Design-Build Firm's responsibility to clearly establish in the ATC process how the engineering solution provides a benefit to the Department and identify areas of conflict outlined in the RFP.



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. All Department approvals of ATC submissions are based upon the known impacts on the Project at the time of submission. The Department reserves the right to require a modification or amendment to a previously approved ATC as a result of a contract change which is issued by an addendum subsequent to the Department's initial approval of the ATC.

## **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.

### **D. Department Commitments:**

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

1. The Department is committed to the construction of feasible and reasonable noise abatement measures at the Tuscan Isles community contingent upon the following conditions:
  - a. Detailed noise analysis during the final design process supports the need and reasonableness of providing abatement
  - b. Cost analysis indicates that the cost of the noise barrier will not exceed the cost of reasonable criterion
  - c. Community input supporting types, heights, and locations of the noise barrier is provided to the District Office
  - d. Safety and engineering aspects as related to the roadway user and the adjacent property Owner have been reviewed and any conflicts or issues resolved.
2. Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S. to satisfy all mitigation requirements of Part IV. Chapter 373, F.S. and 33 U.S.C. s.1344.
3. During construction, the Department will consider the following avoidance measurement associated with threatened or endangered species:
  - a. Eastern Indigo Snake: The most recent US Fish and Wildlife Service (USFWS) Standard Protection Measures for the Eastern Indigo Snake will be adhered to during construction.
  - b. Gopher Tortoise: Due to the presence of gopher tortoise habitat within the project footprint,

- a gopher tortoise survey in appropriate habitat within construction limits (including roadway footprint and stormwater management sites) will be performed prior to construction. FDOT will secure any relocation permits needed for this species during the design and construction phases of the project.
- c. Wood Stork: FDOT is committed to providing mitigation for the wood stork that is acceptable to the USFWS and FDOT. The details of this mitigation will be finalized during the final design and permitting phase of the project.
4. The project is within the USFWS consultation area for the Florida Bonneted Bat. As required for the “may affect, not likely to adversely affect-programmatic (MANLAA-P)” determination for the Florida Bonneted Bat, the following Best Management Practices must be implemented:
- a. If potential roost trees or structures need to be removed, check cavities for bats within 30 days prior to removal of trees, snags, or structures. When possible, remove structure outside of breeding season (e.g., January 1<sup>st</sup> – April 15<sup>th</sup>). If evidence of use by any bat species is observed, discontinue removal efforts in that area and coordinate with USFWS on how to proceed.
  - b. Avoid or limit widespread application of insecticides (e.g., mosquito control, agricultural pest control) in areas where Florida bonneted bats are known or expected to forage or roost.
  - c. Retain mature trees and snags that could provide roosting habitat. These may include live trees of various sizes and dead or dying trees with cavities, hollows, crevices, and loose bark.
  - d. Incorporate engineering designs that discourage bats from using buildings or structures. If Florida bonneted bats take residence within a structure, contact the USFWS and Florida Fish and Wildlife Conservation Commission prior to attempting removal or when conducting maintenance activities on the structure.

**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 acquiring or modifying all permits as necessary to accurately depict the final design.

All applicable data shall be prepared in accordance with Chapter 373 and 403, Florida Statutes, Chapters 40 and 62, F.A.C.; 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 (electronic and hard

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 and public notice 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.

The Department is responsible for providing mitigation of the wetland impacts identified in the following documents: SFWMD ERP for Application 201116-4703 and FDEP 404 Application (pending). If any design modifications by the Design-Build Firm propose to increase the amount of wetland impacts such that mitigation is required, the Design-Build Firm shall be responsible for providing the Department information on the amount and type of wetland impacts as soon as the impacts are identified (including temporary impacts and/or any anticipated impacts due to construction staging or construction methods). The Design-Build Firm shall rely on the wetland delineations and wetland assessments prepared by the Department in support of the Dredge-Fill Sketches and Environmental Considerations. Prior to submitting a permit modification to a regulatory agency, the Design-Build Firm shall provide the Department a draft of all supporting information. The Department will have up to 15 calendar days (excluding weekends and Department observed holidays) to review and comment on the draft permit application package. The Design-Build Firm will address all comments by the Department and obtain Department approval, prior to submittal of the draft permit application package. The Design-Build Firm shall be solely responsible for all time and costs associated with providing the required information to the Department, as well as the time required by the Department to perform its review of the permit application package, prior to submittal of the permit application(s) by the Design-Build Firm to the regulatory agency(ies).

Any additional mitigation required due to design modifications proposed by the Design-Build Firm shall be the responsibility of the Design-Build Firm and shall be satisfied through the purchase of mitigation bank credits. The Design-Build Firm shall purchase credits directly from a permitted mitigation bank. In the event that permitted mitigation bank credits are unavailable or insufficient to meet the project needs, the Design-Build Firm will be responsible for providing alternative mitigation consistent with the provisions of section 373.-4137, Florida Statutes, and acceptable to the permitting agency(ies). The Design-Build Firm shall be solely responsible for all costs associated with 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.

**F. Railroad Coordination: N/A**

**G. Survey:**

The Design-Build Firm shall perform all surveying (Terrestrial, Mobile and/or Aerial) and mapping services necessary to complete the Project. Survey services must also comply with all pertinent Florida Statutes (Chapters 177 and 472, F.S.) and applicable rules in the Florida Administrative Code (Rule Chapter 5J-17, F.A.C.). 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 and Mapping Procedure, Topic Nos. 550-030-101, and the Surveying and Mapping Handbook.

**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 reference information that has been provided is 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 reference information.

**I. Submittals:**

The Department will perform an Independent Department Review (IDR) of all Category 2 bridge structures. The Design Build Firm shall submit 60% structures plans for the Department to begin developing the modeling for the design review. The 60% Structures Plans shall contain sufficient information for each structure to begin developing the model for the Category 2 element(s) under consideration. For Category 2 bridges, each structure submission (60%, 90%, Final) can be broken down into "units" (defined as a stand-alone set of combined foundation, substructure and superstructure sheets) with each unit containing sufficient information to develop the models for the Category 2 element under consideration. The 60% Structures Plans submittal is not intended to be an ERC design review by the Department and formal review comments will not be provided at this stage. Lack of formal review comments at this stage should not be construed as acceptance or approval. When 90% plans are submitted, the Department will verify that the information contained in the 90% plans is consistent with the models that were developed based upon 60% plans and the model will be updated, as required, and the actual design review performed. The results of the review will be forwarded to the Design Build Firm for review and response. The Department will resolve all conflicts arising between the Design build Firm and Department's IDR reviewer during the Independent Department Review process. The Department's disposition of any such conflicts will be final.

**1. Component Submittals:**

The Design-Build Firm may submit components of the contract plans set instead of submitting the entire contract plan set; however, sufficient information from other components must be provided to allow for a complete review. In accordance with the FDOT Design Manual, components of the contract plans set are roadway, signing and pavement marking, signalization, ITS, lighting, landscape, architectural, structural, and toll facilities. The Department will designate in the review comments if the next submittal will be a resubmittal of the 90% phase submittal or if the plans and supporting calculations are significantly developed to proceed to the Final Submittal.

The Design-Build Firm may submit components for each area; however, sufficient information on adjoining areas must be provided to allow for a complete review. Submittals for Category 1 bridges are limited to foundation, substructure, and superstructure.

For Category 2 structures, submittals for bridges are limited to "units" as previously described, or a complete bridge submittal.

For projects involving Category 2 structures, the Design-Build Firm shall submit a Category 2 Submittal Report summarizing the Category 2 elements included in the project as part of the Technical Proposal. Within fifteen (15) calendar days following Notice to Proceed, submit a prioritized preliminary submittal schedule for the plans including Category 2 structure elements. This submittal shall take place prior to the Independent Design Review Kickoff Meeting.

Category 1 and 2 bridge submittals shall contain the following:

- Plan sheets for the submittal under review developed to the specified level of detail (i.e., 90% plans, Final plans, etc.) as outlined in the FDM. Note for the 60% submittal on Category 2 Structures, provide the relevant sheets in accordance with the "60% Structures Plans" column of FDM Table 121.14.1. For the 90% and Final Submittals on Category 2 Structures, combine the required sheets for Foundation, Substructure, and Superstructure listed in FDM Table 121.14.3 to form the "unit" submittal.
- 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, pertinent correspondence, etc. in support of the 90% and final component submittals.

## 2. Phase Submittals:

The Design-Build Firm shall provide the documents for each phase submittal listed below to the Department's Project Manager. The particular phase shall be clearly indicated on the documents. The Department's Project Manager will send the documents to the appropriate office for review and comment. Once all comments requiring a response from the Design-Build Firm have been satisfactorily resolved as determined by the Department, the Department's Project Manager will initial, date and stamp the signed and sealed plans and specifications as "Released for Construction".

All comments shall be resolved to the Department's satisfaction prior to making the next phase submittal. The Department will designate in the review comments if the next submittal will be a resubmittal.

of the 90% phase submittal or if the plans and supporting calculations are significantly developed to proceed to the Final Submittal.

### **60% Phase Submittal (Required for Category 2 structures)**

- **1 copy of 11" x 17" Structures plans meeting the requirements of FDM Tables 121.14.1 and 121.14.2 for 60% Structures Plans**

- 1 copy of draft geotechnical report
- 1 copy of draft Bridge Hydraulic Report
- 1 copy of design documentation (calculations not required)
- 1 copy of draft Technical Special Provisions
- 1 copy of Roadway Project Layout and TTCP plans
- Any other information required for the Department to perform an Independent Department Review as discussed in the Independent Design Review Kickoff Meeting

### **90% Phase Submittal**

- 1 copy of 11" X 17" plans (all required components)
- 1 copy of signed and sealed geotechnical report
- 1 copy of Settlement and Vibration Monitoring Plan (SVMP) for Department acceptance and update throughout the construction period
- 1 copy of design documentation
- 1 copy of Technical Special Provisions
- 1 copy of Landscape Opportunity Plans
- 1 copy of Bridge Load Rating Calculations
- 1 copy of Completed Bridge Load Rating Summary Detail Sheet
- 1 copy of Load Rating Summary Form
- Google Earth ready KMZ files showing both existing and proposed information for each discipline
- 1 copy of all design changes introduced since the 60% plan submittal that affect the modeling or component design of various bridge components
- All QC plans and documentation for each component submittal shall be electronic in .pdf format

The Department will designate in the review comments if the next submittal will be a resubmittal of the 90% phase submittal or if the plans and supporting calculations are significantly developed to proceed to the Final Submittal. If the Department requires more than 2 resubmittals a submittal workshop between the Department and the Design-Build Firm must be held to resolve any outstanding issues or comments.

### **Final Submittal**

- 1 set of signed and sealed 11" X 17" plans (all required documents)
- 1 copy of signed and sealed 11" X 17" plans
- 1 set of signed and sealed design documentation
- 1 copy of signed and sealed design documentation
- 1 copy of Settlement and Vibration Monitoring Plan (SVMP)

- 1 copy of Landscape Opportunity Plans
- 1 set of final documentation
- 1 signed and sealed copy of the Bridge Load Rating Summary Detail Sheet
- 1 signed and sealed copy of the Load Rating Summary Form
- 1 signed and sealed Construction Specifications Package or Supplemental Specifications Package
- 1 copy of signed and sealed copy of Construction Specifications Package or Supplemental Specifications Package
- 1 of electronic copy of Technical Special Provisions in .pdf format
- 1 copy of all major design changes introduced since the 90% plan submittal that affect the modeling or component design of various bridge components
- 1 copy of all the Independent Department Review comments and the EOR's response
- Google Earth ready KMZ files showing both existing and proposed information for each discipline

All of the information above shall be submitted electronically in .pdf format.

All QC plans and documentation for each component submittal shall be electronic in .pdf format

The Design-Build Firm shall provide a list of all changes made to the plans or specifications that were not directly related to the 90% plans review comments. Significant changes (as determined by the Department) made as a part of the Final submittal, that were not reviewed or provided in response to the 90% submittal comments, may require an additional review phase prior to stamping the plans or specifications "Released for Construction." The Design-Build Firm shall provide a signed certification that all Electronic Review Comments (ERC) and/or ProjectSolve comments have been resolved to the Department's satisfaction as a requirement before obtaining "Released for Construction" plans.

### **3. Requirements to Begin Construction:**

The Department's indication that the signed and sealed plans and specifications are "Released for Construction" authorizes the Design Build Firm to proceed with construction based on the contract plans and specifications. The Department's review of submittals and subsequent Release for Construction is to assure that the Design-Build Firm's EOR has approved and signed the submittal, the submittal has been independently reviewed and is in general conformance with the contract documents. The Department's review is not meant to be a complete and detailed review. No failure by the Department in discovering details in the submittal that are released for construction and subsequently found not to be in compliance with the requirements of the contract shall constitute a basis for the Design-Build Firm's entitlement to additional monetary compensation, time, or other adjustments to the contract. The Design-Build Firm shall cause the Engineer of Record to resolve the items not in compliance with the contract, errors or omissions at no additional cost to the Department and all revisions are subject to the Department's approval.

The Design-Build Firm may choose to begin construction prior to completion of the Phase Submittals and the Department stamping the plans and specifications Released for Construction except for bridge construction. No permanent structures work, including fabrication of bridge members, may begin without signed and sealed plans or shop drawings (whichever controls the design and details utilized to construct/erect the specific structural component) that have been Released for construction. To begin construction the Design-Build Firm shall submit signed and sealed plans for the specific activity; submit a signed and sealed Construction Specifications Package or Supplemental Specifications Package; obtain regulatory permits as required for the specific activity; obtain utility agreements and permits, if applicable; and provide five (5) days notice before starting the specific activity. The plans to begin construction may

be in any format including report with details, 8 1/2" X 11" sheets, or 11" X 17" sheets, and only the information needed by the Design-Build Firm to construct the specific activity needs to be shown. Beginning construction prior to the Department stamping the plans and specifications Released for Construction does not reduce or eliminate the Phase Submittal requirements.

#### **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 FDOT Design Manual.

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.

ITS As-Built data shall be collected by personnel having completed Intelligent Transportation System Facilities Management (ITSFM) training designated for as-built data collection. The ITS As-Built documentation shall be submitted 90 days prior to anticipated 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 accept the As-Built Plans and related documents when in compliance with Design Build Division I Specification 7-2.3, As-Built Drawings and Certified Surveys, and the As-Built Requirements.

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

- 1 set of 11" X 17" signed and sealed As-Built plans, drawings and Certified Surveys
- 2 sets of 11 "X 17" copies of the signed and sealed As-Built plans, drawings and Certified Surveys (including as-built channel survey)
- 2 copies of Landscape Opportunity Plans
- 1 signed and sealed copy of the Bridge Load Rating Summary Form and Calculations based on as-built conditions
- 2 sets of final documentation (if different from final component submittal)
- 2 sets of survey information, including electronic files and field books
- **Deliver the final CADD.zip in accordance with the CADD Manual**
- 1 Final Project submittal containing the information above shall be electronic in .pdf format

#### **4. 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.



Prior to any 90% component submittals, the Design-Build Firm shall obtain approvals from the Department for the following items:

- Concept Plans
- Pavement Design Package
- Typical Section Package
- Design Exception Package\*\*
- Design Variation Package\*\*

\*\*Should Department approvals not be obtained by the 90% component submittals, the Design-Build Firm shall obtain written Department concurrence for the submitted materials.

Requirements Traceability Verification Matrix (RTVM) – Submit monthly with the Certified Monthly Estimate and Payment during active ITS construction.

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**5. Railroad Submittals: N/A**

- J. Contract Duration:

The Department has established a Contract Duration of 1200 calendar days for the subject Project.

**K. Project Schedule:**

The Design-Build Firm shall submit a Schedule, in accordance with Subarticle 8-3.2 (Design-Build Division I Specifications). The Design-Build Firm's Schedule shall allow for up to fifteen (15) calendar days (excluding weekends and Department observed Holidays) review time for the Department's review of all submittals with the exception of Category 2 structures submittals. The review of Category 2 structures submittals requires Central Office involvement and the Schedule shall allow for up to 20 calendar days (excluding weekends and Department observed Holidays) for these reviews. The Design-Build Firm shall allow at least 20 calendar days (excluding weekends and Department observed Holidays) between the 60% phase submittal and the 90% phase submittal for any Category 2 structures component to allow for the initial development of the IDR. The Design-Build Firm shall allow at least thirty (30) calendar days (excluding weekends and Department observed Holidays) between the 90% phase submittal and the Final phase submittal for any Category 2 structures component to allow for the IDR. The Design-Build Firm shall allow at least twenty (20) calendar days (excluding weekends and Department observed Holidays) for the Final phase submittal for any Category 2 structures submittals. IDR durations are subject to change based on the Design Build Firm's Technical Proposal submittal. Upon review of each Firm's Technical Proposal, new IDR review times may be provided to each Firm as part of the Question and Answer Written response session. For the review of all additional Category 2 structures resubmittals the Schedule shall allow for up to twenty (20) calendar days (excluding weekends and Department observed Holidays) for these reviews. Category 2 structure resubmittals must include all required submittal documentation per Section V.I (Submittals). The Independent Department Review of Category 2 structures will be performed concurrently, and of similar duration, with the normal Department review of submittals. Review will not begin until submittals are deemed complete by the Department.

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

The following Special Events have been identified in accordance with Specification 8-6.4:

Chubb Classic Golf Tournament  
Taste of SWFL

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
- Anticipated Pre-Construction Conference
- Kickoff meeting with the Department's Independent Review consultant
- Design Submittals
- Completed Category 2 bridge design for Independent Department review
- Shop Drawing Submittals
- Other Contractor-Initiated Submittals including RFI's, RFM's, RFC's, and NCR's
- Design Survey
- Submittal Reviews by the Department and FHWA
- Design Review / Acceptance Milestones
- Materials Quality Tracking
- Geotechnical Investigation
- Start of Construction
- Clearing and Grubbing
- Construction Mobilization
- Embankment/Excavation
- Milling Operations
- Paving Operations
- Environmental Permit Acquisition
- Foundation Design (60%, 90%, Final, RFC)
- Foundation Construction
- Substructure Design (60%, 90%, Final, RFC)
- Substructure Construction
- Superstructure Design (60%, 90%, Final, RFC)
- Superstructure Construction
- Retaining Wall Design
- Retaining Wall Construction
- Noise Wall Design
- Noise Wall 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
- Maintenance of Traffic Design

- Landscape Opportunity Plans
- 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
- Required Testing Periods (ITS, Signals, Lighting, etc.)
- As-Built Drawings and Final Documentation Submittal
- Final Completion Date for All Work
- Final Signed and Sealed As-Built Plans Submittal

**L. Key Personnel/Staffing:**

The Design-Build Firm's work shall be performed and directed by key personnel identified in the Letter of Interest and/or Technical Proposal by the Design-Build Firm. In the event a change in key personnel is requested, the Design-Build Firm shall submit the qualifications of the proposed key personnel and include the reason for the proposed change. Any changes in the indicated personnel shall be subject to review and approval by the District Construction Engineer. The Department shall have sole discretion in determining whether or not the proposed substitutions in key personnel are comparable to the key personnel identified in the Letter of Interest and/or Technical Proposal. The Design-Build Firm shall have available professional staff meeting the minimum training and experience set forth in Florida Statute Chapter 455.

