



Florida Department of Transportation
District 5

**LOW BID
DESIGN-BUILD
REQUEST FOR PROPOSAL**

For

**Dynamic Message Sign (DMS) Replacement Project Phase II
Orange / Osceola / Brevard / Volusia County, Florida**

**Financial Projects Number(s): 432149-1-92-01
Federal Aid Project Number(s): ITS5-022-A
Contract Number: E5W30**

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ATTACHMENTS

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

- Attachment 1: Project Advertisement
- Attachment 2: MSP Preservation of Property
- Attachment 3: Geotechnical Services Requirements/Specifications
Contractor Quality Control General Requirements (SP1050813DB)
- Attachment 4: Structures Foundations (SP4550000DB)
- Attachment 5: Division I Design Build Specifications

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.

- Document 1: DMS Structure Shop Drawings and Reports
- Document 2: DMS Phase II Pictures
- Document 3: DMS Phase II Sign Numbers
- Document 4: DMS Signs Utilities List

I. Introduction.

The Florida Department of Transportation (Department) has issued this Request for Proposal (RFP) to solicit competitive Bids and Proposals from Proposers for the replacement of twelve (16) Dynamic Message Signs (DMS) to include structures and foundations along with associated equipment within the existing District 5 Intelligent Transportation System infrastructure along the following roadways:

- Interstate 4 from East of Champion Gate (CR 532) to East of South Apopka Vineland Road; West of SR 44
- Interstate 95 between Mile Marker 172 and Mile Marker 206
- SR 528 approaching I-95 west and eastbound.

Description of Work

For the purpose of bidding, the Department has established a maximum price of \$3,600,000.00. This amount is not the Department's official cost estimate for the work but is the maximum price constraint established for this contract. Submission of a bid under the maximum price is not a guarantee of contract award and cannot be interpreted as an appropriate or awardable bid amount. For this contract, the Department will reject as non-responsive any Price Proposal in excess of the maximum price amount shown above and the firm will not be considered for Final Selection.

This project requires furnishing and installing all the necessary components for fully functional Dynamic Message Signs (DMS). Existing DMS enclosures, pole mounted DMS cabinets (where applicable), ancillary cabinet equipment, structures and foundations will be removed and replaced. No existing ground mounted cabinet shall be removed or replace within this project. DMS maintenance cabinets shall be added to any DMS structure that does not currently have a maintenance cabinet installed. A maintenance cabinet shall be defined as a pole mounted cabinet enclosure that houses the necessary DMS components (e.g. auxiliary controller and power) that will allow a technician to troubleshoot the DMS from ground level without the use of a bucket truck. The existing DMS structures and foundation shall be removed per FDOT 110 Specification and disposed of. The newly installed DMS's shall be integrated into the District 5 Intelligent Transportation System (ITS) and operational at the Regional Traffic Management Center (RTMC) via the SunGuide Software. The locations and sign number of the existing DMS's are included in Table 1 section VI.P.2. Four of the existing cantilever signs shall be paired and combined on a single full span structure as described below.

This RFP outlines the requirements for the Options (listed from highest to lowest) and the scope of work as shown below. Each Option Includes the replacement of the existing DMS to include structures, foundations, conduit, fiber, power and all associated components for each DMS sign.

Option #	Scope of Work
Option 1, (E5W30A)	Signs 1 – 16
Option 2, (E5W30B)	Signs 1 – 15
Option 3, (E5W30C)	Signs 1 – 14

The criterion for signs that must be paired and combined on a full span structure is described below:

Criteria for paired signs six (6) and seven (7) and paired signs nine (9) and ten (10)

- A. All work to be done according to the requirements as define in the scope of work above with the exception of the DMS structures.
- B. The Design-Build Firm shall design Signs 6 and 7 to be combined on a single, Full Span

- C. Structure and propose a location that allows both DMS's to service the existing area. The Design-Build Firm shall design Signs 9 and 10 to be combined on a single, Full Span Structure and propose a location that allows both DMS's to service the existing area.
- D. In the event that a Guide sign exists on the structure, the Design-Build Firm shall add the existing guide sign to the Full Span Structure.
- E. Design and construct full span with a catwalk that extends to the edge of the travel lane for DMS access and maintenance
- F. The existing structures shall be removed as define by Section VI.P of this RFP.
- G. The DMS must be designed such that both DMS posted messages are remotely viewable by the operators located at the RTMC through the use of the current CCTV cameras or the Design-Build Firm may propose to either relocate existing CCTV and/or add additional CCTV cameras to meet this visibility requirement.

With the maximum bid price and the use of Options, the Department's goal is to maximize the construction within the available funding. The goal of the Department is to construct as much of the scope as possible, specifically the construction of Option One. To accomplish this goal, the evaluation criteria for this project are different than other Design-Build projects. The Design-Build Firm that proposes the most work under the Maximum Bid Price will be selected. If two Design-Build Firms propose the same scope items, then the Technical Proposal scores as outlined in the Final Selection Formula in this RFP will be used. The selection process is contained in Section VII of this RFP. Sections VII.B, VII.C, and VII.D of this RFP detail the evaluation, scoring and selection.

H. Design-Build Responsibility

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

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

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

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

The Design-Build Firm may propose changes which differ from the approved Interchange Proposal Report (if applicable) and/or the Project Development & Environment (PD&E) Study. Proposed changes must be coordinated through the Department. If changes are proposed to the configuration, the Design-Build Firm shall be responsible for preparing the necessary analyses and documentation required to satisfy requirements to obtain approval of the Department and , if applicable, FHWA. The Design-Build Firm shall provide the

required documentation for review and processing. Approved revisions to the configuration may also be required to be included in the Reevaluation of the National Environmental Policy Act (NEPA) document or State Environmental Impact Report (SEIR) Reevaluations, per Section M (Environmental Services/Permits/Mitigation) of the RFP. The Design-Build Firm will not be compensated for any additional costs or time resulting from proposed changes.

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

The Design-Build Firm shall 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.

I. 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 or SEIR Reevaluations. For federal projects, the Department will coordinate and process Reevaluations with FHWA.

II. Schedule of Events.

Below is the current schedule of the remaining events that will take place in the selection 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.

Date	Event
January 9, 2014	Deadline for submission of written questions prior to the pre-Proposal meeting.
January 17, 2014	Pre-Proposal meeting at 2:00PM at the District Office 719 S. Woodland Blvd. DeLand, FL 32720, in the Osceola County Conference room.
<u>January 24, 2014</u>	Final Deadline for Questions
<u>January 31, 2014</u>	Deadline for the Department to reply to Questions
<u>February 18, 2014</u>	Technical and Price Proposals Due at the same time. Must be submitted in two separate packages clearly marked with the RFP Number and either Price proposal or Technical Proposal
<u>February 18, 2014</u>	Price Proposal/ Bid Opening and Opening of the Technical proposal of the Lowest Bidder, 2:00PM at the District Office 719 S. Woodland Blvd. DeLand, FL 32720, in the Volusia County Conference room.
<u>February 25, 2014</u>	Technical Review Committee Responsiveness meeting Proposal No. 1
<u>March 03, 2014</u>	Selection Committee Meeting No. 8:15AM at the District Office 719 S. Woodland Blvd. DeLand, FL 32720, in the Lake County Conference room
<u>March 4, 2014</u>	<u>Technical Review Committee Responsiveness meeting Proposal No 2 (If needed)</u>
<u>March 10, 2014</u>	Selection Committee Meeting No. 2 (If needed)
<u>March 03, 2014</u>	Posting of the Department's intended decision to Award, Proposal No. 1
<u>March 06, 2014</u>	Anticipated Award Date, Proposal No.1
<u>March 10, 2014</u>	Posting of the Department's intended decision to Award, Proposal No. 2
<u>March 13, 2014</u>	Anticipated Award Date, Proposal No.2

