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

February 10, 2012
District Procurement Office
District One

ADDENDUM NUMBER SEVEN

PROJECT DESCRIPTION: I-75 Freeway Management System in Sarasota and Manatee Counties
FINANCIAL PROJECT NO.: 414730-1-52-01, 414732-1-52-01 & 414736-1-52-01
COUNTY: Sarasota and Manatee Counties
CONTRACT NO.: E1J73

Per the Oral Interviews, the RFP and MTR's are being revised to show the conduit placement and route markers will be 8' and 10' from the limited access right of way line.

Request for Proposal	Page No.	
	2	I Introduction, A. Design/Build Responsibility, second paragraph, revised the second sentence to read as follows: The Design/Build Firm shall install the conduit trunkline eight (8) feet from the **limited access** right-of-way except in areas where utilizing a bridge mount conduit.
Minimum Technical Requirements	Page No.	
	46	Section 7.0 Fiber Optic Communication Infrastructure, 7.1 1 Conduit: revised the last sentence of paragraph one to read as follows; These conduits shall be installed eight feet inside **the limited access right-of-way line**. Fiber optic cable markers shall be placed ten feet inside the **limited access** right-of-way line and adjacent to each pull box and splice box.
	48	Section 7.0 Fiber Optic Communication Infrastructure, 7.2 Design Requirements: revised the third sentence of paragraph one to read as follows: The fiber optic trunk cable shall be placed at 8 feet from the existing limited access right of way **line.**

Attached is the Request for Proposal (dated 2/7/2012), Attachment A, Minimum Technical Requirements (dated 2/7/2012), a revised Attachment "D" – Division One Design Build Specifications (revising the Wage Rates), and a revised Bid Price Proposal Package.

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

Felipe Alvarez

Felipe Alvarez

Design Build Administrator

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

_____ _____
Signature Date

_____
Company Name

Florida Department of Transportation
District One

DESIGN/BUILD
REQUEST FOR PROPOSAL

For

I-75 Freeway Management System
Sarasota and Manatee Counties
and Satellite Traffic Management Center

Financial Projects Number(s):
414730-1-52-01, 414732-1-52-01 & 414736-1-52-01
Federal Aid Project Number(s): 0756-116
Contract Number: E1J73

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ATTACHMENTS

ATTACHMENT "A" – ITS Minimum Technical Requirements (MTRs)
ATTACHMENT "B" – Conceptual Device Layout
ATTACHMENT "C" – SunGuide® Implementation Plan for FDOT Sarasota/Manatee County Satellite TMC Integration Project
ATTACHMENT "D" – Division I Design/Build Specifications
ATTACHMENT "E" - Form FHWA 1273

The attachments listed in the table of contents are by this reference hereby incorporated into and made a part of this RFP as though fully set forth herein.

I. Introduction.

The Florida Department of Transportation (Department) has issued this Request for Proposal (RFP) to solicit competitive bids and proposals from Proposers to design, procure, install, integrate, and test an Intelligent Transportation System (ITS) and subsystems along the I-75 corridor in Sarasota and Manatee counties.

Description of Work

The FPN Numbers description of work and limits are as follows:

- FPID 414730-1-52-01, I-75 in Sarasota County from Charlotte County Line to Manatee County Line, design and construct a Freeway Management System

- FPID 414732-1-52-01, I-75 in Manatee County from Sarasota County Line to I-275, Manatee County, design and construct a Freeway Management System

- FPID 414736-1-52-01, Integrate the Freeway Management System installed under FPID 414730-1-52-01 and 414732-1-52-01 with the RTMC in Lee County and the Sarasota/Manatee County Satellite Transportation Management Center (STMC) in Manatee County

The Department seeks a Design/Build Firm to design, install, and integrate Freeway Management System (FMS) field elements, including closed-circuit television (CCTV) cameras, dynamic message signs (DMS), road weather information systems (RWIS), highway advisory radio (HAR), non-intrusive microwave vehicle detectors, an emergency generator back-up system and fiber optics communications cable and transmission equipment along approximately 56 miles of I-75 starting just north of the Charlotte/Sarasota County Line near Mile Marker 172 and ending at the I-275 interchange in Manatee County near Mile Marker 228. Also included with this project is the integration of the FMS field elements into the Sarasota/Manatee County Satellite Transportation Management Center (STMC) in Manatee County and into the Southwest Interagency Facility for Transportation (SWIFT) SunGuide® Regional Transportation Management Center (RTMC) in Lee County. Upgrades include incorporating additional video feeds into the video wall currently in operation at the SWIFT Center and installation of a new video wall at the STMC facility.

The FMS shall operate out of the STMC as a remote workstation of the SWIFT Center with a redundant backup system that mirrors the SWIFT Center network room setup.

The project work includes the furnishing, installing, integration and testing of elements listed below:

- ITS field elements – CCTV cameras, non-intrusive microwave vehicle detectors, DMS, RWIS, HAR transmitters, and HAR beacons.

- A 96-strand single-mode fiber optic backbone cable extending the full length of the project, including communications equipment for interfacing the ITS field elements with the existing RTMC and the STMC.

- Emergency generator back-up system consisting of generators, transfer switches, transformers, cabinets, security locks, real-time monitory system and all other ancillary equipment.

Failure to provide the equipment described above or to meet the minimum requirements outlined in this RFP and accompanying attachments shall provide cause to disqualify a Proposer. The minimum functional and technical requirements for the design, procurement, installation, integration and testing of the various project elements are included in Section VI, Design and Construction Criteria, and Attachment A, ITS Minimum Technical Requirements (MTRs) document.

The ITS field devices such as the CCTV cameras, DMS, HAR, detectors, and RWIS sensors to be procured must be on the Approved Products List (APL) prior to installation in the field, and the protocol used by the devices to be controlled by the SunGuide® software is to be compliant with the protocols listed in the Devices Supported by SunGuide® Software document, which is available online at http://sunguide.datasys.swri.edu/. The Design/Build Firm may propose alternate ITS equipment; however, the Design/Build Firm shall be responsible for shepherding those devices not on the APL through the process so the devices are on the APL at the time of installation.

The Design/Build Firm shall be responsible for all costs incurred in developing any new device drivers with the protocols listed in the Devices Supported by SunGuide® Software document, which is available online at http://sunguide.datasys.swri.edu/. The development of any new device drivers shall be at no additional cost to the Department, and the source code and all documentation for the developed drivers shall become the property of the Department.

The Design/Build Firm shall integrate the individual ITS subsystems (CCTV cameras, DMS, HAR, detectors, and RWIS sensors) with the individual vendor-provided control software such that each of the subsystems shall operate as a stand-alone system. After the completion and acceptance of the individual ITS subsystems, the Design/Build Firm shall integrate the ITS subsystems with the SunGuide® central software. The Design/Build Firm shall integrate the emergency generator back-up system as a subsystem at the SWIFT Center and the Sarasota/Manatee STMC for remotely monitoring the operations of permanent mount generators.

The Design/Build Firm is responsible to identify, provide, and install all of the equipment that is required to for a complete integrated system as defined in this RFP and its attachments. All system auxiliaries and peripheral equipment including, but not limited to, video encoders/decoders, fiber optics transceivers, repeaters, terminal servers, media converters, connectors, cables, testing equipment and software, etc., are considered as part of and are to be included under the individual subsystems.

Attachment B – Conceptual Device Layout provides information about placement of the proposed DMS, HAR transmitters, HAR beacon signs and RWIS. Attachment B shows possible locations for these new devices with respect to existing interstate signage and other interstate features at the time of field review. The Design/Build Firm is responsible for reviewing the existing conditions for final placement of the proposed devices. All directional bores crossing the mainline interstate shall be perpendicular to the travel lanes.

A. Design/Build Responsibility

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

The Design/Build Firm shall install the conduit trunkline eight (8) feet from the limited access right-of-way except in areas where utilizing a bridge mount conduit. The Design/Build Firm is responsible for clearing and grubbing the project as necessary for the installation of the trunkline conduit.

The Design and Construction Criteria (Section VI) sets forth requirements regarding survey, design, construction, maintenance of traffic during construction, requirements relative to project management, scheduling, and coordination with other agencies and entities such as state and local government, utilities, environmental permitting agencies, and the public.

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

The Design/Build Firm shall utilize the U.S. Department of Homeland Security's E-Verify system, in accordance with the terms governing use of the system, to confirm the employment eligibility of all persons employed by the Design/Build Firm during the term of the Contract to perform employment duties within Florida and all persons, including subcontractors, assigned by the Design/Build Firm to perform work pursuant to the contract with the Department.

B. Department Responsibility

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

II. Schedule of Events.

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

Applicable to InfraSource Construction Services, Inc./ Metric Engineering Services, Inc. and Traffic Control Devices, Inc./Kimley-Horn and Associates, Inc. Design Build Teams:

Date	Event
July 18, 2011	Pre-Proposal Meeting at 9:30 a.m., local time, in the Mike Rippe Auditorium, District One Headquarters, 801 North Broadway Avenue, Bartow, FL 33830.
August 10, 2011	Site visits for the Sarasota/Manatee County Satellite Management Center (STMC) and the Southwest Interagency Facility for Transportation (SWIFT) at 9:30 am and 1:30 pm respectively. Limit of three attendees for each Design Build Firm.
September 19, 2011	Final deadline for submission of questions/information
September 27, 2011	Technical Proposals due in District Office by 4:00 p.m. local time

Applicable only to World Fibers Technologies, Inc./Jacobs Engineering Group, Inc. Design Build Team:

Date	Event
October 5, 2011	The Department shall provide copies of Pre-Proposal Meeting recording, handouts, attendance sheets, addendums, and any other supporting documentation that was furnished to the other Design Build Teams.
October 12, 2011	Site visits for the Sarasota/Manatee County Satellite Management Center (STMC) and the Southwest Interagency Facility for Transportation (SWIFT) at 9:30 am and 1:30 pm respectively. Limit of three attendees for each Design Build Firm.
November 9, 2011	Final deadline for submission of questions/information
December 2, 2011	Technical Proposal due in District Office by 4:00 p.m. local time

The following applies to all three (3) short listed Design Build Teams:

February 7, 2012	Question and Answer Session. Times were assigned during the Pre-Proposal Meeting held on July 18, 2011. World Fibers Technologies, Inc./Jacobs Engineering will be given the time slot previously allotted for Telvent USA Corporation. One hour will be allotted for questions and responses.
February 16, 2012	Price Proposals due in District Office by 2:30 p.m., local time.
February 16, 2012	Public announcing of Technical Scores and opening of Price Proposals at 2:30 p.m., local time, in District One Headquarters, 801 North Broadway Avenue, Bartow, FL 33830.
February 21, 2012	Public Meeting of Selection Committee to determine intended Award at 1:00 p.m., local time.
February 21, 2012	Posting of the Department's intended decision to Award (will remain posted for 72 hours)
February 28, 2012	Anticipated Award Date
March 20, 2012	Anticipated Execution Date

III. Threshold Requirements.

A. Qualifications

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

B. Joint Venture Firm

Two or more firms submitting as a Joint Venture must meet the Joint Venture requirements of Section 14-22.007, Florida Administrative Code. Parties to a joint venture must submit a Declaration of Joint

Venture and Power of Attorney Form No. 375-020-18, prior to the deadline for receipt of Letters of Interest.

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

C. Price Proposal Guarantee

A bid guaranty in an amount of not less than five percent of the total bid amount shall accompany each Proposer's Price Proposal. The guaranty may, at the discretion of the Proposer, be in the form of a cashier's check, bank money order, bank draft of any national or state bank, certified check, or surety bond, payable to the Department. The surety on any bid bond shall be a company recognized to execute bid bonds for contracts of the State of Florida. The guaranty shall stand for the Proposer's obligation to timely and properly execute the contract and supply all other submittals due therewith. The amount of the guaranty shall be a liquidated sum, which shall be due in full in the event of default, regardless of the actual damages suffered. The bid guaranty of all Proposers shall be released at such time as the successful Proposer has complied with the condition stated herein, but not prior to that time.

D. Pre-Proposal Meeting

Attendance at the pre-proposal meeting is mandatory and any shortlisted Proposer who fails to attend will be deemed non-responsive and automatically disqualified from further consideration. The purpose of this meeting is to provide a forum for all concerned parties to discuss the proposed project; answer questions on the design and construction criteria, CPM schedule, and method of compensation; provide instructions for submitting proposals; and address other relevant issues. In the event that any discussions or questions at the pre-proposal meeting require, in the Department's opinion, official additions, deletions, or clarifications of the Request for Proposal, the Design and Construction Criteria, or any other document, the Department will issue a written summary of questions and answers or an addendum to this Request for Proposal as the Department determines is appropriate. No oral representations or discussions which take place at the pre-proposal meeting will be binding on the Department. The Federal Highway Administration (FHWA) will be invited on oversight projects in order to discuss the project in detail and to clarify any concerns. Proposers shall direct all questions to the Departments Question and Answer website: http://www2.dot.state.fl.us/construction/bidquestionmain.asp.

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

E. Question and Answer Session

The Department may meet with each Proposer, formally, for a Question and Answer session**.** FHWA shall be invited on FA Oversight Projects. The purpose of the Q & A session is for the Technical Review Committee to seek clarification and ask questions, as it relates to the Technical Proposal, of the Proposer. The **Question and Answer sessions** will occur a minimum of two (2) weeks after the date the Technical Proposal are due, and be part of the Overall Technical Proposal Scoring. The Proposers shall be given a minimum of one (1) week after the **Question and Answer** session to submit their Price Proposal. The

Department **will** terminate the **presentations** promptly at the end of the allotted time. The Department may tape record or videotape all or part of the **presentations.** The **Question and Answer** session will not constitute "discussions" or negotiations. Proposers will not be permitted to ask questions of the Department except to ask the meaning of a clarification question posed by the Department. Within one (1) week of the **Question and Answer** session, the Design/Build Firm shall submit to the Department a written clarification letter summarizing the answers provided during the **Question and Answer** session. The Design/Build Firm shall not include information in the clarification letter which was not discussed during the **Question and Answer** session. In the event the Design/Build Firm includes additional information in the clarification letter which was not discussed during the **Question and Answer** session and is not otherwise included in the Technical Proposal, such additional information will not be considered by the Department during the evaluation of the Technical Proposal. No additional time will be allowed to research answers.

The Department will provide some (not necessarily all) proposed questions to each firm as it relates to their technical proposal approximately 24 hours before the scheduled Question and Answer Session. No supplemental materials, handouts, etc. will be allowed to be presented in the Question and Answer Session.

F. Protest Rights

Any person who is adversely affected by the specifications contained in this Request for Proposal must file a notice of intent to protest in writing within 72 hours of the receipt of this Request for Proposal. The formal written protest shall be filed within 10 days after the date of the notice of protest, if filed. The person filing the Protest must send the notice of intent and the formal written protest to:

Clerk of Agency Proceedings
Department of Transportation
605 Suwannee Street, MS 58, Room 562
Tallahassee, Florida 32399-0458

The formal written protest must state with particularity the facts and law upon which the protest is based be legible on 8 ½ x 11-inch white paper, and contain the following:

1. Name, address, telephone number, and Department identifying number on the Notice, if known, and name, address, and telephone number of a representative, if any; and

2. An explanation of how substantial interest will be affected by the action described in the Request for Proposal; and

3. A statement of when and how the Request for Proposal was received; and

4. A statement of all disputed issues of material fact. If there are none, this must be indicated; and

5. A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle to relief; and

6. A demand for relief; and

7. Conform to all other requirements set out in Florida Statutes (F.S.), Chapter 120 and Florida Administrative Code (F.A.C.), Chapter 28-106, including but not limited to Section 120.57 F.S. and Rules 28-106.301, F.A.C., as may be applicable.

A formal hearing will be held if there are disputed issues of material fact. If a formal hearing is held, this matter will be referred to the Division of Administrative Hearings, where witnesses and evidence may be presented and other witnesses may be cross-examined before an administrative law judge. If there are no disputed issues of material fact, an informal hearing will be held, in which case the person filing the protest will have the right to provide the Department with any written documentation or legal arguments which they wish the Department to consider.

Mediation pursuant to Section 120.573, F.S., may be available if agreed to by all parties, and on such terms as may be agreed upon by all parties. The right to administrative hearing is not affected when mediation does not result in a settlement.

Failure to file a protest within the time prescribed in Section 120.57(3), F.S., shall constitute a waiver of proceedings under Chapter 120, F.S.

G. Non-Responsive Proposals

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

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

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

H. Waiver of Irregularities

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

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

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

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

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

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

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

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

I. Modification or Withdrawal of Proposal

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

J. Department's Responsibilities

This Request for Proposal does not commit the Department to make studies or designs for the preparation of any proposal, nor to procure or contract for any articles or services. Proposers shall examine the Contract Documents and the site of the proposed work carefully before submitting a proposal for the work contemplated and shall investigate the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished and as to the requirements of all Contract Documents. Written notification of differing site conditions discovered during the design or construction phase of the project will be given to the Department's Project Manager.

The Department does not guarantee the details pertaining to borings, as shown on any documents supplied by the Department, to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. Proposers shall examine boring data, where available, and make their own interpretation of the subsoil investigations and other preliminary data, and shall base their bid on their own opinion of the conditions likely to be encountered. The submission of a proposal is prima facie evidence that the Proposer has made an examination as described in this provision.

K. Design/Build Contract

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

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

IV. Disadvantaged Business Enterprise (DBE) Program.

A. DBE Availability Goal Percentage

The Department of Transportation has an overall eight point six percent (8.60%) race-neutral DBE goal. This means that the State's goal is to spend at least 8.60% of the highway dollars with Certified DBE's as prime Design/Build Firms or as subcontractors. Race-neutral means that the Department believes that the 8.60% overall goal can be achieved through the normal competitive procurement process. The Department has reviewed this project and assigned a DBE availability goal shown on the bid blank/contract front page under "% DBE Availability Goal". Although not a contract requirement, the Department believes that this DBE percentage can realistically be achieved on this project based on the number of DBE's associated with the different types of work that will be required.

Under 49 Code of Federal Regulations Part 26, if the 8.60% goal is not achieved, the Department may be required to return to a race-conscious program where goals are imposed on individual contracts. The Department encourages all of our Design/Build Firms to actively pursue obtaining bids and quotes from Certified DBE's.

B. Anticipated DBE Participation Statement

The Department is reporting to the Federal Highway Administration the planned commitments to use DBE's. This information is being collected through the Anticipated DBE Participation Statement. This statement shall be submitted to the District Contract Compliance Manager/ Resident Compliance Officer who will then submit it electronically to the Equal Opportunity Office. Although these statements WILL NOT become a mandatory part of the contract, they will assist the Department in tracking and reporting planned or estimated DBE utilization.

C. Equal Opportunity Reporting System

The Design/Build Firm is required to report monthly, through the Department's Equal Opportunity Reporting System on the Internet at http://www.dot.state.fl.us/equalopportunityoffice/ actual payments, minority status, and the work type of all subcontractors and suppliers. All DBE payments must be reported whether or not the prime initially planned to utilize the company. Each month, the prime must report actual payments to all DBE and MBE subcontractors and suppliers. In order for the race neutral DBE Program to be successful, cooperation is imperative.

D. DBE Supportive Services Providers

The Department has contracted with a consultant, referred to as DBE Supportive Services Provider, to provide managerial and technical assistance to DBEs. This consultant is also required to work with prime

Design/Build Firms, who have been awarded contracts, to assist in identifying DBEs that are available to participate on the project. The successful Design/Build Firm should meet with the DBE Supportive Services Provider to discuss the DBEs that are available to work on this project. The current Provider for the State of Florida is serviced by Blackmon Roberts Group and can be reached at (863) 802-1280 in Lakeland or (305) 777-0231 in Coral Gables.

E. DBE Affirmative Action Plan

A DBE Affirmative Action Plan must be approved and on file with the Equal Opportunity Office prior to award of the contract for each prime Design/Build Firm. Update and resubmit the plan every three years. No Contract will be awarded until the Department approves the plan. The DBE Affirmative Action Plan must be on your company's letterhead, signed by a company official, dated, and contain all elements of an effective DBE Affirmative Action Plan. These Plans should be mailed to:

Florida Department of Transportation
Equal Opportunity Office
605 Suwannee Street, MS 65
Tallahassee, FL 32399-0450

Questions concerning the DBE Affirmative Action Plan may be directed to the Equal Opportunity Office by calling (850) 414-4747.

F. Bidders Opportunity List

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

On the Bidders Opportunity Form, if the answers to numbers 2, 3, 4, or 5 are not known, leave them blank and the Department will complete the information. This information should be returned with the bid package or proposal package or submitted to the Equal Opportunity Office within three days of submission. It can be mailed to the Equal Opportunity Office or faxed to (850) 414-4879.

V. Project Requirements and Provisions for Work.

A. Governing Regulations

The services performed by the Design/Build Firm shall comply with all applicable Manuals and Guidelines including the Department, Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), and additional requirements specified in this document. Except to the extent inconsistent with the specific provisions in this document, the Design/Build Firm shall use the current edition, including updates, of the following Manuals and Guidelines in the performance of this work. Current edition is the edition in place and adopted by the Department at the date of advertisement of this contract with the exception of the Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications, Manual on Uniform Traffic Control Devices (MUTCD), Design Standards and Design Standards Modifications. The Design/Build Firm shall use the edition of the Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications, Design Standards and Design Standard Modifications in effect at the time the bid price proposals are due in the District Office. The Design/Build Firm shall use the 2009 edition of the MUTCD. The Design/Build Firm is responsible to acquire and utilize the necessary manuals and guidelines that apply to

the work required to complete this project. The services will include preparation of all documents necessary to complete the project as described in Section I of this document.

1. Florida Department of Transportation Roadway Plans Preparation Manuals
http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm

2. Florida Department of Transportation Design Standards
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

3. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications
http://www.dot.state.fl.us/specificationsoffice/Default.shtm

4. Florida Department of Transportation Surveying Procedure
http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/550030101.pdf

5. Florida Department of Transportation EFB User Guide (Electronic Field Book)
http://www.dot.state.fl.us/surveyingandmapping/downloads.shtm

6. Florida Department of Transportation Drainage Manual
http://www.dot.state.fl.us/rddesign/dr/Manualsandhandbooks.shtm

7. Florida Department of Transportation Soils and Foundations Handbook
http://www.dot.state.fl.us/structures/Manuals/SFH.pdf

8. Florida Department of Transportation Structures Manual
http://www.dot.state.fl.us/structures/manlib.shtm

9. Florida Department of Transportation Computer Aided Design and Drafting (CADD) Production Criteria Handbook Roadway Standards
http://www.dot.state.fl.us/ecso/downloads/publications/CriteriaHandBook/

10. Florida Department of Transportation Production Criteria Handbook CADD Structures Standards http://www.dot.state.fl.us/ecso/downloads/publications/CriteriaHandBook/

11. Florida Department of Transportation Structures Manual including Temporary Structures Design Bulletins
http://www.dot.state.fl.us/structures/Memos/currentbulletins.shtm

12. Instructions for Structures Related Design Standards
http://www.dot.state.fl.us/structures/IDS/IDSportal.pdf

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

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

15. Safe Mobility For Life Program Policy Statement
http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/000750001.pdf

16. Traffic Engineering and Operations Safe Mobility for Life Program
http://www.dot.state.fl.us/trafficoperations/Operations/SafetyisGolden.shtm

17. American with Disabilities Act
http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/625020015.pdf

18. Florida Highway Landscape Guide
http://www.dot.state.fl.us/emo/beauty/Highway_Main_files/Land_Arch_Main files/Landscape_Guide.pdf

19. Florida Department of Transportation Florida Sampling and Testing Methods
http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/fstm/disclaimer.shtm

20. Florida Department of Transportation Pavement Coring and Evaluation Procedure
http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf

21. Florida Department of Transportation District Design Guidelines
http://www.dot.state.fl.us/rddesign/updates/files/updates.shtm

22. Florida Department of Transportation District Design Memos or Practices Manual (as applicable)
http://www.dot.state.fl.us/ecso/downloads/publications/DistrictOnePractices/default.shtm; password: firstdistrict

23. Florida Department of Transportation Utility Accommodation Manual
http://www.dot.state.fl.us/rddesign/utilities/UAM.shtm

24. AASHTO – Specifications for Highway Bridges
https://bookstore.transportation.org/category_item.aspx?id=BR

25. Florida Department of Transportation Construction Project Administration Manual
http://www.dot.state.fl.us/construction/Manuals/cpam/CPAMManual.shtm

26. Florida Department of Transportation Flexible Pavement Design Manual
http://www.dot.state.fl.us/pavementmanagement/PUBLICATIONS.shtm

27. Florida Department of Transportation Rigid Pavement Design Manual
http://www.dot.state.fl.us/pavementmanagement/PUBLICATIONS.shtm

28. Florida Department of Transportation Pavement Type Section Manual
http://www.dot.state.fl.us/pavementmanagement/PUBLICATIONS.shtm

29. Florida Department of Transportation Right of Way Manual
http://www.dot.state.fl.us/rightofway/Documents.shtm

30. Florida Department of Transportation Intelligent Transportation System Guide Book
http://www.dot.state.fl.us/TrafficOperations/Doc_Library/Doc_Library.shtm

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

32. Florida Department of Transportation Bicycle and Pedestrian Policies and Standards
http://www.dot.state.fl.us/safety/ped_bike/ped_bike_standards.shtm

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

34. Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways
http://www.dot.state.fl.us/rddesign/FloridaGreenbook/FGB.shtm

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

36. Software Requirements Specification (http://sunguide.datasys.swri.edu)

37. Software User Manual (http://sunguide.datasys.swri.edu)

38. Concept of Operation (http://sunguide.datasys.swri.edu)

39. Computer Sizing Estimate (http://sunguide.datasys.swri.edu)

40. Software Design Document (http://sunguide.datasys.swri.edu)

41. Version Description Document (http://sunguide.datasys.swri.edu)

42. Software Integration Plan (http://sunguide.datasys.swri.edu)

43. Software Acceptance Test Plan (http://sunguide.datasys.swri.edu)

44. Software Integration Case Procedures (http://sunguide.datasys.swri.edu)

45. Software Test Plan (http://sunguide.datasys.swri.edu)

B. Innovative Aspects

Identify all innovative aspects separately as such in the Technical Proposal.

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

C. Geotechnical Services

1. General Conditions:

The Design/Build Firm will be responsible for identifying and performing any geotechnical investigation, analysis, and design dictated by the project needs. All geotechnical work necessary shall be performed in accordance with the governing regulations.

The Design/Build Firm shall provide the Department signed and sealed design and construction reports. The reports shall be a record set of all geotechnical information, including relevant support data.

2. Pile Foundations (Not Applicable to this Project)

3. Drilled Shaft Foundations for Bridges and Major Structures

The Design/-Build Firm is responsible for identifying and performing all geotechnical investigation, analysis, and design required for the project in accordance with FDOT guidelines, procedures, and specifications. The Design/-Build Firm shall employ geotechnical and drilled shaft testing consultants with the following minimum qualifications:

- Use professional engineers registered in the State of Florida with at least 3 years of post-registration experience in drilled shaft foundation design and construction. The Geotechnical Foundation Design Engineer of Record must have designed and worked on at least three (3) FDOT bridge projects, including at least one (1) FDOT Structures Design Category 2 bridge project with drilled shaft foundations. This "responsible charge" experience shall include verifiable and successful implementation of static, Osterberg Cell and/or Statnamic load test results, and evaluation of pilot hole data. All designs must be signed and sealed by the Geotechnical Foundation Design Engineer of Record.

- The drilled shaft installation shall be supervised and certified by the Geotechnical Foundation Design Engineer of Record. These services shall include providing CTQP-qualified Drilled Shaft Inspectors in the numbers necessary to comply with Department specifications for recording drilled shaft construction records. Provide drilled shaft construction logs to FDOT within 24 hours of completing the shaft.

- Use drilled shaft superintendents in responsible charge of drilling operations experienced in drilled shaft installation and testing in the State of Florida. This "responsible charge" experience shall include at least three (3) FDOT bridge projects, including at least one (1) FDOT Structures Design Category 2 bridge project with drilled shaft foundations.

The Design/-Build Firm shall submit qualification statements for the geotechnical and non-destructive testing firms to be used on the project for approval by the District Geotechnical Engineer at least 30 calendar days before beginning the design. Acceptance of the Design/-Build Firm's personnel does not relieve the Design/-Build Firm of the responsibility for obtaining the required results in the completed work.

4. Drilled Shaft Foundations for Miscellaneous Structures

The Design-Build Firm is responsible for identifying and performing all geotechnical investigation, analysis, and design required for the project in accordance with FDOT guidelines, procedures, and specifications. The Design-Build Firm shall employ geotechnical and drilled shaft testing consultants with the following minimum qualifications:

- Use professional engineers registered in the State of Florida with at least 3 years of post-registration experience in drilled shaft foundation design and construction.

- The drilled shaft installation shall be supervised and certified by the Geotechnical Foundation Design Engineer of Record. These services shall include providing CTQP-qualified Drilled Shaft Inspectors in the numbers necessary to comply with Department specifications for recording drilled shaft construction records. Provide drilled shaft construction logs to FDOT within 24 hours of completing the shaft.

- Use drilled shaft superintendents in responsible charge of drilling operations experienced in drilled shaft installation and testing in the State of Florida. This "responsible charge" experience shall include at least three (3) FDOT projects with drilled shaft foundations of similar size.

D. Environmental Permits

1. Storm Water and Surface Water:

Plans shall be prepared in accordance with Chapter 62-25, Regulation of Storm water Discharge, Florida Administrative Code.

2. Permits:

All applicable data shall be prepared in accordance with Chapter 373 and 403, Florida Statutes, Chapters 40 and 62, Florida Administrative Code; Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and parts 114 and 115, Title 33, Code of Federal Regulations. In addition to these Federal and State permitting requirements, any dredge and fill permitting required by local agencies shall be prepared in accordance with their specific regulations. Acquisition of all applicable permits will be the responsibility of the Design/Build Firm. Preparation of complete permit packages will be the responsibility of the Design/Build Firm. The Design/Build Firm will obtain permits while acting as an authorized representative for the "Department" for permitting purposes only. If any agency rejects or denies the permit application, it is the Design/Build Firm's responsibility to make whatever changes necessary to ensure the permit is approved.

The project is within the Southwest Florida Water Management District (SWFMD). The project may require an Environmental Resource Permit (ERP), U.S. Army Corps of Engineers (USACE) Nationwide Permits, a Florida Fish and Wildlife Conservation Commission (FWC) – Gopher Tortoise Relocation Permit, a U.S. Coast Guard Permit, and a U.S. Environmental Protection Agency (EPA) – National Pollutant Discharge Elimination System (NPDES) Permit.

The Design/Build Firm will be required to pay all permit fees. Any fines levied by permitting agencies shall be the responsibility of the Design/Build Firm.

The Design/Build Firm shall be responsible for an assessment of all potential gopher tortoise habitats that could be impacted by the project. The habitat will be systematically surveyed according to the current guidelines published by the Florida Fish and Wildlife Conservation Commission (FWC). If gopher tortoise burrows are found, all practicable measures will be employed to avoid impacts. The Design/Build Firm shall be responsible for obtaining an FWC permit for the relocation of gopher tortoises and commensals from burrows which cannot be avoided, and relocation shall be performed at a time as close as practicable to the start of construction activities at the site of the burrows. If new burrows are found after relocation, their occupants will also be relocated. A copy of the permit and any subsequent reports to FWC must be provided to the District Environmental Management Office.

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

However, notwithstanding anything above to the contrary, upon the Design/Build Firm's preliminary request for extension of Contract Time, pursuant to 8-7.3, being made directly to the District Construction Engineer, the Department reserves unto the District Construction Engineer, in his sole and absolute discretion, according to the parameters set forth below, the authority to make a determination to grant a non-compensable time extension for any impacts beyond the reasonable control of the Design/Build Firm in securing permits. Furthermore, as to any such impact, no modification provision will be considered by the District Construction Engineer unless the Design/Build Firm clearly establishes that it has continuously from the beginning of the project aggressively, efficiently and effectively pursued the

securing of the permits including the utilization of any and all reasonably available means and methods to overcome all impacts. There shall be no right of any kind on behalf of the Design/Build Firm to challenge or otherwise seek review or appeal in any forum of any determination made by the District Construction Engineer under this provision.

E. ITS Plans

All plans are to be prepared in accordance with the latest design standards and practices, Department's Standard Specifications, Indices, Department's Plans Preparation Manual, and shall be accurate, legible, complete in design, drawn to the scale indicated in the Department's manuals and furnished in reproducible form.

F. Signing and Marking Plans

All plans are to be prepared in accordance with the latest design standards and practices (Manual on Uniform Traffic Control Devices), Department's Standard Specifications, Indexes, Department's Plans Preparation Manual, and shall be accurate, legible, complete in design, drawn to the scale indicated in the Department's manuals and furnished in reproducible form.

G. Structures Plans

All structures plans shall be prepared in accordance with the latest Department's Structures Manual, and interims and other Department's standards, policies, procedures, applicable temporary design bulletins and directions from the State and District Structures Design Engineer. This shall be accurate, legible, complete in design, drawn to appropriate scale and furnished in reproducible form on material acceptable to the Department. All category level II bridge plans shall be peer reviewed by a pre-qualified independent firm not involved with the design team, prior to submittal to the Department.

H. Railroad Coordination

The Department has determined that a Railroad Agreement will not be required with CSX Railroad since the recommendation is to attach to the existing CSX overpass. If the Design/Build Firm does not want to attach to the overpass and pursues another method for installing the conduit, then an Agreement will be required with CSX Railroad for crossing their right of way. The Design/Build Firm will be responsible for all costs required to cross the CSX Railroad right of way.

I. Survey

The Design/Build Firm shall perform all surveying and mapping services necessary to complete the project. Survey services must also comply with all pertinent Florida Statutes and applicable rules in the Florida Administrative Code. All field survey data will be furnished to the District Surveyor in a Department approved digital format, readily available for input and use in CADD Design files. All surveying and mapping work must be accomplished in accordance with the Department's Surveying Procedure, Topic Nos. 550-030-101; Right-of-Way Mapping Procedure, Topic No. 550-030-015; Aerial Surveying Standards for Transportation Projects Procedure, Topic No. 550-020-002. This work must comply with the Minimum Technical Standards for Professional Surveyors and Mappers, Chapter 5J-17, Florida Administrative Code (F.A.C.), pursuant to Section 472.027, Florida Statutes (F.S.) and any special instructions from the Department. This survey also must comply with the Department of Environmental Protection Rule, Chapter 18-5, F.A.C. pursuant to Chapter 177, F.S., and the Department of Environmental Protection.

J. Verification of Existing Conditions

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

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

K. Submittals

1. Plans

Plans must meet the minimum contents of a particular phase submittal prior to submission for review. Clearly indicate the particular phase of each submittal on the cover sheet. Accompany all component submittals with sufficient information for adjoining components or areas of work to allow for proper evaluation of the component under review.

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

60% Component Plans
15 sets of 11” X 17” ITS Plans
1 set of 11” X 17” ITS Plans in PDF format
CCTV Camera Video Survey

90% Component Plans
15 sets of 11” X 17” ITS Plans
1 set of 11” X 17” ITS Plans in PDF format
6 copies of Draft Final Geotechnical Report
6 sets of documentation - structures
6 sets of power drop calculations
6 sets of product cut sheets
5 copies of Technical Special Provisions
Independent Peer reviewer’s comments and comment responses
Cut sheets for Electronic and Networking Equipment

Final Component Plans
15 sets of 11” X 17” ITS Plans
1 set of 11” X 17” ITS Plans in PDF format
6 sets of final documentation
6 copies of Final Geotechnical Report
1 signed and sealed copy of Specifications Package
2 sets of electronic copies of Technical Special Provisions on CD
Independent Peer Reviewer’s signed and sealed cover letter that all comments have been addressed and resolved.

Construction Set

1 set of 11”X 17” copies of the signed and sealed plans for the Department to stamp “Released for construction**”**
2 sets of electronic plans each in Microstation and PDF format (converted from Microstation)

Deliver the final signed and sealed plans to the Department’s Project Manager a minimum of 5 working days prior to construction of that component. The Department’s Project Manager will send a copy of a final signed and sealed plans to the appropriate office for review and stamping “Released for Construction”. Only stamped signed and sealed plans are valid and all work that the Design/Build Firm performs in advance of the Department’s release of Plans will be at the Design/Build Firm’s risk.

Record Set

The Design/Build Firm shall furnish to the Department, upon project completion, the following:

1 set of 11” X 17” signed and sealed plans
1 set of 11” X 17” signed and sealed plans in PDF format
15 sets of 11 "X 17” copies of the signed and sealed plans
15 sets of final documentation (if different from final component submittal)
2 Final Project CDs
2 sets of electronic plans each in Microstation and PDF format (converted from Microstation)

The Design/Build Firm's Professional Engineer in responsible charge of the project’s design shall professionally endorse (sign and seal and certify) the record prints, the Special Provisions and all reference and support documents. Perform the professional endorsement in accordance with the Department Plans Preparation Manual.

The Design/Build Firm shall complete the record set as the project is constructed. The record set becomes the part of the as-builts at the end of the project. All changes shall be signed/sealed by the Engineer of Record (EOR). The record set shall reflect all changes initiated by the Design/Build Firm or the Department in the form of revisions. The record set shall show Global Positioning System (GPS) coordinate (sub-foot accuracy) locations of all ITS field elements and equipment, including cabinets, equipment boxes, pull-boxes (electrical and fiber), splice vaults, access points, electrical cable routing, fiber optic cable routing, complete measurement of the fiber optic cable length including all slack cable, CCTV camera poles, DMS structures, vehicle detector poles, HAR transmitters and beacon signs, power drops and generator locations, etc. Provide a separate table listing the GPS coordinates for all ITS field elements installed by the Design/Build Firm as a part of the record set, in a format to be specified by the Department. The record set submitted by the Design/Build Firm shall include fiber optic cable test results and fiber optic cable splice diagrams identifying the individual fiber splices on the various fiber optic cables. The fiber optics splice diagram shall be developed and presented in a format specified by the Department. The record set shall also include all directional bore logs, the actual splice link loss budget information and the final power drop load calculations.

The Design/Build Firm shall submit the record set on a Final Project CD upon completion of field construction activities and prior to beginning the 30 day Systems Operational test. The CEI shall do a review of the record set prior to final acceptance in order to complete the record set.

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

2. Milestones

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

- 60% Design Submittal;
- 90% Design Submittal;
- Final Plans;
- Test Evaluation Matrix;
- Test Plan Submittal;
- Training Plan Submittal; and
- As-Built Plans/Record Set Drawings.

The Design/Build Firm shall be responsible for detailed plans checking as outlined in the Plans Preparation Manual (PPM) and as described herein. This includes a checklist of items listed in the PPM for each completed submittal. Plans must meet the minimum contents of a particular phase submittal prior to submission review. The design must be in conformity with the RFP, Attachments, approved preliminary layout and concept as provided in the technical proposal.

The Department must review and approve the signed and sealed design Final Plans before construction activities may begin. Component submittals shall be complete submittals along with all the supporting information necessary for review. The work must represent logical work activities and must show impact of future work on this project. Any modification to the construction due to subsequent design changes as the result of design development is solely the Design/Build Firm's risk. Upon review and approval, the Department's reviewer shall stamp the plans "Released for Construction" and initial and date.

The Design/Build Firm's schedule shall allow fifteen (15) working days for Department review time for each design submittal. The submittal of device specifications and equipment product sheets will not be accepted prior to the 90% plans submittal and shall allow fifteen (15) working days for review of each submittal. The review time will begin upon receipt of a complete submittal. No fabrication, casting or construction will occur until all related design, shop drawings, plans, and specifications comments are resolved to the Department's satisfaction.

If utilizing printed literature, such as cut-sheets, to satisfy some or all of the requirements, there shall be no statements within the literature which conflict with this RFP, the MTRs, the Design/Build Firm's written Technical Proposal or causes interpretation problems by the Department. The Design/Build Firm shall cross off, initial any such conflicting statements or data, and attach an appropriate statement clearly indicating how the RFP requirements are fulfilled. Submittals which are, in the judgment of the Department, insufficient to permit proper evaluation will be rejected.

3. Railroad Coordination

The Department has determined that a Railroad Agreement will not be required with CSX Railroad since the recommendation is to attach to the existing CSX overpass. If the Design/Build Firm does not want to attach to the overpass and pursues another method for laying the conduit, then an Agreement will be

required with CSX Railroad for crossing their right of way. The Design/Build Firm will be responsible for all costs required to cross the CSX Railroad right of way.

L. Contract Duration

The Design/Build Firm shall establish the contract duration for the subject project. In no event shall the contract duration exceed **760 calendar days**. The schedule supporting the proposed contract duration will be submitted with the Technical Proposal and should identify if the work activity durations are based on calendar days or working days. The Proposed Contract Time (PCT) reflected in the schedule may be amended in the bid proposal. The official PCT will be the one submitted with the Bid Price Proposal.

M. Project Schedule:

The Design/Build Firm shall submit a project schedule, in accordance with Subarticle 8-3.2 (Design/Build Division I Specifications), which supports the established contract duration submitted as part of the Proposal. The minimum number of activities shall be those listed in the payout schedule and those listed below:

- Anticipated Award Date
- Notice-To-Proceed (NTP)
- Design Submittals
- Design Approval for Construction
- Material Acquisition
- Begin Construction
- Design Survey
- Two (2) Design Workshops (one (1) for each of the 60% and 90% plan submittals)
- Design Reviews by the Department and FHWA
- Design Review / Acceptance Milestones
- Materials Quality Tracking
- Geotechnical Investigation
- Test Evaluation Matrix Submittal
- Test Evaluation Matrix Review
- Start of Construction
- Clearing and Grubbing
- Construction Mobilization
- Embankment/Excavation
- Environmental Permit Acquisition
- Foundation Design
- Foundation Construction
- Intelligent Transportation System Design
- Intelligent Transportation System Construction
- Maintenance of Traffic Design
- Maintenance of Traffic Set-Up (per duration)
- Erosion Control
- Test Plan Submittal
- Test Plan Review
- Training Plan Submittal
- Training Plan Review
- Subsystem Testing

- As-Built Plans/Record Drawings
- Coordination with SunGuide® Software Integrator
- Additional Construction Milestones as determined by the Design/Build Firm
- Final Completion Date for All Work

The Design/Build Firm's schedule should allow for a fifteen (15) working days review time for the Department's review of all submittals. The Department will review submittals through the Electronic Review Comment (ERC) system so that applicable Department personnel may comment on the various aspects of the plans. The Design/Build Firm shall designate one person to manage the responses to comments by Department personnel. The fifteen (15) working days review time shall be sufficient granted that the Design/Build Firm conducts design workshops with the Department and it's designees prior to the plans phase submittals, and hence, the review time would then be used to make certain plans match comments directed during the workshops.

N. Key Personnel/Staffing

The Design/Build Firm's key personnel identified in the Technical Proposal shall perform and direct all work. Any changes in the indicated personnel shall be subject to review and approval by the Department's Project Manager. The Design/Build Firm shall have available a professional staff that meets the minimum training and experience set forth in F.S. Chapter 455 and applicable ITS Standards.

Those individuals who will be directly involved in the project should have demonstrated experience in the areas delineated in the scope of work. Individuals whose qualifications are presented will be committed to the project for its duration unless otherwise exempted by the Department's Project Manager. Where State of Florida registration or certification is required or deemed appropriate, a copy of the registration or certificate shall be included in the Proposal package.

The Design/Build Firm shall be required to furnish proof that both the Design/Build Firm and the assigned Project Manager have at least three (3) years experience working with similar Design/Build contracts with specific experience in the following categories of work:

a. Intelligent Transportation Systems design, procurement, installation and integration;
b. Fiber optic (single-mode) communications outside plant design, installation, splicing and testing; and
c. Ethernet communications networks.

The Design/Build Firm shall be required to furnish proof that the individual(s) selected as the system integrator has demonstrated acceptable experience with the Microsoft Clustering and the SunGuide software and shall be capable of providing all SunGuide integration services required for this project.

O. Meetings and Progress Reporting

The Design/Build Firm shall anticipate periodic meetings with Department personnel and other agencies as required for resolution of design and/or construction issues. The Design/Build Firm shall contact Ms. Cindy Clemmons, District Public Information Officer, at (863) 519-2362 for coordination with the District Public Information Office. These meetings may include, but are not limited to:

- Project Notice-to-Proceed (Kick-Off) meeting;
- Metropolitan Planning Organization (MPO) meetings;
- County Board Meetings;

- Pre-Construction meeting;
- Pre-Integration meeting;
- Department technical issue resolution;
- Permit agency coordination;
- Local government agency coordination; and
- Design Workshops (for the 60% and 90% plans submittals)
- Scoping Meetings.

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

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

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

A minimum of five (5) primary project/design review meetings (Notice-to-Proceed/Kick-Off, 60% Design Workshop, 90% Design Workshop, Pre-Construction and Pre-Integration) shall be conducted:

Notice-to-Proceed (Kick-Off) Meeting - The purpose of the Kick-Off Meeting will be to review the contract specifications, to ascertain the adequacy of the Design/Build Firm's efforts in defining and understanding the requirements as contained and detailed in these Design and Construction Criteria, and to identify any areas which shall be clarified. In addition, the Project Schedule and QA/QC Plan shall be reviewed.

All action items resulting from this meeting shall be satisfactorily addressed before design and construction-planning activities can begin. All items reviewed at the meeting shall be coordinated with the Design and Construction Criteria to ensure contract compliance.

The meeting will be held at the Department's facilities on a mutually agreeable date within a specified number of calendar days after the Notice-to-Proceed date. All information, review documentation and materials required to conduct and support the meeting including the Project Schedule shall be submitted for review by the Department at least ten (10) calendar days prior to the scheduled meeting date.

The Kick-Off Meeting shall address, at a minimum, the following items:

- Review of coordination issues;
- Review of technical and contractual requirements;
- Review of the QA/QC Plan;
- Review of submittal process and control;
- Review of the action item / problem resolution process;
- Review of detailed Project Schedule; and
- Agree on next project meeting and tentative project meeting schedule.

60% Design Workshop – The purpose of the 60% Design Workshop is for the Department and the Design/Build Firm to meet and discuss the preliminary 60% plans submittal at a face-to-face meeting to provide feedback on the initial design. The Design/Build Firm shall submit preliminary 60% plans for

review by the Department at least seven (7) days prior to the workshop. This review is intended to be cursory in nature to flush out any major issues and shall not be considered as an all-encompassing review. During the workshop, the Department and Design/Build Firm shall be involved in a page-by-page review of the plans and discussion of all design issues. Once the workshop is completed, the Design/Build Firm shall revise the design as discussed and submit the formal 60% plans for a 15 working day review by the Department.

90% Design Workshop – The purpose of the 90% Design Workshop is for the Department and the Design/Build Firm to meet and discuss the preliminary 90% plans submittal at a face-to-face meeting to provide feedback on the design. The Design/Build Firm shall submit preliminary 90% plans for review by the Department at least seven (7) days prior to the workshop. This review is intended to be cursory in nature to flush out any major issues and shall not be considered as an all-encompassing review. During the workshop, the Department and Design/Build Firm shall be involved in a page-by-page review of the plans and discussion of all design issues. Once the workshop is completed, the Design/Build Firm shall revise the design as discussed and submit the formal 90% plans for a 15 working day review by the Department.

Pre-Construction Meeting - The purpose of the Pre-Construction Meeting shall be to verify the Design/Build Firm's installation and deployment plans by reviewing factory and pre-installation test results, the Installation/Construction Plan, utility coordination issues, and other issues.

The Pre-Construction Meeting shall be scheduled at least thirty (30) calendar days before the beginning of construction / installation activities. The Design/Build Firm shall identify any concerns regarding deployment and provide detailed information on how such concerns will be addressed and minimized.

The CEI Senior Project Engineer will schedule the Pre-Construction Meeting. The Design/Build Firm shall provide all documentation as required to support the meeting to include detailed functional narrative text, system and subsystem drawings and schematics. Also included shall be the plans and engineering specifications to demonstrate all elements of the proposed design which includes, but is not limited to: technical, functional, and operational requirements; ITS/communications; equipment; termination/patch panels; performance criteria; and details relating to interfaces with other agencies and subsystems.

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

- Review of the technical and operational details of the I-75 Freeway Management System including, but not limited to, the proposed equipment list, equipment configuration, cabinet layout, network interfaces, fiber splice plan, reconfiguration and fiber utilization plans;
- Review enclosure / cabinet design and configuration;
- Review any outstanding action items/system issues from previous project meetings;
- Identify and document all unresolved items with action responsibilities defined;
- Review all Test Results Submittals submitted and reviewed to date; provide status of test plans;
- Review of the Installation/Construction Plans;
- Review of detailed Integration Plans and schedule;
- Submittal of the Test Evaluation Matrix for review;
- Submittal of the Test Plans for review:
- Review plans for maintaining existing operations during the construction and integration activities of this project;

- Review of MOT and lane closure plans, if any; and
- Review any potential safety issues during installation.

All action items resulting from the Pre-Construction Meeting shall be satisfactorily addressed by the Design/Build Firm and reviewed and approved by the Department before granting final Pre-Construction Meeting approval. Construction shall not commence until all actions have been resolved.

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

Pre-Integration Meeting - The purpose of the Pre-Integration Meeting shall be to verify the Design/Build Firm's integration plans by reviewing proposed splicing diagrams, device placement plans, IP addressing schemes, proposed RTMC network upgrades, and other network design issues.

The Pre-Integration Meeting shall occur at least thirty (30) calendar days before the beginning of integration activities. The Design/Build Firm shall identify any concerns regarding the integration and provide detailed information on how to address and minimize such concerns.

The CEI Senior Project Engineer will schedule the Pre-Integration Meeting. The Design/Build Firm shall provide all documentation as required to support the meeting to include detailed functional narrative text, system and subsystem drawings and schematics. Also included shall be the device installation worksheets to demonstrate all elements of the proposed design which includes, but is not limited to: technical, functional, and operational requirements; ITS/communications; equipment; termination/patch panels; performance criteria; and details relating to interfaces with other agencies and subsystems.

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

- The site survey to prepare the creation of the system database, configuration files, system graphics, and other preparatory work for the integration of the SunGuide® software.
- Troubleshooting of any Design/Build Firm-installed hardware issues (both field and central) that affect the integration work.
- Preparing for the installation of the hardware and software required to operate the vendor provided and SunGuide® software.
- Provide ITS field device information, such as equipment configuration diagrams, IP addresses, protocols, and documentation (e.g., users' manual, troubleshooting guide, etc.).
- Provide the configuration of the ITS field devices for integration with the SunGuide® software, including link, lane, roadway, and device configurations.
- Provide post-installation services after testing the SunGuide® software. The services shall include populating the database and tables and creating map links.
- Procurement of all software licenses for servers and workstations.

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

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

P. Public Involvement

1. General

Public involvement is an important aspect of the project. Public involvement includes communicating to all interested persons, groups, and government organizations information regarding the development of the project. A Public Involvement Consultant (PIC) has been hired by the Department to carry out an exhaustive Public Involvement Campaign and a marketing effort. The Design/Build Firm shall contact Ms. Cindy Clemmons, District Public Information Officer, at (863) 519-2362 for coordination with the District Public Information Office. The Design/Build Firm will continue to be part of the Public Involvement effort but on a limited basis as described below.

2. Community Awareness

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

3. Public Meetings

The Design/Build Firm shall provide all support necessary for the PIC to hold various public meetings, which may include:

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

The Design/Build Firm shall include attendance at two meetings per month for the term of the contract to support the public involvement program.

For any of the above type meetings, the Design/Build Firm shall provide all technical assistance, data and information necessary for the PIC to produce display boards, printed material, video graphics, computerized graphics, etc., and information necessary for the day-to-day exchange of information with the public, all agencies and elected officials in order to keep them informed as to the progress and impacts that the proposed project will create. This includes workshops, information meetings, and public hearings.

The Design/Build Firm shall, on an as-needed basis, attend the meetings with an appropriate number of personnel to assist the Department's Project Representative/PIC. The Design/Build Firm shall forward all requests for group meetings to the Construction Project Manager (CPM) and the PIC. The Design/Build Firm shall inform the CPM and PIC of any meetings with individuals that occur without prior notice.

4. Public Workshops, Information Meetings

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

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

5. Public Involvement Data

The Design/Build Firm is responsible for the following:

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

The collection of public input occurs throughout the life of the project and requires maintaining files, newspaper clippings, letters, and especially direct contacts before, during, and after any of the public meetings. Articles such as those mentioned shall be provided to the PIC for their use and records.

In addition to collecting public input data, the Design/Build Firm may be asked by the PIC to prepare responses to any public inquiries as a result of the public involvement process. The Department shall review all responses prior to mailing.

Q. Quality Management Plan (QMP)

1. Design

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

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

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

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

2. Construction

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

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

Prepare and submit to the Engineer a Job Guide Schedule (JGS) using the Laboratory Information Management System (LIMS), 21 calendar days prior to commencement of construction. Update the Job Guide Schedule and submit it to the Engineer prior to each monthly progress estimate. The Department may not authorize payment of any progress estimate not accompanied by an up-to-date JGS. Maintain the JGS throughout the project, including the quantity placed since the previous submittal, and total to date quantity and any additional materials placed. Do not commence work activities that require testing until the JGS has been reviewed and accepted by the Engineer. At final acceptance, submit a final JGS that includes all materials used on the project in the same format as the monthly reports.

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

R. Liaison Office

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

S. Schedule of Values

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

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

T. Computer Automation

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

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

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

U. Construction Engineering and Inspection

The Department is responsible for providing CEI and QA Engineering.

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

V. Testing

The Department or its representative will perform verification and resolution testing services in accordance with the latest Specifications. On all Federal Aid Projects, the Department or its representative shall perform verification sampling and testing on site as well as off site locations such as pre-stress plants, batch plants, structural steel and weld, fabrication plants, etc.

Per FHWA guidance, the Systems Engineering Process consists of tying contract and functional requirements to verification methods using a Requirements Traceability Verification Matrix (RTVM). The Department shall provide the project RTVM to the Design/Build Firm for their use in verifying that all project requirements are met. The RTVM is a table that lists requirements from the RFP and MTR by section and description. The Design/Build Firm must verify each requirement within the RTVM using one of four methods of verification: analysis, demonstration, inspection or testing. The final completed RTVM shall be delivered to the Department prior to Final Acceptance.

All items requiring a test must be included in the Design/Build Firm developed Test Evaluation Matrix. The Design/Build Firm shall utilize this Test Evaluation Matrix to develop the project test plans for the Factory Acceptance Tests, Standalone Tests, Subsystem Tests and 30 consecutive calendar day Operational Test.

W. Value Added

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

- CCTV camera system components
- Vehicle detection system components
- DMS system components
- HAR and RWIS system components
- Communication components – Test equipment and software/hardware
- And any other products or features the Design/Build Firm desires

The Design/Build Firm shall develop the Value Added criteria, measurable standards, and remedial work plans in their technical proposal for features proposed by the Design/Build Firm.

X. Adjoining Construction Projects

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

The Design/Build Firm shall be responsible for coordinating with the Department's design consultants who are developing plans for future I-75 improvements within Sarasota and Manatee Counties.

Listed below are ongoing projects within the FMS limits. This list is not all inclusive.

- Sarasota ATMS Phases 1-3 – TRIP/JPA projects managed by Sarasota County
- 406314-5-52-01 – I-75 at Laurel Road, includes traffic signal work

Y. Design Issue Escalation

The Department has established the issue escalation process for design questions and conflict resolution that the Design/Build Firm shall follow unless revised by the Partnering Agreement. All issues are to be directed to the Department Project Manager. If the issue cannot be resolved at this level, the Department Project Manager shall forward the issue to the next level in the process. The escalation process begins with the District Design Engineer, followed by the Director of Transportation Operations, and finally to the District Secretary. Each level shall have a maximum of three working days to answer, resolve, or address the issue. This three-day window is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The Department Project Manager will respond in a timely manner but not to exceed three working days. The Design/Build Firm shall provide any available supporting documentation.

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

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

Z. Construction Clarification, Conflict Resolution, and Issue Escalation

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

- If the resolution does not change the original intent of the Technical Proposal/RFP, the Design/Build Firm EOR will be responsible for developing the design solution to the construction problem and the District Resident Engineer will be responsible for review and response within 10 working days. The District Resident Engineer will either concur with the proposed solution or, if the District Resident Engineer has concerns, the issue will be escalated as described in the process below**.**

- If the resolution does alter the original intent of the Technical Proposal/RFP, the EOR will develop the proposed solution, copy in the District Resident Engineer, and send it to the District Construction Office for review and response through the Department Project Manager. The District Construction Office will respond to the proposed solution within 10 working days. The District Construction Office will either concur with the proposed solution or, if the District Resident Engineer has concerns, the issue will be escalated as described in the process below. Changes to the original intent of the Technical Proposal/RFP will require a contract change order and FHWA approval.

- The Department has established the issue escalation process for construction questions and conflict resolution that the Design/Build Firm shall follow unless revised by the Partnering Agreement. All issues are to be directed to the Department Project Manager. If the issue cannot be resolved at this level, the Department Project Manager shall forward the issue to the next level in the process. The escalation process begins with the District Construction Engineer, followed by the Director of Transportation Operations, and finally to the District Secretary. Each level shall have a maximum of three working days to answer, resolve or address the issue. This three-day window is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The Department Project Manager will respond in a timely manner but not to exceed three working days. The Design/Build Firm shall provide any available supporting documentation.

The Design/Build Firm shall provide a similar chain of command for his organization with personnel of similar levels of responsibility.

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

VI. Design and Construction Criteria.

A. General

The Design/Build Firm shall be responsible for: detailed plan checking as outlined in the PPM, in the RFP, and the Design and Construction criteria package. This includes a checklist of the items listed in the PPM for each completed phase submittal. Roadway submittals may be broken down into grading, drainage, walls, ITS, signing & pavement marking, signalization, landscaping and final geometry components. The component design must be in conformity with the Design and Construction Criteria requirements, approved preliminary layout and concept as provided in the Technical Proposal.

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

All design and construction documents shall be prepared using the English system.

The FMS components shall be placed to meet minimum clear zone requirements. New guardrail shall not be used to reduce clear zone requirements. Components may be placed behind existing guardrail but shall have adequate room for access and maintenance activities. Do not place components in areas that require shutting down a lane for maintenance activities. All work shall be within the existing right-of-way. The Design/Build Firm shall take responsibility for litter removal and mowing a five foot perimeter around all installed boxes, pole/device installations, staging areas, and stockpile areas. The Design/Build Firm shall coordinate with affected local maintaining agencies to eliminate work conflicts. This total cost shall be included in the Design/Build Firm's price proposal.

Place all fiber communications in conduit, pull boxes, and splice vaults separate from all other cables or wires to any components on the project.

All concrete poles (except index 17504, service point details) shall have concrete foundations to be designed by a licensed structural engineer.

Attachment to existing bridges shall be designed by a licensed structural engineer. Overhead or upwardly inclined installations of Adhesive Anchors are prohibited regardless of their design safety factor. There shall be no overstress to any structural element of the bridge as a result of any new attachment.

Existing signal structures and foundations (mast arms, strain pole, etc..) that will carry additional loads shall be investigated for structural adequacy according to current standards by a licensed structural engineer.

B. Geotechnical Services

Driven Pile Foundations for Bridges and Major Structures (Not Applicable to this Project)

Drilled Shaft Foundations for Bridges and Major Structures

The Design-Build Firm shall perform a subsurface investigation, analysis and design for all aspects of the project in accordance with FDOT standards, policies and procedures. Existing subsurface information may be used. Supplemental subsurface investigation and testing will be required to ensure all aspects of the project are covered. The Department reserves the right to observe and perform verification testing on any drilled shafts during any phases of the foundation operation.

The Design/Build Firm shall determine whether the resistance factors used for drilled shaft design will be based on load testing. Before the resistance factors for load testing may be used for drilled shafts in any

of the following areas of the project, successful load tests must be performed in representative locations of that area.

The Design-Build Firm shall develop a Foundation Plan (FP) for drilled shaft construction. Submit the proposed FP to the CEI Geotechnical Engineer for review and recommendation to the District Geotechnical Engineer for approval. The FP is intended to establish process control standards and quality assurance for drilled shaft construction. Include in the FP the items required in Specification 455-15.1.2 (Drilled Shaft Installation Plan), the equipment and procedures for visual inspection of drilled shaft excavations, and any additional methods to identify and remediate drilled shaft deficiencies. If the FP is updated based on the construction of the test shaft(s), or other changes in circumstances, the update will not be in effect until approved by the CEI Geotechnical Engineer.

The FP will be used to govern all drilled shaft construction activities. In the event that deviations from the FP are observed, the CEI Geotechnical Engineer CEI Geotechnical Engineer may perform Independent Verification Testing/Review of the Design-Build Firm's equipment, procedures, personnel and drilled shaft construction FP at any time during production drilled shaft construction. If, as determined by the CEI Geotechnical Engineer, drilled shaft construction equipment, procedures and/or personnel for the FP is deemed inadequate to consistently provide drilled shafts meeting the contract requirements, the Design-Build Firm's FP approval may be withdrawn pending corrective actions. All drilled shaft construction activities shall then cease and not restart until corrective actions have been taken and the FP has been re-approved.

The FDOT reserves the right to observe and perform verification testing on any drilled shafts during any phases of the foundation operation.

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

- Evaluating geotechnical conditions and designing the foundations including the drilled shaft diameter and length, and construction methods to be used.

- Completing the subsurface investigation and drilling pilot holes prior to establishing the drilled shaft tip elevations and socket requirements.

- Determining the location of the test shaft(s) and the types of tests that will be performed on the test shaft(s).

- Providing test hole pilot boring results to the District Geotechnical Engineer at least 48 hours before beginning test shaft construction.

- Constructing the method shaft (test hole) successfully and conducting integrity tests on the shaft using both crosshole sonic logging and gamma-gamma density logging test methods. More than one test hole will be required when there are shafts both on land and in water. When there is more than one size of drilled shaft, perform a test hole for the largest diameter for each condition (land and water).

- Providing all personnel and equipment to perform a load test program on the test shaft(s). The frequency of static tests, Osterberg Cell tests or Statnamic tests will be dictated by the variability of the geology and the size of the project. Provide sufficient instrumentation to determine side friction components in segments not longer than five ft and the end bearing component. Provide a caliper tool or system to

measure accurately and continuously the actual shape of test shafts prior to placing concrete.

- Determining the production shaft lengths. Production shaft lengths may be based on the load transfer characteristics measured during the load test. End bearing characteristics may be based on load test results if the properties of the material below the tips of the production shafts meet or exceed the strength of the materials below the tip of the test shaft. If the theoretical bearing strength of the material below the tips of the production shafts is less than the theoretical bearing strength of the materials below the tip of the test shaft, the production shafts shall be extended to meet design capacity by side shear only, unless the end bearing resistance of the weaker material is verified by additional load testing.

- Documenting and providing a report that includes all test shaft data, analysis, and recommendations to the District Geotechnical Engineer. The report should include but not be limited to the following: results of the load testing program, crosshole sonic logging, gamma-gamma density logging, pilot borings for all drilled shafts, and recommended production drilled shaft tip elevations and socket requirements. This report shall be signed and sealed by a Florida licensed Professional Engineer and shall be submitted to the District Geotechnical Engineer for review and approval at least five working days prior to beginning production shaft construction. Additional data or analysis may be required by the Engineer.

- Constructing all drilled shafts to the required tip elevation and socket requirements.

- Verifying level and clean hole bottom conditions and properties of the drilling fluid at the time of concrete placement.

- Furnishing and using an underwater television camera or any other approved Shaft Inspection Device to continuously videotape the inspection of each excavation for a drilled shaft bridge foundation after final cleaning. By audio or other means, recordings shall clearly identify the location and items being observed.

- Documenting and submitting the drilled shaft excavation and concreting logs to the District Geotechnical Engineer within 24 hours of concrete placement. The documentations shall include the drilled shaft installation procedures and sequencing as well as any problems encountered during construction and concrete placement.

- Allow three working days for the District Geotechnical Engineer to review the data before any further construction on the tested shafts.

- Performing Cross-Hole Sonic Logging (CSL) tests on all nonredundant drilled shafts supporting bridges. For redundant drilled shaft bridge foundations and drilled shaft foundations for miscellaneous structures, perform CSL on at least 30% of the shafts (rounded up to the next whole number) on shafts selected by the Department.

- Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging. Submitting all results to the District Geotechnical Engineer within five days of test completion.

- Submitting the Foundation Certification Packages.
    - Each Foundation Certification Package shall contain an original signed and sealed letter certifying capacity and integrity of all drilled shafts, and clearly legible copies of all shaft excavation and concreting logs, video-tapes of visual shaft bottom inspections, all CSL reports and electronic data, slurry test data, supplemental testing data and analyses for the foundation unit. The certification shall not be contingent on any future testing or approval by FDOT.
    - Submit two copies of the Foundation Certification Package signed and sealed by the Geotechnical Foundation Design Engineer of Record to FDOT within three weeks of finishing each foundation unit and prior to Verification Testing. A foundation unit is defined as all the shafts within one bent or pier for each phase of each bridge.
- Providing safe access and needed equipment, and cooperating with and working with the Department in verification of the drilled shafts, both during construction of shafts and after submittal of the certification package.
    - The Department may verify the bottom cleanliness of all drilled shaft excavations prior to and at the time of concreting. The Department may verify bottom cleanliness by over the shoulder review of the Design-Build Firm's visual inspection methods and/or by independent means.
    - The Department may verify properties of drilling fluid at the time of concreting. The Department shall determine whether verification of drilling fluid properties shall be accomplished by over the shoulder review of the Design-Build Firm's slurry testing and/or by independent means.

Within two working days of receipt of a Foundation Certification Package, the Department will examine the certification package and determine whether shafts in that foundation unit will be selected for Verification Testing. The Department may select every shaft for Verification Testing, if defects are suspected. The Department will provide equipment and personnel as needed for Verification Testing. Methods used for Verification Testing of a completed shaft are at the discretion of the Department and may include coring, cross-hole sonic logging, gamma-gamma density logging, low-strain dynamic integrity testing, or other methods.

After Verification Testing for a foundation unit is performed, the Department will provide the results within five working days. Integrity testing access tubes shall not be grouted and construction of footings, caps, columns or any superstructure elements shall not occur until the Department has notified the Design-Build Firm that additional Verification Testing is not required.

If any shaft is found to be deficient, the Design-Build Firm shall correct the deficiency (i.e. repair or replace the shaft) and/or modify the design to compensate for the deficiency. After the deficiency is corrected, retest and recertify the shaft. The Department may then perform additional Verification Testing. In case of disagreement of test results, the Department's results will be final and used for determination of acceptance.

Drilled Shaft Foundations for Miscellaneous Structures

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

- Evaluating geotechnical conditions and designing the foundations including the drilled shaft diameter and length, and construction methods to be used.

- Completing the subsurface investigation prior to establishing the drilled shaft tip elevations and socket requirements.

- Constructing the method shaft (test hole) successfully and conducting integrity tests on the shaft using crosshole sonic logging. More than one test hole will be required when there are shafts both on land and in water. When there is more than one size of drilled shaft, perform a test hole for the largest diameter for each condition (land and water).

- Determining the production shaft lengths.

- Documenting and providing a report that includes all data, analysis, and recommendations to the Department. The report should include but not be limited to the following: results of pilot borings for all drilled shafts, and recommended production drilled shaft tip elevations and socket requirements. This report shall be signed and sealed by a Florida licensed Professional Engineer and shall be submitted to the Department for review and approval at least seven (7) calendar days prior to beginning production shaft construction Additional data or analysis may be required by the Engineer. Constructing all drilled shafts to the required tip elevation and socket requirements.

- Verifying level and clean hole bottom conditions and properties of the drilling fluid at the time of concrete placement.

- Documenting and submitting the drilled shaft construction logs to the Department within 24 hours of concrete placement. The documentations shall include the drilled shaft installation procedures and sequencing as well as any problems encountered during construction and concrete placement. Allow five (5) calendar days for the Department to review the data before any further construction on the shafts.

- Performing Cross-Hole Sonic Logging (CSL) tests on at least 30% of the shafts (rounded up to the next whole number) selected by the Department.

- Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging. Submitting all results to the Department within seven (7) calendar days of test completion.

- Submitting the Foundation Certification Packages.

    - Each Foundation Certification Package shall contain an original signed and sealed letter certifying capacity and integrity of all drilled shafts, and clearly legible copies of all shaft excavation and concreting logs, all CSL reports and electronic data, slurry test data, supplemental testing data and analyses for the

foundation unit. The certification shall not be contingent on any future testing or approval by FDOT.

- Submit two copies of the Foundation Certification Package signed and sealed by the Geotechnical Foundation Design Engineer of Record to FDOT within three weeks of finishing each foundation unit and prior to Verification Testing. A foundation unit is defined as all the shafts within one intersection/interchange or for each phase of an intersection/interchange.

- Providing safe access and needed equipment, and cooperating with and working with the Department in verification of the drilled shafts, both during construction of shafts and after submittal of the certification package.

  - The Department may verify the bottom cleanliness of all drilled shaft excavations prior to and at the time of concreting. The Department may verify bottom cleanliness by over the shoulder review of the Design/Build Firm's inspection methods and/or by independent means.

    - The Department may verify properties of drilling fluid at the time of concreting. The Department shall determine whether verification of drilling fluid properties shall be accomplished by over the shoulder review of the Design/Build Firm's slurry testing and/or by independent means.

Within four (4) calendar days of receipt of a Foundation Certification Package, the Department will examine the certification package and determine whether shafts in that foundation unit will be selected for Verification Testing. The Department may select every shaft for Verification Testing, if defects are suspected. The Department will provide equipment and personnel as needed for Verification Testing. Methods used for Verification Testing of a completed shaft are at the discretion of the Department and may include coring, cross-hole sonic logging, gamma-gamma density logging, low-strain dynamic integrity testing, or other methods.

After Verification Testing for a foundation unit is performed, the Department will provide the results within seven (7) calendar days. Integrity testing access tubes shall not be grouted and construction of caps, columns or any superstructure elements shall not occur until the Department has notified the Design/Build Firm that additional Verification Testing is not required.

If any shaft is found to be deficient, the Design/Build Firm shall correct the deficiency (i.e. repair or replace the shaft) and/or modify the design to compensate for the deficiency. After the deficiency is corrected, the shaft shall be retested and recertified by the Design/Build Firm. The Department may then perform additional Verification Testing. In case of disagreement of test results, the Department's results will be final and used for determination of acceptance.

C. Utility Coordination

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

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

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

1. Ensuring that all utility coordination and activities are conducted in accordance with the requirements of the Contract Documents.
2. Identifying all existing utilities and coordinating any new installations. Reviewing proposed utility permit application packages and recommending approval/disapproval of each permit application based on the compatibility of the permit as related to the Design/Build firm's plans.
3. Scheduling utility meetings, keeping and distribution of minutes of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
4. Distributing all plans, conflict matrixes and changes to affected utility owners and making sure this information is properly coordinated.
5. Identifying and coordinating the execution and performance under any agreement that is required for any utility work needed in with the Design/Build project. Reviewing, approving, signing and coordinating the implementation of all Utility Work Schedules.
6. Resolving utility conflicts.
7. Obtaining and maintaining Sunshine State One Call Design to Dig Tickets.
8. Performing Constructability Reviews of plans prior to construction activities with regard to the installation, removal, temporary removal, de-energizing, deactivation, relocation, or adjustment of utilities.
9. Providing periodic project updates to the Department Project Manager and District Utility Office as requested.
10. Coordination with the Department on any issues that arise concerning reimbursement of utility work costs.

