

**2015 QBS  
REQUEST FOR PROPOSAL (RFP)  
COUNTY WIDE  
TRAFFIC SYSTEM OPERATION MANAGEMENT  
SECTION NUMBER 15-00365-04-EG**

**INSTRUCTIONS TO ENGINEERING FIRMS**

Proposals are due at the Division office by **4:00 PM September 11th, 2015.**

**Proposal received after the deadline shall not be considered.**

The County **will conduct interviews** with short-listed firms in compliance with its current Qualifications - Based Selection Process (QBS) for professional services anticipated for this project. The interviews with the short-listed firms are tentatively set for the week of September 14th, 2015. You will be contacted by the County in the near future to schedule a specific date and time for the interview (if not already coordinated and scheduled), which will be a maximum of 45 minutes. The Consultant should be prepared to make a presentation (a maximum of 25 minutes in length) outlining their qualifications and experience with projects of similar scope and magnitude. The Consultant should also demonstrate their understanding of the project and engineering services required. The remainder of the scheduled time will be a question and answer session. Attendance of any anticipated support staff is encouraged, but will be limited to three representatives from the Consultant. Attendance of the Project Manager is mandatory.

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**I. PROJECT DESCRIPTION / PRELIMINARY SCOPE OF SERVICES**

The consultant will provide administration assistance to County Traffic Engineering staff for the management and operational oversight of the County's traffic operations infrastructure, which includes approximately 140 traffic signal and flashing beacon locations, 1,100 street light locations as well as the County's growing centrally controlled ATMS (Advance Traffic Management System) network. These services will include but are not limited to the following responsibilities and requirements:

1. System Monitoring and Reporting

- The remote monitoring of all Kane County maintained traffic signals and traffic signal systems, which can be communicated via internet through VPN (Virtual Personal Network) access for the purpose of identifying specific operational issues/deficiencies by performing the following analyses.

- Critical Faults/Alarms for the traffic signal controllers, MMU (Malfunction Management Units) and UPS (Uninterruptible Power Supply) systems (daily/real time)
  - Detector Diagnostics (weekly)
  - CRC (Cyclical Redundancy Check) (weekly)
  - Video Monitoring
- The remote monitoring of all Kane County maintained ATMS communications infrastructure.
- The Consultant shall possess updated versions of both Aries and Marc NX traffic management software and be proficient in their use.
- The Consultant shall be proficient in the use of a transportation management software application (to manage signal controller databases and their modifications) such as:
  - Siemens *TACTICS*
  - TransCore *TransSuite, TCS (Traffic Control Software)*
- The Consultant shall investigate and develop an appropriate course of action to resolve any and all operational issues/deficiencies that are identified, which may include coordination with the Electrical Maintenance Contractor (EMC) or other contractors that might have temporary maintenance responsibilities of County facilities. The Consultant shall provide any guidance and oversight necessary to the EMC or other contractor in order to assure the issue has been resolved.
- Provide weekly condition reports to KDOT Traffic staff, the EMC and other contractors that might have temporary maintenance responsibilities of County facilities.
- Maintain and update as necessary a *Synchro* traffic model of the County's traffic signal network.

## 2. Operational Trouble Shooting and Public Complaints

- Assist KDOT Traffic staff in responding to public complaints regarding traffic signal operation.
- Provide analysis and recommendations as related to issues with traffic signal timing, coordination and overall traffic operations as requested by KDOT Traffic staff.
- Analyze and adjust existing timing plans and other system programming as directed by the KDOT Traffic staff.
- Maintain "tracking" database of all submitted complaints and their status. Provide weekly status reports to KDOT Traffic staff for all open complaints.
- The Consultant shall possess the latest version of Synchro traffic analysis software and be proficient in its use.
- The Consultant shall possess proficiency in programming the following traffic signal controllers in both proprietary manufacturer firmware and NTCIP firmware as applicable:
  - Siemens M52
  - Econolite ASC/3
  - Peek 1000
  - Intelight X-1 & X-1L (Including "MaxTime" Software Solution)

## 3. Electrical Maintenance Contractor (EMC) Supervision

In concert with the KDOT Traffic staff, provide direct general contract administration of the County's EMC as follows:

- Coordination and administration of the EMC and any other designated maintenance agent on specific issues related to traffic signal/roadway lighting/ITS equipment maintenance, repair, modifications, scheduling and general trouble shooting.
- Maintenance of a "tracking" database of all ongoing work orders (routine and non-routine) and their status. Provide weekly status reports to KDOT Traffic staff for all open work orders. The Consultant should also provide QC (Quality Assurance) for the EMC meeting required response times per EMC contract.
- Field inspection of all work performed by the EMC.
- Field review of temporary traffic control for all work performed by the EMC.
- Review of all invoices submitted by the EMC for submittal to KDOT Traffic staff for approval and final processing.
- Provide oversight for the maintenance of inventory for County maintained traffic system and roadway lighting infrastructure.
- Coordinate and attend a monthly coordination meeting between the County and the EMC and other interested parties.
- Attend various other meeting on request such as pre-construction conferences, staff meetings, etc.

4. Field Inspections

- Coordinate and provide detailed (intermediate/final) inspection for new/modernized traffic signal/roadway lighting/ITS equipment at maintenance transfers and "turn-ons".
- Provide detailed inspection for temporary traffic signal/roadway lighting/ITS equipment "turn-ons" during construction projects.

