INVITATION TO BID (ITB)
Contract #: O-1624
Construction of East Selmon Wrong Way Driving Countermeasures and DMS Fiber Upgrades

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ITB Issue Date & Cone of Silence Effective Date: 5/7/2024

ITB Response Due Date: 6/10/2024

RESPONSIBLE DEPARTMENT
Operations: PM-
Judith Villegas, ITS Manager

PROCUREMENT DEPARTMENT
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THE RESPONSIBILITY OF SUBMITTING A BID PROPOSAL PACKAGE IN RESPONSE TO THIS SOLICITATION DOCUMENT TO THEA ON OR BEFORE THE STATED DEADLINE SHALL BE SOLELY AND STRICTLY OF THE BIDDER. THEA SHALL IN NO WAY BE RESPONSIBLE FOR DELAYS CAUSED BY THE UNITED STATES MAIL, OR ANY OTHER DELIVERY SERVICE, OR CAUSED BY ANY OTHER OCCURRENCE.

BIDDERS SHALL READ THE SOLICITATION/CONTRACT DOCUMENTS IN THEIR ENTIRETY PRIOR TO SUBMITTING A BID PROPOSAL PACKAGE.

BY SUBMITTING A BID PROPOSAL PACKAGE, THE BIDDER ACKNOWLEDGES THEY HAVE READ, UNDERSTAND, AND ACCEPT THE TERMS AND CONDITIONS TO BE MET AND THE CHARACTER AND QUALITY OF THE SCOPE OF WORK TO BE PROVIDED

Legal Entity Name (Bidder): _____
Address of Bidder: _____
FEIN: _____
Name of Authorized Officer: _____ Title: _____
E-mail: _____ Phone Number: _____

Attachments and/or References not attached hereto will be supplied upon request and shared via a OneDrive File Share. Please contact the Procurement Office at procurement@tampaxway.com to request your link.

Exhibits -

A. Scope of Services
B. Public Entity Crime
C. Drug-Free Workplace
D. Bid Proposal Form
E. Conflict of Interest Form
F. Experience and References
G. Insurance Requirements, Coverage and Limits
H. Bid Bond
I. Payment and Performance Bond
J. Certificate Regarding Scrutinized Companies

References/Construction Drawings/Specifications/Attachment(s)-

1. Attachment 1 – THEA HI-0149 ITS Plans – Control System & DMS Fiber Upgrades
2. Attachment 2 – ACN Typical Wiring Diagram
3. Attachment 3 – ITS Plans – THEA WWDS
4. Attachment 4 – Specification Package – THEA WWDS
5. Attachment 5 – Bid Tabulation Sheet

I. INTRODUCTION

The Tampa-Hillsborough County Expressway Authority (THEA) is soliciting sealed bids from qualified contractors to provide all labor, equipment, materials, tools, transportation, supplies, insurance, incidentals, mobilization, demobilization, and maintenance of traffic necessary to provide the System Control and DMS Fiber Optic Communications upgrades as required and specified in the procurement documents.

II. INSTRUCTIONS TO BIDDERS

1. THEA must receive all submittals at the location, date, time, and method identified in **Section VI., Schedule of Events**. Any submittal received after the stated time and date shall not be considered. It shall be the sole responsibility of the bidder to have its package electronically submitted to THEA. THEA will not accept other delivery methods. Delay in delivery shall not be the responsibility of THEA. Submittals received after the deadline shall not be considered and may be returned only at the firm's expense.

2. Each firm shall examine all documents and shall determine all matters relating to the interpretation of such documents.

3. The following exhibits are required by THEA to be completed by the bidder and submitted as part of the bid proposal package:

   B. Public Entity Crime
   C. Drug-Free Workplace
   D. Bid Proposal Form
   E. Conflict of Interest Form
   F. Experience and References
   G. Insurance Requirements, Coverage and Limits
   J. Certificate Regarding Scrutinized Companies
   Attachment 5 – Bid Tabulation Form

4. A Surety Commitment Letter is required to be submitted as part of the bid proposal package. The bidder is required to provide proof of bonding capacity and provide acknowledgment by the bidder's Surety of the ability to provide the required Payment and Performance Bond and Bid Bonds.

5. Proof of Insurance is required to be submitted as part of the bid proposal package. The bidder must provide evidence of the bidder's ability to provide the insurance coverage required in Exhibit G – Insurance Requirements, Coverages, and Limits, either by means of an existing policy or other verifiable proof (such as an Agent/Broker commitment letter).

6. Bid proposal packages are to only be submitted electronically to THEA's Procurement e-mail inbox. One (1) original, combined pdf bid proposal package including the required forms above must be e-mailed to THEA's Procurement Department, clearly labeled, "**Bid Proposal Package O-1624 Construction of East Selmon Wrong Way Driving Countermeasures and DMS Fiber Upgrades"** sent to:

   Procurement Office
   Procurement@tampa-xway.com

7. THEA shall not be liable for any expenses incurred in the preparation of the bid proposal package.

8. THEA reserves the right to accept or reject any or all bid proposal packages, to waive irregularities and technicalities, and to request resubmission or to re-advertise for all or any part of the work. THEA shall be the sole judge of the submittals and the resulting negotiated agreement that is in THEA's best interest, and THEA's decision shall be final.

9. The successful firm shall be required to execute an agreement, in form and content acceptable to THEA, indemnifying and holding harmless THEA, its officials, officers, employees, and agents from all claims.

10. **CONE OF SILENCE**

Firms, their agents, or associates shall refrain from contacting or soliciting any THEA staff, the consultants representing THEA regarding this ITB or members of the Board of Directors directly or indirectly regarding this ITB and this solicitation once the ITB is published and until the Board of Directors has made a final decision to award the contract. Failure to comply with this provision may result in the disqualification of the firm.

AT THE DISCRETION OF THEA, ANY VIOLATION OF THE REQUIREMENTS SET FORTH IN THIS SECTION SHALL CONSTITUTE GROUNDS FOR IMMEDIATE REJECTION OF THE BID PROPOSAL PACKAGE AND THE BIDDER SHALL BE DEEMED NON-RESPONSIVE.

12. Questions about this ITB for interpretation, clarification or about the project must be in writing addressed to THEA Procurement Department at Procurement@tampa-xway.com. To be considered, such requests must be received no later than the date and time stated for the Deadline for Respondent's submission of questions to THEA referenced in Section VI., Schedule of Events. Questions received after the date will not be considered.

III. QUALIFICATIONS:

The bidder must include with its bid proposal package all completed required forms as indicated in Section II Instructions to bidders. Failure to submit all completed forms may be cause for rejection at the sole option of THEA.

IV. DOING BUSINESS IN THE STATE OF FLORIDA

All bidders shall be in good standing with and authorized to do business in the State of Florida. Furthermore, it is the responsibility of the bidder to confirm that all of its subcontractors are also in good standing and authorized to do business in the State of Florida as may be required pursuant to §607.1501, §605.0902, and §605.0905 Florida Statutes.

If a bidder is not required to register pursuant to Florida Statutes, the successful bidder shall be able to submit documentation demonstrating non-applicability of the statute.

THEA shall not execute an agreement if the successful bidder and subcontractors are not registered and in good standing to do business in the State of Florida as required by the referenced Florida Statutes.

V. SELECTION PROCESS

THEA intends to purchase the product/services from the responsible and responsive bidder. The selection process for this ITB will consist of the following.

Bid proposal packages will be evaluated on whether the bidder is responsible and responsive to this solicitation, with the objective to evaluate those bids and responses and to award a contract for the work to the firm with the **lowest total bid price**.

THEA will determine if the firm's bid is responsive and is a responsible bidder, in its sole and absolute discretion, considering all relevant facts and information. THEA reserves the right at its sole discretion to reject any and all bids if it is determined the lowest total bid price is excessive, best offers are determined to be unreasonable or it is in THEA's best interest to do so.

The required bonds will be required of the bidder with the lowest total bid price, after Board approval of Final Ranking and Award of Contract.

FINAL SELECTION:

The bidder with the **lowest total bid price** will be presented to THEA's Board of Directors for consideration and approval with a recommendation that the bidder be selected per the Schedule of Events below.

VI. SCHEDULE OF EVENTS

DATE	DESCRIPTION	LOCATION
May 7, 2024, by 5:00 PM	Advertisement Published	THEA Website & Demandstar
May 23, 2024, by 9:00 AM	Deadline for Respondent's submission of questions to THEA	Email to Procurement@tampa-xway.com
June 3, 2024, by 5:00 PM	Deadline for THEA to respond to Respondent's questions	THEA Website & Demandstar
June 10, 2024, by 9:00 AM	Deadline for Submitting Bid Proposal Package	Email to Procurement@tampa-xway.com
June 11, 2024, at 10:00 AM	Public Opening of Bid Proposal Packages	THEA Office 1101 E. Twiggs Street, Suite 300 Tampa, FL 33602
June 13, 2024, by 5:00 PM	Post Notice of Intended Ranking	THEA Website & Demandstar
June 24, 2024, @ 1:30 PM	Board Approval of Final Ranking & Award of Contract	THEA Offices 1101 E. Twiggs Street Tampa, FL 33602
June 26, 2024, by 5:00 PM	Posting of Award of Contract	THEA Website & Demandstar

VII. TERMS AND CONDITIONS

THEA reserves the right to reject all bid proposal packages, any bid proposal packages not conforming to this Invitation to Bid, and to waive any irregularity or informality with respect to any proposal. THEA further, reserves the right to request clarification of information submitted and to request additional information from one or more firms.

THEA requires that the bidder selected will not discriminate under the agreement against any person in accordance with federal, state, and local governments' regulations. THEA requires the bidder selected make an affirmative statement to the effect that their retention shall not result in conflict of interests with respect to THEA.

THEA requires that the bidder make an affirmative statement to the effect that they have not contacted, or attempted to contact, any member of the Board of Directors, or THEA staff, except as expressly permitted in the ITB.

SCOPE OF WORK & MINIMUM REQUIREMENTS A:
CONTROL SYSTEM AND DMS FIBER COMMUNICATIONS UPGRADES

I. REL SYSTEM BACKGROUND

The THEA Reversible Express Lanes (REL) system is a tolled system that is designed to carry one-way traffic in the predominant commuting direction for AM/PM peak travel times. The general operations call for the REL traffic to flow east to west in the AM and reversed in the PM to flow west to east. In addition, there are distinctive operations for weekends, special events, and emergencies.

City of Tampa (COT) Operators, in coordination with THEA provide daily operation of the REL in Tampa, Florida. THEA and the COT staff are co-located at the THEA Transportation Management Center (TMC) located at Tampa Hillsborough Expressway Authority, 1104 East Twiggs Street, Tampa, FL 33602.

There are five (5) legacy Access Control Nodes (ACN) distributed control cabinets currently in the REL system, one at each point of ingress into the REL infrastructure including 1) Downtown, 2) 34th Street, 3) 78th Street, 4) Rte. 301 and 5) Brandon area. There is also an additional 6th ACN as part of the recently opened East Selmon Slip Ramps which is not part of this project. The ACNs provide a fiber-based Ethernet fault- tolerant communications network linking the THEA TMC to the field equipment (REL access control, ITS devices, and subsystems) via the THEA fiber backbone system.

The REL system consists of a Closed-Circuit Television (CCTV) camera system and movable gates (warning and resistance barrier) used in critical operations for restricting and allowing access to the Expressway itself; and electronic Dynamic Message Signs (DMS) for both critical (Open/Closed) and non-critical (directional and information) and traffic signal interface for traffic preemption. The system enables automatic operations of the roadway system as well as providing for hybrid operations (automatic/manual) and manual operations as required due to subsystem failure or at the operator's selection.

To provide a safe and clearly understandable system for the motorists, a very precise series of steps must be used by the operators at the THEA TMC to open, close, and reverse the REL system. These steps are actuated, controlled, and monitored by TMC staff using central software; referred to as the Access Control System (ACS) software. Redundant head-end servers located at the THEA TMC run the ACS software providing the supervisory control of all REL devices and monitoring and control of ITS/ATMS devices along the Selmon Expressway.

The original ACS software, DYNAC, was installed in 2005/2006 by Transdyn (now Kapsch) and was upgraded in 2017 by the same company. THEA awarded a contract in 2022 to Teledyne FLIR ITS to upgrade functionality and replace the existing ACS software.

