

A REQUEST FOR PROPOSAL FOR PROFESSIONAL SERVICES CONTRACT

Department of Highways Professional Services Procurement Bulletin 2019-11 Statewide Traffic Engineering

This document constitutes a Request for Proposal for 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

Project Description – Consulting services are needed to perform various traffic engineering tasks involving data collection, analysis and the implementation of new equipment. Consultant services will also be utilized to develop and implement signal timing in field controllers based on review of coordinated signal timing along various arterials. Consultant services may also be utilized to model traffic flow using data collected and software tools such as CORSIM. Three (3) consultants will be selected.

II. PROJECT INFORMATION

Project Manager – Telma Lightfoot

Approximate Fee – Three (3) Consultants will be selected to provide services.

\$200,000 Upset Limit each consultant.

Work will be assigned via Letter Agreement, not to exceed \$100,000

Each consultant will be assigned specific tasks to perform and will be paid in accordance with the prices established for the various activities. Task assignments will be made by Letter Agreement. Work is anticipated in six general categories as indicated in the Scope.

Project Funding – State Funds

Contract Duration – Two (2) 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

None

V. SCOPE OF WORK

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 Intelight 2070 ATC database. This shall include testing, implementation, and field adjustments.
- Traffic Signal Timing – Review, analyze, develop and implement traffic signal timing. Signal timing format may use Wapiti W4IKS firmware or Intelight 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 (Netbook, Laptop or Tablet) and GPS unit shall be provided by the consultant. Most studies will require analysis of the data collected. 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.
- 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 versions 8 and 10. 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.

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

VI. SPECIAL INSTRUCTIONS

Three (3) firms will be selected to provide these services for a period of two (2) years. Contracts will have an upset limit of \$200,000. Once the upset limit is reached or the two year term has expired, services will be re-advertised and no additional work assignments will be made under

the contract. Contracts will not be modified to increase the upset limit or extended for time to assign new work.

The Selection Committee will randomly draw from the pool and list in consecutive order to determine the initial order for which a project will be offered. Projects will be offered to firms on a rotating basis. 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 fourteen days, documentation shall be placed in the project files and the next firm on the rotating list shall be offered the project.

If a firm is more than 30 days past due on two (2) or more tasks on an active Letter Agreement, at the discretion of the Department's Project Manager, the firm may not be offered an additional project until the remaining firms on the list have been offered a project. In such situation, the Department's Project Manager may assign the next project to the subsequent firm on the rotating list. The Department's Project Manager shall document such decisions in the project files. The firm that is skipped shall not be eligible to accept another project until the remaining firms on the list have been offered a 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 project team must be prequalified in the following areas by the Response Date of this advertisement.

TRAFFIC ENGINEERING

- Traffic Engineering Services

IX. PROCUREMENT SCHEDULE

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

- Bulletin Posted – May 14, 2019
- Response Date – June 5, 2019 by 4:30 PM ET (Frankfort Time)
- First Selection – June 10, 2019
- Final Selection – June 26, 2019
- Contract Scoping Conference – July 3, 2019
- Notice to Proceed – August 22, 2019

X. PROJECT SCHEDULE

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

XI. EVALUATION FACTORS

1. Relative experience of consultant personnel assigned to project team with traffic engineering projects for KYTC and/or for federal, local or other state governmental agencies. (15 points)
2. Past record of performance on project of similar type and complexity. (15 points)
3. 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. Joe Carter, P.E., User Division
2. Ezekiel Goodwin, P.E., User Division
3. Craig Caudill, P.E., Secretary's Pool
4. Patrick Perry, P.E., Secretary's Pool
5. Brad Rister, P.E., Governor's Pool