# ENGINEERING AND RELATED SERVICES OCTOBER 16, 2015

CONTRACT NO. 4400007102 RETAINER CONTRACT FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS) MAINTENANCE STATEWIDE

#### **DBE/WBE GOAL = 3\%**

Under Authority granted by Title 48 of Louisiana Revised Statutes, the Louisiana Department of Transportation and Development (DOTD) hereby issues a Request for Qualification Statements (RFQ) on DOTD Form 24-102 (24-102), "Professional Engineering and Related Services", revised November 2011, from Consulting Firms (Consultant) to provide engineering and related services. Consultants who are a Louisiana or foreign LLC or corporation should be appropriately registered with the Louisiana Secretary of State, as contemplated by Title 12 of the Louisiana Revised Statutes, and with LAPELS under it's rules for FIRMS. If a Consultant fails to place itself in good standing in accordance with those provisions, it may be subject to consequences contemplated in Title 12 and/or the LAPELS rules. All requirements of Louisiana Professional Engineering and Land Surveying (LAPELS) Board must be met and the Prime Consultants shall be registered with the Federal Government using SAM.gov at the time of submittal. One Prime-Consultant/Sub-Consultant(s) (Consultant/Team) will be selected for this Contract.

DOTD employees may not submit a proposal, nor be included as part of a Consultant's team.

# **Project Manager – Mr. Erik Smith**

All inquiries concerning this advertisement should be sent in writing to <a href="mailto:hadi.shirazi@la.gov">hadi.shirazi@la.gov</a> and <a href="mailto:heather.huval@la.gov">heather.huval@la.gov</a>.

## PROJECT DESCRIPTION

The selected Consultant will perform statewide maintenance necessary for the effective operations and management of the Statewide ITS projects covered by a Retainer Contract under separate Task Orders. The Consultant will be required to execute a Task Order which will specify the scope of services, contract time, and compensation. Each Task Order will become a part of the Retainer Contract.

#### SCOPE OF SERVICES

The selected Consultant will be required to provide some or all of the following services for each Task Order (TO):

The selected Consultant shall perform program and project management, maintenance, and related services for the ITS program. The Consultant shall be required to execute separate Task Orders (TO) for each ITS field equipment maintenance area which will specify the scope of services, contract time and compensation. Each TO will become part of the Retainer Contract. Each TO will require annual renewal for continuation of services. The envisioned TOs may include but not limited to the following:

- Dynamic Message Signs
- Closed Circuit Television (CCTV) cameras and vehicle detectors
- Hub Building
- Tower Sites

# **A. Existing ITS Section Maintenance Components**

The ITS infrastructure currently maintained by the ITS Section consists of the items identified below.

- Closed circuit television (CCTV) cameras
- Dynamic message signs (DMS)
- Vehicle detectors (VD) radar and video technologies
- Highway Advisory Radio (HAR)
- Fiber optic communications
- Wireless communications
- Toll facilities

The DOTD ITS Section is also responsible for components of the ITS that are not in the field. These include the items identified below.

- Traffic Management Centers (TMC)
- Communications equipment/network
- Telephone systems
- Traveler information web site

The DOTD also has certain systems and field components that are considered ITS under the National ITS Architecture. However, these systems are not primarily maintained by the ITS Section. The list below identifies these ITS field components and the level of maintenance performed by the ITS Section. Further information on the systems and components not maintained by the ITS Section may be found at: www.dotd.state.la.us.

- Ramp meters District offices and Traffic Services (Section 45)
  - o ITS Section provides maintenance on communications

- Portable changeable message signs maintained by the District offices
  - o ITS Section provides maintenance on communications
- Weigh in Motion (WIM) maintained by Weights and Standards
- Traffic signal systems maintained by the District offices and Traffic Services (Section 45)
  - o ITS Section provides maintenance on communications for certain installations
- Transit maintained by Public Transportation Section

# **B.** ITS Daily Status

Daily tests are run on the ITS by TMC Operators to determine if any components of the ITS are malfunctioning. The processes for running these tests are detailed in the TMC operations procedure documentation. When a component malfunctions, the TMC Operator submits a work order ticket in the maintenance management system (MMS) software that is provided to the ITS Maintenance and Communications Engineer.

#### C. Routine Maintenance

Routine maintenance shall be performed at regularly scheduled intervals for the upkeep of equipment. This may also be referred to as preventative maintenance. Typically, manufacturers provide routine maintenance procedures and schedules for their component of the ITS. Routine maintenance consists of inspecting site equipment, changing air filters, vacuuming dust out of a cabinet, cleaning cooling fans as well record keeping. Routine maintenance generally is overlooked due to the demand of responsive maintenance, emergency maintenance, and a lack of available maintenance personnel to facilitate routine maintenance. Neglecting routine maintenance can increase the likelihood of failures to occur causing a reduction in mean time between failures, which results in additional responsive and/or emergency maintenance. Routine maintenance also provides an opportunity for engineer analysis of the ITS for determining systematical replacement of components nearing their useful service life. Typically, routine maintenance is performed by a two man crew due to safety and temporary traffic control reasons, unless the site is under Class A or Class B for responsive maintenance, which may require more crew members for routine maintenance.

