

**EXHIBIT "A"**



**SCOPE OF SERVICES**

**FINANCIAL PROJECT  
IDENTIFICATION (FPID) NO. 437197-1-32-02**

**CONTINUOUS SERVICE CONTRACT: OPERATIONS, SIGNALS AND PLANS  
REVIEW**

**DISTRICT ONE**

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**I. PURPOSE**

The Department requires the support of a Continuing Services Consultant for in-house and home support to accomplish specific work products within Traffic Operations Office within District One.

The Continuing Services Consultant shall function as an extension of the Department's resources by providing qualified technical and professional personnel to perform to Department Standards and Procedures the duties and responsibilities assigned under the terms of this agreement.

The Continuing Services Consultant shall provide full time or part time staff per the scope and qualifications identified in this scope as authorized by the Department. The Department, at its option, may elect to expand, reduce or delete the extent of each work element described in this scope of services document, provided such action does not alter the intent of this agreement.

The Department shall request Continuing Services Consultant services on an as-needed basis. There is no guarantee that any or all of the services described in this agreement will be assigned during the term of this agreement. Further, the Continuing Services Consultant is providing these services on a nonexclusive basis. The Department, at its option, may elect to have any of the services set forth herein performed by other consultants or Department staff.

## **II. SERVICES**

### **Transportation Operations**

#### **Traffic Operations Support**

Traffic Operations Support includes provision of in-house and home office staff support to Safety, Traffic Services and Systems Management and Operations areas.

#### **Signing/Pavement Marking and Signal Design Support:**

- a) Continuing Services Consultant shall be responsible to prepare design packages used to resolve traffic operational issues involving signing, traffic signals and pavement markings. Packages will be prepared with Department preferred Computer Aided Design and Drafting (CADD) software as well as SignCAD and GuideSign. Finished design packages will include detailed signing, traffic signal and pavement marking plans, sign designs and cross-sections.
- b) Continuing Services Consultant shall conduct necessary research utilizing, but not limited to, the Florida Administrative Code Chapter 14-51, the Florida Traffic Engineering Manual, the Manual on Uniform Traffic Control Devices, the Plans Preparation Manual and the Design Standards to assist in the decision-making process for signing, traffic signal and pavement marking requests. Stays current on new standards releases to insure standards compliance.
- c) Continuing Services Consultant shall perform on-site field reviews for signing, traffic signal and pavement marking operational projects. Responsible to obtain cross-section surveying, sign inventories and existing conditions summaries to be used for decision making and design of signs resulting from operational sign requests. Responsible for obtaining existing pavement marking inventory to assist in preparation of design plans for pavement marking changes associated with operational requests. Will coordinate research efforts with Department staff to find historic plans involving traffic signal operational requests and will be responsible for coordination with District Structures Office staff to submit structural modification requests after field verification of existing traffic signal equipment.
- d) Continuing Services Consultant shall be responsible to prepare response letters to operational requests to requesting agency/citizen. Coordinate response with Traffic Plans Production group as well as other Department representatives to facilitate thorough and detailed responses. Coordinate requests for additional information from requesting agency, such as trip generation, hours of operation and requested sign locations. Continuing Services Consultant shall also be responsible for ongoing coordination with maintaining agencies as improvements are implemented to answer questions as necessary.

- e) Continuing Services Consultant shall be responsible to develop and maintain project files as well as online database of projects for operational issues for tracking and utilization during future related requests.

**Safety Support:**

- a) Continuing Services Consultant shall be responsible to retrieve and analyzes crash data from computer and other local sources. Prepare and review forms and crash summaries. Plot collision diagrams using Computer Aided Drafting and Design (CADD) and Geographic Information Systems (GIS).
- b) Continuing Services Consultant shall investigate safety concerns brought forth by citizens, media, and department staff. Field reviews for Safety, ADA, bike and ped projects/complaints.
- c) Continuing Services Consultant shall input safety project data into the Crash Reduction and Analysis System Hub (CRASH) to document project origin, history, evaluation, need and benefit cost analysis for annual reporting by Central Office to Federal Highway Administration (FHWA).
- d) Prepare work program code sheets and coordinate with other offices to obtain concurrence. Work with the Highway Safety Manager to program projects within the guidelines of Work Program instructions and the Highway Safety Improvement Program guidelines.