Currently, communications from the ACN to critical Changeable Message Signs and Variable Message Signs (herein after referred to as "DMS") and REL gates is via shielded # 14 to 16 AWG copper loop signal wire. Communications with a critical DMS is two-fold: from the ACS to Sign Controller via relay and actuated control and a feedback system from the Sign Controller to Programmable Logic Controller (PLC) at the ACN for safety interlock. As the THEA TMC activates REL movable gates to open or close to reverse traffic, the system is triggered to send a 24VDC signal to the relays (Commands Cable, copper signal wire) to activate the appropriate DMS stored message. Then the output relay sends a signal back (Monitoring Cable, copper signal wire) to provide confirmation that the message was posted.

Each ACN cabinet is also equipped with a Local Operator Interface (LOI) Panel that allows local manual operation in the event of communications loss with the TMC or the PLC is down.

Layer 2 managed field Ethernet switches (MFES) for ITS sites and Layer 3 ACN ring switches were upgraded in 2014 along with upgrades to an IP-based CCTV network. TMC Core Layer 3 switch is a stacked Brocade ICX series system. The critical DMSs were replaced with new Daktronics LED full color, full matrix signs and field cabinets in 2017.

II. SCOPE OF WORK

This section provides a summary of the scope of work to be performed.

1. Provide all labor, equipment, materials, tools, transportation, supplies, insurance, incidentals, mobilization, demobilization, and maintenance of traffic necessary to provide the System Control and DMS Fiber Optic Communications upgrades as required and specified in the Contract documents. The intent of this project is to replace existing copper cables to DMSs with fiber optic cables and provide the means to control the signs via the THEA fiber network. Existing conduit is to be used to the extent possible. Replace damaged or unusable conduit and/or pull boxes with new conduit and/or pull boxes as needed. Conduit pathways and access points are both located underground and in the interstitials of the elevated REL bridge structure.
2. Remove the following existing materials:
    a. Existing DMS shielded copper signal wires / cables (Command and Monitoring) as shown on the Plans. Start with disconnecting the copper wires from the terminal blocks in the DMS cabinets or in the ACN cabinets and work backwards to ensure that the correct cables are being removed. Cable sheath markings in the field are non-readable or non-existent.
    b. Remove Layer 3 switches in the ACN cabinets.
    c. Miscellaneous components and equipment (i.e., cellular modems, serial converter, fiber patch panels, fiber drop cables).
    d. Return switches and modems/routers to THEA 1104 E. Twiggs Street, Tampa, and dispose of all other materials. Coordinate with THEA a minimum of 24 hours prior to the return of equipment.
3. Furnish and install the following new materials as shown on the Plans:
    a. 12-strand fiber drop cables into DMS cabinets.
    b. 24-strand fiber drop cables into existing ACN cabinets.
    c. 72-strand fiber distribution cable for DMS cabinets and other future THEA applications.
    d. Fusion splicing and termination.
    e. Splice enclosures and required splice trays. Wall rack mounted in fiber pull boxes.
    f. Fiber patch panels. Panel/wall mounted in the ACN cabinet and either panel/wall or rack mounted in the DMS cabinets.
    g. Network Switches:
        - Install only Layer 2 network switches in the DMS cabinets. THEA will provide configured

switches with AC power cords and SFPs to the Contractor. The Contractor to furnish and install mounting hardware as required. Use existing DIN rails to mount switches in cabinets. Use existing power receptacles in the cabinet. Add power strip as needed.

- Layer 3 network switches, mounting hardware, and power cords for the ACN cabinets. Panel/wall mount switch as shown on Plans. Use existing power receptacles in the cabinet. Add power strip as needed. The Layer 3 switches will be configured by others.
- Notify THEA and allow for a minimum of eight (8) weeks for THEA to configure Layer 2 and Layer 3 switches.

h. Web relay devices per plans.

- Coordinate with THEA's PLC consultant a minimum of eight (8) weeks prior to installation for configuration and programming the web relay devices. The Contractor will then install the devices.

i. Cellular routers for temporary communications as described herein (see Construction Sequencing herein).

- The Contractor shall coordinate with THEA's Network Integrator a minimum of eight (8) weeks for set-up and configuration of the cellular routers.

j. Patch Cables (fiber and Cat-6) as required.

4. Replace selected existing Pull Boxes that are either damaged or too small to accommodate new splice enclosure and/or the required fiber slack cable with new larger fiber splice boxes per FDOT Section 635 and as required per Plans.
5. Perform Conduit Proofing of existing underground conduit sections that will be used on this project as shown on the Plans. Refer to the Bid Tabulation Form.
6. Replace damaged or unusable underground sections of Conduit as determined through Conduit Proofing with new conduit per FDOT Section 630 and as required per Plans. Obtain any required permits.
    a. Refer to the Plans and Bid Tabulation Form.
7. Replace any concrete / sidewalk panels that are impacted from replacing damaged pull boxes and/or conduit. Refer to the Bid Tabulation Form.
8. Place new fiber optic cabling in the existing conduit taking care to avoid damage to any existing cables that are to remain.
9. Provide fiber splicing and re-splicing work as called out on the Plans.
10. Replace existing Splice Enclosures affected by the proposed cut-over of the proposed fiber-optic cable. Take all precautions necessary to handle enclosures and splice trays carefully.
11. Mount and provide wiring and termination for web relays in the ACN cabinets as shown in the Plans.
12. Mount and provide wiring and termination for web relays in the DMS cabinets as shown in the Plans.
13. Coordinate and work with THEA's PLC consultant and Network Integrator for integration and testing

of the network equipment and web relays.

14. Notify THEA daily of time and location of work so THEA can silence alarms and alerts on the network during the time that work is being performed.
15. Perform all testing, commissioning, and project closeout services as required.
16. Provide all Maintenance of Traffic (MOT) services as required per FDOT standards.

MATERIALS

3. **FIBER OPTIC CABLE & INFRASTRUCTURE**

In addition, to meeting FDOT Standard Specifications Section 633, meet the following minimum fiber optic cable and infrastructure requirements:

a. **General Requirements**

i. Communication cables (fiber, Cat-6, etc.) shall not occupy the same cable management raceway as 120/240vac power conductors.

ii. Zip ties are not allowed on any communication cabling. If cables need to be secured outside the cable management equipment, then Velcro is acceptable for this purpose.

iii. Monitor the fiber optic cable during installation to ensure that the minimum bend radius is not exceeded as recommended by the manufacturer and the maximum manufacturer cable pulling tension is not exceeded. A breakaway pulling swivel as recommended by the fiber cable manufacturer must be provided.

b. **Fiber Optic Cables and Components**

i. Provide a 72-strand single-mode (SM) (OS2) fiber optic, outdoor, loose-tube, zero-dispersion, low-water peak, water-blocking, gel-free, distribution cable.

ii. Provide 24-strand single-mode (OS2) fiber optic, outdoor, zero-dispersion, low-water peak, gel-free, drop cables to ACN fiber patch panels.

iii. Provide 12-strand single-mode (OS2) fiber optic, outdoor, zero-dispersion, low-water-peak, gel-free, drop cables to DMS fiber patch panels.

iv. Provide fiber optic drop cables of the same type and manufacturer as the fiber optic distribution cable.

v. Fiber optic cables will be paid under Pay Items 633-1-111, 633-1-113, 633-1-121, 633-1-122, and 633-1-123.

c. **Fiber Splicing and Fiber Splice Enclosure**

i. Provide fiber splice enclosures meeting the following minimum requirements:

- Accept up to as many fiber-optic cables, as required or necessary, based on the fiber design and ensure that the cable entry ports ACN accommodate the cable outside diameters plus 10 percent to be installed on this Project, without compromising the waterproof characteristics of the splice enclosure.

- Sized to fit within the existing and/or new fiber pull boxes as specified on the plans.
- Capable of being accessed, without disruption to the surrounding cables.
- Fully sealed to protect fiber and splicing from water entry, including being submerged in standing water, and have been subjected to a water immersion test by the manufacturer.
- Be rodent proof, weatherproof, waterproof, chemical and UV resistant, re-enterable and re-sealable.
- Employ reusable sealing materials (i.e., grommets, etc.) allowing multiple re-entrances without replacing any component.
- Provide adequate interior space to accommodate and store slack for each fiber cable entering the splice enclosure without violating the minimum bend radius of the cable. All proposed facilities must be sized, designed, and installed to accommodate maintenance activities as approved by THEA.
- Permit access to splice trays without kinking buffer tubes or micro-bending.

ii. Splice Personnel:

- All splicing personnel must be adequately trained for the fusion splicing; and must possess a fiber optic splicing certification from an industry recognized authority such as IMSA or ETA.

iii. Splice Equipment and Preparation:

- Clean and calibrate fusion splicing equipment per the manufacturer's specifications and specifically adjusted to the fiber and environmental conditions at the start of each splicing shift.

iv. Splice enclosures and splice trays will be paid under Pay Item 633-3-12 and 633-3-11, respectively.

v. Splices and terminations will be paid under Pay Item 633-2-31 and 633-2-32, respectively.

d. **Fiber Patch Panels (FPP)**

i. Provide 12-port SM (bulkhead 1) and 6-port multi-mode (MM) (bulkhead 2) rack-mounted FPPs in all DMS cabinets. The Contractor may propose other mounting options for THEA review and approval.

- Terminate the new 12-strand fiber drop cable in the 12-port FPP.
- Re-terminate the existing 6-strand tight buffer MM DMS device fiber optic cable running from Auxiliary Signal Control Board inside the sign enclosure to a MM 6-port FPP using LC connectors inside the DMS cabinet.

- Furnish and install fiber jumper cable(s) as specified herein and shown on the ITS Plans.

ii. Provide wall-mounted 24-port SM FPP in the ACN cabinets. Re-splice and re-terminate the 24-strand fiber drop cable in the 24-port FPP.

iii. Provide FPPs that include fiber pigtails with LC populated connector panels unless otherwise approved or directed by the THEA.

- Provide a complete assembly including housing, front/rear lockable doors, pigtailed cassettes loaded with connector panels with factory terminated pigtails, heat shrinks, protective tubing, routing clips and guides, grommets, cables ties for strain relief, blank panels, mounting hardware, and all other materials and components as needed to provide a complete FPP installation.
- Provide pigtails with strain relief and reinforcement at the point where the pigtail fans out.
- Pigtails must be factory terminated and tested and at least three (3) feet in length.
- Provide access to field maintenance personnel from the front and rear, using fold-down, translucent, and lockable doors.
- Have rubber grommets or similar material to prevent the cable from contacting bare metal, as approved by the THEA.

iv. Provide radius guides and strain relief for the incoming fiber optic cable(s) to maintain bend radius and protect the fibers.

v. Provide dust caps for all unused ports.

vi. Manufacture in accordance with ISO-9001 quality assurance procedures.

vii. Fiber patch panels will be paid under Pay Item 633-3-16.

e. **Fiber Optic Drop Cable Connectors**

i. Certified fiber optic LC connectors as specified herein or as directed and approved by the THEA.

ii. Provide fiber connectors that are Ultra Physical Contact (UPC) polished.

iii. Provide industry standard approved connectors for single-mode optical fiber and meet or exceed the applicable provisions of TIA/EIA-455-4A related to fiber optic connectors and interfaces and meet the following requirements:

- Operating temperature range of -40° to 165° F.
- Insertion loss (single connector) of ≤ 0.4dB (max).
- Maximum mated connector loss of ≤ 0.75dB (max, per TIA/EIA-568-C.3).
- Return loss (back reflection) ≤ -55dB (UPC).
- Mating Durability ≤ 0.2dB (typ.) change, 250 mating cycles.
- Use factory-assembled and tested connectors.

