The City of West Bend (City) is requesting proposals for engineering services for the MAIN STREET TRAFFIC COUNTS & SIGNAL TIMING project. The proposed project consists of traffic movement counts, evaluation of traffic signal timing, and implementation of corrective measures on Main Street from Butternut Street to Decorah Road, and at the intersection of Parkway Drive and Paradise Drive. The selected Consultant is expected to complete all work efforts necessary for the proposed project as described herein.

Proposals will be received until 10:00 a.m. on February 14, 2017 at: West Bend City Hall
1115 South Main Street
West Bend, WI 53095
Attention: City Clerk

Please direct comments or questions regarding this RFP to: City of West Bend
Engineering Department
1115 South Main Street
West Bend, WI 53095
City Engineer: Max Marechal
cityeng@ci.west-bend.wi.us

All questions should be submitted via email no later than 12:00 pm on Friday, February 10, 2017. Answers will be posted as questions are received. Please visit the City’s website (www.ci.west-bend.wi.us) to receive up-to-date information regarding this RFP, including answers to all questions received. It is the responsibility of the Consultant to check the website for new questions and answers prior to submitting a proposal. The names of Consultants submitting questions will not be disclosed. Personal visits and phone calls will not be allowed.
**PROJECT SPECIFICS**

The **MAIN STREET TRAFFIC COUNTS & SIGNAL TIMING** project work will include traffic turning movement counts for both the weekday and weekend morning and evening peak hours at the following four (4) intersections (shown by green dots on the attached map):

- Main Street and Butternut Street
- Main Street and Vine Street
- Main Street and Hawthorn Drive
- Main Street and Decorah Road

The data gathered at these intersections should be used as input into a traffic signal timing computer program to design traffic signal timing coordination/progression plans for both the weekday and weekend morning and evening peak hours. This will include evaluating the current signal system and comparing it to the optimized signal system to show levels of improvement, evaluating and updating the actuated signal timing parameters to current Manual on Uniform Traffic Control Devices (MUTCD) standards, preparing of signal timing plans for field implementation, fine tuning/adjusting the signal timings and offsets in the field, and preparing and submitting a final technical report documenting the data collection, traffic analysis, and recommendations.

The selected consultant shall also analyze the intersection of Paradise Drive and Parkway Drive (as shown with a blue dot on the attached map) to determine if additional traffic generated by the recent Meijer & Kwik Trip developments warrants modifications to the existing intersection and/or existing traffic signal timing.

**BASE SCOPE OF SERVICES**

The selected Consultant is expected to complete all work efforts necessary to complete the traffic movement counts, evaluation of traffic signal timing, and implementation of corrective measures associated with the **MAIN STREET TRAFFIC COUNTS & SIGNAL TIMING** project, as generally described below:

1. **Data Collection and Traffic Counts**
   a. Conduct traffic turning movement counts on a weekday from 6:00 a.m. until 9:00 a.m. and from 3:00 p.m. until 6:00 p.m. and on a weekend day (either Saturday or Sunday) from 11:00 a.m. until 2:00 p.m. at each of the four (4) signalized intersections listed in the “Project Specifics” section.
      i. Traffic turning movement counts shall be conducted in accordance with current Wisconsin Department of Transportation (WisDOT) standards, which include counting automobiles, trucks, bicycles, and pedestrians separately per movement in 15 minute intervals.
   b. Collect existing intersection geometry and spacing between intersections while in the field.
   c. Compile the traffic count data and determine the weekday a.m. and p.m. peak hours, percent trucks, and peak hour factors for each of the corridors.
   d. Balance the traffic through each of the corridors for the weekday a.m. and p.m. peak hours.

2. **Existing Traffic Condition Analysis**
   a. Evaluate the existing traffic signal coordination timings to serve as a basis of comparison to the optimized signal plans to determine a percentage of expected improvement.
   b. Determine the existing levels of service per movement to determine if any movements need additional green time.
   c. Evaluate the existing actuated timing plans and update said plans to current MUTCD standards.
   d. Evaluate and adjust the following actuated signal timing parameters for each phase of the four (4) study area intersections listed in the “Project Specifics” section:
      i. Initial Interval
      ii. Variable Interval
      iii. Minimum Assured Green
iv. Number of Actuations
v. Passage Time
vi. Extension Stretch
vii. Maximum Green
viii. Allowable Gap
ix. Time Before Reduction
x. Time to Reduce
xi. Yellow
xii. All-Red
xiii. Walk
xiv. Flashing Don’t Walk
e. Determine the optimum minimum green times, walk times, yellow and all-red times which will be used as input in the computer program Synchro (or equal approved by the City) to develop the optimum cycle length and green splits.

3. Optimization of Coordinated Traffic Signal Timings
   a. Prepare traffic signal coordination timing plans for the weekday and weekend a.m. and p.m. peak hours for the four (4) signalized intersections listed in the “Project Specifics” Section.
   b. Conduct a Synchro (or equal approved by the City) analysis to determine the optimum cycle length for the signal system for the weekday and weekend a.m. and p.m. peak hours.
   c. Determine the optimum green times for each phase during the weekday and weekend a.m. and p.m. peak hours to obtain Level of Service (LOS) “D” or better for all turning movements.
   d. Conduct a coordination analysis to obtain the optimized offsets for a coordinated signal system of four (4) intersections.

   a. Prepare traffic signal coordination timing plans for each of the four (4) signalized intersections for the weekday and weekend a.m. and p.m. peak hours for field implementation.
   b. Coordinate field implementation with the City’s representative to fine tune the timings and offsets for optimum performance.
   c. Attend City of West Bend Safety Commission meeting to present recommended signal operational modifications and respond to questions.

