



JOLIET JUNIOR COLLEGE

1901

FIRE ALARM AND VOICE COMMUNICATION SYSTEM Request for Qualifications

Proposal Request

Joliet Junior College, Illinois Community College District 525 (JJC) is soliciting proposals from vendors for a fire alarm and voice communication system. **Proposals will be received until 2:00 PM CST on February 12, 2016 at** Joliet Junior College Main Campus, 1215 Houbolt Road, Room A3102 Joliet, IL. The criteria for evaluating proposals will be based on the items set forth in this Request for Qualifications that meet the specifications and qualification questions (Attachment A). An award will be made to the most responsive and responsible proposal, which in the judgment of Joliet Junior College, best meets the current needs and long-term goals of Joliet Junior College. Joliet Junior College reserves the right to reject any and all Proposals and/or waive any informality in the solicitation process.

I. INTRODUCTION

Background

Joliet Junior College is a comprehensive community college. The college offers pre-baccalaureate programs for students planning to transfer to a four-year university, occupational education leading directly to employment, adult education and literacy programs, work force and workplace development services, and support services to help students succeed. The College has a combined total of 14,944 full time and part time students enrolled in Fall 2015 classes on its main campus located within the city of Joliet, and its five extension campuses located in Romeoville, Morris, Frankfort, Weitendorf, and City Center in downtown Joliet.

Vision Statement

Joliet Junior College will be first choice.

Mission Statement

Joliet Junior College is an innovative and accessible institution, dedicated to student learning, community prosperity, cultural enrichment, and inclusion. Joliet Junior College delivers quality lifelong learning opportunities empowering diverse students and the community through academic excellence, workforce training, and comprehensive support services.

II. PROJECT SUMMARY

Joliet Junior College is seeking a vendor to provide the college with a fire alarm and voice communication system for the main campus and the five (5) extended campuses. Only manufacturers of fire alarm and voice communication systems are to respond to this request. When JJC selects a manufacturer as a result of this submission, the various installations around the multiple campuses will be sent out for bid at a later date.

III. PRIMARY OBJECTIVES

The primary objective will be to provide the college with a modular secure access management system used to better control employee and visitor movements at various Joliet Junior College facilities.

IV. SCOPE OF SERVICES

Provide a written qualification proposal of your fire alarm and voice communication system addressing the following:

Specifications (Attachment A)

V. REFERENCES

Provide a list of at least three (3) references whose systems are of similar complexity and have been installed and maintained by security system integrator in the last five (5) years.

VI. SITE VISITS

There are no tours scheduled on campus.

VII. BLACK-OUT PERIOD

After JJC has the advertisement out for the RFQ, no firm shall contact any JJC officers or employees involved in the solicitation process, except for interpretation or clarification of request. Such firms making such request shall be made in writing as stated in the RFQ document and shall direct all correspondence to Janice Reedus, Director of Business and Auxiliary Services jreedus@jjc.edu or 815-280-6640. No firm shall visit or contact any JJC officer or employee until after the RFQ is awarded, except when a site inspection is required for the submission of a response.

During this black-out period, any such visitation, solicitation or sales call by any representative of a prospective vendor in violation of this provision shall cause the disqualification of such a firm's proposal.

VIII. EVALUATION CRITERIA

1. Ability to meet specifications
2. The firms overall experience, reputation, expertise, and stability
3. Experience with projects of similar size and complexity
4. Contractor/integrator qualifications
5. Feedback from references

IX. FINAL DOCUMENTATION

An original and four (4) copies of the requested statement of qualifications, and a complete electronic copy (DVD or flash drive) of the statement must be provided in an envelope clearly marked: “Fire Alarm and Voice Communication System” to the attention of:

Ms. Janice Reedus, Director Business & Auxiliary Services
 Joliet Junior College
 A3102
 1215 Houbolt Road
 Joliet, IL 60431-8938

