

**ENGINEERING AND RELATED SERVICES
JUNE 7, 2013**

**STATE PROJECT NO. H.008226
F.A.P. NO. H008226
CHENIERE SPILLWAY AND BRIDGE REPLACEMENT
ROUTE LA 3033
OUACHITA PARISH**

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) will be selected for this Contract.

Project Manager – Mr. Nicholas Olivier

All inquiries concerning this advertisement should be sent in writing to Alan.Dale@LA.gov.

PROJECT DESCRIPTION

The selected Consultant will provide engineering and related services to replace the Cheniere Brake Spillway structure and bridge at the Cheniere Lake in Ouachita Parish along LA 3033 near Monroe, LA.

The contract shall consist to two parts which are to be performed as separate and distinguishable efforts. Stage 3, Part III shall consist of the design and preparation of preliminary design engineering plans and construction cost estimates. Stage 3, Part IV shall consist of the design and preparation of final design engineering plans and construction cost estimates. The final phase, Stage 5, will be for construction related engineering services. Construction Related Activities will be contracted by a supplemental agreement.

SCOPE OF SERVICES

The services to be rendered for this Project shall consist of the following Stages and Parts:

Stage 3: Design

Part III: Preliminary Plans

Part IV: Final Plans

Road Design Services

The roadway scope of work will include all engineering services necessary for Stage 3 Design: Part III Preliminary Roadway Plans and Part IV Final Roadway Plans. Work elements for the project shall include but are not limited to the following.

Work Elements

Stage 3 Design

Part III: Preliminary Plans: The Consultant shall provide preliminary roadway plans for the project including, but not limited to, the following:

- Title Sheet
- Typical Section and Details
- Summary of Estimated Quantities
- Misc. Details & General Notes
- Existing and Design Drainage Maps
- Temporary Erosion Control
- Temporary Construction Signs, Suggested Seq. of Construction
- Cross-sections (earthwork)
- Geometric Details
- Plan/profile sheets
- Construction Cost Estimate

Part IV: Final Plans: The consultant shall provide final roadway plans for the project including, but not limited to, the following:

- Title Sheet
- Typical Section and Details
- Summary Sheets
- Summary of Estimated Quantities
- Misc. Details & General Notes
- Existing and Design Drainage Maps
- Temporary Erosion Control
- Temp. Const. Signs, Suggested Seq. of Construction
- Cross-sections (earthwork)
- Geometric Details
- Plan/profile sheets
- Construction Cost Estimate

In addition to the roadway design plans, the Consultant shall provide a Transportation Management Plan (TMP), as required by FHWA.

The Consultant's assistance with permit application drawings, if required, will be established by a fully executed Supplemental Agreement or Extra Work Letter. Electronic files will be in MicroStation and Inroads formats and certified by CADconform.

Bridge Design Services

The bridge scope of work will include all engineering services necessary for Preliminary and Final Bridge Plans. Work elements for the project shall include but are not limited to the following.

PRELIMINARY PLANS

1) PRELIMINARY GENERAL

1.1 General Plans to Include:

- General Notes & Special Requirement

2) PRELIMINARY BRIDGE

2.1 Preliminary Bridge Plans to Include:

- Summary of Quantities
- Title Sheet
- Bridge General Plan & Elevation
- Bridge Typical Sections (for all phases of construction)

2.2 Design Tasks to Include:

- Structure Type Study
- Railing Type Investigation
- Bridge Component Sizing
- Center Span Horizontal & Vertical Clearances
- Finalize Hydraulic Forces (lateral & Buoyant, from overtopping)
- Guard Rail Length Determination (on curves)
- Preliminary Quantities
- Preliminary Cost Estimate

3) PROJECT TRIPS & MEETINGS

3.1 Project Site Visits (3 Visits) – Verify existing Project site conditions & Plan-in-Hand Meeting

3.2 District 05 Meeting – Meeting with District 05 officials to discuss Project concerns, potential impacts and operations in the area