5. Future Arterial Operations Center Support

- Coordinate and provide possible staff support for future Arterial Operations Center scheduled to open in the Late 2015.

6. Engineering "Peer" Review

- Review prepared signal timing and optimization plans submitted by others and provide written comments the KDOT Traffic staff.
- Review traffic signal/roadway lighting/ITS plans and specifications prepared by others and provide written comments the KDOT Traffic staff.
- Review manufactures' material submittal ("catalog cuts") and provide written comments the KDOT Traffic staff.
- Periodic review and revisions of the County's Traffic Signal Specifications and other traffic related standards and guidelines.
- Review and/or preparation of all necessary contract/bidding documents for the County's EMC contract.

7. Special Projects and Traffic Signal Coordination and Timing (SCAT)

- Provide GIS mapping of COUNTY ATMS (fiber optic) network
- Provide traffic signal optimization services following IDOT specifications for Re-Optimize Traffic Signal System – Level 2 unless otherwise directed by KDOT traffic. *Synchro* Traffic Modeling files shall be developed and submitted as part of these special projects.

## II. QUALIFICATIONS

Interested consultants should possess competency in the following areas of expertise:

- General traffic engineering in accordance with MUTCD, ITE, IMSA, FHWA and other nationally recognized standards pertaining to the requested services.
- Project manager that possesses certification as a Professional Traffic Operations Engineer (PTOE) from the Transportation Professional Certification Board, Inc.
- Project manager and or representatives that possess IMSA certification in
  - Traffic Signals (Level II as a min. and Level III, Field desirable)
  - Traffic Signal Inspection
  - Fiber Optics in ITS (Level I as a min. and Level II Field desirable)
  - Roadway Lighting (Level I as a min. and Level II Field desirable)
- Traffic signal timing and programming.
- Oversight/project management of traffic signal/street lighting/ITS infrastructure maintenance
- Traffic Signal and Street Lighting design (per IDOT Region/District One), and Kane County standards)
- Staff performing traffic Signal Coordination and Timing (SCAT) work must be prequalified by Illinois Department of Transportation (IDOT) for SCAT.

## III. PROJECT DURATION

Contract duration shall begin upon the receipt of the notice to proceed from the COUNTY to the CONSULTANT, which is anticipated to be in early December 2015 and continue through December of 2017 for an approximate duration of 24 months with provisions for up to but not to exceed an additional twelve (12) months at the discretion of the Kane County Engineer. This provisionary extension may extend the contract through December 2018.

#### IV. PROPOSAL REQUIREMENTS

One electronic pdf copy of the proposal shall be uploaded through KDOT QBS by **4:00 PM September 11th, 2015**. **Any proposals submitted after the due date and time will not be considered.**

The completed Proposal shall include the following items, presented in the following order:

- **Cover letter** on the firm's letterhead transmitting the Proposal to the County. The cover letter shall describe the composition and proposal contents. Also the cover letter shall include the firm contact individual, including contact information, should questions arise from the submitted Proposal.
- **Section 1:** Listing of key staff, presented in a company organizational chart format, starting with individuals of a higher ranking or classification near the top of the chart that are proposed to provide the majority of services.
- **Section 2:** Key staff resumes. Resumes shall be limited to two pages.
- **Section 3:** List of other company support staff that are not anticipated to perform major items of work but that may be available should their assistance be required.
- **Section 4:** Proposed sub-consultants.
- **Section 5:** Ongoing or completed projects of similar scope and magnitude that demonstrate the firm has experience in performing work requested by the County for the specific project.
- **Section 6:** This section also known as the Project Approach or Project Understanding shall be devoted to discussion of the County's project for which services are needed. The following elements shall be included in this section:
  - Project Name
  - Project Location
  - Type of work required (e.g., Phase II Engineering)
  - A statement informing staff that the project site was field checked or was not field checked by some key staff within the firm.
  - An aerial view photograph of the project with some key elements noted, such as name of major roadway, river or creek name, north direction arrow, and other elements deemed necessary or helpful in visually presenting the project location.
  - Brief description of existing site conditions. This could be existing geometrics, existing bridge/structure type, known deficiencies, and other items relevant to the project.
  - The firms proposed preliminary project approach to obtaining necessary data, evaluating the existing conditions, identifying problems/deficiencies, and proposed methods to correct or tackle and resolve identified problems and deficiencies.

- ✦ A list of anticipated challenges or what is anticipated to be the biggest challenge in completing the requested work.

## **V. SELECTION PROCESS**

The selection of the Consultant will be made in compliance with the County's most current Qualifications - Based Selection or QBS Process. The current QBS Process is posted on the County's website. The consultant chosen by the Selection Committee will be the presumptive Consultant for the final negotiations. The County will then conduct negotiations with the first choice firm. If the County is unable to execute a timely contract with the firm with the first choice, the County will then pursue negotiations with second choice firm who have met the basic qualifications, then the third, etc., until an acceptable contract is executed.

## **VI. CONTACT INFORMATION**

Any questions regarding the project should be directed to Stephen Zulkowski at (630) 208-3139 or via email at [zulkowskistephen@co.kane.il.us](mailto:zulkowskistephen@co.kane.il.us).