X. SCHEDULE OF EVENTS

- | | |
|---|---|
| • Distribution of RFQ | January 25, 2016 |
| • Deadline for Receipt of Written Questions
Submit questions via email to:
purchasing@jjc.edu | February 1, 2016 @Noon CST |
| • Issuance of Written Response to Questions | February 8, 2016 by the end of the business day |
| • RFQ Submission Deadline | February 12 ,2016 @ 2:00 PM CST |
| • Evaluation of Responses | February 16 -29, 2016 |
| • Presentations by Short Listed Firms, if required | February 16-29, 2016 |
| • Notification of Award | March 5, 2016 |

ATTACHMENT A**FIRE ALARM and VOICE COMMUNICATION SYSTEM****GENERAL****SYSTEM DESCRIPTION**

Non-coded, UL Listed intelligent analog addressable system, one-way voice communications with multiplexed signal transmission and survivable network nodes.

The System supplied under this specification shall utilize node-to-node, direct wired, multi priority peer-to-peer network operations. The system shall utilize independently addressed, input/output modules, audio amplifiers, and voice communications as described in this specification. The peer-to-peer network shall contain multiple nodes consisting of the command center, main controller, remote control panels, and LCD panels. Each panel shall be an equal, active functional member of the network, which is capable of making all local decisions and generating network tasks to other panels in the event of panel failure or communications failure between panels. Master/slave system configurations shall not be considered as equals.

The entire system shall be UL464 Listed Audio Evacuation System, end-to-end compliance to product 520Hz Low Frequency Tone. This includes the nodes, amplifies and high fidelity speakers.

The system is based upon design using high fidelity speaker with sound performance levels from 81.5; 84.1; 87.3; and 90.5 dBA.

At a minimum, provide at least one (1), One-Way Voice Command Center. Each Command Center shall be fully redundant on the network with redundant audio network, audio messages (100 minutes of message storage capacity, minimum), paging microphone and the following:

Command Center or Local Operator Console (LOC) with redundant audio messages, paging microphone and request for control switches & status indicators. Each Command Center shall have switches with LED annunciating control and requesting control as follows:

Request Take Control

Request Accepted

Request Deny

Restore command center to normal operation

Priority request override Take Control

The Emergency Voice Paging System will provide 8-Channel audio paging up to ten (10) audio paging areas via a system microphone and telephone paging access. The paging system shall be used for routine and emergency paging.

Area 1 - Office

Area 2 - To be determined

Area 3 - To be determined

The fire alarm equipment shall comply with the current provisions applicable to the jurisdictional authorities, including their local adoptions and amendments and it shall be listed for its intended purpose of a Mass Notification and Emergency Communication Signaling System and be compatibility listed to insure integrity of the complete system. It shall be listed to all of the UL Standards listed below, without exception.

BUILDING CODES and STANDARDS

National Fire Protection Association (NFPA):

NFPA-70	National Electrical Code (NEC)
NFPA-72	National Fire Alarm Code
NFPA 101	Life Safety Code
IBC	International Building Code
IFC	International Fire Code
IMC	International Mechanical Code

National Electrical Manufacture's Association (NEMA)

Underwriters Laboratories, Inc. (UL)

UL-864	Control Units for Fire Protective Signaling Systems (9 th Edition)
UL-268	Smoke Detector for Fire Protective Signaling Systems
UL-217	Smoke Detectors for Single and Multiple Station
<u>UL</u> -521	Heat Detectors for Fire Protective Signaling Systems
UL-464	Audible Signaling Appliances
UL-1971	Visual Signaling Appliances
UL-38	Manually Actuated Signaling Boxes
UL-1481	Power Supplies for Fire Protective Signaling Systems
UL 2017	Standard for General-Purpose Signaling Devices and Systems
UL 2572	Control and Communication Units for Mass Notification Systems

SUBMITTALS

Equipment proposed to be supplied will be considered only if it meets all sections of the performance specifications.

