Florida Department of Transportation
District 1

DESIGN-BUILD
REQUEST FOR PROPOSAL
for
I-4 at SR 557 Interchange

Polk County

Financial Projects Number(s): 201215-3-52-01
Federal Aid Project Number(s): D118 043 B
Contract Number: E1R76

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ATTACHMENTS

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REFERENCE DOCUMENTS

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

R01. As-Built Plans
E1N09_42524415201-ROADWAY.pdf
ET1591_43130115201-ROADWAY.pdf
E1089_42731525201-FOG-VISABILITY-ITS.pdf
T1591_43130115201-ROADWAY.pdf
T1591_43130115201-SIGNINGMARKING.pdf
T7167_40936645201_ITS.pdf
E1K75_20121435201-ROADWAY.pdf
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20121012101_DesignChangeReevaluation_2002.pdf
20121012101_DesignAuthorization_2014.pdf
20121012201_DesignChangeConstructionAdvertisement_2019.pdf

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ATT_Transmission_RGB.pdf
ATT_Transmission_UWS.pdf
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Frontier_RGB.pdf
Frontier_UWS.pdf
Gulfstream-Greenline.pdf
TECO_RGB.pdf
TECO_UWS.pdf

Introduction.

The Florida Department of Transportation (Department) has issued this Request for Proposal (RFP) to solicit competitive bids and proposals from Proposers for the design and construction of the I-4 (SR 400) at SR 557 Interchange, in Polk County.

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

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

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

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

The Design Build Firm shall provide to the Department an estimate of the purchase price of the land from the property owner and any conditions related to the purchase. The Department will provide to the successful Design-Build Firm an estimate of all costs related to the acquisition and use of the additional

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

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

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

Description of Work

The project consists of the reconstruction of the I-4 at SR 557 interchange from an existing partial cloverleaf interchange configuration to a diamond interchange. The intent of this project is to prepare the median along I-4 to accommodate the future multi-modal corridor with provisions for special purpose (express) lanes and a high speed rail (HSR) corridor. The improvements to the interchange at I-4 with SR 557, as well as the improvements to SR 557, shall meet the traffic capacity needs for the Design Year 2044 and improve safety.

The current I-4 median width is insufficient to accommodate both the existing six travel lanes and the future multimodal corridor within the vicinity of the SR 557 interchange. As a result, this project will modify SR 557 and I-4 within the interchange area to be compatible with the I-4 Master Plan (Ultimate) Typical Section that includes six general purpose lanes, four express lanes and a High Speed Rail (HSR) corridor.

This interchange improvement project realigns the existing eastbound and westbound general use travel lanes to the outside to coincide with the I-4 Ultimate alignment. The new realigned roadway consists of six 12-foot wide travel lanes, three eastbound and three westbound, with 12-foot wide (10-foot paved) inside and outside shoulders, separated by a 192'-6" wide depressed grassed median to accommodate the future express lanes and rail corridor, to be constructed by others. The minimum horizontal clear zone of 36-feet is provided.

It is anticipated that the future express lanes will consist of two 12-foot wide travel lanes with 10-foot wide paved shoulders, in each direction, with a 2-foot wide concrete barrier wall from the general-use lanes, separated by the HSR corridor.

The future HSR corridor, constructed by others, requires a minimum 44-foot envelope width, as formerly established by Florida High Speed Rail (FHSR), measured from the face of the roadside barrier protection. A 14.5-foot horizontal offset shall be provided from the centerline of rail to the face of the roadside barrier wall with a typical 15-foot separation between the two centerlines of track. However, if an intermediate pier is introduced in the rail envelope, additional horizontal offset requirements will result in a wider rail envelope under the proposed bridge. The lateral offset measured from the centerline of track to any adjacent structure, in a tangent section is 18-feet with a crash wall or 25-feet without a crash wall. The depth of the footing shall allow for a future crash wall to be constructed by others, if required. In addition, the edges of bridge footings shall not be closer than 11-feet from the centerline of track to provide adequate room for sheeting, per FDOT FDM.

SR 557 will be reconstructed to 4-travel lanes, two in each direction, within the limits of the State's limited access right-of-way, with roadway transitions to the existing two-lane County Road (CR 557) north and south of the interchange. Dual teardrop shaped roundabouts will be provided on SR 557 at the I-4 on and off-ramp terminals.

The existing two lane bridge (Bridge No. 160114) over I-4 will be replaced with a new four lane bridge that accommodates the necessary horizontal and vertical clearances over the I-4 ultimate corridor. The proposed bridge typical section will be 73'-8" wide, consisting of four 11-foot wide travel lanes (two northbound lanes and two southbound lanes) with 10-foot wide outside shoulders, separated by a 7-foot median that includes a 4- foot concrete traffic separator, and 1.5-foot wide inside shoulders. Single slope traffic railings are provided on each side of the bridge. The bridge deck will have a uniform 2% cross slope to the outside. Class 5 finish shall be applied to the exterior face of barriers, sides and bottom of pier cap, all sides of pier columns, MSE wall and wall coping, and exposed face of exterior beams.

The vertical profile grade shall provide a minimum vertical clearance of 24'-3" from the bottom of the superstructure to the top of future rail, within the rail envelope, as shown in the Typical Section Package, Attachment Document A07. The top of rail elevation is 141.23-feet (N.A.V.D. 88), established by the Florida High Speed Rail (FHSR) Concept Plans - Tampa to Orlando Corridor Project (FPID 190258-1-32-46). The 24'-3" vertical clearance meets the minimum requirements for future electrification of the rail system, per FDOT FDM. The minimum vertical clearance of 16'-6" shall be provided over the I-4 eastbound and westbound general-use lanes and future express lanes.

A new wildlife crossing will be provided under I-4, centered at approximate Sta. 1691+40, to facilitate the movement of wildlife between the north and south sides of I-4 to the Hilochee Wildlife Management Area. Construct parallel twin bridges along the realigned I-4 eastbound and westbound travel lanes, to span an open trapezoidal channel lined with dry shelves for the animals to traverse. Each bridge will provide a minimum 8-foot vertical clearance over the seasonal high water (SHW) elevation in the channel. Two dry shelves will be provided on each side of the channel with the lower shelf at the (SHW) elevation and the upper shelf at one-foot above SHWE, separated by a 1V:2H sand cement riprap slope. The shelves will be a minimum of 6-feet wide with a soft soil cover. Wildlife fencing will be provided along the I-4 limited access right-of-way line to channelize wildlife movement through the undercrossing from east of SR 557 to approximate Sta. 1716+80.

Each wildlife crossing bridge will provide for three 12-foot travel lanes with 10-foot inside and outside shoulders and the necessary traffic barriers.

Provide Emergency Stopping Sites at both I-4 off-ramps (Ramps B and D) to SR 557. The deceleration length from mainline gore to entrance of the Emergency Stopping Site is to be based desirably on 70 mph

to 0 mph, but no less than 70 mph to 20 mph. The typical Emergency Stopping Site should be 24 feet wide by 150 feet long. Tapers into and out of the site are to be used. The site should be offset 8 feet from the outside edge of shoulder pavement creating a paved flush island either left or right side of the ramp. The width (24-feet typical) can vary, depending upon location, from a minimum of 12 feet to a maximum of 36 feet. The area of storage for vehicles should be desirably 3,600 square feet, but no less than 3,000 square feet. The eight (8) foot wide flush island should be striped (18 inches wide/45°/10' C-C markings). Place tubular markers at 10 foot centers in the centerline of the flush island. The pavement structure for the Emergency Stopping Sites, including the flush island, is to be the same as new ramp shoulder construction. Mainline signing and ramp signing is required to identify the Emergency Stopping Sites. The site is also required to have signing identifying it as an Emergency Stopping Site.

The Intelligent Transportation Systems (ITS) infrastructure that is impacted by the project will be replaced. The work includes Dynamic Message Signs (DMS), CCTV Cameras, Microwave Vehicle Detection System (MVDS), Wrong Way Vehicle Detection System (WWVDS), Managed Field Ethernet Switches (MFES), Power Service Distribution, Permanent Generator Power Backup, and Fog Detection/Low Visibility Warning System components. The work also includes removal of any ITS components that are impacted by the construction that are not to remain. The Design-Build Firm shall re-establish connection of the ITS devices to the District's network and perform standalone, sub-system, system level and MVDS validation testing of the devices to provide a fully integrated system with SunGuide and District Seven's network at the D7 SunGuide Center.

The Permanent Traffic Monitoring Site (PTMS), located at Sta. 1610+00, will be replaced. The basic components of the PTMS are embedded, in-road traffic sensors (inductive loops and piezoelectric sensors), sensor lead-in cables, traffic count equipment cabinet, aluminum pole, junction (pull) boxes, terminal block, grounding material, wire and conduit as necessary to connect the system. The intent of this Project is to replace, repair or rehabilitate all deficiencies noted in the RFP within the Project limits such that maintenance work required upon Final Acceptance is limited to routine work. The PTMS must adhere to Design Standard 695-001 and the Standard Specification for Road and Bridge Construction 695 (latest editions). The FDOT Transportation and Data Analytics (TDA) office (850-921-7300) requires a 10 working days' notice prior to any work being done near the PTMS to allow a technician to remove the cabinet's equipment to avoid damage. The FDOT TDA office requires a 10 working days' notice prior to the installation of the inductive loops and non-weight axle sensors for the inspection of the sensor installation.

A. Design-Build Responsibility

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

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

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

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

The Design-Build Firm may propose changes which differ from the approved Interchange Access Request (if applicable) and/or the Project Development & Environment (PD&E) Study. Proposed changes must be coordinated through the Department. If changes are proposed to the configuration, the Design-Build Firm shall be responsible for preparing the necessary documentation required for the Department to analyze and satisfy requirements to obtain approval of the Department, and if applicable, the Office of Environmental Management (OEM) for the NEPA document, or FHWA for the Interchange Access Request document. 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 NEPA document or SEIR Reevaluations, per Section O (Environmental Services/Permits/Mitigation) of the RFP. The Design-Build Firm will not be compensated for any additional costs or time resulting from proposed changes.

The Design-Build Firm shall examine the Contract Documents and the site of the proposed work carefully before submitting a Proposal for the work contemplated and shall investigate the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished and as to the requirements of all Contract Documents. Written notification of differing site conditions discovered during the design or construction phase of the Project will be given to the Department's Project Manager.

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

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

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

B. Department Responsibility

The Department will provide contract administration, management services, construction engineering inspection services, environmental oversight, and quality acceptance reviews of all work associated with the development and preparation of the contract plans, permits, and construction of the improvements. The Department will provide Project specific information and/or functions as outlined in this document.

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

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

I. Schedule of Events.

Below is the current schedule of the events that will take place in the procurement process. The Department reserves the right to make changes or alterations to the schedule as the Department determines is in the best interests of the public. Proposers will be notified sufficiently in advance of any changes or alterations in the schedule. Unless otherwise notified in writing by the Department, the dates indicated below for submission of items or for other actions on the part of a Proposer shall constitute absolute deadlines for those activities and failure to fully comply by the time stated shall cause a Proposer to be disqualified.

Date	Event
Monday, July 15, 2019	Planned Advertisement
Monday, July 29, 2019	Official Advertisement
Monday, August 19, 2019	Letters of Interest for Phase I of the procurement process due in District Office by 5:00 pm local time
Monday, September 16, 2019	Proposal Evaluators submit Letter of Interest Scores to Contracting Unit 12:00 pm local time
Thursday, September 19, 2019	Contracting Unit provides Letter of Interest scores and Proposal Evaluators comments to Selection Committee 2:00 pm local time
Thursday, October 3, 2019	Public Meeting of Selection Committee to review and confirm Letter of Interest scores 10:00 am local time
Monday, October 7, 2019	Shortlist Posting 4:00 pm local time
Monday, October 14, 2019	Final RFP provided to Design-Build Firms continuing to Phase II of the procurement process
Monday, October 21, 2019	Mandatory Pre-Proposal meeting at 9:30 am local time in District One Headquarters, 801 N. Broadway Ave., Bartow, FL 33830. All Utility Agency/Owners that the Department contemplates an adjustment, protection, or relocation is possible are to be invited to the Mandatory Pre-Proposal Meeting.
Monday, October 21, 2019	Utility Pre-Proposal Meeting facilitated by the District Utility Engineer at 9:30 am local time at District One Headquarters, 801 N. Broadway Ave., Bartow, FL 33830
Monday, October 28, 2019	Deadline for Design-Build Firm to request participation in One-on-One Alternative Technical Concept Discussion Meeting No. 1.
Monday, November 4, 2019	Deadline for Design-Build Firm to submit preliminary list of Alternative Technical Concepts prior to One-on-One Alternative Technical Concept Discussion Meeting No. 1 5:00 am/pm local time
Tuesday, November 12, 2019	One-on-One Alternative Technical Concept Discussion Meeting No. 1. 90 Minutes will be allotted for this Meeting.
Wednesday, December 18, 2019	Deadline for submittal of Alternative Technical Concept Proposals 5:00 pm local time.
Wednesday, December 18, 2019	Final deadline for submission of requests for Design Exceptions or Design Variations. 5:00 pm local time
Wednesday, January 8, 2020	Deadline for Department Responses to Alternative Technical Concept Proposals
Wednesday, January 22, 2020	Addendum issued for approved Design Exceptions.
Wednesday, January 29, 2020	Deadline for Design-Build Firm to request participation in One-on-One Alternative Technical Concept Discussion Meeting No. 2.
Wednesday, February 5, 2020	One-on-One Alternative Technical Concept Discussion Meeting No. 2. 60 Minutes will be allotted for this Meeting. This ATC meeting is for continuing discussion on ATCs submitted prior to December 18, 2019 for which the Department requested additional information and