III. Threshold Requirements.

A. Qualifications

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

B. Joint Venture Firm

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

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

C. Price Proposal Guarantee

A Price Proposal guaranty in an amount of not less than five percent (5%) of the total bid amount shall be included as an attachment, included in each Proposer's **Technical** Proposal Package. 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

Interested Contractors are encouraged to attend this meeting. 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, CPM schedule, and method of compensation, instructions for submitting proposals, design exceptions/variances, and other relevant issues. In the event that any discussions at the pre-proposal meeting require, in the Department's opinion, official additions, deletions, or clarifications of the Request for Proposal, the Design and Construction Criteria, or any other document, the Department will issue a written addendum to this Request for Proposals as the Department determines 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 oversight Projects, 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://www3.dot.state.fl.us/BidQuestionsAndAnswers/Proposal.aspx/SearchProposal>

During and after the meeting, it is the responsibility of the Project Manager/Contracting Unit to ensure that each Proposer develops their technical proposal with the same information. If a Proposer receives information from the Department relating to the Project, the Department will ensure that all Proposers receive the same information in a timely fashion. The Project file will clearly document all communications with any Firm regarding the design and construction criteria by the Contracting Unit or the Project Manager.

E. Question and Answer

The Design-Build Firm shall submit questions to the Departments Q&A website in accordance with section 2-4 of the Division I Design-Build Specifications.

F. Protest Rights

Any person who is adversely affected by the specifications contained in this Request for Proposal must file a notice of intent to protest in writing within seventy-two hours of the posting of this Request for Proposals. Pursuant to Sections 120.57(3) and 337.11, Florida Statutes, and Rule Chapter 28-110, Florida Administrative Code, any person adversely affected by the agency decision or intended decision shall file with the agency both a notice of protest in writing and bond within 72 hours after the posting of the notice of decision or intended decision, or posting of the solicitation with respect to a protest of the terms, conditions, and specifications contained in a solicitation and will file a formal written protest within ten days after the filing of the notice of protest. The formal written protest shall be filed within ten days after the date of the notice of protest if filed. The person filing the Protest must send the notice of intent and

the formal written protest to:

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

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

G. Non-Responsive Proposals

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

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

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

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.

H. 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.
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 Design Concept may be considered together with innovative construction techniques, as well as other areas, as the basis for grading the Technical Proposals in the area of innovative measures.

I. Modification or Withdrawal of Proposal

Proposers may modify or withdraw previously submitted Proposals at any time prior to the Proposal due date. Requests for modification or withdrawal of a submitted Proposal shall be in writing and shall be signed in the same manner as the Proposal. Upon receipt and acceptance of such a request, the entire 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 Proposal provided the change is submitted prior to the Proposal due date.

J. 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.

K. Design-Build Contract

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

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

IV. Disadvantaged Business Enterprise (DBE) Program.

A. DBE Availability Goal Percentage:

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

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

The Department is reporting to the Federal Highway Administration the planned commitments to use DBE's. This information is being collected through the Anticipated DBE Participation Statement.

B. DBE Supportive Services Providers:

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

C. Bidders Opportunity List:

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

A Bid Opportunity List should be submitted through the Equal Opportunity Compliance system which is available at the [Equal Opportunity Office Website](#). This information should be returned to the Equal Opportunity Office within three days of submission.

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), Design Standards and Revised Index Drawings. The Design-Build Firm shall use the edition of the Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications, Design Standards and Revised

Index Drawings in effect at the time the bid price proposals are due in the District Office. The Design-Build Firm shall use the 2009 edition of the MUTCD (as amended in 2012). It shall be the Design-Build Firm's responsibility to acquire and utilize the necessary manuals and guidelines that apply to the work required to complete this Project. The services will include preparation of all documents necessary to complete the Project as described in Section I of this document.

1. Florida Department of Transportation Roadway Plans Preparation Manuals (PPM)
<http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>
2. Florida Department of Transportation Design Standards
<http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm>
3. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications
<http://www.dot.state.fl.us/specificationoffice/Default.shtm>
4. Florida Department of Transportation Surveying Procedure
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/550030101.pdf>
5. Florida Department of Transportation EFB User Handbook (Electronic Field Book)
http://www.dot.state.fl.us/surveyingandmapping/doc_pubs.shtm
6. Florida Department of Transportation Drainage Manual
<http://www.dot.state.fl.us/rddesign/Hydraulics/ManualsandHandbooks.shtm>
7. Florida Department of Transportation Soils and Foundations Handbook
<http://www.dot.state.fl.us/structures/Manuals/SFH.pdf>
8. Florida Department of Transportation Structures Manual
<http://www.dot.state.fl.us/structures/DocsandPubs.shtm>
9. Florida Department of Transportation Current Structures Design Bulletins
<http://www.dot.state.fl.us/structures/Memos/currentbulletins.shtm>
10. Florida Department of Transportation Computer Aided Design and Drafting (CADD) Manual
<http://www.dot.state.fl.us/ecso/downloads/publications/Manual/default.shtm>
11. Florida Department of Transportation Computer Aided Design and Drafting (CADD) Production Criteria Handbook
<http://www.dot.state.fl.us/ecso/downloads/publications/CriteriaHandBook/>
12. Florida Department of Transportation Production Criteria Handbook CADD Structures Standards
<http://www.dot.state.fl.us/ecso/downloads/publications/CriteriaHandBook/>
13. Instructions for Design Standards
<http://www.dot.state.fl.us/structures/IDS/IDSportal.pdf>
14. AASHTO – A Policy on Geometric Design of Highways and Streets
https://bookstore.transportation.org/collection_detail.aspx?ID=110
15. MUTCD - 2009
<http://mutcd.fhwa.dot.gov/>
16. Safe Mobility For Life Program Policy Statement
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/000750001.pdf>