- Install protective caps on all unmated connectors.

iv. Provide qualification/certification test data from the manufacturer upon request by the THEA.

v. All fiber connectors will be considered incidental to Pay Item 633-3-16.

f. **Fiber Optic Jumper (Patch) Cables**

i. Provide two (2) fiber duplex jumper cables from 1) Layer 2 switch to FPP in each DMS cabinet and 2) Layer 3 switch to FPP in each ACN cabinet. All existing fiber jumper cables shall also be replaced.

ii. Factory pre-assembled, pre-terminated duplex patch cables with LC connectors or as required by network equipment.

iii. Fiber patch cables must be of the same fiber core size, and performance as the fiber optic cables provided for this Project.

iv. Conform to ITU-T G.652.D, G.675.A and EIA/TIA 492-CAAB (OS2) standards.

v. Provide duplex, zip-cord, riser-rated cables with two fibers and fiber connectors on each end. Non-duplex type fiber patch cords are not allowed.

vi. All fiber patch cables must be factory terminated and polished.

vii. Provide with lengths as required with a minimum of one (1) foot slack between connected equipment. The Contractor must coordinate with the THEA prior to procurement of fiber patch cables on color, final quantity, and length of fiber patch cables for this Project.

viii. Protect with dust caps on the connector ferrules.

ix. Provide with qualification / certification test data from the manufacturer upon request by the THEA.

x. connect the network switch with fiber patch cables using the minimum length required plus one additional foot of slack to the fiber patch panel.

xi. All patch cables will be considered incidental to the hardware being installed.

6. **NETWORK COMMUNICATIONS EQUIPMENT**

In addition, to meeting FDOT Standard Specifications Section 684, meet the following minimum network
communications equipment requirements:

a. **General Requirements**

i. Install 31 new ruggedized Layer 2 managed Ethernet access switches located in each DMS cabinet. Note that THEA will provide fully configured Layer 2 switches to the Contractor for installation only.

ii. The Contractor will provide support to THEA's Integrator during network commissioning and testing.

iii. Furnish and install five (5) new ruggedized Layer 3 managed Ethernet distribution switches located in the legacy ACN cabinets. THEA will configure the Layer 3 switches.

iv. Connect network switches in a ring type of network topology as shown on the Plans. See Detail sheet D-1 in the ITS Plans.

Table: DMS Device Rings

DT Ring 1	34 Ring 2	78 Ring 3	301 Ring 4	BRN Ring 5
1. CMS DT-C01	1. VMS 618-DE04	1. VMS 618-DW05	1. VMS 618-DE06	1. VMS 618-DW07
2. CMS DT-C02	2. CMS 34-C01	2. CMS 301-C03	2. CMS 301-C01	2. CMS BRN-C08
3. VMS MER-VS01	3. VMS 618-VE04	3. CMS 78-C01	3. CMS 78-C02	3. CMS BRN-C04
4. CMS DT-N06	4. CMS 34-C02			4. CMS BRN-C06
5. CMS DT-C05				5. CMS BRN-C07
6. CMS DT-C03				6. CMS BRN-N13
7. VMS-MER-VS02				7. CMS BRN-N15
8. CMS DT-C04				8. CMS BRN-N14
9. VMS 618-VW03				9. CMS BRN-N16
				10. CMS BRN-C05
				11. CMS BRN-N09
				12. CMS BRN-N10
				13. CMS BRN-NC11

b. **Managed Field Ethernet Switches (Layer 2, Access) Requirements**

THEA will provide the *Siemens Ruggedcom RSG920P utility-grade Layer 2* switch (Model No: 6GK6092-0PS23-0CA0-Z-A05+B05+D00+D00) with AC power cord and SFPs or an approved equivalent for each DMS cabinet, to the Contractor for installation.

The Contractor shall furnish and install the following:

i. DIN-rail mounting hardware to a rack mounted recessed panel allowing the cabinet door to close in the DMS cabinet or as approved by the THEA.

ii. Fiber optic patch cords in accordance with Section (3)(f) with integral optical attenuators for optical power control in accordance with the network switch manufacturer's recommendations.

iii. Coordinate with THEA on the configuration, integration and testing of the network switch and network connectivity. Allow for a minimum of eight (8) weeks for THEA to configure Layer 2 switches.

iv. Layer 2 switches will be paid under Pay Item 684-1-3.

c. **Managed HUB Ethernet Switches (Layer 3, Distribution) Requirements**

The Contractor shall furnish and install one (1) managed HUB Ethernet switch in each of the five (5) legacy ACN cabinets. THEA will configure the Layer 3 switches and return the switch back to the Contractor for installation. The Contractor will support THEA's Integrator during network

commissioning and testing.

The switch must be *Siemens Ruggedcom RX1500 or RX1524 utility-grade Layer 3* switch (RX1500 Model No: 6GK6015-0AM26-0DC0-Z A01+B36+C36+D01+E02) (RX1524 Model No: 6GK6015-0CM26-0DC0-Z A01+B36+C36+D01+E02) or approved equivalent meeting the following minimum requirements:

i. Provision with IP Base licensing from the manufacturer providing Layer 2/3 switching/routing features. Include all agent and management software and documentation and advanced feature license (with OSPF routing capability).

ii. Meet the following minimum hardware requirements:

- Minimum of 12 x 10/100 Mbps TX Ports.
- Minimum of 4 x 1000 Mbps SFP ports.
- Provide with LC connectors.
- Integrated dual (redundant) load sharing power supplies, 120VAC direct.
- Capable of being panel-mounted to the wall of the ACN cabinet or as approved by the THEA.
- Includes passive cooling, no fans are permitted.
- Provide rubber dust caps or covers with insertion/removal handles that completely seal the port / slot opening for all unused copper and optical ports.
- Maximum switching bandwidth: 10Gbps full duplex

iii. Provide fiber optic patch cords in accordance with Section (1)(f) with integral optical attenuators (as required) for optical power control in accordance with the network switch manufacturer's recommendations.

iv. Coordinate with THEA on the configuration, integration and testing of the network switch and network connectivity. Allow for a minimum of eight (8) weeks for THEA to configure Layer 3 switches.

v. Prior to removal of the existing Ethernet switch in the ACN cabinet, verify the existing fiber optic configuration and port assignments in the switch. The proposed new switch must be installed with fiber splices, terminations and connections re-established to match existing conditions.

vi. Warranty: Minimum 5 years

vii. Existing ACN switches will be removed and paid for under Pay Item 684-1-6.

viii. Layer 3 switches will be paid under Pay Item 684-7.

d. **Small Form-Factor Pluggable (SFP) Optical Transceiver**

Furnish and install Layer 3 switches with SFPs meeting the following minimum requirements:

i. Provide a dual-fiber SFP capable of LC single-mode (SM) fiber connection.

ii. Compliant with IEEE 802.3x 1000Base-LX and 1000Base-LX/LH or EX standards as required.

iii. Provide extended temperature (23 to 185 degrees F) range.

iv. SFPs will be considered incidental to Pay Item 684-1-3 and 684-7.

e. **Web Relays**

i. DMS Cabinets:

- Provide one (1) Controlbyweb X-410 or approved equivalent web relay controller in each DMS cabinet. Provide 24VDC power supply and mounting hardware as required. See Detail Sheet D-4 for DMS cabinet work. This will be paid under Pay Item 684-8-2.

ii. ACN Cabinets:

- Remove existing TVSSs from ACN cabinet right side panel that are being used for the copper control and monitoring cables to the DMS signs. This will free up some space for mounting web relay components.
- Provide one (1) Controlbyweb X-600M-I or approved equivalent web relay I/O controller in each ACN cabinet. Provide mounting hardware and ribbon cables. Mount on right side panel as shown on Plans. Use existing 24VDC cabinet power bus. See D-3 for ACN cabinet work. This will be paid under Pay Item 684-8-1.
- Provide Controlbyweb X-12S or approved equivalent 8 relay web expansion module in the ACN cabinet (see Plans for quantities). Mount on DIN rail as shown on Plans. 24VDC power is obtained from the 24VDC power supply and web I/O controller through the ribbon expansion cable. See D-3 for ACN cabinet work. This will be paid under Pay Item 684-8-3.
- Provide Controlbyweb X-15S or approved equivalent 8 digital input web expansion module in the ACN cabinet (see Plans for quantities). Mount on DIN rail as shown on Plans. 24VDC power is obtained from the 24VDC power supply and web I/O controller through the ribbon expansion cable. See D-3 for ACN cabinet work. This will be paid under Pay Item 684-8-4.

iii. Other Miscellaneous Components. Provide the following:

- One (1) Controlbyweb X-600M-I Expansion Cable (EXPCBL-6) for ACN cabinets.
- One (1) Controlbyweb 24VDC DIN-rail mounted Power Supply (PN. 2902992) or approved equivalent.
- 3 Allen-Bradley 1492-J10 IEC Bus Terminal Blocks or approved equivalent, for each DMS cabinet.
- 2 Allen-Bradley 1492-SPM1B050 5A Circuit Breakers and one (1) Allen-Bradley 1492-SPM1B020 2A Circuit Breaker or approved equivalent, for each DMS cabinet.
- One (1) Allen-Bradley 1492-SPM1B020 2A Circuit Breaker or approved equivalent, for ACN cabinets.

iv. These components will be considered incidental to the web relay pay items.

v. Coordinate with THEA's PLC Consultant to configure and program the PLC / web relay equipment. Allow for a minimum of eight (8) weeks to configure the Web Relay equipment.

vi. Coordinate with THEA's Network Integrator for network connectivity.

f. **Cellular Routers**

i. Furnish and install fourteen (14) Pepwave MAX BR1 Mini Industrial-grade 4G-LTE cellular routers (for temporary communications, see construction sequencing in this document for further requirements) or approved equivalent, located at the DMS cabinets and ACN cabinets.

ii. Provide dual SIM cards compatible with existing THEA's Verizon Access Point Name (APN).

iii. Coordinate with THEA's Network Integrator to configure the Cellular Routers. Allow for a minimum of eight (8) weeks to configure the cellular routers.

iv. Provide all mounting hardware, power adaptors, and CAT-6 cables, as required.

v. Cellular routers will be paid for under Pay Item 684-9-1.

g. **Category-6 Patch Cable Requirements**

i. Provide Cat-6 patch cables meeting the following minimum requirements:

- DMS Cabinets: Provide one (1) patch cable for the following:
    - DMS controller to Layer 2 switch.
    - X-410 Web controller to switch.
    - Cellular router to switch.
- ACN Cabinets: Provide one (1) patch cable for the following:
    - PLC controller to Layer 3 switch.
    - X-600M-I Web controller to switch.
    - Cellular router to switch.
- Compliant with ANSI/TIA-568-C.2 Cat-6 standard and UL 444.
- Factory made with factory installed connectors, field assembled patch cords are not permitted.
- Provide error-free performance up to 1 Gigabit Ethernet, full duplex.
- Consist of eight insulated 22 to 24 AWG, solid copper conductors with polyolefin insulation, and arranged in four color-coded twisted pairs.
- Equipped with modular 8-position plugs on both ends, wired straight through with standards compliant wiring.

- Use modular RJ-45 male push-pull connectors with 8-position non-keyed and eight gold anodized pins.
- Provide with, or without, color strain, relief boots providing snag proof design. Meet the flex test requirements of 1,000 cycles with boots and 100 cycles without boots.
- Provide connectors that ACN accept a minimum of 2,500 plug insertions without degradation of electrical or mechanical performance.
- Color will be yellow for Cat-6 UTP patch cables or as approved by the THEA.
- Be third-party ETL verified to ANSI/TIA-568-C.2 Cat-6 operations.
- Utilize cable that is UL verified.

ii. Connect the network devices with Cat-6 patch cables using the minimum length required plus one (1) additional foot of slack.

iii. All patch cables must be incidental to the hardware being installed.

c. **Network Equipment Configuration**

i. Coordinate and work with THEA's Network Integrator to set-up, configure and test Pepwave cellular routers (for temporary communications) or approved equivalents at the DMS cabinets as shown on the Plans.

- The cellular routers with dual SIM card(s) must be configured according to THEA security protocols and requirements.
- Propose placement of the cellular router equipment in the DMS cabinets to THEA for review and approval.
- Coordinate and work with THEA's Network Integrator to set-up and configure the cellular routers with THEA's back-end system.

ii. Coordinate and work with THEA's PLC consultant to set-up and configure Controlbyweb web-controlled relays or approved equivalents at the DMS cabinets and ACN cabinets as shown on the Plans.

- Propose final placement of the web relay equipment in the cabinets to THEA for review and approval. If any existing equipment is to be relocated in any of the cabinets, a proposed drawing must be developed and approved by THEA prior to moving equipment.

iii. Coordinate and work with THEA's Network Integrator to set-up and configure the Layer 3 network switches in the ACN cabinets and the Layer 2 switches in the DMS cabinets as shown on the Plans.