	were not approved or for new ATCs that are a direct response to an Addendum issued on or after November 13, 2019.
Wednesday, February 12, 2020	Deadline for submittal of Alternative Technical Concept Proposals for which the Department requested additional information and were not approved or for new ATCs that are a direct response to an Addendum issued on or after. Deadline is 5:00 pm local time.
Wednesday, February 26, 2020	DDE completes review of ATCs and notifies Design-Build Firms.
Wednesday, March 11, 2020	Deadline for submittal of questions, for which a response is assured, prior to the submission of the Technical Proposal. All questions shall be submitted to the Pre-Bid Q&A website.
Wednesday, March 18, 2020	Deadline for the Department to post responses to the Pre-Bid Q&A website for questions submitted by the Design-Build Firms prior to the submittal of the Technical Proposal.
Friday, March 27, 2020	Technical Proposals due in District Office by 5:00 p.m. local time
Friday, March 27, 2020	Deadline for Design-Build Firm to "opt out" of Technical Proposal Page Turn meeting.
Friday, April 3, 2020	Technical Proposal Page Turn Meeting. Times will be assigned during the Pre-Proposal Meeting. 30 Minutes will be allotted for this Meeting.
Tuesday, April 21, 2020	Question and Answer Written Reponses. Deadline for the Department to provide a list of questions/clarifications for the Design-Build Firm to answer.
Tuesday, April 28, 2020	Deadline for submittal of Question and Answer Written Responses to the Department's questions/clarifications from the Design-Build Firm. 5:00 pm local time
Wednesday, May 6, 2020	Deadline for submittal of follow up questions to previously submitted Question and Answer Written Responses to the Department's questions/clarifications from the Design-Build Firm. 5:00 pm local time
Wednesday , May 13, 2020	Deadline for submittal of questions, for which a response is assured, prior to the submission of the Price Proposal. All questions shall be submitted to the Pre-Bid Q&A website.
Wednesday May 13, 2020	Deadline for the Design-Build Firm to submit a written statement per Section III. Threshold Requirements, F. Question and Answer Written Responses
Wednesday, May 20, 2020	Deadline for the Department to post responses to the Pre-Bid Q&A website for questions submitted by the Design-Build Firms prior to the submittal of the Price Proposal.
Friday, May 22, 2020	Price Proposals due in District Office by 11:00 am local time.
Friday, May 22, 2020	Public announcing of Technical Scores and opening of Price Proposals at 11:00 am local time in District One Headquarters, 801 N. Broadway Ave., Bartow, FL 33830.
Thursday, June 4, 2020	Public Meeting of Selection Committee to determine intended Award at 10:00 am.
Thursday, June 4, 2020	Posting of the Department's intended decision to Award at 4:00 pm.
Thursday, June 18, 2020	FHWA Concurrence to Award
Wednesday, June 24, 2020	Anticipated Award Date
Thursday, July 9, 2020	Anticipated Execution Date

II. Threshold Requirements.

A. Qualifications

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

B. Joint Venture Firm

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

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

C. Price Proposal Guarantee

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

D. Pre-Proposal Meeting

Attendance at the pre-proposal meeting is mandatory. Any Short-Listed Design-Build Firm failing to attend will be deemed non-responsive and eliminated from further consideration. The purpose of this meeting is to provide a forum for the Department to discuss with all concerned parties the proposed Project, the design and construction criteria, Critical Path Method (CPM) schedule, and method of compensation, instructions for submitting proposals, Design Exceptions, Design Variations, and other relevant issues. In the event that any discussions at the pre-proposal meeting require official additions, deletions, or clarifications of the Request for Proposal, the Design and Construction Criteria, or any other document, the Department will issue a written addendum to this Request for Proposals as the Department determines is appropriate. No oral representations or discussions, which take place at the pre-proposal meeting, will be binding on the Department. FHWA will be invited on Projects of Division Interest (PoDIs), in order to discuss the Project in detail and to clarify any concerns. Proposers shall direct all questions to the Departments Question and Answer website:

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

Failure by a Proposer to attend or be represented at the pre-proposal meeting will constitute a non-responsive determination of their bid package. Bids found to be non-responsive will not be considered. All Proposers must be present and signed in prior to the start of the mandatory pre-proposal meeting. The convener of the meeting will circulate the attendee sign in sheet at the time the meeting was advertised to begin. Once all Proposers have signed, the sign in sheet will be taken and the meeting will "officially" begin. Any Proposer not signed in at the "official" start of the meeting will be considered late and will not be allowed to propose on the Project.

E. Technical Proposal Page-Turn Meeting

The Department will meet with each Proposer, formally for thirty (30) minutes, for a page-turn meeting. FHWA will be invited on Projects of Division Interest (PoDIs). The purpose of the page-turn meeting is for the Design-Build Firm to guide the Technical Review Committee through the Technical Proposal, highlighting sections within the Technical Proposal that the Design-Build Firm wishes to emphasize. The page-turn meeting will occur between the date the Technical Proposal is due and the Question and Answer Written Response occurs, per the Schedule of Events section of this RFP. The Department will terminate the page-turn meeting promptly at the end of the allotted time. The Department will record all of the page-turn meeting. All recordings will become part of the Contract Documents. The page-turn meeting will not constitute discussions or negotiations. The Design-Build Firm will not be permitted to ask questions of the Technical Review Committee during the page-turn meeting. Roll plots submitted with the Technical Proposal and an unmodified aerial or map of the project limits provided by the Design-Build Firm is acceptable for reference during the page-turn meeting. The unmodified aerial or map may not be left with the Department upon conclusion of the page turn meeting. Use of other visual aids, electronic presentations, handouts, etc., during the page turn meeting is expressly prohibited. Upon conclusion of the thirty (30) minutes, the Technical Review Committee is allowed five (5) minutes to ask questions pertaining to information highlighted by Design-Build Firm. Participation in the page-turn meeting by the Design-Build Firm shall be limited to eight (8) representatives from the Design-Build Firm. Design-Build Firms desiring to opt out of the page-turn meeting may do so by submitting a request to the Department.

F. Question and Answer Written Responses

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

The Design-Build Firm shall submit to the Department a written letter answering the questions provided by the Department. The questions and written answers/clarifications will become part of the Contract Documents and will be considered by the Department as part of the Technical Proposal.

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

statements, terms, concepts and designs are the obligations of [insert name of the Design-Build Firm]." In case of the failure of the Design-Build Firm to timely provide such a written statement, the Department may determine the Design-Build Firm to be deemed non-responsive.

G. Protest Rights

Any person who is adversely affected by the specifications contained in this Request for Proposal must file a notice of intent to protest in writing within seventy-two hours of the posting of this Request for Proposal. Pursuant to Sections 120.57(3) and 337.11, Florida Statutes, and Rule Chapter 28-110, F.A.C., any person adversely affected by the agency decision or intended decision shall file with the agency both a notice of protest in writing and bond within 72 hours after the posting of the notice of decision or intended decision, or posting of the solicitation with respect to a protest of the terms, conditions, and specifications contained in a solicitation and will file a formal written protest within 10 days after the filing of the notice of protest. The formal written protest shall be filed within 10 days after the date of the notice of protest if filed. The person filing the Protest must send the notice of intent and the formal written protest to:

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

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

H. Non-Responsive Proposals

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

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

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

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

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

I. Waiver of Irregularities

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

1. Any design submittals that are part of a proposal shall be deemed preliminary only.

2. Preliminary design submittals may vary from the requirements of the Design and Construction Criteria. The Department, at their discretion, may elect to consider those variations in awarding points to the proposal rather than rejecting the entire proposal.

3. In no event will any such elections by the Department be deemed to be a waiving of the Design and Construction Criteria.

4. The Proposer who is selected for the Project will be required to fully comply with the Design and Construction Criteria for the price bid, regardless that the proposal may have been based on a variation from the Design and Construction Criteria.

5. Proposers shall identify separately all innovative aspects as such in the Technical Proposal. An innovative aspect does not include revisions to specifications or established Department policies. Innovation should be limited to Design-Build Firm's means and methods, roadway alignments, approach to Project, use of new products, new uses for established products, etc.

6. The Proposer shall obtain any necessary permits or permit modifications not already provided.

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

J. Modification or Withdrawal of Technical Proposal

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

K. Department's Responsibilities

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

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

L. Design-Build Contract

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

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

III. Disadvantaged Business Enterprise (DBE) Program.

A. DBE Availability Goal Percentage:

The Department of Transportation has an overall, race-neutral DBE goal. This means that the State's goal is to spend a portion of the highway dollars with Certified DBE's as prime Design-Build Firms or as subcontractors. Race-neutral means that the Department believes that the overall goal can be achieved through the normal competitive procurement process. The Department has reviewed this Project and assigned a DBE availability goal shown in the Project Advertisement and on the bid blank/contract front page under "% DBE Availability Goal". The Department has determined that this DBE percentage can be achieved on this Project based on the number of DBE's associated with the different types of work that will be required.

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

The Department is reporting to the Federal Highway Administration the planned commitments to use DBE's, as well as actual dollars paid to DBE's. This information is being collected through the Department's Equal Opportunity Compliance (EOC) system. Additional requirements of the Design-Build Firm may be found in Chapter 2 of the FDOT Equal Opportunity Construction Contract Compliance Manual.

B. DBE Supportive Services Providers:

The Department has contracted with 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 DBE Supportive Services Provider for the State of Florida can be found in the Equal Opportunity website at: http://www.fdot.gov/equalopportunity/serviceproviders.shtm

C. Bidders Opportunity List:

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

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 entered into the Equal Opportunity Compliance System within 3 business days of submission of the bid or proposal.

IV. Project Requirements and Provisions for Work.

A. Governing Regulations:

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

1. Florida Department of Transportation Design Manual (FDM)
   http://www.fdot.gov/roadway/FDM/

2. Florida Department of Transportation Specifications Package Preparation Procedure
   http://www.fdot.gov/programmanagement/PackagePreparation/Handbooks/630-010-005.pdf

3. Florida Department of Transportation Standard Plans for Road and Bridge Construction
   http://www.fdot.gov/design/standardplans/
4. Standard Plans Instructions (Refer to Part I, Chapter 115, FDM)
   http://www.fdot.gov/roadway/FDM/

5. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications
   http://www.fdot.gov/programmanagement/default.shtm

6. Florida Department of Transportation Surveying Procedure 550-030-101
   http://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/FormsAndProcedures/ViewDocument?topicNum=550-030-101

7. Florida Department of Transportation EFB User Handbook (Electronic Field Book)
   http://www.fdot.gov/geospatial/doc_pubs.shtm

8. Florida Department of Transportation Drainage Manual

http://www.fdot.gov/roadway/Drainage/ManualsandHandbooks.shtm

9. Florida Department of Transportation Soils and Foundations Handbook
http://www.fdot.gov/structures/Manuals/SFH.pdf

10. Florida Department of Transportation Structures Manual
http://www.fdot.gov/structures/DocsandPubs.shtm

11. Florida Department of Transportation Computer Aided Design and Drafting (CADD) Manual
http://www.fdot.gov/cadd/downloads/publications/CADDManual/default.shtm

12. AASHTO – A Policy on Geometric Design of Highways and Streets
https://bookstore.transportation.org/collection_detail.aspx?ID=110

13. MUTCD - 2009
http://mutcd.fhwa.dot.gov/

14. Safe Mobility for Life Program Policy Statement
http://www.fdot.gov/traffic/TrafficServices/PDFs/000-750-001.pdf

15. Traffic Engineering and Operations Safe Mobility for Life Program
http://www.fdot.gov/traffic/TrafficServices/SafetyisGolden.shtm/

16. Florida Department of Transportation American with Disabilities Act (ADA) Compliance – Facilities Access for Persons with Disabilities Procedure 625-020-015
https://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/?viewBy=0&procType=pr

17. Florida Department of Transportation Florida Sampling and Testing Methods
http://www.fdot.gov/materials/administration/resources/library/publications/fstm/disclaimer.shtm

18. Florida Department of Transportation Flexible Pavement Coring and Evaluation Procedure
http://www.fdot.gov/materials/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf

19. Florida Department of Transportation Design Bulletins and Update Memos
http://www.fdot.gov/roadway/Bulletin/Default.shtm

20. Florida Department of Transportation Utility Accommodation Manual
http://www.fdot.gov/programmanagement/utilities/Default.shtm

21. AASHTO LRFD Bridge Design Specifications
https://bookstore.transportation.org/category_item.aspx?id=BR

22. Florida Department of Transportation Flexible Pavement Design Manual
http://www.fdot.gov/roadway/PM/publicationS.shtm

23. Florida Department of Transportation Rigid Pavement Design Manual
http://www.fdot.gov/roadway/PM/publicationS.shtm

24. Florida Department of Transportation Pavement Type Selection Manual
http://www.fdot.gov/roadway/PM/publicationS.shtm

25. Florida Department of Transportation Right of Way Manual
http://www.fdot.gov/rightofway/Documents.shtm

26. Florida Department of Transportation Traffic Engineering Manual
http://www.fdot.gov/traffic/TrafficServices/Studies/TEM/tem.shtm

27. Florida Department of Transportation Intelligent Transportation System Guide Book
http://www.fdot.gov/traffic/Doc_Library/Doc_Library.shtm

28. Federal Highway Administration Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Plans and Specifications
http://www.fhwa.dot.gov/engineering/geotech/pubs/reviewguide/checklist.cfm

29. AASHTO Guide for the Development of Bicycle Facilities
https://bookstore.transportation.org/collection_detail.aspx?ID=116

30. Federal Highway Administration Hydraulic Engineering Circular Number 18 (HEC 18).
http://www.fhwa.dot.gov/engineering/hydraulics/library_arc.cfm?pub_number=17

31. Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways
http://www.fdot.gov/roadway/FloridaGreenbook/FGB.shtm

32. Florida Department of Transportation Project Development and Environment Manual, Parts 1 and 2
http://www.fdot.gov/environment/pubs/pdeman/pdeman1.shtm

33. Florida Department of Transportation Driveway Information Guide
http://www.fdot.gov/planning/systems/programs/sm/accman/pdfs/driveway2008.pdf

34. AASHTO Highway Safety Manual
http://www.highwaysafetymanual.org/

35. Florida Statutes
http://www.leg.state.fl.us/Statutes/index.cfm?Mode=View%20Statutes&Submenu=1&Tab=statutes&CFID=14677574&CFTOKEN=80981948

36. Florida Department of Transportation Equal Opportunity Construction Contract Compliance Manual
http://www.fdot.gov/equalopportunity/contractcomplianceworkbook.shtm

37. Florida Department of Transportation Traffic Monitoring Handbook
https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/statistics/docs/traffic-monitoring-handbook.pdf?sfvrsn=e8a9f204_0

B. Innovative Aspects:

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

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

1. Alternative Technical Concept (ATC) Proposals

The Department has chosen to incorporate in the Design-Build method of project delivery the process

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

The ATC process allows innovation, flexibility, time and cost savings on the design and construction of Design-Build Projects while providing the best value for the public. Any deviation from the RFP that the Design-Build Firm seeks to obtain approval to utilize prior to Technical Proposal submission is, by definition, an ATC and therefore must be discussed and submitted to the Department for consideration through the ATC process. ATCs also include items defined in FDM, Part 1, Chapter 121.3.2. The proposed ATC shall provide an approach that is equal to or better than the requirements of the RFP, as determined by the Department. ATC Proposals which reduce scope, quality, performance, or reliability should not be proposed. A proposed concept does not meet the definition of an ATC if the concept is contemplated by the RFP.