**M. Partner/Teaming Arrangement:**

Partner/Teaming Arrangements of the Design-Build Firm (i.e., Prime Contractor or Lead Design Firm) cannot be changed after submittal of the Letter of Interest without written consent of the Department. In the event a change in the Partner/Teaming Arrangement is requested, the Design-Build Firm shall submit the reason for the proposed change. Any changes in the Partner/Teaming Arrangement shall be subject to review and approval by the Department's Chief Engineer. The Department shall have sole discretion in determining whether or not the proposed substitutions in Partner/Teaming Arrangements are comparable to the Partner/Teaming Arrangements identified in the Letter of Interest and/or Technical Proposal.

**N. 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:

- Design Workshops
- Department technical issue resolution meetings
- Public agency coordination meetings
- Local government agency coordination meetings
- Maintenance of Traffic workshop
- Pavement Design meeting
- Permit agency coordination
- Scoping meetings
- System Integration meetings
- Contamination coordination meetings
- Progress meetings
- Utility meetings

- Public meetings
- Project/stakeholder coordination meetings
- Adjacent project coordination meetings

During design, the Design-Build Firm shall meet with the Department's Project Manager on a monthly basis at a minimum 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 prior to beginning system integration activities.

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.

**O. 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. The Department, or its designated representative, will serve as the Public Involvement Consultant (PIC) to carry out an exhaustive Public Involvement Campaign and a marketing effort. The Design-Build Firm will assist the Department in the Public Involvement effort as described below.

**2. Community Awareness:**

The Design-Build Firm will cooperate with the PIC in development and delivery of a project Community Awareness Program.

**3. Public Meetings:**

The Design-Build Firm shall provide all supporting materials necessary for 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)
- Open Houses
- Public Hearings

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, 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, open houses, and public hearings.

The Design-Build Firm shall, as determined by the Department, attend the meetings with an appropriate number of personnel to assist the CEI/Department. The Design-Build Firm shall forward all requests for group meetings to the CEI/Department. The Design-Build Firm shall inform the CEI/Department 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 advertisements announcing workshops, information meetings, and public meetings will be prepared and paid for by the Department.

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

**5. Public Involvement Data:**

The Design-Build Firm is responsible for the following:

- Coordinating with the Department.
- Identifying possible permit and review agencies and providing names and contact information for these agencies to the Department.
- Providing required expertise (staff members) to assist the Department 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, and other agencies.
- Providing information to the Department to keep the Department website current.

The Design-Build Firm shall prepare 3D virtual renderings of each major Temporary Traffic Control phase to simulate the construction mobility experience for the public and stakeholders prior to implementation of each TTCP phase.

The Design-Build Firm shall provide records of all public correspondence, written or verbal, to the Department throughout the life of the Project.

The Design-Build Firm may be asked by the CEI/Department to prepare draft responses to any public inquiries as a result of the public involvement process.

**P. 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, 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.

**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 State Materials Office website for instructions on gaining access to the Department's databases:

<http://www.fdot.gov/materials/quality/programs/qualitycontrol/contractor.shtm>

Prepare and submit to the Engineer a Job Guide Schedule (JGS) using the Department database in accordance with Section 105 of Standard Specifications.

The Department, and FHWA, as necessary, 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.

**Q. 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.

**R. Engineers Field Office: N/A**

**S. Schedule of Values:**

The Design-Build Firm is responsible for submitting estimates requesting payment. Estimates requesting payment will be based on the completion or percentage of completion of 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 Construction Project Administration Manual. The Design-Build Firm must submit the schedule of values to the Department for approval. No estimates requesting payment shall be submitted prior to Department approval of the schedule of values.

Upon receipt of the estimate requesting payment, 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.

**T. 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 policies and procedures. The Department supports MicroStation and GEOPAK as its standard graphics and roadway design platform as well as Autodesk's AutoCAD Civil 3D as an alternate platform. Seed Files, Cell Libraries, User Commands, MDL Applications and related programs developed for roadway design and drafting are in the FDOT CADD Software Suite. Furnish As-Built documents for all building related components of the Project in AutoCAD format. It is the responsibility of the Design-Build Firm to obtain and utilize current Department releases of all CADD applications.

The Design-Build Firm will be required to furnish the Project's CADD files after the plans have been Released for Construction. 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 MicroStation and/or AutoCAD design files format.

As part of the As-Built Set deliverables, field conditions shall be incorporated into MicroStation and/or AutoCAD design files. Use the cloud revision utility as well as an “AB” revision triangle to denote field conditions on plan sheets.

**U. 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.

**V. 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.

**W. Value Added:**

The Design-Build Firm may provide 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
- Signing and ITS Systems
- Lighting
- Concrete defects
- Structural steel defects
- Post-tensioning systems
- 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 for features proposed by the Design-Build Firm.



**X. Adjoining Construction Projects:**

The Design-Build Firm shall be responsible for coordinating all design, permitting, and construction activities with other construction projects that are impacted by or impact this Project to ensure design, maintenance of traffic, construction phasing, incident management, and maintenance responsibility compatibility. This includes projects under the jurisdiction of local governments, the Department, other local, regional and state agencies, or private entities. Adjoining construction projects include, but are not limited to:

1. FPID No. 446320-1: I-75 RRR from Alligator Alley Toll Booth to Collier Boulevard

This list is not intended to be all inclusive, and it will be the Design-Build Firm's responsibility for determining the complete inventory of adjoining projects (present and planned) and the required coordination.

The Department will establish within 60 days after NTP, bi-weekly Project/stakeholder coordination meetings to include Department personnel and other adjacent project engineers and contractors for design and construction coordination. The Design-Build Firm shall participate in the bi-weekly Project/stakeholder coordination meetings. The meetings will be structured to discuss Project issues that affect stakeholders in the vicinity of the Project, and will include discussions regarding: maintenance of traffic; upcoming construction activities; design issues relative to adjacent Department projects and County projects; and stakeholder concerns. The Design-Build Firm shall attend the meetings and be prepared to answer questions and discuss their current maintenance of traffic requests, and identify any upcoming maintenance of traffic plans they intend to submit for the next three (3) week look ahead period. The Department will prepare the agenda and provide written progress reports after each meeting that describes the items of concern, work performed, any resolutions, and summary of decisions made at the meetings. The Design-Build Firm shall prepare a three (3) week look ahead schedule for these meetings with activities to be performed; critical interfacing milestones; maintenance of traffic lane closures required; drainage and permit coordination for design, construction and commissioning of ITS devices; and other agency coordination.

Using the current accepted baseline schedule prepared, the Design-Build Firm shall prepare a three (3) week look ahead schedule for those items of interface work activities that could be impacted, hindered, or delayed due to work in the vicinity of the adjacent projects. In addition, any discrete activity with durations longer than two (2) weeks shall be listed. The Design-Build Firm shall update the three (3) week look ahead schedule weekly throughout the Project.

The Design-Build Firm shall consider and include in the Construction Plans and Bid Price Proposal, any and all temporary detours or diversions required to facilitate traffic movements into and out of the project limits; notwithstanding the alignment, lane positioning and/or grade differences of traffic conditions on those adjacent projects.

**Y. Issue Escalation:**

In the event issues arise during prosecution of the work, the resolution of those issues will be processed as described below unless revised by a Project specific Partnering Agreement:

The escalation process begins with the Construction Project Manager. All issues are to be directed to the Construction Project Manager. If the issue cannot be resolved by the Construction Project Manager in coordination with the Resident Engineer and Design Project Manager as applicable, the Construction Project Manager shall forward the issue to the District Construction Engineer who will coordinate with the

District Design Engineer, and the District Utility Administrator, as applicable. Each level shall have a maximum of five (5) calendar days (excluding weekends and Department observed holidays) to answer, resolve, or address the issue. The Design-Build Firm shall provide all supporting documentation relative to the issue being escalated. The five (5) calendar day period (excluding weekends and Department observed holidays) begins when each level in the issue escalation process has received all required supporting documentation necessary to arrive at an informed and complete decision. The five (5) calendar day period (excluding weekends and Department observed holidays) is a response time and does not infer resolution. Questions asked by the Department may be expressed verbally and followed up in writing within one (1) calendar day (excluding weekends and Department observed holidays). Responses provided by the Design-Build Firm may be expressed verbally and followed up in writing within one (1) working day. Once a response is received from the District Construction Engineer, the Construction Project Manager will respond to the Design-Build Firm in a timely manner but not to exceed three (3) calendar days (excluding weekends and Department observed holidays).

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:**

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

### **B. Vibration and Settlement Monitoring:**

The Department has identified the Collier County fresh water supply well in the southeast corner of CR 951 and Beck Boulevard as a vibration sensitive site. The Design-Build Firm shall be responsible for the identification of additional vibration sensitive sites and coordination with all vibration sensitive sites impacted by the Work for the duration of the construction period.

The Design-Build Firm is responsible for evaluating the need for, design of, and the provision of any necessary precautionary features to protect existing structures from damage, including, at a minimum, selecting construction methods and procedures that will prevent damage. The Design-Build Firm shall submit for Department acceptance a Settlement and Vibration Monitoring Plan (SVMP) as part of the 90% plans submittal and update the SVMP throughout the Construction Period. The Design-Build Firm is responsible for establishing maximum settlement and vibration thresholds equivalent to or lower than the Department Specification requirements for all construction activities, including vibratory compaction operations and excavations.

Submittals for the Settlement and Vibration Monitoring Plan (SVMP) shall include the following as a minimum:

- Identify any existing structures that will be monitored for vibrations during the construction period.

- Establish the maximum vibration levels for the existing structures shall not be exceeded.
- Identify any existing structures that will be monitored for settlement during the construction period.
- Establish the maximum settlement levels for the existing structures that must not be exceeded.
- Identify any existing structures that require pre-construction and post-construction surveys.

The Department will perform the review of Vibration and Settlement submittals for monitoring existing structures in accordance with Department Specifications and will make the final determination of the existing structures to be monitored.

### **C. Geotechnical Services:**

#### **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 Bidirectional (Osterberg Cell) Load Test or Statnamic Load Test. For Bidirectional 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, a minimum number of one (1) successful load test must be performed in representative locations of that area for each structure.

- 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. Provide a pile inspection device that displays and stores electronically for every hammer blow along with a timestamp: stroke for open-ended diesel hammers and blows per foot and blows per minute for all hammers. The device must auto-generate the Department's Pile Driving Record form and export the non-editable electronic data in a format

compatible with the Pile Driving Record form. Use this device during the inspection of test piles and production piles.

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.

### **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 Bidirectional (Osterberg Cell) Load Test or Statnamic Load Test. For Bidirectional 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 areas of the Project, a minimum number of one (1) successful load test must be performed in representative locations of that area for each structure:

- 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. Extending pilot holes throughout the full length of the shaft and to a depth of three (3) times the diameter of the drilled shaft below the proposed tip elevation. For redundant shafts, perform one (1) pilot hole at each bent/pier. The pilot holes at each bent/pier shall be staggered along the bridge alignment. Perform pilot holes/borings for non-redundant drilled shafts in accordance with the Department's Soil and Foundations Handbook.
  4. Determining the locations of the load test shafts and the types of tests that will be performed.
  5. 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.
  6. Preparing and submitting a Drilled Shaft Installation Plan for the Department's acceptance.
  7. Constructing the method shaft (test hole) and load test shafts successfully and conducting thermal integrity tests on these shafts.
  8. Providing all personnel and equipment to perform a load test program on the load test shafts.
  9. Determining the production shaft lengths.
  10. Documenting and providing a report that includes all load test shaft data, analysis, and recommendations to the Department.
  11. Constructing all drilled shafts to the required tip elevation and socket requirement in accordance with the specifications.
  12. Inspecting and documenting the construction of all drilled shafts in accordance with the specifications.
  13. Performing Non-Destructive Drilled Shaft Integrity Testing in accordance with 455-17.6.
  14. Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging.

15. Submitting Foundation Certification Packages in accordance with the specifications.
16. Providing safe access, and cooperating with the Department in verification of the drilled shafts, both during construction and after submittal of the certification package.

### **Spread Footings 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.

### **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.

### **Specialty Geotechnical Services Requirements**

Specialty geotechnical work is any alternative geotechnical work not covered by Department Specifications and requires the development of a Technical Special Provision (TSP). Any TSP for geotechnical work shall include the following:

- Criteria of measurable parameters to be met in order to accept the specialty geotechnical work,
- A field testing and instrumentation program to verify design assumptions and performance,
- A quality control program to be performed by the Design-Build Firm that includes sampling and testing to ensure the material quality, products, and installation procedures meet , requirements,
- A verification testing program to be performed by the Geotechnical Foundation Design Engineer of Record (GFDEOR) that includes inspection, sampling, and testing to verify the material, products, and procedures meet requirements. The TSP shall include language providing separate lab samples to be used for the Department's independent verification.
- A certification process

After construction of the specialty geotechnical work, the Design-Build Firm shall submit a certification package for Department's review within 15 business days. The certification package shall include the results of all the field testing, instrumentation and lab testing performed and a signed and sealed letter by the GFDEOR certifying that the specialty geotechnical work meets the requirements. The Department may issue comments and require additional verification testing.

## Organic and Unsuitable Soils

For the design and construction of the proposed roadway corridor widening (including shallow foundations for structures and MSE walls), the Design-Build Firm shall be required to remove all organic soils (A-8/Muck) and other unsuitable soils as per FDOT Standard Plan Indices 120-001 and 120-002 without allowance for any modification in the plans by the Geotechnical/Design EOR. In addition, to enhance routine maintenance activities, the Design-Build Firm shall remove all organic soils (A-8/Muck) and other unsuitable soils to a minimum depth of two (2) feet below the bottom elevation of all dry detention/retention ponds, swales, ditches, and other areas to be utilized for conveyance, treatment, and/or storage (existing or proposed).

## Cap Rock

Weathered limestone/cap rock was encountered within the borings provided in the Reference Documents. This material is rock and is located at shallow depths. Excavations into and/or through limestone/cap rock will be difficult and will require non-conventional construction techniques and specialized equipment. Limestone/cap rock is porous and will be difficult to dewater.

### D. 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 (UCM) 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 providing comments based on the compatibility of the permit as related to the Design-Build Firm's plans.
4. Scheduling and conducting 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, preparing, reviewing and facilitating any agreement required for any utility work needed through final approval and execution. The UCM shall also be responsible for monitoring and reporting the performance of all involved parties

- under said agreement.
7. Preparing, reviewing, approving, signing, and coordinating the implementation of and submitting to the Department for review, all Utility Work Schedules.
  8. Resolving utility conflicts.
  9. 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.
  10. Providing periodic Project updates to the Department Project Manager and District Utility Office as requested.
  11. Coordinating with the Department on any issues that arise concerning reimbursement of utility work costs between the Department and the utility.
  12. Preparing utility certifications or statements for all Federal-Aid construction projects per 23 CFR 635.309(p)(1)(v).

The following Utility Agency/Owners (UAO's) have been identified by the Department as having facilities within the Project corridor for which the Department contemplates an adjustment, protection, or relocation is possible. Also provided below is a determination made by the Department as to the eligibility of reimbursement for each UAO identified herein along with an identification of whether the UAO or the Design-Build Firm will be responsible for performing the utility work

**Summary of UA/Os Having Facilities within the Proposed Project Limits**

<u>UAO</u>	<u>Utility Relocation Type</u>	<u>Design-Build Responsibility</u>	<u>Cost Estimate</u>
CenturyLink National Francisco Azuri 2121 W Prospect Rd Fort Lauderdale, FL 33309 786-266-1713 Francisco.azuri@lumen.com <a href="mailto:relocations@lumen.com">relocations@lumen.com</a>	Relocation by UAO at UAO Expense	Coordination and Schedule	At UAO Expense
CenturyLink Local Luis Negron 3530 Kraft Rd., Unit 100 Naples, FL 34105 239-920-5925 Luis.c.negron@lumen.com	Relocation by UAO at UAO Expense	Coordination and Schedule	At UAO Expense
Collier County Water Sewer Eric Fey 3339 Tamiami Trail E., Suite 303 Naples, FL 34112 239-252-0043 <a href="mailto:ericfey@colliergov.net">ericfey@colliergov.net</a>	Utility Work By Highway Contractor at UAO Expense and FDOT Expense	Design, Construction, Coordination, Schedule, and all associated costs	At UAO Expense \$1,349,364.00  At FDOT Expense \$56,306.00

<b><u>UAO</u></b>	<b><u>Utility Relocation Type</u></b>	<b><u>Design-Build Responsibility</u></b>	<b><u>Cost Estimate</u></b>
Comcast Xavier Medina 12600 Westlinks Drive, Suite #4 Ft. Myers, FL 33913 239-205-0469 <a href="mailto:xavier_medina@comcast.com">xavier_medina@comcast.com</a>	Relocation by UAO at UAO Expense	Coordination and Schedule	At UAO Expense
Florida Government Utility Authority Michael Currier 1229 Homestead Rd. Lehigh Acres, FL 33936 321-246-4642 <a href="mailto:mcurrier@govmserv.com">mcurrier@govmserv.com</a>	Relocation by UAO at UAO Expense	Coordination and Schedule	At UAO Expense
Florida Power & Light – Distribution Michael Martinez 4105 15 <sup>th</sup> Ave. SW Naples, FL 34116 239-353-6047 <a href="mailto:michael.martinez@fpl.com">michael.martinez@fpl.com</a>	Relocation by UAO at UAO Expense and at FDOT Expense	Coordination and Schedule	At UAO Expense At FDOT Expense \$128,330.00
Florida Power & Light- Transmission Craig Ledbetter 15430 Endeavor Drive Jupiter, FL 33478 561-803-7942 <a href="mailto:craig.ledbetter@fpl.com">craig.ledbetter@fpl.com</a>	Relocation by UAO at UAO Expense	Coordination and Schedule	At UAO Expense
Fibernet dba Crown Castle Chuck Ferguson 13721 Jetport Commerce Pkwy, Ste 1 Fort Myers, FL 33913 570-872-6637 <a href="mailto:chuck.ferguson@crowncastle.com">chuck.ferguson@crowncastle.com</a>	Relocation by UAO at UAO Expense	Coordination and Schedule	At UAO Expense
Hotwire Communications Mark Cook 1467 Railhead Blvd. Naples. FL 34110 <a href="mailto:Mark.Cook@hotwirecommunication.com">Mark.Cook@hotwirecommunication.com</a>	Relocation by UAO at UAO Expense	Coordination and Schedule	At UAO Expense
Summit Broadband (f/k/a US Metropolitan Telecom) Michelle Daniel 4458 35 <sup>th</sup> St. Orlando, FL 33811 407-996-1183 <a href="mailto:mdaniel@summit-broadband.com">mdaniel@summit-broadband.com</a>	Relocation by UAO at UAO Expense	Coordination and Schedule	At UAO Expense



<u>UAO</u>	<u>Utility Relocation Type</u>	<u>Design-Build Responsibility</u>	<u>Cost Estimate</u>
TECO Peoples Gas Gregory Thompson 5901 Enterprise Parkway Fort Myers, FL 33905 407-799-7438 <a href="mailto:gthompson2@tecoenergy.com">gthompson2@tecoenergy.com</a>	Relocation by UAO at UAO Expense	Coordination and Schedule	At UAO Expense

The Design-Build Firm may request the utility to be relocated to accommodate changes from the conceptual plans; however, these relocations require the Department’s approval and the Department will not pay the Utility Agency Owner (UAO) or the Design-Build Firm for the utility relocation work regardless of the UAO's eligibility for reimbursement.