The Design/Build Firm shall be responsible for performing or arranging for the performance of all utility work and for paying all costs associated herewith including, but not limited to:

- Locate by physical exposure and establishment of both vertical and horizontal limits of all existing facilities within ten (10) feet of the proposed fiber installation. The department will provide locates for FDOT owned facilities.

- Notify and keep all utility agencies/owners informed.

- Determine what work is necessary for utilities that are impacted. Including, but not limited to: design around, if possible, protect, adjust, and/or relocate.

- Obtain all necessary arrangements and/or permits, and otherwise comply with applicable laws, including, but not limited to, Sunshine One Call obligation under Chapter 556, Florida Statues.

Any utilities within Department right-of-way in the project area that are in conflict with the proposed construction shall be redesigned and relocated at the Design/Build Firm's expense, in accordance with provisions in the permit(s), the current Utility Accommodation Manual, Section 337.403, Florida Statutes and/or Rule 14-46.001 of the Florida Administrative Code. All costs associated with utility relocation work shall be included as part of the Price Proposal. The work may be performed by, either the utility owner or the Design/Build Firm. If the utility owner chooses to allow the Design/Build Firm to do utility relocation/construction, then a Storm Water Pollution Prevention Plan (SWPPP) and Erosion Control Plan (ECP) must be approved before commencing construction.

It is the Design/Build Firm's responsibility to identify and contact all appropriate utility owners that will be affected by construction. The Department will make available to the Design/Build Firm for inspection all utility permits and utility relocation information upon written request; however, the Department makes no representation as to the completeness or accuracy of such information and the Design-Build Firm relies on the completeness or accuracy of such information at its own risk.

It is anticipated that Department, Sarasota County, Manatee County and local road and utility construction projects will be in progress during the life of this Contract. The Design/Build Firm shall be required to coordinate their construction operations with those of other Firms doing work for the State, County and City governments. This coordination includes on-site cooperation and scheduling of work to eliminate or minimize any rework or duplication of effort.

If a utility is impacted by the design or unintentionally during construction, the cost of the relocation/repair will be the responsibility of the Design/Build Firm. If the utility is not being impacted by construction, but the utility owner desires to relocate the utility, the cost of the relocation will be the responsibility of the utility company.

The Design/Build Firm shall make every attempt to design around existing utilities, minimizing impact. Any potential utility conflict shall be physically exposed and verified both vertically and horizontally prior to any excavation. Plans shall be provided to the Department showing existing and proposed utility locations and their relationships to the proposed construction. It will be the Design/Build Firm's responsibility to coordinate and resolve all utility impacts with each of the utility companies. It therefore becomes the Design/Build Firm's liability for all construction delays due to utility conflicts and the Design/Build Firm's responsibility for all damages done to existing utilities. This includes all relocations and protection during construction.

The Department has reviewed the project limits and has determined which utility facilities located within the project limits may be impacted by the Project and whether the cost of any necessary utility work as to that impacted utility is to be borne by the utility or by the Design-Build Firm. That information is contained herein. The following UA/O's have been identified by the Department as having facilities within the project corridor which may be impacted by the Project. Also provided below is a determination made by the Department as to the eligibility of reimbursement for each potentially impacted UA/O identified herein.

UA/O	Eligible for Reimbursement (Y/N)
ATT/T	Y
BRADEN RIVER UTILITIES, INC.	Y
CITY OF BRADENTON	Y
FLORIDA GAS TRANSMISSION-FT MYERS	Y
FLORIDA POWER & LIGHT	Y
FPL FIBERNET	Y

UA/O	Eligible for Reimbursement (Y/N)
FLORIDA POWER & LIGHT	Y
GULFSTREAM NATURAL GAS SYSTEM, L.L.C.	Y
VERIZON FLORIDA INC	Y
LAKEWOOD RANCH COMMUNITY DEVELOPMENT DI	Y
BRIGHT HOUSE NETWORKS MANATEE	Y
MANATEE COUNTY TRANSPORTATION/UTILITY	Y
TECO - PEOPLES GAS- SARASOTA	Y
PEACE RIVER ELECTRIC COOPERATIVE, INC.	Y
SARASOTA COUNTY TRAFFIC	Y
SARASOTA COUNTY UTILITIES	Y
COMCAST CALBEVISION OF WEST FLORIDA	Y
AQUA UTILITIES FLORIDA INC	Y
CITY OF NORTH PORT UTILITIES	Y
CITY OF SARASOTA PUBLIC WORKS	Y
CITY OF VENICE UTILITIES DEPT.	Y
LEVEL 3 COMMUNICATIONS LLC	Y
PEACE RIVER/ MANASOTA REGIONAL WATER SU	Y

It is the intention of the Department that the Design/Build Firm makes every effort to avoid impacting all existing utilities to the fullest extent and the plan design shall reflect this direction.

D. Intelligent Transportation System (ITS)

The following are descriptions of the major project elements and required services for this project, which include, but are not limited to:

Design Services – Provide complete design for the installation of ITS field elements, which includes CCTV cameras; non-intrusive vehicle detectors; DMS; HAR; RWIS; emergency generator back-up system; fiber optics backbone cable; communications between ITS field elements and the RTMC and the STMC. The Design Services shall include all survey, site visits, obtaining all necessary utility and base plans, and arranging for all required coordination on relevant issues that will be required for the complete design of the system. The design shall consider future known design and construction roadway projects. The design shall minimize impacts to the ITS field devices and communications infrastructure by adjusting grade lateral setback to reduce later relocation or replacement but without affecting the system operation. Conduit and fiber installed in the median, at interchanges, and other areas may need to be at a greater depth to avoid future construction activities. Pull boxes and splice vaults shall not be installed on slopes. Present the design in the form of signed and sealed construction plans prepared by a Florida registered Professional Engineer. Provide supporting documents such as the system configuration diagram and the structural calculations of the ITS field elements structures along with the construction plans.

CCTV Cameras – Install CCTV cameras as part of this project. The Design/Build Firm is responsible to determine the number and location needed to meet the requirements of the MTRs. Do not place CCTV cameras in the median or on an overpass. Convert the NTSC camera video images into optical signals and transmit on fiber optic cable using Ethernet technology. Send the camera control data signals as a

sub-channel on the fiber optic cable. The CCTV cameras located within the project will be located on new concrete poles. It is the responsibility of the Design/Build Firm to verify the right-of-way for all proposed camera locations and provide final locations of these cameras. The Design/Build Firm will identify all equipment that is necessary to transmit full motion camera video images to the RTMC and STMC and bi-directional control of the cameras. The CCTV cameras installed as part of this project will be located on new concrete poles.

Detectors – Install non-intrusive vehicle detectors as part of this project. The Design/Build Firm is responsible to determine the number and location needed to meet the requirements of the MTRs. Do not place detectors in the median or on an overpass. Each detector shall be capable of detecting up to eight lanes of vehicles and shall provide roadway vehicle information including speed, volume, and occupancy. In no way shall the installation of detectors impede vehicular traffic. Transmit the detection data to the RTMC and STMC through the fiber optic cable utilizing Ethernet technology. The Design/Build Firm will identify all equipment that is necessary to transmit data to the RTMC and STMC. It is the responsibility of the Design/Build Firm to verify the right-of-way for all proposed detector locations and provide final locations of the detectors. The detectors located within the project will be located on new concrete poles.

DMS – Install 25 DMSs as part of this project. Attachment B – Conceptual Device Layout shows the potential locations of the proposed DMS. The Design/Build Firm is responsible for determining the actual number and locations needed to meet the requirements of the MTRs. Mount the DMSs on steel overhead cantilever or truss structures. The DMSs will be capable of displaying text messages to motorists. In no way shall the installation of DMSs impede vehicular traffic. Transmit the bi-directional data from the DMSs to the RTMC and STMC through the fiber optic cable utilizing Ethernet technology. The Design/Build Firm will identify all equipment that is necessary to transmit data to the RTMC and STMC. It is the responsibility of the Design/Build Firm to verify the right-of-way for all proposed DMS locations and provide final locations of the DMS.

HAR – Install 10 HAR transmitters and 20 beacon signs as part of this project. Attachment B – Conceptual Device Layout shows the potential locations of the proposed HAR system. The Design/Build Firm is responsible for determining the actual number and location needed to meet the requirements of the MTRs. The HAR system will provide continuous coverage within the project limits providing a synchronized global message to all transmitters. The system will also provide each transmitter in the system with the ability to broadcast a different unique message. The system will provide for adjustment of each transmitter's output to minimize overlap between transmitters when transmitting different messages. Transmit the HAR data through the fiber optic cable utilizing Ethernet technology. The Design/Build Firm will identify all equipment that is necessary to transmit data from the RTMC and STMC. It is the responsibility of the Design/Build Firm to verify the right-of-way for the proposed HAR locations and to provide the final locations of the HAR components.

RWIS – Install two (2) RWIS units as part of this project. Attachment B – Conceptual Device Layout shows the potential locations of the proposed RWIS. The Design/Build Firm is responsible for determining the final locations of the RWIS installations. Mount the RWIS along the roadside following the method recommended by the vendor. The RWIS will be capable of providing data on conditions of the roadway. Transmit the RWIS data through the fiber optic cable utilizing Ethernet technology. The Design/Build Firm will identify all equipment that is necessary to transmit data to the RTMC and STMC. It is the responsibility of the Design/Build Firm to verify the right-of-way for the proposed RWIS location and to provide the final location for the RWIS.

Communications Infrastructure – Communications from the ITS field elements to the RTMC and STMC will be through Ethernet technology utilizing single mode fiber optic cable (96 strand trunkline

along I-75) as the communications medium. It is the responsibility of the Design/Build Firm to design the communications utilizing a series of 100 and 1000 Mbps Ethernet switches. The Design/Build Firm shall identify the number and locations of the communication hubs that would house the 1000 Mbps (Gig-E) Ethernet switches. House the Ethernet switches in an environmentally controlled cabinet or building, so to not impede the functionality of the Ethernet switches in any manner. Each ITS field element location shall include an IP Edge Switch that in turn connects to a Hub switch. It is the responsibility of the Design/Build Firm to identify all the equipment that is required, including media converters, terminal servers, transceivers, modems, etc. to ensure the proper communication (video and data) between the ITS field elements and the RTMC and STMC. The communications connection to the STMC is via an existing 48-strand fiber optic trunkline between the STMC facility and the SR 70 interchange. The Design/Build Firm will test the 48-strand fiber within 30 days of contract execution (after providing 10 days advance notice to the Department), and will notify the Department of the condition of the existing fiber regarding the quality of the communication link to the STMC within 15 days of the test. The Department will perform any necessary repairs to the 48-strand fiber trunkline.

Construction/Build Services – Construction/Build services include the procurement and installation of all equipment related to ITS field elements and communication components/elements as specified herein. The equipment to be procured shall meet the requirements and the NTCIP protocol (if applicable) versions supported by the SunGuide® software specified in the MTR. The Design/Build Firm is responsible for ensuring 100 percent compatibility of device components with the SunGuide® software at the time of deployment. The proposed ITS equipment shall conform to the *Interface Control Document* for the various devices listed online at http://sunguide.datasys.swri.edu/.

The Design/Build Firm shall submit cut sheets of all selected technologies/products for procurement for the project along with selection alternatives, and the reasons for selection, to the Department for acceptance. It is up to the Department or its representative to request a demonstration of the equipment for approval. No procurement of any hardware, software, or services shall occur until the Department reviews and accepts the construction plans and cut sheets. The Design/Build Firm may request a partial acceptance of an individual subsystem design in order to allow advance procurement of equipment that requires a longer lead-time.

Testing Services – Test all equipment and systems furnished and installed by the Design/Build Firm to determine conformance with project requirements and contract documents. Provide testing documents to the Department for review. Testing requirements for the individual subsystems are as defined in the MTR. Testing of the equipment and system shall include:

- Factory acceptance tests that are conducted prior to equipment procurement and installation
- Standalone tests, conducted following the field installation, but prior to connection with the rest of the system
- Subsystem tests that are performed after the completion of the field installation
- Final acceptance occurs after completion of the System Operational Test and the burn-in period. The Department will perform a final inspection of the entire system in the presence of a representative of the Design/Build Firm.

Submit all “As-built” documentation to the Department prior to the start of the System Operational Test. Final acceptance of the work associated with this project will be made after all of the required submittals, testing, training, documentation, and warranties have been successfully completed as specified in the MTRs as well as in the requirements of the Department’s latest version of the Standard Specifications for Road and Bridge Construction and all applicable standards.

Integration Services – Deliver and operate each of the ITS field elements, including CCTV cameras, DMSs, RWIS, HAR, and VDS, as an individual system. It is the responsibility of the Design/Build Firm to integrate the subsystems into the RTMC and STMC. The Design/Build Firm shall integrate the individual ITS field elements (i.e., CCTV cameras, DMSs, HAR, and detection devices) with the respective vendor-provided subsystem software such that each of the subsystems operates as a stand-alone system.

The integration of various subsystems with the central SunGuide® software is the responsibility of the Design/Build Firm. Coordinate the integration with the SWIFT SunGuide® Center IT Manager after the Design/Build Firm tests and the Department accepts the individual ITS subsystems. The Design/Build Firm is responsible for providing all the hardware and any other software packages required for operation of the SunGuide® software, including all other requirements specified in the MTRs.

The Design/Build firm shall provide all equipment necessary to integrate the new video feeds into the existing video wall display at the RTMC and the new video wall display at the STMC.

The Design/Build Firm shall provide all equipment necessary to integrate the new emergency generator back-up system into the existing RTMC and the new STMS for remote monitoring of permanent mount generators with automatic transfer switches.

The Design/Build Firm shall provide furniture for the offices at the Sarasota-Manatee County STMC as described in the MTRs. All installed furniture shall be fully assembled and functional for an office environment.

Training Services – Provide complete training for the operations and maintenance of ITS subsystems – CCTV cameras, DMSs, RWIS, the HAR system, VDS, communication, emergency generator back-up system and field troubleshooting/testing. Tailor and focus training to the individual functional group such as the operators, maintenance technicians, managers, and system administrators. The requirements for the training along with the duration of the training for each subsystem are included in the MTRs. Training will commence only after the subsystem tests have been accepted by the Department.

Documentation – Provide complete and comprehensive documentation of all elements of this project as specified in the MTRs. Documentation shall include, at a minimum:

- Field equipment operational manuals
- Software manuals
- Device protocols
- Warranty documentation
- Test Evaluation Matrix
- Testing of each of the subsystems
- Training for each of the subsystems
- Trouble-shooting guides for each of the subsystems
- System administration guides
- As-built plans/record drawings

E. ITS Plans and Specifications

The Design/Build Firm shall design plans and provide necessary documentation for the procurement and installation of the ITS. The Design/Build Firm shall submit 60 percent, 90 percent, and 100 percent (final)

design plans and Technical Special Provisions to the Department for review and approval. The Design/Build Firm shall state the number of submittals and its contents in the Technical Proposal. The construction plan sheets identifying the final design shall include, but not be limited to:

- Title sheet
- Tabulation of Quantities
- General Notes
- Legend
- Pole Data Sheet
- Traffic Control Plans
- Project Layout / Overview sheets outlining the locations of ITS field elements
- Fiber optic communications and outside plant facilities and routing index sheets
- Plan sheets providing details on ITS field device locations and interface with the fiber optic communications cables, fiber optic cable routing and outside plant facilities including pull boxes, cabinets, fiber splice vaults, outlying structures and roadways, etc.,
- Roadway Cross-sections at ITS field locations
- Detail sheets on:
  - CCTV pole, lowering device, camera mounting
  - DMS structure, DMS attachment, DMS display/layout, DMS cross sections
  - Non-intrusive detection devices and mounting details
  - RWIS configuration and mounting
  - HAR configuration, mounting of transmitters, counterpoise layout
  - Emergency generator back-up system configuration
  - Fiber optic splice and conduit
  - Power service distribution
  - Wiring and connection details for all ITS elements
  - Conduit, pull box, splice vault and installation
  - Equipment rack configuration at RTMC and STMC, communication hubs, and field cabinets
  - System-level block diagrams
  - Device-level block diagrams
  - Field hub/router cabinet configuration details
  - Video wall equipment configuration
  - Fiber optic splicing diagrams
  - System configuration/Wiring diagram/Equipment interface for the ITS field equipment – individual locations and communications hubs
  - Tabulation of Equipment connection list
  - Directional bores charts

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

The Design/Build Firm shall prepare detailed Special Provisions that will expand on the Specifications as specified in the MTRs, as needed and identified during project design phase.

F. Roadway Plans

General:

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

Design Analysis:

The Design/Build Firm shall develop and submit a signed and sealed Typical Section Package for review and concurrence by the Department and FHWA on Federal Aid Oversights Projects.

Any deviation from the Department's design criteria will require a design variation and any deviation from AASHTO will require a design exception. If a Design/Build Firm requests a variance or exception during the technical proposal phase, it must be discussed during the pre-bid meeting or prior to the information cut-off date. All such variances and exceptions must be approved or disapproved prior to the information cut-off date and such variances and exceptions will be disclosed to all the Design/Build Firms.

These packages shall include the following:

1. **Typical Section Package:**

- Transmittal letter
- Location Map
- Roadway Typical Section(s)
  1. Minimum milling depth
  2. Identify if ARMI layer is required
  3. Minimum lane, shoulder, median widths
  4. Slopes requirements
- Data Sheet
- Design Speed

G. Geometric:

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

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

H. Design Documentation, Computations and Quantities

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

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

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

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

I. Structure Plans

Not Applicable to this Project – Please see Section VI, D for information regarding device support structures.

J. Specifications:

Department Specifications may not be modified or revised. The Design/Build Firm shall also include all Technical Special Provisions, which will apply to the work in the proposal. Technical Special Provisions shall be written only for items not addressed by Department Specifications, and shall not be used as a means of changing Department Specifications. This project is Federally Funded and all applicable Federal Aid Specifications shall apply. This project shall also include SP 0081300, Damage Recovery, Partnering and Disputes Review Board.

Before construction activities can begin, the Design/Build Firm shall prepare and submit a signed and sealed Construction Specifications Package for the project, containing all applicable Division II and III Special Provisions and Supplement Specifications from the Specifications Workbook in effect at the time the Bid Price Proposals were due in the District Office. The Specifications Package shall be prepared by the individual(s) identified in the Technical Proposal as having successfully completed the mandatory Specifications Preparations Training.

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

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

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

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

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

The Design/Build Firm must account for a fifteen (15) working day review time in its schedule. Upon review by the Department, the Construction Specifications Package will be stamped "Released for Construction" and initialed and dated by the reviewer.

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

K. Shop Drawings

The Design/Build Firm shall be responsible for the preparation and approval of all Shop Drawings. Shop Drawings shall be submitted to the Department and shall bear the stamp and signature of the Design/Build Firm's Engineer of Record (EOR) and the Design Build Firm's Contractor, and Specialty Engineer, as appropriate. The Department shall review the Shop Drawing(s) to evaluate compliance with project requirements and provide any findings to the Design/Build Firm. The Departments procedural review of shop drawings is to assure that the Design/Build Firm and the EOR have both accepted and signed the drawing, the drawing has been independently reviewed and is in general conformance with the plans. The Departments review is not meant to be a complete and detailed review. Upon review of the shop drawing, the Department will stamp "Released for Construction" or "Released for Construction as noted" and initialed and dated by the Department Design Build project administrator or his/her designee.

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

L. Sequence of Construction

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

1. Maintain or improve, to the maximum extent possible, the quality of existing traffic operations, both in terms of flow rate and safety, throughout the duration of the project.
2. Minimize the number of different Traffic Control Plan (TCP) phases, i.e., number of different diversions and detours for a given traffic movement.
3. Take advantage of newly constructed portions of the permanent facility as soon as possible when it is in the best interest of traffic operations and construction activity.
4. Maintain reasonable direct access to adjacent properties at all times, with the exception in areas of limited access right-of-way where direct access is not permitted.
5. Proper coordination with adjacent construction projects and maintaining agencies.

M. Stormwater Pollution Prevention Plans (SWPPP)

The Design/Build Firm shall prepare an erosion control plan that complies with the SWPPP as required by the National Pollution Discharge Elimination System (NPDES). The Design/Build Firm shall refer to the PPM for information in regard to the SWPPP and Florida Department of Environmental Protection (FDEP) Rule 62-25 for requirements on the erosion control plan. Detailed limits of the erosion control items will be necessary but may be shown on the roadway plans sheets. This plan shall be submitted along with the Design/Build Firm's Certification at least fifteen (15) working days prior to beginning construction activities.

N. Temporary Traffic Control Plan

1. Traffic Control Analysis

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

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

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

Transportation Management Plans (TMPs) are required for significant projects, defined as:

1. A project that, alone or in combination with other concurrent projects nearby, is anticipated to cause sustained work zone impacts**.**

2. All Interstate system projects within the boundaries of a designated Transportation Management Area (TMA) that occupy a location for more than three days with either intermittent or continuous lane closures shall be considered as significant projects.

For significant projects, a TMP will consist of three components:

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

Additional information is located in Chapter 10 of the PPM.

2. Temporary Traffic Control Plans

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

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

3. Traffic Control Restrictions

NO LANE CLOSURE SHALL OCCUR UNLESS ALL VIABLE ALTERNATIVES HAVE BEEN EXPLORED AND REASONS FOR THE CLOSURE ARE WARRANTED, JUSTIFIED AND DOCUMENTED. LANE CLOSURES MUST BE APPROVED IN ADVANCE BY THE DEPARTMENT, WHEN ABOVE CONDITIONS ARE MET.

- Allowable lane closure time for all activities authorized by a Florida Department of Transportation (referenced as "Department" from this point) permit will be specified by the department, on the permit.

- Allowable lane closure time in a Department project will be specified in the Maintenance of Traffic Plans.

- A MINIMUM OF TWO WEEK ADVANCE notification of any proposed lane closure exceeding two hours must be provided to the CEI, SWIFT Center (239) 225-9860 , district public information office and law enforcement/fire/EMS.

- Contractors must provide notification to law enforcement agencies, local fire departments and emergency medical services for all lane closures and ramp closures.

- All lane closure requests must include consideration for special events such as major community events, sporting events and concerts.

- Final approval of lane closure restrictions will be provided by the local Operations Center Engineer with concurrence from either the District Maintenance Administrator or the District Construction Engineer

- The Department reserves the right to modify previously approved or specified times of closures when, in the opinion of the Engineer, it becomes necessary to do so.

- The allowable time periods for one lane per direction lane closures along I-75 in Sarasota and Manatee Counties are between the hours of 9:00 PM and 5:00 AM.

- The allowable time periods for two lanes per direction along I-75 in Sarasota and Manatee Counties lane closures are as follow:
  - South of SR 681 – Not Allowed
  - SR 681 to University Pkwy – 11:00 PM to 4:00 AM
  - University Pkwy to US 301 – 11:00 PM to 5:00 AM
  - North of US 301 – 10:00 PM to 5:00 AM

- Lane closures for I-75 ramps will be limited to 11:00 PM to 5:00 AM.

- Work activities with lane closures will be monitored. If, in the opinion of the Engineer, the lane closure is creating undo traffic delay and congestion, he/she may suspend the work and/or modify the lane closure time.

- Lane closures and restrictions for the crossroad structures and approaches shall be coordinated with the maintaining agencies and approved by the Department. The

Design/Build Firm shall obtain a written agreement with the maintaining agency for any lane closures, restrictions or detours.

- Special requests deviating from the referenced time periods must be approved by the Director of Transportation Operations or his designee.

A damage recovery/user cost will be assessed against the Design/Build Firm if all lanes are not open to traffic by the end of the allowable time periods for lane closures as described above.

At the discretion of the Department's Project Representative, damage recovery/user cost shall not be assessed for failure to open lanes if such cause is beyond the control of the Design/Build Firm, i.e., catastrophic events or accidents not related to or caused by the Design/Build Firm's operations. The Department shall have the right to apply as payment on such damages any money that is due to the Design/Build Firm by the Department.

The Design/Build Firm shall coordinate lane closures with all local agencies to avoid conflict with special events.

O. Environmental Services/Permits/Mitigation

Permits are anticipated for this project from the following agencies:

- Southwest Florida Water Management District (SWFWMD)
- U.S. Army Corps of Engineers (USACE)
- Florida Fish and Wildlife Commission (FWC)
- U.S. Environmental Protection Agency (EPA)

The Design/Build Firm will be responsible for preparing designs and proposing construction methods that are permitable. The Design/Build Firm will be responsible for any required permit fees. All permits required for a particular construction activity will be acquired prior to commencing the particular construction activity. Delays due to incomplete permit packages, agency rejection, agency denials, agency processing time, or any permit violations, except as provided in Section V.D.2, will be the responsibility of the Design/Build Firm, and will not be considered sufficient reason for time extension.

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

P. Signing and Pavement Marking Plans

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

Q. Lighting Plans (Not Applicable to this Project)

VII. Technical Proposal Requirements.

A. General

Each Design/Build Firm under consideration for this project is required to submit a Technical Proposal. The proposal shall include sufficient information to enable the Department to evaluate the capability of the Design/Build Firm to provide the desired services. The data shall be significant to the project and shall be innovative, when appropriate, and practical. Discussions of past performances on other projects shall be minimized except as they relate to the proposed work.

B. Submittal Requirements

The Technical Proposal shall be submitted in ACCO binders with identifying labels and with tabs labeled Section 1 through Section 9 with the information, paper size, and page limitation requirements as listed below.

A copy of the "Written Technical Proposal" must also be submitted in electronic format on a CD. The format shall be in Microsoft Word converted into a searchable PDF. format. No macros will be allowed. Minimum font size of 10.

Design/Build Firms are required to submit one (1) original bound copy containing original signatures. Please mark this copy "Original" on the front cover. In addition, submit five (5) independently bound copies of the Technical Proposal. The cover of the submittal package of the Technical Proposal shall contain the following information:

TECHNICAL PROPOSAL
SARASOTA/MANATEE COUNTIES I-75 FMS Design/Build Project
FPID: 414730-1-52-01/414732-1-52-01/414736-1-52-01
Design/Build Firm's Name:
Design/Build Firm's Address:

Submit three CDs of the Technical Proposal in its entirety and six hard copies (one original and five copies) of the Technical Proposal to:

Mr. Ed McKinney
Professional Services Unit Administrator
801 North Broadway Avenue
Bartow, FL 33830
ATTN: Felipe Alvarez, MS 1-67

Section 1: Written Technical Proposal

- Paper size: 8½" x 11", additional larger charts and graphs may be provided if folded neatly to 8½" x 11"
- Maximum allowed pages: 40

The minimum information to be included:

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

The Design/Build Firm shall present a comprehensive plan for completing the specified work. The plan should address all significant design and construction issues and constraints and should

demonstrate efficient use of manpower, materials, equipment, construction schemes, and techniques for completing the project.

- **Organization and Staffing Plan :**

The Design/Build Firm shall submit a staffing plan clearly illustrating the key elements of the organizational structure proposed to accomplish the management, technical, construction, and administrative services required. Project management and key personnel within each area of required services shall be identified and past experience of each, as it relates to this project, shall be discussed. The Department must approve any changes to the Project Management and Key Personnel. Other items to be included in the discussion of the staffing plan are:

1. Man-loading requirements (both quality and quantity) for all technical services.

2. Man-loading capabilities of all team firms.

3. Man-loading availability for the project.

- **Responsible Office :**

Design/Build Firms considered for this project may have more than one office location. Identify the office assigned responsibility for the work in the Technical Proposal. If proposing to complete different elements of the work at different locations, list those locations in the Technical Proposal.

- **Other Appropriate Data :**

Other data demonstrating the ability of the Design/Build Firm to provide the desired services may be included in the Technical Proposal.

- **Coordination :**

During the performance of the services, maintain coordination with the Department and/or other agencies. Address the suggested method for assuring proper coordination in the Technical Proposal.

- A summary of innovative aspects: Details can be explained in Section 4 4.

- A summary of Design/Build Firm's Value Added Features: The Design/Build Firm will summarize Value Added Features being proposed. Details of criteria will be provided in Section 6.

- A summary of Quality Management: The actual plan will be provided in Section 5.

- A summary of the project schedule: The full schedule will be provided in Section 3.

Section 2: Resumes of Key Project Personnel

- Paper size: 8½" x 11"
- Maximum allowed pages: Each Résumé is limited to one page per person.

- Minimum information to include: Key personnel experience directly related to this project.

Section 3: Proposed Schedule

- Paper size: 8½" x 11" or larger if folded neatly to 8½" x 11"
- Maximum allowed pages: 4
- Identify if the Schedule is based on Calendar or Working Days
- Minimum information to include in the summary CPM schedule of anticipated major milestones and their associated phasing as follows:

Anticipated Award Date
Design Schedule
Design Reviews by the Department
Geotechnical Investigations
Permitting
Start of Construction
Construction Milestones
Construction Phasing and Major MOT shifts
Utility Relocations
Structure Completion Date
Integration Schedule
Acceptance Testing
Burn-in Period
Final Completion Date for all Work

Section 4: Innovative Aspects

- Paper size: 8½" x 11"
- Maximum allowed pages: 3
- Any supportive information associated with the proposed innovative aspects.

Section 5: Quality Management Plan

- Paper size: 8½" x 11"
- Maximum allowed pages: 5
- Minimum information to include shall be in accordance with Section V. N.

Section 6: Design/Build Firm Value Added

- Paper size: 8½" x 11"
- Maximum allowed pages: 5
- Minimum information to include shall be in accordance with Section V. T.

Section 7: Design Support Documents

- Paper size: 8½" x 11"
- Maximum allowed pages: As required
- Minimum information to include shall be in accordance with Section VI. F.

Section 8: Preliminary Plans

- Paper size: 11" x 17"
- Maximum allowed pages: As required

Minimum information to include in the preliminary design plans should represent a typical 30% plans submittal per the PPM and as detailed below:

ITS Devices

- Project Limits
- Proposed layout of the complete ITS network
- Proposed ITS device roadway placement
- Proposed DMS layout(s) with respect to travel lanes
- Proposed fiber network layout
- Interconnection with existing ITS networks
- Connections to existing roadway
- Attachments to existing bridges
- Utility provisions
- MOT provisions

Section 9: Specifications

Provide a list of individual members of the Design/Build Firm who have successfully completed the Specifications Package Preparation Training and will be responsible for preparing the Specifications Package for the project. The website for completing the training is: http://www2.dot.state.fl.us/SpecificationsEstimates/PackagePreparation/TrainingConsultants.aspx

C. Evaluation Criteria:

The Technical Review Committee shall evaluate the written Technical Proposal by each Design/Build Firm. The Design/Build Firm should not discuss or reveal elements of the price proposal in the written proposals. The following criteria are the basis for the technical score for each firm:

Item	Value	Value
1.	Approach and Understanding of Project	20
2.	Organization and Staffing Plan	15
3.	Schedule	10
4.	Innovative Aspects	5
5.	Quality Management Plan	10
6.	Maintainability/Warranty/Value Added	15
7.	Proposed Materials	10
8.	Environmental Protection/Commitments	5
9.	Construction Methods	5
10.	Design	20
11.	Integration Services	25
	MAXIMUM SCORE	**140**

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

1. **Approach and Understanding of Project (20 points)**

Credit shall be given for thorough understanding of the project and the Proposer's approach to the work.

2. **Organization and Staffing Plan (15 points)**

Credit shall be given for organization of the Proposer's team, including sub-contractors and sub-consultants for the staffing of the project, including the key staff's experience and skills relevant to the proposed assignments. Highlight team and individual SunGuide® integration experience in this section of the proposal.

3. **Schedule (10 points)**

Credit shall be given for a comprehensive and logical schedule that minimizes contract duration. Provide proper attention to the project's critical path elements.

4. **Innovative Aspects / Concepts (5 points)**

Credit shall be given for the innovative aspects proposed by the team both in the actual design and in how the project will be completed.

5. **Quality Management Plan (10 points)**

Credit shall be given for a timely, complete, and comprehensive QMP that incorporates effective peer reviews and includes all phases of the project.

6. **Maintainability/Warranty/Value Added (15 points)**

Credit shall be given for a design that minimizes periodic and routine maintenance. Consider the following elements: access to provide adequate inspections and maintenance, maintenance of surveillance systems/CCTV camera sites, access to ITS devices not requiring MOT, ITS device extended warranty periods, and quality of construction materials and products. Credit shall be assigned for exceeding minimum material requirements to enhance durability of structural components. Credit shall be given for the extent of the Value Added coverage.

7. **Proposed Materials (10 points)**

Credit shall be given for the proposed materials used that minimize impacts to the traveling public and the environment, reduce costs, improves worker safety, and minimizes contract duration. Credit shall be given for exceeding minimum material requirements to enhance durability of structural components.

8. **Environmental Protection/Commitments (5 points)**

Credit shall be given for minimizing impacts to the environment during all phases of design/construction and ensuring that all environmental commitments are honored.

9. **Construction Methods (5 points)**

Credit shall be given for construction methods that minimize impacts to the traveling public and the environment, reduce costs, improve worker safety, and minimize contract duration. Credit shall be given for exceeding minimum material requirements to enhance durability of structural components.

10. **Design (20 points)**

Credit shall be given for the demonstrated knowledge of the specific project integration needs. Credit shall be given for the quality of the following elements:

- Quality and quantity of design resources
- Design coordination and plans preparation schedule
- Construction coordination plan minimizing design changes
- Geotechnical investigation plan
- Structure design

11. **Integration Services (25 points)**

Credit shall be given for the demonstrated knowledge of the specific project integration needs. Credit shall be given for the quality and quantity of integration resources.

D. Final Selection Formula

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

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

BPP = Bid Price Proposal
TS = Technical Score

The firm selected will be that firm whose adjusted score is lowest.

The Department reserves the right to consider any proposal as non-responsive if any part of the Technical Proposal does not meet established codes and criteria. Also, if PCT is greater than **Maximum Allowable Contract Time (MCT) (760 Calendar Days)**, the proposal will be considered non-responsive.

E. Final Selection Process

After the sealed bids are received, the Department will have a public meeting for the announcement of the Technical Scores and opening of sealed bids. At this meeting, the Department will announce the score for each member of the Technical Review Committee for each Proposer and each Proposer's average Technical Score. Following announcement of the technical scores, the sealed bid proposals will be opened and the adjusted scores calculated. The Selection Committee should meet a minimum of five working days after the public opening of the Technical Scores and Price Proposals. The Department's Selection Committee will review the evaluation of the Technical Review Committee and the Price Proposal of each Proposer as to the apparent lowest adjusted score and make a final determination of the lowest adjusted score. The Selection Committee has the right to correct any errors in the evaluation and selection process that may have been made. The Department is not obligated to award the contract and

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

F. Stipend Awards

The Department has elected to pay responsive shortlisted proposers who are not awarded the contract a stipend to offset some of the costs of preparing their proposals. That stipend will only be payable under the terms and conditions of the stipend agreement, a copy of which is included with this Request for Proposal. This Request for Proposal does not commit the Department or any other public agency to pay any costs incurred by an individual firm, partnership, or corporation in the submission of proposals except as set forth in the stipend agreement. The amount of the stipend compensation will be **$50,000** and in no way is intended to compensate Firms for the total cost of preparing the Technical and Price Proposals. The Department reserves the right to use any of the concepts or ideas within the Technical Proposal, as the Department deems appropriate.

In order for a shortlisted firm to be eligible for a stipend, the shortlisted firm must execute with original signatures and have delivered to the Department no later than three weeks after Request for Proposal release, **three** originals of the Design/Build Stipend Agreement, Form No. 700-011-14. The Design/Build Firm shall reproduce the necessary copies. Terms of said agreement are non-negotiable. A fully executed copy of the agreement will be returned to the shortlisted firm.

Failure of a shortlisted firm to execute and timely return the agreement shall constitute a release to the Department by the shortlisted firm for proposal compensation and the Department shall have no further obligation to compensate the shortlisted firm for its efforts in preparing its proposal.

The shortlisted firms are to submit an invoice for payment of services on a lump sum basis after the selection/award process is complete. The invoice should include a statement similar to the following: "All work necessary to prepare technical and price proposals in response to the Department's RFP for the subject project". Compensation is intended to be on a pass/fail basis (i.e., responsive or non-responsive). If a proposal is deemed to be non-responsive by the Technical Review Committee, no stipend will be paid.

VIII. BID PROPOSAL REQUIREMENTS.

A. Bid Price Proposal

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

Mr. Ed McKinney
Professional Services Unit Administrator
801 North Broadway Avenue
Bartow, FL 33830
ATTN: Felipe Alvarez, MS 1-67

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

ATTACHMENT A

FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

DESIGN-BUILD
MINIMUM TECHNICAL REQUIREMENTS

For

I-75 Corridor Freeway Management System and Intelligent Transportation Systems (ITS) Integration Project in Sarasota and Manatee Counties

Contract Number: E1J73
Financial Projects Number(s):
414730-1-52-01, 414732-1-52-01, & 414736-1-52-01

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ACRONYMS

AASHTO ..... American Association of State Highway and Transportation Officials
AC ..... Alternating Current
AGM ..... Absorbent Glass Mat
AM ..... Amplitude Modulation
APL ..... Approved Products List
ASTM ..... American Society for Testing and Materials
CCTV ..... Closed Circuit Television
CLD ..... Camera Lowering Device
COTS ..... Commercial Off The Shelf
DMS ..... Dynamic Message Sign
DVRMP ..... Distance Vector Multicast Routing Protocol
EIA ..... Electronic Industries Alliance
ERM ..... Electronic Route Marker
ESS ..... Environmental Sensor Station
FCC ..... Federal Communications Commission
FDOT ..... Florida Department of Transportation
FMS ..... Freeway Management System
GBIC ..... Gigabit Interface Converter
GFI ..... Ground Fault Interrupter
GFIC ..... Ground Fault Interrupter Circuit
GPS ..... Global Positioning System
GUI ..... Graphical User Interface
HAR ..... Highway Advisory Radio
IP ..... Internet Protocol
ISO ..... International Organization for Standardization
IT ..... Information Technology
ITS ..... Intelligent Transportation Systems
ITS FM Tool ..... ITS Fiber Management Tool.
LED ..... Light Emitting Diode
MPEG ..... Moving Picture Experts Group
MTR ..... Minimum Technical Requirements
MVDS ..... Microwave Vehicle Detection System
NEC ..... National Electrical Code
NEMA ..... National Electrical Manufacturers Association
NCHRP ..... National Cooperative Highway Research Program
NTCIP ..... National Transportation Communications for ITS Protocol
OSPF ..... Open Shortest Path First
OTDR ..... Optical Time-Domain Reflectometer
PIM-DM ..... Protocol Independent Multicast-Dense Mode
PIM-SM ..... Protocol Independent Multicast- Sparse Mode
PPM ..... FDOT *Plans Preparation Manual*
PTZ ..... Pan-Tilt-Zoom
RFP ..... Request for Proposal
RPU ..... Remote Processing Unit
RTMC ..... Regional Transportation Management Center
RTVM ..... Requirements Traceability Verification Matrix
RWIS ..... Road Weather Information System

SFP ..... Small Form-Factor Pluggable
SNMP ..... Simple Network Management Protocol
SRM ..... Standard Route Marker
STMC ..... Satellite Transportation Management Center
STP ..... Shielded Twisted Pair
SWIFT ..... Southwest Interagency Facility for Transportation
TCP/IP ..... Transmission Control Protocol/Internet Protocol
TERL ..... Traffic Engineering Research Lab
TIA ..... Telecommunications Industry Association
TVSS ..... Transient Voltage Surge Suppressor
UL ..... Underwriters Laboratories
UPS ..... Uninterruptible Power Supply
UTP ..... Unshielded Twisted Pair
VAC ..... Volts Alternating Current
VDC ..... Volts Direct Current

1.0 INTRODUCTION

The Sarasota and Manatee I-75 Freeway Management System (FMS) Project is the next phase of the I-75 FMS which is a continuation of the existing Collier/Lee/Charlotte I-75 FMS. This project extends the FMS coverage from approximately one mile north of the Charlotte/DeSoto/Sarasota County line to the intersection of I-275 and I-75 in Manatee County. The Sarasota and Manatee I-75 FMS shall be integrated into the existing Southwest Interagency Facility for Transportation (SWIFT) SunGuide® Center located at the Daniels Parkway Rest Area off of I-75 in Fort Myers and the Sarasota-Manatee County Satellite Transportation Management Center (STMC) located at 2101 47th Terrace East, Bradenton. The following projects make up this contract:

- FPID 414730-1-52-01, I-75 in Sarasota County from Charlotte County Line to Manatee County Line, design and construct a FMS;
- FPID 414732-1-52-01, I-75 in Manatee County from Sarasota County line to I-275, design and construct a FMS; and
- FPID 414736-1-52-01, Integrate the FMS installed under FPID 414730-1-52-01 and 414732-1-52-01 with the Regional Transportation Management Center (RTMC) in Lee County and the Sarasota/Manatee STMC in Manatee County.

This Minimum Technical Requirements (MTR) document sets forth the minimum requirements for the design, procurement, installation, integration, and testing of the various project elements, including:

- Intelligent Transportation System (ITS) field elements:
  - Closed circuit television (CCTV) cameras
  - Non-intrusive Microwave Vehicle Detection System (MVDS)
  - Dynamic Message Signs (DMS)
  - Highway Advisory Radio (HAR) System
  - Road Weather Information System (RWIS)
  - Power & Emergency Generator System
- Fiber optic backbone cable and communications equipment that interfaces with the ITS field elements via the Ethernet communications protocol
- Transmit CCTV camera video back to the SWIFT SunGuide® Center using Moving Picture Experts Group (MPEG) 2 video compression format.
- Field device interconnection to and enhancements of the Sarasota-Manatee STMC.

Each of the aforementioned project ITS field elements shall be installed and seamlessly integrated with the existing Collier/Lee/Charlotte I-75 FMS. All integration, programming, and configuration of the individual subsystems or field components shall be considered as part of the subsystem or component installation.

The SunGuide Implementation Plan for FDOT Sarasota/Manatee County Satellite TMC Integration Project prepared by the Southwest Research Institute (SwRI) details the specific tasks that must be performed in connection with this project. The Design-Build Firm shall coordinate its activities with SwRI, including scheduling the activities that must be completed to permit SwRI to complete its tasks in a timely manner, so the Design-Build Firm can complete the project as scheduled. The Design-Build Firm shall utilize the information in the SunGuide Implementation Plan to finalize their design of the FMS and create their integration plan for approval by the Florida Department of Transportation (Department or FDOT). The SunGuide Implementation Plan details those tasks necessary to integrate the FMS as intended by the Department. SwRI is responsible for installing the SunGuide® software. The Design-Build Firm is responsible for all other integration related tasks as shown in the SunGuide Implementation Plan.

The Design-Build Firm shall provide Global Positioning System (GPS) coordinates for all pull boxes, splice boxes, conduit routing, and ITS field elements including power drops, devices and cabinets, to a

sub-foot level of accuracy. Convert these coordinates into State Plane format for ease of importing into Microstation plans. All aerials used as base maps shall be ortho-rectified and the GPS coordinates of the project elements shall be tied to the aerials on the final record set plans.

1.1 Requirements Classification

The minimum requirements for some of the subsystems are further defined as:

- Design Requirements – How the subsystem/component needs to be designed
- Functional Requirements – How the subsystem/component needs to function
- Performance Requirements – How the subsystem/component needs to perform
- Materials Requirements – How the subsystem/component needs to be fabricated
- Construction Requirements – How the subsystem/component needs to be constructed

Specific requirements for testing a particular subsystem/component and training of operations/maintenance personnel are defined under the individual subsystem/component sections in this document. The general requirements for testing and training relevant for all the subsystems/components are further defined below.

1.2 General Testing Requirements

The Department shall provide the Design-Build Firm with a Requirements Traceability Verification Matrix (RTVM) that calls out all contract requirements and the method of verification: analysis, demonstration, inspection or testing. The Design-Build Firm is responsible for all contract requirements and shall document the verification as the contract requirements are met.

The Design-Build Firm shall develop as part of the Test Plan Submittal and subsequent updates thereof, a Test Evaluation Matrix to be used as a tool to cross-reference each planned test to a specific contract requirement to be verified as shown in the RTVM. The Design-Build Firm shall use this Test Evaluation Matrix shall to indicate the specific functional requirements as tested and the results achieved and verified by the Engineer. This shall provide a mechanism to ensure that all contract requirements have been successfully tested and verified.

The Design-Build Firm shall develop a comprehensive test plan, submit it for approval by the Engineer, incorporate all of the Engineer's comments, execute the plan, and document the results. All Test Plans as defined below shall be submitted for review and acceptance by the Department at least 90 calendar days prior to any planned test activity. Any deviations or changes to the approved Test Plan shall be resubmitted for review and acceptance by the Department 14 calendar days prior to any planned test activity.

As a minimum, the Test Plan shall include the following:

- A step-by-step outline of the test procedures and sequence to be followed, showing a test of every function for each of the individual subsystems/components.
- A test set-up/configuration diagram showing what is being tested.
- A description of expected operation, output, and test results.
- An estimate of the test duration and proposed test schedule.
- A data form to be used to record all data and quantitative results obtained during the tests.
- A description of any special equipment, setup, manpower, or conditions required for the test.

The Design-Build Firm shall not begin testing until the Department has approved the Test Plan and Test Evaluation Matrix, including detailed procedures and data forms. The test results for each subsystem/component tested shall meet the performance requirements identified for the particular subsystem/component defined in Florida Standard Specifications for Road and Bridge Construction,

current edition, Supplemental Specifications sections 780, ITS General-Requirements; 781, ITS-Motorist Information Systems; 782, ITS-Video Equipment; 783, ITS-Fiber Optic Cable and Interconnect; 784, ITS-Network Device; 785, ITS–Infrastructure; and 786, ITS-Vehicle Detection and Data Collection, as well as the requirements defined in this MTR for each subsystem/component.

Neither witnessing of the tests by the Department nor the waiving of the right to do so shall relieve the Design-Build Firm of the responsibility to comply with the contract documents. Such actions by the Department or approval of any test results by the Department shall not be deemed as acceptance of the equipment or system tested until the successful completion of the burn-in period, as defined in the Request for Proposal (RFP). The cost of testing shall be considered to be included in the unit cost for the item tested; no separate payment will be made for testing.

Testing of the equipment and system shall include, in the following order, each preceding test must be satisfactorily completed and accepted before subsequent test(s) may begin:

1.2.1 Factory Acceptance Test

All applicable Factory Acceptance Tests shall comply with the test requirements of the relevant sections of FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786.

1.2.2 Stand-alone Test

All applicable Stand-alone Tests shall comply with the test requirements of the relevant sections of FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786.

The Stand-alone Test shall exercise all stand-alone (non-network) functional operations of the ITS device and ancillary components installed at the device site.

If any ITS device or ancillary component fails to pass its Stand-alone Test more than twice, it shall be replaced by the Design-Build Firm with a new ITS device or ancillary component of same make and model, and the entire Stand-alone Test shall be repeated until proven successful. The Stand-alone Tests shall be performed on each and every ITS device and ancillary component, including, but not limited to the following:

- CCTV Cameras
- Non-intrusive MVDS
- DMS
- HAR
- RWIS
- Device controllers
- Video controllers
- Layer 3 distribution switches
- Managed field Ethernet switches
- Fiber optic cable
- Uninterruptible Power Supplies (UPS)
- Grounding-bonding
- Emergency generators

1.2.3 Subsystem Test

All applicable Subsystem Tests shall comply with the test requirements of the relevant sections of FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786.

Tests shall be performed based on the construction project milestones. The subsystem/component test shall demonstrate that all equipment furnished, adjusted, or modified by the Design-Build Firm has been installed properly and operates according to the Department-approved Test Plan. The Design-Build Firm

shall conduct the subsystem/component test in the presence of the Department's Project Manager or designated representative. The subsystem/component test will begin within seven days after the Design-Build Firm advises the Department's Project Manager that they are ready to begin the test. The test may begin when the Design-Build Firm has satisfied the Department that all work has been completed. The subsystem test shall verify that all of the requirements defined in the MTR for the subsystem/component being tested have been met. This test shall be performed utilizing the project field equipment and communications system. The test shall demonstrate full control of the field device(s) from the Sarasota-Manatee STMC over the Ethernet Network, as well as the functions of local/remote troubleshooting/diagnostics specified in the equipment's functional requirements. The test shall be conducted with manufacturer-supplied software. The Design-Build Firm shall provide qualified personnel to support the diagnosis and repair of system equipment during the subsystem test as required. These personnel shall be available for this support within 24 hours of notification that their services are needed.

In the event the subsystem fails the test or is rejected by the Department, the Design-Build Firm shall correct the problem and repeat the test within seven days after receiving the rejection notice from the Department. The test shall be re-conducted until the Department accepts the test result.

The Design-Build Firm shall furnish and maintain all required test equipment as part of their services. The test equipment – both hardware and software – shall be the property of the Department after the completion of the test.

All test equipment utilized shall have a calibration certification in accordance with the test set manufacturer's recommendations or within the last six months.

The test equipment shall be made ready for the Department's use at the time it is needed.

If requested by the Department, the Design-Build Firm shall postpone any test for up to seven days; such postponements shall not be grounds for extension of completion time. The Department may waive its right to witness certain tests.

1.2.4 Operational Test

The Design-Build Firm shall shall plan, implement and document the Operational Test. The test shall demonstrate successful installation of all Sarasota and Manatee I-75 FMS subsystems, properly integrated with the SunGuide® software and operable from both the SWIFT SunGuide® Center and the Sarasota-Manatee STMC, operating continuously for a period of 30 consecutive calendar-days without failure of any subsystem, ITS device, or ancillary component. This Operational Test of the complete Sarasota and Manatee I-75 FMS is an additional test to all other tests required in the relevant sections of FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, 786, and this MTR document.

The Operational Test shall commence upon successful completion of all other applicable tests required in the relevant sections of FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, 786, and this MTR document.

The Design-Build Firm shall notify the Department in writing of the scheduled date of the Operational Test 14 calendar-days prior to the commencement of said Operational Test. No Operational Testing shall be performed without prior written approval from the Department.

In the event of a subsystem, ITS device, or ancillary component failure, with the exception of consumable items such as fuses, the Operational Test shall be shut down for purposes of testing and correcting identified deficiencies, otherwise known as System Shutdown. System Shutdown is defined as any condition which, due to manufacturer defect or workmanship deficiencies results in any subsystem, ITS device, or ancillary component of the Sarasota and Manatee I-75 FMS Project to cease operation or lose

functionality. The Department reserves the right to determine that a System Shutdown is required.

For each period of System Shutdown, and after the identified deficiency has been corrected and met all applicable tests as per this MTR, the Operational Test shall be restarted for a new 30 consecutive calendar days and shall be extended for one additional consecutive day.

If the total number of System Shutdowns exceeds three due to the same subsystem, ITS device, or ancillary component, the Design-Build Firm shall:

- Remove and replace the subsystem, ITS device or ancillary component with a new and unused unit as per the requirements of this MTR;
- Perform all applicable Stand-alone and Subsystem Tests, as deemed necessary by the Department; and
- Upon written approval from the Department, restart the Operational Test for a new 30-day period.

The Operational Test steps described herein shall be repeated as many times as deemed necessary by the Department to completely demonstrate that the Design-Build Firm's work satisfies the requirements of this MTR and all other requirements of the Contract.

In the event a problem is discovered for which it is uncertain whether the cause is hardware or software related, the 30 calendar-day Operational Test shall be stopped in order to determine and correct the cause before the restart and repeat of the Operational Test, unless otherwise directed by the Department. However, the Operational Test shall not be deemed to have been successfully completed until the problem has been corrected.

All software required for diagnosing malfunctions of hardware and software/firmware shall be supplied by the Design-Build Firm. Diagnostic software shall not be installed on Department workstations or servers at the SWIFT Center. The Design-Build Firm will not be required to submit the diagnostic software for Department approval.

1.2.5 Burn-In Period

Upon completion of the Operational Test and approval of the results by the Department, a 60 consecutive calendar-day Burn-In Period shall commence for all subsystems, ITS devices and ancillary components designed, procured, constructed, installed, mounted, integrated, made operational, and tested as part of the Sarasota and Manatee I-75 FMS Project.

The Design-Build Firm shall submit, via a schedule, the start of the Burn-In Period to be approved by the Department.

The Design-Build Firm shall certify in writing to the Department the configuration of all subsystems, ITS devices, and ancillary components prior to beginning the Burn-In Period. Corrective action by the Design-Build Firm for a failure shall be a part of the Design-Build Firm's Burn-In documentation process. Department approval shall be obtained by the Design-Build Firm for the proposed corrective action prior to the Design-Build Firm's commencement of said corrective action.

The Design-Build Firm shall submit to the Department the required documentation to prove that all units have been successfully reconfigured or updated.

The Design-Build Firm shall provide technical personnel familiar with the Sarasota and Manatee I-75 FMS Project that shall be available on-site within 24 hours of notification of the need for services.

The Burn-In Period shall consist of the Department operations staff managing, monitoring, and controlling the Sarasota and Manatee I-75 FMS Project from the SWIFT Center and the Sarasota-Manatee STMC, in real-time, to assure conformance of the project with the RFP, the MTR, the Released for

Construction plans, and all applicable standards.

The Design-Build Firm shall repair or replace any subsystem, ITS device, or ancillary component that fails to function properly due to defective materials and/or workmanship.

In the event of a subsystem, ITS device, or ancillary component failure, with the exception of consumable items such as fuses, the Burn-In Period shall be shut down for purposes of testing and correcting identified deficiencies otherwise known as System Shutdown. System Shutdown is defined as any condition, which due to manufacturer defect or workmanship deficiencies results in any subsystem, ITS device or ancillary component of the Sarasota and Manatee I-75 FMS Project to cease operation or lose functionality. The Department reserves the right to determine that a System Shutdown is required.

For each period of System Shutdown, and after the identified deficiency has been corrected and met all applicable tests as per this MTR, the Burn-In Period shall be restarted for a new 60 consecutive calendar-days.

If the total number of System Shutdowns exceeds three due to the same subsystem, ITS device, or ancillary component, the Design-Build Firm shall:

- Remove and replace the subsystem, ITS device or ancillary component with a new and unused unit as per the requirements of this MTR;
- Perform all applicable Stand-alone, Subsystem, and Operational Tests, as deemed necessary by the Department; and
- Upon written approval from the Department, restart the Burn-In Period for a new 60-day period.

The Burn-In Period steps described herein shall be repeated as many times as deemed necessary by the Department to completely demonstrate that the Design-Build Firm's work satisfies the requirements of this MTR and all other requirements of the Contract.

The Design-Build Firm shall correct any and all failures during the Burn-In Period at no additional cost to the Department. All corrections shall be fully documented and provided to the Department upon request.

1.2.6 Final Acceptance

Upon the Design-Build Firm's successful completion of the Burn-In Period and once all required submittals, testing, training, documentation, and warranty documentation have been successfully delivered to and approved by the Department as specified in these MTRs, the RFP, and the requirements of the FDOT Standard and Supplemental Specifications (current edition) and all applicable standards, the Department shall grant written notice of Final Acceptance.

The Department shall issue Final Acceptance based on the Department's final inspection of the entire Sarasota and Manatee I-75 FMS Project, and as deemed by the Department.

All hardware and software provided by the Design-Build Firm shall have the latest stable firmware and any necessary upgrades available at the time of Final Acceptance.

All As-Built documents shall be produced electronically using MicroStation software, signed and sealed by the Engineer of Record, and submitted by the Design-Build Firm to the Department as a condition precedent to issuance of written notice of Final Acceptance. The As-Built documents shall be submitted for Department review at the start of and as a prerequisite to the 30 day Operational Test.

The Department shall perform the final inspections of the entire Sarasota and Manatee I-75 FMS Project in the presence of a representative of the Design-Build Firm.

1.3 SunGuide® Software Compatibility

The Department operates the Collier/Lee/Charlotte I-75 FMS field devices from the SWIFT Center using the SunGuide® Software System. The Design-Build Firm shall integrate the Sarasota and Manatee I-75 individual ITS field elements (i.e., CCTV cameras, MPEG-2 Encoders, DMSs, MVDSs, Serial and Ethernet communication devices, HAR Transmitters and Beacons, and RWIS stations) with the respective vendor-provided subsystem software such that each of the subsystems will be operated as a stand-alone system. After the completion and acceptance of the individual ITS subsystems, the Design-Build Firm shall integrate the ITS subsystems with the existing SunGuide® central software installation at the SWIFT Center and the new SunGuide® software installation at the Sarasota-Manatee STMC.

The Design-Build Firm shall procure all licenses for the Oracle software in the Department's name. The Department anticipates that the Design-Build Firm shall purchase four Oracle licenses for the Microsoft Clustering Group at the STMC; however, the Design-Build Firm is responsible for determining the correct number of licenses. The Design/Build Firm shall purchase any necessary renewals for the Oracle licenses to extend the expiration date through one year after Final Acceptance.

The Design-Build Firm shall provide all the temporary central equipment, including the workstations or laptop computers, necessary for the testing of the individual subsystems.

Prior to the final acceptance, the Design-Build Firm shall demonstrate to the Department that all of the equipment specified in these MTRs that were installed and configured by the Design-Build Firm flawlessly operates from any SunGuide® client workstation located at the SWIFT Center and the new Design-Build Firm supplied SunGuide® client workstations at the Sarasota-Manatee STMC.

The integration of the various subsystems with the SunGuide® software is the responsibility of the Design-Build Firm. The Design-Build Firm shall coordinate with the SWIFT Center Information Technology (IT) Manager to provide the following services:

- Conduct a site survey to prepare the creation of the system database, configuration files, system graphics, and other preparatory work for the integration of the new devices into the SunGuide® software.
- Troubleshoot any Design-Build Firm-installed hardware issues (both field and central) that affect the integration work.
- Install the hardware and software required to operate the SunGuide® software compatible with current Windows 7 server or as approved by the Department.
- Provide ITS field device information, such as equipment configuration diagrams, Internet Protocal (IP) addresses, protocols, and documentation (e.g., users' manual, troubleshooting guide, ITS Fiber Management Tool forms, etc.).
- Configure the ITS field devices for integration with the SunGuide® software, including link, lane, roadway, and device configurations.
- Provide post-installation services after testing the SunGuide® software. The services shall include populating the tables and creating map links.

All the licenses for the above products shall be transferred to the Department. The installation media for the above products shall be provided and shall become the property of the Department after installation.

1.3.1 Device Protocol Compliance

For the devices being deployed, the Design-Build Firm shall ensure that the protocol used by the devices to be controlled by the SunGuide® software is compliant with the protocols listed below, which are online at http://sunguide.datasys.swri.edu/ReadingRoom/Etc/SunGuide%20Protocol%20Support.htm

Table 1.1: Device Protocols Supported by SunGuide®

Subsystem	Protocol Reference	Release	Original ITN	Added in ECO	Vendor Funded Testing
DMS	NTCIP 1203, FDOT MIB (Sep 2001)	1	X		
DMS	Mark IV - I95: Document Number A316111-102 REV. A8 (June 26, 2001)	1	X		
DMS	Mark IV - Turnpike: Document Number A316111-145 Rev.A2 (Sept 26, 2000)	4.3		X	
DMS	SunGuide Trailblazer - Kimley-Horn, 2000	2		X	
CCTV Control	NTCIP 1205 v01.08 Amendment 1 v01.08 (August 2004)	1	X		
CCTV Control	American Dynamics SD Ultra VII camera firmware version 2.03, dated January 24, 2006	3		X	
CCTV Control	American Dynamics SD Ultra 8 camera firmware version 1.09, FPGA version 2006/10/31 15:18	3		X	
Video Switching: IP Video	VBrick 4200/5200	1		X	
Video Switching: IP Video	Teleste IPE301 and IPD301	1		X	
Video Switching: IP Video	Coretec VCX2400D/VCX2400E	1		X	
Video Switching: IP Video	iMpath i1000/i4100	1		X	
Video Switching: IP Video	Cornet Technology iVDO Streamer 2/4D / iVDO Streamer 2/4E	1			X
Video Switching: IP Video	Teleste MPC-E1, MPC-D2, EASI–MPC-D (1, 2, and 4 channel), EASI–MPX-D (8 channel), EASI–MPC-E (1, 2, and 4 channel)	4.3		X	
Video Wall	Barco/Argus Apollo, API ver 1.8	1		X	
Safety Barrier	Safety Barrier Device Protocol	2		X	
Traffic Detection	BiTrans B238-I4	1	X		
Traffic Detection	EIS RTMS, Issue 2 (April 2003)	2		X	
Traffic Detection	Wavetronix RTMS: SS105 SmartSensor Data Protocol V2.02	2		X	
Traffic Detection	Canoga Microloops, TM-2003-8 (June 2003)	2		X	
Traffic Detection (AVI)	SIRIT Identity Flex Title 21 SIRIT5000FSD (Revision E 2003)	4		X	

Subsystem	Protocol Reference	Release	Original ITN	Added in ECO	Vendor Funded Testing
Traffic Detection (AVI)	lTransCore Allegro IT2020	4		X	
Traffic Detection (LPR)	Inex Zamir Zap (2008)	4		X	
HAR	Highway Information Systems DR2000	2	X		
Ramp Meters	FDOT Ramp Metering Firmware V1	2		X	
RWIS	NTCIP 1204 v02.18 (April 2004)	2	X		

The Design-Build Firm may propose alternate ITS equipment; however, the Design-Build Firm shall be responsible for developing the drivers for these devices or other necessary software revisions for integration into the SunGuide® Software. The drivers for any devices shall conform to the latest SunGuide® Interface Control Document available at http://sunguide.datasys.swri.edu/ to ensure compatibility for integration with the SunGuide® Software. The Design-Build Firm shall coordinate with the Central Office and the SunGuide® Software Developer in developing and testing the device drivers.

1.3.2 Network Infrastructure

The SunGuide® network infrastructure, SunGuide® servers and SunGuide® clients shall already have been installed, tested, and accepted at the SWIFT Center by FDOT District 1 as the result of the Collier/Lee/Charlotte I-75 FMS projects. The Design-Build Firm is responsible for the new SunGuide® network infrastructure, SunGuide® servers and SunGuide® clients (including 11 workstations) at the Sarasota-Manatee STMC.

The SWIFT Center IT Manager has recently implemented a Microsoft Clustering environment at the SWIFT Center to provide full redundant network services for the existing ITS devices in Collier, Lee and Charlotte Counties. The Design-Build Firm is responsible for coordinating with the SWIFT Center IT staff to implement a similar Microsoft Clustering environment at the Sarasota-Manatee STMC.

The IP address range that includes the unicast and multicast addresses have already been allocated for the District 1 ITS network. The IP addresses will be provided to the Design-Build Firm by the Department. The Design-Build Firm Integrator shall meet with the SWIFT Center Manager and SWIFT Center IT Manager prior to any work being done within the SWIFT Center or Sarasota-Manatee STMC. This Pre-Integration Meeting is to discuss any issues, concerns, and the Design-Build Firm's plan to minimize the impact to the existing ITS at the SWIFT Center.

The Design-Build Firm shall develop an integration plan to include that details all equipment, software and scheduling to occur during the integration portion of the project. The Design-Build Firm shall submit the preliminary integration plan 30 days prior to the Pre-Integratoin meeting. The plan shall be finalized after the meeting and again submitted to the Department for review and approval.

1.3.3 Device Worksheets

The Design-Build Firm shall coordinate with the SWIFT Center IT Manager and the Department to collect and provide the required information about each device to be utilized by the SunGuide® software. Examples of information for CCTV cameras and DMS components are identified below. Other devices require similar information be provided. The Design-Build Firm shall coordinate with the Southwest Research Institute (SwRI) for the exact information to provide for these devices. This information shall be included in/on the Design-Build Firm's 100% plans submittal.

These device worksheets will be used as tracking sheets for the ITS devices installed as part of the Sarasota and Manatee I-75 FMS project. The Design-Build Firm, CEI, Department personnel and the SWIFT Center IT Manager will participate in a Pre-Integration Meeting to discuss the expectations of all parties during the Integration portion of the project.

The Design-Build Firm shall coordinate with the SWIFT Center Manager and SWIFT Center IT Manager prior to the 100% plan stage so that the device naming convention and sequence numbers are implemented in that submission.

The Design-Build Firm shall provide the following data for each CCTV camera to be configured:

Table 1.2: CCTV Camera Data Configuration Documentation Requirements

Data	Description
Camera Name	The data identifies the unique name of each camera.
Center ID	The data identifies the unique name of the center where each camera resides.
Protocol	The data specifies the protocol (values: SNMP, SNMP(PMPP)) for each camera.
Poll Process	The data provides the name of the driver for each camera.
Manufacturer	The data identifies the manufacturer of each camera.
Location Description	The data describes where each camera resides.
Roadway	The data identifies the roadway where each camera resides.
Direction	The data identifies the direction of the roadway where each camera is installed.
Latitude	The data identifies the latitude where each camera resides.
Longitude	The data identifies the longitude where each camera resides.
Op Status	The data identifies the operational status (values: Active, Error, Failed, OutOfService) of each camera.
Address Type1	The data identifies the address type (values: pmppAddress, commAddress) for each camera. (If pmppAddress, then the camera uses SNMP (PMPP); if commAddress, then the camera uses SNMP.)
Address Type2	The data specifies the address type (value: portServerAddress) of Address Type 1.
Address	The data identifies the device address of each camera.
Port Server IP	The data identifies the IP address for the port server where each camera resides.
Port Server Port Number	The data identifies the port number for the port server where each camera resides.
Community Name	The data identifies the community name for each camera.
Attach to Video Device	If selected, additional IP video parameters must be supplied.

The Design-Build Firm shall provide the following fields for IP video:

Table 1.3: IP Video Documentation Requirements

Data	Description
Video Device IP Address	The data identifies the IP address for the encoder.
Blackout	The data determines if the camera is restricted.
Video Device Type	The data identifies the video device type (IP video device) for the encoder.
IP Streaming Driver ID	The data identifies the unique IP video switch driver name.
Card Number	The data identifies the card number for the encoder.
Manufacturer	The data identifies the manufacturer values of the encoder.
Model	The data identifies the model of the encoder.
Streaming Type	The data identifies the streaming type (values: elementary, transport, program) for the encoder.
Secondary Interface	The data identifies the secondary interface for the encoder that enables users to maximize the number of inputs for the encoder.
Snapshot Requested	The data determines if snapshots are generated for the encoder.

The Design-Build Firm shall provide the following data for each DMS to be configured:

Table 1.4: DMS Configuration Documentation Requirements

Data	Description
Sign Name	The data identifies the unique name of each DMS.
Center ID	The data identifies the unique name of the center where each DMS resides.
Protocol	The data specifies the protocol (values: SNMP, SNMP (PMPP), SunGuide® (for Trailblazers) for each DMS.
Connection Type	The data specifies how each DMS is connected to the network (values: Direct, Modem, Long Distance Modem).
Poll Process	The data specifies the name of the driver for each DMS.
Packet Timeout	The data identifies the amount of time the driver will wait on a response from a DMS before timing out. The recommended time is 5 seconds.
Packet Retry Limit	The data identifies how many times a packet is attempted before it errors out. For most signs, the recommended number is 2; for signs prone to errors, this number can be increased.
Command Retry Limit	The data identifies how many times a command is attempted before it errors out. A command consists of multiple packets. The recommended number is 1.
Op Status	The data provides the operational status (values: Active, OutOfService) for each DMS.
Manufacturer	Values: Name of the sign manufacturer.
Number of Lines	The data identifies the number of displayable lines for each DMS.

Data	Description
Number of Columns	The data identifies the number of characters that can be displayed using a normal font.
Beacons	The data identifies whether the sign has beacons and, if so, specify the beacon address.
Beacon Address	The data identifies the address where the sign receives activate/deactivate beacon requests.
Day Brightness Level	The data identifies the numeric value for the brightness setting during the daytime.
Night Brightness Level	The data identifies the numeric value for the brightness setting during the nighttime.
Font	The size of the font currently displayed. Represented in horizontal pixels by vertical pixels. (Example: 5 pixels x 7 pixels)
Sign Type	Values: Fiber Optic, LED, Flip-Disk, Shutter
Location Description	This is a text field describing the location of each DMS.
Roadway	The data identifies the roadway where each DMS resides.
Direction	The data identifies the direction of the roadway where each DMS resides.
Latitude	The data identifies the latitude where each DMS resides.
Longitude	The data identifies the longitude where each DMS resides.
Address Type 1	The data identifies the address type (values: PMPP, SunGuide®) for each DMS. (If PMPP, then the DMS protocol should be SNMP (PMPP); if SunGuide® or MarkIV, then the DMS should use the same protocol name.)
Address Type 2	The data identifies the specific address type (values: Direct, PortServer, Dialup) of Address Type 1.
Address	The data identifies the device address for each DMS.
Community Name	The data identifies the community name for each DMS.

The Design-Build Firm shall provide the following fields for each DMS connected via a TCP/IP connection:

Table 1.5: DMS with TCP/IP Configuration Documentation Requirements

Data	Description
Port Server IP Address	The field identifies the IP address for the port server where each DMS resides.
Port Server Port Number	The field identifies the port number for the port server where each DMS resides.

The Design-Build Firm shall be responsible for providing all data necessary to populate the SunGuide® database. The Design-Build Firm shall coordinate with and provide this data to the SWIFT Center IT Manager in accordance with a mutually agreeable format and schedule as determined in the Pre-Integrations meeting. No additional contract time or cost will be provided to the Design-Build Firm for

this effort. The SWIFT Center IT Manager will enter the appropriate data into the SunGuide® database. The Design-Build Firm shall be responsible for observing and verifying that the SWIFT Center IT Manager enters the correct data. At no time will the Design-Build Firm be granted SunGuide® administrative rights to the Department's SWIFT SunGuide® Software System.

The database developed and installed by the Design-Build Firm at the Sarasota-Manatee STMC shall be a duplicate of the complete database at the SWIFT Center, including the information on the existing Collier/Lee/Charlotte County devices. This shall also include Microsoft Clustering by Design-Build Firm personnel whose experience with Microsoft Clustering has been reviewed and approved by the Engineer.

1.4 Documentation Requirements

1.4.1 Materials Submittal

The Design-Build Firm shall provide the following submittals for equipment and components for each of the project elements and subsystems identified in this MTR:

Catalog Cut-sheets: The manufacturer/vendor-provided catalog cut-sheets shall pictorially describe the item or component in detail. The exact model of the proposed device shall be clearly marked.

Installation Procedures: The manufacturer/vendor-provided manual shall indicate clearly and pictorially the installation procedures for all components, subassemblies, and assemblies.

User Manual: The user manual shall describe, in sufficient level of detail, how the equipment must be operated. The user manual shall include such pertinent operational information as control layouts, displays, etc., for properly operating a fully functioning unit. The manual shall document operating procedures describing the initial turn-on and adjustments to ensure an operational system within the performance requirements, as well as system-level corrective maintenance procedures. The manual shall include information on troubleshooting common device errors and malfunctions.

Maintenance Manual: The manufacturer/vendor-provided maintenance manual shall indicate clearly and pictorially the maintenance procedures for all components, subassemblies, and assemblies. The manual shall include pertinent information on maintaining and repairing the equipment, hardware, software, connections, interfaces, and peripheral cabling as applicable. The manual shall include sections that completely describe the theory of operation using block diagrams and schematic drawings; diagnostic and repair procedures for corrective maintenance of the unit; assembly and disassembly instructions and drawings; layout drawings showing location of all components; and a complete components listing showing component type, ratings, and acceptable manufacturers. The manual shall include all pertinent preventative maintenance activities recommended by the manufacturers and the associated timeframes.

