ENGINEERING AND RELATED SERVICES
January 4, 2008

STATE PROJECT NO. 700-99-0413
F.A.P. NO. ITS-9906(551)
RETAINER CONTRACT FOR STATEWIDE
INTELLIGENT TRANSPORTATION SYSTEM (ITS)
TRAFFIC-INCIDENT MANAGEMENT (TIM) PROGRAM
TRAFFIC MANAGEMENT CENTER (TMC)
OPERATIONS AND SYSTEMS ENGINEERING (SE) SUPPORT
STATEWIDE

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 Standard Form 24-102 (SF 24-102), "Professional Engineering and Related Services", revised January 2003, from Consulting Firms (Consultant) to provide engineering and related services. **All requirements of Louisiana Professional Engineering and Land Surveying (LAPELS) Board must be met at the time of submittal.** One Prime-Consultant/Sub-Consultant(s) (Consultant/Team) will be selected for this Contract.

Project Manager – Mr. Stephen Glascock, P.E., PTOE, may be reached at (225) 379-2516.

PROJECT DESCRIPTION

The selected Consultant will perform engineering and related services to provide technical TMC operations staffing and ITS Systems Engineering (SE) support necessary to appropriately operate the Statewide ITS system in various TMC's located throughout the state as 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.

The technical operations and engineering function will be performed in accordance with all applicable regional and statewide ITS architectures, engineering standards and directives, and federal rules governing ITS and Systems Engineering.

The Louisiana Department of Transportation and Development (DOTD) Intelligent Transportation System (ITS System) supports a wide range of ITS technical capabilities and programs, which provides the necessary tools to assists Districts, the ITS Section, and Operations Division in meeting the Department's Strategic Plan. The ITS System includes software, resources, and standard operating procedures necessary to facilitate real-time Traffic-Incident Management (TIM) and effective dissemination of real-time traffic information through an Advanced Traffic Management System (ATMS) and Advanced Traveler Information System (ATIS). The goals of using the ITS system are to

maximize roadway throughput and efficiency, minimize the impact of roadway incidents, assist incident and emergency response agencies and personnel, manage recurring and non-recurring traffic demand, and create and maintain public confidence through the use of technology and integration of business functions. Among the operations functions supported by the ITS System are:

- Dynamic Message Sign Operation
- Traffic Surveillance and Monitoring
- Congestion/Demand Management
- Traffic Data Collection and Management
- Special Events/Emergency Management
- Traffic-Incident Management
- Advanced Traveler Information
- ITS Equipment Maintenance Management and Notification
- Database and Information Management

The DOTD TMC's are located in various Transportation Management Areas (TMA's) within the jurisdiction of Metropolitan Planning Organizations (MPO's) throughout the state. This Request for Qualifications (RFQ) has been developed for the Department to acquire Systems Engineering and technical TMC staffing support for effective operations and management of the Department's Statewide ITS System and implementation of the Statewide Traffic-Incident Management (TIM) program. DOTD must retain these services via contract because the Department does not have sufficient in-house staff allocated to this purpose nor resources with the unique, specialized technical skill-sets to effectively and efficiently perform these functions.

Description of the ITS System and Software

The ITS System incorporates the use of various software packages and computerized automation systems to achieve its goals. Current software and automation systems in use by DOTD are the Management Information System for Transportation (MIST) specifically within the Baton Rouge TMC, 360° Surveillance specifically within the Shreveport/Bossier City, Houma, and Statewide TMC's, NAZTEC Streetwise, Condition Acquisition and Reporting System (CARS), Econolite Data Collection and Management System (DCMS), Lotus Notes, Microsoft Office, and other various vendor-supplied firmware and software. The Consultant will be required to deliver a competent work product through using and incorporating these packages to sustain effective operation and management of the ITS System.

Organizational Hierarchy of ITS/ATMS Operations

DOTD's ITS Section (Section 56) is responsible for administering, implementing, and sustaining the ITS program throughout the state. This Section provides engineering, technical, and project/program management resources along with financial and technical support to other state and local governmental agencies and DOTD Districts and Headquarters to plan, design, implement, and maintain ITS Systems statewide. The Consultant will be under the direction and supervision of the Project Manager within the

ITS Section, but may be required to functionally report TMC operations activities with other stakeholders identified in the applicable ITS architectures.