For a reimbursable utility relocation where the UAO desires the work to be done by their contractor, the UAO will perform the work in accordance with the utility work schedule and permit, and bill the Department directly.

Limited Subsurface Utility Engineering was performed on this project as depicted in the conceptual plans. The Design-Build Firm shall be responsible for determining the locations of UAO facilities within the Project by Subsurface Utility Engineering during the design phase to resolve utility conflicts.

Design and Construction of Collier County Utilities:

The Department has entered into a Utility Work by Highway Contractor Agreement (UWHCA) with Collier County Utilities. The Design-Build Firm shall be responsible for the performance of all of Collier County’s utility work including the design, new construction, removals, adjustments, relocation work, and all permits required for the performance of the utility work as specified in this RFP in accordance with FDOT and Collier County Standards and Specifications including:

The Design-Build Firm shall perform all final design and all necessary relocation, adjustments, and removals for the utility work as per the performance and specifications of all Collier County’s utility work. The Design-Build Firm shall coordinate with the Department and with Collier County for all design approvals. The Design-Build Firm shall be the Engineer-of-Record for the UWHCA plans, obtain all required permits and also be responsible for signing and sealing utility construction as-built plans in accordance with the Design and Construction Guidelines for Collier County Utility Work.

DEVIATION FROM THE CONCEPTUAL UTILITY RELOCATION PLANS: If the Design-Build Firm chooses to deviate from the conceptual plans and the scope of the impact to a utility depicted in the conceptual plans included in Reference Documents R09, and thereby causes a greater impact to a utility, the Design-Build Firm shall be solely responsible for all increased costs incurred by the utility owner associated with the increase in the scope of the impact to a utility from that depicted in the conceptual plans. 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 from that depicted in the conceptual plans. 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 from that depicted in the conceptual plans. 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 from that depicted in the conceptual plans, or be liable for any time delays caused by a change in scope of the impact to a utility from that depicted in the conceptual plans.

The relocation agreements, plans, work schedules and permit application are to be forwarded by the Design Build Firm's Utility Coordination Manager to the Department for review by the District Utility Office (DUO) and the 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 One Stop Permitting (OSP) system.

**E. 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, Temporary Traffic Control Plans, Environmental Permits and other necessary documents.

**Design Analysis:**

The Design-Build Firm shall either utilize the signed and sealed Approved Typical Section Package (see Attachments) and comply with the same, or via the ATC process, develop and submit a different signed and sealed Typical Section Package for review and concurrence by the Department. **The Design-Build Firm shall develop and submit a signed and sealed Pavement Design Package and Drainage Analysis Report for review and concurrence by the Department and FHWA on Projects of Division Involvement (PoDIs).** The Pavement Design shall utilize the signed and sealed Approved Pavement Design Package (Attachment A09) as basis for the minimum allowable pavement design. The Design-Build Firm shall only use static mode compaction for the shared-use path construction adjacent to the retaining wall along SR 951.

Any deviation from the Department's design criteria will require a Design Variation and any deviation from AASHTO will require a Design Exception. All such Design Variations and Design Exceptions must be approved by the Department.

The approved Design Variations included in Attachment A10 were developed and approved specifically for the conceptual design as presented in the Reference Documents. Any design changes, including ATCs, that are being contemplated by the Design-Build Firm shall also include an assessment and approval of Design Variations as required by the RFP.

These packages shall include the following:

**F. Roadway Design:**

See FDM Part 3; Chapter 301 for Roadway Design sheets, elements and completion level required for each submittal.

**1. Typical Section Package:**

- Transmittal letter
- Location Map

- Roadway Typical Section(s)
    1. Pavement Description (Includes milling depth)
    2. Minimum lane, shoulder, median widths
    3. Slopes requirements
    4. Barriers
    5. Right-of-Way
  - Data Sheet
  - Design Speed
2. **Pavement Design Package:**
- Pavement Design
    1. Minimum design period
    2. Minimum ESAL's
    3. Minimum design reliability factors
    4. Resilient modulus for existing and proposed widening (show assumptions)
    5. Roadbed resilient modulus
  
    6. Friction Course
    7. Minimum structural asphalt thickness
    8. Minimum base group
    9. Subbase
    10. Cross slope
    11. Identify the need for modified binder
    12. Pavement coring and evaluation
    13. Identify if ARMI layer is required
    14. Minimum milling depth
    15. Resurfacing and overbuild thickness
    16. Widening thickness
  - Pavement Design Summary Sheets
  - Copy of the approved Typical Section Package
  - Quality Control Checklist

The following documents are Attachments (Attachment A09) provided by the Department and shall be used by the Design-Build Firm in the development of the pavement design:

- FDOT AADT Traffic Data and Equivalent Single Axle Loading (ESAL) values
- Resilient Modulus Recommendations and LBR
- FDOT Pavement Survey and Evaluation Report

Use of the Mechanistic-Empirical Pavement Design Guide (MEPDG) for pavement design shall not be allowed.

The Design-Build Firm shall submit the signed and sealed Pavement Design Package to the Department for review prior to final submittal.

3. **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, underdrains, edge 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 drainage analysis and reporting. Full coordination with all permitting agencies, the District Environmental Management section and District 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 shall be coordinated through the Department's Project Manager.

Prior to proceeding with the Drainage Design, the Design-Build Firm will meet with the District Drainage Engineer. The purpose of this meeting is to provide information to the Design-Build Firm that will better coordinate the Preliminary and Final Drainage Design efforts. This meeting is mandatory and must occur at least fifteen (15) calendar days (excluding weekends and Department observed holidays) prior to any submittals containing drainage components.

At each submittal, complete documentation of all calculations, meetings and decisions will be provided to the District Drainage Design section. A hydroplaning risk analysis is required for all submittals up to and including the 90% submittal

Prior to project completion a signed and sealed Drainage Design Report will be provided to the District Drainage Engineer. This documentation will represent the As-Built condition for all drainage computations and will demonstrate that all permitted systems function in accordance with applicable permit criteria. All supporting documentation previously provided will also be included as part of the signed and sealed documentation. All drainage design activities and submittals will 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.

All historical flow patterns for offsite flows will be maintained and all offsite stormwater runoff will be accommodated in accordance with FDOT criteria and all regulatory agency criteria and as specified in the Contract Documents.

Positive drainage shall be maintained throughout the Project. Positive drainage includes eliminating any adverse impacts to offsite properties resulting from increased stages or flow rates except where agreements are in place to accept increased flows. Positive drainage also means providing conveyance where construction activities might divert or trap water and compromise safety and efficiency, including locations on offsite properties.

All connected outfalls of adjacent drainage systems or properties will be maintained throughout the duration of the contract. Connected outfalls will comprise all underground and above ground systems including overland flow.

The Design-Build Firm will consider optional culvert materials in accordance with the FDOT Drainage Manual and Chapter 8 of the FDOT Drainage Design Guide.

All stormwater pipes will have a minimum full flow velocity of 2.5 fps. The most downstream pipe of each

storm drain system must be constructed with its outlet flow line at the toe of slope or bottom of any pond or ditch. Inverted siphon structures are prohibited as part of the storm drain system.

Concrete Collars and Concrete Jackets, as documented in Standard Plans Index 430-001, will not be allowed without written approval from the District Drainage Engineer and the District Maintenance Engineer.

In areas where pipe is proposed to be constructed laterally through MSE walls, the pipe external to the wall will not be attached to the pipe internal to the wall until the MSE embankment is at full depth.

Thrust blocks and resilient connectors will be provided for all vertical pipes.

Stormwater pipe exiting a drainage structure at a higher elevation than stormwater pipe entering the same drainage structure will be prohibited.

Temporary drainage design will be governed by FDOT Specification Section 102-5.2. The Design-Build Firm will make use of the criteria contained in Chapter 10 of the FDOT Drainage Design Guide for calculating barrier wall spread.

The Design-Build Firm will prepare a memo documenting the condition of all existing cross drains and storm sewers that are to remain and demonstrating they have adequate hydraulic capacity and a minimum of 50 years of remaining service life. The memo will be submitted to the Department's Drainage Office for review and approval. Flood flow requirements will be determined in accordance with the Department's procedures. If any of these existing cross drains or storm sewers are found to be hydraulically inadequate or found to have insufficient service life, they must be replaced or supplemented in accordance with the drainage requirements of this RFP. If any existing cross drains or storm sewers require repairs but otherwise would have sufficient remaining service life, repairs will be made in accordance with the requirements of this RFP.

Existing cross drains will be extended to a location beyond the clear zone. The extended cross drain material for both pipes and box culverts will be the same material type as the existing cross drain. Extension of existing box culverts will match material and dimension of the existing box culvert.

The placement of a permanent protection barrier (guardrail or barrier wall) for the sole purpose of protecting cross drains will not be permitted unless the culvert extension cannot be constructed outside of the clear zone.

Minimum 10-foot by 10-foot area of rubble riprap will be constructed at the end of all cross-drains that are proposed for extension.

Stormwater collected by bridge scuppers shall not be permitted to freely discharge onto travel lanes, shoulders, bicycle lanes, sidewalks, or waterways below, or other areas that may be susceptible to erosion.

Manholes are prohibited within any travel lanes of the I-75 mainline or ramps.

French drains are prohibited for the final constructed condition.

Trench drains are prohibited for the final constructed condition.

At the completion of all soil disturbing activities and paving and drainage work, the Design-Build Firm shall desilt the entire drainage system within the limits of construction, including existing and proposed cross drains, storm sewers, and drainage structures.

Any temporary or permanent modification or diversion of the Henderson Creek Canal, including modification of permitted embankment armoring may require a SFWMD R/W Occupancy Permit modification to be obtained by the Design Build firm, and will be coordinated with SFWMD, Big Cypress Basin Board and Collier County prior to implementation. The following design criteria were provided by Big Cypress Basin Board for the RFP concept plan design and permitting process. However, final design criteria must be confirmed/obtained from the Big Cypress Basin Board.

- Peak Stage Elevation - 11.9 ft-NAVD88 (25-year/3-day storm event)
- Peak Flow – 210 cfs (25-year/3-day storm event)
- Applicable Reference Location – Approximately 2000-lf upstream of the HEND84 SFWMD stage recorder

No direct discharge of stormwater runoff will be allowed into the Henderson Creek Canal unless included as part of an approved SFWMD ERP Modification.

Any proposed canal modification required along the east side of the Henderson Creek Canal shall maintain a minimum 15-foot maintenance berm within FDOT Right of Way.

Maintenance of stormwater management facilities during construction shall be the responsibility of the Design-Build Firm, except as otherwise expressly provided in the Contract Documents. The Design-Build Firm shall be responsible for all corrective actions required by the regulatory agencies including payment of all fees and fines.

Stormwater systems controlled by a pump or any other mechanical means are prohibited in the final constructed condition.

Linear wet detention facilities are prohibited within FDOT Right of Way.

No additional fencing is required for the stormwater management facilities other than what already exists to physically establish the limits of FDOT Right of Way.

Underground stormwater management systems will not be allowed unless otherwise approved by the ATC process.

Freeboard required for stormwater management facilities shall meet or exceed the criteria identified in the FDOT Drainage Manual unless otherwise approved by the ATC process.

All pond and swale control structures will be ditch bottom inlets with outlet pipes. Notwithstanding the Design Standards, trapezoidal weirs in pond or swale berms will not be used except where conditions do not permit use of ditch bottom inlets with outlet pipe control structures, and then, use of each trapezoidal weir in a pond or swale berm must be approved by the ATC process. Supporting documentation shall include a structural design to support the loading of maintenance vehicles without failure for the life of the weir and a geotechnical design to prevent seepage through the pond or swale berm that may result in failure of the pond or swale berm. All trapezoidal weirs in pond or swale berms will be designed and constructed to be traversable.

Stormwater management facility design shall be sized using routed hydrographs. Initial stage for all routed hydrographs shall be the treatment weir elevation. Collection system piping shall be sized utilizing the Rational Method.

The minimum low member elevation of bridges over stormwater management ponds shall be five feet above the back edge of the top of maintenance berm or top of bank.

Any permit special condition (such as water quality monitoring) which was required as a condition of future performance, prior to issuance of the permit, shall be satisfied, in full, to the satisfaction of the regulatory agencies prior to the end of the contract. Prior to the end of the contract, the Design-Build Firm shall provide written documentation from SFWMD that the performance measures have been achieved and the water management district has concurred that the stormwater treatment facilities are functioning as designed and State Water Quality Standards are being achieved.

The Design-Build Firm is responsible for the acquisition of any required dewatering permits. Impacts due to dewatering are not included in the any existing permits acquired by the Department. Impacts resulting from dewatering are not included in the permit. The Design-Build Firm will be aware of the project constraints and limited areas for dewatering.

Prior to Final Acceptance by the Department, the Design-Build Firm shall prepare and submit an “As-Built Certification and Request for Conversion to Operation Phase” form [SFWMD Form 62-330.310(1)] to the Department with the appropriate As-Built Plans, signed and sealed by a professional engineer. For any components of the permitted activities that are not in substantial conformance with the permit, the Design-Build Firm shall correct such deficiencies or prepare and submit a complete permit application to the Department for modification of the permit.

### **G. Geometric Design:**

The Design-Build Firm shall prepare the geometric design for the Project using the Standard Plans and criteria 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.

The Design-Build Firm shall adhere to the following general requirements:

- The Concept Design has been developed to be consistent with the I-75 at SR 951 Ultimate Interchange PD&E Study Preferred Alternative improvements and subsequent reevaluation documentation.
- The Design Traffic Technical Memorandum (DTTM) (Reference Document R08) documents minor modifications to the previously approved Preferred Alternative interchange design. The Design-Build Firm shall conform with the improvements defined in the DTTM and as shown in the Concept Plans. Proposed changes include:
  - Parallel exit for Ramp A alignment to Ramp A-1

- Signalization of the eastbound right-turn movement at Business Circle North
- Prohibition of right-on-red turns for all approaches at the Business Circle North Intersection
- Modifications to the horizontal geometry depicted in the Roadway Concept Plans (Reference Document R03) exceeding 2 feet laterally at any location shall require Department approval through the ATC process.
- Modifications to the vertical geometry depicted in the Roadway Concept Plans (Reference Document R03) that lower the roadway profile or that raise the roadway profile by 2 feet or more at any location shall require Department approval through the ATC process.
- The Design-Build Firm shall comply with number of lanes, lane widths, buffer widths, shoulder widths, median barrier wall separation, and maximum front slope shown in the Typical Section Package included as Attachment A08. Changes to the approved Typical Section Package will require resubmittal for Department approval through the ATC process.
- The Design-Build Firm shall comply with the minimum design speeds for each facility as listed below. Any refinements to the facility geometrics proposed by the Design-Build Firm shall not result in a reduction of the design speed of any roadway.
  - I-75 Mainline: 70 mph
  - CR/SR 951 (Collier Boulevard): 45 mph
  - SR 84: 45 mph
  - Diamond Interchange Ramps: 45 mph
  - Loop Interchange Ramps: 30 mph
  - Shared-Use Path: 18 mph
- Emergency Stopping Sites/Emergency Refuge Areas shall be provided along the I-75 exit ramps. Deceleration length from mainline gore to begin point of the Emergency Stopping Site is to be based desirably on 70 mph to 0 mph, but no less than 70 mph to 20 mph. The Emergency Stopping Site shall be 12 feet wide by 170 feet long. Tapers of 5:1 or less into and out of the site are to be used. The site shall be offset 8 feet from the travel lane creating a paved flush island on either the left or right side of the ramp. The width (12-foot typical) can vary, depending upon location, from a minimum of 12 feet to a maximum of 36 feet. The area of storage for vehicles should be desirably 3,000 square feet, but no less than 1,000 square feet. The 8-foot wide flush island shall be striped (18 inches wide/45°/10' C-C). Place tubular markers at 10-foot centers along the centerline of the flush island. The pavement design for the Emergency Stopping Sites and Refuge Areas, including the flush island, is to be the same as new I-75 ramp shoulder construction. Mainline and ramp signing is required to identify the Emergency Stopping Sites. The site is also required to have signing identifying it as an Emergency Stopping Site.
- Driveways shall be replaced at the same locations, widths, and materials as the existing unless otherwise noted in the RFP or Right of Way agreements. The driveway shown in the Concept Plans



at approximate Sta. 136+57 LT on Collier Boulevard shall be shifted to approximate Sta. 135+80 LT. Said shifted driveway shall have the centerline located at approximately Sta. 135+99 LT, radial returns, and width of 38 feet, and shall be constructed at a grade of 10% or less in accordance with Right of Way documents (Attachment A12). The driveway shown in the Concept Plans on Collier Boulevard at approximate Sta. 129+80 LT shall be closed due to conflict with the proposed Ramp A1 MSE wall.