Software Manual: For software that is furnished for operating an individual subsystem, a software manual shall be provided describing the operation of the software, including all the features of the graphical user interface.

Warranty Documentation: The warranty documentation for the equipment shall warrant against all defects and/or failure in design, materials, and workmanship for the minimum warranty duration specified for each piece of equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786 or the MTR, whichever is greater. The Design Build Firm shall identify in the Technical Proposal each guaranteed feature with its associated type of distress and threshold values defining the extent and magnitude of such distresses that will necessitate remedial work and the proposed remedial action plan for each distress. Warranty documentation shall be submitted prior to and as a condition of Final Acceptance

Integration Plan: The Design-Build Firm shall provide a detailed plan of action that discusses the process for integrating the new devices into the existing SunGuide® Software at the SWIFT Center with minimal interruptions to the ongoing operations of the Collier/Lee/Charlotte FMS devices. The plan shall include the process for upgrading the existing video wall at the SWIFT Center. The additional workstations at the SWIFT Center and the new workstations at the Sarasota-Manatee STMC shall also be included for installation and integration. All known interruptions to services shall be planned for off-peak hours and coordinated with the SWIFT Center Manager and operations staff.

ITS Fiber Management (ITSFM) Tool Worksheets: These worksheets shall be completed in their entirety for use in inputting the information about the new devices into the ITSFM Tool. The forms include information about the type of device site, device make and model number, IP addresses, serial numbers, GPS coordinates, power service, fiber details, etc. The most up to date worksheets shall be provided to the Design-Build Firm, upon request, for completion prior to final acceptance of the project.

The Design-Build Firm shall not send in submittal data or cut sheets for the switches and other networking equipment until the final design is released for construction.

1.4.2 Test Plans

The Design-Build Firm shall prepare Test Plans for the individual subsystems provided for this project. The Test Plans shall be prepared based on the testing requirements identified in the individual subsystem sections of this MTR and the Supplemental Specifications. Where the test requirements are not identified, the Design-Build Firm shall prepare detailed plans for review by the Department before testing. The Test Plan shall include, as a minimum, the following sections:

- Date, time, location, and estimated duration of test
- Name of firm and names of engineers designated as witnesses
- Description of subsystem to be tested, showing a test of every function of the equipment or system to be tested
- Test equipment list
- Test objectives
- Test sequence details – a step-by-step outline of the test sequence to be followed
- Test duration
- Expected results – a description of the expected operation outputs and test results
- Test result forms – forms to be used to record all data and quantitative results obtained during the test
- A connection diagram wherever applicable
- Software - the Design-Build Firm shall supply the Department with full documentation and shall supply a copy of all diagnostic software

1.4.3 Requirements Traceability Verification Matrix (RTVM)

The Systems Engineering Process directs the development of the Requirements Traceability Verification Matrix (RTVM). The RTVM is a tracking document used to verify that contract requirements are met using four different methods: analysis, demonstration, inspection and testing. Each of the contract requirements from the RFP and this MTR shall be documented in the RTVM with a verification method.

The Department shall prepare the initial RTVM for use by the Design-Build Firm. The Design-Build Firm shall update the RTVM as contract requirements are verified by one of the four methods.

The RTVM is a living document and shall be updated and submitted to the Department for review with each milestone demonstrating and documenting how successful completion of the verification satisfies the contract requirements. The Department will review the RTVM and provide comments, as needed, to the Design-Build Firm for incorporation into the RTVM. Once the project construction is finished and the testing is successfully completed, the RTVM should be finalized by the Design-Build Firm and delivered

with the as-builts to the Department.

1.5 Training Requirements

The Design-Build Firm shall provide three separate training modules:

- Training module 1:
  Training on the basic description of capabilities and functions and the purpose in the system of each subsystem or component. Training that uses vendor-provided software and hardware shall be optional based upon the preference of the Engineer.
- Training module 2:
  Training on the operation and maintenance of each subsystem and component provided in this project using the SunGuide® Software System.

1.5.1 Training Documentation

The Design-Build Firm shall prepare training material for providing training on the operation and maintenance of each subsystem/component provided in this project using vendor-provided operation and management tools, including all necessary software and hardware.

The Design-Build Firm shall prepare training materials to be used on the operation and maintenance of each subsystem/component provided in this project using the SunGuide® Software System.

The training materials shall include an introductory level briefing to familiarize attendees with the subsystem/component. The training materials shall also include an engineering/operations course that provides an overview for basic understanding of the subsystem/component operation and how it fits into the overall system. The materials shall include subsystem elements, theory of operation of components, operating procedures and capabilities, hardware and software configuration, and software applications.

The Design-Build Firm shall furnish 15 sets of approved training course materials for each one of the three separate training modules. All materials, including any figures and drawings, shall also be submitted in electronic format on CD-ROM. Fifteen copies of the CD-ROM shall be submitted to the Department and shall adhere to the CD-ROM requirement and CADD deliverable sections.

All training modules shall be recorded onto DVD for use in future training of operations and maintenance personnel on the referenced material. The Design-Build Firm shall provide two sets of training DVDs to the Department at Final Acceptance.

1.6 Warranty

The Design-Build Firm shall provide a manufacturer's warranty(s) for materials as described in this document. Said warranty(s) shall be transferable from the Design-Build Firm to the Department upon the expiration of the Design-Build Firm's Maintenance Agreement as described in section 1.7.

System components shall be warranted against all defects and/or failure in design, materials, and workmanship for the minimum warranty duration specified for each item of equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786 or this MTR, whichever is greater.

Any components not covered under the FDOT Standard Specifications, Supplemental Specifications, or this MTR shall have a one year warranty provided by the Design-Build Firm. If the manufacturer's warranties for project components are for a longer period, those warranties shall continue to apply.

The warranty period shall begin as of the date that the Department issues written notice of Final Acceptance. The Maintenance Agreement, as described in section 1.7, shall cover the first year of the Warranty. At the conclusion of the Maintenance Agreement, the Design-Build Firm shall transfer the

balance of the Manufacturer's Warranties to the Department.

The Department reserves the sole right to determine defects in the materials and systems installed or modified by this project and the acceptability of the warranty repair and defect correction, including adjustment of equipment provided as a part of this project.

1.7 Maintenance Agreements

At the conclusion of the project and concurrent with Final Acceptance, the Design-Build Firm shall provide agreement(s) to maintain all equipment installed under this contract for a period of one year at no additional cost to the Department. The Design-Build Firm's maintenance agreement shall provide a point of contact that can be reached by telephone and/or electronic communications 24 hours/day 7 days/week and a knowledgeable technical person at the site of the failure within 4 hours of notification.

The Maintenance Agreement shall include the following services:

- Submittal of a repair or replacement plan within 48 hours from the receipt of the notice of the occurrence from the Department;
- Removal of failed equipment;
- Returning of failed equipment to the manufacturer for warranty repairs;
- Tracking and reporting on manufacturer's repair status;
- Reinstallation of the repaired equipment; and
- Testing and documentation that the repairs are satisfactorily completed.

Repairs shall be aggressively pursued to completion and restoration of equipment to service.

If the Design-Build Firm is unable or unwilling to begin the repairs of defects within five days of the receipt of notice of the occurrence by the Department, then the Department may perform the repair of the deficiencies or defects and submit a claim to the Design-Build Firm for the repairs.

Any ITS device or ancillary component that, in the opinion of the Department, fails three times after Final Acceptance and prior to the expiration of the Maintenance Agreement shall be judged as unsuitable and shall be replaced by the Design-Build Firm with a new ITS device or ancillary component of the same make and model at no cost to the Department.

The Design-Build Firm shall perform preventative maintenance services on all the ITS components covered under the Maintenance Agreement on a quarterly basis during the year following final acceptance. The Department shall provide the minimum preventative maintenance activities for the Design-Build Firm's use.

The Design-Build Firm shall provide all preventative maintenance checklists to the Department quarterly and at the end of the Maintenance Agreement term. The Design-Build Firm shall conduct a meeting with the Department to discuss the end of the Maintenance Agreement and transfer of responsibilities to the Department. This meeting shall occur 45 days prior to the end of the Maintenance Agreement term. The Design-Build Firm shall provide the Department with a schedule of the preventative maintenance activities as a stipulation of Final Acceptance.

2.0 ENHANCEMENTS TO THE SARASOTA-MANATEE COUNTY SATELLITE TRANSPORTATION MANAGEMENT CENTER (STMC)

The following are the requirements for the enhancements to the Sarasota-Manatee STMC and connection to the SWIFT Center. Entry into the STMC shall require a pass issued by the STMC Operator (Manatee County). The STMC Operator will issues passes only after a complete background check, including fingerprinting, of each applicant. Since the time to complete the required checks depends on the background of the applicant, it is not possible to state the time required to complete the check. The Design-Build Firm shall include this time in their schedule as no additional time will be granted for processing of STMC pass requests.

2.1 Integration with the I-75 FMS

The Sarasota-Manatee STMC SunGuide® environment is envisioned to work primarily as a remote workstation to the SWIFT Center SunGuide server installation. The I-75 FMS components within Sarasota and Manatee Counties shall operate through the remote connection at the Sarasota-Manatee STMC 16 hours per day Monday through Friday and shall turn over operations to the SWIFT Center operators overnight and on weekends. The Sarasota-Manatee STMC must also seamlessly access and manage the I-75 FMS in District 1 (Collier, Lee, Charlotte, Sarasota and Manatee County devices) without access to the SWIFT Center servers and shall serve as a redundant backup system for the I-75 FMS should a cable break occur between the two RTMCs. If a break occurs in the 96-strand fiber, the Sarasota-Manatee STMC shall control the devices north of the break and the SWIFT Center shall control the devices south of the break.

In the case of a disaster that totally disables the SWIFT Center or creates a situation requiring an evacuation, the Sarasota-Manatee STMC must be able to manage all of the devices in the I-75 FMS network.

2.2 Communication Equipment

The Design-Build Firm shall install a new Gigabit Ethernet switch at the Sarasota-Manatee STMC, the same as or equivalent to the Gigabit Ethernet switch (NetIron MLX-4 Router and FastIron WS648G Switches) to be provided at the SWIFT Center per section 3.2 of this MTR. One Gigabit Ethernet port shall connect directly to the SWIFT Center's Core Gigabit Ethernet switch via a pair of dedicated fiber strands within the I-75 FMS fiber optic cable. Three Gigabit Ethernet ports shall connect to the three closest FMS field hub switches using three separate pairs of dedicated fiber strands within the I-75 FMS fiber optic cable.

The Design-Build Firm shall provide a 45 Megabit internet connection, for the exclusive use of the FDOT, at the STMC. It shall be available to and at all FDOT workstations and back office locations. This connection shall be provided as necessary to meet the requirements of the Sarasota-Manatee STMC and shall be maintained until the date of Final Acceptance.

The Design-Build Firm shall provide a new firewall that is fully compatible with the existing SWIFT Center firewall, including but not limited to Software Blade Architecture, Site to Site VPN, IPS, Advanced Routing, High Performance, and Web Security. This firewall shall include four 2-port 1000Base-SX Ethernet SFP cards. A datalink between the two firewalls shall be configured to provide a redundant path between the SWIFT Center and the Sarasota-Manatee STMC. This work shall include the configuring of any VPNs necessary for creating a redundant ring between the two RTMCs.

2.3 Network Infrastructure

The Design-Build Firm shall install a new set of I-75 FMS servers at the Sarasota-Manatee STMC, in four new server racks (not network racks) and identical in performance and number to the existing set of I-75 FMS servers at the SWIFT Center. The new racks shall have front and back mesh doors that are lockable with two keys per rack and all keyed alike. The cable ladder over the existing racks shall be extended over the new racks. Each rack shall consist of two (eight total) Power Distribution Units that shall provide power distribution to each server rack. These new Sarasota-Manatee STMC servers shall work as hot stand-by servers in case the SWIFT Center SunGuide® servers fail or there is a loss of connectivity with the SWIFT Center. All of the current and future I-75 FMS devices and all of the current and future SunGuide® operators shall be identical in both sets of server databases. The databases of these new servers shall automatically and dynamically synchronize with the servers of the SWIFT Center using the Gigabit Ethernet connectivity over the I-75 FMS fiber optic cable. The Sarasota-Manatee STMC servers shall be part of a Microsoft Clustering group for the SunGuide® Software System. The Design-Build Firm is responsible for the design, procurement, installation and integration of all necessary equipment to provide the above configuration. This shall include all ancillary components not specifically detailed, but necessary to make the system function as intended.

The Design-Build Firm shall provide, install, configure and integrate into the system a Smart Array Network (SAN) (HP MSA 2312sa G2) constisting of at least the following:

- High Performance Modular Smart Array controller with two 1 GbE ports per controller;
- Dual Controller;
- Four 3 Gb SAS ports per controller;
- Supports Fiber Channel ports, iSCSi ports, and SAS ports;
- RAID levels 0, 1, 3, 5, 6, 10, 50;
- Redundant power supplies;
- Supports expansion for additional enclosure;
- Non-disruptive on-line controller cods upgrade;
- Heterogeneous support for 32 bit and 64 bit Windows OS;
- Qualified and certified for Windows clustering;
- Minimum of 6 TB of disk storage; and
- Web browser support.

Two servers for the SunGuide® Database each meeting at least the following criteria:

- 2x Intel Xeon 2.6 GHz Processors;
- 12 GB Memory;
- 2 x 146 GB 15K 2.5 HDD (Hot Pluggable);
- Redundant High output power supplies (Hot pluggable);
- Windows Server 2008 R2 Enterprise;
- DVD ROM;
- On-Board dual Gigabit Network Adapters;
- 2 x HBA cards to connect to SAN; and
- Oracle 11.2G with Safeguard.

Four servers for the SunGuide® Application each meeting at least the following criteria:

- 2x Intel Xeon 2.6 GHz Processors;
- 8 GB Memory;
- 2 x 146 GB 15K 2.5 HDD (Hot Pluggable);
- Redundant High output power supplies (Hot pluggable);
- Windows Server 2008 R2 Enterprise;
- DVD ROM;

- On-Board dual Gigabit Network Adapters; and
- 2 x HBA cards to connect to SAN.

2.4 Video Wall Display

At the Sarasota-Manatee STMC, there shall be two independent video wall systems with their dedicated video wall controllers and video display cubes. One video wall system is dedicated to the operation of the Manatee and Sarasota Counties ATMS and has been installed by others. The second video wall system is dedicated to the operation of the I-75 FMS and shall be designed, procured, installed and integrated by the Design-Build Firm. There shall be no commonalities between these two video wall systems, except that they share the same physical wall.

To display the images from the FMS devices, the Design-Build Firm shall expand the existing video wall with 12 new display cubes similar to the existing cubes, together with ancillary equipment and cabling, so that the entire wall appears as one unit. A separate video wall controller compatible with the SunGuide® software and on the Approved Products List (APL) shall be provided. A software-based controller installed on servers is acceptable as long as it meets the requirements herein and is included on the APL.

The Design-Build Firm shall install twelve new four-channel decoder cards, dedicated to displaying 48 simultaneous I-75 FMS CCTV camera images on the new video wall. Each of the 12 video cards shall decode both MPEG-2 and MPEG-4 video streams and be configured to decode four simultaneous MPEG-2 video streams. In addition, each of these 12 decoder cards shall decode, or shall be firmware upgradable to decode H.264 video streams. The 12 cubes within the new video wall must each display 4 images simultaneously and tour (or scroll) through a total of 200 CCTV camera images.

The support structure for the 12 cubes shall support 4 additional cubes which will be installed later by others.

As part of the video wall installation, the Design-Build Firm shall remove the existing curtain covering the space intended for the 12 FDOT cubes, leave the upper curtain over the entire wall, and fill any gaps or holes in the wall surrounding the new displays and the existing ATMS video wall to provide a finished look that appears as one unit. This finished look shall incorporate a frame similar to that at the SWIFT Center.

The Design-Build Firm is responsible for protecting their equipment within the Sarasota-Manatee STMC as the video wall system is installed. The Design-Build Firm shall be responsible for repairing any damage it causes to the existing facilities in the Sarasota-Manatee STMC, performing the repairs within the current contract time at no additional cost.

2.4.1 Video Wall Control

The Design-Build Firms shall provide video wall control that configures the display format of the video images on the video wall display. The video wall control shall include:

- Video wall management system software
- Remote control system
- Touch panel key pad system including:
  - Hardwire touch panel
  - Wireless touch panel

2.5 Workstations

The Design-Build Firm shall provide 11 new SunGuide® FMS workstations dedicated to I-75 FMS usage at the Sarasota-Manatee STMC. The five workstations in the control room shall have four 22” LCD monitors and the six back office workstations shall have three 22” LCD monitors. The hardware of these

new workstations shall be configured as regular SunGuide® clients of the SWIFT Center, identical to the I-75 FMS client workstations located at the SWIFT Center. The Design-Build Firm is responsible for all necessary power and communications necessary to integrate these workstations into the I-75 FMS network.

These workstations shall meet or exceed the following minimum specifications:

- Intel Core 2 Quad Q9650 3.0 GHz or better CPU
- Video card(s) to handle 4 monitors
- At least 8 GB of RAM
- At least 150 GB hard drive
- DVD/CDROM drive
- 10/100/1000 Network Interface card
- Keyboard and mouse
- Speakers

These workstations shall have the following minimum software installed:

- Windows 7 Professional 64 bit Operating System
- All Windows 7 updates and security patches
- Microsoft Office Professional (Latest Version)
- Adobe Reader (Latest Version)
- The Design-Build Firm shall coordinate with the SWIFT Center Operations Manager and IT Manager to have Symantec Endpoint Protection installed and to ensure that the workstations provided are properly configured to accept the SunGuide® software.

The Design-Build Firm shall provide 24 wireless headsets, each with one earphone and a microphone. The microphones shall be configured into the network to permit each workstation operator to record HAR messages and 511 floodgate messages and listen to existing department emergency management scanners over the internet via software provided by the Department.

2.6 Printer, Copier, Scanner and Fax

The Design-Build Firm shall provide two all-in-one (AIO) multifunction printer/copier/scanner/fax combinations connected to the network to provide centralized document management, distribution and production. One AIO shall be located in the back office area and one shall be located on the control room floor. The AIOs shall meet the following minimum requirements:

General Features:

- 30-sheet document feed;
- 150-sheet input capacity;
- 125-sheet output capacity;
- Media sizes: Envelope, ledger, letter, and legal; and
- Media type: Paper (standard, light, intermediate, heavy, glossy and high gloss), envelope, cardstock, transparent label.

Printer Features:

- Black and white; and
- Duplex printing from single side documents.

Copier Features:

- Black and white;
- Copy settings: contrast, resolution, reduction/enlargement, number of copies, paper size;
- Duplex copying from single side copies; and
- Reduction/enlargement: 25-400%.

Scanner Features:

- Color;
- Simplex and duplex; and
- Flatbed and sheet fed.

Fax Features:

- Auto redial;
- Fax forwarding;
- Fax auto reduction;
- Distinctive ring detection;
- 120 speed dials; and
- 120 broadcast/group dials.

2.7 Electrical Equipment

Preliminary provisions have been made to support the electrical requirements of the new video wall and its supporting equipment. The Department will make available the best information on the existing electrical installation, however the accuracy of the information made available is not guaranteed. The Design-Build Firm shall investigate and verify the existing electrical system conditions. The Design-Build Firm shall document the effect the proposed loads will have on the existing system as far uplink as the main building electrical disconnect switch. The Design-Build Firm shall be responsible for improvements to the existing electrical system necessary to support the equipment being installed so that the final building electrical system is fully compliant with the NEC.

2.8 Furniture Requirements

Per Section 946.515 (2), F.S., furniture purchases must be made from PRIDE unless a "reasonable determination" can be made that the product available from PRIDE does not meet the performance specifications, comparable price and quality requirements of the agency. The "reasonable determination" must state the specific deficiencies or shortcomings in quality and/or disparity in pricing of the PRIDE products. The Design-Build Firm shall use Form No. 375-040-66 to document the determination and include with the project documentation.

This is the website Uniform Resource Locator (URL) for the PRIDE furniture estore. Furniture selections are at the left of the page.

http://www.prideestore.com/Pridestore/Products/Furniture/Default.aspx

If the Design-Build Firm determines that furniture cannot be purchased from PRIDE, they shall use a state contract for the procurement. If the product needed is not available from either PRIDE or State Contract, the Design-Build Firm must document this by using Form No. 375-040-02.

State contracts available for the purchase of furniture:
http://dms.myflorida.com/business_operations/state_purchasing/vendor_information/state_contracts_agreements_and_price_lists/state_term_contracts/furniture_office_and_files

http://dms.myflorida.com/business_operations/state_purchasing/vendor_information/state_contracts_agreements_and_price_lists/state_term_contracts/furniture_educational_institutional

http://dms.myflorida.com/business_operations/state_purchasing/vendor_information/state_contracts_agreements_and_price_lists/state_term_contracts/furniture_library

The Design-Build Firm shall provide furniture for the five back offices and the administrative assistant area.

Each of the five offices shall contain:

- A six foot wide desk with a four foot return;
- A 5-way adjustable desk chair;
- A guest chair;
- A 4-drawer file cabinet that accepts legal size files; and
- A 4-shelf bookcase.

The TMC Manager's office shall have an additional guest chair. The administrative assistant area shall contain a counter with writing area that is installed to close off the area from the walkway. The furniture quality shall be equal to or better than that in use at the SWIFT Center.

2.9 Warranty

The Design-Build Firm shall provide a manufacturer's warranty(s) for materials as described in this document. The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

System components shall be warranted against all defects and/or failure in design, materials, and workmanship for the minimum warranty duration specified for each item of equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786 or this MTR, whichever is greater.

If the manufacturer's warranties for the components are for a longer period, those warranties shall continue to apply.

All hardware requires a three-year service plan agreement for next business day parts and service from the date of Final Acceptance. All software, except the Oracle software, requires three years of licensing and telephone customer support from the date of Final Acceptance.

The Department reserves the sole right to determine defects in the materials and systems installed or modified by this project and the acceptability of the warranty repair and defect correction, including adjustment of equipment provided as a part of this project.

3.0 IMPROVEMENTS TO THE SWIFT CENTER

The Design-Build Firm shall provide the following improvements to the SWIFT Center. These improvements shall be documented as part of an overall integration plan as detailed in section 1.4.1 of this MTR. The Design-Build Firm's activities in the SWIFT Center control room shall be limited to the time between 10:00 AM and 2:00 PM or between 7:00 PM and 5:00 AM the next day on week days. There are no prohibited hours on non-holiday weekends. The maximum time that the center can be "down" is 4 hours in any 24-hour period and only during the hours shown above.

3.1 Video Wall Controller Upgrades

There is an existing Barco Transform A-18 Video Wall Controller (VWC) at the SWIFT Center. The Design-Build Firm shall provide a new VWC compatible with the SunGuide® software and on the Approved Products List (APL) to integrate the new and existing CCTV camera images into the SWIFT Center video wall and to provide for the following:

- The 15 cubes in the video wall must display 4 images simultaneously and tour (or scroll) through a total of 200 CCTV images
- Switching capability must be installed and available for two existing large screen monitors – one in the lobby and one in the downstairs conference room
- Switching capability must be installed and available for 6 future large screen monitors
- Decoding of MPEG-2, MPEG-4, and H.264 video streams

A software-based controller installed on servers is acceptable as long as it meets the requirements herein and is included on the APL. All controllers must be capable of integration with SunGuide®.

The Design-Build Firm shall procure and install the additional equipment needed such that the new images are integrated seamlessly into the wall display and large screen monitors and that the previously available functionality is available to/for the new cameras installed as part of this construction contract.

There is an existing Crestron control system at the SWIFT Center that includes a hardwired touchpanel, a wireless touchpanel and a media controller. The Design/Build Firm shall reintegrate this system with the new video wall controller or provide an alternate solution for approval by the Department.

3.2 Standby Switch

The Design-Build Firm shall provide a new switch for the SWIFT Center with a minimum of 40 fiber ports (1 Gig each) and a minimum of 96 copper ports 10/100/1000 Layer-2. This switch shall mirror the current core switch that consists of a Layer-3 router and 2 Layer-2 switches with 48 copper ports each. This switch is intended as a backup to the core switch and will be installed by others.

3.3 Warranty

The Design-Build Firm shall provide a manufacturer's warranty(s) for materials as described in this document.

System components shall be warranted against all defects and/or failure in design, materials, and workmanship for the minimum warranty duration specified for each item of equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786 or this MTR, whichever is greater.

If the manufacturer's warranties for the components are for a longer period, those warranties shall continue apply.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

All hardware requires a three-year service plan agreement for next business day parts and service from the date of Final Acceptance. All software, except the Oracle software, requires three years of licensing and telephone customer support from the date of Final Acceptance.

The Department reserves the sole right to determine defects in the materials and systems installed or modified by this project and the acceptability of the warranty repair and defect correction, including adjustment of equipment provided as a part of this project.

4.0 CAMERA SURVEILLANCE SYSTEM

4.1 Description

There is a camera surveillance system monitoring I-75 in Collier, Lee, and Charlotte Counties from the Collier/Broward County line to approximately one mile north of the Charlotte/Desoto/Sarasota County line. The SWIFT Center monitors the camera images on this section of I-75.

In this Sarasota and Manatee County FMS, the SWIFT Center will monitor the additional CCTV cameras required. As part of this project, all new and existing camera images shall be integrated into the new video wall at the Sarasota-Manatee STMC that shall function as a redundant backup to the existing SWIFT Center camera surveillance system.

The CCTV camera system shall provide complete coverage for the project limits per the following minimum requirements:

- Space cameras at approximately one mile, or closer if required for complete coverage, between the existing CCTV one mile north of the Charlotte/Desoto/Sarasota County Line and the intersection of I-275 and I-75.
- Provide viewing coverage of both directions of cross roads and on- and off-ramps at all interchanges.
- Provide full video coverage of both directions of I-75 within the project limits without gaps per the video survey.
- Camera placement shall allow the RTMC/STMC operators to read all DMS messages for confirmation of message and confirm all HAR Beacons when lit.
- Provide full coverage in areas with trees in the median such that trimming of the trees will not be required to maintain the specified coverage.

4.1.1 Camera Assembly

A camera assembly is defined as a CCTV color/monochrome camera enclosed in a domed environmental housing filled with dry nitrogen, an integral motorized lens, a camera positioner, an integral receiver/driver, and all mounting hardware and power supplies. The camera shall be capable of individual, or local, camera site control by way of a laptop computer.

- The camera assembly shall be compliant with FDOT Supplemental Specification 782-1.
- The camera shall have a minimum 35x motorized optical zoom lens with automatic iris.
- The camera assembly shall provide Image Stabilization capability to compensate for the blurring of the image when the camera experiences movement due to strong winds, especially when zoomed in.
- The dome enclosure of the CCTV camera shall be capable of maintaining at least 50 percent for a minimum of 18 months.

4.1.2 Software

The image from each camera site and the control data transmitted to the camera assembly from the SWIFT Center and/or STMC central computer shall be transmitted over the Ethernet network. The image shall be encoded in the MPEG-2 digital format at the camera site and decoded with the SWIFT Center and/or STMC head-end equipment.

The system operator shall have the ability to address each camera assembly at a camera site via the Ethernet communication network.

4.1.3 Camera Lowering Device

The camera lowering device (CLD) shall be compliant with the FDOT Supplemental Specification 785-3.2.2.

The CLD shall support the camera assembly while in the locked position at the top of the pole and while lowering the camera to the ground.

The CLD shall consist of a system to raise and lower the CCTV camera assembly and shall include the cables, mechanical connectors, pulleys, cable guides, electrical connectors, and all other supporting components.

The CLD shall include a suspension contact unit for electrically connecting the power, data, and video cables of the CCTV camera assembly.

The connector pins for power, video, and control signals shall be made of material for maximum conductivity and corrosion resistance.

4.1.4 Camera Site

A camera site is defined as a single roadway location, containing a centrifugally cast, pre-stressed concrete pole with grounding and lightning protection, a CLD, a camera assembly, a grounded CCTV camera cabinet, a Video Encoder, a field Ethernet switch, power supplies including an UPS, all mounting hardware, and any and all other equipment required for a fully functional CCTV camera site.

4.1.5 Video Encoder

The Video Encoder shall be compliant with the FDOT Supplemental Specification 784-3.

The Video Encoder shall convert the CCTV camera's analog image into an encoded video stream. This encoded video stream shall support the MPEG-2 compression standard. The encoder shall support the transport mode and configured to use this mode by default.

In addition to the serial login, telnet login, and Simple Network Management Protocol (SNMP), the Video Encoder shall support a web browser interface for configuration and management.

The Design-Build Firm shall furnish all materials with the most recently developed and approved product versions that meet or exceed all FDOT standards, specifications, and requirements before the system is considered for acceptance. It is the Design-Build Firm's responsibility to ensure that all features, functions, and performance measures are met.

4.2 Design Requirements

The Design-Build Firm shall select all camera sites for optimum viewing of I-75, the on-ramp and off-ramp conditions and the arterial cross streets for both day and night operations. In order to prevent light saturation of the CCTV camera image, the CCTV camera site shall be located more than 50 feet away from any high mast lighting pole.

The location of the network of cameras shall provide:

- Full viewing coverage of both directions of I-75 within the project limits.
- Viewing of both directions of cross roads at interchanges.
- Viewing of all ramps at interchanges.
- Verification of SunGuide messages on DMS assemblies.
- Verification of HAR sign beacon activation.

All camera poles shall be located outside the clear zone as applicable to ramps and mainline travel lanes or behind existing guardrail in accordance with the FDOT *Roadway Design Standards.* If placing behind existing guardrail, there shall be enough room for a vehicle, including high lift trucks, to access the site for maintenance of the camera. Camera poles shall not be placed in the median or on the top or side of overpass slopes.

The selection of pole height and location shall be the responsibility of the Design-Build Firm, but shall be approved by the Department prior to final design.

Pole positioning for each camera site prior to placement of the pole shall be the responsibility of the Design-Build Firm, but shall be approved by the Department prior to final design. This positioning is required so that the occlusion created by the camera pole can be limited to the restricted field of view.

The Design-Build Firm shall perform a 360 degree field of view video survey at the proposed camera height for each CCTV camera site utilizing a bucket truck and the Design-Build Firm's proposed camera. The video survey shall provide a full coverage view of the I-75 corridor. The Design-Build Firm shall record these surveys for the Engineer's review and acceptance. The Design-Build Firm shall submit the video survey with the 60% plan submittal.

The minimum mounting height of the CCTV camera is 40 feet above the highest point of the roadway at the selected location. The camera height at interchanges shall be such that traffic stopped on overpasses does not obstruct the view. The camera view shall be free of obstructions. The maximum CCTV camera mounting height shall be 65 feet above ground level.

4.3 Functional Requirements

Each camera site shall be provided with the appropriate communication equipment, including image encoding devices, a terminal server (if required) for the packaging of low-speed control data, and one Ethernet switch that takes the encoded images and duplex data stream and transmits this digital data to the SWIFT Center and/or STMC head-end equipment.

All network communication interconnection devices shall be specified in design documents submitted by the Design-Build Firm. When a fiber trunk cable is used for the interconnection process, the drop cable mid-span splicing process shall be utilized. The drop cable shall be terminated and placed within a fiber optic cable patch panel in an approved camera assembly control cabinet. From there, fiber optic patch cords shall be used to connect communication devices, unless otherwise specified.

Maintenance and construction of an installed assembly shall not require lane closures.

4.4 Applicable Standards

The image from each camera site and the control data being transmitted to the camera assembly from the SWIFT Center and/or STMC central computer shall be transmitted over the Ethernet network. The image shall be encoded in the MPEG-2 digital format at the camera site and decoded with the SWIFT Center and/or STMC head-end equipment.

The system operators shall have the ability to address each camera assembly contained within a camera site by way of the Ethernet communications network. All communications between the SWIFT Center and/or STMC central computer and the camera site shall comply with the National Transportation Communications for ITS Protocol (NTCIP) requirements defined in the NTCIP 1205 standard.

The most recent versions of the NTCIP 1201, 1205 v01.08 Amendment 1 (August 2004), 1208, 2104, 2202, and 2301 standards shall apply to CCTVs for NTCIP compliance.

4.5 Material Requirements

The Design-Build Firm shall furnish all materials with the most recently developed and approved product versions that meet or exceed all applicable standards, specifications, and requirements before the system is considered for acceptance. It is the Design-Build Firm's responsibility to ensure that all camera system and subsystem features, functions, and performance measures specified are met.

All materials furnished, assembled, fabricated, or installed shall be new products obtained from the manufacturer or reseller. The materials, equipment, and components shall be Commercial Off The Shelf (COTS) products.

The supplied CCTV camera assembly shall be compatible with the SunGuide® Software System and shall be listed on the Approved Products List (APL) prior to installation.

4.5.1 Pole

All CCTV camera poles shall be compliant with the FDOT Supplemental Specification 785-3.

All camera poles shall be concrete poles. Suppliers must be on the FDOT State Materials Office listing of approved Materials/Producers Listings for Concrete-Drainage, Incidental and Pipe Sources.

The design criteria for the structural design of support structures and foundations shall be based on the Department's Design Standards, Department's Structures Manual Volume 9, and on the *AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals (LTS-4)* with current Interims. Poles shall be designed for a 3-second gust of 130 mph with a design life of 50 years.

The following requirements apply to the manufacture of centrifugally cast, pre-stressed concrete poles. All poles measuring up to and equal to 75 feet in height shall be designed to have a maximum deflection not greater than 1 inch in a 130-mile per hour wind speed. All poles measuring more than 75 feet in height shall be designed to have a maximum deflection not greater than 1.5 inches in a 130-mph wind speed. This deflection shall be measured at the top of the support structure where the base of the pan-tilt device is attached. Minimum pole height shall be 40 feet above the roadway edge of travel.
Material requirements for pre-stressed spun concrete camera poles shall include:

- Concrete – Section 346 Class VI
- Provide written certification from the manufacturer of the pole(s) that it meets the requirements of this section, Standard Index 18113, and are the same pole(s) as shown on the approved shop drawings. This includes the shop drawings and calculations for poles in accordance with note 5 of Standard Index 18113.
- Construct concrete poles in accordance with Section 450. Assume responsibility for performance of all quality control testing and inspections required by Sections 346 and 450, however; the PCI personnel and plant certifications are not required
- Ensure that each pole is permanently and legibly marked as to pole manufacturer, pole type, length and the date cast at the same position as shown on the shop drawings.
- Hardware – All structural steel hardware shall conform to the *ASTM A36* standard and zinc alloy AC41A shall conform to the *ASTM B240* standard. The finish shall be hot-dipped and galvanized as required by the *ASTM A153* standard.
- Electrical ground – All poles shall be supplied with an electrical ground consisting of a #4 braided copper ground wire cast into the pole's wall at the hand hole box location.

The pole shall be designed and constructed so that all wiring and grounding facilities are concealed within the pole. All hand holes, couplings, through-bolt holes, and ground wires shall be cast into the pole

during the manufacturing process. The pole shall provide a continuous taper of 0.18 inch for every 1 foot of length.

All cable entry holes shall be installed according to the location selected by the Design-Build Firm based on the requirements. The cable entry holes shall be sized as required and shall be free from sharp edges for the passage of electrical wiring. Entry holes shall be compliant with the FDOT Design Standards Index No. 18113.

The CLD shall be mounted to a specially designed tenon bolted to the top of the pole as required. All poles shall have a minimum inside raceway dimension of 4 inches at the tip of the pole. All poles shall be provided with a fish wire to facilitate cable installation.

4.6 Construction Requirements

The Design-Build Firm shall furnish all tools, equipment, materials, supplies, and manufactured hardware, and shall perform all operations and equipment integration necessary to provide a complete, fully operational surveillance system.

The Design-Build Firm shall install the cameras and CLDs level so that the horizon is level when viewing from the SWIFT SunGuide Center and/or STMC.

4.7 Testing Requirements

All CCTV tests shall comply with the test requirements of FDOT Supplemental Specifications 782-1.4.1 and 782-1.4.2.

The Design-Build Firm shall perform the following three separate tests:

- Stand-alone Test: This test shall be a local full functionality test ensuring the encoded MPEG-2 streams are decoded over the Ethernet Network by a software decoder running on a laptop computer and a local pan-tilt-zoom (PTZ) test over the Ethernet Network utilizing an NTCIP PTZ control program running on the same laptop computer and ensuring at least three presets are working correctly utilizing the same NTCIP control program on the same laptop computer. These tests shall be exercised over the Ethernet Network by connecting the laptop computer to an Ethernet port of the closest Ethernet Switch. The Design-Build Firm shall provide the laptop computer, software decoder, and the NTCIP PTZ control program.
- Subsystem Test: This test shall be performed at the SWIFT Center and the STMC. All of the steps of the Stand-alone Test shall be exercised in an identical manner with the exception of connecting to an Ethernet Switch port that is located at the SWIFT Center and the STMC.
- Operational Test of the Complete System: This test shall be performed at the SWIFT Center and the STMC utilizing the SunGuide® System Software over the Ethernet Network running on a SunGuide® client machine to ensure the encoded MPEG-2 streams are decoded, a remote test of the PTZ functions and at least three presets are working correctly. The Department shall provide the SunGuide® client machine to the Design-Build Firm for testing from the SWIFT Center. The Design-Build Firm is responsible for providing the SunGuide® client machine at the Sarasota-Manatee STMC.

The Design-Build Firm shall notify the Engineer at least 14 calendar days prior to installation of the camera assembly so that the Engineer, or the designated representative(s), can be present at installation to establish the appropriate settings for the pan and tilt stops.

The Engineer shall be notified at least 14 calendar days in advance of the proposed date for all testing as defined above. The Engineer has the right to witness such tests or to designate a representative or entity to witness such tests on the Department's behalf.

If during the witnessing of any one of the above tests it is determined that a camera view is not as approved or per the above requirements, the camera site shall be adjusted to provide the appropriate view.

4.8 Training and Manual Requirements

The Design-Build Firm shall provide a maintenance manual for each assembly, including detailed specifications and information regarding the inventory of installed assemblies by location and corresponding serial numbers. The manual shall include weight and dimension information, the operating temperature and relative humidity requirements, and the system's general maintenance procedures. The manual shall also include:

- Resolution
- Sensitivity
- Optical zoom range
- Digital zoom range
- Zoom and focus presets
- Pan and tilt presets
- Ethernet connection specifications
- Power consumption
- An EIA 232/422/485 camera control interface

The Design-Build Firm shall also provide documentation, one set per camera site, detailing the technical and operational aspects of the completed installation. This documentation shall include device manuals, system diagrams, cabling diagrams, all field Engineering notes specific to each installation, full warranty information, and any other documentation required by the Engineer.

The Design-Build Firm shall also supply a minimum of two days of on-site training for operations and maintenance personnel regarding all functional, operational, and mechanical aspects of the camera assembly and the supporting network communication devices.

4.9 Warranty

The Design-Build Firm shall provide a manufacturer warranty against all defects and/or failure in design, assembly, fabrication, materials and workmanship for the minimum warranty duration specified for each type of equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786 as applicable.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

5.0 COMMUNICATIONS HARDWARE

5.1 Description

The existing I-75 FMS field communications backbone consists of a gigabit Ethernet network connecting the SWIFT Center to localized hub sites. These hub sites act as aggregation points for edge switches located at CCTV cameras, DMSs, and other remote sites. All hub switches shall be gigabit Ethernet (1000Mbps) compatible.

An Ethernet edge switch with a minimum of two single mode fiber optic ports shall be used at all fiber drop locations where an optical signal needs to be converted into an electrical (Ethernet) signal. All edge switches shall be fast Ethernet compatible.

A subset of an Ethernet edge switch is the media converter. The Design-Build Firm shall determine the required number of single mode fiber ports and 10/100 BaseT (copper) ports needed at locations which require a media converter. Design Requirements

5.2 Design Requirements

5.2.1 General

The Design-Build Firm shall determine the minimum required number of ports in all Ethernet switches.

The Design-Build Firm shall design the overall network communications, including locating hubs in conjunction with the SWIFT Center IT Manager.

The Design-Build Firm shall document that ITS equipment and Ethernet devices that are compliant with these MTRs and are compatible with the ones used for the Collier, Lee and Charlotte County FMS.

The Design-Build Firm's design shall assume the CCTV cameras will use six Mbps of bandwidth per camera.

The design shall account for the optical loss in the fiber optic cable, connectors, and communications hardware.

5.2.2 Ethernet Core Switch

The existing Net Iron MLX core switch from Foundry Networks is located in the SWIFT Center in the communications equipment room.

The Design-Build Firm shall determine the minimum required number of additional (GBIC) blades consisting of a minimum of twenty optical GBIC or SFP-based ports, each capable of transmitting data at 1000 Mbps for the existing Net Iron MLX core switch.

Optical Ports: The GBIC or SFP-based ports (exact minimum number of ports to be determined by the Design-Build Firm) shall be capable of transmitting data at 1000 Mbps and be user configurable with standard reach (LX) or long reach (ZX) optics able to transmit over 25 miles.

Each GBIC shall consist of a pair of fibers with SC connectors for standard GBICs and LC connectors for SFP GBICs; one fiber will transmit data and one fiber will receive data and shall meet the following minimum requirements:

For LX GBIC:

- Optical receiver sensitivity: -20 dBm

- Optical transmitter power: -9.5 to -3 dBm
- Transmission distance: 25 miles or more
- Operating wavelength: 1310 nm

For ZX GBIC:

- Optical receiver sensitivity: -23 dBm
- Optical transmitter power: 0 to 5 dBm
- Transmission distance: 45 miles or more
- Operating wavelength: 1550 nm

For locations where edge switches communicate directly with the core switch, the 100FX ports shall be used. Each optical port shall consist of fiber pairs; one fiber will transmit data and one fiber will receive data, and shall meet the following minimum requirements:

- Optical receiver sensitivity: -30 dBm
- Optical transmitter power: -19 to -14 dBm
- Maximum transmission distance: Medium haul, 25 miles
- Operating wavelength: 1300 nm

The Design-Build Firm shall furnish all materials with the most recently developed and approved product versions that meet or exceed all applicable standards, specifications, and requirements before the system is considered for acceptance. It is the Design-Build Firm's responsibility to ensure that all system and subsystem features, functions, and performance measures are met as specified in this MTR.

5.2.3 Ethernet Hub Switch

Hub switches shall be placed at locations identified by the Design-Build Firm. The hub switches shall act as aggregation points for the edge switches located at CCTV camera sites, DMS sites, MVDS sites, RWIS sites, HAR transmitter and beacon sites, and similar remote locations. Hub switches shall be field hardened or located in a climate controlled communications equipment room as determined by the Design-Build Firm. Each hub switch shall communicate with the core switch(es) via a Gigabit Ethernet fiber optic cable connection. Hub switches shall meet the MTRs and be capable of handling expansion within the District 1 ITS network.

Hub switches shall be compatible with the modified core switch, and compatible with the existing system and switches.

The Design-Build Firm shall determine the minimum required number of 1000LX single mode fiber Gigabit ports that are capable of transmitting data at 1000 Mbps. Also, the Design-Build Firm shall determine the minimum required number of optical 100FX ports (for communications with the edge switches) that are capable of transmitting data at 100 Mbps.

Copper Ports: The Gigabit Ethernet hub switch (10/100/1000 Mbps ports) shall be capable of supporting jumbo frames, advanced Layer 2 and base Layer 3 switching, and be software upgradeable to full enterprise Layer 3. The switch shall include support for IP routing protocols such as RIPv1/v2 and OSPF, and support for multicast routing, including PIM-SM, PIM-DM, and DVMRP.

The Design-Build Firm shall determine the minimum number of ports. The connectors shall be RJ45 for Category 5 Unsheilded Twisted Pair (UTP).

Optical Ports: The GBIC or SFP-based ports (exact minimum number of ports to be determined by the Design-Build Firm) shall be capable of transmitting data at 1000 Mbps and user configurable with standard reach (LX) or long reach (ZX) optics able to transmit over 25 miles.

The Design-Build Firm shall determine the minimum number of ports. Each optical port shall consist of fiber pairs; one fiber will transmit data and one fiber will receive data.

Each GBIC shall consist of a pair of fibers with SC connectors for standard GBICs and LC connectors for SFP GBICs. Each GBIC shall consist of a pair of fibers; one fiber will transmit data and one fiber will receive data and shall meet the following minimum requirements:

For LX GBIC:

- Optical receiver sensitivity: -20 dBm
- Optical transmitter power: -9.5 to -3
- Transmission distance: 6 miles or
- Operating wavelength: 1310 nm

For ZX GBIC:

- Optical receiver sensitivity: -23 dBm
- Optical transmitter power: 0 to 5 dBm
- Transmission distance: 45 miles or
- Operating wavelength: 1550 nm

The 100BaseFX ports shall provide communications with field hardened Edge switches. Each optical port shall consist of fiber pairs; one fiber will transmit data and one fiber will receive data and shall meet the following minimum requirements:

- Optical receiver sensitivity: -30 dBm
- Optical transmitter power: -19 to -14 dBm
- Maximum transmission distance: Medium haul, 25 miles
- Operating wavelength: 1300 nm

The Design-Build Firm shall furnish all materials with the most recently developed and approved product versions that meet or exceed all applicable standards, specifications, and requirements before the system is considered for acceptance. It is the Design-Build Firm's responsibility to ensure that all system and subsystem features, functions, and performance measures are met as specified in this MTR.

5.2.4 Ethernet Aggregation Switch

In its network architecture, the Design-Build Firm may elect to use an Ethernet Aggregation Switch that the Ethernet Edge switches connect to over 100Mbps fiber optic links and the Ethernet Aggregation Switch may connect either to another Ethernet Aggregation Switch or to the Ethernet Hub Switch over 1Gbps fiber optic links.

The Design-Build Firm shall identify Ethernet Aggregation Switches that are compliant with these MTRs and are compatible with the ones used for the Collier, Lee and Charlotte County FMS.

5.2.5 Ethernet Edge Switch

Edge switches shall be placed at locations identified by the Design-Build Firm. At a minimum, these locations shall include CCTV camera sites, DMS sites, MVDS sites, HAR transmitter and beacon sites, RWIS sites, and similar remote locations. Edge switches shall be field hardened. Each edge switch shall communicate with a predetermined hub switch or aggregate switch via a fast Ethernet fiber optic cable connection. The edge switches shall meet the MTRs and be capable of handling expansion within the District 1 ITS network.

The Ethernet edge switch shall be compliant with the FDOT Supplemental Specification 784-1.
All Ethernet edge switches shall be an AC power only version. AC to DC power adapters are not acceptable.

The Ethernet edge switch shall be DIN rail mountable.

5.2.6 Media Converter

Media converters shall be placed at locations identified by the Design-Build Firm. At a minimum, these locations may include MVDS, DMS, RWIS, and hub sites. The media converters shall be field hardened.

The Design-Build Firm shall provide 10/100BaseTX to 100BaseFX media converters and all necessary connections, interfaces, jumper cabling, and fasteners for installing the devices in a 19-inch standard rack.

The media converter shall support conversion of 10/100BaseTX electrical interface to 100BaseFX optical interface and act as a Layer 2 bridge in forwarding all Ethernet packets received on both electrical and optical links. The media converter shall be interoperable with the edge switch, hub switch, and Gigabit Ethernet switch for optical networking.

The media converter shall include the following features:

- A manual switch for hard-setting the optical port to either the full-duplex or half-duplex mode
- Auto-negotiation for speed and auto-cross MDI/MDI-X on RJ45 ports
- Switch-enabled link fault signaling to forward lost link awareness to each connected host
- A full array of status/diagnostic LEDs (power, link, speed)

The media converter shall meet the following requirements:

- Number of Ports:Two RJ45 10/100 BaseTX ports and one or two fiber 100BaseFX ports
- Fiber Media Type: single mode fiber.
- Distance: Over 6000 feet

The media converter shall meet the following environmental requirements:

- Operating temperature: -30° F to 165° F (-34° C to 74° C)
- Storage temperature: -40° F to 165° F (-40° C to 74° C)
- Relative humidity: 5% to 95% non-condensing
- Cooling Method: Convection cooled, case is used as heat sink

The media converter shall be rack mountable (DIN rail or panel mount) into a standard 19-inch EIA rack. All mounting kits, brackets, and hardware for mounting into a standard 19-inch rack shall be provided.

The power supply of the media converter shall meet the following requirements:

- 120/240 VAC;
- Min input 85 VDC;
- Max input 264 VDC;
- Fuse rating 3.15 amps; and
- Max power 3 W.

Copper Ports: The Design-Build Firm shall determine the minimum number of ports. The connectors shall be RJ45 for Category 5 UTP.

Optical Ports: The Design-Build Firm shall determine the minimum number of ports. Each optical port shall consist of fiber pairs; one fiber will transmit data and one fiber will receive data. The Design-Build Firm shall determine the connector type (SC, ST or LC).

5.3 Construction Requirements

The Design-Build Firm shall furnish all tools, equipment, materials, supplies, and manufactured hardware, and shall perform all operations and equipment integration necessary to provide a complete, fully operational Gigabit Ethernet network. All equipment shall be mounted in 19-inch communications racks. All cabling shall be:

- Neatly tagged with permanent labels at both ends of every cable
- Secured with wire ties and cable management hardware in the communications racks
- Grounded to rack grounding hardware

5.4 Training and Manual Requirements

5.4.1 Submittals

The Design-Build Firm shall provide the following documentation for equipment and components for each applicable device. The outline, provided below, shall be used as a guide for assembling a documentation package for submission to the Engineer. This guide does not relieve the Design-Build Firm from submitting additional information to form a complete submittal package.

- Catalog cut-sheets: Information provided by the manufacturer or vendor that pictorially describes the item or component
- Manufacturer specifications: A detailed specification prepared by the item or component manufacturer
- Installation procedures: A manual prepared by the manufacturer that indicates the installation procedures for components, subassemblies, or assemblies
- Operation Procedures: A manual prepared by the manufacturer that indicates the proper operations and detailed troubleshooting procedures for all components, subassemblies, and assemblies
- Maintenance procedures: A manual prepared by the manufacturer that indicates the maintenance of all components, subassemblies, and assemblies
- Training schedule: A schedule prepared by the Design-Build Firm that outlines the time for the required training sessions
- Training material: Course material for each of the training sessions required

The Design-Build Firm shall submit the submittal data and shop drawings for all equipment, materials, test procedures, and routine maintenance procedures required 30 calendar days before installation. The submittal data shall be provided to the Engineer for approval and shall include six copies of the manufacturer's descriptive literature, technical data, operational documentation, service documentation, and other pertinent materials that fully describe applicable equipment, hardware, software, interfaces, and peripheral cabling required for a fully operational system.

5.4.2 Documentation

The Design-Build Firm shall provide three sets of documentation for all components in accordance with these MTRs. The documentation shall be assembled in volumes of three-ring binders that include title pages, indices, page numbering, and section dividers. The documentation shall consist of the following types of manuals:

User's Manuals: The user's manual shall describe, in sufficient level of detail, how the equipment must be operated. The user's manual shall include pertinent operational information such as control layout, displays, and procedures for properly operating a fully functional unit.

Maintenance Manual: The manufacturer/vendor-provided maintenance manual shall indicate clearly and pictorially the maintenance procedures for all components, subassemblies, and assemblies. The manual shall include pertinent information on maintaining and repairing the equipment, hardware, software, connections, interfaces, and peripheral cabling as applicable. The manual shall include sections that

completely describe the theory of operation using block diagrams and schematic drawings; diagnostic and repair procedures for corrective maintenance of the unit; assembly and disassembly instructions and drawings; layout drawings showing location of all components; and a complete components listing showing component type, ratings, and acceptable manufacturers.

System Documentation Manual: The system documentation manual shall describe the overall operation of the equipment with block level diagrams, identify all equipment in the system with module and option numbers, give a functional description for each system element, and explain how they function together in a complete operational system. The system documentation manual shall document operating procedures describing the initial turn-on and adjustments to ensure an operational system within the performance requirements as well as system-level corrective maintenance procedures.

Software Manual: The software manual shall fully document the device management software including full descriptions of functions, flowcharts, and utilities required to support, configure, monitor, and manage each type of device, as well as listings and associated descriptions for complete operation of software programs.

5.4.3 Training

The Design-Build Firm shall prepare and deliver training courses on the communications devices and applicable components for individuals designated by the Department, to include up to 10 personnel. Two types of training courses shall be provided involving engineering/operation personnel and maintenance personnel (two-day course for engineering/operations personnel and one-day course for maintenance personnel). The training shall be delivered on dates mutually agreeable to the Design-Build Firm and to the Department. The Design-Build Firm shall provide the Department with a 30-day Notice of Intent to carry out the training so that arrangements can be made for attendance.

The training courses shall be developed to pertain specifically to the system, presuming that the course participants have no prior knowledge of the system and associated technology. The Design-Build Firm shall be responsible for providing an indoor classroom for training, which shall be comfortable and within close proximity of the SWIFT Center. The Design-Build Firm shall provide a draft of the training material to the Engineer for review and approval at least 60 days prior to the scheduled training. Adequate time shall be afforded for review and revision of the draft training materials. The Design-Build Firm shall furnish the classroom, audio-visual equipment, demonstration equipment, and "hands-on" equipment in support of the envisioned training. Each training participant shall receive a copy of course materials, including both comprehensive and presentation manuals. The Design-Build Firm shall provide two additional copies of these documents to the Engineer. The Design-Build Firm shall include all training-related costs in the unit price bid for each device. There will be no separate payment for training.

The training materials shall include an introductory-level briefing to familiarize attendees with each device. The engineering/operations course shall include an overview of the basic understanding of IP and Ethernet, subsystem elements, theory of operation of components, operating procedures and capabilities, hardware and software configuration, and software applications. The Design-Build Firm shall provide training that includes “hands-on” use of all communications devices installed. The maintenance course shall include relevant topics in electronics, communications, and cabling, and provide a detailed description and explanation of theory of operation of major device components; operation, test, and installation procedures; plus troubleshooting, diagnostics, and maintenance to the replaceable module level. The maintenance course shall also show how the system documentation should be used to operate, diagnose, maintain, and expand the system. The maintenance course shall also provide “hands-on” use of the system, laptop computer and software (to be provided by the Design-Build Firm during the course), system test equipment, and any other system equipment supplied.

5.5 Warranty

The Design-Build Firm shall provide a manufacturer warranty against all defects and/or failure in design, assembly, fabrication, materials and workmanship for all equipment, materials, and operating system software furnished for the minimum warranty duration specified for each type of equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786 as applicable.

The warranty for the Ethernet hub switch and media converter shall be five years.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

6.0 DYNAMIC MESSAGE SIGN

The Design-Build Firm shall install Dynamic Message Signs (DMS) as part of this project.

6.1 Design Requirements

The DMSs shall be compliant with the FDOT Supplemental Specification 781-3.

The DMSs shall be a walk-in type full-matrix display as described in FDOT Supplemental Specification 781-3.1.3.2.

The brightness and color of each pixel shall be uniform over the sign's entire face from 200 to 1,100 feet in all lighting conditions.

All DMS, except the northbound DMS prior to the I-275 interchange, shall be mounted on cantilever structures. The left edge of the DMS housing shall be placed over the left lane line of the right most through lane. The northbound DMS prior to the I-275 interchange shall be mounted on a half-span truss structure. This DMS shall be mounted so that it is centered over the through lanes.

Cantilever Support Structure: The sign support structure shall be furnished and installed as described in FDOT Standard Specification 700. The sign structure includes the furnishing and installation of all structures, foundation installations, and all ancillary items required to furnish and install an approved sign structure. The Design-Build Firm shall design the Cantilever Sign Structure according to the FDOT Structures Manual. The Cantilever Sign Structure shall comply with the FDOT Design Standards Index No. 11310, 18302 and 18303.

The locations of the DMSs in the Conceptual Device Layout are intended to provide sufficient advance notification for drivers to divert to other routes. The locations were selected to minimize impacts upon existing signage. Each DMS shall be located outside the clear recovery area without the installation of guardrail, as defined in the *Roadway and Traffic Design Standards*. Any request to vary the location of a DMS will include the location and message of all adjacent signs.

The height of the DMS and structure shall provide a minimum clearance of 19.5 feet from the highest portion of the roadway that the sign spans for the existing conditions and known proposed improvements.

The DMS structure shall include a catwalk for access to the inside of the sign from the edge of the roadway. The catwalk shall be designed as shown in FDOT Design Standards Index No. 18302.

The DMS sign and enclosure shall be designed in accordance with the FDOT *Plans Preparation Manual* (PPM), Volume I, and designed in accordance with the American Association of State Highway and Transportation Officials (AASHTO) *Standard Specifications for Structural Supports for Highway Signs*, Luminaries and Traffic *Signals* (current adopted edition) (25-year reoccurrence). Sign performance shall not be impaired due to continuous vibration caused by wind, traffic, or other factors. This includes the visibility and legibility of the display.

The DMS housing shall be designed and constructed to comply with the fatigue-resistance requirements of NCHRP Report 412, *Fatigue-Resistant Design of Cantilevered Signal, Sign, and Light Supports*. The Design-Build Firm shall construct the DMS structure foundation in accordance with the FDOT Standard Specification Section 455. The foundations shall be drilled shafts, except in unusual circumstances, and shall be designed according to the FDOT's *Structures Design Guidelines for Load and Resistance Factor* Design (current edition), or by using Brom's procedure and hand calculations. Both of these methods consider lateral loading of the shafts, which is a primary concern in foundation design.

The supplied DMS shall be compatible with the SunGuide® Software System and shall be listed on the APL prior to installation.

6.2 Functional Requirements

All materials furnished, assembled, fabricated, and installed shall be new corrosion-resistant products obtained from the manufacturer or reseller, and approved by the Engineer. All details and device functions shall be thoroughly inspected and tested by the Engineer before system acceptance. Failure to meet all details and device functions and all applicable standards, MTRs, and requirements, shall be grounds for rejection of the equipment.

The equipment to be furnished at each DMS field site shall include, but not be limited to:

- LED DMS (i.e., the face within the housing)
- Sign controllers
- DMS support structures
- DMS mounting brackets and hardware
- DMS walkway platforms with permanent safety rails, and mounting brackets and hardware
- All necessary cabling
- Required network communication devices
- Required grounding and transient voltage protection devices
- Ground-mounted control boxes on concrete pads
- UPS
- All ancillary items required to furnish a fully operating DMS

The DMS shall be programmed to display 25 characters on each of the 3 lines of text.

The sign status request command shall provide a report that includes information on the message currently being displayed. The report shall include information on the number of pixels on, display parameters, remaining display time, fonts used, and character spacing, as well as the sign number, location, and identification information. The report shall also contain details regarding the sign's appearance (e.g., lit, blank, or neutral) and the status of the pixels, fans, internal temperature sensors, ambient temperature sensors, and power supplies.

6.2.1 Sign Controller Communication Interface

The Sign Controller Communication Interface shall comply with the requirements of the FDOT Supplemental Specification 781-3.1.11.

6.2.2 Operational Safety

The DMS equipment shall meet all of the requirements in Section 2.1.4 of the NEMA TS-1 standard regarding primary input power interruption.

The DMS equipment shall meet all of the requirements in Section 2.1.6 of the NEMA TS-1 standard regarding power service transients.

In the event of a communication link failure with the SWIFT Center and/or STMC central computer, the sign controller shall set the sign to neutral after a user-defined number of minutes unless communication has been restored within the defined period. This function shall apply only when the sign controller is in the master control mode.

6.3 Construction Requirements

6.3.1 General

No DMS installation shall be allowed prior to the availability of power. Each DMS shall be fully functional under local control within 72 hours of sign mounting.

The equipment design and construction shall utilize the latest available techniques with a minimum number of different parts, subassemblies, circuits, cards, and modules to maximize standardization and commonality. The equipment shall be designed for ease of maintenance. All component parts shall be readily accessible for inspection and maintenance. Test points shall be provided and labeled for checking essential voltages. All external connections shall be with connectors. The connectors shall be keyed to preclude improper hookups.

All markings and identifications shall be silk-screened and sealed or otherwise indelible using material and methods approved by the Engineer.

The DMS sign structure shall be constructed according to the FDOT's *Standard Specifications for Road and Bridge Construction, Supplemental Specifications, and/or Special Provisions* and *Structures Standard Drawings.*

6.3.2 Deliverables

The Design-Build Firm shall provide software and documentation for the SWIFT Center central computer software system and its components. These shall include, but are not limited to:

- All documentation concerning the sign controller communication protocol, including information needed to define the interface design, software codes, message definitions, and message sequences for DMS control and feedback
- Welding reports
- One complete copy of the manufacturer's documentation for plug-in circuit cards used in the microcomputer chassis
- DMS software for configuration management and diagnostic troubleshooting

6.4 Training and Manual Requirements

Operational and maintenance training for the entire DMS system, including UPS, shall be provided to designated personnel during installation, testing, and debugging. This training shall be provided through practical demonstrations, seminars, and other related technical procedures. Training shall be limited to include up to 10 personnel, and shall be provided at a time and location approved by the Engineer. The training shall include, but not be limited to:

- Hands-on operation of all sign control hardware in the classroom and field
- Explanation of all system commands, their functions, and usages
- Insertion of data
- Required preventative maintenance procedures
- Servicing procedures
- System troubleshooting or problem identification procedures
- A minimum of 40 hours of instruction for the system's operational and maintenance procedures. The Design-Build Firm shall submit a training agenda and one complete set of training materials (i.e., the manual and accompanying schematics), along with the proposed instructor's qualifications, to the Engineer for approval at least 60 calendar days before the training is scheduled to begin. The Engineer shall review and approve the training material, or request changes

- The training shall be conducted after the completion of all system integration tests. The Engineer shall approve the training schedule time and location. All training will be video recorded by the Design-Build Firm and the discs provided to the FDOT for later use.

6.4.1 Final DMS System Acceptance

The Final DMS System Acceptance procedure shall start after all the tests defined in FDOT Supplemental Specification 781-3.8 have been successfully performed. Final system acceptance shall be defined as the time when all work and materials described in the plans have been furnished and completely installed by the Design-Build Firm; all parts of the work have been approved and accepted by the Engineer.

6.4.2 Shop Drawings

The DMS system supplier shall submit shop drawings, as required by Section 5-1.4 of the Standard Specifications for Road and Bridge Construction for approval by the Engineer before fabrication. Each individual DMS shall be delivered to the site with two sets of as-built drawings. The Engineer shall verify that the drawings correspond with the preconstruction shop drawings. Both types of drawings shall include, but not be limited to, the sign structural members and attachment support details.

6.4.3 Manufacturer Qualification

The Traffic Engineering Research Laboratory (TERL) shall certify the DMSs before submission for approval. In addition, the DMS manufacturer shall meet the following requirements:

Manufacturer Reference: The DMS system manufacturer shall submit three state department of transportation (DOT) references in which the manufacturer has furnished and is successfully operating multiple walk-in type enclosure LED sign systems of three lines of 18-inch high characters, 25 characters per line full matrix signs on state or interstate highways.

These DMS systems shall be permanently mounted on overhead sign structures and shall be supplied by the manufacturer under the current corporate name for a period of no less than five years. Reference data shall include the manufacturer's corporate name and address, and the current contact's name and telephone number. This information shall be provided prior to project submittal. Failure to furnish the above references shall be sufficient reason for rejection of the manufacturer's equipment. The Department reserves the right to contact additional references. Any poor or unsatisfactory reference, as determined by the Department in its sole and absolute discretion, may cause the manufacturer to be rejected.

The manufacturer shall have been engaged in the design and manufacture of DMS systems, DMS electronics, and control systems for a minimum of 10 years, and shall demonstrate to the Department a minimum of 100 LED DMSs that are contained in walk-in housings and that are currently in operation.

6.5 Warranty

Equipment, structures and parts furnished under these MTRs shall be guaranteed to perform according to the manufacturer's published requirements. The equipment and parts furnished for the DMS system shall be new, of the latest model, and fabricated under high quality standards.

The Design-Build Firm shall provide a manufacturer warranty against all defects and/or failure in design, materials, assembly, fabrication and workmanship for the minimum warranty duration specified for each equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786, as applicable.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

7.0 FIBER OPTIC COMMUNICATIONS INFRASTRUCTURE

7.1 Description

The fiber optic infrastructure shall include the items listed below to provide an Ethernet network infrastructure over single mode fiber optic transmission media between the field devices, the SWIFT Center and the Sarasota-Manatee STMC.

These fiber optic items include, but are not limited to:

- Conduit and locate system
- Fiber optic cable plant
- Pull boxes
- Splice boxes
- Splice enclosures
- Splice trays

7.1.1 Conduit

The Design-Build Firm shall install two 1.25-inch SDR 11 HDPE conduits for underground locations. The fiber optic cable shall be housed in one of these 1.25-inch conduits. The other 1.25-inch conduit shall be left empty as a spare for use in the future. No other cable shall occupy the same conduit as the fiber optic cable and the Design-Build Firm shall provide additional conduits for these other cables as necessary. The conduit shall comply with the FDOT Supplemental Specification Section 783-2. The Design-Build Firm shall install a minimum 2-inch conduit(s) for electrical power. These conduits shall be installed eight feet inside the limited access right-of-way line. Fiber optic cable markers shall be placed ten feet inside the limited access right-of-way line and adjacent to each pull box and splice box.

When installation of a conduit requires directional boring, the same HDPE conduit shall be used without any sleeve. The directional bore should also include provisions of the locate wire.

When installation of a conduit requires jacking under paved surfaces, an intermediate metal conduit shall be used as sleeve for the underground HDPE conduit.

When installation of conduit requires bridge mounting, conduit shall be 4" diameter bullet resistant fiberglass (BRFG) outerduct conduit with two 1.25-inch SDR 11 inner ducts. A separate 2” rigid steel conduit shall be used for electrical cable where necessary. Both the 4” and 2” conduits shall be attached to the outside wall of the bridge. A licensed structural engineer shall design the attachment to existing bridges. There shall be no overstress to any structural element of the bridge as a result of any new attachment. Approval of the District Bridge Maintenance Engineer is required for any new bridge attachment. Below is a list of bridges and canals with potential for bridge-mounted conduits.

Bridge No.	Bridge Name
130066	Braden River
130102	Salt Marsh
130104	Jeffrey Dale Young Bridge (Manatee River)
130076	CSX Railroad
170132	Big Slough Canal
170128	Myakka River
170108	Salt Creek

For under water installations, the HDPE inner duct shall be placed inside HDPE outer duct. All other waterway crossings within the limits of this project shall be by directional bore and not bridge

attachment.

7.1.2 Fiber Optic Cable

The fiber optic cable system components shall be compliant with the FDOT Standard Specification 783-1.

Fiber optic cable shall be used in the I-75 FMS network infrastructure to provide data and device control and communications between the SWIFT Center, the Sarasota-Manatee STMC, other transportation management centers (TMCs), ITS devices, and other identified stakeholder facilities.

Fiber optic cable sizes shall be:

- *Main Route Cable:*
  The Design-Build Firm shall provide 96-strand single mode fiber optic cable along the northbound side of I-75 starting at the existing splice box approximately one mile north of the Charlotte/Desoto/Sarasota County line to a planned splice box at the northbound off ramp for the intersection of I-275 and I-75.
- *STMC Interconnect Cabl*e:
  There is an existing 48-strand single mode fiber optic cable installed by others from a pull box at the intersection of SR-70 and I-75 to the equipment room adjacent to the control room at the Sarasota-Manatee STMC. The Design-Build Firm shall use this cable to connect the devices installed on I-75 and the STMC. The Engineer will provide the final (as installed) Optical Time-Domain Reflectometer (OTDR) test results to the Design-Build Firm. The Design-Build Firm shall test this cable and compare the new results to the test data provided by the Engineer. Repairs to this cable if necessary will be accomplished by FDOT. The Design-Build Firm shall allow 90 days in its construction schedule for any required repairs by the FDOT before termination of this cable begins.
- *Drop Cable*s:
  The Design-Build Firm shall provide 12-strand single mode pre-terminated cable into cabinets and devices located on either the northbound or the southbound side of I-75.

The splicing of the fiber optic cable plant shall include the assignment of:

- One buffer tube for core switch to hub switch communications
- Two buffer tubes for hub switch to local switch communications
- One buffer tube for the Statewide WAN project

The remaining four buffer tubes are reserved as spare for future use. Fiber optic splices shall provide a continuous optical path for the transmission of optical pulses from one optical fiber length to another. All fiber optic splices shall consist of fusion-spliced optical fiber and the installation of a splice enclosure around the cable.

The Design-Build Firm shall furnish and install a locate system compliant with the FDOT Supplemental Specification 783-2. Locate wire shall not be installed in the same conduit as fiber optic cable. The Design-Build Firm shall furnish electronic box markers for all splice vaults and pull boxes. The Design-Build Firm shall provide three (3) electronic box marker locators as part of this project.

The Design-Build Firm shall furnish and install fiber optic pull boxes. Pull boxes shall be compliant with the FDOT Supplemental Specification 783-3. Fiber optic pull boxes shall not house any other cable other than fiber optic cable.

The Design-Build Firm shall furnish and install splice vaults. Splice vaults shall be compliant with the FDOT Supplemental Specification 783-3. Fiber optic splice vaults shall not house any other cable other than fiber optic cable.

All pull box and splice box covers shall be stamped with "FDOT FIBER OPTIC CABLE". All pull boxes shall be stackable and all splice vaults shall have manholes that are extendable.

The Design-Build Firm shall furnish and install splice enclosures. Splice enclosures shall be compliant with the FDOT Supplemental Specification 783-3 and 783-1.2.2.1.

7.2 Design Requirements

The installation of the fiber optic communications network shall meet the minimum required depth of the conduit system as outlined in the Specifications and Standard Indexes. Additionally, it shall have a minimum of 10 feet of cover when installed in the median of the highway. The fiber optic trunk cable shall be placed at 8 feet from the existing limited access right of way line. It shall be directional bored under wetlands and drainage canals and may be attached to bridges as previously stated. The Design-Build Firm shall use the orange buffer for all device drops and shall coordinate with FDOT for all other fiber allocations.

7.2.1 Fiber Optic Pull Boxes

The fiber optic pull boxes shall comply with the FDOT Supplemental Specification 783-3.2.2. The Design-Build firm shall avoid placement of fiber optic pull boxes in wetland areas.

7.2.2 Fiber Optic Splice Boxes

The fiber optic splice boxes shall comply with the FDOT Supplemental Specification 783-3.2.3. The Design-Build firm shall avoid placement of fiber optic splice boxes in wetland areas.

7.2.3 Fiber Optic Splice Enclosures

The splice enclosures shall comply with FDOT Supplemental Specification 783-1.2.2.1.

7.2.4 Fiber Optic Splice Trays

The splice trays shall comply with FDOT Supplemental Specification 783-1.2.2.2.

7.2.5 Fiber Optic Splices

It is the Design-Build Firm's responsibility to ensure that all splicing equipment and material, along with the terminating connectors and their associated hardware, comply with FDOT Supplemental Specification 783-1.3.2. The Design-Build Firm shall provide all splice loss measurement information as part of their as-built documentation for review at the start of the Operational Test.

All splice enclosures, organizers, cable end preparation tools, and procedures shall be compatible with the fiber optic cable and approved by the Engineer.

All optical fiber splices shall be contained within a splice enclosure.