**Design and Project Management Support**

- a) Continuing Services Consultant shall develop project scopes, cost estimates and project concept drawings utilizing CADD and GIS for safety and traffic operations work program development.
- b) Continuing Services Consultant shall project scopes, cost estimates and concept drawings for push button work orders and obtain concurrence from the Push Button Committee.
- c) Continuing Services Consultant shall be responsible to develop and maintain project files as well as online database of projects for operational issues for tracking and utilization during future related requests.
- d) Continuing Services Consultant shall be responsible to develop and maintain a project database for traffic operations and safety candidate projects.

- e) Continuing Services Consultant shall be responsible for developing, establishing, and managing consultant service contracts for push button design. Includes development of contract documents, development of Task Work Orders, negotiating man hour estimates, updating the contract documents, reviewing/commenting and approving all deliverables, preparation of related correspondence, and approval of invoices.

### **Systems Management and Operations Support**

- a) Continuing Services Consultant shall be responsible for developing, establishing, and managing consultant service contracts for Systems Management Districtwide Contracts. Includes development of contract documents, development of Task Work Orders, negotiating man hour estimates, updating the contract documents, reviewing/commenting and approving all deliverables, preparation of related correspondence, and approval of invoices.
- b) Continuing Services Consultant shall develop specifications for Computerized Traffic Control Systems projects designed by FDOT staff within the District and provides comments and information regarding existing or proposed ITS equipment for Utility Analysis Reviews, Zero Percent Plans Reviews and other types of Plan Reviews in the District.
- c) Continuing Services Consultant shall assist the District in management of active arterial management contracts with local agencies and/or contractor/consultant teams. Responsible for monitoring performance of critical corridors using the measures identified in the operations agreements and/or contracts. Work includes data collection and analysis to evaluate system performance and equipment performance with use of measures like travel time, speed, detector functionality, communications functionality, signal timing parameter effectiveness etc.
- d) Continuing Services Consultant shall design traffic signal progression systems and prepare an engineering report for each project, including analyzing available traffic studies, doing capacity analysis using available software and traffic engineering methods to develop optimum phasing and most efficient system design, plotting time space diagrams and developing the appropriate timings to be set in the field in each controller and coordination unit.
- e) Continuing Services Consultant shall review plans and handle signal timing complaints and helping with other signal timing/phasing analyses as assigned.

## Traffic Operation Support

a) Synchro/SimTraffic Analysis:

The CONSULTANT shall be responsible for determining all input parameters and obtaining all field data for the Synchro analysis. The CONSULTANT should refer to FDOT's Traffic Analysis Handbook for guidance regarding accepted methodologies and input parameters. The CONSULTANT shall identify the existing operating mode of the traffic signal (i.e. coordinated or non-coordinated) for each period analyzed. A minimum of three periods will be analyzed (normally the morning, midday and evening peak hours). SimTraffic simulations shall also be generated for the existing, as well as the proposed alternatives.

b) Intersection Evaluation control (ICE)

The CONSULTANT shall perform an Intersection Control Evaluation (ICE) Study for the selected intersection. The Department recently released the Manual on Intersection Control Evaluation (MICE) (Topic No. 750-010-003) Training and Implementation Plan. The purpose of the ICE is to consistently consider multiple context-sensitive control strategies when planning a modified intersection. There are three stages to the evaluation which include 1) Screening, 2) Preliminary Control Strategy Assessment, and 3) Detailed Control Strategy Assessment. The intersection types that can be evaluated include a signal, roundabout, median U-turn (MUT), signalized restricted crossing U-turn (RCUT) or superstreet, unsignalized restricted crossing U-turn (RCUT) or J-turn, jug handle, displaced left-turn, continuous green tee, and quadrant roadway.