- The Design-Build Firm shall provide drop curb at approximate Sta. 123+50 RT CL Const. SR 951 to allow access to the easement behind the barrier wall for FDOT maintenance of the canal revetment.
- A 9.5-foot utility strip is required between approximate Sta. 124+77 LT and Sta. 128+60 LT between the Limited Access Right of Way line and shared-use path where there is no barrier wall. A landscape barrier is required within the utility strip to satisfy FHWA requirements for a physical barrier at the Limited Access Right of Way line.
- Decorative median noses shall be installed on the reconstructed medians at the Ramp A terminal intersection. The decorative feature shall match existing conditions.
- Limited Access fence shall be replaced in accordance with the Standard Plans in areas that are disturbed by construction activities.
- Embankment slopes shall be 1:3 or flatter. Slopes steeper than 1:3 shall be presented for discussion and approval via the ATC process.
- The Design-Build firm shall provide wildlife fencing along the I-75 Limited Access Right of Way line and median ditches west of the SR 951 Interchange to channelize wildlife to the existing I-75 box culverts as noted in Reference Document R13. The wildlife fencing shall be 10-foot Type B fencing with barb wire attachment in accordance with Standard Plans Index 550-002 and detailed in the Design-Build firm's construction plans. Gates meeting FDOT Standard Plans Index 550-003 shall be provided on the south, median, and north fence at the western box culvert (approximate Sta. 349+00) to ensure FDOT maintenance access to all areas of the FDOT Right of Way. A gate shall also be provided to allow access behind the proposed noise wall. Fence shall be typically constructed at the location of the existing Type A fence, approximately one foot inside the Right of Way line, with exceptions at the existing box culverts, where the fence will taper to and cross the existing and/or proposed box culvert headwalls (see Reference Document R13). The fence along the southbound Right of Way shall begin at the end of the proposed noise wall at approximate Sta. 341+00 LT and end at the existing noise wall at approximate Sta. 349+40 LT. The fence along the northbound Right of Way shall begin at approximate Sta. 305+18 RT, mirroring the beginning of the proposed noise wall on the southbound Right of Way, and end at the existing noise wall at approximate Sta. 349+10 RT. Median areas between northbound and southbound box culverts shall be fenced and gated.

#### **H. 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. Standards Plans and criteria used for the Project
2. Geometric design calculations for horizontal alignments
3. Horizontal stopping sight distances
4. Guardrail and barrier wall length of advancement
5. Vertical geometry calculations
6. Vertical clearances
7. Documentation of decisions reached resulting from meetings, telephone conversations, emails, and site visits

**I. Structure Plans:**

**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. The 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 Engineer of Record for bridges shall analyze the effects of the construction related loads on the permanent structures. 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.

- e. Wall heights, from the top of leveling pad to the top of wall coping, greater than 40' shall not be permitted, unless site specific locations have been approved by the Department through the ATC process.

## 2. Criteria

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

- a. All plans and designs are to be prepared in accordance with the Governing Regulations of Section V. A.
- b. Bridge Widening: In general, match the existing as per the Department Structures Manual.
- c. 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 must be signed and sealed by the Structural Engineer in responsible charge of the wall design.
- d. Retaining Walls: Geosynthetic Reinforced Soil (GRS) walls or abutments are not permitted. Partial height walls such as toe walls or perched walls are not permitted.
- e. Permanent Retaining Walls: All permanent retaining walls and bulkhead walls shall have a concrete facing. Cast-in-place concrete facings shall extend a minimum of 1'-0" below the final proposed groundline. Exposed tie-backs or wales are not permitted.
- f. Traffic railing mounted supports for overhead sign structures on retaining walls are not permitted. Retaining wall mounted overhead sign structures shall be mounted on pedestals or independent foundations behind the traffic railings.
- g. Bridge traffic railing mounted supports for overhead sign structures shall not be permitted. For outside bridge traffic railings, overhead sign structure supports shall be mounted on pedestals or independent foundations behind the bridge traffic railings.
- h. Operational Importance Factor, as defined in AASHTO LRFD Section 1.3.5, shall be taken as 1.00.
- i. Bridge structures spanning over SR 84 (Davis Boulevard) shall have a

maximum begin bridge Sta. 407+76.00 (approximate Sta. 133+15 along CL Const. SR 951) and a minimum end Sta. 417+92.00 (approximate Sta. 143+20 along CL Const. SR 951). Bridge structures spanning Beck Boulevard shall have a maximum begin bridge Sta. 908+00.00 (approximate Sta. 135+40 along CL Const. SR 951) and a minimum end Sta. 922+08.00 (approximate Sta. 149+20 along CL Const. SR 951).

- j. Environmental Classifications for all bridges shall be as follows:
  - i. Superstructure – Slightly Aggressive
  - ii. Substructure Concrete – Moderately Aggressive  
(Resistivity = 2,100 Ohm-cm)
  - iii. Substructure Steel – Moderately Aggressive  
(Resistivity = 2,100 Ohm-cm)
- k. Vehicle Impact Loads: The existing I-75 bridges over SR 951 are to remain. All existing and proposed bridges crossing roadways shall be considered “critical” for the evaluation of vehicular collision forces in accordance with Section 2.6 of the Structures Design Guidelines. All new columns for proposed piers that are located within the setback distance as defined in SDG 2.6.1.B shall be designed to resist the LRFD equivalent static force regardless of whether they are shielded with Pier Protection Barrier.
- l. Conduits for lighting or utilities shall not be mounted to exposed bridge elements or retaining walls.
- m. Light poles shall not be located in Collier Boulevard median.
- n. 2-inch conduits in accordance with Standard Plans Index No. 630-010 shall be installed in all new traffic railings/barriers/parapets mounted on bridges and retaining walls. The maximum numbers of conduits for each railing/barrier/parapet type shall be installed.
- o. Bridge Deck Drainage: All bridge deck drain piping shall be hidden from view. Provide expansion joint water stops.
- p. Aesthetics: See Attachment A13 –Aesthetics Guidelines
- q. All bridges shall include full height cheek walls at each exterior face for end bent and inverted-tee pier locations. Pier locations where the exterior beams of adjoining spans are offset shall include full height cheekwalls.
- r. Maintain constant depth exterior fascia girders/beams within a bridge structure from end bent to end bent.
- s. All bridges shall be of a single superstructure type and material.
- t. Minimum clear spacing between bridges shall be no less than 10 feet.
- u. Micropile foundations are permitted for bridge foundations on Ramp C2

in the vicinity of the Collier County Water Well. Bridges with micropile foundations are considered Category 2 Structures per FDM Section 121.3.2.

- v. No Pile Driving (including sheet pile) shall occur before 7:00 a.m. or after 7:00 p.m. Monday through Saturday.
- w. Existing Bridge Railings: The existing I-75 bridges over SR 951 shall receive a Standard Plans Index No. 460-490 Rectangular Tube Retrofit.
- x. Structure ID Numbers: Structure identification numbers will be obtained by the Design-Build Firm.
- y. Federal Aviation Administration (FAA) Coordination: File Form 7460-1 with the FAA for notification and coordination. The project site is noted to be in proximity to a navigation facility and any elevated construction equipment may affect the assurance of the navigation signal reception.
- z. Collier County Fresh Water Supply Well: No bridge or other overhanging permanent structure or element is permitted above the access vault to the well head.
  - i. Minimum Vertical Clearance: 9'-6" above top of fence around well site.
  - ii. Minimum Horizontal Clearance: 15'-0" to fence around well site.
- aa. Noise Walls: A noise barrier is to be constructed as a part of this project. The location, limits, height, color, and textures are summarized below.
  - i. Location: Along Right of Way adjacent to southbound I-75
  - ii. Limits: Sta. 305+18.28 to Sta. 341+00.00
  - iii. Offset from Right of Way: 15 feet
  - iv. Barrier Height above ground: 22 feet
  - v. Residential Side of Barrier
    - 1. Color: xxx
    - 2. Texture: xxx
  - vi. Traffic Side of Barrier
    - 1. Color: xxx
    - 2. Texture: xxx

## **J. Specifications:**

Department Specifications may not be modified or revised. 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.

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, along with any approved Developmental Specifications and Technical Special

Provisions, that are not part of this RFP. Any subsequent modifications to the Construction Specifications Package shall be prepared, signed and sealed as a Supplemental Specifications Package. The Specifications Package(s) 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/programmanagement/PackagePreparation/TrainingConsultants.aspx>

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

<https://fdotewp1.dot.state.fl.us/SpecificationsPackage/Utilities/Membership/login.aspx?ReturnUrl=%2fSpecificationsPackage%2fdefault.aspx>

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

#### **K. Shop Drawings:**

The Design-Build Firm shall be responsible for the preparation and approval of Shop Drawings. Shop Drawings shall be in conformance with the FDM. 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. When required to be submitted to the Department, Shop Drawings shall bear the stamp and signature of the Design-Build Firm's Engineer of Record (EOR), and Specialty Engineer, as appropriate. All "Approved" and "Approved as Noted" Shop Drawings submitted to the Department for review shall also include Engineer of Record QA/QC Shop Drawing check prints along with the EOR stamped set(s). 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, but the Department reserves the right to perform a more detailed review, as necessary.** Upon review of the Shop Drawing, the Department will initial, date, and stamp the drawing "Released for Construction" or "Released for Construction as Noted".

#### **L. Sequence of Construction:**

The Design-Build Firm shall provide a sequence of construction plans for the entire design and construction effort that is logical and continuous. The Design-Build Firm shall construct the work in a logical manner and with the following objectives as guides:

1. 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.
2. Minimize the number and duration of different Temporary Traffic Control Plan (TTCP) phases, i.e., number of different diversions and detours for a given traffic movement. Minimize major TTCP phase changes during the peak season from January to April each year.
3. Take advantage of newly constructed portions of the permanent facility as soon as possible when it is in the best interest of traffic operations and construction activity.

4. 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.
5. Coordinate with adjacent construction Projects and maintaining agencies.

**M. 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.

**N. Transportation Management Plan:**

The Design-Build Firm must develop and implement a Transportation Management Plan in accordance with the Department's FDOT Design Manual. Including the following components:

- Temporary Traffic Control Plan
- Transportation Operations Plan
- Public Information Plan

Include a plan to review and update signing and pavement marking throughout the entirety of the TTCP implementation to maximize visibility and safety for the travelling public through the work zone.

Commercial signs located along the west side of Collier Boulevard at approximate Sta. 121+78 and Sta. 123+80 CL Const. SR 951 shall remain undisturbed during construction.

**1. Traffic Control Restrictions:**

There will be NO LANE CLOSURES allowed between the following hours:

I-75 Northbound and Southbound

Single Lane Closure – 6:00 AM to 8:00 PM

I-75 Ramps

Multi-lane Ramps – Single Lane Closure - (southbound exit ramp and northbound entrance ramp) – 6:30 AM to 8:00 PM

Single-lane Ramps (southbound entrance ramp and northbound exit ramp) –5:30 AM to 9:30 PM

SR 951/CR 951/Collier Boulevard

Single Lane Closure – 6:00 AM to 9:30 PM

Double Lane Closure – 5:30 AM to 11:30 PM

SR 84/Beck Boulevard

Single Lane Closure – 6:00 AM to 9:30 PM

There will be NO PACING OPERATIONS allowed between the hours of 5:30 AM to 9:30 PM. There will be no DETOURS of I-75 allowed. There will be no DETOURS of the ramps allowed between the hours of 5:30 AM and 9:30 PM. All lane closures, including ramp closures, must be reported to the local emergency agencies, the media and the District Public Information Officer. 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.

NO LANE CLOSURES are allowed on the Project during the times shown below so as to minimize potential impacts to the following events:

- Chubb Classic Golf Tournament
- Taste of SWFL

Temporary drainage calculations shall be submitted to the Department for approval prior to commencement of a given TTC phase.

For lane closure periods, other than those stated in this Section, the Design-Build Firm shall submit a request to demonstrate that the roadway network can accommodate the requested lane closure. The request to modify the established limitations shall be submitted with sufficient time (at least three weeks in advance) for the Department to review and obtain approval by the District One Secretary. The request shall include, but not be limited to: written justification for need including length of time for lane closure; a Temporary Traffic Control Plan; a Transportation Operations component including a lane closure analysis; and a Public Information component including specific recommendations for advanced notifications to the public.

## **2. Temporary Lighting Criteria:**

Provide temporary lighting systems for all roadway sections of the Project at all times. The Design-Build Firm shall provide signed and sealed temporary lighting design plans. The Design-Build Firm shall provide voltage drop calculations, conductor and conduit sizes, load center drawings, and wiring diagrams for temporary power service.

- a. Temporary Lighting Criteria: Temporary lighting shall match either the existing lighting condition or FDM Section 231.2 Design Criteria.
- b. All structure calculations and drawings must be signed and sealed.
- c. Furnish, install, maintain and remove the temporary lighting system in accordance with the National Electrical Code and National Electrical Safety Code requirements.
- d. Provide overhead wiring wherever possible, however, the use of underground conduit and conductors shall be provided where overhead wiring would interfere with construction.
- e. Provide all maintenance of temporary lighting equipment, including existing load centers.
- f. Coordinate all temporary lighting work with the Traffic Control Plans for the appropriate sequence of construction.
- g. The overhead electrical supply conductors shall be a minimum of 15 feet above the highest construction grade level during all phases of construction.
- h. The nominal height of the temporary light poles shall not exceed the nominal height of the existing light poles.
- i. Wherever possible, utilize existing circuits from the existing service points to power the temporary lighting systems.
- j. All components of the temporary lighting systems that are not part of the proposed lighting system shall be removed and disposed of.
- k. Prior to any equipment order, submit equipment specification or design data for all material proposed for the temporary lighting design. These must specifically include:



- i. Luminaire photometrics, including electronic IES photometric files
  - ii. Pole strength calculations
  - iii. Pole frangibility test
  - iv. Temporary service points
  - v. Calculations and drawings for temporary barrier wall light poles and mountings
  - vi. Load center electrical equipment, including wiring schematics
  - vii. Design calculations, including voltage drops and load analysis
- l. Joint use lighting proposed for Traffic Control shall be approved by the Department prior to implementation.

### **3. Temporary ITS Communications and ITS Devices:**

The Design-Build Firm shall prepare and submit to the Department for approval a Maintenance of Communications (MOC) Plan. The MOC Plan shall detail and document existing ITS equipment and report which devices will be removed, relocated, or impacted by Project work. Authorized removal of existing devices will be verified operational by the Department or its designee and Collier County or its designee before the Design-Build Firm is allowed to remove or relocate the device.

There are existing fiber optic, power cables and an underground conduit system currently running within the Project limits. The Design-Build Firm shall design, furnish, install, and integrate temporary communications system if the Department's ITS fiber optic cable and/or devices are deemed by the Department or its designee to be in conflict with any design or construction activity, or work done on this Project that requires them to be relocated. The Design-Build Firm's temporary communication system shall provide enough bandwidth for all of the ITS devices within the Project limits to operate as currently configured and must be approved by the District ITS Project Manager or its designee. The existing Department's fiber communication includes a secure communication system including the Everglades Toll Plaza. The Design-Build Firm shall ensure that Project activities do not disrupt toll plaza communications without prior approval from SunWatch Operations Center. The Design-Build Firm shall be responsible for designing, constructing and maintaining (see ITS Maintenance herein) any temporary communications that may be necessary to provide continual communications to all of the ITS field devices and communications hubs.

The Design-Build Firm shall be responsible for designing, constructing, and maintaining (see ITS Maintenance herein) any temporary communications that may be necessary to provide continual communications to all of the ITS field devices and communications hubs. Existing CCTV's shall maintain 100% roadway coverage and may need to be relocated and/or adjusted if 100% roadway coverage cannot be maintained due to any visual obstruction during construction.

If relocation of existing ITS is required as per the MOC Plan, the Design-Build Firm shall be responsible for the re-installation and recalibration of the ITS fiber optic cable, ITS field devices, and infrastructure in accordance with this RFP. Existing underground infrastructures (i.e., conduits, pull boxes, splice boxes, fiber optic cable, and locating system) shall not be used in the final ITS configurations upon the Final Acceptance of the Project.

The Design-Build Firm shall maintain the integrity of the temporarily relocated ITS devices and ensure the ITS devices and ancillary equipment such as any cabinet, UPS, switch, etc., operate as originally installed and configured by the Department.

**O. Environmental Services/Permits/Mitigation:**

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 rejection, agency denials, agency 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, the Department is responsible for reviewing, approving, and signing the permit application package including all permit modifications, or subsequent permit applications.

The Department has conducted an investigation of the Project site and determined that potential gopher tortoise habitats could be impacted by the Project. All coordination by the Design-Build Firm with the Department regarding gopher tortoises will be completed through the District Environmental Permit Office. If the Department has determined that suitable gopher tortoise habitat exists in the project area, then the Design-Build Firm shall be responsible for conducting the gopher tortoise burrow survey for the purpose of identifying potential gopher tortoise habitats that could be impacted by the Project including any areas to be used for construction staging. The habitat will be systematically surveyed according to the current Gopher Tortoise Permitting guidelines published by the Florida Fish and Wildlife Conservation Commission (FWC). The Department must verify the completeness and accuracy of the assessment prior to commencement of any permitting or construction activities. Any areas where the Design-Build Firm proposes to protect burrows to remain on-site with “exclusionary fencing” shall be reviewed and approved by the Department. The Design-Build Firm shall submit an “exclusionary fencing” plan for review prior to any “exclusionary fencing” installation. If there are unavoidable impacts to gopher tortoise burrows, the Design-Build Firm shall be responsible for preparing required documentation for the Department to obtain a FWC permit for the relocation of gopher tortoises and commensals from burrows which cannot be avoided. Preparation of complete permit packages will be the responsibility of the Design-Build Firm. As the “permittee”, the Department is responsible for reviewing and approving 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 FWC. A copy of the permit and any subsequent reports to FWC must be provided to the District Environmental Management Office or District Environmental Permit Office, as appropriate. If FWC 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. Once the permit is obtained, the Design-Build Firm shall notify the Department at least one week prior to the relocation of gopher tortoises. If gopher tortoise relocations are phased throughout the construction, the Design-Build Firm shall notify the Department at least one week prior to each relocation phase. The Department will provide oversight of the relocations and ensure permit compliance. The Design-Build Firm shall be responsible for any necessary permit extensions or re-permitting in order to keep the relocation permit valid throughout the construction period. The Design-Build Firm shall provide the Department with draft copies of 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 shall provide the appropriate reports as required by the permit conditions, including closing out the permit. The Design-Build Firm shall note that permits for gopher tortoise relocation for areas outside of the Department owned Right of Way (i.e. utility easements; license agreements) cannot be obtained with the Department as the “permittee”, per FWC requirements. Should permits in areas outside of the Right of Way be required, the Department will still perform the oversight of the process as described above. The Design-Build Firm

will be required to pay all permit fees including any and all fees associated with the relocation of gopher tortoises. Any fines levied by permitting agencies shall be the responsibility of the Design-Build Firm.