5. Paradise Drive/Parkway Drive Intersection
   a. Conduct traffic turning movement counts on a weekday from 6:00 a.m. until 9:00 a.m. and from 3:00 p.m. until 6:00 p.m. and on a weekend day (either Saturday or Sunday) from 11:00 a.m. until 2:00 p.m.
   b. The City will provide the selected consultant with the Traffic Impact Analysis (TIA) for the Meijer development. The current field collected traffic counts should be combined with the traffic projections from the Meijer TIA in order to determine if any improvements or modifications to the Paradise Drive and Parkway Drive intersection or the intersections current signal timing are warranted.

   a. Prepare a Final Technical Report documenting the traffic counts, existing conditions analysis, recommended actuated timing plans, recommended signal coordination timing plans, and resulting Level of Service analysis performance.
   i. Include a full appendix of all of the traffic data, analysis, and computer files which will serve as a reference for any needed future modifications.
GENERAL TERMS & REQUIREMENTS

The Consultant shall provide all necessary labor, equipment, and materials necessary for completing the work unless otherwise agreed to in writing.

The consultant shall have visited the site and shall become familiar and satisfied with the general local site conditions that may affect their performance and furnishing of the Work.

The City will pay the Consultant on a monthly basis for actual time and expenses incurred on the project up to the Consultant’s “Not-To-Exceed” contractual value (which shall be provided by the Consultant as part of the proposal submission).

The City intends to award this Work to the lowest responsible, responsive firm who complies with the specifications and scope of services and who, in the opinion of the City, can best meet the requirements of this request. However, price is but one factor to be considered and the award is not required to be made to the lowest bidder. Award will be made to the responsive, responsible firm whose overall proposal is the most advantageous to the City.

The City of West Bend reserves the right to waive any formalities and to reject any and all proposals deemed to be unsatisfactory or not in the City’s best interest. Furthermore, the City reserves the right to cancel any order or contract for failure of the successful firm to comply with the terms, conditions, and specifications of this request and/or contract.

All proposals shall be binding for sixty (60) calendar days following the proposal submittal date unless the Consultant, upon request of the City, agrees to an extension.

Faxed and e-mailed proposals will be rejected. Late proposals will not be accepted and will remain unopened and returned to the sender.

PROPOSED SCHEDULE

The Consultant shall complete all items as detailed in the Scope of Services by April 7, 2017. The following proposed schedule is tentative and is provided as a general forecast for this project. The Consultant shall use these dates to prepare their own schedule with applicable milestones:

- February 14, 2017 – Proposals Due
- March 6, 2017 – Award of Consultant Contract at City Council Meeting
- March 7, 2017 – April 7, 2016: Consultant Services
- April 7, 2016: Scope of Services Completed

SUBMISSION REQUIREMENTS

Proposals must be received in the office of the City Clerk, 1115 S. Main Street, West Bend, Wisconsin, 53095, by 10:00 a.m. on Tuesday, February 14, 2017.

The Consultant shall submit two (2) complete SEALED proposals to the City of West Bend. One digital copy of the proposal shall also be provided to the City by the Consultant on a CD, DVD, memory stick, or other support commonly used with current computer technology.

Sealed proposals shall be clearly labeled: Q17-02: Main Street Traffic Counts & Signal Timing.

Submitted proposals shall include the following elements:
1. **Demonstration of Project Understanding & Firm Experience**

The Consultant shall demonstrate their understanding of the scope of services requested in this proposal. The Consultant shall also detail the firm’s past experience in performing traffic movement counts and traffic signal timing and synchronization that demonstrates their ability to successfully provide the requested services.

The Consultant shall include the experiences of the firm’s key individuals who will be assigned to this project. The Consultant shall also provide a list of references for similar projects that includes the contact information of the Project Manager in charge of those projects.

The Consultant shall provide a complete list of any and all portions of the project that the Consultant plans to sublet, along with the details of the sub-consultant firm’s experience in similar projects and the experience of the individual employees who will be assigned to this project. In addition, the Sub-Consultant shall provide a list of references for similar projects.

2. **Schedule & Not-To-Exceed Fee**

The Consultant shall provide the firm’s observations on the project, estimated hours of assigned personnel, proposed staffing level, and the firm’s man hours estimate.

Based on the provided proposed schedule, the Consultant shall provide their schedule in a spreadsheet outlining the tasks to be performed, type of personnel assigned to the project, estimated man hours and hourly rates to be used by the Consultant in order to develop a maximum not-to-exceed fee for undertaking the project.

3. **Draft Service Agreement**

The Consultant shall provide the City with a Draft Service Agreement to undertake the project work efforts to be provided under the Scope of Services of this Request for Proposal.

4. **Certificate of Liability Insurance**

The Consultant shall include their company’s certificate of liability insurance with their proposal, including Professional Errors and Omissions Insurance with a minimum coverage limit of not less than $1,000,000.

**ATTACHMENTS**

- City of West Bend Traffic Signals Location Map