

**ENGINEERING AND RELATED SERVICES  
AUGUST 04, 2014**

**CONTRACT NO. 4400004920  
RETAINER CONTRACT FOR  
COMPLEX BRIDGE RATING (ON-SYSTEM TRUSSES  
AND OTHER COMPLEX BRIDGES)  
STATEWIDE**

**CONTRACT NO. 4400004921  
RETAINER CONTRACT FOR  
COMPLEX BRIDGE RATING (ON-SYSTEM TRUSSES  
AND OTHER COMPLEX BRIDGES)  
STATEWIDE**

**DBE/WBE GOAL = 1%**

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. **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 – Ms. Dana Feng (4400004920)**

**Project Manager – Mr. William Metcalf (4400004921)**

All inquiries concerning this advertisement should be sent in writing to [Alan.Dale@LA.gov](mailto:Alan.Dale@LA.gov).

**Only one DOTD Form 24-102 submittal is required for this Advertisement, and it represents the Prime-Consultants qualifications and submittal for both of the referenced contracts. Both identifying contract numbers must be listed on the cover page of the submittal.**

**Note that only one Prime-Consultant will be selected for each of these contracts. No Prime-Consultant will be selected for more than one contract.**

**PROJECT DESCRIPTION**

The selected Consultant will perform engineering services for complex bridge rating (on-system trusses and other complex bridges per BIRM) 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):

### **Task 1: Plan and Document Retrieval and Review**

Retrieve the following information and documents from the sources listed below.

#### **Documents and Information**

1. The current available inspection reports, and when necessary the previous bridge inspection reports as well.
2. Bridge plans – As-Built bridge plans shall be searched and collected from the sources listed below. If no As-Built plans can be located, then the As-Designed (final tracings, contract plans, shop drawings, etc.) shall be searched and collected from the sources listed below. If the bridge plans cannot be located, then all sources listed below shall be searched to collect for any/all of the following information:
  - Name of any standard plans used.
  - Sketches or partial drawings of the structure.
  - Any plan sheets that are available.
  - Any former rating documents. Name of engineer/firm from previous rating.
  - Name of Engineer/firm that designed the structure.
  - Name of the Entity that built the structure (State government, local government, private, special such as the core of engineers, etc.)
3. Repair Details – Any information relevant to repairs or retrofits (such as widening) that may have been done to the structure.
4. Field measurements – Any measurements taken for the structure, or load testing done on the structure.

The following sources will be used to locate the bridge plans and related information.

1. Louisiana Department of Transportation and Development headquarters.
  - General Files.
  - Pontis Bridge Record Database.
  - Content Manager System.
  - Section 51- Bridge Maintenance.

- Section 25 - Bridge Design.
2. Louisiana Department of Transportation and Development district offices.
  3. Local Parish governments.
  4. Any engineers, firms, or fabricators whose names have been discovered from other sources (previous rating engineer, design engineer, etc.)
  5. The entity who constructed the structure if it is different from the current owner.

An electronic copy (pdf file) of all retrieve information shall be delivered to the bridge rating unit of DOTD.

### **Task 2: Bridge Inspection**

Bridge inspection for this contract is for the purpose of;

1. Producing the most accurate rating by accounting for field conditions.
2. Gathering field measurements to assist with load rating and record recovery.

Therefore, the required bridge inspection will not be the equivalent to an NBIS bridge condition inspection. The type of inspection will follow similar procedure as the NBIS inspection but the goals and the outcomes are different.

- The inspection shall be supervised by a registered licensed engineer who is involved in the bridge rating of the structure.
- Any equipment need for the inspection shall be arranged for by the consultant, and approved by DOTD.
- All bridge inspections shall be summarized in a report which shall include pictures, and documentation of any field measurements taken.
- Copies of all reports and other documents shall be submitted to DOTD as both hard copy and electronic files.
- Full resolution copies of all pictures take in the bridge inspection shall be electronically submitted to DOTD.

### **Task 3: Analysis and Load Rating**

#### **Modeling & Analysis**

Perform a system structural model and analysis of the bridge to determine dead load and live load effects in the members. Three-dimensional structural model may be needed for complex bridges (when required).

- The load analysis should consider present condition of the bridge.
- Live load analysis should include design loads, and legal loads.

- Design Live Loads: HL-93
- Legal Loads: DOTD State Legal Loads and SHV if HL-93 inventory rating less than 1.0.
- Secondary and temperature effects may need to be considered.

### **Load Rating**

The rating is to be based on the present condition, capacity and loading of the bridge.

All structures shall be rated using the load rating provisions in the Current AASHTO *Manual for Bridge Evaluation* and the DOTD *Policies and Guidelines for Bridge Rating and Evaluation*.

### **Task 4: Perform Quality Assurance and Quality Control Reviews of Structural Load Ratings**

This task does not replace the requirements of the Consultant to perform quality assurance and quality control (QA/QC) of all their work as described below in the section entitled “QUALITY CONTROL/QUALITY ASSURANCE”

As needed the Consultant will be task to do “peer review” ratings, and other reviews of ratings performed by others. If needed the scope of these services will be further defined in the task order.

### **Task 5: Generate Repair Strategies and Plan Documents for Bridges**

The scope of services, compensation and contract time for future engineering services will be established by task order for this task.

### **Task 6: Sampling, Instrumentation and Non-destructive Testing**

May consist of the collection of samples of existing materials for evaluation to determine the properties.