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

1. Individual Environmental Resource Permit from the SFWMD
2. NPDES Permit from FDEP
3. Dewatering General Water Use Permit, as described in Rule 40E-20.302(2), F.A.C
4. SFWMD Right of Way Occupancy Permit
5. Standard Permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. § 1344 from the FDEP
6. Gopher Tortoise Conservation Permit from the FWC
7. Cultural Resources
8. Wetlands and Mitigation
9. Wildlife and Habitat
10. Contaminated Materials

Unless specifically identified otherwise, the design and construction of any alternate design approach identified within this RFP is not a requirement of this RFP. The Design-Build Firm is not responsible for any permitting or commenting agency coordination or other impacts to the permit processes that would be associated with any alternate design approach, unless the Design-Build Firm chooses to include the alternate design approach in its Proposal.

**P. Signing and Pavement Marking Plans:**

The Design-Build Firm shall prepare signing and pavement marking plans in accordance with Department criteria.

A Conceptual Signing Plan (CSP) has been provided by the Department (Reference Document R03) identifying sign locations and messages within the Project limits. No structural analysis was performed for the CSP. The proposed signage layout and sign locations shown in the CSP are approximate. The Design-Build Firm shall adjust the layout/locations as per field conditions to accommodate their proposed design. Furthermore, the Design-Build Firm shall design the final CSP to satisfy the requirements of this RFP, the MUTCD and the FDOT Traffic Engineering Manual for all elements of the signs (signing convention, size, color, lettering, location, placement, structure type, required lighting, etc.). It is the responsibility of the Design-Build Firm to design, supply and construct the signs shown on the CSP approved by the Department, along with all other applicable signs, and provide structural analysis for all proposed or affected sign structures. All guide and advisory signs shown in the CSP shall be provided, unless otherwise approved by the Department. Not all signs (regulatory, warning, recreational or cultural, general service or logo, toll, preferential or managed lane, emergency, ramp designation, mile post etc.) required for complete signing installations are shown in the CSP. All overhead signs along SR 951 and Collier Boulevard shall be designed per MUTCD Expressway Signing criteria. Logo signs can be relocated if they meet Section 700 of the FDOT Standard Specifications. Signs with down arrows or slanted arrows shall be centered over the lane to which they apply.

All signs shall be placed such that the sign will not be obscured partially or as a whole by any other element including bridge abutments, column structures, utility poles, landscaping, support structure upright of any sign, signal, lighting or ITS element. All signs shall meet minimum visibility distance requirements.

Provide lane use advisory overhead signs for Collier Boulevard southbound right-turning movements to Davis Boulevard to align wide and long vehicles versus cars into the appropriate lane as shown in the CSP. Provide wrong-way entry treatments per FDOT Roadway Bulletin RD 19-03 to Ramp A1 that terminates at an at-grade intersection further away from the I-75 Interchange. Additional pavement messages including colored route shields, cardinal directions, and directional arrows may be required to guide and confirm lane designations at or near complex interchange and intersections to emphasize and confirm designated lane travel direction(s).

All above-ground hazards (i.e. sign structures, overhead structures, and other above ground infrastructure for signalization, ITS and lighting) shall be placed at the required clear zones as applicable by the FDM. It will not be acceptable to place guardrail or barrier wall for the sole purpose of protecting those elements placed within the clear zones.

The Design-Build Firm shall be responsible for the design of all new or retrofit sign supports (post, overhead span, overhead cantilever, bridge mount and any applicable foundations). The Design-Build Firm shall show all details (anchor bolt size, bolt circle, bolt length, etc.) as well as all design assumptions (wind loads, support reactions, etc.) used in the analysis. Mounting types for various signs shall not be changed by the Design-Build Firm (i.e. if the proposed or existing sign is shown as overhead it shall be overhead and not changed to ground mount) unless approved by the Department. Any existing sign structure to be removed shall not be relocated and reused, unless approved by the Department.

It shall be the Design-Build Firm's responsibility to field inventory and show all existing signs within the Project limits and address all signage within the Project limits. Existing single and multi-post sign assemblies impacted by construction shall be entirely replaced and upgraded to meet current standards. Existing sign assemblies not impacted by construction can remain.

All edge line markings on concrete pavements and bridges shall be with permanent tape. Crosswalks shall be provided along Collier Boulevard and Davis Boulevard at cross streets, entrance and exit ramps, major driveways, and all approaches at signalized intersections for pedestrian crossings unless otherwise noted herein or shown in the CSP. All crosswalks shall be special emphasis type and marked utilizing preformed thermoplastic materials.

The signing and pavement marking plans shall include overhead sign cross section sheets (excluding bridge mounted signs) clearly showing proposed/existing foundations (excluding bridge mounted signs), sign structures, sign panels, panel locations, finished roadway and ground surfaces with resulting vertical clearances, any overhead and underground utilities if applicable, lighting and ITS facilities, and any other roadway features such as barrier walls, guardrails and ditches.

**Q. Lighting Plans:**

The Design-Build Firm shall provide a lighting design and a lighting analysis, and prepare lighting plans in accordance with Department criteria, including all necessary photometric analysis, associated reports and maintaining agency agreements. The term 'roadway lighting' in this RFP refers to roadway pavement, roadway bridge structure, underdeck, internal bridge box girder and pedestrian facilities (including sidewalks adjacent to roadway, pedestrian ramps, marked crosswalks, shared-use paths adjacent to roadway, etc.) lighting. The Design-Build Firm shall ensure that there are no gaps in roadway lighting within the Project or in transition areas at the begin and end Project limits of each roadway from proposed to existing roadway lighting. All new conventional light poles shall be aluminum poles.

The location of proposed light poles and load centers shall be coordinated with the design of all walls, bridges, signs, signals, ITS, and utilities as necessary. Load center panels shall be readily accessible by maintenance vehicles and inspections crews.

Underdeck lighting will be required beneath all bridge crossings along shared-use paths and/or roadways. At each underdeck lighting site, a 2-pole 30-amp NEMA 3R enclosed circuit breaker shall be provided and properly identified.

The Design-Build Firm shall develop and submit for approval, a Load Center/Circuit/Pole Number identification plan that is compatible with the existing lighting systems maintenance identification scheme.

Where existing roadway lighting circuit sources (services, load centers, etc.) are being removed, the Design-Build Firm shall either:

1. Provide a new load center per current codes and all applicable criteria.
2. Identify an existing load center capable of feeding the existing and proposed lighting while meeting all current codes and all applicable criteria.

All modified load centers shall comply with all applicable criteria and shall be in like new condition.

Existing light poles, luminaire arms, luminaires, and load centers identified for removal shall be coordinated with the Maintaining Agencies as to whether these features will become the property of Design-Build Firm or salvaged, transported, and delivered to the Maintaining Agencies for future use. Roadway lighting located along I-75, I-75 entrance and exit ramps, beneath I-75 bridges, Collier Boulevard from Business Circle North to south of Magnolia Pond Drive, and along SR 84 (Davis Boulevard) is maintained by the Department. Roadway lighting along Collier Boulevard outside the Department's lighting maintenance boundary is maintained by Collier County. Department Lighting Maintenance can be reached at DBI, 5893A Enterprise Parkway, Fort Myers, FL 33905-5023, Phone 239-479-7700 and Collier County Lighting Maintenance can be reached at Collier County Road Maintenance, 4800 Davis Boulevard, Naples, Florida 34104, Phone 239-252-8924.

Completely remove all high mast lighting including poles, luminaires with lamps, lowering systems and breakers. Completely remove the existing high mast foundations including but not limited to piles, shafts, pedestals, and footings. The existing foundations are of unknown size, length and depth. Backfill the hole created from the existing structural material removal. Compact and level the excavated areas so as to form a smooth contour, uniform with the adjacent ground area.

The Design-Build Firm shall perform detailed field reviews. Review and document all lighting (poles/luminaires, sign luminaires, etc.), circuiting, load centers, service points, utility transformers, etc., within the limits of lighting construction. This review includes: conductors, conduit, grounding, enclosures, voltages, mounting heights, pullboxes, etc. This review also includes circuits outside the limits of lighting construction that originate or touch this Project's scope of work.

All deficiencies within the limits of lighting construction shall be identified and corrected. Any deficiencies outside the limits of lighting construction shall be brought to the attention of the Department.

After the field reviews are completed, a list of all damaged and/or non-functioning equipment shall be documented and forwarded to the Department prior to the start of construction. All damaged and/or non-functioning equipment within the limits of lighting construction are required to be replaced or repaired to meet all applicable criteria and shall be in like-new condition.

Where new electrical services are required, the Design-Build Firm shall coordinate the final locations of distribution transformer and service poles to minimize service and branch circuit conductors and conduit lengths. Preliminary electrical service locations have been coordinated with and provided by Florida Power & Light – Distribution. The preliminary electrical service locations are shown in Reference Document 09. Each service point shall be separately metered. Each light pole and its corresponding load center shall be located within the jurisdictional boundary of the agency that is to maintain it. The Department and Collier County lighting sections shall have dedicated lighting infrastructure including but not limited to conduits, pull boxes, load centers, etc. with appropriate identification on them to differentiate items by maintaining agency. The Design-Build Firm shall coordinate the execution of maintenance agreement/s with Collier County to maintain roadway and pedestrian facility lighting prior to Final Acceptance.

The Design-Build Firm shall comply with the requirements of each jurisdictional authority within the Project limits. Compliance with the jurisdictional authority includes but is not limited to: field reviews, technical meetings, special deliverable, etc. It is the Design-build Firm’s responsibility to verify and comply with all jurisdictional authority’s requirements.

The Design-Build Firm is responsible for submitting voltage drop calculations showing the equation or equations used along with the number of luminaries per circuit. The maximum allowable voltage drop shall be calculated from the service source to the furthest luminary on each circuit. All work necessary to calculate the voltage drop values for each circuit should be presented in such a manner as to be duplicated by the Department. Along with the voltage drop calculations, the Design-Build Firm shall submit load analysis calculations for each branch circuit breaker and main breaker.

The Design-Build Firm is required to provide all necessary documentation including lighting software photometric calculation file(s) so that the Department can evaluate that all the applicable requirements within this RFP and the FDOT regulations are met.

## **R. Signalization and ITS Plans:**

### **1. General**

The Design-Build Firm shall prepare Signalization and ITS Plans in accordance with Department criteria.

Signalization plans are required for all signalized intersections within the Project limits and those impacted by the Project. Impacts to existing traffic signals include lane addition/deletion, change in lane assignment and/or alignment at an approach to a signal, and physical conflict with or modification to existing signal equipment. Impacts to existing pedestrian signals include add or modify pedestrian crossing alignment, add or modify existing pedestrian equipment, extend or shorten existing pedestrian crossings, and begin/end points at an approach to a signalized intersection. A signal head per lane (excluding certain turn-lanes that do not require dedicated signal heads) shall be provided when implementing any changes to an existing traffic signal. All new traffic signal structures shall include provisions for future signal heads for permissive only and protected-permissive single left-turn lane movements. These signal heads shall be shown on the plans and identified as “future”. Four-section signal heads with flashing yellow arrow shall be provided for all protected-permissive movements constructed as part of this Project.

The Design-Build Firm shall prepare design plans and provide necessary documentation for the procurement and installation of the Signalization and ITS 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
- Project Layout / Overview sheets outlying the locations of field elements
- Detail sheets on:
  - Closed-circuit television (CCTV) camera structure, CCTV camera attachment, CCTV camera operation/layout
  - Microwave vehicle detection system (MVDS) structure, MDVS attachment, MDVS operation/layout
  - Wrong way vehicle detection system (WWVDS) structure, WWVDS attachment, WWVDS operation/layout
  - Cross sections for all ITS device locations
  - Power service distribution
  - Generator backup power for ITS devices
  - Wiring and connection details
  - Grounding details
  - Conduit, pull box, and vault installation
  - System-level block diagrams
  - Device-level block diagrams
  - ITS field cabinets
  - Field hub/router cabinet configuration details
  - Fiber optic splicing diagrams
  - System configuration/Wiring diagram/Equipment interface for field equipment at individual locations
  - Maintenance of communications (MOC) plan

The Design-Build Firm is responsible for ensuring project compliance with the Regional ITS Architecture and FDOT ITS Topic 750-040-003-c, Systems Engineering and ITS Architecture Procedure as applicable. This includes, but is not limited to, the development and updates to RTVM as well as coordination of document review. The RTVM for this RFP is provided as a reference document.

The Design-Build Firm shall detail existing Signalization and ITS equipment and report which devices will be removed, replaced, or impacted by project work.

## **2. Design and Engineering Services:**

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

The Design-Build Firm shall coordinate with the Department, Collier County, and cities within the project limits 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 the ITS Project and each landscape project are entirely coordinated with existing and proposed ITS facilities and landscapes. Both programs have been determined to be important components of the state transportation system.

### **a. Signalization**

Unless otherwise stated in this RFP, all approaches to signals shall have new vehicle detection. Vehicle

detection shall include:

- Stop Bar: Inductive loop presence 6 x 40, Type F.
- Dilemma Zone: Wavetronix SmartSensor Advance Extended Range.

New pedestrian signals shall be LED countdown type. The Design-Build Firm shall comply with the requirements of the maintaining agency, Collier County, within the Project construction limits. Compliance with the maintaining agency includes special equipment, technical meetings, special deliverables, inspections, etc.

The following signal work is required at the signalized intersections within the Project limits:

- Collier Boulevard at Business Circle South  
Remove all existing backplates on existing signal heads. Install new backplates with yellow reflective border to all existing signal heads on mast arms.
- Collier Boulevard at Business Circle North  
Construct new mast arm signals and pedestal mounted signals (as shown in the CSP) with backplates, controller cabinet, LED internally illuminated street name signs, vehicle detection, and countdown pedestrian signal heads. Ramp A1 shall have a dedicated mast arm with programable heads. The southbound Collier Boulevard approach shall have a dedicated mast arm with programable heads. Provide separate electronic regulatory sign (R3-1 of 36"x36" size), each mounted on the respective mast arms for Ramp A1 and southbound Collier Boulevard approaches. The right-turn movement from southbound Collier Boulevard approach to Business Circle North shall be allowed as the southbound through movement from the same approach is allowed to cross the intersection during signal operation.
- Collier Boulevard at SR 84 (Davis Boulevard)  
Replace existing signal with new signal system including mast arms mounted signal heads with backplates, controller cabinet, LED internally illuminated street name signs, vehicle detection, and countdown pedestrian signal heads. Replace existing mast arm mounted surveillance CCTV.
- Collier Boulevard at I-75 Southbound Exit Ramp (Ramp A2)  
Replace existing signal with mast arm mounted signals, new backplates, vehicle detection, and countdown pedestrian signal heads.
- Collier Boulevard at I-75 Northbound Exit Ramp (Ramp C1)  
Replace existing signal with mast arm mounted signals, new backplates, vehicle detection, and countdown pedestrian signal heads.

Reconstruct existing Portable Traffic Monitoring Sites (PTMS) on ramps, Collier Boulevard, and Davis Boulevard with loops and sensors in all lanes. Additional PTMS may be required to capture all of the existing traffic flow movement data being collected through the existing PTMS, in the proposed design.

Replace the existing Collier County fiber communication system with new fiber connecting signals along Collier Boulevard from Business Circle South to Mongolia Pond Drive, and connect the County operated and maintained CCTVs at SR 84 and I-75 southbound exit ramp intersections.

Signal timing shall be updated for all signalized intersections along Collier Boulevard from Business Circle South to Magnolia Pond Drive using signal timing guidelines, calculation procedures, and report format included in Attachment A14.



**b. I-75 Freeway Management System (FMS)**

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

The I-75 FMS is managed by the FDOT. At a minimum, the ITS work associated with the I-75 FMS 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. New Department fiber trunk line shall be installed 5 feet to 10 feet from the Limited Access Right of Way with ample room for maintenance activities including access for an ITS maintenance pickup truck. All communication shall be through fiber optic cables. No wireless communication shall be utilized.
- ITS Communications Subsystem – Procurement, installation, termination, and testing of fiber optic cables and components to complete a fully function end-to-end communication system.
- CCTV Camera Subsystem – Includes cameras, concrete poles, camera lowering devices (CLDs) and mountings necessary to provide 100% CCTV coverage of the project corridor. Subsystems must be controlled by staff at the Regional Transportation Management Center (RTMC) and must transmit video to the RTMC. Additional CCTV may be required to obtain full coverage of the interchange from tree canopies.
- MVDS Subsystem – Includes detectors, concrete poles and mountings necessary to detect all travel lanes and exit ramps along the project corridor, and all cabinet equipment required to function and communicate with the RTMC. MVDS devices shall be spaced at half-mile intervals on each side of the roadway.
- Automatic Vehicle Identification (AVI) Detection – includes Bluetooth reader compatible with Collier County system.
- Wrong-Way Vehicle Detection System (WWVDS) includes poles, mountings, highlighted signs, lights, detectors, cabinets and all other components to detect wrong-way entry vehicles onto an exit ramp, alert the motorist of the wrong-way entry, and communicate the detection to Regional Transportation Management Center (RTMC).
- Power Subsystem – Includes all electrical infrastructure required for providing power to ITS devices.
- Removal and replacement of any ITS System components that are impacted by the Design-Build Firms scope of work as approved by the Department. All equipment shall be new unless otherwise specified.
- Testing of fiber optic backbone and lateral drops furnished and installed or modified by the Design-Build Firm.
- Testing of the ITS.

i. ITS Communications Subsystem

## 1. Fiber Optic Cable

The Design-Build Firm shall meet the following fiber optic cable general requirements:

- Furnish and install a 144-strand single mode fiber optic backbone cable along the northbound I-75 throughout the project limits as shown in the Reference Document Traffic Ops Concept Plans.
- Fiber optic connection at southern project limits:
  - Splice the entire new 144-strand single mode fiber optic backbone cable to the existing 96-strand single mode fiber optic backbone cable and 48-strand single mode fiber optic backbone cable in the existing splice vault (Splice Vault 32) at CCTV-27NB (approximately Mile Marker 100.3).
- Fiber optic connection at northern project limits:
  - Splice the first four buffers of the new 144-strand single mode fiber optic backbone cable to the existing 48-strand single mode fiber optic backbone cable in the existing splice vault (Splice Vault 34) at CCTV-29NB/MVDS-34NB (approximately Mile Marker 102.4).
- Remove the existing 48-strand single mode fiber optic backbone cable along I-75 from the existing splice vault (Splice Vault 32) at CCTV-27NB (approximately Mile Marker 100.3) to the existing splice vault (Splice Vault 34) at CCTV-29NB/MVDS-34NB (approximately Mile Marker 102.4).
- Install a 12-strand single mode fiber optic lateral cable to new device sites.
- Install a 12-strand single mode fiber optic lateral cable to existing device sites that are to remain.
- Provide 12-strand single mode fiber optic lateral cables of the same type as the fiber optic backbone cable.