## **D.** Responsive Maintenance

Responsive maintenance is the repair or replacement of any reported failed or malfunctioned equipment in the ITS. Emergency maintenance is defined by the same criteria as responsive maintenance except that emergency maintenance requires immediate repair. Utilizing professional services, a maintenance engineer is continuously involved in the troubleshooting and deriving the best solution which may have system wide implications. Responsive and emergency maintenance generally follow the process outlined below.

- 1. Receive notification of malfunction
- 2. Secure the site (e.g., knock down, dangling device, etc.)
- 3. Diagnostics

- 4. Interim repairs
- 5. Log activity

Parameters that define an emergency, which require immediate responsive maintenance includes:

- Critical Locations Requiring Traveler Information
  - DMS signs that provide information for key highway segments such as Mississippi River crossings or long elevated structures such as the I-10 Twin Span
  - Highly Congested Roadway Segments
- Declared Emergency Events
  - o Key devices on evacuation routes during emergency evacuations

For the purposes of contracting ITS Maintenance, each site has been identified with the level of critical response required: high, medium, or low (See Table 1). Also, the level of safety has been identified by class and is defined below. When additional crew members in excess of the members allowed by the class criteria are required due to nature of maintenance, the additional staff shall be approved by the DOTD Project Engineer (referred herein as the Engineer) or his designee. Typically, responsive maintenance is to be performed based on the following.

- Class A high risk of safety due to close proximity to traveled way without protection and high traffic volumes multiple crews allowed to conduct responsive and emergency maintenance
- Class B medium risk of safety due to access to devices -three crew members allowed
- Class C low risk since site is in clear zone or is adequately protected from the traveled way two crew members required.

**Table 1: ITS Field Equipment Site Inventory** 

Field							
Devices	Location	IP Address	Latitude	Longitude	Device Description	Critical	Class
CCTV #1	I-12 @ Drusilla Lane	10.61.7.25	30.41682	-91.08992	Encoder	Medium	С
					Switch		
	ATM/EOC	10.61.4.73			Decoder		
CCTV #4	I-10/I-12 split, colocated with #5	10.61.7.83	30.41807	-91.11229	Encoder	High	С
		10.61.7.92			Switch		
	ATM/EOC	10.61.4.95			Decoder		
CCTV #20	I-10 @ Bluebonnet Blvd.	10.61.7.51	30.39406	-91.08503	Encoder	High	В
		10.61.7.52			Switch		
	ATM/EOC	10.61.4.90			Decoder		
CCTV #21	I-10 @ Picardy Extension	10.61.7.53	30.38799	-91.07669	Epeoder	High	A
		10.61.7.54			Switch		
	ATM/EOC	10.61.4.89			Decoder		
CCTV #41	I-10 @ Highland Road	10.94.1.22	30.347021	-91.02754	Encoder PTZ 1	Medium	С
	North of I-10	10.94.1.23		I, $I$ $I$ $I$	Encoder PTZ 2		
		10.94.1.20			Tower Base Station		
		10.94.1.21	<u> </u>	V /	Radio 2		
		10.94/1,24	/ A \    \	<u>' /                                   </u>	UPS		
					Switch		
CCTV #50	Goodwood @ E. Airport	10.63 103.37	30.44266	91.10185	Encoder	Low	С
		10.63.103.39			Switch		
CCTV #51	Goodwood @Lobdell	10.63.103.47	30.44223	-91.11065	Encoder	Low	С
		10.63.103.49			Switch		
DMS #1	I-110 SB @ Chippewa	10.61.96.30			Encoder	Low	A
		10.61.6.29			Switch		
	ATM/EOC	10.61.4.244			Decoder		
DMS #3	I-10 EB @ Dalrymple	10.61.6.57			Encoder	High	В
		10.61.6.56			Switch		
	ATM/EOC	10.61.4.251			Decoder		
DMS #7	I-12 EB west of Essen Lane off ramp.	10.61.7.27			Encoder	Medium	В
					Switch		
	ATM/EOC	10.61.4.79			Decoder		
DMS #8	I-12 WB west of Essen lane on ramp	10.61.7.21			Encoder High B		В
					Switch		
	ATM/EOC	10.61.4.78			Decoder		

#### E. Site Demarcations

The ITS infrastructure, as originally defined, includes both the communications and field devices. The statewide communications backbone is a combination of regional and local hardwired fiber connections, wireless connections, and leased communications. Because of the complex communications infrastructure throughout the state, the ITS Section will remain the provider of communications maintenance. This separation of the communications from the ITS field equipment sites is very logical. By DOTD retaining the communications maintenance, a clear demarcation between the ITS field device site and the communication link is established.

For ITS field sites communicating via fiber optic communications, the typical demarcation is the patch panel. For wireless sites, the typical demarcation extends beyond the physical site to encompass the entire link (radio, cables, and antenna of paired connection). The demarcation for cellular sites is limited to the cellular modem side of the communications link. For ramp meter sites, the demarcation is limited to the communications panel, Ethernet switch and vehicle detection equipment. These demarcations are shown in the Figures. Specific sites that do not follow suit with this demarcation will be further defined within the applicable TO. Fixed support structures (e.g., poles, foundations, etc) are not included as part of the required site maintenance except for repairing damaged galvanizing and grounding.

Figure 1: Typical Site with Fiber Optic Comm.