7.2.6 Fiber Optic Patch Panels

All patch panels, including pre-terminated and field assembled and terminated, shall comply with FDOT Supplemental Specification 783-1.2.4.

7.2.7 Route Markers

Where the conduit and fiber are placed at 8 feet from the limited access right of way, route markers shall be placed 10 feet from the right of way line at fiber pull box and splice box locations.

7.2.8 Electronic Box Markers

Provide an electronic box marker that is compliant with Supplemental Specification 783-2.2.4.3 in all splice vaults and pull boxes, including fiber optic, electric and multi-conductor boxes.

7.3 Performance Requirements

The Design-Build Firm shall furnish all materials with the most recently developed and approved product versions that meet or exceed all applicable standards, specifications, and requirements before the system is considered for acceptance. It is the Design-Build Firm's responsibility to ensure that all fiber optic infrastructure features, functions, and performance measures are met.

All materials furnished, assembled, fabricated, or installed shall be new products obtained from the manufacturer or reseller. The materials, equipment, and components shall be COTS products.

7.3.1 Fiber Optic Jumper Cables

All fiber optic jumper cables shall comply with the FDOT Supplemental Specification 783-1.2.3.

7.4 Material Requirements

7.4.1 Trunk Cable

The single mode fiber optic cable shall be compliant with the FDOT Supplemental Specification 783-1.

7.4.2 Drop Cables

Optical Fiber: The optical fiber used in the fiber optic drop cables shall comply with the requirements for the trunk cable except for the size.

Cable Strength: The cable strength for fiber optic drop cables shall comply with the requirements for the trunk cable, with the exception of the pulling tension requirement. The fiber optic drop cables shall withstand a pulling tension of 300 pounds.

Configuration: The fiber optic drop cable configuration shall comply with the requirements for the trunk cable.

Ripcord: The fiber optic drop cable shall contain ripcords as required for the trunk cable.

Color Coding: The fiber optic drop cable shall comply with the color coding required for the trunk cable.

Bend Radius: The fiber optic drop cable shall meet the minimum bend radius requirements for the trunk cable.

Temperature: The fiber optic drop cable shall comply with the shipping, storage, and operating requirements detailed for the trunk cable.

7.5 Construction Requirements

7.5.1 Fiber Optic Cable

All fiber optic cable shall be installed in approved conduit by either the cable pulling or cable blowing (i.e., air assisted) method.

7.5.2 Fiber Optic Cable Splicing

The Design-Build Firm shall furnish all labor, tools, equipment, materials, and supplies necessary to splice and terminate fiber optic cable. The Design-Build Firm shall provide all labor and equipment necessary to move inventory out of the designated storage facility and to transport it to the installation location.

All incidental parts necessary to complete the installation, but not specified, shall be provided as necessary to produce a complete and properly operating system. The Design-Build Firm shall provide a

splice plan showing the approximate location and configuration of any splices in the system for approval by the Engineer. The splicing diagram shall include all fibers from cabinet patch panel to the trunk line including all pull and splice vaults.

7.5.3 Route Marker

The Design-Build Firm shall install Standard Route Markers (SRM) compliant with the FDOT Supplemental Specification 783-2.2.1.1.

The Design-Build Firm shall install Locate Wire and Locate Wire Surge Protection system compliant with the FDOT Supplemental Specification 783-2.2.3.

7.5.4 Fiber Optic Pull Boxes and Splice Boxes

The Design-Build Firm shall furnish all labor, tools, equipment, materials, and supplies necessary to install pull boxes and splice boxes, the associated covers, racking, steps, and grouting, including dewatering, shoring, backfilling, compaction tamping, and restoration.

All pull boxes and splice boxes shall be installed according to the manufacturer's recommendations and shall comply with the FDOT Supplemental Specification section 783-3.3. Additionally, an electronic box marker to locate pull and splice boxes shall be provided. The Design-Build Firm shall not install any pull box or splice vault on a slope.

Installation of pull boxes and splice boxes, including the placement of hardware and the termination of fiber optic conduit, shall be completed before cable installation.

Before ordering the precast structures, the Design-Build Firm shall verify the required installation depth to ensure that any required extensions or adjustment collars will provide for the required construction tolerances. The Design-Build Firm shall be responsible for furnishing and constructing pull boxes and splice boxes with tops that are flush with the finished grade.

Pull boxes and splice boxes shall be assembled to provide a plumb structure with uniform bearing at all points. Where conduit enters, it shall be mechanically sealed with a neoprene molded duct organizer device. All joints between precast elements shall be sealed with a sealant material according to the manufacturer's recommendations and all penetrations shall be sealed with a no-shrink grout.

In areas where excavation reveals unstable material, such material shall be excavated to a depth of one foot below the structure's bottom and replaced with one foot of washed crushed 0.75-inch grade gravel stone at the excavation base before installing the pull box or the splice box.

All sheeting, bracing, and shoring required for safety shall be installed in compliance with applicable requirements and specifications. Backfill material shall be of suitable stability and shall be placed in one foot layers, each layer being compacted pneumatically. No backfill shall be placed against a structural wall until all connecting structural members are installed, and backfilling and compaction requirements have been met.

Any area where more than one box is installed, the boxes shall be grouped so that a concrete pad can be installed around all adjacent boxes to make a more stable box structure.

Fiber optic conduit shall be terminated and sealed with preinstalled conduit connectors. Conduit connectors shall be factory-installed to accept the type, size, and quantity of conduit or pipe being installed. The Design-Build Firm shall take precautions to ensure that the conduit at the pull box or splice box connections is not damaged during the installation of backfill material.

7.6 Testing Requirements

7.6.1 Manufacturer Testing and Certification of Fiber Cable

The Design-Build Firm shall perform tests complying with the FDOT Supplemental Specification Section 783-1.4.

The Design-Build Firm shall provide the manufacturer's on-reel test results for Engineer's approval before installing the fiber optic cable. These on-reel tests shall include, but not be limited to, end-to-end loss for every fiber strand of the 96 single mode fiber. The manufacturer's on-reel OTDR test results shall clearly show each one of the 12 single mode fiber strands is tested in each one of the 8 buffer tubes.

7.6.2 Post-Installation Testing of fiber cable

The Design-Build Firm shall perform the following post-installation tests:

- All OTDR testing shall comply with the *EIA/TIA-455-61* standard.
- All fibers from both cable end points shall be tested with an OTDR. Fibers that are not terminated at installation shall be tested using a bare fiber adapter after the splice enclosures and access points are closed to check for macrobending problems. Tests shall be performed at both 1310 nm and 1550 nm.
- The loss value of the pigtail connector at each termination panel and its associated splice shall not exceed 0.5 dB. For values greater than 0.5 dB, the splice shall be broken and respliced until an acceptable loss value is achieved and/or the pigtail connector is repaired or replaced.
- Any rejected cable shall be removed and replaced at the Design-Build Firm's expense. The Design-Build Firm shall conduct the test again on any cable segment that is replaced at no additional cost to the Department. The cable shall be rejected if any fiber strand fails the bi-directional end-to-end attenuation test.
- No active devices shall be connected for this test and all fiber optic connectors shall be capped.

7.6.3 Route Marker System Testing and Certification

The Design-Build Firm shall perform tests complying with FDOT Supplemental Specification Section 783-2.4.

7.6.4 Fiber Pull Box and Splice Box Testing and Certification

The Design-Build Firm shall perform tests complying with FDOT Supplemental Specification Section 783-3.4.

7.6.5 Fiber Optic Pull Box and Splice Box Manufacturer Testing and Certification

The Engineer reserves the right to require certifications from the manufacturer for materials and equipment that may not require formal testing to ensure compliance, and to require testing on questionable materials or equipment at no additional cost to the Department.

7.7 Training and Manual Requirements

The Design-Build Firm shall conduct a minimum of 40 hours of training for up to 10 representatives designated by the Engineer on procedures of basic installation, splicing, terminating, testing of the fiber optic cable, maintenance and typical failures and failure resolution for the fiber. The training shall include the use of basic test instruments and a fusion splicing machine, splice closures, cleaning agents and other care products, connectors, fiber distribution panels, drop cables, and any other applicable element used in the project.

The goal of the training is to leave the attendee with a basic understanding of fiber optics, typical test instruments including an OTDR and power meter and source, an understanding of typical fixes and hazards associated with fiber optic transmissions, and basic theory of fiber optic transmission. The Design-Build Firm shall submit to the Engineer for approval a draft training plan and course content.

Once approved, the Design-Build Firm shall supply 15 copies of the training material for distribution to the attendees.

7.8 Warranty

The Design-Build Firm shall provide a manufacturer's warranty against all defects and/or failure in design, materials and workmanship for the minimum warranty duration specified for each equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786, as applicable.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

8.0 FIELD CABINETS

8.1 Description

The Design-Build Firm shall design, furnish and install all field cabinets to house any combination of the following communications equipment or interface equipment to the following field devices:

- UPS
- Transient Voltage Surge Suppressors (TVSS), grounding and bonding
- CCTV camera assembly
- DMS assembly
- Ethernet edge switches
- Ethernet aggregate switches (dependent on design)
- Ethernet hub switches
- MPEG-2 encoders
- HAR assembly
- RWIS assembly
- Non-intrusive MVDS assembly

The Design-Build Firm shall install the above system equipment within pole- or base-mounted, lockable weatherproof cabinets. Cabinets shall protect those electrical and electronic devices from rain, dust, dirt, and other harmful elements of nature. The cabinets shall include:

- Lightning protection for all devices installed at the site
- Interior cabinet lighting
- #2A Corbin lock with 2 keys for each lock
- Re-usable metal air filters
- UPS
- Grounding and bonding
- Concrete service pad

All field cabinet devices shall have grounding and surge suppression compliant with the FDOT Supplemental Specification Section 785-2. The Design-Build Firm shall utilize full size field cabinets, type 336 or larger, at all device sites. The Department will not allow the use of equipment enclosures in lieu of a full size cabinet.

8.2 Requirements

All field cabinets shall be compliant with the FDOT Supplemental Specification 785-4.

The Design-Build Firm shall specify the size of the cabinet for all the equipment installed within the cabinet at the particular location. The cabinets shall be sized to space the equipment appropriately to ensure easy access to the proposed equipment.

Each cabinet shall contain four duplex 120 volts alternating current (VAC) industrial-grade receptacles. Two of these receptacles shall be ground fault interrupter circuit (GFIC) compliant units used for field maintenance purposes only. The maintenance receptacles shall be orange in color and marked GFIC. Two standard duplex receptacles shall be used for auxiliary devices.

Each cabinet shall be provided with a one-unit rack-mount power distribution unit containing at least eight outlets, and at least one outlet shall be accessible on the front panel. The rack-mount power distribution unit shall be equipped with a master on/off switch and a resettable 15 amp circuit breaker.

Each cabinet shall be equipped with a contact closure feature that sends an alert via the network connections to the SWIFT Center and/or the Sarasota-Manatee STMC when the door is opened and closed.

Each cabinet shall be equipped with an aluminum pull-out drawer mounted in the rack assembly. The pull-out drawer shall have ball bearing telescoping guides to allow full extension from the rack assembly. When extended, the storage compartment shall open to provide storage space for cabinet documentation and other miscellaneous items. The pull-out drawer shall be provided with a recessed handle and be of adequate construction to support a weight of 20 pounds without sagging when extended. The top of the storage compartment shall be hinged aluminum. The height of the storage compartment shall not exceed 3.5 inches (two-units). The pull-out drawer shall be placed at a height within the cabinet to allow a person to use a laptop supported by the drawer.

Each cabinet shall be equipped with a metal, reusable filter per Supplemental Specification 785-4.2.8.

Each cabinet shall contain a rack-mountable UPS that meets the requirements specified in this MTR.

Each UPS unit shall include a minimum of six 120VAC outlets. The UPS shall meet the following material requirements:

- Rack mounted in 19-inch EIA rack in field cabinets
- Internal sealed Absorbent Glass Mat (AGM) type, maintenance free batteries
- 10/100 BaseT Ethernet interface port
- Status lights: power on, power source, and overload
- Alarms: audible and remote notification
- Manual power on/off switch

The UPS shall have a terminal for connecting the UPS to a TVSS surge protection device. Each UPS unit shall be configured for remote monitoring from the SWIFT Center and/or the Sarasota-Manatee STMC. The UPS remote monitoring software shall perform the following functions:

- Data logging
- Event logging
- Fault notification
- Unattended system shutdown
- Manage all network UPS units
- Operating system shutdown
- Power event summary
- Recommended actions
- Risk assessment summary
- Run command file
- System event log integration

The UPS shall meet the following performance requirements:

- Size each unit to operate all devices in the cabinet for a minimum duration specified in section 8.3 of this MTR.
- Output voltage distortion: Less than 5 percent
- Nominal input voltage:120VAC
- Nominal output voltage:120VAC
- Input frequency: 50/60 Hz ±3Hz, auto-sensing
- Output frequency (sync to mains): 57-63 Hz for 60 Hz nominal frequency
- Waveform type: Sine wave
- Operating temperature: -30°F -165°F

- Operating relative humidity: 95 percent
- Storage temperature:-40°F -168°F
- Storage relative humidity: 95 percent
- Noise filtering: Full time multi-pole noise filtering shall meet 0.3% IEEE surge let-through; zero clamping response time shall meet Underwriters Laboratory (UL) 1449
- Management: Via a Web graphical user interface (GUI), SNMP and VT100 compatible terminal software (Hyper-terminal)

The components such as surge suppressors and power distribution shall operate properly and meet the ambient temperature range, relative humidity, applied power, shock, and vibration range of NEMA TS-2.

Alternating current (AC) isolation shall be provided within the cabinet. All cabinets shall be configured to accept 120 VAC from the utility. Cabinets shall be configured with the following minimum number of breakers and outlets:

- Two 15 amp branch circuit breakers in cabinets that are provided with 120 or 120/240 VAC power. One breaker shall feed the GFIC duplex outlet. The second breaker shall feed the other devices in the cabinet.
- Outlets shall be provided for each piece of equipment plus 2 spare outlets.

The circuit breakers shall be UL listed and have an interrupt capacity of 5,000 amperes and insulation resistance of 100 Mega ohms at 500 volts direct current (VDC). The power distribution blocks shall be suitable for use as power feed and junction points for two- and three-wire circuits. The AC neutral and equipment ground wiring and terminal blocks shall be isolated from the line wiring by an insulation resistance of at least 10 Mega ohms when measured at the AC neutral.

The Design-Build Firm shall provide all patch cables for connecting equipment furnished and installed according to these MTRs. These patch cables shall include all necessary data (Category 6 and single mode fiber optic cables) and video (Composite, S-Video, Component Video, HDMI) cables. All cabinet wiring shall be tagged and identified by the use of insulated pre-printed sleeves. The wire markers shall identify the cable in plain words with sufficient details without abbreviations or codes.

The Design-Build Firm shall furnish all materials with the most recently developed and approved product versions that meet or exceed all applicable standards, specifications, and requirements before the system is considered for acceptance. All materials furnished, assembled, fabricated, or installed shall be new products obtained from the manufacturer or reseller. The materials, equipment, and components shall be COTS products.

In addition, all cabinets shall be equipped with:

- A 10-inch x 2-inch x ¼-inch copper grounding buss with mounting holes
- 120 VAC power supply
- Fiber optic termination panel
- TVSS units

The location of the cabinets shall be:

- Outside the clear zone or behind guardrail; guardrail shall not be installed solely to protect cabinets
- Convenient and accessible for maintenance personnel
- Not in conflict with known future widening projects
- Convenient to power sources and field devices
- Pole-mounted cabinet at each CCTV camera location, placed so the cabinet is not directly under the CCTV camera
- Pole-mounted cabinet at each MVDS location

- Ground-mounted at each DMS location, placed so a technician can view the sign message while working in the cabinet
- Not located in low lying/wet areas.
- Not on a slope or where there is a drop off.

8.3 Functional Requirements

8.3.1 CCTV Camera Cabinet

Any cabinet serving a CCTV camera shall house, at a minimum, the following items:

- Video encoder
- Ethernet switch
- Fiber optic termination
- UPS with sufficient capacity to hold the site's electrical load (including the CCTV camera) for four hours

The CCTV camera cabinet shall be interconnected to the CCTV camera assembly using a composite cable carrying the video, serial data, and power.

8.3.2 DMS Cabinet

Any cabinet serving a DMS shall house, at a minimum, the following items:

- DMS controller
- Ethernet switch
- Power-on indicators
- Waterproof local/remote switches and LED indicators
- Communication interface devices
- UPS with sufficient capacity to continue providing communications to the sign and DMS messages for two hours
- EIA-232 cables a minimum of four feet long to connect laptop computers

The power-on indicator shall indicate when the display system interface circuits are energized.

The Design-Build Firm shall be responsible for all connections between the sign and field cabinet, and for any required wiring harnesses and connectors.

8.3.3 Ethernet Hub Equipment Shelter

Ethernet hub equipment shelter shall comply with supplemental specification 785-5 and shall contain:

- Dual HVAC redundant system for a climate controlled environment
- UPS with sufficient capacity to hold the site's electrical load, less HVAC, for four hours

8.3.4 Non-Intrusive MVDS Cabinet

Any cabinet serving a non-intrusive MVDS shall house, at a minimum, the following items:

- Power and signal TVSS
- Single port terminal server
- UPS with sufficient capacity to hold the site's electrical load for four hours
- Ethernet edge switch

The non-intrusive MVDS shall connect to the communications network through an EIA 232/422/485 connection on the terminal server and then to a locally available Ethernet switch. For those units with an Ethernet port, connect it to the available Ethernet switch without use of a terminal server.

8.3.5 RWIS Cabinet

Any cabinet serving a RWIS shall house, at a minimum, the following items:

- Ethernet edge switch
- UPS with sufficient capacity to hold the site's electrical load for four hours
- Remote processing unit
- Local control panel
- Environmental sensor support equipment

The RWIS shall connect to the communications network through an EIA 232/422 connection on the terminal server and then to a locally available Ethernet switch.

8.3.6 HAR Cabinet

Any cabinet serving a HAR transmitter site shall house, at a minimum, the following items:

- Ethernet edge switch
- UPS with sufficient capacity to hold the site's electrical load for three days

The HAR shall connect to the communications network via a locally available Ethernet switch.

8.4 Applicable Standards

All Category 5 unshielded twisted pair (UTP)/shielded twisted pair (STP) network cables shall comply with the *EIA/TIA-568-A* standard.

Each cabinet shall be ISO 9001 certified at the time of bid letting.

8.5 Construction Requirements

The Design-Build Firm shall furnish all tools, equipment, materials, supplies, and manufactured hardware, and shall perform all operations and equipment integration necessary to provide a complete, fully operational field cabinet. All components shall be securely mounted inside the cabinet. For cabinets housing the same types of equipment, they shall be consistent; all cabinets shall be configured the same including, but not limited to, placement of the equipment inside the cabinet, equipment type and model, wiring, labeling, and mounting technique. The placement and mounting of equipment and cabling shall not interfere with general maintenance activities, testing, and future replacement of failed devices or removal of the cabinet from the foundation, and/or removal of working equipment or other cabinet contents.

The Design-Build Firm shall use stranded copper for all conductors, including those in jacketed cables. Neatly arrange all wiring, firmly lace or bundle it, and mechanically secure the wiring without the use of adhesive fasteners. Route and secure all wiring and cabling to avoid sharp edges and to avoid conflicts with other equipment or cabling. Terminate all wiring on a terminal block, strip, buss bar, device clamp, lug, or connector; do not splice any wiring. Label all wiring, cables, terminal strips, patch panels and distribution blocks. Use strain reliefs for all cabling with connectors, all cabling entering knockouts or ports at the equipment, and where appropriate.

Fasten all components of the cabinet assembly to be mounted on cabinet side panels with hex-head or Phillips-head machine screws. Install the screws into tapped and threaded holes in the panels. The components include, but are not limited to, terminal blocks, bussbars, panel, socket or DIN mounted TVSS, circuit breakers, accessory and equipment outlets, and DC power supply chassis. Each cabinet mounted UPS unit shall be configured for remote monitoring from the SWIFT Center and the Sarasota-Manatee STMC.

Fasten all other cabinet components with hex-head or Phillips-head machine screws installed with nuts (with locking washer or insert) or into tapped and threaded holes. Fasten stud-mounted components to a

mounting bracket providing complete access to the studs and mounting nuts. All fastener heads and nuts (when used) shall be fully accessible within a complete cabinet assembly, and any component shall be removable without requiring removal of other components, panels or mounting rails. Do not use self-tapping or self-threading fasteners.

The Design-Build Firm shall install a concrete service pad at each cabinet location. For pole-mounted cabinets, the service pad shall be installed flush with the pole. For base-mounted cabinets, the service pad shall be installed flush with the cabinet face. The service pad shall measure 30 inches from the face of the cabinet by 36 inches wide. The service pad shall provide a level surface for a technician to access the cabinet and have a slope of 1/4 to 1 inch for drainage.

8.6 Document Requirements

All cabinet as-built drawings shall be submitted to the Engineer for approval prior to installation in the cabinet. All markings and identifications shall be silk screened on the panel and sealed with a clear sealer, an acrylic, or a material approved by the Engineer.

8.7 Warranty

The Design-Build Firm shall provide a manufacturer warranty against all defects and/or failure in design, materials, assembly, fabrication and workmanship for the minimum warranty duration specified for each equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786, as applicable.

The UPS units shall carry a manufacturer’s warranty of two years.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

9.0 GROUNDING AND TRANSIENT SURGE PROTECTION

9.1 Description

The Design-Build Firm shall provide a system to protect field devices and electronic equipment from lightning and voltage surges using National Electrical Code (NEC) & Transient Voltage Surge Suppressor (TVSS) technology and standards.

Grounding and TVSS shall comply with FDOT Supplemental Specification Section 785-2.

9.2 Functional Requirements

All TVSS devices shall have an ambient operating temperature of -40° F to 165° F with 95 percent noncondensing relative humidity.

9.2.1 Device Data/Video Supply and Line Side

The Low-voltage TVSS devices shall comply with the FDOT Supplemental Specification Section 785-2.4.4.

9.3 Warranty

The Design-Build Firm shall provide a manufacturer warranty against all defects and/or failure in design, assembly, fabrication, materials and workmanship for the minimum warranty duration specified for each equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786, as applicable.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

10.0 NON-INTRUSIVE MICROWAVE VEHICLE DETECTION SYSTEM

10.1 Description

The non-intrusive microwave vehicle detection system (MVDS) is a non-invasive detection system installed above ground on the roadside (i.e., side-fire-mounted). The detection system uses a low-power microwave radar beam to measure vehicle presence and generate volume, occupancy, and speed data. The system shall transmit data in serial format using the EIA-232 communications port or an IP interface. The connection to the ITS network shall be through a device server.

10.2 Design Requirements

The new MVDS assemblies shall be installed at the locations as determined by the Design-Build Firm. The minimum spacing for MVDS placement is:

- At each off ramp location, beyond the gore, where it can detect both the exiting and mainline traffic
- Every 1 mile except within 2 miles of an interchange
- Every 1/2 mile within 2 miles of an interchange

In some locations, it may be necessary to place two detectors to produce accurate measurements for both directions of travel and/or the exiting and mainline traffic at an interchange.

The location of each MVDS shall consider the existing and proposed geometry of I-75 and its ramps. There is proposed construction of road widening and noise barrier walls that must be considered in the placement of the detectors. The setback and mounting height must follow the manufacturer's recommended criteria in order to meet the performance requirements described in these MTRs. Each lane of the detected ramp and mainline must be an individual detection zone.

MVDSs shall have both EIA-232 and Ethernet access capability.

10.3 Functional Requirements

The MVDS equipment shall comply with all applicable sections of the FDOT Supplemental Specification 786.

The configuration and control software for the MVDS shall be compatible with the SunGuide® Software System.

Maintenance and construction of an installed assembly shall not require lane closures.

The Design-Build Firm shall provide software updates at no cost to the FDOT during the warranty period. It shall be possible to use a laptop computer with an operating system compatible with the SunGuide® software for detector assembly, setup, calibration, diagnosis, and data retrieval.

10.4 Performance Requirements

10.4.1 Environmental

The detector shall not be sensitive to temperature variations and shall operate across the temperature range of -30° F to 165° F without performance variations. The sensor shall not rely on temperature compensation circuitry to prevent abnormal operation. The assembly, operating continuously in its application, shall have a designed mean time between failures (MTBF) of 10 years, or 87,600 hours.

10.4.2 Detection

At a 9600-baud rate, the detector shall be capable of reporting full volume, occupancy, and speed data for a minimum of eight travel lanes. The detector shall meet the overall accuracy requirements specified under all weather and traffic conditions experienced in the detection site area. The unit shall not be adversely affected by varied weather conditions, such as rain, fog, or winds.

10.5 Material Requirements

The Design-Build Firm shall furnish all materials with the most recently developed and approved product versions that meet or exceed all applicable standards, specifications, and requirements before the system is considered for acceptance. It is the Design-Build Firm's responsibility to ensure that all required detection assembly features, functions, and performance measures are met.

All materials furnished, assembled, fabricated, or installed shall be new products obtained from the manufacturer or reseller. The materials, equipment, and components shall be COTS products.

The detector shall include the required assembly installation hardware at each individual detection site. The mounting and installation of the assembly shall ensure that detection quality is not degraded due to assembly movement and vibration.

10.6 Construction Requirements

The Design-Build Firm shall furnish all tools, equipment, materials, supplies, and manufactured hardware, and perform all operations and equipment integration necessary to provide a complete and fully operational system, according to the manufacturer's recommendations and all applicable standards, specifications, and requirements.

A factory-trained and certified representative shall conduct a detailed preconstruction site survey prior to the 90% plans submittal so that the recommended MVDS locations are clearly identified within that submittal. The site survey shall identify the exact location and details of each detection station. The Design-Build Firm shall submit the detailed location information to the Engineer with the 90% plans submittal for approval.

The Design-Build Firm shall prepare shop drawings that detail a complete detection assembly, and all other components to be supplied and constructed. The drawings shall detail the exact location and placement of system components, and shall include installation details for the required cables. All cabling shall be installed according to the manufacturer's recommendations.

Each detector shall be mounted in a side-fire configuration. The detector shall be mounted level from side to side. When collocating the MVDS with a CCTV camera location, the MVDS shall be mounted so the CCTV camera does not conflict when lowering. The Design-Build Firm shall supply the software and a laptop computer to be used for zone calibration.

The Design-Build Firm shall oversee assembly installation on a pole at a height above the road's surface as recommended by the manufacturer. All detection zones shall be contained within the specified elevation angle according to the manufacturer's recommendations and shall be capable of fully detecting all vehicle types in a maximum of eight lanes.

All equipment shall be installed according to the manufacturer's recommendations.

10.7 Testing Requirements

The Design-Build Firm shall perform tests for each MVDS installation as shown in FDOT Supplemental Specification Section 786-5.
The Design-Build Firm shall provide all the required hardware, software, and labor to perform tests for each MVDS installation.

10.8 Training and Manual Requirements

The Design-Build Firm shall be responsible to conduct a minimum of two hours onsite operational instruction for up to 10 representatives designated by the Engineer, for each type of MVDS unit installed. The Design-Build Firm shall provide training and maintenance manuals for each assembly, including detailed specifications and information regarding all installations.

The Design-Build Firm shall provide an inventory of installed assemblies by location and corresponding serial number. The inventory shall include weight and dimension specifications; power consumption information; the operating temperature range and relative humidity specifications; and general maintenance procedures.

The Design-Build Firm shall provide documentation detailing the technical and operational aspects of the completed installation. Documentation shall include device manuals; system diagrams; cabling diagrams; all field-engineering notes specific to each installation; full warranty information and any other documentation required by the Engineer.

10.9 Warranty

The Design-Build Firm shall provide a manufacturer warranty against all defects and/or failure in design, assembly, fabrication, materials and workmanship for the minimum warranty duration specified for each equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786, as applicable.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

11.0 ROAD WEATHER INFORMATION SYSTEM

11.1 Description

The road weather information system (RWIS) shall comply with the FDOT Supplemental Specification 781-5.

11.2 Design Requirements

The RWIS assemblies shall be located as follows:

- As shown on the Conceptual Device Layout
- Outside the clear recovery area
- Final locations shall be determined by Design-Build Firm to maximize accuracy of weather sensors

A six-foot high Type B (chain link) fence to protect the sensors shall enclose the RWIS. The communications cabinets shall be located inside the fence. Each fence shall be equipped with an eight-foot wide locking gate. The fenced enclosure shall measure 12 feet by 12 feet. The Design-Build Firm shall provide at least 4 copies of the key for the locking gate. All gate locks (for both RWIS and generator sites) shall be keyed alike. The Design-Build Firm shall install a weed barrier to prevent vegetation from growing up around the RWIS within the fence area. Gravel shall be installed on top of the weed barrier. Type B fence, weed barrier, and gravel shall comply with FDOT Supplemental Specification Sections 785-5.3.6 through 785-5.3.10.

11.3 Applicable Standards

The RWIS shall comply with the standards listed in the FDOT Supplemental Specification Section 781-5.3.

11.4 Performance Requirements

The Design-Build Firm shall provide an appropriate means of conversion for any device that requires a different input source. Each device shall be provided with appropriate surge suppression and grounding-bonding. Power and control devices shall be protected separately.

11.5 Material Requirements

The Design-Build Firm shall furnish all materials with the most recently developed and approved product versions that meet or exceed all applicable standards, specifications, and requirements before the system is considered for acceptance. It is the Design-Build Firm's responsibility to ensure that all features, functions, and performance requirements are met.

All materials furnished, assembled, fabricated, or installed shall be new products obtained from the manufacturer or reseller. The materials, equipment, and components shall be COTS products.

11.5.1 Remote Processing Unit (RPU)

The RPU shall comply with FDOT Supplemental Specification Section 781-5.2.5. The RPU shall be capable of transmitting all collected data to the SWIFT Center and/or Sarasota-Manatee STMC using Ethernet communications over single mode fiber optic cable that transfers data at a minimum rate of 10 Mbps.

RWIS software shall comply with FDOT Supplemental Specification Section 781-5.2.7.

11.5.2 Sensors

The sensors shall comply with FDOT Supplemental Specification Sections 781-5.2.1 and 781-5.2.2.

11.5.3 ESS

The Environmental Sensor Station (ESS) shall comply with FDOT Supplemental Specification Sections 781-5.2.3.

11.5.4 Foundation and Pole

The RWIS foundation and pole shall comply with the FDOT Supplemental Specification Section 781-5.2.9. The poles shall be concrete poles designed to withstand winds of 150 MPH with gusts to 180 MPH.

11.6 Construction Requirements

The Design-Build Firm shall furnish all tools, equipment, materials, supplies, and manufactured hardware, and shall perform all operations and equipment integration necessary to provide a complete, fully operational system.

All equipment shall be installed according to the manufacturer's recommendations or as directed by the Engineer.

11.7 Testing Requirements

The Design-Build Firm shall perform all the tests outlined in the FDOT Supplemental Specification Section 781-5.5.

11.8 Training and Manual Requirements

The Design-Build Firm shall be responsible to conduct a minimum of two days onsite functional, operational, and mechanical training for all aspects of a RWIS and its supporting network communication devices for up to 10 representatives designated by the Engineer, for each type of unit installed.

The Design-Build Firm shall provide a training and maintenance manual for the RWIS assembly, including detailed minimum technical requirements and information for all installed environmental sensor units, and RPUs. The Design-Build Firm shall provide an inventory of installed assemblies by location and corresponding serial number. The manual shall also include weight and dimension specifications; power consumption information; the operating temperature range and relative humidity specifications; and the system's general maintenance procedures.

The Design-Build Firm shall provide documentation detailing the technical and operational aspects of completed installations. Documentation shall include device manuals, system diagrams, cabling diagrams, all field engineering notes specific to each installation, full warranty information, and any other documentation as required by the Engineer.

11.9 Warranty

The Design-Build Firm shall provide a manufacturer warranty against all defects and/or failure in design, assembly, fabrication, materials and workmanship for the minimum warranty duration specified for each equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786, as applicable.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

12.0 HIGHWAY ADVISORY RADIO

12.1 Requirements

The Highway Advisory Radio (HAR) system shall consist of amplitude modulated (AM) transmitter stations, flashing beacon signs, and command and control station equipment. The HAR, including its components and antenna system must be designed in accordance with the HAR manufacturer's recommendations so that it functions as a system and thus optimally. The Design-Build Firm shall detail the site and antenna design in the plans.

The HAR system shall comply with the FDOT Supplemental Specification 781-4 and these MTRs.

The FMS HAR system shall be compatible with the Department's SunGuide® Software system.

The AM transmitter stations shall include the antenna assemblies (utilizing wood support poles), power supplies and battery storage system, and all other necessary items to make a fully functioning HAR transmitter system. The antenna assembly shall include a ground counterpoise system. A driven ground rod or group of ground rods is not acceptable.

The Design-Build Firm shall install 10 HAR transmitter stations and 20 flashing beacons as shown on the Conceptual Device Layout. Each transmitter shall be associated with two flashing beacons, except as shown on the Conceptual Layout drawings. The locations of the HAR transmitters in the Conceptual Device Layout were selected to provide full coverage of the corridor without overlapping. The locations of the HAR flashing beacon signs in the Conceptual Device Layout were selected to minimize impacts upon existing signage.

The HAR frequency shall be 1640 MHz, which is already in use within the Charlotte County portion of the FMS. The Design-Build Firm is responsible for the Federal Communication Commission (FCC) licensing of each new HAR transmitter. The Design-Build Firm shall not be granted extra time for delays associated with the FCC licensing.

Each of the HAR transmitters shall work as an independent HAR station announcing its own audio message. The HAR system control software module shall allow the user to dynamically adjust the AM radio transmitter power from 0 to 10 watts in the increments of 0.1 watts. When two adjacent HAR stations are working in independent HAR station mode, the HAR system control software shall be configurable by the user to adjust each HAR station AM radio transmitter power output so that there shall be a silent gap of about ½-mile between the two adjacent HAR transmitter stations.

The SunGuide® Software system does not have the capability of adjusting the output power of the HAR from 0 to 10 watts in the increments of 0.1 watts. The Design-Build Firm shall install HAR manufacturer's software on all SWIFT Center operator workstations and all Sarasota-Manatee STMC workstations to provide this output power adjustment capability.

Each of the HAR transmitters shall synchronize with other HAR transmitters in the system. When these HAR stations are working in synchronized mode, there shall not be any silent gaps and the HAR system shall operate as one seamless system.

The beacons shall include:

- A static sign
- Two flashing lights of 12 inches in diameter
- Two support posts to mount the sign on
- Ethernet over Single Mode Fiber based beacon controller

- UPS with sufficient capacity to hold beacon's electrical load, including the Ethernet edge switch, for three days
- Remote control unit
- All other necessary items to make a fully functioning beacon system with HAR transmitter

The flashing beacons shall comply with the FDOT Supplemental Specification Section 781-4.2.9.

Solar panels shall not be used to charge the back-up batteries, instead the UPS specified in section 6.3.6 shall be used.

The HAR system shall provide IP-based control for operating and managing the complete HAR system.

The HAR stations and beacons shall be located outside the clear zones. Recommended locations for the HAR stations and beacons are shown in the Conceptual Device Layout. The preferred placement of the HAR beacon signs is in advance of the DMS assembly before an interchange.

12.2 Construction Requirements

The HAR system installation shall comply with the FDOT Supplemental Specification Section 781-4.3.

The HAR system shall be integrated into the fiber optic network for a hard-wired connection to the SWIFT Center and the Sarasota-Manatee STMC.

12.3 Testing Requirements

The Design-Build Firm shall test the entire HAR system utilizing the Department's SunGuide® Software system and the vendor software in both the independent operating mode of multiple HAR stations and their associated flashing beacons, and in synchronized mode of multiple HAR stations and their associated flashing beacons from both the SWIFT Center and the Sarasota-Manatee STMC. For testing purposes, it may be necessary for Department staff to ride along the corridor to verify both types of operation. The test results shall be clearly documented and provided to the Engineer. It should be noted that testing of the HAR transmitters is not allowed before the FCC licenses are received.

The Design-Build Firm shall also test the entire HAR system according to the FDOT Supplemental Specifications Section 781-4.4.

12.4 Training and Manual Requirements

The Design-Build Firm shall be responsible to conduct a minimum of two days onsite functional, operational, and mechanical training of the complete HAR system and its supporting network communication devices for up to 10 representatives designated by the Engineer, for each type of unit installed. The Design-Build Firm shall comply with the testing requirements.

The Design-Build Firm shall supply a complete configuration and operations training utilizing Department's SunGuide® Software system. This training shall include both the independent operating mode of multiple HAR stations and their associated flashing beacons and the synchronized mode of multiple HAR stations and their associated flashing beacons.

The Design-Build Firm shall provide a training and operations/maintenance manual for the HAR system assembly, including detailed information for all installed HAR system components, modules, and software. The Design-Build Firm shall provide an inventory of installed assemblies by location and corresponding serial number. The manual shall also include weight and dimension specifications; power

consumption information; the operating temperature range and relative humidity specifications; and the system's general maintenance procedures.

The Design-Build Firm shall provide documentation detailing the technical and operational aspects of completed installations. Documentation shall include device manuals, system diagrams, cabling diagrams, all field engineering notes specific to each installation, full warranty information, and any other documentation as required by the Engineer.

12.5 Warranty

The Design-Build Firm shall provide a manufacturer warranty against all defects and/or failure in design, assembly, fabrication, materials and workmanship for the complete HAR system including individual components for the minimum warranty duration specified for each equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786, as applicable.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

13.0 UTILITIES

13.1 Description

The Design-Build Firm is responsible to provide power for all of the field devices within the project.

The Design-Build Firm shall arrange and coordinate the installation of power services along the Sarasota and Manatee I-75 FMS Project route.

The Design-Build Firm shall provide full payment to the electric utility for extending the existing power service to provide power to the field devices where needed along the project route.

Power drops shall be designed and installed to comply with the NEC and FDOT Standard Specification 639. In addition to other requirements referenced to herein, electric pull boxes shall be spaced not more than 500 feet apart.

Voltage design drop calculations shall comply with the suggested limits defined in NEC Article 210.19 (A) (1) FPN #4 and NEC Article 215.2 (A)(3) FPN #2. These calculations shall define all service points, circuits emanating from those points, details of all loads on all circuits, the nominal voltage on each circuit, the voltage drop for each link of each circuit, the percent voltage drop for each circuit and the wire size selected for each link of each circuit. These calculations shall include sizing and ratings of all circuit breakers, transformers, fused switches and transfer switches planned for installation. These calculations shall be submitted with the 90% submittal and with each subsequent submittal with all data appropriately updated. An allowance of 9.0 Amps shall be included at the end of the circuit for a convenience outlet.

Where Transformers are used, they shall be provided with +/- 2.5% & +/- 5% voltage taps. These taps shall not be used to fulfill the voltage drop and wire size requirements of this MTR.

Where circuits run both north and south from a power service point, separate circuits, each with its individual circuit breaker, shall be provided. A main disconnect circuit breaker shall be provided at each power service point.

13.2 Engine Generator Backup System

The Department requires an engine generator backup system similar to the one in place within Collier and Lee Counties. The existing backup system powers all DMSs and all communication switches necessary to control and place messages on those DMSs. The object of the engine generator backup system is to provide messages on those DMSs within Sarasota and Manatee Counties when there is no electrical power from the service provider.

13.2.1 Design Requirements

The Design-Build Firm shall design the system to allow for message posting and the necessary communications to the signs and between the SWIFT Center and the Sarasota-Manatee STMC. The Design-Build Firm shall provide and install diesel-electric generator units at all power service point locations that provide power for a DMS and those locations that provide power for the communications backhaul. The units shall be sized to carry the full electric load fed from that point, plus 20%, for 24 hours. Only one unit will be allowed at any location. The FDOT has standardized on 7.5 KVA, 120/240 VAC 1 phase, 15 KVA 120/240 VAC 1 phase, and 25 KVA 120/240 VAC 1 phase units and effort should be expended to utilize these sizes. Request for variance to these sizes requires approval of the Engineer.

The 25 KVA units shall be designed for permanent installation and the 7.5 KVA and 15 KVA units shall be designed to be temporarily installed.

Each power service point location shall be equipped with a concrete pad, designed to support the generator unit, a lockdown method to secure the unit, a permanently installed electrical transfer switch to transfer the load from commercial to generator unit power, and housing to protect the unit. The 7.5 KVA units shall include a permanently mounted cabinet to protect the unit from theft. The Design-Build Firm is responsible for designing a cabinet that meets the exhaust and air flow requirements of the generators provided so the units do not overheat. The cabinet design shall address the need for ease of installing and removing the 7.5 KVA generators. Each location shall be bonded and grounded as required by the NEC.

A six-foot high Type B (chain link) fence shall enclose the generator units. Each fence shall be equipped with an eight-foot wide locking gate. The fenced enclosure shall measure 12 feet by 12 feet. The Design-Build Firm shall provide at least 4 copies of the key for each locking gate. All gate locks (for both RWIS and generator sites) shall be keyed alike. The Design-Build Firm shall install a weed barrier to prevent vegetation from growing up around the RWIS within the fence area. Gravel shall be installed on top of the weed barrier. Type B fence, weed barrier, and gravel shall comply with FDOT Supplemental Specification Sections 785-5.3.6 through 785-5.3.10.

Locations served by 7.5 KVA and 15 KVA units shall be equipped with manual transfer switches while locations served by the 25 KVA units shall be equipped with an automatic transfer switch. Transfer switches shall be fused to protect the downstream components.

13.2.2 Remote Monitoring Requirements

The 25 KVA generator units and associated automatic transfer switches shall be provided with performance monitoring equipment permanently installed that report to and are controlled by the SWIFT Center and the Sarasota-Manatee STMC. This equipment should provide, as a minimum, the following data to the SWIFT Center and/or the STMC as appropriate:

- Status of Commercial Power
- Position of Transfer Switch
- Status of diesel engine
- Diesel engine speed
- Diesel engine coolant temperature
- Diesel engine oil pressure
- Electric generator output voltage
- Electric generator output current

These units shall be remotely programmable to automatically start from 0.5 to 5 minutes after commercial power fails and to assume the electric load within 5 minutes after that. An alarm shall be provided to advise the operator, at the SWIFT center and/or STMC, that commercial power has been restored so that the operator may transfer the load and shut down the unit.

13.2.3 Testing

The Design-Build Firm shall test the engine generator backup system as a complete system. The test shall last for a minimum of 6 hours and the Design-Build Firm shall monitor the generators to verify that they work as designed. The Design-Build Firm shall coordinate this test with the SWIFT Center Manager and the SWIFT Center IT Manager.

13.2.4 Deliverables

The Design-Build Firm shall provide copies of the unit operations and maintenance manuals for each unit supplied to the FDOT.

13.2.5 Training

The Design-Build Firm shall provide training on this equipment. This training shall consist of 2 hours of classroom theory on operations for both operation personnel and maintenance personnel and 6 hours of

hands on training in the field for maintenance personnel for up to 10 representatives designated by the Engineer.

13.3 Remote Power Management

The Design-Build Firm shall provide remote power management (RPM) for controlling multiple network devices and services. The RPM shall individually control AC power for up to eight connected devices. Once connected to the network, the RPM shall provide access and control using a standard web browser and your password. The Design-Build Firm shall supply remote power management in each cabinet servicing a DMS within the Sarasota/Manatee FMS.

The RPM shall provide the following minimum functionalities:

- Eight outlets;
- Network connections via Ethernet;
- Network control/support via HTTP server & SNMP agent TCP/IP;
- Scheduled event control including day of week and specific time start-up and shutdown; and
- Notifications including pagers and network broadcast messages.

13.3.1 Testing

The Design-Build Firm shall test the RPM with each connected device. The Design-Build Firm shall coordinate this test with the SWIFT Center Manager and the SWIFT Center IT Manager.

13.4 Warranty

The Design-Build Firm shall provide a manufacturer warranty against all defects and/or failure in design, assembly, fabrication, materials and workmanship for the complete Engine Generator Backup system including individual components for the minimum warranty duration specified for each equipment in the FDOT Supplemental Specifications 780, 781, 782, 783, 784, 785, and 786, as applicable.

The engine generator units shall carry a manufacturer's warranty of two years. The transfer switches and transformers shall carry a manufacturer's warranty of 18 months.

The warranty period shall not begin until the date that the Department issues written notice of Final Acceptance.

DESIGN-BUILD SPECIFICATIONS.
(6-20-11) (7-11)

DIVISION I

GENERAL REQUIREMENTS AND COVENANTS

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SECTION 1
DEFINITIONS AND TERMS

1-1 General.

These Specifications are written to the bidder, prior to award of the Contract, and to the Contractor. Within Divisions I and II of the specifications, sentences that direct the Contractor to perform work are written in the active voice-imperative mood. These directions to the Contractor are written as commands. In the imperative mood, the subject "the bidder" or "the Contractor" is understood.

All other requirements to be performed by others, with the exception of the Method of Measurement and the Basis of Payment Articles, have been written in the active voice, but not in the imperative mood. Sentences written in the active voice identify the party responsible for performing the action. For example, "The Engineer will determine the density of the compacted material." Certain requirements of the Contractor may also be written in the active voice, rather than active voice-imperative mood.

1-2 Abbreviations.

The following abbreviations, when used in the Contract Documents, represent the full text shown:

AAN	American Association of Nurserymen, Inc.
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	The Associated General Contractors of America, Inc.
AGMA	American Gear Manufacturers Association
AIA	American Institute of Architects.
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute, Inc.
AREA	American Railway Engineering Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
CRSI	Concrete Reinforcing Steel Institute
EASA	Electrical Apparatus Service Association
EPA	Environmental Protection Agency of the United States Government
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FSS	Federal Specifications and Standards
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association

ISO	International Organization for Standards
MSTCSD	Minimum Specifications for Traffic Control Signals and Devices
MUTCD	Manual on Uniform Traffic Control Devices
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIST	National Institute for Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
OSHA	Occupational Safety and Health Administration
SAE	Society of Automotive Engineers
SI	International System of Units
SSPC	Steel Structures Painting Council
UL	Underwriters' Laboratories

Each of the above abbreviations, when followed by a number or letter designation, or combination of numbers and letters, designates a specification, test method, or other code or recommendation of the particular authority or organization shown.

Use standards, specifications, test methods, or other codes as specified in the current edition at the time of the bid opening.

1-3 Definitions.

The following terms, when used in the Contract Documents, have the meaning described:

Adjusted Score-Design/Build.

A Design/Build Contract on which the Contract award is based on the lowest adjusted score.

Advertisement.

The public announcement, as required by law, inviting bids for work to be performed or materials to be furnished, usually issued as "Notice to Contractors," or "Notice to Bidders".

Architect.

The Architect as defined in Section481.203 (3) Florida Statutes.

Architect of Record.

The Architect or Architectural Firm registered in the State of Florida that performs services for the Design-Build Firm in connection with the design and construction of buildings.

Architecture.

The practice of architecture as defined in Section 481.203(6) Florida Statutes**.**

Article.

The numbered prime subdivision of a Section of these Specifications.

Bid Proposal.

Bid Proposal means a separate technical proposal and a sealed price proposal submitted by each Design-Build Firm.

Bidder.

An individual, firm, or corporation submitting a proposal for the proposed work. The word "Bidder" is also be deemed to include a Design-Build Firm submitting a proposal for the proposed work.

Bridge.

A structure, including supports, erected over a depression or over an obstruction such as water, highway or railway, or for elevated roadway, for carrying traffic or other moving loads, and having a length, measured along the center of the roadway, of more than 20 feet between the inside faces of end supports. A multiple-span box culvert is considered a bridge, where the length between the extreme ends of the openings exceeds 20 feet.

Calendar day.

Every day shown on the calendar, ending and beginning at midnight.

Consultant.

The Professional Engineer or Engineering Firm, or the Architect or Architectural Firm, registered in the State of Florida and under Contract to the Department to perform professional services. The consultant may be the Engineer or Architect of Record or may provide services through and be subcontracted to the Engineer or Architect of Record.

Contract.

The term "Contract" means the entire and integrated agreement between the parties thereunder and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract Documents form the Contract between the Department and the Contractor setting forth the obligations of the parties thereunder, including, but not limited to, the performance of the Work and the basis of payment.

Contract Claim (Claim).

A written demand submitted to the Department by the Contractor in compliance with Section 5-12.3 seeking additional monetary compensation, time, or other adjustments to the Contract, the entitlement or impact of which is disputed by the Department.

Contract Documents.

The term "Contract Documents" includes: Advertisement , Request for Proposal (RFP), the Design and Construction Criteria Package, the Technical and Price Proposal, Certification as to Publication and Notice of Advertisement for Proposal, Appointment of Agent by Nonresident Contractors, Noncollusion Affidavit, Warranty Concerning Solicitation of the Contract by Others, Resolution of Award of Contract, Executed Form of Contract, Performance Bond and Payment Bond, Design Liability Insurance, Specifications, plans (including revisions thereto issued during construction), Addenda, written statements or transcripts or minutes of oral representation by Design-Build Firm made at oral presentations, or other information mailed or otherwise transmitted to the prospective bidders prior to the receipt of bids, work orders and supplemental agreements, all of which are to be treated as one instrument whether or not set forth at length in the form of contract.

Note: As used in Sections 2 and 3 only, Contract Documents do not include work orders, and supplemental agreements. As used in Section 2 only, Contract Documents do not include

Resolution of Award of Contract, Executed Form of Contract, and Performance and Payment Bond.

Contract Bond.

The security furnished by the Contractor and the surety as a guaranty that the Contractor shall fulfill the terms of the Contract and pay all legal debts pertaining to the construction of the project.

Contract Letting.

The date that the Department opened the sealed price proposal of the bid proposals.

Contract Time.

The number of calendar days allowed for completion of the Contract work, including authorized time extensions.

Contractor.

The individual, firm, joint venture, or company contracting with the Department to perform the work. The word "Contractor" is also deemed to include a Design-Build Firm contracting with the Department for performance of work, including all engineering services and furnishing of materials.

Contractor's Engineer of Record.

A Professional Engineer registered in the State of Florida, who undertakes the design and drawing of components of the permanent structure for repair designs and details of the permanent work. The Contractor's Engineer of Record may also serve as the Specialty Engineer.

The Contractor's Engineer of Record must be an employee of a pre-qualified firm. The firm shall be pre-qualified in accordance with the Rules of the Department of Transportation, Chapter 14-75. Any Corporation or Partnership offering engineering services must hold a Certificate of Authorization from the Florida Department of Business and Professional Regulation.

As an alternate to being an employee of a pre-qualified firm, the Contractor's Engineer of Record may be a pre-qualified Specialty Engineer. For items of the permanent work declared by the State Construction Office to be "major" or "structural", the work performed by a pre-qualified Specialty Engineer must be checked by the Engineer of Record. An individual Engineer may become pre-qualified in the work groups listed in the Rules of the Department of Transportation, Chapter 14-75, if the requirements for the Professional Engineer are met for the individual work groups. Pre-qualified Specialty Engineers are listed on the State Construction Website.

Controlling Work Items.

The activity or work item on the critical path having the least amount of total float. The controlling item of work will also be referred to as a Critical Activity.

Culverts.

Any structure not classified as a bridge that provides an opening under the roadway.

Delay.

Any unanticipated event, action, force or factor, which extends the Contractor's time of performance of any controlling work item under the Contract. The term "delay" is intended to cover all such events, actions, forces or factors, whether styled "delay", "disruption", "interference", "impedance", "hindrance", or otherwise, which are beyond the control of and not caused by the Contractor, or the Contractor's subcontractors, material men, suppliers or other agents. This term does not include "extra work".

Department.

State of Florida Department of Transportation.

Design and Construction Criteria Package (DCC).

Criteria for Contractor Prepared Design, Project Concept Report, Scope of Work and Service, and all other documents attached thereto; and which, together set forth the criteria for work to be provided to complete this Contract.

Design-Build (D-B).

Design-Build means combining the project's design and construction phases, and in some cases construction engineering and inspection, into a single Contract.

Design-Build Firm.

Design-Build Firm means any company, firm, partnership, corporation, association, joint venture, or other legal entity permitted by law to practice engineering, architecture, and construction contracting, as appropriate, in the State of Florida.

Designer of Record.

The Architect of Record or the Engineer of Record.

Developmental Specification.

See definition for Specifications.

Engineer.

The Director, Office of Construction, acting directly or through duly authorized representatives; such representatives acting within the scope of the duties and authority assigned to them.

Note: In order to avoid cumbersome and confusing repetition of expressions in these Specifications, it is provided that whenever anything is, or is to be done, if, as, or, when, or where "acceptable, accepted, approval, approved, authorized, condemned, considered necessary, contemplated, deemed necessary, designated, determined, directed, disapproved, established, given, indicated, insufficient, ordered, permitted, rejected, required, reserved, satisfactory, specified, sufficient, suitable, suspended, unacceptable, or unsatisfactory," it shall be understood as if the expression were followed by the words "by the Engineer," "to the Engineer," or "of the Engineer."

Engineer of Record (EOR).

The Professional Engineer or Engineering Firm registered in the State of Florida that develops the criteria and concept for the project, performs the analysis, and is responsible for the

preparation of the Contract Documents. The Engineer of Record shall be a part of the Design Build Firm.

Equipment.

The machinery and equipment, together with the necessary supplies for upkeep and maintenance thereof, and all other tools and apparatus necessary for the construction and acceptable completion of the work.

Extra Work.

Any "work" which is required by the Engineer to be performed and which is not otherwise covered or included in the project by the existing Contract Documents, whether it is in the nature of additional work, altered work, deleted work, work due to differing site conditions, or otherwise. This term does not include a "delay".

Highway, Street, or Road.

A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

Holidays.

Days designated by the State Legislature or Cabinet as holidays, which include, but are not limited to, New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and the following Friday, and Christmas Day.

Inspector.

An authorized representative of the Engineer, assigned to make official inspections of the materials furnished and of the work performed by the Contractor.

Laboratory.

The official testing laboratory used by the Department.

Low Bid Design Build.

A Design/Build Contract on which the Contract award is based on the lowest responsive bid.

Materials.

Any substances to be incorporated in the work under the Contract.

Median.

The portion of a divided highway or street separating the traveled ways for traffic moving in opposite directions.

Plans.

The signed and sealed plans prepared by the EOR and accepted by the Department, including reproductions thereof, showing the location, character, dimensions, and details of the work. Upon review by the Department, the plans will be stamped "Released for Construction" dated and initialed by the reviewer.

Project.

Project means the project to be designed and constructed as described in the public advertisement.

Project Manager.

The Department's designee responsible for the administration of the Design-Build Contract.

Proposal.

Technical Proposal: The bidder's submittal in response to the technical requirements set forth in the Department's Request for Proposal.

Price Proposal: The bidder's submittal, on the prescribed form, in response to the price requirements set forth in the Department's Request for Proposal.

Proposal Guaranty.

The security furnished by the bidder as guaranty that the bidder will enter into the Contract for the work if the Department accepts the proposal.

Request for Proposal. (RFP)

The package to be provided to the short-listed design-build firms in the adjusted score design-build method and to those design-build firms requesting a RFP in the low bid design-build method. The RFP defines all functions and responsibilities by the firm.

Right-of-Way.

The land that the Department has title to, or right of use, for the road and its structures and appurtenances, and for material pits furnished by the Department.

Roadbed.

The portion of the roadway occupied by the subgrade and shoulders.

Roadway.

The portion of a highway within the limits of construction.

Secretary.

Secretary of Transportation, State of Florida Department of Transportation, acting directly or through an assistant or other representative authorized by him; the chief officer of the Department of Transportation.

Section.

A numbered prime division of these Specifications.

Shoulder.

The paved or unpaved portion of the roadbed outside the edges of the traveled way or back of curb, and extending to the top of front slopes.

Special Provisions.

See definition for Specifications.

Specialty Engineer.

A Professional Engineer registered in the State of Florida, who undertakes the design and drawing preparation of components, systems, or installation methods and equipment for specific temporary portions of the project work or for special items of the permanent works not fully detailed in the plans and required to be furnished by the Contractor such as but not limited to pot bearing designs, non-standard expansion joints, MSE wall designs and other specialty items. The Specialty Engineer may also provide designs and details for items of the permanent work declared by the State Construction Office to be "minor" or "non-structural". The Specialty Engineer may be an employee or officer of the Contractor or a fabricator, an employee or officer of an entity providing components to a fabricator, or an independent consultant.

For items of work not specifically covered by the Rules of the Department of Transportation, a Specialty Engineer is qualified if he has the following qualifications:

(1) Registration as a Professional Engineer in the State of Florida.

(2) The education and experience necessary to perform the submitted design as required by the Florida Department of Business and Professional Regulation.

Specifications.

The directions, provisions, and requirements contained herein, together with all stipulations contained in the Contract Documents, setting out or relating to the method and manner of performing the work, or to the quantities and qualities of materials and labor to be furnished under the Contract.

A. Standard Specifications: "Standard Specifications for Road and Bridge Construction" a bound book, applicable to all Department Contracts containing adopted requirements, setting out or relating to the method or manner of performing work, or to the quantities and qualities of materials and labor.

B. Supplemental Specifications: Approved additions and revisions to the Standard Specifications, applicable to all Department Contracts.

C. Special Provisions: Specific clauses adopted by the Department that add to or revise the Standard Specifications or supplemental specifications, setting forth conditions varying from or additional to the Standard Specifications applicable to a specific project.

D. Technical Special Provisions: Specifications, of a technical nature, prepared, signed, and sealed by an Engineer registered in the State of Florida other than the State Specifications Engineer or his designee, that are made part of the Contract as an attachment to the Contract Documents.

E. Developmental Specification: A specification developed around a new process, procedure, or material.

Standard Specifications.

See definition for Specifications.

State.

State of Florida.

Subarticle.

A headed and numbered subdivision of an Article of a Section of these Specifications.

Subgrade.

The portion of the roadbed immediately below the base course or pavement, including below the curb and gutter, valley gutter, shoulder and driveway pavement. The subgrade limits ordinarily include those portions of the roadbed shown in the plans to be constructed to a design bearing value or to be otherwise specially treated. Where no limits are shown in the plans, the subgrade section extends to a depth of 12 inches below the bottom of the base or pavement and outward to 6 inches beyond the base, pavement, or curb and gutter.

Substructure.

All of that part of a bridge structure below the bridge seats, including the parapets, backwalls, and wingwalls of abutments.

Superintendent.

The Contractor's authorized representative in responsible charge of the work.

Superstructure.

The entire bridge structure above the substructure, including anchorage and anchor bolts, but excluding the parapets, backwalls, and wingwalls of abutments.

Supplemental Agreement.

A written agreement between the Contractor and the Department, and signed by the surety, modifying the Contract within the limitations set forth in these Specifications.

Supplemental Specifications

See definition for Specifications.

Surety.

The corporate body that is bound by the Contract Bond with and for the Design Build Firm and responsible for the performance of the Contract and for payment of all legal debts pertaining thereto.

Technical Special Provisions Requirements.

See definition for Specifications.

Traveled Way.

The portion of the roadway providing for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

Unilateral Payment.

A payment of money made to the Contractor by the Department pursuant to Section 337.11(12), Florida Statutes (2009), for sums the Department determines to be due to the Contractor for work performed on the project, and whereby the Contractor by acceptance of such payment does not waive any rights the Contractor may otherwise have against the Department for payment of any additional sums the Contractor claims are due for the work.

Work.

All labor, materials and incidentals required executing and completing the requirements of the Contract including superintendence, use of equipment and tools, and all services and responsibilities prescribed or implied.

Work Order.

A written agreement between the Contractor and the Department modifying the Contract within the limitations set forth in these Specifications. Funds for this agreement are drawn against the Initial Contingency Pay Item or a Contingency Supplemental Agreement.

Working Day.

Any calendar day on which the Contractor works or is expected to work in accordance with the approved work progress schedule.

SECTION 2
PROPOSAL REQUIREMENTS AND CONDITIONS

2-1 Prequalification of Bidders.

Bidders shall prequalify in accordance Section 337-14, Florida Statutes and Rule 14-22, Florida Administrative Code.

Pursuant to Section 287.133, Florida Statutes, a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit the following:

(a) A bid on a contract to provide any goods or services to a public entity.

(b) A bid on a contract with a public entity for the construction or repair of a public building or public work.

(c) Bids on leases of real property to a public entity.

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 F.S., for Category Two. All restrictions apply for a period of 36 months from the date of placement on the convicted vendor list.

2-2 Proposals.

Obtain a proposal under the conditions stipulated in the Advertisement. The proposal states the location and description of the work to be performed; the estimate of the various quantities (if applicable); the items of work to be performed (if applicable); the Contract Time; the amount of proposal guaranty; and the date, time, and place of the opening of proposals.

The plans, Specifications and other documents designated in the proposal are part of the proposal, whether attached or not. Do not detach any papers bound with or attached to the proposal.

2-3 Interpretation of Estimated Quantities.

The Bidder is responsible for the determination of the quantities for those items constructed within the authorized plan limits or dimensions.

The Department does not assume any responsibility for any incidental information in bid documents that may be construed as a quantity of work and/or materials.

2-3.1 Lump Sum Contracts: Not applicable.

2-3.2 Contracts other than Lump Sum: Not applicable.

2-4 Examination of Contract Documents and Site of Work.

Examine the Contract Documents and the site of the proposed work carefully before submitting a proposal for the work contemplated. Investigate the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished and as to the requirements of all Contract Documents.

Direct all questions to the Department by posting them to the Department's website at the following URL address: www2.dot.state.fl.us/construction/bidquestionmain.asp. Questions posted to this site before 5:00 P.M. (EST) on the day shown in the Schedule of Events in the Request for Proposal will be responded to by the Department. For questions posted after this time, an answer cannot be assured. For all questions posted before the deadline, the Department will provide and post responses at the same website before 8:00 A.M. (EST) on the second calendar day prior to bid opening. Take responsibility to review and be familiar with all questions and responses posted to this website make any necessary adjustments in the proposal accordingly. If the Department's web site cannot be accessed, contact the State Construction Innovative Contract Specialist at (850) 414-4195.

When, in the sole judgment of the Department, responses to questions require plans revisions, specifications revisions and/or addenda, the Contracts Office will issue them as necessary.

The Department does not guarantee the details pertaining to borings, as shown on the plans, to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. The Contractor shall examine boring data, where available, and make his own interpretation of the subsoil investigations and other preliminary data, and shall base his bid on his own opinion of the conditions likely to be encountered.

The bidder's submission of a proposal is prima facie evidence that the bidder has made an examination as described in this Article.

2-5 Preparation of Proposals.

2-5.1 General: A proposal is irregular or non-responsive if it does not meet the requirements of the Request for Proposal (RFP) and may be rejected by the Department.

If the proposal is made by an individual, either in the bidder's own proper person or under a trade or firm name, the bidder shall execute the proposal under the bidder's signature and indicate the firm's bidding office street address. If made by a partnership, execute the proposal by setting out in full the names of the partners and the firm name of the partnership, if any, and have two or more of the general partners sign the proposal. Also, indicate the firm's bidding office street address. If made by a corporation, execute the proposal by setting out in full the corporate name and have the president or other legally authorized corporate officer or agent sign the proposal. Also, affix the corporate seal, and indicate the corporation's bidding office street address. If made by a limited liability company, execute the proposal by setting out the company name and have the manager or authorized member sign the proposal. If made by a limited venture, execute the proposal by setting out the joint venture name and have the authorized parties sign the proposal.

If made by a joint venture, the individual so empowered by a properly executed Declaration of Joint Venture and Power of Attorney Form shall execute the proposal.

The bidder will be required to identify the Engineer of Record, who will be responsible for the engineering design portion on the Contract and CEI if required in the RFP.

Establish the number of Calendar Days necessary to complete the work in accordance with the Contract Documents and show this number of Calendar Days in the proposal. For purposes of this Contract, this number of Calendar Days will serve as the Original Contract Time. For this Contract, the Department will reject any bid in which the bidder submits proposed Contract Time in excess of the Department's established Contract Time.

2-5.2 Declaration of Noncollusion: File with the Department Form 375-020-12, contained in the proposal, which includes an unsworn statement executed by, or on behalf of, the person, firm, association, or corporation submitting the bid certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the submitted bid. The Department will not consider any bid unless such form is properly completed in accordance with the requirements shown thereon.

2-6 Rejection of Irregular Proposals.

A proposal is irregular and the Department may reject it if it shows omissions, alterations of form, additions not specified or required, conditional or unauthorized alternate bids, or irregularities of any kind; or if the unit prices are obviously unbalanced, or if the cost is in excess of or below the reasonable cost analysis values.

When the Department provides for alternate bids in the proposal form and the bidder submits non-computer-generated proposal form sheets, make only one entry in each design group. A proposal that provides for alternative bids is irregular and the Department may reject it if the bidder makes entries for more than one alternate.

2-7 Guaranty to Accompany Proposals.

The Department will not consider any proposal unless it is accompanied by a proposal guaranty of the character and amount indicated in the Advertisement, and unless it is made payable to the Florida Department of Transportation. Submit proposals with the understanding that the successful bidder shall furnish a Contract Bond pursuant to the requirements of 3-5.

2-8 Delivery of Proposals.

Submit all price proposals in sealed envelopes, bearing on the outside the name of the bidder, the bidder's address, and the Financial Project Number of the project for which the bidder submitted the bid. For proposals that are submitted by mail, enclose the proposal in a sealed envelope, marked as directed above. Enclose the sealed envelope in a second outer envelope addressed to the Department, at the place designated in the Request for Proposal. For a proposal that is not submitted by mail, deliver it to the Contracts Office of the Department, or to the place as designated in the Request for Proposal. The Department will return proposals received after the time set for opening bids to the bidder unopened.

2-9 Withdrawal or Revision of Proposals. (Bid Proposal Only)

A bidder may withdraw a proposal after submitting it, provided the Department receives a written request to withdraw the proposal prior to the time set for opening of bids. The resubmission of any proposal withdrawn under this provision is subject to the provisions of 2-8.

Legible facsimile (FAX) price proposal changes will be accepted if received in full at the fax number listed in the Bid Solicitation Notice by the time price proposals are due on the day of the bid opening and provided that all of the following conditions are met:

1. The Bidder's name is the same on the faxed proposal change as shown on the original proposal.

2. The proposal change includes the following:

The correct Proposal ID.

The correct bid item number being changed and the respective unit price change.

The correct revised total per item.

The revised total bid amount.

The signature of the President or Vice President of the Company.

Faxed price proposal changes failing to meet all of these requirements will not be considered and will not change the original bid.

The Department will not be responsible for any communications or fax machine breakdowns, transmission interruptions, delays, or any other problems that interfere with the receipt of faxed price proposal changes as required above either at the Bidder's fax location, at the Department's fax location, or anywhere between these locations. Receipt or non-receipt of a faxed price proposal change will not be considered grounds for a bid protest.

2-10 Opening of Proposals.

The Department will open and publicly announced technical scores (if applicable) and price proposals at the time and place indicated in the Request for Proposal. The Department invites bidders, their authorized agents, and other interested parties to attend.

2-11 Disqualification of Bidders.

The Department may disqualify any bidder and reject the bidder's proposal or proposals for any of the following reasons:

(a) The submission of more than one proposal for the same work from an individual, firm, or corporation under the same or a different name.

(b) Evidence that one bidder has a financial interest in the firm of another bidder for the same work.

(c) Evidence of collusion among bidders. The Department will not recognize a participant in such collusion as a bidder for any future work of the Department until the Department reinstates such participant as a qualified bidder.

(d) Failure to qualify in accordance with 2-1.

(e) Uncompleted work on other projects that, in the judgment of the Department, could hinder or prevent the prompt completion of the proposed work.

(f) Failure to pay or satisfactorily settle all bills due for labor and material on other Contracts in force at the time of advertisement for bids.

(g) Default under a previous Contract.

(h) Employment of unauthorized aliens in violation of Section 274A (e) of the Immigration and Nationality Act.

(i) Falsification on any form required by the Department.

(j) The submission of a proposal that was not issued by the Department.

(k) Design-Build Firms wherein the same Engineer of Record is identified in more than one proposal.

2-12 Material, Samples and Statement.

The Department may require that the bidder furnish a statement of the origin, composition, and manufacture of any and all materials to be used in the construction of the work, together with samples that may be subjected to the tests provided for in these Specifications to determine the materials' quality and fitness for the work.

SECTION 3
AWARD AND EXECUTION OF CONTRACT

3-1 Consideration of Bids.

(1) Technical and price proposals will be received from those firms deemed to be the most highly qualified by the Selection Committee and Proposal Evaluators and approved under Rule 14-91 F.A.C. A pre-proposal conference may be held shortly after the selection of the short listed firms. Proposals shall be segmented into two packages:

(A) Technical Proposal. A technical proposal shall include preliminary design plans, preliminary specifications and special requirements, technical reports, calculations, proposed contract time along with schedules, and other data requested in response to the Request for Proposal, which includes the Design and Construction Criteria Package.

(B) Price Proposal. Price proposals shall include one lump sum price for all design, geotechnical surveys, and construction of the proposed project, preliminary design submittal reports, services, and all other data requested in response to the Request for Proposal, which includes the Design and Construction Criteria Package. The price proposal shall also include the Design-Build Firm's proposed contract time, when required by the Request for Proposal.

(a) Low Bid: For the purpose of award, after opening and reading the proposals, the Department will consider the total Contract Lump Sum Price as the bid. On this basis, the Department will compare the amounts of each bid and make the results of such comparison available to the public. Until the actual award of the Contract, however, the Department reserves the right to reject any or all proposals and to waive technical errors that the Department may deem best for the interest of the State. In the event of any discrepancy in the two entries of the Contract Lump Sum Price, the Department will evaluate the bid based on the lump sum price shown in words.

(b) Adjusted Score: For the purposes of this Contract, the Daily Value in the pre-established, per day monetary amount stated in the RFP to which the Design-Build Firm is responding. The proposed contract time in days included in the Design-Build Firm's Price Proposal shall be multiplied times the Daily Value and the product added to the Lump Sum Price Proposal to determine the Time-Adjusted Price. The lowest responsive bid will be determined by the Department as the lowest Time-Adjusted Price. The Time-Adjusted Price will be used for selection purposes only and shall not affect the Department's liquidated damages schedule or constitute an incentive/disincentive to the Contract.

(2) The Proposal Evaluators shall review the technical proposal submitted by each firm and shall establish a technical score for each firm based on the criteria identified in the RFP and any addenda. Scores are provided to Professional Services who use them in calculating the adjusted score, which is announced at the public opening. (For low-bid Design-Build projects the Review Committee will approve award to the lowest responsive bid).

3-1.1 Selection for Design-Build Contract:

(1) The Selection Committee shall be comprised of the District Secretary, the appropriate Director, the appropriate Office Head, or their designees.

(2) The RFP shall set a date for publicly announcing the technical scores and opening the price proposals. The Department shall notify all firms submitting technical and price proposals at least three days prior to the opening date. The notification shall include the date, time, and place of the opening of the bid proposals for the project.

(3) The Selection Committee shall publicly announce the technical scores (if applicable) and open the sealed price proposals at the time and place indicated in the Request for Proposal. The firm selected will be the firm that has the lowest adjusted score. Unless all proposals are rejected, the Final Selection Committee may approve an award to the firm with the lowest adjusted score and enter into a Contract for the price proposed. The Department reserves the right to reject all bid proposals. The Department invites bidders, their authorized agents, and other interested parties to attend.

(4) The Department shall provide written notification by mail to each firm submitting a proposal of the award of the project or rejection of all proposals within 30 days of the opening of the bid proposals.

