## Invitation to Bid

#### FIRE ALARM & DETECTION SYSTEM

Responses to an Invitation to Bid will be received by the Purchasing Supervisor, Sumner County Board of Education, 1500 Airport Road, Gallatin, TN 37066 for FIRE ALARM DETECTION SYSTEM until 9:00 a.m. CDT Tuesday, May 13, 2014. Bid responses will be opened at that time, taken under advisement and evaluated. Should you have any questions please email Rickey Swindle, Maintenance Department at <a href="rickey.swindle@sumnerschools.org">rickey.swindle@sumnerschools.org</a>. All proposals are subject to the Board of Education's conditions and specifications which are available from Vicky Currey, Purchasing Supervisor (615) 451-6560. All bids can be viewed on line at www.sumnerschools.org.

## FIRE ALARM AND DETECTION SYSTEM

The Sumner County Board of Education, herein known as "School System", is soliciting bids for the replacement of the fire alarm systems at Beech High and Beech High-Annex. The project shall be turn-key. Contractors bidding on this project must list any sub-contractors to be used.

#### **DESCRIPTION OF WORK**

Extent of fire alarm and detection system shall be as described in this specification and as required by code requirements. The contractor and equipment supplier shall review all specifications completely and be familiar with the requirements. All required components to cause operation of the system as specified shall be supplied and installed.

The system described in these specifications shall use digital transmissions between the CPU/transponder and the peripheral devices. Systems using non-digital technology as the principal means of supervision will not be considered as meeting the requirements of this specification. Analogue supervision of signaling devices and non-digital devices such as tamper switches and flow switches is acceptable.

The system shall conform to all applicable sections of the NFPA including, but not limited to, Sections 72-A,B,C,D,E,F and the Life Safety Code section 101, the National Electrical Code (NEC), Standard Building Codes, <u>local codes</u>, UL wiring criteria, Americans with Disabilities Act (ADA) and the directions of the State Fire Marshall.

The fire alarm contractor must be certified in accordance with Tennessee Alarm Contractors Licensing Act of 1991, TCA Title 62, Chapter 32.

## **SUBMITALS**

The contractor shall submit to the School System information concerning the fire alarm and detection system. The information shall be sufficient to determine that all devices meet the requirements of this specification and to provide the School System with a record of the devices installed in the facility.

All information shall be submitted as one package in a (3)-ring binder or folder. No partial submittal will be accepted. The submittal shall include as a minimum the following:

Complete descriptive information and catalog data for each device in the system, including individual options added to the Fire Alarm Panel

- 1. Sequence of operation of the system.
- 2. Component wiring diagrams.
- 3. System wiring diagrams shown on a floor plan of the project. The plan shall show wire counts and types of wiring in each conduit. Floor plans of the school will be made available at the Larry Riggsbee Building, 1500 Airport Road, Gallatin, TN 37066 for reviewing.
- 4. Battery sizing and recharging information and calculations.

### **ACCEPTABLE MANUFACTURERS**

Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

Simplex Time Recording Co. Notifier Gamewell Edwards

The School System shall have sole authority to determine specification compliance.

#### **QUALITY ASSURANCE**

Each and all items of the fire alarm system shall be listed as a product of a SINGLE fire alarm system manufacturer under the appropriate category by the Underwriters' Labratories, Inc. (UL) and shall bear the "UL" label. All control equipment is to be listed under UL category UOJZ as a single control unit. Partial listing will NOT be acceptable.

The equipment and installation supervision furnished under this specification is to be provided by a supplier who has been engaged in production of this type (software driven) of equipment for at least ten (10) years, and has a fully-equipped service organization within seventy (70) miles of the installation.

The system controls shall be UL listed for Power Limited Applications per NEC 760. All circuits must be marked in accordance with NEC article 760-23.

#### **POWER REQUIREMENTS**

The control panel shall receive 120 VAC power via a dedicated, fused, disconnect circuit.

The system shall be provided with sufficient battery capacity to operate the entire system upon loss of normal 120 VAC power in a normal supervisory mode for a period of twenty four (24) hours with five (5) minutes of alarm indication at the end of this period or as required.

Circuits requiring system operating power shall be 24 VDC and individually fused at the control panel.