- Propose final placement of the network equipment in the cabinets to THEA for review and approval. If any existing equipment is to be relocated in any of the

cabinets, a proposed drawing must be developed and approved by THEA prior to moving equipment.

d. **Pre-Installation Testing**

i. Demonstrate and test the cellular communications and the proposed web-controlled relay solution using a laptop (DMS controller) to establish connection with the THEA's TMC network via the THEA firewall to the same switch as the FLIR server.

- Coordinate and work with THEA's Network Integrator to establish cellular communications from the TMC to field sites to establish the capability to manually control DMS open/close messages over the cellular communications.
- Perform a test to demonstrate manual DMS open/close message control from the TMC as well as ACN LOI panel control from the ACN over the cellular communications link using a web-controlled relay.
- Coordinate and work with FLIR and THEA's PLC Consultant and Network Integrator for testing.

e. **Construction Sequencing**

Once Pre-Construction and Network Equipment Configuration activities are completed and approved and Temporary DMS communications has been successfully tested the approved Switchover Plan will commence.

i. Implement the MOT Plan, as required.

ii. Install cellular routers and web relay devices in cabinets as shown on the Plans. Coordinate any power outages required in each cabinet with THEA prior to an outage.

iii. Establish temporary cellular TMC to DMS connection and demonstrate the ability to select DMS controller messages. Temporary communications will be established for one (1) ACN and associated DMSs at one time while fiber infrastructure is being installed.

iv. <u>Once temporary DMS cellular network communications are operational then proceed with the following construction sequencing.</u>

1. Remove existing FPP and network switch in ACN cabinet.
2. Install new fiber patch panels in DMS and ACN cabinets.
3. Install new network switches in ACN and DMS cabinets. Existing DMS cabinet DCIO will remain.
4. Replace and/or install new fiber splice enclosures as called out on Plans.
5. Remove existing DMS copper signal wire (command and monitoring) in existing conduit. As indicated in the Switchover Plan the Contractor has the option to install new fiber in the existing conduit without initially removing the existing DMS copper signal wiring. However, once fiber is installed all existing copper cables (for signs) must be removed. Great care must be exercised to avoid damage to any existing cables to remain and new fiber cables to be installed.
6. Pull new fiber distribution (72 strand) and drop cables (12/24 strand). The design intent is to pull new fiber cable through existing conduit to the extent possible.

7. Splice and terminate per the ITS Plan splice and termination details.
8. Test the installed fiber plant. All fiber optic cables must be tested and approved by THEA before cutover to fiber DMS communications commences. See testing requirements herein.
9. Re-wire / disconnect copper wiring for DMS control and monitoring, as required. Configure & wire existing 24VDC relays and Web Relay devices for DMS message control and communications as shown in Sheets D-5 and D-6 for wiring details.
10. Furnish and install all patch cables (CAT-6 and fiber patch) for the devices in the cabinets as shown on the Plan details.
11. Cutover to fiber and perform end-to-end systems testing from the TMC to the ACN and associated DMSs including both manual (via the LOI) and automatic control (via the PLC and TMC).
    - Contractor to coordinate testing schedule with THEA.
    - Coordinate with FLIR and THEA's PLC Consultant and Network Integrator for all testing and integration.
    - See testing requirements herein.
12. Once the testing is successfully completed, verified, and approved by THEA, relocate the cellular routers to the next segment / corridor (sign ring) and repeat the sequence (iv / 1 to 11) for the next ACN and DMS

7. TESTING REQUIREMENTS

a. General Testing

i. Develop and submit a comprehensive Test Plan with Procedures including pass and fail criteria, and test results form for each test as part of the submittal process.
   - The test procedures must provide tests to verify and demonstrate full compliance with the ITS Plans, Details, minimum requirements, and device functionality as specified herein.
   - Coordinate the development of the Test Plan and procedures with FLIR, THEA's PLC Consultant, THEA's Network Integrator and device manufacturer(s).
   - No testing will be allowed until the Test Plan and procedures are submitted for review and approved by the THEA.
   - Provide a written schedule for testing activities as specified herein.

ii. Provide MOT during all testing activities, as required.

iii. Provide and maintain all test equipment and software, made ready for use by the Contractor or the THEA.

iv. Conduct all tests in the presence of the THEA, unless otherwise approved in writing by the THEA.
   - The THEA reserves the right to waive the right to witness certain tests. Neither witnessing the tests by the THEA, nor the waiving of the right to do so, must

relieve the Contractor of the responsibility to comply with the Project requirements.

v. Submit a test report for all tests performed within 15 calendar days after the completion of the respective tests for review and approval by the THEA including all test results with pass/fail criteria and test objectives.

vi. Replace or repair and retest all equipment and components that failed testing at no additional cost to the THEA.

vii. Time extensions for replacement, repair, and retesting, even if the manufacturer or other cause beyond the Contractor's control caused the failure, will not be granted.

b. **Fiber Communications Infrastructure Testing**

i. Perform fiber testing per FDOT Standard Specifications Section 633 and industry standards.

ii. Perform visual inspections and testing on each fiber optic cable delivered to the job site prior to any de-spooling or installation of the fiber optic cable. Notify the THEA of any visual abrasions, cuts, defects, or other observed physical abnormalities.

iii. Perform OTDR bi-directional fiber testing and document end-to-end fiber tests (cabinet FPP to cabinet FPP). Testing shall be performed on all fiber strands and buffers.

iv. Use a factory launch and receive cable ("fiber launch box") for fiber testing. Indicate the length of the launch cable in test reports.

v. Document and submit all test results to the THEA within 15 calendar days after the completion of the tests for review and approval by the THEA.

vi. Replace and re-test any materials which fail fiber communications testing.

vii. All fiber test results must be reviewed and approved by the THEA prior to cable installation.

viii. Provide electronic PDF fiber test reports for review and approval by THEA.

c. **Stand-Alone Testing (SAT)**

i. Before connection to the network, the Contractor must provide stand-alone (start-up and diagnostic) testing for network switches, web relays and temporary cellular routers installed on this Project at each cabinet as described herein.

- Device boot-up / power-up and run built-in self-diagnostic tests.
- Conduct visual inspection of device to confirm presence of all components, wiring and features specified by the Contract specifications and otherwise customarily provided by the manufacturer.
- Contractor to coordinate and work with THEA's Network Integrator in the configuration and integration of the Layer 2 and Layer 3 network switches and subsequent testing of the installed switches and DMS device rings.

- Run diagnostics on each field network switch to ensure that the switches are configured and connected properly and there are no bad ports or cables in the configuration prior to performing network system level tests.

ii. Test the web relays and network switches integrated with the PLC, DMS controller, and I/O devices.

- Coordinate with THEA, FLIR and THEA's PLC Consultant to coordinate and perform these tests. These tests must be successfully conducted and approved by THEA prior to construction activities and going "live."
- Testing must demonstrate the capability to change and store DMS messages in the DMS controller and monitor DMS status messages.
- Testing must demonstrate the selection of stored DMS messages for both PLC automated control of I/O devices and local manual control of I/O devices using the LOI panel.

d. **Conditional System Acceptance Testing**

i. Perform Conditional System Acceptance Testing to demonstrate that PLCs operations and DMSs are functional and operational through the communications network from the THEA TMC.

ii. Prior to testing, coordinate with THEA's Network Integrator to demonstrate that every network device is accessible and present on the network by pinging, probing by SNMP or equivalent status queries, logged into, and connected to by any other methods as needed, to demonstrate that the network devices are functional, contain the proper base programming data, and is in the proper location.

- Tests must be conducted for each DMS device network ring (subnet), which is typically a group of DMS field sites connected to a fiber pair ring between ACN Layer 3 distribution switches and the THEA TMC Core Switch as shown on the ITS Plans.
- Furnish test equipment and software necessary to perform the tests.

iii. Coordinate and work with THEA, FLIR, and THEA's PLC Consultant and Network Integrator in testing the fiber network, web relays, DMS communications and support for PLC operational and functional tests.

- Tests shall demonstrate that DMS signs ACN be remotely controlled and monitored from the THEA TMC, and from the ACN and DMS cabinet.
- Verification that other REL subsystems are fully operational including gates, etc.

iv. Document and submit all test results to the THEA within 15 calendar days after the completion of the tests for review and approval by the THEA.

8. **TRAINING REQUIREMENTS**

   a. Provide training for remote DMS operations including changing and storing DMS messages.

   b. All training conducted will be considered incidental.

9. **OPERATIONAL SUPPORT SUPPLIES**

   a. Provide a manufacturer recommended spare parts list with the following information provided as a minimum:

      i. Contact information for the closest parts stocking location to the THEA.

      ii. Critical spare parts must be identified as those parts being associated with long lead times and/or those being critical to the THEA's operation.

      iii. Maintenance spares must be identified as being those parts required to regularly perform scheduled maintenance on all furnished equipment.

         - These spares must include, but must not be limited to, consumable spares that are required to be exchanged during scheduled maintenance periods.
         - Spare parts must be provided for each type and size of unit installed.

      iv. Provide a minimum of five (5) Web Relay devices (for each model / kind) installed.

   b. Spare parts must be properly marked and packaged for long-term storage.

   c. Spare parts will be included and paid for under the appropriate pay item number.

[END OF SCOPE OF WORK A]

SCOPE OF WORK & MINIMUM REQUIREMENTS B:
EAST SELMON WRONG WAY DRIVING COUNTERMEASURES

The general Scope of Work consists of, but is not limited to: Providing all the labor, equipment, materials, tools, transportation, supplies, insurance, incidentals, mobilization, demobilization and maintenance of traffic necessary to construct the Wrong Way Driving Vehicle Detection Systems (WWVDS) for the following exit ramps on the Selmon Expressway (SR 618):

- Reversible Express Lane (REL) Exit at Meridian Avenue
- Selmon Expressway EB Exit Ramp at 21st/22nd Street
- Selmon Expressway WB Exit Ramp at 21st/22nd Street
- Selmon Expressway EB Exit Ramp at 50th Street
- Selmon Expressway WB Exit Ramp at 50th Street
- Selmon Expressway WB Exit Ramp at 78th Street
- Reversible Express Lane (REL) Slip Ramp (North of Palm River Rd)
- Reversible Express Lane (REL) Slip Ramp (South of Palm River Rd)
- Selmon Expressway EB Exit Ramp at US 301
- Selmon Expressway WB Exit Ramp at US 301
- Selmon Expressway EB Exit Ramp at Falkenburg Road
- Selmon Expressway Brandon Entry

Deployment includes WWVDS Rectangular Flashing Beacon (RFB) countermeasure sites and In-Pavement Lighting for all sites list above except for Slip Ramps which will receive only In-Pavement Lighting. The WWVDS also includes the construction and installation of fiber optic cable, electrical power service, pull boxes, ITS cabinets, managed field Ethernet switches, UPS, electrical power service and other supporting infrastructure as defined in the plans and Technical Special Provisions. The Contractor shall be responsible for the installation and testing in accordance with the plans and specifications.

1.02 The following materials are anticipated:

See project plans dated 01/05/2024 and Bid Tabulation Form.

1.03 All work is to be performed in accordance with the latest edition of the Florida Department of Transportation (FDOT), Standard Specifications for Road and Bridge Construction, the project plans, and the Technical Special Provisions.

1.04 Maintenance of Traffic to be performed by “MOT certified” staff in accordance with the latest edition of the Florida Department of Transportation (FDOT), Standard Specifications for Road and Bridge Construction.

1.05 Work to be performed as per the TCP PLAN in the project plans. No two ramps in the same direction can be closed at the same time.

1.06 The Contractor is to take any and all precautions to protect the vehicular traffic and any appurtenances during all phases of construction. All claims for damage due to the activities of the Contractor and/or its sub-contractors will be the responsibility of the Contractor.

1.07 The Contractor shall coordinate with the Authority and its toll facility contractor (Transcore) to minimize interruptions to the tolling equipment during construction operations. In addition, the Contractor shall be responsible for liquidated damages for failure to complete the work necessary to allow the Authority to re-

establish tolling mechanisms within the Contractor's Maintenance of Traffic Plan.

