

Scope of Services

Intelligent Transportation Systems (ITS) Communications General Consultant

I. Purpose

The Florida Department of Transportation (Department) requires the services of a General Consultant (Consultant) to provide a wide range of engineering and planning services to include technical, management, and supportive tasks for the Department's statewide Intelligent Transportation Systems (ITS) Communications Program. The Consultant will provide a wide range of ITS communications services and operations support that include but are not limited to: communications planning, engineering, communication and network architecture, standards and specifications review and development, procurement, deployment, integration, operations, maintenance, management, inspection, ITS device evaluation and testing, and supportive tasks for Districts and the Central Office ITS communications needs. Principal Consultant tasks will include: support for the Public Safety Land Mobile Radio communication networks; support for the Florida ITS Operations Network (FION); Support for the Departments ITS Facilities Management (ITSFM) software tools and applicable training; Construction Engineering and Inspection support and services; emergency response and recovery support; preparation of design criteria packages for design-build procurements; development of specifications for low bid procurements for public safety land mobile radio communications systems and supportive communications infrastructures; Radio Frequency Licensing and coordination support services; and supporting ITS communications systems for implementation, deployment, and integration within the state; and provide support for Transportation Systems Management & Operations (TSM&O) program activities as assigned. The Consultant will work closely with the Department's District level personnel and other Department Contractors currently under retention.

ITS communications networks as they apply to this Agreement are the various components of ITS user services, including but not limited to, roadside transponders, dynamic message signs, traffic signals and other traffic control and ITS devices that rely upon communication linkages in order to transmit and receive data. These components communicate with each other through various mediums, such as wireless networks, fiber optics, radio signals, and wire-line connections. These modes of communication in turn comprise the communications infrastructure that allows ITS user services to function efficiently, not only as independent systems, but also as parts of the larger ITS network. In this regard, communications systems planning, and implementation is a critical part of transportation system design. The quality and manageability of the communications networks developed by this Agreement will thus play a pivotal role in determining the degree to which ITS will succeed.

The Consultant shall provide qualified technical and professional personnel to perform in accordance with the duties and responsibilities assigned under the terms of this Agreement with Department standards and procedures. The Consultant shall minimize to the maximum extent possible the Department's need to apply its own resources to assignments authorized by the Department.

The Consultant shall support the Department Project Manager in the coordination with the Districts on any statewide related topics.

The Consultant will be primarily tasked with providing support regarding the state's communications and TSM&O Program. However, the Consultant may also be needed to interface state systems with County or Municipalities local systems to bring together the efforts of both the state and local systems into a coordinated interoperable program to better benefit Public Safety and/or the traveling public.

II. Office Location, Staffing and Equipment

The Consultant shall provide a field office within the Department's Traffic Engineering and Operations Office so that field office staff may interface with the Department's TSM&O Program staff daily. This field office shall be staffed with the following critical staff members: Consultant's Project Manager, two (2) Senior Communications Engineers, two (2) Communication Engineers, one (1) Senior ITS Network Specialist, and one (1) technical support staff.

In addition, the Consultant may have one (1) Senior ITS Network Analyst, one (1) Network Systems Analyst, and one (1) Senior ITS Systems Security Specialist to support needs defined in this scope of services as needed. These three (3) additional staff may or may not be located at the field office. The Consultant's Project Manager and Senior Communications Engineers shall be professional engineers that have communications engineering education, training and experience, qualified and authorized in the disciplines identified in Section I pursuant to Chapter 471, Florida Statutes, to practice engineering within the State of Florida.

Any replacement of the Consultant's staff shall be reviewed and approved by the Department. This also applies to staff that has been assigned as task managers for critical work efforts.

Field office rates will apply for work accomplished at Department's offices.

The staffing requirement may be increased or decreased to conform to Program needs at the discretion of the Department.

The Department relies on the Consultant to fill the positions that provide support to critical programs.

III. **Initiation & Length of Services**

Services to be provided by the Consultant will be initiated and completed as directed by the Department's Project Manager for each assignment authorized under this Agreement. Such specific assignments shall be clearly defined by a Task Work Order which shall document the specific work to be performed, the products and services to be provided, the agreed to staffing, the task schedule and the task cost and method of compensation.

