Intelligent Transportation Systems (ITS) Infrastructure for East and West Selmon Project Hillsborough County

Tampa Hillsborough Expressway Authority
Project No. O-4525

Phased Design-Build
Request for Qualifications

February 6, 2026

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I. Additional Project Documents

A. Attachments

The Attachments listed below are hereby incorporated into and made a part of this Request for Qualifications (RFQ) as though fully set forth herein. These documents have been prepared for or by the Authority utilizing registered professionals in their fields of practice, so the information contained therein can be construed as a sample representation of field conditions or statement of facts upon which the Design-Build Firm can rely. This RFQ provides clarifications for the application of Attachments and Governing Regulations to this Project.

Table 1: RFQ Attachments

Attachment ID	Attachment Name
A_001	Division I Design-Build Specifications
A_002.01	Public Records
A_002.02	Legal Requirements and Responsibility to the Public – Permits and Licenses - General
A_002.03	Legal Requirements and Responsibility to the Public – Preservation of Existing Property (Toll Facilities)
A_002.04	Legal Requirements and Responsibility to the Public – Equal Employment Opportunity Requirements
A_002.05	Prosecution and Progress – Limitations of Operations - Contaminated Material – (Mercury-Containing Devices and Lamps)
A_002.06	Prosecution and Progress – Damage Recovery
A_002.07	Legal Requirements and Responsibility to the Public – E-Verify
A_002.08	Legal Requirements and Responsibility to the Public – Scrutinized Companies
A_002.09	Insurance Requirements Coverages and Limits
A_003.01	Contractor Quality Control General Requirements
A_003.02	Structures Foundations (Design Build)
A_004	THEA General Tolling Requirements
A_005	THEA ITS Minimum Technical Requirements
A_006	Survey Data
A_007	Model_Element_Breakdown_(MEB)
A_008	FDOT District Seven Specific ITS Requirements and Guidelines

B. Reference Documents

The following documents are being provided with this RFQ. Except as specifically set forth in the body of this RFQ, 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 RFQ, 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 the Contract, unless otherwise directed, in writing, by the Authority.

Table 2: Reference Documents

Reference ID	Reference Name
R_01	Original Expressway Plans
R_02	THEA Existing ITS GIS Database – Exempt
R_03	Existing Bridge Plans – Exempt
R_04	SSCP ITS Concept Plans
R_05	ITS Concept Plans
R_06	ITS Concept Plan CADD Files
R_07	SWE Finback CCTV Install Memo
R_08	SSCP ITS Interface Memo
R_09	As-built SWE ITS Plans
R_10	Lighting System Acclaim Report
R_11	How to Guide for XMT DMX Test
R_12	East Selmon PD&E Master Signing Plan
R_13	FC5 & Rumble Strips System Map
R_14	East Selmon Slip Ramp Aesthetic Lighting Plans
R_15	East Selmon Existing Lighting Plans - Conformed
R_16	East Selmon Existing Lighting Plans - Revision 4
R_17	East Selmon Existing Lighting ITS Plans
R_18	ITS Master Plan
R_19	ITS Maintenance O-0123 Scope of Services
R_20	THEA Speed Feedback Sign Evaluation
R_21	UAO Greenlines
R_22	THEA Aesthetics Plan

C. Forms

The forms listed below are hereby incorporated into and made a part of this Request for Qualifications (RFQ) as though fully set forth herein. All forms are to be completed as set forth within the RFQ.

Table 3: Forms

Form ID	Form Name
A_00X.01	Contract
A_00X.02	Certificate of Insurance (Sample Form)
A_00X.03	SBE Commitment Form
A_00X.04	Dispute Review Board Three Party Agreement
A_00X.05	Declaration of Joint Venture Form
A_00X.06	ITS PDB Exempt Documents/Security System Plan Distribution Form
A_00X.07	Performance and Payment Bond Forms
A_00X.08	Sworn Statement on Public Entity Crimes Form

II. Introduction

A. Project Introduction

The Tampa-Hillsborough County Expressway Authority (THEA or the Authority) has issued this Request for Qualifications (RFQ) to solicit Expanded Letters of Response (ELOR) from Proposers in accordance with Florida Statute 287.055 for the design and construction of the Intelligent Transportation Systems (ITS) Infrastructure for East and West Selmon Project (the Project).

The Authority seeks to expand ITS infrastructure on the Selmon Expressway to create full coverage for its traffic incident management system, ultimately providing the Authority with real-time data to support and enhance system operations, safety, asset management, emergency response and management, and long-term planning, as further described below in the Project goals. The Authority also seeks to improve the existing lighting system and implement additional traffic safety measures along its system.

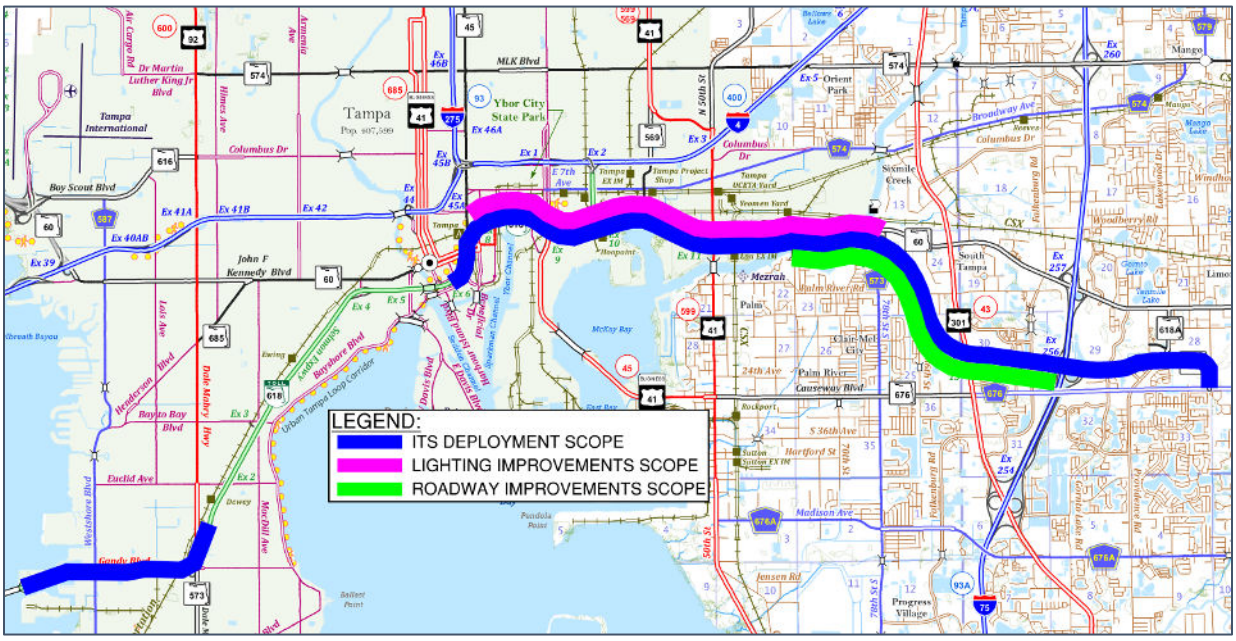
The proposed scope of work for this Project consists of designing and building (i) a full-coverage ITS system on the Selmon Expressway, inclusive of ancillary structural work necessary for the installation of such ITS equipment, (ii) an upgraded lighting system along the corridor, and (iii) roadway improvements such as existing pavement resurfacing and placement of rumble strips on shoulders.

The proposed project limits for the ITS deployment are (i) from the east side of Gandy Bridge to the west side of South Himes Avenue and (ii) from the South Tampa Street ramp to the intersection of Brandon Parkway and East Lumsden Road.

The proposed project limits for the lighting system improvements are from Pier 172 west of 12th Street to Abutment 1, east of the 78th Street ramps.

The proposed project limits for roadway improvements are along mainline Selmon Expressway from Maydell Drive to the I-75 interchange.

See map below depicting the approximate limits of the above proposed scope items.



To optimize the design of the proposed project scope, it is the Authority's intent to promote the use of innovative design concepts, components, details, and construction techniques for this Project.

The Project will be delivered through a Phased Design-Build contract, which is a collaborative project delivery method that combines the Planning Phase, Design Phase, and Construction Phase under one contract.

B. Overview of the Phased Design-Build Process

The Authority will select a preferred Proposer based on qualifications. The Authority will evaluate the Proposers consistent with the criteria contained in this RFQ and identify the highest scoring Proposer. Should the Parties execute the Contract, the Phased Design-Build process will commence.

The Work shall be performed by the Design-Build Firm in three phases: (a) the Planning Phase, (b) the Design Phase, and (c) the Construction Phase. Each phase may be authorized as documented in an approved Task Work Order if agreed to and executed by the Authority and the Design-Build Firm.

During the execution of the Contract, there will be several instances where Task Work Orders are negotiated to allow the Design-Build Firm to move on to the next phase of Work. No Task Work Order will be issued for this Project unless the Authority's Board has approved the funds for the Work associated with the Task Work Order.

As part of the Contract, the Design-Build Firm shall work collaboratively as a team with the Authority, its representatives, and Project stakeholders to maximize the Project scope, value, and quality of the Project.

1. Planning Phase

Upon execution of the Contract, and receipt of corresponding Notice to Proceed (NTP), the Design-Build Firm shall commence with the Planning Phase scope of services, which is defined in this RFQ. During the Planning Phase, the Design-Build Firm shall collaborate and coordinate with the Authority, its representatives, and its stakeholders to progress and optimize the design. The Design-Build Firm shall prepare the 30% Phase Submittal to meet the required scope, design criteria, and goals of the Project. At the end of the Planning Phase, the Design-Build Firm shall submit a Request to Continue (RtC), which shall include an Opinion of Probable Construction Cost (OPCC).

The Planning Phase continues through execution of the Design Phase Task Work Order.

Should the Authority approve the RtC, the Parties would execute a Design Phase Task Work Order with an associated Design Phase Guaranteed Maximum Price (GMP) equal to or less than the design cost listed in the RtC. Should the Authority not approve the RtC, and thereby fail to agree on the contents of a proposed Task Work Order, the Authority may exercise its rights in Section 4 of the Contract.

2. Design Phase

Upon execution of Design Phase Task Work Order, and receipt of corresponding NTP, the Design Phase would commence, authorizing the Design-Build Firm to refine and finalize the design and develop Work Package Proposals (WPPs). Each WPPs shall include an associated GMP for the Construction Work proposed within each respective Work Package.

3. Construction Phase

Should the Authority approve of the WPP, the Parties would execute a Construction Phase Task Work Order, and upon receipt of the corresponding NTP, the Design-Build Firm would be authorized to perform the Construction Phase Work for such WPP. Should the Authority not approve the WPP, and thereby fail to agree on the contents of a proposed Task Work Order, the Authority may exercise its rights described in Section 4 of the Contract.

The Authority may, at its sole discretion, authorize Design Phase services and/or Construction Phase services for specific areas of the Project prior to completion of the Planning Phase.

C. Project Goals

The Authority's goals for the Project, as well as for its delivery, are as follows:

1. Extend coverage of the existing traffic incident management system across the entire Selmon Expressway system to provide the Authority with real-time data to support and enhance system operations, safety, asset management, emergency response and management, and long-term planning;
2. Collaborate with the Design-Build Firm during the Planning Phase and Design Phase to optimize the project design, particularly ITS device type, quantity, placement, coverage, effectiveness, cost-efficiency, and capability;
3. Leverage a phased design-build delivery approach to foster collaboration amongst the Authority, the Design-Build Firm, adjacent project contractors, and project stakeholders;
4. Leverage a phased design-build delivery approach to identify and mitigate project risks including, but not limited to, design, constructability, integration (with respect to technology as well as adjacent projects such as the South Selmon Capacity Project (SSCP)), right-of-way (ROW), environmental, utility, and third-party risks;
5. Leverage the Design-Build Firm's expertise to address constructability challenges for ITS installations, particularly on existing segmental bridges; and
6. Gain transparency into project costs through a phased design-build Open Book Cost Estimating and successfully negotiate price, schedule, and terms with the Design-Build Firm for the final design and construction of the Project.

D. Contract Documents and RFQ Contents

The RFQ will become part of the Contract, the form of which is provided to Proposers as part of the procurement documents (A_00X.01 – Contract); the list of Contract Documents and the respective order of precedence is defined within the Contract.

The RFQ contains the following Sections, which shall be used as described:

I. Additional Project Documents: This section describes the additional documents provided with the RFQ and how such documents shall be interpreted (whether contractual or for reference).

II. Introduction: This section describes the Project, Project goals, the Phased Design-Build process, the RFQ contents, and the Project scope.

III. Procurement: This section describes the procurement processes, procedures, rules, and instructions for development of ELORs for the solicitation of the Design-Build Firm for this Project.

IV. Key Provisions: This section prescribes additional contractual language that the Parties shall adhere to when executing the Work.

V. Phases of Work: This section describes the Design-Build Firm's scope for the Planning Phase, Design Phase, and Construction Phase of the Project.

VI. Technical Requirements and Provisions for Work: These provisions provide the Design-Build Firm's additional minimum anticipated responsibilities during the Design Phase and Construction Phase of the Project, which may be revised during the Phased Design-Build process by the Authority and in collaboration with the Design-Build Firm.

VII. Design & Construction Criteria: These provisions provide the minimum anticipated design and construction scope elements and performance-based criteria for the Project, which the Design-Build Firm shall adhere to and meet during the performance of the Work, unless otherwise altered by the Authority during the Phased Design-Build process in collaboration with the Design-Build Firm.

E. Scope of Work

The Design-Build Firm's scope authorized by executing the Contract and issuance of Notice to Proceed (NTP) is the Planning Phase scope described in Section V.

Subject to execution of Task Work Orders described in Section II.A, the Design-Build Firm's anticipated scope includes the design and construction of the following:

1. ITS improvements, which may include, but are not limited to, the following:
    - Maintenance of communication for all communication networks and ITS devices within the project limits throughout the project's duration.
    - Redundant communication network for ITS.
    - Wrong way vehicle detection systems for off ramps, as applicable.
    - Installation of a vehicle detection subsystem.
    - Installation of Closed-Circuit Television (CCTV) coverage to provide full coverage of all travel lanes and ramps within the project limits.
    - Installation of Dynamic Message Signs (DMS) and verification cameras.
    - Installation of travel time DMS and verification cameras.
    - Installation of Roadside Unit (RSU) and video analytics camera.
    - Installation of Microwave Vehicle Detection System (MVDS).
    - Installation of Electronic Speed Feedback Signs (ESFS).
    - Incorporation of the ITS equipment design and construction from the South Selmon Capacity Project (SSCP) from West of South Himes Avenue to East of South Florida Avenue into the proposed Authority traffic incident management system. System integration, testing, certification, startup/commissioning of the full limits of the Selmon Expressway are the responsibility of the Design-Build Firm.
    - Furnishing all necessary hardware and software, mounting hardware, cabling, and all other associated electronics and cabinets necessary to support the proposed ITS network.

- Furnishing, testing, integration, certification, and commissioning of the proposed ITS network.

2. Structures improvements, which may include, but are not limited to, the following:
   - Construction of ITS infrastructure on or attached to the following bridges to meet the minimum requirements described in Section VII:
     - Selmon West Extension (SWE) Segmental Bridge.
     - Reversible Express Lane (REL) Segmental Bridge.
   - Miscellaneous minor structures, including but not limited to:
     - Sign supports for the proposed DMS structures and ITS devices as described in Section VII.
3. Signing and pavement marking improvements, which may include, but are not limited to, the following:
   - Installation of new signing and pavement markings to address the roadway improvements and replacement of any signing and pavement marking impacted by the Project.
4. Lighting system improvements, which may include, but are not limited, to the following:
   - Removal, diagnosis, and reinstallation of all existing luminaires.
   - Testing and repair of the system power connections, including grounding.
   - Troubleshoot and repair of the lighting system communications.
   - Coordinate reprogramming of the luminaires with the Authority.
   - Installation and testing of a grounding system.
5. Tolling improvements, which may include, but are not limited to, the following:
   - Redundant communication network for tolls utilizing trunklines on both sides of the Selmon Expressway.
   - This scope includes furnishing all necessary hardware and software, mounting hardware, cabling, and all other associated electronics and cabinets necessary.
   - This scope includes furnishing, testing, integration, certification, and commissioning.
6. Aesthetic improvements, which may include, but are not limited, to the following:
   - Aesthetics treatments as indicated in this RFQ and in general conformity with the Aesthetics Criteria in Section VII.
7. Roadway improvements, which may include, but are not limited to, the following:
   - Longitudinal grooving of approximately 2.8 miles of Selmon Expressway with dense graded friction course with a typical section consisting of varying from four to six general-use lanes as described in Section VII.
   - Installation of rumble strips for the following sections of Selmon Expressway as described in Section VII:
     - EB Selmon Expressway outside shoulder from approximately MP 9.40 to MP 9.54.
     - EB Selmon Expressway inside and outside shoulders from approximately MP 10.13 to MP 10.87.
     - EB and WB Selmon Expressway inside and outside shoulders from approximately MP 11.12 to MP 13.75.

III. Procurement

It is the Authority's intent to solicit Expanded Letters of Responses (ELORs) from firms for this Project using a single-phase qualifications-based procurement process. Interested Proposers will be required to submit an ELOR, and Proposers submitting a responsive ELOR will be invited to participate in an interview, as described within this Section III, Procurement. THEA will score Proposers based on their ELOR and interview.

The complete initial RFQ (including Attachments and Forms) and the Reference Documents for this Project are available from the Authority via a unique SharePoint link. To obtain access to the SharePoint link containing the RFQ (including Attachments and Forms) and non-exempt Reference Documents email the Authority's Contracts and Procurement Department at Procurement@tampa-xway.com with the following subject: THEA ITS PDB RFQ Docs Request - [Name of Proposer] – Project#: O-4525. The Reference Documents for this Project include documents exempt from public disclosure as provided by Section 119.071(3)(b), Florida Statutes. Thus, in order to receive the complete RFQ for this Project, Proposers MUST complete the Authority's Exempt Documents/Security System Plan Distribution Form included in the Attachments as THEA ITS PDB Exempt Docs Request Form and email the Authority's Contracts and Procurement Department at Procurement@tampa-xway.com with the following subject: THEA ITS PDB Exempt Docs Request - [Name of Proposer] – Project#: O-4525 to obtain access to the SharePoint link containing the complete initial RFQ and Reference Documents. The Authority's Exempt Documents/Security System Plan Distribution Form (A_00X.06) shall be executed by the Proposer's authorized representative, or, if the Proposer is not an architect or engineering firm, the Proposer's Project Manager who will be identified in its ELOR may execute the Authority's Exempt Documents/Security System Plan Distribution Form on behalf of the Proposer.

To access Reference Document "R_02 - THEA Existing ITS GIS Database – Exempt", the Proposers shall request access from the Procurement Department at Procurement@tampa-xway.com; the Proposer must provide the Authority with one set of active ArcGIS license user credentials (username and email). After receipt of such request and credentials, the Authority will add this user to the Authority's GIS database which contains such Reference Document. The Proposer shall be responsible for confirming access to such exempt Reference Document.

To access Reference Documents "R_03 - Existing Bridge Plans – Exempt", the Proposers shall request access from the Procurement Department at Procurement@tampa-xway.com.

Anyone requesting a SharePoint link from the Authority shall also include in their emailed request a scanned copy of a valid form of picture I.D., their business card, and, if applicable, documentation exhibiting their Florida professional engineering license number (such as a business card with their license number). The Authority may request a Proposer provide original copies of any of the foregoing materials at its discretion.

ELORs will not be accepted from firms that have not obtained the complete RFQ through the Authority and executed the Authority's Exempt Documents/Security System Plan Distribution Form; such firms will be rejected as nonresponsive.

Any addenda or other notifications regarding the RFQ will be posted to the Authority's website at https://www.tampa-xway.com/procurement/# and on DemandStar at https://network.demandstar.com/ .

Proposers are responsible for monitoring the Authority's website and Demandstar throughout the entire procurement process.

A. Schedule of Events

The following table shows the current schedule of events that will take place in the procurement process. The Authority reserves the right to make changes or alterations to the schedule. Proposers will be notified in advance of any changes or alterations in the schedule. Unless otherwise notified in writing by the Authority, 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 date and time stated shall cause a Proposer to be held non-responsive.

Table 4: Schedule of Events

Date	Description	Location
January 8, 2026	Solicitation Published	Authority Website & DemandStar
January 28, 2026 at 10:00am	Pre-ELOR Information Session	Authority's Office: Authority Board Room, 1104 E. Twiggs Street Tampa, FL 33602
February 6, 2026	Deadline for Proposer's submission of questions to Authority	Email to Procurement@tampa-xway.com
February 13, 2026	Deadline for Authority to respond to Proposer's questions	Authority Website & DemandStar
March 2, 2026	Deadline for submitting ELORs	Email to Procurement@tampa-xway.com
March 9, 2026	Determination of responsiveness and Interview invitations sent	Invitation sent from THEA Procurement Email
March 23-27, 2026	Interviews with responsive Proposers	Authority's Office: 1104 E. Twiggs Street Tampa, FL 33602
March 30, 2026	Evaluation Committee Meets to Confirm Scoring & Selection	Authority's Office: 1104 E. Twiggs Street Tampa, FL 33602
March 31, 2026	Posting of Notice of Intended Selection	Authority Website & DemandStar
April 27, 2026	Board Approval of Intended Selection	Authority's Office: Authority Board Room, 1104 E. Twiggs Street Tampa, FL 33602
April 28, 2026	Posting of Final Rankings	Authority Website & DemandStar
May 25, 2026	Anticipated Execution Date for the Contract	N/A

B. General Procurement Provisions

1. Protest Rights

a) **Protests Prior to Notice of Award.** Any person wishing to protest the Authority's procurement process or its solicitation documents for the procurement of services must file a *Notice of Intent to Protest* accompanied by a protest bond in the amount of $5,000 within 72 hours of the Authority's publication of

the procurement documents, (excluding Saturdays, Sundays, and legal holidays). Within five (5) calendar days of the filing of the *Notice of Intent to Protest* and posting of bond, the protesting party must file a written protest stating with particularity the facts and law upon which the protest is based. The protest should: (1) state the specific provision(s) of the bid or proposal package or process applicable to the protest; (2) state the specific manner or method in which the protesting party alleges that the Authority erred in its interpretation or implementation of its procurement process, procedures or statutory provisions; (3) state the basis upon which the protest is premised; and (4) state the protesting party's position and arguments of law, including any evidence supporting the position.

b) **Protests After Notice of Award.** Any person wishing to protest the Authority's actions leading up to a notice of recommendation to either reject any or all bids, or to make a selection or award (e.g., the notice of decision), must file a Notice of Intent to Protest, accompanied by a protest bond in the amount of $5,000 with the Authority within 72 hours of the Authority's publication of its notice of decision, (excluding Saturdays, Sundays, and legal holidays). The protest bond required herein shall be in addition to the protest bond referenced in Paragraph 2.27.1 above. Within five (5) calendar days of the filing of the *Notice of Intent to Protest* and posting of bond, the protesting party must file a written protest stating with particularity the facts and law upon which the protest is based. The protest should: (1) state the specific provision(s) of the bid package or process applicable to the protest; (2) state the specific manner or method in which the protesting party alleges that the Authority erred in its interpretation or implementation of its procurement process, procedures or statutory provisions; (3) state the basis upon which the protest is premised; and (4) state the protesting party's position and arguments of law, including any evidence supporting the position.

The protest bond required by this subsection shall be conditioned upon the payment of all costs which may be adjudged against the person filing the protest in the administrative hearing in which the action is brought and any subsequent appellate court proceeding. If, after completion of the administrative hearing process and any appellate court proceedings, the Authority prevails, it shall recover all costs and charges which shall be included in the final order or judgment, including attorney's fees and costs. Upon payment of such fees, costs and charges by the person filing the protest, the bond shall be returned. If the person filing the protest prevails, he or she shall recover from the Authority all costs and charges which shall be included in the final order or judgment, excluding attorney's fees. The entire amount of the bond shall be forfeited if the court determines that a protest was filed for a frivolous or improper purpose, including, but not limited to, the purpose of harassing, causing unnecessary delay, or causing needless cost for the Authority or parties.

2. Non-Responsive ELOR

ELOR submittals to this RFQ found to be non-responsive by the Authority will not be considered. ELORs may be rejected if found to be in nonconformance with the requirements and instructions contained in this RFQ. ELOR may be found to be non-responsive by reasons, including, but not limited to, failure to utilize or complete prescribed forms, conditional responses, incomplete responses, indefinite or ambiguous responses, failure to meet deadlines, failure to pass the pass/fail requirements, responses materially inconsistent with the Phased Design-Build approach outlined in this RFQ, and improper and/or undated signatures.

Other conditions which may cause rejection of an ELOR include evidence of collusion among Proposers, obvious lack of experience or expertise to perform the required work, submission of more than one ELOR for the same work from an individual, firm, joint venture, or corporation under the same or a different name (also included for Phased Design-Build Projects are those ELOR wherein the same Prime Contractor or Lead Design Firm is identified in more than one ELOR), 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 Authority of Labor's System for Award Management (SAM) excluded parties list.

An ELOR shall not include, and the Authority will not give consideration to, tentative or qualified commitments in the ELOR. For example, the Authority 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.

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

3. Waiver of Irregularities

The Authority, in its sole discretion, shall have the right to waive minor informalities or irregularities in the ELORs 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 Authority's interest by giving a Proposer an advantage or benefit not enjoyed by other Proposers.

- Any design exhibits that are part of an ELOR shall be deemed preliminary only.
- The Proposer who is selected for the Project will be required to fully comply with the Contract, notwithstanding that the ELOR may have been based on a variation from the Design and Construction Criteria.
- The Proposer shall obtain any necessary permits or permit modifications not already provided by the Authority.

4. Authority's Responsibilities

This RFQ does not commit the Authority to undertake efforts, respond to the Proposers, nor to procure or contract for any articles, materials, or services.