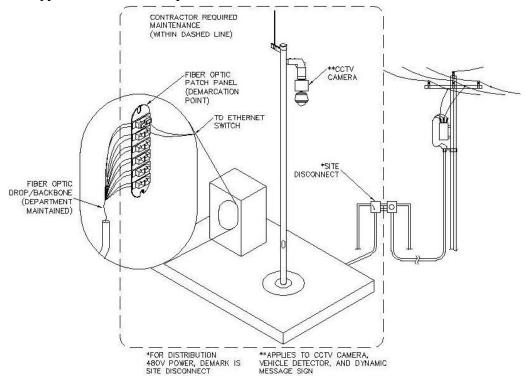


Figure 2: Typical Site with Cellular Comm.

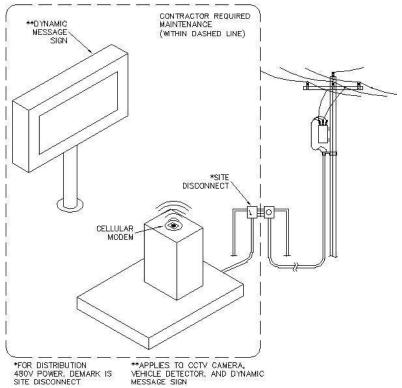


Figure 3: Typical Site with Microwave Wireless Comm.

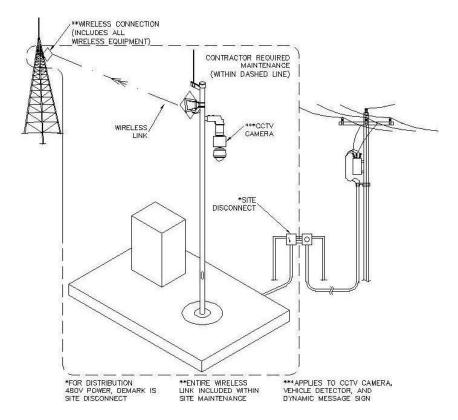
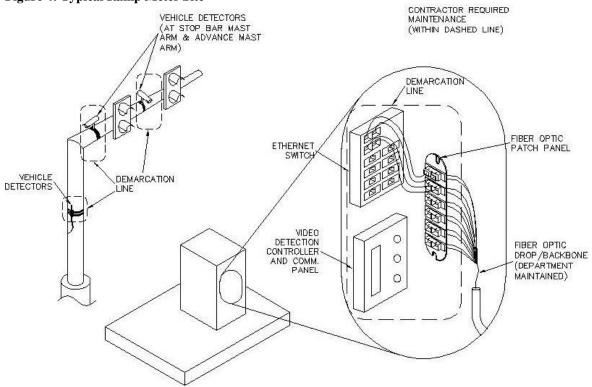


Figure 4: Typical Ramp Meter Site



# F. Required Equipment to Perform Maintenance

The Consultant shall have the equipment necessary to perform ITS troubleshooting, maintenance, and repair readily available, whether by rental or by ownership. The list below is the minimum equipment requirements. The rentals allowed for reimbursement are indicated. Also, DOTD has certain equipment available for the Consultant's use for maintenance. The Consultant shall sign-out this equipment with the Engineer and shall be fully responsible and liable for its proper use and integrity. The Consultant shall replace the DOTD equipment with equal or greater quality equipment, if damaged or stolen while in its possession.

- Two wheel drive trucks including the following:
  - o Magnetic DOTD ITS Maintenance logos (see Figure 5)
    - DOTD to provide image file
  - Flashing amber light(s)
  - o Smart phone, minimum one phone per maintenance vehicle
  - Laptop
    - Vendor software (DOTD provided)
    - Maintenance management software (may be on smart phone in addition)
  - Hand tools
  - Cordless power tools
  - Electric power meter
  - Wet/dry vacuum
  - o Traffic control equipment:
    - Cones & Flags
    - Flares & Road triangles
    - Flashing amber lights
    - Roll up Signage
- Bucket trucks, (Rental reimbursable), heights:
  - o 35 feet
  - o 42 feet
  - o 60 feet
  - o 70 feet
  - o 155 feet
  - Truck Mounted Crane
- Ladders (up to 24 feet)
- Fiber LED light source
- Fiber laser light source
- Optical Time Domain Reflectometer (OTDR)
- Fiber power meter test set
- Fiber mechanical termination kit
- Fiber microscope
- Digital camera with GPS
- Cable locator
- Personal protective equipment (PPE)

Figure 5: Sample Maintenance Vehicle Logo



ITS Maintenance

- Safety harness
- DOTD equipment available for contractor use:
  - o Pole lowering trailer
  - o Camera lowering crank (manual)
  - o Camera lowering crank (drill powered)

This contract does not require the Consultant to purchase vehicles. Vehicles may be new or used, owned or leased by the Consultant. All vehicles used for ITS Maintenance must be completely operational, in sound mechanical condition, and in full compliance with applicable legal requirements. The vehicle's exterior shall be reasonably clean. The DOTD ITS Maintenance logo must be removed if the vehicle is being used for work outside of this contract. No other state/municipality logos are allowed on maintenance vehicles.

#### **G.** Spare Parts

The DOTD ITS Section will provide system spare parts to the Consultant for ITS maintenance. These parts are included in the list below. The Consultant shall be required to house an inventory of small system spare parts in maintenance vehicles. The Consultant shall be responsible for system spares in maintenance vehicles as well as tracking the status of system spare parts inventory whether in stockpile or in a maintenance vehicle.