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

- New Design Exceptions required or modifications to Department approved Design Exceptions already provided in the Attachments.
- Modification to the Pavement Types or approved Pavement Design.
- Modification to the minimum vertical clearance of the SR 557 Bridge over the future rail.
- Significant changes in scope as determined by the Department.

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

- Modifications to the horizontal and/or vertical geometry requiring an ATC submittal as described in Section V, Roadway Design.
- Modification of the number of spans for the SR 557 Bridge over the I-4 Ultimate improvements.
- Modification to the stormwater conveyance system, provided that the design can accommodate the I-4 Ultimate improvements.
- Modifications to the Typical Section Package directly related to the horizontal and/or vertical geometry.

2. One-on-One ATC Proposal Discussion Meetings

One-on-One ATC discussion meetings may be held in order for the Design-Build Firm to describe proposed changes to supplied basic configurations, Project scope, design criteria, and/or construction criteria. Each Design-Build Firm with proposed changes may request a One-on-One ATC discussion meeting to describe

the proposed changes. The Design-Build Firm shall provide, by the deadline shown in the Schedule of Events of this RFP, a preliminary list of ATC proposals to be reviewed and discussed during the One-on-One ATC discussion meetings. This list may not be inclusive of all ATC's to be discussed but it should be sufficiently comprehensive to allow the Department to identify appropriate personnel to participate in the One-on-One ATC discussion meetings.

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

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

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

3. Submittal of ATC Proposals

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

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

a) Description: A description and conceptual drawings of the configuration of the ATC or other appropriate descriptive information, including, if appropriate, product details and a traffic operational analysis;

b) Usage: The locations where and an explanation of how the ATC would be used on the Project;

c) Deviations: References to requirements of the RFP which are inconsistent with the proposed ATC, an explanation of the nature of the deviations from the requirements and a request for approval of such deviations along with suggested changes to the requirements of the RFP which would allow the alternative proposal;

d) Analysis: An analysis justifying use of the ATC and why the deviation, if any, from the requirements of the RFP should be allowed;

e) Impacts: A preliminary analysis of potential impacts on vehicular traffic (during construction), environmental impacts, community impacts, safety, and life-cycle Project and infrastructure costs, including impacts on the cost of repair, maintenance, and operation;

f) Risks: A description of added risks to the Department or third parties associated with implementation of the ATC;

g) Quality: A description of how the ATC is equal or better in quality and performance than the requirements of the RFP including the traffic operational analysis if requested by the Department;

h) Operations: Any changes in operation requirements associated with the ATC, including ease of operations;

i) Maintenance: Any changes in maintenance requirements associated with the ATC, including ease of maintenance;

j) Anticipated Life: Any changes in the anticipated life of the item comprising the ATC;

k) *Handback: Any changes in Handback Requirements associated with the ATC;

l) *Project Revenue: A preliminary analysis of potential impacts on Project Revenue;

m) *Payments: A preliminary analysis of potential impacts on the Upfront Concession Payment and Annual Lease Payment

* These submittal requirements will be needed for Public Private Partnership (PPP) Projects only.

4. Review and Approval of ATC Submittals

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

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

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

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

ATC's are accepted by the Department at the Department's discretion and the Department reserves the right to reject any ATC submitted. The Department reserves the right to issue an Addendum to the RFP based upon a previously denied ATC Proposal, without regard to the confidentiality of the denied ATC Proposal. All Department approvals of ATC submissions are based upon the known impacts on the Project at the time of submission. The Department reserves the right to require a modification or amendment to a previously approved ATC as a result of a contract change which is issued by an addendum subsequent to the Department's initial approval of the ATC.

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

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

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

C. Geotechnical Services:

1. **General Conditions**:

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

D. Department Commitments:

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

Construction of the I-4 interchange at SR 557 will not commence until all state and federal environmental permits needed for project construction have been obtained and the FDOT provides the U.S. Fish and Wildlife Service (FWS) with confirmation (in the form of a letter or email) from one or more Service-approved mitigation banks stating that the required compensatory wetland mitigation has been provided to offset direct and secondary wetland impacts. This is a new commitment made since the EA/FONSI to address the need to acquire the requisite wetland mitigation credits prior to commencement of the Design-Build construction.

E. Environmental Permits:

1. **Storm Water and Surface Water:**

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

2. **Permits:**

The Design-Build Firm shall be responsible for acquiring permits or modifying previously 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, F.A.C.; Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, 23 CFR 771, 23 CFR 636, and parts 114 and 115, Title 33, Code of Federal Regulations. In addition to these Federal and State permitting requirements, any dredge and fill permitting required by local agencies shall be prepared in accordance with their specific regulations. Preparation of all documentation related to the acquisition of all applicable permits will be the responsibility of the Design-Build Firm. Preparation of complete permit packages will be the responsibility of the Design-Build Firm. The Design-Build Firm is responsible for the accuracy of all information included in permit application packages. As the permittee, the Department is responsible for reviewing, approving, and signing, the permit application package including all permit modifications, or subsequent permit applications. This applies whether the Project is Federal or state funded. Once the Department has approved the permit application, the Design-Build Firm is responsible for submitting the permit application to the environmental permitting agency. A copy (electronic and hard copy) of any and all correspondence with any of the environmental permitting agencies shall be sent to the District Environmental Permits Office. If any agency rejects or denies the permit application, it is the Design-Build Firm's responsibility to make whatever changes necessary to ensure the permit application is approved. The Design-Build Firm shall be responsible for any necessary permit extensions or re-permitting in order to keep the environmental permits valid throughout the construction period. The Design-Build Firm shall provide the Department with draft copies of any and all permit applications, including responses to agency Requests for Additional Information, requests to modify the permits and/or requests for permit extensions, for review and approval by the Department prior to submittal to the agencies.

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

The Department is responsible for providing mitigation of all wetland impacts identified in the Southwest Florida Water Management District (SWFWMD) Individual Environmental Resource Permit (ERP) and the U.S. Army Corps of Engineers (USACE) Section 404 Individual Dredge and Fill Permit, included in the Attachments. If any design modifications by the Design-Build Firm propose to increase the amount of wetland impacts such that mitigation is required, the Design-Build Firm shall be responsible for providing the Department information on the amount and type of wetland impacts as soon as the impacts are identified (including temporary impacts and/or any anticipated impacts due to construction staging or construction methods). Prior to submitting a permit modification to a regulatory agency, the Design-Build Firm shall provide the Department a draft of all supporting information. The Department will have up to 15 calendar

days (excluding weekends and Department observed holidays) to review and comment on the draft permit application package. The Design-Build Firm will address all comments by the Department and obtain Department approval, prior to submittal of the draft permit application package. The Design-Build Firm shall be solely responsible for all time and costs associated with providing the required information to the Department, as well as the time required by the Department to perform its review of the permit application package, prior to submittal of the permit application(s) by the Design-Build Firm to the regulatory agency(ies).

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

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

F. Railroad Coordination: Not Applicable

G. Survey:

The Design-Build Firm shall perform all surveying (Terrestrial, Mobile and/or Aerial) and mapping services necessary to complete the Project. Survey services must also comply with all pertinent Florida Statutes (Chapters 177 and 472, F.S.) and applicable rules in the Florida Administrative Code (Rule Chapter 5J-17, F.A.C.). All field survey data will be furnished to the District Surveyor in a Department approved digital format, readily available for input and use in CADD Design files. All surveying and mapping work must be accomplished in accordance with the Department's Surveying and Mapping Procedure, Topic Nos. 550-030-101, and the Surveying and Mapping Handbook.

H. Verification of Existing Conditions:

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

By execution of the contract, the Design-Build Firm specifically acknowledges and agrees that the Design-Build Firm is contracting and being compensated for performing adequate investigations of existing site

conditions sufficient to support the design developed by the Design-Build Firm and that any 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. Component Submittals:

The Design-Build Firm may submit components of the contract plans set instead of submitting the entire contract plan set; however, sufficient information from other components must be provided to allow for a complete review. In accordance with the FDOT Design Manual, components of the contract plans set are roadway, signing and pavement marking, ITS, lighting, landscape, architectural, structural, and toll facilities.

The Design-Build Firm may divide the Project into separate areas and submit components for each area; however, sufficient information on adjoining areas must be provided to allow for a complete review. Submittals for bridges are limited to foundation, substructure, and superstructure. For bridges over navigable waterways, submittals are limited to foundation, approach substructure, approach superstructure, main unit substructure, and main unit superstructure. Further dividing the foundation, substructure, or superstructure into individual elements (i.e. Pier 2, Abutment 1, Span 4, etc.) will not be accepted.

Category 1 and 2 bridge 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.) as outlined in the FDM.
- 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.
- For category 2 bridges, component submittals shall also include independent peer review documentation.

2. Phase Submittals:

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

Submit for Department’s review and approval the Independent Peer Review Firm’s comments, design verifications calculations, and the EOR’s response to the Independent Peer reviewer’s comments in conjunction with the submittal of the 90% component bridge plans for Category 2 Bridge Structures. Include the list of Category 2 structures and the relevant Work Group which the Independent Peer Review Firm is qualified for. The Department will designate in the review comments if the next submittal will be a resubmittal of the 90% phase submittal or if the plans and supporting calculations are

significantly developed to proceed to the Final Submittal.

90% Phase Submittal

4 copies of 11" X 17" plans (all required components)
1 signed and sealed geotechnical report
2 copies of signed and sealed geotechnical report
2 copies of signed and sealed Bridge Hydraulic Report
2 copies of design documentation
2 copies of Technical Special Provisions
Bridge Load Rating Calculations
Completed Bridge Load Rating Summary Detail Sheet
Load Rating Summary Form
Independent Peer Review Firm's comments, design verification calculations, and the EOR's response to the Independent Peer reviewer's comments
4 CD's containing the above information in .pdf format

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

Final Submittal

1 set of signed and sealed 11" X 17" plans (all required documents)
2 copies of signed and sealed 11" X 17" plans
2 sets of signed and sealed design documentation
2 copies of signed and sealed design documentation
1 set of final documentation
1 signed and sealed copy of the Bridge Load Rating Summary Detail Sheet
1 signed and sealed copy of the Load Rating Summary Form
1 signed and sealed Construction Specifications Package or Supplemental Specifications Package
2 copies of signed and sealed copy of Construction Specifications Package or Supplemental Specifications Package
2 sets of electronic copies of Technical Special Provisions on CD
Independent Peer Reviewer's signed and sealed cover letter that all comments have been addressed and resolved.
Independent Peer Review Firm's analysis of the adequacy of the EOR's response to the comments previously provided by the Department and the signed and sealed Peer Review Certification letter.
Independent Peer Review Firm's comments, design verification calculations, and the EOR's response to the Independent Peer reviewer's comments

4 CD's containing the above information in .pdf format

The Design-Build Firm shall provide a list of all changes made to the plans or specifications that were not directly related to the 90% plans review comments. Significant changes (as determined by the Department) made as a part of the Final submittal, that were not reviewed or provided in response to the 90% submittal comments, may require an

additional review phase prior to stamping the plans or specifications "Released for Construction." The Design-Build Firm shall provide a signed certification that all Electronic Review Comments (ERC) have been resolved to the Department's satisfaction as a requirement before obtaining "Released for Construction" plans.

3. Requirements to Begin Construction:

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

The Design-Build Firm may choose to begin construction prior to completion of the Phase Submittals and the Department stamping the plans and specifications Released for Construction except for bridge construction. To begin construction the Design-Build Firm shall submit signed and sealed plans for the specific activity; submit a signed and sealed Construction Specifications Package or Supplemental Specifications Package; obtain regulatory permits as required for the specific activity; obtain utility agreements and permits, if applicable; and provide five (5) days notice before starting the specific activity. The plans to begin construction may be in any format including report with details, 8 1/2" X 11" sheets, or 11" X 17" sheets, and only the information needed by the Design-Build Firm to construct the specific activity needs to be shown. Beginning construction prior to the Department stamping the plans and specifications Released for Construction does not reduce or eliminate the Phase Submittal requirements.

As-Built Set:

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

The Design-Build Firm shall complete the As-Built Plans as the Project is being constructed. All changes made subsequent to the "Released for Construction" Plans shall be signed/sealed by the EOR. The As-Built Plans shall reflect the "Released for Construction" design and shall include all changes initiated by the Design-Build Firm or the Department in the form of revisions. The As-Built Plans shall be submitted a minimum of 30 calendar days prior to Project completion for Department review and acceptance as a condition precedent to the Department's issuance of Final Acceptance. The submittal shall include As-Built plans, as described above, and surveys meeting the requirements of Design-Build Division I Specification 7-2.3, As-Built Drawings and Certified Surveys.

