



GOVERNING BOARD AGENDA ITEM
AMPHITHEATER UNIFIED SCHOOL DISTRICT NO. 10

DATE OF MEETING: January 24, 2017

TITLE: Approval of New Position – Building Automation Technician; Replacing Former Position of Locksmith

BACKGROUND:

The District's Locksmith position has been posted for 18 months with no qualified applicants responding. In part, the District believes that the current responsibilities and required qualifications of the position prevent traditional locksmiths from applying and ultimately meeting the needs of the District. Additionally, as technology becomes increasingly imbedded into the building infrastructure, in particular within the fire alarm, access control, HVAC, energy management, and lighting controls, the need to expand the skill required is essential.

To do so, the District would like to replace the Locksmith position with a new position: Building Automation Technician. This position will perform a variety of technically skilled and semi-skilled duties: installation, monitoring, programming, inspection, testing, and repair of electrical or electronic building systems such as Energy Management Systems (EMS), centralized building fire alarm and notification systems, automated lighting controls, access control systems, mass notification and other low voltage electrical or electronic devices or systems that automate building operations.

This position will be paid at Range N (\$17.28 - \$17.86 / hour) of the Classified/Support Staff salary Schedule and will work a fiscal year schedule.

RECOMMENDATION:

It is the recommendation of the administration that the creation of the Building Automation Technician position be approved.

INITIATED BY:

Michael Bejarano

Michael Bejarano, Chief Academic Officer Secondary Education 6-12

1/13/17

Date: January 13, 2017

Patrick Nelson

Patrick Nelson, Superintendent

Job Code 50P5
Range N
January 2017

BUILDING AUTOMATION TECHNICIAN

QUALIFICATIONS

A. REQUIRED

- High school diploma or equivalent
- 5 years of experience with a combination of formal training and hands-on experience in BAS controls, energy management systems, fire alarms or access control
- Relevant certification/certificate in building automation, HVAC control technology, access control, fire alarms or lighting control
- Knowledge of Electronic and Electrical principle (for control voltage, low voltage, high voltage) and shop mathematics (e.g. Ohms Law) related to these principles
- Proficient computer literacy, which includes but not limited to applications such as Microsoft Excel, Word, and Outlook
- Knowledge of using automated building management systems for monitoring equipment and related components
- Proficient in reading blueprints and schematics
- Knowledge and proficiency in safe and proper use of materials, tools, and equipment used in the installation, repair and maintenance of building automation systems
- General knowledge of health, safety, and regulatory compliance laws and regulations related to building systems

B. DESIRED

- HVAC DDC, access control, life safety and lighting control systems.
- Servicing of Fire Alarms and other Life Safety Systems
- BACnet data communication protocol
- EMS systems to monitor equipment related to energy conservation
- Computer networking and IP architecture
- Installation and repair of low voltage wiring (e.g. Cat 6, fiber optics, coaxial, 70V speaker wire, etc.)
- NICET and/or Niagara AX certification

SUMMARY

The Building Automation Technician performs a variety of technically skilled and semi-skilled duties: installation, monitoring, programming, inspection, testing, and repair of electrical, or electronic building systems such as Energy Management Systems (EMS), centralized building fire alarm and notification systems, automated lighting controls, access control systems, mass notification and other low voltage electrical or electronic devices or systems that automate building operations. The person selected will be responsible for the efficient operation of HVAC controls through the District's Energy Management System (EMS) to meet both comfort and energy conservation requirements.

Reports to: Building Systems Manager

ESSENTIAL FUNCTIONS

- Manage, monitor, and adjust as needed all Building Automation Systems (EMS, Access Controls, Fire Alarms, Lighting Controls, Irrigation Controls)
- Provide coordinated design, integration, programming, final connections, startup, commissioning, warranty and troubleshooting and repair of building automation controls (system comprised of but not limited to Niagara AX systems, Vanderbilt SMS, with various manufacturer network area controllers, remote I/O using BACnet as well as other communication protocols)
- Installation, programming, monitoring, inspection, testing, and repair of electrical, or electronic building systems related to Energy Management System (EMS), centralized building fire alarm and notification systems, automated lighting controls, access control systems, irrigation/water flow control and other low voltage electrical or electronic devices or systems that automate building operations
- Complete work requests for the preventative maintenance, inspection, testing, repair and installation of digital, electrical and electronic control equipment related to air conditioning, and exhaust systems while accurately documenting work performed
- Develop system architecture and coordinate development of graphical user interfaces
- Perform a daily review of the system, troubleshoot and make necessary changes in programming and calibration to assure proper operation of controls and instrumentation
- Work with Energy Coordinator to establish strategies and implement energy conservation measures (ECM's) to fully utilize and improve existing systems for the most efficient campus energy utilization
- Coordinate/assist in complete startup and commissioning of building automation systems
- Assist the respective trades (e.g. HVAC) with troubleshooting and analysis to assure maximum reliability and efficiency
- Visit assigned job sites as needed to monitor quality and system(s) functionality
- Coordinate required subcontractors
- Implement on/off and occupancy schedules within the EMS as well as the programming necessary to operate and modify HVAC schedules at the building and zone level
- Utilize a variety of BAS software applications (e.g. Niagara, Vanderbilt SMS) for administration and management
- Establish and maintain effective professional working relationships
- Prepare accurate and detailed written material and field reports
- Maintain and work from technical manuals, specifications, drawings and other information related to applicable building automation systems
- Exercise sound, independent judgment and initiative within established guidelines

MENTAL AND PHYSICAL REQUIREMENTS

- Write and comprehend instructions
- Work in a shop environment, including indoors and outdoors
- Perform functions from written, oral and graphic instructions and from observing others
- Use hand and power tools
- Operate an automatic or standard transmission motor vehicle
- Lift and carry objects weighing up to 75 pounds up to 50 yards
- Climb stairs and ladders
- Bend, squat, stoop, kneel and lift one or both arms above shoulder level
- Manual dexterity
- Hear at normal range (auditory warning devices)
- Work in small, cramped, or confined spaces
- Walk and run on uneven surfaces
- Exposure to noise, heat, cold, noxious chemicals, heights, high voltage electricity in all weather and temperature conditions
- Operate power machinery
- Use office equipment; telephone, computer, copier and printer
- Use trade tools; meters, testers and probes