Manufacturers are to provide maintenance and install requirements to maintain system warranty.

PRODUCTS

MANUFACTURERS

Manufacturers: The materials, appliances, equipment and devices shall be tested and listed by a nationally recognized approvals agency for use as part of a protected premises protective signaling fire alarm system. The authorized representative of the manufacturer of the major equipment, such as control panels, shall be responsible for the satisfactory installation of the complete system. The proposed system is required to use as much of the current system as possible. I.E. wire, pull station, control boards, ext. The system must be able to be implemented in a modular format, i.e. the 1215 Houbolt Road, Joliet, Il. campus can be converted into segments while providing coverage. The system must be able to provide a central notification PC that will communicate with current systems the college has on campus, as well as the proposed system. The system must not be a proprietary system. The manufacturer is required to have multiple certified installers and service vendors in the area.

Strict conformance to this specification is required to ensure that the installed and programmed system will function as designed, and will accommodate the future requirements and operations of the building Owner. All specified operational features must be met without exception.

Approved Products: All panels and peripheral devices shall be of the standard product of single manufacturer and shall display the manufacturer's name of each component.

SYSTEMS OPERATIONAL DESCRIPTION

Mass Notification initiated event shall override any event and take the highest system priority.

Fire-alarm signal initiation shall be by one or more of the following devices:

- Manual stations.
- Heat detectors.
- Flame detectors.
- Smoke detectors.
- Duct smoke detectors.
- Verified automatic alarm operation of smoke detectors.
- Automatic sprinkler system water flow.
- Heat detectors in elevator shaft and pit.
- Fire-extinguishing system operation.
- Fire standpipe system.

Fire-alarm signal shall initiate the following actions:

- Activate multiple channel pre-recorded voice messages followed by temporal tone.
- Continuously operate the visual notification appliances.
- Identify alarm at fire-alarm control unit and remote annunciators.
- Transmit an alarm signal to the remote alarm receiving station.
- Unlock electric door locks in designated egress paths.
- Release fire and smoke doors held open by magnetic door holders.
- Switch heating, ventilating, and air-conditioning equipment controls to fire alarm mode.
- Recall elevators to primary or alternate recall floors.
- Record events in the system memory.
- Record events by the system printer.

Supervisory signal initiation shall be by one or more of the following devices and actions:

- Valve supervisory switch.
- Low-air-pressure switch of a dry-pipe sprinkler system.
- Elevator shunt-trip supervision.

System trouble signal initiation shall be by one or more of the following devices and actions:

- Open circuits, shorts, and grounds in designated circuits.
- Opening, tampering with, or removing alarm-initiating and supervisory signal-initiating devices.
- Loss of primary power at fire-alarm control unit.
- Ground or a single break in fire-alarm control unit internal circuits.
- Abnormal ac voltage at fire-alarm control unit.
- Break in standby battery circuitry.
- Failure of battery charging circuitry
- High or low battery charge.
- Abnormal position of any switch at fire-alarm control unit or annunciator.
- Fire-pump power failure, including a dead-phase or phase-reversal condition.
- Low-air-pressure switch operation on a dry-pipe or pre-action sprinkler system.

System Trouble and Supervisory Signal Actions: Initiate notification appliance and annunciate at fire-alarm control unit and remote annunciators. Record the event on system printer.

ATTACHMENT A**FIRE-ALARM CONTROL UNIT**

The main control panel or remote control panel(s) shall be a multi-processor based networked system designed specifically for detection, and one-way emergency audio communications applications. The control panel(s) shall be listed and approved for the application based on the specified standard(s).

The control panel(s) shall include all required hardware, software and site-specific system programming to provide a complete and operational system. The control panel(s) shall be designed such that interactions between any applications can be configured, and modified using software provided by a single supplier. The control panel operational priority shall assure that life safety takes precedence among the activities coordinated by the control panel.