3.3 Miscellaneous Meetings – Additional meetings which may be needed during project development

FINAL PLANS

4) FINAL GENERAL

1.2 General Plans to Include:

- General Notes & Special Requirements

5) FINAL BRIDGE

• Final Bridge Plans to Include:

- Title Sheet
- General Notes & Index
- Summary of Estimated Quantities
- Bridge General Plan & Elevation
- Foundation Plan & Pile Data Schedule
- Approach Slab Details
- Guard Rail Layout
- End Bent Details with vertical face walls (retaining wall)
- Intermediate Bent Details
- Type III Pre-stressed Girder Details with Bearing Pads
- Span & Deck Details
- Special details and Standard Plans
- Borings (to be provided by DOTD)
- Permit Sketches (as needed for USACE & USCG)

2.2 Design Tasks/Calculation Booklet to Include:

- End Bent Design
- Retaining Wall Design
- Intermediate Bent Design
- Type III Pre-stressed Girder Design
- Deck Design
- Guard Rail Design
- Bearing Pad Design
- As-Designed Rating (Superstructure/Substructure)
- Final Bridge Quantities
- Final Cost Estimate
- Hydraulic Forces

6) PROJECT TRIPS & MEETINGS

3.1 Project Site Visits (1 Visit)

3.2 District 05 Meeting – Meeting with District 05 officials to discuss Detour signing and signal requirements

3.3 Miscellaneous Meetings – Additional meetings which may be needed during project development

3.4 Permit Coordination Meetings – Meetings with Louisiana DOTD, United States Army Corps of Engineers, and United States Coast Guard to determine sketches required for permitting

Spillway Design Services

The services for this project include the engineering design, preparation of construction plans and specifications, and construction project management for the replacement of the Cheniere Brake spillway and outlet works on Louisiana Highway 3033 in Ouachita Parish of Louisiana. The reservoir will not be drained during this project. Therefore, a temporary spillway is required during construction. Phases of the project include, but are not limited to, 1) engineering design, 2) construction plans, 3) specifications, and 4) material estimates 5) cost estimate and 6) construction project management. Tasks may include geotechnical design and analysis; and structural design and analysis.

Coordination

See Chapter 4 of the Consultant Contract Services Manual for an explanation of required coordination and procedures.

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

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.

Specific Software and/or Equipment Requirements

Electronic files shall be submitted in Microstation.dgn and InRoads formats.

QUALITY CONTROL/QUALITY ASSURANCE

The Prime Consultant shall submit a QC/QA plan document specifically developed for this project as part of SF 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 policies. The FHWA/AASHTO guidance and LADOTD Bridge Design Section QC/QA policies can be downloaded from LADOTD Bridge Design Section website. 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.

SERVICES TO BE PERFORMED BY DOTD

In addition to any services previously indicated to be performed by the DOTD, the following services and data shall also be provided, if available.

- a. Stage 0 Documentation
 - i. Structural Site Survey
 - ii. Preliminary Scope and Budget Checklist
 - iii. Environmental Checklist
 - iv. District Questionnaire
- b. Digital Terrain Model (Topographic Survey Complete)
- c. Cheniere Brake Dam Inspection Report (2012)
- d. Access to Standard Plans
- e. Access to As-Built Plans
- f. Dam Breach Analysis & Preliminary Design Information

- g. Deep Boring Logs
- h. Pavement Design
- i. Average Daily Traffic

ADDITIONAL SERVICES

The scope of services, compensation and contract time for future engineering services will be established by Supplemental Agreement(s) for the following:

- Stage 5: Construction
 - Part I: Construction Support
 - Part II: Shop Drawings

The Consultant shall be responsible for providing construction related services during the construction phase, which includes, but is not limited to shop drawing reviews and approvals, requests for information (RFIs), change orders, dynamic monitoring, and pile test.

During the progress of preliminary and final design phases of the contract, intermediate submissions will be made to the DOTD for review and comment according to the DOTD Plan Review Distribution and Plan Payment Milestones Tables. Comments received as a result of the submissions will be discussed with the DOTD and incorporated into the final submittal of that respective phase as warranted.