(5) The technical and price proposals of the bidders shall become the property of the Department, as provided by law.

(6) When specified in the RFP, the unsuccessful bidders will receive a stipend as partial compensation for their proposal, if the proposal is determined to be responsive by the Proposal Evaluators. The amount of stipend will be as noted in the Advertisement or the RFP and in no way is intended to compensate Firms for the total cost of preparing the Technical and Price proposal.

3-2 Award of Contract.

3-2.1 General: If the Department decides to award the Contract, the Department will award the Contract to the lowest responsible bidder whose proposal complies with all the Contract Document requirements. If awarded, the Department will award the Contract within 50 days after the opening of the proposals, unless the Special Provisions change this time limit or the bidder and the Department extends the time period by mutual consent. Prior to award of the Contract by the Department, a Contractor must provide proof of authorization to do business in the State of Florida.

The award of the Contract shall be as described in Article 3-1.

3-2.2 Bids Exceeding Contractor's Rating: The Department will address bids exceeding a Contractor's rating, and the resulting impact on the Contractor's qualification to bid, in accordance with Florida Administrative Code Rules 14-22.003 and 14-22.009.

The bidder's proposal guaranties are binding for all projects awarded to the Contractor pursuant to the provisions of this Subarticle.

3-3 Cancellation of Award.

The Department reserves the right to cancel the award of any Contract at any time before the execution of the Contract by all parties, with no compensation due any of the bidders.

3-4 Release of Proposal Guaranty.

The Department will release all proposal guaranties except those of the lowest bidders (short listed firms not selected) immediately following the opening and checking of the

proposals. The Department will immediately release the proposal guaranties of the short listed firms not selected after the successful bidder delivers the executed Contract and a satisfactory bond to the Department, except that the Department will not retain the proposal guaranty of the next-to-lowest bidder longer than 50 days after the opening of the proposals unless the Department awards the Contract to the next lowest bidder prior to the expiration of this time limit.

3-5 Contract Bond Required.

3-5.1 General Requirements of the Bond: Upon award, furnish to the Department, and maintain in effect throughout the life of the Contract, an acceptable surety bond in a sum at least equal to the amount of the Contract. Execute such bond on the form furnished by the Department. Obtain a surety that has a resident agent in the State of Florida, meets all of the requirements of the laws of Florida and the regulations of the Department, and has the Department's approval. Ensure that the surety's resident agent's name, address, and telephone number is clearly stated on the face of the Contract Bond.

On contracts of $250,000 or less, the Department may waive the requirement for all or a portion of a surety bond if it determines that the project is of a noncritical nature and nonperformance will not endanger the public health, safety, or property. The Department may require alternate means of security if it waives the requirement for a surety bond.

3-5.2 Continued Acceptability of Surety: Provide a surety bond that remains acceptable to the Department throughout the life of the Contract. In the event that the surety executing the bond, although acceptable to the Department at the time of execution of the Contract, subsequently becomes insolvent or bankrupt, or becomes unreliable or otherwise unsatisfactory due to any cause that becomes apparent after the Department's initial approval of the company, then the Department may require that the Contractor immediately replace the surety bond with a similar bond drawn on a surety company that is reliable and acceptable to the Department. In such an event, the Department will bear all costs of the premium for the new bond, after deducting any amounts that are returned to the Contractor from his payment of premium on the original bond.

3-5.3 Default by Contractor: In case of default on the part of the Contractor, the Department will charge against the bond all expenses for services incidental to ascertaining and collecting losses under the bond, including accounting, engineering, and legal services, together with any and all costs incurred in connection with renegotiation of the Contract.

3-5.4 Surety to Furnish Legal Defense: The surety company shall indemnify and provide defense for the Department when called upon to do so for all claims or suits against the Department, by third parties, pertaining to Contractor payment or performance issues arising out of the Contract. It is expressly understood that the monetary limitation on the extent of the indemnification shall be the approved Contract amount, which amount shall be the original Contract amount as may be increased by subsequent Supplemental Agreements.

3-5.5 Liability for Wrongful or Criminal Act by Contractor: The principal and surety executing the bond shall be liable to the State in any civil action that might be instituted by the Department or any officer of the State authorized in such cases, for double any amount in money or property the State might lose, or be overcharged, or otherwise be defrauded of by any wrongful or criminal act of the Contractor, his agent or his employee.

3-6 Execution of Contract and Bond.

Within 10 calendar days, excluding Saturdays, Sundays and state holidays after receipt of the Contract award, execute the necessary agreements to enter into a Contract with the Department and return the agreement along with a satisfactory surety bond and documentation evidencing all insurance required by 7-13 to the Department's Contracts Office that awarded the Contract. For each calendar day that the successful bidder is late in delivering to the Department's Contracts Office all required documents in properly executed form, the Department will deduct one day from the allowable Contract Time as specified in 8-7. The Department will not be bound by any proposal until it executes the associated Contract. The Department will execute the Contract and bond in the manner stipulated in 3-5.1.

The Department will execute the Contract within 5 calendar days, excluding Saturdays, Sundays and state holidays after receipt of the necessary agreements and bond from the Contractor.

3-7 Failure by Contractor to Execute Contract and Furnish Bond.

In the event that the bidder fails to execute the awarded Contract and to file an acceptable bond, as prescribed in 3-5 and 3-6, within 10 calendar days, excluding Saturdays, Sundays and state holidays, of the receipt of the Contract award, the Department may annul the award, causing the bidder to forfeit the proposal guaranty to the Department and any rights of receiving a stipend; not as a penalty but in liquidation of damages sustained. The Department may then award the Contract to the next lowest responsible bidder, re-advertise, or accomplish the work using day labor.

3-8 Audit of Contractor's Records.

Upon execution of the Contract, the Department reserves the right to conduct an audit of the Contractor's records pertaining to the project. The Department or its representatives may conduct an audit, or audits, at any time prior to final payment, or thereafter pursuant to 5-13. The Department may also require submittal of the records from the prime Contractor, the subcontractor, or both. As the Department deems necessary, records include all books of account, supporting documents, and papers pertaining to the cost of performance of the project work.

If the Contractor fails to comply with these requirements, the Department may disqualify or suspend the Contractor from bidding on or working as a subcontractor on future Contracts.

Ensure that the subcontractors provide access to their records pertaining to the project upon request by the Department.

3-9 Public Records.

Allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, made or received by the Contractor in conjunction with this Contract. Failure to grant such public access will be grounds for immediate termination of this Contract by the Department pursuant to 8-9.1.

SECTION 4
SCOPE OF THE WORK

4-1 Intent of Contract.

The intent of the Contract is to provide for the engineering services, furnishing of materials, construction, and completion in every detail of the work described in this Contract. The Design-Build Firm shall furnish all engineering and all of its associated direct and indirect costs, construction labor, materials, equipment, supervision, tools, transportation, and supplies required to complete the work in accordance with the requirements of the Contract Documents. The terms and conditions of this Contract are fixed price and fixed time. The Contractor's submitted bid (time and cost) is to be a lump sum bid for completing the scope of work detailed in the Contract.

The Design-Build Firm shall have all liability and responsibility for all unknowns and/or differing site conditions; and including but not limited to any or all utilities, subsoil conditions, permits, etc. of any nature or kind, unless otherwise stated in the Contract. In the event that unforeseeable work is provided for in the Contract, such work shall be paid for in accordance with 4-3.2.

No substantial change, as determined at the sole discretion of the Engineer, in general plan or character of the work shall be made without written agreement by the Engineer. The plans shall be dated, stamped, and signed and sealed by the EOR and shall be transmitted to the Engineer for the project records. The Design-Build Firm shall schedule the transmittal so that the Engineer receives the plans and shop drawings at least 15 working days prior to commencement of any portion of work described in the plans.

Pay adjustments as shown in the Contract Documents, regardless of where those pay adjustments are referenced, shall not apply, except as provided in 9-2, Scope of Payments.

4-2 Work not covered by Standard Specifications.

Proposed construction and any contractual requirements not covered by these Standard Specifications may be covered by Contract plan notes or by Supplemental Specifications, Special Provisions or Technical Specifications for the Contract and all requirements of such Supplemental Specifications, Special Provisions or Technical Specifications shall be considered as a part of these Specifications.

4-3 Alteration of Plans or of Character of Work.

4-3.1 General: The Engineer reserves the right to make, at any time prior to or during the progress of the work, alterations or changes, whether a significant change or not, and such alterations in the details of construction, whether a substantial change or not, including but not limited to alterations in the grade or alignment of the road or structure or both, as may be found necessary or desirable by the Engineer. Such alterations or changes shall not constitute a breach of Contract, shall not invalidate the Contract, nor release the Surety from any liability arising out of this Contract or the Surety bond. The Contractor agrees to perform the work, as altered or changed, the same as if it had been a part of the original Contract.

The term "significant change" applies only when the Engineer determines that the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction. The allowance due to the Contractor will be in accordance with 4-3.2, below.

In the instance of an alleged "significant change", the determination by the Engineer shall be conclusive. If the determination is challenged by the Contractor in any proceeding, the Contractor must establish by clear and convincing proof that the determination by the Engineer was without any reasonable basis.

4-3.2 Increase, Decrease or Alteration in the Work: The Engineer reserves the right to make alterations in the character of the work which involve a substantial change in the nature of the design or in the type of construction or which materially increases or decreases the cost or time of performance. Such alteration shall not constitute a breach of Contract, shall not invalidate the Contract or release the Surety.

Notwithstanding that the Contractor shall have no formal right whatsoever to any extra compensation or time extension deemed due by the Contractor for any cause unless and until the Contractor follows the procedures set forth in 5-12.2 for preservation, presentation and resolution of the claim, the Contractor may at any time, after having otherwise timely provided a notice of intent to claim or preliminary time extension request pursuant to 5-12.2 and 8-7.3.2, submit to the Department a request for equitable adjustment of compensation or time or other dispute resolution proposal. The Contractor shall in any request for equitable adjustment of compensation, time, or other dispute resolution proposal certify under oath and in writing, in accordance with the formalities required by Florida law, that the request is made in good faith, that any supportive data provided are accurate and complete to the Contractor's best knowledge and belief, and that the amount of the request accurately reflects what the Contractor in good faith believes to be the Department's responsibility. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor. Any such certified statements of entitlement and costs shall be subject to the audit provisions set forth in 5-12.14. While the submittal or review of a duly certified request for equitable adjustment shall neither create, modify, nor activate any legal rights or obligations as to the Contractor or the Department, the Department will review the content of any duly certified request for equitable adjustment or other dispute resolution proposal, with any further action or inaction by the Department thereafter being in its sole discretion. Any request for equitable adjustment that fails to fully comply with the certification requirements will not be reviewed by the Department.

The monetary compensation provided for below constitutes full and complete payment for such additional work and the Contractor shall have no right to any additional monetary compensation for any direct or indirect costs or profit for any such additional work beyond that expressly provided below. The Contractor shall be entitled to a time extension only to the extent that the performance of any portion of the additional work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. All time related costs for actual performance of such additional work are included in the compensation already provided below and any time extension entitlement hereunder will be without additional monetary compensation. The Contractor shall have no right to any monetary compensation or damages whatsoever for any direct or indirect delay to a controlling work item arising out of or in any way related to the circumstances leading up to or resulting from additional work (but not relating to the actual performance of the additional work, which is paid for as otherwise provided herein), except only as provided for under 5-12.6.2.1.

4-3.2.1 Allowable Costs for Extra Work: The Engineer may direct in writing that extra work be done and, at the Engineer's sole discretion, the Contractor will be paid pursuant to an agreed Supplemental Agreement or in the following manner:

(a) Labor and Burden: The Contractor will receive payment for actual costs of direct labor and burden for the additional or unforeseen work. Labor includes foremen actually engaged in the work; and will not include project supervisory personnel nor necessary on-site clerical staff, except when the additional or unforeseen work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. Compensation for project supervisory personnel, but in no case higher than a Project Manager's position, shall only be for the pro-rata time such supervisory personnel spent on the contract. In no case shall an officer or director of the Company, nor those persons who own more than 1% of the Company, be considered as project supervisory personnel, direct labor or foremen hereunder.

Payment for burden shall be limited solely to the following:

Table 4-3.2.1	
Item	Rate
FICA	Rate established by Law
FUTA/SUTA	Rate established by Law
Medical Insurance	Actual
Holidays, Sick & Vacation benefits	Actual
Retirement benefits	Actual
Workers Compensation	Rates based on the National Council on Compensation Insurance basic rate tables adjusted by Contractor's actual experience modification factor in effect at the time of the additional work or unforeseen work.
Per Diem	Actual but not to exceed State of Florida's rate
Insurance*	Actual
*Compensation for Insurance is limited solely to General Liability Coverage and does not include any other insurance coverage (such as, but not limited to, Umbrella Coverage, Automobile Insurance, etc.).	

At the Pre-construction conference, certify to the Engineer the following:

(1) A listing of on-site clerical staff, supervisory personnel and their pro-rated time assigned to the contract,

(2) Actual Rate for items listed in Table 4-3.2.1,

(3) Existence of employee benefit plan for Holiday, Sick and Vacation benefits and a Retirement Plan, and,

(4) Payment of Per Diem is a company practice for instances when compensation for Per Diem is requested.

Such certification must be made by an officer or director of the Contractor with authority to bind the Contractor. Timely certification is a condition precedent to any right of the Contractor to recover compensations for such costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such costs. Any subsequent changes shall be certified to the Engineer as part of the cost proposal or seven calendar days in advance of performing such extra work.

(b) Materials and Supplies: For materials accepted by the Engineer and used on the project, the Contractor will receive the actual cost of such materials incorporated into

the work, including Contractor paid transportation charges (exclusive of equipment as hereinafter set forth). For supplies reasonably needed for performing the work, the Contractor will receive the actual cost of such supplies.

(c) Equipment: For any machinery or special equipment (other than small tools), including fuel and lubricant, the Contractor will receive 100% of the "Rental Rate Blue Book" for the actual time that such equipment is in operation on the work, and 50% of the "Rental Rate Blue Book" for the time the equipment is directed to standby and remain on the project site, to be calculated as indicated below. The equipment rates will be based on the latest edition (as of the date the work to be performed begins) of the "Rental Rate Blue Book for Construction Equipment" or the "Rental Rate Blue Book for Older Construction Equipment," whichever is applicable, as published by Machinery Information Division of PRIMEDIA Information, Inc. (version current at the time of bid), using all instructions and adjustments contained therein and as modified below. On all projects, the Engineer will adjust the rates using regional adjustments and Rate Adjustment Tables according to the instructions in the Blue Book.

Allowable Equipment Rates will be established as set out below:

(1) Allowable Hourly Equipment Rate = Monthly Rate/176 x Adjustment Factors x 100%.

(2) Allowable Hourly Operating Cost = Hourly Operating Cost x 100%.

(3) Allowable Rate Per Hour = Allowable Hourly Equipment Rate + Allowable Hourly Operating Cost.

(4) Standby Rate = Allowable Hourly Equipment Rate x 50%.

The Monthly Rate is The Basic Machine Rate Plus Any Attachments. Standby rates will apply when equipment is not in operation and is directed by the Engineer to standby at the project site when needed again to complete work and the cost of moving the equipment will exceed the accumulated standby cost. Standby rates will not apply on any day the equipment operates for eight or more hours. Standby payment will be limited to only that number of hours which, when added to the operating time for that day equals eight hours. Standby payment will not be made on days that are not normally considered work days on the project.

The Department will allow for the cost of transporting the equipment to and from the location at which it will be used. If the equipment requires assembly or disassembly for transport, the Department will pay for the time to perform this work at the rate for standby equipment.

Equipment may include vehicles utilized only by Labor, as defined above.

(d) Indirect Costs, Expenses, and Profit: Compensation for all indirect costs, expenses, and profit of the Contractor, including but not limited to overhead of any kind, whether jobsite, field office, division office, regional office, home office, or otherwise, is expressly limited to the greater of either (1) or (2) below:

(1) Solely a mark-up of 17.5% on the payments in (a) through (c), above.

(i) Bond: The Contractor will receive compensation for any premium for acquiring a bond for such additional or unforeseen work at the original Contract

bond rate paid by the Contractor. No compensation for bond premium will be allowed for additional or unforeseen work paid by the Department via initial contingency pay item.

(ii) The Contractor will be allowed a markup of 10% on the first $50,000 and a markup of 5% on any amount over $50,000 on any subcontract directly related to the additional or unforeseen work. Any such subcontractor mark-up will be allowed only by the prime Contractor and a first tier subcontractor, and the Contractor must elect the markup for any eligible first tier subcontractor to do so.

(2) Solely the formula set forth below and only as applied solely as to such number of calendar days of entitlement that are in excess of ten cumulative calendar days as defined below.

$$D = \frac{A \times C}{B}$$

Where A = Original Contract Amount
B = Original Contract Time
C = 8%
D = Average Overhead Per Day

Cumulative Calendar Days is defined as the cumulative total number of calendar days granted for time extension due to delay of a controlling work item caused solely by the Department is, or the cumulative total number of calendar days for which entitlement to a time extension due to delay of a controlling work item caused solely by the Department is otherwise ultimately determined in favor of the Contractor to be.

Further, in the event there are concurrent delays to one or more controlling work items, one or more being caused by the Department and one or more being caused by the Contractor, the Contractor shall be entitled to a time extension for each day that a controlling work item is delayed by the Department but shall have no right to nor receive any monetary compensation for any indirect costs for any days of concurrent delay. No compensation, whatsoever, will be paid to the Contractor for any jobsite overhead and other indirect impacts when the total number of calendar days granted for time extension due to delay of a controlling work item caused solely by the Department is, or the total number of calendar days for which entitlement to a time extension due to delay of a controlling work item caused solely by the Department is otherwise ultimately determined in favor of the Contractor to be, equal to or less than ten calendar days and the Contractor also fully assumes all monetary risk of any and all partial or single calendar day delay periods, due to delay of a controlling work item caused solely by the Department, that when cumulatively totaled together are equal to or less than ten calendar days and regardless of whether monetary compensation is otherwise provided for hereunder for one or more calendar days of time extension entitlement for each calendar day exceeding ten calendar days. All calculations under this provision shall exclude weather days, and days granted for performing additional work.

(e) Engineering Services: For professional engineering services, the Contractor will receive negotiated costs of such engineering services necessary to perform the work. Negotiated cost of such engineering services shall be prepared utilizing the current "Standard Scope and Staff Hour Estimation Handbook" developed jointly between the Florida Institute of Consulting Engineers (FICE) and the FDOT, and the Department's "Negotiation

Handbook" for professional Services contracts. The Standard Scope and Staff Estimate Guidelines are available at the following link:
http://www.dot.state.fl.us/projectmanagementoffice/Scope/Design.shtm
The Negotiation Handbook can be accessed at the following link:
http://www.dot.state.fl.us/procurement/Negotiations.shtm . Should the Engineering Firm be a Joint Venture Partner of the Contractor, no markup will be allowed on engineering services.

4-3.2.2 Subcontracted Work: For work performed by a subcontractor, compensation for the additional or unforeseen work shall be solely limited to as provided for in 4-3.2.1 (a), (b), (c) and (d)(1), with the exception of, in the instance of subcontractor performed work only, the subcontractor may receive compensation for any premium for acquiring a bond for the additional or unforeseen work; provided, however, that such payment for additional subcontractor bond will only be paid upon presentment to the Department of clear and convincing proof that the subcontractor has actually provided and paid for separate bond premiums for such additional or unforeseen work in such amount.

The Contractor shall require the subcontractor to provide a certification, in accordance with 4-3.2.1(a), as part of the cost proposal and provide such to the Engineer. Such certification must be made by an officer or director of the subcontractor with authority to bind the subcontractor. Timely certification is a condition precedent to any right of the Contractor to recover compensation for such subcontractor costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such subcontractor costs.

4-3.3 No Waiver of Contract: Changes made by the Engineer will not be considered to waive any of the provisions of the Contract, nor may the Contractor make any claim for loss of anticipated profits because of the changes, or by reason of any variation between the approximate quantities and the quantities of work actually performed. All work shall be performed as directed by the Engineer and in accordance with the Contract Documents.

4-3.4 Conditions Requiring a Supplemental Agreement: A Supplemental Agreement will be used to settle documented Contract claims in accordance with the intent of the original Contract and subsequent amendments thereto.

No payment will be made on a Supplemental Agreement or Unilateral payment prior to the Department's approval of the document.

4-3.5 Extra Work: Extra work authorized in writing by the Engineer will be paid in accordance with the formula in 4-3.2. Such payment will be the full extent of all monetary compensation entitlement due to the Contractor for such extra work. Any entitlement to a time extension due to extra work will be limited solely to that provided for in 4-3.2 for additional work.

4-3.6 Connections to Existing Pavement, Drives and Walks: Generally adhere to the limits of construction at the beginning and end of the project as detailed in the plans. However, if the Engineer determines that it is necessary to extend the construction in order to make suitable connections to existing pavement, the Engineer will authorize such a change in writing. For necessary connections to existing walks and drives that are not indicated on the plans, the Engineer will provide direction regarding the proper connections in accordance with the Design Standards.

4-3.7 Differing Site Conditions: During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract, or if unknown physical conditions of an unusual nature differing materially from those

ordinarily encountered and generally recognized as inherent in the work provided for in the Contract are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the Contractor disturbs the conditions or performs the affected work. Upon receipt of written notification of differing site conditions from the Contractor, the Engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly. The Engineer will notify the Contractor whether or not an adjustment of the Contract is warranted. The Engineer will not allow a Contract adjustment for a differing site condition unless the Contractor has provided the required written notice. The Engineer will not allow a Contract adjustment under this clause for any effects caused to any other Department or non-Department projects on which the Contractor may be working.

4-3.8 Changes Affecting Utilities: The Contractor shall be responsible for identifying and assessing any potential impacts to a utility that may be caused by the changes proposed by the Contractor, and the Contractor shall at the time of making the request for a change notify the Department in writing of any such potential impacts to utilities. Department approval of a Contractor proposed change does not relieve the Contractor of sole responsibility for all utility impacts, costs, delays or damages, whether direct of indirect, resulting from Contractor initiated changes in the design or construction activities from those in the original Contract Specifications, design plans (including traffic control plans) or other Contract Documents and which effect a change in utility work different from that shown in the utility plans, or joint project agreements.

4-3.9 Cost Savings Initiative Proposal: Not applicable.

4-4 Unforeseeable Work.

When the Department requires work that is not covered by a price in the Contract and such work does not constitute a "Significant Change" as defined in 4-3.1, and the Department finds that such work is essential to the satisfactory completion of the Contract within its intended scope, the Department will make an adjustment to the Contract. Such adjustment will be made by Work Order when the Contract Documents provide for Contingency Work. When the Contract Documents do not provide for Contingency Work or the available funds for Contingency Work are insufficient, such adjustment will be made by Supplemental Agreement. The cost of unforeseeable work will be a negotiated amount or, in lieu of negotiations or other agreement, an amount based on material invoices, equipment costs, labor payrolls, and markups provided in 4-3.2.

Contingency Work, as used in this Article, is defined as possible additional work required to satisfactorily complete the Contract within its intended scope.

4-5 Rights in and Use of Materials Found on the Site of the Work.

4-5.1 Ownership and Disposal of Existing Materials: Take ownership and dispose of all materials that are not designated as the property of other parties, in both roadway and structures, found on the right-of-way, and all material in structures designated for removal. The Contractor is responsible to determine if any existing materials are the property of others and so indicate it on the plans. Additionally it is the Contractor's responsibility to coordinate with the property owner for proper removal and storage to perform the work.

Disposal of the existing bridge components shall be the responsibility of the Design-Build Firm.

4-5.2 Ornamental Trees and Shrubs: Take ownership of all ornamental trees or shrubs existing in the right-of-way that is required to be removed for the construction operations Coordinate with adjacent property owners concerning disposition of ornamental trees and shrubs. Designate on the plans those to be reset, or to be removed by others prior to the Construction operations.

4-6 Final Cleaning Up of Right-of-Way.

Upon completion of the work, and before the Department accepts the work and makes final payment, remove from the right-of-way and adjacent property all falsework, equipment, surplus and discarded materials, rubbish and temporary structures; restore in an acceptable manner all property, both public and private, that has been damaged during the prosecution of the work; and leave the waterways unobstructed and the roadway in a neat and presentable condition throughout the entire length of the work under Contract. Do not dispose of materials of any character, rubbish or equipment, on abutting property, with or without the consent of the property owners. The Engineer will allow the Contractor to temporarily store equipment, surplus materials, usable forms, etc., on a well-kept site owned or leased by the Contractor, adjacent to the project. However, do not place or store discarded equipment, materials, or rubbish on such a site.

Shape and dress areas adjacent to the project right-of-way that were used as plant sites, materials storage areas or equipment yards when they are no longer needed for such purposes. Restore these areas in accordance with 7-11.1 and 7-11.2. Grass these areas as necessary.

When working adjacent to or over travel lanes, ensure that dust, mud and other debris does not interfere with normal traffic operations or adjacent properties.

Remove all debris from the work area and clear zone of the project before work ends for the day.

Pick up and remove trash from the job daily.

SECTION 5
CONTROL OF THE WORK

5-1 Plans and Working Drawings.

5-1.1 Contract Documents: The Contractor may purchase copies of the Standard Specifications and Design Standards from the Department or access them from the Department's website. Have available on the worksite, at all times, one copy of the Contract Documents. All reference to separate payment for individual items of work will not apply. The cost for various items of work will be included and paid for under the Contract Lump Sum Price.

5-1.2 Plans: Plans consist of general drawings showing such details as are necessary to give a comprehensive idea of the construction contemplated. In general, roadway plans will show alignment, profile grades, typical cross-sections and general cross-sections. In general, structure plans will show in detail all dimensions of the work contemplated. When the structure plans do not show the dimensions in detail, they will show general features and such details as are necessary to give a comprehensive idea of the structure.

Grades shown are finished grades, and B.M. Datum is North American Vertical Datum 1988 (NAVD-1988) National Geodetic Vertical Datum of 1929 (NGVD-1929) or other datum as noted in the plans.

These Specifications, the plans, Special Provisions, and all supplementary documents are integral parts of the Contract; a requirement occurring in one is as binding as though occurring in all. In addition to the work and materials specifically called for in the Contract Documents and any additional incidental work, not specifically mentioned, when so shown in the plans, or if indicated, or obvious and apparent, as being necessary for the proper completion of the work will be included in the Contract Lump Sum Price.

5-1.3 Alterations in Plans: Not applicable.

5-1.4 Shop Drawings:

5-1.4.1. Definitions:

(a) Shop Drawings: All working, shop and erection drawings, associated trade literature, calculations, schedules, manuals and similar documents submitted by the Contractor to define some portion of the project work. The type of work includes both permanent and temporary works as appropriate to the project.

(b) Permanent Works: All the permanent structures and parts thereof required of the completed Contract.

(c) Temporary Works: Any temporary construction work necessary for the construction of the permanent works. This includes but is not limited to bracing, falsework, formwork, scaffolding, shoring, temporary earthworks, sheeting, cofferdams, and special erection equipment.

(d) Construction Affecting Public Safety: Construction that may jeopardize public safety such as structures spanning functioning vehicular roadways, pedestrian walkways, railroads, navigation channels of navigable waterways and walls or other structure foundations located in embankments immediately adjacent to functioning roadways. It does not apply to those areas of the site under the Contractor's control and outside the limits of normal public access.

(e) Major and Unusual Structures: Bridges of complex geometry and/or complex design. Generally, this includes the following types of structures:

1. Bridges with an individual span longer than 300 feet.
2. Structurally continuous superstructures with spans over 150 feet.
3. Steel box and plate girder bridges.
4. Steel truss bridges.
5. Concrete segmental and longitudinally post-tensioned continuous girder bridges.
6. Cable stayed or suspension bridges.
7. Arch bridges.
8. Tunnels.
9. Movable bridges (specifically electrical and mechanical components).
10. Rehabilitation, widening, or lengthening of any of the above.

(f) Special Erection Equipment includes launching gantries, beam and winch equipment, form travelers, stability towers, strong-backs, erection trusses, launching noses or similar items made purposely for construction of the structure. It does not apply to commonly available proprietary construction equipment such as cranes.

(g) Falsework includes any temporary construction work used to support the permanent structure until it becomes self-supporting. Falsework includes steel or timber

beams, girders, columns, piles and foundations, and any proprietary equipment including modular shoring frames, post shores, and adjustable horizontal shoring.

(h) Formwork includes any structure or mold used to retain plastic or fluid concrete in its designated shape until it hardens. Formwork comprises common materials such as wood or metal sheets, battens, soldiers and walers, ties, proprietary forming systems such as stay-in-place metal forms, and proprietary supporting bolts, hangers and brackets. Formwork may be either permanent formwork requiring a shop drawing submittal such as stay-in-place metal or concrete forms, or may be temporary formwork which requires certification by the Specialty Engineer for Construction Affecting Public Safety and for Major and Unusual Structures.

(i) Scaffolding is an elevated work platform used to support workmen, materials and equipment, but not intended to support the structure.

(j) Shoring is a component of falsework such as horizontal, vertical or inclined support members. In this Section, this term is interchangeable with falsework.

(k) Bracing is a temporary structural member(s) placed between beams, girders, piles columns, etc. to provide stability during construction activities.

(l) Contractor Originated Designs: Items which the Contract Documents require the Contractor to design, detail and incorporate into the permanent works.

5-1.4.2 Work Items Requiring Shop Drawings: In general, the Department requires shop drawings for items of work not fully detailed in the plans which require additional drawings and coordination prior to constructing the item, including but not limited to:

(a) Bridge components not fully detailed in the plans, i.e. segments, steel girder details, post-tensioning details, handrails, etc.

(b) Retaining wall systems

(c) Precast Box Culverts

(d) Non-standard lighting, signalization and signing structures and components

(e) Building structures

(f) Drainage structures, attenuators, and other nonstructural items

(g) Design and structural details furnished by the Contractor in compliance with the Contract

(h) Temporary Works affecting public safety

Additional clarification for certain types of bridge structures is provided in 5-1.4.7. Other provisions of the Contract Documents may waive the requirement for submittals for certain items; i.e., items constructed from standard drawings or those complying with alternate details for prestressed members under Section 450. Review the Contract Documents to determine the submittals required.

5-1.4.3 Schedule of Submittals: Prepare and submit a schedule of submittals that identifies the work for which shop drawings apply. For each planned submittal, define the type, and approximate number of drawings or other documents that are included and the planned submittal date, considering the processing requirements herein. Submit the schedule of submittals to the Department's Shop Drawing Review Office and the Engineer of Record within 60 days of the start of construction operations, and prior to the submission of any shop drawings.

Coordinate subsequent submittals with construction schedules to allow sufficient time for review and re-submittal as necessary.

5-1.4.4 Style, Numbering, and Material of Submittals:

5-1.4.4.1 Drawings: Furnish two clearly legible photographic or xerographic copies of all shop drawings that are necessary to complete the structure in compliance with the design shown on the plans. Prepare all shop drawings using the same units of measure as those used in the Department's plans. Use sheets no larger than 11 by 17 inches. Consecutively number each sheet in the submittal series, and indicate the total number in the series (i.e., 1 of 12, 2 of 12, . . ., 12 of 12). Include on each sheet the following items as a minimum requirement: the complete Financial Project Identification Number, Bridge Number(s), drawing title and number, a title block showing the names of the fabricator or producer and the Contractor for which the work is being done, the initials of the person(s) responsible for the drawing, the date on which the drawing was prepared, the location of the item(s) within the project, the Contractor's approval stamp with date and initials, and, when applicable, the signature and embossed seal of the Specialty Engineer or Contractor's Engineer of Record. A re-submittal will be requested when any of the required information is not included.

5-1.4.4.2 Other Documents: Provide four sets of original documents or clearly legible photographic or xerographic copies of documents other than drawings, such as trade literature, catalogue information, calculations, and manuals. Provide sheets no larger than 11 by 17 inches. Clearly label and number each sheet in the submittal to indicate the total number of sheets in the series (i.e., 1 of 12, 2 of 12, . . . 12 of 12). Provide an additional three sets of documentation for items involved with precast prestressed components. Provide an additional two sets of documentation for items involving structural steel components.

Prepare all documents using the same units of measure as those used in the plans. Bind and submit all documents with a Table of Contents cover sheet. List on the cover sheet the total number of pages and appendices, and include the complete Financial Project Identification Number, a title referencing the submittal item(s), the name of the firm and person(s) responsible for the preparation of the document, the Contractor's approval stamp with date and initials, and, when applicable, the signature and embossed seal of the Specialty Engineer or Contractor's Engineer of Record.

Submit appropriately prepared and checked calculations and manuals that clearly outline the design criteria. Include on the internal sheets the complete Financial Project Identification Number and the initials of the person(s) responsible for preparing and checking the document.

Clearly label trade literature and catalogue information on the front cover with the title, Financial Project Identification Number, date and name of the firm and person(s) responsible for that document.

5-1.4.5 Submittal Paths and Copies:

5-1.4.5.1 General: Shop drawings are not required for prequalified items. For non-prequalified items, determine the submittal path to be followed based upon the identity of the Engineer of Record as shown adjacent to the title block on the structural plan sheets, and on the key sheets of roadway plans, signing, and pavement marking plans, and/or lighting plans. At the preconstruction conference, the Department will notify the Contractor of any changes in the submittal path and whether the Department's or the Consultant's red-ink review stamp will signify an officially reviewed shop drawing.

(a) When the Florida Department of Transportation is the Engineer of Record, submit shop drawings to the appropriate Department Shop Drawing Review Office with a copy of the letter of transmittal sent to the Resident Engineer. For work requiring other information (e.g., catalog data, procedure manuals, fabrication/welding procedures, and

maintenance and operating procedures), submit the required number of copies to the appropriate Department Shop Drawing Review Office. If not shown on the plans, the Department will furnish the mailing address of the appropriate Department Shop Drawing Review Office. Provide copies of material certifications and material tests to the Resident Engineer.

(b) When the Engineer of Record is a consultant hired by the Department, submit shop drawings to the consultant with a copy of the letter of transmittal sent to the Resident Engineer and, when requested, to the appropriate Department Shop Drawing Review Office. For work requiring other documentation (e.g., catalog data, procedure manuals, fabrication/welding procedures, and maintenance and operating manuals), submit the required number of copies with the prints. If not shown on the plans, the Department will furnish the mailing address of the Consulting Engineer of Record. Provide copies of material certifications and material tests to the Resident Engineer.

5-1.4.5.2 Building Structures: Submit working, shop and erection drawings, and all correspondence related to building structures, such as Rest Area Pavilions, Office Buildings, and Maintenance Warehouses, to the Architect of Record for review and approval. Send a copy of the transmittal to the Resident Engineer.

5-1.4.5.3 Contractor-Originated Design: Submit shop drawings and applicable calculations to the Engineer of Record for review. Ensure that each sheet of the shop drawings and the cover sheet of the calculations are signed and sealed by the Specialty Engineer or the Contractor's Engineer of Record. Transmit the submittal and copies of the transmittal letters in accordance with the requirements of 5-1.4.5.1 through 5-1.4.5.3, as appropriate.

5-1.4.5.4 Temporary Works: For Construction Affecting Public Safety, submit to the Engineer of Record shop drawings and the applicable calculations for the design of special erection equipment, bracing, falsework, scaffolding, etc. Ensure that each sheet of the shop drawings and the cover sheet of the applicable calculations is signed and sealed by the Specialty Engineer. Transmit the submittal and copies of the transmittal letters in accordance with the requirements of 5-1.4.5.1 through 5-1.4.5.3, as appropriate.

5-1.4.5.5 Formwork and Scaffolding: The Contractor is solely responsible for the safe installation and use of all formwork and scaffolding. The Department does not require any formwork or scaffolding submittals unless such work would be classified as Construction Affecting Public Safety.

5-1.4.5.6 Beam and Girder Temporary Bracing: The Contractor is solely responsible for ensuring stability of beams and girders during all handling, storage, shipping and erection. Adequately brace beams and girders to resist wind, weight of forms and other temporary loads, especially those eccentric to the vertical axis of the products, considering actual beam geometry and support conditions during all stages of erection and deck construction. At a minimum, provide temporary bracing at each end of each beam or girder. Develop the required bracing designs in accordance with the AASHTO LRFD Bridge Design Specifications (LRFD) using wind loads specified in the Structures Design Guidelines (SDG). For information not included in the SDG or LRFD, refer to the AASHTO Guide Design Specifications for Bridge Temporary Works and Construction Handbook for Bridge Temporary Works.

For Construction Affecting Public Safety, when temporary bracing requirements are shown in the plans, submit plans and calculations signed and sealed by a Specialty Engineer for the design of temporary bracing members and connections based on the forces shown in the plans. In addition, submit a written certification that construction loads do not exceed the assumed loads shown in the plans.

For Construction Affecting Public Safety, when temporary bracing requirements are not shown in the plans or an alternate temporary bracing system is proposed, submit plans and calculations signed and sealed by a Specialty Engineer including the stability analysis and design of temporary bracing members and connections.

5-1.4.5.7 Erection Plan: Submit, for the Engineer's review, an Erection Plan that meets the specific requirements of Sections 450, 452 and 460 and this section. Refer to Index 600 for construction activities not permitted over traffic.

5-1.4.5.8 Other Miscellaneous Design and Structural Details Furnished by the Contractor in Compliance with the Contract: Submit to the Engineer of Record shop drawings and the applicable calculations. Ensure that each sheet of the shop drawings and the cover sheet of the applicable calculations is signed and sealed by the Specialty Engineer. Transmit the submittal and copies of the transmittal letters in accordance with the requirements of 5-1.4.5.1 through 5-1.4.5.3, as appropriate.

5-1.4.6 Processing of Shop Drawings:

5-1.4.6.1 Contractor Responsibility for Accuracy and Coordination of Shop Drawings: Coordinate, schedule, and control all submittals, with a regard for the required priority, including those of the various subcontractors, suppliers, and engineers, to provide for an orderly and balanced distribution of the work.

Coordinate, review, date, stamp, approve and sign all shop drawings prepared by the Contractor or agents (subcontractor, fabricator, supplier, etc.) prior to submitting them to the Engineer of Record for review. Submittal of the drawings confirms verification of the work requirements, units of measurement, field measurements, construction criteria, sequence of assembly and erection, access and clearances, catalog numbers, and other similar data. Indicate on each series of drawings the specification section and page or drawing number of the Contract plans to which the submission applies. Indicate on the shop drawings all deviations from the Contract drawings and itemize all deviations in the letter of transmittal. Likewise, whenever a submittal does not deviate from the Contract plans, clearly state so in the transmittal letter.

Schedule the submission of shop drawings to allow for a 45 day review period. The review period commences upon the Engineer of Record's receipt of the valid submittal or valid re-submittal and terminates upon the transmittal of the submittal back to the Contractor. A valid submittal includes all the minimum requirements outlined in 5-1.4.4.

Submit shop drawings to facilitate expeditious review. The Contractor is discouraged from transmitting voluminous submittals of shop drawings at one time. For submittals transmitted in this manner, allow for the additional review time that may result.

Only shop drawings distributed with the "red ink" stamps are valid and all work that the Contractor performs in advance of approval will be at the Contractor's risk.

5-1.4.6.2 Scope of Review by Engineer: The Engineer of Record's review of the shop drawings is for conformity to the requirements of the Contract Documents and to the intent of the design. The Engineer of Record's review of shop drawings which include means, methods, techniques, sequences, and construction procedures are limited to the effects on the permanent works. The Engineer of Record's review of submittals which include means, methods, techniques, sequences, and construction procedures does not include an in-depth check for the ability to perform the work in a safe or efficient manner. Review by the Engineer of Record does not relieve the Contractor of responsibility for dimensional accuracy to ensure field fit and for conformity of the various components and details.

5-1.4.6.3 Special Review by Engineer of Shop Drawings for Construction Affecting Public Safety: For Construction Affecting Public Safety, the Engineer of Record, or other Engineer as the Department appoints for this purpose, will make an independent review of all relevant shop drawings and similar documents. Do not proceed with construction of the permanent works until receiving the Engineer of Record's approval. The review of these shop drawings is for overall structural adequacy of the item to support the imposed loads and does not include a check for economy, efficiency or ease of construction.

5-1.4.7 Other Requirements for Shop Drawings for Bridges:

5-1.4.7.1 Shop Drawings for Structural Steel and Miscellaneous Metals: Furnish shop drawings for structural steel and miscellaneous metals. Shop drawings shall consist of working, shop, and erection drawings, welding procedures, and other working plans, showing details, dimensions, sizes of material, and other information necessary for the complete fabrication and erection of the metal work.

5-1.4.7.2 Shop Drawings for Concrete Structures: Furnish shop drawings for concrete components that are not cast-in-place and are not otherwise exempted from submittal requirements. Also, furnish shop drawings for all details that are required for the effective prosecution of the concrete work and are not included in the Contract Documents such as: special erection equipment, masonry layout diagrams, and diagrams for bending reinforcing steel, in addition to any details required for concrete components for the permanent work.

5-1.4.7.3 Shop Drawings for Major and Unusual Structures: In addition to any other requirements, within 60 days from the notice to proceed, submit information to the Engineer outlining the integration of the Major and Unusual Structure into the overall approach to the project. Where applicable to the project, include, but do not limit this information to:

(1) The overall construction program for the duration of the Contract. Clearly show the Milestone dates. (For example, the need to open a structure by a certain time for traffic operations.)

(2) The overall construction sequence. The order in which individual structures are to be built, the sequence in which individual spans of girders or cantilevers are erected, and the sequence in which spans are to be made continuous.

(3) The general location of any physical obstacles to construction that might impose restraints or otherwise affect the construction, and an outline of how to deal with such obstacles while building the structure(s). (For example, obstacles might include road, rail and waterway clearances, temporary diversions, transmission lines, utilities, property, and the Contractor's own temporary works, such as haul roads, cofferdams, plant clearances and the like.)

(4) The approximate location of any special lifting equipment in relation to the structure, including clearances required for the operation of the equipment. (For example, crane positions, operating radii and the like.)

(5) The approximate location of any temporary falsework, and the conceptual outline of any special erection equipment. Provide the precise locations and details of attachments, fixing devices, loads, etc. in later detailed submittals.

(6) An outline of the handling, transportation, and storage of fabricated components, such as girders or concrete segments. Provide the precise details in later detailed submittals.

(7) Any other information pertinent to the proposed scheme or intended approach.

Clearly and concisely present the above information on as few drawings as possible in order to provide an overall, integrated summary of the intended approach to the project. The Department will use these drawings for information, review planning, and to assess the Contractor's approach in relation to the intent of the original design. The delivery to and receipt by the Engineer does not constitute any Department acceptance or approval of the proposals shown thereon. Include the details of such proposals on subsequent detailed shop drawing submittals. Submit timely revisions and re-submittals for all variations from these overall scheme proposals.

5-1.4.8 Modifications for Construction: Where the Engineer allows the Contractor to make modifications to the permanent works for the purposes of expediting the Contractor's chosen construction methods, the Contractor shall submit proposals to the Engineer of Record for review and approval prior to modifying the works. Submit proposals for minor modifications under the shop drawing process. Indicate on all drawings the deviations from the Contract Documents and itemize all deviations in the letter of transmittal. The Department will require additional submittals and/or submittal under a Cost Savings Initiative Proposal for major modifications.

Minor modifications are those items that, in the opinion of the Engineer, do not significantly affect the quantity of measured work, or the integrity or maintainability of the structure or its components. (For example, adjusting concrete dimensions, substituting steel plate sizes, changing reinforcing bar size and spacing, etc., all within the acceptable limits of the design.)

Major modifications are any modifications that, in the opinion of the Engineer, significantly affect the quantity of measured work, or the integrity or maintainability of the structure or its' components. (For example, substituting alternative beam sizes and spacings, changing material strength or type, and the like.). Provide signed and sealed revised sheets to the Engineer for any such revisions to the Contract plans prior to submitting shop drawings.

The Engineer's decision on the delineation between a minor and a major modification and the disposition of a proposal is final.

5-1.4.9 Cost of Shop Drawings: Include the cost of furnishing shop and working drawings in the Contract prices for the work requiring the shop and working drawings. The Department will not pay the Contractor additional compensation for such drawings.

5-1.5 Certifications:

5-1.5.1 Special Erection Equipment: Prior to its use, ensure that the Specialty Engineer personally inspects the special erection equipment and certifies to the Engineer in writing that the equipment has been fabricated in accordance with the submitted drawings and calculations. In addition, after assembly, ensure that the Specialty Engineer observes the equipment in use and certifies to the Engineer in writing that it is being used as intended and in accordance with the submitted drawings and calculations. In each case, ensure that the Specialty Engineer also signs and seals the letter of certification.

5-1.5.2 Falsework and Shoring Requiring Shop Drawings: After its erection or installation but prior to the application of any superimposed load, ensure that the Specialty Engineer personally inspects the falsework and certifies to the Engineer in writing that the falsework has been constructed in accordance with the materials and details shown on the

submitted drawings and calculations. Ensure that the Specialty Engineer also signs and seals the letter of certification.

5-1.5.3 Temporary Formwork: For Construction Affecting Public Safety and for Major and Unusual Structures, prior to the placement of any concrete, ensure that the Specialty Engineer inspects the formwork and certifies to the Engineer in writing that the formwork has been constructed to safely withstand the superimposed loads to which it will be subjected. Ensure that the Specialty Engineer signs and seals the letter of certification.

5-1.5.4 Erection: For Construction Affecting Public Safety, submit an erection plan signed and sealed by the Specialty Engineer to the Engineer at least four (4) weeks prior to erection commencing. Include as part of this submittal signed and sealed calculations and details for any falsework, bracing or other connection(s) supporting the structural elements shown in the erection plan.

At least two (2) weeks prior to beginning erection, conduct a Pre-erection meeting with the Specialty Engineer and Engineer to review details of the plan.

After erection of the elements but prior to opening of the roadway below the structure, ensure that a Specialty Engineer has personally inspected the erected member(s) and certified to the Engineer that the structure has been erected in accordance with the signed and sealed erection plan.

Perform daily inspections of the erected structural systems. For structures without temporary supports but with temporary girder bracing systems, perform inspections until all the diaphragms and cross frames are in place. For structures with temporary supports, perform inspections until the temporary supports are no longer needed as indicated in the erection plans. Provide written documentation of the inspections to the Engineer within 24 hours of the inspection

5-1.6 Corrections for Construction Errors: For work that the Contractor constructs incorrectly or does not meet the requirements of the Contract Documents, the Contractor has the prerogative to submit an acceptance proposal to the Engineer for review and disposition. The acceptance proposal shall describe the error or defect and either describe remedial action for its correction or propose a method for its acceptance. In either case, the acceptance proposal shall address structural integrity, aesthetics, maintainability, and the effect on Contract Time. The Department will judge any such proposal for its effect on these criteria and also for its effect on Contract Administration.

When the Engineer judges that a proposal infringes on the structural integrity or maintainability of the structure, the Contractor's Engineer of Record will perform a technical assessment and submit it to the Engineer for approval. Do not take any corrective action without the Engineer's approval.

Carry out all approved corrective construction measures at no expense to the Department.

Notwithstanding any disposition of the compensation aspects of the defective work, the Engineer's decision on the technical merits of a proposal is final.

5-2 Coordination of Contract Documents.

These Specifications, the plans, Special Provisions, and all supplementary documents are integral parts of the Contract; a requirement occurring in one is as binding as though occurring in all. In addition to the work and materials specifically called for in the Contract Documents and any additional incidental work, not specifically mentioned, when so shown in the plans, or if

indicated, or obvious and apparent, as being necessary for the proper completion of the work will be included in the Contract Lump Sum Price.

In cases of discrepancy, the governing order of the documents is as follows:

1. Request for Proposal (RFP) Packages
2. Special Provisions
3. Technical Special Provisions
4. Plans
5. Design Standards
6. Developmental Specification
7. Supplemental Specifications
8. Standard Specifications

Computed dimensions govern over scaled dimensions.

5-3 Conformity of Work with Contract Documents.

Perform all work and furnish all materials in conformity with the lines, grades, cross-sections, dimensions, and material requirements, including tolerances, as specified in the Contract Documents.

In the event that the Engineer finds that the Contractor has used material or produced a finished product that is not in reasonably close conformity with the Contract Documents, but that the Contractor has produced reasonably acceptable work, the Engineer will determine if the Department will accept the work in place. In this event, the Engineer will document the basis of acceptance by Contract modification, which provides for an appropriate reduction in the Contract price for such work or materials included in the accepted work as deemed necessary to conform to the determination based on engineering judgment.

In the event that the Engineer finds that the Contractor has used material or produced a finished product that is not in reasonably close conformity with the Contract Documents, and that the Contractor has produced an inferior or unsatisfactory product, the Contractor shall remove and replace or otherwise correct the work or materials at no expense to the Department.

For base and surface courses, the Department will allow the finished grade to vary as much as 0.1 foot from the grade shown in the plans, provided that the Contractor's work meets all templates and straightedge requirements and contains suitable transitions.

5-4 Errors or Omissions in Contract Documents.

Errors and omissions discovered in the plans or specifications are the total responsibility of the Design-Build Firm. The errors and omissions shall be brought to the attention of the Engineer of Record as well as the Engineer. Resolution of the question by the Engineer of Record is intended, and will be at no additional cost to the Department. All such modifications are subject to approval of the Engineer.

5-5 Authority of the Engineer.

Perform all work to the satisfaction of the Engineer.

The Director, Office of Construction, will decide all questions, difficulties, and disputes, of whatever nature, that may arise relative to the interpretation of the plans, construction, prosecution, and fulfillment of the Contract, and as to the character, quality, amount, and value of any work done, and materials furnished, under or by reason of the Contract.

5-6 Authority and Duties of Engineer's Assistants.

The Director, Office of Construction, may appoint such assistants and representatives, as he desires. These assistants and representatives are authorized to inspect all work done and all materials furnished. Such inspection may extend to all or any part of the work and to the manufacture, preparation, or fabrication of the materials to be used. Such assistants and representatives are not authorized to revoke, alter, or waive any requirement of these Specifications. Rather, they are authorized to call to the attention of the Contractor any failure of the work or materials to meet the Contract Documents, and have the authority to reject materials or suspend the work until any questions at issue can be referred to and decided by the Engineer. The Engineer will immediately notify the Contractor in writing of any such suspension of the work, stating in detail the reasons for the suspension. The presence of the inspector or other assistant in no way lessens the responsibility of the Contractor.

5-7 Engineering and Layout.

Not Applicable.

5-8 Contractor's Supervision.

5-8.1 Prosecution of Work: Give the work the constant attention necessary to ensure the scheduled progress, and cooperate fully with the Engineer and with other Contractors at work in the vicinity.

5-8.2 Contractor's Superintendent: Maintain a competent superintendent at the site at all times while work is in progress to act as the Contractor's agent. Provide a superintendent who is a competent superintendent capable of properly interpreting the Contract Documents and is thoroughly experienced in the type of work being performed. Provide a superintendent with the full authority to receive instructions from the Engineer and to execute the orders or directions of the Engineer, including promptly supplying any materials, tools, equipment, labor, and incidentals that may be required. Furnish such superintendence regardless of the amount of work sublet.

Provide a superintendent who speaks and understands English, and maintain at least one other responsible person who speaks and understands English, on the project during all working hours.

5-8.3 Supervision for Emergencies: Provide a responsible person, who speaks and understands English, and who is available at or reasonably near the worksite on a 24-hour basis, seven days a week. Designate this person as the point of contact for emergencies and in cases that require immediate action to maintain traffic or to resolve any other problem that might arise. Submit, by certified mail, the phone numbers and names of personnel designated to be contacted in cases of emergencies, along with a description of the project location, to the Florida Highway Patrol and all other local law enforcement agencies.

5-9 General Inspection Requirements.

5-9.1 Cooperation by Contractor: Do not perform work or furnish materials without obtaining inspection by the Engineer or his representative. Furnish the Engineer with every reasonable facility for ascertaining whether the work performed and materials used are in accordance with the requirements and intent of the Contract Documents. If the Engineer so requests at any time before final acceptance of the work, remove or uncover such portions of the finished work as directed. After examination, restore the uncovered portions of the work to the standard required by the Contract Documents. If the Engineer determines that the work so

exposed or examined is unacceptable, perform the uncovering or removal, and the replacing of the covering or making good of the parts removed, at no expense to the Department. However, if the Engineer determines that the work thus exposed or examined is acceptable, the Department will pay for the uncovering or removing, and the replacing of the covering or making good of the parts removed in accordance with 4-4.

5-9.2 Failure of Engineer to Reject Work During Construction: If, during or prior to construction operations, the Engineer fails to reject defective work or materials, whether from lack of discovery of such defect or for any other reason, such initial failure to reject in no way prevents the later rejection when such defect is discovered, or obligates the Department to final acceptance. The Department is not responsible for losses suffered due to any necessary removals or repairs of such defects.

5-9.3 Failure to Remove and Renew Defective Materials and Work: If the Contractor fails or refuses to remove and renew any defective materials used or work performed, or to make any necessary repairs in an acceptable manner and in accordance with the requirements of the Contract within the time indicated in writing, the Engineer has the authority to repair, remove, or renew the unacceptable or defective materials or work as necessary, all at the Contractor's expense. The Department will obtain payment for any expense it incurs in making these repairs, removals, or renewals, that the Contractor fails or refuses to make, by deducting such expenses from any moneys due or which may become due the Contractor, or by charging such amounts against the Contract bond.

5-9.4 Inspection by Federal Government: When the United States Government pays a portion of the cost of construction, its representatives may inspect the construction work, as they deem necessary. However, such inspection will in no way make the Federal Government a party to the Contract.

5-10 Final Inspection.

5-10.1 Maintenance until Acceptance: Maintain all Work until the Engineer has given final acceptance in accordance with 5-11.

5-10.2 Inspection for Acceptance: Upon notification that all Contract Work, or all Contract Work on the portion of the Contract scheduled for acceptance, has been completed, the Engineer will make an inspection for acceptance. The inspection will be made within seven days of the notification. If the Engineer finds that all work has been satisfactorily completed, the Department will consider such inspection as the final inspection. If any or all of the Work is found to be unsatisfactory, the Engineer will detail the remedial work required to achieve acceptance. Immediately perform such remedial work. Subsequent inspections will be made on the remedial work until the Engineer accepts all Work.

Upon satisfactory completion of the Work, the Department will provide written notice of acceptance, partial or final, to the Contractor.

Until final acceptance in accordance with 5-11, replace or repair any damage to the accepted Work. Payment of such work will be as provided in 7-14.

5-10.3 Partial Acceptance: At the Engineer's sole discretion, the Engineer may accept any portion of the Work under the provisions of 5-10.2.

5-10.4 Conditional Acceptance: The Engineer will not make, or consider requests for conditional acceptance of a project.

5-11 Final Acceptance.

When, upon completion of the final construction inspection of the entire project, the Engineer determines that the Contractor has satisfactorily completed the work, the Engineer will give the Contractor written notice of final acceptance.

5-12 Claims by Contractor.

5-12.1 General: When the Contractor deems that extra compensation or a time extension is due beyond that agreed to by the Engineer, whether due to delay, additional work, altered work, differing site conditions, breach of Contract, or for any other cause, the Contractor shall follow the procedures set forth herein for preservation, presentation and resolution of the claim.

Submission of timely notice of intent to file a claim, preliminary time extension request, time extension request, and the certified written claim, together with full and complete claim documentation, are each a condition precedent to the Contractor bringing any circuit court, arbitration, or other formal claims resolution proceeding against the Department for the items and for the sums or time set forth in the Contractor's certified written claim. The failure to provide such notice of intent, preliminary time extension request, time extension request, certified written claim and full and complete claim documentation within the time required shall constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to additional compensation or a time extension for such claim.

5-12.2 Notice of Claim:

5-12.2.1 Claims For Extra Work: Where the Contractor deems that additional compensation or a time extension is due for work or materials not expressly provided for in the Contract or which is by written directive expressly ordered by the Engineer pursuant to 4-3, the Contractor shall notify the Engineer in writing of the intention to make a claim for additional compensation before beginning the work on which the claim is based, and if seeking a time extension, the Contractor shall also submit a preliminary request for time extension pursuant to 8-7.3.2 within ten calendar days after commencement of a delay and a request for Contract Time extension pursuant to 8-7.3.2 within thirty calendar days after the elimination of the delay. If such notification is not given and the Engineer is not afforded the opportunity for keeping strict account of actual labor, material, equipment, and time, the Contractor waives the claim for additional compensation or a time extension. Such notice by the Contractor, and the fact that the Engineer has kept account of the labor, materials and equipment, and time, shall not in any way be construed as establishing the validity of the claim or method for computing any compensation or time extension for such claim. On projects with an original Contract amount of $3,000,000 or less within 90 calendar days after final acceptance of the project in accordance with 5-11, and on projects with an original Contract amount greater than $3,000,000 within 180 calendar days after final acceptance of the project in accordance with 5-11, the Contractor shall submit full and complete claim documentation as described in 5-12.3 and duly certified pursuant to 5-12.9. However, for any claim or part of a claim that pertains solely to final estimate quantities disputes the Contractor shall submit full and complete claim documentation as described in 5-12.3 and duly certified pursuant to 5-12.9, as to such final estimate claim dispute issues, within 90 or 180 calendar days, respectively, of the Contractor's receipt of the Department's final estimate.

If the Contractor fails to submit a certificate of claim as described in 5-12.9, the Department will so notify the Contractor in writing. The Contractor shall have ten calendar days from receipt of the notice to resubmit the claim documentation, without change, with a certificate of claim as described in 5-12.9, without regard to whether the resubmission is within the applicable 90 or 180 calendar day deadline for submission of full and complete claim

documentation. Failure by the Contractor to comply with the ten calendar day notice shall constitute a waiver of the claim.

5-12.2.2 Claims For Delay: Where the Contractor deems that additional compensation or a time extension is due on account of delay, differing site conditions, breach of Contract, or any other cause other than for work or materials not expressly provided for in the Contract (Extra Work) or which is by written directive of the Engineer expressly ordered by the Engineer pursuant to 4-3, the Contractor shall submit a written notice of intent to the Engineer within ten days after commencement of a delay to a controlling work item expressly notifying the Engineer that the Contractor intends to seek additional compensation, and if seeking a time extension, the Contractor shall also submit a preliminary request for time extension pursuant to 8-7.3.2 within ten calendar days after commencement of a delay to a controlling work item, as to such delay and providing a reasonably complete description as to the cause and nature of the delay and the possible impacts to the Contractor's work by such delay, and a request for Contract Time extension pursuant to 8-7.3.2 within thirty calendar days after the elimination of the delay. On projects with an original Contract amount of $3,000,000 or less within 90 calendar days after final acceptance of the project in accordance with 5-11, and on projects with an original Contract amount greater than $3,000,000 within 180 calendar days after final acceptance of the project in accordance with 5-11, the Contractor shall submit full and complete documentation as described in 5-12.3 and duly certified pursuant to 5-12.9.

If the Contractor fails to submit a certificate of claim as described in 5-12.9, the Department will so notify the Contractor in writing. The Contractor shall have ten calendar days from receipt of the notice to resubmit the claim documentation, without change, with a certificate of claim as described in 5-12.9, without regard to whether the resubmission is within the applicable 90 or 180 calendar day deadline for submission of full and complete claim documentation. Failure by the Contractor to comply with the ten calendar day notice shall constitute a waiver of the claim.

There shall be no Contractor entitlement to any monetary compensation or time extension for any delays or delay impacts, whatsoever, that are not to a controlling work item, and then as to any such delay to a controlling work item entitlement to any monetary compensation or time extension shall only be to the extent such is otherwise provided for expressly under 4-3 or 5-12, except that in the instance of delay to a non-controlling item of work the Contractor may be compensated for the direct costs of idle labor or equipment only, at the rates set forth in 4-3.2.1 (a) and (c), and then only to the extent the Contractor could not reasonably mitigate such idleness.

5-12.3 Content of Written Claim: As a condition precedent to the Contractor being entitled to additional compensation or a time extension under the Contract, for any claim, the Contractor shall submit a certified written claim to the Department which will include for each individual claim, at a minimum, the following information:

(a) A detailed factual statement of the claim providing all necessary dates, locations, and items of work affected and included in each claim;

(b) The date or dates on which actions resulting in the claim occurred or conditions resulting in the claim became evident;

(c) Identification of all pertinent documents and the substance of any material oral communications relating to such claim and the name of the persons making such material oral communications;

(d) Identification of the provisions of the Contract which support the claim and a statement of the reasons why such provisions support the claim, or alternatively, the provisions of the Contract which allegedly have been breached and the actions constituting such breach;

(e) A detailed compilation of the amount of additional compensation sought and a breakdown of the amount sought as follows:

(1) documented additional job site labor expenses;

(2) documented additional cost of materials and supplies;

(3) a list of additional equipment costs claimed, including each piece of equipment and the rental rate claimed for each;

(4) any other additional direct costs or damages and the documents in support thereof;

(5) any additional indirect costs or damages and all documentation in support thereof.

(f) A detailed compilation of the specific dates and the exact number of calendar days sought for a time extension, the basis for entitlement to time for each day, all documentation of the delay, and a breakout of the number of days claimed for each identified event, circumstance or occurrence.

Further, the Contractor shall be prohibited from amending either the bases of entitlement or the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder, and any circuit court, arbitration, or other formal claims resolution proceeding shall be limited solely to the bases of entitlement and the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder. This shall not, however, preclude a Contractor from withdrawing or reducing any of the bases of entitlement and the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder at any time.

5-12.4 Action on Claim: The Engineer will respond on projects with an original Contract amount of $3,000,000 or less within 90 calendar days of receipt of a complete claim submitted by a Contractor in compliance with 5-12.3, and on projects with an original Contract amount greater than $3,000,000 within 120 calendar days of receipt of a complete claim submitted by a Contractor in compliance with 5-12.3. Failure by the Engineer to respond to a claim within 90 or 120 days, respectively, after receipt of a complete claim in compliance with 5-12.3 constitutes a denial of the claim by the Engineer. If the Engineer finds the claim or any part thereof to be valid, such partial or whole claim will be allowed and paid for to the extent deemed valid and any time extension granted, if applicable, as provided in the Contract. No circuit court or arbitration proceedings on any claim, or a part thereof, may be filed until after final acceptance per 5-11 of all Contract work by the Department or denial hereunder, whichever occurs last.

5-12.5 Pre-Settlement and Pre-Judgment Interest: Entitlement to any pre-settlement or prejudgment interest on any claim amount determined to be valid subsequent to the Department's receipt of a certified written claim in full compliance with 5-12.3, whether determined by a settlement or a final ruling in formal proceedings, the Department shall pay to the Contractor simple interest calculated at the Prime Rate (as reported by the Wall Street Journal as the base rate on corporate loans posted by at least 75% of the nations 30 largest banks) as of the 60th calendar day following the Department's receipt of a certified written claim in full compliance with 5-12.3, such interest to accrue beginning 60 calendar days following the

Department's receipt of a certified written claim in full compliance with 5-12.3 and ending on the date of final settlement or formal ruling.

5-12.6 Compensation for Extra Work or Delay:

5-12.6.1 Compensation for Extra Work: Notwithstanding anything to the contrary contained in the Contract Documents, the Contractor shall not be entitled to any compensation beyond that provided for in 4-3.2.

5-12.6.2 Compensation for Delay: Notwithstanding anything to the contrary contained in the Contract Documents, the additional compensation set forth in 5-12.6.2.1 shall be the Contractor's sole monetary remedy for any delay other than to perform extra work caused by the Department unless the delay shall have been caused by acts constituting willful or intentional interference by the Department with the Contractor's performance of the work and then only where such acts continue after Contractor's written notice to the Department of such interference. The parties anticipate that delays may be caused by or arise from any number of events during the term of the Contract, including, but not limited to, work performed, work deleted, supplemental agreements, work orders, disruptions, differing site conditions, utility conflicts, design changes or defects, time extensions, extra work, right-of-way issues, permitting issues, actions of suppliers, subcontractors or other Contractors, actions by third parties, suspensions of work by the Engineer pursuant to 8-6.1, shop drawing approval process delays, expansion of the physical limits of the project to make it functional, weather, weekends, holidays, special events, suspension of Contract Time, or other events, forces or factors sometimes experienced in construction work. Such delays or events and their potential impacts on the performance by the Contractor are specifically contemplated and acknowledged by the parties in entering into this Contract, and shall not be deemed to constitute willful or intentional interference with the Contractor's performance of the work without clear and convincing proof that they were the result of a deliberate act, without reasonable and good-faith basis, and specifically intended to disrupt the Contractor's performance.

5-12.6.2.1 Compensation for Direct Costs, Indirect Costs, Expenses, and Profit thereon, of or from Delay: For any delay claim, the Contractor shall be entitled to monetary compensation for the actual idle labor and equipment, and indirect costs, expenses, and profit thereon, as provided for in 4-3.2.1(d) and solely for costs incurred beyond what reasonable mitigation thereof the Contractor could have undertaken.

5-12.7 Mandatory Claim Records: After giving the Engineer notice of intent to file a claim for extra work or delay, the Contractor must keep daily records of all labor, material and equipment costs incurred for operations affected by the extra work or delay. These daily records must identify each operation affected by the extra work or delay and the specific locations where work is affected by the extra work or delay, as nearly as possible. The Engineer may also keep records of all labor, material and equipment used on the operations affected by the extra work or delay. The Contractor shall, once a notice of intent to claim has been timely filed, and not less than weekly thereafter as long as appropriate, provide the Engineer a copy of the Contractor's daily records and be likewise entitled to receive a copy of the Department's daily records. The copies of daily records to be provided hereunder shall be provided at no cost to the recipient.

5-12.8 Claims For Acceleration: The Department shall have no liability for any constructive acceleration of the work, nor shall the Contractor have any right to neither make any claim for constructive acceleration nor include the same as an element of any claim the Contractor may otherwise submit under this Contract. If the Engineer gives express written direction for the Contractor to accelerate its efforts, such written direction will set forth the prices

and other pertinent information and will be reduced to a written Contract Document promptly. No payment will be made on a Supplemental Agreement for acceleration prior to the Department's approval of the documents.

5-12.9 Certificate of Claim: When submitting any claim, the Contractor shall certify under oath and in writing, in accordance with the formalities required by Florida law, that the claim is made in good faith, that the supportive data are accurate and complete to the Contractor's best knowledge and belief, and that the amount of the claim accurately reflects what the Contractor in good faith believes to be the Department's liability. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor.

5-12.10 Non-Recoverable Items: The parties agree that for any claim the Department will not have liability for the following items of damages or expense:

a. Loss of profit, incentives or bonuses;

b. Any claim for other than extra work or delay;

c. Consequential damages, including, but not limited to, loss of bonding capacity, loss of bidding opportunities, loss of credit standing, cost of financing, interest paid, loss of other work or insolvency;

d. Acceleration costs and expenses, except where the Department has expressly and specifically directed the Contractor in writing, "to accelerate at the Department's expense"; nor

e. Attorney fees, claims preparation expenses and costs of litigation.

5-12.11 Exclusive Remedies: Notwithstanding any other provision of this Contract, the parties agree that the Department shall have no liability to the Contractor for expenses, costs, or items of damages other than those, which are specifically identified as payable under 5-12. In the event any legal action for additional compensation, whether on account of delay, acceleration, breach of Contract, or otherwise, the Contractor agrees that the Department's liability will be limited to those items which are specifically identified as payable in 5-12.

5-12.12 Settlement Discussions: The content of any discussions or meetings held between the Department and the Contractor to settle or resolve any claims submitted by the Contractor against the Department shall be inadmissible in any legal, equitable, arbitration or administrative proceedings brought by the Contractor against the Department for payment of such claim. Dispute Resolution Board, State Arbitration Board and Claim Review Committee proceedings are not settlement discussions, for purposes of this provision.

5-12.13 Personal Liability of Public Officials: In carrying out any of the provisions of the Contract or in exercising any power or authority granted to the Secretary of Transportation, Engineer or any of their respective employees or agents, there shall be no liability on behalf of any employee, officer or official of the Department for which such individual is responsible, either personally or as officials or representatives of the Department. It is understood that in all such matters such individuals act solely as agents and representatives of the Department.

5-12.14 Auditing of Claims: All claims filed against the Department shall be subject to audit at any time following the filing of the claim, whether or not such claim is part of a suit pending in the Courts of this State. The audit may be performed, at the Department's sole discretion, by employees of the Department or by any independent auditor appointed by the Department, or both. The audit may begin after ten days written notice to the Contractor, subcontractor, or supplier. The Contractor, subcontractor, or supplier shall make a good faith effort to cooperate with the auditors. As a condition precedent to recovery on any claim, the Contractor, subcontractor, or supplier must retain sufficient records, and provide full and

reasonable access to such records, to allow the Department's auditors to verify the claim and failure to retain sufficient records of the claim or failure to provide full and reasonable access to such records shall constitute a waiver of that portion of such claim that cannot be verified and shall bar recovery thereunder. Further, and in addition to such audit access, upon the Contractor submitting a written claim, the Department shall have the right to request and receive, and the Contractor shall have the affirmative obligation to provide to the Department, copies of any and all documents in the possession of the Contractor or its subcontractors, materialmen or suppliers as may be deemed relevant by the Department in its review of the basis, validity or value of the Contractor's claim.

Without limiting the generality of the foregoing, the Contractor shall upon written request of the Department make available to the Department's auditors, or upon the Department's written request for copies provide copies at the Department's expense, any or all of the following documents:

1. Daily time sheets and foreman's daily reports and diaries;
2. Insurance, welfare and benefits records;
3. Payroll register;
4. Earnings records;
5. Payroll tax return;
6. Material invoices, purchase orders, and all material and supply acquisition Contracts;
7. Material cost distribution worksheet;
8. Equipment records (list of company owned, rented or other equipment used);
9. Vendor rental agreements and subcontractor invoices;
10. Subcontractor payment certificates;
11. Canceled checks for the project, including, payroll and vendors;
12. Job cost report;
13. Job payroll ledger;
14. General ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals;
15. Cash disbursements journal;
16. Financial statements for all years reflecting the operations on this project;
17. Income tax returns for all years reflecting the operations on this project;
18. All documents which reflect the Contractor's actual profit and overhead during the years this Contract was being performed and for each of the five years prior to the commencement of this Contract;
19. All documents related to the preparation of the Contractor's bid including the final calculations on which the bid was based;
20. All documents which relate to each and every claim together with all documents, which support the amount of damages as to each claim;
21. Worksheets used to prepare the claim establishing the cost components for items of the claim including, but not limited to, labor, benefits and insurance, materials,

equipment, subcontractors, and all documents that establish which time periods and individuals were involved, and the hours and rates for such individuals.

5-13 Recovery Rights, Subsequent to Final Payment.

The Department reserves the right, if it discovers an error in the partial or final estimates, or if it discovers that the Contractor performed defective work or used defective materials, after the final payment has been made, to claim and recover from the Contractor or his surety, or both, by process of law, such sums as may be sufficient to correct the error or make good the defects in the work and materials.

Retain all records pertaining to the project for a period of three years from the date of the Engineer's final acceptance of the project. Upon request, make all such records available to the Department or its representative. For the purpose of this Article, records include all books of account, supporting documents, and papers that the Department deems necessary to ensure compliance with the Contract provisions.

5-14 Value Added Project Features.

5-14.1 Description: Construct Value Added Project Features consisting of those features provided for in the Design and Construction Criteria and/or the Technical Proposal.