2. SUBMITTALS

2.01 Submit the following in accordance with shop drawing submittal requirements of the General Provisions.

2.01.01.02 Maintenance of Traffic Plan. The Contractor shall prepare and submit to the Authority a Maintenance of Traffic Plan in accordance with the most recent edition of the Florida Department of Transportation (FDOT), Standard Plans for Road Construction Section.

2.01.02 Manufacturer's spec sheets for (including but not limited to):

- Fiber optic cable
- Vehicle Detection System – Wrong Way For Exit Ramp
- ITS Cabinet
- Managed Field Ethernet Switch
- Multi-conductor communications cable
- HDPE Conduit
- Pull and Splice Boxes
- Junction Boxes
- Uninterruptible Power Supply
- Load Center
- Thermoplastic
- Highlighted Sign
- Mid-block Crosswalk; In Roadway Light Assembly

3. CONTRACT DRAWINGS AND SPECIFICATIONS PACKAGE

3.01 Construction drawings have been prepared for this project. Provided drawings may not be reflective of all existing conditions. Should disagreements between the drawings, specifications and/or general conditions or existing field conditions be uncovered, said disagreements shall be promptly brought to the attention of the Authority.

3.01.01 Construction Drawings

3.01.01. East Selmon Wrong Way Driving Countermeasures.pdf dated 01/05/2024.

3.02 Drawings, Diagrams, Reports and Photographs are provided for reference of existing conditions as illustrative and not inclusive of all existing conditions and not intended to limit or take the place of an examination of existing conditions by the Contractor.

3.02.01 Drawings

3.02.01. None

3.02.02 Diagrams of Existing Conditions

3.02.02 None

3.02.03 Inspection Reports
3.02.03 None

3.02.04 Photographs
3.02.04 None

3.03 Specifications Package
3.03.01 Specifications Package

3.03.01 East_Selmon_WWD_SpecsPkg.pdf

[END OF SCOPE OF WORK B]

ADDITIONAL LANGUAGE APPLICABLE TO BOTH SCOPES:

III. MINIMUM REQUIREMENTS

a. **ITS Plans**

Control System and DMS Fiber Communications Upgrades ITS Plans, 1/12/2024.
THEA Wrong Way Driving Countermeasures, 1/5/2024.

b. **FDOT Standard Specifications for Road and Bridge Construction (Division II & III)**, Special Provisions and Supplemental Specifications herein after, referred to as FDOT Standard Specifications, latest edition, are incorporated by reference, and can be found at the following website:

http://www.fdot.gov/programmanagement/implemented/specbooks

i. SECTION 101 MOBILIZATION
ii. SECTION 102 MAINTENANCE OF TRAFFIC
iii. SECTION 611 ACCEPTANCE PROCEDURES FOR TRAFFIC CONROL AND ITS DEVICES
iv. SECTION 620 GROUNDING AND LIGHTNING PROTECTION
v. SECTION 630 CONDUIT
vi. SECTION 633 COMMUNICATIONS CABLING
vii. SECTION 635 PULL, SPLICE AND JUNCTION BOXES
viii. SECTION 684 NETWORK DEVICES

c. **FDOT Standard Drawings**, Latest edition, are incorporated by reference and can be found at the following website:

https://www.fdot.gov/design/standardplans/current/

i. INDEX 102 MAINTENANCE OF TRAFFIC
ii. INDEX 630-001 CONDUIT INSTALLATION DETAILS
iii. INDEX 635-001 PULL & SPLICE BOX DETAILS

d. **FDOT Design Manual (2024 FDM)**

http://www.fdot.gov/roadway/FDM/

2. **OTHER DOCUMENTS AND INFORMATION**

The following resource information is available. They are not incorporated into and are not a part of the ITB, the contract documents or any other document that is connected or related to this project except as otherwise specifically stated herein. All information contained in these reference documents / files must be field verified.

a. ***THEA ACN Wiring Diagrams***, Transdyn, May 2005 (see Attachment 2). Note that this wiring diagram is generic and not site specific. It represents the largest complement of each type of access control

field equipment in the REL system.

b. **THEA ITS kmz file** (latest available)

Upon request, the contractor will be, provided with view-only access to THEA's ArcGIS instance of digital GPS-based as-built information included below. This system as-built information (see below) was recently completed and has 1-meter positional accuracy.

Coordinate with THEA to gain access to this resource a minimum of two (2) weeks prior to the need to gain access to this database.

i. Conduit (size, location, number of cables)
ii. Cables (type – fiber and non-fiber media (e.g., twisted pair, coax, etc.)
iii. Fiber Optic pull boxes (cable and equipment attributes, splice inventory and terminations)
iv. Fiber Optic vault details and attributes
v. Communications equipment and site attributes
vi. Cabinets and housings
vii. Devices (CCTV cameras, DMSs, barrier gates, warning gates, etc.)

MEASUREMENT AND PAYMENT

a. Pay Items.

i. All work will be paid per the most recent FDOT BoE.

ii. All labor, vehicles, equipment, materials, insurance, project management, supervision and administrative costs are included in the associated pay items.

b. Refer to Bid Tabulation Form to provide unit prices for each bid item.

c. Incidental work.

i. All other work for this project will be considered incidental to the above pay items and will not be paid separately. This includes but is not limited to work covered under the below FDOT specification sections:

- SECTION 104: PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION
- SECTION 107: LITTER REMOVAL AND MOWING
- SECTION 120: EXCAVATION AND EMBANKMENT
- SECTION 400: CONCRETE STRUCTURES
- SECTION 620: GROUNDING & LIGHTNING PROTECTION

Construction Outside of Authorized Limits: No measurement nor payment will be made for surfaces constructed over a greater area than authorized, nor for material moved, removed or damaged from outside of the street or

highway right-of-way nor from areas outside of the lines shown on the plans except where such work is done upon prior written approval of the Authority.

Items Included in Payments: The Contractor shall accept the compensation provided in the contract as full payment for furnishing all materials and for performing all work contemplated and embraced under the contract; also for all loss or damage arising out of the nature of the work or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its final acceptance; also for all other costs incurred under the General Conditions, Special Conditions or other Sections of these Contract Documents.

For any item of work contained in the Proposal, except as might be specifically provided otherwise in the basis of payment clause of the item, the contract unit price (or lump sum price) for the pay item or items shall include all labor, equipment, materials tools and incidentals required for the complete item of work, including all requirements of the Section specifying such item or work, except as specifically excluded from payments.

WARRANTY REQUIREMENTS

a. Materials and equipment must have a manufacturer's warranty (usual and customary) covering defects in assembly, fabrication, and materials.

b. Warranty work must include all activities required by the Contractor, manufacturer, or the party designated by the manufacturer including maintenance, removal, and replacement of parts and materials during the period of support.

c. Any material found to be in nonconformance must be repaired or replaced without cost to the THEA, the THEA's designee, or maintaining agency, including all incidentals to the repair or replacement of the product.

d. Warranty periods must begin on the date of issuance of the Project Final Acceptance by the THEA.

e. The manufacturers' warranties must be continuous throughout the period and are fully transferable from the Contractor to the THEA.

FINAL ACCEPTANCE / PROJECT CLOSE-OUT PROCESS

a. The Project will not be eligible for Final Acceptance until the Contractor has reached Substantial Completion and until successful completion of all testing.

   Substantial Completion is defined for this Project as 100 percent of all fiber has been installed, spliced, terminated, and tested; new pull boxes have installed; any new conduits have been installed; designated equipment and materials have been removed and discarded; and all new web relay devices, network devices and re-wiring work has been completed and fully tested, functional and operational.

b. Final Acceptance must include successful completion, and approval, by the THEA of the following:

   i. All Project submittal documentation, including test reports, have been submitted and approved by the THEA.

   ii. Punch-list items have been completed.

iii. All final cleanup requirements have been completed and field conditions restored to their original condition.

iv. Final Inspection has been conducted and all associated punch list items have been addressed to the satisfaction of the THEA.

- Request in writing the THEA's approval to start the final inspection a minimum of 15 calendar days prior to the requested start date.
- Field inspection and verify that all devices and components are in their correct final configuration and labeled.
  - Fiber terminations at the Fiber Patch Panel
  - Network equipment
  - Web relays connections and wiring
  - Patch cable connections
  - Labeling and site documentation
- Repeat final inspection upon an unsuccessful or incomplete final inspection after the Contractor has made the necessary corrections. Fifteen (15) calendar days must be allowed for the THEA to conduct a final inspection.
- The THEA reserves the right to request, at no additional expense to the THEA, the attendance of a qualified technical representative for the equipment and/or software to attend the final inspection.

c. Warranties.

i. Ensure that all warranties are in place and transferred to the THEA as specified herein. All warranty documentation has been provided to the THEA.

d. Training.

i. Ensure that all training services have been successfully completed as specified herein.

e. Operational Support Supplies

i. Delivery of spare parts / extra stock as specified herein and approved by the THEA.

As-Built Plans and Documentation.

i. Provide detailed redlines of project ITS Plans of all constructed equipment and infrastructure including fiber routing, pull boxes, splicing, cabinet revisions/modifications including any items moved or relocated, etc. As-built plans will be considered incidental to other pay items.

ii. Document the work using FDOT ITSFM forms to allow for THEA's ArcGIS as-built database to be updated (by Others) to reflect this project. This work will be paid under Pay Item 611-1-1 and 611-2-2.

GENERAL REQUIREMENTS AND INFORMATION

a. Provide all labor, equipment, materials, tools, transportation, supplies, insurance, incidentals, mobilization, demobilization, and maintenance of traffic necessary as required and specified in the contract documents.

b. Length of Contract: Work performance duration is a maximum of **365 calendar days.** This includes active work only (at the time the Contractor starts work), and not material acquisition/procurement and fabrication.

c. All existing infrastructure, equipment and conditions must be field verified as to the character, quality, and quantity of work to be performed and materials to be furnished in the performance of the construction work.

d. All necessary precautions must be taken during construction activities to avoid damage to the existing THEA system infrastructure and equipment, minimize THEA network downtime and protect the vehicular and pedestrian traffic and any appurtenant structures during all phases of construction.

   i. It should be noted that downtime is for the Operations Network. The Tolls Network (the blue buffer tube) must not have any scheduled downtime. The time window for scheduled THEA operations network downtime must only begin after 2:00 PM and be completed by 4:00 AM unless otherwise approved by the Authority. Liquidated damages will be assessed if not back online as specified herein.

   ii. Any claims for damage due to the activities of the Contractor and/or its subcontractors will be the responsibility of the Contractor and all damage will be repaired within 24 hours at no cost to the Authority.

   iii. Any damage to existing infrastructure that is intended to be salvaged and re-used shall be repaired or replaced by the Contractor as determined by the Authority.

e. All work sites must be maintained in a clean and safe condition. At the end of each workday, all sites must be verified to be free of debris and materials. Underground work will be covered if possible. If underground work sites must be left open, the Contractor must use caution tape to clearly identify hazardous areas or an approved method to prevent injury to motorists and pedestrians. Any open ground or equipment in a travel way or clear zone must be protected by approved barriers and in compliance with FDOT MOT / temporary traffic control (TTC) standards.

f. Utilize FDOT Approved Products List (APL) and Qualified Products List (QPL) unless otherwise described herein or specified in the ITS Plans.

4. **INDUSTRY STANDARDS AND GUIDELINES**

Meet the current edition of the following list of specific standards and guidelines that are to be utilized in the furnishing, installation, and testing for this Project. The list includes industry standards, FDOT design standards, specifications, and manuals, as required and applicable. This list is representative only and is not meant to be all encompassing.

a. FDOT Standard Specifications and Details

b. Manual on Uniform Traffic Control Devices (MUTCD)

c. International Standards Organization (ISO) standards

d. National Electrical Code (NEC)

e. Underwriters' Laboratories (UL)

EXECUTION

8. **LABELING AND CABLE MANAGEMENT REQUIREMENTS**

   a. Fiber optic cabling (distribution and drops), cabinet FPPs, patch cables, and equipment (MFESs, web relays) must be clearly labeled. All cables must be organized and secured, using cable management components as approved by the THEA.

   b. Labeling must be permanent, secure, and durable, long-lasting, and resistant to UV, extreme temperatures, solvents, chemicals, and moisture as required per label location.

   c. Labels and labeling must comply with TIA/EIA-606-A and UL 969 and as approved by the THEA.

   d. Labeling will be considered incidental to other pay items.