c) Signal Warrant Analysis

The Consultant shall analyze the collected data in light of the warranting conditions for the warrants described in the MUTCD, the Department's MUTS, and accepted traffic engineering practice. From this analysis, a recommendation shall be formulated as to whether or not a traffic signal should be installed. The recommendation and the basis for it shall be documented in a summary report.

d) No-Passing Zone Study

The CONSULTANT shall conduct a No-Passing Zone Study for a specified section of State Highway. This type of study will be performed to determine what type of pavement markings should be used in the center line of a roadway, i.e., broken yellow line or solid yellow line, so that motorists have an indication of where it is safe to pass another vehicle. The no-passing areas include vertical and horizontal curves, railroad grade crossings, narrow bridges, intersections, transitions to and from multi-lane sections of roadway, and other locations where passing must be prohibited because of inadequate sight distance or other special conditions. All no-passing zones shall be established in accordance with the guidelines provided in Chapter 12 of the MUTS.

- e) **Advisory Speed Study**  
The CONSULTANT shall conduct an Advisory Speed Study for a specified section of State Highway. This type of study will be performed to determine the safe speed a vehicle can negotiate a given horizontal curve under ideal conditions. The study is also used to determine where turn and curve signs with advisory speed plaques are required for horizontal curves. All advisory speeds on horizontal curves shall be established in accordance with the guidelines provided in Chapter 10 of the MUTS.
- f) **Meetings**  
The CONSULTANT shall attend meetings to assist the Department in developing and responding to traffic study issues. Meetings shall be held with, but are not limited to: Committees for County MPOs, all District MPOs, all District City Councils, all District Board of County Commissioners, all types of District meetings and the public. The meeting shall be attended by one senior level traffic engineer.
- g) **Meeting Preparation**  
The CONSULTANT shall research and prepare for meetings to assist the Department in developing and responding to traffic operation issues. Preparation material including but not limited to presentations and meeting notes.
- h) **In-House Support**  
The CONSULTANT shall assign one (1) staff person to work under the direct management and supervision of the Department Project Manager. This staff person shall be a senior level traffic engineer, experienced with traffic studies, traffic design and traffic signal timings. The work assignments for this staff person can be any tasks related to traffic operations including but not limited to studies reviews, preparation of responses to requesting agency/citizen, preparation of concepts and maintaining project files as well as online database.

## **Transportation Systems Management and Operations Support**

- a) Continuing Services Consultant shall develop and manage professional and contractual services contracts and other types of agreements that support the Transportation Systems Management and Operations (TSM&O) unit. This includes development of documentation for contract funding, Requests for Proposal and related documents, evaluation of contract work products, and approval of invoices.
- b) Continuing Services Consultant shall develop and program Freeway Management System and Arterial Management System projects that facilitate operation of freeway and arterial management systems and incident management. This includes development of project Requests for Proposal, technical specifications, and concept plans.



- c) Continuing Services Consultant shall identify and program project-related operations and maintenance resources. This includes reviewing and providing comments on all analysis, project reports, data collection, plans, specifications, and consultant progress for arterial and freeway projects. This also includes accepting/rejecting responses to those comments and tracking all project requests and responses.
- d) Continuing Services Consultant shall support the development of the TSM&O program at the district, regional, and statewide levels. This includes participating in task teams and providing input on business/strategic plans.
- e) Continuing Services Consultant shall provide support during project implementation phases. This includes attendance at project meetings, interaction with the project Construction Office personnel, contractors, vendors, and Federal Highway Administration, and participating in project acceptance testing.
- f) Continuing Services Consultant shall provide software development and software architecture design services to support the development of new features, as well as the integration of ITS devices and software into existing ITS networks, processes and applications. The work performed shall use industry accepted software engineering principles, standards and techniques. The Consultant shall create documentation for all software engineering work as directed by the Department.