### **SYSTEM OPERATION**

Each component of the fire alarm system shall be supervised for improper operation including open or short circuits by the fire alarm panel. The fire alarm panel shall also supervise itself for low battery voltage and loss of normal building power. Upon any of the above conditions, the trouble indicator on the fire alarm panel shall indicate the improper status by both an audible and visual sign. The audible indication shall continue until the condition is acknowledged by an operator at the fire alarm panel. Visual indication shall continue until the trouble condition is corrected.

Upon confirmation of an alarm from any initiation device, the following functions shall be performed without delay:

- 1. All alarm signaling devices shall sound until silenced by an operator at the fire alarm panel or after ten (10) minutes of operation. Silencing signals shall not prevent the signals from sounding on a subsequent alarm.
- 2. Display an alarm status on the alphanumeric display of the fire alarm panel and sound an audible signal at the panel. Signal shall sound until alarm is acknowledged by an operator.
- 3. Shut down all required air handling units. All smoke dampers shall be closed and the smoke removal system shall be activated.
- 4. Cause doors held open electronically to close without time delay.
- 5. Send signal to the School System's designated monitoring system indicating an alarm condition via two (2) distinct and direct analogue telephone lines supplied by the School System.

## **FIRE ALARM CONTROL PANEL**

The control panel shall have a minimum of 500 active points, capable of supporting alarm initiating appliances and alarm indicating appliances as required in these specifications.

The control panel shall be software programmable via the front panel for input/output functions and shall contain a historical event log.

Control panel status and custom labels shall be displayed by an alphanumeric LCD display (80 characters). Front panel switches shall provide control and programming. Displayed information indicates which zones are in alarm, supervisory, or trouble and also indicates additional panel status such as auxiliary output per zone, low battery, ground fault, and other pertinent information.

A system Walk Test operation shall be included that will allow the system to be tested by a single person.

#### SYSTEM INSTALLATION AND WIRING

Provide and install the system in accordance with the specifications, all applicable codes and the manufacturer's recommendations. All wiring shall be installed in strict compliance with all the provisions of NEC Article 760 A and C, Power-limited Fire Protective Signaling Circuits or if required may be reclassified as non-power limited and wired in accordance with NEC Article 760 A and B. Upon completion, the contractor shall so certify in writing to the School System.

All junction boxes shall be sprayed red and label "Fire Alarm". Wiring color code shall be maintained throughout the installation.

#### SYSTEM TESTING

The completed system shall be fully tested by the contractor and the Manufacturer's NICET CERTIFIED technical representative in the presence of the School System's representative. Upon completion of a successful test, the contractor shall so verify in writing to the School System.

The following test shall be performed by the Fire Alarm Manufacturer's authorized representative. Each and every device shall be tested for its' intended function. Verify that each device is located in its' appropriate location. Written verification of this test shall be provided to the School System. This test shall be performed in accordance with NFPA 72 National Fire Alarm Code, latest edition.

The fire alarm supplier shall own and maintain a smoke detector analyzer for on-site sensitivity testing of smoke detectors per NFPA. The analyzer shall be made available to the School System for such tests.

## **SYSTEM SERVICE REPORT**

The system's supplier must employ factory trained technicians and maintain a service organization within seventy (70) miles of the job site. This organization must have a minimum of ten (10) years selling and servicing fire alarms.

#### TRAINING AND INSTRUCTION

The fire alarm contactor and a factory trained representative shall provide personalized instruction to the School System on a date following the certified testing. The training shall include required maintenance of the system, proper use of the system, troubleshooting rules, and programming.

The contractor shall supply to the School System one (1) approved copy of the fire alarm submittal and two (2) complete sets of O&M (Operating and Maintenance) instructions for each device in the system. This submittal shall include an as-built, point-to-point wiring diagram of the system.

The fire alarm contractor shall provide the School System with programming software that is Window's based and interconnect cable for programming.

#### **WARRANTY**

The equipment and wiring shall be warrantied to be free from electrical and mechanical defects for a period of one (1) year commencing with start-up and the School System's beneficial use of the entire system. Warranty shall include labor, travel time, and parts.

## **JOBSITE LOCATION**

Beech High Beech High – Annex
3126 Long Hollow Pike 3140 Long Hollow Pike
Hendersonville, TN 37075 Hendersonville, TN 37075

Contractors are approved to visit each jobsite. Contractors are required to sign-in at the front desk before conducting walk-thru of the location.