- CCTV camera assemblies and coaxial cables
- Radar vehicle detector units
- DMS enclosures, pixel boards and controllers
- Video detector units and manufactures conductor cables
- Video encoders
- Ethernet switches and optics
- Licensed and unlicensed radio units, antennas and coaxial cables
- Cabinets
- Manufacturer power supplies
- Tripp Lite and Atlantic Scientific surge suppressors
- Ground wire
- All Hardware and other parts costing over \$1,000 individually
- Battery backup controllers and batteries
- Locks and keys
- Distributed power step down transformers
- Blue Tooth vehicle detectors
- Solar Panels
- Inline surge protectors
- Uninterrupted power supply batteries
- Light bulbs

The Consultant shall be responsible to provide and inventory spare parts including but not limited to the following:

- Fiber optic patch cables & Fiber terminations
- Ethernet cables
- Fans, miscellaneous small parts, and Hardware

The DOTD shall handle processing, shipping, and handling of all parts under warranty. Broken system parts not covered by warranty shall be delivered to the location as directed by the Engineer for further disposal by DOTD. Copper and aluminum wiring shall be returned to DOTD.

#### H. Management Approach

Within one week of receiving notice to proceed (NTP) for the TO, the Consultant shall submit a management plan for ITS maintenance to the Engineer for review and acceptance. The management plan shall detail processes and information flows for distributing work to staff, working hours for routine, responsive, and emergency maintenance, managing equipment inventories, quality control, maintenance reports, and managing budgeted funds for each purchase order (PO). Location of repair technician cannot be driving factor for cost (i.e., cannot use subs from out of region to drive up cost).

Also within one week of receiving NTP, the Consultant shall provide the Engineer with a staff member directory with mobile phone numbers and email addresses. When changes occur, the directory shall be updated and resubmitted to the Engineer.

# Project Management

Project management shall include administration and oversight of all project activities by a professional engineer licensed in the State of Louisiana. Work performed shall include but is not limited to the following:

- Oversight of all work performed
- Administration of resource allocations
- Development of scope, schedule and estimates
- Tracking project budgets
- Oversight of subs
- Development and submission of required reports
- Management of maintenance equipment
- Participation in all project meetings
- Perform analysis to determine:
  - o Trends in equipment types, manufacturers, parts, etc.
  - System improvements needed
  - o Repair priorities

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# a. Draft Management Plan RFQ Response

The draft management plan should include a brief narrative on the following and shall be added to the back of the Consultants DOTD form 24-102:

- How work and information will be distributed through the team (diagram acceptable).
- How inventories will be managed.
- How quality control will be conducted and work tracked.

#### I. Maintenance Reporting

Maintenance reports shall be provided upon request by the Engineer and shall be verified by the Consultant's licensed engineer. Report templates shall be developed and accepted by the Engineer prior to use as actual reports. Reports shall be provided on a monthly, quarterly and yearly basis. Reports shall include but are not limited to the following:

- Number of repairs per device
- Number of repairs per manufacturer
- Average uptime per device

# J. Response Times and Penalties

The Consultant shall respond to work orders within the timeframe accepted by DOTD for each level of critical response and class. Penalties for inadequate response shall be issued by the Engineer based on the level of critical response and class. Response time for penalties shall be assessed based on the following criteria:

- Time shall start when the Engineer submits the work order to the Consultant for assessment/diagnostics.
- Time stops once the assessment/diagnostics is made and the proposed repair is reported to the Engineer.
- Time starts for repair when the Engineer submits approval to repair to the Consultant
- Time stops once the repair has been tested, verified, and accepted by the Engineer.

Mechanical breakdowns of vehicles will not be justification for eliminating response time and penalties.

#### a. Response Times and Penalties RFO Response

Proposers shall provide response times and their proposed respective penalties for not meeting the response times. Reponses times shall be provided for each level of critical response and class in the format provided below and shall be added to the back of the Consultants DOTD form 24-102:

Response Time and Penalties							
Critical Level:	Class:	Response Time (hour):	Penalty (dollars/hr)*:				
	Class A						
High	Class B						
	Class C						
	Class A						
Medium	Class B						
	Class C						
	Class A						
Low	Class B						
	Class C						

<sup>\*</sup> Note penalties are assessed until response is provided unless accepted otherwise by the DOTD Project Engineer

# K. ITS Maintenance Management System

The Consultant shall be required to provide an ITS maintenance management system for monitoring maintenance, dispatching, processing work orders, reporting, archiving, and inventorying. The system shall be real-time and web based. Entry and tracking of field equipment, inventories, work orders, and any activity shall be straightforward and easy to understand to avoid data misinterpretation and inaccuracies by users. The Engineer shall have oversight and set defaults. The Consultant shall allow other DOTD representative access to the system at the Engineer's request. The Consultant shall be responsible for administrating, operating, managing, updating, and configuring. The system shall log/track all events and system changes. The system shall include user names and passwords each defined under one of multiple levels of security including:

- Read only
- Read/write
- Administrator

#### a. Communications

The Graphical User Interface (GUI) shall allow for quick and easy access to all field equipment information while indicating a visual indicator for field operations status. From the GUI the user shall:

