# ENGINEERING AND RELATED SERVICES JULY 29, 2016

CONTRACT NO. 4400009424
RETAINER CONTRACT FOR SERVICES
FOR BRIDGE INSTRUMENTATION
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 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 must be registered with the Federal Government using SAM.gov prior to contract execution. 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. Ching Tsai

All inquiries concerning this advertisement should be sent in writing to Mark.Chenevert@la.gov and heather.huval@la.gov.

## PROJECT DESCRIPTION

The selected Consultant will provide bridge instrumentation services for statewide 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 percentages shown are an estimate of anticipated work effort relative to the type of work; the actual percentages of work will depend on the required services. The consultant should expect to perform task orders for individual services for specialized work.

# 1.1 Assessment of Instrumentation Needs and Instrumentation Plan Preparation (10%)

The Consultant shall review bridge plans and evaluate instrumentation needs to accomplish the DOTD's monitoring goals. Subject to the DOTD's approval, the Consultant shall prepare the instrumentation plan showing all quantities including instrumentation locations and types, model numbers, cable, data acquisition system, power supply and control.

## **1.2** Field Instrumentation Installation (50%)

The Consultant shall install instrumentation on structures in accordance with the approved instrumentation plans. This task shall include the procurement of all hardware and software specified in the instrumentation plan. The consultant shall also arrange for all site access and traffic control, if required.

# 1.3 Sampling, Instrumentation, and Non-destructive Testing of Bridges and Other Structures (20%)

This task including destructive and non-destructive testing of structures to determine material properties. The destructive testing may include taking samples (concrete, steel or timber) from the bridge components. The non-destructive testing may include all available non-destructive testing methods for concrete, steel and timber. The Consultant shall report the finding in a report to include details of sampling or testing methods, assumptions, and limitations of the test methods.

## 1.4 Data Acquisition and Communication (5%)

The task may include collecting data remotely or at site depending upon the project requirements. The task shall include the cost of software and cellular communications when required. Depending upon projects, the Consultant may be required to set alarm triggers and programming the data acquisition system and report the setting in details in a user manual for the system.

## 1.5 Instrumentation Maintenance and Problem Resolution (5%)

The Consultant may be required to maintain the installed instrumentation for a specified period time. The maintenance may include both hardware and software.

## 1.6 Load Testing, Data Analysis and Load Rating (10%)

When required by the DOTD, the Consultant shall perform load testing, analyze the test results and provide a detailed load rating report. The report shall include all modeling input, rationale of the use of the input, and assumptions for the modeling effort. The report submittal shall include model input, output and all associated calculations.

All load rating shall follow the load rating provisions in the Current AASHTO Manual for Bridge Evaluation and the DOTD Policies and Guidelines for Bridge Rating and Evaluation.

## 2. Project Submittal Requirements

All work shall be performed in accordance with all applicable DOTD policies, procedures, and manuals. Design criteria shall be developed and submitted to the Bridge Task Manger for review and approval prior to proceeding with design.

Project submittals, associated schedule, and format shall be established in each Task Order. At minimum, all bridge plan submittals shall be submitted in pdf format and the 100% signed final plans shall be submitted both in full size paper and in pdf format. Design and rating calculations shall be submitted in pdf format no later than 30 days after the 100% final plan submittal.

Unless waived by the Task Order Project Manager, ProjectWise shall be utilized for all pdf submittals and electronic plan delivery will be required. See the following website for details on electronic plan delivery:

http://wwwsp.dotd.la.gov/Inside\_LaDOTD/Divisions/Engineering/Electronic\_Plans\_Delivery/Pages/default.aspx

### 3. Design Software Requirements

A list of pre-approved commercially available software is posted on the bridge design website at the following location:

http://wwwsp.dotd.la.gov/Inside\_LaDOTD/Divisions/Engineering/Bridge\_Design/Pages/QC-QA.aspx

If any other software is required for unique applications for which pre-approved software cannot be used, a synopsis of the software shall be submitted to the Bridge Design

Engineer Administrator for approval prior to use. The synopsis shall include the name of the software and the developer, a general description of the functions, a certification from the software developer stating that it is maintained in accordance with the latest AASHTO LRFD Bridge Design Specifications, and an account of the requester's experience and the experience of other organizations or agencies that use the software. Data/results from in-house software will not be accepted as part of the deliverable.