## 2. Fiber Optic Patch Panels (FOPP)

The Design-Build Firm shall meet the following FOPP general requirements:

- Provide a complete assembly including housing, front/rear lockable doors, pigtailed cassettes loaded with connector panels and factory terminated pigtails, heat shrinks, protective tubing, routing clips and guides, grommets, cable ties for strain relief, blank panels (as required), mounting hardware, and all other materials and components as needed to provide a complete FOPP installation. The connector type shall be confirmed with the Department.
- Provide 12-port FOPPs in all ITS field cabinets.
- Terminate and connect all lateral cable fibers in the FOPP.
- Install the FOPP so it is accessible to field maintenance personnel from the front and rear.

## 3. Managed Field Ethernet Switch (MFES)

The Design-Build Firm shall furnish and install new MFES in all new ITS field cabinets. The MFESs shall meet the following requirements:

- Minimum of two optical 1 Gbps Ethernet SFP/GBIC ports. Each optical port shall consist of a pair of fibers.
- Provide enough ports to support the Project Ethernet port requirements plus an additional port for maintenance purposes.

### ii. CCTV Camera Subsystem

#### 1. General Requirements

The Design-Build Firm shall meet the following general requirements:

- Design, procure, install, integrate, and test a CCTV camera subsystem that includes CCTV camera assemblies, mounting hardware, poles and foundations, CLDs, ITS field cabinets, communications devices, RPM (remote power management) units, a network-manageable UPS subsystem, all cabling, conduit, lightning protection systems which include air terminals, down conductors, surge protection devices and grounding array, electrical service, and all other items required or needed to provide a complete CCTV camera subsystem.
- Demonstrate and verify CCTV coverage requirements as specified herein. The Design-Build Firm is to conduct a 360-degree field of view video survey at the proposed camera height within a few feet from the actual location of each proposed CCTV camera site utilizing a camera of the same effective optical characteristics as the Design-Build Firm's proposed CCTV camera. Clearly label the location of the CCTV camera where the video survey is being conducted from.
  - At least 4 weeks prior to performing the video survey, the Design-Build Firm shall submit the CCTV camera survey procedures to the Department for approval. The procedures shall document how the video survey will be performed and what materials will be used to perform the video survey.
  - The Design-Build Firm shall submit the video survey to the Department for review and approval as part of the 90% ITS Design Plans submittal. Rejected CCTV camera locations may require additional surveys to be conducted by the original survey method, or bucket truck with the Design-Build Firm's proposed CCTV camera, at the Department's discretion, to refine the selection of the optimum site at no additional expense to the Department. The pole location and camera height for each CCTV camera are subject to approval by the Department.
  - Provide a DVD clearly displaying the CCTV camera coverage from each proposed location and height.
- Integrate all new CCTV cameras into the existing District One RTMC video system with all new CCTV cameras added to the existing I-75 tours.
- Ensure that the CCTV camera subsystem design creates multicast video streams that can be shared with other Transportation Management Centers (TMC) in accordance with current industry standards.

## 2. CCTV Camera Locations and Coverage Requirements

The Design-Build Firm shall meet the following CCTV camera locations and coverage requirements:

- Provide and submit the final locations, heights, and number of the CCTV cameras to be provided on this Project to the Department as part of all phase submittals.
- Provide a CCTV camera subsystem which provides the following coverage:
  - Incident Management:
    - Maximum of half-mile spacing on I-75.
    - 100% coverage of the I-75 lanes from shoulder-to-shoulder including access roads.
    - 100% coverage of the arterial at the interchange from shoulder-to-shoulder. Arterial coverage is required at the interchanges for a half mile in both directions on the arterial measured from the centerline of the I-75 mainline.
    - Coverage of I-75 and arterials shall be unobstructed from overpasses; existing and proposed signs; existing and proposed sign structures; rigid barriers; existing and proposed landscaping; existing and proposed lighting; existing and proposed utility poles; and changes in roadway geometry.
    - Orient the CCTV camera on the pole to maximize visibility of I-75 and the

interchange ramps.

- Minimum mounting height of 50 feet above.

### 3. Camera Assembly and Components

The Design-Build Firm shall meet the following CCTV camera assembly and components requirements:

- Provide a CCTV camera that provides Pan-Tilt-Zoom (PTZ) capabilities for incident management.
- Provide a fixed or PTZ CCTV camera for dedicated DMS confirmation.
- Provide a CCTV camera that is full High-Definition (HD) 1080P with minimum resolution of 1920x1080.
- Utilize Digital Signal Processor (DSP) technology and provide a camera zoom lens with an image stabilizer to compensate for slight movements in the camera image.

### 4. CCTV Camera Poles and Mounting

The Design-Build Firm shall meet the following CCTV camera pole and mounting requirements:

- Provide a design where each CCTV camera site is accessible by maintenance vehicles and equipment without lane closure.
- Provide a level concrete pad area for maintenance personnel around all CCTV camera poles. The concrete pad must provide sufficient surface area for one maintenance person to stand with the ITS cabinet door open and a three-foot clear space. The concrete pad area must have a minimum thickness of six inches.
- Power and communication pull boxes must be placed within the concrete pad area and flush to the top of the concrete surface.

### 5. Camera Lower Devices (CLD)

The Design-Build Firm shall meet the following CLD requirements:

- Provide a CLD on CCTV camera poles for all CCTV camera locations above 40 feet or more above the elevation of the mainline at the location of the CCTV camera pole.
- External-mounted CLDs are not to be allowed.
- Ensure the CCTV camera pole is designed and constructed such that the CLD hand holes are oriented 180 degrees from the CCTV camera. The Design-Build Firm shall submit the details of the placement of CLD and CCTV camera assemblies as part of the 90% phase submittal for the Department's review and approval.
- Provide two portable lowering tools with both a manual hand crank and a portable electric drill motor with custom clutch adapter from the CLD manufacturer.
- No other devices on the CCTV camera pole shall interfere with the raising/lowering of any CCTV camera on the same pole.

#### iii. MVDS Subsystem

##### 1. General Requirements

The Design-Build Firm shall meet the following MVDS subsystem requirements:

- Design, procure, install, integrate, and test a MVDS subsystem that includes: MVDSs, poles and

foundations, mounting hardware, ITS field cabinets, communications devices, RPM units, network-manageable UPS subsystem, all cabling, lightning protection systems which include air terminals, down conductors, surge protection devices and grounding array, conduit, electrical service, and all other items required or needed and specified herein to provide a complete MVDS subsystem.

## 2. MVDS Locations and Coverage Requirements

The Design-Build Firm shall meet the following MVDS locations and coverage requirements:

- Provide MVDSs covering all lanes and shoulders along I-75 at half-mile maximum spacing for travel lanes.
- Provide MVDSs on both sides of I-75.
- Provide MVDS at top of exit ramps for spillback detection.
  - MVDSs used for exit ramp detection shall be separate devices from mainline detection.
- If occlusion is an issue, then the Design-Build Firm shall provide MVDSs as necessary to meet spacing and performance parameters. The Design-Build Firm is responsible to design and determine the final number of MVDS sites for this Project.
- Design MVDS poles so that the weatherhead is no more than 24 inches from the MVDS device.
- Provide a design where each MVDS site is accessible by maintenance vehicles and equipment without lane closure.

## 3. MVDS Poles and Mounting

The Design-Build Firm shall meet the following MVDS pole and mounting requirements:

- Mount on dedicated poles or co-locate on CCTV camera poles.
  - Devices on dedicated poles shall have an ITS field cabinet.
- Devices shall not be mounted on static sign structures, DMS structures, or luminaire poles.
- If installed on CCTV camera poles, the MVDS shall not interfere or block the use of the CLD.
- All devices shall be designed to not adversely impact the accuracy performance level of the MVDS.

### iv. AVI Detection

#### 1. General Requirements

- Design, procure, install, integrate and test an AVI subsystem that includes: AVI detector mounted on CCTV camera pole as described below; mounting hardware, electrical service, power and communications cabling and surge protection devices required for the device's operation.
- AVI detector to be compatible with Collier County AVI monitoring system.
- Provide site installation and communications settings to Collier County to allow for integration within the County's monitoring system.

#### 2. AVI Locations and Coverage Requirements

- Co-locate AVI detector on new CCTV camera pole at Sta 944+35 in the I-75/SR 951 interchange.
- AVI detector shall not interfere with or block the use of the CLD.

### v. Wrong Way Vehicle Detection System (WWVDS) Subsystem

#### 1. General Requirements

The Design-Build Firm shall meet the following WWVDS pole and mounting requirements:

- Design, procure, install, integrate, and test a WWVDS subsystem that includes: WWVDSs, poles and foundations, mounting hardware, ITS field cabinets, communications devices, RPM units, network-manageable UPS subsystem, all cabling, lightning protection systems which include air terminals, down conductors, surge protection devices and grounding array, conduit, electrical service, and all other items required or needed and specified herein to provide a complete WWVDS subsystem.

## 2. WWVDS Locations and Coverage Requirements

The Design-Build Firm shall meet the following WWVDS locations and coverage requirements:

- Provide WWVDS on each exit ramp of I-75.
- Cover all lanes and shoulders along the exit ramp for a minimum of 600 feet beginning at the stop bar for the intersecting arterial.

## 3. WWVDS Assembly and Components

The Design-Build Firm shall meet the following WWVDS assembly and components requirements:

- Provide an automated alert to the District One RTMC if a motorist is detected to travel in the opposite direction of traffic.
- Collect and process data locally prior to sending a notification to the District One RTMC.
- Capable of remote configuration, calibration, monitoring, and diagnostic of real-time traffic activities from the District One RTMC using the SunGuide® software and software provided by the detection system vendor.
- Vibration and shocks shall not affect the performance of the system.
- WWVDS shall be hardwired for power and communications to the FMS.
- Highlighted signs shall be hardwired for power and communications to the WWVDS's main cabinet.

### vi. Power Subsystem

#### 1. General Requirements

The Design-Build Firm shall meet the following power subsystem general requirements:

- Design, construct, install, integrate, and test a power subsystem within the FDOT Right of Way consisting of underground power conduits and conductors, transformers, generator backup systems, UPSs, RPM units, and all associated equipment and wiring.
- Utilize the existing FMS power subsystem to the extent possible.
- Evaluate existing power services and determine the necessary modifications required to accommodate all new ITS devices and infrastructure.
  - The Design-Build Firm shall be responsible to upgrade any existing electrical components used to supply the new ITS to satisfy NEC and NESC requirements.
  - At a minimum, all affected existing ITS field cabinets shall be calculated for 120% over electrical draw.
- Submit a signed and sealed Power Design Analysis Report that documents the power load, voltage drop, generator backup calculations, battery backup calculations, and a short circuit and protection coordination study. Calculate loads per National Electric Code (NEC) requirements. All electrical equipment (including lights, fans, UPS battery charging) shall be considered

continuous loads. UPS battery charging load shall be included in the calculated load. Maximum allowable voltage drop from the utility power service point to the ITS field cabinet and DMS housing outlets shall be less than 5%. In addition to the electrical load of the ITS site, an additional 200W of power for future use must be provided for each new ITS field cabinet. For voltage drop calculations within the power report, the Design-Build Firm can assume that only one of the maintenance receptacles in a cabinet will be in use at one time. This assumption shall use the worst-case scenario of one nine-amperes load at the farthest point on each circuit being used and shall be clearly identified within the Power Design Analysis Report.

## 2. Power Subsystem Design Requirements

The Design-Build Firm shall meet the following power subsystem design requirements:

- Do not locate electrical circuits 60 volts or under in same conduit or pull box with circuits over 60 volts.
- Do not locate AC electrical circuits in same conduit or pull box with DC circuits.
- Include copper wound step-up or step-down transformers as needed for each location.
- Provide a design that contains readily accessible, manually resettable, or replaceable circuit protection devices (such as circuit breakers or fuses) for equipment and power source protection.
- The EOR shall contact and coordinate with the proper electrical utility company or companies to ensure that the proposed electrical service is available at the designated locations. Each utility contact's name and telephone number must be placed in the "Power Design Analysis Report" and on the Released for Construction electrical plans. Electrical plans may not be released for construction until coordination with utility companies is complete and each utility has agreed in writing to provide electrical service to each required site.
- Provide a design that does not utilize solar power as a power solution for any ITS device and/or subsystem for this Project.
- Provide a design that is capable of supplying nine amperes total to the maintenance receptacles while not exceeding the supply voltage tolerance of 5% drop from the nominal 120 VAC within the cabinet or any other point in the power circuit (link).
- Provide a design that does not include any exposed wiring.
- Size and install conductors according to NEC, NESC, and FDOT Standard Specifications.
- Provide all coordination of protection devices as required to minimize interruption of electrical service to other areas of the power distribution subsystem.
- Provide outdoor-rated connections that are protected from moisture and water intrusion.
- Label power cables with one tag indicating direction or exit from underground facilities (i.e., pull boxes, transformers, etc.) and label with the next point of connection (i.e., transformer 1 to transformer 2).

## 3. Power Service Point Requirements

The Design-Build Firm shall meet the following power service point requirements:

- Provide a design that minimizes the number of new power service points.
- The ITS shall have a meter independent of other disciplines (e.g., lighting, tolling, etc.)
- Design and provide all power service points with the utilization of an automatically transferred emergency generator. In the event of utility power loss, the site shall automatically transfer load to the emergency generator. Include transformers, automatic transfer switches, and all elements necessary to provide a complete and functioning back up system compatible with the provided 120/240VAC generator.

- Provide power service locations that are accessible by a 3/4-ton maintenance truck and that allow refueling with fuel trucks with up to 100-foot-long hoses.

#### 4. Generators and Automatic Transfer Switch (ATS) Requirements

The Design-Build Firm shall meet the following generator and ATS requirements:

- Design, construct, install, and integrate permanent diesel fuel generators that includes the following: engine, alternator, engine generator set controls, sound attenuated engine generator set enclosure, fuel storage tank, and ATS.
- Placed at the power service points and not located under a structure, tree or other element that may be damaged by hot exhaust gases.
- Connected to each power feeder transformer via the ATS to automatically assume and power the loads of the ITS field cabinet in the event of an interruption of commercial power.
- Provide generators with the following characteristics:
  - All generators from the same Manufacturer.
  - Supplies a single phase 120/240 VAC output.
  - Classified in accordance with NFPA 110 as Level 2, Type 10.
  - Standby power rating in accordance with ISO 3046/1.
  - Engine generator that uses an engine mounted radiator with a pusher type radiator fan.
  - Doors that are hinged and removable.
  - Noise reduction.
  - Block heater.
  - Operates properly inside the sound attenuated engine generator set enclosure at rated (full) load with the outdoor ambient temperature ranging from 0° to 105°F (-18° to 40°C), at up to 100% condensing relative humidity.
  - Wind rated in “miles per hour” by the manufacturer in accordance with the Wind-borne Debris Region map published in the current Florida Building Code (FBC).
- Provide generators sized per the following requirements:
  - Handle all ITS field cabinets, cabinet components, power panels, circuit breakers, and all equipment plus the load of recharging all UPS batteries which may be drained. The 1,000 Volt Amp (KVA) rating of the engine generator must apply while operating inside a weather protective enclosure, and at an ambient temperature of 110 degrees Fahrenheit, and at an elevation of 100 feet above sea level.
  - Handle at least 125% of continuous load.
    - All ITS equipment loads shall be considered continuous loads for the design calculations and the design documents. The equipment loads shall be derived from the nameplate data or actual measured maximum continuous current.
- Design so that full standby rated output is available with varying loads for the duration of the interruption of the normal source power.
- Provide batteries with battery rack and cables sized as necessary. A battery charger must be provided.
- Provide engine generator set controls that are compatible with District One existing permanent generator hardware and software used by the Department.
  - Include a module that allows connectivity between the controller and Ethernet switch. The controller must be assigned an individual IP address and have full functionality and monitoring of the generator at the District One RTMC.
  - Provide with all software as required.
- Design, procure, install, and integrate a diesel fuel tank sized to fuel the generator as the redundant power supply for 24/48 continuous hours of runtime at full/half load for the ITS devices and



communication equipment. The generator fuel tank must meet all local, state, federal, and environmental regulations and:

- Be double wall steel construction with 110% spill containment.
- Include standard vent and emergency vent.
- Provide fuel leak detection wired to controller alarm.

#### 5. Transformer Requirements

The Design-Build Firm shall meet the following transformers requirements:

- Design, construct, install, and integrate a dry-type transformer (ITS device transformer) at each of the ITS cabinets, as required, to step-down from the voltage supplied from the underground distribution wire to the 120/240v power requirement for that location. Aluminum wound transformers are not acceptable.
- Equip with two 2.5% taps above and two 2.5% taps below normal voltage. All taps must be full capacity taps. However, the Design-Build Firm shall not include the plus or minus tap in the voltage drop calculations during the design of the power distribution subsystem.