Diagnostic tests and proof test may be required to be performed to determine certain response characteristics of the bridges to analytically compute the load rating of a bridge. Instrumentation would include (not limited to) the following:

- Field Instrumentation
- Data acquisitions and communications
- Web hosting for data collection
- Instrumentation maintenance
- Centralized data warehouse support
- Instrumentation consultation
- Data acquisition software updates
- Instrumentation calibration

## **Project Submittal Requirements**

Project submittals shall be determined in each task order. All bridge plans, bridge file information, and bridge rating reports submittals except the 100% Final submittal shall be submitted in pdf format. The 100% signed final submittal shall be submitted one in hard copy and one in pdf format.

## **Design/Rating Software Requirement**

A list of pre-approved commercially available software is posted on the Bridge Design Section's website at the following location:

[http://wwwsp.dotd.la.gov/Inside\\_LaDOTD/Divisions/Engineering/Bridge\\_Design/Pages/QC-QA.aspx](http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Bridge_Design/Pages/QC-QA.aspx)

[http://www.dotd.la.gov/highways/project\\_devel/design/bridge\\_design/documents.aspx?key=2](http://www.dotd.la.gov/highways/project_devel/design/bridge_design/documents.aspx?key=2)

If any other software is needed, a synopsis of the software and influence surface/line result shall be submitted to the State Bridge Rating Engineer 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. If any other software other than AASHTOWare Bridge Rating is used for superstructure, the influence lines/surfaces are required for final submittal. 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 Design Specifications
2. AASHTO Manual for Bridge Evaluation (MBE)
3. AASHTO LRFD Moveable Highway Bridge Design Specifications.
4. FHWA NHI Bridge Inspector's Reference Manual (BIRM)
5. FHWA National Bridge Inspection Standards (NBIS)
6. AASHTO Roadside Design Guide
7. AASHTO Standard Specifications for Structural Supports of Highway Signs, Luminaries, and Traffic Signals
8. ASTM Standards or DOTD Test Procedures
9. DOTD Location and Survey Manual
10. DOTD Roadway Design Procedures and Details

11. DOTD Hydraulics Manual
12. Louisiana Standard Specifications for Roads and Bridges
13. Manual of Uniform Traffic Control Devices (MUTCD)
14. DOTD Traffic Signal Design Manual
15. National Environmental Policy Act (NEPA)
16. National Electric Safety Code
17. National Electric Code (NFPA 70)
18. DOTD Environmental Impact Procedures (Vols. I-III)
19. Policy on Geometric Design of Highways and Streets
20. Construction Contract Administration Manual
21. Materials Sampling Manual
22. DOTD Bridge Design Manual and LRFD Bridge Design Manual
23. DOTD Bridge Design Technical Memorandums
24. Consultant Contract Services Manual
25. Geotechnical Engineering Services Document
26. DOTD “A Guide to Constructing, Operating, and Maintaining Highway Lighting Systems”

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 Task Order (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 **\$6,000,000 for each individual Retainer**. Each TO shall be payable under the respective TO project number which shall be obtained by the Project Manager.

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. Any TO which has expired may be supplemented as long as the Retainer contract funds have not been exhausted.

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.htm>. 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.

## **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.

## **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 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.

### **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 QC/QA 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 QC/QA plan document.

### **ITEMS TO BE PROVIDED BY DOTD**

The DOTD shall provide Traffic Data, Standard Plans, As-built plans if available, Bridge Shop Drawings if available, Bridge Maintenance File and Inspection Reports if available, Bridge Load Rating Reports if available, Access to BrR input tables for the On-System Bridges, DOTD rating guidelines and/or any other pertinent information if available, which may assist the Consultant in performing this work.

### **MINIMUM PERSONNEL REQUIREMENTS**

1. At least one Principal of the 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 10 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 10 years of experience in reinforced concrete, pre-stressed concrete, and steel plate girder bridges.
  - b. Two Professional Civil Engineers registered in the State of Louisiana, with a minimum of 5 years of bridge rating experience, and a minimum of 3 years of experience using BrR(Virtis) load rating software.
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. Two Professional Civil Engineer with a minimum of 15 years of experience in complex bridge design/rating such as truss bridges, movable bridges, cable stay bridges and segmental bridges, etc.

- b. One Professional Engineer with a Doctorate or Masters degree in Civil Engineering, with a minimum of 5 years of experience in non-destructive load testing of bridge structures.

### **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 **6**;
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 **3**\*\*;
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 Marksville, Louisiana.

\*\*The Bridge Design (BZ) performance rating will be used for this project.

#### **Complexity level- simple**

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.

If Sub-Consultants are used, the Prime Consultant must perform a minimum of 51% 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.

#### 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. Alan Dale – Ex officio
2. Dana Feng – Project Manager
3. Billy Metcalf
4. Ching Tsai
5. Artur D'Andrea
6. Holly Thomas

### 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 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.

**DBE/WBE** - The selected Consultant Team will have a DBE/WBE goal of 1% 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: <http://www8.dotd.la.gov/UCP/UCPSearch.aspx>. 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 ([www.dotd.louisiana.gov](http://www.dotd.louisiana.gov)), 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**.

**Use of contract employees requires prior approval by the Consultant Contract Services Section for each element or task on a project. The approval request shall be made prior to the submittal of the 24-102 form.**

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 **Contracts No. 4400004920 and 4400004921**, and will be submitted **prior to 3:00 p.m. CST on Tuesday, August 19, 2014**, by hand delivery or mail, addressed to:

Department of Transportation and Development  
Attn.: Mr. Alan Dale, P.E.  
Consultant Contracts Services Administrator  
1201 Capitol Access Road, **Room 405-T**  
Baton Rouge, LA 70802-4438 or  
Telephone: (225) 379-1401

### **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.