



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

June 5, 2014

SUBJECT: FAI Route 74 (I-74)
Section D4 ITS System 2014
Peoria County
Contract No. 68B73
Item No. 105, June 13, 2014 Letting
Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Revised plans sheets No. 5 & 9
2. Revised pages 49, 50, 51 & 52 of the Special Provisions

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John D. Baranzelli, P.E.
Acting Engineer of Design and Environment

A handwritten signature in cursive script, reading "Ted B. Walschleger P.E.".

By: Ted B. Walschleger, P. E.
Engineer of Project Management

cc: Kensil Garnett, Region 3, District 4; N. R. Stoner; Matt Mueller, Tim Kell;
D. Carl Puzey; Estimates

HM/kf

A video wall controller shall control the Video Wall Display, including sizing images, selecting input sources (either integrated into the controller or external), color matching, brightness, and all other control functions described herein. In addition, the Video Wall Display shall be controlled remotely, switching the input sources for the monitors.

All equipment submitted shall be designed for video wall applications and rated for continuous use. All furnished equipment manufacturers shall have a minimum of ten years in producing equipment for commercial displays and video walls.

VIDEO WALL FUNCTIONALITY

The video wall display shall provide the following functionality:

- Display content simultaneously on 4x2 video wall matrix and four auxiliary monitors (auxiliary monitors are paid for separately under the pay item for LCD MONITOR). Content shall be capable of being displayed on separate monitors, groups of monitors, or all monitors as one display.
- Simultaneous display of up to thirty-two H.264 or MPEG-4 encoded video streams from Axis cameras (models Q6032-E or Q6042-E) on the IDOT network.
- Display digital content from eight devices (workstations, tablets, decoders, and other devices equipped with HDMI or DVI-D digital outputs).
- Display analog content from **eight** analog devices (older computers, televisions, cable boxes, DVD players equipped with composite, S-video, VGA outputs).
- Use of remote software for remote control of video wall from any workstation on the network with the video wall controller. The software will allow a user to save and recall video layouts, change camera views, and change display content on all twelve monitors.

VENDOR QUALIFICATIONS AND REFERENCES

The vendor shall have a minimum of seven years of experience in furnishing and installing video walls.

The video wall vendor shall submit at least two references for similar video wall projects that were installed by the vendor for a period of no less than two years.

VIDEO WALL MONITOR SPECIFICATIONS

A total of eight 46" video wall monitors shall be furnished and installed in the communications center.

Revised 6/5/14

Each 46" Video Monitor shall meet or exceed the following minimum specifications:

- Specifically designed for use in a video wall application from a manufacturer that has been manufacturing monitors for video walls for at least five years
- Designed for 24 hour/7 day use
- Ultra-thin bezel width of 5.7mm or less between adjacent panels
- IPS Panel Technology **or MVA Panel Technology**
- Integrated Heat Sensors and Cooling Fans
- LED Direct Lit Backlighting
- Full HD Native Resolution of 1920 X 1080
- IP control of OSD functions
- Redundant Power Supplies
- 50,000 MTBF
- 700nit
- Analog Inputs: VGA
- Digital Inputs: DVI-D, HDMI
- RJ-45
- 3000:1 Contrast
- 178 degree viewing angle
- 8ms response time

The Contractor may elect to utilize a larger panel (47" diagonal) that meets the specifications listed above, however, the Contractor shall be responsible for verifying that the proposed panels can be integrated into the video wall.

The video wall monitors shall be flush mounted to the video wall utilizing engineered mounting systems. The Contractor shall submit detailed drawings to the Department for review.

VIDEO WALL CONTROLLER

A video wall controller shall be supplied with the Video Wall Display for video processing and management. The controller shall be essentially a high-end computer that drives, along with external sources such as video decoders, computers, and local area networks (LAN), multiple applications and can display them simultaneously on the video wall shall be supplied with the Video Wall Display.

The controller shall be able to be mounted on a standard 19-inch equipment rack chassis. The controller shall have maximum dimensions of 20 inches wide by 12 inches high by 30 inches deep, and weigh less than 100 pounds. The controller **components** shall be UL listed and meet or exceed the following minimum specifications.

Revised 6/5/14

- Server grade hardware and chassis
- Dual Quad Core Intel Xeon Processors
- 16GB DDR3 system memory
- 12 digital display outputs (DVI or VGA) with 1920 x 1080 maximum output resolution per display
- Two hot-swap SATA 500 GB hard drives with RAID Level 1
- HDCP compliant
- Output resolution per display DVI or VGA - 1920 x 1080
- 8 digital video capture inputs for display of digital content from DVI-D or HDMI equipped devices **(in addition to inputs required for viewing streaming video)**
- 8 analog video capture inputs for display of analog content from composite, S-Video, or component output equipped devices
- HDCP compliant
- DVI input resolution - 1920 x 1200
- VGA input resolution - 2048 x 1536
- 19" 4U Industrial PC chassis
- One DVD/RW combo drive
- Dual 10/100/1000 Mbps RJ45 Ethernet Ports
- 600 Watt Redundant PSU
- Optimized Cooling/Airflow Management System with Dual Cooling Fans
- Windows® 7 64bit Professional operating system
- Video wall control software with 3 years of updates at no cost to the Department.
- Image display capabilities that enable down and up-scale resizing, cropping, and panning of the display.
- Operating environment: Temperature range = 10°C to 35°C (50°F to 95°F) and Humidity range = 20 percent to 80 percent non-condensing.
- Electrical requirements: 100 to 240 V input voltage, auto-switching power supply; Main line frequency of 50 Hz to 60 Hz, 150 to 200 W typical and 350 to 600 W maximum power consumption.
- Two spare hard drives shall be furnished with the video wall controller and delivered to the Department.

Revised 6/5/14

HD VIDEO DECODERS

The video wall display system shall decode H.264 and MPEG-4 video streams from 32 networked cameras and video encoders and display these videos simultaneously on the video wall.

A minimum eight external quad video decoders or eight quad video decoder cards shall be furnished and installed for use with the system.

The video decoders shall be remotely accessible via the network and controlled by the video wall control software.

The video wall display shall have the capability of storing a minimum of 200 cameras for instant selection by the operator and display on the video wall **or shall have the capability of automatic discovering 1p cameras and video encoders on the network and network subnets and listing these devices for selection by the operator and viewing on the video wall.**

The video wall software shall be designed to interface directly with the video decoders for video source selection, control, and configuration.

Two spare external decoders/decoder cards shall be included with the video wall.

APPLICATION SOFTWARE

Application or control software and associated licenses shall be provided with the Video Wall Display for the management of the video wall and controller. The application software shall provide a user-friendly, intuitive control interface that is designed to: manage the placement and display of analog/digital sources and live camera video images and interactively place them on the **video wall**; save and restore window display layouts; monitor system status; and, provide comprehensive management and control of the Video Wall Display. In addition, the application software shall provide application scheduling and alarm triggering as well as enable a system administrator to define access rights on an individual or group basis.

The application software shall also provide remote simultaneous multi-user interaction by authorized operators with the Video Wall Display over a network using the operator's keyboard and mouse. In addition, the application software shall enable zooming in and out on any video source displayed on the Video Wall Display as well.

MONITOR MOUNTING

The video monitors shall be flush with the wall unless otherwise approved by the Engineer.

The Contractor shall provide construction shop drawings detailing the monitor mounting system and how it will be integrated into the Video Wall Display as well as for the entire Video Wall Display as outlined in these specifications for review and approval by the Engineer prior to purchasing, installing, and connecting all components associated with this item.

Revised 6/5/14