#### 6. UPS Requirements

The Design-Build Firm shall meet the following UPS requirements:

- Supply all electronic components housed in and associated with the ITS field cabinets with resettable UPSs in the event of power loss. Maintenance outlets are not required to be backed up by the UPS.
- Be provided with batteries with a replacement warranty for the period of the warranty period specified herein. The warranty shall cover the cost of new batteries if the battery capacity falls below one half of the original battery capacity and cover the shipping cost to and from the manufacturer.
- Provide a manual / maintenance by-pass switch. The switch must not cause a power outage to the power source when it is put in by-pass mode and/or UPS mode.
- Ensure that the UPS is generator compatible to ensure power to protected equipment is free from voltage spikes, drops, ripples, or noise when generator power is used.
- Furnish, configure, and integrate any software as required to monitor the UPSs from the District One RTMC.

#### 7. RPM Unit Requirements

The Design-Build Firm shall meet the following RPM unit requirements:

- Provide in all ITS field cabinets.
- Provides the ability to remotely turn on and off power individually to any of the ITS and communications/network equipment installed inside ITS field cabinets.
- An internal web server interface for remote access and login.
- Battery backup must maintain connectivity during power outages.
- Web pages display power status.
- Ability to enable Auto-Ping feature to reboot devices automatically even during network outages.
- Front panel switches to allow immediate control for manual override, lockout, emergency-off and reset.
- Digital voltage and current meters monitor current and wattage on each bus individually.

- Backlit liquid crystal display (LCD) status and user-programmable messages.
- Multi-user logins and SYSLOG reports for management.
- Internal audio alarm with programmable warning alerts.
- Outlets & Receptacles - 12 x outlets NEMA 5-15R, 15A, or more as required based on the number of devices.
- Two additional outlets feed un-switched power to “always-on” devices.
- Two separate power cords on A/B circuits provide a total of 30 amps of power.
- Surge Suppression - Dual Metal Oxide Varistor (MOV), 3600J rating.
- Ethernet Interface - 10/100 autosensing, Static IP, port selectable, RJ-45.
- Internal/External Script.
- Web Controlled.
- Operating Temperature -30° to 170°F (-34° to 76°C).

vii. ITS Field Cabinets

1. General Requirements

Design, procure, install, and test ITS field cabinets for DMS, CCTV camera, MVDS, and WWVDS locations. ITS field cabinets shall be sized, as required, to house all ITS equipment, network switches, fiber patch panels, power components, surge protection, RPM unit, and UPS with batteries. The Design-Build Firm shall meet the following ITS field cabinet requirements:

- Provide ITS field cabinets, as a minimum, consisting of two types and sizes:
  - Base Mounted Type 334 cabinet with sunshields with foundation and attachment hardware.
  - Pole Mounted Type 336S cabinet with sunshields with all mounting hardware.
  - If more space is required, the Design-Build Firm may propose a larger cabinet or a matching cabinet to house the associated equipment / components. No “piggyback” style or “add-on” cabinets will be accepted.
- Meet the following minimum ITS cabinet location and orientation requirements:
  - DMSs shall utilize Base Mounted Type 334 cabinets.
  - When the doors are fully opened, must allow maintenance personnel adequate space to perform work within the FDOT Right of Way.
  - Orient such that the ITS field cabinet and doors avoid any conflicts with lowering cameras.
- Provide all ITS cabinets with a minimum of two switched interior mounted NEMA 5-15R type, 120-volt, 60 Hz outdoor rated ground fault circuit interrupter (GFCI) electrical receptacles to supply power for devices and/or maintenance equipment (including shop-vac and laptops) while in the field. The GFCI electrical receptacles must be connected to a dedicated circuit breaker with a minimum rating of 20 amps.
- Provide a minimum of seven 2-inch conduits into the Base Mounted Type 334 cabinets. The conduits are to be routed as follows:
  - Two 2-inch conduits to the splice vault
  - Two 2-inch conduits to the electrical pull box/junction box
  - Three 2-inch conduits to the composite / low voltage communications pull boxes
- Configure and organize ITS field cabinets containing the same/similar type equipment as follows:
  - Components must be mounted by the same means and in the same locations from one similar cabinet to the next.
  - Power cords must be connected to the same outlets.
  - Devices must be plugged into the same ports on the MFES. (such as device servers would be plugged into port seven at all cabinets).

- Fiber optic patch cables must be connected in the same way (such as the fiber heading north is always on port one, etc.).

No loose cabling or equipment within the ITS field cabinet will be permitted. All internal components must be permanently mounted, and cables must be of proper length with some slack for movement within the ITS field cabinet. No cable is to be routed across the face of the ITS field cabinet. Cables must be carefully and neatly routed within the ITS field cabinet and loosely tied to not crimp or deform the cables.

#### viii. ITS Conduit, Pull Boxes, Junction Boxes, and Splice Vaults

##### 1. General Requirements

The Design-Build Firm shall meet the following ITS conduit, pull boxes, junction boxes, and splice vaults general requirements:

- Place communications pull boxes and splice vaults away from any area prone to flooding, water collection, or water drainage. Any changes to this requirement must be approved by the Department.
- Provide a pull tape or rope with a tensile strength of at least 1,250 pounds in each empty or spare conduit. Terminate the ends of the pull tape or rope to prevent them from inadvertently entering the conduit.
- Connect all pole-mounted or above-grade enclosures or ITS field cabinets with rigid aluminum conduit.
- Install conduit(s) perpendicular to the roadway when crossing an interchange ramp, crossroad or other roadway.
- Communications Conduit:
  - Provide, as a minimum, three 1¼-inch standard inside dimension ratio (SIDR) conduits. One 1¼-inch conduit shall be used for fiber optic cable, one 1¼-inch conduit shall be a spare, and one 1¼-inch conduit shall be used for the locate wire. Conduit color shall match the Department guidelines
  - When boring under the roadway, provide an additional 1¼-inch conduit as a spare.
- Electrical Conduit:
  - Provide, as a minimum, one 2-inch conduit for ITS electrical power conductors. Design-Build Firm will determine the number of electrical conduits depending on the number of devices that are serviced. Electrical conduit must be separate from ITS communications conduit.
  - When boring under the roadway, provide an additional 2-inch conduit as a spare.
- Provide, as a minimum, two 2-inch conduit for composite / low voltage communications cables.
- Existing trenched conduit shall be removed.
- Existing directional bored conduit shall be allowed to remain in place.

#### c. Collier County Advanced Traffic Management System (ATMS)

The Collier County ATMS is managed by Collier County. The Design-Build Firm shall ensure that the proposed ITS devices are on the FDOT's Approved Product List (APL) and are fully compatible with the Collier County ATMS software and hardware.

At a minimum, the ITS work associated with the Collier County ATMS in this project consists of the following major components:

- ITS Communications Subsystem – Procurement, installation, termination, and testing of fiber optic cables and components to complete a fully function end-to-end communication system.
- CCTV Camera Subsystem – Includes CCTV concrete poles, camera lowering devices (CLDs), and mountings for incident management CCTV cameras and DMS confirmation CCTV cameras.
- Removal and replacement of any ITS components that are impacted by the Design-Build Firms scope of work as approved by the Department. All equipment shall be new unless otherwise specified.
- Testing of fiber optic backbone and fiber optic lateral drops furnished and installed or modified by the Design-Build Firm.
- Testing of the ITS.

i. ITS Communications Subsystem

1. Fiber Optic Cable, Components, and Splicing

The Design-Build Firm shall meet the following fiber optic cable, components, and splicing requirements:

- Replace existing Collier County ATMS fiber cables with two 96SM fiber cables, one as trunk line and the other as branch line. The new trunk cable shall run on east side along Collier Boulevard and the new branch cable shall run on west side along Collier Boulevard from the existing splice vault at Business Circle South to the existing splice vault at Magnolia Pond Drive.
- Fiber optic cable connection at southern project limits along Collier Boulevard: Trunk and branch fiber cables shall be spliced in to existing 48SM trunk and branch cables respectively in the existing splice vault at Business Circle South. Remaining 48SM in each new trunk and branch lines shall be capped and terminated inside the existing splice vault.
- Fiber optic cable connection at northern project limits along Collier Boulevard: Trunk and branch fiber cables shall be spliced in to existing 48SM trunk and branch cables respectively in the existing splice vault at Magnolia Pond Drive. Remaining 48SM in each new trunk and branch lines shall be capped and terminated inside the existing splice vault.
- Install a 12-strand single mode fiber optic lateral cable to new traffic signal cabinets.
- Install a 12-strand single mode fiber optic lateral cable to existing traffic signal cabinets that are to remain.
- Provide 12-strand single mode fiber optic lateral cables of the same type as the fiber optic backbone cable.
- Coordinate with Collier County and the Department for designated fiber optic fiber assignments in the 96-strand single mode fiber optic branch cable.
- Provide 12-port FOPPs in new and existing traffic signal controller cabinets. Terminate and connect all lateral cable fibers in the fiber optic patch panel.
- Install the FOPPs so it is readily accessible to field maintenance personnel.
- Install two 2-inch orange HDPE conduits for each trunk and branch fiber cable run.
  - One conduit will contain trunk or branch fiber
  - One conduit will be designated spare
- Install two 2-inch conduits for the 12-strand single mode fiber optic lateral cable.
  - One will contain the lateral cable
  - One will be designated a spare.
- When boring, provide an additional 1¼-inch conduit to contain the toner wire.

## 2. Managed Field Ethernet Switches (MFES)

The Design-Build Firm shall furnish and install new MFESs in the Project's new and existing traffic signal controller cabinets.

Provide a MFES that has the following features and capabilities:

- Minimum of two optical 1 Gbps Ethernet SFP/GBIC ports. Each optical port shall consist of a pair of fibers.
- Minimum of four spare 10/100 Base-T/TX full duplex copper local ports in addition to the local ports needed per design of each cabinet.
- Fully compatible and interoperable with the existing Collier County ATMS network.

### ii. CCTV Camera Subsystem

The Design-Build Firm shall meet the following CCTV camera subsystem requirements:

- Design, procure, install, integrate, and test a CCTV camera subsystem that includes CCTV camera assemblies, mounting hardware, poles and foundations, all cabling, conduit, surge protection devices, electrical service, and all other items required or needed to provide a complete CCTV camera subsystem.
- A CCTV camera shall be provided at each of the following signalized intersections:
  - Collier Boulevard at Business Cir South
  - SR 84 at Collier Boulevard
  - Southbound I-75 ramps at Collier Boulevard
- Locate the CCTV camera such that 100% CCTV camera coverage of the project signal is provided.
  - 100% CCTV camera coverage shall be defined as the clear and unobstructed view for 1000 feet on the northbound Collier Boulevard approach, 1000 feet the southbound Collier Boulevard approach, 500 feet on the eastbound minor street approach, and 500 feet on the westbound minor street approach.
- CCTV camera mounted to a concrete pole shall be a minimum of 35 feet above grade and a maximum of 40 feet above grade.
  - The CCTV camera may be mounted to a new signal structure provided the proposed location meets the CCTV camera coverage requirements.
  - Final CCTV camera locations to be approved by the Department.
- Integrate all new CCTV cameras into the existing Collier County ATMS video system.
- Fully compatible and interoperable with the existing Collier County ATMS network.
- Shall connect to the Collier County ATMS network via MFES in the new traffic signal controller cabinet.
- CCTV camera communications cables may not share conduits with cables or pull boxes with power cables carrying voltage greater than 24 VDC/VAC or current in excess of 1.5 amps.

### **d. Construction and Integration Services:**

The Design-Build Firm shall be responsible for all Signalization and ITS construction and integration services relating to the Project.

Removed Signal Elements

All existing signal controllers and cabinets removed from the Project in working condition shall be the delivered to Gregory Garcia at Collier County (phone: 239-252-5818, email: [gregory.garcia@colliercountyfl.gov](mailto:gregory.garcia@colliercountyfl.gov)). Due care shall be taken in the removal and disassembly of all parts so as to not damage those re-usable components. The Design-Build Firm shall conduct a field walk-through with the District Traffic Design Engineer or its designee and a Collier County Signal Technician to determine the condition of the existing equipment and to identify the items to be delivered to the County. Once the equipment list is approved by the Department and Collier County, the Design-Build Firm shall deliver the removed signal equipment in an operable and undamaged condition to the County at 2885 South Horseshoe Drive, Naples, FL 34104. The Design-Build Firm shall take ownership of remainder of unclaimed signal elements.

#### Removed ITS Devices

The Design-Build Firm shall not remove or take offline any existing ITS device without the expressed written permission of the District ITS Project Manager and Collier County ITS Manager (where applicable) unless specified by the Department.

All ITS elements removed from the existing ITS system shall be the property of the owning agency, unless otherwise directed by the Department. Due care shall be taken in the removal and disassembly of all parts so as to not damage those re-usable components. The Design-Build Firm shall conduct a field walk-through with the District ITS Project Manager or its designee and the Collier County ITS Manager or its designee to determine the condition of the existing equipment and to identify the items to be delivered to the owning agency. Once the equipment list is approved, and the Department/Owner has provided written authorization to remove said devices, the Design-Build Firm shall deliver the removed devices in an operable and undamaged condition to the owning agency identified facility within 50 miles of the Project limits.

#### **e. Testing and Acceptance:**

All equipment furnished by the Design-Build Firm shall be subject to monitoring and testing to determine conformance with all applicable requirements. The Design-Build Firm is responsible for the coordination and performance of material inspection and testing, field acceptance tests, and system acceptance tests. The times and dates of tests must be accepted in writing by the FDOT Project Manager. The Design-Build Firm shall conduct all tests in the presence of the FDOT Project Manager or designated representative.

All testing and verification will be performed by the Design-Build Firm with Department oversight, under the Design-Build contract. The verification cases as stated in the RTVM are required and shall be tested and documented by the Design-Build Firm. Each verification case consists of a group of system requirements that satisfy an operational need of the system operator.

#### **i. General Requirements**

The Design-Build Firm shall develop and submit test plans for this Project, a corresponding testing schedule, and an updated RTVM to the Department for review and approval at least 60 calendar days in advance of the Design-Build Firm's scheduled testing dates. If the Department rejects or requests modifications to the test plan, the Design-Build Firm shall update and resubmit a revised test plan and RTVM to the Department for review and approval. The Design-Build Firm shall allow 15 calendar days (excluding weekends and Department-observed holidays) for the Department's review and approval of the revised test plan and RTVM. No testing will commence until the Department has reviewed and approved the test plan.

Request in writing to the Department for approval to start each testing activity a minimum of 15 calendar days (excluding weekends and Department-observed holidays) prior to the requested start date. The Department reserves the right to reschedule the start date if needed. The start date for each testing activity cannot be prior to the successful completion of all previous testing activities unless otherwise approved by the Department. Provide test plans that are based on and include the following:

- The updated RTVM
- A step-by-step outline of the test procedures and sequence to be followed demonstrating compliance with the project requirements
- A test set-up/configuration diagram showing what is being tested
- A description of expected operation, output, and test results (pass/fail criteria)
- An estimate of the test duration and proposed testing schedule
- A data form to be used to record all data and quantitative results obtained during the tests
- A description of any special equipment, setup, test software, manpower, and/or conditions required for each respective test
- The number of test cases must reflect the complexity of each device or subsystem and the content of test cases must cover all functionalities and requirements

All provided test plans shall have the signed approval of the EOR. Conduct the following tests on all devices and subsystems:

- Pre-Installation Tests (PIT)
- Installed Site Test \ Stand Alone Tests (SATs)
- Fiber Optic Cable End-to-End Tests
- Subsystem Tests
- 30-Day Operational System Acceptance Test (OSAT)
- ITS Close-Out and Final ITS Acceptance

Provide Maintenance of Traffic (MOT) during all testing activities as required. Provide and maintain all test equipment and software, made ready for use by the Design-Build Firm and/or the Department. Provide up-to-date calibration certification with dates and test parameters for all test equipment utilized in accordance with the manufacturer's recommended procedures.

Conduct all tests in the presence of the Department, unless otherwise approved in writing by the Department. The Department reserves the right to waive the right to witness certain tests. Neither witnessing of the tests by the Department nor the waiving of the right to do so shall relieve the Design-Build Firm of the responsibility to comply with the Project requirements.

Document and submit all test results to the Department 15 calendar days (excluding weekends and Department-observed holidays) after the completion of the tests for review and approval by the Department. Test results must include documentation of:

- Test results with pass/fail criteria and test objectives
- Cross reference to what Project requirement(s) were tested using the RTVM. All lines in the RTVM marked with the verification method of "Test" shall be part of the test procedures.
- Date of test
- Start/end times of test
- Location of test
- Names and signatures of testers and witnesses of the test

- Sketch of test location and set-up (if applicable)
- Conditions during the test (i.e., weather conditions, etc.)
- Any and all field notes provided by the tester
- Any discrepancies found during testing
- Equipment serial numbers
- Equipment IP addresses (if applicable)
- Equipment MAC addresses (if applicable)

Fiber Optic Cable End-to-End Tests must include all of the information provided in the Sample Optical Time Domain Reflectometer (OTDR) Results included as a Reference Document R12. Replace, repair, and retest all devices that failed testing at no additional cost to the Department.

### **ii. Pre-Installation Test (PIT)**

The Design-Build Firm shall meet the following PIT requirements:

- Document and submit the factory and reel fiber testing results for all fiber strands to the Department for review and approval 15 calendar days (excluding weekends and Department-observed holidays) prior to any fiber installation.
- Inspect all devices and materials delivered to the designated Design-Build Firm's project field site for any damage as a result of shipping.
- Provide written documentation stating that all devices and materials showed no signs of damage or compromise as a result of shipping.

### **iii. Stand Alone Tests (SAT)**

The Design-Build Firm shall meet the following SAT requirements:

Field inspect and verify the following items:

- All devices and equipment, once installed at each field site, are undamaged and correctly installed, with correct cabling and wiring terminations, port settings, cable interconnections, good workmanship.
- All devices are functional, operational and can be controlled locally prior to connecting to the communication network.
- All local cabinet components and subsystems, including Ethernet switches, power supply voltages and outputs, are fully functional and operational.
- All devices are properly connected to their power source, and the lightning protection system which includes air terminal, down conductors, surge protection devices and grounding array has been installed.
- Site grounding meets and/or exceeds the FDOT Standard Specifications and is compliant with this RFP.
- Replace any device with the same make and model that fails its SAT more than twice. The entire SAT must be repeated for the replaced or repaired device until proven successful.

