

REQUEST FOR PROPOSALS
For Supplier Services to the Billings Public Works Department
Engineering Division

SECTION 1 – GENERAL INFORMATION

1.1 Purpose

The City of Billings Public Works Department is soliciting proposals from Suppliers for traffic signal controllers and controller management software for the following:

W.O. 13-09 City-Wide Traffic Signal Controller Upgrade

1.2 General Proposal Information

The Public Works Department intends to select a single Supplier which will be used for replacing the City's existing traffic signal controllers and installing a traffic management software system.

1.3 Questions

Questions regarding this proposal shall be submitted to

Erin Claunch, Staff Engineer
Public Works Department
2224 Montana Avenue
Billings, MT 59101
(406) 657-8242
clanche@ci.billings.mt.us

SECTION 2 – RULES GOVERNING COMPETITION

2.1 Examination of Proposals

Suppliers should carefully examine the entire RFP, any addenda thereto, and all related materials and data referenced in the RFP. Suppliers should become fully aware of the nature of the Work and the conditions likely to be encountered in performing the Work.

2.2 Confidentiality

The content of all proposals will be kept confidential until the selection of the Supplier is publicly announced. At that time the selected proposal is open for review. After the award of the Contract, all proposals will then become public information.

2.3 Proposal Format

The proposal format is outlined in Section 6 of the RFP. The proposals will be scored based on the requirements listed therein.

2.4 Signature Requirements

All proposals must be signed by an agent authorized to represent the agency.

2.5 Proposal Submission

The proposal must be received by the City prior to 12:00 PM on Wednesday, May 15, 2013. Five (5) copies of the proposals must be under sealed cover and plainly marked. Proposals shall be delivered or mailed to:

Office of the City Engineer
ATTN: City-Wide Traffic Signal Controller Upgrade
2224 Montana Avenue
Billings, MT 59101

2.6 News Releases

News releases pertaining to the award resulting from the RFPs shall not be made without prior written approval of the Public Works Department.

2.7 Disposition of Proposals

All materials submitted in response to this RFP become the property of the City of Billings. One copy shall be retained for the official files of the Public Works Department and will become public record after award of the Contract.

2.8 Modification/Withdrawal of Proposals

A respondent may withdraw a proposal at any time prior to the final submission date by sending written notification of its withdrawal, signed by an agent authorized to represent the agency. The respondent may thereafter submit a new or modified proposal prior to the final submission date. Modifications offered in any other manner, oral or written, will not be considered. A final proposal cannot be changed or withdrawn after the time designated for receipt, except for modifications requested by the City after the date of receipt and following oral presentations.

2.9 Oral Change/Interpretation

No oral change or interpretation of any provision contained in this RFP is valid whether issued at a pre-proposal conference or otherwise. Written addenda will be issued when changes, clarifications, or amendments to proposal documents are deemed necessary by the Municipality.

2.10 Late Submissions

PROPOSALS NOT RECEIVED PRIOR TO THE DATE AND TIME SPECIFIED HEREIN WILL NOT BE CONSIDERED AND WILL BE RETURNED UNOPENED AFTER RECOMMENDATION OF AWARD.

2.11 Rejection of Proposals

The City of Billings reserves the right to reject any or all proposals if determined to be in the best interest of the City.

SECTION 3 – SCOPE OF WORK

The City desires to upgrade all existing traffic signal controllers under City jurisdiction over a multi-year period. As such, the City is soliciting proposals for services to potentially supply, install, integrate, and fine tune the selected components, technology, systems and improvements as described herein for a complete Traffic Management System. The Supplier's should be prepared to supply equipment, software, and services that meet the following requirements.

In addition, the City desires the selected Supplier to complete configuration aspects of the central and local software at the intersections, including but not limited to database conversion/configuration, graphics setup, detection monitoring, alarm logging and configuration, and signal timing split monitoring.

3.1 Traffic Signal Equipment Specifications

The traffic signal cabinet shall conform to National Electrical Manufacturer's Association (NEMA) Standards Publication No. TS 2-2003, and any revision thereof, for traffic control systems. The traffic signal controller shall conform to NEMA Standards Publication No. TS-2 for Type 2 controller configurations.

The equipment shall also comply with the Radio Manufacturers Association, National Electric Code (NEC), American Society for Testing and Materials (ASTM), American National Standards Institute (ANSI), Manual on Uniform Traffic Control Devices (MUTCD) and state and local requirements.