### **III. PROVISIONS FOR WORK**

#### **A. Plans and Specifications**

The Continuing Services Consultant shall ensure that all documents and construction plans, as applicable, are prepared in accordance with the latest standards adopted by AASHTO, Traffic Engineering Manual, Roadway & Traffic Standards, Structure Plans Preparation Manual, Department Standard Specifications and current implemented modifications, Department current memoranda, Department Roadway Plans Preparation Manual, and shall be accurate, legible, complete in design, and drawn to the appropriate scale, and furnished in reproducible form on material acceptable to the Department.

## **B. Administrative Management**

Services to be provided by the Continuing Services Consultant will be initiated and completed as directed by the District Secretary or a District Director for each assignment authorized under this agreement.

The Program Manager shall furnish the Continuing Services Consultant a Task Work Order outlining the services to be performed, and the estimated fees to be paid for services authorized pursuant to the scope of services document attached to the Task Work Order. No payment for work performed shall be made to the Continuing Services Consultant until a Task Work Order has been issued (refer to attached Exhibit "B," Method of Compensation).

A "field" office rate will apply to any Consultant employee assigned to work in any District One Office for a minimum 40-hour workweek when the assignment is for a period of thirty consecutive days or more. These Consultant employees will be considered full-time employees dedicated to District One. The "field" office rate will also apply to any Consultant employee assigned to any District One Office whose normal workweek is less than 40-hours and the assignment is for a reduced workweek equivalent to the Consultant Employees normal reduced workweek. These reduced workweek Consultant employees will also be considered full-time employees dedicated to District One. The "field" office rate will consist of salary + fringe + operating margin. Travel charges associated with going to/from the DOT office for these full-time District One Consultant employees will not be reimbursed.

The Consultant's other home or branch offices may support this office. It is understood and agreed that Principals of the Consultant and its sub-consultants shall not perform billable services unless specifically requested by the Department.

Office consumables are not the responsibility of the Department. The Consultant will need to furnish their own supplies consisting of, but not limited to, paper, printer toner, pens, writing tablets, etc.

The consultant is not authorized to drive any Department owned vehicle. The consultant may, on occasion, travel with a Department employee in a Department owned vehicle as a passenger if the travel is official business.

### **C. Contract Management**

It shall be the Continuing Services Consultant's responsibility to provide administrative services. Their responsibility consists of providing monthly progress reports, internal project assignments, monthly invoices, internal coordination, and assurance of compliance to all administrative contract procedures as they apply to the Continuing Services Consultant.

### **D. Conflict of Interest**

The Consultant and its sub-consultants shall not enter into any other contract with the Department during the term of this agreement which would create or involve a conflict of interest with the services provided herein. Questions regarding potential conflicts of interest shall be addressed to the District One Director of Transportation Support.

The Consultant or any affiliate is not eligible to pursue advertised work in the Consultant's area of oversight or for any project which the Consultant developed the Scope of Services. Sub-consultants are also ineligible to pursue projects where they participated in the development of the Scope of Services or have an oversight responsibility. The term "affiliate" shall mean business concerns, organizations, or individuals where, directly or indirectly, either one controls or has the power to control the other, or a third-party controls or has the power to control both, regardless of whether the entities have separate vendor IDs. Indications of control include interlocking management or ownership, identity of interests among family members, shared facilities and equipment, and common use of employees.

### **E. Personnel Qualifications and Training**

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 the Consultant performs on other contracts of the Consultant, regardless of whether or not the trainee would work on other agreements of the Consultant, the cost of the trainee's time and expenses associated with the training is not billable to the Department and shall be a Consultant cost. If the training is associated with training requirements unique to this Agreement and not a requirement for Consultant staff assigned to work under other agreements of the Consultant, the cost of such training for time and expenses is reimbursable to the Consultant by the Department. The aforementioned also applies to new training requirements established by the Department for any work assigned during the term of this Agreement.

In summary, training requirements established by the Department during the term of this Agreement as a prerequisite for Consultant staff to perform work on this Agreement at either a field, branch or home office of the Consultant, is an indirect cost of the Consultant unless the requirement for training is unique to this Agreement and not required for work on any other contract of the Consultant.