5. Consultant Eligibility and Design-Build Conflict of Interest Policy

It is a basic tenet of the Authority's contracting program that contracts are procured in a fair, open, and competitive manner. The Authority requires that consultants representing the Authority must be free of conflicting professional or personal interests. In order to prevent potential conflicts of interest, the Authority will utilize the Florida Department of Transportation's (Department's) established guidelines to be followed by design consultants. Please familiarize yourself with the requirements of Procedure No.375-030-006, also known as: *Conflict of Interest Procedure for Department Contracts*. By submitting an ELOR as part of a Proposer's team or a joint venture, the design consultant certifies that they are in compliance with Procedure No. 375-030-006. This procedure is available at the following link:

https://pdl.fdot.gov/api/procedures/downloadProcedure/375-030-006

A consultant firm, it's affiliate, or subconsultant that is under contract with the Authority to provide Construction, Engineering, and Inspection (CEI) services on this Project cannot be a Proposer or a subconsultant to a Proposer. A contractor or design professional cannot team, as a prime, with other firms to submit more than one proposal in response to this procurement.

The following firms participated in the development of the conceptual plans or RFQ for this Project and are prohibited from proposing or participating with a Proposer to propose on this Project without written approval from the Authority.

- HNTB Corporation

- RK&K
- Element

6. SBE Availability

Small Business Enterprise Aspiration Goal. THEA's *Small Business Enterprise (SBE) Policy* requires nondiscrimination on the basis of race, color, national origin, and gender in its employment and contracting practices and encourages the solicitation and utilization of SBEs. It is the policy of the Authority to encourage the participation of small businesses and disadvantaged business enterprises (SBE) in all facets of the business activities of the Authority, consistent with applicable laws and regulations. Firms proposing for this Project shall aspire to have design and construction contract costs performed by SBEs. The Authority believes that the commitment to make the aspiration goal can realistically be achieved based on current availability of SBEs. The Authority further believes that the goal can be achieved through race neutral means, using standard competitive procurement processes. Firms agree to utilize qualified SBEs as vendors, contractors, subcontractors, and consultants for the Project. Firms will submit the SBE Commitment Form (A_00X.03) as attached hereto and include with submission of their ELOR.

7. Certifications, Notices, and Additional Information

Scrutinized Company Certifications. By submitting an ELOR, the Proposer certifies that: (a) (applicable to all agreements, regardless of value), it is not on the Scrutinized Companies that Boycott Israel List and is not engaged in a boycott of Israel, as defined in Florida Statutes § 287.135, as amended; and, (b) (applicable to agreements that may be $1,000,000 or more), it is: (i) not on the Scrutinized Companies with Activities in Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List as defined in Florida Statutes § 287.135; and, (ii) not engaged in business operations in Cuba or Syria, as defined in Florida Statutes § 287.135, as amended.

Public Entitles Crimes Act. All respondents must complete Form A_00X.08 – Sworn Statement on Public Entity Crimes and submit it with the ELOR, wherein the Proposer certifies that it is not precluded from submitting a ELOR under Section 287.133(2)(a).

E-Verify. Authority contracts require contractors/consultants to comply with the requirements of E-Verify. Contractors/consultants will be required to utilize the U.S. Department of Homeland Security's Employment Eligibility Verification System (E-Verify), in accordance with the terms governing the use of the system, to confirm the employment eligibility of persons employed by the contractor/consultant, during the term of the contract, to perform employment duties within Florida. Prime contractors/consultants are required to include an express provision in their subcontractor/subconsultant agreements requiring the subcontractors/subconsultants to do the same.

Civil Rights. The Authority, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Governing Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

Discriminatory Vendor List. By submitting an ELOR, the Proposer certifies that it is not precluded from submitting a bid or proposal under Section 287.134, which provides as follows: An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a

contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity unless that entity or affiliate has been removed from the list pursuant to Florida law.

Florida Department of Transportation (FDOT) Qualification. By submitting an ELOR, the Proposer represents that neither it nor its partners, Key Personnel, subcontractors/subconsultants, nor affiliates have had their Certificate of Qualification suspended, revoked or denied by the FDOT, or determined by the FDOT to be a non-responsible contractor.

US Produced Iron and Steel for Public Works Projects. Pursuant to section 255.0993, Florida Statutes, any iron or steel product permanently incorporated in the Project must be produced in the United States.

Human Trafficking Attestation. In compliance with section 787.06(13), Florida Statutes, by submitting an ELOR, the Proposer attests, under penalty of perjury, that neither the Proposer, nor any of its subsidiaries or affiliates, uses coercion for labor or services, as such italicized terms are defined in section 787.06, Florida Statutes, as may be amended from time to time.

8. Public Records Law

Proposers are hereby notified that the Authority is subject to the Florida Public Records Law and the Government in the Sunshine Act, as set forth in Florida Statutes Chapters 119 and 286; as such, most communications to the Authority are subject to public disclosure, and the selection meeting(s), if any, will be open to the public.

9. Cone of Silence

Any communication directly or indirectly to seek to encourage any specific result in connection with an Authority selection process, including but not limited to, written communications, any and all forms of electronic communications or messaging, including social media, oral communications either in person or by telephone, initiated by a Proposer or through a lobbyist, agent or third person, to any Authority employee and/or Committee/Board member who is a member of any committee constituted for the purposes of ranking submissions, making recommendations or making an award, is prohibited from the time that the procurement is released to the time that the award is made. However, the Authority's Procurement Manager or its designee may initiate communication with a Proposer in order to obtain information or clarification needed to develop a proper and accurate evaluation related to this procurement. From the date of the Advertisement until a *Notice of Award* is posted, all communications (except for communications explicitly stated in the RFQ) relating to this procurement or Project, shall be made by sending to the Authority email address Procurement@tampa-xway.com with any required information noted in the email subject line.

C. Expanded Letter of Response

Each Proposer desiring to be considered for this Project is required to submit an ELOR demonstrating their qualifications and approach to perform the required scope of work, responsibilities, requirements, and approach to deliver the Project. The ELOR shall include sufficient information to enable the Authority to evaluate the capability of the Proposer to provide the desired services.

The ELOR shall be submitted electronically in PDF format with the information, paper size and page limitation requirements as listed. All ELORs shall be sent using the email address below:

E-mail: Procurement@tampa-xway.com

Subject: Selmon ITS ELOR - [Name of Proposer] – Project#: O-4525

The email shall indicate clearly that it is the ELOR and shall clearly identify the Proposer's name, contact number, Project number, and Project name.

It is solely the Proposer's responsibility to ensure that the ELOR is received by the Authority by the specified due date and time. Only one ELOR per legal entity is acceptable.

The ELOR should be submitted on 8½-inch by 11-inch pages unless otherwise authorized. Each page should be typewritten and single-spaced with a font size no smaller than 10. Text should be presented single-sided on each separate page. Graphics may be included, however, the Authority encourages the Proposers to focus on written content.

The ELOR shall be submitted in unzipped Adobe PDF format, with file size not exceed 8 MB. Failure to comply with the submittal requirements may cause the ELOR to be considered non-responsive.

Bookmarks which provide links to information not included within the content of the ELOR shall not be utilized. No macros are allowed.

Any ELOR Package received after the date and time stated for the *Deadline for Submitting Expanded Letters of Response* referenced in Paragraph III.A, Schedule of Events, may not be considered.

To ensure a uniform review process and to obtain the maximum degree of understanding of the Proposer's abilities, experience and qualifications, it is required that Proposer's ELOR be organized, tabbed, and submitted in accordance with the following sections:

1. Table of Contents

A maximum of one page will be permitted for this section.

2. Introduction

A maximum of one page will be permitted for this section, which shall include:

1. The RFQ name and number;
2. Name of Proposer;
3. Proposer address;
4. Proposer telephone number;
5. Proposer representative's name (this person will be considered the primary contact for the Proposer during the procurement process), business address, business telephone number, and business email address;
6. Statement confirming Proposer's ability to meet the requirements of this RFQ; and
7. Statement confirming Proposer and its proposed Key Personnel meet the minimum qualifications and minimum requirements of this RFQ.

3. Administrative Submittals

The Administrative content shall not count towards the page count.

The following pass/fail information must be submitted with the ELOR. Proposers that fail to meet and submit all of the pass/fail criteria below may not be considered responsive. All information required by this pass/fail section is excluded from the page count.

These pass/fail criteria are minimum criteria that a Proposer must meet and/or provide in order for its ELOR to be considered responsive. The pass/fail evaluation is itself comprised of a responsiveness review and a legal sufficiency review, as described in further detail below.

Proposers must meet and/or provide all of the criteria identified in (a) through (f) below, as applicable, to be considered responsive.

a) Prequalification

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.

Proposer shall submit proof that it is prequalified by the Florida Department of Transportation (FDOT) under FAC 14.75 for professionals and under FAC 14-22 for contractors for the Work Classes identified below. A copy of the current Certificate of Qualification in each class shall be submitted with the ELOR. All qualification requirements must be met prior to the deadline to submit the ELOR. For Proposers submitting as a joint venture, see the additional requirements further stated below. The prequalification requirements are as follows:

- Proposer must be a "Design-Build Firm" as defined by Section 287.055, Florida Statutes, meaning a partnership, corporation, or other legal entity that:
    1. Is certified under Florida Statutes Section 489.119 to engage in contracting through a certified or registered general contractor or a certified or registered building contractor as the qualifying agent; or
    2. Is qualified under Florida Statutes Section 471.023 to practice or to offer to practice engineering; qualified under Florida Statutes Section 481.219 to practice or to offer to practice architecture; or qualified under Florida Statutes Section 481.319 to practice or to offer to practice landscape architecture.
- Prior to the ELOR submittal deadline, the Proposer (or the Proposer's Prime Contractor) must be qualified under Rule, 14-22, Florida Administrative Code, in the following Construction Work Classes:

  8. Electrical Work
  16. Intelligent Transportation Systems
- The intent of the Phased Design-Build process is to finalize the scope, schedule, and cost of the Project during the Planning Phase and Design Phase. As the Project advances, the Design-Build Firm shall identify, solicit quotes from, and select qualified subcontractors for the Construction Phase; the timing, roles, responsibilities, and expectations of such subcontracting processes are described within Sections IV.Q.4 and V.A of this RFQ.
- Prior to the ELOR submittal deadline, the firm that the Proposer identifies as the Lead Design Firm must be qualified under Rule 14-75, Florida Administrative Code, in the following Work Types:

  6.3.1 Intelligent Transportation Systems Analysis and Design
  6.3.2 Intelligent Transportation Systems Implementation
  6.3.3 Intelligent Transportation Systems Engineering Systems Communications
- Prior to the ELOR submittal deadline, the firm that the Proposer identifies as the Lead Design Firm must be qualified for, or identify subconsultants (and identify those in the ELOR) to fulfill, the remaining Work Types:

  3.1 Minor Highway Design
  4.1.1 Miscellaneous Structures
  4.2.3 Major Bridge Design – Segmental
  7.1 Signing, Pavement Marking, and Channelization
  8.1 Control Surveying

8.2 Design, Right of Way, and Construction Surveying
8.3 Photogrammetric Mapping
9.1 Soil Exploration
9.4.1 Foundation Studies

b) Proof of Insurance

Provide evidence of the Proposer's ability to provide the insurance coverage required in Attachment A_002.10 – Insurance Requirements, Coverages, and Limits, either by means of an existing policy or other verifiable proof (such as an Agent/Broker commitment letter), as provided in A_00X.02 – Certificate of Insurance (Sample Form).

c) Proof of Bonding Capacity

Provide an acknowledgement by the Proposer's Surety of the Proposer's ability to provide 100% Performance and Payment Bonds for the Project as well as the Proposer's ability to provide Performance and Payment Bonds for a minimum of forty-two million dollars ($42,000,000) for a single project together with evidence of the Proposer's maximum single project bonding capacity and Proposer's aggregate bonding capacity. The Surety must be rated no less than "A-" as to management and no less than "VIII" as to strength, by the latest edition of Best's Insurance Guide, published by A.M. Best Company, Post Office Box 1107, Summit, New Jersey 07901. Information shall be provided by the Surety on behalf of the Proposer.

Proposers are hereby informed that as a public entity, the Authority's property, and any property where the Work is located is not subject to the Construction Lien Law contained in Chapter 713, Florida Statutes.

A Performance and a Payment Bond satisfactory to the Authority and in the form (A_00X.07 – Performance and Payment Bond) attached hereto, each in an initial amount of not less than the Planning Phase Cap will be required from the successful Proposer for, among other, the following purposes: to (a) guarantee faithful performance of the requirements of the Contract, including all applicable warranties and corrective work requirements; b) guarantee the payment of all labor, materials, or supplies used directly or indirectly in the prosecution of the Work provided for in the Contract; and c) comply fully with the requirements of Florida law.

d) Claims Disclosure

Disclose all Disputes, which include lawsuits, arbitrations, dispute review board proceedings, bankruptcies, government fines, government adjudications, and claims filed or raised by or against the Prime Contractor, Lead Design Firm, and joint venture members (if applicable) over the last (5) years. Disputes includes any instance where Proposer has failed to comply with or has been the subject of an investigation of an alleged violation of state or federal laws related to permitting, environmental, or equal employment regulations, safety issues or contract crime (involving fraud, bribery, collusion, conspiracy, or material misrepresentation).

Disclose all Disputes for the Prime Contractor and Lead Design Firm (if not the Proposer). If Proposer is a joint venture, disclose all Disputes for each joint venture member.

For each Dispute, specifically identify:

- The project involved;
- The parties involved;
- The nature of the claim(s);
- Amount at issue;

- Disposition or status; and
- Litigation, case style, number, and jurisdiction, as applicable.

Any Dispute that involves only the Proposer and its subcontractor/subconsultant do not need to be included.

The Authority is seeking a collaborative partner through this Phased Design-Build procurement effort, and a Proposer which, in its sole discretion, demonstrates a pattern of claims and disputes with its owner clients and team members, may in the Authority's sole discretion, be deemed non-responsive. The Authority, therefore, intends to scrutinize all claims disclosures, perform its own background due diligence, if necessary, and reserves the right to engage each Proposer in discussions about the claims history during the Questions and Answer sessions.

e) Joint Venture Firm

Two or more firms submitting as a joint venture must also meet the joint venture requirements of Rule Chapter 14-22, specifically Rules 14-22.007 and 14-22.008, Florida Administrative Code. Parties to a joint venture must submit the Authority form A_00X.05 - Declaration of Joint Venture with its ELOR.

When a joint venture party submits an ELOR, one of the contractor members of the joint venture party must be assigned to meet the advertised construction Prime Contractor work class requirements, in accordance with the provisions of Rule Chapter 14-22, F.A.C. The Prime Contractor shall meet the technical qualifications prescribed above. The Lead Design Firm of the Proposer will be utilized to meet the advertised Professional Services Work Type requirements, in accordance with provisions of Rule Chapter 14-75, F.A.C. The Lead Design Firm shall meet the technical qualifications prescribed above.

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

If Proposer is a joint venture, a copy of the executed Joint Venture Agreement must be submitted with its ELOR.

If the Proposer is a joint venture, **the joint venture must be the proposed policyholder of the insurance required and upon award**, the performance and payment bonds provided at any point after execution of the Contract must be in the name of the joint venture.

Qualified parties who form a joint venture must have a Federal Employer Identification Number (FEIN) for the joint venture or give proof that the FEIN has been requested. The joint venture shall provide the FEIN to the Authority before the Authority will execute the Contract.

Any joint venture formed must do so in accordance with all applicable Federal, State, and Local laws, rules, and regulations. Failure to do will result in a determination that the Proposer is not responsible or nonresponsive, and its ELOR rejected.

f) SBE Certification

If Proposer is a certified minority business enterprise as defined by the Florida Small and Minority Business Assistant Act, provide evidence of such certification.

4. Proposer Organization and Experience

A maximum of five pages (excluding organizational charts) will be permitted for this section, which shall

include the following:

- One or more organizational charts, excluded from the five-page maximum, showing how the Proposer will be organized for each Phase (e.g., Planning Phase, Design Phase, and Construction Phase), showing:
  i. Roles of each of entities that are part of the Proposer's team; and
  ii. Management, supervision, and coordination of such entities that are responsible for performing major functions during each Phase, and their reporting relationships.
  iii. Each organizational chart shall adhere to the following:
    1) Identify proposed Project Manager and names and roles of other Key Personnel;
    2) The Proposer may identify other personnel, however, only those personnel of the team who will actively participate under the potential work assignments should be included. Individuals who would be available on an as-needed basis should be omitted;
    3) State the entity name for each of the Proposer's identified personnel;
    4) State office location (city and state) for each of the Proposer's identified personnel; and
    5) Be shown on a single-sided 11"x17" sheet. Proposer may submit up to three organizational charts, if needed.
- A brief narrative, which is included in the five-page maximum, related to the organizational chart(s), detailing the entities that are part of the Proposer's team and their roles and lead(s) by area of expertise. Describe the level of commitment made by the entities of the Proposers team and the Key Personnel's (i) ability to make this Project their only or highest priority, noting the Key Personnel Bonus as described in Section 2 of the Contract.
- Brief narratives, which is included in the five-page maximum, describing the Prime Contractor's and Lead Design Firm's past performance on at least three projects of similar scope, complexity, and scale, including evaluations or grades with FDOT or similar agencies and letters of reference, or recommendations. It is preferred that the past performance history narrative include 1) experience on ITS projects, 2) experience with projects that utilized alternative delivery models such as design-build or phased design-build, and 3) examples to which the Proposer's Key Personnel had substantial participation. Current contact information for each reference project must be provided for verification purposes. The evaluations or grades with FDOT or similar agencies and letters of reference, or recommendation are not included in the page limit.

5. Key Personnel Experience

This section shall include the following:

- Resumes for the Key Personnel listed in Section IV.C. Resumes for Key Personnel shall be limited to one page per resume. Additional resumes for other personnel are not permitted. Within each one page resume, the Proposer shall include a description of the availability of each Key Personnel (including an identification of recent, current and projected workload).

6. Understanding of, and Approach to, the Work

A maximum of five pages will be permitted for this section, which shall include:

- Describe the Proposer's approach to provide the scope of services and willingness and ability to meet and adhere to schedules and budgets.
- Design Approach:

i. The entirety of this *Design Approach* section should describe the Proposer's *approach*, but not the Proposer's proposed ideas, solutions, or innovations for the Project.
ii. Describe the Proposer's approach to delivery of preliminary engineering and other Work as requested and overseen by the Authority
iii. Describe the Proposer's approach to Project design in alignment with the project goals, including collaboration with the Authority and integration of the following design considerations:
    1) Approach to integration of all deployed assets with the Advanced Traffic Management System (ATMS) platform;
    2) Approach to prioritize deployment's locations and features;
    3) Approach to maximize innovation; and
    4) Approach to determining ideal means and methods.
iv. Describe the Proposer's approach to developing, evaluating, and presenting innovations that improve the Project. Include relevant examples from Proposer's reference projects. This should be limited to a discussion about approach to innovation or examples from other projects; potential innovations specific to this Project should not be included and will be given no consideration.
v. Describe the Proposer's approach to design quality management.

- Collaboration Approach:
    i. Describe the Proposer's approach to develop a culture of collaboration with the Authority, its representatives, project stakeholders, and its own team including subcontractors and trades during all phases of the Project. The collaboration approach should address project communications; understanding of, and outreach approach for stakeholder needs; progressing the design; developing and negotiating Work Package Proposals and GMPs; issue escalation; and construction. Describe the Proposer's approach to coordinating with the following, as necessary:
        1) Tampa-Hillsborough Expressway Authority
            a. Project Manager/ General Engineering Consultant (GEC)
            b. Communications Project Manager
            c. The Authority's Toll Equipment Contractor
        2) CSX Railroad
        3) City of Tampa
        4) Utility Owners
        5) Permitting Agencies
        6) Other Project Stakeholders
        7) Adjacent design and construction projects
- Risk Management and Project Controls Approach:
    i. Describe the Proposer's approach to cost control, transparency, schedule management, budget management, construction phasing, design quality management, and construction quality management during all phases of the Project.
    ii. Describe the Proposer's understanding of the key technical, stakeholder, constructability, and other Project risks and approach to identifying, monitoring, mitigating, tracking, and managing risks during all phases of the Project, including the use of contingency, risk sharing, and shared savings.

iii. Describe the Proposer's approach to allocating and quantifying the severity and potential costs of Project risks.

- Safety Approach:
  i. Describe the Proposer's general approach to improving safety for the traveling public and field staff throughout all phases of the work.
  ii. Report the Proposer's safety history pertaining to fatalities, Total Recordable Incident Rate (TRIR), Days Away, Restricted, or Transferred (DART), and Experience Modification Rate (EMR) for all projects for which the Proposer was a prime contractor in the last five years from the date of RFQ issuance.

- Construction Approach:
  i. Describe the Proposer's overall construction management approach in consideration of the Project goals including project control methods;
  ii. Describe the Proposer's approach to means and methods, management of construction phasing and maintenance of traffic during construction, including maintaining bicycle and pedestrian access;
  iii. Describe the Proposer's approach to construction quality management;
  iv. Describe the Proposer's approach to system integration; and
  v. Describe the Proposer's approach to acceptance testing.

7. Understanding of, and Approach to, Pricing and Subcontracting

A maximum of three pages will be permitted for this section, which shall include:

- Pricing Approach:
  i. Describe the Proposer's approach to providing open and transparent pricing through the Pricing Process;
  ii. Describe the Proposer's approach and demonstrate the Proposer's understanding of the Authority's approach to ensuring the Authority receives a fair, competitive price for construction, including a description of the major cost components (i.e., cost drivers) for the Project and the Proposer's approach to obtaining optimal pricing for these major cost drivers;
  iii. Describe how the Proposer Lead Cost Estimator's experience will be leveraged to:
    1) Support the successful implementation of its pricing approach;
    2) Support open and transparent pricing, including collaboration with the Price Facilitator and Independent Cost Estimator (ICE); and
    3) Ensure the Authority receives a fair, competitive price for all phases of the Work.
  iv. Subcontracting Approach:
    1) Describe the scope of work the Proposer intends to self-perform to meet self-performance requirements (as set forth below) and the scopes of work that the Proposer intends to subcontract;
    2) Describe the Proposer's approach to competitively soliciting subcontractor quotes and how subcontracting packages will be developed and advertised;
    3) Describe the Proposer's approach to obtaining reasonable and competitive bids from qualified subconsultants, as required; and
    4) Describe the Proposer's approach to providing openness and transparency in the subcontracting solicitation and selection process.

D. Expanded Letters of Response Evaluation

1. Opening of Expanded Letter of Responses

ELORs will be received and opened on the date and time and at the location specified for the Deadline for Submitting ELORs referenced in Section III.A, Schedule of Events.

2. Expanded Letter of Response Responsiveness Check

The Authority will validate that the Proposer has submitted a responsive ELOR. The ELOR must comply with all of the requirements of the RFQ, include Section 1 through 7 in the proper form, and pass the pass/fail requirements.

The Authority will not consider ELOR's not in conformance with the RFQ requirements or pages exceeding the page limit (except in cases where the Authority has specifically requested additional information).

The Authority reserves the right to consider any response as non-responsive if any part of the ELOR does not meet the criteria established in this RFQ. Those determined to be non-responsive or not responsible will be automatically rejected in the Authority's sole discretion. Responsive packages will be delivered to the Evaluation Committee to be evaluated.

3. Interview

The Authority will invite each Proposer that has submitted a responsive ELOR to participate in an interview. The interviews invitations will be sent after determination of ELOR responsiveness. The interviews will be conducted in accordance with Florida Statutes, Section 286.0113 and occur prior to the Evaluation Committee meeting where scores are confirmed. The interview format will consist of a presentation by the Proposer followed immediately by a question-and-answer period. The presentation will be in-person at the Authority's headquarters. The Authority will have presentation capabilities. The Proposer shall bring its PowerPoint slides on a laptop.

The presentation shall not exceed 20 minutes and must be limited to no more than 15 PowerPoint slides. Immediately after presenting the slides, the Proposer must provide the Authority with a PDF version of the presentation emailed to Procurement@tampa-xway.comat least 24 hours prior to the scheduled interview.

The presentation will become part of the proposer's ELOR. The presentation must be in flattened PDF format and shall not include notes, videos, links, or other external references. No other presentation materials or handouts will be permitted to be shown or provided during the Interview.

The question-and-answer period shall not exceed 25 minutes. The Authority may ask the Proposer a series of questions. Questions may be unique to each Proposer. The Proposer is not permitted to ask questions of the Authority during this period.

The Proposer may bring up to seven people to their respective interview. The Key Personnel listed in this RFQ are highly encouraged to attend in person. There will not be a virtual component to the Interview.

4. Expanded Letter of Response and Interview Evaluation Criteria

The Authority will establish an Evaluation Committee consisting of representatives of the Authority. The Evaluation Committee shall conduct an evaluation of the ELOR and interview, including both the presentation and question-and-answers, and generate scores based on the evaluation criteria that will be used by the Authority for final ranking of the Proposers.

The Authority reserves the right to request additional information and clarification of any information

submitted. The Evaluation Committee also reserves the right to solicit from available sources relevant information concerning a Proposer's past performance. The Evaluation Committee may consider all such information in its selection of shortlisted Proposers.