Questions or clarifications to any aspect of this document can be sent to <a href="mailto:chris.harrison@sumnerschools.org">chris.harrison@sumnerschools.org</a>. Please allow twenty-four hours (24 hours) for responses. The deadline to submit questions is <a href="mailto:Wednesday">Wednesday</a>, <a href="mailto:April 30">April 30</a>, <a href="mailto:2014.00">2014</a> @ 1:00 p.m.

# **Sumner County Board of Education**

Purchasing Department 1500 Airport Road Gallatin, TN 37066

COMPANY NAME			
ADDRESS			
TELEPHONE			
EMAIL			
AUTHORIZED COMPANY REPRESENTATIVE		SIGNATU	R <i>E</i>
AUTHORIZED COMPANY REPRESENTATIVE		PRINTED	
DATE			
BID TITLE	Fire Alarm and Detection System		
DEADLINE	Tuesday, May 6, 2014 @ 9:00 a.m.		
BID AMOUNT	\$	_Beech High	
	\$	_Beech High Annex	
	\$	_Grand Total	
BID GOOD THRU			

# **Sumner County Board of Education**

Purchasing Department 1500 Airport Road Gallatin, TN 37066

COMPANY NAME	
ADDRESS	
TELEPHONE	
EMAIL	
AUTHORIZED COMPANY REPRESENTATIVE	SIGNATURE
AUTHORIZED COMPANY REPRESENTATIVE	PRINTED
DATE	
BID TITLE	Fire Alarm and Detection System – Beech High Annex
DEADLINE	Tuesday, May 6, 2014 @ 9:00 a.m.
BID AMOUNT	\$
BID GOOD THRU	

#### NOTICE TO RESPONDENTS

Responses to an Invitation to Bid will be received by the Purchasing Supervisor in the SUPPORT SERVICE FACILITY CONFERENCE ROOM, Sumner County Board of Education, 1500 Airport Road Gallatin, TN 37066. They will be received until 9:00 A.M. Local Time TUESDAY, MAY 13, 2014 for FIRE ALARM & DETECTION SYSTEM, at which time the responses will be opened, taken under advisement and evaluated. BIDS WILL BE POSTED ON www.sumnerschools.org

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#### GENERAL REQUIREMENTS AND CONDITIONS

- 1. The Sumner County Board of Education reserves the right to accept or reject any and/or all responses in whole or in part, and to waive informalities therein.
- Any responses received after the scheduled closing time for the receipt for responses will not be considered.
- 3. If a mistake is discovered after the responses are received, only the Sumner County Board of Education may allow the respondent to withdraw the entire response.
- 4. Partial payments will not be approved unless justification for such payment can be shown. Terms will be net 30 days.
- Payment will not be made until the said FIRE ALARM & DETECTION SYSTEM are inspected and approved as meeting all specifications by persons appointed by the Sumner County Board of Education.
- Responses submitted must be in a sealed envelope and marked on the outside as follows: RESPONSE: FIRE ALARM & DETECTION SYSTEM DEADLINE: 9:00 A.M., TUESDAY, MAY 13, 2014
- 7. Facsimile responses will not be considered.
- 8. If a successful bidder violates any terms of their bid, the contract, school board policy or any law they may be disqualified from bidding for a period of two years for minor violations or longer for major violations. Bids from disqualified bidders will not be accepted during the period of disqualification.
- Prices quoted on the response (if any) are to be considered firm and binding until the said FIRE
   ALARM & DETECTION SYSTEM are in the possession of the Sumner County Board of
   Education.
- 10. No purchase or contract is authorized or valid until the issuance of a Board Purchase Order in accordance with Board Policy. No Board Employee is authorized to purchase equipment, supplies or services prior to the issuance of such a Purchase Order.
- 11. Any deviation from these stated terms, specifications and conditions must be coordinated with and approved in writing by the Purchasing Supervisor, Vicky Currey (615) 451-6560.
- 12. All bids that exceed \$25,000 must have the Company Name, License Number, Expiration Date thereof and License Classification of Contractor listed on outside of sealed envelope. As required by State of Tennessee Code Annotated 62-6-119.
- 13. The awarded bidder will be required to post a performance and payment bond in the amount of 25% of the contract price if it exceeds \$100,000 as stated by State of Tennessee Code Annotated 12-4-201.
- 14. If the project cost in excess of \$25,000 a performance bond must be secured by the requesting party in an amount equal to the market improvement value.