All survey, design and drawings will comply with the requirements of the latest DOTD's Location and Survey Manual, AASHTO LRFD Bridge Design Specifications, the DOTD LRFD Bridge Design Manual (including Technical Memoranda), DOTD Roadway Design Procedures and Details Manual, and the current edition of the DOTD Road and Bridge Specifications. Where it is absolutely necessary to depart from the Location & Survey, Road, and Bridge Specifications or augment them, Special Provisions and/or Item Number requests shall be provided to DOTD.

All drawings will be developed using MicroStation and they shall comply with the DOTD CADD standards.

All additional sub-consultants required to perform these services are subject to approval as per RS 48:290.D prior to execution of the supplemental agreement.

CONTRACT TIME

The overall contract time is **estimated to be 720 calendar days**. The Consultant will proceed with the services specified herein after the execution of this Contract and upon written Notice-To-Proceed from the DOTD. The delivery schedule for all project deliverables shall be established by the Project Manager.

COMPENSATION

The compensation to the Consultant for services rendered in connection with this Contract will be a negotiated lump sum.

Within 15 calendar days of notification of selection, a kick-off meeting will be held with the selected Consultant/Team and appropriate DOTD personnel. The selected Consultant/Team will be required to submit a proposal within 30 calendar days following the notification of selection. All negotiations must be completed within **60 calendar days** following the notification of selection.

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:

- a. AASHTO LRFD Bridge Design Specifications
- b. AASHTO/ASTM Standards and/or DOTD Test Procedures
- c. DOTD Standard Specifications for Roads and Bridges
- d. DOTD Roadway Design Procedures and Details
- e. Manual on Uniform Traffic Control Devices (Millennium Edition)
- f. DOTD Traffic Signal Design Manual
- g. National Environmental Policy Act (NEPA)
- h. National Electric Code
- i. DOTD Environmental Impact Procedures (Vols I-III)
- j. Policy on Geometric Design of Highways and Streets
- k. Construction Contract Administration Manual
- l. Materials Sampling Manual
- m. DOTD Bridge Design Manual
- n. Consultant Contract Services Manual
- o. Geotechnical Engineering Services Document
- p. AASHTO Manual for Condition Evaluation of Bridges
- q. Manual for Maintenance Inspection for Bridges
- r. Bridge Inspectors Reference Manual
- s. AASHTO Manual for Condition Evaluation and Load and Resistance Factor Rating (LRFR) of Highway Bridges
- t. DOTD LRFD Bridge Design Manual (Including Technical Memoranda)
- u. Subsurface Investigations Manual, Publication No. FHWA HI-97-021, Nov. 1997;
- v. Manual On Subsurface Investigations, Published by AASHTO, 1988;
- w. AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing, PART I – SPECIFICATIONS and PART II – TESTS, current edition;
- x. ASTM Procedures and Regulations, current edition;
- y. Earth Retaining Structures, Participants Manual, FHWA-NHI-99-025, 1999;

