

# **A REQUEST FOR PROPOSAL FOR PROFESSIONAL SERVICES CONTRACT**

## **Department of Highways Professional Services Procurement Bulletin 2022-10 Statewide Structural Design of Culverts and Bridges Services**

This document constitutes a Request for Proposals for a Professional Service Contract from qualified individuals and organizations to furnish those services as described herein for the Commonwealth of Kentucky, Department of Highways.

### **I. PROJECT DESCRIPTION**

This statewide contract is to provide necessary Statewide Structural Design of Culverts and Bridges Services. Five (5) consultants will be selected to provide these services on an as-needed basis for two years.

### **II. PROJECT INFORMATION**

Project Manager - Carl Van Zee, P.E.  
User Division - Structural Design  
Approximate Fee - \$2,000,000 per contract (Upset Limit)  
Work will be assigned via Letter Agreement, not to exceed \$500,000  
Project Funding - State and Federal Funds  
Contract Term - Two Years

### **III. PURPOSE AND NEED**

To provide assistance to the Department of Highways, Division of Structural Design with structural engineering and design on an as-needed basis.

### **IV. DBE REQUIREMENT**

The Consultant team shall include a DBE Participation Plan with their Response to Announcement to help the Department meet the 11.95% DBE goal established by FHWA. The plan needs to demonstrate how DBE companies will be mentored or used to assist in the area(s) pertaining to this contract. An additional page will be allowed in the Project Approach (Section 7) to demonstrate this plan. A maximum of four (4) points will be considered in the Evaluation Factors for the DBE Participation Plan.

### **V. SCOPE OF WORK**

Structural design services for various structure types as assigned at the discretion of the Division of Structural Design.

The required consulting services will include all final structural design engineering and plan preparation necessary for letting a project to construction.

Consultant may be required to provide roadway design and surveying on some projects as necessary to prepare a complete set of plans.

Consultants may be required to provide right of way and environmental services on some projects as necessary to complete project design and allow for project delivery.

## **VI. SPECIAL INSTRUCTIONS**

Five (5) consultants will be selected to provide these services for a period of two (2) years with no new work assigned after two years from the Notice to Proceed, although the contract may be extended for time to complete work already assigned. Contracts will have an upset limit of \$2,000,000. Once the upset limit is reached or the two-year term has expired, services may be re-advertised and no additional Letter Agreements will be executed under the contract. Contracts will not be modified to increase the upset limit or extended for time to assign new work. No Letter Agreement shall exceed \$500,000 without written approval from the State Highway Engineer.

In anticipation of the potential influx of bridges over the next two years the number of firms and upset limits have been increased for this structural design statewide contract. Due to this potential for increased work volume applicants must be aware of capacity expectations for designers. There will likely be bundles of structures given out to firms with very short and firm deadlines. At this time, we are anticipating a maximum need for being able to produce plans for three (3) to five (5) small bridge projects in a one-month time. Smaller firms may want/need to partner with other firms to ensure proper capacity to be able to hit the required deadlines. As with the prime consultant, partnered firms will be evaluated based on project experience that favorably compares to KYTC Highway Infrastructure projects.

The Selection Committee will rank and list the selected Consultants in consecutive order to determine the initial order for which projects will be assigned. Projects will generally be assigned on a rotational basis. The Department reserves the right to select one of the firms outside of the assignment order for a particular project if it is to the benefit of the Department. That firm, if selected out of order, will be skipped in the rotation when their turn comes and the regular order will be followed thereafter. The Division of Structural Design reserves the right to group multiple projects together as one offering if it is advantageous to the Department. The Department may also add additional work to an existing Letter Agreement, if needed. A firm will not be offered an additional project until the remaining firms on the list have been offered a project. If a firm declines to accept a project, that firm will not be eligible to accept another project until the remaining firms on the list have been offered a project. If a firm declines a project or does not respond to an invitation to perform services for a project within five (5) business days, documentation shall be provided in the project files and the next firm on the rotating list shall be offered the project.

Instructions for Response to Announcement can be found at:

<https://transportation.ky.gov/ProfessionalServices/Pages/Respond-to-an-Announcement.aspx>

## **VII. STANDARD PRODUCTION-HOURS**

The standard person-hours allowed for each "standard" bridge or component are as shown below. These standard rates are to be used on normal projects, but shall be reviewed and

approved/revised on a case by case basis with each project.