The evaluation criteria are as follows:

Table 5: Evaluation Criteria

Evaluation Criteria Title and Description	Maximum Point Value
Proposer Organization and Experience The Proposer will be evaluated to the extent the Proposer demonstrates: • the Proposer's organization and Prime Contractor's and Lead Design Firm's experience demonstrates experience relevant to and suitable for the size, complexity, and composition of the anticipated project phases and scope; • the Prime Contractor's and Lead Design Firm's experience demonstrated their ability to maintain the project schedule, coordinate with adjacent projects and stakeholders, develop and maintain an agile design and construction environment, and construct using innovative designs, methods, or materials; and • the Prime Contractor's and Lead Design Firm's experience demonstrates relevant experience that will improve the likelihood of achieving the project delivery goals.	20
Key Personnel Experience The Proposer will be evaluated to the extent the Proposer demonstrates: • the Key Personnel meet or exceed preferred requirements for qualifications and experience with work including similar scope, nature and complexity as the Project; • the Key Personnel can demonstrate a history of commitment to collaboration, delivery, and problem-solving capabilities in working with other parties; and • the experience and expertise of the Key Personnel are aligned with, and will support achievement of, the Authority's project delivery goals.	30
Understanding of, and Approach to, the Work The Proposer will be evaluated to the extent the Proposer demonstrates: • An understanding of the scope of Work, project goals, schedule for the Work, and effective processes to advance and manage the Project in a manner that is cost-effective and ensures quality while maintaining the schedule. • A culture that facilitates coordination and collaboration among the parties involved in the Project in a manner that is aligned with the opportunities presented by phased design-build delivery; • An approach that will maximize opportunities to meet or exceed the project goals in all phases of the Project;	30

Evaluation Criteria Title and Description	Maximum Point Value
• An effective approach to mitigating impacts to the traveling public, including bicycle and pedestrian access.	
Understanding of, and Approach to, Pricing and Subcontracting The Proposer will be evaluated to the extent: • The Proposer's approach to pricing and subcontracting will maximize the potential for the Authority and the Design-Build Firm to successfully agree to pricing for the Work; • An approach to pricing that ensures the Authority will be receive a fair, open, and transparent price for the Work; • An approach to subcontracting that ensures a competitive, open, and transparent subcontracting process.	20
Total	100

A maximum of 100 points is available. The Evaluation Committee will meet to confirm their scores.

After ranking of the Proposers by the Evaluation Committee, the results will be posted no later than the date, time and at the locations stated for the Posting of Notice of Intended Shortlist referenced in Section A, Paragraph 1.4, Schedule of Events. The ranking of Proposers based on the Evaluation Committee's evaluation will be presented to the Authority's Board of Directors for consideration and approval.

The Authority reserves the right to consider any response as non-responsive if any part of the ELOR does not meet the criteria established in this RFQ.

5. Final Selection Process

After the evaluation scores are received from the Evaluation Committee, the scores will be provided to the Procurement Manager to review. The scores provided to the Procurement Manager shall be the scores from each Evaluation Committee member and a form showing the summed scores for each Proposer. At least five days after the scores have been received by the Procurement Manager, a public meeting will be held to review the evaluation by the Evaluation Committee of each Proposer and for the Procurement Manager to announce the Proposer with the highest score which shall determine the intended selection of the Proposer. The Procurement Manager has the right to correct any errors in the evaluation and selection process that may have been made.

The Authority is not obligated to award the Contract and the Executive Director may decide to reject all responses. If the Executive Director decides not to reject all responses, a Contract will be awarded to the Proposer with the highest score. In the event of a tie, between two or more Proposers, the Proposer with the highest *Proposer Organization and Experience* evaluation criteria score may be awarded.

The Authority intends to negotiate and enter into a Contract with the highest scoring Proposer for the services, obligations, basis of payment, and performance of work described in this RFQ.

Should the Authority be unable to negotiate a satisfactory contract with highest scoring Proposer, negotiations with that Proposer must be formally terminated. The Authority shall then undertake negotiations with the second most qualified Proposer. Failing accord with the second most qualified Proposer, the Authority must terminate negotiations. The Authority shall then undertake negotiations with the third most qualified firm, and so on until a contract is successfully negotiated or the Authority cancels

the procurement or otherwise terminates negotiations.

The Authority may also elect not to continue the process and cancel this procurement, without hindering any future ability to initiate a new procurement for the same Work, at its sole discretion.

IV. Key Provisions

Unless otherwise noted, "days" shall refer to calendar days throughout this RFQ, and "workdays" shall mean calendar days, excluding Saturdays, Sundays, and Authority-recognized holidays.

A. Definitions

Capitalized terms contained in this RFQ and the Contract shall have the meanings set forth in the Division I Design-Build Specifications unless otherwise noted herein, or the Governing Regulations, if not defined in this RFQ of the Division I Design-Build Specifications.

B. Clarifications of Attachments and Governing Regulations for PDB

Attachments and Governing Regulations referenced herein that are published by the Authority may reference terminology that is not directly applicable to the PDB delivery method. The following terms are being clarified for interpretation and application of Attachments and governing regulations. The following definitions shall take precedence over definitions found in other Attachments to this RFQ. In no case, however, shall the Design-Build Firm be relieved of its duty to design and construct the Project in accordance with the Governing Regulations and the Design and Construction Criteria contained herein without approval by the Authority and documentation of the approved deviation in a Task Work Order. Deviations from the Governing Regulations and the Design and Construction Criteria contained herein may include but are not limited to a design exception, design variation or other modification of these requirements through written approval by the Authority. If a provision contained in the Attachments and Governing Regulations is claimed to be ambiguous or unclear as to its applicability to the Project, the Authority shall have the right to determine in its sole discretion how such ambiguity is resolved.

Design-Build Firm. The individual, firm, corporation, company, or joint venture contracting with the Authority to perform services and work to deliver this Project using the PDB delivery approach with the Authority for the Planning Phase, Design Phases and the Construction Phases. The word Contractor is also deemed to include the Design-Build Firm contracting with the Authority for performance of Work, including all engineering services, construction, and furnishing of materials. If the Design-Build Firm is made up of multiple firms, either through a joint venture or other mechanism to act as one entity, when the Contract Documents preclude the Design-Build Firm from taking an action, it also would preclude the members of a joint venture from taking the same action in an individual capacity. Members of the Design-Build Firm may not act as individual separate entities in order to accomplish something that the Design-Build Firm is not permitted to do.

Proposal. Refers to the complete WPP prepared by the Design-Build Firm and presented to the Authority for the completion of a Work Package, comprised of technical and price proposals, including plans, specifications, special provisions, schedule, GMP, etc., that has been collaboratively developed and mutually agreed to, or pending mutual agreement subject to continued negotiations, by the Authority and Design-Build Firm during the Design Phase or related to changes during the Construction Phase.

Technical Proposal. Refers to the scope of improvements, inclusive of plans, specifications, and special

provisions, for a Work Package collaboratively developed and mutually agreed-to by the parties through a Task Work Order.

1. Requirements for Work and Governing Order of Documents

All Terms and Conditions negotiated for the Contract, the RFQ, the Division I Design-Build Specifications, the Plans, Special Provisions, and all supplementary documents are integral parts of the Contract as described in Section 1.3 of the Contract; a requirement occurring in one is as binding as though occurring in all. In addition to the work and materials specifically called for in the Contract Documents and any additional incidental work, not specifically mentioned, when so shown in the Plans, or if indicated, or obvious and apparent, as being necessary for the proper completion of the Work is assumed to be included in the associated Design GMP and GMP. Refer to the Contract for the identification of Contract Documents and order of precedence thereof.

2. Governing Regulations

The services performed by the Design-Build Firm in the Planning Phase, Design Phase, and Construction Phase shall be in compliance with all applicable specifications, manuals and guidelines including the Authority, Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (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 specifications, 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 Authority at the date of advertisement of this RFQ. The Design-Build Firm shall use the 11th Edition of the Manual on Uniform Traffic Control Devices (MUTCD). It shall be the Design-Build Firm's responsibility to acquire and utilize the necessary specifications, manuals and guidelines that apply to the work required to complete this Project. The Authority may, in its sole discretion, allow or require the use of more current versions of any of these governing regulations on any Task Work Order entered into on this Project. The decision to use a more current version of a governing regulation shall be documented in the Task Work Order with specifics as to what governing regulation applies. The services will include preparation of all documents necessary to complete the Project as described in this RFQ.

- Florida Department of Transportation Design Manual (FDM)
  http://www.fdot.gov/roadway/FDM/
- Florida Department of Transportation Specifications Package Preparation Procedure
  http://www.fdot.gov/programmanagement/PackagePreparation/Handbooks/630-010-005.pdf
- Florida Department of Transportation Standard Plans for Road and Bridge Construction
  http://www.fdot.gov/design/standardplans/
- Standard Plans Instructions (Refer to Part I, Chapter 115, FDM)
  http://www.fdot.gov/roadway/FDM/
- Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications
  https://www.fdot.gov/programmanagement/Implemented/SpecBooks/default.shtm
- Florida Department of Transportation Surveying Procedure 550-030-101
  http://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/FormsAndProcedures/ViewDocument?topicNum=550-030-101

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

- Florida Department of Transportation Drainage Manuals
  http://www.fdot.gov/roadway/Drainage/ManualsandHandbooks.shtm

- Florida Department of Transportation Soils and Foundations Handbook
  Soils and Foundation Handbook (windows.net)

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

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

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

- MUTCD – 11th Edition
  http://mutcd.fhwa.dot.gov/

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

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

- 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

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

- 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

- Florida Department of Transportation Design Bulletins and Update Memos
  Office of Design Bulletins/Memorandums (fdot.gov)

- Florida Department of Transportation Utility Accommodation Manual
  https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/programmanagement/utilities/docs/uam/uam2017.pdf?sfvrsn=d97fd3dd_0

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

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

- Florida Department of Transportation Pavement Type Selection Manual

http://www.fdot.gov/roadway/PM/publicationS.shtm

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

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

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

- 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

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

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

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

- Developmental Specifications
  https://www.fdot.gov/programmanagement/otherfdotlinks/developmental/default.shtm

- Florida Administrative Code, Chapter 14.51 (Florida's Highway Guide Sign Program)
  http://florida.eregulations.us/rule/14-51

- Florida Department of Environmental Protection (FDEP)
  https://floridadep.gov/southeast/se-permitting

- Florida Department of Transportation Maintenance Rating Program (MRP) Handbook
  https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/maintenance/rdw/mrp/mrphandbook2022.pdf?sfvrsn=76b579ca_2

- THEA General Tolling Requirements (GTR)
  (Attachment A_003)

- THEA ITS Minimum Technical Requirements (MTR)
  (Attachment A_004)

- National Electrical Code
  http://catalog.nfpa.org/NFPA-70-National-Electrical-Code-NEC-2014-Edition-P1194.aspx?order_src=D347&gclid=CPT6k6zP0M0CFQcMaQodkooAuQ

- National Electrical Safety Code
  https://standards.ieee.org/products-programs/nesc/

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

- AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals
  AASHTO Bookstore - Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th Edition, with 2015 Interim Revisions

- Federal Highway Administration Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Plans and Specifications
  https://highways.dot.gov/media/3151

- FDOT Drainage Design Guide
  https://www.fdot.gov/roadway/drainage/design-guide

- FDOT District 7 ITS Preferences and Guidelines (Attachment A_008)

C. Key Personnel Obligations

Refer to Section 2.6 of the Contract for provisions related to Key Personnel.

The Design-Build Firm's work shall be performed and directed by Key Personnel identified in the Design-Build Firm's ELOR. The Key Personnel required for this Project are identified in the table, below.

Table 6: Key Personnel and Minimum Responsibilities and Qualifications

Key Personnel Position	Role Description	Minimum Qualifications and Experience
Project Manager	The Project Manager (PM) will be responsible for the overall design, construction, contract administration, schedule, cost, safety, and quality on behalf of Design-Build Firm. The Project Manager shall be in the position to take full responsibility for the prosecution of the Work and will act as a single point of contact on all matters on behalf of Design-Build Firm. The PM shall be available for this Project, as needed, during all phases of the Project.	The PM should possess a minimum of 10 years of experience in construction and management of design of transportation related technology projects, with preferably five years of innovative delivery (Design-Build, Phased Design-Build, Construction Manager / General Contractor) experience. The PM's experience should demonstrate the PM's ability to fulfil the role description. The Project Manager must be an employee of the Design-Build Firm's Prime Contractor.

Key Personnel Position	Role Description	Minimum Qualifications and Experience
Construction Manager	The Construction Manager (CM) will be responsible for ensuring that the Project is constructed in accordance with the final design and the construction schedule. The CM shall be available for this Project, as needed, during all phases of the Project.	The Construction Manager (CM) should possess a minimum of 10 years of experience in construction and construction management on transportation related lighting, tolling/managed lanes, or similar technology projects, with preferably five years of innovative delivery (Design-Build, Phased Design-Build, Construction Manager / General Contractor) experience. The CM's experience should demonstrate the CM's ability to fulfil the role description.
Design Lead	The Design Lead (DL) must have the ability to deliver the project based on the understanding of the Authority's existing conditions, the integration of multiple complex systems, power requirements and availability, and the application of innovation coupled with national best practices. The DL will be responsible for ensuring the Design Work is completed and Design criteria and requirements are met. The DL shall be available for this Project, as needed, during all phases of the Project.	The DL shall be a Professional Engineer licensed in the State of Florida and shall be a direct, full-time employee of the Lead Design Firm. The DL should possess a minimum of 10 years of experience managing the design of ITS projects, with preferably five years of innovative delivery (Design-Build, Phased Design-Build, Construction Manager / General Contractor) experience. Must have proven experience in the design and implementation of ITS systems related to vehicle detection, freeway mainline monitoring, notifications, communications, and electrical systems. The DL's experience should demonstrate the DL's ability to fulfil the role description. The DL shall oversee and be responsible for all Design Work.
Lead Cost Estimator	The Lead Cost Estimator (LCE) will be responsible for, during the Planning and Design Phases, overseeing the development of cost estimates for the Project. This person is expected to be an integrated member of the Design-Build Firm and must attend Project meetings where price, risk, schedule and other factors relevant to estimating/bidding are discussed (including design coordination meetings, milestone review meetings, risk workshops, and pricing reconciliation meetings). The	The Lead Cost Estimator should possess a minimum of seven years of experience in production-based estimating and bidding for construction projects of similar scope and complexity. The LCE's experience should demonstrate the LCE's ability to fulfil the role description.

Key Personnel Position	Role Description	Minimum Qualifications and Experience
	LCE must be able and willing to lead the development of open book cost estimates/bids during the Project's Planning and Design Phases. The LCE shall be available for this Project, as needed, during all phases of the Project.	
Structures Subject Matter Expert	The Structures Subject Matter Expert (SSME) will be responsible for coordinating with the design team to collaborate and develop solutions for attaching or placing ITS equipment on existing and proposed structures for the Project. The SSME shall verify any proposed structural work on within the project limits meet the design criteria. The SSME shall be available for this Project, as needed, during all phases of the Project.	The SSME shall be a Professional Engineer licensed in the State of Florida. The SSME must have a minimum 15 years of experience in bridge design including: segmental bridges, continuous multi-span bridges, and curved bridges that include work of a similar scope, nature, and complexity as this Project.
Project Integration Lead	The Project Integration Lead (PIL) will be responsible for successfully integrating both the field device systems and back office systems for the Project. The PIL shall be available for this Project, as needed to help plan and execute the integration activities, processes, and schedules.	The PIL should possess a minimum of ten years of experience in successfully integrating field device systems and back office systems in accordance with national standards and proprietary protocols. The PIL shall possess experience successfully integrating field deployed devices and hardware as a local system and the interconnection of local systems with cloud or on-premise systems using various methods for communications. The PIL shall have a proven understanding of Internet Protocol (IP) networks, devices, hardware, security, and protocols specific to field deployed ITS systems interconnected with cloud and on-premise systems. The PIL shall demonstrate experience in the means and methods of performing system acceptance testing to confirm that the various technologies, included in ITS solutions, function as intended to meet the operational needs of the client and accomplish the goals

Key Personnel Position	Role Description	Minimum Qualifications and Experience
		and objectives of the project.
Additional Key Person		The Design-Build Firm can, but is not required to, propose one Additional Key Person that the DBF deems necessary for the Project. The Additional Key Person will be evaluated based on how their inclusion shows a deeper understanding of the Project's scope, and how this person will help the Authority achieve Project Goals.

D. Contract Duration

The final Contract Duration will be established by the Authority after the RtC package is submitted.

E. Authority's Availability of Funds

The Design-Build Firm shall align commitment/start of work on the Planning Phase, Design Phase, and Construction Phase for the Project to not exceed the Authority's programmed funds, which are subject to change and contingent upon appropriation.

These amounts are for the Design-Build Firm's use in aligning work and do not represent a commitment of funds other than the $1,000,000 currently available for the Planning Phase (Planning Phase Cap). Amounts may be increased if available and at the Authority's sole discretion:

Project Programmed Funding

Planning
Funding: $1,000,000

Design and Construction
Anticipated Funding: $41,000,000

F. The Authority's Rights

Refer to Section 4 of the Contract for provisions regarding the Authority's rights to modify or terminate the Contract.

G. Project Schedule

Based on current Project information, the Authority anticipates the following target durations of each of the following concurrent phases related to the Project:

- The Planning Phase has a target duration of approximately 8 months.
- The time from authorization of the Design Phase Task Work Order through execution of the final Construction Phase Task Work Order has a target duration of approximately 6 months.
- The Construction Phase duration, from execution of the first Construction Phase Task Work order through Final Acceptance, has a target duration of approximately 24 months.

The Design-Build Firm shall submit a Master Schedule, in accordance with Subarticle 8-3.2 (Division I Design-Build Specifications), for the Project during the Planning Phase and update it as each Phase Submittal is submitted.

Each WPP shall be incorporated into the Master Schedule as a Work Breakdown Structure (WBS) that individually satisfy the requirements of Subarticle 8-3.2 (Division I Design-Build Specifications). The Design-Build Firm's Master Schedule shall allow for up to fifteen (15) workdays review time for the Authority's review of all submittals.

The following Special Events have been identified in accordance with Subarticle 8-6.4 (Division I Design-Build Specifications):

- Tampa Bay Lightning home games
- Concerts or other events at Amalie Arena with an expected attendance greater than 10,000
- MacDill Air Fest
- Gasparilla Parade
- Gasparilla Children's Parade
- Gasparilla Distance Classic
- Riverfest

The minimum number of activities included in the Master Schedule shall be those listed in the Schedule of Values and those listed below and shall meet the requirements of Subarticle 8-3.2 (Division I Design-Build Specifications).

These minimums shall be provided for each planned Work Package the Design-Build Firm anticipates releasing, as applicable, the following:

- Anticipated Award Date
- Design Submittals
- Utility Coordination and Relocation(s)
- Shop Drawing Submittals
- Other Contractor-Initiated Submittals including Requests for Information (RFIs), Request for Modification (RFM), Released for Construction (RFC), and Nonconformance Report (NCR) submittals
- Design Survey
- Submittal Reviews by the Authority and FHWA
- Design Review / Acceptance Milestones
- Comment Resolution
- Materials Quality Tracking
- Geotechnical Investigation
- Start of Construction
- Clearing and Grubbing
- Construction Mobilization
- Embankment/Excavation
- Permit Submittals
- Permit Acquisition
- Roadway Design
- Roadway Construction
- Signing and Pavement Marking Design

- Signing and Pavement Marking Construction
- Signalization Design
- Signalization Construction
- Tolling Infrastructure Construction
- Intelligent Transportation System Design
- Intelligent Transportation System Construction
- Intelligent Transportation System Testing
- Lighting Design
- Lighting Construction
- Maintenance of Traffic Design
- Maintenance of Traffic Set-Up (per duration)
- Erosion Control
- As-Built Preparation and Review Coordination
- Holidays and Special Events (shown as non-workdays)
- Milestones associated with Contract Bonuses
- Additional Construction Milestones as determined by the Design-Build Firm
- Final Completion Date for All Work

The Master Schedule shall include cost loading for each offsite fabrication or construction activity. The cost loading shall be consistent with the Schedule of Values breakdown included in the respective Task Work Order. In addition, each construction activity shall include task code(s) that convey the type and number of assigned resources. The monthly Master Schedule update and associated narrative shall include a workload distribution report and analysis of resource utilization, including any adjustments, necessary to meet the Contract Time applicable to the respective Task Work Order.

H. Liquidated Damages

Refer to Section 3.1 and 3.2 of the Contract for Contract Time and Liquidated Damages provisions.

I. Contract Bonus

Refer to Section 2.6.4 of the Contract for a description of the available bonus on this Project.

J. Partner/Teaming Arrangement

The Design-Build Firm shall not change the Prime Contractor or Lead Design Firm after submittal of the ELOR without written consent of the Authority. In the event such a change 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 Authority. The Authority 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 ELOR.

K. General Management and Progress Meetings and Reporting

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

- Authority technical issue resolution

- Local government agency coordination
- Transportation Management Plan/Maintenance of Traffic Workshops
- Pavement Design Meeting
- Permit agency coordination
- Phasing Meetings
- Scoping Meetings
- System Integration Meetings
- Design Workshops
- Progress Meetings
- Aesthetic Design Review Meetings
- Comment Resolution Meetings
- Adjacent Project Coordination Meetings
- Utility Meetings
- Public Meetings
- Project/Stakeholder Coordination Meetings
- Pre-activity Meetings
- SBE, On the Job Training (OJT), Davis Beacon and Related Acts (DBRA), Equal Employment Opportunity (EEO) Compliance, and Workforce Development Meetings
- Dispute Review Board Meetings

During the Planning Phase, the Design-Build Firm shall meet with the Authority's Project Manager on an as-needed basis or upon the Authority's request.

During the Design Phase, the Design-Build Firm shall meet with the Authority's Project Manager on a bi-weekly basis at a minimum and provide a one month look ahead of the activities to be completed during the upcoming month.

During the Construction Phase, the Design-Build Firm shall meet with the Authority's Project Manager on a weekly basis and provide a two-week look ahead for activities to be performed during the coming two weeks.

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.

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

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

L. Task Work Orders and Compensation

Throughout the duration of the Project, multiple Task Work Orders may be negotiated and issued with various payment structures during the Planning, Design and Construction Phases, all of which are subject to Open Book Cost Estimating as defined in Contract Documents.

The Design-Build Firm shall complete a certified rate form including names of persons working on the Project and the role they are in. Any personnel change or additions, as allowed by the Contract, must be provided to the Authority prior to invoicing. By submitting the certified rate form, the Design-Build Firm certifies that all personnel are qualified. The Design-Build Firm shall provide personnel qualifications via resumes at the Authority's request.

The following is a potential list of the types of Task Work Orders that may be issued, and the corresponding payment mechanism for each. The Planning Phase information below is provided to identify the method of compensation.

1. Planning Phase

During the Planning Phase the Design-Build Firm's Designer and sub-designers will be permitted to charge to the Contract for the hours worked. These charges, combined with those of the Contractor (including any mark-up) during the Planning Phase, shall not exceed the Planning Phase Cap.

- The Designer will be compensated via certified actual hourly rates multiplied by the Design Multiplier.
    - For this Project, the Design Multiplier is calculated as:
        - [(100% plus Designer's current approved FDOT Home Audited Overhead Rate Percentage) multiplied by 1.08]. Note: if the approved Home Audit Overhead Rate Percentage is above 200%, it is considered 200% for this calculation.
- The Contractor will be compensated via actual hourly rates multiplied by the Planning Phase Multiplier. The Planning Phase Multiplier for this Project is 2.5. This Multiplier is not subject to negotiations after project award. The Contractor's Design Mark-up may be applied to the Planning Phase design cost at the Design-Build Firm's discretion.
- The Contractor's Design Mark-up for this Project is 5% on any design work done during the Planning Phase. The Contractor's Design Mark-up is not subject to negotiation after project award. The Contractor's Design Mark-up is not applicable to the Design Phase Task Work Order. The Contractor's Design Mark-up and Planning Phase Multiplier shall be used in combination.
- The Planning Phase Cap includes costs for project specific expenses, which will be invoiced as a pass through and not subject to multipliers nor markup.

2. Project Office Task Work Order(s)

- Expense Line: Should only contain costs associated with establishing and maintaining the Project Office for the Key Personnel of the Design-Build Firm as well the assigned Authority, Owner's Representative, and CEI Consultant personnel. The initial Project Office Task Work Order is to be negotiated during the Design Phase. The Design-Build Firm and the Authority will negotiate a not-to-exceed (NTE) value for the Project Office Task Work Order (Project Office NTE).

3. Contractor Project Management Task Work Order

- Contractor Project Management staff (including the PM, CM, LCE, and safety manager) will be compensated under a Task Work Order at the start of the Design Phase and continuing until the Project is completed (Contractor Project Management Task Work Order).
- The Design-Build Firm shall propose a NTE value for this Task Work Order in the (Opinion of Probable Construction Cost) OPCC.
- The Task Work Order will include the costs of wages, including benefits, payroll insurance and taxes for onsite management, supervision, engineers, safety personnel, quality control staff, and administration staff.
- The Contractor will be compensated for this effort via actual hourly rates multiplied by the Management Multiplier.
    - The Management Multiplier for this Project is 2.8. This Multiplier is not subject to negotiations after project award.
- Expense Line: Lump sum expense line item for Project-specific Contractor expenses not elsewhere covered (any item of expense not specifically included in this expense line is considered to be contained in the Contractor's negotiated loaded rates)
    - Should only contain the cost for the Payment and Performance Bond for the Design TWO.
- The Design-Build Firm and the Authority will negotiate a NTE value for the Contractor Project Management Task Work Order (Contractor Project Management NTE).

4. Dispute Review Board (DRB) Task Work Order(s)

- Actual cost compensated, as provided in the DRB Three Party Agreement (A_00X.04) and developed in accordance with the Division I Design-Build Specifications.
- The Design-Build Firm and the Authority will establish an allowance value for the DRB Task Work Order (DRB Allowance). Should the DRB Allowance be depleted at some point during the Project term, the Parties will establish a new allowance through a Contract Amendment to the then-current DRB TWO.

5. Design Task Work Order

- The Design Task Work Order will be compensated via a single Design GMP. The Design GMP shall be the limiting amount for the Task Work Order. The development of the Design GMP shall be detailed; the level of detail shall be determined by the Authority.
- The Design-Build Firm shall propose a Design GMP in the OPCC
- The Designer will be compensated via certified actual hourly rates multiplied by the Design Multiplier.
- There is no Contractor's Design Mark-up applied to the Design Phase Task Work Order. The Design Multiplier shall be considered full compensation for the Designer's general cost of doing business, which shall include any required insurance, overhead, and profit.
- The Design GMP will include a design expenses line.
    - The Design-Build Firm may charge project specific design expenses to this expense line.
    - The expense line will be a maximum of 2% of the anticipated design costs.
    - No additional compensation for Design expenses will be allowed above the expense line.
- The Design GMP will include the bonus opportunity as described in Section 2.6.4 of the

Contract.

