City of Lakewood
Traffic Signal Upgrades – Video System Selection
Request for Information
City Project No. E1168
FHWA Grant No. CM-0065(004)

Background

Project
The City of Lakewood is currently in Phase IV of a multi-phase upgrade to traffic signal management. Phase IV includes the following upgrades: installation of fiber to multiple traffic signals within the City; construction of a traffic management center in City Hall; and procurement and integration of a video management system for monitoring and record traffic operations related video. The City has one pan-tilt-zoom (PTZ) camera installed currently (Cohu 3960) and plans to install cameras at an additional 8 to 10 intersections through this project. The City also has video detection cameras at approximately 46 intersections. The initial installation of the video system will include integration of the one existing camera and up to 10 new PTZ cameras and connection to video detection camera video feeds from up to 10 intersections. Future expansion of the system could include up to 40 pan-tilt-zoom cameras and video feeds from video detection cameras at over 75 intersections.

PTZ cameras will either be mounted to the top of signal mast arms or light poles adjacent to intersection depending on the environment. Cameras will be used to monitor intersection traffic movements, traffic incidents, signal operation, and traffic conditions of adjacent street. CCTV viewing and operation will be performed at Lakewood City Hall, Lakewood Police Station and the Lakewood Maintenance Center.

PTZ cameras will have integrated encoders that transmit the video and control data over the City’s Ethernet network back to the server location. Video detection cameras will have the analog video image split in the cabinet and routed to a multi-input video encoder that will transmit up to four camera images back to server location over the Ethernet network.

Request for Information (RFI)
The objective of this RFI is to identify a video management system (VMS) and potential camera solutions to include in a construction contract for a new traffic management center and field ITS improvements. The City will review responses to this RFI and determine the VMS system that is the best fit for Lakewood. Lakewood will then submit an application to the funding agency, WSDOT, to obtain sole source approval for the product. Once approved, the product will be specified as the only allowable product to be provided as part of the construction contract.
For each VMS system proposed, the vendor/distributor shall also recommend one or more cameras that will work with your system that meet the functional requirements outlined in this document. More than one camera may be approved for specification in the final procurement if there are multiple options that meeting the functional requirements.

The future VMS will include the following:

- VMS workstation in new traffic management center
- VMS workstation at City Maintenance Center
- VMS workstation at Police Station
- Web-client access for up to 10 users
- Four 42” wall mounted video displays and one desktop display. All must be accessible from one VMS workstation in the TMC.
- Ability to record up to four days of full motion video (30 frames per second) at full resolution from all cameras at one time.
- Initial integration of up to 11 cameras and 40 fixed video detection cameras

**Evaluation Process**

The selection of the future VMS will be based on which system best meets the needs of the City of Lakewood. The evaluation will be performed through a three step process described below:

**Step 1: Video Management System Functionality and Pricing**

Video cameras and their associated VMS will be evaluated together as a package. Responses to the RFI shall be for a complete VMS that includes a proposed camera, camera enclosure, and associated software. Responses can be provided by a “team” that is proposing the combination of the components that may be supplied by different companies. Take note that part of the evaluation will be on the successful deployment of the overall proposed system in other jurisdictions.

Vendors that may have more than one camera or VMS can submit multiple proposals and multiple cameras can be proposed for one VMS. A separate System Requirements spreadsheet must be filled out for each camera proposed.

This RFI contains three elements that must be filled out electronically by each team:

1. **System Requirements Tables (60 points)**
   The System Requirements tables are split between the camera/enclosure and the VMS functionality. Each table lists the desired features identified by Lakewood and its stakeholders. Required features are denoted with (REQUIRED). Lakewood may disqualify any proposal that does not meet a
required feature. Required features will be scored higher than others in the System Requirement table.

For each feature, the vendor must note if their proposed camera and software system is “Compliant”, “Partially Compliant” or “Not Compliant”. An explanation should be given for any item that is rated as “Partially Compliant”.

2. **System Questions (25 points)**
Each team shall respond to the questions provided in this section. Answers to all four questions shall be limited to a total of four pages.

1. Describe the maintenance and software assurance program for each camera proposed and the VMS. Include the pricing for various levels of coverage. Include a description of how phone or in-person support is provided, including the location of the staff providing these services.

2. Provide references and descriptions of at least three installations of the VMS and camera combinations. Installations in the Pacific Northwest and with public agencies are preferred.

3. Describe how your VMS will operate the video display system described for the TMC in the system requirements.

4. Describe how licensing for the VMS is structured.

3. **System Cost (15 points)**
The System Cost table provides an itemized list of system elements that would potentially be required in the final procurement. Although cost won’t be the primary deciding factor in the system selection, it will be part of the decision process. An estimated cost shall be provided for each element. Feel free to add other elements or sub elements as needed to best reflect your standard pricing. Lakewood understands that the estimates provided are preliminary. The information and pricing in this survey is not considered binding.

Lakewood and their consultant will be scoring each item requested in this RFI. The teams/systems with the top two or three scores will be selected to move onto the final two elements of the system evaluation, presentation/demonstration and reference checks/site visits.

**Step 2: System Presentation/Demonstration**
The vendors for the top two or three systems following the RFI process will be asked to present their camera(s) and VMS package. During the presentation, the vendor should provide both a live and a previously recorded video demonstration of the camera and accompanying software. The previously recorded video demonstration should demonstrate the camera quality while watching traffic during both day and night conditions. The recorded video demonstration shall show how to access the recorded video and the available video controls.
Each camera proposed with the system shall be brought to the presentation and connected to the VMS.

City staff shall have an opportunity to use the video system during the presentation. At a minimum, the following shall be demonstrated during the presentation:

- How to integrate a new camera into the system.
- Configuration of access control for users.
- Available map displays for cameras.
- Selecting a camera and displaying on a separate monitor.
- Programming of presets.
- Use of camera controls.

Reference Checks/Site Visits

Question two of the system questions asks for a minimum of three references of locations where the complete system proposed for Lakewood has been deployed. References in Washington are preferred so that Lakewood has the option to do a site visit to see the system in operation and to get an opportunity to discuss the system in person with its users. If local references are not available, conference calls will be held with the reference agencies.

References shall be provided for each camera and video system combination proposed.

The final selection of the system and approved cameras will be based on a combination of the system that best meets the City’s needs, usability of the system and a review of successful installations.

Below is the estimated schedule for the selection process. This schedule is subject to change:

- Request for information response due: February 4th, 2014
- Shortlist of teams selected: February 18th, 2014
- System presentation/demonstration: By March 7th, 2014
- Final system selected: By March 21st, 2014

Your participation in this process is greatly appreciated. We look forward to seeing your response to this RFI.