- z. Earth Retaining Systems, Geotechnical Engineering Circular No. 2, Publication No. FHWA-SA-96-038, February 1996;
- aa. Design of MSE Walls and Reinforced Slopes, FHWA NHI-10-024 Vol. I and NHI-10-025 Vol. II, 2009;
- bb. Geotechnical Instrumentation Manual, Publication No. FHWA HI-98-034, October 1998;
- cc. Drilled Shafts: Construction Procedures and LRFD Design Methods, Publication No. FHWA-NHI-10-016, May 2010;
- dd. Soils and Foundations Workshop Manual, Publication No. FHWA NHI-00-045, August 2000;
- ee. Geosynthetic Design and Construction Guidelines Manual, Publication No. FHWA HI-95-038, April 1998;
- ff. Ground Improvement Technical Summaries, DP 116, Publication No. FHWA-SA-98-086;
- gg. Design and Construction of Driven Pile Foundations Reference Manual, Volumes 1 & 2, Publications No. FHWA-NHI-05-042 and FHWA-NHI-05-043, 2006;
- hh. Soil Nail Walls, Geotechnical Engineering Circular No. 7, Publication No. FHWA-IF-03-017, March 2003;
- ii. Soil Nailing Field Inspectors Manual, (DP 103), Publication No. FHWA-SA-93-068, April 1994.
- jj. DOTD Stage 1 Manual of Standard Practice
- kk. Louisiana Dam Safety Program – Dam Safety Rules and Regulations, March 1997 (www.dotd.la.gov/intermodal/dams/home.asp)
- ll. FEMA-Emergency Action Planning for Dam Owners (FEMA 64)
- mm. DOTD Training Series:
 - o Preparing to Conduct a Dam Safety Inspection
 - o Documenting and Reporting Findings from a Dam Inspection
 - o Identification of Visual Dam Safety Deficiencies
 - o Identification of Material Deficiencies
 - o Inspection of Embankment Dams
 - o Inspection of Spillways and Outlet Works
 - o Inspection of Concrete and Masonry Dams
 - o Inspection of Foundation, Abutments and Reservoir Rim
 - o Inspection-Testing of Gates, Valves, Mech Systems
 - o Instrumentation for Embankment and Concrete Dams
 - o Evaluation of Concrete Dam Stability
 - o Evaluation of Embankment Dam Stability and Deformation
 - o Evaluation of Facility Emergency Preparedness
 - o Evaluation of Hydraulic Adequacy
 - o Evaluation of Hydrologic Adequacy
 - o Evaluation of Seepage Conditions
 - o How to Develop and Implement an Emergency Action Plan
- nn. Louisiana Dam Safety Program – Dam

Follow link below for the individual reference links:

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 Civil Engineer, registered in the State of Louisiana.
2. At least one Principal or a Responsible Member of the Prime Consultant must be a Professional Civil Engineer, registered in the State of Louisiana.
3. In addition to the above, the Prime-Consultant must also employ on a full-time basis, or through the use of a Sub-Consultant(s):
 - a. Two Professional Civil Engineers, registered in the State of Louisiana with five years of Road Design experience and a corresponding support staff.
 - b. One Professional Civil Engineer, registered in the State of Louisiana with five years of Geotechnical experience and a corresponding support staff.
 - c. A minimum of two Professional Civil Engineers, registered in the State of Louisiana along with a corresponding support staff. The previously described should have at least 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:
 - i. One Professional Civil Engineer, registered in the State of Louisiana, with ten years of experience in reinforced concrete and pre-stressed concrete bridges, steel plate girders, bridge bearings, and bridge expansion joints and a corresponding support staff.
4. At least one Principal or a 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 analysis, design, and inspection of dams and shall demonstrate experience working in the State of Louisiana and knowledge of the DOTD's Dam Safety Rules and Regulations and a corresponding support staff.

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.

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 with DOTD, weighting factor of 5;
6. Location where the work will be performed, weighting factor of 4;

** The Bridge Design All (BZ) 85% and Road Design (RX) 15% past performance ratings will be used for this project.

NOTE: BZ is a combination of all Bridge Design ratings (including OSBR ratings). And RX is combination of Road Design Rural (RR) and Road Design Urban (RU) Road Design ratings (including Controlled Access Facilities (RC) rating).

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. The rating will then be multiplied by the corresponding weighting factor. The firm's rating 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. Nicholas Olivier, Project Manager
3. Vertie Gary
4. Matthew Hebert
5. Matt Melton
6. Nick Z. Ning

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 of 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. The Prime-Consultant may require the Sub-Consultant(s) to carry professional liability insurance. 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 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/Team will submit semi-annual labor rate information, when requested by DOTD.

The selected Consultant/Team 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/Team will maintain accounting records for a minimum of five years after final contract payment.

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), 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. 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.

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 **State Project No. H.008226**, and will be submitted **prior to 3:00 p.m. CST on Monday, June 24, 2013**, 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.