The network of control panels shall include the following features.

Ability to download all network applications and firmware from the configuration computer on the network or at any control panel (network node) location.

Each control panel (network node) shall have an LCD display with common controls. The display shall be configurable to display the status of any and all combinations of alarm, supervisory, trouble, monitor, or group event messages.

Each LCD display on the system shall be capable of being programmed for control functions of any node or the entire network. The LCD display shall reside on the network as a node and continue to operate with fault on the network. An LCD can be programmed to be only operational when a node is operational in stand-alone mode, with a network fault.

The system program shall have a minimum of 100 system definable Service Groups to facilitate the testing of the installed system based on the physical layout of the system. Service groups that disable entire circuits serving multiple floors or fire zones shall not be considered as equal.

Advanced Windows based programming with Program Version Reporting to document any and all changes made during system start-up or system commissioning. Time and date stamps of all modifications made to the program must be included to allow full retention of all previous program version data. The operator display shall clearly identify unacknowledged and acknowledged alarm, supervisory, trouble, and monitor status messages. The system shall provide the ability to download data from the analog/addressable detectors to a PC while the system is on-line and operational in the protected premises. The downloaded data may then be analyzed in a diagnostic program supplied by the system manufacturer.

Provide system reports that list a detailed description of the status of system parameters for corrective action or for preventive maintenance. Reports shall be displayed on the operator interface or be capable of being sent to a printer.

Provide an authorized operator with the ability to operate or modify system functions such as system time, date, passwords, holiday dates, restart the system and clear the control panel event history file.

Provide an authorized operator the ability to perform test functions within the installed system.

Supervision of system components, wiring, initiating devices and software shall be provided by the control panel. Failure or fault of system component or wiring shall be indicated by type and location on the LCD display. Software and processor operation shall be independently monitored for failure. The system shall provide fail-safe operation, with multiple-levels of system operation

Each network control panel shall be capable of:

Supporting up to 2500 intelligent analog/addressable points.

ATTACHMENT A

Supporting up to ten (10) intelligent addressable loops, each loop supporting 125 detectors and 125 modules, total of 250 points.

Supporting network connections up to 63 other control panels and annunciators.

Supporting up to 124 (security/access control) Keypad/Displays.

Support up to ten network digital dialers with Contact ID or SIA format and TAP Pager protocol.

Supporting multiple RS-232 communication ports and protocol.

Supporting up to 1000 chronological history events.

Total network response shall not exceed 3 seconds.

Alphanumeric Display and System Controls: Arranged for interface between human operator at fire-alarm control unit and addressable system components including annunciation and supervision. Display alarm, supervisory, monitor, trouble and component status messages and control menu.

The common control switches and with corresponding LEDs provided as minimum will be; Reset Alarm Silence, Panel Silence, and Drill. It shall be able to add additional switches/LEDs as required.

The main control panel shall have display that is 24 lines by 40 character graphic LCD and backlit when active.

Each point shall have custom event message of up to 40 characters, for total of 80 characters. In addition to instructional text message support a maximum of 2,000 characters each.

Provide 8 simultaneous events to be displayed. The first seven (7) highest priority events in addition to the most recent event. The events shall be automatically placed in event types (Alarm, Supervisory, Monitor & Trouble) for easy access and shall be possible to view the specific event type separately. Having to scroll through a mixed list of event types is not acceptable.

Provide an internal audible signal with different programmable patterns to distinguish between alarm, supervisory, trouble and monitor conditions.

Systems not capable of such a display on the main panel faceplate shall include a CRT/Monitor display meeting the above requirements and battery stand-by.

Audio One-Way Voice Communications

The voice communication system shall be single channel audio evacuation systems, to allow the ability to have eight simultaneous announcements/paging.

