

# A REQUEST FOR PROPOSAL FOR PROFESSIONAL SERVICES CONTRACT

## Department of Highways Professional Services Procurement Bulletin 2024-01 Statewide Traffic Engineering Services - District 7

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 - District 7. Two (2) consultants will be selected to provide these services on an as-needed basis for two years.

### **II. PROJECT INFORMATION**

Project Manager - Natalia McMillan, P.E.  
User Division - Traffic Operations - Highway District 7  
Approximate Fee - \$500,000 per contract (Upset Limit)  
Work will be assigned via Letter Agreement, not to exceed \$200,000  
Project Funding - State and Federal Funds  
Contract Term - Two Years

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

Perform Traffic Engineering Services to assist the Highway District 7 Traffic Engineer. Counties: Anderson, Bourbon, Boyle, Clark, Fayette, Garrard, Jessamine, Madison, Mercer, Montgomery, Scott, and Woodford

The selected Consultants will conduct Traffic Counts, Delay Studies, Speed Studies, Collision Studies/Diagrams, Corridor and Intersection Safety Reviews, Emergency/ Railroad Preemption, Re-timing of Signal Systems, Pedestrian/Multimodal Studies, ADA and accessibility studies, Preparation of Horizontal Alignment Sign Plan documents, Maxtime/Maxview conversions, Guidance on Maxview data Analytics, and other required Traffic Engineering functions. The selected Consultant(s) will provide Traffic Engineering functions. The selected Consultant(s) will provide Traffic Engineering recommendations and Engineering Drawings based upon the results of those Studies. This may include management of electrical contractors that are under contract to the Transportation Cabinet for electrical devices (Traffic Signals and Systems, Flashing Beacons, and School Flashers and Pedestrian Crossings outside of Fayette County) operation and maintenance, installation of new electrical devices, changes to existing electrical devices, and review of data analytics. ATSPM active management for a select system for the period of this contract may be a task assignment.

#### **IV. DBE GOAL**

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 Consultant must possess the expertise and capacity to be able to perform the Traffic Engineering tasks including but not limited to:

Maintain continuous coordination with the Highway District 7 Traffic Engineer to schedule activities related to this Contract. Prepare reports detailing activities, results, and compliance with expected completion time-frames.

Traffic Counts – In general, 12-hr, 96-hr, peak hour, and turning movement counts (may be manual counts, electronic counts, or tube counts).

Traffic Signal Timing, Coordination, Analysis, and Conversions- Review, analyze, and develop traffic signal timing plans. Conversion to maxtime/maxview with intelight 2070 software. Analyzation of data and matrix available from existing software to provide optimizations and guidance for future timing maintenance. There will be an emphasis on studying, developing, and implementing signal coordination timing for arterials and providing recommendations on intersection improvements such as signs, signal equipment, data observations, and striping. Field adjustments will be vital to the final implementation of the signal timing in the controller.

Intersection Studies – Intersection Studies will include a review of the overall effectiveness, operation, and safety of an intersection and recommended improvements or countermeasures as applicable. . In general, Intersection Delay Studies will be used to determine the 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.

Travel Time Studies – In general, the Travel Speed Studies will be for an arterial street. The study may involve multiple runs with all runs included in the study. The study should be performed with software developed by the Cabinet, using PDS and GPS units or a similar software approved by the District or Cabinet. Software shall be provided by the Cabinet unless it is a pilot software or approved equal. PDA and GPS units shall be provided by the Consultant. Studies will typically involve analysis collected.

Survey/Drawing/Inventory – 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 equipment and support infrastructure. Inventories may also include inventory of pedestrian crossings and ADA compliant infrastructure.

Speed Studies – Speed Studies shall be conducted manually and in conformance with standard

practice from the Traffic Control Devices Handbook or another acceptable traffic engineering reference. Speed Study data collected with tubes or other automated methods is unacceptable. Speed Study areas will be designated on a map with the number of required collection points per direction indicated. A standard reporting format (Excel spreadsheet) will be provided by the District Traffic Engineer. Based upon the studies performed as enumerated, prepare Engineering recommendations and drawings to accomplish the additions/changes that may result from those studies.