6. Construction Phase Task Work Order(s) (Work Packages or WPPs)

- The Construction Phase Task Work Order(s) will be compensation via a single negotiated Lump Sum Price and paid by the Schedule of Values.
- The Design-Build Firm is allowed to apply the Mark-up (Construction Management and General Administration (CMGA) Fee) of 14% to the direct and indirect cost of the work (both self-performed and subcontracted) of each Work Package. The Mark-up is not subject to negotiation after project award. The Mark-up is to compensate the Design-Build Firm for all profit and home office overhead costs associated with the Project. Home office overhead is defined as all auditable costs that are allocated to all of the Contractor's ongoing projects and general costs of doing business, such as off-site supervision and travel expenses for off-site supervisors, bonuses, corporate administration, corporate payroll and benefits, costs of capital and interest, conferences fees, professional licensure, and marketing costs, business licenses / fees / taxes, accountants, attorney and counsel fees, and insurance maintained by the Contractor. The Mark-up may not be applied to (i) costs of payment and performance bonds nor (ii) costs of insurance.
- The Mark-up will be part of the Lump Sum Price(s) of each Work Package Proposal.

In no event may any combination of the Mark-up, Management Multiplier, and the Contractor's Design Mark-up be applied to a given scope of Work or work item.

The Authority will consider opportunities to issue Task Work Orders to advance purchase of materials when such Task Work Orders are in the best interest of the Project. The details concerning any opportunity will be negotiated with the Design-Build Firm at any point after the Planning Phase concludes. The amount of any such Task Work Order will be considered to be part of the construction costs.

M. Small Business Enterprise (SBE) Aspirational Goal

The Authority's SBE Policy requires nondiscrimination on the basis of race, color, national origin, and gender in its employment and contracting practices and encourages the solicitation and utilization of SBEs. It is the policy of the Authority to encourage the participation of small business enterprises in all facets of the business activities of the Authority, consistent with applicable laws and regulations. Firms proposing for this Project shall aspire to have design and construction contract work performed by SBEs.

N. Design-Build Firm's Responsibilities for Authority Commitments

Not used.

O. Submittals

If the Design-Build Firm is required to submit a deliverable to the Authority, and the Authority has the right to review and approve the deliverable, the Authority is under no obligation to approve the deliverable until it is satisfied that the deliverable is acceptable. Failure of the Authority to approve the deliverable does not entitle the Design-Build Firm to additional compensation and shall not be a basis for a claim or dispute.

Unless otherwise stated herein or agreed to during the development of the Master Schedule and/or subsequent Work Package schedules, the Authority will have fifteen (15) workdays for each review. Unless otherwise stated herein or otherwise agreed to in writing by both Parties, any deliverable not accepted or

approved by the Authority, as required by the submittal type, within the time required is deemed to be rejected.

The Design-Build Firm's schedule shall include an additional fifteen (15) working days of review time for submittals that require reviews by CSX and/or the City of Tampa.

1. Component Submittals

Subject to Authority approval, the Design-Build Firm may submit applicable components of a Work Package plans set instead of submitting an entire Work Package plan set; however, sufficient information from other components must be provided to allow for a complete review. In accordance with the FDOT Design Manual (FDM), components of the Work Package plans set are roadway, signing and pavement marking, signalization, Intelligent Transportation Systems (ITS), lighting, hardscape/aesthetics, and structural.

Subject to Authority approval, 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.

2. Phase Submittals

For each Work Package, the Design-Build Firm shall provide the documents for each phase submittal listed below to the Authority. The particular phase shall be clearly indicated on the documents. The Authority'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 Authority, the plans shall be digitally signed using Authority approved software (such as IdenTrust) by the Engineer of Record (EOR). The plans are then digitally signed by the GEC and by the Authority Project Manager as Released for Construction (RFC). The submittal of RFC component plans shall not be comprised of a combination of stamped plans and digitally signed plans.

All comments shall be resolved to the Authority's satisfaction prior to making the next phase submittal.

The Authority will review and provide comments for the 30% Planning Phase Submittal, Pricing Phase Submittal (which is between 60-90% design), and Final Phase Submittal. For each submittal, it shall be the Design-Build Firm's responsibility to proactively and satisfactorily resolve all comments requiring a response from the Design-Build Firm with the Authority's reviewers prior to making a subsequent phase submittal of the same component. The Authority will designate in the review comments if the next submittal will be a resubmittal of the previous phase submittal or if the plans and supporting calculations are significantly developed to proceed to the next submittal. If the Authority requires more than 2 resubmittals, a submittal workshop between the Authority and the Design-Build Firm must be held to resolve any outstanding issues or comments.

The Design-Build Firm shall also follow the phase submittal requirements as described in sections V.A.3, V.B.3, and V.B.4.

a. 30% Phase Submittal (Planning Phase)

- 1 copy of roll plots (Revised ITS Concept Plans)
- 1 copy of the Typical Section Package
- 1 copy of Lighting System Repair Method of Procedure
- 1 copy of design documentation
- 1 copy of Technical Special Provisions
- All Quality Control (QC) plans and documentation for each component submittal shall be electronic in .pdf format

b. Pricing Phase Submittal (60-90% Design)

- 2 printed copies of 11" X 17" plans (all required components)
- 1 copy of digitally signed and sealed geotechnical report
- 1 copy of design documentation
- 1 copy of Technical Special Provisions
- BIM.zip folder containing native CADD files in standardized directory structure (refer to FDOT CADD Manual for requirements)
- Listing of all selected ITS technologies/products, reasons for selection, selected device locations, and mounting types.
- ITS/ATMS Protection and Maintenance of Communication (MOC) Plan (per planned construction phase)
- All QC plans and documentation for each component submittal shall be electronic in .pdf format

Approval is required for the following prior to submitting the Final Phase submittals of ITS Component Plans:

- Project Concept of Operations (ConOps)
- Project Systems Engineering Management Plan (PSEMP)
- Requirements Traceability and Verification Matrix (RTVM)

c. Final Phase Submittal

- 1 set of digitally signed and sealed 11" X 17" plans (all required documents)
- 1 copy of signed and sealed 11" X 17" plans (unlocked file)
- 1 set of digitally signed and sealed design documentation
- 1 copy of signed and sealed design documentation (unlocked file)
- 1 copy of Settlement and Vibration Monitoring Plan (SVMP)
- 1 set of final design documentation
- 1 signed and sealed Construction Specifications Package or Supplemental Specifications Package
- 1 electronic copy of Technical Special Provisions in .pdf format
- BIM.zip folder containing native CADD files in standardized directory structure (refer to FDOT CADD Manual for requirements)
- All QC plans and documentation for each component submittal shall be electronic in .pdf format
- Requirements Traceability and Verification Matrix (RTVM)

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 Authority) made as a part of the Final Phase 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 review comments have been resolved to the Authority's satisfaction as a requirement before obtaining Released for Construction plans.

3. Requirements to Begin Construction

The Authority's indication that the signed and sealed plans and specifications are Released for Construction authorizes the Design-Build Firm to proceed with construction of an approved Work Package based on the contract plans and specifications. The Authority'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 Authority's review is not meant to be a complete and detailed review. No failure by the Authority 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 EOR to resolve the items not in compliance with the contract, errors, or omissions at no additional cost to the Authority and all revisions are subject to the Authority's approval.

After execution of a Construction Phase Task Work Order and respective NTP, the Design-Build Firm may choose to begin construction prior to completion of the Phase Submittals and the Authority stamping the plans and specifications Released for Construction except for bridge construction, however, the Design-Build Firm's decision to proceed with construction prior to the Authority's approval of RFC plans is entirely at the Design-Build Firm's risk of re-work or removals if such advanced construction is inconsistent with the approved RFC plans.

No permanent structures work, including fabrication of bridge members, may begin without signed and sealed plans or shop drawings (whichever controls the design and details utilized to construct/erect the specific structural component) that have been Released for construction. To begin construction the Design-Build Firm shall submit signed and sealed plans for the specific activity; submit a signed and sealed *Construction Specifications Package* or *Supplemental Specifications Package*; obtain regulatory permits as required for the specific activity; obtain utility agreements and permits, if applicable; have an approved Critical Path Method (CPM) schedule for the work except for the advanced construction works; have an approved temporary construction dewatering plan; 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 Authority stamping the plans and specifications Released for Construction does not reduce or eliminate the Phase Submittal requirements.

4. Shop Drawings

The Design-Build Firm shall be responsible for the preparation and approval of Shop Drawings, as described herein. Shop Drawings shall be in conformance with the FDM. Shop Drawing submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the Shop Drawing(s) submitted for review. When required to be submitted to the Authority, 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 Authority for review shall also include Engineer of Record QA/QC Shop Drawing check prints along with the EOR stamped set(s). The Authority will review the Shop Drawing(s) to evaluate compliance with Project requirements and provide any findings to the Design-Build Firm. The Authority's procedural review of Shop Drawings is to assure that the Design-Build Firm's EOR has approved and signed the drawing, the drawing has been independently reviewed and is in general conformance with the plans. The Authority's review is not meant to be a complete and detailed review, but the Authority reserves the right to perform a more detailed review, as necessary. Upon review of the Shop Drawing, the Authority will initial, date, and stamp the drawing Released for Construction or Released for Construction as Noted.

Shop Drawings submitted for tolling infrastructure shall include all applicable equipment, materials, and products as shown on the plans or as described in the applicable Specification section(s) for the item being submitted. Incomplete or partial Shop Drawings are not acceptable.

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.

5. 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 FDM.

Design-Build Firm shall complete the As-Built Plans as the Project is being constructed. All changes made subsequent to the Released for Construction Plans shall be signed/sealed by the EOR. The As-Built Plans shall reflect all changes initiated by the Design-Build Firm or the Authority in the form of revisions. As-Built Plans shall be submitted for each Work Package as it is finished. If the Work Package does not have completed As-Built Plans (due to the item of work needing more than one Work Package to be completed), the Design-Build Firm shall notify the Authority of the reasoning and will provide a working copy of the As-builts to the Authority. The As-Built Plans shall be submitted prior to Project completion for Authority review and acceptance as a condition precedent to the Authority's issuance of Final Acceptance.

The As-Built data shall be entered into an ArcGIS database consistent with the Authority's existing data format and provided to the Authority. The ITS infrastructure, tolls infrastructure, and the lighting system shall be captured.

The Authority will review, certify, and accept the As-Built Plans prior to issuing Final Acceptance of the Project.

The Authority will accept the As-Built Plans and related documents when in compliance with Division I Design-Build Specification 7-2.3, As-Built Drawings and Certified Surveys, and the As-Built Requirements.

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

- 1 set of 11" X 17" signed and sealed As-Built plans, drawings and Certified Surveys
- 1 set of 11 "X 17" copies of the signed and sealed As-Built plans, drawings and Certified Surveys
- All As-Built plans required to be submitted based on environmental permit conditions.
- 1 set of final documentation (if different from final component submittal)
- 1 set of survey information, including electronic files and field books
- Deliver the final CADD.zip in accordance with the CADD Manual
- 1 Final Project submittal containing the information above shall be electronic in .pdf format.
- ITS Facility Management (ITSFM) data and forms for all ITS and Signalization infrastructure within the Project Limits in compliance with District preferences and FDOT Standard Specifications

P. Issue Escalation

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 in accordance with the Division I Design-Build Specifications.

Q. Cost Estimating and Invoicing

Throughout the term of the Contract, the Authority, the Design-Build Firm, the Independent Cost Estimator (ICE), the Construction Engineering and Inspection (CEI) Consultant, and the Authority's Price Facilitator

will participate in the Pricing Process at each Phase Submittal. As part of the Planning Phase, and not more than 30 days prior to the initiation of the initial Pricing Process, the Authority, the Design-Build Firm, and the ICE will collaborate to align on the processes, assumptions, and format of the Cost Model, proposed schedules, Schedule of Values, and risk register. Following such collaboration, this alignment shall be documented by the Design-Build Firm in a memorandum to be submitted and approved, following review and comment, by the Authority.

The Cost Model shall be prepared in a fully detailed, itemized, and production-based format. Full and complete access to all records and documents utilized in the development of the estimate shall be made available in an open book manner. The format of the Cost Model shall include the following:

- Quantity take-offs;
- Direct Costs (as defined below);
- Field indirect costs (as defined below);
- Risk assumptions, assignment of risks, and schedule and cost contingencies associated with each risk, consistent with the Risk Register as described in Section 6 of the Contract;
- WBS in compliance with the Division I Design-Build Specifications to facilitate alignment of items of Work between the Parties; and
- A written narrative regarding the Cost Model that identifies the means, methods, assumptions, and risks that were used to price the Work.

As part of the Cost Model development process, the ICE and the Design-Build Firm shall reconcile labor and equipment rates for expected Construction Phase labor and equipment.

The estimates are to be developed using current pricing for wage and equipment rates (material pricing will depend on how quoted and the amount of time for which the quote is fixed). Since the 30% Phase Submittal estimate may not have the pricing for all material suppliers and subcontractors to enable firm-fixed pricing for use in the Lump Sum Price, there may be limited items of plug pricing, which should be noted as such. As the estimates are successively refined, the plug pricing will be replaced by firm prices in using competitively selected subcontractors and materials suppliers. All subcontractor estimates (including those subcontractors identified in the ELOR) are subject to Open Book Cost Estimating.

Estimates shall clearly itemize the estimated costs of performing the Construction Work of each work item in the construction WBS and also include the Design-Build Firm's field indirect items. A summary-level cost is requested for each of the work items in the WBS, supported by a detailed cost of each item. The detail shall describe proposed crews with rates of production for each activity within the item of Construction Work. Crews shall clearly show the numbers of equipment and personnel within each activity and work hours for overtime calculations. Estimates of cost for items of Construction Work shall be further divided into the Design-Build Firm's customary cost categories such as man-hours, labor, permanent materials, expendable materials, equipment ownership and operation, and subcontract cost, as appropriate and consistent with the approved format of the Cost Model. The detail of the Construction WBS may include several activities within each work item that shall subtotal to a one-line entry for the summary report. The summary shall include the same cost categories along with the unit cost of the total. Further groupings of similar items of Construction Work can be agreed upon to further facilitate reconciliation of the ICE and Design-Build Firm estimates. Costs and price for each Work Package Proposal shall be subdivided consistent with the approved format of the Cost Model, to include:

- Direct costs;
- Field indirect costs;

- Mark-up on the direct and indirect costs expressed as a percentage of total Construction Phase costs;
- The other costs not eligible for the Mark-up; and
- The cumulative total of the Provisional Sums specific to the Work Package, as described in the Authority-approved Risk Register and as described in Section 6 of the Contract.

1. Direct Costs

Direct costs shall be limited to the following:

- Labor: Wages and add-ons, including overtime, vacation pay, and all fringe payments such as health and welfare, pensions, and any other that may be included in union agreement or as paid to both craft and staff employees; payroll insurance including Worker's Compensation and General Liability if based on labor amounts; payroll taxes including Federal Insurance Contributions Act (FICA) and State and Federal unemployment
- Permanent Materials: Cost of materials incorporated into the Construction Work, including estimated loss, waste, and non-pay overruns; sales tax and any shipping for these materials will be a part of this category
- Construction Expendable Materials: Non-permanent materials, temporary facilities (including temporary structures and construction devices), small tools, formwork, temporary construction, office supplies, services, insurance, and taxes
- Equipment Ownership: Rental or ownership charge of both company-owned and outside rentals, and tax on any rentals
- Equipment Operating Expense: Repair parts, tires and tracks, Design-Build Firm's repair labor, services and fuel, and oil and grease
- Subcontract: Cost of items of Construction Work subcontracted, including contracted trucking

Direct costs may not include (i) any contingencies, (ii) the spread of field indirect costs, nor (iii) items included in the Mark-up.

2. Indirect Costs

Indirect costs shall be limited to the following:

- Survey: Cost of construction survey including both Design-Build Firm-hired and outside services.
- Site Office Expense: Ownership or rental of building, maintenance, removal, utilities, office and engineering expendables, furniture, computers and infrastructure, and photographs.
- Taxes: Taxes, excluding payroll taxes such as property tax and any special local or State sales tax, should be included with the applicable item taxed.
- Temporary Buildings: Cost of ownership or rental, set up, maintenance and removal of such as warehouses, first aid building, and other miscellaneous.
- Personnel Expense: Small tools and supplies (unless carried in the direct cost portion of the estimate), safety expendables, drug screen testing, training, physicals, hiring expense; include any per-diem costs for craft or indirect personnel.
- Project Utilities: Site utilities such as temporary electric, water, and sanitation.
- Mobile Equipment: Overhead vehicles, maintenance equipment and personnel (if not in Equipment Operating Expense), and general service equipment (e.g., flatbeds and forklifts) and personnel if not in the direct cost.
- Mobilization: Cost of transportation of equipment and other items for move in, move out, set up, and take down, including cost of personnel moves and related expense.

- Construction Plant: Site fences, parking areas, material yards, temporary access, and other such special construction not included in direct costs; haul road construction and maintenance to be included in direct costs.
- Quality Control: Cost of Quality Control labor, equipment, supplies, outside services, and Design-Build Firm-hired personnel and on-site quality supervision.

3. Other Costs

The following cost items shall not be subject to the Mark-up:

- Insurance: Insurance other than that based on payroll, such as railroad protective, equipment insurance, and other specified or Design-Build Firm-required insurances.
- Bonds: Cost of payment and performance bond or other guarantees as specified or allowed, if any; also includes cost of subcontract or material bond.

4. Pricing Process

The Pricing Process at each Phase Submittal is a critical part of the Phased Design-Build process. The 30% Phase Submittal and Pricing Phase Submittal will be followed by a Pricing Process. Each Pricing Process will be managed by the Authority's Price Facilitator. The Pricing Process will consist of the following sequential steps:

- Phase Submittal Design Review:
  - The Authority and the ICE will review the Phase Submittal for consistency with the Project requirements.
  - The Authority will provide the Design-Build Firm with comments within 15 Working Days.
  - The Design-Build Firm shall address the comments through a collaborative workshop with the Authority, ICE, and CEI Consultant.
- Construction Scope Reconciliation:
  - As the Lead Design Firm incorporates comments from the design review into a revised Phase Submittal, the Design-Build Firm, the ICE, and the CEI Consultant will independently determine the most viable approach to construct the Phase Submittal scope.
  - Within ten days of the design review comment resolution workshop, the Authority, Design-Build Firm, and ICE will participate in a construction scope reconciliation workshop. The Design-Build Firm and ICE will each present its approach to the Work identified in the Phase Submittal. The attendees will collaboratively weigh the associated procs, cons, and risks of each construction approach and determine the most viable approach.
- Quantity Reconciliation:
  - Upon successful agreeing to the construction scope approach, the Design-Build Firm and ICE will independently perform quantity takeoffs for the proposed Phase Submittal.
  - The Design-Build Firm and ICE will submit its quantities in the agreed upon Cost Model format. The Price Facilitator will analyze where the differences in quantities are.
  - The Authority, Design-Build Firm, and ICE will work collaboratively in workshops to determine the correct number of quantities required to complete the Phase Submittal scope, which shall include discussions on material quantities, means and methods, production rates, and crew sizes;

- Risk Reconciliation:
  - In advance of the Pricing Process, the Authority will have developed, with input from the Design-Build Firm and ICE, the Risk Register.
  - The Authority, ICE, and the Design-Build Firm shall, through a workshop, coordinate to align on the Risk Register contents, including identified risks, mitigations and associated responsibilities, probability and impact to cost and schedule of identified risks, risk allocation, risk provisions (including descriptions, triggers, and limitations).
  - Subsequent to reconciliation of these items, the Authority, ICE, and the Design-Build Firm shall align on values for each risk, with a focus on the value of Design-Build Firm Risks and Provisional Risks through a series of workshops. The workshops shall seek to quantify risks and predict probability of occurrence in an effort to predict the total Project Risk Reserve figure. The meetings shall focus on risk mitigation and how risks would affect bid items. For the highly likely and priority risks, associated bid items will be identified and the affected pricing components (production rates, labor, materials, equipment, etc.) summarized.
- Subcontractor / Supplier Reconciliation:
  - This step will only be completed for the Pricing Phase Submittal.
  - The Design-Build Firm shall solicit subcontractor and supplier quotes in accordance with the Authority-accepted Subcontractor and Supplier Plan (SSP);
  - The Design-Build Firm shall present all received quotes and subcontractor selection results to the Authority and ICE for concurrence.
  - At any point, the Authority may request the Design-Build Firm to seek subcontractor bids for work the Design-Build Firm intends to self-perform. Such quotes may be used in determination if the Authority is receiving a fair market price.
  - The Design-Build Firm shall adhere to the self-performance maximums and minimums within the Contract.
  - The Design-Builder may only bid on the Work anticipated to be subcontracted if the Design-Build Firm is blinded to the subcontractor bids.
  - Upon receipt of concurrence, the Design-Build Firm shall use the selected subcontractor / supplier quotes within its estimate; however, for the 30% Phase Submittal, plug pricing shall be used in lieu of quotes. The Design-Build Firm and ICE will each propose plug prices and reconcile them for the 30% Phase Submittal. All of the subcontracting and supplier quotes and plug values shall be visible to the Authority through Open Book Cost Estimating. All entities, including the Prime Contractor, performing over 20% of the Construction Phase Work, by construction value, will be subject to the Open Book Cost Estimating process and will be required to develop its estimate in Cost Model format.
  - The Design-Build Firm and its selected subconsultants or subcontractors shall be, prior to execution of the Construction Phase Task Work Order, prequalified by the Florida Department of Transportation (FDOT) under FAC 14-22 for the Construction Work they each intend to perform. It is anticipated that the proposed scope of the Construction Work may include the following construction work classes:
    10. Flexible Paving
    11. Grading
    12. Grassing, Seeding and Sodding
    13. Guardrail
    27. Minor Bridges
- Cost and schedule reconciliation:

- The ICE and Design-Build Firm shall submit their respective proposed estimates and construction schedules to the Price Facilitator. The estimates must be in the agreed upon Cost Model format.
- The Authority, Design-Build Firm, and ICE will meet, as necessary, to reconcile the estimates. The estimate shall also include any lump sum pay items included in the Work, as agreed to by the Authority. The estimate shall also include estimated costs for Design-Build Firm Risks, as described in Section 6 of the Contract.

In addition to the Pricing Process iterations described above, the Design-Build Firm may be requested to provide estimates of Project cost and/or cost of individual Project elements.

Each Pricing Process for the 30% is anticipated to take approximately 90 days. The Pricing Process for the Pricing Phase Submittal is anticipated to take approximately 45 days. The Authority must concur that a step within the Pricing Process has been completed satisfactorily prior to the Parties moving forward to the next step. Upon completion of the 30% design submission Pricing Process, the Design-Build Firm shall submit an estimate within the RtC in the form of an OPCC.

Upon completion of each the Pricing Phase Submittal, the Design-Build Firm shall submit a formal Cost Estimate with the respective WPP, which shall represent the Design-Build Firm's committed Lump Sum Price for the delivery of the scope within the respective design submission. The Authority will decide, in its sole discretion, as to whether the values within the Cost Estimate represents fair market value for the completion of the Construction Work. The Authority reserves its rights as described in Section 4 of the Contract.

The Lump Sum Price is the amount the Design-Build Firm shall, subject to Authority approval and Construction Phase Task Work Order authorization, be paid for successful completion of the Construction Phase Task Work Order, subject also to an Authority Risk or Provisional Risk materializing, as described in Section 6 of the Contract.

The estimates from the Pricing Process, with the same transparency and level of detail, shall be used as construction changes, or additional work warrants for change proposals during the Construction Phase.

5. Additional Cost Estimate Provisions

Each Work Package is to include the specification language for Fuel and Bituminous adjustments as defined in Division I Design-Build Specifications (9.2.1.1 and 9.2.1.2). For Contract Time, this shall be considered the Work Package duration, and the baseline index shall be independent for each Work Package. No other fuel and bituminous adjustments will be permitted. The Authority retains the right to adjust the GMP on a Work Package due to fuel and bituminous adjustments following the Division I Design-Build Specifications. Any additional compensation or adjustment made to a WPP due to the fuel and bituminous specification shall not be considered when ensuring the GMP has not been exceeded.

6. Summary Narrative of the Estimate

Upon request by the Authority, the Design-Build Firm shall provide a summary narrative of the how the OPCC or Cost Estimate was created. Include a discussion of how specific items were developed in the estimate, such as, but not limited to, fuel pricing, material sources, labor rates, any craft labor agreements, and availability of skilled craftsman, including workload assumptions. Discuss approach to equipment availability and rental rates, including any equipment adjustments to hourly equipment rates used in the estimate based on schedule usage of equipment versus length of time equipment will be on the job, or if a buy-sell basis of ownership costs is applicable to the Project. Discuss temporary construction required such as haul roads, temporary pavement, temporary drainage, detours, any retained earth, and borrow or waste

pit development. Discuss approach to schedule, including hours of Work, double or triple shifts, weather and season considerations, and the general duration of the estimated Work. All information provided by the Design-Build Firm shall be subject to the review by the Authority and its representatives.

7. Schedule of Values

Subject to negotiation and Authority approval of the Lump Sum Price for the associated WPP, the Design-Build Firm shall develop a Schedule of Values using the FDOT standard format for the Authority's approval. The Schedule of Values shall be developed in accordance with the Contract and the required specifications, including measurement and payment, as specified by the Division I Design-Build Specifications. The total within the Schedule of Values must equal the Lump Sum Price.

The Design-Build Firm shall submit the Schedule of Values to the Authority for approval for each Work Package. The Schedule of Values approved by the Authority will be the basis for determining each monthly progress estimate and the final estimate for each Work Package. The quantities on the Schedule of Values will be compared with the Master Schedule to determine the percentage earned for payment. The percentage shall be that portion of the work completed as compared to the total work contracted. The Design-Build Firm shall use the Schedule of Values to cost load the offsite fabrication and construction activities under the Master Schedule. The assignment of values to scheduled activities must be approved by the Authority prior to the first monthly progress estimate and prior to any invoicing by the Design-Build Firm. The estimate cut-off date shall be the third Sunday of each month.

8. Payment on Work Packages

Refer to Section 5.1 of the Contract.