- Get a real-time snapshot of field operations
- Generate maintenance and service reports with up to the minute information
- View photos
- Check assets/inventories at the locations
- View documents such as drawings and cabinet schematics

# b. Reporting

The user shall be able to configure parameters to quickly develop reports based on the criteria selected by the Engineer. Reports can be targeted to specific information by selecting any combination of the following:

- Device location
- Date and time of failure
- Description of failure or issue
- Report of failure or source
- Staff responding
- Site conditions noted (i.e. weather, accident, fire, etc.)
- Actions taken (successful or otherwise)
- Date and time of resolution
- Spare parts used: type, model, serial and control number
- Replacement parts: type, model, serial and control number
- Action for replaced parts i.e. in-house repair, return to factory
- On-demand maintenance
- General notes

The use of the reporting feature shall reduce the time spent locating information from multiple areas and then having to consolidate this information. Reports shall be available in electronic format including but not limited to Microsoft Excel, Adobe PDF, TIFF, CSV, and XML.

#### c. Dispatch

The Consultant shall use the system as a dispatch service to record and dispatch all calls. They shall receive all notifications, log the notifications, and dispatch the appropriate field technician. Because the system is web-based, this service may be administered as a 24x7 operation. The notifications are dispatched to the field technician and all information is logged into the database to tie in with the field data. The dispatch console provides the ability to enter all of the detailed information the responder needs to accomplish the task.

The system users shall have the ability to:

- View the appropriate staff and quickly dispatch that person to a location
- Verify a notification has been acknowledged by the technician

#### d. Asset Management

The management system shall allow the user to track field assets in real-time from location-to-location (i.e., intersection, service truck, stockpile, repair facility, etc.). This promotes accountability for field operations and provides improved budget management and fiscal accountability. The system shall allow maintenance personnel to keep a

documented log of each and every device location, preventative and routine maintenance activities, repair logs, parts replacement, as well as special notes.

## e. Document Management

The management system shall provide a centralized location to store updated documents. Cabinet pictorials, as-builts, timing sheets, user manuals, and other location related documents can be attached to a location/asset and this attachment is relocated with the device. Network hyperlinks can also be included with assets which replaces the need to have multiple copies of a document with one that is accessible online, at any time.

#### f. Alarms

The management system shall provide alarms to notify the staff assigned to a work order and or his/her supervisor when a user-defined response time has not been met. This reminder allows the technician and/or supervisor to make decisions based on current information as to whether an additional technician should be dispatched or if staying with the current assignments is the best course of action.

The management system shall monitor calls and send notifications to the assigned staff and his supervisor, when a malfunction occurs in a location that has had a previous malfunction within a user-defined time frame. This multiple notification alert provides information about the previous malfunctions to the location, the staff member who responded, what was found, and the work performed. This information is important for troubleshooting.

## g. Graphic User Interface

The graphical user interface (GUI) allows for quick and easy access to field information while creating a visual indicator of field operation status. From the GUI, the user is able to:

- See a snapshot of field operations
- Check assets at each location
- View cabinet and intersection photos
- View documents such as intersection drawings and cabinet prints
- Run reports

The GUI shall show outstanding maintenance notices on a map of the region with color-coded markers to show the status of each notice. Additionally, a listing of previous notices shall appear at the bottom of the screen when a location is selected. To view information pertaining to a particular notice at the location, a icon can be selected and the required information shall display on the screen, including a picture of the assets, the equipment, and supporting design documents or location documented notes and comments.

# h. ITS Maintenance Management System RFQ Response

Proposers should provide a specification/cut sheet of a developed system that provides for maintenance management including such details including server hardware, software, and user devices. It should be clear how the proposed system will be applied to ITS maintenance. The maintenance management system information shall be added to the back of the Consultants DOTD form 24-102.

# L. Criminal Reporting

Any vandalism, burglary or any other acts of violence committed to the DOTD ITS sites shall be report to the Engineer for further investigation and processing. DOTD will handle filling police reports as needed.

#### M. Prohibitions

The Consultant shall not report or provide information to the media. All ITS Maintenance press releases and program information will be provided to the media by DOTD.

#### N. Restriction

The Consultant shall be subject to inspections by DOTD for safety checks including appropriate PPE, safety restraints, traffic control, vehicle placement, etc. Access to some sites may be constrained to certain times of the day due to traffic. Similarly, lane and road closures may be required for access. Time of day restraints and lane closures shall be provided by the Engineer and/or the District Traffic Operations Engineer (DTOE). DOTD traffic control details will be made available for the Consultant's use in performing traffic control.