17. Traffic Engineering and Operations Safe Mobility for Life Program
<http://www.dot.state.fl.us/trafficoperations/Operations/SafetyisGolden.shtm>
18. Florida Department of Transportation American with Disabilities Act (ADA) Compliance – Facilities Access for Persons with Disabilities Procedure
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/625020015.pdf>
19. Florida Department of Transportation Florida Sampling and Testing Methods
<http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/fstm/disclaimer.shtm>
20. Florida Department of Transportation Flexible Pavement Coring and Evaluation Procedure
<http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf>
21. Florida Department of Transportation Design Bulletins and Update Memos
<http://www.dot.state.fl.us/rddesign/Bulletin/Default.shtm>
22. Florida Department of Transportation Utility Accommodation Manual
<http://www.dot.state.fl.us/specificationsoffice/utilities/UAM.shtm>
23. AASHTO LRFD Bridge Design Specifications
https://bookstore.transportation.org/category_item.aspx?id=BR
24. Florida Department of Transportation Flexible Pavement Design Manual
<http://www.dot.state.fl.us/rddesign/PM/publicationS.shtm>
25. Florida Department of Transportation Rigid Pavement Design Manual
<http://www.dot.state.fl.us/rddesign/PM/publicationS.shtm>
26. Florida Department of Transportation Pavement Type Selection Manual
<http://www.dot.state.fl.us/rddesign/PM/publicationS.shtm>
27. Florida Department of Transportation Right of Way Manual
<http://www.dot.state.fl.us/rightofway/Documents.shtm>
28. Florida Department of Transportation Traffic Engineering Manual
<http://www.dot.state.fl.us/TrafficOperations//Operations/Studies/TEM/TEM.shtm>
29. Florida Department of Transportation Intelligent Transportation System Guide Book
http://www.dot.state.fl.us/TrafficOperations/Doc_Library/Doc_Library.shtm
30. Federal Highway Administration Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Plans and Specifications
<http://www.fhwa.dot.gov/engineering/geotech/pubs/reviewguide/checklist.cfm>
31. AASHTO Guide for the Development of Bicycle Facilities
https://bookstore.transportation.org/collection_detail.aspx?ID=116
32. Federal Highway Administration Hydraulic Engineering Circular Number 18 (HEC 18).
http://www.fhwa.dot.gov/engineering/hydraulics/library_arc.cfm?pub_number=17
33. Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways
<http://www.dot.state.fl.us/rddesign/FloridaGreenbook/FGB.shtm>
34. Florida Department of Transportation Project Development and Environment Manual,

Parts 1 and 2
<http://www.dot.state.fl.us/emo/pubs/pdeman/pdeman1.shtm>

35. Florida Department of Transportation Driveway Information Guide
<http://www.dot.state.fl.us/planning/systems/sm/accman/pdfs/driveway2008.pdf>
36. AASHTO Highway Safety Manual
<http://www.highwaysafetymanual.org/Pages/default.aspx>
37. Florida Statutes
<http://www.leg.state.fl.us/Statutes/index.cfm?Mode=View%20Statutes&Submenu=1&Tab=statutes&CFID=14677574&CFTOKEN=80981948>

B. Innovative Aspects:

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

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

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: N/A

E. Environmental Permits:

1. Storm Water and Surface Water:

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

2. Permits:

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

All applicable data shall be prepared in accordance with Chapter 373 and 403, Florida Statutes, Chapters 40 and 62, Florida Administrative Code; Rivers and Harbors Act of 1899, Section 404 of the Clean Water

Act, 23 CFR 771, 23 CFR 636, and parts 114 and 115, Title 33, Code of Federal Regulations. In addition to these Federal and State permitting requirements, any dredge and fill permitting required by local agencies shall be prepared in accordance with their specific regulations. Preparation of all documentation related to the acquisition of all applicable permits will be the responsibility of the Design-Build Firm. Preparation of complete permit packages will be the responsibility of the Design-Build Firm. The Design-Build Firm is responsible for the accuracy of all information included in permit application packages. As the permittee, the Department is responsible for reviewing, approving, and signing, the permit application package including all permit modifications, or subsequent permit applications. This applies whether the project is Federal or state funded. Once the Department has approved the permit application, the Design-Build Firm is responsible for submitting the permit application to the environmental permitting agency. A copy of any and all correspondence with any of the environmental permitting agencies shall be sent to the District Environmental Permits Office. If any agency rejects or denies the permit application, it is the Design-Build Firm's responsibility to make whatever changes necessary to ensure the permit application is approved. The Design-Build Firm shall be responsible for any necessary permit extensions or re-permitting in order to keep the environmental permits valid throughout the construction period. The Design-Build Firm shall provide the Department with draft copies of any and all permit applications, including responses to agency Requests for Additional Information, requests to modify the permits and/or requests for permit extensions, for review and approval by the Department prior to submittal to the agencies.

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

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

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

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

Engineer under this provision.

F. Railroad Coordination: N/A

G. Survey:

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

H. Verification of Existing Conditions:

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

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

I. Submittals:

1. Plans:

Plans must meet the minimum contents of a particular phase submittal prior to submission for review. The particular phase of each submittal shall be clearly indicated on the cover sheet. Component submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the component under review.

Submittals for Category I bridges are limited to the following component submittals: foundation, substructure, and superstructure. Bridge component submittals must be accompanied by all supplemental information required for a complete review. Submittals for individual component elements (i.e. Pier 2, Abutment 1, Span 4, etc.) and incomplete submittals will not be accepted.

Category I bridge component submittals shall contain the following:

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

submittals.

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

90% Component Plans

- 8 sets of 11" X 17" roadway plans
- 5 sets of 11" X 17" structure plans
- 4 sets of 11" X 17" each component set
- 5 copies of Final Geotechnical Report
- 2 set of documentation - structures
- 2 copy of Technical Special Provisions

Final Component Plans

- 8 sets of 11" X 17" roadway plans
- 5 sets of 11" X 17" structure plans
- 2 sets of 11" X 17" ITS plans
- 4 sets of 11" X 17" each component set, except ITS plans
- 2 sets of final documentation
- 1 signed and sealed copy of Specifications Package
- 2 sets of electronic copies of Technical Special Provisions on CD

Construction Set:

- 1 set of 11"X 17" copies of the signed and sealed plans for the Department to stamp "Released for construction"

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

Record Set:

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

- 1 set of 11" X 17" signed and sealed plans
- 2 sets of 11 "X 17" copies of the signed and sealed plans

- 2 sets of final documentation (if different from final component submittal)
- 2 (two) Final Project CD's

The Design-Build Firm's Professional Engineer in responsible charge of the Project's design shall professionally endorse (signed and sealed and certified) the record prints, the special provisions and all reference and support documents. The professional endorsement shall be performed in accordance with the Department Plans Preparation Manual.

The Design-Build Firm shall complete the record set as the Project is being constructed. The record set becomes the as-builts at the end of the Project. All changes shall be signed/sealed by the EOR. The record set shall reflect all changes initiated by the Design-Build Firm or the Department in the form of revisions. The record set shall be submitted on a Final Project CD upon Project completion.

The CEI shall perform a review of the record set prior to final acceptance in order to complete the record set.

The CEI shall certify the final plans as per Section 4.5.7 of Chapter 4 of the Preparation and Documentation Manual (TOPIC No. 700-050-010).

2. Milestones:

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

- 90% Design Submittals
- 100% Design Submittals
- DMS Shop Drawings
- System Acceptance Test Plan Submittal

3. Railroad Coordination: N/A

J. Contract Duration:

The Department has established a Contract Duration of 365 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.

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:

- Bike Week
- Magic Basketball Games
- Citrus Bowl Events
- Orlando Arena Events

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

- Anticipated Award Date
- Design Submittals
- Shop Drawing Submittals
- Design Survey
- Submittal Reviews by the Department and FHWA
- Design Review / Acceptance Milestones
- Materials Quality Tracking
- Geotechnical Investigation
- Start of Construction
- Clearing and Grubbing
- Construction Mobilization
- Embankment/Excavation
- Environmental Permit Acquisition
- Foundation Design
- Foundation Construction
- Substructure Design
- Substructure Construction
- Superstructure Design
- Superstructure Construction
- Walls Design
- Walls Construction
- Roadway Design
- Roadway Construction
- Signing and Pavement Marking Design
- Signing and Pavement Marking Construction
- Signalization and Intelligent Transportation System Design
- Signalization and Intelligent Transportation System Construction
- Lighting Design
- Lighting Construction
- Maintenance of Traffic Design
- Permit Submittals
- Maintenance of Traffic Set-Up (per duration)
- Erosion Control
- Holidays and Special Events (shown as non-work days)
- Additional Construction Milestones as determined by the Design-Build Firm
- Final Completion Date for All Work

L. Key Personnel/Staffing:

The Design-Build Firm's work shall be performed and directed by key personnel identified in the

Technical Proposal by the Design-Build Firm. Any changes in the indicated personnel shall be subject to review and approval by the Department's Project Manager. The Design-Build Firm shall have available a professional staff that meets the minimum training and experience set forth in Florida Statute Chapter 455.