9. **SUBMITTAL PROCESS**

   a. Submittal Requirements:

      i. Organize each package of submittal data by pay item and include materials and components that are required for a given pay item into a single package.

      ii. Clearly denote on the cut-sheets what is specifically being proposed. If multiple models/part numbers are contained on a submitted cut-sheet or brochure, clearly denote (mark) on the cut-sheet/brochure which model/part number(s) is being proposed.

      iii. Clearly identify in the submittals any deviations from the Contract requirements and specifications. Provide a detailed description of the deviation with the reason for the change. The THEA reserves the right to reject any variation or change for any reason.

      iv. All submittals will be considered incidental unless otherwise noted.

   b. Manufacturer Product Cut-sheets.

      Submit to the Authority for approval prior to procurement the following material cutsheets:

      i. Fiber optic cable (distribution and drop) – 12-str, 24-str and 72-str.

      ii. Fiber pull boxes – 24" x 36" x 30."

      ii. Conduit, as needed, per FDOT requirements.

      iii. Splice enclosures including splice trays and rack mounting hardware.

      iv. Fiber patch panels and connector panels, rack and wall mounted.

      v. Layer 3 switches.

      vi. Network equipment mounting hardware.

      vii. Web Relay and cellular communications equipment.

   c. MOT Plan.

i. Prepare and submit to the Authority a MOT Plan that is signed and sealed by a Professional Engineer whenever a deviation is anticipated from the most recent edition of the FDOT Standard Plans, Index 102.

ii. MOT will be paid under Pay Item 102-1.

d. Drawings.

i. Prepare and submit any shop drawings for any items of Work not fully detailed in the ITS Plans which require additional drawing(s) and coordination prior to construction.

e. Installation Plan.

i. Provide a plan that describes the Contractor's approach to meeting the requirements of this project including conduit proofing, replacement of pull boxes, replacement of splice enclosures, re-splicing and termination work called out, location and configuration of proposed fiber splices including butt-end splice locations, removal of existing copper cables and other components as called out in the plans and this ITB document, installation of fiber optic cables and testing.

f. Test Plan.

i. Provide a test plan with procedures developed in conjunction with the manufacturer(s) for pre-installation tests, stand-alone tests, and acceptance tests as specified herein.

ii. See testing requirements herein.

g. Test Report Documentation.

i. Provide test report documentation as specified herein.

h. Construction Schedule.

i. Develop and submit a construction schedule to THEA for review and approval four (4) weeks prior to any construction activities.

h. As-Built Plans and Documentation.

iii. Provide detailed redlines of project ITS Plans of all constructed equipment and infrastructure including fiber routing, pull boxes, splicing, cabinet revisions/modifications including any items moved or relocated, etc. As-built plans will be considered incidental to other pay items.

iv. Document the work using FDOT ITSFM forms to allow for THEA's ArcGIS as-built database to be updated (by Others) to reflect this project. This work will be paid under Pay Item 611-1-1 and 611-2-2.

10. **CONSTRUCTION EXECUTION**

a. Work Sequence

i. The project schedule must commence from the Notice to Proceed (NTP) date being Day One.

b. Issue Escalation

i. In the event issues arise during the execution of the work, the issue escalation and resolution will be processed as detailed herein. All issues shall be directed to THEA's CEI Project Manager (to be determined). The Contractor must provide all supporting documentation

relative to the issue being escalated, and any documentation not provided in the initial contact with THEA's CEI Project Manager.

ii. If the issue is cannot be resolved by the CEI in coordination with the General Engineering Consultant (GEC) representing THEA as applicable, the GEC representing THEA will forward the issue to THEA's Director of Operations and Engineering who will coordinate with the GEC representing THEA and CEI, as applicable.

iii. Each escalation level will have a maximum of five (5) calendar days (excluding weekends and THEA observed holidays) to answer, resolve, or address the issue. The five (5) calendar day period begins when each level in the issue escalation process has received all required supporting documentation necessary to arrive at an informed and complete decision. The five (5) calendar day period is a response time and does not infer resolution.

iv. Questions asked by THEA may be expressed verbally and followed up in writing within one (1) calendar day (excluding weekends and THEA observed holidays). Responses provided by the Contractor may be expressed verbally and followed up in writing within one (1) working day.

v. Once a response is received from the Director of Operations and Engineering, the CEI will respond to the Contractor in a timely manner but not to exceed three (3) calendar days (excluding weekends and THEA observed holidays).

f. **Pre-Construction / Infrastructure Preparation Activities**

i. Develop and submit a Construction Schedule to THEA for review and approval prior to any construction activities.

ii. Complete a field review / investigation, conduit proofing and review of digital as-built information.

- Provide redlines of the ITS Plans to reflect the field investigation, verification and review of field conditions and pay item quantities and notify the Authority of any deviations or disagreements found in the ITS Plans and drawings, the ITB requirements and/or general conditions or existing field conditions. The red-lined ITS Plans shall be submitted to THEA for review and approval prior to construction activities.
- Submit a proposed plan for conduit proofing to THEA for review and approval prior to proofing.
- Prepare and submit a field report documenting the findings of the field review/investigation and conduit proofing to THEA for review and approval. The report shall include a plan to:

1. Remove pull boxes as shown on the Plans and replace them with new larger fiber pull boxes.
2. Repair any damaged conduit and/or pull boxes (per Contractor field review and conduit proofing) following THEA approvals and any permitting that may be required.

iii. Perform repairs of any damaged infrastructure and installation of any new conduit and/or pull boxes, as required, or needed.

iv. Prepare and submit MOT Plan for review and approval prior to construction activities.

v. Prepare and submit a Switchover Construction Plan clearly laying out a plan to transition and migrate DMS control and monitoring from copper to fiber.

- The Plan must be reviewed and approved by THEA prior to the commencement of any construction activities.
- Schedule only one (1) ACN and segment (DMS ring) to be switched over at one time.
- The Plan must include the sequence of construction, configuration, integration, and testing to minimize network downtime, minimize risks and maximize safety.
- Include a detailed description on the proposed plan to remove existing DMS copper signal wiring (command and monitoring) in existing conduit without damaging other cables in the conduit. Contractor has the option to install new fiber in existing conduit without the removal of existing copper signal wiring. If this option is taken provide a detailed description of how this would be accomplished to avoid damage during installation to the new fiber cable and any existing cables that are to remain.
- The Plan must include a description of the installation of proposed equipment including the web relays, temporary cellular routers, configuration and integration of network equipment, integration with the existing PLC, LOI as well as existing 24VDC relays in the ACN and DMS cabinets. All DMSs must be communicating via the temporary cellular communications medium prior to the start of fiber installation and removal of control and monitoring signal copper wire.

vi. Coordinate network downtime with Judith Villegas of THEA and the THEA Systems Network Integrator, a minimum of two (2) weeks in advance of a scheduled THEA ITS network shutdown or system interruption.

Judith Villegas
Tampa Hillsborough County Expressway Authority
1104 East Twiggs Street
Tampa, Florida 33602
C: 813.440.7930
Judith.Villegas@tampa-xway.com

- The time window for scheduled THEA operations network downtime must only begin after 2:00 PM and be completed by 4:00 AM unless otherwise approved by the Authority. The tolls network (the blue buffer tube) must not have any downtime.
- Restore, a minimum of one (1) hour prior to the window ending, the network to a fully functional and operational network.
- Refer to MOT requirements specified herein.

11. **MAINTENANCE OF TRAFFIC (MOT) / TEMPORARY TRAFFIC CONTROL (TTC)**

a. MOT/TTC must be provided by the Contractor during all set-up and takedown activities and work activities. MOT to be performed by "MOT certified" staff in accordance with the latest edition of the Florida Department of Transportation (FDOT), Standard Specifications for Road and Bridge Construction, Section 102, Maintenance of Traffic.

b. All existing vehicular and pedestrian travel patterns for the Selmon Expressway and Brandon Parkway must be maintained at all times.

c. Lane closures must only be permitted during the following off-peak hours and must accommodate daily reversal operations.

   i. Selmon Express local lanes and ramps: 9:00 AM- 3:00 PM and 7:00 PM to 5:00 AM

   ii. Reversible Expressway lanes and ramps: 9:00 AM- 3:00 PM and 7:00 PM to 5:00 AM

   iii. Reversal Operations: M-F 5:30 AM, 9:30 AM, 12:30 PM

d. Coordination with the Authority is required to ensure compliance with any special event or holiday schedules that may be in effect during the period of performance.

e. The Contractor will be responsible for liquidated damages for failure to complete the work necessary to allow reopening of lane closures within the Contractor's MOT Plan.

f. Liquidated Damages: A damage recovery/user cost will be assessed against the Contractor if all lanes are not open to traffic during the times as shown in the Traffic Control Plans. Costs will be assessed beginning at the appropriate time as shown in the Traffic Control Plans and continue until all lanes are open as recorded by the THEA. This assessment will be in the following amounts:

   i. First 30 minutes and under: $15,000.00.

   ii. Each additional 30-minute period or portion thereof: $2,500.00.

   iii. Such costs will not exceed $25,000.00 over a 24-hour period.

   iv. At the discretion of the THEA, damage recovery/user cost will not be assessed for failure to open traffic lanes if such cause is beyond the control of the Contractor, i.e., catastrophic events, accidents not related or caused by the Contractor's operations.

EXHIBIT B

PUBLIC ENTITY CRIMES FORM

SWORN STATEMENT UNDER SECTION 287.133(3)(a), FLORIDA STATUTES

1. This sworn statement is submitted to Tampa-Hillsborough County Expressway Authority

by _____
[print individual's name and title]

for _____
[print name of entity submitting sworn statement]

whose business address is _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____

(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____.)

2. I understand that a "public entity crime" as defined in a Paragraph 287.133(1)(g), Florida Statutes**,** means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjunction of guilt in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that an "affiliate" as defined in Paragraph 287.133 (1)(a), Florida Statutes, means:

   i. A predecessor or successor of a person convicted of a public entity crime; or

   ii. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of the affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of

goods or services let by a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on the information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. **[indicate with a check mark which statement applies.]**

____ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent of July 1, 1989.

____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent of July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. **[attach a copy of the final order]**

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

_____
Signature

_____
Date

State of _____

County of _____

PERSONNALLY APPEARED BEFORE ME, the undersigned authority,

_____ who, after first being sworn by me, affixed his/her signature in
[Name of individual signing]

the space provided above on this _____ day of _____, 20____.

_____ My commission expires: _____
Notary Public

EXHIBIT B

[Notary Seal]

EXHIBIT C

DRUG-FREE WORKPLACE FORM

The undersigned firm, in accordance with Florida Status 287.087 hereby certifies that

_____ does:
Name of Business

1. Publish a statement of notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.

3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in Paragraph 1.

4. In the statement specified in paragraph 1, notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employees will abide by the terms of a statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Florida Statute 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.

5. Impose a sanction of, or require the satisfactory participation in a drug abuse assistance or rehabilitation program is such is available in the employee's community, by any employee who is convicted.

6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs 1 thru 5.

As the person authorized to sign this statement, I certify that this firm complies with the above requirements.

_____
Firm's Signature

_____
Date

EXHIBIT D

PRICE PROPOSAL FORM

(Print this page on bidder's letterhead and attach with response)

Date: _____

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY (THEA)
Attention: Procurement Department
Shannon Bush, Contracts and Procurement Manager
1104 East Twiggs Street, Suite 300
Tampa, FL 33602

Subject: _____

Dear THEA:

Having carefully examined the Instructions to Bidders, Supplementary Instructions to Bidders, General Provisions, Supplementary General Provisions, Special Provisions and Technical Specifications, Plans or Drawings (if issued), of the above subject project and contract, as well as the premises and the conditions affecting the work, the undersigned proposes to furnish all labor and materials called for by them and equipment necessary and to accomplish the entire work within the time period indicated in accordance with the said documents for the prices presented in the price schedules included on the attached BID TABULATION SHEET.

The undersigned acknowledges that they understand the following conditions that within the price schedules amounts indicated with brackets around the amounts are considered to be deductions or credits to the overall project cost. Calculations of price schedule extensions and price totals shall appropriately account for individual deductive and additive pay items.

TOTAL LUMP SUM PRICE: $_____

WRITTEN AMOUNT:

_____ DOLLARS AND _____ CENTS

The undersigned firm agrees to keep this offer open for acceptance for One Hundred Twenty (120) days after date of opening the bid proposal package.