#### **REFERENCES**

All services and documents will meet the standard requirements as to format and content of the DOTD; and will be prepared in accordance with the latest applicable editions, supplements and revisions of the following:

- 1. AASHTO Standards, ASTM Standards or DOTD Test Procedures
- 2. DOTD Location and Survey Manual
- 3. DOTD Roadway Design Procedures and Details
- 4. DOTD Hydraulics Manual
- 5. DOTD Standard Specifications for Roads and Bridges
- 6. Manual of Uniform Traffic Control Devices
- 7. DOTD Traffic Signal Design Manual
- 8. National Environmental Policy Act (NEPA)
- 9. National Electric Safety Code
- 10. National Electric Code (NFPA 70)
- 11. DOTD Environmental Impact Procedures (Vols. I-III)
- 12. Policy on Geometric Design of Highways and Streets
- 13. Construction Contract Administration Manual
- 14. Materials Sampling Manual

- 15. DOTD Bridge Design Manual
- 16. Consultant Contract Services Manual
- 17. Geotechnical Engineering Services Document
- 18. Bridge Inspectors Reference Manual
- 19. DOTD Stage 1 Manual of Standard Practice

Follow link below for the individual reference links:

 $\frac{\text{http://webmail.dotd.louisiana.gov/ContWEB.nsf/b88769326453bef886256fe00047183a/1}{8 fc 2860512 aba 5886257a62006133b8? OpenDocument}$ 

#### **COMPENSATION**

Compensation to the Consultant for services rendered in connection with each TO shall be based on negotiated work-hours using DOTD established billable rates for the actual work performed on the Task Order.

The amount payable under this Retainer Contract for services to be performed under the various TO's shall not exceed a maximum of **\$9,000,000**. Each TO shall be payable under the respective TO project number which shall be obtained by the Project Manager.

All travel related expenses will be compensated under direct expenses, and will be in accordance with Louisiana Office of State Travel regulations found at: <a href="http://www.doa.louisiana.gov/osp/travel/travelpolicy.htm">http://www.doa.louisiana.gov/osp/travel/travelpolicy.htm</a>. Vehicle rental rates will require prior approval from the DOTD Project Manager.

#### **DIRECT EXPENSES**

All direct expense items which are not paid for in the firm's overhead which are needed and will be consumed during the life of the contract must be identified by the consultant during contract development. Standard equipment to be used in the provision of services rendered for this contract will not be considered for payment under direct expenses. Failure to provide the above information will deem items as non-qualifying for direct expenses.

The consultant shall provide a minimum of three rate quotes for any specialty vehicle or equipment. Any and all items for which said quotes are not submitted shall be deemed as non-qualifying for payment as direct expenses.

The Consultant may request to have the initial billable rates updated on a yearly basis. However, any adjustment to the Contract billable rates shall not be cause for an increase in the maximum compensation limitation imposed herein.

#### CONTRACT TIME AND NOTICE TO PROCEED

This Retainer Contract shall be in effect for the duration of **three years**. The services to be performed for each Task Order (TO) will be determined prior to the execution of the TO. The Consultant will proceed with the services required in the TO upon issuance of the Notice to Proceed from the DOTD. The contract time for each TO, will be specified in the executed TO. Any TO in effect, prior to the expiration date of the Retainer Contract shall be completed. Any TO which has not expired may be supplemented as long as the Retainer Contracts funds have not been exhausted.

## QUALITY CONTROL/QUALITY ASSURANCE

The DOTD requires the Consultant to develop a Quality Control/Quality Assurance program; in order to provide a mechanism by which all contracted services can be subject to a systematic and consistent review. Consultants must ensure quality and adhere to established design policies, procedures, standards, and guidelines in the preparation and review of all design products. The DOTD shall provide limited input and technical assistance to the Consultant.

# MINIMUM PERSONNEL REQUIREMENTS

The following requirements must be met at the time of submittal:

- 1. At least one Principal of the Prime-Consultant must be a Professional Engineer registered in the State of Louisiana.
- 2. The Prime Consultant shall employ a full-time dedicated Project Manager (PM) who will serve as the point of contact on all ITS Maintenance issues.
- 3. The Prime Consultant shall employ on a full-time basis a minimum of one Professional Civil or Electrical Engineer registered in the State of Louisiana with at least five years of experience in applied intelligent transportation systems, whether in system engineering, design, integration, and/or communications.
- 4. The Prime Consultant must also employ on a full-time basis, or through the use of a Sub-Consultant:
  - a) Louisiana licensure (statewide): Electrical Work
  - b) Louisiana licensure: Specialty: signs, scoreboards, displays, Billboards (Electrical and Non-Electrical)
  - c) Louisiana Licensure: Specialty: Telecommunications
  - d) One Senior Technician with at least five years in field experience in system installation, testing, and/or inspection.
  - e) One Technician with manufacturer certifications/authorizations for repair for each device (COHU, Pelco/Schneider, Daktronics, ISS/IES, Axis)
  - f) One Technician with Closed Circuit Television (CCTV) certification through the Louisiana Office of State Fire Marshal.
  - g) One tower climber certified in fall protection meeting the recommended ANSI/OSHA standards and regulations as related to work at wireless communication sites. Course shall be National Association of Tower

- Erectors (NATE) compliant and American Tower Company (ATC) approved (3-day course, minimum).
- h) One American Traffic Safety Services Association (ATSSA) certified Traffic Control Design Specialist

Training Certifications/Certifications of Compliance must be submitted with and made part of the Consultants DOTD Form 24-102 for all Personnel Requirements listed herein.