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

The Department shall accept the As-Built Plans and related documents when in compliance with Design

Build Division I Specification 7-2.3, As-Built Drawings and Certified Surveys, and the As-Built Requirements.

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

- 1 set of 11” X 17” signed and sealed As-Built plans, drawings and Certified Surveys
- 2 sets of 11 "X 17” copies of the signed and sealed As-Built plans, drawings and Certified Surveys (including as-built channel survey)
- 1 signed and sealed copy of the Bridge Load Rating Summary Form and Calculations based on as-built conditions
- 2 sets of final documentation (if different from final component submittal)
- sets of survey information, including electronic files and field books
- CADD Files
- 2 Final Project DVD’s

4. Milestones: Not Applicable

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.

5. Railroad Submittals: Not Applicable

J. Contract Duration:

The Department has established a Contract Duration of 1050 calendar days for the subject Project.

K. Project Schedule:

The Design-Build Firm shall submit a Schedule, in accordance with Subarticle 8-3.2 (Design-Build Division I Specifications). The Design-Build Firm’s Schedule shall allow for up to fifteen (15) calendar days (excluding weekends and Department observed Holidays) review time for the Department’s review of all submittals with the exception of Category 2 structures submittals. The review of Category 2 structures submittals requires Central Office involvement and the Schedule shall allow for up to twenty (20) calendar days (excluding weekends and Department observed Holidays) for these reviews.

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:

- No Special 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
- Other Contractor-Initiated Submittals including RFI's, RFM's, RFC's, and NCR's
- Design Survey
- Submittal Reviews by the Department and FHWA
- Design Review / Acceptance Milestones
- Materials Quality Tracking
- Geotechnical Investigation
- Start of Construction
- Clearing and Grubbing
- Construction Mobilization
- Embankment/Excavation
- 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
- Intelligent Transportation System Design
- 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 Letter of Interest and/or Technical Proposal by the Design-Build Firm. In the event a change in key personnel is requested, the Design-Build Firm shall submit the qualifications of the proposed key personnel and include the reason for the proposed change. Any changes in the indicated personnel shall be subject to review and approval by the District Construction Engineer. The Department shall have sole discretion in determining whether or not the proposed substitutions in key personnel are comparable to the key personnel identified in the Letter of Interest and/or Technical Proposal. The Design-Build Firm shall have available professional staff meeting the minimum training and experience set forth in Florida Statute Chapter 455.

M. Partner/Teaming Arrangement:

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

N. Meetings and Progress Reporting:

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

- Department technical issue resolution
- Local government agency coordination
- Maintenance of Traffic Workshop
- Pavement Design Meeting
- Permit agency coordination
- Scoping Meetings
- System Integration Meetings

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

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

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

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

System Integration Meetings will be held on mutually agreeable dates.

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

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

O. Public Involvement:

1. General:

Public involvement is an important aspect of the Project. Public involvement includes communicating to all interested persons, groups, and government organizations information regarding the development of the Project. The Department, or its designated representative, will serve as the Public Involvement Consultant (PIC) to carry out an exhaustive Public Involvement Campaign and a marketing effort. The Design-Build Firm will assist the Department in the Public Involvement effort as described below.

2. Community Awareness:

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

3. Public Meetings:

The Design-Build Firm shall provide all supporting materials necessary for the various public meetings, which may include:

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

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

The Design-Build Firm shall, as determined by the Department, attend the meetings with an appropriate number of personnel to assist the CEI/Department. The Design-Build Firm shall forward all requests for group meetings to the CEI/Department. The Design-Build Firm shall inform the CEI/Department of any meetings with individuals that occur without prior notice.

4. Public Workshops, Information Meetings:

The Design-Build Firm shall provide all the support services listed in No. 3 above.
All legal/display advertisements announcing workshops, information meetings, and public meetings will be prepared and paid for by the Department.

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

5. **Public Involvement Data:**

The Design-Build Firm is responsible for the following:

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

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

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

P. Quality Management Plan (QMP):

1. **Design:**

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

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

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

2. **Construction:**

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

The sampling, testing and reporting of all materials used shall be in compliance with the Sampling, Testing and Reporting Guide (STRG) provided by the Department. The Design-Build Firm will use the Department's database(s) to allow audits of materials used to assure compliance with the STRG. The Department has listed the most commonly used materials and details in the Department's database. When materials being used are not in the Department's database list, the Design-Build Firm shall use appropriate material details from the STRG to report sampling and testing. Refer to the State Materials Office website for instructions on gaining access to the Department's databases:
http://www.fdot.gov/materials/quality/programs/qualitycontrol/contractor.shtm

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

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

Q. Liaison Office:

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

R. Engineers Field Office: Not Applicable

S. Schedule of Values:

The Design-Build Firm is responsible for submitting estimates requesting payment. Estimates requesting payment will be based on the completion or percentage of completion of tasks as defined in the schedule of values. Final payment will be made upon final acceptance by the Department of the Design-Build Project. Tracking DBE participation will be required under normal procedures according to the Construction Project Administration Manual. The Design-Build Firm must submit the schedule of values to the Department for approval. No estimates requesting payment shall be submitted prior to Department approval of the schedule of values.

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

T. Computer Automation:

The Project shall be developed utilizing computer automation systems in order to facilitate the development of the contract plans. Various software and operating systems were developed to aid in assuring quality and conformance with Department policies and procedures. The Department supports MicroStation and GEOPAK as its standard graphics and roadway design platform as well as Autodesk's AutoCAD Civil 3D as an alternate platform. Seed Files, Cell Libraries, User Commands, MDL Applications and related

programs developed for roadway design and drafting are in the Department's CADD Software Suite. Furnish As-Built documents for all building related components of the Project in AutoCAD format. It is the responsibility of the Design-Build Firm to obtain and utilize current Department releases of all CADD applications.

The Design-Build Firm will be required to furnish the Project's CADD files after the plans have been Released for Construction. The Design-Build Firm's role and responsibilities are defined in the Department's CADD Manual. The Design-Build Firm will be required to submit final documents and files which shall include complete CADD design and coordinate geometry files in MicroStation and/or AutoCAD design files format.

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

U. Construction Engineering and Inspection:

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

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

V. Testing:

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

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W. Value Added:

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

- Roadway features
- Roadway drainage systems,
- Approach slabs
- Superstructures
- Substructures
- Concrete defects
- Structural steel defects
- Post-tensioning systems

- And any other products or features the Design-Build Firm desires.

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

X. Adjoining Construction Projects:

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

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

Y. Issue Escalation:

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

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

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

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

V. Design and Construction Criteria.

- **General:**

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

- **Vibration and Settlement Monitoring:**

The Department has identified vibration sensitive sites along the Project corridor. The Design-Build Firm shall be responsible for the identification of and coordination with vibration sensitive sites impacted by the Work for the duration of the construction period.

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

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

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

The Department will perform the review of Vibration and Settlement submittals in accordance with Department Specifications.

- **Geotechnical Services:**

Driven Pile Foundations for Bridges and Major Structures

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

factors for static/statnamic load testing may be used for pile foundations in any of the following areas of the Project, a minimum number of successful load tests must be performed in representative locations of that area:

- Station 1691+00 to 1691+85 Eastbound (BL of Survey I-4), (minimum 1 test)
- Station 1691+00 to 1691+85 Westbound (BL of Survey I-4), (minimum 1 test)
- Station 264+00 to 269+00 (BL Survey SR 557), (minimum 1 test)

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 Bridges and Miscellaneous Structures

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

- Station 1691+00 to 1691+85 Eastbound (BL of Survey I-4), (minimum 1 test)
- Station 1691+00 to 1691+85 Westbound (BL of Survey I-4), (minimum 1 test)
- Station 264+00 to 269+00 (BL Survey SR 557), (minimum 1 test)

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

1. Evaluating geotechnical conditions to determine the drilled shaft diameter and length and construction methods to be used.
2. Performing the subsurface investigation and drilling pilot holes prior to establishing the drilled shaft tip elevations and socket requirements. For redundant drilled shaft bridge foundations, perform at least one test boring in accordance with the Soils and Foundations Handbook at each bent/pier.

3. Determining the locations of the load test shafts and the types of tests that will be performed.
4. Performing pilot borings for test holes (also known as test shafts or method shafts) and load test shafts and providing the results to the Department at least one (1) working day before beginning construction of these shafts.
5. Preparing and submitting a Drilled Shaft Installation Plan for the Department's acceptance.
6. Constructing the method shaft (test hole) and load test shafts successfully and conducting thermal integrity tests on these shafts.
7. Providing all personnel and equipment to perform a load test program on the load test shafts.
8. Determining the production shaft lengths.
9. Documenting and providing a report that includes all load test shaft data, analysis, and recommendations to the Department.
10. Constructing all drilled shafts to the required tip elevation and socket requirement in accordance with the specifications.
11. Inspecting and documenting the construction of all drilled shafts in accordance with the specifications.
12. Performing Cross-Hole Sonic Logging (CSL) or Thermal Integrity tests on all nonredundant drilled shafts supporting bridges. For redundant drilled shaft bridge foundations and drilled shafts for miscellaneous structures, perform CSL or Thermal Integrity testing on any shaft suspected of containing defects.
13. Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging.
14. Submitting Foundation Certification Packages in accordance with the specifications.
15. Providing safe access, and cooperating with the Department in verification of the drilled shafts, both during construction and after submittal of the certification package.

Spread Footings Foundations

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

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

Auger Cast Piles for Sound Barrier Walls

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

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

cast piles, both during construction and after submittal of the certification package.

Specialty Geotechnical Services Requirements

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

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

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

- **Utility Coordination:**

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

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

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

1. Ensuring that all utility coordination and activities are conducted in accordance with the requirements of the Contract Documents.
2. Identifying all existing utilities and coordinating any new installations
3. Reviewing proposed utility permit application packages and recommending approval/disapproval of each permit application based on the compatibility of the permit as related to the Design-Build Firm's plans.
4. Scheduling and conducting utility meetings, preparing and distributing minutes of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
5. Distributing all plans, conflict matrices and changes to affected Utility

Agency/Owners and making sure this information is properly coordinated.

6. Identifying, preparing, reviewing and facilitating any agreement required for any utility work needed through final approval and execution. The UCM shall also be responsible for monitoring and reporting the performance of all involved parties under said agreement.
7. Preparing, reviewing, approving, signing, and coordinating the implementation of and submitting to the Department for review, all Utility Agreements.
8. Resolving utility conflicts.
9. Obtaining and maintaining all appropriate "*Sunshine State One Call of Florida*" tickets.
10. Performing Constructability Reviews of plans prior to construction activities with regard to the installation, removal, temporary removal, de-energizing, deactivation, relocation, or adjustment of utilities.
11. Providing periodic Project updates to the Department Project Manager and District Utility Office as requested.
12. Coordination with the Department on any issues that arise concerning reimbursement of utility work costs between the Department and the utility.

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

Table A – Summary of Department Contemplated Adjustment, Protection, or Relocation

UA/O	Utility Relocation Type	Cost Estimate	Lump Sum Bid
AT&T	by UA/O	N/A	N/A
Frontier Communications	by UA/O	N/A	N/A
Gulfstream Gas	by UA/O	N/A	N/A
Tampa Bay Electric Company - Distribution	by UA/O	N/A	N/A
Tampa Bay Electric Company - Transmission	by UA/O	N/A	N/A

Table B - Summary of UAO having facilities within the Proposed Project Limits

UAO	Contact Information	
AT&T	Greg Jacobson (843) 342-0512 gtjacobson@att.com	
City of Auburndale	John Dickson (863) 965-5511 jdickson@auburndalefl.com	
Frontier Communications	Fred Valdes (863) 688-9714 Fred.n.valdes@ftr.com	
Gulfstream Gas	Fred DeLoach (941) 723-7108 fred.deloach@williams.com	
Tampa Bay Electric Company -	Melanie Ganas	

Distribution	(813) 275-3353 csadmin@tecoenergy.com	
Tampa Electric Company - Transmission	Rea Berryman (813) 635-7161 frberryman@tecoenergy.com	

The Design-Build Firm may request the utility to be relocated to accommodate changes from the conceptual plans.

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

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

- **Roadway Plans:**

General:

The Design-Build Firm shall prepare the Roadway Plans Package. This work effort includes the roadway design and drainage analysis needed to prepare a complete set of Roadway Plans, Temporary Traffic Control Plans, Environmental Permits and other necessary documents.

Design Analysis:

The Design-Build Firm shall either utilize the signed and sealed Approved Typical Section Package (see Attachments) and comply with the same, or via the ATC process, develop and submit a different signed and sealed Typical Section Package for review and concurrence by the Department. The Design-Build Firm shall develop and submit a signed and sealed Pavement Design Package and Drainage Analysis Report for review and concurrence by the Department and FHWA on Projects of Division Interest (PoDIs). The Design-Build Firm shall develop and submit their own signed and sealed Pavement Design Package for review and concurrence by the Department and shall utilize the Approved Pavement Design Package, included herein as a Reference Document, as basis for the minimum allowable pavement design. Any deviation from the Department's design criteria will require a Design Variation and any deviation from AASHTO will require a Design Exception. All such Design Variations and Design Exceptions must be approved.