The Contractor shall assume responsibility for all the associated guaranteed work specified in this Article for a minimum period of five years, unless otherwise stated in the Contract, after final acceptance of the Contract in accordance with 5-11, including continued responsibility as to any deficiencies to which notice was provided to the Contractor within such guarantee period until all such pre-existing deficiencies are resolved.

5-14.2 Responsible Party: For the purpose of this Specification, the Contractor shall be the responsible party unless otherwise agreed to in writing by the Department.

Upon final acceptance of the Contract in accordance with 5-11, the Contractor's responsibility for maintenance of all the work or facilities within the project limits of the Contract will terminate in accordance with 5-11; with the sole exception that the obligations set forth in this Article for Value Added Project Features shall continue thereafter to be responsibility of the Contractor as otherwise provided in this Article.

5-14.3 Evaluation and Remedial Work: Identify in the Technical Proposal each guaranteed feature with its associated type of distress and threshold values defining the extent and magnitude of such distresses that will necessitate remedial work. The Contractor will conduct a review of the Value Added Project Features during the guarantee period in accordance with the frequency established in the contract, but in any case, at least once annually. The Department may conduct a review at intermediate times as determined necessary by the Department. Conduct final review, no later than forty five calendar days before the end of guarantee period for each item.

All reviews by the Contractor will be conducted at no cost to the Department. The Department will be advised of the review schedule at least seven calendar days prior to the review-taking place. The results of the review, intermediate or final, shall be made available to the Department within fifteen calendar days after completion of the review.

If the review findings, intermediate or final, are not accepted by the Department, the Department will provide written notification to the Contractor within thirty calendar days of the date of receipt of the results of the review.

During the guarantee period, the Contractor may monitor the project using nondestructive procedures. The Contractor shall not conduct any coring, milling or other destructive procedures without prior approval by the Department.

If a measured distress value indicates remedial action is required per the contract, the Contractor shall begin remedial work within forty five calendar days of the Contractor's review or a ruling of the Statewide Disputes Review Board that the Contractor is responsible for the remedial action required to correct the measured distress, whichever is later. The Department will determine the allowable duration for the completion of the remedial work.

In the event remedial action is necessary and forensic information is required to determine the source of the distress, obtain approval of the Department prior to starting any forensic activities. All forensic activities shall be at no cost to the Department. The Department will not be responsible for damages to the Value Added Project Features as a result of any forensic activities conducted by the Contractor.

The Contractor has the first option to perform all remedial work that is determined by the Department to be the Contractor's responsibility. If, in the opinion of the Department, the feature showing distress poses an immediate danger to the traveling public and the Contractor cannot begin remedial work within the time frame established by the Department, the Department has the authority to have the remedial work performed by other forces. The Contractor is responsible for all incurred costs of the work performed by other forces should the problem (remedial work) be determined to be its responsibility. Remedial work performed by other forces does not alter any of the requirements, responsibilities or obligations of the Contractor.

The Contractor shall complete all remedial work to the satisfaction of the Department. Any disputes regarding the adequacy of the remedial work will be resolved by the Statewide Disputes Review Board in accordance with 5-14.4. Approval of remedial work does not relieve the Contractor from continuing responsibility under the provisions of this specification.

Notify the Department in writing prior to beginning any remedial work. Meet the requirements of the Contract when performing any remedial work.

Perform all remedial work at no cost to the Department. If remedial work necessitates a corrective action to the pavement markings, adjacent lane (s), roadway shoulders, or any other elements, perform these corrective actions using similar products at no additional cost to the Department.

5-14.4 Disputes Resolution: The Statewide Disputes Review Board in accordance with 8-3.8 will be utilized to resolve any and all disputes that may arise involving administration and enforcement of this Specification.

5-14.5 Value Added Work: During the guarantee period, the Contractor shall perform all necessary remedial work described in the Contract. Should an impasse develop in any regard as to the need for remedial work or the extent required, the Statewide Disputes Review Board would render a final decision.

The maintenance obligation for Value Added Project Features will not apply to deficiencies if any one of the following factors is found to be beyond the control of the Contractor:

a. Determination that the deficiency was due to the failure of the other features not a part of the contract.

b. Determination that the deficiency was the responsibility of a third party performing work not included in the contract.

5-14.6 Failure to Perform: Should the Contractor fail to timely submit any dispute to the Statewide Dispute Review Board, refuse to submit any dispute to the Statewide Dispute Review Board, fail to satisfactorily perform any remedial work within the duration allowed by the Department, or fail to compensate the Department for any remedial work performed by the Department, as determined by the Statewide Disputes Review Board to be the Contractor's responsibility, the Department shall suspend, revoke or deny the Contractor's certificate of qualification under the terms of Section 337.16(d)(2), Florida Statutes, until the remedial work has been satisfactorily performed or full and complete payment for the remedial work made to the Department.

In no case shall the period of suspension, revocation, or denial of the Contractor's certificate of qualification be less than six months. Should the Contractor choose to challenge the Department's notification of intent for suspension, revocation or denial of qualification and the Department's action is upheld, the Contractor shall have its qualification suspended for a minimum of six months or until the remedial action is satisfactorily performed, whichever is longer.

5-14.7 Traffic Control: During maintenance work operations, perform all signing and traffic control in accordance with the current edition of the Department's Roadway and Traffic Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System. Provide Maintenance of Traffic during remedial work at no additional cost to the Department. Lane closure restrictions listed in the original Contract will apply to remedial work. Notification of lane closure for remedial work must be made to the Department forty eight hours in advance. Obtain a Maintenance Permit prior to performing any guarantee work operations.

SECTION 6
CONTROL OF MATERIALS

6-1 Acceptance Criteria.

6-1.1 General: Acceptance of materials is based on the following criteria. All requirements may not apply to all materials. Use only materials in the work that meet the requirements of these Specifications. The Engineer may inspect and test any material, at points of production, distribution and use.

6-1.2 Sampling and Testing: Use the Department's current sample identification and tracking system to provide related information and attach the information to each sample. Restore immediately any site from which material has been removed for sampling purposes to the pre-sampled condition with materials and construction methods used in the initial construction, at no additional cost to the Department.

Ensure when a material is delivered to the location as described in the Contract Documents, there is enough material delivered to take samples, at no expense to the Department.

6-1.2.1 Pretest by Manufacturers: Submit certified manufacturer's test results to the Engineer for qualification and use on Department projects. Testing will be as specified in the Contract Documents. The Department may require that manufacturers submit samples of materials for independent verification purposes.

6-1.2.2 Point of Production Test: Test the material during production as specified in the Contract Documents.

6-1.2.3 Point of Distribution Test: Test the material at Distribution facilities as specified in the Contract Documents.

6-1.2.4 Point of Use Test: Test the material immediately following placement as specified in the Specifications. After delivery to the project, the Department may require the retesting of materials that have been tested and accepted at the source of supply, or may require the testing of materials that are to be accepted by Producer Certification. The Department may reject all materials that, when retested, do not meet the requirements of these Specifications.

6-1.3 Certification:

6-1.3.1 Producer Certification: Provide complete certifications for materials as required. Furnish to the Engineer for approval, Producer Certifications for all products listed on the Qualified Products List and when required by the applicable material Specification(s). Do not incorporate any manufactured products or materials into the project without approval from the Engineer. Materials will not be considered for payment when not accompanied by Producer Certification. Producers may obtain sample certification forms through the Department's website. Ensure that the certification is provided on the producer's letterhead and is signed by a legally responsible person from the producer and notarized.

6-1.3.1.1 Qualified Products List: The Product Evaluation Section in the State Specifications and Estimates Office publishes and maintains a Qualified Products List. This list provides assurance to Contractors, consultants, designers, and Department personnel that specific products and materials are approved for use on Department facilities. The Department will limit the Contractor's use of products and materials that require pre-approval to items listed on the Qualified Products List effective at the time of placement.

Manufacturers seeking evaluation in accordance with Departmental procedures of an item must submit a Product Evaluation Application, available on the Department's website http://www.dot.state.fl.us/specificationsoffice/ProductEvaluation/QPL/Default.shtm, with supporting documentation as defined and detailed by the applicable Specifications and Standards. This may include certified test reports from an independent test laboratory, certification that the material meets all applicable specifications, signed and sealed drawings and calculations, quality control plans, samples, infrared scans, or other technical data.

Manufacturers successfully completing the Department's evaluation are eligible for inclusion on the Qualified Products List. The Department will consider any marked variations from original test values for a material or any evidence of inadequate field performance of a material as sufficient evidence that the properties of the material have changed, and the Department will remove the material from the Qualified Products List.

6-1.3.1.2 Approved Products List: The State Traffic Operations Office maintains the Approved Products List of Traffic Control Signal Devices. Traffic Monitoring Site Equipment and Materials are also included on the Approved Products List. This list provides assurance to Maintaining Agencies, Contractors, consultants, designers, and Department personnel that the specific items listed are approved for use on Department facilities. The Department will limit the Contractor's procurement and use of Traffic Control Signal Devices, and Traffic Monitoring Site equipment and materials to only those items listed on the Approved Products List that is effective at the time of procurement, except as provided in Section 603.

The approval process is described in detail on the State Traffic

Operation website, http://www3.dot.state.fl.us/trafficcontrolproducts/ . Manufacturers seeking evaluation of a specific device must submit an application which can be obtained from the State Traffic Operations Office.

6-1.3.2 Contractor Installation Certification: Provide installation certifications as required by the Contract Documents.

6-1.3.3 Lump Sum Project General Requirements: Material is accepted by material sampling and testing requirements for the following work activities: Earthwork and Related Operations, Base Courses, Hot Bituminous Mixtures, Portland Cement Concrete, and Reinforcing Steel as stated in 9-11.1. Fabricated metal acceptance will be in accordance with 9-11.2. All other material acceptance will be in accordance with 6-1.

6-1.3.4 Certification on Qualified Products List (QPL) Products: Submit to the Engineer a notarized manufacturer's certification on each QPL product that will be incorporated in the project. Submit the certification prior to utilization of the material on the project. Each certification will have the manufacturer letterhead, product name, batch number, FPID, Contract Number, category, county, title of certification person and test results in each product listed in the Department Specification. This letter will also provide the following statement: "This product meets the material specifications as provided in the Contract Documents." Ensure that the date of the manufacturer's certification is current to the shelf life of the product. This letter will be delivered to the jobsite prior to placement or utilization. Retain test results for a minimum of three years.

6-1.3.5 Certification on all Other Materials Not Specified: Submit to the Engineer a notarized manufacturer's certification on each product that will be incorporated in the project. Submit the certification prior to utilization on the project. Each certification will have the manufacturer letterhead, identification and type of material, FPID, Contract Number, county, test results of the material and notarized signature from the manufacturer. This letter will also provide the following statement: "This product meets the material specifications as provided in the Contract Documents." Ensure that the date of the manufacturer's certification is current to the shelf life of the product. Retain test results for a minimum of three years.

6-2 Applicable Documented Authorities other than Specifications.

6-2.1 General: Details on individual materials are identified in various material specific Sections of the Specifications that may refer to other documented authorities for requirements. When specified, meet the requirements as defined in such references.

6-2.2 Test Methods: Methods of sampling and testing materials are in accordance with the Florida Methods (FM). If a Florida Method does not exist for a particular test, perform the testing in accordance with the method specified in the Specification. When test methods or other standards are referenced in the Specifications without identification of the specific time of issuance, use the most current issuance, including interims or addendums thereto, at the time of bid opening.

6-2.3 Construction Aggregates: Aggregates used on Department projects must be in accordance with Rule 14-103, FAC.

6-3 Storage of Materials and Samples.

6-3.1 Method of Storage: Store materials in such a manner as to preserve their quality and fitness for the work, to facilitate prompt inspection, and to minimize noise impacts on sensitive receivers. More detailed specifications concerning the storage of specific materials are

prescribed under the applicable Specifications. The Department may reject improperly stored materials.

6-3.2 Use of Right-of-Way for Storage: If the Engineer allows, the Contractor may use a portion of the right-of-way for storage purposes and for placing the Contractor's plant and equipment. Use only the portion of the right-of-way that is outside the clear zone, which is the portion not required for public vehicular or pedestrian travel. When used, restore the right-of-way to pre-construction condition at no additional cost to the Department or as specified in the Contract Documents. Provide any additional space required at no expense to the Department.

6-3.3 Responsibility for Stored Materials: Accept responsibility for the protection of stored materials. The Department is not liable for any loss of materials, by theft or otherwise, or for any damage to the stored materials.

6-3.4 Storage Facilities For Samples: Provide facilities for storage of samples as described in the Contract Documents and warranted by the test methods and Specifications.

6-4 Defective Materials.

Materials not meeting the requirements of these Specifications will be considered defective. The Engineer will reject all such materials, whether in place or not. Remove all rejected material immediately from the site of the work and from storage areas, at no expense to the Department.

Do not use material that has been rejected and the defects corrected, until the Engineer has approved the material's use. Upon failure to comply promptly with any order of the Engineer made under the provisions of this Article, the Engineer has the authority to have the defective material removed and replaced by other forces and deduct the cost of removal and replacement from any moneys due or to become due the Contractor.

As an exception to the above, within 30 calendar days of the termination of the LOT or rejection of the material, the Contractor may submit a proposed scope of work to the Engineer for an engineering or independent laboratory (as approved by the Engineer) analysis to determine the disposition of the material. A Specialty Engineer, who is an independent consultant, or the Contractor's Engineer of Record as stated within each individual Section shall perform any such analysis. Upon the Engineer's approval of the scope of work submitted by the Contractor, the engineering analysis must be completed and the report must be submitted to the Engineer within 45 calendar days, or other time frame as approved by the Engineer. The report must be signed and sealed by the Specialty Engineer. The Engineer will determine the final disposition of the material after review of the information submitted by the Contractor. No additional monetary compensation or time extension will be granted for the impact of any such analysis or review.

6-5 Products and Source of Supply.

6-5.1 Source of Supply–Convict Labor (Federal-Aid Contracts Only): Do not use materials that were produced after July 1, 1991, by convict labor for Federal-aid highway construction projects unless the prison facility has been producing convict-made materials for Federal-aid highway construction projects before July 1, 1987.

Use materials that were produced prior to July 2, 1991, by convicts on Federal-aid highway construction projects free from the restrictions placed on the use of these materials by 23 U.S.C. 114. The Department will limit the use of materials produced by convict labor for use in Federal-aid highway construction projects to:

1 materials produced by convicts on parole, supervised release, or probation from a prison or,

2 materials produced in a qualified prison facility.

The amount of such materials produced for Federal-aid highway construction during any 12-month period shall not exceed the amount produced in such facility for use in such construction during the 12-month period ending July 1, 1987.

6-5.2 Source of Supply-Steel (Federal-Aid Contracts Only): For Federal-aid Contracts, only use steel and iron produced in the United States, in accordance with the Buy America provisions of 23 CFR 635.410, as amended. Ensure that all manufacturing processes for this material occur in the United States. As used in this specification, a manufacturing process is any process that modifies the chemical content, physical shape or size, or final finish of a product, beginning with the initial melding and mixing and continuing through the bending and coating stages. A manufactured steel or iron product is complete only when all grinding, drilling, welding, finishing and coating have been completed. If a domestic product is taken outside the United States for any process, it becomes foreign source material. When using steel and iron as a component of any manufactured product incorporated into the project (e.g., concrete pipe, prestressed beams, corrugated steel pipe, etc.), these same provisions apply, except that the manufacturer may use minimal quantities of foreign steel and iron when the cost of such foreign materials does not exceed 0.1% of the total Contract amount or $2,500, whichever is greater. These requirements are applicable to all steel and iron materials incorporated into the finished work, but are not applicable to steel and iron items that the Contractor uses but does not incorporate into the finished work. Provide a certification from the producer of steel or iron, or any product containing steel or iron as a component, stating that all steel or iron furnished or incorporated into the furnished product was manufactured in the United States in accordance with the requirements of this specification and the Buy America provisions of 23 CFR 635.410, as amended. Such certification shall also include (1) a statement that the product was produced entirely within the United States, or (2) a statement that the product was produced within the United States except for minimal quantities of foreign steel and iron valued at $ (actual value). Furnish each such certification to the Engineer prior to incorporating the material into the project. When FHWA allows the use of foreign steel on a project, furnish invoices to document the cost of such material, and obtain the Engineer's written approval prior to incorporating the material into the project.

6-5.3 Contaminated, Unfit, Hazardous, and Dangerous Materials: Do not use any material that, after approval and/or placement, has in any way become unfit for use. Do not use materials containing any substance that has been determined to be hazardous by the State of Florida Department of Environmental Protection or the U.S. Department of Environmental Protection. Provide workplaces free from serious recognized hazards and to comply with occupational safety and health standards, as determined by the U.S. Department of Labor Occupational Safety and Health Administration.

SECTION 7
LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC

7-1 Laws to be Observed.

7-1.1 General: Become familiar with and comply with all Federal, State, county, and city laws, by-laws, ordinances, and regulations that control the action or operation of those engaged

or employed in the work or that affect materials used. Pay particular attention called to the safety regulations promulgated by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). In addition, comply with Chapter 403, of the Florida Statutes, regarding control of air pollution. Direct special attention to that portion of Chapter 17-5 of the Rules and Regulations, pertaining to open burning in land clearing operations. Where work or structures included in the Contract are in "Navigable Waters of the U.S.," (reference 33 of the Code of Federal Regulations, Part 329); "Waters of the U.S.," (reference 33 of the Code of Federal Regulations, Parts 323 and 328); or "Waters of the State," (reference Part 4, Chapters 253 and 373 of the Florida Statutes and Section 62-340 of the Florida Administrative Code); comply with the regulatory provisions of Section 404 of the Federal Clean Water Act of 1977; Sections 9 and 10 of the Federal River and Harbor Act of 1899; Chapter 161 of the Florida Statutes; and any local authority having jurisdiction over such waters.

Comply with Part IV, Chapter 378, of the Florida Statutes regarding land reclamation. Direct special attention to Chapters 62c-36 and 62c-39 of the Florida Administrative Code. Submit the Notice of Intent to Mine to:

Department of Environmental Protection
Collins Building
2051 East Dirac Drive
Tallahassee, Florida 32310-3760

with a copy to the Engineer. The Engineer will determine consistency with the environmental documents prior to commencement of mining.

Obtain certification from the Construction Industry Licensing Board as required by Part I, Chapter 489, of the Florida Statutes, regardless of exemptions allowed by Section 489.103, prior to removing underground pollutant storage tanks. Dispose of tanks and pollutants in accordance with the requirements and regulations of any Federal, State, or local, agency having jurisdiction.

Prior to building construction or renovation, provide copies of current registrations or certifications issued by the Florida Construction Industry Licensing Board in accordance with Chapter 489, for the appropriate category of construction.

Corporations must be registered with the State of Florida, Department of State, Division of Corporations, and hold a current State Corporate Charter Number in accordance with Chapter 607, Florida Statutes.

The Contractor or the authorized subcontractor applying the roofing material must be licensed or be an approved dealer and applicator of the proposed roofing material.

Indemnify, defend, and save harmless the Department and all of its officers, agents, and employees, in the amount of the Contract price, against all claims or liability arising from or based on the violation of any such laws, by-laws, ordinances, regulations, order, or decrees; whether by himself or his employees.

The Contractor shall comply with all environmental permits, including measures identified in the National Pollutant Discharge Elimination System (NPDES) Stormwater Pollution Prevention Plan and Sediment and Erosion Control Plan for the work.

The Contractor shall exert every reasonable and diligent effort to ensure that all labor employed by the Contractor and his subcontractors for work on the project work harmoniously and compatibly with all labor used by other building and construction contractors now or hereafter on the site of the work covered by this Contract. Include this provision in all subcontracts, and require all subcontractors to include it in their subcontracts with others.

However, do not interpret or enforce this provision so as to deny or abridge, on account of membership or non-membership in any labor union or labor organization, the right of any person to work as guaranteed by Article I, Section 6 of the Florida Constitution.

Comply with Chapter 556 of the Florida Statutes during the performance of excavation or demolition operations.

The Executive Order 11246 Electronic version, dated September 24, 1965 is posted on the Department's website at the following URL address: http://www2.dot.state.fl.us/SpecificationsEstimates/Federal/deo11246.pdf. Take responsibility to obtain the information posted on this website up through five calendar days before the opening of bids and comply with the provisions contained in Executive Order 11246.

The FHWA-1273 Electronic version, dated March 10, 1994 is posted on the Department's website at the following URL address www.dot.state.fl.us/specificationsoffice/Implemented/URLinSpecs/Files/df1273.pdf . Take responsibility to obtain this information and comply with all requirements posted on this website up through five calendar days before the opening of bids.

Comply with the provisions contained in FHWA-1273 and certify monthly compliance with the EEO provisions of FHWA-1273 (Section II. Nondiscrimination and Section III. Non-segregated Facilities).

In addition to the requirements of FHWA-1273, Section V, No. 2(b), include gender and race of each employee in the weekly annotated payroll records.

Federal Regulations (29 CFR 3.5) states that Social Security numbers and addresses of employees shall not be included on submitted payrolls for contracts let after January 18, 2009. In lieu of a Social Security number, an employee identifying number must be listed. The employer may use the last four digits of the Social Security number or another assigned number as the employee identifying number.

If the Department's website cannot be accessed, contact the Department's Specifications Office Web Coordinator at (850) 414-4101.

7-1.2 Plant Quarantine Regulations: The U.S. Department of Agriculture and the Florida Department of Agriculture and Consumer Services have issued quarantine regulations pertaining to control of the nematodes of citrus, Rule 5B-44, Florida Administrative Code, and other plant pests. Contact the local (or other available) representatives of the Animal and Plant Health Inspection Service of the U.S. Department of Agriculture, and the Division of Plant Industry of the Florida Department of Agriculture and Consumer Services to ascertain all current restrictions regarding plant pests that are imposed by these agencies. Keep advised of current quarantine boundary lines throughout the construction period.

These restrictions may affect operations in connection with such items as clearing and grubbing, earthwork, grassing and mulching, sodding, landscaping, and other items which might involve the movement of materials containing plant pests across quarantine lines.

Obtain quarantine regulations and related information from the following:

Animal and Plant Health Inspection Service
U.S. Department of Agriculture
3031 Lake Alfred Road
Winter Haven, Florida 33881

Director, Division of Plant Industry
Florida Department of Agriculture and Consumer Services

Post Office Box 147100
Gainesville, Florida 32614-7100

7-1.3 Introduction or Release of Prohibited Aquatic Plants, Plant Pests, or Noxious Weeds: Do not introduce or release prohibited aquatic plants, plant pests, or noxious weeds into the project limits as a result of clearing and grubbing, earthwork, grassing and mulching, sodding, landscaping, or other such activities. Immediately notify the Engineer upon discovery of all prohibited aquatic plants, plant pests, or noxious weeds within the project limits. Do not move prohibited aquatic plants, plant pests, or noxious weeds within the project limits or to locations outside of the project limits without the Engineer's permission. Maintain all borrow material brought onto the project site free of prohibited aquatic plants, plant pests, noxious weeds, and their reproductive parts. Refer to Rule 6C-52 and Rule 5B-57, of the Florida Administrative Code for the definition of prohibited aquatic plants, plant pests, and noxious weeds.

7-1.4 Compliance with Federal Endangered Species Act and other Wildlife Regulations: The Federal Endangered Species Act requires that the Department investigate the potential impact to a threatened or endangered species prior to initiating an activity performed in conjunction with a highway construction project. If the Department's investigation determines that there is a potential impact to a protected, threatened or an endangered species, the Department will conduct an evaluation to determine what measures may be necessary to mitigate such impact. When mitigation measures and/or special conditions are necessary, these measures and conditions will be addressed on the plans or in permits as identified in 7-2.1.

In addition, in cases where certain protected, threatened or endangered species may unexpectedly be found or appear within close proximity to the project boundaries, the Department has established guidelines that will apply when interaction with certain species occurs, absent of any special mitigation measures or permit conditions otherwise identified for the project.

These guidelines are posted at the following URL address: http://www.dot.state.fl.us/specificationsoffice/Implemented/URLinSpecs/Files/endangeredwildlifeguidelines.pdf

Take responsibility to obtain this information and take all actions and precautions necessary to comply with the conditions of these guidelines during all project activities.

Prior to establishing any off-project activity in conjunction with a project, notify the Engineer of the proposed activity. Covered activities include but are not necessarily limited to borrow pits, concrete or asphalt plant sites, disposal sites, field offices, and material or equipment storage sites. Include in the notification the Financial Project ID, a description of the activity, the location of the site by township, range, section, county, and city, a site location map including the access route, the name of the property owner, and a person to contact to arrange a site inspection. Provide this notification sufficiently in advance of planned commencement of the off-site activity, to allow a reasonable period of time for the Engineer to conduct an investigation without delaying job progress.

Do not perform any off-project activity without obtaining written clearance from the Engineer. In the event the Department's investigation determines a potential impact to a protected, threatened or endangered species and mitigation measures or permits are necessary, coordinate with the appropriate resource agencies for clearance, obtain permits and perform mitigation measures as necessary. Immediately notify the Engineer in writing of the results of this coordination with the appropriate resource agencies. Additional compensation or time will

not be allowed for permitting or mitigation, associated with Contractor initiated off-project activities.

7-1.5 Occupational Safety and Health Requirements: Take all precautions necessary for the protection of life, health, and general occupational welfare of all persons, including employees of both the Contractor and the Department, until the Contractor has completed the work required under the Contract as provided in 5-10 and 5-11.

Comply at all times with applicable Federal, State, and local laws, provisions, and policies governing safety and health, including 29 CFR 1926, including all subsequent revisions and updates.

7-1.6 Discovery of an Unmarked Human Burial: When an unmarked human burial is discovered, immediately cease all activity that may disturb the unmarked human burial and notify the Engineer. Do not resume activity until specifically authorized by the Engineer.

7-1.7 Insecticides and Herbicides: Contact the Local County Extension Office for a list of approved Insecticides or Herbicides. Only use products registered with the Florida Department of Agriculture for use in the State of Florida. The use of restricted products is prohibited. Do not use any products in the sulfonylurea family of chemicals. Herbicide application by broadcast spraying is not allowed.

Procure any necessary licenses, pay all charges and fees, and give all notices necessary for lawful performance of the work.

Ensure that all employees applying insecticides and herbicides possess a current Florida Department of Agriculture Commercial Applicator license with the categories of licensure in Right-of-Way Pest Control and Aquatic Pest Control. Provide a copy of current certificates upon request, to the Engineer.

Comply with all regulations and permits issued by any regulatory agency within whose jurisdiction work is being performed. Post all permit placards in a protected, conspicuous location at the work site.

Acquire any permits required for work performed on the rights-of-way within the jurisdiction of National Forests in Florida. Contact the Local National Forest Ranger District, or the United States Department of Agriculture (USDA) office for the proper permits and subsequent approval.

Acquire all permits required for aquatic plant control as outlined in Chapter 62C-20, Florida Administrative Code, Rules of the Florida Department of Environmental Protection. Contact the Regional Field Office of Bureau of Invasive Plant Management of the Florida Department of Environmental Protection for proper permits and subsequent approval. If application of synthetic organo-auxin herbicides is necessary, meet the requirements of Chapter 5E-2, Florida Administrative Code.

Maintain all permits until work is accepted by the Department.

Complete daily herbicide reports on the forms provided by the Department for each location and submit to the Department weekly, when herbicide applications are occurring.

Adhere to all labeling instruction.

If damage to desirable vegetation occurs as a result of herbicide use, the Department will monitor the impacted vegetation to determine if damage is temporary or permanent. If the damage is determined to be permanent, replace damaged vegetation at no expense to the Department.

7-1.8 Compliance with Section 4(f) of the USDOT Act: Section 4(f) of the USDOT Act prohibits the U. S. Secretary of Transportation from approving a project which requires the use

of publicly owned land of a public park, recreation area or a wildlife and waterfowl refuge, or of any historic site of national, state, or local significance unless there is no prudent or feasible alternative to using that land and the program or project includes all possible planning to minimize the harm to the site resulting from the use.

Before undertaking any off-project activity associated with any federally assisted undertaking, ensure that the proposed site does not represent a public park, recreation area, wildlife or waterfowl refuge, or a historic site (according to the results of the Cultural Resources Survey discussed in 120-6.2). If such a site is proposed, notify the Engineer and provide a description of the proposed off-site activity, the Financial Project ID, the location of the site by township, range, section, a county or city map showing the site location and including the access route and the name of the property. It is the Contractor's responsibility to provide justification for use of Section 4(f) property that is sufficient for the Florida Department of Transportation and the Federal Highway Administration to make a Section 4(f) determination. Provide this notification sufficiently in advance of planned commencement of the off-site activity to allow a reasonable time for the Engineer to conduct an investigation without delaying job progress. Do not begin any off-project activity without obtaining written clearance from the Engineer.

7-1.9 Florida Minority Business Loan Mobilization Program: The Loan Mobilization Program is established by Section 288.706 of the Florida Statutes, and has as its goal to assist minority business enterprises by facilitating working capital loans to those eligible businesses that are Contractors or subcontractors on Department contracts.

The limits of such advances under this program shall be as specified in Section 288.706 of the Florida Statutes. In the case of a subcontractor, the amount of the advance will be based on the subcontract unit prices, not the contract unit prices.

All prime Contractor vendors shall be required to incorporate the designated loan mobilization payment procedures in subcontract agreements with minority business enterprise vendors participating in this program and to cooperate in the release of designated loan mobilization payments to achieve the objective of providing working capital for minority business enterprise subcontract vendors.

When the Contract has been awarded or, in the case of a subcontractor, a subcontract has been signed with the prime Contractor, application for participation in this program will be made in writing to the Engineer. Such application must be made prior to commencement of the work. If the application is made on behalf of a subcontractor, it shall be considered incomplete if not accompanied by a copy of the subcontract with the unit prices of the work clearly delineated.

When all applicable conditions have been met, approval for participation will be made by the Office of the Comptroller and the applicant will be notified of the approval action taken.

Once approval has been obtained and the Notice to Proceed has been issued, disbursement of the monies will be made at the request of the applicant. The designated loan mobilization payment may be paid prior to the commencement of work on the Contract. However, if the work on the Contract has not commenced and the payment has not been made, then the Contract Time may not commence until the payment is made. All designated loan mobilization payments will be made payable jointly to the prime Contractor and the participating financial institution. When a subcontractor is the participant in the program, such payments shall be paid to the participant within 10 business days after receipt of the funds from the Department.

Repayment of monies advanced through this program will be made after the value of the work accomplished by the participant reaches 50 percent. Contractors are encouraged to make weekly or bi-weekly payments to subcontractors participating in this program.

7-2 Permits and Licenses.

7-2.1 General: Except for permits procured by the Department, procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

Permits procured by the Department are posted on the Department's web site at the following URL address: ftp://ftp.dot.state.fl.us/permitsandorutilityworkschedules/.

Take responsibility to obtain this information and comply with all requirements posted on this web site up through five calendar days before the opening of bids.

Comply with the provisions contained in these permits. If the Department's web site cannot be accessed, contact the Department's Specifications Office Web Coordinator at (850) 414-4101.

Acquire all permits for work performed outside the right-of-way or easements for the project.

In carrying out the work in the Contract, when under the jurisdiction of any environmental regulatory agency, comply with all regulations issued by such agencies and with all general, special, and particular conditions relating to construction activities of all permits issued to the Department as though such conditions were issued to the Contractor. Post all permit placards in a protected location at the worksite.

In case of a discrepancy between any permit condition and other Contract Documents, the more stringent condition shall prevail.

7-2.2 Work or Structures in Navigable Waters of the U.S., Waters of the U.S., and Waters of the State: In general, one or more governmental agencies will exercise regulatory authority over work or structures, including related construction operations, in all tidal areas (Channelward of the mean high water lines on the Atlantic and Gulf Coast); in the ocean and gulf waters to the outer limits of the continental shelf; in all rivers, streams, and lakes to the ordinary high water line; in marshes and shallows that are periodically inundated and normally characterized by aquatic vegetation capable of growth and reproduction; in all artificially created channels and canals used for recreational, navigational, or other purposes that are connected to navigable waters; and in all tributaries of navigable waters up to their headwaters.

Whenever the work under or incidental to the Contract requires structures or dredge/fill/construction activities in "Navigable Waters of the U.S.," "Waters of the U.S.," and "Waters of the State," the Federal, State, county, and local regulatory agencies may require a permit.

Acquire any modifications or revisions to an original permit when such modifications or revisions are necessary to complete the construction operations specified in the Contract Documents and within the right-of-way limits.

Acquire all permits for work performed outside the right-of-way or easements for the project.

In carrying out the work in the Contract, when under the jurisdiction of any environmental regulatory agency, comply with all regulations issued by such agencies and with all general, special, and particular conditions relating to construction activities of all permits issued to the Department as though such conditions were issued to the Contractor. Post all permit placards in a protected location at the worksite.

In case of a discrepancy between any permit condition and other Contract Documents, the more stringent condition shall prevail.

The "State of Florida Department of Environmental Protection (DEP) Generic Permit for Stormwater Discharge from Large and Small Construction Activities" applies to this Contract. Obtain a copy of the permit through the Department's website and comply with the requirements of the permit. The URL for obtaining a copy of the permit is http://www.dot.state.fl.us/specificationsoffice/Implemented/URLinSpecs/Files/DEPPermit.pdf.

In accordance with the requirements of the DEP generic permit, accept responsibility for the following:

(a) Preparation, execution and submission of DEP Generic Permit Notice of Intent (NOI) and payment of associated fee(s)

(b) Preparation and submission of Erosion Control Plan as outlined in Section 104.

(c) Any Contractor initiated SWPPP modifications

(d) Performing inspections using a qualified inspector

(e) Completion of SWPPP construction inspection reports

(f) Executing associated certification forms provided by the Engineer

(g) Preparation, execution and submission of Notice of Termination (NOT) of the DEP Generic Permit coverage.

Use the SWPPP Construction Inspection Form provided by the Engineer to report all inspection findings and to document all corrective actions taken as a result of the inspection. Sign each inspection report and submit it weekly to the Engineer.

7-2.3 As-Built Drawings and Certified Surveys

7-2.3.1 Surface Water Management Systems for Water Management Districts: As a condition precedent to final acceptance of the project, submit to the Engineer three copies of as-built drawings and a certified survey verifying the as-built conditions for all installed and constructed surface water management systems. The as-built drawings and certified survey must satisfy all the requirements and special conditions listed in the Water Management District's Environmental Resource Permit (ERP) and any applicable local permit. The as-built drawings and certified survey must be signed and sealed by an appropriately licensed professional registered in the State of Florida.

If the ERP does not contain specific requirements, provide as-built drawings with the following information as a minimum:

1. Discharge structures: structure identification number, type, locations (latitude and longitude), dimensions and elevations of all, including weirs, bleeders, orifices, gates, pumps, pipes, and oil and grease skimmers.

2. Side bank and underdrain filters, or exfiltration trenches: locations, dimensions and elevations of all, including clean-outs, pipes, connections to control structures and points of discharge to receiving waters.

3. Storage areas for treatment and attenuation: storage area identification number, dimensions, elevations, contours or cross-sections of all, sufficient to determine stage-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems.

4. System grading: dimensions, elevations, contours, final grades or cross-sections to determine contributing drainage areas, flow directions and conveyance of runoff to the system discharge points.

5. Conveyance: dimensions, elevations, contours, final grades or cross-sections of systems utilized to divert off-site runoff around or through the new system.

6. Water levels: existing water elevations and the date determined.

7. Benchmarks: location and description (minimum of one per major water control structure).

7-2.3.2 Bridge Clearances for Projects under the Authority of a U.S. Coast Guard Permit: As a condition precedent to final acceptance of the project, submit to the Engineer a certified survey verifying the as-built clearances described in the U.S. Coast Guard Owner's Certification of Bridge Completion. The certified survey must be signed and sealed by a Professional Engineer or Professional Surveyor and Mapper registered in the State of Florida.

7-2.3.3 Projects Under the Authority of a U.S. Army Corps of Engineers Permit: As a condition precedent to final acceptance of the project, submit to the Engineer three copies of as-built drawings and a certified survey verifying the as-built conditions. The as-built drawings and certified survey must satisfy all of the requirements and special conditions listed in the U.S. Army Corps of Engineers permit. The as-built drawings and certified survey must be signed and sealed by a Professional Engineer or Professional Surveyor and Mapper registered in the State of Florida.

7-3 Patented Devices, Materials and Processes.

Include all royalties and costs arising from patents, trademarks, and copyrights, in any way involved in the work in the Contract price. Whenever using any design, device, material, or process covered by letters patent or copyright, obtain the right for such use by suitable legal agreement with the patentee or owner of the copyright. File a copy of such agreement with the Engineer. However, whether or not such agreement is made or filed as noted, the Contractor and the surety in all cases shall indemnify, defend, and save harmless, the Department from all claims for infringement by reason of the use of any such patented design, device, material, or process on work under the Contract, and shall indemnify the Department for all costs, expenses, and damages that it may be obliged to pay by reason of any such infringement, at any time during the prosecution or after the completion of the work.

7-4 Right-of-Way Furnished by the Department.

Except as otherwise stipulated in the Contract documents, the Department will furnish all rights-of-way necessary for the proper completion of the work at no expense to the Contractor.

7-4.1 Right-of-Way Furnished by the Department: Should Department-furnished areas for obtaining borrow material, contain limerock material; do not remove such material from the pit unless the Engineer gives specific approval.

7-4.2 Right-of-Way Furnished by the Contractor: Comply with the Department's Right of Way Manual for all right of way activities, with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, with 23 CFR 710, and with 49 CFR 24.

7-4.2.1 Notice to Commence Right of Way Acquisition: If right of way services are included in the Contract, the Department must issue a Notice to Commence Right of Way Acquisition prior to any offer being made to acquire right of way. Environmental approval (NEPA) and completion of right of way maps, title information and legal descriptions are required prior to the Notice to Commence being issued.

7-4.2.2 Notice to Commence Construction Activities: On Contracts that require additional right of way to be furnished by the Contractor, the Department must issue a Notice to

Commence Construction Activities prior to the start of any construction activities on the project or any portion thereof. This requirement is applicable whether the right of way services are included in the Design Build Contract or will be handled separately. The notice to commence may not be issued until such time as the right of way necessary to support those construction activities is acquired and a right of way certification for construction is issued.

7-4.2.3 Hold Off Zones Around Occupied Properties: At the time that a portion of a project is to be certified for construction, a determination of the need for hold off zones must be made by the Department. When a notice to commence construction activities has been issued on a portion of the project, there must be a provision in the Contract that requires a hold off zone between the property on which construction activities are to take place and any occupied properties adjacent thereto for which a notice to commence construction has not yet been issued. The notice to commence construction activities must also contain the details of the hold off zone, including the location and limits established by the Department. The location and the limits of the hold off zone must consider that for all occupied properties the Contractor must: maintain reasonable access; maintain utility services; not cause any excessive vibration, dust or noise; or have any open burning within 1,000 feet. The Department's Project Manager will make a decision regarding the extent of the hold off zone on a case-by-case basis with input from the Right of Way Project Manager and the design build firm.

7-4.2.4 Quality Assurance/Quality Control Plan: Provide a Right of Way Quality Assurance/Quality Control Plan. This plan must provide details of the right of way consultant's plan to control, monitor, report on and assure the quality of the delivery of the right of way services.

7-5 Restoration of Surfaces Opened by Permit.

Upon the presentation of a duly authorized and satisfactory permit that provides that all necessary repair work will be paid for by the party holding such permit, the Engineer may authorize the Contractor to allow parties bearing such permits to make openings in the highway. Upon the Engineer's written order, perform, in an acceptable manner, all necessary repairs due to such openings, and such necessary work that the Engineer orders, subject to the same conditions as the original work performed. The Department will pay the Contractor for such work either under applicable Contract items or in accordance with 4-3 when Contract items are not applicable.

7-6 Sanitary Provisions.

The Contractor shall provide and maintain, in a neat and sanitary condition, such accommodations for the use of his employees as are necessary to comply with the requirements and regulations of the State and local boards of health. Commit no public nuisance.

7-7 Control of the Contractor's Equipment.

7-7.1 Traffic Interference: Do not allow equipment, while it is on or traversing a road or street, to unreasonably interfere with traffic. The Contractor's equipment on Department right-of-way shall clearly and legibly identify the Design-Build Firm.

7-7.2 Overloaded Equipment: Do not operate on any road or street any hauling unit or equipment loaded in excess of (1) the maximum weights specified in the Florida Uniform Traffic Control Law, or (2) lower weights legally established for any section of road or bridge by the Department or local authorities. The governmental unit having jurisdiction over a particular road or bridge may provide exceptions by special permit under the provisions of 7-7.3. This restriction

applies to all roads and bridges inside and outside the Contract limits as long as these roads and bridges are open for public use. The Contractor may overload roads and bridges, which are to be demolished after they are permanently closed to the public. The Contractor is responsible for all loss or damages resulting from equipment operated on a structure permanently closed to the public.

7-7.3 Crossings: Where it is necessary to cross an existing road or street, including specifically the existing traveled lanes of a divided highway within the limits of the project; obtain permits from the Department, for crossing overloaded or oversized equipment. Cross-existing roads or streets only at Engineer-designated points. The Engineer may require the Contractor to protect the pavement or Roadway at the crossing by using lumber, planks, or fill. Provide flagging and watchman service, or approved signal devices, for the protection of traffic at all such crossings, in accordance with an approved written plan for that activity.

7-7.4 Protection from Damage by Tractor-Type Equipment: Take positive measures to ensure that tractor-type equipment does not damage the road. If any such damage should occur, repair it without delay, at no expense to the Department and subject to the Engineer's approval.

7-7.5 Contractor's Equipment on Bridge Structures: The Contractor's Engineer of Record shall analyze the effect of imposed loads on bridge structures, within the limits of a construction Contract, resulting from the following operations:

(1) Overloaded Equipment as defined in 7-7.2:

(a) Operating on or crossing over completed bridge structures.

(b) Operating on or crossing over partially completed bridge structures.

(2) Equipment within legal load limits:

(a) Operating on or crossing over partially completed bridge structures.

(3) Construction cranes:

(a) Operating on completed bridge structures.

(b) Operating on partially completed bridge structures.

Any pipe culvert(s) or box culvert(s) qualifying as a bridge under 1-3 is excluded from the requirements above.

A completed bridge structure is a bridge structure in which all elemental components comprising the load carrying assembly have been completed, assembled, and connected in their final position. The components to be considered shall also include any related members transferring load to any bridge structure.

The Contractor's Engineer of Record shall determine the effect that equipment loads have on the bridge structure and develop the procedures for using the loaded equipment without exceeding the structure's design load capacity.

Submit to the Department for approval eight copies of design calculations, layout drawings, and erection drawings showing how the equipment is to be used so that the bridge structure will not be overstressed. The Contractor's Engineer of Record shall sign and seal one set of the eight copies of the drawings and the cover sheet of one of the eight copies of the calculations for the Department's Record Set.

7-7.6 Posting of the Legal Gross Vehicular Weight: Display the maximum legal gross weight, as specified in the Florida Uniform Traffic Code, in a permanent manner on each side of any dump truck or dump type tractor-trailer unit hauling embankment material, construction aggregates, road base material, or hot bituminous mixture to the project over any public road or street. Display the weight in a location clearly visible to the scale operator, in numbers that

contrast in color with the background and that are readily visible and readable from a distance of 50 feet.

7-8 Structures over Navigable Waters.

7-8.1 Compliance with Federal and Other Regulations: Where erecting structures in, adjacent to, or over, navigable waters, observe all regulations and instructions of Federal and other authorities having control over such waters. Do not obstruct navigation channels without permission from the proper authority, and provide and maintain navigation lights and signals in accordance with the Federal requirements for the protection of the structure, of false work, and of navigation.

In the event of accidental blocking of the navigation channel, immediately notify the U.S. Coast Guard of the blockage and upon removal of the blockage. Submit work platform construction plans to the appropriate Coast Guard District for approval. Obtain approval prior to beginning construction on the platform.

7-8.2 Maintenance of Channel: Where the work includes the excavation of a channel or other underwater areas to a required section, maintain the section from shoaling or other encroachment until final acceptance of the project.

Submit work platform construction plans to the appropriate Coast Guard District for approval. Obtain approval prior to beginning construction on the platform.

7-9 Use of Explosives.

When using explosives for the prosecution of the work, exercise the utmost care not to endanger life or property, including new work. The Contractor is responsible for all damage resulting from the use of explosives.

Store all explosives in a secure manner in compliance with all laws and ordinances, and clearly mark all such storage places with the words: ”DANGEROUS - EXPLOSIVES”. Place such storage in the care of a competent watchman. Where no local laws or ordinances apply, provide storage satisfactory to the Engineer and, in general, not closer than 1,000 feet from the road or from any building, camping area, or place of human occupancy.

Notify each public utility company having structures in proximity to the site of the work of the intention to use explosives. Give such notice sufficiently in advance to enable the companies to take precautionary steps to protect their property from injury.

7-10 Forest Protection.

7-10.1 Compliance with State and Federal Regulations: In carrying out work within or adjacent to State or National forests or parks, comply with all of the regulations of the State or Federal authority having jurisdiction, governing the protection of and the carrying out of work in forests or parks, and observe all sanitary laws and regulations with respect to the performance of work in these areas. Keep the areas in an orderly condition, dispose of all refuse, and obtain permits for the construction, installation, and maintenance of any construction camps, living quarters, stores, warehouses, sanitary facilities, and other structures; all in accordance with the requirements of the forest or park official.

7-10.2 Prevention and Suppression of Forest Fires: Take all reasonable precautions to prevent and suppress forest fires. Require employees and subcontractors, both independently and at the request of forest officials, to do all reasonably within their power to prevent and suppress forest fires. Assist in preventing and suppressing forest fires, and make every possible effort to

notify a forest official at the earliest possible moment of the location and extent of all fires. Extinguish the fire if practicable.

7-11 Preservation of Property.

7-11.1 General: Preserve from damage all property, which is in the vicinity of or is in any way affected by the work, the removal or destruction of which is not specified in the Contract Documents. This applies to public and private property, public and private utilities (except as modified by the provisions of 7-11.6), trees, shrubs, crops, signs, monuments, fences, guardrail, pipe and underground structures, and public highways (except natural wear and tear of highway resulting from legitimate use thereof by the Contractor), etc., Whenever the Contractor's activities damage or injure such property, immediately restore it to a condition similar or equal to that existing before such damage occurred, at no expense to the Department.

Protect existing bridges during the entire construction period from damage caused by the construction operations or equipment. The Department will not require the Contractor to provide routine repairs or maintenance for such structures. However, immediately repair, at no expense to the Department, all damage occasioned by the construction operations. In the event that the Contractor's construction operations result in damage to a bridge requiring repairs, the Contractor shall make such repairs with any equipment, materials, or labor at the Contractor's disposal prior to continuing Contract work.

Direct special attention to the protection of all geodetic monuments, horizontal or vertical, located within the limits of construction.

7-11.2 Failure to Restore Damaged Property: In case of failure on the part of the Contractor to restore such property, bridge, road or street, or to make good such damage or injury, the Engineer may, upon 48 hours notice, proceed to repair, rebuild, or otherwise restore such property, road, or street as may be deemed necessary, and the Department will deduct the cost thereof from any monies due or which may become due the Contractor under the Contract. Nothing in this clause prevents the Contractor from receiving proper compensation for the removal, damage, or replacement of any public or private property, not shown on the plans, that is made necessary by alteration of grade or alignment. The Engineer will authorize such work, provided that the Contractor, or his employees or agents, have not, through their own fault, damaged such property.

7-11.3 Contractor's Use of Streets and Roads:

7-11.3.1 On Systems Other than the State Highway System: When hauling materials or equipment to the project over roads and bridges on the State park road system, county road system, or city street system, and such use causes damage, immediately, at no expense to the Department, repair such road or bridge to as good a condition as before the hauling began.

The Department may modify the above requirement in accordance with any agreement the Contractor might make with the governmental unit having jurisdiction over a particular road or bridge, provided that the Contractor submits written evidence of such agreement to the Engineer.

7-11.3.2 On the State Highway System: The Department is responsible for the repair of any damage that hauling materials to the site causes to roads outside the limits of the project, that are either on the State highway system (roads under the jurisdiction of the Department) or specifically designated in the Contract Documents as haul roads from Department-furnished material pits, except in the event damage is due to failure to comply with

7-7.2. The Contractor is responsible for all damages to any road or bridge caused by the Contractor's failure to comply with 7-7.2.

7-11.3.3 Within the Limits of a Construction Project: The Department will not allow the operation of equipment or hauling units of such weight as to cause damage to previously constructed elements of the project, including but not necessarily limited to bridges, drainage structures, base course, and pavement. Do not operate hauling units or equipment loaded in excess of the maximum weights specified in 7-7.2 on existing pavements that are to remain in place (including pavement being resurfaced), cement-treated subgrades and bases, concrete pavement, any course of asphalt pavement, and bridges. The Engineer may allow exceptions to these weight restrictions for movement of necessary equipment to and from its worksite, for hauling of offsite fabricated components to be incorporated into the project, and for crossings as specified in 7-7.3.

7-11.4 Traffic Signs, Signal Equipment, Highway Lighting and Guardrail: Protect all existing roadside signs, signal equipment, highway lighting and guardrail, for which permanent removal is not indicated, against damage or displacement. Whenever such signs, signal equipment, highway lighting or guardrail lie within the limits of construction, or wherever so directed by the Engineer due to urgency of construction operations, take up and properly store the existing roadside signs, signal equipment, highway lighting and guardrail and subsequently reset them at their original locations or, in the case of widened pavement or roadbed, at locations designated by the Engineer.

If the Department determines that damage to such existing installations of traffic signs, signal equipment, highway lighting or guardrail is caused by a third party(ies), and is not otherwise due to any fault or activities of the Contractor, the Department will, with the exception of any damage resulting from vandalism, compensate the Contractor for the costs associated with the repairs. Repair damage caused by vandalism at no expense to the Department.

Payment for repairs will be in accordance with 4-3.4.

7-11.5 Operations Within Railroad Right-of-Way:

7-11.5.1 Notification to the Railroad Company: Notify the superintendent of the railroad company, as shown on the plans, and the Engineer at least 72 hours before beginning any operation within the limits of the railroad right-of-way; any operation requiring movement of employees, trucks, or other equipment across the tracks of the railroad company at other than an established public crossing; and any other work that may affect railroad operations or property.

7-11.5.2 Contractor's Responsibilities: Comply with whatever requirements an authorized representative of the railroad company deems necessary in order to safeguard the railroad's property and operations. .The Contractor is responsible for all damages, delays, or injuries and all suits, actions, or claims brought on account of damages or injuries resulting from the Contractor's operations within or adjacent to railroad company right-of-way.

7-11.5.3 Watchman or Flagging Services: The railroad company will furnish protective services (i.e., watchman or flagging services) to ensure the safety of railroad operations during certain periods of the project. The Department will reimburse the railroad company for the cost thereof. Schedule work that affects railroad operations so as to minimize the need for protective services by the railroad company.

7-11.6 Utilities:

7-11.6.1 Arrangements for Protection or Adjustment: Not applicable.

7-11.6.2 Cooperation with Utility Owners: Not applicable.

7-11.6.3 Utility Adjustments: Not applicable.

7-11.6.4 Weekly Meetings: Conduct weekly meetings on the job site with all the affected utility companies and the Engineer in attendance to coordinate project construction and utility relocation.

Provide the approved Work Progress Schedule and Work Plan for the project, as specified in 8-3.2, to document the schedule and plan for road construction and utility adjustments.

7-11.6.5 General Requirements: The Design-Build Firm shall be responsible for coordinating with all existing utility companies that have facilities within the job limits or which will be affected in any way by the Project and for coordinating all utility work with the Project schedule. The Design-Build Firm shall make every attempt to design around existing utilities, minimizing impacts. Plans shall be provided to the Department showing existing and proposed utility locations and their relationship to the proposed construction. All utility work shall be done in accordance with the criteria and standards contained in the Department's Utility Accommodation Manual.

Pursuant to Section 337.11(7)(a), Florida Statutes, construction activities may not begin on any portion of the Project for which utility agreements have not yet been executed. Design/Build Agreements referenced in 7-11.6.6 below are sufficient to meet this requirement. For utilities where no Design-Build Agreement has been executed, a separate agreement between the utility and the Design-Build Firm must be executed in order to comply with this statutory requirement.

7-11.6.6 Design-Build Agreements: The Department has entered into Design-Build Utility Agreements with certain utility companies that may have utility facilities located within the limits of the Project. Copies of those agreements are provided to the Design-Build Firm as part of the Contract Documents. Those agreements govern the coordination and performance of the utility work for the Project as to the utility entities that have entered into them. The Design-Build Firm shall fully comply with all obligations of the Firm under those agreements.

The Design-Build Firm acknowledges and agrees that the Utility Agency Owners under those agreements are hereby made intended third party beneficiaries of this provision and the provisions of 7-11.6.10 with full rights of enforcement under that status as if they were a party to this Contract as to these provisions. This provision is made a part of the Contract notwithstanding Section 337.11(1), Florida Statutes, it being agreed by the Design-Build Firm and the Department that said statutory provision prohibits a non-party hereto from claiming incidental third party beneficiary rights, but does not prohibit the express creation of an intended third party beneficiary.

7-11.6.7 Utilities Without Design-Build Utility Agreements: The Department makes no representation that Design-Build Agreements have been executed with all utilities that have facilities located with the limits of the Project. For any utility that has not entered into a Design-Build Utility Agreement, the Design-Build Firm shall be responsible for performing or arranging for the performance of all utility work. The Design-Build Firm's responsibilities shall include, but shall not be limited to the following:

1. Locate, by physical exposure and establishment of both vertical and horizontal limits, all existing facilities within right-of-way limits or impacted by the Project not within right-of-way.

2. Notify and keep informed all Utility Agency/Owner of all relevant information related to their facilities.

3. Determine what work is necessary for utilities that are impacted, including, but not limited to:

a. Design around if possible,
b. Protect,
c. Adjust,
d. Relocate,
e. Remove.

4. Make arrangements for any work necessary, including entering into the required utility agreement.

5. Obtain necessary Department permits from all other applicable agencies, and otherwise comply with other applicable laws, including, but not limited to, one call obligations under Chapter 556, Florida Statutes.

6. Coordinate the issuance of utility permits within the project limits for new utility work not necessarily related to the Project in order to assure consistency with the Project.

7-11.6.8 Cost of Utility Work and Conflict Resolution: The Design-Build Firm shall not impact any utility except those identified in the Request for Proposal as being a utility allowed to be impacted by the Project. However, if the Design-Build Firm desires to impact a utility not identified in the Request for Proposal as being an impacted utility, the Design-Build Firm may do so if the utility agrees and there is no additional cost to the Department or time added to the Project as a result thereof. If the project cannot be constructed without impacting additional utilities and the cost of the utility work is not legally the responsibility of the utility, or if the Department's determination as set forth in the Request for Proposal that utility work is to be done at the expense of the utility is in error, the Department will bear the expense of any such utility work.

If a utility is not being impacted by the Project, but the utility owner desires to have utility work performed in connection with the Project, the cost of the utility work will be the responsibility of the utility company. It will be the Design-Build Firm's responsibility to coordinate and resolve all utility impacts with each of the utility companies. In the event of a dispute with or lack of corporation from a utility that does not arise out of or relate to an agreement between the Design Build Firm and the utility, the matter shall be referred to the Department for resolution.

7-11.6.9 Utility Schedules: The utility work to be accomplished concurrently with the highway construction Contract will involve facilities owned by other agencies. Utility Schedules (Utility Relocation and/or Work Schedules) for these agencies may have already been developed. Any existing Utility Schedules are posted on the Department's web site at the following URL address: ftp://ftp.dot.state.f.us/permitsandorutilityworkschedules/ .

Take responsibility to obtain this information and comply with all requirements posted on this web site up through five calendar days before the opening of bids.

Where utility work must be coordinated with highway construction operations, the Department makes no guarantee that any portion of the anticipated utility work will begin on the day highway construction commences nor does the Department guarantee that such work will be performed on consecutive days.

The anticipated scheduling of new work, adjustments and/or relocation work is included on the Utility Schedules. More precise scheduling to accomplish utility work in the most expeditious manner that is feasible will be established at the preconstruction conference

as provided in 8-3.5. The Utility Schedules must be used in conjunction with the utility sheets included in the roadway plans. If the Department's web site cannot be accessed, contact the Department's Specifications office Web Coordinator at (850) 414-4101.

7-11.6.10 Claims Due to Utility Work: No payment, compensation or adjustment of any kind (other than extensions of time for completion as may be otherwise granted pursuant to other provisions of the Contract Documents) shall be made to the Contractor for damages because of hindrances or delays arising out of or connected with the performance of utility work for the project except as a third party beneficiary against a utility entity only as allowed pursuant to the terms and conditions of any Design-Build Utility Agreements that may exist for the project, regardless of the cause of such hindrance or delays and whether such hindrances or delays be avoidable or unavoidable, and the Contractor agrees that it will make no claim for compensation, damages or mitigation of liquidated damages for any such hindrances or delays and will accept any extension of time otherwise granted pursuant to other provisions of the Contract Documents as full satisfaction for such hindrances or delays, except as a third party beneficiary against a utility entity only as allowed pursuant to the terms and conditions of any Design-Build Utility Agreements that may exist for the project; provided that nothing herein shall obligate the Department to grant an extension of time not otherwise due and the failure of the Contractor to be granted an extension of time shall not create any entitlement to compensation, damages or mitigation of liquidated damages.

7-12 Responsibility for Damages, Claims, etc.

7-12.1 Contractor to Provide Indemnification: The Contractor shall indemnify and hold harmless the Department, its officers and employees from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of the construction Contract.

It is specifically agreed between the parties executing this Contract that it is not intended by any of the provisions of any part of the Contract to create in the public or any member thereof, a third party beneficiary hereunder, or to authorize anyone not a party to this Contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Contract.

7-12.2 Guaranty of Payment for Claims: The Contractor guaranties the payment of all just claims for materials, supplies, tools, or labor and other just claims against him or any subcontractor, in connection with the Contract. The Department's final acceptance and payment does not release the Contractor's bond until all such claims are paid or released.

7-13 Insurance.

7-13.1 Workers' Compensation Insurance: Provide Workers' Compensation Insurance in accordance with the laws of the State of Florida and in amounts sufficient to secure the benefits of the Florida Workers' Compensation Law for all employees. If subletting any of the work, ensure that the employees of the subcontractors are covered by similar insurance. Ensure that any equipment rental agreements that include operators who are employees of independent Contractors, sole proprietorships or partners are covered by similar insurance. The Engineer will accept equivalent approved protection in lieu of insurance.

7-13.2 Contractors' Public Liability and Property Damage Liability Insurance: Furnish evidence to the Department that, with respect to the operations performed, regular Contractors' Public Liability Insurance providing for a limit of not less than $1,000,000 for all

damages arising out of bodily injuries to, or death of, one person and, subject to that limit for each person, a total limit of $5,000,000 for all damages arising out of bodily injuries to, or death of, two or more persons in any one occurrence; and regular Contractors' Property Damage Liability Insurance providing for a limit of not less than $50,000 for all damages arising out of injury to, or destruction of, property in any one occurrence and, subject to that limit per occurrence, a total (or aggregate) limit of $100,000 for all damages arising out of injury to, or destruction of, property during the policy period is carried.

Cause the Department to be an additional insured party on the Contractor's Public Liability and Property Damages Liability Insurance policies that insure the Contractor for the described work that it performs under the Contract.

7-13.3 Contractors' Protective Public Liability and Property Damage Liability Insurance: Furnish evidence to the Department that, with respect to the operations performed by subcontractors, regular Contractors' Protective Public Liability Insurance providing for a limit of not less than $1,000,000 for all damages arising out of bodily injuries to, or death of, one person and, subject to that limit for each person, a total limit of $5,000,000 for all damages arising out of bodily injuries to, or death of, two or more persons in any one occurrence; and regular Contractors' Protective Property Damage Liability Insurance providing for a limit of not less than $50,000 for all damages arising out of injury to, or destruction of, property in any one occurrence and, subject to that limit per occurrence, a total (or aggregate) limit of $100,000 for all damages arising out of injury to, or destruction of, property during the policy period is carried.

Cause the Department to be an additional insured party on the Contractor's Protective Public Liability and Property Damage Liability Insurance policies that insure the Contractor for the described work that it performs under the Contract.

7-13.4 Insurance Required for Construction at Railroads:

7-13. 4.1 General: In addition to any other forms of insurance or bonds required under the terms of the Contract, when the Contract includes the construction of a railroad grade crossing, overpass, or underpass structure, or a railroad crossing signal installation, or any other work or operations by the Contractor within the limits of the railroad right-of-way, including any encroachments thereon from work or operations in the vicinity of the railroad right-of-way, provide insurance of the types set forth below and in amounts not less than specified herein.

7-13.4.2 Railroads' Protective Public Liability and Property Damage Liability Insurance: Furnish the Department with an original insurance policy that, with respect to the operations performed, will provide for and in behalf of the railroad company regular liability insurance providing coverage for bodily injury, death, and property damage limited to a combined single limit of $2,000,000 per occurrence with an aggregate limit of $6,000,000 for the term of the policy.

7-13.5 Insurance for Protection of Utility Owners: When the work under the Contract involves work on or in the vicinity of utility-owned property or facilities, furnish the Department with evidence that, with respect to the operations performed, General Comprehensive Liability Insurance or its equivalent providing for a limit of not less than $1,000,000 for bodily injury or death to person(s) per occurrence and $300,000 property damage each occurrence is carried. The Department and Utility Company are to be Additional Named Insured, and the policy will be primary to any coverage maintained by the Department or Company. Do not make any material change or cancellation to the policy without providing the Department with ten days prior written notice.

7-13.6 Submission and Approval of Policies; Termination: Certificates of such insurance shall be filed at the time of Contract execution with the District Contracts Administrator. These certificates shall contain a provision that coverages afforded under the polices will not be canceled until at least thirty (30) days after the Department accepts the work.

7-13.7 Professional Liability: The Design-Build Firm shall have and maintain during the period of this Contract, professional liability insurance policy or policies with a company or companies authorized to do business in the State of Florida, affording professional liability coverage for the professional services to be rendered in accordance with this Agreement in the following amounts:

Total D-B Contract Price	Minimum Coverage Limits
Up to $30 Million	$1 Million coverage
$30 to $75 Million	$2 Million coverage
More than $75 Million	$5 Million coverage

7-14 Contractor's Responsibility for Work.

Until the Department's acceptance of the work, take charge and custody of the work, and take every necessary precaution against injury or damage to the work by the action of the elements or from any other cause whatsoever, arising either from the execution or from the nonexecution of the work. Rebuild, repair, restore, and make good, without additional expense to the Department, all injury or damage to any portion of the work occasioned by any of the above causes before its completion and acceptance, except that in case of extensive or catastrophic damage, the Department may, at its discretion, reimburse the Contractor for the repair of such damage due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to Acts of God, of the public enemy, or of governmental authorities.

7-15 Opening Sections of Highway to Traffic.

Whenever any bridge or section of roadway is in acceptable condition for travel, the Engineer may direct the Contractor to open it to traffic. The Department's direction to open a bridge or roadway does not constitute an acceptance of the bridge or roadway, or any part thereof, or waive any Contract provisions. Perform all necessary repairs or renewals, on any section of the roadway or bridge thus opened to traffic under instructions from the Engineer, due to defective material or work or to any cause other than ordinary wear and tear, pending completion and the Engineer's acceptance of the roadway or bridge, or other work, at no expense to the Department.

7-16 Wage Rates for Federal-Aid Projects.

For Contracts that include Federal Aid Participation, payment of predetermined minimum wages applies.

The U.S. Department of Labor (USDOL) Wage Rates applicable to this Contract are listed in Wage Rate Decision Number(s) **FL 223 & FL 236**, as modified up through ten days prior to the opening of bids.

Obtain the applicable General Decision(s) (Wage Tables) through the Department's Office of Construction website and ensure that employees receive the minimum compensation applicable. Review the General Decisions for all classifications necessary to complete the project. Request additional classifications through the Engineer's office when needed.

For guidance on the requirements for the payment of wages and benefits and the submittal of certified payrolls, and for general guidance and examples of multiple wage rates when assigned to a Contract, refer to the Department's Office of Construction website. Questions regarding wage rates and the applicability of wage tables should be submitted in accordance with 2-4.

Contact the Department's Wage Rate Coordinator at (850) 414-4492 if the Department's website cannot be accessed or there are questions.

7-17 Supplemental Agreements.

Section 337.11 of the Florida Statutes as amended, which prescribe certain limitations on the use of supplemental agreements, are a part of the Contract.

7-18 Scales for Weighing Materials.

7-18.1 Applicable Regulations: When determining the weight of material for payment, use scales meeting the requirements of Chapter 531 of Florida Statutes, pertaining to specifications, tolerances, and regulations, as administered by the Bureau of Weights and Measures of the Florida Department of Agriculture.

7-18.2 Base for Scales: Place such scales on a substantial horizontal base to provide adequate support and rigidity and to maintain the level of the scales.

7-18.3 Protection and Maintenance: Maintain all scale parts in proper condition as to level and vertical alignment, and fully protect them against contamination by dust, dirt, and other matter that might affect their operation.

7-19 Source of Forest Products.

As required by Section 255.20 of the Florida Statutes, where price and quality are equal, and when available, use only timber, timber piling, or other forest products that are produced and manufactured in the State of Florida. This provision does not apply to Federal-aid projects.

7-20 Regulations of Air Pollution from Asphalt Plants.

7-20.1 General: Perform all work in accordance with all Federal, State, and local laws and regulations regarding air pollution and burning. In particular, pay attention to Chapters 17-2 and 17-5 of the Rules and Regulations of the Department of Environmental Protection, and to any part of the State Implementation Plan applicable to the project. See also 110-9.2 regarding burning of debris.

7-20.2 Dust Control: Ensure that excessive dust is not transported beyond the limits of construction in populated areas. The Contractor may control dust for embankments or other cleared or unsurfaced\ areas by applying water or calcium chloride, as directed by the Engineer. Use calcium chloride in accordance with 102-5. Install mulch, seed, sod, or temporary paving as early as practical. Control dust during the storage and handling of dusty materials by wetting, covering, or other means as approved by the Engineer.

7-20.3 Asphalt Material: Use only emulsified asphalt, unless otherwise stated in the plans and allowed by Chapter 17-2 of the Rules and Regulations of the Department of Environmental Protection. Store and handle asphalt materials and components so as to minimize unnecessary release of hydrocarbon vapors.

7-20.4 Asphalt Plants: Operate and maintain asphalt plants in accordance with Chapter 17-2 of the Rules and Regulations of the Department of Environmental Protection. Provide the plant site with a valid permit as required under Chapter 17-2 prior to start of work.

7-21 Dredging and Filling.

Section 370.033 of the Florida Statutes, requires that all persons, who engage in certain dredge or fill activities in the State of Florida, obtain a certificate of registration from the Florida Department of Environmental Protection, Tallahassee, Florida 32301, and that they keep accurate logs and records of all such activities for the protection and conservation of the natural resources. Obtain details as to the application of this law from the Department of Environmental Protection.

7-22 Available Funds.

For Contracts in excess of $25,000 or a term for more than one year, comply with the following provisions of Chapter 339 of the Florida Statutes:

The Department will not, during any fiscal year, expend money, incur any liability, or enter into any Contract that, by its terms, involves the expenditures of money in excess of the amounts budgeted as available for expenditure during such fiscal year. If the Department enters into such a Contract, verbal or written, in violation of this subsection, such Contract is null and void, and the Department will not make any payments thereon. The Department will require a statement from the Department's comptroller that funds are available prior to entering into any such Contract or other binding commitment of funds. Nothing herein contained prevents the Department from executing Contracts for a period exceeding one-year, but the Department will make such Contracts executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years. The Department will incorporate this paragraph verbatim in all Contracts in excess of $25,000 or having a term for more than one year.

7-23 Contractor's Motor Vehicle Registration.

The Contractor shall provide the Department with proof that all motor vehicles operated or caused to be operated by such Contractor is registered in compliance with Chapter 320 of the Florida Statutes. Submit such proof of registration in the form of a notarized affidavit to the Department.

The Department will not make payment to the Contractor until the required proof of registration is on file with the Department.

If the Contractor fails to register any motor vehicle that he operates in Florida, pursuant to Chapter 320 of the Florida Statutes, the Department may disqualify the Contractor from bidding, or the Department may suspend and revoke the Contractor's certificates of qualification.

7-24 Disadvantaged Business Enterprise Program.

7-24.1 Disadvantaged Business Enterprise Affirmative Action Plan: Prior to award of the Contract, have an approved Disadvantaged Business Enterprise (DBE) Affirmative Action Program Plan filed with the Equal Opportunity Office. Update and resubmit the plan every three years. No Contract will be awarded until the Department approves the Plan. The DBE Affirmative Action Program Plan is incorporated into and made a part of the Contract.

7-24.2 Required Contract and Subcontract DBE Assurance Language: In accordance with 49 CFR 26.13 (b), the Contract FDOT signs with the Contractor (and each subcontract the prime contractor signs with a subcontractor) must include the following assurance: "The Contractor, sub-recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted Contracts. Failure by the Contractor to carry out these requirements is a material breach of this

Contract, which may result in the termination of this Contract or such other remedy as the recipient deems appropriate."

7-24.3 Plan Requirements: Include the following in the DBE Affirmative Action Program Plan:

(a) A policy statement, signed by an authorized representative (president, chief executive officer, or chairman of the contractor), expressing a commitment to use DBEs in all aspects of contracting to the maximum extent feasible, outlining the various levels of responsibility, and stating the objectives of the program. Circulate the policy statement throughout the Contractor's organization.

(b) The designation of a Liaison Officer within the Contractor's organization, as well as support staff, necessary and proper to administer the program, and a description of the authority, responsibility, and duties of the Liaison Officer and support staff. The Liaison Officer and staff are responsible for developing, managing, and implementing the program on a day-to-day basis for carrying out technical assistance activities for DBEs and for disseminating information on available business opportunities so that DBEs are provided an equitable opportunity to participate in Contracts let by the Department.

(c) Utilization of techniques to facilitate DBE participation in contracting activities which include, but are not limited to:

1. Soliciting price quotations and arranging a time for the review of plans, quantities, specifications, and delivery schedules, and for the preparation and presentation of quotations.

2. Providing assistance to DBEs in overcoming barriers such as the inability to obtain bonding, financing, or technical assistance.

3. Carrying out information and communication programs or workshops on contracting procedures and specific contracting opportunities in a timely manner, with such programs being bilingual where appropriate.

4. Encouraging eligible DBEs to apply for certification with the Department.

5. Contacting Minority Contractor Associations and city and county agencies with programs for disadvantaged individuals for assistance in recruiting and encouraging eligible DBE contractors to apply for certification with the Department.

7-24.4 DBE Records and Reports: Submit the Anticipated DBE Participation Statement at or before the Pre-Construction Conference. Report monthly, through the Equal Opportunity Reporting System on the Department's Website, actual payments (including retainage) made to DBEs for work performed with their own workforce and equipment in the area in which they are certified. Report payments made to all DBE and Minority Business Enterprise (MBE) subcontractors and DBE and MBE construction material and major suppliers. The Equal Opportunity Office will provide instructions on accessing this system. Develop a record keeping system to monitor DBE affirmative action efforts which include the following:

(a) the procedures adopted to comply with these Specifications;

(b) the number of subordinated Contracts on Department projects awarded to DBEs;

(c) the dollar value of the Contracts awarded to DBEs;

(d) the percentage of the dollar value of all subordinated Contracts awarded to DBEs as a percentage of the total Contract amount;

(e) a description of the general categories of Contracts awarded to DBEs; and

(f) the specific efforts employed to identify and award Contracts to DBEs.