M. Meetings and Progress Reporting:

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

- Department Technical issue resolution
- Permit agency coordination
- Local government agency coordination
- Scoping Meetings
- ITS Pre-Integration Meeting

The ITS Pre-Integration Meeting shall be scheduled at the Department's facility at least thirty (30) calendar days before beginning ITS Integration activities. The purpose of these meetings shall be to verify the Design-Build Firm's Integration Plans by reviewing proposed splicing diagrams, integration plans, IP addressing schemes and other network 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 must coordinate with the Department to schedule the Pre-Integration Meeting and must provide all documentation as required to support the meeting to include detailed functional narrative text, system and subsystem drawings and schematics.

The Pre-Integration Meeting shall address, at a minimum, the following items:

- The site surveys performed by the Design-Build Firm
- Troubleshooting of any Design-Build Firm installed hardware issues, both field or RTMC (if applicable) that affect the integration work.
- Design-Build Firm to provide a list of ITS IP addressable field devices to the ITS Network Administrator. The Design-Build Firm shall allow a 5 day review period for the ITS Network Administrator to update the provided list with the Department's selected IP address for each device.
- Design-Build Firm configuration of the ITS field devices for integration with the SunGuide® software, including link, lane, roadway, and device configurations. As part of SunGuide integration, the Design-Build Firm shall supply the following information for each new ITS device as needed:

Latitude in minutes
Longitude in minutes
DMS Number
Location (Route and description)
Manufacturer
Number of Lines (Pixels)
Number of Columns (Pixels)
Day Brightness Level

Night Brightness Level
IP Address
Port Server Type (if applicable)
Drop Address (if Applicable)
Port Server Port number (if Applicable)

The Department will integrate the new ITS devices into SunGuide after the Design-Build Firm successfully completes Field Installation Test per FDOT 783 Specification.

All action items resulting from the Pre-Integration Meeting must be satisfactorily addressed by the Design-Build Firm and reviewed and accepted by the Department before granting final acceptance of the Integration Plan. Integration shall not commence until all actions have been resolved.

All items reviewed at the Pre-Integration Meeting shall be in accordance with the RFP to ensure contract compliance with all items. Acceptance of the Integration Plan does not release the Design-Build Firm's overall responsibility for ensuring that all design requirements, as specified, have been achieved in the final design and implementation.

During design, the Design-Build Firm shall meet with the Department's Project Manager on a monthly basis and provide a 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, on a monthly basis, provide written progress reports that describe the items of concern and the work performed on each task.

N. 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.

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

2. Construction:

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

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

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

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

O. 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.

P. Engineers Field Office: N/A

Q. Schedule of Values:

The Design-Build Firm will be responsible for invoicing the Department based on current invoicing policy and procedure. Invoicing will be based on the completion or percentage of completion of major, well-defined tasks as defined in the schedule of values. Final payment will be made upon final acceptance by the Department of the Design-Build Project. Tracking DBE participation will be required under normal procedures according to the CPAM. The Design-Build Firm must submit the schedule of values to the Department for approval. No invoices shall be submitted prior to Department approval of the schedule of values.

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

R. Computer Automation:

The Project shall be developed utilizing computer automation systems in order to facilitate the

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

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

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

S. 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.

T. 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.

U. 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:

- Any 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.

V. Adjoining Construction Projects:

The Design-Build Firm shall be responsible for coordinating construction activities with other construction Projects that are impacted by or impact this Project. This includes Projects under the jurisdiction of local governments, the Department, or other regional and state agencies.

W. Design Issue Escalation:

The Department has established the issue escalation process for design questions and conflict resolution that the Design-Build Firm shall follow unless revised by the Partnering agreement. All issues are to be

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

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

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

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

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

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

Department observed holidays) period is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The Department Project Manager will respond in a timely manner but not to exceed three (3) calendar days (excluding weekends and Department observed holidays). The Design-Build Firm shall provide any available supporting documentation.

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

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

VI. Design and Construction Criteria.

A. General:

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

Before construction activities can begin for a specific component, signed and sealed design plans and calculations supporting the design for that component must be reviewed by the Department. Component submittals shall be complete submittals along with all the supporting information necessary for review. The work must represent logical work activities and must show impacts on subsequent work on this Project. Any modification to the component construction due to subsequent design changes as the result of design development is solely the Design-Build Firm's risk. Upon review by the Department, the plans will be stamped "Released for Construction" and initialed and dated by the reviewer. Any construction initiated by the Design-Build Firm prior to receiving signed and sealed plans stamped "Released for Construction" shall be at the sole risk of the Design-Build Firm.

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

B. Geotechnical Services

Driven Pile Foundations for Major Structures

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

1. Selection of pile type and size.
2. Selection of test pile lengths, locations and quantity of test piles.
3. Selection of pile testing methods.
4. Determining the frequency of such testing unless otherwise stated herein.
5. Performance of the selected test pile program, including dynamic load test personnel and equipment. The Department may observe the installation of test

- piles and all pile testing.
6. Preparing and submitting a Pile Installation Plan for the Department's acceptance.
 7. Selection of production pile lengths.
 8. Development of the driving criteria.
 9. Driving piles to the required capacity and minimum penetration depth.
 10. Inspecting and Recording the pile driving information.
 11. Submitting Foundation Certification Packages.
 12. Providing safe access, and cooperating with the Department in verification of the piles, both during construction and after submittal of the certification package.

Drilled Shaft Foundations for Miscellaneous Structures

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 soils investigation.
3. Construct initial drilled shaft to establish satisfactory installation process performance and results, prior to continued production.
4. Providing all personnel and equipment to perform integrity evaluations and testing of drilled shafts, as required.
5. Determining the production shaft lengths.
6. Constructing all drilled shafts to the required tip elevation in accordance with the specifications.
7. Inspecting and documenting the construction of all drilled shafts in accordance with the specifications.
8. For drilled shafts for miscellaneous structures, perform CSL on any drilled shaft suspected of containing defects.
9. Process an Engineering Analysis Report (EAR, signed & sealed by Contractor's specialty engineer) to investigate, and disposition, suspected or confirmed drilled shaft defects. Provide access to in-process evaluation strategies (ex. testing, coring, etc.), proposed disposition (ex. repair, etc.), and associated repair procedure – to verify the final results will be satisfactory to the Department.
10. Providing safe access, and cooperating with the Department in verification of the drilled shafts, both during construction and after submittal of the Foundation Certification package.
11. Submit final Foundation Certification Packages in accordance with the specifications.

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.