These packages shall include the following:

- **Roadway Design:**

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

1. **Typical Section Package:**

- Transmittal letter
- Location Map
- Roadway Typical Section(s)
    1. Pavement Description (Includes milling depth)
    2. Minimum lane, shoulder, median widths
    3. Slopes requirements
    4. Barriers
    5. Right-of-Way
- Data Sheet
- Design Speed

2. **Pavement Design Package:**

- Pavement Design
    1. Minimum design period
    2. Minimum ESAL's
    3. Minimum design reliability factors
    4. Resilient modulus for existing and proposed widening (show assumptions)
    5. Roadbed resilient modulus
    6. Minimum structural asphalt thickness
    7. Cross slope
    8. Identify the need for modified binder
    9. Pavement coring and evaluation
    10. Identify if ARMI layer is required
    11. Minimum milling depth

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

- Attachment No. A08. ESAL_Memo.pdf - FDOT AADT Traffic Data and Equivalent Single Axle Loading (ESAL) values
- Attachment No. A08. ResilientModulusMemo.pdf - Resilient Modulus Recommendations and LBR
- Reference No. R11. 20121535201_PavementDesignPackage.pdf – Approved Pavement Design Package

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

3. **Drainage Analysis:**

The Design-Build Firm shall be responsible for designing the drainage and stormwater management systems. All design work shall be in compliance with the Department's Drainage Manual; Florida Administrative Code, chapter 14-86; Federal Aid Policy Guide 23 CFR 650A; and the requirements of the

regulatory agencies. This work will include the engineering analysis necessary to design any or all of the following: cross drains, French drains, roadway ditches, outfall ditches, storm sewers, retention/detention facilities, interchange drainage and water management, other drainage systems and elements of systems as required for a complete analysis. Full coordination with all permitting agencies, the district Environmental Management section and Drainage Design section will be required from the outset. Full documentation of all meetings and decisions are to be submitted to the District Drainage Design section. These activities and submittals shall be coordinated through the Department's Project Manager.

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

The Design-Build firm shall adhere to the following requirements:

a) The Design-Build Firm shall provide a stormwater management system design to accommodate the I-4 ultimate interchange footprint, including any runoff from the future express lanes and rail corridor. The Design-Build Firm shall construct the ultimate stormwater conveyance systems to the pond(s), the ultimate pond(s), and the ultimate outfall system(s). The outfall weir control structure shall be constructed for the proposed condition and permit requirements, while also being modifiable in the future for the ultimate condition and permit requirements.

b) Cross drains shall be designed using information from the Polk City Watershed Model and Hilochee Wildlife Management Area Hydrologic Assessment.

c) Inverted siphons will not be allowed on the project.

d) Obtain District Drainage Engineer's approval for any pipes running parallel to MSE walls.

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

The Design-Build Firm shall verify that all existing cross drains and storm sewers that are to remain have adequate hydraulic capacity and design life. Flood flow requirements will be determined in accordance with the Department's procedures. Any existing cross drains being left in place or extended shall be video inspected. If any of these existing cross drains or storm sewers are found to be hydraulically inadequate or found to have insufficient design life, they must be replaced or supplemented in accordance with the drainage requirements of this RFP. If any existing cross drains or storm sewers require repairs but otherwise would have sufficient remaining design life, repairs shall be made in accordance with the requirements of this RFP.

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

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

The Design-Build Firm shall provide the Department's District Drainage Engineer one hard copy and one electronic copy of a signed and sealed Drainage Design Report. It shall be an As-Built Plan of all drainage computations, both hydrologic and hydraulic. The engineer shall include all necessary support data. The

Drainage Design Report shall accompany all phase submittals.

- **Geometric Design:**

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

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

The Design-Build firm shall adhere to the following requirements:

a) The roundabout geometry has been approved by the State Roadway Design Engineer, as indicated in the Roundabout Approval Memorandum provided Attachment Document A10. The Design-Build Firm shall construct tear-drop shaped roundabouts on SR 557 to be within +/- 1-foot horizontal of the geometry shown in the Roundabout Approval Memorandum and Concept Plans, Reference Document R03, including the inscribed circle diameter size, circulatory roadway width, lane configuration and lane widths, truck apron, central island, entrance and departure lane geometry and radii, splitter island geometry, pavement markings and intended traffic movements. The roundabouts shall accommodate an off-roadway graded area, on the outside of the roundabout, to accommodate a future bicycle (shared-use path) facility.

b) The Design-Build Firm shall provide a minimum vertical clearance of 24'-3" from the bottom of the SR 557 superstructure to the top of future rail, within the rail envelope, as shown in the Typical Section Package, Attachment Document A07. The top of rail elevation is 141.23-feet (N.A.V.D. 88), established by the Florida High Speed Rail (FHSR) Concept Plans. A minimum vertical clearance of 16'-6" shall be provided over the I-4 eastbound and westbound general-use lanes and future express lanes.

c) The Design Build Firm shall provide sufficient median width to accommodate both future express lanes and rail corridor, to be constructed by others. The future rail corridor requires a minimum 44-foot envelope width, as formerly established by Florida High Speed Rail (FHSR), measured from the face of the roadside barrier protection. A 14.5-foot horizontal clearance shall be provided from the centerline of rail to the face of the roadside barrier wall, separating the rail corridor and the express lanes, with a typical 15-foot horizontal separation between the two centerlines of track. If an intermediate pier is introduced in the rail envelope, additional horizontal offset requirements will result in a wider rail envelope under the proposed bridge. The lateral offset measured from the centerline of track to any adjacent structure, in a tangent section, shall be 18-feet with a crash wall or 25-feet without a crash wall. The depth of the footing shall allow for a future crash wall to be constructed by others, if required. In addition, the edges of bridge footings shall not be closer than 11-feet from the centerline of track to provide adequate room for sheeting, per FDOT FDM.

d) The Design-Build Firm shall show the future express lanes, shoulders, barriers, high-speed rail envelope, including any horizontal and vertical clearances, in the Typical Sections in the Plans and denote "to be constructed by others".

e) The Design Build Firm shall provide a vertical profile for the I-4 mainline with consideration for the drainage and stormwater runoff flow from the future barrier separated express lanes and high

speed rail (HSR) corridor. All roadway vertical alignments shall be within +/- 2-feet of those depicted in the Concept Plans. See Reference Documents R03.

f) The Design-Build Firm shall provide a pair of wildlife crossing bridges centered at approximate Sta. 1691+40 to span an open trapezoidal channel lined with dry shelves for the animals to traverse. Each bridge shall provide a minimum 8-foot vertical clearance over the seasonal high water (SHW) elevation in the channel. Two dry shelves shall be provided on each side of the channel with the lower shelf at the SHW elevation and the upper shelf at one-foot above SHW elevation, separated by a 1V:2H sand cement riprap slope. The shelves shall be a minimum of 6-feet wide with 6-inches of soft soil cover. Wildlife fencing shall be provided along the I-4 limited access right-of-way line to channelize wildlife movement through the undercrossing from east of SR 557 to approximate Sta. 1716+80.

g) The Design-Build Firm shall provide Emergency Stopping Sites at both I-4 off-ramps (Ramps B and D) to SR 557. The deceleration length from mainline gore to entrance of the Emergency Stopping Site is to be based desirably on 70 mph to 0 mph, but no less than 70 mph to 20 mph. The typical Emergency Stopping Site shall be 24 feet wide by 150 feet long. Tapers into and out of the site are to be used. The site should be offset 8 feet from the outside edge of shoulder pavement creating a paved flush island either left or right side of the ramp. The width (24-feet typical) can vary, depending upon location, from a minimum of 12 feet to a maximum of 36 feet. The area of storage for vehicles should be desirably 3,600 square feet, but no less than 3,000 square feet. The eight (8) foot wide flush island should be striped (18 inches wide/45°/10' C-C markings). Place tubular markers at 10 foot centers in the centerline of the flush island. The pavement structure for the Emergency Stopping Sites, including the flush island, is to be the same as new ramp shoulder construction. Mainline signing and ramp signing is required to identify the Emergency Stopping Sites. The site is also required to have signing identifying it as an Emergency Stopping Site.

h) The Design-Build Firm shall not impact the existing electric transmission facilities (poles, overhead lines, etc.) located on SR 557 at approximate Sta. 256+20. A minimum of 20-foot horizontal clearance shall be provided around the transmission poles for maintenance purposes.

- **Design Documentation, Calculations, and Computations:**

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

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

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

1. Standards Plans and criteria used for the Project
2. Geometric design calculations for horizontal alignments
3. Vertical geometry calculations

4. Documentation of decisions reached resulting from meetings, telephone conversations or site visits

- **Structure Plans:**

1. **Bridge Design Analysis:**

a. The Design-Build Firm shall submit to the Department final signed and sealed design documentation prepared during the development of the plans.

b. The Design-Build Firm shall insure that the final geotechnical and hydraulic recommendations and reports required for bridge design are submitted with the 90% bridge plans.

c. The Design-Build Firm shall "Load Rate" all bridges in accordance with the Department Procedure 850-010-035 and the Structures Manual. The Bridge Load Rating Calculations, the Completed Bridge Load Rating Summary Detail Sheet, and the Load Rating Summary Form shall be submitted to the Department for review with the 90% superstructure submittal. The final Bridge Load Rating Summary Sheet and Load Rating Summary Form shall be submitted to the Department for review with the Final superstructure submittal. A final, signed and sealed Bridge Load Rating, updated for as-built conditions, shall be submitted to the Department for each phase of the bridge construction prior to placing traffic on the completed phase of the bridge. A final, signed and sealed Bridge Load Rating, updated for the as-built conditions as part of the As-Built Plans submittal shall be submitted to the Department before any traffic is placed on the bridge. The Bridge Load Rating shall be signed and sealed by a Professional Engineer licensed in the State of Florida.

d. The Design-Build Firm shall evaluate scour on all bridges over water using the procedures described in HEC 18.

e. The Engineer of Record for bridges shall analyze the effects of 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, falsework systems, etc.) to ensure compliance with the contract plan requirements and intent.

f. The Design-Build Firm shall evaluate down drag loads on the intermediate pier piles due to the potential additional loads after construction of the SR 557 Bridge because of the future utilization of the I-4 median as a rail corridor. Down drag loads may be mitigated by application of a surcharge program prior to construction of the bridge, if approved by the District Geotechnical Engineer.

2. **Criteria**

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

a. All plans and designs are to be prepared in accordance with the Governing Regulations of Section V. A.

b. Critical Temporary Retaining Walls: Whenever the construction of a component requires excavation that may endanger the public or an existing structure that is in use the Design-Build Firm must protect the existing facility and the public. If a critical temporary retaining wall is, therefore, required during the construction stage only, it may be removed and reused after completion of the work. Such systems as steel sheet pilings, soldier beams and lagging or other similar systems are commonly used. In such cases, the Design-Build Firm is responsible for designing and detailing the wall in the set of contract plans. These plans must be signed and sealed by the Structural Engineer in responsible charge of the wall design.

c. Environmental Classification:
SR 557 over I-4 and I-4 over Wildlife Crossing:
Superstructure – Slightly Aggressive
Substructure:
Concrete – Moderately Aggressive
Steel – Extremely Aggressive (for pH)

d. Concrete Finish Details: Bridge SR 557 over I-4 – provide Class 5 finish to exterior face of bridge barriers, exposed face of outside beams, all sides of piers, exposed face of abutments and MSE walls and coping. Color to be determined by the Department. Anti-graffiti coating is not required.

e. Pier Design: Bridge piers shall be evaluated and designed for vehicle collision, if applicable.

f. Footing Design: Pier Foundation Caps shall be placed at an elevation to allow clearance for future crash walls for the future rail.

g. Retaining Walls: Geosynthetic Reinforced Soil (GRS) walls or abutments are not permitted. Partial height walls such as toe walls or perched walls are not permitted.

h. Structure Numbers: Identification numbers have not been obtained. Design-Build Firm shall apply for bridge, sign and mast arm identification numbers.

i. Superstructure: Each bridge superstructure shall be constructed of the same material. The depth of fascia girders for all bridges shall be held constant without steps.

j. The Design-Build Firm shall adhere to the I-4 Aesthetic Guidelines, as appropriate.

- **Specifications:**

Department Specifications may not be modified or revised. Technical Special Provisions shall be written only for items not addressed by Department Specifications, and shall not be used as a means of changing Department Specifications.

The Design-Build Firm shall prepare and submit a signed and sealed Construction Specifications Package for the Project, containing all applicable Division II and III Special Provisions and Supplemental Specifications from the Specifications Workbook in effect at the time the Bid Price Proposals were due in the District Office, along with any approved Developmental Specifications and Technical Special Provisions, that are not part of this RFP. Any subsequent modifications to the Construction Specifications Package shall be prepared, signed and sealed as a Supplemental Specifications Package. The Specifications Package(s) shall be prepared, signed and sealed by the Design-Build Firms Engineer of Record who has successfully completed the mandatory Specifications Package Preparations Training.

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

http://www2.dot.state.fl.us/programmanagement/PackagePreparation/TrainingConsultants.aspx

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

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

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

- **Shop Drawings:**

The Design-Build Firm shall be responsible for the preparation and approval of Shop Drawings. Shop Drawings shall be in conformance with the FDOT Design Manual. Shop Drawing submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the Shop Drawing(s) submitted for review. When required to be submitted to the Department, Shop Drawings shall bear the stamp and signature of the Design-Build Firm's Engineer of Record (EOR), and Specialty Engineer, as appropriate. All "Approved" and "Approved as Noted" Shop Drawings submitted to the Department for review shall also include Engineer of Record QA/QC Shop Drawing check prints along with the EOR stamped set(s). The Department shall review the Shop Drawing(s) to evaluate compliance with Project requirements and provide any findings to the Design-Build Firm. The 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 Department's review is not meant to be a complete and detailed review. Upon review of the Shop Drawing, the Department will initial, date, and stamp the drawing "Released for Construction" or "Released for Construction as Noted".

- **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 Temporary Traffic Control Plan (TTCP) 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. Coordinate with adjacent construction Projects and maintaining agencies.

- **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.

- **Transportation Management Plan:**

The Design-Build Firm must develop a Transportation Management Plan in accordance with the Department's FDOT Design Manual.