The signer of this bid proposal package hereby declares that the only person, persons, company or parties interested in this bid proposal package as principals are named herein, that this bid proposal package is made without connection with any other person, persons, company or parties submitting a proposal; and that it is in all respects fair and in good faith, without collusion or fraud.

_____
Name of Respondent

_____ _____
Authorized Signature **Date**

EXHIBIT E

CONFLICT OF INTEREST STATEMENT

Check one of the boxes below:

☐ To the best of our knowledge, the undersigned bidder has no potential conflict of interest due to any other clients, contracts, or property interest for this solicitation and project.

OR

☐ The undersigned bidder, by attachment to this form, submits information which **may** be a potential conflict of interest due to other clients, contracts or property interest for this solicitation and project.

BIDDER:

By: _____
Authorized Signature

_____
Printed Name of Signer

_____
Title of Signer

_____
Date Signed

EXHIBIT F

EXPERIENCE AND REFERENCES

3.0 Experience:

3.0.1. State the total work volume and value that your organization has been responsible for in the past five years in:

a. Total Dollar value _____

b. Number of Contracts _____

3.0.2. List the dollar volume and number of government projects you have completed in the past 5 years:

a. Dollar Value _____

b. Number of government projects _____

3.1 Provide the following information on at least three (3) projects that Bidder has performed within the past five (5) years that were similar to this project. List chronologically, starting with the last project. Complete a new questionnaire for each representative project.

EXHIBIT F

3.2.1 Project Title: _____

a. Date Project Completed: _____

b. Project Name: _____

c. Owner Name: _____

d. Owner Address: _____

e. Owner Telephone: _____

f. Name of Reference for this Project: _____

g. Relationship of Reference to Owner: _____

h. Title and Position Reference held for this Project: _____

_____

i. Firm name where Reference was employed for this Project: _____

_____

j. Reference's Telephone: _____

k. Dollar Amount: _____

l. List any other special criteria i.e. specialized repair or equipment, etc. worked: _____

_____

m. Describe Your Specific Scope of Work: _____

_____

n. General Contract Amount: _____

o. Your Participation was: _____

p. Completion Date: _____

q. Was Project completed on time? _____

r. Was Project completed within budget? _____

- If not, explain: _____

s. Penalties imposed? (Yes or No; if Yes, explain) _____

_____

t. Any liens, claims, or lawsuits? (Yes or No, if Yes, explain): _____

_____

u. If a D/W/MBE or Small Business Enterprise (SBE) percentage goal was required, indicate what the goal was and what success did your firm have in achieving the goal. _____

_____

v. Provide names and phone numbers of the D/W/MBE or SBE firms used on the project: _____

_____

w. Any other pertinent information? _____

[Use additional sheets as necessary]

EXHIBIT F

3.2.2 Project Title: _____

a. Date Project Completed: _____

b. Project Name: _____

c. Owner Name: _____

d. Owner Address: _____

e. Owner Telephone: _____

f. Name of Reference for this Project: _____

g. Relationship of Reference to Owner: _____

h. Title and Position Reference held for this Project: _____

_____

i. Firm name where Reference was employed for this Project: _____

_____

j. Reference's Telephone: _____

k. Dollar Amount: _____

l. List any other special criteria i.e. specialized repair or equipment, etc. worked: _____

_____

m. Describe Your Specific Scope of Work: _____

_____

n. General Contract Amount: _____

o. Your Participation was: _____

p. Completion Date: _____

q. Was Project completed on time? _____

r. Was Project completed within budget? _____

a. If not, explain: _____

s. Penalties imposed? (Yes or No; if Yes, explain) _____

_____

t. Any liens, claims, or lawsuits? (Yes or No, if Yes, explain): _____

_____

u. If a D/W/MBE or Small Business Enterprise (SBE) percentage goal was required, indicate what the goal was and what success your firm have in achieving the goal. _____

_____

v. Provide names and phone numbers of the D/W/MBE or SBE firms used on the project: _____

_____

w. Any other pertinent information? _____

[Use additional sheets as necessary]

EXHIBIT F

3.2.3 Project Title: _____

a. Date Project Completed: _____

b. Project Name: _____

c. Owner Name: _____

d. Owner Address: _____

e. Owner Telephone: _____

f. Name of Reference for this Project: _____

g. Relationship of Reference to Owner: _____

h. Title and Position Reference held for this Project: _____

_____

i. Firm name where Reference was employed for this Project: _____

_____

j. Reference's Telephone: _____

k. Dollar Amount: _____

l. List any other special criteria i.e. specialized repair or equipment, etc. worked: _____

_____

m. Describe Your Specific Scope of Work: _____

_____

n. General Contract Amount: _____

o. Your Participation was: _____

p. Completion Date: _____

q. Was Project completed on time? _____

r. Was Project completed within budget? _____

a. If not, explain: _____

s. Penalties imposed? (Yes or No; if Yes, explain) _____

_____

t. Any liens, claims, or lawsuits? (Yes or No, if Yes, explain): _____

_____

u. If a D/W/MBE or Small Business Enterprise (SBE) percentage goal was required, indicate what the goal was and what success did your firm have in achieving the goal. _____

_____

_____

v. Provide names and phone numbers of the D/W/MBE or SBE firms used on the project: _____

_____

w. Any other pertinent information? _____

[Use additional sheets as necessary]

EXHIBIT G

INSURANCE REQUIREMENTS, COVERAGES and LIMITS
for
Tampa-Hillsborough County Expressway Authority

Consultants, Contractors and Vendors, hereinafter referred to collectively and individually as "Insured" conducting business with the Tampa-Hillsborough County Expressway, "THEA" are required to maintain adequate insurance coverage and provide insurance certification to THEA.

A. INSURANCE REQUIREMENTS:

1) All insurance shall be from responsible insurance companies eligible to do business in the State of Florida and having an AM Best rating of A- or better and a financial size category of VII or better. Utilization of non-rated companies or companies with AM Best ratings lower than A- or a financial size category lower than VII may be approved on a case by case basis. If the insurer does not meet these requirements, THEA retains the right to approve or disapprove the use of the insurer.

2) INSURED'S liability policies, other than the Workers' Compensation and Professional Liability, shall provide that THEA, its officials, officers and employees are additional named insureds as to the operations of the INSURED under this AGREEMENT.

3) INSURED'S liability policies, other than the Workers' Compensation and Professional Liability, shall provide the "Severability of Interest" provision (a/k/a "Separation of Insureds" provision).

4) The INSURED'S Certificate of Insurance(s) shall provide THEA as an additional certificate holder for all policies issued.

5) The INSURED'S Certificate of Insurance(s) shall state the description of the operations, i.e., "Name of Agreement" between THEA and "Name of Insured" and shall state the Contract Number assigned for the AGREEMENT between THEA and the INSURED.

6) The INSURED shall deliver to THEA, within ten (10) days from the receipt of a Notice of Award of this AGREEMENT, properly executed Certificate(s) of Insurance on insurance industry standard certificate of insurance form(s) (example: ACORD form) setting forth the insurance coverages and limits required herein. All of the required insurance coverages shall be issued as required by law and shall be endorsed, where necessary, to comply with the minimum requirements contained herein.

7) Except as otherwise specified in the AGREEMENT, the insurance will commence on or prior to the effective date of the AGREEMENT and will be maintained in force throughout the duration of the AGREEMENT. Three years' completed operations coverage may be required to be maintained on specific commercial general liability policies and/or professional liability policies effective on the date of substantial completion or the termination of the AGREEMENT, whichever is earlier.

8) Aggregate Policy Limits on policies required of INSURED shall apply exclusively for this AGREEMENT.

9) INSURED authorizes THEA to verify its insurance information with its insurance agents, brokers, surety, and insurance carriers. At THEA'S request, INSURED shall provide copies of the policies at no cost to THEA, subject to redaction by the INSURED of any proprietary information.

10) All insurance coverages of the INSURED shall be primary to any insurance or self-insurance programs carried by THEA; and any THEA insurance or coverages shall not be contributory to INSURED'S insurance requirements in this AGREEMENT.

11) The insurance coverages and limits required of the INSURED under this AGREEMENT are designed to meet the minimum requirements of THEA. They are not designed as a recommended insurance program for the INSURED. The INSURED alone shall be responsible for the sufficiency of its own insurance program.

12) All policies of insurance required herein will be specifically endorsed to require the insurer provide THEA with thirty (30) days notice prior to any cancellation, intent not to renew any policy and/or any change that will reduce the insurance coverages required in this AGREEMENT, except for the application of the Aggregate Limits Provisions.

The endorsement will specify that such notice will be sent to:

Tampa-Hillsborough County Expressway, (THEA)
Contracts & Procurement Manager
1104 East Twiggs St, Suite 300
Tampa, FL 33602

13) THEA accepts no responsibility for determining whether the INSURED'S insurance is in full compliance with the insurance required by the AGREEMENT. Neither the approval by THEA nor the failure to disapprove the insurance furnished by the INSURED will relieve the INSURED of their full responsibility to provide the insurance required by this AGREEMENT.

14) If the INSURED fails to provide or maintain the insurance coverages required in this AGREEMENT, THEA may terminate or suspend this AGREEMENT, or, at the THEA'S sole discretion, may obtain such coverages and invoice the INSURED and include a 15% administrative cost. If not paid within 45 days, the amount will be deducted from INSURED'S invoice. The decision of THEA to purchase such insurance coverages shall in no way be construed as a waiver of its rights under this AGREEMENT.

15) INSURED shall fully comply with the insurance requirements of this AGREEMENT unless excused in writing by THEA. Any deductible applicable to any claim shall be the responsibility of the INSURED.

16) Any liability insurance aggregate limits are to be confirmed in writing by the respective insurance company that to their knowledge, as of the date of the AGREEMENT, there are no pending claims or legal actions against the INSURED, which if resolved in favor of the claimant would impair the insurance company's ability to cover the minimum insurance limits stated herein.

17) Current Insurance Service Office (ISO) policies, forms, and endorsements or broader shall be used where applicable. Notwithstanding the foregoing, the wording of all policies, forms, and endorsements must be acceptable to THEA without restrictive endorsement.

18) The INSURED will not commence work, use or occupy THEA premises in connection with the AGREEMENT until the required insurance is in force, preliminary evidence of insurance acceptable to THEA has been provided to THEA and THEA has granted permission to the INSURED to commence work or use or occupy the premises in connection with the AGREEMENT.

19) Upon request, the INSURED shall promptly make available a certified, true and exact copy of the insurance policy and endorsements issued to the policy and any renewal thereof for THEA'S review and inspection. In the event of cancellation or non-renewal of this insurance, the INSURED agrees to purchase the maximum "extended claims reporting period" permitted under the policy within the time allowed, unless replacement coverage is obtained with retroactive coverage applicable as of the date the INSURED services started under this AGREEMENT.

20) All insurance minimum coverage limits extend to any subcontractor and the Prime INSURED is responsible for all subcontractors.

B. INSURANCE COVERAGES and LIMITS:

For the term of this AGREEMENT the INSURED shall procure and maintain insurances of the types and limits specified herein.

1) **Workers' Compensation and Employers' Liability Insurance** - The minimum limits of Worker's Compensation/Employer's Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) are:

Workers' Compensation	Florida Statutory Requirements
Employers' Liability	
Each Accident	$500,000
Disease – Policy Limit	$500,000
Disease - Each Employee	$500,000

2) **Commercial General Liability Insurance -** The minimum limits of Commercial General Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) are:

General Aggregate	$1,000,000
Per Person	$1,000,000
Each Occurrence	$2,000,000
Personal Injury	$1,000,000
Property Damage	$1,000,000
Products & Completed Operations	$1,000,000

The General Aggregate Limit must be specifically applicable to the AGREEMENT between THEA and the INSURED.

The Certificate must reflect whether the policy is "claims made" or "occurrence".

Products & Completed Operations coverage to be maintained for three (3) years after final completion of the work under this AGREEMENT.