9. Combined Invoice for Work

The Design-Build Firm is responsible for submitting invoices requesting payment and shall include all sums earned by the Design-Build Firm under the Contract and any Task Work Order, including the estimates associated with each Schedule of Values associated with any ongoing Work Packages. For the initial Planning Phase where the method of compensation is limiting amount a signed rate certification must be submitted showing the actual rates of the personnel included in the invoice. The Schedule of Values estimates portion of the invoice shall be based on the completion or percentage of completion of tasks as defined in each Schedule of Values. If a Design-Build Firm is working on multiple Work Packages, Work for each Work Package shall be clearly identified. No estimates requesting payment shall be submitted prior to Authority approval of the Schedule of Values. If the Design-Build Firm earns any bonus payment associated with the bonus provisions defined in Section IV.L, the Design-Build Firm should request in writing confirmation from the Authority that the bonus was earned, and then may submit for payment of the bonus on the invoice in the month following confirmation from the Authority that the bonus was earned. Upon receipt of the estimate requesting payment, the Authority will determine whether work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

R. Loss of Toll Revenue

The Design-Build Firm shall not impact the revenue collection operations of the roadside toll collection system except as described in herein, and as approved by the Authority. Division I Design-Build Specifications and A_002.03 - Legal Requirements and Responsibility to the Public – Preservation of Existing Property (Toll Facilities) (SP0071101-tolls) shall apply to any loss of revenue during the Project.

S. Risk Register, Management, Mitigation, Allocation, and Reserve

Refer to Section 6 of the Contract.

T. Final Payments and Shared Savings

Refer to Section 3.5.12 of the Contract.

V. Phases of Work

A. Planning Phase

1. Overview

Upon execution of the Contract and receiving NTP, the Design-Build Firm shall commence the Planning Phase work.

During the Planning Phase, the Design-Build Firm shall develop a collaborative team environment that fosters communication, accountability, and trust with the Authority, its representatives (GEC, ICE, and CEI Consultant), and its stakeholders to progress, refine, and optimize the design and to develop and submit a Request to Continue (RtC) package.

At the beginning of the Planning Phase the Authority will provide the Design-Build Firm with a schedule of deliverables due during the Planning Phase.

2. Planning Phase Activities

The Design-Build Firm shall perform the following project management services:

- Build a collaborative team environment that fosters communication, accountability, and trust.
- Conduct regular risk and opportunity/innovation workshops with the Authority, ICE, CEI, and GEC and inform the risk register contents.
- Initiate third-party coordination with Utility Agency Owner (to be led by the Design-Build Firm with oversight from the Authority).
- Develop and maintain an up-to-date Project Management Plan, which shall include a Safety Plan for the Planning Phase and Design Phase field work. The Project Management Plan shall include the Design-Build Firm's organizational chart, contact list, and a matrix outlining which Design-Build Firm personnel will be included in the design, pricing, schedule, risk, stakeholder coordination, and management meetings and workstreams.
- Establish and regularly update a schedule that includes key activities and milestones for the Planning Phase, Design Phase, and anticipated Construction Phase.
- Establish and adhere to a Quality Management Plan which shall be a preliminary version of the Quality Management Plan finalized in the Design Phase.
- Use the Authority-provided and managed electronic project and document management system throughout the duration of the project. The Authority will provide the Design-Build Firm with access rights and trainings for such system.
- The Design-Build Firm shall be responsible for maintaining a secure data / file storage system for its documents.

- Maintain a current organizational chart and directory of key personnel that is accessible to the Authority.
- Provide minutes of each meeting with the Authority, its representatives, Utility Agency Owners, and third-parties related to the Project for review and comment by the Authority.

The Design-Build Firm shall perform the following preliminary design services:

- Evaluate the concept plans provided by the Authority for cost-effective solutions and impact minimization.
- Determine whether the information provided by the Authority through the Attachments or other Reference Documents is sufficient and current enough to develop the OPCC and future Lump Sum Price, or if further investigation is needed.
- Implement an interactive design process to incorporate mitigation strategies for identified risks and innovations into the design in collaboration with the Authority and its representatives.
- Conduct weekly design meetings and prepare minutes for Authority Review and Comment.
- Verify permitting requirements for the Project.
- Prepare presentations, engineering drawings, analysis, estimates, etc. to show work in progress or innovations.
- Perform preliminary design for the 30% Phase Submittal and provide documentation pursuant to the FDOT applicable manuals, policies, and procedures and the requirements in this RFQ.
- Perform supplemental site investigations and surveys needed to establish the OPCC for the 30% Phase Submittal including, but not limited to, CCTV analysis and Subsurface Utility Engineering (SUE).
- Advance the ITS design to 30% Phase Submittal similar to the concept plans provided by the Authority including the required information noted below to support developing the respective OPCC.
    1. ITS device quantity and location
    2. Number and location of structures to support ITS infrastructure
    3. Location of fiber backbone
    4. Conduit location and method of installation
    5. Identification of power source
- Prepare draft Lighting System Repair Method of Procedure utilizing the information contained within the RFQ and Reference Documents.
- Develop the Typical Section Package in accordance with the FDOT Design Manual for the proposed roadway improvements.
- Develop preliminary ConOps and PSEMP.
- Determine power sources for proposed improvements and initiate coordination for establishing agreements.

The Design-Build Firm shall perform the following construction planning services:

- Develop the RtC Schedule.
- Conduct workshops to establish the Phasing Plan and means and methods for the Project. Review the means and methods with the Design-Build Firm’s safety manager for concurrence.
- Develop a Safety Plan for the Construction Phase.
- Evaluate maintenance of traffic for the proposed design. Determine means to minimize impacts to pedestrian and vehicular traffic on local roadways.

- Develop and implement mitigation plans for risks identified in the Risk Register.
- Identify, evaluate, optimize and propose alternatives to reduce schedule, reduce costs, or improvements that otherwise will improve the Project.
- Perform constructability and maintainability reviews of designs, plans and specifications.
- Complete the first Pricing Process with the Authority, its representatives, and the ICE.
- Develop an OPCC.

3. Planning Phase Meetings

The Design-Build Firm and the Authority will hold regularly scheduled meetings. The parties shall work together to create a collaborative atmosphere and meet as frequently as necessary to advance the work. The Design-Build Firm shall provide an agenda for each meeting at least one day prior to the meeting, with sufficient detail so the Authority can ensure the correct subject matter experts are included in the meeting. At a minimum, it is expected that the Authority and the Design-Build Firm shall meet weekly to discuss project status, design process and decisions, means and methods, technology, risk, costs, and schedule.

The Parties shall agree on a regular weekly cadence, however, it is anticipated that there will be instances where there will be multiple meetings per week, as needed to complete the Planning Phase Work. For example, the Pricing Process will require multiple meetings for reconciliation. These meetings are not considered within the weekly cadence.

At a minimum, the following reoccurring meetings are anticipated during the Planning Phase:

- Every week:
  - Design, stakeholder collaboration, and integration progress meeting.
- Every other week:
  - Project management meeting;
  - Constructability meeting; and
  - Scheduling, estimating, and risk register meeting.

4. Innovations and Changes to the Design and Construction Criteria

Innovations are proposed deviations from requirements contained within the Contract Documents.

The Design-Build Firm may raise proposed Innovations to the Authority. The Design-Build Firm and the Authority will discuss and outline the specific details required for each Innovation submission and indicate important features of the proposed innovation and the potential impact or reductions to, but not limited to, ROW, environmental and natural resources/permitting, design exceptions and/or variations, utilities, and device types.

The Design-Build Firm shall have two months after execution of the Contract to offer Innovations.

5. Planning Phase Submittal and Specifications Submission

Sixty days prior to the submission of the RtC, the Design-Build Firm shall submit to the Authority the 30% Phase Submittal, which shall commence the first Pricing Process as described in Section IV.Q.3.

The Planning Phase Submittal shall include the following elements developed to Preliminary (P), Complete but subject to change (C), and Final (F), in addition to those identified in Section IV.O.2:

Table 7: Planning Phase Submittal ITS Level of Development (LOD)

Design Element - ITS Components	LOD	Notes
Dynamic Message Sign (DMS) structure, DMS attachment, DMS display/layout	P	General location of the large DMS structure will be based on sign spacing and obstruction. General location of the TTS based on agreements with City of Tampa or FDOT. Quantities can be solidified.
Closed Circuit Television (CCTV) structure, CCTV attachment, CCTV operation/layout	P	General location of the structure will be based on camera views and obstructions. Evaluate the location of the camera with respect to the closest ITS or tolls generator. Quantities can be solidified.
Microwave Vehicle Detection System (MVDS) structure, MVDS attachment, MVDS operation/layout	P	General location will be based on MVDS spacing. Quantities can be solidified.
Wrong Way Vehicle Detection System (WWVDS), WWVDS structure, WWVDS attachment, WWVDS operation/layout	P	FDOT permit location agreement at Dale Mabry site. Quantities can be solidified. Evaluate the location of the WWVDS assembly with respect to the closest ITS or tolls generator. Investigate the additional load placed on the generators.
Roadside Unit (RSU) attachment, RSU operation/layout	P	General location due to large coverage radius. Quantities can be solidified.
Video Analytics (VA) attachment / VA operation/layout	P	City of Tampa permit or FDOT permit location agreement. Camera needs to see the crosswalk.
Electronic Speed Feedback Sign (ESFS) operation/layout	P	General location will be based on ESFS study and proximity to AC power. Quantities can be solidified.
Fiber optic splice	P	
Power Service Distribution	P	Coordinate with Tampa Electric Company and Peoples Gas System (TECO) to identify TECO transformer.
Conductor Details	P	
Wiring and connection details	-	
Conduit, pull box, and vault installation	P	City of Tampa permit or FDOT permit location agreement.
Communication Hub and Field Cabinets	P	City of Tampa permit or FDOT permit location agreement. General location will be based on R/W, embankment slope, view of traffic for MVDS 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.	-	
Power Design Analysis Report (PDAR) for ITS devices	-	

Design Element - ITS Components	LOD	Notes
Maintenance of Communication (MOC) and Method of Procedure (MOP)	P	

6. Subcontractor and Supplier Plan

Within 30 days of NTP, the Design-Build Firm shall develop and submit to the Authority for approval a Subcontractor and Supplier Plan (SSP). The SSP shall include, at a minimum, the following:

- A description of the Design-Build Firm's subcontracting process for identifying and soliciting pricing for subcontracting opportunities for the Construction Work;
- An outline of the Design-Build Firm's anticipated self-performed work and subcontracted work;
- Details of the Design-Build Firm's approach to advertising subcontracting opportunities to maximize awareness and qualified subcontractor price competition;
- A description of the Design-Build Firm's procurement and competitive selection process; and
- Information regarding subcontractor availability and local economic conditions.

The SSP shall adhere to standard FDOT subcontracting procedures and processes. The Design-Build Firm shall revise and resubmit the SSP as updates become necessary and as requested by the Authority. The Design-Build Firm shall adhere to the plan during the Pricing Process.

7. Request to Continue Submission

During the Planning Phase on the date provided by the Authority, the Design-Build Firm shall submit to the Authority a Request to Continue (RtC) package. The RtC package shall include the documents below, and serves as a request by the Design-Build Firm to have the Authority issue a Design Phase Task Work Order (TWO) for the Project.

The following documents are deliverables that shall be submitted to the Authority as part of the Design-Build Firm's RtC submission.

Table 8: Planning Phase RtC Submission

Document	Description
Revised ITS Concept Plans (Roll Plots)	Adjustments to the concept plans provided by the Authority incorporating innovative concepts approved by the Authority over the course of the Planning Phase. Adjustments to the concept plans provided by the Authority shall follow the Authority's Plans Revision process described in the FDM. During the Planning Phase, the Authority will provide direction on the level of development of the Adjustments to the concept plans provided by the Authority for each innovation. The level of detail shown in the Revised Concept ITS plans should match or exceed the level of detail shown in Reference Document 05.
Roadway Typical Section Package	The Roadway Typical Section Package shall depict the roadway improvements for the corridor based on the process defined in the FDM.
Existing Lighting System Repair Method	The Existing Lighting System Repair Method of Procedure shall establish the process which will be used by the Design-Build Firm to assess, repair and upgrade (as necessary) the existing lighting system.

of Procedure	
Phasing Plan	The Phasing Plan shall describe how the Project scope is to be phased and segmented into Work Packages, if applicable.
RtC Schedule	The RtC Schedule shall show major Design Phase and Construction Phase activities. The schedule should identify anticipated durations for all review, comment, and approval periods for the Authority, other agencies, and third-parties. The schedule shall identify the critical path and identify and account for long-lead procurement needs. The schedule shall include an overall proposed Contract Time. The schedule shall be developed in accordance with the Division I Design-Build Specifications.
Innovation List	A list of approved Innovations that the Design-Build Firm has included in their GMP. This list shall be on a form defined by the Authority.
Risk Register	As described in Section 6 of the Contract, the RtC shall include the then-current version of the Project Risk Register, which shall be maintained by the Authority.
OPCC	As described in Section IV.Q.3, the Design-Build Firm shall include the OPCC with the RtC, which shall be inclusive of the proposed Design GMP.

By submitting the RtC, the Design-Build Firm explicitly agrees to be bound by the Authority's determination on whether or not to issue a Design Task Work Order, and waives any right to dispute the Authority's determination.

8. Authority Determination

The Authority will decide on whether it will move forward with the Design Phase after receiving the Design-Build Firm's RtC. The Authority may utilize any resource to determine whether it should issue further Task Work Orders.

If the Authority determines it cannot move forward with the Project due to any reason, the Authority may enter into negotiations with the Design-Build Firm to have the RtC package resubmitted.

The Authority may also at its discretion, decide to end the Contract and take any action it has available, including, re-advertise the Work, or add the Work to an adjacent Contract (if available).

The RtC package shall be incorporated into the Design Phase Task Work Order as contractual obligations.

B. Design Phase

1. General

Upon execution of the Design Phase Task Work Order, the Design-Build Firm shall commence the Design Phase work.

During the Design Phase, the Design-Build Firm shall maintain the same collaborative team environment from the Planning Phase that fosters communication, accountability, and trust with the Authority, its representatives, and its stakeholders to progress, refine, and optimize the design and to plan, schedule, and develop GMPs for Work Packages identified during the Planning Phase.

2. Design Phase Activities

The Design-Build Firm shall perform the following project management services:

- Establish a Project office, subject to the Authority's approval.
- Maintain a collaborative team environment that fosters communication, accountability, and trust.
- Use the Authority-provided and managed electronic project and document management system throughout the duration of the project. The Authority will provide the Design-Build Firm with access rights and trainings for such system.
- The Design-Build Firm shall be responsible for maintaining a secure data / file storage system for its documents.
- Continue the interactive design process to incorporate mitigation strategies for identified risks and innovations into the design.
- Update the Project Management Plan for submittal to and approval by the Authority.
- Update the Design Quality Management Plan for submittal to and approval by the Authority.
- Update the Safety Plan for submittal to and approval by the Authority.
- Provide information required for periodic updates to the Authority's communications team.
- Continue conducting regular risk and opportunity/innovation workshops and prepare minutes.
- Continue third-party coordination with Utility Agency/Owners (UAO's) (to be led by the Design-Build Firm with oversight from the Authority's Utility Coordination Liaison).
- Support and coordinate with Authority on ROW matters, relative to schedules, construction impacts, maintenance of driveway access, cure improvements, etc.
- Prepare Governmental Approvals and permits required to complete the Project. When the Authority is responsible for obtaining an approval/permit, provide supporting information and documentation when requested by the Authority.
- Prepare a Hurricane Readiness Plan (HPP) for submittal to and review and acceptance by the Authority.

The Design-Build Firm shall perform the following design services:

- Weekly design meetings and minutes, plus regular discipline-specific meetings, including but not limited to Roadway, Temporary Traffic Control Plans (TTCP), structures, geotechnical, drainage, utilities, signing, ITS, hardscape/aesthetics, etc.
- Presentations and engineering drawings to show work in progress or innovations.
- Develop the Pricing Phase Submittal and submit to the Authority for commencement of the respective Pricing Process.
    1. Continue stakeholder coordination.
    2. Advance permits required to complete the project.
    3. Develop ITS plans to include: power supply locations and conductor size, bridge connection details, resolved utility conflicts, near final layout of fiber and boxes adjusted due to utility conflicts, final pole heights, foundation designs, Maintenance of Traffic (MOT) schemes.
    4. Conduct any remaining site investigations and surveys as needed.
    5. Perform utility coordination, surveys and prepare utility adjustment sheets.
- Contribute to and participate in the Pricing Process for the Pricing Phase Submittal.
- Execute the Authority-approved SSP.
- Develop WPPs after successfully completing a Pricing Process and upon the Authority's request. The Design-Build Firm may be requested to submit the WPP at the completion of the Pricing Phase Submittal Pricing Process should such Pricing Process be successful, as determined by the Authority in its sole discretion.
- Complete the Final Design Submittal and post-design work for each WPP

1. Prepare and submit applications and/or modifications for permits and submit applicable fees required by authorities with jurisdiction.
2. Coordinate with the Authority to develop the final Design and Construction Criteria Package.
3. Perform design and provide documentation pursuant to the FDOT applicable manuals, policies, and procedures and the requirements in this RFQ.
4. Prepare designs and construction documents for utility adjustments and relocations.
5. Prepare ROW plans and provide ROW acquisition support services for any proposed new ROW, if required by the Authority.
6. Submit final ConOps and PSEMP.

The Design-Build Firm shall perform the following risk management services:

- Each modification to the Risk Register must be submitted to the Authority for review and approval.
- Develop and implement mitigation plans for identified risks.
- Identify, evaluate optimize and propose alternatives to reduce schedule, reduce costs, or improvements that otherwise will improve the Project.
- Perform constructability and maintainability reviews of designs, plans and specifications at major milestones as determined by the parties.

The Design-Build Firm shall perform the following cost estimating services:

- Follow the Pricing Process requirements and processes to develop a Lump Sum Price and WPPs for submittal to and review by the Authority.
- Contribute to the calculation of Provisional Sums, which are subject to Authority approval.
- Open Book Cost Estimating: The development of all Cost Estimate and Work Package Proposals and changes during Construction shall be on an open book basis, and the Authority will have the right to access and copy all records, accounts, and other data used by the Design-Build Firm in connection with the preparation of any Cost Estimate and Work Package Proposal. Each GMP included in any WPP or for changes during Construction shall be developed in a cooperative manner in accordance with the guidelines and principles of the Pricing Process described in the Contract Documents.
- If directed by the Authority, continue to participate in value engineering services so that the Design-Build Firm can reduce the Lump Sum Price and Risk Reserve. At the Authority's request the Design-Build Firm shall meet with the Authority to review and discuss the WPP and make adjustments in response to comments from the Authority.

The Design-Build Firm shall perform the following scheduling services:

- Revise the Master Schedule prior to each Phase Submittal. The Master Schedule shall meet the requirements of Section 8-3 of the Division I Design-Build Specifications. Throughout the Construction Phase, the Master Schedule shall be updated monthly and include the Work Package Proposal Schedules as a WBS under the Master Schedule.
- Upon NTP of the Design Task Work Order and prior to the submittal of the Master Schedule, a two-week activity look ahead schedule shall be submitted every two weeks, reflecting the controlling items of work and a list of planned submittals.

Meetings

At a minimum, the following reoccurring meetings are anticipated during the Design Phase:

Every week:

- Design, stakeholder collaboration, and integration progress meeting.

Every other week:

- Project management meeting;
- Constructability meeting; and
- Scheduling, estimating, and risk register meeting.

3. Pricing Phase Submittal

The Pricing Phase Submittal shall include the following elements developed to Preliminary (P), Complete but subject to change (C), and Final (F), in addition to those identified in Section IV.O.2:

Table 9: Pricing Phase Submittal ITS Level of Development (LOD)

Design Element - ITS Components	LOD	Notes
Dynamic Message Sign (DMS) structure, DMS attachment, DMS display/layout	C	Adjust the location within the geotech parameters to avoid utilities and consider RW.
Closed Circuit Television (CCTV) structure, CCTV attachment, CCTV operation/layout	C	Adjust the location within the geotech parameters to avoid utilities.
Microwave Vehicle Detection System (MVDS) structure, MVDS attachment, MVDS operation/layout	C	Adjust to avoid utilities.
Wrong Way Vehicle Detection System (WWVDS), WWVDS structure, WWVDS attachment, WWVDS operation/layout	C	Adjust to avoid utilities.
Roadside Unit (RSU) attachment, RSU operation/layout	C	Adjust to avoid utilities.
Video Analytics (VA) attachment / VA operation/layout	C	Adjust to avoid utilities.
Electronic Speed Feedback Sign (ESFS) operation/layout	C	Adjust to avoid utilities.
Fiber optic splice	C	
Power Service Distribution	C	TECO agreements on new service locations.
Conductor Details	C	
Wiring and connection details	P	
Conduit, pull box, and vault installation	C	Adjust to avoid utilities and consider RW.
Communication Hub and Field Cabinets	C	
System-level block diagrams	P	Show adjacent projects. Coordinate with the Authority IT (Metric Engineering & Infotect)
Device-level block diagrams	P	

Design Element - ITS Components	LOD	Notes
Field hub/router cabinet configuration details	P	Coordinate with the Authority IT (Metric Engineering & Infotect)
Fiber optic Splicing Diagrams	P	
System configuration/Wiring diagram/Equipment Interface for field equipment at individual locations and communications hubs.	P	
Power Design Analysis Report (PDAR) for ITS devices	P	
Maintenance of Communication (MOC) and Method of Procedure (MOP)	C	Show existing fiber and adjacent projects. Coordinate with SSCP contractor. Coordinate with the Authority IT (Metric Engineering & Infotect)

4. Final Phase Submittal

The Final Phase Submittal shall include the following elements developed to Preliminary (P), Complete but subject to change (C), and Final (F), in addition to those identified in Section IV.O.2:

Table 10: Final Phase Submittal ITS Level of Development (LOD)

Design Element - ITS Components	LOD	Notes
Dynamic Message Sign (DMS) structure, DMS attachment, DMS display/layout	F	
Closed Circuit Television (CCTV) structure, CCTV attachment, CCTV operation/layout	F	
Microwave Vehicle Detection System (MVDS) structure, MVDS attachment, MVDS operation/layout	F	
Wrong Way Vehicle Detection System (WWVDS), WWVDS structure, WWVDS attachment, WWVDS operation/layout	F	
Roadside Unit (RSU) attachment, RSU operation/layout	F	
Video Analytics (VA) attachment / VA operation/layout	F	
Electronic Speed Feedback Sign (ESFS) operation/layout	F	
Fiber optic splice	F	Splice quantities and splicing material should be finalized.

Design Element - ITS Components	LOD	Notes
Power Service Distribution	F	
Conductor Details	F	Wire sizes should be finalized. Quantity of disconnects and transformers.
Wiring and connection details	F	Wiring diagram finalized.
Conduit, pull box, and vault installation	F	
Communication Hub and Field Cabinets	F	
System-level block diagrams	F	
Device-level block diagrams	F	All equipment quantities finalized.
Field hub/router cabinet configuration details	F	
Fiber optic Splicing Diagrams	F	Splice quantities and splicing material should be finalized.
System configuration/Wiring diagram/Equipment Interface for field equipment at individual locations and communications hubs.	F	Wiring diagram finalized.
Power Design Analysis Report (PDAR) for ITS devices	F	Wire sizes should be finalized. Quantity of disconnects and transformers.
Maintenance of Communication (MOC) and Method of Procedure (MOP)	F	

5. Construction Work Package Proposal Submission

During the Design Phase, the Design-Build Firm shall develop WPPs in accordance with the Authority approved Phasing Plan.

If the Design-Build Firm wishes to submit a draft WPP, the Authority will review offer comments.

The Authority will review each submitted final WPP and provide feedback within 5 workdays. Thereafter, the Authority and the Design-Build Firm shall engage in good faith negotiations to finalize the Work Package on a timely basis. If after 5 workdays of negotiation, a resolution to the WPP scope and price cannot be achieved, the negotiation must be escalated to the Executive Review Board. The Executive Review Board will meet and resolve within 5 workdays after receiving the escalated issue.

Each WPP shall be for a unique Work Package, which, if approved by the Authority, will result in individual Construction Phase Task Work Orders.

The WPP shall contain the items listed below to the extent they are relevant to the scope of the Construction Work anticipated to be authorized by the proposed Construction Phase Task Work Order:

- The GMP and Lump Sum Price with backup documentation from the Pricing Process;
- The Schedule of Values;
- The Work Package Contract Time and Master Schedule, including a total duration of the work in calendar days. The schedule shall identify the critical path, identify and account for long-lead procurement needs, and identify and account for the Authority's ROW acquisition dates for the Work Package. The Work Package Schedule shall be contained within the Master Schedule.\;

- The parties respective obligations for obtaining any required Governmental Approvals;
- The DCC, used in preparation of the Phase Submittal, Lump Sum Price, and Risk Register, including a list of clarifications and assumptions made to supplement the information contained in the DCC;
- ROW acquisition responsibilities and schedule;
- The studies, plans, and reports generated as part of the Design Phase, including any Site investigation reports, the Utility Map, ROW Plans, Hazardous Materials Report, Project Management Plan, Quality Management Plan, Settlement and Vibration Monitoring Plan, and Safety Plan;
- The most recently approved Phase Submittal, inclusive of the specifications;
- The Risk Register;
- The Design-Build Firm's obligations to perform work under any utility agreements;
- Any other documents or information reasonably required by the Authority;
- Any clarifications made by the Authority under the provisions of this RFQ; and
- Additional obligations or requirements agreed to by both parties.

After submission of the WPP, the Parties may mutually agree to make changes. The Authority retains its rights in accordance with Section 4 of the Contract. Upon agreement of a WPP, the Authority and the Design-Build Firm may execute a Construction Phase Task Work Order (subject to availability of funds), which shall include the contents from the respective WPP, with any changes the Parties mutually agreed after submission of such WPP.