1. **Traffic Control Restrictions:**

The Design-Build Firm shall adhere to the lane closure restrictions identified in the Lane Closure Analysis Memorandum, provided as an Attachment Document and the Concept Temporary Traffic Control Plans, provided as a Reference Document. An analysis was performed for both one-lane and two-lane closures per direction on I-4. There will be NO SINGLE-LANE CLOSURES allowed between the hours of 4:00 PM and 6:30 PM. There will be NO DUAL-LANE CLOSURES allowed between 6:00 AM and 10:00 PM. There will be no DETOURS allowed between the hours of 5:00 AM and 11:00 PM.

All lane closures, including ramp closures, must be reported to the local emergency agencies, the media and the District Public InformationOfficer. 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.

- **Environmental Services/Permits/Mitigation:**

The Design-Build Firm will be responsible for preparing designs and proposing construction methods that are permittable. The Design-Build Firm will be responsible for any required permit fees. All permits required for a particular construction activity will be acquired prior to commencing the particular construction activity. Delays due to incomplete or erroneous permit application packages, agency rejection, agency denials, agency processing time, or any permit violations, except as provided herein, will be the

responsibility of the Design-Build Firm, and will not be considered sufficient reason for a time extension or additional compensation.

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

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

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

1. Individual Environmental Resource Permit from SWFWMD
2. Standard Permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. § 1344 from the USACE

3. National Pollutant Discharge Elimination System (NPDES) Permit from FDEP
4. Gopher Tortoise Conservation Permit from FWC
5. Cultural Resources
6. Section 4(f) (federal projects only)
7. Wetlands and Mitigation
8. Wildlife and Habitat
9. 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.

- **Signing and Pavement Marking Plans:**

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

Conceptual Signing and Pavement Marking Plans have been provided by the Department as a Reference Document (20121535201-PLANS-02-SIGNINGMARKING.pdf) identifying preliminary pavement markings, sign locations and messages within the Project limits. No structural analysis was performed for the Conceptual Signing Plan.

The Design-Build Firm shall adhere to the roundabout pavement marking configuration and lane widths, including all entrances and departure lane markings, as shown on the Conceptual Signing and Pavement Marking Plans.

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

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

- **Lighting Plans:**

The Design-Build Firm shall provide a lighting design and a lighting analysis, and prepare lighting plans in accordance with Department criteria.

Conceptual Lighting Plans have been provided by the Department as a Reference Document (20121535201-PLANS-05-LIGHTING.pdf) identifying preliminary lighting locations within the Project limits. No

electrical analysis was performed for the Conceptual Lighting Plan.

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

The Design-Build Firm shall coordinate the final locations of distribution transformer and service poles to minimize service and branch circuit conductors and conduit lengths. Preliminary electrical service locations have been coordinated with and provided by the Tampa Bay Electric Company - Distribution. Each service point shall be separately metered.

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

- **Intelligent Transportation System Plans:**

1. General

The Design-Build Firm shall prepare Intelligent Transportation System (ITS) Plans in accordance with Department criteria.

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

• Project Layout / Overview sheets outlying the locations of field elements
• Detail sheets on:
  - DMS Structure, DMS attachment, DMS display/layout
  - CCTV structure, CCTV attachment, CCTV operation/layout
  - MVDS structure, MDVS attachment, MDVS operation/layout
  - Wrong Way Driving Vehicle Detection System (WWVDS) – signs, supports, sensors, cameras, communications
  - Fog Detection System and Visibility Sensors structure, attachment, operation/layout
  - Managed Field Ethernet Switches (MFES)
  - Fiber optic, conduit, pull boxes, splice boxes, splice enclosures
  - Power Service Distribution and Permanent Generator Power Backup
  - Wiring and connection details
  - Conduit, pull box, and vault 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 field equipment at individual locations and communications hubs.
  - Maintenance of Communications (MOC) Plan

Anticipated DMS features and details:

DMS Feature	Approximate Location	Direction	Notes
Full Color DMS	Sta. 1689+00	Eastbound	Walk-in Access
Full Color DMS	Sta. 1685+00	Westbound	Walk-in Access

The Design-Build firm is responsible for ensuring project compliance with the Regional ITS Architecture and 23 Code of Federal Regulations (CFR) Rule 940 as applicable. This includes, but is not limited to, monthly updates to the Requirements Traceability Verification Matrix (RTVM) as well as coordination of document review.

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

2. Design and Engineering Services:

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

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

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

- Replacement of any ITS components that are impacted by the Design-Build Firm's scope of work as approved by the Department. All equipment shall be new unless otherwise specified.

- Underground Infrastructure and Fiber Optic System

  The Design-Build Firm shall furnish and install HDPE SDR 11 conduits, locate system, pull boxes, splice vaults, splice enclosures and terminations of the type specified in this document and conform to performance requirements of the FDOT Standard Specifications for Road and Bridge Construction (current edition at time of submittal).

  The Design-Build Firm shall install a minimum of one (1) 4" HDPE outerduct with three (3) 1" HDPE innerducts (with orange, green and grey colors) for the I-4 ITS network from a pullbox west of station 1600+00 to a pullbox east of 1723+00. The Design-Build firm shall install a new 72 strand SM fiber optic cable from the existing splice vault at approximate station 1566+00 to the existing splice vault at approximate station 1830+00 utilizing the orange innerduct (the other two will be spare).

  Additionally, the Design-Build firm shall install a minimum of two (2) 2" electrical conduits for the purpose of distributing electrical power service from the electrical service assembly location to the furthest device on each circuit. The power conduit shall be appropriately sized based per latest NEC on the Design-Build Firm's power design.

  Fiber optic and power pull boxes with four (4) 2" HDPE lateral conduits are required for each ITS device location. Two FOC conduits shall be routed to the nearest splice vault with a tracer

wire, one power conduit routed to the Design-Build Firm's power distribution system and one conduit for spare.

Lateral fiber optic connections (Drop Cables) to devices required on the either side of I-4 shall be designed, constructed, furnished, installed, and integrated utilizing 24-count, single-mode fiber-optic cables. All lateral fiber cables shall be terminated in a fiber patch panel.

- DMS – Shall be mounted on an overhead truss structure. The freeway DMS shall display 20MM pixel spacing, 18" characters, 21 characters per line, three lines, full color LED Display and full matrix messages. Controller Cabinets shall be a ground mounted cabinet with a level concrete maintenance pad surrounding the cabinet minimum size of 6'x6'.

  If the existing signs must be removed due to conflicts with the proposed construction, The Design-Build Firm shall deploy a minimum of one (1) P-DMS for each sign removed in the direction of that sign, for the dissemination of accurate real-time information and corresponding traffic advisories to the traveling public during the Construction Period. The P-DMS shall be securely mounted on durable trailer system made of the industrial-grade structural steel. The mobile nature of the trailer mounted P-DMS will allow its rapid deployment and repositioning as traffic conditions dictate. The trailer shall include extendible outrigger jack stands for added stability. The P-DMS shall be deployed behind the approved traffic barrier. The message on the P-DMS shall be viewable to the motorists on all lanes.

  The Design-Build Firm shall integrate the P-DMS with the existing fiber optic communications and power services. The Design-Build Firm shall ensure the P-DMS is compatible with the SunGuide Software to allow for complete operational control from the RTMC.

  The P-DMS shall be full matrix, LED DMS capable of displaying three lines of 8 characters using an 18-inch font that meets the height to width ratio and character spacing requirements in the MUTCD Section 2L.04, paragraphs 05, 06 and 08.

- CCTV – Includes concrete poles, camera lowering devices and mountings to provide 100%

  CCTV coverage of the project corridor, including interchange ramps and intersections. These monitoring cameras shall also be capable of verifying operation of the Fog Visibility Beacons and WWD locations within the project limits. In addition, each DMS shall have a dedicated verification CCTV.

  All CCTV cameras shall be HD IP CCTV mounted on new pre-stressed spun concrete poles. The traffic surveillance CCTV cameras shall be placed to match existing 70-ft. poles provided they are at a minimum mounting height of fifty (50) feet above highest elevation of any portion of the I-4 General Purpose Lanes roadway surface that falls within 0.5 mile both upstream and downstream of coverage area for that camera location. Each CCTV camera shall be attached to the CCTV pole via a camera lowering device (CLD). The CCTV camera power shall be backed up by a network-manageable UPS system capable of maintaining and continuing the operation of the CCTV camera and communications equipment for a minimum of two hours.

- MVDS - Includes concrete poles and mountings to detect all lanes along the project corridor and shall obtain entering and exiting traffic volumes at the interchange ramps outside of weaving/merging conditions.

- WWVDS - Add new WWVDS on each off-ramp of I-4 that shall provide an automated alert to the RTMC if a motorist is detected traveling in the opposite direction of traffic. The Design-Build Firm shall select the WWVDS technology to meet the project needs and is compatible with the existing WWVDS system deployed in District Seven. The WWVDS shall collect and process data locally prior to sending a notification to the RTMC. The Design-Build Firm shall design the

WWVDS for remote configuration, calibration, monitoring, and diagnostic of real-time traffic activities from the RTMC Center using the SunGuide software and software provided by the detection system vendor. The WWVDS shall perform to meet the project requirements under all environmental and traffic conditions expected for the corridor. The WWVDS shall detect wrong way drivers within the specified accuracy. Vibration and shocks shall not affect the performance of the system. These WWVDS shall be hardwired for power and communications. Design shall be in accordance with Modified Special Provision (MSP) 660, Standard Plans IR700-120-1, and FDM Section 230.

- Fog Detection/Low Visibility Warning System – The Design-Build Firm shall design, procure, install, integrate, and test a Fog/Low Visibility Warning subsystem that includes: environmental sensors, poles, mounting hardware, ITS cabinets, communications devices, remote-bootable PDUs, network manageable UPS subsystems, lightning protection systems, surge protection devices and grounding arrays, conduit, electrical service, web relays, flashing beacon controllers and all other items required or needed and specified herein to provide a complete Fog/Low Visibility Warning subsystem replacement that meets and/or exceeds FDOT Standard Specifications (current edition at the time of the bid submittal).

  The existing Fog/Low Visibility subsystem acts as the trigger for the Fog Warning Alert Subsystem which provides warning to motorists entering into an area of limited visibility. This warning is triggered by visibility sensors installed along the corridor at various locations which measure the density of the ambient fog and smoke levels. When low visibility is detected, the system activates the flashing beacon systems associated with each of the Fog/Low Visibility stations by using a web relay to activate the flashing beacons.

  The road weather information system (RWIS) station has multi weather sensors which can provide information related to humidity and temperature, barometric pressure, wind speed and direction, ground temperature, visibility levels related to fog and smoke, and rain gauges.

  The system has a processing unit capable of providing outputs to trigger the fog warning system and provide information data and alerts to the RTMC through the fiber optic communications network. The system must be 100% compatible with the existing SunGuide software and the RTMC communication protocols.

  There are two (2) Fog/Low Visibility Units which activate twelve (12) existing flashing beacon assemblies within the project limits. The location of the devices is included in the table below:

  Existing Fog/Low Visibility Sensors and Flashing Beacon Locations:

#	Description	Direction	Station	Required Action
1	Fog/Low Visibility Station (installed on CCTV pole)	EB	1652+80	Replace
2	Fog/Low Visibility Station (installed on standalone concrete pole)	WB	1695+60	Replace
1/2/3/4	Flashing Beacons/Warning Panels	EB/WB	1634+00	Replace
5/6/7/8	Flashing Beacons/Warning Panels	EB/WB	1671+00	Replace

9/10/11/12 Flashing Beacons/Warning Panels EB/WB 1698+80 Replace

- Connection to Existing Electrical Systems - The Design-Build Firm shall perform power calculations and install connections to existing electrical services, to the extent possible at existing ITS field element electrical systems. When connecting to existing electrical systems, the Design-Build Firm shall verify that the additional equipment will not overload the existing circuits or otherwise interfere with power to other equipment on the circuit. If additional load required by this project overloads the existing circuit, the Design-Build Firm shall modify the power distribution as necessary. The new circuit shall utilize an existing spare branch circuit breaker. If no spare breaker is available, then a new branch circuit breaker shall be provided. At a minimum, all affected ITS field cabinets shall be calculated for 125% over peak electrical draw. Connection to existing lighting circuits shall not be allowed. Only primary power connection shall be permitted.

- Power Subsystem - The Design-Build Firm shall design, construct, install and integrate a new electrical power distribution system consisting of underground power conduits and conductors, transformers, generators, Power Distribution Units (PDU) and Uninterruptible Power Supplies (UPS) with all associated equipment. The new power system shall replace the electrical services needed for all ITS components within the project limits, which include all new cabinets, new DMSs, new CCTV cameras, new MVDSs, WWVDS, Fog/Low Visibility Warning System components and necessary communication components and ancillaries along the project corridor. All of the project's electrical requirements are to be provided by the Design-Build Firm.

  The Design-Build Firm shall be responsible for designing and implementing a new underground power distribution system that will provide electrical power to all new and existing ITS equipment within the limits of the project. The Design-Build Firm shall be responsible for investigating, coordinating, selecting and designing the optimum commercial power drop location(s) and implementing two separate power systems with distribution to the I-4 ITS devices within the project limits.

  The Design-Build Firm shall also provide equipment to automatically assume the power loads in the event of any interruption of commercial power throughout the duration of the project, such as Uninterruptible Power Supplies (UPS) to power transformers, cabinets power panels, circuit breakers and all related ITS equipment, and to automatically return to the commercial power source when that power is restored.

  The Design-Build Firm shall design, construct, install and integrate the transformer ('Power Feed Transformer') at each commercial power supply locations to convert the power supply from Utility Company(ies) to the appropriate secondary voltage single phase power and with suitable wire sizes that are capable of providing power for the operation of ITS devices as needed.

  The Design-Build Firm shall design, construct, install and integrate a transformer ('ITS Device Transformer') at each of the ITS device cabinet location to step-down the voltage supplied from the underground distribution wire to the 240/120V power requirement for that location as needed. A fused disconnect shall be provided on the primary side of the transformer to isolate all power to the site for maintenance purposes.