The Consultant shall ensure that field office personnel assigned to work under this Agreement have the same opportunities for training as those the Consultant provides for home and branch office personnel. For work assigned by the Consultant to authorized sub-consultants, the requirements set forth herein for staff qualifications and training shall also apply to sub-consultants' staff performing work under this Agreement.

#### **F. Subcontracting**

Services assigned to sub-consultants must be approved in advance by the Department in accordance with Standard Consultant Agreement. The sub-consultants must be qualified by the Department to perform all work assigned to them. In the event services of a sub-consultant are authorized, the Continuing Services Consultant shall obtain a schedule of rates, and the Department shall review and must approve any rates to be paid to the sub-consultant.

#### **G. Project Cost Accounting**

Although the Consultant is assigned work by Task Work Orders and each task work order is assigned a single general financial project identification number for billing purposes, the Consultant and its sub-consultants shall have staff performing work on this contract charge their time to the nearest quarter hour to each specific project on which work is being performed. The Department shall provide the Consultant and its sub-consultants the eleven digit project number assigned each specific project in which the Department requires the Consultant to capture time and cost. At any given time, there may be several hundred specific projects in which staff would be charging time. The Consultant shall provide the Department each month with cost incurred for each specific project.

#### **H. Computer Services**

The Consultant will be provided access to the Department's computer network resources in accordance with the consultant agreement and Department procedures.

The Consultant shall adhere to the Department's policies and procedures, which govern the use of technology, computers, infrastructure, acquiring of resources, and the Internet/Intranet.

The Consultant shall promote efficient and effective use of technology staff. The Consultant is to coordinate with the District's Office of Information Technology for any issues.

The Consultant shall ensure that computations based on computer programs other than the Department's must conform to the Department's general format. (See "Plans Preparation Manual" and amendments thereof).

#### **IV. RESPONSIBILITIES OF THE DEPARTMENT**

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

- a) The Department will furnish offices for designated "field office" personnel with all necessary non-consumable items such as furniture, file space and telecommunication equipment. The Department may provide these furnishings to the Consultant for the Consultant's use during the term of this Agreement. All office furnishings and equipment mentioned herein shall be for use by the Consultant but shall remain the property of the Department. The Consultant shall use all such furnishings during the term of the Agreement and the Consultant shall retain responsibility for risk of loss or damage to furnishings and equipment until they are returned to the Department. However, the Consultant shall not be responsible for loss of or damage to such property not the fault of the Consultant.
- b) Personal computers, if provided, will be maintained by the Department for authorized Consultant staff working within a District One building. Consultant electronics are not allowed to be connected to the Department's internal computer network.
- c) Provide all criteria and full information as to the Department's requirements for consultants' and contractors' services including objectives, constraints, budgetary limitations, and time restraints. Furnish all Department procedures, standards, and policies applicable to the services.
- d) Furnish drawings, technical special provisions, schedules, reports and other information prepared by and/or for the Department by others which are available to the Department and which Department considers pertinent to Continuing Services Consultant's responsibilities, as described herein.

- e) Provide pre-numbered field books in which to record field data.
- f) Furnish standard Department brass disk, for concrete monuments needed for the bench line.
- g) Provide existing structural and roadway plans.
- h) Furnish available traffic, Safety (accident), and planning data.
- i) Furnish all necessary utility relocation form letters, agreements, relocation schedules and any other document form needed by the Continuing Services Consultant to clear the project utilities.
- j) Advise the Continuing Services Consultant in all utility negotiation matters.
- k) Provide project utility certification to the Department's Central Office.
- l) Provide sampling services to support:
  - Testing guides.
  - Testing procedures.
  - Geotechnical investigations.
  - Design guidelines.
  - Material specifications.
- m) Provide access to the Department's computer network resources in accordance with the consultant agreement and Department procedures (presently found in procedure No. 325-000-002, Transportation Technology Manual dated March 20, 2015.)