C. Construction Phase

1. Construction Phase Activities

The following are tasks/deliverables that the Design-Build Firm shall perform/submit during the Construction Phase:

Management Services:

- Maintain a collaborative team environment that fosters communication, accountability, and trust.
- Attend weekly progress meetings.
- Update the Project Management Plan as needed.
- Update the Quality Management Plan as needed.
- Update the Safety Plan as needed.
- Update the Master Schedule monthly, or as needed.
- Update the Phasing Plan as needed.
- Ensure compliance with the on-the-job training (OJT) plan.
- Update and maintain the Risk Register. Implement mitigation plans for identified risks.
- Continue third-party coordination with Utility Agency/Owners (UAO's) (to be led by the Design-Build Firm with oversight from the Authority).
- Provide review and information required for periodic updates to the Community Awareness Plan and provide support to the Public Information Consultant (PIC) for the public involvement efforts.

Construction Services:

- Construct Work Packages in accordance with the Contract requirements.
- Perform Incident/Emergency Management and Maintenance responsibilities within the Project Limits in accordance with the Contract requirements.
- Use the Authority-provided and managed electronic project and document management system throughout the duration of the project. The Authority will provide the Design-Build Firm with access rights and trainings for such system.
- The Design-Build Firm shall be responsible for maintaining a secure data / file storage system for its documents.

Cost Estimating:

- Open Book Cost Estimating and negotiations: Any required changes during the Construction Phase shall be developed in a cooperative manner in accordance with the Open Book Cost Estimating guidelines and principles described in the Contract Documents.

2. Self-Performance and Subcontracting Requirements

The Design-Build Firm shall self-perform at least thirty percent (30%) of the Construction Work and not more than sixty percent (60%) of the Construction Work. Only direct costs associated with Construction Work shall be considered in the calculation of the self-performance. The percentage of Construction Work subcontracted shall be determined by dividing the total direct costs dollar value of the subcontracted Construction Work by the total value of Construction Work direct costs in all Work Packages.

The Design-Build Firm shall adhere to the Authority-approved SSP.

D. Maintenance

1. Incident Management Responsibilities

Incident management within the Project Limits will be the responsibility of the Authority's existing Incident Management Program with the exception of the following responsibilities. The Design-Build Firm shall be responsible for long-term maintenance of traffic associated with incident management activities, including any incident within the Project Limits that requires traffic control items to be placed outside of the construction limits, beginning at execution of the Task Work Order for the first Construction Phase Task Work Order and continuing until Final Acceptance by the Authority. Long-term maintenance of traffic is defined as any lane blocking event lasting more than 60 minutes.

The Design-Build Firm shall input maintenance of traffic information into the Causeway One.Network platform.

The Design-Build Firm shall notify and assist the Authority with traffic incidents during the construction and management of the Project, including but not limited to, contamination or hazardous materials release associated with traffic incidents, unauthorized dumping, or similar incidents.

The current service patrol program will remain in service throughout the duration of the contract and will be funded by others. The service patrol concept, known today as *Road Rangers*, is a free service offered by the Authority and its partners, used for the management of vehicles for all types of incidents (Road Rangers are only available Monday-Friday 5:00AM-7:00PM). The Road Rangers provide a direct service to motorists by quickly clearing travel lanes of minor incidents and assisting motorists. The Road Rangers and Florida Highway Patrol will provide short-term maintenance of traffic for up to 60 minutes. The Design-Build Firm, if present on the site at the time of the incident, shall provide Long-Term Maintenance of

Traffic (defined as all maintenance of traffic equipment setup and operational) within 60 minutes of any incident and such maintenance of traffic shall remain in place until the area is safe to reopen to traffic. If any incident causes the need for a detour route off the interstate system, the Design-Build Firm shall provide, install, and manage all maintenance of traffic features necessary to move traffic through the detour until the interstate system is safe to reopen to traffic. Failure to comply with these requirements will result in a $5,000 per hour payment deduction from payments otherwise due to the Design-Build Firm at the discretion of the Authority at the time of the incident.

The Design-Build Firm shall be responsible for cooperating, coordinating, and assisting with the Authority's existing contractor(s) in meeting the goals of the Open Roads Policy agreement with the Florida Highway Patrol.

The Design-Build Firm shall include the cost of coordination in their Lump Sum Price.

In the event that any suspected contaminated and/or hazardous materials are encountered during construction, or if any spill of contaminated and/or hazardous material not caused by the Design-Build Firm's actions occurs, the Design-Build Firm shall stop work immediately and notify the Authority. The Design-Build Firm shall include the cost of coordinating and performing said responsibilities in their Lump Sum Price.

2. Emergency Response Requirements

The Authority may, at its discretion, reimburse the Contractor for any work that is directed for advance preparation, repairs, replacement, etc. required as a result of a natural disaster, catastrophic or emergency response event. The Contractor will take control of the work as per Florida Department of Transportation Specification 7-14, hereby incorporated into this contract. If directed, the Contractor shall refer to Section 7.6 of the Authority's Construction Project Administration Manual (CPAM) regarding the responsibilities and reimbursement guidance that will used to assist in memorializing the directed work and method of compensation. No assumption of compensation outside of that noted in the incorporated Florida Department of Transportation Specifications can be made without prior written direction.

3. Routine Maintenance Responsibilities

The Authority will continue maintenance and inspection activities within the Project Limits until the Design-Build Firm receives NTP on the first Construction Phase Task Work Order. The Design-Build Firm shall be responsible for maintenance and inspection activities through Project Final Acceptance. During the Design Phase, the Design-Build Firm shall coordinate with the Authority to develop the maintenance limit drawings. Repair of third party damages to all installed material and to all existing assets shall be in accordance with FDOT Specification 7-11 and shall be restored by the Design-Build Firm. The Design-Build Firm's routine maintenance responsibilities shall be in accordance with the following requirements:

1. ITS - meet the requirement of the ITS MTRs for the Authority, as appropriate, including preventative maintenance.

   The existing ITS systems shall be maintained by the Design-Build Firm during construction, including the existing communication subsystems, devices, associated power subsystems, and infrastructure to enable fully operational systems for all stakeholders within the Project Limits. The Design-Build Firm will only maintain the ITS devices that are not part of the REL system. The current Authority ITS Maintenance Contractor will continue to maintain the REL system. The Authority's IT consultant will send maintenance tickets to the Design-Build Firm to fix any ITS devices that are on alert status. The Design-Build Firm shall participate in the monthly Authority ITS Network Maintenance meeting

conducted by the Authority's IT Consultant.

The Design-Build Firm shall prepare and submit to Authority a comprehensive Maintenance of Communications (MOC) plan during the Planning Phase. The MOC plan shall detail and document existing ITS equipment and report which devices will be removed, relocated, or impacted by Project work. The Design-Build Firm is prohibited from removing or discontinuing the operations of existing devices without approval from Authority.

The Authority's ITS Infrastructure is currently monitored by the Authority's IT consultant using Solar Winds. Alerts are provided by Solar Winds when a device becomes nonresponsive.

The MOC plans shall at a minimum include:

- MVDS adjustments to maintain accurate, lane-by-lane detection reads providing volume, lane occupancy, and speed information
- CCTV camera adjustments to maintain visibility of the roadway, shoulders, on and off-ramps, and interchanges, as well as verification of DMS displays, and provide control functionality to operational staff within the Regional Transportation Management Center (RTMC)
- DMS adjustments to maintain the ability to disseminate real-time roadway and traffic conditions information to motorists receiving input from operational staff within the RTMC
- RSU adjustments to maintain the ability to disseminate and collect data.
- WWVDS adjustments to maintain accurate detection of wrong-way driving events on interchange off-ramps and notify motorists for self-correction measures and provide real-time alerts to operational staff within the RTMC
- Cabinet and in-cabinet equipment adjustments to maintain communications and power connections to all field devices and systems
- Communication cable adjustments to avoid conflicts with proposed or temporary features and infrastructure and prevent damage during construction operations
- Fiber optic jumper, terminations, and splicing connection adjustments to maintain communication between field devices, network, and the RTMC
- Adjustments to electrical power infrastructure and equipment to maintain power to field devices
- Protection of existing structures or installation of new temporary structures and foundations to safely support the existing field device relocation and/or adjustment during construction.

In addition to MOC plans, the Design-Build Firm shall prepare the following:

- ITS Repair Plan – document outlining the procedures, resources, points of contact available twenty-four hours a day seven days a week (24/7), and step-by-step procedures on how damage and disruption to ITS devices and normal operations of systems will be addressed. This document will be required at the pre-construction meeting for review and approval.
- Method of Procedures (MOP) – document accompanying the earliest MOC plan submission for review and approval by the Authority. This document shall include all details for the proposed activities – including fiber optic communications cut-over plan, sequence of work with step-by-step field procedures, synchronization with Temporary Traffic Control Plan (TTCP) phasing, and anticipated network and device outage times.
- Notification for Downtime – written notification provided at least two (2) days in advance of disconnecting any ITS device or network components, or prior to any work that will disrupt the fiber optic network or communications and power to ITS infrastructure.

All activities for ITS maintenance shall be completed by prequalified contractors per Florida Administrative Code (FAC) Rule 14-22.003(3)(b) for work classes (8) electrical work, (16) intelligent transportation systems, and (39) traffic signals and as approved by the Authority. The Design-Build Firm shall perform all necessary preventative and reparative activities including the inspection and maintenance of all ITS communications, field devices, equipment and ancillary infrastructure to ensure operation twenty-four hours per day, seven days per week (24/7). The Design-Build Firm shall maintain the ITS system to meet or exceed the following availability requirements measured on a quarterly basis:

- Dynamic Message Sign (DMS), Wrong-Way Vehicle Detection Systems (WWVDS) > 98.00%
- CCTV Cameras, Vehicle Detection System (VDS) > 95.00%
- ITS Communications System > 99.99%

The Design-Build Firm shall perform all preventative and routine maintenance activities within the specified intervals as recommended by the equipment manufacturer for each system, and in accordance with the prescribed preventative and routine maintenance schedule defined within the Authority ITS Maintenance contract. In the event the intervals for preventative and routine maintenance activities differ, the Design-Build Firm shall adhere to the more stringent requirement.

The Design-Build Firm shall be responsible for the repair, replacement, and restoration of any failed ITS component or device, as well as any disruption to the systems from the normal operations. Failures or disruptions shall be determined by the Authority. The Design-Build Firm is required to restore the ITS component, device, or system to a fully functional condition within the allowable time frames identified within the ITS Minimum Technical Requirements (MTR):

- Allowable Response Time – total elapsed time between the initial notification of the identified issue(s) and the moment the Design-Build arrive on-site to address the issue.
- Allowable Repair Time – total elapsed time between the initial notification of the identified issue(s) and the moment damaged or disrupted systems return to normal operations (i.e., fully functional).

As part of the monthly progress reporting, the Design-Build Firm shall provide the Construction Project Manager with an active construction zone map for discussion and coordination of any maintenance access issues and responsibilities.

All defects in workmanship caused by the Design-Build Firm shall be the Design-Build Firm's responsibility to correct. All damage anywhere within the construction limits caused by the Design-Build Firm shall be the Design-Build's Firm responsibility for repair.

The Design-Build Firm shall coordinate reasonable timeframes with the Authority's existing maintenance contractor for bridge work order lane closure requirements. Damage to bridge structures by the Design-Build Firm shall be repaired within 30 days of notice unless emergency conditions require immediate corrective action.

The Design-Build Firm shall provide proper coordination with adjacent construction projects for routine maintenance activities.

The Design-Build Firm and the maintenance contractors shall perform a post-construction survey and agree on routine maintenance items that need attention. This survey shall be conducted far enough in advance of Final Acceptance to address all necessary deficiencies to the satisfaction of the Authority.

The Design-Build Firm's maintenance work will be part of the Construction Phase Task Work Order.

VI. Technical Requirements and Provisions for Work

A. Environmental Permits

The Design-Build Firm shall be responsible for identifying and acquiring the necessary permits for the Work. The Design-Build Firm shall provide the Authority with draft copies of any and all permit applications, including responses to agency Requests for Additional Information, requests to modify permits and/or requests for permit time extensions, for review and approval by the Authority 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, and 23 CFR 636. 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 Authority 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 Authority 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 if requested) of any and all correspondence with any of the environmental permitting agencies shall be sent to the Authority. 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 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.

If the design by the Design-Build Firm proposes to impact wetlands or protected species such that mitigation is required, the Design-Build Firm shall be responsible for providing the Authority information on the amount and type of 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 application to a regulatory agency, the Design-Build Firm shall provide the Authority a draft of all supporting information. The Authority will have up to 15 calendar days (excluding weekends and Authority observed holidays) to review and comment on the draft permit application package. The Design-Build Firm will address all comments by the Authority and obtain Authority 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 Authority, as well as the time required by the Authority 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 mitigation required for protected species or wetland impacts shall be the responsibility of the Design-Build Firm. Any wetland mitigation required shall be satisfied through the purchase of mitigation bank credits by the Design-Build Firm. 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 Authority's Construction Engineer, the Authority reserves unto the Authority's 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 Authority's 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 Authority's Construction Engineer under this provision.

B. Survey and Verification of Existing Conditions

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 existing field survey data will be furnished to the Authority in a Authority 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 FDOT's Surveying and Mapping Procedure, Topic Nos. 550-030-101, and the Surveying and Mapping Handbook.

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

C. Public Involvement

1. General

Public involvement is an important aspect of the Project. Public involvement includes communicating to all interested persons, groups, customers and government organizations information regarding the development and construction of the Project.

The Authority will take the lead role on this Project to carry out a public involvement campaign and communications effort through the Authority's Public Information Consultant (PIC) and its communication office. At a minimum, the Design-Build Firm shall designate a contact for public involvement and information inquiries /coordination.

2. Target Audiences:

The Authority has developed a specific list of target audiences for this Project. The following groups are identified as typical target audiences to receive informational materials. This list is not inclusive of all audiences.

- FDOT

- City of Tampa
- Hillsborough Area Regional Transit Authority
- City of Tampa Fire Department
- City of Tampa Police
- Hillsborough County Sheriff's Organization
- Neighborhood groups and private homes
- Chambers of Commerce
- Other organizations deemed necessary by the Authority

3. Project Coordination Meetings:

The Design-Build Firm shall hold an initial Project coordination meeting with the Authority's communications department at the beginning of the Project and at least six weeks prior to the start of construction to discuss impacts to the public.

Information from these initial meetings will be used by the Authority to enhance the public involvement campaign.

In addition, the PIC will be included in progress meetings that the Design-Build Firm has with the CEI Consultant.

4. Design-Build Firm Responsibilities:

Ensure that up-to-date project information is given to the public and to help promote public awareness of the project. The Design-Build Firm shall coordinate with the PIC assigned to the project. The Design-Build Firm shall provide records of all public correspondence, written or verbal, to the Authority throughout the life of the Project.

To keep the audiences informed of the progress and impacts of the project the Design-Build Firm shall provide all technical assistance, data, and information – including display boards, printed material, video graphics, computerized graphics, etc. for Project webpages/websites, public meetings, and the day-to-day exchange of information. The Design-Build Firm shall, as determined by the Authority, attend the meetings with an appropriate number of personnel to assist the PIC/Authority. The Design-Build Firm shall forward all requests for group meetings to the PIC/Authority. The Design-Build Firm shall inform the PIC/Authority of any meetings with individuals that occur without prior notice. To ensure that project information can be distributed to the audiences in a timely manner, the Design-Build Firm shall inform the PIC/Authority at least twenty-one (21) calendar days in advance of any construction activity that will significantly impact the public. These activities shall include, but are not limited to, the start of construction, major traffic shifts, lane and road closures, ramp closures, detours, night work, work that will involve excessive noise, vibration or dust, and project completion. The Design-Build Firm may be asked by the PIC/Authority to prepare draft responses to any public inquiries. The Design-Build Firm may be asked to help with the hand-delivery of informational materials. The Design-Build Firm may be asked by the Authority to provide tours for the Project. Throughout construction, the Design-Build Firm shall provide weekly updates to the PIC, including, but not limited to, traffic control phasing, graphic illustrations, and Project pictures. Authority Responsibilities: Unless noted otherwise elsewhere in this RFQ, the PIC/Authority will be responsible for organizing public meetings, including venue selection, reservations, and fees. The PIC/Authority will be responsible for any legal/display advertisements, as well as for the design, preparation, and mailing (including postage) for all correspondence to the different audiences for this Project.

The PIC/Authority will be responsible for establishing, creating, maintaining, and updating a Project

website. The PIC/Authority will also be responsible for writing and distribution of media announcements/alerts, scheduling interviews, and social media updates on project progress. However, throughout the project duration, the Design-Build Firm shall help coordinate public involvement activities with the PIC/Authority and provide weekly updates, photos, and other needed information to the PIC/Authority to ensure the accuracy of the project communication efforts.

D. 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 (DQMP), 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 shall 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 thirty (15) days, following issuance of the written NTP for the Design Phase. 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 (CQCP) for each Work Package, 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 Authority does not utilize the FDOT's Materials Acceptance and Certification (MAC) program. The Design-Build Firm shall be responsible for developing an equivalent system for sample inputs, tracking, certification, and resolution testing in accordance with the FDOT Material Certification Process. The system shall be accessible by the Authority's CEI for all applicable functions contained within the MAC system.

The sampling, testing, and reporting of all materials used shall be in compliance with the Sampling, Testing and Reporting Guide (STRG) developed by the Design-Build Firm and submitted to the Authority for review and approval. The Design-Build Firm shall allow Authority 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 within the Design-Build Firm's developed MAC program equivalent system. 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) in accordance with Section 105 of Standard Specifications. For each Work Package, update the JGS monthly or at a frequency as required by the Authority.

The Authority will 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 FDOT's Materials Acceptance Program.

E. Project Office and CEI Consultant/Engineer's Field Office

Subject to execution of the necessary TWOs, the Design-Build Firm shall establish a Project Office and identify a Project Manager who shall be the Design-Build Firm's representative of the Project.

Subject to execution of the necessary TWOs, the Design-Build Firm shall also establish an Engineer's Field Office to accommodate Authority and CEI Consultant staff. The Engineer's Field Office may be co-located within the Project Office but shall be a separate private and lockable space.

F. Computer Automation

The Design-Build Firm shall utilize computer automation systems, 3D modeling technologies and Building Information Models (BIM) to facilitate the development of the contract plans. The Authority supports use of various software and operating systems to aid in assuring quality and conformance with Authority's policies and procedures. The Design-Build Firm shall provide 3D BIM for proposed underground facilities in accordance with Attachment A_007 – Model_Element_Break_Down_(MEB), which lists the requirements for level of development (LOD) and identifies which elements are required to be developed as 3D BIM elements versus those to be represented with traditional 2D CADD drafting. The Design-Build Firm shall abide by the requirements of the Model Element Breakdown (MEB) for elements required to be signed and sealed. The Design-Build Firm may use its discretion as to the LOD for non-signed and sealed model files.

G. Open Roads

The Authority supports the Bentley OpenRoads Designer CONNECT edition that is currently supported by the Florida Department of Transportation as its standard modeling platform. Autodesk Civil 3D may be used as an alternate BIM platform at the Design-Build Firm's discretion and with no increase in cost to the Authority. The modeling platform shall use the relevant State Kits available from the FDOT CADD Support Software Downloads. It is the responsibility of the Design-Build Firm to obtain and utilize current Department releases of all BIM/CADD applications. The Design-Build Firm shall be required to furnish updated CADD/model files regularly throughout the course of the contract, at all phase submittals and after the plans have been Released for Construction. BIM Models shall be clash-free at all phase submittals and in the as-built final records submittal. As part of the As-Built Set deliverables, field conditions shall be incorporated into all BIM/CADD files for delivery as the as-built Asset Information Model (AIM). Use the cloud revision utility as well as an AB revision triangle to denote field conditions on plan sheets.

H. Construction Engineering and Inspection (CEI) Consultant and Testing

The Authority is responsible for providing CEI Consultant and Quality Assurance Engineering. The

Design-Build Firm is subject to the Authority's Independent Assurance (IA) procedures.

The Authority 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, powder coating, etc. in accordance with the Specifications. Additional testing requirements specific to Project elements may be specified in other Sections of this RFQ. For purposes of resolution testing, the Authority's CEI will retain a laboratory separate from both the Design-Build Firm's chosen Quality Control laboratory and from the CEI's chosen verification testing laboratory. Resolution testing costs shall be administered as per the current FDOT process and cost schedule.

I. 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 Authority, other regional and state agencies, or private entities. Adjoining construction projects may include, but are not limited to:

Table 11: Adjoining Construction Projects

THEA Project ID	Project Name
HI-0172	East Selmon Wrong Way Driving Countermeasures
HI-0149	Control System and DMS Fiber Communication Upgrades
HI-0112	South Selmon Capacity Project
HI-0332	REL System Replacement Project
HI-0141	Whiting Street Improvements
HI-0314	Brorein Queue Detection and Monitoring Intelligent Transportation System, (ITS) Project

The Design-Build Firm shall consider and include 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.

J. Right of Way

During the Planning Phase, if the Design-Build Firm determines that the acquisition of additional, or relocation of planned, limited access ROW will be advantageous to the Project, this will be considered by the Authority. The Authority will have sole authority to determine whether the acquisition of additional ROW on the Project is in the Authority's best interest, and the Authority reserves the right to reject the acquisition of additional ROW.

The Design-Build Firm is restricted from discussing Right of Way (ROW) acquisition with owners of private property.

If the Authority agrees that additional ROW is in the Authority's best interest, the additional ROW will be

required to be directly acquired by the Authority. The Design-Build Firm shall submit ROW maps and legal descriptions, including area in square feet, of any proposed additional ROW parcels. The additional ROW will be acquired by the Authority 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. The Authority will have sole discretion with respect to the entire acquisition process of the additional ROW.

The additional ROW cannot be used for any construction activity or other purpose until the Authority has issued an applicable parcel clear letter or a ROW Certification for Construction.

If the Authority's attempt to acquire the additional ROW at the request of the Design-Build Firm is unsuccessful, then the Design-Build Firm shall provide a design of the Project within ROW established by the Authority.

VII. Design and Construction Criteria

A. General

This Section VII, Design and Construction Criteria, shall govern the Planning, Design, and Construction Work. The Design-Build Firm may propose changes to this Section VII during the Planning and Design Phases, however, the Authority will deny or accept changes in its sole discretion.

Throughout the Planning and Design Phases, the Design-Build Firm and the Authority will collaborate to finalize the Design and Construction Criteria Package (DCC), which will be a compilation of this Section VII and other reports, narratives, standards, and documents developed during the Planning and Design Phases which set forth the expectations for the final designed and constructed Project.

The DCC will be made part of each Construction Phase Task Work Order, as applicable.

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

The Design-Build Firm shall schedule and participate in a Design Workshop. The Design Workshop shall occur early in the Planning Phase with the primary objective of clarifying technical issues and/or comments relating to the Project scope, specifications, and requirements.

B. Vibration and Settlement Monitoring

Not used.

C. Geotechnical Services

1. General

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

2. Drilled Shaft Foundations for 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, to be determined by the Authority in collaboration with the Design-Build Firm, must be performed in representative locations of that area.

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

- Evaluating geotechnical conditions to determine the drilled shaft diameter and length and construction methods to be used.
- Performing pilot holes prior to establishing the drilled shaft tip elevations and socket requirements.
- Determining the locations of the load test shafts and the types of tests that will be performed.
- Performing pilot borings for test holes (also known as test shafts or method shafts) and load test shafts and providing the results to the Authority at least one (1) working day before beginning construction of these shafts.
- Preparing and submitting a Drilled Shaft Installation Plan for the Authority's acceptance.
- Constructing the method shaft (test hole) and load test shafts successfully and conducting thermal integrity tests on these shafts.
- Providing all personnel and equipment to perform a load test program on the load test shafts.
- Determining the production shaft lengths.
- Documenting and providing a report that includes all load test shaft data, analysis, and recommendations to the Authority.
- Constructing all drilled shafts to the required tip elevation and socket requirement in accordance with the specifications.
- Inspecting and documenting the construction of all drilled shafts in accordance with the specifications.
- Performing *Non-Destructive Drilled Shaft Integrity Testing* in accordance with 455-17.6.
- Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging.
- Submitting *Foundation Certification Packages* in accordance with the specifications.
- Providing safe access, and cooperating with the Authority in verification of the drilled shafts, both during construction and after submittal of the certification package.

3. Spread Footings Foundations for Structures other than Bridges

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

- Evaluating geotechnical conditions and designing the spread footing.
- 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.
- Inspecting and documenting the spread footing construction.
- Submitting Foundation Certification Packages in accordance with the specifications.

- Providing safe access, and cooperating with the Authority in verification of the spread footing, both during construction and after submittal of the certification package.

4. Specialty Geotechnical Services Requirements

Specialty geotechnical work is any alternative geotechnical work not covered by Authority 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 Authority's independent verification.
- A certification process

After construction of the specialty geotechnical work, the Design-Build Firm shall submit a certification package for Authority's review within fifteen (15) workdays. 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 Authority may issue comments and require additional verification testing.

D. Utility Coordination

The Design-Build Firm shall be responsible for coordinating with all Utility Agency Owners (UAOs) that have utilities within the Project Right of Way and shall comply with the Contract Documents. The Design-Build Firm shall perform all utility coordination duties and responsibilities required in this RFQ.

The Design-Build Firm shall utilize a single dedicated person responsible for managing all utility coordination. This person shall be the Utility Coordination Manager (UCM).

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

- Ensuring that all utility coordination and activities are conducted in accordance with the requirements of the Contract Documents.
- Identifying all existing utilities and coordinating any new installations
- Reviewing proposed utility permit application packages and providing comments based on the compatibility of the permit as related to the Design-Build Firm's plans.
- Scheduling and conducting utility meetings, preparing and distributing minutes of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
- Distributing all plans, conflict matrices and changes to affected Utility Agency/Owners and making sure this information is properly coordinated.
- 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.

- Preparing, reviewing and coordinating the execution and implementation of and submitting to the Authority for review, all Utility Work Schedules.
- Assist in resolving utility conflicts.
- 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.
- Providing periodic Project updates to the Authority's Project Manager and Authority as requested.
- Coordination with the Authority on any issues that arise concerning reimbursement of utility work costs between the Authority and the utility.
- Proactively communicate with the UAOs and Design-Build Firm related to scope, schedule and issues avoidance and resolution.