C. Utility Coordination:

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

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

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

1. Ensuring that all utility coordination and activities are conducted in accordance with the requirements of the Contract Documents.
2. Identifying all existing utilities and coordinating any new installations. Reviewing proposed utility permit application packages and recommending approval/disapproval of each permit application based on the compatibility of the permit as related to the Design-Build firm's plans.
3. Scheduling utility meetings, preparing and distributing minutes of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
4. Distributing all plans, conflict matrices and changes to affected Utility Agency/Owners and making sure this information is properly coordinated.
5. Identifying and coordinating the execution and performance under any agreement that is required for any utility work needed in with the Design-Build Project.
6. Preparing, reviewing, approving, signing, coordinating the implementation of and submitting to the Department for review and acceptance, all Utility Work Schedules.
7. Resolving utility conflicts.
8. Obtaining and maintaining all appropriate Sunshine State One Call Tickets.
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. Coordination with the Department on any issues that arise concerning reimbursement of utility work costs.

The following Utility Agency/Owners (UA/O's) have been identified by the Department as having facilities within the Project corridor. The contractor shall avoid impacting all utilities. If during design of the project the Design/Build Firm discovers a utility impact that is unavoidable, the Design/Build Firm shall contact the department Project Manager.

UA/O	Eligible for Reimbursement (Y/N)
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AT&T Florida	N/A
Brevard County Water Resources	N/A
Bright House Networks	N/A
Central Florida Gas Company	N/A
CenturyLink	N/A
City of Cocoa	N/A
Comcast	N/A
Enterprise Community Development District	N/A
Florida City Gas	N/A
Florida Gas Transmission	N/A
Florida Power & Light - Distribution	N/A
Florida Power & Light Transmission	N/A
Gulfstream Natural Gas System, LLC	N/A
Kinder/Morgan Central Florida Pipeline	N/A
Orange County Utilities	N/A
Orlando Utilities Commission-Lighting	N/A
Progress Energy Distribution	N/A
Progress Energy Transmission	N/A
Reedy Creek Energy Services	N/A
Smart City Telecom	N/A
TECO Peoples Gas	N/A
TranState Industrial Pipeline Systems	N/A

D. Roadway Plans: N/A

E. Geometric:

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

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

F. Design Documentation, Calculations, and Computations:

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

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

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

1. Design Standards used for the Project
2. Geometric design calculations for horizontal alignments
3. Vertical geometry calculations
4. Documentation of decisions reached resulting from meetings, telephone conversations or site visits
5. Final quantities list

G. Structure Plans:

1. 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 shall be submitted to the Department for review with the 90% superstructure submittal. The as-Bid load rating (based on the 90% design plans) shall be provided to the Department before any traffic is placed on the bridge. The as-Bid load rating shall be signed and sealed by a Professional Engineer licensed in the State of Florida. A final, signed and sealed copy of the Bridge Load Rating, updated for the as-built conditions shall be submitted to the Department's Project Representative and the District Structures Maintenance Engineer with the as-built bridge plans.
- d. The Design-Build Firm shall evaluate scour on all bridges over water using the procedures described in HEC 18.
- e. Any erection, demolition, and any proposed sheeting and/or shoring plans that may potentially impact the railroad must be submitted to and approved by the railroad. This applies to areas adjacent to, within and over railroad rights of ways.
- f. The Engineer of Record for bridges shall analyze the effects of the construction related loads on the permanent structure. These effects include but are not limited to: construction equipment loads, change in segment length, change in construction sequence, etc. The Engineer of Record shall review all specialty engineer submittals (camber curves, falseworks systems, etc.) to ensure compliance with the contract plan requirements and intent.

2. Criteria

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

- a. All plans and designs are to be prepared in accordance with AASHTO LRFD Bridge Design Specifications, Department Standard Specifications, Structures Manual, Plans Preparation Manual, Department Standard Drawings, Supplemental Specifications, Special Provisions, and directions from the State Structures Design Engineer, Temporary Design Bulletins, Structures Design Office and / or District Structures Design Engineer.
- b. Bridge Widening: In general, match the existing as per the Department Structures Manual.
- c. Critical Temporary Retaining Walls: Whenever the construction of a structural component (such as a wall, footing, or other such 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 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. For bridges over navigable waterways, establish the required pier strengths using the MathCadd program furnished by the Department if no specific pier strength is listed in the Design and Criteria Package. The MathCadd program furnished by the Department allows for the proposed bridge geometry to be input by the Engineer. Other parameters such as water traffic, waterway characteristics, etc. may not be changed. This assures that all Design-Build Firms are designing on the same assumptions other than the specific bridge layout that each is proposing.

H. Specifications:

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

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

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

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

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

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

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

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

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

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

I. Shop Drawings:

The Design-Build Firm shall be responsible for the preparation and approval of all Shop Drawings. Shop Drawings shall be in conformance with the Departments Plans Preparation Manual when submitted to the Department and shall bear the stamp and signature of the Design-Build Firm's Engineer of Record (EOR), and Specialty Engineer as appropriate. The Department shall review the Shop Drawing(s) to evaluate compliance with Project requirements and provide any findings to the Design-Build Firm. The Departments 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 Departments review is not meant to be a complete and detailed review. Upon review of the shop drawing, the Department will stamp "Released for Construction" or "Released for Construction as noted" and initialed and dated by the reviewer.

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

J. Sequence of Construction:

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 of different Traffic Control Plan (TCP) phases, i.e., number of different diversions and detours for a given traffic movement.
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. Proper coordination with adjacent construction Projects and maintaining agencies.

K. Stormwater Pollution Prevention Plans (SWPPP)

The Design-Build Firm shall prepare a Storm Water Pollution Prevention Plan (SWPPP) as required by the National Pollution Discharge Elimination System (NPDES). The Design-Build Firm shall refer to the Department's Project Development and Environment Manual and Florida Department of Environmental Protection (FDEP) Rule 62-621.300(4)(a) for information in regard to the SWPPP. The SWPPP and the Design-Build Firm's Certification (FDEP Form 62-621.300(4)(b) NOTICE OF INTENT (NOI) TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES) shall be submitted for Department review and approval. Department approval must be obtained prior to beginning construction activities.

L. Temporary Traffic Control Plan:

1. Traffic Control Analysis:

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

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

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

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

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

For significant Projects a TMP will consist of three components:

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

Additional information can be found in chapter 10 of the PPM.

1. Temporary Traffic Control Plans:

The Design-Build Firm shall utilize Index Series 600 of the Department's Design Standards where applicable. Should these standards be inadequate, a detailed Temporary Traffic Control Plan shall be developed. The Design-Build Firm shall prepare plan sheets, notes, and details to include the following: typical section sheet(s), general notes and construction sequence sheet(s), typical detail sheet(s), traffic control plan sheet(s).

The Design-Build Firm shall prepare additional plan sheets such as cross sections, profiles, drainage structures, retaining wall details, and sheet piling as necessary for proper construction and implementation of the Temporary Traffic Control Plan.

1. Traffic Control Restrictions:

There will be NO LANE CLOSURES ALLOWED between the hours of 5:30 AM to 10:00 PM. A lane may only be closed during active work periods. Pacing Operations will be allowed during the approved lane closure hours. All lane closures, including ramp closures, must be reported to the local emergency agencies, the media and the District 5 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:

- Bike Week
- Magic Basketball Games
- Citrus Bowl Events
- Orlando Arena Events

M. Environmental Services/Permits/Mitigation:

The Design-Build Firm will be responsible for preparing designs and proposing construction methods that are permitable. 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, Department is responsible for reviewing, approving, signing, and submitting 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 Management Office, 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 the potential gopher tortoise burrow survey that could be impacted by the Project including any areas to be used for construction staging. 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. Cultural Resources
2. Section 4(f) (federal projects only)
3. Wetlands and Mitigation
4. Wildlife and Habitat
5. 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.