Concept of Operations of the ITS System

The ITS System operates as a primary component of the Louisiana Transportation Information System (LaTIS), a DOTD-owned system and network envisioned to support DOTD and multi-agency ITS communication and collaboration among the TMC's and other facilities to maximize the effective delivery of ITS operations. The information is collected and disseminated real-time and is utilized to provide transportation management and operations services to traffic managers, the traveling public, and incident responders.

The TMC's facilitated by DOTD, where technical operations staffing may be required as part of this scope of services, include:

DOTD Statewide ITS/Emergency Operations Center (EOC) (Louisiana TMC): DOTD Headquarters Annex Building – Baton Rouge

Regional TMC's:

- Baton Rouge ATM-EOC
- Lafayette Multi-Modal ITS Center (Planned)
- New Orleans RTMC (Planned)
- Shreveport/Bossier District 04 TMC

DOTD District TMC's:

- Alexandria – District 08 (Future)
- Houma – District 02 (Future)
- Lake Charles – District 07 (Future)
- Monroe – District 05 (Future)

SCOPE OF SERVICES

The following engineering scope outlines job tasks necessary for the Consultant to perform to satisfy contract requirements herein.

Task 1. Perform Systems Engineering (SE) Analysis and Documentation

A Statewide ITS Architecture and Regional ITS Architectures have been developed specifically in Baton Rouge, New Orleans, Shreveport/Bossier City, Lafayette, and Houma TMA's. Under this Task, the Consultant shall be required to make any updates and/or modifications to these architectures and develop project-level architectures and/or perform SE analyses and documentation to support ITS operations as directed by the Project Manager. All work generated under this Task shall fully comply with the requirements of 23 CFR Part 940, which addresses SE requirements for ITS projects that are funded with federal transportation monies.

Task 2. Perform TMC Operations Staffing Support

Performance, Location, and Hours of Operation

The Consultant shall be expected to physically position staff within the Statewide, Regional and/or District TMC's during specified times of operation as directed by the Project Manager. The Consultant shall provide at least one (1) operator and/or supervisor to be on-call at all times. The Consultant shall also provide at least one (1) Systems Engineer experienced in the application of SE specifically for ITS necessary to support continuous SE documentation required by the Project Manager. The Consultant shall ensure that the functions defined in approved Standard Operating Procedures and other applicable system design documents are satisfactory executed.

Documentation and Record-Keeping

The Consultant shall be responsible for the update and configuration management of applicable systems documentation for the TMC's. The Consultant shall ensure that documentation is current with respect to the system functionality and configuration. The Consultant is required to demonstrate during reviews that all updates have been completed in accordance with applicable SE requirements of this contract. Among the documentation to be developed and/or maintained by the Consultant shall include:

- Project Management Plan
- TMC Standard Operating Procedures (SOP's) Manual(s)
- TMC Concepts of Operations, including operational scenarios for emergency management
- ITS system requirements documentation, include requirements traceability matrices
- ITS system design documentation
- System testing plans, scenarios, cross reference of requirements to system test scenarios, and other documents requires as part of verification and validation
- System configuration management library
- Inventory of ITS assets
- Software user documentation
- Systems Administrator Manual including system hardware and software configurations, system functions, file structures, database functions, and system maintenance processes and monitoring
- System training materials including operations training, software training, and hardware maintenance training

Training

The Consultant shall provide trained operations staff within the specified TMC's to appropriately support the operations and management of the ITS System. Operators and Operations Supervisory personnel shall be adequately trained in the application of TMC Standard Operating Procedures (SOP's), industry-standard TIM practices, and the effective use of applicable software and automation systems.

The Consultant will develop a structured training program for the operations staff that will be reviewed and approved by DOTD. This training program shall include formal instruction in all applicable SOP's, guidelines, rules, and software for an effectively managed ITS System. DOTD will provide the Standard Operating Procedures Manual and other applicable materials that will be the basis for conducting ITS System operations in all TMC's.