Pedestrian/Multimodal Studies - In general, Pedestrian/Cyclists counts will be used to determine potential needs for improvements to existing infrastructure, ADA compliance at existing crossing locations, and future needs for crossings. Studies will include but is not limited to traffic counts (as outlined above) along a corridor and/or at intersections, inventory of existing pedestrian/cycling facilities, collision history, and proposed solutions. Task order will indicate the degree of sophistication desired for proposed solutions. In most cases, a good sketch with measurements and recommended equipment will be adequate.

Manage the activities of electrical contractors that are under contract to the Transportation Cabinet in Highway District 7 for the Operation and Maintenance of electrical devices outside of Fayette County. This currently includes 309 Traffic Signals and 26 Traffic Signal Systems.

Manage the activities of electrical contractors that are under contract to the Transportation Cabinet in Highway District 7 to make modifications and improvements to existing electrical devices as required.

Manage the activities of electrical contractors that are under contract to the Transportation Cabinet in Highway District 7 to install new electrical devices as required.

Active management of signal systems using ATSPM. The assigned corridor will be assigned for the entire period of this contract. This will include weekly reviews of performance measures in 2070 maxtime analytics and real time signal adjustment and documentation. Coordination and communication with the District Traffic Engineer is vital to this process.

The selected Consultant must have the capability to collect and analyze the data from Traffic Studies that it may conduct, as well as the capability to work with the Cabinet's Highway Information System (HIS) database and GIS database. In general, the data must be transmitted electronically in standard KYTC formats.

## **VI. SPECIAL INSTRUCTIONS**

Two (2) 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 \$500,000. 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 \$200,000 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 - Highway District 7 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.

The selected Consultant will be assigned specific activities to perform, and will be paid in accordance with the prices established for the various activities. Task assignments will be based on the tasks that are performed to accomplish Traffic Engineering Services in Highway District 7. Work is anticipated in the general categories as indicated in the Scope. The selected Consultant must have the capacity to perform all of the Traffic Engineering Services enumerated above for Highway District 7. This will require rapid response to management of maintenance needs on a 24/7 basis, 365 days per year.

Instructions for Response to Announcement can be found at:

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

## **VII. METHOD OF DESIGN**

The selected Consultant shall utilize the most recent CADD Standards for Highway Plans Policy in the development of the highway plans.

## **VIII. TRAFFIC ENGINEERING**

The Department will provide all the necessary existing traffic counts for this project. The selected consultant will provide the necessary traffic projections and related information required for this project.

## **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.

### **TRAFFIC ENGINEERING**

- Electrical Engineering Roadway Lighting
- Traffic Engineering
- Electrical Engineering Traffic Signals

## **X. PROCUREMENT SCHEDULE**

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

- Advertisement Date: July 11, 2023

- Response Date: August 2, 2023 by 4:30 PM ET (Frankfort Time)
- First Selection Meeting: August 7, 2023
- Final Selection: August 23, 2023
- Pre-Design Conference: August 30, 2023
- Notice to Proceed: September 20, 2023

**XI. PROJECT SCHEDULE**

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

- Coordination with Highway District 7 Traffic Engineering – Continuous
- Management of Electrical Contractors per Cabinet Contracts – As Required
- Travel Time Studies – Four to Twelve Weeks
- Speed Studies – Three Weeks
- Surveying/Drawing/Inventory – Four to Twelve Weeks
- Traffic Counts – Three Weeks
- Intersection Delay – Three Weeks

**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. (10 Points)
2. Past record of performance on projects similar in type and complexity. (10 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. Knowledge of the locality and familiarity of the general geographic area. (2 Points)

**XIII. SELECTION COMMITTEE MEMBERS**

1. Natalia McMillan, P.E., User Division
2. Daniel Kucela, P.E., User Division
3. Stephen De Witte, P.E., Secretary’s Pool
4. Charlie Dale, P.E., Secretary’s Pool
5. R. Bruce Scott, P.E., Governor’s Pool