3) **Business Automobile Liability Insurance -** The minimum limits of Business Automobile Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) covering ownership, maintenance, use, loading and unloading of all its owned, non-owned, leased or hired vehicles are:

Bodily Injury	
Each Person	$1,000,000
Each Accident	$1,000,000
Property Damage	$1,000,000
Bodily Injury & Property Damage Combined	$1,000,000

4) **Umbrella Liability Insurance or Excess Liability Insurance –** Umbrella Liability Insurance or Excess Liability Insurance must provide the same coverages as required for the underlying Commercial General, Business Automobile and Employers' Liability Coverages with no gaps in continuity of coverages or limits.

Bodily Injury & Property Damage Combined	
Each Occurrence	$2,000,000
Aggregate (specific to this AGREEMENT)	$2,000,000
Aggregate (not specific to this AGREEMENT)	$1,000,000

5) **Professional Liability Insurance, also known as "Errors and Omissions".** The minimum limits of Professional Liability Insurance covering all work of the INSURED without any exclusions unless approved in writing by THEA are:

Professional Liability	
Each Claim	$1,000,000
Aggregate	$1,000,000

Any deductible applicable to any claim shall be the responsibility of the INSURED and shall not be greater than $100,000 unless approved by THEA in writing. This coverage shall be maintained by the INSURED for a period of not less than three (3) years from the date the INSURED has completed and THEA has accepted the services under this AGREEMENT.

6) **Environmental Impairment (Pollution) Liability, (if required)** – Environmental Impairment (Pollution) Liability insurance is required **only** if specifically stated in the Instructions and Submittal Documents package.

If required, the minimum limits of Environmental Impairment (Pollution) Liability insurance coverage (inclusive of any amount provided by an umbrella or excess policy) for liability resulting from pollution or other environmental impairment in connection with operations performed by or on behalf of INSURED under this AGREEMENT or the use or occupancy of THEA premises by or on behalf of the INSURED are:

Each Occurrence	$1,000,000
Annual Aggregate	$1,000,000

[END OF INSURANCE REQUIREMENTS, COVERAGES AND LIMITS]

EXHIBIT H

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____

(Here In after called the "Principal") and _____

(Hereinafter called the "Surety"), a Corporation chartered and existing under the laws of the State of _____with its principal offices in the City of _____
and authorized to do business in the State of Florida are held firmly bound unto the Tampa-Hillsborough County Expressway Authority, in the full and just sum of _____Dollars ($_____) good and lawful money of the United States of America, to be paid upon demand of the Tampa-Hillsborough County Expressway Authority, to which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, and assigns, jointly and severally by these presents.

WHEREAS, the Principal is about to submit, or has submitted to the Tampa-Hillsborough County Expressway Authority, a proposal for the
_____

WHEREAS, the Principal desires to file this bond in accordance with law, in lieu of a certified check or cashier's check otherwise required to accompany this Proposal.

"NOW, THEREFORE: The conditions of this obligation are such that if the Proposal is accepted, the Principal shall, within ten (10) days after the date of receipt of a written notice of Award of Contract, execute a contract in accordance with the Proposal and upon the terms, conditions and prices set forth therein in the form and manner required by the Tampa-Hillsborough County Expressway Authority and execute a sufficient and satisfactory Public Construction Bond, payable to the Tampa-Hillsborough County Expressway Authority and deliver documents which are condition to commencing the work... ". then this obligation to be void; otherwise to be and remain In full force and virtue in law; and the Surety shall, upon failure within the time specified above, immediately pay to the aforesaid Expressway Authority upon Demand the amount thereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

IN TESTIMONY THEREOF, the Principal and Surety have caused these presents to be duly signed and Sealed this_____day of 20____.

_____
Principal

(Seal) BY: _____

_____
Surety

(Seal) BY: _____

_____
Countersigned

EXHIBIT H

CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER

TO: TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY
RE: REQUEST FOR PROPOSALS NO. _____; PROJECT: _____
_____
BIDDER: Name: _____
Address: _____
Telephone: _____

AMOUNT OF BOND: _____
SURETY BOND INSURER
Name: _____
Address: _____
Telephone: _____

Before me, the undersigned authority, personally appeared, _____ on this _____ day of _____, 20___ who hereby certifies that, in accordance with Section 287.0935, Florida Statutes, the insurer named above:

1. Is licensed to do business in the State of Florida;
2. Holds a certificate of authority authorizing it to write surety bonds in Florida;
3. Has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is Issued;
4. Is otherwise in compliance with the provisions of the Florida Insurance Code; and
5. Holds a currently valid certificate of authority issued by the United States Department of the Treasury under Section 9304-9308 of Title 31 of the United States Code.

_____
Signature of Officer of Surety Insure

STATE OF: _____

COUNTY OF: _____
THE FOREGOING INSTRUMENT was sworn to, subscribed and acknowledged before me this _____ day of _____, 20____ by who is personally known to me or _____ has produced _____ as identification and did take an oath.

(Notary, check appropriate blank; and if obtaining identification, fill in appropriate identification number.)

_____
Notary Public

_____
(Printed Name of Notary)

My Commission Expires:

_____
Serial Number, if any)

EXHIBIT I

For Clerk of the Court
Recording Purposes
Return to: Contracts Manager
Tampa Hillsborough Expressway Authority
1104 East Twiggs St., Suite 300
Tampa, FL 33602
BOND NO: _____

PERFORMANCE BOND

BY THIS BOND, We, _____, a _____ corporation, as **Principal**, and _____, a _____ corporation, as **Surety**, located at _____are bound to the **TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY**, herein called **Owner**, in the sum of $_____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated _____, 20____ between Principal and Owner for construction of the _____ at the Tampa-Hillsborough County Expressway Authority, Request for Proposals (RFP) Contract No. _____, at the times and in the manner prescribed in the contract, the contract being made a part of this bond by reference, and

2. Pays Owner all loss, damages including delay damages, including but not limited to liquidated damages, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and

3. Performs the guarantee of all work and materials furnished under the Contract for the time specified in the Contract for construction and any applicable warranty period, then this bond is void; otherwise it remains in full force.

The Surety, for value received, agrees that any changes, extensions of time, or additions to the Terms of the Contract Documents, and neither compliance nor noncompliance with any formalities connected with the contract or the changes shall not affect Surety's obligation under this bond. Surety hereby waives notice of any such changes.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

EXHIBIT I

DATED ON:_____, 20_____.

Name of Principal (Contractor):	Name of Surety:
_____	_____
By: _____	By: _____ Attorney in Fact
Name: _____	Name:_____
Title: _____	Title: _____
Address: _____ _____	Address:_____ _____
Telephone No._____	Telephone No._____
Fax No. _____	Fax No. _____

(Attach "Certificate & Affidavit Form Surety Bond Insurer" and
"Power of Attorney" from Surety)

STATE OF _____ :
:
COUNTY OF _____ :

THE FOREGOING INSTRUMENT was acknowledged before me this _____ day of _____, 20_____ by _____, who ____ is personally known to me or ____ has produced _____ as identification and did not take an oath. [Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.]

My Commission Expires:

_____
Notary Public

_____
(Printed Name of Notary)

_____
(Serial Number, if any)

This form complies with
Section 255.05, Florida Statutes

EXHIBIT I

CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER

TO: TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY (THEA)

RE: _____

PROPOSER:
Name: _____

Address: _____
_____

Telephone: _____

AMOUNT OF BOND: _____

SURETY BOND INSURER:
Name: _____

Address: _____
_____

Telephone: _____

Before me, the undersigned authority, personally appeared, _____ on this _____ day of _____ 20____ who hereby certifies that, the insurer named above:

1. Is licensed to do business in the State of Florida;
2. Holds a certificate of authority authorizing it to write surety bonds in Florida;
3. Has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued;
4. Is otherwise in compliance with the provisions of the Florida Insurance Code; and,
5. Holds a currently valid certificate of authority issued by the United States Department of the Treasury under Section 9304 to 9308 of Title 31 of the United States Code.

_____
Signature of Officer of Surety Insurer

STATE OF _____ :
:
COUNTY OF _____ :

THE FOREGOING INSTRUMENT was sworn to, subscribed and acknowledged before me this _____ day of _____, 20____ by _____, who ____ is personally known to me or ____ has produced _____ as identification and did take an oath.

[Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.]_____ _____
Notary Public Printed Name of Notary

My Commission Expires:

_____

(Serial Number, if any)

EXHIBIT I

For Clerk of the Court
Recording Purposes
Return to: Contracts Manager
Tampa Hillsborough Expressway Authority
1104 East Twiggs St., Suite 300
Tampa, FL 33602
BOND NO: _____

PAYMENT BOND

BY THIS BOND, We, _____, a _____ corporation, as **Principal**, and _____, a _____ corporation, as **Surety**, located at _____are bound to the **TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY**, herein called **Owner**, in the sum of $_____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Promptly makes payment to all claimants, as defined in Section 233.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract dated _____, 20 _____ between Principal and Owner for construction of _____ (RFP No. _____), the Contract being made a part of this bond by reference; and

2. Pays Owner all loss, damages expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract related to payment for such labor, materials, or supplies furnished to the Principal, then this bond is void; otherwise it remains in full force.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

Certain claimants seeking the protection of this Bond must timely comply with the strict requirements set forth in Section 255.05, Florida Statutes, and as otherwise provided by law.

EXHIBIT I

DATED ON:_____, 20_____.

Name of Principal (Contractor):	Name of Surety:
_____	_____
By: _____	By: _____ Attorney in Fact
Name: _____	Name:_____
Title: _____	Title: _____
Address: _____ _____	Address:_____ _____
Telephone No._____	Telephone No._____
Fax No. _____	Fax No. _____

(Attach "Certificate & Affidavit Form Surety Bond Insurer" and
"Power of Attorney" from Surety)

STATE OF _____ :
:
COUNTY OF _____ :

THE FOREGOING INSTRUMENT was acknowledged before me this _____ day of _____, 20_____ by _____, who ____ is personally known to me or ____ has produced _____ as identification and did not take an oath. [Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.]

My Commission Expires:

_____
Notary Public

_____
(Printed Name of Notary)

_____
(Serial Number, if any)

This form complies with
Section 255.05, Florida Statutes

EXHIBIT I

CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER

TO: TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY (THEA)

RE: _____

PROPOSER:
Name: _____

Address: _____
_____

Telephone: _____

AMOUNT OF BOND: _____

SURETY BOND INSURER:
Name: _____

Address: _____
_____

Telephone: _____

Before me, the undersigned authority, personally appeared, _____ on this _____ day of _____ 20____ who hereby certifies that, the insurer named above:

1. Is licensed to do business in the State of Florida;
2. Holds a certificate of authority authorizing it to write surety bonds in Florida;
3. Has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued;
4. Is otherwise in compliance with the provisions of the Florida Insurance Code; and,
5. Holds a currently valid certificate of authority issued by the United States Department of the Treasury under Section 9304 to 9308 of Title 31 of the United States Code.

_____
Signature of Officer of Surety Insurer

STATE OF _____ :
:
COUNTY OF _____ :

THE FOREGOING INSTRUMENT was sworn to, subscribed and acknowledged before me this _____ day of _____, 20____ by _____, who ____ is personally known to me or ____ has produced _____ as identification and did take an oath.

[Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.]_____ _____
Notary Public Printed Name of Notary

My Commission Expires:

_____

(Serial Number, if any)

EXHIBIT J

CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS

This certification is required pursuant to Florida Statute, Section 287.135.

A company that, at the time of bidding or submitting a proposal for a new contract or renewal of an existing contract, is on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, Iran Terrorism Sectors List, or is engaged in business operations in Cuba or Syria, is ineligible for, and may **not** bid on, submit a proposal for, or enter into or renew a contract with an agency or local government entity for goods or services of $1 million or more.

Respondent / Bidder
Name:_____

Respondent /Bidder FID or EIN:

_____

Address: _____

City: _____ State: _____ Zip: _____

I hereby warrant that I am duly authorized to sign and bind on behalf of the company listed above as the "Respondent/Bidder".

I hereby certify and affirm that the company listed above as the "Respondent/Bidder" is not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, Iran Terrorism Sectors List, created pursuant to Florida Statute Section 215.473, or engaged in business operations in Cuba or Syria.

I understand pursuant to Florida Statute, Section 287.135, the submission of a false certification may subject the Respondent/Bidder to civil penalties, attorney's fees and/or costs.

RESPONDENT/BIDDER:

By: _____
(Authorized Signature)

_____
(Printed Name of Signer)

_____
(Title of Signer)

_____
(Date Signed)