**Substructures:**

- Breastwall Abutments – 80 hours
- Stub Abutments – 30 hours
- Integral End Bents – 30 hours
- End Bent for Composite PPCDU – 20 hours
- Standard Abutments or End Bents – 10 hours
- Single or Wall Piers – 70 hours
- Multi Column Piers – 70 hours With 8 hours for each additional column
- Intermediate Pile Bent – 50 hours

**Superstructure (One, two or three spans):**

- “Standardized Superstructures” – 1 hour
- Composite PPCDU (Slab & Box Details per Span) – 20 hours (includes shop plan review)
- Beam Details (Spread Boxes per Span) – 30 hours (includes shop plan review)
- Beam Details (Spread 1-beam per Span) – 30 hours (includes shop plan review)
- Slab Details (Design & Details per Span) – 30 hours
- Construction Elevations – 16 hours

**Miscellaneous:**

- Title Sheet – 12 hours
- General Note Sheet – 4 hours
- Layout Sheet – 16 hours
- Foundation Layout-Pile Layout Sheet – 8 hours
- Approach Slab (each) – 4 hours
- Reinforced Concrete Cantilever Retaining Wall – 40 hours per wall plus 40 hours per 100 linear feet
- Gravity Wall (Special Design or per Design Section) – 30 hours per wall plus 30 hours per 100 linear feet

Note: The above hours are based on a structure having a Zero (0) degree skew, no phased construction, and a straight structure. Add 10% to the total hours for a skewed structure. Add 25% to the total hours for a phased bridge. Add 25% to the total hours for a curved bridge.

**Culverts:**

- One Barrel – 100 hours
- Two Barrel – 140 hours
- Triple Barrel – 180 hours

**Culvert Extensions:**

- One Barrel – 100 hours
- Two Barrel – 140 hours
- Triple Barrel – 180 hours

**Culvert Standardized Drawings**

- Standardized Culverts – 16 hours

Person-hours for non-standard structures will be negotiated on a case-by-case basis.

No additional hours will be allowed for skewed culverts.

## **VIII. METHOD OF DESIGN**

Design shall be by American Association of State Highway and Transportation Officials (AASHTO) Load Resistance Factor Design (LRFD) Specifications, unless otherwise stipulated by the Project Manager. The selected consultant shall utilize the Computer Aided Design & Drafting (CADD) Standards for Bridge Design. All submittals shall be in the form of a CADD deliverable and pdf format. The CADD deliverable shall be in Microstation, .dgn format, using Division of Bridge Design File Format, Seed Files, Cell Files and Resource File.

## **IX. PREQUALIFICATION REQUIREMENTS**

To respond to this project, the Consultant must be prequalified in the following areas by the response due date of this advertisement.

### ROADWAY DESIGN

- Rural Roadway Design
- Surveying
- Urban Roadway Design

### STRUCTURE DESIGN

- Spans under 500 feet

### Environmental & UST Services\* (see note below)

- UST & Hazmat Preliminary Site Assessment (Phase 1)
- UST Closure Assessment
- Hazmat Corrective Action
- Hazmat Site Investigation (Phase 2)
- UST Corrective Action

### Environmental Aquatic & Terrestrial Ecosystems Analysis\* (see note below)

- Fisheries
- Botany
- Terrestrial Zoology
- Wetlands
- Freshwater Macroinvertebrates
- Water Quality

### Environmental Archaeology & Other Services\* (see note below)

- Air Quality Analysis
- Prehistoric Archaeology
- Socio-Economic Analysis
- Highway Noise Analysis
- Historic Archaeology
- Environmental Document Writing & Coordination
- Cultural-Historic Analysis
- Stream & Wetland Mitigation

Right of Way Services\* (see note below)

- Relocation
- Acquisition
- Appraisal

Utility Design\* (see note below)

- Communication
- Electrical Level 1
- Electrical Level 2
- Gas Level 1
- Gas Level 2
- Water & Sewer Level 1
- Water & Sewer Level 2
- Petroleum
- Utility Preconstruction Coordination
- Utility Construction Inspection

*\*Note: Services indicated by “as needed” above are expected within the proposal but it is uncertain to the extent practicable if they are necessary. The core purpose of this contract is delivery of structure designs and plans for construction. The significance of this core functionality should be reflected in the composition of the proposal.*

## **X. PROCUREMENT SCHEDULE**

Dates other than Response Date are tentative and provided for information only.

- Advertisement Posted: April 12, 2022
- Response Date: May 4, 2022 by 4:30 PM ET (Frankfort Time)
- First Selection Meeting: May 9, 2022
- Final Selection: May 25, 2022
- Pre-Design Conference: June 1, 2022
- Notice to Proceed: June 22, 2022

## **XI. PROJECT SCHEDULE**

Individual project schedules will be defined by Letter Agreement on a project-by-project basis.

Completion of All Services – 2 years from Notice to Proceed

## **XII. EVALUATION FACTORS**

Consultants will be evaluated by the selection committee based on the following, weighted factors:

1. Relative experience of consultant personnel assigned to project team with highway project for KYTC and/or federal, local or other state governmental agencies. (15 Points)
2. Past record of performance on projects similar in type and complexity. (15 Points)
3. Project approach and proposed procedures to accomplish the services for the project. (12

Points)

4. Available team workload capacity to comply with project schedule. (8 Points)
5. DBE Participation Plan (4 Points)
6. Knowledge of the locality and familiarity of the general geographic area. (2 Points)

**XIII. SELECTION COMMITTEE MEMBERS**

1. Carl Van Zee, P.E., User Division
2. Emily Montooth, P.E., User Division
3. David Erickson, P.E., Secretary's Pool
4. Larry Krueger, P.E., Secretary's Pool
5. R. Bruce Scott, P.E., Governor's Pool