The general services agreement with the Consultant will be for a multi-year term as authorized by those agencies providing funding for the consultant contract.

IV. **Communications Services**

Communications is the application of sensor, computer, electronics, land mobile radio, data and other communication technologies and/or management strategies, in an integrated manner, to improve the safety and efficiency of the surface transportation system. Communications for the terms on this Agreement includes, but is not limited to:

Technical Management Support of the Florida Intelligent Transportation Systems Operations Network (FION) Maintenance Contract

1. Support of the Network Management System

- Monitor daily the statewide Network Management System (NMS) and log alarms by day, date, site and District.
- Review monthly invoices from maintenance contractors and any District comments for accuracy and completeness and submit a review report to the Project Manager.

2. Site management of the NMS

- Maintain an electronic site-use and system use plan that includes a channel bank availability list and current list of manufacturer's card types and order numbers for future additions of channels.
- Provide recommendations for additional equipment and/or software or upgraded equipment and/or software over time to ensure that the microwave system and site support facilities do not become obsolete.
- Maintain site files for each FION site that includes but is not limited to, any as-built drawings, tower use agreements, tower loading drawings, shelter floor plans and site plans. An existing

digital photo library shall be continued and maintained that includes both archived photos for reference and current photos. The Departments existing web sites shall be maintained that includes both current photos in sufficient quantity to provide both a quick view of each site and hyperlink to individual full-size photos for more detailed requirements of both photos and detailed text.

3. Technical assistance of a “Resource Sharing Agreement” in support of any FDOT fiber networks

- Assist as required in the development of a statewide fiber infrastructure.
- Design the build-out and/or installation of a statewide fiber network.

4. Technical Management Support for Third Party Wireless Agreement Contracts (Lodestar, RowStar, etc.)

- Provide technical reviews and recommendations for all requests for the use of existing FDOT radio towers.
- Provide technical reviews and recommendations for all requests for the use of existing FDOT Right-of-way in response to lease and marketing agreements and requests for use of Department communications infrastructure.
- Provide technical reviews and recommendations for request from the Districts to comment on use of un-improved FDOT Right-of-way.
- Provide technical support to the Department’s Project Manager that shall include, but not limited to Federal Communications Commission (FCC) licensing, Federal Aviation Administration (FAA) studies, tower loading and interference analysis.
- Studies to determine the value of services provided by the agreement in exchange for access to FDOT Right-of-Way and existing facilities.
- Assist the Department in developing design plans and specifications for the installation of services acceptable to the Department and provided by the third-party contractor.
- Direct the installation of services provided by the third-party contract.
- Proctor the quarterly lease revenue payments for deposits to the Cashier’s Office for the Department in accordance with the Comptroller’s Office.

Communications Program Development, Operations and Maintenance

Support

1. Studies

- Conduct studies of domestically and internationally deployed state-of-the-art communications systems.
- Conduct surveys in support of communications initiatives.
- Conduct electronic frequency searches of the FCC database in support of the Department.
- Attend technical workshops, conferences and symposia on Communications related topics.
- Accompany Department personnel as deemed appropriate on “fact-finding” trips to observe Communications systems and/or interview other state DOT administrators.

2. Analysis

- Prepare benefit/cost analysis of existing or proposed communications initiatives.
- Prepare cost effectiveness analyses of existing or proposed communications initiatives.
- Prepare life-cycle cost analyses of existing or proposed communications initiatives.
- Prepare communications impact studies as related to the Districts.
- Provide value engineering analyses for proposed communications initiatives.
- Prepare comparative engineering cost estimates.
- Provide special engineering services including special studies and economic advisory/analytical services.
- Provide communications path analysis and radio propagation calculations based on software designed for Microsoft Windows (provided by the Department) which fully integrates coverage, interference and allocations studies for amplitude modulation (AM), frequency modulation (FM), television (TV), Point-to-Point, Point-to-Multipoint and all forms of Land Mobile Radio communications services from various sites on an as-needed basis and in presentation form, throughout the term of this Agreement.

3. Project Concept Development

- Prepare formal concept studies in support of proposed communications initiatives.
- Prepare “white papers” on contemporary communications

issues.

- Synthesize the studies and analysis of others to further develop proposed communications concepts.