  The Design-Build Firm shall furnish and install an Uninterruptible Power Supply (UPS) at each ITS device cabinet and DMS. Each UPS shall supply all electronic components housed in and associated with its device cabinet with uninterrupted power for a minimum of two hours in the

event of power loss. In addition, each Freeway DMS cabinet shall be equipped with a UPS sized for two hours of backup power for the DMS sign, controller and communication equipment.

- Permanent Generator Power Backup System Requirements:

  Permanent Generator Installation – shall include permanent diesel fuel generator with engine, alternator, engine generator set controls, sound attenuated engine generator set enclosure, fuel storage tank, and Automatic Transfer Switch (ATS). The generator and ATS equipment shall be equipped with a local control panel and display which will allow a technician to determine the status of the generator and the ATS and control their operation onsite with a laptop computer and also remotely from the RTMC. Securely placed in a locked fenced area and not located under a structure, tree or other element that may be damaged by hot exhaust gases.

  - NFPA 110 as Level 2, Type 10.
  - Adequately sized to handle at least 125 percent of continuous load and connected to each power feeder transformer via the ATS to automatically assume and power the loads of the ITS equipment shelter in the event of an interruption of commercial power.
  - The requirement for a permanent generator does not negate FDOT Standard Specification, Sub article 677-3.3, "Provision for Back-up Power."
  - For design calculations and the design documents, all ITS equipment loads shall be considered continuous loads. Equipment nameplate data or actual measured maximum continuous current shall be used as the loads for design purposes.
  - Sized to handle all of the ITS equipment shelter components, power panels, circuit breakers and all equipment plus the load of recharging all of the UPS batteries which may be drained. The 1,000 Volt Amp (KVA) rating of the engine temperature of 110 degrees Fahrenheit, and at an elevation of 100 feet above sea level.
  - Provide a standby power rating in accordance with ISO3046/1.
  - Design so that full standby rated output is available with varying loads for the duration of the interruption of the normal source power.
  - Provide an engine generator that uses an engine mounted radiator with a pusher type radiator fan.
  - Provide batteries with battery rack and cables sized as necessary. A battery charger must be provided as approved by the Department.
  - Provide engine generator set controls that are compatible with District Seven existing permanent generator hardware and software used by the Department.
  - Provide a non-proprietary controller.
  - Include a module that allows connectivity between the controller and Ethernet switch. The controller must be assigned an individual IP address and have full functionality and monitoring of the generator at the D7 RTMC.

- Provide with all software as required.
- Operate properly inside the sound attenuated engine generator set enclosure at rated (full) load with the outdoor ambient temperature ranging from 0º to 120ºF (-18º to 50ºC), at up to 100 percent condensing relative humidity.
- Is wind rated in "miles per hour" by the manufacturer in accordance with the Wind-Borne Debris Region map published in the current Florida Building Code.
- Provide doors that are hinged and removable.
- Provide noise reduction of a minimum of 15 dBA at 10 feet.
- Diesel fuel tank sized to fuel the generator as the redundant power supply for 24/48 continuous hours of runtime at full/half load for the ITS devices and communication equipment. The generator fuel tank must meet all local, state, federal, and environmental regulations including:
- Be double wall steel construction with 110 percent spill containment.
- Include standard vent and emergency vent.
- Be located to allow refueling with fuel trucks with up to 100-foot-long hoses.
- Provide fuel leak detection alarm and fuel level sensor that provide low fuel alarm wired to controller alarm.
- Be on the State of Florida Department of Environmental Protection (FDEP) approved list of tanks with current FDEP EQ number.

- Device Cabinets - The Design-Build Firm shall ensure that all cable terminations and connecting terminal blocks are contained in a weather-proof aluminum enclosure that shall meet the applicable requirements for a NEMA 3R rated cabinet. The Design-Build Firm shall furnish and install ITS field cabinets for housing ITS equipment and network devices including, but not limited to Ethernet switches, Fog/Low Visibility Warning System equipment, device servers, DMS controllers, fiber optic cable patch panels, PDUs, UPSs, batteries, surge protectors, and equipment racks.

  The Design-Build Firm shall provide a stable, level, and slip resistant concrete pad (tech pad) at all new and existing, affected cabinet locations to allow a technician to stand on comfortably while working on equipment inside the cabinet. The tech pad shall, at a minimum, be reinforced to prevent cracking, have a depth of 6 inches, extend 36 inches from the face of each cabinet door, and be 36 inches wide. The tech pad shall be secured and stabilized in such a manner as to prevent shifting and undermining.

  The DMS controller cabinet shall be installed at a distance in advance of the DMS structure such that maintenance personnel performing work from the controller cabinet shall be able to view and confirm the text being displayed on the DMS. For easy access and maintenance, the DMS controller cabinet shall be pad-mounted at ground level and placed out of the clear zone or behind guardrail per FDOT requirements with a clear view of the DMS display.

The Design-Build Firm shall replace the existing device cabinets as specified within the project limits with new equipment.

- Grounding and TVSS - All I-4 project systems shall be protected from damage caused by lightning strikes, transient voltage surges and induced current. The Design-Build Firm shall design, install and test all grounding, lightning protection, and transient voltage surge suppression subsystems in accordance with Underwriters Lab (UL) 96A specifications and NFPA 780 – Standard for the Installation of Lightning Protection Systems.

  The Design-Build Firm shall furnish and install surge protectors for all cables and conductors (power, video, and data). All project subsystems, devices and ancillary components with electrical interconnects shall be protected from voltage surges caused by lightning, transient voltage surges, induced current and external electromagnetic fields at the time of installation of each device, as specified in the FDOT Standard Specifications for Road and Bridge Construction (latest edition). The Design-Build Firm shall provide a grounding system that meets the grounding requirements of the National Electric Code and the FDOT Standard Specifications for Road and Bridge Construction (current edition at time of bid submittal). The Design-Build Firm shall provide a transient voltage surge suppressor (TVSS) both ahead of and behind (i.e., on the supply side and the load side of) all ITS device electronics.

  The Design-Build Firm shall ensure that the required lightning protection equipment for each device pole is securely attached on the pole at an elevation higher than the highest attached ITS device and/or component described herein (e.g. CCTV cameras, MVDS sensor).

- Removal of any ITS System components - Existing ITS System component shall not be removed without advanced approval from the Department. Any removed devices shall be inventoried and delivered to the Department with a transmittal letter. The transmittal letter shall be signed by a minimum of two stakeholders.

- Testing of fiber optic backbone and lateral drops furnished and installed or modified by the Design-Build Firm: If a backbone fiber is modified, bi-directional testing shall occur to/from the nearest fiber hub shelter/cabinet upstream and downstream from the point of modification. Modification includes, but is not limited to, fiber splices, terminations, or relocations.

- New fiber optic cable shall not be placed in any conduit with energized (low or high voltage) conductors. Only di-electric, loose tube, non-gel single mode fiber optic cable shall be used to interface with the system fiber optic patch panels.

- Where existing conduit is used, locate wire shall be placed in the spare communications conduit and not in a conduit occupied by communications or power cables.

- A Maintenance of Communication Plan (MOC) shall be presented in writing to the Department prior to any planned network outages. A limit of two (2) hours down time during off-peak times is permitted for network splicing or maintenance if approved by the Department.

- Provide a MFES that has the following features and capabilities:
  - Minimum of two optical 1 Gbps Ethernet SFP/GBIC ports. Each optical port shall consist of a pair of fibers.
  - Minimum of four spare 10/100 Base-T/TX full duplex copper local ports in addition to the local ports needed per design of each cabinet
  - Provided with either SC or LC connectors.
  - Fully compatible and interoperable with the existing ITS network.
  - Provisioned with licensing from the manufacturer providing Layer 2+ switching features.

- Include all agent and management software and documentation.
- Capable of being either rack mounted or DIN-rail mounted in ITS cabinets as approved by the Department.
- Provided with a power supply / transformer as required that is also environmentally hardened to NEMA TS-2 standards as approved by the Department.
- Provided with "fastening mechanism" type power supplies / transformers. No plug-in types will be permitted. All corded transformers must be mountable with the ability to neatly secure power cords.
- Provided with rubber dust caps/covers with insertion/removal handles that completely seal the port opening for all unused copper and optical ports.
- Supports IGMP v3.
- Include fault tolerant design with built-in test and failure reporting

- Provide a MFES that supports, at a minimum, the following security features:
  - Passwords – Multi-level user passwords secures switch against unauthorized configuration.
  - Secure Shell Protocol (SSH) / Secure Sockets Layer (SSL) – Extends capability of password protection to add encryption of passwords and data as they cross the network.
  - Enable / Disable Ports – Capability to disable ports so that traffic cannot pass.
  - Remote Authentication Dial-In User Service (RADIUS) – Provides centralized password management.

- Ensure that the configurations of the Layer 2 MFESs are able to be downloaded and stored on a computer and later to be uploaded to the unit when necessary.
- Ensure that the configuration of the Layer 2 MFESs meet and/or exceed the following minimum trouble shooting and diagnostic specifications: o Displays the contents of a specified address
  - Displays information about hardware registers for a specified port
  - Displays configuration and status of physical and logical ports
  - Displays detailed information about RSTP (configuration and status)
  - Displays active status of the unit

- Removal of the existing lateral drops from the backbone to the existing mainline toll facilities and from the existing ramp toll facilities that will or may be removed as part of this project. The lateral drops disconnected from the backbone shall be re-spliced "in-kind" to match respective fiber strand(s) and buffer tube(s) as approved by the Department. The existing lateral drop conduit(s), pull boxes and splice boxes shall be removed as described in Section C - Utility Coordination of this RFP.

- Perform all ITS maintenance activities within the construction limits starting 90 days after the Notice to Proceed (NTP) or once mobilization begins, whichever occurs first. Maintenance responsibility of the existing and proposed system shall continue until the completion of stand-alone, subsystem, system level and MVDS validation testing and the acceptance of the replaced ITS devices and infrastructure by the Department. Furthermore, the ITS equipment shall be fully operational within the District's Allowable Time and Damage Recovery/User Cost requirements. The District shall also continue to have access to the information from the ITS devices despite the equipment not having yet passed the standalone, subsystem, system level and MVDS validation tests. The Design-Build Firm will perform Emergency Maintenance work (within 1 hour response time) and Priority Maintenance work (within 4 hours response time). Emergency maintenance response will be required 24-7 when a device results in complete failure of the existing system or when a system infrastructure presents an unsafe or life-threatening condition. Priority maintenance response will be required when a device or component device has failed

and must be repaired for the existing ITS to function as expected.

- Testing of fiber optic backbone and lateral drops furnished and installed or modified by the Design-Build Firm.
- Testing of the Intelligent Transportation System.

Coordinate with the Design-Build Firm to avoid conflicts with landscape plans within the Department Right-of-Way. While procedures are being revised to facilitate this increased collaboration and cooperation, the Design-Build Firm is required to ensure that the design and construction of each ITS project and each landscape project is entirely coordinated with existing and proposed ITS facilities and landscapes. Both programs have been determined to be important components of the state transportation system.

Construction and Integration Services:

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

The Design-Build Firm shall schedule a pre-integration meeting at least 14 calendar days prior to starting integration. The Design-Build Firm is responsible for providing all required information at the meeting. In the event the information is incomplete or inaccurate, the meeting shall be rescheduled with corrected information. Integration cannot proceed until a minimum of 14 calendar days has elapsed following the complete and accurate submittal of required documents at the pre-integration meeting.

The integration efforts shall include, but are not limited to, complying with District Security Access Policies, installation of equipment at the District Server Room, and FDOT network security requirements.

The Design-Build Firm shall verify the manufacturer's proprietary end-user software reports all data.

The Design-Build Firm shall verify all proposed IP addressable devices are configured to be detected by the District's NMS.

Testing and Acceptance:

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

a) Testing Requirements:

The Design-Build Firm shall be responsible for developing a Requirements Traceability Verification Matrix (RTVM) and submit to Department's review within 150 calendar days of the written date of NTP.

The Design-Build Firm shall submit a detailed RTVM, standalone, sub-system, system level and MVDS validation test plans, test procedures, test data forms and any other material required to perform the various tests, along with detailed test cases and associated configuration diagrams for each subsystem, ITS device and ancillary component described or listed in this RFP and FDOT Standard Specifications for Road and Bridge Construction (current edition at time of bid submittal).

Final ITS Acceptance

The Project shall not be eligible for Final Acceptance until the successful completion of the 30-Day system testing period. The Design-Build Firm shall meet the following Final ITS Acceptance requirements:

a) Additional MVDS Testing Requirements:

The Design Build Firm shall provide all necessary equipment to test the MVDS. The Design-Build Firm shall route a minimum of 100 vehicle passes consisting of FHWA Vehicle Classes 1, 2, 3, 8 and 9 in front of the MVDS within a four (4) hour period.

b) Training:

The Design-Build Firm shall provide a manufacturer training course to all technicians responsible for installation. This training shall consist of a complete overview of the WWVDS installation and setup based on the sensor's User's Guide and general trouble shooting.

The Design-Build Firm shall provide a Manufacture certified training course for FDOT District ITS maintenance staff and associated asset maintenance contractors. This training shall consist of a complete overview of the WWVDS installation, setup and maintenance requirements based on the WWVDS requirements. The training shall consist of a minimum of two 4-hour technical training session for a minimum of 8 participants each and one 2-hour overview training for a minimum of 4 participants. The Design-Build Firm shall provide a User Guide, Maintenance Manual and general trouble shooting guidance as part of the training. The information shall include information as necessary to maintain system functionality in the event individual components require replacement, procedures for routine software/firmware updates, field and remote system maintenance requirements and any other items necessary to maintain the performance requirements as specified herein. The Design-Build Firm shall provide both paper and digital copies of all training materials and manuals to each training participant.

c) Final Acceptance:

The Department will issue notice of final acceptance of the project after delivery of the final deliverables per the RFP, plans, Specifications and the following:

- Successful completion of all tests as described above
- 30-Day Burn-In Period
- Department approval of all test reports and results
- Demonstration that the system is stable and no intermittent operational conditions.
- Document the acceptance date and project identification information and provide 2 copies to the Department.
- Delivery of all training as required

d) ITS Close-Out:

Provide final inspection to be conducted once the OSAT has demonstrated that the entire ITS is operating successfully and meets all Project requirements. The final inspection must include:

- Conduct field visit(s) to ensure that all ITS devices are in their correct final configuration.