# WORK ZONE TRAINING REQUIREMENTS (PRE-CONSTRUCTION SERVICES)

As part of DOTD's on-going commitment to work zone safety, required work zone training courses must now be taken every four years in order for personnel to remain eligible to work on DOTD projects. For consultants performing pre-construction services (i.e., design, survey, subsurface utility, geotechnical, traffic, bridge inspection, environmental services), appropriate personnel must take these courses. In general, the responsible charge of traffic control plans shall be required to have Traffic Control Supervisor training. For field services performed within the clear zone, at least one member of the field crew shall have Traffic Control Supervisor or Traffic Control Technician training. Consultant should identify all personnel listed in the staffing plan for the project that have completed the appropriate work zone training courses. Current certifications of compliance for this training should be submitted with and made part of Consultant's DOTD Form 24-102. The consultant shall explain in Section 13 of DOTD Form 24-102 how they plan to meet the work zone requirements. However, all requirements shall be met prior to contract execution. It will be the prime consultant's responsibility to ensure their staff and sub-consultants have the appropriate work zone training.

The above requirements are the minimum to perform work on DOTD projects. It is desired that all staff have work zone training as shown below:

Engineers: Traffic Control Technician

Traffic Control Supervisor

Flagger

Engineer Interns: Traffic Control Technician

Traffic Control Supervisor

Flagger

Field Senior Technicians, Survey Party Chiefs, and

SUE Worksite Traffic Supervisors: Traffic Control Technician

Traffic Control Supervisor

Flagger

Field Personnel: Traffic Control Technician Flagger

Approved courses are offered by ATSSA and AGC. Substitutes for these courses must be approved by the LA DOTD Work Zone Task Force. Specific training course requirements are:

Flagger: Successful completion every four years of a work zone flagger

course approved by the Department. The "DOTD Maintenance Basic Flagging Procedures Workshop" is not an acceptable

substitute for the ATSSA and AGC flagging courses.

Traffic Control Technician (TCT): Successful completion every four years of a work zone traffic control technician course approved the Department. After initial successful completion, it is not necessary to retake this course every four years if Traffic Control Supervisor

training is completed every four years.

Traffic Control Supervisor (TCS): Successful completion of a work zone traffic control supervisor course approved by the Department. Following an initial completion, traffic control supervisors must either complete a 1-day TCS refresher course or retake the original 2-day TCS course every four years.

ATSSA contact information: (877) 642-4637

#### **EVALUATION CRITERIA**

The general criteria to be used by DOTD in evaluating responses for the selection of a Consultant to perform these services are:

- 1. Consultant's firm experience on similar projects, weighting factor of 3;
- 2. Consultant's personnel experience on similar projects, weighting factor of 4;
- 3. Consultant's firm size as related to the estimated project cost, weighting factor of 3;\*\*\*
- 4. Consultant's past performance on similar DOTD projects, weighting factor of 6;\*\*
- 5. Consultant's current work load, weighting factor of 5;\*\*\*\*
- 6. Location where the work will be performed, weighting factor of 4. \*
- 7. Consultant's proposed draft management plan, weighting factor of 5;
- 8. Consultant's proposed ITS maintenance management system, response times and penalties, weighting factor of 5;

<sup>\*</sup>Location will be based from Marksville, Louisiana.

<sup>\*\*</sup>The ITS (IT) performance rating will be used for this project.

\*\*\* Firms with a ratio of 5 or greater on the Department's firm size graph will receive a compatibility rating of no less than 2.

\*\*\*\* All respondents will receive a 4 in this category.

Consultants with no past performance rating in a rating category will be assigned the average rating of the firms submitting; with ratings capped at the statewide average rating for that category as of the date the advertisement was posted.

# **Complexity level- complex**

Consultants will be evaluated as indicated in Items 1-8. The evaluation will be by means of a point-based rating system. Each of the above criteria will receive a rating on a scale of 0-4. Then the rating will be multiplied by the corresponding weighting factor. The firm's ratings in each category will then be added to arrive at the Consultant's final rating.

If Sub-Consultants are used, each member of the Consultant/Team will be evaluated on their part of the contract, proportional to the amount of their work. The individual team member ratings will then be added to arrive at the Consultant/Team rating.

#### Communication Protocol

DOTD's Project Evaluation Team will be responsible for performing the above described evaluation, and will present a short-list of the three (if three are qualified) highest rated Consultants to the Secretary of the DOTD. The Secretary will make the final selection. Below are the proposed Team members. DOTD may substitute for any reason provided the members meet the requirements of R.S. 48:291.

- 1. Hadi Shirazi Ex officio
- 2. Erik Smith Project Manager
- 3. Stephen Glascock
- 4. Tony St. Philip
- 5. Roy Esteven
- 6. Joseph Frederick

Rules of Contact (Title 48 Engineering and Related Services)

These rules are designed to promote a fair, unbiased, legally defensible selection process. The LA DOTD is the single source of information regarding the Contract selection. The following rules of contact will apply during the Contract selection process and will commence on the date of advertisement and cease at the contract execution by the selected firm. Contact includes face-to-face, telephone, facsimile, Electronic-mail (E-mail), or formal written communications. Any contact determined to be improper, at the sole discretion of the LA DOTD, may result in the rejection of the submittal (24-102):

- A. The Consultant shall correspond with the LA DOTD regarding this advertisement only through the LA DOTD Consultant Contracts Services Administrator:
- B. Neither the Consultant, nor any other party on behalf of the Consultant, shall contact any LA DOTD employees, including but not limited to, department heads; members of the evaluation teams; and any official who may participate in the decision to award the contract resulting from this advertisement except through the process identified above. Contact between Consultant organizations and LA DOTD employees is allowed during LA DOTD sponsored one-on-one meetings;
- C. Any communication determined to be improper, at the sole discretion of the LA DOTD, may result in the rejection of submittal, at the sole discretion of the LA DOTD;
- D. Any official information regarding the project will be disseminated from the LA DOTD'S designated representative on the LA DOTD website. Any official correspondence will be in writing;
- E. The LA DOTD will not be responsible for any verbal exchange or any other information or exchange that occurs outside the official process specified herein.