4. Procurement Documentation Development

Firm(s) who participate in the development of such documents or facilitation of activities in this section shall be precluded from pursuing such projects in accordance with the Conflict of Interest Procedure for Department Contracts, Procedure No. 375-030-006.

- Develop Request for Proposal (RFP), Invitation to Bid (ITB) and Invitation to Negotiate (ITN) documents as required by the FDOT Project Manager.
- Provide the technical capability to produce system designs, technical specifications, conditions, provisions and Scope of Services under this Agreement.
- Participate in negotiations sessions associated with ITN's.
- Participate in pre-proposal meetings, site inspections, and debriefing meetings.
- Prepare responses to official inquiries and questions received pertaining to RFP's, ITB's, and ITN's.
- Prepare cost estimates associated with RFP's, ITB's, and ITN documents.
- Assist in the preparation of addendums associated with RFP's, ITB's, and ITN documents.
- Prepare evaluation criteria and assist with the bid evaluations and proposals.
- Participate in bid/proposal conflict resolution.
- Provide technical assistance in contract negotiations and establish contractual statements of work.
- Review wireless service rates available under the Western States Contracting Alliance (WSCA) to which FDOT is a party to ensure best available rates are provided to all districts.

5. System Implementation

- Provide system implementation management services.
- Provide system implementation engineering and inspection services.
- Establish implementation test and acceptance criteria.
- Provide system implementation acceptance and performance test observation and verification.

6. Systems Integration

- Provide systems integration services for all communications initiatives to ensure intra district and inter district communications continuity and maximum performance.

7. Independent Validation and Verification (IV&V)

- The Consultant shall assist the Department to conduct the IV&V as formal acceptance test for ITS communication projects;
- The Consultant shall prepare IV&V test environment, IV&V test plan, IV&V test case procedures and corrective action items.

8. Communications Operations

- Establish operational procedures of FDOT communications systems.
- Integrate the operational procedures into a FDOT Communications Plan.
- Maintain and/or expand the existing computerized database of FDOT communications systems.

9. Training (ITS Communications)

- Provide training to various personnel on Department's operational procedures.
- Intelligent Transportation Systems Facilities Management system training
- Provide training to Department personnel on communications systems hardware, software, system standards and protocols.

10. Communications Maintenance

- Maintenance Procedures
 - Establish and/or maintain maintenance procedures for FDOT statewide communications systems.
 - Assist FDOT Project Manager as required with the Departments FION Maintenance Contract and other contracts related to ITS Communications.

11. Staffing

- Provide communications qualified personnel to manage contractors in the performance of construction, installation and maintenance services for the Departments ITS Communications

system which shall include but not limited to digital microwave radio system, fiber optics communications network and other communications services.

- Consultant shall provide qualified personnel with demonstrated disciplines in managing the statewide communications system which will include but not limited to, tower sites, radio network, microwave towers and associated infrastructures and the Departments land mobile radio systems.
- Senior ITS Network Analyst
 - Develop Multiprotocol Layer Switching network schema
 - Review hardware and firmware for interoperability with existing system.
 - Architect the FDOT ITS network including District and WAN.
 - Develop MIB's for device monitoring.
 - Develop recommendations for domain configuration.
 - Develop deployment guidelines for virtualization, clustering, etc.
 - Look at joins requiring minimum level of inheritance
 - Assist FDOT staff in creating policies, procedures and guidance documents for a State-wide network security framework
 - Develop standard roles and permissions within active directory.
 - Develop standards for user management.
 - Audit users within ITS environments in Districts.
- Senior Workstation Support Analyst
 - Develop deployment plan images for FDOT ITS PCs.
 - Patch management.

Communications Engineering Services

1. Operations

- Prepare communications engineering reports to be used as justification reports to qualify for work program funding.
- Conduct detailed communications studies to identify and correct deficiencies in FDOT's communications systems engineering hardware and software.
- Prepare before and after studies to evaluate the effectiveness of implemented improvement plans.
- Prepare benefit/cost analyses for proposed improvement plans.
- Assist FDOT in the technical evaluation of new applications for

statewide communications and communications engineering positions.