#### **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 LRFD Bridge Design Specifications
- 2. DOTD Bridge Design Manuals (BDEM, Fourth English Edition, and LRFD Edition)
- 3. DOTD Bridge Design Technical Memoranda
- 4. AASHTO LRFD Moveable Highway Bridge Design Specifications
- 5. AASHTO Manual for Bridge Evaluation
- 6. DOTD Guidelines for Bridge Rating and Evaluation
- 7. FHWA-IF-09-014 Load Rating Guidance and Examples for Bolted and Riveted Gusset Plates in Truss Bridges, February 2009
- 8. FHWA Bridge Inspector's Reference Manual
- 9. AASHTO Manual for Maintenance Inspection for Bridges
- 10. AASHTO Policy on Geometric Design of Highways and Streets
- 11. AASHTO Roadside Design Guide
- 12. DOTD Roadway Design Procedures and Details
- 13. AASHTO Standard Specifications for Structural Supports of Highway Signs, Luminaires, and Traffic Signals
- 14. Manual of Uniform Traffic Control Devices (MUTCD)
- 15. DOTD Traffic Signal Design Manual
- 16. DOTD "A Guide to Constructing, Operating, and Maintaining Highway Lighting Systems"
- 17. DOTD Location and Survey Manual
- 18. DOTD Hydraulics Manual
- 19. AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing
- 20. ASTM Standards
- 21. DOTD Materials Sampling Manual
- 22. DOTD Testing Procedures
- 23. DOTD Louisiana Standard Specifications for Roads and Bridges
- 24. National Environmental Policy Act (NEPA)
- 25. National Electric Safety Code
- 26. National Electric Code (NFPA 70)
- 27. DOTD Environmental Impact Procedures (Vols. I-III)
- 28. DOTD Construction Contract Administration Manual
- 29. DOTD Consultant Contract Services Manual

- 30. DOTD Geotechnical Engineering Services Document
- 31. AREMA Manual for Railway Engineering

Follow link below for the individual reference links:

http://webmail.dotd.louisiana.gov/ContWEB.nsf/b88769326453bef886256fe00047183a/18fc2860512aba5886257a62006133b8?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 Consultant may request to have the initial billable rates updated on a yearly basis based on the latest DOTD escalation rate. However, any adjustment to the Contract billable rates shall not be cause for an increase in the maximum compensation limitation imposed herein.

The amount payable under this Retainer Contract for services to be performed under the various TO's shall not exceed a maximum of **\$2,000,000**. 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.la.gov/osp/travel/travelpolicy/2015-16TravelGuide.pdf">http://www.doa.la.gov/osp/travel/travelpolicy/2015-16TravelGuide.pdf</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 **five 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.

#### ELECTRONIC DELIVERABLES

The Consultant hereby agrees to produce electronic deliverables in conformance with the DOTD Software and Deliverable Standards for Electronic Plans document. The Consultant is also responsible for ensuring that Sub-Consultants submit their electronic deliverables in conformance with the same standards. The DOTD Software and Deliverable Standards for Electronic Plans document and DOTD CAD Standards Downloads are available via links on the DOTD web site.

The Consultant shall apply patches to CAD Standard Resources and install incremental updates of software as needed or required. The Consultant hereby agrees to install major updates to software versions and CAD Standard Resources in a timely manner. Major updates of CAD standards and software versions shall be applied per directive or approval of the DOTD Design Automation Manager. Such updates will not have a significant impact on the plan development time or project delivery date, nor will they require the Consultant to purchase additional software. Prior to proceeding with plan development, the Consultant shall contact the Project Manager for any special instructions regarding project-specific requirements.

In the event that any electronic standard conflicts with written documentation, including DOTD plan-development Manuals, the electronic standard typically governs. The Consultant is responsible for contacting the Project Manager should questions arise.

The Consultant shall upload (or check in) electronic deliverables directly into the DOTD ProjectWise repository at each plan delivery milestone. Consultants are responsible for performing certain operations at each milestone including, but not limited to, the following:

- Upload (or check in) CAD plan deliverables to the discipline "Plans" folder
- Apply and maintain indexing attributes to CAD plans (and other deliverables as needed)
- Publish PDF format plan submittals in ProjectWise using automated publishing tools
- Digitally sign PDF format plan submittals in ProjectWise according to DOTD standards and procedures (Final Plans, Revisions and Change Orders). Signatures

shall be applied in signature blocks provided with electronic seals and Title Sheets.