The system custom digital voice message shall provide a minimum of 2 minutes and be created as a .wav file format. All messages shall be able to be created on-site without any special tools or burning of chips. Provide as minimum one twenty (20) watt supervised audio amplifier per paging zone. The system software shall be capable of selecting the required audio source signal for amplification. To enhance system survivability, each audio amplifier shall automatically provide an internally generated local 3-3-3, 1000 Hz temporal pattern output upon loss of the audio signal from the one-way emergency audio control unit, during an alarm condition.

Audio amplifiers shall be power limited and protected from short circuits conditions on the audio circuit wiring. Each amplifier output shall be a supervised, dedicated, selectable 25/70 Vrms output.

Provide an Emergency Voice Communication System with the following design features:

An audio control unit with Microphone for Paging.

Provide a 2-position switch to manually activate pre-recorded voice messages, with "Message Name" positions identified and one LED status indicators, one red. Provide minimum of 12 selector switches.

Provide a 2-position switch to manually activate audio paging zones with "Paging Zone Name" positions identified and one LED status indicators, one red. Provide minimum of 12 selector switches.

ATTACHMENT A

Instructions: Provide a typed instruction card mounted in a plastic or glass cover in a stainless steel or aluminum frame. Include interpretation and describe appropriate response for displays and signals. Instructions should briefly describe the functional operation of the system under normal, alarm, and trouble conditions.

Circuits Requirements:

Signaling Line Circuits for Network Communications:

Class B, Level 0

Signaling Line Circuits for Intelligent Analog Addressable Loop:

Class B, Level 0

No more than 100 detectors or 100 modules installed on a loop.

Initiating Device Circuit:

Class B, Level 0

Notification Appliance Circuits:

Class B, Level 0

Maximum circuit loading to 2 amps for visuals.

Door Holder Circuits

Class D, Level 0

Ethernet IP Network

Class C, Level 0

Activation of alarm notification appliances, smoke control, elevator recall and other functions shall occur within 3 seconds after the activation of an initiating device.

Elevator Recall:

Smoke detectors at the following locations shall initiate automatic elevator recall. Alarm-initiating devices, except those listed, shall not start elevator recall.

Elevator lobby detectors except the lobby detector on the designated floor.

Smoke detector in elevator machine room.

Smoke detectors in elevator hoistway.

Elevator lobby detectors located on the designated recall floors shall be programmed to move the cars to the alternate recall floor.

Water-flow alarm connected to sprinkler in an elevator shaft and elevator machine room shall shut down elevators associated with the location without time delay.

Water-flow switch associated with the sprinkler in the elevator pit may have a delay to allow elevators to move to the designated floor.

ATTACHMENT A

Door Controls: Door hold-open devices that are controlled by smoke detectors at doors in smoke barrier walls shall be connected to fire-alarm system.

Remote Smoke-Detector Sensitivity Adjustment: Controls shall select specific addressable smoke detectors for adjustment, display their current status and sensitivity settings, and change to alternate settings. Allow controls to be used to program repetitive, time-scheduled, and automated changes in sensitivity of specific detector groups. Record sensitivity adjustments and sensitivity-adjustment schedule changes in system memory, and print out the final adjusted values on system printer.

Digital Alarm Communicator Transmitter: The system shall have an integrated off premise communications capability using a digital alarm communications transmitter (DACT) for sending system events to multiple central monitoring station (CMS) receivers. The system shall provide the CMS(s) with point identification of system events using 4/2, 3/1, Contact ID or SIA DCS protocols. The dialer shall have the capability to support up to 255 individual accounts and to send account information to eight (8) different receivers, each having a primary and secondary telephone access number. System events shall be capable of being directed to one or more receivers depending on event type or location as specified by the system designed. In the event of a panel CPU failure during a fire alarm condition, the DACT degraded mode shall transmit a general fire alarm signal to the CMS.

Digital data transmission shall include the following (Contact ID)

Address of the alarm-initiating device.

Loss of ac supply or loss of power.

Low battery.

Abnormal test signal.

Communication bus failure