2. Plans and Reviews

- Assist with development of FDOT Communications Plan.
- Evaluate the Department of Management Services Statewide Comprehensive Communications Plan and make recommendations.
- Conduct communications systems review for all design projects including but not limited to, providing comments and concept, Phase I, II, III, and IV and bid-ability phases.
- Attend meetings as required related to plans review.

3. Technical Support

- Provide communications engineering services for FDOT in the form of path and coverage area analyses, system design, FCC license preparation, FAA permit preparation and provide other consultants and Districts support as required.
- Conduct communications engineering investigations for all public complaints received by the Department in a timely manner in accordance with FDOT policy.
- Perform various data collection services.

4. Security

- Create statewide security policies comprising network security, surveillance security systems, facilities security and data security.
- Ensure the CIA Triad (Confidentiality, Integrity and Availability) is the basis for all data security policies, guidelines, and procedures.
- Ensure the Florida ITS Operations Network is applying best network security practices in accordance with the National Institute of Standards and Technology (NIST) for cybersecurity.
- Create Risk Analysis Registers with recommended avoidance, distribution, mitigation, or acceptance strategies
- Ensure established policies and procedures are followed for granting access to staff, consultants, contractors, and visitors who may view, interact with, or otherwise come in contact with equipment, devices, software, infrastructure, or communications systems governed by, or identified as having relevance to, Department of Homeland Security or other critical national infrastructure.

- Provide comprehensive design and support services for network cybersecurity such as, but not limited to, the creation of information technology penetration testing documents, development of penetration testing plans, management support for penetration testing of all types of networks.

Program Management

1. Project Management

- The Consultant shall provide qualified ITS communications personnel to perform project management services including planning, scheduling, directing and controlling project activities from concept development through the completion of installation of a communication project. Persons assigned to FDOT Project Manager, as project manager shall be registered professional engineers in the state of Florida. Persons assigned to oversee registered professional engineers are themselves to be registered professional engineers in the state of Florida in accordance with Section II, Paragraph 1.
- The Project Manager shall provide:
 - Overall direction for the program including an overall vision, mission, and objectives
 - Comprehensive strategic planning,
 - Work plan development,
 - Work force skill enhancement, and
 - Close monitoring of major tasks with duly assigned responsibilities.
- The Project Manager shall be responsible for holding Big idea Workshops on a periodic basis to make FDOT aware of the technology developments in the ITS communications sector, and for preparing FDOT to be a national leader in this domain.
- The Project Manager shall actively interface between FDOT's TSM&O Program leadership and the Consultant team leadership to resolve any outstanding issues while facilitating a dialogue to enhance quality and delivery of system outputs.
- The Project Manager shall draw upon the best resources available to the project from both home and field offices, and assign time-sensitive and output-based roles and responsibilities to staff for accomplishing FDOT's program objectives.
- The Project Manager shall provide advice and guidance to FDOT on future funding needs to proactively plan for and sustain a viable ITS Communications program.
- The Project Manager shall be aware of the needs of FDOT

Districts and prioritize support mechanisms after due consultation with and approval of FDOT Project Manager.

- Provide contract administration services to support the microwave maintenance and third-party contractor's agreements and/or associated contracts.
- Monthly Reporting: The Consultant shall provide a monthly progress report that provides information on the services provided to the Department and task assignment work progress.
- Invoice Time Reporting: In addition to the Monthly written report, the Consultant shall provide the Department with information that outlines the hours worked by each staff member for the invoice period.
- The Consultant shall provide website support including web page creation and editing.

2. Budget Tracking

- The Consultant will track the utilization of budget and notify the Department's project manager when the budget levels fall to the point where there are only funds left to cover approximately two months of normal invoicing.

3. Work Program

- Coordinate the various radio communications, microwave communications, fiber communications and ITS and/or Traffic Engineering communications infrastructure projects, statewide, for funding and operational continuity.

4. Schedules

- Prepare and update critical path method schedules for projects in the communications program.
- Prepare and update bar chart (Gantt or equivalent) schedules for projects in the communications program.
- Evaluate and validate communications sub-consultant submitted schedules and their overall compliance with project milestones objectives.
- Evaluate physical progress of design activities versus scheduled progress and report significant variances.

5. Action Item Lists

- Develop action item lists for ongoing ITS and/or communications projects

- Develop and maintain tracking matrices for continued monitoring and scheduling of daily common tasks.