Upon request, provide the records to the Department for review.

Maintain all such records for a period of five years following acceptance of final payment and have them available for inspection by the Department and the Federal Highway Administration.

7-24.5 Counting DBE Participation and Commercially Useful Functions: 49 CFR Part 26.55 specifies when DBE credit shall be awarded for work performed by a DBE . DBE credit can only be awarded for work actually performed by DBEs themselves for the types of work for which they are certified. On the Anticipated DBE Participation Statement only include the dollars that a DBE is expected to earn for work they perform with their own workforce and equipment. Submit a revised Anticipated DBE Participation Statement to reflect changes to the initial Anticipated DBE Participation Statement within 14 business days from the date of the change.

When a DBE participates in a contract, the value of the work is determined in accordance with 49 CFR Part 26.55, for example:

(a) The Department will count only the value of the work performed by the DBE toward DBE goals. The entire amount of the contract that is performed by the DBE's own forces (including the cost of supplies, equipment and materials obtained by the DBE for the contract work) will be counted as DBE credit.

(b)The Department will count the entire amount of fees or commissions charged by the DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services or for providing bonds or insurance specifically required for the performance of a Department-assisted contract, toward DBE goals, provided that the Department determines the fees to be reasonable and not excessive as compared with fees customarily followed for similar services.

(c) When the DBE subcontracts part of the work of its contract to another firm, the Department will count the value of the subcontracted work only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.

(d) When a DBE performs as a participant in a joint venture, the Department will count the portion of the dollar value of the contract equal to the distinct, clearly defined portion of the work the DBE performs with its own forces toward DBE goals.

(e) The Contractors shall ensure that only expenditures to DBEs that perform a commercially useful function in the work of a contract may be counted toward the voluntary DBE goal.

(f) A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.

(g) To determine whether a DBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

(h) A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

(i) If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own workforce, or if the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the DBE has not performed a commercially useful function.

7-24.6 Prompt Payments: Meet the requirements of 9-5 for payments to all DBE subcontractors.

7-25 On-The-Job Training Requirements.

As part of the Contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journeymen in the type(s) of trade or job classification(s) involved in the work. In the event the Contractor subcontracts a portion of the Contract work, he/she shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this Special Provision. The Contractor shall apply the requirements of this Training Special Provision to such subcontract. Where feasible, 25% of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees will be estimated on the number of calendar days of the Contract, the dollar value, and the scope of work to be performed. The trainee goal will be finalized at a Post-Preconstruction Trainee Evaluation Meeting and the goal will be distributed among the work classifications based on the following criteria:

1) Determine the number of trainees on Federal Aid Contract:

(a) No trainees will be required for Contracts with a Contract Time allowance of less than 225 calendar days.

(b) If the Contract Time allowance is 225 calendar days or more, the number of trainees shall be established in accordance with the following chart:

Estimated Contract Amount	Trainees Required
Under $1,000,000	0
Over $1,000,000 to $4,000,000	2
Over $4,000,000 to $6,000,000	3
Over $6,000,000 to $12,000,000	5
Over $12,000,000 to $18,000,000	7
Over $18,000,000 to $24,000,000	9
Over $24,000,000 to $31,000,000	12
Over $31,000,000 to $37,000,000	13
Over $37,000,000 to $43,000,000	14
Over $43,000,000 to $49,000,000	15
Over $49,000,000 to $55,000,000	16
Over $55,000,000 to $62,000,000	17
Over $62,000,000 to $68,000,000	18

Estimated Contract Amount	Trainees Required
Over $68,000,000 to $74,000,000	19
Over $74,000,000 to $81,000,000	20
Over $81,000,000 to $87,000,000	21
Over $87,000,000 to $93,000,000	22
Over $93,000,000 to $99,000,000	23
Over $99,000,000 to $105,000,000	24
Over $105,000,000 to $112,000,000	25
Over $112,000,000 to $118,000,000	26
Over $118,000,000 to $124,000,000	27
Over $124,000,000 to $130,000,000	28
Over $130,000,000 to *	
*One additional trainee per $6,000,000 of estimated Construction Contract amount over $130,000,000	

Further, if the Contractor or subcontractor requests to utilize banked trainees as discussed later in this Special Provision, a Banking Certificate will be validated at this meeting allowing credit to the Contractor for previously banked trainees. Banked credits of prime Contractors working as Subcontractors may be accepted for credit. The Contractor's Project Manager, the Construction Project Engineer and the Department's District Contract Compliance Manager will attend this meeting. Within ten days after the Post-Preconstruction Training Evaluation Meeting, the Contractor shall submit to the Department for approval an On-The-Job Training Schedule indicating the number of trainees to be trained in each selected classification and the portion of the Contract Time during which training of each trainee is to take place. This schedule may be subject to change if the following occur:

1. When a start date on the approved On-The-Job Training Schedule has been missed by 14 or more days;
2. When there is a change(s) in previously approved classifications;
3. When replacement trainees are added due to voluntary or involuntary termination

The revised schedule will be resubmitted to and approved by the Department's District Contract Compliance Manager.

The following criteria will be used in determining whether or not the Contractor has complied with this Training Special Provision as it relates to the number of trainees to be trained:

1. Full credit will be allowed for each trainee that is both enrolled and satisfactorily completes training on this Contract. Credit for trainees, over the established number for this Contract, will be carried in a "bank" for the Contractor and credit will be allowed for those surplus trainees in subsequent, applicable projects. A "banked" trainee is described as an employee who has been trained on a project, over and above the established goal, and for which the Contractor desires to preserve credit for utilization on a subsequent project.
2. Full credit will be allowed for each trainee that has been previously enrolled in the Department's approved training program on another Contract and continues training in the same job classification for a significant period and completes his/her training on this Contract.
3. Full credit will be allowed for each trainee who, due to the amount of work available in his/her classification, is given the greatest practical amount of training on the Contract regardless of whether or not the trainee completes training.

4. Full credit will be allowed for any training position indicated in the approved On-The-Job Training Schedule, if the Contractor can demonstrate that he/she has made his/her good faith effort to provide training in that classification.

5. No credit will be allowed for a trainee whose employment by the Contractor is involuntarily terminated unless the Contractor can clearly demonstrate good cause for this action.

The Contractor shall, as far as is practical, comply with the time frames established in the approved On-The-Job Training Schedule. When this proves to be impractical, a revised schedule shall be submitted and approved as provided above.

Training and upgrading of minorities, women and economically disadvantaged persons toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. If a non-minority male is enrolled into On-The-Job Training, the On-The-Job Training Notification of Personnel Action Form notifying the District Contract Compliance Manager of such action shall be accompanied by a disadvantaged certification or a justification for such action acceptable to the Department's District Contract Compliance Manager. The Contractor will be given an opportunity and will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training is not intended, and shall not be used, to discriminate against any applicant for training, whether a minority, woman or disadvantaged person.

No employee shall be employed as a trainee in any classification in which he/she has successfully completed a training course leading to journeyman status, has been employed as a journeyman, or has had extensive experience in the classification being considered for training. The Contractor shall satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established at the Post-Preconstruction Trainee Evaluation Meeting and approved by the Department. Graduation to journeyman status will be based upon satisfactory completion of a Proficiency Demonstration set up at the completion of training and established for the specific training classification, completion of the minimum hours in a training classification range, and the employer's satisfaction that the trainee does meet journeyman status in the classification of training. Upon reaching journeyman status, the following documentation must be forwarded to the District Contract Compliance Office:

Trainee Enrollment and Personnel Action Form

Proficiency Demonstration Verification Form indicating completion of each standard established for the classification signed by representatives of both the Contractor and the Department; and

A letter stating that the trainee has sufficiently progressed in the craft and is being promoted to journeyman status.

The Department and the Contractor shall establish a program that is tied to the scope of the work in the project and the length of operations providing it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classifications concerned, by at least, the minimum hours

prescribed for a training classification. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal Aid Highway Construction Contract. Approval or acceptance of a training schedule shall be obtained from the Department prior to commencing work on the classifications covered by the program.

A voluntary On-The-Job Training Program is available to a Contractor, which has been awarded a State funded project. Through this program, the Contractor will have the option to train employees on State funded projects for "banked credit" as discussed previously in this provision, to be utilized on subsequent Federal Aid Projects where training is required. Those Contractors availing themselves of this opportunity to train personnel on state funded projects and bank trainee hours for credit shall comply with all training criteria set forth in this Section for Federal Aid Projects; voluntary banking may be denied by the Department if staff is not available to monitor compliance with the training criteria.

It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial type positions. Training is permissible in positions such as office engineers, estimators, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the District Contract Compliance Office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not compromise a significant part of the overall training.

When approved in advance by the District Contract Compliance Manager, credit will be given for training of persons in excess of the number specified herein under the current Contract or a Contractor will be allowed to bank trainees who have successfully completed a training program and may apply those trainees to a training requirement in subsequent project(s) upon approval of the Department's District Contract Compliance Manager. This credit will be given even though the Contractor may receive training program funds from other sources, provided such other source do not specifically prohibit the Contractor from receiving other form of compensation. Credit for offsite training indicated above may only be made to the Contractor where he does one or more of the following and the trainees are concurrently employed on a Federal Aid Project; contributes to the cost of the training, provides the instruction to the trainee and pays the trainee's wages during the offsite training period. No credit shall be given to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman for a period ample enough to allow the employee time to gain experience in the training classification or failure to continue training the employee time to gain experience in the training classifications is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirements of this Section.

The Contractor shall compensate the trainee at no less than the laborer rate established in the Contract at the onset of training. This compensation rate will be increased to the journeyman's wage for that classification upon graduation from the training program.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed. The Contractor shall enroll a trainee in one training

classification at a time to completion before the trainee can be enrolled in another classification on the same project.

The Contractor shall maintain records to document the actual hours each trainee is engaged in training on work being performed as a part of this Contract.

The Contractor shall submit to the District Contract Compliance Manager a copy of an On-The-Job Training Notification of Personnel Action form no later than seven days after the effective date of the action when the following occurs: a trainee is transferred on the project, transferred from the project to continue training on another Contract, completes training, is upgraded to journeyman status or voluntary terminates or is involuntary terminated from the project.

The Contractor shall furnish to the District Contract Compliance Manager a copy of a Monthly Time Report for each trainee. The Monthly Time Report for each month shall be submitted no later than the tenth day of the subsequent month. The Monthly Time Report shall indicate the phases and sub-phases of the number of hours devoted to each.

Highway or Bridge Carpenter Helper, Mechanic Helper, Rodman/Chainman, Timekeeper, trainees will not be approved for the On-The-Job Training Program.

Painters, Electricians, and Mechanics are identified as crafts under-utilized by minorities. All training classifications except Laborers are identified as under-utilized by females.

Priority selection should also include those crafts under-utilized and/or void of minorities and/or female by that particular company's workforce.

If the Contractor does not select a training classification that has been targeted as an underutilized craft, and those classifications can be used for the selection of training for this project, the On-The-Job Training Schedule will not be approved unless written justification for exceptions is attached.

7-26 Equal Employment Opportunity Requirements. (Non-Federal Aid Projects)

7-26.1 Equal Employment Opportunity Policy: Accept as the operating policy, the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their age, race, color, religion, national origin, sex, or disability and to promote the full realization of equal employment opportunity through a positive continuing program: "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their age, race, religion, color, national origin, sex, or disability. Such action must include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

7-26.2 Equal Employment Opportunity Officer: Designate and make known to the Department's contracting officers an equal employment opportunity officer (hereinafter referred to as the EEO Officer) who must be capable of effectively administering and promoting an active Contractor program employment opportunity and who must be assigned adequate authority and responsibility to do so.

7-26.3 Dissemination of Policy: All members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor's equal employment opportunity policy and contractual responsibilities.

7-26.4 Recruitment: When advertising for employees, include in all advertisements for employees the notation "An Equal Opportunity Employer".

7-26.5 Personnel Actions: Establish and administer wages, working conditions, employee benefits, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination without regard to age, race, color, religion, national origin, sex, or disability. Follow the following procedures:

(1) Conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

(2) Periodically evaluate the spread of wages paid with each classification to determine any evidence of discriminatory wage practices.

(3) Periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action must include all affected persons.

(4) Investigate all complaints of alleged discrimination made in connection with obligations under this Contract, attempt to resolve such complaints, and take appropriate corrective action. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action must include such other persons. Upon completion of each investigation inform every complainant of all of the avenues of appeal.

7-26.6 Subcontracting: Use the best efforts to ensure subcontractor compliance with their equal employment opportunity policy.

7-26.7 Records and Reports: Keep such records as are necessary to determine compliance with the equal employment opportunity obligations. The records kept will be designed to indicate the following:

(1) The number of minority and non-minority group members employed in each work classification on the project.

(2) The progress and efforts being made in cooperation with unions to increase minority group employment opportunities (applicable only to Contractors who rely in whole or in part on unions as a source of their work force).

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority group employees as deemed appropriate to comply with their Equal Employment Opportunity Policy.

(4) The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority group representation among their employees as deemed appropriate to comply with their Equal Employment Opportunity Policy. All such records must be retained for a period of three years following completion of the Contract work and be available at reasonable times and places for inspection by authorized representatives to the Department and the Federal Highway Administration. Upon request, submit to the Department a report of the number of minority and non-minority group employees currently engaged in each work classification required by the Contract work.

7-27 E-Verify.

The Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Contractor during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland

Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the Contract term.

7-29 Scrutinized Companies.

For Contracts $1,000,000 and greater, if the Department determines the Contractor submitted a false certification under Section 287.135(5) of the Florida Statutes, or if the Contractor has been placed on the Scrutinized Companies with Activities in the Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, the Department shall either terminate the Contract after it has given the Contractor notice and an opportunity to demonstrate the Department's determination of false certification was in error pursuant to Section 287.135(5)(a) of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135(4) of the Florida Statutes are met.

SECTION 8
PROSECUTION AND PROGRESS

8-1 Subletting or Assigning of Contracts.

Do not, sell, transfer, assign or otherwise dispose of the Contract or Contracts or any portion thereof, or of the right, title, or interest therein, without written consent of the Department. If the Contractor chooses to sublet any portion of the Contract, the Contractor must provide a written request to sublet work on the Certification of Sublet Work form developed by the Department for this purpose. With the Engineer's acceptance of the request, the Contractor may sublet a portion of the work, but shall perform with his own organization work amounting to not less than 40% of the total Contract amount. The Certification of Sublet Work request will be deemed acceptable by the Department, for purposes of the Department's consent, unless the Engineer notifies the Contractor within 5 business days of receipt of the Certification of Sublet Work that the Department is not consenting to the requested subletting.

Include in the total Contract amount the cost of materials and manufactured component products, and their transportation to the project site. For the purpose of meeting this requirement the Department will not consider off-site commercial production of materials and manufactured component products that the Contractor purchases, or their transportation to the project, as subcontracted work.

If the Contractor sublets a part of a Contract item, the Department will use only the sublet proportional cost in determining the percentage of subcontracted normal work.

Execute all agreements to sublet work in writing and include all pertinent provisions and requirements of the Contract. Upon request, furnish the Department with a copy of the subcontract. The subletting of work does not relieve the Contractor or the surety of their respective liabilities under the Contract.

The Department recognizes a subcontractor only in the capacity of an employee or agent of the Contractor, and the Engineer may require the Contractor to remove the subcontractor as in the case of an employee.

8-2 Work Performed by Equipment-Rental Agreement.

The limitations set forth in 8-1, concerning the amount of work that may be sublet, do not apply to work performed by equipment-rental agreement. However, for any work proposed to be

performed by equipment-rental agreement, notify the Engineer in writing of such intention before using the rented equipment, and indicate whether the equipment will be rented on an operated or non-operated basis. Include with the written notice a listing and description of the equipment and a description of the particular work to be performed with such equipment. As an exception to the above requirements, the Department will not require written notice for equipment to be rented (without operators) from an equipment dealer or from a firm whose principal business is the renting or leasing of equipment.

The operators of all rented equipment, whether rented on an operated or a non-operated basis, are subject to all wage rate requirements applicable to the project. When renting equipment without operators, the Contractor shall carry the operators on his own payroll. For equipment that is rented on an operated basis, and when required by the Contract or requested by the Engineer, furnish payrolls from the lessor with the names of the operators shown thereon.

When a lessor provides rentals of equipment on an operated basis that exceed $10,000, such lessor is subject to any Equal Employment Opportunity requirements that are applicable to the project.

8-3 Prosecution of Work.

8-3.1 Compliance with Time Requirements: Commence work in accordance with the accepted working schedule and provide sufficient labor, materials and equipment to complete the work within the time limit(s) set forth in the proposal. Should the Contractor fail to furnish sufficient and suitable equipment, forces, and materials, as necessary to prosecute the work in accordance with the required schedule, the Engineer may withhold all estimates that are, or may become due, or suspend the work until the Contractor corrects such deficiencies.

8-3.2 General: For this Contract submit the following schedules and reports.

8-3.2.1 Contract Schedule: Submit to the Engineer for acceptance a Critical Path Method (CPM) Contract Schedule for the project within 30 calendar days after execution of the Contract or at the preconstruction conference, whichever is earlier.

The Contract Schedule shall include detailed schedule diagrams and schedule data as described below for the entire Contract Period. The Contract schedule shall be consistent with the Contract Maintenance of Traffic plan, showing activities for each discrete Contract activity to be accomplished within each Maintenance of Traffic phase. Include activities for deliverables and reviews in the schedule. Sufficient liaison shall be conducted and information provided to indicate coordination with utility owners having facilities within the project limits. The schedule must reflect the utility adjustment schedules included in the Contract Documents, unless changed by mutual agreement of the utility company, the Contractor and the Department.

Failure to include any element of work or any activity relating to utility work will not relieve the Contractor from completing all work within the Contract Time at no additional time or cost to the Department, not withstanding the acceptance of the schedule by the Department.

Submit monthly updates of the Contract Schedule within 7 calendar days before the monthly estimate cut-off date.

The Engineer will withhold monthly payments due for failure of the Contractor to submit an acceptable schedule or monthly updates within the time frame described herein.

8-3.2.2 Schedule Submissions: Develop the schedule in Precedence Diagram Method (PDM) format. All schedule submittals, shall have a copy of the schedule files on a

Windows compatible CD or DVD attached. The files shall be in a Primavera formats. Make sure to use “Backup” menu selection and ensure that the option “Remove access list during backup” is checked.

Each schedule submission and monthly update shall include a minimum of 4 items:

1) a Critical Path Method (CPM) Network Diagram in time-scale logic diagram, by week starting on Monday, grouped (banded) by phase and sorted by early start days. Prominently identify the critical path activities, defined as the longest continuous path of work activities. Submit the Network Diagram, printed in color on D size, 22 by 34 inch or E size, 34 by 44 inch paper. The network diagram shall contain, as a minimum, the following information for each schedule activity: identification, activity description, total duration, remaining duration, early start date, late finish date, and total float.

2) a report with the following schedule activity information for each construction activity: identification, description, original duration, remaining duration, early start, early finish, total float, percent complete, and budgeted cost. The bar chart diagram shall not be included in this report. It will be submitted on 8.5 by 11 inch paper.

3) a schedule narrative report describing current project schedule status and identifying potential delays. This report will include a description of the progress made since the previous schedule submission and objectives for the upcoming 30 calendar days. It will be submitted on 8.5 by 11 inch paper. This report shall at a minimum include the following information:

a) This report shall indicate if the project is on schedule, ahead of schedule or behind schedule. If the project is ahead of schedule or behind schedule, the report shall include the specific number of calendar days. If the project is behind schedule, the report shall include a detailed recovery plan that will put the project back on schedule or include a properly supported request for Time Extension.

b) The report will describe the current critical path of the project and indicate if this has changed in the last 30 calendar days. Discuss current successes or problems that have affected either the critical path’s length or have caused a shift in the critical path within the last 30 calendar days. Identify specific activities, progress, or events that may reasonably be anticipated to impact the critical path within the next 30 calendar days, either to affect its length or to shift it to an alternate path.

c) List all schedule logic or duration changes that have been made to the schedule since the previous submission. For each change, describe the basis for the change and specifically identify the affected activities by identification number.

d) Identify any and all activities, either in progress or scheduled to occur within the following 30 days that require Department participation, review, approval, etc.

4) a copy of the schedule files on a Windows compatible CD or DVD in Primavera.

The Engineer will have 30 days to accept the contract schedule or to schedule a meeting with the Contractor to resolve any problems that prevent acceptance of the schedule. Attend the meeting scheduled by the Engineer, and submit a corrected schedule to the Engineer within seven days after the meeting. The process will be continued until a contract schedule is accepted by the Engineer.

8-3.2.3 Schedule Content: All schedule submissions shall comply with the following content guidelines as appropriate to the specific submission:

Outline Schedule Diagrams and Data shall show the sequence, order, and interdependence of major construction milestones and activities. Include ordering and procurement of major materials and equipment, long-lead time items, and key milestones identified by the Contract. Identify planned work schedule(s) and include all non-workdays. Provide a description of each major construction activity or key milestone.

Detailed Schedule Diagrams shall include activity number, description, early dates, float, and all relationships (i.e. logic ties), resources and costs. Show the sequence, order, and interdependence of activities in which the work is to be accomplished. Include allowance for Department oversight, acceptance and return of submittals, samples and shop drawings where Department acceptance is specifically required (in accordance with 5-1.4.6 of the standard specifications). In addition to construction activities, detailed network activities shall include the submittals, procurement, and Department or Utility activities impacting progress:

a. Submittal activities shall include oversight and acceptance of submittals. If the Department's action on any submittal is “Not Accepted” or “Revise and Resubmit”, a new series of submittal preparation activities shall be inserted into the schedule. Predecessor for the new submittal preparation activity will be the original acceptance activity and the successor of the new acceptance activity will be the fabrication/delivery activity for the equipment or material.

b. Procurement activities shall include all materials and equipment, receipt of materials with estimated procurement costs of major items for which payment of stockpiled materials will be requested in advance of installation, fabrication of special material and equipment, and their installation and testing.

c. Show activities of the Department or Utilities that affect progress and contract-required dates for completion of all or parts of the work.

Detailed Schedule Data: shall conform to the following:

a. All activities shall be assigned to a specific calendar within the software. Specific calendars will be defined within the software to include planned work days and working hours. These calendars will include both Contractor and Contract defined holidays and suspension days as non-workdays.

b. Each schedule activity shall be cost loaded. Activity cost loading shall be consistent with the bid breakdown. The sum total of the activity cost loading shall be equal to the current contract value.

c. At a minimum, each schedule activity shall contain codes by:

1. Responsibility: including, but not be limited to, Department, Utility, Contractor/Subcontractor, Supplier/Vendor, Consultant, etc.

2. Phasing: identify the appropriate Maintenance of Traffic phase or subphase.

d. Key milestones as identified by contract. At a minimum, the start and finish of each Maintenance of Traffic phase or subphase shall be represented by a milestone activity.

e. All non-procurement activities must be less than or equal to 20 workdays unless approved by the Engineer to be greater by the Engineer.

f. Detailed description of each activity. In each activity, give quantity and unit of measure so that the amount of work the activity involves is clearly communicated.

g. Only two (2) open-ended activities (the first and the last) are allowed.

h. Constraints shall only be used for “Project Start,” and “Project Completion.” Constraints cannot override logic. The use of any other imposed constraints is not allowed without specific approval by the Engineer. Any other desired constraints must be submitted to the Engineer with the rationale for the use of each desired additional constraint. If allowed by the Engineer, the rationale should be recorded in the activity's log field. Mandatory constraints (start and finish) violate network logic and shall not be used.

i. Out of sequence progress, if applicable, shall be handled through Retained Logic. Use of the Progress Override option is not appropriate for this project and will not be allowed.

j. Progress shall be calculated based on percent complete.

k. All changes to activities shall be recorded with a note in the activity log field. The log shall include, as a minimum, the date and reason for the change, as well as reference to a document wherein the Engineer acknowledges and accepts the change.

l. The use of resource leveling, either manual or automatic, is prohibited.

8-3.2.4 Weekly Meetings: Attend weekly meetings scheduled by the Engineer to discuss Contract progress, near term scheduled activities, including utility relocations, problems and their proposed solutions. Submit a Two-Week “Look Ahead” Planning Schedule at each weekly meeting, showing the items of work planned for the next two weeks. Develop the schedule in Bar Chart format, identifying current and planned activities and related Contract Schedule work activities, including subcontractor work. Designate all activities that are controlling work items as determined by the currently accepted Contract Schedule. A report shall be submitted at each weekly meeting identifying schedule activity progress including actual start or finish dates achieved for any activities.

8-3.2.5 Float: Is also known as slack time or slide time; it is defined as the amount of time the finish of an activity can be delayed. Two kinds of float are possible: Total float is how much an activity can be delayed without affecting the finish date of the project or an intermediate deadline (constraint); it is the difference between the late finish date and the early finish date. Free float is how much an activity can be delayed without affecting its earliest successor.

Float is not for the exclusive use or benefit of either the Department or the Contractor.

Use of float suppression techniques, such as preferential sequencing (arranging critical path through activities more susceptible to Department caused delay), special lead/lag logic restraints, zero total or free float constraints, extended activity times, or imposing constraint dates other than as required by the contract, shall be cause for rejection of the project schedule or its updates. The use of Resource Leveling (or similar software features) used for the purpose of artificially adjusting activity durations to consume float and influence the critical path is expressly prohibited.

Negative float shall not be a basis for requesting time extensions. Any extension of time shall be addressed in accordance with 8-3.2.6 Time Extensions. Scheduled

completion date(s) that extend beyond the contract completion date (evidenced by negative float) may be used in computations for assessment of payment withholdings. The use of this computation is not to be construed as a means of acceleration.

8-3.2.6 Time Extensions: The Contractor is responsible for submitting a request for Contract Time extension in accordance with 8-7.3.2 of the standard specifications. An extension of time for performance shall be considered only to the extent that a delay to an activity or activities exceeds the total float along the project critical paths.

As a minimum, time extension requests shall contain:

a. A descriptive summary of the changes
b. An analysis of project impact
c. A fragnet that shows the impacted activities before the change
d. A fragnet that shows the impacted activities after the change

Time extensions shall not be considered for proposals that do not include full documentation for the schedule change. Once a change has been approved by the Engineer, the specific activities and the overall schedule must be updated.

8-3.2.7 Performance of Work: By submitting a schedule the Contractor is making a positive assertion that the project will be constructed in the order indicated on the schedule. Prosecute the work in accordance with the latest accepted Working Schedule. Any costs associated with meeting milestones and completing the project within the authorized Contract Time will be borne solely by the Contractor.

8-3.2.8 As-Built Schedule: As a condition for the release of any retainage, submittal of an as-built schedule which describes the actual order and start and stop times for all activities by the Contractor is required.

8-3.3 Beginning Work: Notify the Engineer not less than five days in advance of the planned start day of work. Upon the receipt of such notice, the Engineer may give the Contractor Notice to Proceed and may designate the point or points to start the work. In the Notice to Proceed, the Engineer may waive the five-day advance notice and authorize the Contractor to begin immediately. Notify the Engineer in writing at least two days in advance of the starting date of important features of the work. Do not commence work under the Contract until after the Department has issued the Notice to Proceed. The Department will issue the Notice to Proceed within 20 calendar days, excluding Saturdays, Sundays and state holidays, after execution of the Contract.

8-3.4 Provisions for Convenience of Public: Schedule construction operations so as to minimize any inconvenience to adjacent businesses or residences. Where necessary, the Engineer may require the Contractor to first construct the work in any areas along the project where inconveniences caused by construction operations would present a more serious handicap. In such critical locations, where there is no assurance of continuous effective prosecution of the work once the construction operations are begun, the Engineer may require the Contractor to delay removal of the existing (usable) facilities.

8-3.5 Preconstruction Conference: Before the Contractor begins actual construction; the Engineer will call a preconstruction conference at a place the Engineer designates to go over the construction aspects of the project. Attend this meeting, along with the Department and the various utility companies that will be involved with the road construction.

8-3.6 Partnering: For this Contract, a non-bid pay item in the Lump Sum amount of $5,000.00 has been established for Partnering. The objective of Partnering is to establish a partnership charter and action plan for the Contractor, the Engineer and other parties impacted by

the activities covered under this Contract to identify and achieve reciprocal goals. These objectives may be met through participation in a major workshop held as early as possible after the Contract is awarded and follow-up workshops held periodically throughout the duration of the Contract.

As early as possible and prior to the preconstruction conference, meet with the Department's District Construction Engineer and plan an initial partnering/team building workshop. At this planning session, select a workshop facilitator, suitable to the District Construction Engineer, from the Department approved list of facilitators maintained by the Quality Initiatives Office. Additionally, the agenda, duration, location, time, and attendees for the initial workshop should be determined. Attendees should include the Department's District Construction Engineer and key project personnel, the Contractor's Superintendent and key personnel as well as other project or field level personnel.

Partnering workshops may be held periodically throughout the duration of the Contract if authorized by the District Construction Engineer.

The Department will reimburse the Contractor based on actual invoice amounts for the following costs associated with Partnering:

a. Meeting room.

b. Facilitator fees.

c. Travel expenses of the facilitator, in accordance with Section 112.061, Florida Statutes.

The Department will not reimburse the Contractor for any other expenses.

Payment will be the actual cost prorated as a percent of the Lump Sum amount.

Payment shall be made under:

Item No. 999- 16- Partnering - lump sum.

8-3.7 Disputes Review Board: For this Contract, a Disputes Review Board will be available to assist in the resolution of disputes and claims arising out of the work on the Contract.

8-3.7.1 Purpose: The Board will provide special expertise to assist in and facilitate the timely and equitable resolution of disputes, claims, and controversies between the Department and the Contractor in an effort to avoid construction delay and future claims.

It is not intended that the Department or the Contractor default on their normal responsibility to cooperatively and fairly settle their differences by indiscriminately assigning them to the Board. It is intended that the Board encourage the Department and Contractor to resolve potential disputes without resorting to this alternative resolution procedure.

The Board will be used when normal Department-Contractor dispute resolution is unsuccessful. Either the Department or the Contractor may refer a dispute to the Board. Referral to the Board should be initiated as soon as it appears that the normal dispute resolution effort is not succeeding. It is a condition of this Contract that the parties shall use the Dispute Review Board. The Department and the Contractor agree that the submission of any unresolved dispute or claim to the Board is a condition precedent to the Department or the Contractor having the right to proceed to arbitration or litigation of such unresolved dispute or claim. The Department's Claim Review Committee will not entertain any issues on this project.

The recommendations of the Board will not be binding on either the Department or the Contractor.

The Board will fairly and impartially and without regard to how or by whom they may have been appointed, consider disputes referred to it and will provide written recommendations to the Department and Contractor to assist in the resolution of these disputes.

8-3.7.2 Continuance of Work During Dispute: During the course of the Disputes Review Board process, the Contractor will continue with the work as directed by the Engineer in a diligent manner and without delay or otherwise conform to the Engineer's decision or order, and will be governed by all applicable provisions of the Contract. Throughout any protested work, the Contractor will keep complete records of extra costs and time incurred. The Contractor will permit the Engineer and Board access to these and any other records needed for evaluating the dispute.

8-3.7.3 Membership: The Disputes Review Board will consist of members pre-selected by the Engineer and the President of the Florida Transportation Builders' Association (FTBA), and posted on the Department's Website.

If during the life of the contract, a Board member has a discussion regarding employment or entered into any agreement for employment after completion of the contract with the Department, the Contractor or any subcontractor or supplier on the project, he/she shall immediately disclose this to the Contractor and the Department and shall be disqualified from serving on the Board.

Once established, the Board will remain active and in full force and effect. If, after the Department has made final acceptance of the project, there are unresolved disputes and claims remaining, the Disputes Review Board shall remain active and in full force and effect until the project is otherwise administratively closed by the Department following final payment so that the Board may continue in operation until all unresolved disputes and claims are resolved.

8-3.7.4 Procedure and Schedules for Disputes Resolution: Disputes will be considered as quickly as possible, taking into consideration the particular circumstances and the time required to prepare detailed documentation. Steps may be omitted as agreed by the Department and the Contractor and the time periods stated below may be shortened in order to hasten resolution.

a. If the Contractor objects to any decision, action or order of the Engineer, the Contractor may file a written protest with the Engineer, stating clearly and in detail the basis for the objection, within 15 days after the event.

b. The Engineer will consider the written protest and make his decision on the basis of the pertinent contract provisions, together with the facts and circumstances involved in the dispute. The Engineer's decision will be furnished in writing to the Contractor within 15 days after receipt of the Contractor's written protest.

c. This decision will be final and conclusive on the subject, unless a written appeal to the Engineer is filed by the Contractor within 15 days of receiving the decision. Should the Contractor preserve its protest of the Engineer's decision, the matter can be referred to the Board by either the Department or the Contractor.

d. Upon receipt by the Board of a written duly preserved protest of a dispute, either from the Department or the Contractor, it will first be decided when to conduct the hearing.

e. Either party furnishing any written evidence or documentation to the Board will furnish copies of such information to the other party a minimum of 15 days prior to the date the Board sets to convene the hearing for the dispute. If the Board requests any additional documentation or evidence prior to, during, or after the hearing, the Department and/or Contractor will provide the requested information to the Board and to the other party.

f. The Contractor and the Department will each be afforded an opportunity to be heard by the Board and to offer evidence. Neither the Department nor the Contractor may

present information at the hearing that was not previously distributed to both the Board and the other party.

g. The Board's recommendations for resolution of the dispute will be given in writing to both the Department and the Contractor, within 15 days of completion of the hearings. In cases of extreme complexity, both parties may agree to allow additional time for the Board to formulate its recommendations. The Board will focus its attention in the written report to matters of entitlement and allow the parties to determine the monetary damages. If both parties request, and sufficient documentation is available, the Board may make a recommendation of monetary damages.

h. Within 15 days of receiving the Board's recommendations, both the Department and the Contractor will respond to the other and to the Board in writing, signifying either acceptance or rejection of the Board's recommendations. The failure of either party to respond within the 15 day period will be deemed an acceptance of the Board's recommendations by that party. If the Department and the Contractor are able to resolve the dispute with or without the aid of the Board's recommendations, the Department will promptly process any required Contract changes.

i. Should the dispute remain unresolved, either party may seek reconsideration of the decision by the Board only when there is new evidence to present. No provisions in this Specification will abrogate the Contractor's responsibility for preserving a claim filed in accordance with 5-12.

Although both the Department and the Contractor should place great weight on the Board's recommendation, it is not binding. If the Board's recommendations do not resolve the dispute, all records and written recommendations of the Board will be admissible as evidence in any subsequent dispute resolution procedures.

8-3.7.5 Contractor Responsibility: The Contractor shall furnish to each Board member a set of all pertinent documents which are or may become necessary for the Board, except documents furnished by Department, to perform their function. Pertinent documents are any drawings or sketches, calculations, procedures, schedules, estimates, or other documents which are used in the performance of the work or in justifying or substantiating the Contractor's position. A copy of such pertinent documents must also be furnished to the Department.

Except for its participation in the Board's activities as provided in the construction Contract and in this Agreement, the Contractor will not solicit advice or consultation from the Board or any of its members on matters dealing in any way with the project, the conduct of the work or resolution of problems.

8-3.7.6 Department Responsibilities: Except for its participation in the Board's activities as provided in the construction Contract and in this Agreement, the Department will not solicit advice or consultation from the Board or any of its members on matters dealing in any way with the project, the conduct of the work or resolution of problems.

The Department shall furnish the following services and items:

a. Contract Related Documents: The Department shall furnish each Board member a copy of all Contract Documents, supplemental agreements, written instructions issued by the Department to the Contractor, or other documents pertinent to the performance of the Contract and necessary for the Board to perform their function. A copy of such pertinent documents must also be furnished to the Contractor.

b. Coordination and Services: The Department, in cooperation with the Contractor, will coordinate the operations of the Board. The Department, through the Project

Engineer, will arrange or provide conference facilities at or near the Contract site and provide secretarial and copying services.

8-3.7.7 Basis of Payment: A per day cost of $3,300.00 has been established by the Department to reimburse the Contractor for providing compensation to the three members of the Disputes Review Board. This amount will be paid to the Contractor for each day of the Disputes Review Board. For each meeting, the Contractor shall compensate each Disputes Review Board member a sum of $1,100.00. Such payment will be full compensation to the Board member for salary and all travel expenses (air fare, rental or personal automobile, motel room, meals, etc.) related to membership on the Board. If an issue or set of issues requires additional time in meeting or in analyzing the issues, additional compensation on a per day basis can be made, if authorized in advance by the Engineer. Payment shall be made by issuing a work order against contingency funds set aside for this Contract.

The Department will pay all other non-salary and non-travel expenses related to operation of the Board. The Department will prepare and mail minutes and progress reports, will provide administrative services, such as conference facilities and secretarial services, and will bear the cost of these services. If the Board desires special services, such as legal consultation, accounting, data research, and the like, both parties must agree, and the costs will be shared by them as mutually agreed. Payment for non-salary and non-travel expenses and the Department's share of special services shall be made by the Engineer in accordance with Department policy outside of this Contract.

8-3.8 Statewide Disputes Review Board: For this Contract, a Statewide Disputes Review Board will be available to assist in the resolution of disputes and claims arising out of the administration and enforcement of a specification when such specification specifically refers disputes to this Board.

8-3.8.1 Purpose: The Board will provide special expertise to assist in and facilitate the timely and equitable resolution of the disputes and claims between the Contractor and the Department.

It is not intended that the Department or the Contractor default on their normal responsibility to cooperatively and fairly settle their differences by indiscriminately assigning them to the Board. It is intended that the Board encourage the Department and Contractor to resolve potential disputes or claims without resorting to this alternative resolution procedure.

The Board will be used when normal Department-Contractor dispute or claim resolution is unsuccessful. Either the Department or the Contractor may refer a dispute or claim to the Board. Referral to the Board should be initiated as soon as it appears that the normal dispute resolution effort is not succeeding. Referral to the Board is accomplished by providing a position paper outlining the nature and scope of the dispute or claim and describing the basis for entitlement to the dispute or claim. Only disputes or claims that have been duly preserved under the terms of the Contract as determined by the Board will be eligible to be heard by the Board. Requests for equitable adjustment must be certified as required by 4-3.2. Claims that are referred to the Board must be in compliance with 5-12. It is a condition of this Contract that the parties shall use the Statewide Disputes Review Board.

The recommendations of the Board will be binding on both the Department and the Contractor.

The Board will fairly and impartially and without regard to how or by whom they may have been appointed, consider disputes or claims referred to it and will provide

written recommendations to the Department and Contractor to assist in the resolution of these disputes or claims.

8-3.8.2 Membership: The Statewide Disputes Review Board will consist of members pre-selected by the Engineer and the President of the Florida Transportation Builders' Association (FTBA), and posted on the Department's Website.

Members on the Board will be pre-qualified as experts of the type of work being referred to this Board.

If during the life of the contract, a Board member has a discussion regarding employment or entered into any agreement for employment after completion of the contract with the Department, the Contractor or any subcontractor or supplier on the project, he/she shall immediately disclose this to the Contractor and the Department and shall be disqualified from serving on the Board.

After the Department has made final acceptance of the project, if disputes arise, the Statewide Disputes Review Board shall be activated to hear and rule on the disputed issue.

8-3.8.3 Procedure and Schedules for Disputes Resolution: Disputes or claims will be considered as quickly as possible, taking into consideration the particular circumstances and the time required to prepare detailed documentation. Steps may be omitted as agreed by the Department and the Contractor and the time periods stated below may be shortened in order to hasten resolution.

a. If the Contractor objects to any decision, action or order of the Engineer resulting from the Engineer's evaluation of the guaranteed product or performance period, the Contractor may file a written protest with the Engineer, stating clearly and in detail the basis for the objection, within 15 days after the event.

b. The Engineer will consider the written protest and make his decision on the basis of the pertinent contract provisions, together with the facts and circumstances involved in the dispute. The Engineer's decision will be furnished in writing to the Contractor within 15 days after receipt of the Contractor's written protest.

c. The Engineer's decision will be final and conclusive on the subject, unless the Contractor files a written appeal to the Engineer within 15 days of receiving the decision. Upon the Engineer's receipt of the Contractor's written appeal containing specific protest of all or part of the Engineer's decision, either the Department or the Contractor can refer the matter to the Board.

d. Upon receipt by the Board of a written duly preserved protest of a dispute or claim, either from the Department or the Contractor, it will first be decided when to conduct the hearing.

e. Either party furnishing any written evidence or documentation to the Board will furnish copies of such information to the other party a minimum of 15 days prior to the date the Board sets to convene the hearing for the dispute or claim. If the Board requests any additional documentation or evidence prior to, during, or after the hearing, the Department and/or Contractor will provide the requested information to the Board and to the other party.

f. The Contractor and the Department will each be afforded an opportunity to be heard by the Board and to offer evidence. Neither the Department nor the Contractor may present information at the hearing that was not previously distributed to both the Board and the other party.

g. The Board's recommendations for resolution of the dispute or claim will be given in writing to both the Department and the Contractor, within 15 days of completion of the hearings. The Board will focus its attention in the written report to matters of responsibility for repairs of guaranteed work or performance period as provided for by the Contract Documents.

8-3.8.4 Contractor Responsibility: The Contractor shall furnish to each Board member a set of all pertinent documents that are or may become necessary for the Board, except documents furnished by Department, to perform their function. Pertinent documents are any drawings or sketches, calculations, procedures, schedules, estimates, or other documents which are used in the performance of the work or in justifying or substantiating the Contractor's position. A copy of such pertinent documents must also be furnished to the Department.

Except for its participation in the Board's activities as provided in the construction Contract and in this Agreement, the Contractor will not solicit advice or consultation from the Board or any of its members on matters dealing in any way with the project, the conduct of the work or resolution of problems.

8-3.8.5 Department Responsibilities: Except for its participation in the Board's activities as provided in the construction Contract and in this Agreement, the Department will not solicit advice or consultation from the Board or any of its members on matters dealing in any way with the project, the conduct of the work or resolution of problems.

The Department shall furnish the following services and items:

a. Contract Related Documents: The Department shall furnish each Board member a copy of all Contract Documents, supplemental agreements, written instructions issued by the Department to the Contractor, or other documents pertinent to the performance of the Contract and necessary for the Board to perform their function. A copy of such pertinent documents must also be furnished to the Contractor.

b. Coordination and Services: The Department, in cooperation with the Contractor, will coordinate the operations of the Board. The Department, through the Project Engineer, will arrange or provide conference facilities at or near the Contract site and provide secretarial and copying services.

8-3.8.6 Basis of Payment: A per hearing cost of $8,000 has been established by the Department for providing compensation for all members of the Dispute Review Board for participation in an actual hearing. The Board chairman will receive $3,000 for participation in the hearing while the remaining two members will receive $2,500 each. The Department and the Contractor will equally provide compensation to the Board for participation in an actual hearing. The Department will compensate the Contractor $4,000 as its contribution to the hearing cost. Such payment will be full and complete compensation to the Board members for all expenses related to the hearing. This includes travel, accommodations, meals, pre- and post- hearing work, review of position papers and any rebuttals, conducting the hearing, drafting and issuance of recommendations, readdressing any requests for clarification. It is not intended for hearings to last longer than a single day, however, in some cases they may. Any additional time and/or compensation for a hearing would only be allowed upon prior written approval of the Department and the Contractor. If an additional day(s) is granted for the hearing, it will be at $3,300 per day, payment of which is equally split between the Department and the Contractor. Payment shall be made by issuing a work order against contingency funds set aside for this Contract.

The Department will prepare and mail minutes and progress reports, will provide administrative services, such as conference facilities and secretarial services, and will bear the cost of these services. If the Board desires special services, such as legal consultation, accounting, data research, and the like, both parties must agree, and the costs will be shared by them as mutually agreed.

8-4 Limitations of Operations.

8-4.1 Night Work: During active nighttime operations, furnish, place and maintain lighting sufficient to permit proper workmanship and inspection. Use lighting with 5 ft·cd minimum intensity. Arrange the lighting to prevent interference with traffic or produce undue glare to property owners. Operate such lighting only during active nighttime construction activities. Provide a light meter to demonstrate that the minimum light intensity is being maintained.

Lighting may be accomplished by the use of portable floodlights, standard equipment lights, existing street lights, temporary street lights, or other lighting methods approved by the Engineer.

Submit a lighting plan at the Preconstruction Conference for review and acceptance by the Engineer. Submit the plan on standard size plan sheets (not larger than 24 by 36 inch), and on a scale of either 100 or 50 feet to 1 inch. Do not start night work prior to the Engineer's acceptance of the lighting plan.

During active nighttime operations, furnish, place and maintain variable message signs to alert approaching motorists of lighted construction zones ahead. Operate the variable message signs only during active construction activities.

Include compensation for lighting for night work in the Contract prices for the various items of the Contract. Take ownership of all lighting equipment for night work.

8-4.2 Sequence of Operations: Do not open up work to the prejudice of work already started. The Engineer may require the Contractor to finish a section on which work is in progress before starting work on any additional section.

8-4.3 Interference with Traffic: At all times conduct the work in such manner and in such sequence as to ensure the least practicable interference with traffic. Operate all vehicles and other equipment safely and without hindrance to the traveling public. Park all private vehicles outside the clear zone. Place materials stored along the roadway so as to cause no obstruction to the traveling public as possible.

Where existing pavement is to be widened and stabilizing is not required, prevent any open trench from remaining after working hours by scheduling operations to place the full thickness of widened base by the end of each day. Do not construct widening strips simultaneously on both sides of the road, except where separated by a distance of at least 1/4 mile along the road and where either the work of excavation has not been started or the base has been completed.

8-4.4 Coordination with other Contractors: Sequence the work and dispose of materials so as not to interfere with the operations of other Contractors engaged upon adjacent work; join the work to that of others in a proper manner, in accordance with the spirit of the Contract Documents; and perform the work in the proper sequence in relation to that of other Contractors; all as may be directed by the Engineer.

Each Contractor is responsible for any damage done by him or his agents to the work performed by another Contractor.

8-4.5 Drainage: Conduct the operations and maintain the work in such condition to provide adequate drainage at all times. Do not obstruct existing functioning storm sewers, gutters, ditches, and other run-off facilities.

8-4.6 Fire Hydrants: Keep fire hydrants on or adjacent to the highway accessible to fire apparatus at all times, and do not place any material or obstruction within 15 feet of any fire hydrant.

8-4.7 Protection of Structures: Do not operate heavy equipment close enough to pipe headwalls or other structures to cause their displacement.

8-4.8 Fencing: Erect permanent fence as a first order of business on all projects that include fencing where the Engineer determines that the fencing is necessary to maintain the security of livestock and other animals on adjacent property, or for protection of pedestrians who are likely to gain access to the project from adjacent property. Secure the right-of-way on Limited Access Facilities at all times by a fence, either temporary or permanent, that meets the height of the existing fence or the height required in the Contract.

8-4.9 Contaminated Materials: When the construction operations encounter or expose any abnormal condition that may indicate the presence of a contaminated material, discontinue such operations in the vicinity of the abnormal condition and notify the Engineer immediately. Be alert for the presence of tanks or barrels; discolored or stained earth, metal, wood, ground water; visible fumes; abnormal odors; excessively hot earth; smoke; or other conditions that appear abnormal as possible indicators of the presence of contaminated materials. Treat these conditions with extraordinary caution.

Make every effort to minimize the spread of any contaminated materials into uncontaminated areas.

Do not resume the construction operations in the vicinity of the abnormal conditions until so directed by the Engineer.

Dispose of the contaminated material in accordance with the requirements and regulations of any Local, State, or Federal agency having jurisdiction. Where the Contractor performs work necessary to dispose of contaminated material, and the Contract does not include pay items for disposal, the Department will pay for this work as provided in 4-4.

The Department may agree to hold harmless and indemnify the Contractor for damages when the Contractor discovers or encounters contaminated materials or pollutants during the performance of services for the Department when the presence of such materials or pollutants were unknown or not reasonably discoverable. Such indemnification agreements are only effective if the Contractor immediately stops work and notifies the Department of the contaminated material or pollutant problem.

Such indemnification agreements are not valid for damages resulting from the Contractor's willful, wanton, or intentional conduct or the operations of Contaminated and Hazardous Material Contractors.

8-5 Qualifications of Contractor's Personnel.

Provide competent, careful, and reliable superintendents, foremen, and workmen. Provide workmen with sufficient skill and experience to properly perform the work assigned to them. Provide workmen engaged on special work, or skilled work, such as bituminous courses or mixtures, concrete bases, pavements, or structures, or in any trade, with sufficient experience in such work to perform it properly and satisfactorily and to operate the equipment involved. Provide workmen that shall make due and proper effort to execute the work in the manner prescribed in the Contract Documents, or the Engineer may take action as prescribed below.

The Design Build Firm is prohibited on the basis of conflict of interest from utilizing any Consultant to perform Quality Control services during the construction phase of this Project when the Consultant is under contract with the Department, or under a subcontract thereto, to perform services or work in any way pertaining to this Project. Prior to the Firm approving a Consultant for Quality Control services during the construction phase, the Firm shall submit to the Department a Certificate from the proposed Consultant certifying that no conflict of interest exists as prohibited hereunder.

Whenever the Engineer determines that any person employed by the Contractor is incompetent, unfaithful, intemperate, disorderly, or insubordinate, the Engineer will provide written notice and the Contractor shall discharge the person from the work. Do not employ any discharged person on the project without the written consent of the Engineer. If the Contractor fails to remove such person or persons, the Engineer may withhold all estimates that are or may become due, or suspend the work until the Contractor complies with such orders. Protect, defend, indemnify, and hold the Department, its agents, officials, and employees harmless from all claims, actions, or suite arising from such removal, discharge, or suspension of employees.

8-6 Temporary Suspension of Contractor's Operations.

8-6.1 Authority to Suspend Contractor's Operations: The Engineer has the authority to suspend the Contractor's operations, wholly or in part. The Engineer will order such suspension in writing, giving in detail the reasons for the suspension. Contract Time will be charged during all suspensions of Contractor's operations. The Department may grant an extension of Contract time in accordance with 8-7.3.2 when determined appropriate in the Department's sole judgment.

No additional compensation or time extension will be paid or granted to the Contractor when the operations are suspended for the following reasons:

a. The Contractor fails to comply with the Contract Documents.

b. The Contractor fails to carry out orders given by the Engineer.

c. The Contractor causes conditions considered unfavorable for continuing the Work.

Immediately comply with any suspension order. Do not resume operations until authorized to do so by the Engineer in writing. Any operations performed by the Contractor, and otherwise constructed in conformance with the provisions of the Contract, after the issuance of the suspension order and prior to the Engineer's authorization to resume operations will be at no cost to the Department. Further, failure to immediately comply with any suspension order will also constitute an act of default by the Contractor and is deemed sufficient basis in and of itself for the Department to declare the Contractor in default, in accordance with 8-9, with the exception that the Contractor will not have ten calendar days to correct the conditions for which the suspension was ordered.

8-6.1.1 State of Emergency: The Engineer has the authority to suspend the Contractor's operations, wholly or in part, pursuant to a Governor's Declaration of a State of Emergency. The Engineer will order such suspension in writing, giving in detail the reasons for the suspension. Contract Time will be charged during all suspensions of Contractor's operations. The Department, at its sole discretion, may grant an extension of Contract Time and reimburse the Contractor for specific costs associated with such suspension. Further, in such instances, the Department's determination as to entitlement to either time or compensability will be final, unless the Contractor can prove by clear and convincing evidence to a Disputes Review Board that the Department's determination was without any reasonable factual basis.

8-6.2 Prolonged Suspensions: If the Engineer suspends the Contractor's operations for an indefinite period, store all materials in such manner that they will not obstruct or impede the traveling public unnecessarily or become damaged in any way. Take every reasonable precaution to prevent damage to or deterioration of the work performed. Provide suitable drainage of the roadway by opening ditches, shoulder drains, etc., and provide any temporary structures necessary for public travel through the project.

8-6.3 Permission to Suspend Contractor's Operations: Do not suspend operations or remove equipment or materials necessary for completing the work without obtaining the Engineer's written permission. Submit all requests for suspension of operations in writing to the Engineer, and identify specific dates to begin and end the suspension The Contractor is not entitled to any additional compensation for suspension of operations during such periods.

8-6.4 Suspension of Contractor's Operations-Holidays: Unless the Contractor submits a written request to work on a holiday at least ten days in advance of the requested date and receives written approval from the Engineer, the Contractor shall not work on the following days: Martin Luther King, Jr. Day; Memorial Day; the Saturday and Sunday immediately preceding Memorial Day; Independence Day; Independence Day (Observed); Labor Day; the Friday, Saturday, and Sunday immediately preceding Labor Day; Veterans Day; Veterans Day (Observed); Thanksgiving Day; the Friday, Saturday and Sunday immediately following Thanksgiving Day; and December 24 through January 2, inclusive. Contract Time will be charged during these holiday periods regardless of whether or not the Contractor's operations have been suspended. Contract time will be adjusted in accordance with 8-7.3.2. The Contractor is not entitled to any additional compensation beyond any allowed contract time adjustment for suspension of operations during such holiday periods.

During such suspensions, remove all equipment and materials from the clear zone, except those required for the safety of the traveling public and retain sufficient personnel at the job site to properly meet the requirements of Sections 102 and 104. The Contractor is not entitled to any additional compensation for removal of equipment from clear zones or for compliance with Section 102 and Section 104 during such holiday periods.

8-7 Computation of Contract Time.

8-7.1 General: Perform the contracted work fully, entirely, and in accordance with the Contract Documents within the Contract Time specified in the proposal, or as may be extended in accordance with the provisions herein below.

8-7.2 Date of Beginning of Contract Time: The date on which Contract Time begins is the date identified in the Notice to Proceed.

8-7.3 Adjusting Contract Time:

8-7.3.1 Increased Work: The Department may grant an extension of Contract Time when it increases the Contract amount due to adding new work or providing for unforeseen work. The Department will base the consideration for granting an extension of Contract Time on the extent that the time normally required to complete the additional designated work delays the Contract completion schedule.

8-7.3.2 Contract Time Extensions: The Department may grant an extension of Contract Time when a controlling item of work is delayed by factors not reasonably anticipated or foreseeable at the time of bid. The Department may allow such extension of time only for delays occurring during the Contract Time period or authorized extensions of the Contract Time period. When failure by the Department to fulfill an obligation under the Contract results in

delays to the controlling items of work, the Department will consider such delays as a basis for granting a time extension to the Contract.

Whenever the Engineer suspends the Contractor's operations, as provided in 8-6, for reasons other than the fault of the Contractor, the Engineer will grant a time extension for any delay to a controlling item of work due to such suspension. The Department will not grant time extensions to the Contract for delays due to the fault or negligence of the Contractor.

The Department does not include an allowance for delays caused by the effects of inclement weather or suspension of Contractor's operations due to holidays as defined in 8-6.4, in establishing Contract Time. The Engineer will continually monitor the effects of weather and, when found justified, grant time extensions on either a bimonthly or monthly basis. The Engineer will not require the Contractor to submit a request for additional time due to the effects of weather.

The Department will grant time extensions, on a day for day basis, for delays caused by the effects of rains or other inclement weather conditions, related adverse soil conditions or suspension of operations due to holidays that prevent the Contractor from productively performing controlling items of work resulting in:

(1) The Contractor being unable to work at least 50% of the normal work day on pre-determined controlling work items due to adverse weather conditions, holiday suspension; or

(2) The Contractor must make major repairs to work damaged by weather, provided that the damage is not attributable to the Contractor's failure to perform or neglect; and provided that the Contractor was unable to work at least 50% of the normal workday on pre-determined controlling work items.

No additional compensation will be made for delays caused by the effects of inclement weather.

The Department may consider the delays in delivery of materials or component equipment that affect progress on a controlling item of work as a basis for granting a time extension if such delays are beyond the control of the Contractor or supplier. Such delays may include an area-wide shortage, an industry-wide strike, or a natural disaster that affects all feasible sources of supply. In such cases, the Contractor shall furnish substantiating letters from a representative number of manufacturers of such materials or equipment clearly confirming that the delays in delivery were the result of an area-wide shortage, an industry-wide strike, etc. No additional compensation will be made for delays caused by delivery of materials or component equipment.

The Department will not consider requests for time extension due to delay in the delivery of custom manufactured equipment such as traffic signal equipment, highway lighting equipment, etc., unless the Contractor furnishes documentation that he placed the order for such equipment in a timely manner, the delay was caused by factors beyond the manufacturer's control, and the lack of such equipment caused a delay in progress on a controlling item of work. No additional compensation will be paid for delays caused by delivery of custom manufactured equipment.

The Department will consider the affect of utility relocation and adjustment work on job progress as the basis for granting a time extension only if all the following criteria are met:

(1) Delays are the result of either utility work that was not detailed in the plans, or utility work that was detailed in the plans but was not accomplished in reasonably close accordance with the schedule included in the Contract Documents.

(2) Utility work actually affected progress toward completion of controlling work items.

(3) The Contractor took all reasonable measures to minimize the effect of utility work on job progress, including cooperative scheduling of the Contractor's operations with the scheduled utility work at the preconstruction conference and providing adequate advance notification to utility companies as to the dates to coordinate their operations with the Contractor's operations to avoid delays.

As a condition precedent to an extension of Contract Time the Contractor must submit to the Engineer:

A preliminary request for an extension of Contract Time must be made in writing to the Engineer within ten calendar days after the commencement of a delay to a controlling item of work. If the Contractor fails to submit this required preliminary request for an extension of Contract Time, the Contractor fully, completely, absolutely and irrevocably waives any entitlement to an extension of Contract Time for that delay. In the case of a continuing delay only a single preliminary request for an extension of Contract Time will be required. Each such preliminary request for an extension of Contract Time shall include as a minimum the commencement date of the delay, the cause of the delay, and the controlling item of work affected by the delay.

Furthermore, the Contractor must submit to the Engineer a request for a Contract Time extension in writing within 30 days after the elimination of the delay to the controlling item of work identified in the preliminary request for an extension of Contract Time. Each request for a Contract Time extension shall include as a minimum all documentation that the Contractor wishes the Department to consider related to the delay, and the exact number of days requested to be added to Contract Time. If the Contractor contends that the delay is compensable, then the Contractor shall also be required to submit with the request for a Contract Time extension a detailed cost analysis of the requested additional compensation in accordance with 4-3 and 5-12. If the Contractor fails to submit this required request for a Contract Time extension, with or without a detailed cost analysis, depriving the Engineer of the timely opportunity to verify the delay and the costs of the delay, the Contractor waives any entitlement to an extension of Contract Time or additional compensation for the delay.

Upon timely receipt of the preliminary request of Contract Time from the Contractor, the Engineer will investigate the conditions, and if it is determined that a controlling item of work is being delayed for reasons beyond the control of the Contractor the Engineer will take appropriate action to mitigate the delay and the costs of the delay. Upon timely receipt of the request for a Contract Time extension the Engineer will further investigate the conditions, and if it is determined that there was an increase in the time or the cost of performance of the controlling item of work beyond the control of the Contractor, then an adjustment of Contract Time will be made, and a monetary adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly.

The existence of an accepted schedule, including any required update(s), as stated in 8-3.2, is a condition precedent to the Contractor having any right to the granting of an extension of contract time or any monetary compensation arising out of any delay. Contractor failure to have an accepted schedule, including any required update(s), for the period

of potential impact, or in the event the currently accepted schedule and applicable updates do not accurately reflect the actual status of the project or fail to accurately show the true controlling or non-controlling work activities for the period of potential impact, will result in any entitlement determination as to time or money for such period of potential impact being limited solely to the Department's analysis and identification of the actual controlling or non-controlling work activities. Further, in such instances, the Department's determination as to entitlement as to either time or compensability will be final, unless the Contractor can prove by clear and convincing evidence to a Disputes Review Board that the Department's determination was without any reasonable factual basis.

8-8 Failure of Contractor to Maintain Satisfactory Progress.

8-8.1 General: Pursue the work to completion. Section 337.16 of the Florida Statutes establishes certain requirements pertaining to the suspension or revocation of a Contractor's Certificate of Qualification because of delinquency on a previously awarded Contract.

8-8.2 Regulations Governing Suspension for Delinquency:

(a) A Contractor is delinquent when the allowed Contract Time for performing the work has expired, and the Contractor has not completed the Contract work.

(b) Once the Department determines that the Contractor is delinquent, the Department will give the Contractor written notice of intent to suspend the Contractor's Certificate of Qualification. If the Contractor disagrees with the delinquency, the Contractor shall file a request for an administrative hearing with the Clerk of Agency Proceedings within ten days of receipt of the notice of intent to suspend. If the Contractor does not file a request, the Department will make the suspension conclusive and final. The request for hearing is filed when the Contractor delivers it to, and it is received by, the Clerk of Agency Proceedings, Mail Station 58, 562 Haydon Burns Building, 605 Suwannee Street, Tallahassee, Florida 32399-0450.

(c) If the Contractor files a request for a hearing, the Department will schedule the hearing within 30 days of the hearing officer's receipt of the request.

(d) The Department will continue the period of suspension of the Contractor's Certificate of Qualification until the Contractor is no longer delinquent. If the Contractor requests an administrative hearing, the Department's final order, depending on the outcome of the hearing, will set forth the time period of suspension for the number of days the Department determines that the Contractor was delinquent, even if the Contractor cures the delinquency during the pendency of the administrative proceedings.

(e) During the period of suspension of the Contractor's Certificate of Qualification, the Department will not allow the Contractor and its affiliates to bid on any Department Contract, regardless of dollar amount, and will not approve the Contractor as a subcontractor on any Department contract.

(f) The Department may grant extensions of time during the prosecution of the work as allowed under these Specifications regardless of the Contractor's delinquency status.

8-9 Default and Termination of Contract.

8-9.1 Determination of Default: The following acts or omissions constitute acts of default and, except as to subparagraphs (i and k), the Department will give notice, in writing, to the Contractor and his surety for any delay, neglect or default, if the Contractor:

(a) fails to begin the work under the Contract within the time specified in the Notice to Proceed;

(b) fails to perform the work with sufficient workmen and equipment or with sufficient materials to ensure prompt completion of the Contract;

(c) performs the work unsuitably, or neglects or refuses to remove materials or to perform anew such work that the Engineer rejects as unacceptable and unsuitable;

(d) discontinues the prosecution of the work, or fails to resume discontinued work within a reasonable time after the Engineer notifies the Contractor to do so;

(e) becomes insolvent or is declared bankrupt, or files for reorganization under the bankruptcy code, or commits any act of bankruptcy or insolvency, either voluntarily or involuntarily;

(f) allows any final judgment to stand against him unsatisfied for a period of ten calendar days;

(g) makes an assignment for the benefit of creditors;

(h) fails to comply with Contract requirements regarding minimum wage payments or EEO requirements;

(i) fails to comply with the Engineer's written suspension of work order within the time allowed for compliance and which time is stated in that suspension of work order; or

(j) for any other cause whatsoever, fails to carry on the work in an acceptable manner, or if the surety executing the bond, for any reasonable cause, becomes unsatisfactory in the opinion of the Department.

(k) fails to comply with 3-9.

For a notice based upon reasons stated in subparagraphs (a) through (h) and (j): if the Contractor, within a period of ten calendar days after receiving the notice described above, fails to correct the conditions of which complaint is made, the Department will, upon written certificate from the Engineer of the fact of such delay, neglect, or default and the Contractor's failure to correct such conditions, have full power and authority, without violating the Contract, to take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

If the Contractor, after having received a prior notice described above for any reason stated in subparagraph (b), (c), (d), (e), (f) or (h), commits a second or subsequent act of default for any reason covered by the same subparagraph (b), (c), (d), (e), (f) or (h) as stated in the prior notice, and regardless whether the specific reason is the same, then, regardless of whether the Contractor has cured the deficiency stated in that prior notice, the Department will, upon written certificate from the Engineer of the fact of such delay, neglect or default and the Contractor's failure to correct such conditions, have full power and authority, without any prior written notice to the Contractor and without violating the Contract, to take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

Regarding subparagraph (i), if the Contractor fails to comply with the Engineer's written suspension of work order within the time allowed for compliance and which time is stated in that suspension of work order, the Department will, upon written certificate from the Engineer of the fact of such delay and the Contractor's failure to correct that condition, have full power and authority, without violating the Contract, to immediately take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

Regarding subparagraph (k), if the Contractor fails to comply with 3-9, the Department will have full power and authority, without violating the Contract, to immediately take the prosecution of the work out of the hands of the Contractor and to declare the Contractor in default.

The Department has no liability for anticipated profits for unfinished work on a Contract that the Department has determined to be in default.

Notwithstanding the above, the Department shall have the right to declare the Contractor (or its "affiliate") in default and immediately terminate this Contract, without any prior notice to the Contractor, in the event the Contractor (or its "affiliate") is at any time "convicted" of a "contract crime," as these terms are defined in Section 337.165(1), Florida Statutes. The Department's right to default the Contractor (or its "affiliate") for "conviction" of a "contract crime" shall extend to and is expressly applicable to any and all Department Contracts that were either advertised for bid; for which requests for proposals or letters of interest were requested; for which an intent to award was posted or otherwise issued; or for which a Contract was entered into, after the date that the underlying or related criminal indictment, criminal information or other criminal charge was filed against the Contractor (or its "affiliate") that resulted in the "conviction." In the event the Department terminates this Contract for this reason, the Contractor shall hereby forfeit any claims for additional compensation, extra time, or anticipated profits. The Contractor shall only be paid for any completed work up to the date of termination. Further, the Contractor shall be liable for any and all additional costs and expenses the Department incurs in completing the Contract work after such termination.

8-9.2 Termination of Contract for Convenience: The Department may terminate the entire Contract or any portion thereof, if the Secretary determines that a termination is in the Department's interest. The Secretary will deliver to the Contractor a Written Notice of Termination specifying the extent of termination and the effective date.

When the Department terminates the entire Contract, or any portion thereof, before the Contractor completes all items of work in the Contract, the Department will make payment for the actual number of units or items of work that the Contractor has completed, at the Contract unit price, and according to the formulas and provisions set forth in 4-3.2 for items of work partially completed, and such payments will constitute full and complete compensation for such work or items. No payment of any kind or amount will be made for items of work not started. The Department will not consider any claim for loss of anticipated profits, or overhead of any kind (including home office and jobsite overhead or other indirect impacts) except as provided in 4-3.2 for partially completed work.

The Department will consider reimbursing the Contractor for actual cost of mobilization (when not otherwise included in the Contract) including moving equipment to the job where the volume of the work that the Contractor has completed is too small to compensate the Contractor for these expenses under the Contract unit prices.

The Department may purchase at actual cost acceptable materials and supplies procured for the work, that the Department has inspected, tested, and approved and that the Contractor has not incorporated in the work. Submit the proof of actual cost, as shown by receipted bills and actual cost records, at such points of delivery as the Engineer may designate.

Termination of a Contract or a portion thereof, under the provisions of this Subarticle, does not relieve the Contractor or the surety of its responsibilities for the completed portion of the Contract or its obligations for and concerning any just claims arising out of the work performed.

All Contractor claims for additional payment, due to the Department's termination of the entire Contract or any portion thereof, must meet the requirements of 5-12.

8-9.3 Completion of Work by Department: Upon declaration of default, the Department will have full power to appropriate or use any or all suitable and acceptable

materials and equipment on the site and may enter into an agreement with others to complete the work under the Contract, or may use other methods to complete the work in an acceptable manner. The Department will charge all costs that the Department incurs because of the Contractor's default, including the costs of completing the work under the Contract, against the Contractor. If the Department incurs such costs in an amount that is less than the sum that would have been payable under the Contract had the defaulting Contractor completed the work then the Department will pay the difference to the defaulting Contractor. If the Department incurs such costs in an amount that exceeds the sum that would have been payable under the Contract, then the Contractor and the surety shall be liable and shall pay the State the amount of the excess.

If, after the ten day notice period and prior to any action by the Department to otherwise complete the work under the Contract, the Contractor establishes his intent to prosecute the work in accordance with the Department's requirements, then the Department may allow the Contractor to resume the work, in which case the Department will deduct from any monies due or that may become due under the Contract, any costs to the Department incurred by the delay, or from any reason attributable to the delay.

8-10 Liquidated Damages for Failure to Complete the Work.

8-10.1 Highway Code Requirements Pertaining to Liquidated Damages: Section 337.18, paragraph (2) of the Florida Statutes, requires that the Department adopt regulations for the determination of default and provides that the Contractor pay liquidated damages to the Department for any failure of the Contractor to complete the Contract work within the Contract Time. These Code requirements govern, and are herewith made a part of the Contract.

In accordance with Section 337.18 of the Florida Statutes, an additional damage recovery/user cost will be assessed if the Contractor fails to complete a revenue project within the approved Contract Time. The Department intends to recover a portion of the projected revenues that will be lost due to failure to timely open the project to revenue producing traffic.

8-10.2 Amount of Liquidated Damages: Applicable liquidated damages are the amounts established in the following schedule:

Original Contract Amount	Daily Charge Per Calendar Day
$50,000 and under	$278
Over $50,000 but less than $250,000	$388
$250,000 but less than $500,000	$566
$500,000 but less than $2,500,000	$1,148
$2,500,000 but less than $5,000,000	$1,914
$5,000,000 but less than $10,000,000	$2,514
$10,000,000 but less than $15,000,000	$3,300
$15,000,000 but less than $20,000,000	$3,782
$20,000,000 and over	$5,684 plus 0.00005 of any amount over $20 million

8-10.3 Determination of Number of Days of Default: For all Contracts, regardless of whether the Contract Time is stipulated in calendar days or working days, the Engineer will count default days in calendar days.

8-10.4 Conditions under which Liquidated Damages are Imposed: If the Contractor or, in case of his default, the surety fails to complete the work within the time stipulated in the Contract, or within such extra time that the Department may have granted then the Contractor or,

in case of his default, the surety shall pay to the Department, not as a penalty, but as liquidated damages, the amount so due as determined by the Code requirements, as provided in 8-10.1 and 8-10.2.

8-10.5 Right of Collection: The Department has the right to apply, as payment on such liquidated damages, any money the Department owes the Contractor.

8-10.6 Allowing Contractor to Finish Work: The Department does not waive its right to liquidated damages due under the Contract by allowing the Contractor to continue and to finish the work, or any part of it, after the expiration of the Contract Time including granted time extensions.

8-10.7 Completion of Work by Department: In the case of a default of the Contract and the completion of the work by the Department, the Contractor and his surety are liable for the liquidated damages under the Contract, but the Department will not charge liquidated damages for any delay in the final completion of the Department's performance of the work due to any unreasonable action or delay on the part of the Department.

8-11 Release of Contractor's Responsibility.

The Department considers the Contract complete when the Contractor has completed all work and the Department has accepted the work. The Department will then release the Contractor from further obligation except as set forth in his bond, and except as provided in 5-13.

8-12 Recovery of Damages Suffered by Third Parties.

In addition to the damages provided for in 8-10.1 and 8-10.2 and pursuant to Section.337.18 of the Florida Statutes, when the Contractor fails to complete the work within the Contract Time or within such additional time that the Department may grant the Department may recover from the Contractor amounts that the Department pays for damages suffered by third parties unless the failure to timely complete the work was caused by the Department's act or omission.

8-13 Damage Recovery

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 Engineer. This assessment will be in the following amounts:

First 30 minutes and under:	$2,000.00
Each additional 30 minute period or portion thereof:	$3,000.00

Such costs will not exceed $10,000 over a 24 hour period.