Perform SAT on every device, including the following:

- CCTV cameras and components
- CLDs
- MVDS and components
- ITS Field Cabinets
- Device servers



- Layer 2 MFESs
- All fiber optic cables, including splices, patch cables and connectors
  - Perform OTDR bi-directional testing using a launch cable and a receive cable
- RPM units, transfer switches, permanent generators, and UPSs

Document and submit all test results to the Department 15 calendar days (excluding weekends and Department-observed holidays) after the completion of the tests for review and approval by the Department. Test results must include documentation of any discrepancies found during testing, successful test completion dates, and equipment serial numbers.

The Department has created standardized field acceptance test procedures for the following ITS devices: MFES 750-040-07; CCTV 750-040-08; MVDS 750-040-09; CLD 750-040-10. These are available on the Department's Procedural Document Library: <https://pdl.fdot.gov/> and may be used on this project.

#### **iv. Subsystem Tests**

The Design-Build Firm shall meet the following subsystem tests requirements:

- Perform subsystem tests to demonstrate that each subsystem meets the relevant sections of FDOT Standard Specifications and this RFP. No partial subsystem testing will be permitted.
- Begin subsystem tests only when the Design-Build Firm has satisfied the Department requirements that all SATs along with all fiber optic facilities have been successfully completed and approved by the Department and that all work on the subsystem to be tested has been completed.

Provide qualified personnel to support the diagnosis and repair of system equipment during the subsystem tests as required.

- Perform subsystem tests for the following subsystems:
  - ITS Communications subsystem
  - CCTV camera subsystem
  - MVDS subsystem
  - WWVDS subsystem
  - Power subsystem

Perform subsystem tests as required to satisfy the requirements as defined in the RTVM. The subsystem test shall include, but not be limited to, the following:

- Verify Layer 2 communications between cabinet MFESs. Layer 2 redundancy along the corridor shall be tested.
- Demonstrate full control and functionality of all devices associated with the subsystem from the respective Operations Center (District One RTMC and Collier County TOC) utilizing the respective Central Control Software (FDOT's SunGuide® and the Collier County's MAXVIEW and ACTIVU);
  - Display of each CCTV camera image on workstations, video wall, and other CCTV camera software applications designated in the respective Operations Center.
  - Verify all CCTV camera remote control functions and full PTZ functionality using the respective Central Control Software. Verify that video produced by the CCTV camera is true, accurate, distortion free, vibration free, and free from transfer smear, oversaturation, and any other image defects under all lighting conditions (dusk, dawn, and night hours) in both color and monochrome modes.
  - Verify the proper operation of the auto iris feature. Demonstrate that the functionalities of

the local/remote trouble shooting/diagnostics perform as specified in the specific subsystem functional requirements.

- Verify MVDS data is accurately collected and presented in District One SunGuide® software.
- Verify full integration of all other ITS devices installed on this Project to the respective Operations Center, including the verification of all control and monitoring capabilities with the respective Central Control Software.
- Verify remote monitoring and control of all field devices, including network switches, UPSs, and PDUs.
- Verify WWVDS detection data is accurately collected and presented in District One SunGuide® software.

Correct any problem in the event a subsystem fails and is rejected by the Department. The Design-Build Firm shall repeat the subsystem tests within seven calendar days after receiving direction from the Department that a retest can be conducted.

#### **v. Operational System Acceptance Test (OSAT)**

Conduct the OSAT covering all subsystems, integrated together and fully operable as a single system with the respective Central Control Software from the respective Operations Center for a period of 30 consecutive calendar days without failure of any ITS device or subsystem. The OSAT will demonstrate that all subsystems operate together and meet the relevant sections of FDOT Standard Specifications, the RTVM, and this RFP. The Design-Build Firm shall submit, via a schedule, the start of the OSAT to be approved by the Department.

Perform tests with the Department personnel managing, monitoring, and controlling the devices in real-time to assure conformance to the Project requirements. Maintain a daily log for all operations after the start of the OSAT. Report in an OSAT daily log all activities associated with OSAT.

Shut down the OSAT in the event that a device or subsystem failure is identified by the Department and/or the Design-Build Firm. The Design-Build Firm will not be allowed access to the system once testing has commenced without OSAT shutdown. In the event of an OSAT suspension or shut down by the Department, provide qualified personnel to support the diagnosis and repair of system equipment during the OSAT as required.

Diagnose and correct all deficiencies causing the OSAT shutdown. After the deficiency or deficiencies causing the OSAT shutdown have been corrected, the Design-Build Firm shall re-perform all applicable tests as directed by the Department.

Restart tests at day zero for a new 30 consecutive calendar day test period as directed and approved by the Department, unless corrections are made within the requirements of Table A: Maximum Allowable Outage Times. If the allowable outage times have been met, then the OSAT shutdown will be reclassified as an OSAT suspension and the test will recommence at the point it was stopped upon approval by the Department.

Provide the following when the total number of OSAT shutdowns equals three for the same subsystem and/or device:

- Remove and replace the subsystem or device with a new and unused unit.
- Perform again all applicable tests, as deemed necessary by the Department.
- Submit diagnostic reports to demonstrate that errors were detected and corrected
- Upon written approval from the Department's CEI, restart the OSAT for a new 30 consecutive

calendar day period.

Repeat the OSAT as necessary to satisfy the Project requirements. Submit to the Department the required documentation to verify that all subsystems and ITS devices have been successfully integrated and configured.

If the same ITS device or ancillary component fails more than three times, the Design-Build Firm shall:

- Remove and replace the ITS device or ancillary component with a new and unused unit as per the requirements of this RFP;
- Perform all applicable Stand-alone, Subsystem, and OSATs, as deemed necessary by the Department.

The Design-Build Firm shall provide technical personnel familiar with the Project that shall be available on-site within 24 hours of notification of the need for services.

**Table A: Maximum Allowable Outage Times**

Item	Maximum Allowable Outage Times
ITS Communications Subsystem	2 hours
CCTV Camera Subsystem	8 hours
MVDS Subsystem	8 hours
WWVDS Subsystem	2 hours
Power Subsystem	8 hours

#### **vi. ITS Close Out and Final ITS Acceptance**

The Project shall not be eligible for Final ITS Acceptance until the successful completion of the 60-Consecutive Calendar-Day Burn-In Period. The Design-Build Firm shall meet the following Final ITS Acceptance requirements:

- ITS Close-Out
  - Conduct final inspection once the 60-Consecutive Calendar-Day Burn-In Period has demonstrated that the entire ITS is operating successfully and meets all Project requirements. The final inspection must include:
    - Conduct field visit(s) to ensure that all ITS devices are in their correct final configuration.
    - Verify that all Project submittals including test reports have been submitted and approved by the Department.
    - Verify that all final cleanup requirements have been completed and field conditions restored to their original condition.
    - Ensure that final As-Built Plans and all Project documentation is provided as specified.
    - Ensure that all training services have been successfully completed as specified.
    - Ensure that all warranties are in place and transferred to the Department as specified herein.
  - Request in writing the Department's approval to start the final inspection a minimum of 15 calendar days prior to the requested start date. The Department reserves the right to reschedule the start date if needed.
  - Repeat final inspection upon an unsuccessful or incomplete final inspection after the

Design-Build Firm has made the necessary corrections. The Department must be allowed 15 calendar days to conduct a final inspection. The Department reserves the right to require, at no additional expense to the Department, the attendance of a qualified technical representative of the equipment and/or software manufacturers to attend the final inspection.

As-Built Plans shall include Global Positioning System (GPS) data utilizing the criteria set forth in the Intelligent Transportation System Facilities Management (ITSFM) Implementation Guidelines and Minimum Requirements for District One, included in Reference Document R12.

Along with the As-Built Plans, a copy of the completed ITSFM data shall be submitted for review prior to beginning the OSAT. Update the ITSFM data at the conclusion of the OSAT if any device is replaced or reported device attribute information is changed. It is the Design-Build Firm's responsibility to obtain all training and certifications necessary to collect and submit the ITSFM data. Documentation showing the necessary training and certifications have been obtained and/or scheduled shall be submitted within two weeks of beginning work on the ITS infrastructure. Contact [d1-itsfm@dot.state.fl.us](mailto:d1-itsfm@dot.state.fl.us) for ITSFM information.

The Design-Build Firm shall provide data as necessary for populating ITSFM. This will include, but not be limited to, all new and existing conduit runs, fiber infrastructure, pull boxes, and cabinets. The ITSFM Implementation Guidelines and Minimum Requirements for District One describes the procedures and amount of detail required to efficiently and accurately complete this task.

The final inspections of the entire Project shall be performed by the Department in the presence of a representative of the Design-Build Firm.

Upon the Design-Build Firm's successful completion of the OSAT and once all required submittals, testing, training, as-built documentation, and warranty documentation have been successfully delivered to and approved by the Department as specified in this RFP, and the requirements of the FDOT Standard Specifications and all applicable standards, the ITS portion of the project shall be considered accepted for the purposes of overall project Final Acceptance.

In the event of a lag between the completion of the ITS portion of the project and the overall project Final Acceptance, the Design-Build Firm shall repair or replace any subsystem, device, or ancillary component that fails to function properly due to defective materials and/or workmanship at no additional cost to the Department. Corrective action by the Design-Build Firm for a failure shall be a part of the Design-Build Firm's Final Acceptance documentation process and be provided to the Department upon request. Department approval shall be obtained by the Design-Build Firm for the proposed corrective action prior to the Design-Build Firm's commencement of said corrective action. The Design-Build Firm shall submit to the Department the required documentation to prove that all units have been successfully reconfigured or updated.

#### **f. Existing Conditions**

Refer to the ITS As-Built Plans provided with this RFP in Reference Document R01 for the existing ITS conditions. The Design-Build Firm shall be responsible for field verifying all existing site conditions within the project limits.

#### **g. ITS Repair Plan**

The Design-Build Firm shall prepare and submit an ITS Repair Plan. The ITS Repair Plan shall outline the procedures, resources, and points of contact for a step-by-step guideline in the event the Design-Build Firm damages any ITS infrastructure within or adjacent to the Project limits.

The ITS Repair Plan must follow the same guidelines for development and presentation of the Project As-Built Plans. The ITS Repair Plan must be approved by the Department and Collier County before any work within the Project limits commences. The Design-Build Firm's ITS Repair Plan shall maintain or exceed the same level of service for the ITS communications and ITS devices as prior to relocation or repair.

If any ITS device or infrastructure is damaged by the Design-Build Firm, it shall be the responsibility of the Design-Build Firm to repair or replace the ITS device or infrastructure as necessary to maintain system continuity. Any damage to the communications equipment (i.e., fiber optic cable, conduit, pull boxes, splice cabinets, hubs, etc.) shall be repaired or replaced within four (4) hours. Damaged fiber optic cable may be temporarily fusion spliced within the four-hour period to temporarily restore communications; however, any damaged fiber optic cable shall be replaced from termination point to termination point with same count fiber optic cable within 90 calendar days. All other ITS devices and ancillary equipment shall be repaired or replaced unless otherwise approved or directed by the Department.

Whenever actions of the Design-Build Firm cause the ITS or ancillary components to fail or disrupt normal operations, as determined by the Department or its designee, the Design-Build Firm shall restore the ITS and ancillary components to their previous condition and normal operation at no expense to the Department or its designee.

Whenever actions of a third party cause the ITS or ancillary components to fail or cause a disruption of normal operation, as determined by the Department or its designee, the Design-Build Firm shall either restore the ITS and related components to their previous condition and normal operation or provide access and coordinate with the Department's ITS Maintenance Contractor. The Department will, with the exception of any damage resulting from vandalism, compensate the Design-Build Firm for restoring the ITS and ancillary components due to actions caused by a third party. Repair damage resulting from vandalism will be compensated according to the FDOT Standard Specifications for Road and Bridge Construction. Lack of workforce or parts, or time of day of notification by the Department or its designee, will not be considered as items beyond the Design-Build Firm's control.

The Design-Build Firm shall notify the District One RTMC a minimum of four (4) working days in advance and wait for approval prior to disconnecting any ITS system components or relocation of the backbone. At a minimum provide the following to the RTMC when notifying of scheduled downtime:

- a. Project FPID number and requestor contract information
- b. Outage request contact name and contact information
- c. Planned outage begin date and start time, outage end date and time
- d. Reason for outage
- e. Facility, splice vault, and mile marker information
- f. Prime general contractor, ITS sub-contractor, splice sub-contractor and point of contact information

On the day of and prior to the commencement of work, contact the District One RTMC to ensure no major incidents are occurring in the area. After the planned work is completed, contact the RTMC to verify connectivity at the affected area is restored.

**S. Landscape Opportunity 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 opportunity 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.

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 roadway, environmental, drainage, utilities, signing, lighting and ITS. The DBLA shall identify potential conflicts relating to preserving opportunity landscape areas and provide suggested resolutions to maximize and 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 (DLA) for coordination

and resolution. The intended view of CCTV shall be clear of landscape obstructions to the extent required for them to perform as intended.

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 with the DLA. 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. The 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.

## **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 electronically in PDF format including bookmarks for each section. Bookmarks which provide links to content within the Technical Proposal are allowed. Bookmarks which provide links to information not included within the content of the Technical Proposal shall not be utilized. 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 that are not specifically identified in the submittal requirements below. This only applies during the Technical Proposal Evaluation phase.

Submit three (3) flash drives containing the Technical Proposal (entirely, including roll-plots) in PDF format, three (3) complete collated sets of hard copies of the Technical Proposal (excluding roll-plots) and one (1) hard copy set of roll-plots to:

Ms. Jamie Reyes  
Attn: Jhoanna Garces de Beltre  
801 North Broadway Avenue  
Bartow, FL 33830  
863-519-2279  
D1.DesignBuild@dot.state.fl.us

The minimum information to be included:

Section 1: Project Approach

- Paper size: 8½" x 11". The maximum number of pages shall 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, measurable 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.
- Provide an approach description for the Maintenance of Communication (MOC) Plan
- Provide a listing and description of the approved ATCs included in the Technical Proposal.
- Submit a Category 2 Submittal Report summarizing the proposed Category 2 elements for each bridge per FDM 121.3 (maximum 1 page).

Section 2: Plans

- 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 Landscape Opportunity Plan sheets that depict preserved planting locations for a Bold Landscape design for the entire project limits. The Landscape Plan shall show all preserved planting areas to



be used for future Bold Landscaping designs. Paper size shall be 11"x17".

- Right of Way Maps and Legal Descriptions (including area in square feet) of any proposed additional Right of Way parcels if applicable and approved through the ATC process. Provide Technical Proposal Plans in accordance with the requirements of the FDOT Design Manual, except as modified herein.
- The Plans shall complement the Project Approach.

**C. Evaluation Criteria:**

The Department shall evaluate the written Technical Proposal by each Design-Build Firm. The Design-Build Firm shall 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:

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

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

1. **Design (30 points)**

The Design-Build Firm is to address the quality and suitability of the following elements in the Technical Proposal:

- Structures design
- Roadway design / and safety
- Drainage design
- Pavement design
- Environmental permitting and impact avoidance/minimization
- Maintainability
- Signing and Pavement Marking design
- Signalization design
- Lighting design
- ITS and Maintenance of Communication
- Landscape Opportunity Plans
- Design coordination plan minimizing design changes
- Geotechnical investigation plan
- Geotechnical load test program
- Minimizing impacts through design to:
  - Environment
  - Public
  - Adjacent Properties

- Structures
- Temporary Traffic Control Plan with a particular emphasis on reduction of impacts to motorists throughout all phases of construction
- Incident Management Plan
- Aesthetics
- Utility Coordination and Design
- Design considerations which improve recycling and reuse opportunities

The Design-Build Firm is to address the following in the Technical Proposal: aesthetics features of the design including but not limited to the following: considerations in the geometry, suitability and consistency of structure type, structure finishes, shapes, proportions and form throughout the limits of the project.

Architectural treatments such as tiles, colors, emblems, etc. will not be considered as primary aesthetic treatments.

The Design-Build Firm is to address the following in the Technical Proposal: design and utility coordination efforts that minimize the potential for adverse impacts and project delays due to utility involvement.

The Design-Build Firm is to address the following in the Technical Proposal: 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, and impacts to long term maintenance costs.

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

The Design-Build Firm is to address the quality and suitability of the following elements in the Technical Proposal:

- Safety
- Implementation of the Maintenance of Traffic Plan that reduces impacts to motorists, reduces detours, and eliminates traffic shifts throughout construction
- Structures construction
- Roadway construction
- Drainage construction
- ITS and Signalization construction
- Construction coordination plan minimizing construction changes
- Minimizing impacts through construction to:
  - Environment
  - Public
  - Adjacent Properties
  - Structures
- Implementation of the Environmental Design and Erosion/Sediment Control Plan
- Implementation of the Maintenance of Traffic Plan
- Approach to routine Project Maintenance during construction
- Implementation of the Incident Management Plan
- Implementation of the Maintenance of Communication Plan
- Utility Coordination and Construction

- Construction considerations which improve recycling and reuse opportunities

The Design-Build Firm is to address the following in the Technical Proposal: developing and deploying construction techniques that 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.

The Design-Build Firm is to address the following in the Technical Proposal: ensuring all environmental commitments are honored.

The Design-Build Firm is to address the following in the Technical Proposal: construction and utility coordination efforts that minimize the potential for adverse impacts and project delays due to utility conflicts.

**3. Innovation (10 points)**

The Design-Build Firm is to address introducing and implementing innovative design approaches and construction techniques which address the following elements in the Technical Proposal:

- 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)**

The Design-Build is to address the following Value Added features in the Technical Proposal:

- 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 Department 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 LOI and Technical Proposal)

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.

**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. 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 Technical Score. Following announcement of the Technical Scores, the sealed Bid Price Proposals will be opened and the adjusted scores calculated. The Department will document the preliminary bid results as presented in the meeting. 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 all 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 \$206,648 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 fully execute the stipend agreement within one (1) week after the Short-List protest period for 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".

### **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 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 of the Bid Price Proposal shall be hand delivered in a separate sealed package to the following:

Ms. Jamie Reyes  
Attn: Jhoanna Garces de Beltre  
801 N. Broadway Ave.  
Bartow, FL 33830  
(863) 519-2279  
[D1.DesignBuild@dot.state.fl.us](mailto:D1.DesignBuild@dot.state.fl.us)

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