6. Minutes of Meetings

- Prepare minutes of meetings for all communications meetings.

7. Communications Filing System

- Maintain a communications document control and filing system which shall govern the distribution and file copies of all program related correspondence, reports, plans and technical data of the consultant.
- File system shall be subject to FDOT approval.
- Program and/or project files shall be transferred to the Department upon completion of the work or as otherwise directed by FDOT.

8. Claims Against the Department

- Analyze claims against the department arising out of a communications project or work and provide support as required to affect the settlement of such claims.

9. Quality Assurance and Control

- Provide TSM&O related quality assurance and quality control reviews for, but not limited to, contract documents, Task Work Orders, Standard Operating Procedures, guidelines, and procurement documents.

10. Testimony

- Furnish testimony in administrative hearings or other litigation and prepare trial exhibits as required.

Design Services

1. Design Support

- Review, coordinate and/or manage the design work of other communications consultants.
- Review and comment on the preparation of communications installation documents by communications consultants at normal phase submittals as required by FDOT procedures and for special submittals that may be established and of preliminary and final estimates of installation costs.
- Review design development compliance with approved project design criteria.
- Review and provide written responses on the adequacy of all communications consultants design submittals.
- Advise and consult on questions of engineering with respect to project design intent.
- Revalidate and provide written responses as to the state of design completion (physical progress) as reported by communications consultants in their requests for progress payments.
- Monitor ITS/communications consultants performance of services to determine adequacy of work performed relative to contract intent.
- Advise and consult on questions of engineering with respect to installation of communication systems and equipment.
- Provide quality assurance reviews of the communications consultants' implementation of their quality control plan.
- Review all documentation submitted by communications consultants and/or contractors to assure timely processing by a CEI consultant.

2. Permitting Support

- Prepare, review and/or provide written comments on Federal, State, and local permit requirements, including FCC licensing, FAA approvals and Florida Department of Management Services.
- Prepare permit packages to include drawings and data that are provided by ITS communications, consultants, or subcontractors.
- Provide an inventory of permits, permit requirements, permitting schedule, and permit preparation support.
- Coordinate permit schedules with project schedules.
- Review plans, special provisions, and construction activities for permit compliance.

Emergency Response Support

During emergency events (as defined by the State of Florida) the Consultant shall provide continued support to the Florida ITS Operations Network Maintenance contractor and the Department's District Radio Shop technicians as required to help operate and maintain the Florida ITS Operations Network. This may include but not limited to associated communications infrastructure such as the Department's ITS Land Mobile Radio communications and mobile power trailers. Such support may include deploying to designated emergency locations designated by the Department to support on short notice (less than 48 hours) working temporarily for extended periods and continuous daily assignments (including weekends). Work may also include support to ITS freeway and traffic signal devices storm damage assessment as needed.

Emerging Technology Support

The Consultant will provide support to the Department's TSM&O program to facilitate the deployment of ITS. The Department currently has a TSM&O General Consultant which will address the Department's TSM&O needs on a day-to-day basis. The Consultant will need to have TSM&O expertise as it applies to the development of a communications infrastructure to support the deployment of ITS on a project-by-project basis. The Consultant's support effort may include, but not be limited to the following potential work requirements to assist the TSM&O General Consultant on an as-needed basis:

1. ITS architecture and systems engineering services.
2. ITS specifications and standards development and modification services.
3. ITS device communications and functionality testing as directed by the Department.
4. Quality assurance activities as directed by the Department
5. Connected and Automated Vehicle (CAV) program services, including the following:
 - Review plans, proposals and material submittals relating to CAV projects for:
 - Connected vehicle roadside units and on-board units' certification of all CV communications in the FCC allocated spectrum
 - Presence on Approved Products List (APL) or exception from Traffic Engineering Research Laboratory (TERL)
 - Innovative Value where a selection component
 - Specialty Acceptance Test Plans
 - Appropriate Safety Measures
 - Appropriate level of Communications security and protection of Privacy or Identifying Information (PII)
 - Conduct Value Engineering Reviews of planned projects to

determine of CAV elements should be included either for full/partial implementation or if supporting infrastructure can be more efficiently constructed under project under review in lieu of future project.