At the discretion of the Engineer, 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.

The Department will have the right to apply as payment on such damages any money which is due to the Contractor by the Department.

SECTION 9
MEASUREMENT AND PAYMENT

9-1 Measurement of Quantities.

9-1.1 Measurement Standards: Measure all work completed under the Contract in accordance with the United States Standard Measures.

9-1.2 Method of Measurements: Take all measurements horizontally or vertically.

9-1.3 Determination of Pay Areas: Not applicable.

9-1.4 Construction Outside Authorized Limits: Not applicable.

9-1.5 Truck Requirements: Not applicable.

9-1.6 Ladders and Instrument Stands for Bridge Projects: Not applicable.

9-1.7 Determination of Pay Reduction: In measurement of areas of work, where pay reductions are to be assessed, the Engineer will use the lengths and/or widths in the calculations based upon station to station dimensions in the Contracts Documents; the station to station dimensions actually constructed within the limits designated by the Engineer; or the final dimensions measured along the final surface of the completed work within the neat lines shown in the Contract Documents or designated by the Engineer. The Engineer will use the method or combination of methods of measurement, which will reflect with reasonable accuracy, the actual surface area of the finished work as the Engineer determines.

Failure on the part of the Contractor to construct any item of work to plan or authorized dimensions within the specification tolerances will result in: reconstruction to acceptable tolerances at no additional cost to the Department; acceptance at no pay; or, acceptance at reduced pay, all at the discretion of the Engineer.

9-2 Scope of Payments.

9-2.1 Items Included in Payment: Accept the compensation as provided in the Contract Documents 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 provisions of Division I.

The Contract Lump Sum Price will include overhead, profits, and direct and indirect costs required to complete the project except as described below.

9-2.1.1 Fuels: On Contracts with an original Contract Time in excess of 120 calendar days, the Department will make price adjustments on each applicable progress estimate to reflect increases or decreases in the price of gasoline and diesel from those in effect during the month in which bids were received. The Contractor will not be given the option of accepting or rejecting these adjustments. Price adjustments for these fuels will be made only when the current fuel price (CFP) varies by more than 5% from the price prevailing in the month when bids were received (BFP), and then only on the portion that exceeds 5%.

The Contractor will certify the number of gallons of fuel (gasoline and/or diesel) used on this Contract during the period represented by each invoice.

The Department will determine the API for each month by averaging quotations in effect on the first day of the month at all terminals that could reasonably be expected to furnish fuel to projects in the State of Florida.

The API will be available on the State Construction Office website before the 15th of each month at the following URL:
www.dot.state.fl.us/construction/fuel&Bit/Fuel&Bit.shtm .

Price adjustments will not be made for Items of work added by contingency supplemental agreement, supplemental agreement, or work orders.

Payment on progress estimates will be adjusted to reflect adjustments in the prices for fuel in accordance with the following:

$ Adjustment = (ID)(gallons)

Where ID = Index Difference = [CAPI - 0.95(BAPI)] when the API has decreased between the month of bid and month of this progress estimate.

Where ID = Index Difference = [CAPI - 1.05(BAPI)] when the API has increased between the month of bid and month of this progress estimate.

Gallons will be derived only from the established Standard Fuel Factor list posted on the State Construction Office website at the following URL:
www.dot.state.fl.us/construction/fuel&Bit/LSfuelfactors.shtm .

The Department will provide a computer application that will calculate and print the gallons of gasoline and/or diesel for the items that these factors represent. The Contractor will attach this worksheet and record these gallons on the Certified Invoice as required in 9-11.

Payment will be based on the quantities shown on the Contractor's Invoice on all items for which established standard fuel factors are posted on the State Construction Office website at the following URL:
www.dot.state.fl.us/construction/fuel&Bit/LSfuelfactors.shtm .

Payment will be made on the current progress estimate to reflect the index difference at the time work was performed.

Adjustments will be paid or charged to the Prime Contractor only. Any Contractor receiving an adjustment under this provision shall distribute the proper proportional part of such adjustment to subcontractors who perform applicable work.

9-2.1.2 Bituminous Material: Prepare a Contractor's Certification of Quantities, using the Department's current approved form for Superpave Asphalt Base, Turnout Construction (Asphalt), Asphalt Treated Permeable Base, Superpave Asphaltic Concrete, Miscellaneous Asphalt Pavement and Asphalt Rubber Membrane Interlayer items. On Contracts having an original Contract Time of more than 365 calendar days, or more than 5,000 tons of asphalt concrete, the Department will adjust the bid unit price for bituminous material, excluding cutback and emulsified asphalt to reflect increases or decreases in the Asphalt Price Index (API) of bituminous material from that in effect during the month in which bids were received. The Contractor will not be given the option of accepting or rejecting this adjustment. Bituminous adjustments will be made only when the current API (CAPI) varies by more than 5% of the API prevailing in the month when bids were received (BAPI), and then only on the portion that exceeds 5%.

The Department will determine the API for each month by averaging quotations in effect on the first day of the month at all terminals that could reasonably be expected to furnish bituminous material to projects in the State of Florida.

The API will be available on the State Construction Office website before the 15th of each month at the following URL:
www.dot.state.fl.us/construction/fuel&Bit/Fuel&Bit.shtm .

The Department will provide a computer application that will calculate and print the number of gallons of bituminous material for the items that these factors represent. The Contractor will attach this worksheet and record these gallons on the Certified Invoice as required in 9-11.

Payment on progress estimates will be adjusted to reflect adjustments in the prices for bituminous materials in accordance with the following:

$ Adjustment = (ID)(gallons)

Where ID = Index Difference = [CAPI - 0.95(BAPI)] when the API has decreased between the month of bid and month of this progress estimate.

Where ID = Index Difference = [CAPI - 1.05(BAPI)] when the API has increased between the month of bid and month of this progress estimate.

For all asphalt concrete, the number of gallons will be determined assuming a mix design with 6.25% liquid asphalt weighing 8.58 lb/gal.

For asphalt treated permeable base, the number of gallons will be determined assuming a mix design with 3% liquid asphalt weighing 8.58 lb/gal.

Payment will be made on the current progress estimate to reflect the index difference at the time work was performed.

Adjustments will be paid or charged to the Prime Contractor only. Any Contractor receiving an adjustment under this provision shall distribute the proper proportional part of such adjustment to subcontractors who perform applicable work.

Prepare a Contractor's Certification of Quantities, using the Department's current approved form for Superpave Asphalt Base, Turnout Construction (Asphalt), Asphalt Treated Permeable Base, Superpave Asphaltic Concrete, Miscellaneous Asphalt Pavement and Asphalt Rubber Membrane Interlayer pay items.

9-2.2 Non-Duplication of Payment: Not applicable.

9-2.3 General Basis of Adjusted Pay:

9-2.3.1 Deficiencies: When a deficiency occurs that results in the acceptance of a material at a reduced payment level as defined in these Specifications, the Engineer will apply a reduction in payment for the material in question based on the unit prices as determined using the six-month State wide pay item averages. The dates will be the six months prior to the letting date for this Contract.

9-2.3.2 Asphalt Design Thickness/Spread Rate: The average spread rate per sublot will be used to determine if the amount of asphalt placed on the project meets the minimum requirements specified in the Contract Documents. Before placing asphalt mix, propose a target spread rate for each layer, which when combined with other layers, will meet the design thickness or spread rate specified in the Contract Documents. The weight of the mixture will be determined as provided in 320-2 (including the provisions for automatic recordation system).

On projects specifying a thickness in the Contract Documents for asphalt, the conversion of design thickness to target spread rate will be established by multiplying the maximum specific gravity of the asphalt mix (as indicated on the verified mix design) by 43.3 lbs/sy for every inch of asphalt.

On projects specifying a total spread rate of mix in the Contract Documents for asphalt, calculate the average spread rate per sublot (as defined in Section 334) by the following formula:

Average spread rate per sublot = Total weight of asphalt mix (lbs) for the sublot/area covered by that sublot (sy)

During construction, monitor the mix spread rate of each sublot at frequent intervals in accordance with 330-2.2 in order to meet the target spread rate for each sublot. Document the actual spread rate of each sublot on the Roadway QC Form.

The Engineer will determine if the material of the roadway pavement is acceptable to remain in place at full pay, remain in place at reduced pay or corrected at no cost to the Department. Final disposition of the finished roadway pavement will be based upon the comparison between the design spread rate specified in the Contract Documents and the combined value of the average spread rate of each sublot at the same area (including FC-6, but excluding FC-5). The acceptable tolerance of the combined spread rate evaluation of the roadway pavement is ± 5%.

Reductions in pay will be determined per sublot by applying a proportional reduction in payment for the material in question, based on a ratio of the average spread rate for the sublot to the design spread rate, which will then be applied in accordance with 9-2.3.1. Any quantity over the designed spread rate specified in the Contract Documents shall not be paid.

9-2.3.3 Quality: Where an adjustment of payment for quality is called for in the Contract Documents, the Engineer will make such adjustments for the corresponding quantity of material based on the unit prices as determined using the six month State wide pay item averages. The dates will be the six months prior to the letting date for this Contract.

9-2.3.4 Adjustment to the Lump Sum Payment for Deleted Items of Work: When items such as pipe culverts, inlets, manholes, mitered end sections, etc. are shown in the Contract Documents to be constructed or installed and due to actual field conditions, it is determined by the Engineer that the item is not needed, then a negative adjustment will be made based on the invoice price for the actual cost of the item and the Contractor will retain ownership.

9-3 Compensation for Altered Quantities.

Not applicable.

9-4 Deleted Work.

The Department will have the right to cancel the portions of the Contract relating to the construction of any acceptable item therein, by the payment to the Contractor of a fair and equitable amount covering all items of cost incurred prior to the date that the Engineer cancels or suspends the work.

In addition to having the right of canceling the portions of the Contract relating to the construction of any acceptable item therein, the Department shall have the right to cancel any portion of the engineering services. Said cancellation shall be in the same manner as contained herein.

9-5 Partial Payments.

9-5.1 General: The Engineer will make partial payments on monthly estimates based on the amount of work that the Contractor completes during the month (including delivery of certain materials, as specified herein below) based on a Contractor approved payout schedule (schedule of values). The Engineer will make approximate monthly payments, and the Department will

correct all partial estimates and payments in the subsequent estimates and in the final estimate and payment.

The Department will base the amount of such payments on the total value of the work that the Contractor has performed to the date of the estimate, based on the quantities completed and the Contract prices, less payments previously made and less any retainage withheld.

Retainage will not be withheld until the percent of allowable Contract time used exceeds 75%. From that time forward, the Department will withhold retainage of 10% of the amount due on the current estimate as retainage when the percent of allowable Contract time used exceeds the percent of Contract amount earned by more than 15%.

Contract amount is defined as the original Contract amount adjusted by approved supplemental agreements.

Contract time is defined as the original Contract time adjusted by approved Contract time extensions.

Retainage will be determined for each job on multiple job Contracts. The Department will not accept Securities, Certificates of Deposit or letters of credit as a replacement for retainage. Amounts withheld will not be released until payment of the final estimate. Sections 255.05 and 337.16 of the Florida Statutes

9-5.2 Unsatisfactory Payment Record: In accordance with, and the rules of the Department, the Department may disqualify the Contractor from bidding on future Department contracts if the Contractor's payment record in connection with contract work becomes unsatisfactory. The Department may also disqualify the surety from issuing bonds for future Department Contracts if they similarly fail to perform under the terms of their bond.

9-5.3 Withholding Payment:

9-5.3.1 Withholding Payment for Defective Work: If the Department discovers any defective work or material prior to the final acceptance, or if the Department has a reasonable doubt as to the integrity of any part of the completed work prior to final acceptance, then the Department will not allow payment for such defective or questioned work until the Contractor has remedied the defect and removed any causes of doubt.

9-5.3.2 Withholding Payment for Failure to Comply: The Department will withhold progress payments from the Contractor if he fails to comply with any or all of the following within 60 days after beginning work:

(a) Comply with and submit required paperwork relating to prevailing wage rate provisions, Equal Employment Opportunity, On-The-Job-Training, and Affirmative Action;

(b) Comply with the requirement to report all necessary information, including actual payments to DBEs, all other subcontractors and major suppliers, through the Internet based Equal Opportunity Reporting System;

(c) Comply with or make a good faith effort to ensure equal employment opportunity for minorities and females hiring goals; and

(d) Comply with or make a good faith effort to meet On-The-Job-Training goals.

The Department will withhold progress payments until the Contractor has satisfied the above conditions.

9-5.4 Release of Retainage After Acceptance: Any sums owed to the Department by the Contractor on any account may be deducted from such payment estimates. Where more than

one project or job (Financial Project ID) is included in the Contract, the reduced retainage shall be distributed to each separate project or job in the ratio that the Contract value of the work for the particular job bears to the total Contract amount. Retainage will be released upon satisfactory completion of all work and the completion of any conditional acceptance waiting periods.

9-5.5 Partial Payments for Delivery of Certain Materials:

9-5.5.1 General: The Department will allow partial payments for new materials that will be permanently incorporated into the project and are stockpiled in approved locations in the project vicinity. Stockpile materials so that they will not be damaged by the elements and in a manner that identifies the project on which they are to be used.

The following conditions apply to all payments for stockpiled materials:

(1) There must be reasonable assurance that the stockpiled material will be incorporated into the specific project on which partial payment is made.

(2) The stockpiled material must be approved as meeting applicable specifications.

(3) The total quantity for which partial payment is made shall not exceed the estimated total quantity required to complete the project.

(4) The Contractor shall furnish the Engineer with copies of certified invoices to document the value of the materials received. The amount of the partial payment will be determined from invoices for the material.

(5) Delivery charges for materials delivered to the jobsite will be included in partial payments if properly documented.

(6) Partial payments will not be made for materials, which were stockpiled prior to award of the Contract for a project.

9-5.5.2 Partial Payment Amounts: The following partial payment restrictions apply:

(1) Partial payments less than $5,000 for any one month will not be processed.

(2) Partial payment will not be made for aggregate and base course material received after paving or base construction operations begin except when a construction sequence designated by the Department requires suspension of paving and base construction after the initial paving operations, partial payments will be reinstated until the paving and base construction resumes.

9-5.5.3 Off Site Storage: If the conditions of 9-5.5.1 are satisfied, partial payments will be allowed for materials stockpiled in approved in-state locations. Additionally, partial payments for materials stockpiled in approved out-of-state locations will be allowed if the conditions of 9-5.5.1 and the following conditions are met:

(1) Furnish the Department a Materials Bond stating the supplier guarantees to furnish the material described in the Contract to the Contractor and Department. Under this bond, the Obligor shall be the material supplier and the Obligees shall be the Contractor and the Florida Department of Transportation. The bond shall be in the full dollar amount of the bid price for the materials described in the Contract.

(2) The following clauses must be added to the construction Contract between the Contractor and the supplier of the stockpiled materials:

"Notwithstanding anything to the contrary, <supplier> will be liable to the Contractor and the Florida Department of Transportation should <supplier> default in the performance of this agreement."

"Notwithstanding anything to the contrary, this agreement, and the performance bond issued pursuant to this agreement, does not alter, modify, or otherwise change the Contractor's obligation to furnish the materials described in this agreement to the Florida Department of Transportation."

(3) The agreement between the Contractor and the supplier of the stockpiled materials must include provisions that the supplier will store the materials and that such materials are the property of the Contractor.

9-5.6 Certification of Payment to Subcontractors: The term "subcontractor," as used herein, includes persons or firms furnishing materials or equipment incorporated into the work or stockpiled for which the Department has made partial payment and firms working under equipment-rental agreements. The Contractor is required to pay all subcontractors for satisfactory performance of their Contracts before the Department will make a further progress (partial) payment. The Contractor shall also return all retainage withheld to the subcontractors within 30 days after the subcontractor's work is satisfactorily complete, as determined by the Department. Prior to receipt of any progress (partial) payment, the prime Contractor shall certify that all subcontractors having an interest in the Contract were paid for satisfactory performance of their Contracts and that the retainage is returned to subcontractors within 30 days after satisfactory completion of the subcontractor's work. Provide this certification in the form designated by the Department.

Within 30 days of the Contractor's receipt of the final progress payment or any other payments thereafter, except the final payment, the Contractor shall pay all subcontractors and suppliers having an interest in the Contract for all work completed and materials furnished. The Department will honor an exception to the above when the Contractor demonstrates good cause for not making any required payment and furnishes written notification of any such good cause to both the Department and the affected subcontractors or suppliers within said 30-day period.

9-6 Record of Construction Materials.

9-6.1 General: For all construction materials used in the construction of the project, (except materials exempted by 9-6.2), preserve for the Department's inspection the invoices and records of the materials for a period of three years from the date of completion of the project. Apply this requirement when subcontractors purchase materials, and obtain the invoices and other materials records from the subcontractors. By providing the materials, the Contractor certifies that all invoices will be maintained for the required period.

9-6.2 Non-Commercial Materials: The provisions of 9-6.1 do not apply to materials generally classed as non-commercial, such as fill materials, local sand, sand-clay, or local materials used as stabilizer.

9-7 Disputed Amounts Due the Contractor.

The Department reserves the right to withhold from the final estimate any disputed amounts between the Contractor and the Department. The Department will release all other amounts due, as provided in 9-8.

9-8 Acceptance and Final Payment.

Whenever the Contractor has completely performed the work provided for under the Contract and the Engineer has performed a final inspection and made final acceptance (as provided in 5-10 and 5-11), and subject to the terms of 8-11, the Engineer will prepare a final

estimate showing the value of the work as soon as the Engineer makes the necessary measurements and computations. The Engineer will correct all prior estimates and payments in the final estimate and payment. The Department will pay the estimate, less any sums that the Department may have deducted or retained under the provisions of the Contract, as soon as practicable after final acceptance of the work, along with all fully executed supplemental agreements received after final acceptance.

If the Contractor fails to furnish all required Contract Documents as listed in (a) through (h) below within 90 days of the Department's offer of final payment or request for refund of overpayment, the Department may suspend the Contractor's Certificate of Qualification under the provisions of Florida Administrative Code 14-22.

(a) The Contractor has agreed in writing to accept the balance due or refund the overpayment, as determined by the Department, as full settlement of his account under the Contract and of all claims in connection therewith, or the Contractor, has through the use of the Qualified Acceptance Letter, accepted the balance due or refunded the overpayment, as determined by the Department, with the stipulation that his acceptance of such payment or the making of such refund does not constitute any bar, admission, or estoppels, or have any effect as to those payments in dispute or the subject of a pending claim between the Contractor and the Department. To receive payment based on a Qualified Acceptance Letter, define in writing the dispute or pending claim with full particular of all items of all issues in dispute, including itemized amounts claimed for all particulars of all items, and submit it as part of the Qualified Acceptance Letter. The Contractor further agrees, by submitting a Qualified Acceptance Letter that any pending or future arbitration claim or suit is limited to those particulars, including the itemized amounts, defined in the original Qualified Acceptance Letter, and that he will commence with any such arbitration claim or suit within 820 calendar days from and after the time of final acceptance of the work and that his failure to file a formal claim within this period constitutes his full acceptance of the Engineer's final estimate and payment. The overpayment refund check from the Contractor, if required, will be considered a part of any Acceptance Letter executed.

(b) The Contractor has properly maintained the project, as specified hereinbefore.

(c) The Contractor has furnished a sworn affidavit to the effect that the Contractor has paid all bills and no suits are pending (other than those exceptions listed, if any) in connection with work performed under the Contract and that the Contractor has not offered or made any gift or gratuity to, or made any financial transaction of any nature with, any employee of the Department in the performance of the Contract. Include with the listed tort liability exceptions, if any, evidence of adequate insurance coverage as required in 7-13.

(d) The surety on the Contract bond consents, by completion of their portion of the affidavit and surety release subsequent to the Contractor's completion of his portion, to final payment to the Contractor and agrees that the making of such payment does not relieve the surety of any of its obligations under the bond.

(e) The Contractor has complied with and settled all requirements pertaining to any wage-rate provisions.

(f) The Contractor has furnished all required mill tests and analysis reports to the Engineer.

(g) The Contractor has furnished the Construction Compliance with Specifications and Plans Certification. Provide the Engineer with a notarized final certification of

compliance with the requirements of Section 105 to accompany the final estimate. Certification must be on a form provided by the Engineer.

(h) The Contractor has furnished and the Department has accepted the as-built drawings and certified survey in accordance with the requirements of Section 555, 556, 557 and 611.

9-8.2 Review of Engineer's Final Estimate: The Department may review the Engineer's final estimate and make changes as necessary. If changes are made, the Contractor will be so notified in writing in the "Notification of Findings Due to Additional Review". This notification letter will detail the changes made as a result of the review, and will stipulate the actions to be taken by the Department and those required by the Contractor. The issuance of a "Notification of Findings Due to Additional Review" will not impact the requirements of 9-8.1, above.

Complete the required actions and return the signed "Notification of Findings Due to Additional Review" to the Department within the timeframe specified in 9-8.1. If the "Notification of Findings Due to Additional Review" is received after the time has expired in 9-8.1, return to the Department within 30 days signifying agreement or disagreement with the findings. For disagreement items, provide a full explanation including the item(s) and amount. For any claim or part of a claim that pertains solely to the "Notification of Findings Due to Additional Review" disputes, submit full and complete claim documentation as described in 5-12.3 as to such claim dispute issues within 90 days of receipt of the notification. Failure to return the signed notification or to furnish such claim documentation within the time frames specified may result in suspension of the Contractor's Certificate of Qualification under the provisions of Florida Administrative Code 14-22.

9-9 Interest Due on Delayed Payments.

The Department will determine and pay any interest due the Contractor for delays in final payment in accordance with Section 337.141 of the Florida Statutes**.**

Section 215.422(5), Florida Statutes, requires the Department to include a statement of vendor (Contractor) rights. Contractors are hereby advised of the following:

Contractors providing goods and services to an agency should be aware of the following time frames. Upon receipt, an agency has five working days to inspect and approve the goods and services, unless the bid specifications, purchase order or Contract specifies otherwise. An agency has 20 days to deliver a request for payment (voucher) to the Department of Financial Services. The 20 days are measured from the latter of the date the invoice is received or the goods or services are received, inspected and approved, by the Department.

If a payment is not made within 40 days, a separate interest penalty at the rate established pursuant to Section 55.03(1), Florida Statutes would be due and payable, in addition to the invoice amount, to the Contractor. The interest penalty provision applies after a 35 day time period to health care providers, as defined by rule. Interest penalties of less than one dollar will not be enforced unless the Contractor requests payment. Invoices that have to be returned to a Contractor because of Contractor preparation errors will result in a delay in the payment. The invoice payment requirements do not start until a properly completed invoice is provided to the Department.

A Vendor Ombudsman has been established within the Department of Financial Services. The duties of this individual include acting as an advocate for Contractors who may be experiencing problems in obtaining timely payment(s) from a State Agency. The Vendor Ombudsman may be contacted by calling the Bureau of Accounting at (850) 413-5516.

9-10 Offsetting Payments.

Section 337.145 of the Florida Statutes, providing for offsetting payments to the Contractor, is hereby made a part of this Contract:

(1) After settlement, arbitration, or final adjudication of any claim of the Department for work done pursuant to a construction Contract with any party, the Department may offset such amount from payments due for work done on any construction Contract, excluding amounts owed to subcontractors, suppliers, and laborers, which it has with the party owing such amount if, upon demand, payment of the amount is not made within 60 days to the Department.

(2) Offsetting any amount pursuant to (1) above shall not be considered a breach of Contract by the Department.

9-11 Submittals.

9-11.1 Submittal Instructions: The Contractor will prepare a progress invoice for each project in the Contract. Submit the progress invoice to the Engineer. The Engineer will not pay for any item of work until the progress invoice is approved.

9-11.2 Contractor's Invoice: The Contractor must make a request for payment by submitting an invoice, no later than Twelve O'clock noon, Monday, after the estimate cut-off date or as directed by the Engineer, based on the amount of work completed. The Contractor's invoice must consist of the following:

(a) Contract Number, FPID Number, W.P.I. Number, Invoice Number, Invoice Date and the period that the invoice represents.

(b) The basis for arriving at the amount of the progress invoice including approximate quantities of work completed, less payment previously made and less the amount previously retained or withheld.

(c) Contract Summary showing the percentage of dollar value of completed work based on the present Contract amount and the percentage of days used based on the present Contract days.

(d) Certify the number of gallons of gasoline, diesel and bituminous material during the invoice period.

9-11.3 Payment to the Contractor: Upon receipt of the progress invoice and approval by the Engineer, payment will be made, less the amount retained or withheld per provisions included in the Contract. The monthly payments will be approximate only and will be subject to reduction for overpayments or increase for underpayments on preceding payments to the Contractor and to correction in the subsequent estimates and the final estimate and payment.

FORMS TO BE INCLUDED IN THE BID PRICE PROPOSAL

Included in this section are Bid Price Proposal documents, which must be completed by the DESIGN BUILD FIRM and submitted with their Bid Price Proposals.

- Bid Blank (Form 375-020-17)
- Design-Build Bid Proposal Form (700-010-65)
- Design-Build Proposal of (Form 375-020-12, 4 pages)
- Design-Build Bid or Proposal Bond (Form 375-020-34)
- Anticipated DBE Participation Statement (Form 275-021-23)
- E-Verify Form (Form 375-040-68)
- Vendor Certification Regarding Scrutinized Companies Lists (Form 375-030-60)
- DBE Forms (Form 275-030-11, 7 pages)
- Federal Wage Rates

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

375-020-17
CONTRACTS ADMINISTRATION
OGC - 07/11

BID BLANK
DESIGN BUILD - MAJOR

Let by: District 1 - Bartow

(Void if used by any bidder other than one this Form issued to)

FINANCIAL PROJECT NO(S). 414730-1-52-01, 414732-1-52-01, and 414736-1-52-01

FEDERAL AID PROJECT ID(S). 0756 114 i, N/A, and N/A

CONTRACT CALENDAR DAYS: _____

CONTRACT NO. E1J73

DATE BIDS DUE: February 16, 2012

TOTAL AMOUNT: $ _____

DATE OF AWARD: _____

DATE OF CONTRACT EXECUTION: _____

Appropriation FY: 2011/2012

Appropriation Category: 088716

8.18 **% DBE Availability**

PROPOSAL

The Bidder's Proposal must meet the requirements and design and construction criteria as stated in the FDOT Request for Proposal

I-75 FREEWAY MANAGEMENT SYSTEM. ALL DOCUMENTATION/INFORMATION PROVIDED TO THE CONTRACTOR BY THE DEPARTMENT, AND THE CONTRACTOR TO THE DEPARTMENT, FROM THE TIME OF SHORTLISTING (JULY 5, 2011) ARE INCLUSIVE WITHIN THIS AGREEMENT.

in SARASOTA AND MANATEE County(ies)

NOTE: Attach your Proposal Guaranty to this bid blank. All Extensions must be carried out. Any changes made in unit bid prices must be initialed by bidder.

DESIGN-BUILD BID PROPOSAL FORM

CONTRACT NO.: E1J73
FPNs: 414730-1-52-01, 414732-1-52-01, and 414736-1-52-01
PROJECT LOCATION/DESCRIPTION: I-75 Freeway Management System (FMS) in Sarasota and Manatee Counties.

The Design Build-Firms is required to state the proposed Contract Time and a Lump Sum (LS) price and submit to District One Professional Services Office, Attn: Felipe Alvarez, 801 North Broadway Avenue, Bartow, Florida 33830

PROPOSED CONTRACT TIME: _____

ITEM DESCRIPTION	UNIT	QUANTITY	FPN	Price
DESIGN-BUILD	LS	1	414730-1-52-01	$_____
DESIGN-BUILD	LS	1	414732-1-52-01	$_____
DESIGN-BUILD	LS	1	414736-1-52-01	$_____
DO NOT BID ITEMS				
INITIAL CONTNGENCY		1	414730-1-52-01	$80,000.00
INITIAL CONTINGENCY		1	414732-1-52-01	$50,000.00
INITIAL CONTINGENCY		1	414736-1-52-01	$20,000.00
PARTNERING	LS	1		$5,000.00
DISPUTE REVIEW BOARD	$3,300.00 Per Day	25		$82,500.00

TOTAL CONTRACT AMOUNT: **$_____**

TOTAL CONTRACT AMOUNT WRITTEN OUT

_____

DESIGN-BUILD FIRM NAME: _____

DESIGN-BUILD VENDOR NO: _____

DESIGN BUILD FIRM ADDRESS: _____

_____

_____

DESIGN BUILD FIRM SIGNATURE: _____

PRINTED NAME: _____

TITLE: _____

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

DESIGN - BUILD PROPOSAL
OF

_____
(Proposer's Firm Name) (Prequalified Name, if Applicable)

_____
(Proposing Firm's Physical Address -- City -- State -- Zip)

F.E.I.D. No. _____ Telephone No. (_____) _____ FAX No. (_____)_____

for constructing or otherwise improving a Bridge(s) and/or Section(s) of Road(s) No(s). or building(s) Freeway Management System on I-75

in Sarasota and Manatee County(ies),

_____ approximately _____

in length, and known as Federal Aid Project No(s).: 0756 116 I, Pending, and Pending

Contract No.: E1J73 Financial Project No(s).: 414730-1-52-01, 414732-1-52-01, and 414736-1-52-01

Submitted _____

TO THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION:

The Proposer, hereby declares that no person or persons, firm or corporation, other than the Proposer, are interested, in this proposal, as principals, and that this Proposal is made without collusion with any person, firm or corporation, and we have carefully and to our full satisfaction examined the Request for Proposal, Proposal forms, and that we have made a full examination of the location of the proposed work and the sources of supply of materials, and we hereby agree to furnish all necessary labor, equipment, and materials, and that we will fully complete all necessary design and construction work in accordance with the documents herein stated,and the requirements under them of the Engineer, within the time limit specified in this Proposal.

Was an addendum issued on this project?

○ Yes ○ No

I (We) hereby acknowledge receipt of the following Addenda issued during the bidding period.

Addendum No.	Dated	Addendum No.	Dated

The Proposer agrees to perform all necessary work, as provided for in the contract, and if awarded the contract, to execute the Contract within 010 calendar days, excluding Saturdays, Sundays, and state holidays, after the date on which the notice of award has been given, and to fully complete all necessary work under the same within not more than _____ calendar days. The Proposer further agrees to furnish a sufficient and satisfactory bond in the sum of not less than 100 percent of the contract price of the work.

The Proposer agrees to bear the full cost of maintaining all work until final acceptance, as provided in the contract.

If the total amount of this bid exceeds $150,000.00, a bid guaranty of five percent (5%) of the bid, payable to the Florida Department of Transportation, must accompany this proposal. The guaranty amount shall include all bid items except construction days for A+B Bidding and lane closure for Lane Rental Bidding. If this proposal is accepted and the Proposer fails to execute the Contract under the conditions of this proposal, the bid guaranty shall be forfeited to the Department; otherwise, said guaranty is to be returned to the Proposer upon delivery of a satisfactory bond. The Florida Department of Transportation officials and employees are prohibited by law from soliciting and accepting funds or gifts from any person who has, maintains, or seeks business relations with the Department pursuant to Section 334.195, Florida Statutes.

The Proposer, hereby certifies that it has carefully examined this proposal after the same was completed, and has verified each item placed thereon. The Proposer agrees to indemnify, defend and save harmless, the Department against any cost, damage, or expense which it may incur or be caused by any error in the Proposers preparation of same. By signing and submitting this proposal, the Proposer certifies that no principal (which includes officers, directors or executives) is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal department or agency.

The Proposer hereby certifies and obligates its firm as "Principal (Proposer)" to the attached Bid and Proposal Bond, as if and to the same effect as if the Proposer had affixed its signature thereon.

Section 287.134(a), Florida Statutes requires: An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.

Section 553.62, Florida Statutes, incorporates the Occupational Safety and Health Administration's (OSHA) safety standards, 29 CFR s. 1926.650 Subpart P, as the state standard. The Department of Labor and Employment Security may adopt updated or revised versions by rule. Other state or political subdivisions may also have standards that are applicable. If trench excavation will be required project in excess of five feet in depth, the Proposer must identify the cost of compliance with the applicable trench safety standards below. If there will be no trench excavation on the project in excess of five feet in depth, write "not applicable" below.

	Trench Safety Measure (Description)	Units of Measure	Quantity	Unit Cost	Extended Cost
A.					
B.					
C.					
D.					
E.					

(ATTACH SEPARATE SHEET IF NECESSARY)

TOTAL: $ _____

If applicable, this certifies that all trench excavation done within the control of the contractor will be in accordance with all applicable standards and with the specifications, and all requirements of Section 553.63(1)(a), 553.63(1)(b), 553.63(1)(c), Florida Statutes.

Job No(s). 414730-1-52-01, 414732-1-52-01, and 414736-1-52-01

The Proposer hereby declares that the undersigned is the person or persons responsible within the firm for the final decision as to the price(s) and amount of this bid and the Proposer further declares that:

1. The price(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement for the purpose of restricting competition with any other contractor, bidder or potential Proposer.

2. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a Proposer or potential Proposer on this project, and will not be so disclosed prior to the bid opening.

3. No attempt has been made or will be made to solicit, cause or induce any firm or person to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.

4. The bid is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any other firm or person to submit a complementary bid.

5. The Proposer has not offered or entered into a subcontract or agreement regarding the purchase of materials or services from any other firm or person, or offered, promised or paid cash or anything of value to any other Proposer or person, whether in connection with this or any other project, in consideration for an agreement or promise by any other firm or person to refrain from bidding or to submit a complementary bid on this project.

6. The Proposer has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any other firm or person, and has not been promised or paid cash or anything of value by any other firm or person, whether in connection with this or any other project, in consideration for the firm's submitting a complementary bid, or agreeing to do so, on this project.

7. The Proposer has made a diligent inquiry of all members, officers, employees, and agents of the Proposer with responsibilities relating to the preparation, approval or submission of the firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act or other conduct inconsistent with any of the statements and representations made in this Declaration.

8. As required by Section 337.165, Florida Statutes, the Proposer has fully informed the Department of Transportation in writing of all convictions of the firm, its affiliates (as defined in Section 337.165(1)(a), Florida Statutes), and all directors, officers, and employees of the firm and its affiliates for violation of state or federal antitrust laws with respect to a public contract or for violation of any state or federal law involving fraud, bribery, collusion, conspiracy or material misrepresentation with respect to a public contract. This includes disclosure of the names of current employees of the firm or affiliates who were convicted of contract crimes while in the employ of another company.

9. The Proposer certifies that, except as noted below, neither the firm nor any person associated therewith in the capacity of owner, partner, director, officer, principal, investigator, project director, manager, auditor, and/or position involving the administration of Federal funds:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions, as defined in 49 CFR s29.110(a), by any Federal department or agency;

(b) has within a three-year period preceding this certification been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, State, or local government transaction or public contract; violation of Federal or State antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) is presently indicted for or otherwise criminally or civilly charged by a Federal, State, or local governmental entity with commission of any of the offenses enumerated in paragraph 9(b) of this certification; and

(d) has within a three-year period preceding this certification had one or more Federal, State, or local government public transactions terminated for cause or default.

10. The Proposer certifies that it shall not knowingly enter into any transaction with any subcontractor, material supplier, or vendor who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this project by any Federal Agency unless authorized by the Department.

11. The firm certifies that the Proposer is not a nonresident alien, or a foreign corporation/entity formed under the laws of a country other than the United States.

12. The Bidder certifies that the company is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.

Where the Proposer is unable to declare or certify as to any of the statements contained in the above stated paragraphs numbered (1) through (12), the Proposer has provided an explanation in the "Exceptions" portion on page 4 of 4 or by attached separate sheet.

EXCEPTIONS:

Any exception listed above will not necessarily result in denial of award, but will be considered in determining proposer responsibility. For any exception noted, indicate to whom it applies, initiating agency and dates of agency action. Providing false information may result in criminal prosecution and/or administrative sanctions. I declare under penalty of perjury that the foregoing is true and correct.

CORPORATION:

_____
Bidder

Signature: _____
President

_____
Print Name

(Affix Corporate Seal)

SOLE PROPRIETORSHIP:

_____
Bidder

Signature: _____
Owner

_____
Print Name

PARTNERSHIP

_____
Bidder

Signature: _____
General Partner

_____
Print Name

Signature: _____
General Partner

_____
Print Name

LIMITED LIABILITY COMPANY:

_____
Bidder

Authorized Signature: _____

Title: Manager or Managing Member (Circle One)

_____
Print Name

JOINT VENTURE:

_____
Bidder

Signature: _____
Attorney-in-Fact (attach authorization)

_____
Print Name

CONTRACTOR: _____ (Seal)

Signature: _____
President

CONTRACTOR: _____ (Seal)

Signature: _____
President

CONTRACTOR: _____ (Seal)

Signature: _____
President

Organized and existing under the laws of the State of _____ and authorized to do business in the State of Florida, pursuant to the laws of the State of Florida, certificate of incorporation or organization or certificate of authority having been issued by the Florida Department of State.

FAILURE TO FULLY COMPLETE AND EXECUTE THIS DOCUMENT MAY RESULT IN THE BID BEING DECLARED NONRESPONSIVE

ATTACH BID BOND AND DBE FORMS

Job No(s). 414730-1-52-01, 414732-1-52-01, and 414736-1-52-01

DESIGN BUILD BID OR PROPOSAL BOND

KNOW ALL MEN BY THESE PRESENTS: That we, _____ _____, as Principal (Bidder), and _____, as Surety, are held and firmly bound unto the Florida Department of Transportation (hereinafter called the Obligee), in the full and just sum of FIVE PERCENT (5%) of the actual total of the Proposal referred to herein (do not enter figures), in lawful money of the United States of America, to be paid to the Obligee, to which payment will and truly to be made we bind ourselves, our heirs, executors, administrators, successors and assignees, jointly and severally and firmly be these presents:

WHEREAS, The said Principal is herewith submitting a proposal to the obligee for constructing or otherwise improving a road(s) and/or bridge(s) or building(s) in Freeway Management System on I-75, Sarasota and Manatee County, particularly known as Federal Aid Project No.(s) 0756 116 I, Pending, Pending Financial Project No.(s) 414730-1-52-01, 414732-1-52-01, and 414736-1-52-01 Proposal ID E1J73

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the said Principal shall execute a contract and give bond for the faithful performance thereof within the time period as stipulated by the project specifications after being notified in writing of the award of such contract to Principal, or if the Surety shall pay the Obligee the full amount of this bond, then this obligation shall be void; otherwise it shall remain in full force and effect.

SIGNED, SEALED AND DATED THIS _____ day of _____, _____

NAME OF SURETY: _____ (Affix Surety Seal)

By: _____ _____
Florida Licensed Insurance Agent or Attorney-In-Fact (Signature) (Printed Name)

Countersigned: _____ _____
Florida Licensed Insurance Agent (Printed Name)

The following Statement to be completed regarding the Florida Licensed Insurance Agent:

STATE OF _____
COUNTY OF _____

Before me, the above signed authority, personally appeared _____ _____, who is personally known to me or has produced _____ (type of identification) identification and is duly sworn, deposes and says that he/she is a duly authorized insurance agent properly licensed under the laws of the State of Florida to represent _____ _____ of _____, a company authorized to make corporate Surety Bonds under the laws of Florida and acceptable as Surety on Federal Bonds and that he has signed or countersigned the above bond on their behalf.

Sworn, and subscribed to before me this _____ day of _____, _____

_____ Notary Public, State of _____.

My commission expires: _____

NOTE: The principal bidder is not required to sign this document, as execution of Form 375-020-12, Design Build Proposal Of, specifically binds the principal bidder to the obligations arising from this document. Failure of the principal bidder to execute Form 375-020-12, Design Build Proposal Of, or failure of the surety to execute this document, shall result in the bid being declared nonresponsive.

NOTE: Power of Attorney showing authority of Florida Licensed Insurance Agent to sign on behalf of, and bind, surety must be furnished with this form. Affix Corporate Seal of Surety. No Bid Bond is required if the total amount of the bid is $150,000 or less.

ANTICIPATED DBE PARTICIPATION STATEMENT FOR DESIGN-BUILD CONTRACTS

BUILD PORTION

(Page 1 of 2)

1. FINANCIAL PROJECT NO.	2. FAP NO.	3. CONTRACT NO.	4. COUNTY(IES)	5. DISTRICT
414730-1-52-01, 414732-1-52-01, 414736-1-52-01	0756 116 I, Pending, Pending	E1J73	Sarasota and Manatee	One

6. PRIME CONTRACTOR NAME	7. FEID NUMBER
8. TOTAL CONSTRUCTION DOLLAR AMOUNT (Excluding Design)	**9. REVISION? _____ IF YES, REVISION NUMBER: _____**

10. IS THE PRIME CONTRACTOR A FLORIDA CERTIFIED "DBE"? (DISADVANTAGED BUSINESS ENTERPRISE)	☐ NO ☐ YES	11. TOTAL FDOT CONTRACT DOLLAR AMOUNT (DESIGN + CONSTRUCTION) **$0.00**

12. ANTICIPATED DBE SUBCONTRACTS FOR BUILD PORTION:

	DBE SUBCONTRACTOR or SUPPLIER	TYPE OF WORK/SPECIALTY	DOLLAR AMOUNT	PERCENT OF CONTRACT DOLLARS
A	NAME: FEID:	WORK: SPEC CODE:		
B	NAME: FEID:	WORK: SPEC CODE:		
C	NAME: FEID:	WORK: SPEC CODE:		
D	NAME: FEID:	WORK: SPEC CODE:		
E	NAME: FEID:	WORK: SPEC CODE:		
F	NAME: FEID:	WORK: SPEC CODE:		
G	NAME: FEID:	WORK: SPEC CODE:		
H	NAME: FEID:	WORK: SPEC CODE:		
BUILD PORTION			TOTAL BUILD PORTION $0.00	TOTAL PERCENT OF CONTRACT
DESIGN PORTION			TOTAL DESIGN PORTION $0.00	TOTAL PERCENT OF CONTRACT 0.00%
TOTAL AMOUNT (DESIGN + BUILD)			**TOTAL DOLLARS TO DBE'S** $0.00	TOTAL PERCENT OF CONTRACT 0.00%

PLEASE COMPLETE DESIGN PORTION ON NEXT PAGE

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

275-021-23
EQUAL OPPORTUNITY OFFICE
06/11

ANTICIPATED DBE PARTICIPATION STATEMENT FOR DESIGN-BUILD CONTRACTS

DESIGN PORTION

1. FINANCIAL PROJECT NO.	2. FAP NO.	3. CONTRACT NO.	4. COUNTY(IES)	5. DISTRICT

6. LEAD DESIGN CONSULTANT NAME	7. FEID NUMBER
8. TOTAL DESIGN DOLLAR AMOUNT	9. REVISION? _____ IF YES, REVISION NUMBER: _____

10. IS THE LEAD DESIGN CONSULTANT A FLORIDA CERTIFIED "DBE"? (DISADVANTAGED BUSINESS ENTERPRISE)	☐ NO ☐ YES

11. ANTICIPATED DBE SUBCONTRACTS FOR DESIGN PORTION:

	DBE SUBCONSULTANT	TYPE OF WORK/SPECIALTY	DOLLAR AMOUNT	PERCENT OF CONTRACT DOLLARS
A	NAME: FEID:	WORK: SPEC CODE:		
B	NAME: FEID:	WORK: SPEC CODE:		
C	NAME: FEID:	WORK: SPEC CODE:		
D	NAME: FEID:	WORK: SPEC CODE:		
E	NAME: FEID:	WORK: SPEC CODE:		
			TOTAL DOLLARS TO DBE'S	TOTAL PERCENT OF CONTRACT
			$0.00	

THE FOLLOWING SECTIONS ARE TO BE COMPLETED BY PRIME CONSTRUCTION CONTRACTOR

12. SUBMITTED BY	13 .DATE	14. TITLE OF SUBMITTER

15. EMAIL ADDRESS OF SUBMITTER	16. FAX NUMBER	17. PHONE NUMBER

NOTE: THIS INFORMATION IS USED TO TRACK AND REPORT ANTICIPATED DBE PARTICIPATION IN ALL STATE AND FEDERALLY FUNDED FDOT CONTRACTS. THE ANTICIPATED DBE AMOUNT IS VOLUNTARY AND WILL NOT BECOME A PART OF THE CONTRACTUAL TERMS. THIS FORM MUST BE SUBMITTED AT THE PRE CONSTRUCTION OR PRE WORK CONFERENCE. FDOT STAFF FORWARDS THE FORM TO THE EQUAL OPPORTUNITY OFFICE.

THE FOLLOWING SECTIONS ARE FOR FDOT USE

DIST	18 .PROCESSED BY	19. DATE TO EO OFFICE	20. LETTING DATE	21. EXECUTED DATE	22. PRECON CONF DATE
	23 .SUBMITTED TO EO BY	☐ FAX ☐ EMAIL ☐ SHARED FOLDER			

E-VERIFY

Contract No: E1J73

Financial Project No(s): 414730-1-52-01, 414732-1-52-01, 414736-1-52-01

Project Description: Freeway Management System on I-75, Sarasota and Lee Counties.

Vendor/Consultant acknowledges and agrees to the following:

Vendor/Consultant :

1. shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Vendor/Consultant during the term of the contract; and
2. shall expressly require any subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

Company/Firm: _____

Authorized Signature: _____

Title: _____

Date: _____

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

VENDOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS

Respondent Vendor Name: _____

Vendor FEIN: _____

Vendor's Authorized Representative Name and Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____

Email Address: _____

Section 287.135, Florida Statutes, prohibits agencies from contracting with companies for goods or services of $1,000,000 or more, that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. Both lists are created pursuant to section 215.473, Florida Statutes.

As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above in the section entitled "Respondent Vendor Name" 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. I understand that pursuant to section 287.135, Florida Statutes, the submission of a false certification may subject company to civil penalties, attorney's fees, and/or costs.

Certified By: _____

who is authorized to sign on behalf of the above referenced company.

Authorized Signature Print Name and Title: _____

Date: _____

DBE Utilization

The Department began its DBE race neutral program January 1, 2000. **Contract specific goals are not placed on Federal/State contracts**; however, the Department has an overall 8.18% DBE goal it must achieve. In order to assist contractors in determining their DBE commitment level, the Department has reviewed the estimates for this letting.

As you prepare your bid, please monitor potential or anticipated DBE utilization for contracts. When the low bidder executes the contract with the Department, information will be requested of the contractor's anticipated DBE participation for the project. While the utilization is not mandatory in order to be awarded the project, continuing utilization of DBE firms on contracts supports the success of Florida's Voluntary DBE Program, and supports contractors' Equal Employment Opportunity and DBE Affirmative Action Programs.

NOTE: Any project listed as 0% DBE availability does not mean that a DBE may not be used on that project. A 0% DBE availability may have been established due to any of the following reasons: limited identified subcontracting opportunities, minimal contract days, and/or small contract dollar amount. Contractors are encouraged to identify any opportunities to subcontract to DBEs.

If you have any questions regarding this information, please contact the Equal Opportunity Office at (850) 414-4747.

DBE Reporting

If you are the prime contractor on a project, complete the attached Anticipated DBE Participation Statement and submit the information at the pre-construction or pre-work conference for all federal and state funded projects. This **will not** become a mandatory part of the contract. It will assist the Department in tracking and reporting planned or estimated DBE utilization. During the contract, the prime contractor is required to report actual payments to **all** subcontractors through the web-based Equal Opportunity Reporting System (EORS), BizWeb.

All DBE payments must be reported whether or not you initially planned to utilize the company. In order for our race neutral DBE Program to be successful, your cooperation is imperative. If you have any questions concerning the completion or submission of this information, contact the FDOT EOO at (850) 414-4747.

Bid Opportunity List

The Federal DBE Program requires States to maintain a database of all firms that are participating or attempting to participate on FDOT-assisted contracts. The list must include all firms that bid on prime contracts or bid or quote subcontracts on FDOT-assisted projects, including **both DBEs and non-DBEs**.

A form is included to record bidders' information for **ALL** subcontractors or sub-consultants who quoted to you for specific projects for this letting.

If a contractor quoted to you for more than one project you only need list that contractor once. If you have submitted a bidder's list to the Department previously, you need only list new companies who have quoted to you or requested to be on specific projects. If you do not know the answers to numbers 2, 3, 4, or 5 you may leave them blank and the Department will complete them. This information should be returned with your bid package or proposal package or submitted to the Equal Opportunity Office within three days of your submission. It can be mailed or faxed.

Please reply to: **Florida Department of Transportation**
Equal Opportunity Office
605 Suwannee Street, MS 65
Tallahassee, FL 32399-0450
(850) 414-4747
(850) 414-4879

Equal Opportunity Reporting System Information

To comply with changes in the Disadvantaged Business Enterprise (DBE) Program, the Department is collecting both actual payments made to subcontractors and sub-consultants, and DBE commitment amounts. Actual payments will be collected through the web-based Equal Opportunity Reporting System (EORS) and commitments will be collected through the Anticipated DBE Participation Statements.

It is extremely important that you continue to submit the Anticipated DBE Participation Statement at the pre-construction conference for all federal and state funded projects. This primary information is used by the State and Federal Government to evaluate our performance in the DBE Program.

In addition, for federal and state funded projects, you must also report actual payments in the Equal Opportunity Reporting System. Revisions were made to the specifications beginning with the October 2000 letting that states in section 9-6.7:

> The Contractor is required to report monthly, through the Department's Equal Opportunity Reporting System on the Internet at www.dot.state.fl.us, actual payments, retainage, minority status, and the work type of all subcontractors and suppliers.

Since the specifications were revised, we have made some additional modifications to ease the burden on the contractor. We will pursue making the permanent modifications to the specifications. In the interim, each month you must report actual payments to all DBE subcontractors, sub-consultants and suppliers. Payments to all non-DBE subcontractors and sub-consultants will need to be reported either monthly or at the end of the project. Payments to non-DBE suppliers need not be reported at all. This information can be submitted in hard copy form, if necessary.

Instructions for accessing the EORS are included. If you have any questions, please contact the Equal Opportunity Office at (850) 414-4747.

INSTRUCTIONS FOR ACCESSING THE EQUAL OPPORTUNITY REPORTING SYSTEM

Purpose

The Florida Department of Transportation, Equal Opportunity Office has been charged with requirements of reporting Disadvantaged Business Enterprise Information to the U.S. Department of Transportation, Federal Highway Administration (FHWA) according to the new 49 Code of Federal Regulations Part 26. The Equal Opportunity Reporting system was developed as a solution to collect this information.

Objective

The Equal Opportunity Reporting system will collect information of actual payments and retainage paid to the Prime Consultant/Contractor by the Department of Transportation and the Prime Consultant/Contractor's actual payments and retainage paid to their subs and suppliers, by the type of work they performed. The reporting of this information will be performed by the Prime on a monthly basis for an invoice or estimate number per contract.

To establish access to the new Equal Opportunity Reporting System (BizWeb),
contact Business Innovations Plus toll-free at 1-877-249-8725.
The site location is http://www.bipincwebapps.com/bizwebflorida/

INSTRUCTIONS FOR COMPLETING DBE/AA PLAN

NOTE: THE DBE/AA PLAN MUST BE APPROVED BY THE EQUAL OPPORTUNITY OFFICE AND COMPLETED IN ACCORDANCE WITH CHAPTER 14-78, FLORIDA ADMINISTRATIVE CODE

DBE/AA PLANS

DBE/AA Plans must be submitted by the prime contractor, be submitted on company letterhead (first page only), signed by a company official, dated and contain all elements of an effective DBE/AA Plan (sample enclosed).

Plans that do not meet these mandatory requirements may not be approved. Approvals are for a (3) three year period and should be updated at anytime there is a change in the company's DBE Liaison Officer and/or President.

DBE/AA Plans must be received with the contractors bid or received by the Equal Opportunity Office prior to the award of the contract.

MAIL PLANS TO:

Florida Department of Transportation
Equal Opportunity Office
605 Suwannee Street, MS 65
Tallahassee, Florida 32399-0450

Questions concerning the DBE/AA Plan may be directed to the Contract Compliance Section by calling (850) 414-4747.

DBE AFFIRMATIVE ACTION PLAN

POLICY STATEMENT

It is the policy of _____ that disadvantaged businesses, as defined by 49 CFR **Part 26, Subpart D** and implemented under Rule Chapter 14-78, F.A.C., shall have the **opportunity** to participate as subcontractors and suppliers on all contracts awarded by the Florida Department of Transportation.

The requirements of Rule Chapter 14-78, F.A.C., shall apply to all contracts entered into between the Florida Department of Transportation and _____ . Subcontractors and/or suppliers to _____ will also be bound by the requirements of Rule Chapter 14-78 F.A.C.

_____, and it's subcontractors shall take all necessary and reasonable steps in accordance with Chapter 14-78, F.A.C., to ensure that disadvantaged businesses have the **opportunity** to compete and perform work contracted with the Florida Department of Transportation.

_____, and its subcontractors shall not discriminate on the basis of race, color, religion, national origin, disability, sex, or age in the administration of contracts with the Department of Transportation.

_____, has designated and appointed a Liaison Officer to develop, maintain, and monitor the DBE Affirmative Action Plan implementation. The Liaison Officer will be responsible for disseminating this policy statement throughout _____ and to disadvantaged controlled businesses. The statement is posted on notice boards of the Company.

X _____
, President

X _____
Date

I. DESIGNATION OF LIAISON OFFICER

_____ will aggressively recruit disadvantaged businesses as subcontractors and suppliers for all contracts with the Florida Department of Transportation. The Company has appointed a Liaison Officer to develop and maintain this Affirmative Action Plan in accordance with the requirements of Rule Chapter 14-78, F.A.C.

The Liaison Officer will have primary responsibility for developing, maintaining, and monitoring the Company's utilization of disadvantaged subcontractors in addition to the following specific duties:

(1) The Liaison Officer shall aggressively solicit bids from disadvantaged business subcontractors for all Florida Department of Transportation contracts;

(2) The Liaison Officer will submit all records, reports, and documents required by the Florida Department of Transportation, and shall maintain such records for a period of not less than three years, or as directed by any specific contractual requirements of the Florida Department of Transportation.

The following individual has been designated Liaison Officer with responsibility for implementing the Company's affirmative action program in accordance with the requirements of the Florida Department Transportation.

(Liaison Officer's Name)
(Your Company's Name)
(Your Company's Address)
(Phone Number for Liaison Officer)
(Enter FEIN or Tax Id Number)

II. AFFIRMATIVE ACTION METHODS

In order to formulate a realistic Affirmative Action Plan, _____ has identified the following known barriers to participation by disadvantaged subcontractors, before describing its proposed affirmative action methods:

1. Lack of qualified disadvantaged subcontractors in our specific geographical areas of work;

2. Lack of certified disadvantaged subcontractors who seek to perform Florida Department of Transportation work;

3. Lack of interest in performing on Florida Department of Transportation contracts;

4. Lack of response when requested to bid;

5. Limited knowledge of Florida Department of Transportation plans and specifications to prepare a responsible bid.

In view of the barriers to disadvantaged businesses stated above, it shall be the policy of _____ to provide opportunity by utilizing the following affirmative action methods to ensure participation on the contracts with the Florida Department of Transportation. _____ will:

1. Provide written notice to all certified DBE subcontractors in the geographical area where the work is to be subcontracted by the Company;

2. Advertise in minority focused media concerning subcontract opportunities with the Company;

3. Select portions of work to be performed by DBEs in order to increase the likelihood of meeting contract goals (including, where appropriate, breaking down contracts into economically feasible units to facilitate DBE participation);

4. Provide adequate information about the plans, specifications, and requirements of the contract, not rejecting subcontractors without sound reasons based on a thorough investigation of their capabilities;

5. Waive requirements of performance bonds where it is practical to do so;

6. Attend pre-bid meetings held by the Florida Department of Transportation to apprise disadvantaged subcontractors of opportunities with the Company;

7. Follow up on initial solicitations of interest to DBE subcontractors to determine with certainty whether the DBE company is interested in the subcontract opportunity.

_____ understands that this list of affirmative action methods is not exhaustive and will include additional approaches after having established familiarity with the disadvantaged subcontracting community and/or determined the stated approaches to be ineffective.

III. IMPLEMENTATION

On contracts with specific DBE goals, _____ will make every effort to meet contract goals as stated by utilizing its affirmative action methods. On projects with no specific goals, the Company will, as an expression of good faith, seek to utilize DBE subcontractors where work is to be subcontracted.

IV. REPORTING

_____ shall keep and maintain such records as are necessary to determine the Company's compliance with its DBE Affirmative Action Plan.

The Company will design its record keeping system to indicate:

1. The number of DBE subcontractors and suppliers used by the Company, identifying the items of work, materials and services provided;

2. The efforts and progress being made in obtaining DBE subcontractors through local and community sources;

3. Documentation of all contracts, to include correspondence, telephone calls, newspaper advertisements, etc., to obtain DBE participation on all Florida Department of Transportation projects;

4. **The Company shall comply with Florida Department of Transportation's requirements regarding payments to subcontractors including DBEs for each month (estimate period) in which the companies have worked.**

V. DBE DIRECTORY

_____ will utilize the DBE Directory published by the Florida Department of Transportation.

The Company will distribute Form Number 275-030-01, Schedule A Certification Form Number 1, to potential DBE contractors and assist in their completion.

CONSTRUCTION CONTRACTORS BID OPPORTUNITY LIST

Please complete and mail or fax to:
Equal Opportunity Office
605 Suwannee St., MS 65
Tallahassee, FL 32399-0450
TELEPHONE: (850) 414-4747
FAX: (850) 414-4879

This information may also be included in your bid or proposal package.

Prime Contractor/Consultant: _____

Address/Telephone Number: _____

Bid/Proposal Number: _____

Quote Submitted MM/YR: _____

49 CFR Part 26.11 requires the Florida Department of Transportation to develop and maintain a "bid opportunity list." The list is intended to be a listing of all firms that are participating, or attempting to participate, on DOT-assisted contracts. The list must include all firms that bid on prime contracts, or bid or quote subcontracts and materials supplies on DOT-assisted projects, including both DBEs and non-DBEs. For consulting companies this list must include all subconsultants contacting you and expressing an interest in teaming with you on a specific DOT assisted project. Prime contractors and consultants must provide information for Nos.1, 2, 3 and 4 and should provide any information they have available on Numbers 5, 6, 7, and 8 for themselves, and their subcontractors and subconsultants.

1. Federal Tax ID Number:_____
2. Firm Name:_____
3. Phone: _____
4. Address: _____
_____
_____
_____
5. Year Firm Established: _____

6. ☐ DBE
☐ Non-DBE

7. ☐ Subcontractor
☐ Subconsultant

8. Annual Gross Receipts
☐ Less than $1 million
☐ Between $1 - $5 million
☐ Between $5 - $10 million
☐ Between $10 - $15 million
☐ More than $15 million

---

1. Federal Tax ID Number:_____
2. Firm Name:_____
3. Phone: _____
4. Address: _____
_____
_____
_____
5. Year Firm Established: _____

6. ☐ DBE
☐ Non-DBE

7. ☐ Subcontractor
☐ Subconsultant

8. Annual Gross Receipts
☐ Less than $1 million
☐ Between $1 - $5 million
☐ Between $5 - $10 million
☐ Between $10 - $15 million
☐ More than $15 million

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1. Federal Tax ID Number:_____
2. Firm Name:_____
3. Phone: _____
4. Address: _____
_____
_____
_____
5. Year Firm Established: _____

6. ☐ DBE
☐ Non-DBE

7. ☐ Subcontractor
☐ Subconsultant

8. Annual Gross Receipts
☐ Less than $1 million
☐ Between $1 - $5 million
☐ Between $5 - $10 million
☐ Between $10 - $15 million
☐ More than $15 million

General Decision Number: FL120223 01/06/2012 FL223

Superseded General Decision Number: FL20100322

State: Florida

Construction Type: Highway

County: Manatee County in Florida.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/06/2012

* ELEC0915-004 12/01/2009

	Rates	Fringes
ELECTRICIAN	$ 24.16	34%+$0.22

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* SUFL2009-219 08/05/2009

	Rates	Fringes
CARPENTER	$ 15.30	2.54
CEMENT MASON/CONCRETE FINISHER	$ 12.30	0.00
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine)	$ 11.97	2.23
HIGHWAY/PARKING LOT STRIPING: Painter	$ 13.31	0.00
IRONWORKER, REINFORCING	$ 14.50	1.37
IRONWORKER, STRUCTURAL	$ 16.75	3.88
LABORER: Asphalt Shoveler	$ 10.70	0.00
LABORER: Common or General	$ 9.00	0.00
LABORER: Flagger	$ 12.75	0.00
LABORER: Grade Checker	$ 10.50	0.55
LABORER: Landscape and Irrigation	$ 8.77	0.00
LABORER: Luteman	$ 10.32	0.00
LABORER: Mason Tender - Cement/Concrete	$ 12.00	1.80
LABORER: Pipelayer	$ 11.63	2.65
LABORER: Power Tool Operator (Hand Held Drills/Saws, Jackhammer and Power Saws	$ 11.23	1.96

OPERATOR: Asphalt Paver.....$ 11.52 0.00

OPERATOR: Asphalt Plant.....$ 12.20 0.00

OPERATOR: Asphalt Spreader.....$ 10.76 0.00

OPERATOR: Auger.....$ 19.40 0.44

OPERATOR: Backhoe Loader
Combo.....$ 15.33 0.97

OPERATOR: Backhoe.....$ 15.50 2.28

OPERATOR: Boom.....$ 16.61 0.00

OPERATOR: Bulldozer.....$ 13.71 1.55

OPERATOR: Crane.....$ 19.94 1.37

OPERATOR: Distributor.....$ 11.47 0.00

OPERATOR: Drill.....$ 13.00 1.59

OPERATOR: Grader/Blade.....$ 14.32 0.00

OPERATOR: Loader.....$ 12.83 1.29

OPERATOR: Mechanic.....$ 16.31 1.37

OPERATOR: Milling Machine.....$ 11.92 0.00

OPERATOR: Oiler.....$ 11.92 1.91

OPERATOR: Paver.....$ 12.42 0.86

OPERATOR: Piledriver.....$ 15.59 4.00

OPERATOR: Roller.....$ 11.33 0.00

OPERATOR: Scraper.....$ 10.70 1.60

OPERATOR: Screed.....$ 10.82 0.00

OPERATOR: Tractor.....$ 12.78 0.00

OPERATOR: Trencher.....$ 13.41 0.49

PAINTER: Spray and Steel.....$ 16.62 0.00

TRUCK DRIVER: Distributor.....$ 11.30 2.26

TRUCK DRIVER: Dump Truck.....$ 10.05 0.00

TRUCK DRIVER: Lowboy Truck.....$ 14.05 0.00

TRUCK DRIVER: Material Truck....$ 12.76 9.80

TRUCK DRIVER: Tractor Haul
Truck.....$ 10.64 0.00

TRUCK DRIVER: Water Truck.....$ 10.50 0.00

TRUCK DRIVER: 10 Yard Haul
Away.....$ 12.50 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued

as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: FL120236 01/06/2012 FL236

Superseded General Decision Number: FL20100335

State: Florida

Construction Type: Highway

County: Sarasota County in Florida.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/06/2012

* ELEC0915-004 12/01/2009

	Rates	Fringes
ELECTRICIAN	$ 24.16	34%+$0.22

SUFL2009-232 08/05/2009

	Rates	Fringes
CARPENTER	$ 15.30	2.54
CEMENT MASON/CONCRETE FINISHER	$ 12.30	0.00
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine)	$ 11.97	2.23
HIGHWAY/PARKING LOT STRIPING: Painter	$ 13.31	0.00
IRONWORKER, REINFORCING	$ 14.50	1.37
IRONWORKER, STRUCTURAL	$ 16.75	3.88
LABORER: Asphalt Shoveler	$ 10.70	0.00
LABORER: Common or General	$ 9.00	0.00
LABORER: Flagger	$ 12.75	0.00
LABORER: Grade Checker	$ 10.50	0.55
LABORER: Landscape	$ 8.74	0.00
LABORER: Luteman	$ 10.32	0.00
LABORER: Mason Tender - Cement/Concrete	$ 12.00	1.80
LABORER: Pipelayer	$ 11.63	2.65
LABORER: Power Tool Operator (Hand Held Drills/Saws, Jackhammer and Power Saws	$ 11.23	1.96

OPERATOR: Asphalt Paver.....$ 11.52 0.00

OPERATOR: Asphalt Plant.....$ 12.20 0.00

OPERATOR: Asphalt Spreader.....$ 10.76 0.00

OPERATOR: Auger.....$ 19.40 0.44

OPERATOR: Backhoe Loader
Combo.....$ 15.33 0.97

OPERATOR: Backhoe/Excavator.....$ 15.50 2.28

OPERATOR: Boom.....$ 16.61 0.00

OPERATOR: Bulldozer.....$ 13.71 1.55

OPERATOR: Crane.....$ 19.94 1.37

OPERATOR: Distributor.....$ 11.47 0.00

OPERATOR: Drill.....$ 13.00 1.59

OPERATOR: Grader/Blade.....$ 14.32 0.00

OPERATOR: Loader.....$ 12.83 1.29

OPERATOR: Mechanic.....$ 16.31 1.37

OPERATOR: Milling Machine.....$ 11.92 0.00

OPERATOR: Oiler.....$ 11.92 1.91

OPERATOR: Paver.....$ 12.42 0.86

OPERATOR: Piledriver.....$ 15.59 4.00

OPERATOR: Roller.....$ 11.14 0.00

OPERATOR: Scraper.....$ 10.70 1.60

OPERATOR: Screed.....$ 10.82 0.00

OPERATOR: Tractor.....$ 12.78 0.00

OPERATOR: Trencher.....$ 13.41 0.49

PAINTER: Spray and Steel.....$ 16.62 0.00

TRUCK DRIVER: Distributor.....$ 11.30 2.26

TRUCK DRIVER: Dump Truck.....$ 10.05 0.00

TRUCK DRIVER: Lowboy Truck.....$ 14.05 0.00

TRUCK DRIVER: Material Truck....$ 12.76 9.80

TRUCK DRIVER: Tractor Haul
Truck.....$ 10.64 0.00

TRUCK DRIVER: Water Truck.....$ 10.50 0.00

TRUCK DRIVER: 10 Yard Haul
Away.....$ 12.50 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

==========

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: FL120223 01/06/2012 FL223

Superseded General Decision Number: FL20100322

State: Florida

Construction Type: Highway

County: Manatee County in Florida.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/06/2012

* ELEC0915-004 12/01/2009

	Rates	Fringes
ELECTRICIAN	$ 24.16	34%+$0.22

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* SUFL2009-219 08/05/2009

	Rates	Fringes
CARPENTER	$ 15.30	2.54
CEMENT MASON/CONCRETE FINISHER	$ 12.30	0.00
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine)	$ 11.97	2.23
HIGHWAY/PARKING LOT STRIPING: Painter	$ 13.31	0.00
IRONWORKER, REINFORCING	$ 14.50	1.37
IRONWORKER, STRUCTURAL	$ 16.75	3.88
LABORER: Asphalt Shoveler	$ 10.70	0.00
LABORER: Common or General	$ 9.00	0.00
LABORER: Flagger	$ 12.75	0.00
LABORER: Grade Checker	$ 10.50	0.55
LABORER: Landscape and Irrigation	$ 8.77	0.00
LABORER: Luteman	$ 10.32	0.00
LABORER: Mason Tender - Cement/Concrete	$ 12.00	1.80
LABORER: Pipelayer	$ 11.63	2.65
LABORER: Power Tool Operator (Hand Held Drills/Saws, Jackhammer and Power Saws	$ 11.23	1.96

OPERATOR: Asphalt Paver.....$ 11.52 0.00

OPERATOR: Asphalt Plant.....$ 12.20 0.00

OPERATOR: Asphalt Spreader.....$ 10.76 0.00

OPERATOR: Auger.....$ 19.40 0.44

OPERATOR: Backhoe Loader
Combo.....$ 15.33 0.97

OPERATOR: Backhoe.....$ 15.50 2.28

OPERATOR: Boom.....$ 16.61 0.00

OPERATOR: Bulldozer.....$ 13.71 1.55

OPERATOR: Crane.....$ 19.94 1.37

OPERATOR: Distributor.....$ 11.47 0.00

OPERATOR: Drill.....$ 13.00 1.59

OPERATOR: Grader/Blade.....$ 14.32 0.00

OPERATOR: Loader.....$ 12.83 1.29

OPERATOR: Mechanic.....$ 16.31 1.37

OPERATOR: Milling Machine.....$ 11.92 0.00

OPERATOR: Oiler.....$ 11.92 1.91

OPERATOR: Paver.....$ 12.42 0.86

OPERATOR: Piledriver.....$ 15.59 4.00

OPERATOR: Roller.....$ 11.33 0.00

OPERATOR: Scraper.....$ 10.70 1.60

OPERATOR: Screed.....$ 10.82 0.00

OPERATOR: Tractor.....$ 12.78 0.00

OPERATOR: Trencher.....$ 13.41 0.49

PAINTER: Spray and Steel.....$ 16.62 0.00

TRUCK DRIVER: Distributor.....$ 11.30 2.26

TRUCK DRIVER: Dump Truck.....$ 10.05 0.00

TRUCK DRIVER: Lowboy Truck.....$ 14.05 0.00

TRUCK DRIVER: Material Truck....$ 12.76 9.80

TRUCK DRIVER: Tractor Haul
Truck.....$ 10.64 0.00

TRUCK DRIVER: Water Truck.....$ 10.50 0.00

TRUCK DRIVER: 10 Yard Haul
Away.....$ 12.50 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued

as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: FL120236 01/06/2012 FL236

Superseded General Decision Number: FL20100335

State: Florida

Construction Type: Highway

County: Sarasota County in Florida.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/06/2012

* ELEC0915-004 12/01/2009

	Rates	Fringes
ELECTRICIAN	$ 24.16	34%+$0.22

SUFL2009-232 08/05/2009

	Rates	Fringes
CARPENTER	$ 15.30	2.54
CEMENT MASON/CONCRETE FINISHER	$ 12.30	0.00
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine)	$ 11.97	2.23
HIGHWAY/PARKING LOT STRIPING: Painter	$ 13.31	0.00
IRONWORKER, REINFORCING	$ 14.50	1.37
IRONWORKER, STRUCTURAL	$ 16.75	3.88
LABORER: Asphalt Shoveler	$ 10.70	0.00
LABORER: Common or General	$ 9.00	0.00
LABORER: Flagger	$ 12.75	0.00
LABORER: Grade Checker	$ 10.50	0.55
LABORER: Landscape	$ 8.74	0.00
LABORER: Luteman	$ 10.32	0.00
LABORER: Mason Tender - Cement/Concrete	$ 12.00	1.80
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OPERATOR: Backhoe Loader
Combo.....$ 15.33 0.97

OPERATOR: Backhoe/Excavator.....$ 15.50 2.28

OPERATOR: Boom.....$ 16.61 0.00

OPERATOR: Bulldozer.....$ 13.71 1.55

OPERATOR: Crane.....$ 19.94 1.37

OPERATOR: Distributor.....$ 11.47 0.00

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OPERATOR: Roller.....$ 11.14 0.00

OPERATOR: Scraper.....$ 10.70 1.60

OPERATOR: Screed.....$ 10.82 0.00

OPERATOR: Tractor.....$ 12.78 0.00

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Survey wage rates will remain in effect and will not change until a new survey is conducted.

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END OF GENERAL DECISION