3.2 Signal Controllers

The traffic signal shall be an advanced transportation controller (ATC) and shall meet the following requirements:

- Shall be compliant with NEMA Standard TS2-2003.
- Shall incorporate a main processing element that shall be compliant with the hardware requirements of the ATC Standard, version 5.2b.
- Shall include a Freescale PowerQUICC processor.
- Shall include and use the Linux operating system.
- The controller shall provide a USB port for Memory Storage Device support per the ATC v5.2b standard. It shall support USB 2.0 Full-Speed operation.
- Both NEMA TS2-1 and TS2-2 configurations shall be available.
- For the NEMA TS2-2 configuration, the “D” connector shall be a 57 pin circular connector that mates with AMP (Tyco) part number 206437-1.

3.3 Traffic Management Software System

The City of Billings desires a traffic management software package which is capable of managing not only an Advanced Traffic Controller (ATC) based traffic signal network, but also additional ITS devices which have become typical of traffic management centers. The main objectives of the traffic management system are as follows:

- City-wide signal coordination
- Coordination backup
- Unlimited number of workstations
- Capability to store Measures of Effectiveness from detection
- Status Displays with real-time information
 - Intersection status displays for all system devices
 - Graphical status display of system
 - Detector status
- Alarm status Operational failure logging
 - By date
 - Time of occurrence
 - Location of failure
- Automatic notifications of failures to system administrators

The software, therefore, needs to be flexible enough to provide for applicable existing system devices and to accommodate future expansion in both number and type of devices. The software shall be capable of monitoring and controlling all of the signals and devices within the City of Billings. The system shall consist of a TCP/IP based client/server application providing multi-user access to all devices. The system shall be capable of supporting FSK, Wireless, Dial-Up, DSL, and Ethernet based data communications that comply with current NTCIP specifications.

The software package must run on Windows-based operating systems, and have the capacity to take advantage of common networking capabilities to allow for multiple simultaneous users (both local and remote), advancements in computer processing capabilities (including multi-core and

multi-chip processing), remote connections, and automated backups. The software must be user friendly, and provide an interface with local controller; intersection, corridor, and system graphics; intuitive clock synchronization; fault reporting; asset management; database management; additional device handling, and field access.

The City of Billings plans to start implementing corridor timing plans using the latest version of Synchro and SimTraffic. The software shall be capable of integrating timing plans created in these programs.

The supplier shall provide a license to the agency for its use on all computers within the agency. The capability of multiple users and multiple workstations working simultaneously on a common database is required. Any software upgrades or required modifications shall be provided to the City of Billings at no extra cost for the life of the system. Each client within the City of Billings shall receive automatic updates via updates applied to the City's software server as they become available.

The proposed traffic management system shall be compatible with the proposed signal controllers, as specified in Section 3.2 of this RFP. The traffic management system shall have the capability to communicate with the proposed controller software and firmware.

3.4 Project Implementation Plan

It is the intent of the City to enter into contract negotiations with the successful supplier to provide an operational traffic management system and five (5) traffic signal controllers immediately after selection to replace the existing traffic signals along 32nd Street West from King Avenue West to Grand Avenue.

In the first part of the proposed plan, the Supplier should propose on how to best upgrade the existing controllers, with full software functionality, on the 32nd Street West corridor. The immediate plan is to communicate to the 32nd Street West corridor via radio communication. However, a potential future project will construct fiber communication to these controllers.

The second part of the proposed plan should discuss the Suppliers vision to upgrade all controllers within the City. The goal of the City is to create a system where the Traffic Management Software system will be able to communicate through Serial and Ethernet communication lines with the new traffic signal controllers. At a minimum, the plan should discuss the following items:

- Hardware and servers required to operate the system
- Communication options and requirements
- The software operating system and the type of networking that will be delivered as a part of the proposed system
- Proposed approach to Warranty and long-term maintenance practices
- Capability of integrating with future Traffic Management Center

3.5 Training

The Supplier shall provide training for engineering, operations and maintenance staffs during each aspect of implementation and system operations, including while installation is in process. This should include both "hands-on" and classroom training for both field and central system components.

The training shall provide City personnel all the knowledge to fully understand and utilize all user functions of the System so they can effectively train other City personnel to utilize the software as a management system.

The Supplier shall provide a written description of the types of specific training classes that will be conducted, the number of persons that can be trained in each session, and the total number of hours required for each person to be trained. All training will be conducted onsite in City facilities and shops.