6. ITS project deployment services.
7. ITS integration services.
8. ITS maintenance services

V. Responsibilities of the Department

The Department shall provide a Project Manager who shall be responsible for all coordination with the Consultant pertaining to all contractual matters, invoicing and reporting. The Department may also designate a manager for each Task Work Order who shall be responsible for working with the Consultant Project Manager to define the specific work to be performed and the schedule for completion of each task, the Consultant staffing to be provided, and the cost. The Department Project Manager shall be responsible for approval of any additional staffing to be provided including additional Consultant staff (approval must be coordinated with the Procurement Office) and shall give approval of all work products and services.

The Department will furnish, without cost to the Consultant, the following services and data to the Consultant in connection with services authorized under terms of this agreement:

1. Provide all criteria and information as to the Department's requirements for consultants' and contractors' services including objectives, constraints, budgetary limitations, and time restraints.
2. Furnish all Department procedures, standards, forms, and policies applicable to the Services.
3. Furnish drawings, specifications, schedules, reports and other information prepared by and/or for the Department by others which are available to the Department and which the Department considers pertinent to Consultant's responsibilities, as described herein.
4. Provide existing structural, roadway, and other plans as available.
5. Furnish all necessary utility relocation form letters, agreements, relocation schedules and any other document form needed by the Consultant to clear the project utilities.
6. Advise the Consultant in all utility negotiation matters.
7. Provide project utility certification to the Department's Central Office.
8. Advise the Consultant on all engineering requirements and Department updates.

VI. Responsibilities of the Consultant

The Consultant shall provide and maintain an up-to-date list of staff with agreed-to classifications and approved salaries (subject to the Agreement Exhibit "B") that would be available to be assigned to specific Task Work Orders. No Consultant staff, except those specifically identified in a Task Work Order or those specifically agreed to by the Department Project Manager, shall charge time to that particular Task Work Order.

Consultant must request approval from the Department's Project Manager for any modifications or additions to the list of available staff prior to the initiation of any work by that individual. If applicable, new job classifications may be added to the Agreement via contract amendment. Consultant shall submit a copy of the resume and payroll register before new staff can be added.

For a Task Work Order where Consultant staff are anticipated to work the majority of a 40 hour week at Department facilities, the Consultant will be reimbursed at the field rate, and staff who are anticipated to work on average the majority of the week at the home office should be reimbursed at the home rate.

VII. Personnel Qualifications

The Consultant shall assign only competent technical and professional personnel qualified by the necessary experience and education to perform assigned work. The Consultant is responsible for ensuring that staff assigned to work under this Agreement has the training established by the Department as a prerequisite for Consultant staff to perform work. If the required training is such that it can be applied by the trainee to work on other contracts, (regardless of whether or not the trainee would work on other agreements), the cost of the trainee's time and expenses associated with the training is not directly billable to the Department on this Agreement and shall only be recoverable through overhead for the Consultant firm.

VIII. Computer Services

The Department will allow the Consultant to utilize the Department's Data Processing Computer Services for programs requested by the Consultant and approved by the Department in accordance with the Consultant agreement and in accordance with the latest computer access procedure from the Department's Office of Information Services.

Computations based on computer programs other than the Department's must conform to the Department's general format (See latest Plans Preparation

Manual and amendments thereof).

IX. **Specifications for Work**

1. Plans & Specifications

The Consultant shall ensure that all documents, studies, and construction plans, as applicable are prepared in accordance with the latest editions of the standards utilized by the Department which include, but are not limited to, publications such as:

AASHTO, "A Policy on Geometric Design of Highways and Streets"
FDOT Location Survey Manual
FDOT Right-of-way Mapping Handbook
Geometric Geodetic Accuracy Standards
FDOT Soils and Foundations Manual
FDOT Flexible Pavement Design Manual for New Construction and Pavement Rehabilitation
FHWA Manual on Uniform Traffic Control Devices
FDOT Standard Specification for Road and Bridge Construction
Florida Design Manual
South Florida Building Codes - Broward and Dade County Editions
Standard Building Codes
FDOT Basis of Estimates Manual
Federal Highway Program Manual
FDOT Drainage Manual
FDOT Structures Design Guidelines Manual
FDOT Structures Detailing Manual
AASHTO Roadside Design Guide
FDOT Standard Plans for Road and Bridge Construction
FDOT Utility Accommodation Manual
FDOT CADD Manual

Construction Plans shall be accurate, legible, and complete in design to the extent necessary to support the type of procurement method selected by the Department. The construction plans shall be drawn to the appropriate scale, furnished in reproducible form on material acceptable to the Department. This also applies to other documents, studies and reports.