N. Signing and Pavement Marking Plans: N/A

O. Lighting Plans: N/A

P. Intelligent Transportation System Plans:

The Design-Build Firm shall work with the FDOT ITS Project Manger to integrate all ITS devices into the SunGuide Traffic Management System. The procurement and installation of any equipment required to make the system functional shall be the responsibility of the Design-Build Firm.

Functionality of the existing equipment and fiber optic connections must be maintained during this replacement process. Exception will be made as follows; a maximum of six (6) hours of downtime per each DMS along with devices attached to the DMS structure shall be allowed in order to cutover the existing DMS to the new DMS. At maximum, no more than two (2) DMS shall be non-functional or visually hindered at any given six (6) hour interval of a downtime. Additionally, no two (2) consecutive DMS on the same side of the roadway shall be non-functional or visually hindered at one time. If the new sign is placed behind the existing sign such that visibility to the new sign is hindered, the portion of the existing sign structure hindering visibility shall be removed within 30 hours of cutover to the new sign. Likewise, if the new sign structure is placed in front of an existing sign and hinders visibility, the new sign must be activated and fully operational within 30 hours of hindering visibility. Whether or not a sign is visually hindered shall be determined by viewing the display face of the sign from the travel lanes approaching the sign for a range of 100 to 800 feet from the sign.

ITS cabinet equipment attached to DMS structures will be removed and replaced (where applicable). Other ITS devices (i.e. detector, wireless radio, etc.) that are attached to the existing DMS structure shall be removed and relocated to the new DMS structures once constructed and it shall be the responsibility of the Design-Build Firm to restore said devices to their previous working conditions or better.

2. Location of Existing DMS and Equipment:

The DMS location and description for the existing twelve (16) replacement locations within FDOT District 5 are described in Table 1 below:

Table 1- Location of existing DMS Signs

DMS Number	DMS Location Description	DMS Specification	Mile Marker	Sign #
1	Interstate 4 E of SR 532 WB	3 Lines 18" Characters	58.5	
2	Interstate 4 W of World Drive EB	3 Lines 18" Characters	60.6	92S086
3	Interstate 4 W of SR 417 EB	3 Lines 18" Characters	63.1	
4	Interstate 4 E of US 192 EB	3 Lines 18" Characters	64.2	92S099

5	Interstate 4 W of SR 536 WB	3 Lines 18" Characters	65.7	
6	Interstate 4 E of SR 535 WB	3 Lines 18" Characters	68.9	75S362
7	Interstate 4 E of SR 535 EB	3 Lines 18" Characters	69	75S353
8	Interstate 95 @ MM 206 SB	3 Lines 18" Characters	206	
9	Interstate 95 @ MM 203.5 SB	3 Lines 18" Characters	203.5	
10	Interstate 95 @ MM 203.5 NB	3 Lines 18" Characters	203.5	
11	Interstate 95 @ MM 199.3 NB	3 Lines 18" Characters	199.3	
12	Interstate 95 @ MM 172 NB	3 Lines 18" Characters	172	
13	Interstate 95 @ MM 270.4 NV	3 Lines 18" Characters	270.4	
14	Interstate 4 West of SR 44	3 Lines 18" Characters	117	
15	SR 528 at I-95 EB	3 Lines 18" Characters	40.7	
16	SR 528 @ I-95 WB	3 Lines 18" Characters	42.9	

Please note: DMS 12 located on Interstate 95 at mile marker 172 on the north bound side of the highway is not physically present due the structure being damaged. All that remains at this time is the DMS foundation which is structurally unsound and must be removed per FDOT Specification 110. The Design-Build Firm shall use the same design requirements, as described in this RFP, when determining location placement for DMS 16 as all other DMS.

3. Design and Engineering Services:

1. Existing DMS Removal

The Design-Build Firm shall be responsible for the removal and disposal of all existing DMS, components, structures and foundations. The Design-Build Firm shall partially remove all existing drill shaft foundations per FDOT 110 Specification. The Design-Build Firm shall provide the Department with As-Built plan showing Global Positioning System (GPS) coordinates (sub-foot accuracy) for each existing DMS foundation. Existing DMS locations are provided in Table 1 section VI.P.2.

The Design Build Firm shall disassemble, retain and supply the internal communication components from the existing DMS enclosures to the FDOT ITS Project Manager. Said components shall include the DMS light boards, CPU comm cards, display driver panel and pixel panels. The Design Build Firm shall deliver

all retained equipment to an FDOT inventory facility specified by the FDOT ITS Project Manager and shall properly dispose of all non-salvageable equipment, to include but not limited to DMS enclosures with components and sign structure, at the expense of the Design-Build Firm.

2. New Dynamic Message Signs (DMS)

The work in this section specifies the type of Dynamic Message Signs that the Design-Build Firm shall be responsible for furnishing and installing. These items of work shall consist of furnishing and installing Dynamic Message Signs using Light Emitting Diode (LED) technology in accordance with these requirements and their respective structures and mounting hardware. The DMS shall be equipped with two (2) controllers; one located in the DMS pole mounted maintenance cabinet and one to be located inside the ground mount cabinet (local hub).

The Design-Build Firm shall develop a design such that the placement of the proposed DMS structure is no more than fifty feet from the existing DMS; however, if extenuating circumstances prevent this, then Design-Build Firm may propose a new location but must list the extenuating circumstances within their Technical Proposal. The proposed DMS structure shall have a line of sight distance of at least 1000 ft. The DMS shall provide a minimum vertical clearance as per the latest FDOT Plans and Preparation Manual. If the minimum vertical clearance cannot be obtained, the Design-Build Firm shall submit an alternative design within their Technical Proposal.

3. DMS Enclosure:

The sign shall be a full LED matrix of 54 X 210 pixels, full color, walk-in type display enclosure. The display technology shall be composed of multiple red, green, and blue high resolution LEDs and shall not rely on any mechanical components or other pixel technologies, such as fiber optic, flip disk, combination flip disk-fiber optic, combination flip disk-LED, liquid crystal, LED Lenses or incandescent lamp. The display panel shall be 100% solid state with no moving parts except for the environmental control fans and thermostats. The DMS shall be able to display messages composed of graphic images across multiple frames.

No field hardware modifications or programming modifications shall be required to exchange or replace individual display panels. The DMS shall contain LED display modules that include an LED pixel array and LED driver circuitry. These modules shall be mounted adjacently in a two-dimensional array to form a continuous LED pixel matrix. The failure of one LED shall not affect the operation of the other LED's in that string. The display enclosure shall contain the LED Display Modules, Dynamic Message Sign (DMS) Driver, electronics, electrical and mechanical devices required.

Sign enclosures placed on cantilever structures shall be mounted on a fifty foot arm and shall not require the placement of additional guardrail or other protective device. The DMS structure shall not be located within clear zone. If in some cases the mounting requirements cannot be achieved, then the Design-Build Firm shall submit an alternative solution within their Technical Proposal.