Additionally, after reviewing deliverables for each submittal milestone, the Project Manager shall notify the Consultant regarding the availability of two automatically-generated informational reports in ProjectWise. These reports document the completion status and other information regarding indexing attributes and CAD standards. Consultants shall take these reports into account and make any necessary adjustments to plans before the next submittal milestone; or sooner, if directed by the Project Manager.

### QUALITY CONTROL/QUALITY ASSURANCE

The Prime Consultant shall submit a bridge design QC/QA plan document specifically developed for this project as part of the DOTD Form 24-102. The QC/QA plan document must comply with the minimum requirements set in the "Guidance on QC/QA in Bridge Design in Response to NTSB Recommendation (H-08-17)" (FHWA/AASHTO Guidance), which was published by FHWA and AASHTO in August 2011, and LADOTD Bridge Design Section QC/QA policy issued as Bridge Design Technical Memorandum No. 37 in October 2012. The FHWA/AASHTO guidance and LADOTD Bridge Design Section OC/OA Policy can be downloaded from LADOTD Bridge Design Section website. The grading instructions, the rating matrix, and the grading sheet for the QC/QA plan document are included in Appendix G of the LADOTD Bridge Design Section QC/QA Policy. The QC/QA plan document should be prepared to address all evaluation criteria included in the rating matrix. The QC/QA plan document must be implemented for all bridge design activities in both design phase and construction support phase of the project. The Prime Consultant is fully responsible for QC/QA of their work as well as the work of all sub-consultants. All project submittals must include a QC/QA certification that the submittals meet the requirements of the DOTD Policies and Guidelines for Bridge Rating and Evaluation.

#### ITEMS TO BE PROVIDED BY DOTD

If available, the DOTD will provide the following information as applicable:

- Existing survey, plans, details, and design information
- Right of Way Maps, Title Research Reports, Updates, Take-Offs, and Property Survey
- Pavement design
- Hydraulic data
- Traffic data
- Standard Plans and Special Details
- As-built plans
- Access to General Files for viewing available plans, details, and records
- Access to BrDR input tables for On-System Bridges
- DOTD design and rating manuals, policies, and guidelines

### MINIMUM PERSONNEL REQUIREMENTS

The following requirements must be met by the Prime-Consultant 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. At least one Principal or other responsible member of the Prime-Consultant must be a Professional Civil Engineer registered in the State of Louisiana, with a minimum of ten years of experience in the use of the Louisiana Standard Specifications for Roads and Bridges and the Louisiana DOTD Bridge Design Manual, and have a corresponding support staff with the following minimum experience:
  - a. One Professional Civil Engineer registered in the State of Louisiana, with a minimum of five years of experience in bridge instrumentation and load testing. The instrumentation experience shall include concrete and steel bridge instrumentations, steel and concrete culverts, and movable bridges. The load testing experience shall include diagnostic and capacity testing.
  - b. Two technicians having experience in field instrumentation installations on at least five structures.
- 3. In addition to the above requirements, the Prime-Consultant must employ on a full time-basis, or through the use of a Sub-Consultant(s):
  - a. One Professional Civil Engineers with a minimum of five years of experience in bridge design/rating.

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. \*

\*\*The performance rating <u>Bridge Design (BZ)</u> <u>Bridge Instrumentation (BG)</u> will be used for this project.

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 – normal**

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 1-5. 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, the Prime Consultant must perform a minimum of 90% of the work for the overall project. 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.

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.

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

- 1. Mark Chenevert Ex officio
- 2. Ching Tsai Project Manager
- 3. Dana Feng
- 4. Danny Tullier
- 5. Nick Fagerburg
- 6. Steven Sibley

## 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.

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</u>
<u>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. 4400009424**, and will be submitted **prior to 3:00 p.m. CST** on **Thursday**, **September 08**, **2016**, by hand delivery or mail, addressed to:

Department of Transportation and Development Attn.: Mr. Mark Chenevert, P.E. Contracts Services Administrator 1201 Capitol Access Road, **Room 405-E** Baton Rouge, LA 70802-4438 or Telephone: (225) 379-1591

## **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 RFO.