The proposed improvements may include directional boring of conduit beneath surface streets to reduce impacts to traffic. It is anticipated that the proposed conduit will be placed at a depth below existing utilities to minimize impacts. During the planning phase, the Design-Build Firm shall be responsible for utility coordination efforts including, but not limited to:

- Identify existing UAOs within the project limits
- Perform subsurface utility engineering (SUE) to determine and verify location of existing utilities
- Develop a Utility Conflict Matrix based on the Revised ITS Concept Plans
- Coordinate with UAOs to resolve utility conflicts

Table 12 – Summary of UAO's having facilities within the Proposed Project Limits

UAO	First Name	Last Name	Contact Number	Email Address
AT&T Florida	Ramin	Asrabadi	407-222-9497	ra2952@att.com
AT&T Mobility	Mason	Porter	407-721-8989	mp2224@att.com
AT&T Transmission	Steve	Hamer	813-888-8300	Shamer@sdt-1.com
Kinder Morgan / Central FL Pipeline	Denis	Chege	713-420-2032	kmencroachmentsSouth@kindermorgan.com
T-Mobile USA	Jon	Baker	202-793-5078	jabaker@cogentco.com
Comcast	Liam	McKenna	904-362-5141	CENFLR-NFL_Construction@comcast.com
City of Tampa Wastewater Dept	Richard	Rivera	813-274-8957	Richard.Rivera@tampagov.net
City of Tampa Water Dept	Lena	Schafee	813-521-3015	lena.shafee@tampagov.net
Crown Castle	Danny	Haskett	786-610-7073	crowncastlefloridareviews@crowncastle.com
Florida Gas Transmission	Joe	Sanchez	407-838-7171	Joseph.E.Sanchez@energytransfer.com
Fiberlight	James	Reese	214-205-7750	utilitycoordination@fiberlight.com

UAO	First Name	Last Name	Contact Number	Email Address
Frontier Florida LLC	Randy	James	813-892-9692	Randall.James@ftr.com
Hillsborough County Clerk of Courts	Scott	Fogleman		networkservices@hillsclerk.com
Hillsborough County Sheriff	David	Arthur	813-290-2275	dfarthur@teamhcso.com
Hillsborough County Utilities	Warren	Gilbreath	813-209-3075	utilitycoordination@hillsboroughcounty.org
Level 3 Communications (Lumen)	Matthew	Anthony	239-822-4986	Relocations@Lumen.com
MCI Metro Access Transmission Services	Michael	Krol	813-410-4803	bau-tampa@verizon.com
Spectrum Sunshine State LLC	Eric	Oertel	813-293-9729	dl-wcen-fl-fde-markup@charter.com
Summit Broadband	Michelle	Daniel	407-996-1183	michelle.daniel@summit-broadband.com
Tampa Airport Pipeline	Paul	Cavanaugh	813-918-7211	tapc1@hotmail.com
Tampa Bay Water	Robert	MacDonnell	813-929-2193	utilitycoordination@tampabaywater.org
Tampa Electric	Jason	Payne	813-275-3037	CSAdmin@tecoenergy.com
Tampa Port Authority	Jose	Dejesus	813-613-6434	jdejesus@TAMPAPORT.COM
TECO Peoples Gas	Jenna	Jackson	813-275-3794	JXJackson@tecoenergy.com
Uniti Fiber	Zach	Oliver	727-337-1381	zach.oliver@uniti.com
Windstream	Billy "BJ"	McCay	404-985-7121	Billy.McCAY@windstream.com
Zayo Group	Jake	Sansom	813-763-5999	ZayoFLRelocations@zayo.com

For a reimbursable utility relocation where the UAO desires the work to be done by their contractor, the UAO is required to execute an agreement (including an estimated cost) with the Authority in advance of the work.

The relocation agreements, plans, and permit application are to be forwarded to the Authority for review, signature and approval.

E. Roadway Analysis, Design, and Plans

1. General

During the design phase, 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.

2. Design Analysis

The Design-Build Firm shall submit a signed and sealed approved *Typical Section Package* for review and concurrence by the Authority.

Any deviation from the Authority's design criteria will require a Design Variation and any deviation from AASHTO will require a Design Exception. If required, the Design-Build Firm shall submit a signed and sealed Design Variation and Exception package for review and concurrence by the Authority.

See FDM for Roadway Design sheets, elements and completion level required for each submittal.

a) Design Variations and Design Exceptions: Refer to FDM Part 1, Chapter 122
b) Typical Section Package: Refer to FDM Part 1, Chapter 120

The Design-Build Firm shall analyze and provide guardrail and barrier where FDM clear zone and lateral offset criteria cannot be met for proposed ITS infrastructure.

3. Design Documentation, Calculations, and Computations

The Design-Build Firm shall submit to the Authority 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 digitally signed by the designer and the checker. The data shall be provided in digital format for submittal to the Authority. 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:

- Standards Plans and criteria used for the Project.
- Guardrail and barrier wall length of need.
- Documentation of decisions reached resulting from meetings, telephone conversations or site visits.

F. Drainage Analysis, Design, and Plans

The Design-Build Firm shall be responsible for designing the drainage systems. All design work shall be in compliance with the Department's Drainage Manuals; other Department's standards and criteria; Florida Administrative Code, Chapter 14-86; Federal Aid Policy Guide 23 CFR 650A; and the requirements of the regulatory agencies and permit conditions.

The drainage design services may include modifications of open/closed conveyance system (if needed) to facilitate the construction of the ITS.

G. Structure Analysis, Design, and Plans

1. Design Analysis

a. The Design-Build Firm shall submit to the Authority final signed and sealed design documentation prepared during the development of the plans.
b. The Design-Build Firm shall ensure that the final geotechnical recommendations and reports required for miscellaneous structures designs are submitted with the Phase III plans.

2. Design Criteria

General

c. Ensure removal of all garbage/debris, graffiti, nuisance vegetation (any vegetation growing on including but not limited to the bridges, retaining wall joints, adjacent sidewalks, curbs, copings, et cetera), staining, etc. on bridges and associated retaining walls at the completion of construction within the Project Limits.

Materials

a. Lightweight concrete shall not be permitted for any structural applications.
b. Reinforcing steels other than allowed by SDG 1.4.1.B are not permitted, except in drilled shafts and auger-cast piles. This restriction does not apply to non-corrosive materials that are allowed for by the RFQ.

Miscellaneous Structures

a. No special requirements.

Structures Manual (SM) Modification for Non-Conventional Projects

The following sections of SM are to be modified as stated:

46. SDG 1.5.D No asbestos abatement plans are required.
47. SDG 3.5.19. Micropiles are not permitted.
48. SDG 3.8.2.D GRS abutments are not permitted.
49. SDG 3.12.B See RFQ for use of partial height walls.
50. SDG 6.7.2.B Non-FDOT standard mounted traffic railings are not permitted.
51. SDG 6.7.6 See RFQ for use of TL-5 traffic railings.
52. SDM 11.3.D See Section IX.D of RFQ– Utility Coordination for utility requirements.

H. Specifications

Notwithstanding modifications made in the RFQ or through the innovation approval process, Authority Specifications may not be modified or revised. Technical Special Provisions shall be written only for items not addressed by Authority specifications and shall not be used as a means of changing Authority Specifications.

The Division I Design-Build Specifications along with the required Division II and III Specifications are provided in Attachments A0XX and A0XX.

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 Work Package Proposals were due to the Authority, along with any approved Developmental Specifications and Technical Special Provisions, that are not part of this RFQ. 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 Authority, the Construction Specifications Package will be stamped Released for Construction and initialed and dated by the Authority.

I. Sequence of Construction

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

- 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.
- Minimize the number of different Temporary Traffic Control Plan (TTCP) phases, i.e., number of different diversions and detours for a given traffic movement.
- 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.
- 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.
- Coordinate with adjacent construction projects and maintaining agencies.

J. Stormwater Pollution Prevention Plans (SWPPP) and Erosion Control Plans

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 FDM 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.

K. Transportation Management Plan

The Design-Build Firm shall develop and implement a Transportation Management Plan in accordance with the FDOT Design Manual.

The Design-Build Firm shall consider traffic management and signage, access to local businesses, detour

routes, public notification of alternate routes, emergency services coordination, and Project schedule in the development of the Transportation Management Plan.

1. Temporary Traffic Control Plans:

The Temporary Traffic Control Plans shall address construction phasing, utility relocation, lighting, ITS, signing and marking, and structural work.

The Design-Build Firm shall utilize the Department's Standard Plans Index Series 102 where applicable. Should these standards be inadequate, a detailed Temporary Traffic Control Plan shall be developed. The Design-Build Firm shall prepare plan sheets, notes, and details to include the following: typical section sheet(s), general notes and construction sequence sheet(s), typical detail sheet(s), and traffic control plan sheet(s).

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

The Design-Build Firm shall maintain positive collection, conveyance, and outfall systems for all roadways throughout all phases of construction, either using the existing drainage systems or temporary drainage systems. Documentation of temporary drainage analysis, including necessary calculations, shall be submitted as part of the Drainage Design Documentation.

The Temporary Traffic Control Plan shall address how to assist with maintenance of traffic throughout the duration of the contract, including coordination and interface with adjacent construction projects. The existing regulatory speed limits shall be maintained during construction unless otherwise approved by the Authority.

Should the Design-Build Firm elect to use the existing roadway shoulders for temporary traffic control on a temporary basis, the Design-Build Firm shall modify the existing cross slope to match the adjacent lane. The Design-Build Firm shall be responsible for providing the required structural integrity and maintenance of the shoulder. When no longer needed for temporary traffic control, the Design-Build Firm shall restore the shoulder to the required width and cross slope, including rumble strips.

The Temporary Traffic Control Plan shall be prepared by a certified designer who has completed the Authority's Advanced Maintenance of Traffic training course, and in accordance with the FDM and the Authority's Standard Plans for Road and Bridge Construction.

Local events and the Project's impact on these events (lane closures) shall be considered in the development of the Temporary Traffic Control Plan. These events are listed in Section VII.K.2.

Existing number of travel lanes shall be maintained along the Selmon Expressway at all times, except as specified during the lane closures identified below. All temporary detours, diversions, or lane shifts shall provide at least one 12-foot wide lane.

Modifications to local streets and traffic patterns will need to be clearly identified in the TTCP. Modifications to traffic patterns to local streets will need to be approved by the local maintaining agency and will be the responsibility of the Design-Build Firm to obtain such approvals.

Any signs that conflict with traffic patterns shall be covered with an opaque material until such a time where the signs are no longer in conflict with the traffic patterns.

The Design-Build Firm shall maintain existing pedestrian access on all sidewalks, transit facilities, and at

all intersections where such access exists at the commencement of construction. Pedestrian sidewalks and paths shall be maintained and continue to conform to ADA requirements. When the Design-Build Firm allows work areas to encroach upon a sidewalk or crosswalk areas, and a minimum clear width of 4-foot cannot be maintained for pedestrian use, an alternative accessible pedestrian route or pedestrian detour route shall be provided in accordance with Standard Plans Index 102-660.

Portable Changeable Message Signs (PCMS) shall be placed within five hundred (500) feet of the Project Limits. These signs serve as advanced construction notice and shall be in place two (2) weeks prior to the start of construction activities. At the completion of the two (2) week advanced construction notice period the signs shall be removed. The message should notify motorists that roadway construction is commencing and display the begin month and date. Portable Changeable Message Signs shall be in place seven (7) calendar days in advance of any lane or ramp closure and in advance of any new traffic patterns. The display shall alternate with messages stating the exit name to be closed and the date and time of closure. Prior to the start of any construction activities a total of four (4) Project information signs shall be erected near the beginning and end of the Project in both the eastbound and westbound directions and remain in place until the completion of the Project. Signs shall include the following information:

- Pardon Our Dust
- Intelligent Transportation Systems Infrastructure for East and West Selmon Project
- Your Toll Dollars at Work!
- Tampa-Xway.com
- #ConnectingCommunities

2. Traffic Control Restrictions:

A lane may only be closed during active work periods, and during the times noted below. All lane closures, including ramp closures, must be reported to the Authority's Project Manager and Public Information Consultant a minimum of fourteen (14 calendar days prior to each closure). 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.

There will be NO MAINLINE LANE OR RAMP CLOSURES allowed between the hours of 5:00 AM to 8:00 PM Monday through Friday, plus during special events and Holidays (see Section IV.G for details), unless the Design-Build Firm can provide justification for alternative times and obtain the Authority's written approval. A lane may only be closed during active work periods. All detours and diversions shall be approved by the Authority and governing jurisdictions.

Local road daytime lane closures or daytime full directional closures may be required for certain construction activities and will need to be clearly identified in planning and design coordination meetings prior being reflected in the TTCP. Modifications to traffic patterns to local streets and/or detours will need to be approved by the local maintaining agency and will be the responsibility of the Design-Build Firm to obtain such approvals.

In addition to the limitations on lane closures, detours, and non-working days, the Authority may direct up to five (5) days per calendar year throughout the entirety of the Project when no lane closures will be permitted. The Design-Build Firm shall be provided no less than 24-hour notice of these events and shall be at no additional cost or time to the Authority.

Traffic pacing operations shall be performed only between the hours of 9:00 PM and 4:00 AM unless the Design-Build Firm can provide justification for alternative times.

Roadway flaggers must be present on each side of the CSX railroad crossing anytime traffic is temporarily

directed into opposing traffic lanes at the railroad crossing.

Channelization/MOT devices shall not be placed within 25 feet from centerline of CSX railroad tracks.

3. Hurricane Readiness Plan

Prior to construction, the Design-Build Firm shall submit a Hurricane Readiness Plan which will address the measures the Design-Build Firm shall implement in preparation for a hurricane or catastrophic event. The Plan shall also stipulate the measures to be taken post-event. The Plan shall address all associated equipment and activities within the Project Limits.

All lanes and available shoulders within the Project Limits must be open to traffic during an evacuation notice of a hurricane or other catastrophic event and shall remain open for the duration of the evacuation event as directed by the Engineer.

4. Work Restrictions

The Design-Build Firm shall use means and methods of construction that minimize noise throughout all phases of the Project. Location of mobile and stationary equipment such as, air compressors, generators, pumps, etc., shall be such as to minimize impact to businesses and residences in the vicinity of the Project.

All equipment associated with the work shall be equipped with noise suppression devices which shall be maintained in their original operating condition considering normal wear. Manufacturer installed noise suppression devices such as mufflers, engine covers, insulation, etc. shall not be removed nor rendered ineffectual nor remain off the equipment while the equipment is in use. The necessity for additional noise suppression, beyond standard manufacturer feature, shall be at the sole discretion of the Authority.

Construction activities that create excessive noise or vibration including demolition, pile driving, sheet pile installation, and other similar construction activities, shall occur only during the following time periods:

- Monday through Friday – 7:00am to 7:00pm
- Saturday – 9:00am to 5:00pm
- Sunday and holidays – not permitted.

Any deviation from the time restrictions provided above shall be submitted for Authority approval on a case-by-case basis.

L. Environmental Services Permits/ Mitigation

1. Additional Environmental Services/Permits

In addition to other requirements in the RFQ, the Design-Build Firm shall be responsible for identifying and acquiring the necessary permits for the Work.

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

M. Signing and Pavement Marking Plans

The Design-Build Firm shall prepare Signing and Pavement Marking Plans in accordance with Authority criteria for the Project Limits. When Authority criteria differ from FDM, Standard Plans, and MUTCD criteria, the Authority criteria shall take precedence.

The Design-Build Firm shall restripe the edge, lane lines and other pavement markings that interferes with the proposed longitudinal grooving and installation of rumble strips for the limits of the Selmon Expressway as described in Section II.D.

All pavement markings on concrete surfaces shall include black contrast markings for temporary and permanent applications, except for solid edge line markings. Permanent tape including black contrast markings shall be used on all bridge and concrete pavement surfaces. All other final pavement marking materials shall conform to FDM.

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 may remain.

The design and installation of the WWVDS shall meet or exceed the FDOT Standard Specifications, FDOT Design Manual, and the additional requirements contained herein.

N. Lighting Plans

The existing lighting system consists of 860 Acclaim Dyna Drum SO, RGBW (DDE-221-AALN) luminaires and 707 Acclaim Dyna Drum HO Color, QW RGBW (DDJ-221-ACHN) luminaires. The luminaires mounted on the retaining walls are the Graze Compact Powercore RGBA luminaire connected to the Colorkinetics Data Enabler Pro. The luminaire brackets are mounted on piers, straddle bents, bridge abutments, and retaining walls.

The existing lighting system is powered by eleven 240V/480V single phase load centers distributed along the expressway. The load centers power the luminaires and the twenty ITS cabinets. The luminaires operate at 240V and the cabinets at 120V using a step-down transformer. The aesthetic lighting system and the roadway lighting are powered by separate power services.

The typical existing ITS cabinet contains a Managed Field Ethernet Switch which connects to the existing 96-strand single mode (SM) fiber optic cable strands 37 through 40. The cabinet also contains a Pathport 1014 Gateway node providing communications via the DMX cable to each luminaire.

The Pharos Controller is in the Authority Traffic Management Center (TMC) server room. The controller communicates to the gateways through the 96 SM cable.

This proposed lighting scope is divided into six (6) separate tasks.

Task 1: Existing Luminaires

- Inspect Acclaim Outdoor Link System (OLS) connection points for corrosion. Replace any T-Junction, Feed Cable, or Link Cable that exhibit signs of corrosion. See the referenced Onsite Review report from Acclaim.
- Troubleshoot luminaires using the referenced XMT-350 Test.

- If the luminaire is damaged, remove the luminaire. Terminate the OLS connector using the Acclaim Terminator. Connection points must be capped during servicing/removal of fixtures. Add dielectric grease as an insulator to help corrosion and arching.

Task 2: Communication Network

- Within the twenty ITS cabinets (Cabinet A through Cabinet T), inspect the Managed Field Ethernet Switch (MFES) and the Dataport Gateway and replace if damaged.
- Perform Optical Time Domain Reflectometer (OTDR) testing of strands 37 through 40 between the cabinets as well as the TMC.
- Reconfigure the MFES and the Dataport Gateway with static IP addresses.
- Install a spare two-inch conduit from the REL bridge cavity ITS cabinet to a new fiber pull box at the base of the pier at the following locations: 12th Street, 19th Street, 22nd Street, 26th Street, 56th Street, Maydell Drive, and 78th Street.

Task 3: Power System

Inspect and repair any deficiencies of the eleven load centers (Load Center AA through Load Center KK). Inspect and test the grounding system. Repair any deficiencies.

Task 4: Grounding Upgrades

The Design-Build Firm shall design, furnish, construct, install, and test a grounding system within the Authority Right-of-Way consisting of aboveground and underground conduits and conductors, grounding straps, junction boxes, ground bus bars, and termination points.

The grounding system shall meet the minimum resistance as required in FDOT Standard Specification 620-3.2.1. At the base of each pier, straddle bent leg, or abutment, install the grounding system as described in Indexes 641-020 and 649-020.

Install a #2 American Wire Gauge (AWG) insulated green stranded copper conductor ground wire and conduit from the top of each pier, straddle bent, or bridge abutment to a ground system at the base of the pier, straddle bent, or bridge abutment. The primary ground rod shall be accessible in the pull box. Install a #2 AWG conductor from the top of each pier, straddle bent, or bridge abutment to bond the uplighting ground system located inside the bridge cavity.

At each pier, straddle bent, and bridge abutment, install ground straps between each bracket.

The #2 AWG green insulated stranded ground wire and the one-inch wide, braided, tin-coated copper ground strap shall be terminated to the bracket arms with a connection mechanism that penetrates the powder coating to create the electrical grounding desired.

At each ground clamp and ground strap, measure the resistance of the connection mechanism once grounding has been achieved and provide a reading at each termination point for each pier, straddle bent, and abutment. The resistance of the connection shall be 0.1 ohms or less. Submit the results of testing to the Authority for approval. The following testing procedure is being suggested:

- Scratch off a 1/8” x 1/8” area of paint from the bracket arm near the threaded rod opening or at the top of the mounting plate.
- Use an ohmmeter to measure the resistance between the ground clamp and the bare area of the bracket arm or mounting plate.
- Repair the scratch using an approved powder coating repair procedure.

The Design-Build firm may propose a less invasive method of resistance testing.

For the grounding system, conduct fall-of-potential testing in accordance with 620-4.1. Submit the test results and documentation to the Authority for approval.

Further details can be found in a previous advertisement (O-02520) in 2023: https://www.tampa-xway.com/doing-business/procurement/#1676442013384-22677be1-fbcc.

Task 5: Installation of Repaired Luminaires

Install repaired luminaires that are currently housed inside of the Authority warehouse. There are a combined 355 each of repaired HO/SO drums, a total of 18 each of HO Drums spares, and a total of 21 each SO Drums spares. Replace any additional damaged luminaires identified during the troubleshooting task with new HO/SO drums.

The luminaires will be configured, per the original plans and angled per the Authority direction. Use of serrated washers will be required for all reinstalled luminaires.

Task 6: As-Built Documentation

Populate the Authority ArcGIS database with the luminaire data. Ensure that all existing lighting data in the database is accurate.

The Design-Build Firm shall repair any damaged existing lighting pull boxes and provide aprons for all existing lighting pull boxes.

The Design-Build Firm is responsible for any modifications of existing load centers required to accommodate the lighting modifications, meet current National Electrical Code requirements, comply with all applicable criteria, and be in like new condition.

Within the Project extents described within this RFQ, the Design-Build Firm shall perform detailed field reviews. Review and document all lighting (brackets/luminaires), circuits, load centers, service points, utility transformers, etc., within the limits of lighting construction. This review includes conductors, conduit, grounding, enclosures, voltages, mounting heights, pullboxes, etc. This review also includes circuits outside the limits of lighting construction that originate or touch this Project's scope of work. Within the Project Limits, any deficiencies outside the limits of lighting construction shall be brought to the attention of the Authority.

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 deliverables, etc. It is the Design-Build Firm's responsibility to verify and comply with all jurisdictional authority's requirements.

O. Intelligent Transportation System Plans

1. General

The Design-Build Firm shall prepare Signalization and Intelligent Transportation Systems (ITS) Plans in accordance with FDOT Design Manual, Authority's criteria and governing regulations, FDOT District Seven Specific ITS Requirements and Guidelines, the Authority ITS MTR, the Revised ITS Concept Plans, and the Project-specific Concept of Operations (prepared by the Design-Build Firm).

The Design-Build Firm shall be responsible for the design and implementation of a fully integrated system providing the Authority with a traffic incident management system across the entire Selmon Expressway

system spanning the logical limits of the project, as determined by the Authority, utilizing the referenced concept plans provided by the Authority. The logical limits are defined as the begin and end points of the ITS for which network communication, electrical service, and device functionality is required to seamlessly integrate with adjacent roadway sections to provide continuity of operations. The Design-Build Firm shall include communications network tie-ins at both ends of the Project Limits; the connections may be located outside of the Project Limits. Fiber optic backbone cabling shall be installed with a minimum of 10,000 feet between butt splices or to match the existing connection locations, whichever distance is shorter, unless otherwise approved by the Authority. New mid-entry butt splice connections are prohibited. Ensure fiber optic splice vaults and a minimum of 400' fiber optic backbone cabling slack is installed on either end of the Project Limits.

The Design-Build Firm shall design and construct the necessary infrastructure to support the existing systems within the Project Limits – including ITS devices (i.e., Dynamic Message Signs, Toll Rate DMS, Lane Status DMS, Verification Cameras, and Vehicle Detection Devices), support structures, poles, conduits, cabinets, power systems, networking equipment, and junction boxes.

All ITS components constituting the final ITS shall be new – existing devices, equipment, and infrastructure shall not be relocated or reutilized in the final condition. The Design-Build Firm may temporarily relocate existing ITS components as part of the Maintenance of Communications plan (interim condition) to maintain functionality; however, replacement with new equipment and infrastructure is required in the final condition.

Within the Project Limits, the Design-Build Firm shall be responsible for the analysis, design, installation, testing, and maintenance of all devices, equipment, components, and infrastructure related to the following systems:

- ***Authority Advanced Traffic Management System (ATMS)*** – this includes all subsystems installed for the continuous monitoring and operations of all lanes along the Selmon Expressway with all equipment communicating with the Authority ITS network. The Authority is in the process of procuring its ATMS and intends to have the system in place prior to commencement of the Planning Phase.
- ***Authority Tolling System*** – this includes the communication infrastructure of the Authority tolling network.
- ***Other Agencies*** – multiple third-party agencies rely on existing communications infrastructure within the Project Limits to facilitate end-to-end network connections and data exchange. These agencies may not own and maintain physical infrastructure within the Project Limits, but maintain existing fiber sharing agreements and shall be considered as key stakeholders with requirements to maintain active communications with minimal downtime (refer to Maintenance of Communications requirements).

All existing ITS within the Project Limits shall be maintained throughout all stages of construction to a fully functional level by the Design-Build Firm.

The Design-Build Firm shall provide ITS devices that meet the requirements of the National Transportation Communications for ITS Protocol (NTCIP) versions supported by the Authority's ATMS software or the current version of Authority ATMS software at the time of ITS device integration and testing. If needed, develop all required software interfaces to integrate all of the devices to the central software. The Authority's ATMS Software will be used to conduct system testing. Provide test results for all ITS devices, fiber optic cabling and infrastructure, and communications network equipment signed by the Engineer, Contractor, and the Authority's ITS Representative.

The Design-Build Firm shall ensure that all proposed ITS devices are on the FDOT's Approved Product List (APL). Provide grounding, lightning, and surge protection for all ITS devices and cabinets in accordance with the Governing Regulations.

On the Southwest Selmon Expressway, at the strategic locations, install a CCTV camera and two MVDSs on the bridge finbacks. At locations where there are existing MVDSs mounted on sign structures, install only the CCTV camera. Within the bridge cavity, install the cabinet with supporting communication and power equipment. Connect all equipment to the existing 96SM for ITS. Ensure that the CCTV and MVDSs are properly grounded at the base of the pier at each location. Maintain the aesthetic theme of the finbacks where conduit and junction boxes are powder coated with matching colors.