4. Cabinet and Equipment:

The Design Build Firms shall furnish and install a pole mounted maintenance cabinet at all DMS locations. The new cabinet shall house the DMS auxiliary controller and provide power and surge protection for the use of a technician laptop. The mounting requirements for the display enclosure and the equipment cabinet to include power shall be designed by the Design-Build Firm.

ii. Closed Circuit Television (CCTV)

In the event that the camera view of a DMS message is visually hindered due to the DMS being co-located onto a single full span structure, the Design-Build Firm shall either relocate existing CCTV and/or furnish and install additional CCTV's at said location(s). The additional CCTV camera's primary purpose shall be to provide optimal viewing of the messages projected on the new DMS installed on full span structures and the secondary purpose is to provide adequate roadway coverage of the corridor it is installed on. Adequate coverage is to include at a minimum site lines for corridor that provide adequate information to determine the queuing length on ramps. If one or more additional CCTV cameras are required to provide full coverage then they are to be provided at no additional cost to the Department.

Whenever possible, camera poles shall be installed behind existing guardrail and in areas with enough room for off of the highway staging to allow future maintenance without lane closures.

iii. Network Integration:

The DMS signs shall be connected to the Department's network as described below:

1. The DMS Auxiliary Controller located inside the DMS pole mounted maintenance cabinet and proper cabling and surge protection shall be ran to allow for communication between the DMS enclosure to the auxiliary controller. The auxiliary controller shall communicate to the DMS Primary Controller which shall be located in the existing local hub cabinet via fiber optic cable. The DMS Controller located in the existing local hub cabinet shall be connected to the existing Managed Field Ethernet Switch using the same port assignment as the equipment being replaced. If the existing port cannot be used, the Design-Build Firm will coordinate with the FDOT ITS Project Manager to retrieve a new port assignment.

The Design-Build Firm shall be responsible for configuring an IP address for all proposed network addressable equipment. The IP address schematic developed and supplied by FDOT shall be utilized for the newly installed equipment.

iv. Fiber Optic Cable (FOC)

The Design-Build Firm shall install a 12-strand fiber, single mode, FOC as a drop cable from the DMS cabinet (when applicable) to the ground mounted cabinet.

1. Connector Type and Patch Panel

The Design-Build Firm shall install only type SC connectors and preterminated patch panel connections in the DMS cabinet. The Department recommends using the existing patch panels within the ground mounted cabinets where available. In the event that a connector type other than the SC must be used, it must be approved by the FDOT ITS Project Manager. The Design-Build Firm must provide fiber patch cables of sufficient length for all connections and cross connections. Patch cables must be pre-connectorized by the factory with appropriate connector type to connect all ITS equipment.

2. Termination Requirement

A minimum of twelve (12) fibers shall be terminated from the DMS pole mounted cabinet patch panel to the patch panels within the Local hub cabinet.

v. Conduit

New conduit runs, electrical circuits, or other required installations to make the signs functional shall be

provided by the Design-Build Firm. It shall be the responsibility of the Design-Build Firm to and exposed conduit sweeps leading to the DMS structures.

1. Above Ground

The Design-Build Firm is responsible for the removal and disposal of existing DMS conduit and wiring above ground which is attached to the sign structure and conflicts with the installation of the new DMS Sign Assembly. Work also includes the furnishing and installation of all necessary conduits above ground and attached to the sign structure for complete connection to the new DMS Sign Assembly.

2. Under Ground

Fiber Optic conduit shall be HDPE conduit. The conduit shall be a minimum one-inch and a quarter (1.25") in diameter conduit with a minimum of two (2) conduits installed (one for communication and one for power). The color designation for the conduit shall be orange and red with the orange conduit used for communication installation and red for power.

3. Existing Conduit

No existing conduit may be utilized.

4. Testing, Integration and Acceptance:

All equipment furnished by the Design-Build Firm shall be subject to monitoring and testing to determine conformance with all applicable requirements and to ensure proper operation of the DMS within the SunGuide Software. Documentation that demonstrates component performance and operation in conformance to FDOT Specifications and that described in subsequent sections shall be furnished by the Design-Build Firm as part of this project. No separate payment shall be made for the monitoring, testing, test equipment, and documentation of test results, but shall be included in the amount bid for the project scope.

The Design-Build Firm must submit a System Acceptance Test Plan (SATP) to the Department for review and acceptance fourteen days (14) prior to the start of any tests. The SATP shall include at minimum, a table of contents, a list and description of all tests to be performed, test procedure documents for each test, test equipment to be used and the proposed time and date of each test. The SATP can be submitted with the Integration Plan as one document or separately. The Design-Build Firm shall conduct all tests in the presence of the FDOT Project Manager or an FDOT representative. Testing shall take place only on weekdays, which are official working days of the State, unless the Project Manager allows the test to be conducted and/or continued on weekends and non-working days. The Design-Build Firm shall coordinate scheduling test dates with the Department. The Design-Build Firm shall be responsible for conducting and documenting the results of these tests that will be countersigned by an FDOT representative at the end of each test. The signature of Department's representative implies only proof of presence.

The tests below shall be conducted by the Design-Build Firm, in addition to the test described within FDOT Standard Specification:

i. Dynamic Message Sign (DMS) Stand Alone Test

Each DMS furnished, installed, or integrated by the Design-Build Firm shall be tested in accordance with all applicable sections of FDOT's Specification. The tests shall be conducted at the DMS controller

cabinets, and shall include the following as a minimum:

- Verification of proper installation of specified cables and connections between the DMS and the DMS controller.
- Demonstration of local operation of the DMS, including display of a library message, display of an immediate message, and test pattern display.
- Demonstration of display of the DMS status information at the DMS controller, including the message currently displayed on the sign.

ii. Central Control Test

After the Department completes SunGuide software integration, the Design-Build Firm shall perform the Central Control Testing from the RTMC. All central control and monitoring equipment shall be tested at the Regional Transportation Management Center (RTMC). Tests will be coordinated with the Department. The DMS must be capable of displaying messages, blanking messages with one command, display of ASCII characters, pixel test, multiple messages with different time frames, dimming, displaying multiple fonts, and flashing, centering, and left or right justifying messages.

The tests shall include, but not be limited to:

- Verification that all interconnecting cable installations, monitors, network equipment and equipment controllers are in accordance with the specifications.
- Control of each DMS, including display of library messages, immediate messages, and test patterns.
- Display of each DMS status, including message currently displayed.
- Demonstration of full integration of field equipment monitoring and control with the monitoring and control capabilities of the SunGuide Software in use at the time of the test.
- Verification that database parameters and addressing for new devices were properly entered to allow communications between the SunGuide Software and the new field devices.
- Verification of PTZ, iris and focus control of each CCTV from SunGuide.
- Verification of video live feed to the RTMC

After the successful completion of the Central Control Test of ALL DMS's and other ITS devices, the Design-Build Firm shall perform the System Acceptance Test from the RTMC.

iii. System Acceptance Test (SAT)

The system acceptance test shall demonstrate that all equipment furnished, adjusted, or modified by the Design-Build Firm has been installed properly and operates as a fully functional system. Prior to initiating the System Acceptance Test, all in place component tests, SunGuide software integration and the central control test shall have been successfully conducted by the Design-Build Firm in the presence of the FDOT Project Manager or designated representative.

The system acceptance test will begin within seven (7) days after the FDOT Project Manager receives a written notice of intend to begin by the Design-Build and once the FDOT Project Manager is satisfied that all work has been completed.

The newly installed ITS devices shall be activated and left on for sixty (60) consecutive days. During this

period, all materials and components of the newly installed ITS devices shall operate as specified and without any failure.

In the event that any Design-Build Firm provided component of any newly install ITS device malfunctions or operates below the level specified within FDOT Specifications, the system acceptance test period will be terminated, and the Design-Build Firm shall be required to determine and correct the problems, including repair and replacement of equipment, at no cost to the Department.