SECTION 4 – Supplier Background and Experience

4.1 Supplier Background

Provide an overview and history of your Company. How long has the Company been providing Services to local governments? Describe the organization and ownership with an organizational chart included.

4.2 Proposed Project Team

The Supplier shall describe key individuals (including a project manager designee), along with their qualifications, professional certifications, and experience that would comprise the organization's team for providing services to the City of Billings. Provide descriptions and references for the project on which team members have previously been involved. This section should also include the project team's availability for on-call support. Please include discussion of your organization's approach to providing software and hardware support, phone help sessions (including 24-hour or extended hour support call operations), remote access diagnosis/maintenance, on-site reviews and upgrades.

4.3 Management Approach

The Supplier shall describe the organization's customer service philosophy and how it is communicated and reinforced throughout the organization. Describe your organization's customer service improvement program and how your current customers benefit from your service improvements. Finally, describe your organization's experiences in adapting to changing technologies.

4.4 References

The Supplier shall include at least five (5) references with contact information (name, address, phone number, and email address) for central software, local controller software, and local controller hardware with similar deployment requirements and strategies. The City may choose to contact these references, if needed.

SECTION 5 – COST PROPOSAL

The cost proposal will be evaluated on two separate sections. The first section should outline the needed components and their associated costs to create the initial traffic signal network for the 32nd Street West corridor. This shall include new traffic signal controller upgrades, traffic management software, and the necessary components to have a fully-functional management system (including training).

The second category of the cost proposal shall discuss the supplier's proposal for cost control on upgrading the other traffic signal controllers and equipment throughout the City. It is the intention of this RFP to select a supplier as a sole source for future traffic signal controllers. As such, this section of the cost proposal should discuss the supplier's assurances of cost control.

SECTION 6 – PROPOSAL AND SUBMISSION REQUIREMENTS

To facilitate a uniform review process and obtain the maximum degree of comparability, the proposals shall be bound on 8 ½" by 11" paper organized in the manner specified below. A "page" shall be considered as a one-sided single-spaced sheet.

- Cover letter (1-page max.)
- Proposed Implementation Plan as requested in Section 3.4 (3-page max.)
- Proposed Training Plan as requested in Section 3.5 (3-page max.)
- Background and Experience as requested in Section 4 (5-page max.)
- Technical Specifications of Traffic Signal Controllers
- Technical Specifications of Traffic Management Software

SECTION 7 – EVALUATION CRITERIA AND SELECTION PROCESS

7.1 Evaluation Criteria

The evaluation of the Supplier's proposal may include, but is not limited to, the following criteria:

- Traffic Signal Equipment (See Sections 3.1 – 3.2) (0 – 10 points)
- Traffic Management Software (See Section 3.3) (0 – 10 points)
- Proposed Implementation Plan (See Section 3.4) (0 – 15 points)
- Proposed Training Plan (See Section 3.5) (0 – 10 points)

- Experience of Supplier (See Section 4) (0 – 20 points)
- Team Availability and On-call Support Staff (See Section 4.2 – 4.3) (0 – 25 points)
- Cost Proposal (See Section 5) (0 – 10 points)

7.2 Scoring

Suppliers will be ranked on their cumulative scores from each RFP criterion.

A committee of individuals representing the City of Billings will perform evaluation of the proposals. The committee will rank the proposals as submitted.

The City of Billings reserves the right to award Contract(s) solely on the written proposal.

The City also reserves the right to request oral interviews with the highest-ranked firms (short-list). The purpose of the interviews with the highest-ranking firms is to allow expansion upon the written responses. If interviews are conducted, a maximum of three firms will be short-listed. The project manager identified in the proposal will be required to attend the interviews. A second score sheet will be used to score those firms interviewed with the final selection based on the total of all evaluators' scores achieved on the second rating. The criteria for rating of the interviews will be conveyed to the teams prior to the interviews.

The highest-ranked Supplier(s), after the second scoring, if performed, may be invited to enter into final negotiations with the City for the purposes of Contract Award.

SECTION 8 – CONTRACT NEGOTIATION PROCESS

The highest-ranked Supplier(s) will be invited to enter into Contract negotiations with the City of Billings. If an agreement cannot be reached with the highest-ranked Supplier, the City shall notify the Supplier and terminate negotiations. The second highest Supplier may be contacted for negotiations. This process may continue until successful negotiations are achieved. However, the City reserves the right to terminate negotiations with any Supplier should it be in the City's best interest. The City of Billings reserves the right to reject any and all proposals submitted.