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

COMPENSATION

Compensation to the Consultant for services rendered in connection with each TO shall be based on negotiated work-hours and 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 **$6,000,000**. 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:

http://www.doa.louisiana.gov/osp/travel/travelpolicy/travelguide.pdf. Vehicle rental rates will require prior approval from the DOTD Project Manager.

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.

QUALITY CONTROL/QUALITY ASSURANCE

The DOTD requires the Consultant to develop a Quality Control/Quality Assurance program or adopt DOTD's program; in order to provide a mechanism by which all construction plans can be subject to a systematic and consistent review. Consultant's 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. The Consultant's plans shall meet or exceed DOTD's Construction Plans Quality Control / Quality Assurance Manual and EDSM No. Volume I. 1.1.24 on Plan Quality. The Consultant shall transmit plans with a DOTD Quality Control/Quality Assurance Checklist, Documentation Manual for Project Delivery, and a certification that the plans meet the DOTD's quality standards.

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 Registered Professional Engineer in the State of Louisiana.
2. At least one Principle or a responsible member of the Prime-Consultant must be registered in the State of Louisiana as a Professional Civil Engineer.
3. The Prime-Consultant must also employ on a full time basis, a minimum of one Registered Professional Engineer with at least five years experience in Traffic Engineering, ITS, and/or Systems Engineering and with demonstrated knowledge of engineering design of transportation systems.
4. The Prime-Consultant must also employ on a full-time basis, or through the use of a Sub-Consultant(s):
    a) One Professional Engineer with a minimum of two years experience in performing systems engineering analyses.
    b) One Professional Engineer with a minimum of two years experience in design of ITS systems.
    c) One Engineering or Information Technology Technician with a minimum of five years experience in first-line supervision and training of Traffic

Management Center (TMC) or an Integrated Command and Control Center (IC^3) personnel and systems.

d) One Engineering or Information Technology Technician with a minimum of five years experience in performing management and operations, system diagnostics and troubleshooting, and system maintenance of ITS systems.

EVALUATION CRITERIA

The general criteria to be used by DOTD (when applicable) 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. *****

*Location will be based from Baton Rouge, Louisiana.

******The ITS Design (IT) performance rating will be used for this project.

Consultants will be evaluated as indicated in Items 1- 6. 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.

DOTD's Consultant Evaluation Committee will be responsible for performing the above described evaluation, and presenting 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.

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 will allow the DOTD Audit Section to perform an annual overhead audit of their books, or provide an *independent* Certified Public Accountant (CPA) audited overhead rate. This rate must be developed using Federal Acquisition Regulations (FAR) and guidelines provided by the DOTD Audit Section. In addition, the Consultant will submit semi-annual labor rate information, when requested by DOTD.

The selected Consultant will maintain, an approved Project Cost System and segregate direct from indirect cost in their General Ledger. Pre-award and post audits, as well as interim audits, may be required. For audit purposes, the selected Consultant will maintain accounting records for a minimum of five years after final contract payment.

Any Consultant currently under contract with the DOTD and who has not met all the audit requirements documented in the manual and/or notices posted on the DOTD Consultant Contract Services Website (www.dotd.louisiana.gov), will not be considered for this project.

SUBMITTAL REQUIREMENTS

One original (**stamped original**) and four copies of the SF 24-102 must be submitted to DOTD. 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 SF 24-102, or providing inaccurate information on the SF 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 SF 24-102, which is completely filled out and contains all information pertinent to the work to be performed.

The Sub-Consultant's SF 24-102 must be firmly bound to the Consultant's SF 24-102. In Section 9, the Consultant's SF 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.

Name(s) of the Consultant/Team listed on the SF 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 SF 24-102 will be identified with State Project No. **700-99-0413,** and will be submitted **prior to 3:00 p.m. CST** on **Monday, January 28, 2008**, by hand delivery or mail, addressed to:

Department of Transportation and Development
Attn.: Mr. Edward Wedge, III, P. E.
Consultant Contract Services Administrator
1201 Capitol Access Road, **Room 405-T**

Baton Rouge, LA 70802-4438 or
Post Office Box 94245
Baton Rouge, Louisiana 70804-9245
Telephone: (225) 379-1989

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.