

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

## **Department of Highways Professional Services Procurement Bulletin 2023-11 Statewide Traffic Engineering 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 Traffic Engineering Services. Three (3) consultants will be selected to provide these services on an as-needed basis for two years.

### **II. PROJECT INFORMATION**

Project Manager - Telma Lightfoot  
User Division - Traffic Operations  
Approximate Fee - \$300,000 per contract (Upset Limit)  
Work will be assigned via Letter Agreement, not to exceed \$100,000  
Project Funding - State and Federal Funds  
Contract Term - Two Years

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

To collect and/or analyze data that will support traffic engineering decisions concerning traffic signals, traffic signal systems, simulation, etc. and to measure the performance of traffic operational systems with an emphasis on the conversion and implementation of new traffic signal controllers.

### **IV. DBE REQUIREMENT**

The Consultant team may 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 would demonstrate how DBE companies will be mentored or used to assist in the area(s) pertaining to this contract. If included, an additional page will be allowed in the Project Approach (Section 7) to exhibit this plan. No additional points will be provided in the Evaluation Factors for the DBE Participation Plan.

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

The selected Consultants must possess the expertise and capacity to be able to perform all of the traffic engineering tasks listed below:

- Signal Timing Conversion – Convert Wapiti 170 signal timing to MaxTime 2070 ATC database. This may include testing, implementation, and field adjustments.
- Traffic Signal Timing – Review, analyze, develop and implement traffic signal timing. Existing signal timing format may use Wapiti W4IKS firmware or MaxTime 2070 software. All signal timing will be developed and implemented using Intelight 2070 software. Any software developed by the Department shall be provided by the Department. There will be an emphasis on studying, developing and implementing signal coordination timing for arterials. Field adjustments will be vital to the final implementation of signal timing in the controller.
- Travel Time Studies – Conduct travel time studies along arterial streets throughout the state utilizing methods of collecting data with GPS units and/or Bluetooth devices. The study may involve multiple runs with all runs included in the study. The study may be performed with software developed by the Department, data collection device, and GPS unit. Software shall be provided by the Department. The data collection device (Laptop or Tablet) and GPS unit shall be provided by the consultant. Most studies will require analysis of the data collected. Other or additional methods must be approved by the Division of Traffic Operations before data collection is initiated, and approval will be decided on a case by case basis. All software and hardware required by other or additional methods shall be provided by the consultant.
- Survey/Drawing/Inventory – Prepare an intersection drawing for signal studies. The task order will indicate the degree of sophistication desired. In most cases, a good sketch with rough distances will be adequate. Inventories will generally consist of phasing, equipment and support infrastructure.
- Macro/Microsimulation – Develop a macro/microsimulation for an intersection or arterial. This will include data collection for development and calibration, design and analysis for the study. A macro or microsimulation program accepted by The Division of Traffic Operations will be used. The latest version of software programs, such as, HCS7, TSIS and VISSIM shall be used. Any files created with Synchro shall be capable of saving and viewing in version 10 and the latest version. Files shall be calibrated to the study area and provided to the Department. A drawing or layout of the intersection(s)/arterial and intersection turn movements should be provided to the Department.
- Intersection Delay Studies – Collect, review and analyze delay data for an intersection. Intersection delay studies will be used to determine total vehicle delay on a specific approach to an intersection. Intersection Delay is typically measured during the peak hour and includes the number of vehicles on the approach, the total vehicle delay (veh-hours), the maximum queue length for the approach, and the average delay per vehicle (seconds) on the approach.
- ATSPM (Automated Traffic Signal Performance Measures) – Setup, evaluate and review performance measures utilizing ATSPM data for corridors and intersections gathered from MaxTime software, MaxVIEW, Kinetic, and/or any other traffic management system the Division of Traffic Operations uses to verify before and after studies when coordinated timing is implemented or updated. Some measures are built into the software suites, and some are generated manually.
- ATMS (Advanced Traffic Management System) – Consultants may be required to access and utilize any ATMS system that the Cabinet has implemented. The Cabinet is currently using the MaxVIEW ATMS to manage traffic signals, however the Cabinet is actively working

toward replacing this system to Kinetic Signals.

The Division of Traffic Operations reserves the right to modify or change programs or equipment used.

## **VI. SPECIAL INSTRUCTIONS**

Three (3) 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 \$300,000. 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 \$100,000 without written approval from the State Highway Engineer.

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 Traffic Operations 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. ADDITIONAL INFORMATION**

Selected Consultants must have the capability to collect and analyze the data as well as the capability to work with the Department's Highway Information System (HIS) database and GIS database. In general, the data may be transmitted electronically in standard KYTC formats. It is expected that frequent coordination between the consultant and the Department's User Division will be necessary for each specific task.

## **VIII. PREQUALIFICATION REQUIREMENTS**

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

### **TRAFFIC ENGINEERING**

- Traffic Engineering
- *Electrical Engineering Roadway Lighting\* (see note below)*
- *Electrical Engineering Traffic Signals\* (see note below)*

*\* Note – These prequalifications are not required with the initial proposal as it is uncertain to the extent practicable if they are necessary. Should these services become necessary during the delivery of the project in this or future phases, the selected Consultant team must obtain the required qualifications before providing those services or bring on a prequalified subconsultant at that time.*

## **IX. PROCUREMENT SCHEDULE**

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

- Advertisement Date: May 9, 2023
- Response Date: May 31, 2023 by 4:30 PM ET (Frankfort Time)
- First Selection Meeting: June 5, 2023
- Final Selection: June 21, 2023
- Pre-Design Conference: June 28, 2023
- Notice to Proceed: July 19, 2023

## **X. 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

## **XI. 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. Available team workload capacity to comply with project schedule. (10 Points)
4. Project approach and proposed procedures to accomplish the services for the project. (10 Points)
5. Past experience with KYTC equipment and programs (5 Points)
6. Knowledge of the locality and familiarity of the general geographic area. (2 Points)

## **XII. SELECTION COMMITTEE MEMBERS**

1. Ezekiel Goodwin, P.E., User Division
2. Cody Stuart, P.E., User Division
3. Charlie Dale, P.E., Secretary's Pool
4. Larry Krueger, P.E., Secretary's Pool
5. Cindy Evensen, Governor's Pool