The Design-Build Firm shall determine the exact locations and quantities of the ITS devices to meet the requirements of this project. RSUs shall be located at entrance and exit ramps to allow for travel time determination using the Bluetooth or Wi-Fi capabilities of the RSUs. Travel time signs are required on the arterial streets leading to the Expressway.

The Design-Build Firm shall coordinate with the Authority during design to determine any proprietary products required by the Authority and install all approved proprietary products during construction. Proprietary products per agency include, but may not be limited to, the following:

Table 13: THEA Existing Device Make and Model

Device	Make	Model
MVDS	ISS or RTMS	SX-300 or ECHO
CCTV (Traffic Surveillance/ DMS Verification)	Hanwha Vision America	XNP Series PTZ
CCTV (Video Analytics)	Bosch	Autodome 7100i
DMS	Daktronics	Walk-In, Front Access, Embedded
WWVDS	GovComm	
UPS	Alpha	
RPMU	Digital Loggers	
MFES	Siemens Ruggedcom	RSG920P

The Design-Build Firm shall prepare design plans and specifications and provide necessary documentation for the procurement, installation, configuration, and testing of all Signalization and ITS equipment, as well as the overall system construction and integration. Release for Construction plans shall be developed in accordance with Authority requirements and shall include but not limited to the following:

- Key Sheet for component plan set
- General Notes Sheet complete with symbology legend and all applicable installation and construction notes
- Project Layout Sheet identifying the device naming nomenclature and locations of field elements
- ITS Plan Sheets
- Installation Detail Sheets, including:
    - DMS structure, attachment, display/layout

- CCTV structure, attachment, operation/layout
- Vehicle Detection System (VDS) structure, attachment, operation/layout
- Roadside Unit (RSU) structure, attachment, operation/layout
- Wrong-Way Vehicle Detection System (WWVDS) structure, detection configuration, and operation/layout
- Automatic Vehicle Identification System structure, operation/layout, network link to travel time signs (DMS)
- Traffic Monitoring Sites (TMS) structure, detection, wiring, and operation/layout
- Electronic Speed Feedback Sign (ESFS) wiring, operation layout
- Fiber Optic Splice Vault, Pull Box, and Conduit Installation
- Power Service Distribution
- Wiring Diagrams
- Cabinets Assemblies (local hub), layout, and physical dimensioning
- System-Level Block Diagrams.
- Device-Level Block Diagrams.
- Fiber Optic Splicing Diagrams.
- MOC Plan.
- Cross-Sections showing device locations, mounting heights, and detection zones.

The Design-Build Firm is responsible for ensuring project compliance with the Regional ITS Architecture and FDOT ITS Topic 750-040-003-c, Systems Engineering and ITS Architecture Procedure, as applicable. This includes, but is not limited to, the development of a project-specific Concept of Operations (ConOps), Project Systems Engineering Management Plan (PSEMP) and Requirement Traceability Verification Matrix (RTVM), as well as coordination of document review.

The Design-Build Firm shall evaluate existing Intelligent Transportation System (ITS) equipment and document which devices will be removed, replaced, or impacted by project work for review and approval by the Authority.

2. Existing Conditions

This section is intended to provide a general overview of the existing conditions of the Authority's ITS System and its components such as the Fiber Optic Network (FON) communications infrastructure within the Project Limits.

The ITS components shall be defined as follows:

- Closed Circuit Television (CCTV) Cameras: CCTV camera deployments consist of Pan-Tilt-Zoom (PTZ) cameras along the corridor typically spaced at one (1) mile intervals, as well as cameras for verification of DMS displays. CCTV cameras are used by Authority staff for incident management and monitoring traffic and roadway conditions in real-time. Each camera is integrated with a specific local hub within the corridor which connects to the appropriate network via a single-mode fiber optic communications backbone installed along the corridor.

  Connect CCTV cameras near the tolling sites to the electrical distribution panel that is backed by the toll generator. Connect CCTV cameras near the ITS generators to the electrical distribution panel that is backed by the ITS generator.

- Dynamic Message Sign (DMS): DMS provides current roadway information and travel times to motorists in visual and pictorial format. DMS deployments include sign displays, housings, structures, controller units, and cabinet assemblies and are connected to the appropriate network to communicate via a single-mode fiber optic communications backbone installed along the corridor.
- Roadside Units (RSU): RSU are wireless communication transceivers mounted to ITS structures along the roadway at approximately one-mile intervals to communicate with vehicle equipped with Connected Vehicle technology (i.e., on-board units) enabling the exchange of data between vehicles and infrastructure. RSUs are equipped with Bluetooth technology having the ability to provide travel time data and is compatible with the THEA ATMS platform.
- Vehicle/Bicycle/Pedestrian Video Analytics Camera: Non-intrusive camera which detects and tracks movements at crosswalks and intersections. Cameras work in conjunction with RSU to provide users with traveler information.
- Vehicle Detection Systems (VDS): The VDS consists of non-intrusive sensors using microwave radar technology to collect vehicle volume, speed, and occupancy data from mainline travel lanes on a per-lane basis. Detectors are typically located at approximately one-half (1/2) mile intervals. Detectors are installed either on standalone device poles or collocated with other ITS devices on structures in a side-fire configuration to detect data on a lane-by-lane basis. VDS data is used by Authority to determine current travel time information for dissemination to motorists and for incident detection. VDS shall connect with the appropriate network via a single-mode fiber optic communications backbone installed along the corridor.

  Non-intrusive sensors also include video detectors used to detect queues on exit ramps. The detectors provide data to a controller at the base of the ramp.

- Fiber Optic Network (FON): The FON infrastructure provides communications between ITS and tolls systems and the appropriate network. The FON is composed of fiber optic backbone and drop cabling and communications equipment – including but not limited to Layer 2 and 3 Ethernet switches, port servers, routers, and fiber patch panels installed either local hub or Master Hub locations. Cabling associated with the FON is installed within existing buried conduit duct banks with pull boxes and splice vaults for cabling access.
- Wrong-Way Vehicle Detection System (WWVDS): WWVDS are application-specific vehicle detection systems installed at limited-access interchange off-ramps to detect and deter wrong-way drivers from entering the limited-access mainline traveling in the wrong direction. Upon detection of a wrong-way driver, the WWVDS activates flashing Light-Emitting Diode (LED) highlighted signs and provides a real-time notification to operational staff within the RTMC.

  Backup all existing WWVDS to a generator. Connect all Wrong Way Driving Assemblies to the nearest electrical panel that is backed by the ITS or toll generator.

3. Design and Engineering Services

The design of the new system(s) shall integrate with the existing system. The design shall include the necessary infrastructure and components to ensure proper connection of the new while maintaining existing ITS components, ATMS, and signalization components. This includes but shall not be limited to all proposed components of the project, as well as existing subsystems to remain or be replaced in the final condition. All Signalization work shall be coordinated with the City of Tampa and the Authority. The Design-Build Firm is responsible for coordinating with TECO Distribution for proposed service points. At a minimum, the ITS work in this project consists of the following major components:

- Installation of new ITS devices, equipment, infrastructure, and components within the Project Limits. Replacement of any ITS System components that are impacted by the Design-Build Firm's scope of work as approved by the Authority. All equipment in the final condition shall be new.
- DMS – includes sign support structures, controllers, cabinet assemblies, static signs, and mounting brackets for lane control, lane status, express lanes, toll amount, travel time and full-matrix display DMS. The Design-Build Firm shall design and install all new, relocated, or modified DMS elements required in the ITS Concept Plan.
- CCTV – Includes cameras, poles, in-cabinet equipment, mountings, and camera lowering devices (as required in the ITS MTR) to provide continuous CCTV coverage of the project corridor, as well as DMS verification cameras to meet the requirement set forth in the ITS MTR. Continuous CCTV coverage shall be defined as the ability to view all general-purpose mainline lanes and shoulders from one end of the project to the other with minimal occlusions. Camera locations shall maximize the coverage of interchanges, on-ramps, off-ramps, and underneath overpasses to the greatest extent possible. The Authority will review the proposed CCTV camera locations and request relocation of devices or additional cameras to minimize occlusions and maximize coverage. Provide cameras without vehicle analytics at locations where only traffic surveillance will be performed. At select locations, consider using one camera for both traffic surveillance and DMS verification. For cameras near the ITS generator or the toll generator, connect the cameras to the generator electrical distribution panel.
- VDS – Includes sensors, poles, cabinets, in-cabinet equipment, and mountings to detect all lanes along the project corridor.
    - Traffic Data Detection – MVDS devices shall be spaced such that traffic in both directions, including ramps, are picked up at ½ mile intervals.
    - Automatic Vehicle Identification (AVI) System — design and construct Bluetooth travel time reader devices. All AVI deployment must be connected to the Authority's ITS network. RSUs are equipped with Bluetooth technology having the ability to provide travel time data and are compatible with the THEA ATMS platform.
- WWVDS - Includes sensors, confirmation cameras, poles, cabinets, in-cabinet equipment, in-roadway lights, static and highlighted signing, and mountings to detect off-ramps along the project corridor. The Design-Build Firm shall provide WWVDS software, firmware, and Application Programming Interface (API). The WWVDS's API shall be compatible with the current version of the Authority's ATMS software and communicate utilizing the Transmission Control Protocol/Internet Protocol (TCP/IP). At minimum, the WWVDS software shall allow local and remote configuration, and system health monitoring of WWVDS. The WWVDS shall send an alert and sequence of images for up to ten (10) seconds to Authority ATMS software that covers a configurable time before and after the wrong-way vehicle detection. WWVDS will be required at the following location:
    - Gandy Interchange

  Connect the WWVDS to the nearest ITS or tolls generator.
- Roadside Units (RSU) – Includes wireless radios, cabinets, in-cabinet equipment, and mountings to transmit and receive information and messages to equipped vehicles for real-time roadway and traffic conditions. RSUs are equipped with Bluetooth technology having the ability to provide travel time data and is compatible with THEA ATMS platform. The Design-Build Firm shall relocate existing RSU impacted by construction within the Project Limits. Relocation efforts

include all mounting hardware, brackets, cabling, and in-cabinet equipment (e.g., power supply, surge protection) required for a complete installation. The Design-Build Firm shall provide new cabling between the ITS cabinet and the RSU if the existing cabling cannot be reused. If the existing mounting hardware and bracketry cannot be reused for the new RSU location the Design-Build Firm shall provide new mounting infrastructure, as required. The Design-Build Firm shall physically relocate the RSU, ensure network connectivity with the appropriate ITS network, and configure the RSU. The Design-Build Firm shall comply with FCC regulations for RSU installation and follow the manufacturer's installation instructions. Coordinate modification of RSU site registration with the Authority using the latest FCC registration forms. Provide all information required to modify existing registration for RSUs at each individual location and submit the completed forms to the Authority. Provide updated information for the location and mounting height. Provide the Authority with the scheduled turn-on date for RSUs a minimum of ten (10) days prior to initiating testing. Do not activate RSU broadcasts prior to notifying the Authority.

- Video Analytics Camera - Includes cameras, poles, cabinets, in-cabinet equipment, and mountings to detect vulnerable users at the off-ramps along the project corridor. Connect the video analytics camera to the Authority's fiber network. Provide cameras with vehicle analytics at locations where data driven decisions will assist in traffic operations.
- Electronic Speed Feedback Sign (ESFS) - See FDOT Standard Plans. Includes all infrastructure for a conventionally powered deployment. Select locations that are described in the Reference Document R_20. Please note that these approximate locations are proposed and should be further studied and vetted by the Design-Build Firm and presented to THEA for final determination.
- Fiber Optic Network (FON) – Includes backbone and drop cabling, conduit, pull boxes, splice vaults, terminations, splices, and connection hardware to facilitate end-to-end communications between field devices and the appropriate ITS network and tolls network. For clarification purposes, any reference in this document 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.
    - Fiber Optic Backbone:
    - Two cabinets (ITS cabinet and tolls cabinet) at the following locations: Gandy Interchange, Himes Avenue, Florida Avenue. At each location, install spare conduit to connect the ITS and toll cabinets. Provide fiber optic jumper cables to interconnect the 2-72SM ITS cables and 2-72SM toll cables.
    - 96 SM for tolls in existing conduit from South Gandy Park to the Gandy Interchange.
    - 2-72 SM for ITS and tolls in new conduit on the southbound Selmon Expressway from Himes Avenue to the Gandy Interchange. 2-72 SM for ITS and tolls in new conduit on the northbound Selmon Expressway from the Gandy Interchange to Himes Avenue.
    - 2-72 SM for ITS and tolls in new conduit on the westbound Selmon Expressway from Brandon to Florida Avenue. 2-72 SM for ITS and tolls in new conduit on the eastbound Selmon Expressway from Florida Avenue to Brandon.
    - Fiber Optic Drops:
    - Design, furnish, install, and test 12 or 24-strand single-mode fiber drops to the toll cabinets on the East Selmon. Splice the drop fibers to one of the backbones in a splice box. Terminate all strands of the drop fiber in patch panels located within cabinets.

        - Provide a 12-strand single mode fiber optic drop to each new ITS device site from the backbone on the same side of the roadway. Terminate all strands of the drop fiber in patch panels within the cabinet.
        - Remove and dispose of all abandoned Authority fiber optic cabling.
    - Where fiber optic cables are to remain and are connected to existing fiber optic backbones being removed or replaced, cables shall be spliced to new backbone fiber optic cables in a manner that retains existing network functionality for ITS devices or facilities connected with minimal network disruption.

- Conduit:
    - The Design-Build Firm shall investigate the viability of all existing conduit and existing pull boxes to be utilized as part of the proposed ITS network prior to design. Provide investigation results to the Engineer. If any of the existing conduit and existing pull boxes are damaged, then Design-Build Firm shall repair or replace the conduit and/or pull boxes.
    - Power Conduit – Install new power conduits for electrical service wire powering ITS devices in accordance with the ITS MTR.
    - Fiber optics, power, and low-voltage communication cabling cannot share the same conduits, pull boxes, or splice vaults.
    - Use color coded conduits to differentiate use as required in the ITS MTR.
    - All necessary crossings of railroads, roadways, and water bodies shall be perpendicular to the pull boxes located on either end of the crossing.
- Power System:
    - All Electrical equipment and installation must conform to the current edition of Underwriters' Laboratories (UL), National Electrical Code (NEC), Electronic Industries Alliance (EIA), American Society for Testing and Materials (ASTM), American National Standards Institute, Inc. (ANSI), and Institute of Electrical and Electronics Engineers (IEEE) requirements as applicable.
    - The Design-Build Firm shall design, furnish, construct, install, integrate and test, Remote Power Management Unit (RPMU), Power Transformers, Uninterruptible Power Supply (UPS) units, grounding, lighting, and surge protection in accordance with the Authority ITS Minimum Technical Requirements for ITS and the FDOT Standard Specifications. The Design-Build Firm shall provide labeling on all equipment, cabling, and conductors.
    - Design, furnish, construct, install, integrate and test an electrical power distribution system within the Authority Right-of-Way consisting of underground power conduits and conductors, transformers, and UPSs, remote resettable PDUs and all associated equipment and wiring.
    - Coordinate utilities with local power companies.
    - Develop voltage drop calculations to determine the correct wire gauge and transformer size to effectively power all new equipment at 125% of specified equipment draw.
    - Utilize the National Electrical Code (NEC) and National Electrical Safety Code (NESC) at all times, during construction of underground, and overhead electrical power services.

  - Develop electrical wiring diagrams necessary to successfully implement the intent of the project.
  - Maintain power to the existing systems with no disruption to service.
  - Utilize the existing electrical services, to the extent possible, at the existing ITS field element electrical systems. 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 electrical draw.

- Pull Boxes and Splice Vaults:
  - New pull and splice boxes shall be installed for access to ITS conduits, storage of slack cable, and to facilitate cable installation and maintenance.
  - Provide lid labels that describe the box usage (e.g., FIBER, ELECTRICAL) and maintaining agency as required in the ITS MTR and FDOT Standard Specifications for Road and Bridge Construction. Provide separate pull boxes for each maintaining agency.
  - Fiber and electrical conductors must not share boxes.
  - Fiber optic, low-voltage communication, and power cabling shall not be collocated within the same box.
  - The maximum spacing between pull boxes along a conduit run carrying low-voltage communications and power cabling is 500 feet.
  - Provide traffic-rated pull boxes and lids with a TIER 22 load capacity rating for all installation locations within the paved shoulder.
  - The pull boxes and splice boxes for the ITS infrastructure shall be separate from the pull boxes and splice boxes for the tolls infrastructure. Do not install ITS conduit into tolls boxes. Do not install toll conduit into ITS boxes.
  - Any existing pull box to which new conduit is being installed shall be retrofitted with concrete aprons as shown in FDOT Index 635-001.

- ITS Cabinets and Equipment Enclosures:
  - Provide ITS cabinets to house the communication and power components required to support ITS devices. ITS cabinets shall be sized by the Design-Build Firm on a per-location basis but must not be smaller than Type 336S. Provide a cabinet to each ITS device site with direct connection to the fiber optic backbone and electrical power subsystem on the same side of the roadway. Remote sites (spur connections) extending across the mainline to power additional ITS devices with only one fiber optic drop are prohibited.
  - Provide Type 332 cabinets for the ITS and tolls backbone fiber cable at the transition points.
  - Small equipment enclosures may be used to house surge suppression devices, power supplies, and other miscellaneous ITS components where a cabinet is not attached to the same structure as the ITS device it serves, as approved by the Authority.
  - Type 336S cabinets and small equipment enclosures shall be pole mounted. All other ITS cabinets shall be affixed to a concrete base with technical pads for each door.

- All ITS structures must comply with Project Aesthetic Requirements and ITS MTR.

- All existing ITS devices, equipment, and components impacted and removed by the project shall remain the property of Authority. Coordinate with Authority for material delivery a minimum of three (3) days prior to anticipated delivery. Removed equipment shall not be relocated or re-utilized.
- Testing of fiber optic backbone and drops furnished and installed or modified by the Design-Build Firm, in accordance with the FDOT Standard Specifications and the ITS MTR.
- Testing of the Intelligent Transportation System (ITS).
- Maintenance of Communication (MOC) for all communication networks and ITS devices within the Project Limits. No unscheduled downtime is permitted.
- Provide fiber optic cable locator to identify and mark all department owned and maintained fiber optic facilities within the project limits prior to performing any subsurface work, in accordance with FDOT Specification Section 633.

4. Construction and Integration Services

The Design-Build Firm shall be responsible for all Signalization and ITS construction and integration services relating to the Project. The Design-Build firm shall configure the ITS equipment with the network configurations provided by the Authority IT Consultant. The Authority IT Consultant will provide a new server that supports the proposed ITS devices. Coordinate with the Authority IT Consultant at least 12 weeks in advance for firewall access and server integration. The Design-Build Firm shall work with the Authority's ATMS software vendor to integrate the equipment into the ATMS platform.

5. 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 Authority's Project Manager. The Design-Build Firm shall conduct all tests in the presence of the Authority's Project Manager or designated representative. Testing shall be completed as identified in the Authority Minimum Technical Requirements for ITS document.

The Design-Build Firm is responsible for all contract requirements and shall document the verification within a Requirements Traceability Verification Matrix as the contract requirements are met.

The Design-Build Firm shall develop a comprehensive test plan, submit it for review and acceptance by the Authority, execute the plan, and document the results. All test plans, as defined below, shall be submitted for review and acceptance by the Authority within 90 calendar days of the Pre-Construction meeting.

The Design-Build Firm shall not begin testing until the Authority provides acceptance of the test plans and the data forms. The test results shall meet the performance requirements identified in the Standard Specifications or the project special provisions.

Neither witnessing of the test by the Authority, nor the waiving of the right to do so, will relieve the Design-Build Firm of the responsibility to comply with the contract documents. Such actions by the Authority or the acceptance of any test results by the Authority will not be deemed acceptance of the equipment or system tested until project Final Acceptance. Contract time shall not be extended for time loss or delays related to testing. The cost of testing shall be considered as included in the unit cost for the item tested; no separate payment will be made for testing.

All test equipment utilized shall have the latest calibration certification in accordance with the Standard Specifications and the test equipment manufacturer's recommendations.

Failure of any item to conform to the requirements of any test shall be counted as a defect, and the equipment under test shall be subject to test failure. The Design-Build Firm may retest the equipment after all areas of non-compliance have been corrected, and evidence thereof is submitted to and accepted by the Authority.

All software required for diagnosing malfunctions of the hardware and software/firmware shall be supplied by the Design-Build Firm and accepted by the Authority. A copy of all diagnostic software shall be submitted to the Authority and the Authority's Maintenance Contractor with full documentation.

Detailed testing requirements for each sub-system related to the ITS systems are included in the ITS Minimum Technical Requirements.

Testing of the devices, equipment and system shall include the following in the order below.

a) **Pre-Installation Tests**

All applicable Pre-Installation Tests shall comply with the test requirements of the relevant sections of the current FDOT Specification, project special provisions, and this document.

b) **Stand-Alone Tests**

All applicable Stand-Alone Tests shall comply with the test requirements of the relevant sections of the current FDOT Specifications, project special provisions, and this document. The Stand-Alone Tests shall exercise all Stand-Alone (non-network) functional operations of the ITS devices and ancillary components installed utilizing the manufacturer's software.

If any ITS device or ancillary component fails to pass its Stand-Alone Test more than twice, it shall be replaced by the Design-Build Firm with a new ITS device or ancillary component of the same make and model, and the entire Stand-Alone Test shall be repeated until proven successful. The Stand-Alone Test shall be performed on each and every ITS device, their controllers and ancillary components.

c) **Subsystem Tests**

All applicable Subsystem Tests shall comply with the test requirements of relevant sections of the current FDOT Specifications, project special provisions, and this document.

The Subsystem Test shall demonstrate that all equipment furnished, adjusted, or modified by the Design-Build Firm has been installed properly and operates according to the Authority accepted Test Plans. The Design-Build Firm shall conduct the Subsystem Test in the presence of the Authority or the designated representative. The Subsystem Test shall begin seven days after the Design-Build Firm advises the Authority that they are ready to begin the test. The Subsystem Test may not begin until the Design-Build Firm has satisfied the Authority that all work has been completed. This Subsystem Test shall be performed utilizing the project field equipment and communications system. The Subsystem Test shall demonstrate full control of the field devices from the Authority TMC over the Ethernet network, as well as the functions of the local/remote trouble shooting/diagnostics specified in the equipment's functional requirements. The Subsystem Test shall be conducted using the manufacturer-supplied software. The Design-Build Firm shall provide qualified personnel to support the diagnosis and repair of system equipment during the Subsystem Test as required. These personnel shall be available for this support within 24 hours of notification that their services are needed.

In the event that a subsystem fails the test or is rejected by the Authority, the Design-Build Firm shall correct the problem and repeat the test within seven days after receiving the rejection notice. The test shall

be re-conducted until the test results are acceptable to the Authority.

d) **System Acceptance Test**

The System Acceptance Test shall commence upon successful completion of all other required tests. The System Acceptance Test shall include all project subsystems and operable from the TMCs central operating system for a period of 30 consecutive calendar days without failure of any subsystem, ITS device, or ancillary component.

The Design-Build Firm shall notify the Authority in writing of the scheduled date of the System Acceptance Test 14 calendar days prior to the commencement of the test. The System Acceptance Test shall not be performed without prior written approval from the Authority.

In the event of a subsystem, ITS device, or ancillary component failure, with the exception of consumable items such as fuses, the System Acceptance Test shall be shut down for the purposes of testing and correcting identified deficiencies (System Shutdown). System Shutdown is defined as any condition which, due to work being performed by the Design-Build Firm and/or its designee, results in the project, any subsystem, ITS device, or ancillary component to cease operation, fail or enter an error state.

After the deficiency has been corrected, the System Acceptance Test shall be restarted from the point at which the failure occurred.

If three System Shutdowns are encountered, the Design-Build Firm shall:

- Remove and replace the subsystem, ITS device, or ancillary component with a new and unused unit;
- Perform all applicable Stand-Alone and Subsystem Tests, as deemed necessary by the Authority and;
- Upon written approval from Authority, restart the System Acceptance Test for a new 30 consecutive calendar day period. The Design-Build Firm shall not be granted time extensions to perform the System Acceptance Test due to any failures as described herein. The Design/Build Firm shall correct all failures during the System Acceptance Test at no additional cost to the Authority.

6. Maintenance of Communication

A Maintenance of Communication (MOC) and Protection of ITS/ATMS Plan is required for projects when existing ITS or tolls communication, fiber/electrical infrastructure (including associated devices), will be interrupted and a temporary solution, phasing or relocation, will be required prior to the permanent ITS infrastructure or device placements being completed per final design. Phasing of communication pathways in order to maintain existing connectivity shall be provided, schedule of events along with a narrative and construction plan set identifying the existing conditions to be maintained, any modifications to the existing equipment locations, details for all installation of any proposed temporary solution, and splicing diagrams encompassing all phases of the MOC until the final design communication connections shall be provided. The intent of the MOC shall be to maintain communications and device availability and minimize any downtime of the existing ITS devices or toll buildings/equipment during the construction phases of the project.

The Design-Build Firm shall follow the order of preference in providing communications alternative during the MOC phases, as dictated by the site conditions. Wireless communications or leased lines are not allowed. Mounting/attaching the backbone fiber to the fence is not allowed.

The MOC plans shall be prepared as a separate component set of plans, complete with a key sheet, sheet index, plan sheets and details. The MOC plans shall be developed in accordance with the project governing documents.

The MOC plan shall include a listing of all existing ITS devices in the Project Limits that are to be maintained during construction. MOC plans are a component to the ITS plan set.

A Method of Procedure (MOP) shall accompany the earliest MOC plan submission for the Authority's review and approval and shall include fiber backbone cut-over plan, sequence of steps summarizing anticipated phases in conjunction with the MOC plans prior to the final construction phase, field procedures, anticipated outage times, and any other necessary communications requirements.

7. Signalization

There are no proposed signals or planned signal modification within the Project Limits.

P. Landscape Opportunity Plans

Not used.

Q. Tolling Infrastructure Plans

Not used.

R. Aesthetic Requirements

The Authority values and importance of aesthetics on its system. The project limits include existing features with aesthetic elements and themes. The aesthetic requirements for all proposed elements are included in Reference Document R_22 THEA Aesthetic Plan.