By submission of a response to this RFQ, the Consultant agrees to the communication protocol herein.

# **CONTRACT REQUIREMENTS**

The selected Consultant will be required to execute the contract within 10 days after receipt of the contract.

**INSURANCE** - During the term of this contract, the Consultant will carry professional liability insurance in the amount of \$1,000,000. This insurance will be written on a "claims-made" basis. Prior to executing the contract, the Consultant will provide a Certificate of Insurance to DOTD showing evidence of such professional liability insurance.

**AUDIT** - The selected Consultant/Team shall provide to the DOTD Audit Section an *independent* Certified Public Accountant (CPA) audited overhead rate developed in accordance with Federal Acquisition Regulations (FAR) and guidelines provided by the DOTD Audit Section. In addition, the selected Consultant/Team will allow the DOTD Audit Section to perform an overhead audit of its books, at the DOTD's sole discretion. The performance of such an audit by the DOTD Audit Section shall not relieve the Consultant/Team of its responsibilities under this paragraph.

Consultants are also required to submit labor rate information twice a year to the DOTD's Audit Section and/or as requested by DOTD. Newly selected firms must have audited salaries and overhead rates on file with the DOTD's Audit Section before starting any additional stage/phase of their contracts. All Qualification Statements (24-102)

submitted to DOTD by Consultants currently under contract may be considered non-responsive if the consultant is not in compliance with the above audit requirements.

DBE/WBE - The selected Consultant Team will have a DBE/WBE goal of 3% of the contract fee. DBE/WBE participation will be limited to the firms listed on the LA DOTD UCP DBE Directory which can be found at the following link: <a href="http://www8.dotd.la.gov/UCP/UCPSearch.aspx">http://www8.dotd.la.gov/UCP/UCPSearch.aspx</a>. The DOTD Project Manager shall review submitted invoices to determine if the DBE/WBE goals are being achieved. If the Consultant has failed to meet the goal and no good faith efforts have been made, the DOTD Project Manager shall notify the Compliance Section, and at that time the DBE/WBE portion of the Contract fee will be withheld from the Prime Consultant.

Any Consultant currently under contract with the DOTD and who failed to meet all the audit requirements documented in the manual and/or notices posted on the DOTD Consultant Contract Services Website (<a href="www.dotd.louisiana.gov">www.dotd.louisiana.gov</a>), will not be considered for this project.

## SUBMITTAL REQUIREMENTS

One original (stamped "original") and five copies of the DOTD Form 24-102 must be submitted to DOTD along with an electronic copy (USB flash drive only) in a searchable Portable Document Format (pdf). If you wish to have your flash drive returned, please include a postage paid, self-addressed envelope. All submittals must be in accordance with the requirements of this advertisement and the Consultant Contract Services Manual.

Any Consultant/Team failing to submit any of the information required on the 24-102, or providing inaccurate information on the 24-102, will be considered non-responsive.

Any Sub-Consultants to be used, including Disadvantaged Business Enterprises (DBE), in performance of this Contract, must also submit a 24-102, which is completely filled out and contains all information pertinent to the work to be performed.

The Sub-Consultant's 24-102 must be firmly bound to the Consultant's 24-102. In Section 8, the Consultant's 24-102 must describe the **work elements** to be performed by the Sub-Consultant(s), and state the approximate **percentage** of each work element to be subcontracted to each Sub-Consultant.

Contract employees may be allowed for a period of time for a particular element or task on a project. Contract employees should be shown in **Section 9a. Project Staffing Plan** with resumes included in **Section 10**.

<u>Use of contract employees requires prior approval by the Consultant Contract Services</u>

<u>Section for each element or task on a project. The approval request shall be made prior to the submittal of the 24-102 form.</u>

Name(s) of the Consultant/Team listed on the 24-102, must precisely match the name(s) filed with the Louisiana Secretary of State, Corporation Division, and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.

The DOTD Form 24-102 will be identified with Contract No. 4400007102, and will be submitted prior to 3:00 p.m. CST on Tuesday, November 03, 2015, by hand delivery or mail, addressed to:

Department of Transportation and Development Attn.: Mr. Hadi Shirazi, P.E., PTOE Consultant Contracts Services Administrator 1201 Capitol Access Road, **Room 405-E** Baton Rouge, LA 70802-4438 or

Telephone: (225) 379-1929

## **REVISIONS TO THE RFQ**

DOTD reserves the right to revise any part of the RFQ by issuing an addendum to the RFQ at any time. Issuance of this RFQ in no way constitutes a commitment by DOTD to award a contract. DOTD reserves the right to accept or reject, in whole or part, all Qualification Statements submitted and/or cancel this announcement if it is determined to be in DOTD's best interest. All materials submitted in response to this announcement become the property of DOTD and selection or rejection of a submittal does not affect this right. DOTD also reserves the right, at its sole discretion, to waive administrative informalities contained in the RFQ.