The Design-Build Firm shall respond with a qualified technical representative on site to determine and correct any problems within twenty-four (24) hours, following notification by the Department. Upon correction of the problems, to the satisfaction of the Department, it shall be at the sole discretion of the Department to determine to either restart the 60-day SAT or to extend the 60-day SAT period by the number of days lost due to failure and repair time.

In the event a malfunction is the result of equipment not installed by the Design-Build Firm (e.g., power service, leased telephone circuits), the system acceptance test period will be suspended until correction of these problems by others.

iv. System Acceptance

Upon determination from the Department in writing that the newly installed ITS devices have completed the sixty (60) day system acceptance test period and is in conformance with the requirements of the Plans and Standard Specification, the Project will have achieved Final Acceptance.

5. ITS Plans and Specifications:

The Design-Build Firm shall prepare design plans and provide necessary documentation for the procurement and installation of the ITS. The Design-Build Firm shall submit 90% and 100% (final) design plans and technical special provisions to the Department for review and acceptance. The Design-Build Firm shall state the number of submittals and its contents in the Technical Proposal. The construction plan sheets identifying the final design shall include, but not limited to:

- Title sheet
- Tabulation of Quantities with Pay Item Numbers
- General Notes
- Legend
- Traffic Control Plans
- Project Layout / Overview sheets outlying the locations of ITS field elements
- Fiber optics communications and routing index sheets
- Plan sheets providing details on ITS field device locations and interface with the fiber optics communications cables, fiber optic cable routing and outside plant facilities including pull boxes, cabinets, fiber optic vaults, outlying structures and roadways, etc.,
- Roadway Cross-sections at ITS field locations
- Detail sheets on:
 - DMS Structure, DMS attachment, DMS display/layout

- Fiber optic splice and conduit
- Power Service Distribution
- Wiring and connection details for all ITS elements
- Conduit, pull box, vault, conduit and installation
- Communication Hub and Field Cabinets
- System-level block diagrams
- Device-level block diagrams
- Field hub/router cabinet configuration details
- Fiber optic Splicing Diagrams
- System configuration/Wiring diagram/Equipment Interface for the ITS field equipment at individual locations and communications hubs
- Tabulation of Equipment connection list

The Design-Build Firm shall prepare, submit and seek Department acceptance for all the required Plans, schematic diagrams, cabling/wiring diagrams, splice diagrams, and other pertinent information related to the equipment, materials and incidentals for the installation of cabinets, CCTV cameras, DMS, non-intrusive vehicle detection, communications network equipment, distribution conduit facilities, etc. prior to the commencement of the installation phase.

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 for the Project.

B. Submittal Requirements:

The Technical Proposal and required attachments shall be submitted in hard copy and on CD as per the instructions below. It is solely the Design Build Firm's responsibility to ensure that the Technical Proposal is received by the Department by the due date and time shown in Section 2 above. Proposals received after the due date and time will be considered non-responsive and the corresponding Price and Technical Proposals will not be considered. The Technical Proposal shall be prepared and presented as shown below.

Paper size: 8 ½" x 11". The maximum number of pages allowed for the Technical Proposal shall be a 10 single sided, typed pages including text, graphics, tables, charts, and photographs. Double sided 8 ½" x 11" sheets will be counted as 2 pages. A minimum font size of ten (10), Times New Roman shall be used at all times. Larger sheets are prohibited.

Submit 1 Original, 1 CD, and Four (4) hard copies of the Technical Proposal to:

Mr. Roger Masten
Florida Department of Transportation
719 South Woodland Boulevard. MS 4-524
DeLand, Florida 32720

The minimum information to be included:

Section 1: Written Technical Proposal

- **Approach and Understanding of the Project:**

Present a plan for completing the specified work. The plan should address all significant design and construction issues and constraints and should demonstrate efficient use of manpower, materials, equipment, construction schemes, and techniques for completing the project. Coordination with the Department on public involvement, railroad encroachments, and affected utilities shall also be discussed in this section.

- **Staffing:**

- Contractor Name & Applicable Prequalification Work Classes:
- Construction Project Manager:
- Construction Superintendant: Specialty (Intelligent Transportation Systems)
- Consulting Engineer Name and Applicable Prequalified Work Types:
- Subconsultant Name(s) and Applicable Prequalified Work Types:
- Design Project Manager:
- Design Engineer of Record: Specialty (Intelligent Transportation Systems)
- MOT Certified Designer:
- Design Structures Engineer
- Geotechnical Engineer & Foundation Design
- ITS Integration Specialist
- Telecommunications Engineer
- QA/QC Manager
- Specification Package Technician

- **Responsible Office:**

Design-Build Firms being considered for this Project may have more than one office location. The office assigned responsibility for the work shall be identified in the Technical Proposal. If different elements of the work will be done at different locations, those locations shall be listed with the work to be completed at these locations.

Section 2: Preliminary Plans

The Design/Build Firm shall provide preliminary plans necessary to convey the intent of the concept.

- Paper size: 11" x 17"

Maximum allowed pages for Plans: 50 page limit

The minimum information to be included in the preliminary design requirements is as follows:

Roadway

- Project Limits
- Major topographic features
- Utility provisions
- Maintenance of traffic provisions
- Guide Signing and ITS

Structures

- General Notes
- Plan and elevation of CCTV and DMS support structure and foundation, including type, size and location of structural elements
- Proposed Foundation Types and Location
- Minimum vertical and horizontal clearances
- Basic material properties (concrete strengths, classifications)
- Proposed means and methods of construction
- Proposed method of removal of existing DMS structures and final disposition

C. Evaluation Criteria:

The Department shall open all Bids received at a public Bid opening on the date found in Section II of this RFP. The Technical Review Committee will review the Technical Proposal of the Lowest Bidder. The Technical Review Committee will then establish if the Technical Proposal of the Lowest Bidder is responsive or non-responsive based on the criteria described in this RFP. If the Proposal is responsive, that Design-Build Firm will be awarded the Project. If the Proposal is found to be non-responsive, the Technical Review Committee will review the Technical Proposal of the next Lowest Bidder and establish if the Technical Proposal is responsive or non-responsive based on the criteria described in this RFP, and so on.

D. Final Selection Process:

The Project shall be awarded to the responsive Bidder with the lowest Price Proposal under the maximum bid price with the highest Option as defined by the "Description of Work" section of this RFP.

With the maximum bid price and the use of Options, the Department's goal is to maximize the construction within the available funding. The goal of the Department is to construct as much of the scope as possible, specifically the construction of Option One. To accomplish this goal, the evaluation criteria for this project are different than other Design-Build projects. The Design-Build Firm that proposes the most work under the Maximum Bid Price will be selected. In the event that two firms bid the exact same amount for the maximum scope option and the TRC determines that both Firms are responsive, the Selection Committee will make the final decision.

VIII. BID PROPOSAL REQUIREMENTS.

A. Bid Price Proposal:

Bid Price Proposals shall be submitted using **Bid Express only** and shall include one lump sum Price for each of the three options described in this Request for Proposal. **No other means of submission of Bid Price Proposals will be accepted.** For more information on Bid Express, refer to the Contracts Administration Website at: <http://www.dot.state.fl.us/cc-admin/CPP Online Ordering/bidder assist.shtm> The lump sum price for each Option 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 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 of the Project will be full, complete, and final compensation for the work required to the Project.