- Verify that all Project submittals including test reports have been submitted and approved by the Department.
- Verify that all final cleanup requirements have been completed and field conditions restored to their original condition.
- Ensure that final as-built and all Project documentation is provided as specified.
- Ensure that all training services have been successfully completed as specified.
- Ensure that all warranties are in place and transferred to the Department as specified herein.

Request in writing the Department's approval to start the final inspection a minimum of 7 calendar days prior to the requested start date. The Department reserves the right to schedule the final inspection at the end of the 30-day burn-in period subject to the minimum 7 day advance notice requirement. The Department reserves the right to reschedule the start date if needed.

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

Upon successful completion of the ITS close out, the Design-Build Firm may request in writing Final Acceptance.

3. Existing Conditions

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

The existing ITS within the project corridor consists of legacy ITS devices and communications which shall be considered as "existing" for the purposes of this contract.

The existing ITS infrastructure and devices deployed, maintained and operated by the Department that exist within the project limits include the following:

- 4" outerduct with 3-1" innerducts used as a raceway for communications along the EB side of the roadway which houses the 72 strand fiber optic backbone communications cable
- 1-2" and 1-3" conduit used as a raceway for electrical distribution cabling to devices within the project limits
- 2-CCTV sites inclusive of cabinet and ancillary equipment
- 4- MVDS sites
- 1-Electrical power service assembly inclusive of transformers, meters, distribution panels and disconnects
- 2-Full size walk-in DMS mounted on half span structures
- Fog/Low Visibility Detection System Flashing Beacons and Visibility Sensors

The ITS components shall be defined as follows:

- Closed Circuit Television (CCTV) Camera System: The CCTV Camera System consists of pan-tilt-zoom (PTZ) cameras along the corridor. The CCTV cameras are used by Department staff for incident management and traffic monitoring. The cameras are integrated and communicate with Local Hubs along the corridor via the single mode FOC communications backbone installed along the corridor.
- Dynamic Message Sign System (DMS). The DMS consists of mainline dynamic message signs and provide roadway information and travel times. The mainline DMS are located at select locations along the corridor. The mainline DMS are connected and communicate via the single mode FOC communications backbone installed along the corridor.
- Vehicle Detection Systems (VDS): The VDS consists of non-intrusive, microwave technology sensors used to collect vehicle volume, speed and occupancy data from mainline travel lanes. The detectors are installed on stand-alone concrete poles and/or attached to other ITS device structures in a side-fired configuration to detect data on a lane by lane basis. The VDS is used for incident detection by Department staff and communicate with the single mode FOC communications backbone installed along the corridor.
- Fiber Optic Network (FON): The FON infrastructure provides communications for ITS components. The FON is composed of the FOC communications backbone, lateral connections and communications equipment including but not limited to field and HUB Ethernet switches, port servers, routers, fiber patch panels installed at the various ITS device(s) serving as a local HUB.
- For clarification purposes, any reference in this RFP to the mainline fiber optic backbone that is installed along the corridor shall be defined as the "backbone". The fiber optic cable between the backbone and ITS components shall be defined as the "ITS lateral".

The Design-Build Firm shall be responsible for verification of existing conditions, including research of all existing Department records and all other ITS related information. The Design-Build Firm shall conduct the field survey and provide a complete inventory with locations of all ITS components and infrastructures in the project limits within 60 calendar days of NTP.

The Design-Build Firm shall replace the existing ITS devices as specified in each subsystem's requirements within the project limits. The new replacement devices and accessories shall meet the new ITS devices requirements specified in this document.

The existing ITS components to be replaced include, but are not limited to:

- CCTV camera assembly
- Camera lowering device
- MVDS assembly and device servers
- DMS Signs
- Fog Detection Flashing Beacon Assemblies and Visibility Sensors
- Uninterrupted Power Supplies (UPS)
- Fiber optic cables and connections
- Layer 2 Ethernet switches
- Communications and Electrical conduit system and cabling

- Electrical Power Service and Distribution System
- Structure and pole placement or modifications to be determined by the Design-Build Firm's final design

Dynamic Message Signs

The Design-Build Firm shall design, construct, install and integrate a DMS system consisting of Freeway Dynamic Message Signs within the project limits. The DMS system shall be compatible with the SunGuide Software platforms and the existing communications protocol used by the FDOT District Seven SunGuide RTMC.

The types of DMSs for this Project are:

Portable DMS – refers to trailer-mounted dynamic-message signs used to inform motorist of altered traffic patterns or other conditions near work zones.

The existing freeway DMS is currently mounted on a half-span structure. The existing amber DMS assembly including controller cabinet will be replaced with a full color sign on a new sign structure. Care shall be taken in the removal and dis-assembly of all parts so as to not damage those re-usable components or the Design-Build Firm shall provide new DMS meeting the requirements herein. If the existing DMS structure is required to be relocated/reconstructed due to the conflict with the proposed construction of the new lanes, the new structure location shall be placed within 100 feet of the original location or otherwise approved by the Department. If relocation is required, a Portable DMS (P-DMS) should be installed and operational before disconnecting the existing DMS.

CCTV Cameras

Two (2) existing Freeway CCTV cameras are located within the project segment. The field locations for the existing CCTV cameras are referenced below:

Existing CCTV Camera Locations:

#	Station	Description	Camera Location	Functionality	Required Action
1	1652+90EB	CCTV	East of SR 557	Surveillance	Replace
2	1695+80WB	CCTV	East of SR 557	Surveillance	Replace

Each existing CCTV camera and video encoder within the project limits shall be upgraded with new equipment to the same model used for the new installations that are specified below.

The cabinets and equipment at each specified existing CCTV camera location shall be replaced and upgraded, including but not limiting to, camera assembly, camera lowering device, Layer 2 switch, UPSs, surge protectors and connections and Air terminals.

The CCTV's shall also provide the RTMC operators the ability to visually verify if the DMS signs and the fog detection flashing beacons are functioning properly.

Fog/Low Visibility System

The existing flashing beacons are connected to the Fog/Low Visibility Units using #6 conductors connected to web relays which are used to trigger the flashing beacon controllers on and off.

The existing flashing beacon sign assemblies in a grouping are installed on breakaway sign supports and are connected to the nearest Fog/Low Visibility sensor cabinet and flashing beacon controller.

The Design-Build Firm shall design, construct, install, calibrate, and validation test the Fog/Low Visibility Sensor Units by performing a standalone test, a subsystem test and a final acceptance test from the District Seven RTMC. The new Fog/Low Visibility sensors shall be mounted on new concrete poles or collocated on CCTV camera poles and shall be located within 100 feet of the current sensor locations.

- **Landscape Opportunity Plans: Not Applicable**

VI. Technical Proposal Requirements:

A. General:

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

B. Submittal Requirements:

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

A copy of the written Technical Proposal must also be submitted in PDF format including bookmarks for each section on a CD, DVD, or Flash Drive. Bookmarks which provide links to content within the Technical Proposal are allowed. Bookmarks which provide links to information not included within the content of the Technical Proposal shall not be utilized. No macros will be allowed. Minimum font size of ten (10) shall be used. Times New Roman shall be the required font type.

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

Submit 1 Original, (6) CD's, DVD's or Flash Drives containing the Technical Proposal in PDF format and (6) collated, complete sets of hard copies of the Technical Proposal to:

Mr. Don Naylor
Attn: Robin Stevens
801 N. Broadway Ave.
Bartow, FL 33830
(863) 519-2610
D1.DesignBuild@dot.state.fl.us

The minimum information to be included:

Section 1: Project Approach

- Paper size: 8½" x 11". The maximum number of pages shall be (15), single-sided, typed pages including text, graphics, tables, charts, and photographs. Double-sided 8½" x 11" sheets will be counted as 2 pages. 11"x17" sheets are prohibited.
- Describe how the proposed design solutions and construction means and methods meet the project needs described in this Request for Proposal. Provide sufficient information to convey a thorough knowledge and understanding of the project and to provide confidence the design and construction can be completed as proposed.
- Provide the term, measurable standards, and remedial work plan for any proposed Value Added features that are not Value Added features included in this RFP, or for extending the Value Added period of a feature that is included in this RFP. Describe any material requirements that are exceeded.
- Provide a Written Schedule Narrative that describes the Design and Construction phases and illustrates how each phase will be scheduled to meet the Project needs required of this Request for Proposal. Bar or Gantt charts are prohibited.

Section 2: Plans

- Plan and Profile views of the proposed improvements shall be submitted in roll-plot format. The maximum width of the roll-plots shall be 36". The maximum length of the roll-plot shall be 8'. Inclusion of additional information on the roll-plot, other than depictions of the Plan and Profile views, is allowed provided it clarifies the plan and profile views. However, the Department may determine that such additional information is excessive and may require the Design-Build Firm to revise and resubmit the roll-plots. If this occurs, the Design-Build Firm will have 2 business days to revise and resubmit the roll-plots upon notification by the Department. All other information not included on the roll plots, such as typical sections, special emphasis details, structure plans, etc., shall be provided on 11"x17" sheets.
- Right of Way Maps and Legal Descriptions (including area in square feet) of any proposed additional Right of Way parcels if applicable and approved through the ATC process. Provide Technical Proposal Plans in accordance with the requirements of the FDOT Design Manual, except as modified herein.
- The Plans shall complement the Project Approach.
- The Typical Sections in the Plans shall show the future express lanes, shoulders and barriers, including all horizontal and vertical clearances, but denoted "to be constructed by others".

C. Evaluation Criteria:

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

Item	Value
1. Design	30
2. Construction	30
3. Innovation	10
4. Value Added	10
Maximum Score	**80**

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

1. **Design (30 points)**

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

- Structures design
- Roadway design / and safety
- Drainage design
- Environmental Design
- Design coordination plan minimizing design changes
- Geotechnical investigation plan
- Geotechnical load test program
- Minimizing impacts through design to:
  - Environment
  - Public
  - Adjacent Properties
  - Structures
- Temporary Traffic Control Plan
- Incident Management Plan
- Aesthetics
- Utility Coordination and Design
- Design considerations which improve recycling and reuse opportunities

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

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

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

The Design-Build Firm is to address the following in the Technical Proposal: development of design approaches which minimize periodic and routine maintenance. The following elements should be considered: access to provide adequate inspections and maintenance, access to structure's lighting system, and impacts to long term maintenance costs.

2. **Construction (30 points)**

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

- Safety
- Structures construction
- Roadway construction
- Drainage construction
- Construction coordination plan minimizing construction changes
- Minimizing impacts through construction to:
  - Environment
  - Public
  - Adjacent Properties
  - Structures
- Implementation of the Environmental design and Erosion/Sediment Control Plan
- Implementation of the Maintenance of Traffic Plan
- Implementation of the Incident Management Plan
- Utility Coordination and Construction

The Design-Build Firm is to address the following in the Technical Proposal: developing and deploying construction techniques that enhance project durability, reduce long term and routine maintenance, and those techniques which enhance public and worker safety. This shall include, but not be limited to, minimization of lane and driveway closures, lane widths, visual obstructions, construction sequencing, and drastic reductions in speed limits.

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

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

3. **Innovation (10 points)**

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

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

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

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

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

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

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

D. Final Selection Formula:

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

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

BPP = Bid Price Proposal

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

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

The Department reserves the right to consider any proposal as non-responsive if any part of the Technical Proposal does not meet established codes and criteria.

E. Final Selection Process:

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

reject all proposals. If the Selection Committee decides not to reject all proposals, the contract will be awarded to the Proposer determined by the Selection Committee to have the lowest adjusted score.

F. Stipend Awards:

The Department has elected to pay a stipend to all non-selected Short-Listed Design-Build Firms to offset some of the costs of preparing the Proposals. The non-selected Short-Listed Design-Build Firms meeting the stipend eligibility requirements of the Project Advertisement and complying with the requirements contained in this section will ultimately be compensated. The stipend will only be payable under the terms and conditions of the Design-Build Stipend Agreement and Project Advertisement, copies of which are included with this Request for Proposal. This Request for Proposal does not commit the Department or any other public agency to pay any costs incurred by an individual firm, partnership, or corporation in the submission of Proposals except as set forth in the Design-Build Stipend Agreement. The amount of the stipend will be $186,032.69 per non-selected Short-Listed Design-Build Firm that meets the stipend eligibility requirements contained in the Project Advertisement. The stipend is not intended to compensate any non-selected Short-Listed Design-Build Firm for the total cost of preparing the Technical and Price Proposals. The Department reserves the right, upon payment of stipend, to use any of the concepts or ideas within the Technical Proposals, as the Department deems appropriate.

In order for a Short-Listed Design-Build Firm to remain eligible for a stipend, the Short-Listed Design-Build Firm must fully execute the stipend agreement within one (1) week after the Short-List protest period for the Design-Build Stipend Agreement, Form No. 700-011-14. The Short-Listed Design-Build Firm shall reproduce the necessary copies. Terms of said agreement are non-negotiable. A fully executed copy of the Design-Build Stipend Agreement will be returned to the Short-Listed Design-Build Firm.

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

VII. Bid Proposal Requirements.

A. Bid Price Proposal:

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

Mr. Don Naylor
Attn: Robin Stevens
801 N. Broadway Ave.
Bartow, FL 33830
(863) 519-2610
D1.DesignBuild@dot.state.fl.us

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