2. Survey Services

All surveying and mapping work performed for the Department shall be in accordance with Chapters 177 and 472, F.S.; Rule Chapter 5J-17, F.A.C.;

the FDOT Procedure 550-030-101 and Surveying and Mapping Handbook; Department of Environmental Protection Rule, F.A.C. 18-1, Department of Environmental protection state jurisdiction boundary surveys (where applicable) and any special instructions from the Department.

3. Professional Services Contract Documents

The Consultant shall ensure that all contract documents and support forms have been prepared on IBM or IBM-compatible hardware using Microsoft Word most current release software or a compatible convertible format and stored.

X. **Subconsultant Services**

Services assigned to any subconsultants must be approved in writing and in advance by the Department Project Manager, Procurement Office, and the Consultant Project Manager in accordance with this Agreement. All subconsultants must be technically qualified by the Department to perform all work assigned to them. Additional subconsultants with specialized areas of expertise may be required to complete specific Task Work Order assignments. Any subconsultant to be hired and all work assignments to be performed, and all rates of compensation shall be agreed to by the Department Project Manager, Procurement Office and the Consultant Project Manager and documented in the contract file prior to any work being performed by the subconsultant.

Any new subconsultant must be added to the contract via contract amendment (in coordination with the Procurement Office) prior to any issuance of work on a Task Work Order.

XI. **Conflict of Interest**

The CONSULTANT or any affiliate is not eligible to pursue advertised work in the CONSULTANT's area of oversight or any project for which the CONSULTANT developed the Scope of Services, or RFP in accordance with FDOT Procedure No. 375-030-006, Conflict of Interest Procedure for Department Contracts.

In those instances where the Consultant prepares the design criteria packages for design-build procurements, the Consultant firm will not be allowed to compete as a proposing Design-Build firm or participate as a subconsultant to a proposing Design-Build firm.

In those instances where the Consultant prepares the design packages for the deployment of TSM&O, the Consultant's firm will not be allowed to compete as a proposing firm or participate as a subconsultant to a proposing firm.

XII. Consultant Not Employee or Agent

The Consultant and its employees, agents, representatives, or subconsultants/subcontractors are not employees of the Department and are not entitled to the benefits of State of Florida employees. Except to the extent expressly authorized herein, Consultant and its employees, agents, representatives, or subconsultants/subcontractors are not agents of the Department or the State for any purpose or authority such as to bind or represent the interests thereof, and shall not represent that it is an agent or that it is acting on the behalf of the Department or the State. The Department shall not be bound by any unauthorized acts or conduct of Consultant.

XIII. Ownership of Works and Inventions

The Department shall have full ownership of any works of authorship, inventions, improvements, ideas, data, processes, computer software programs, and discoveries (hereafter called intellectual property) conceived, created, or furnished under this Agreement, with no rights of ownership in Consultant or any subconsultants/subcontractors. Consultant and subconsultants/subcontractors shall fully and promptly disclose to the Department all intellectual property conceived, created, or furnished under this Agreement. Consultant or subconsultant/subcontractor hereby assigns to the Department the sole and exclusive right, title, and interest in and to all intellectual property conceived, created, or furnished under this Agreement, without further consideration. This Agreement shall operate as an irrevocable assignment by Consultant and subconsultants/subcontractors to the Department of the copyright in any intellectual property created, published, or furnished to the Department under this Agreement, including all rights thereunder in perpetuity. Consultant and subconsultants/subcontractors shall not patent any intellectual property conceived, created, or furnished under this Agreement. Consultant and subconsultants/subcontractors agree to execute and deliver all necessary documents requested by the Department to effect the assignment of intellectual property to the Department or the registration or confirmation of the Department's rights in or to intellectual property under the terms of this Agreement. Consultant agrees to include this provision in all its subcontracts under this Agreement.