STAR CONTROL

May 9, 2016

To: Woodbury County Building Services
    629 Douglas St # B07
    Sioux City, IA 51101

RE: Alerton System Upgrade

Mr. Kenny Schmitz:

Star Control shall provide the following hardware, software and services to upgrade the outdated Alerton Ibex system to the Alerton BACtalk system. All Ibex unitary controllers shall remain in service and their points shall be integrated to BACnet.

- BACnet control modules that will replace the Ibex Apex controller, BCM-PWS supplies power to the other BCM modules, The BCM-ETH is used to allow information to be transmitted over your local area network just like your computers does, the BCM-TUX translates the Ibex Language to the BACtalk language or protocol. When they developed the BACnet open protocol (language) the idea was for all manufacturers to speak the same language instead of each manufacturer speaking its own language by doing this each manufacturer would allow each other to extract information from each other without the use of a translator or we call them gateways. For instance Ibex is speaking French and the ASHRAE standard is speaking English the BCM-TUX translates french to English.
- Honeywell Webs Jace, this device allows interfacing via WEB pages that will allow maintenance personnel to adjust set points, monitoring of parameters of the system, alarm reporting, remote connections and allow personnel to record any point (fan status, space temperature, supply air temperature and outside air temperature)
- Workstation to be located in the Eagles club, personnel computer
- Programming
- Integration of the Ibex points (French) to BACnet points (English), convert proprietary Ibex point to BACnet open communication protocol ASHRAE standard 135-2012
- Training for maintenance personnel to view trend logs, change set points, setup schedules, view and recognize system parameters issues
- Develop new graphics for the Honeywell Webs Jace; the graphics will be developed with architecture drawings of the building, these drawings will be used to locate equipment and define the areas they serve, in these areas of the drawing there will be a labeled button that will launch a text and graphic for that particular piece of equipment. The text page consists of text values for example space temperature, space set-point, cooling lockout, heating lockout, fan status, damper positions and so on. The graphic page will consist of a picture or diagram of the equipment which will show fans turning or dampers in the position they are in also most of the values on the text page will also be on the graphic page, however this also depends on the type of equipment used.
- Setup web supervisor software, this is used for supervision of different sites back to one location and data storage from those sites. Data storage will consist of trend logs which are values like space temperatures, discharge air temperatures, fan statuses, outside air temperatures, damper positions and so on. Trend loges are good tools for maintenance personnel to see what is happening with the system in real time. Alarm logging and notification are typically setup for logging are typically pump alarms, fan alarms and out of range space temperatures. Alarms are generated if a fan or pump that are required to run and they do not prove operation they will go into alarm then generate an alarm at the operator

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workstation to notify maintenance personnel of a problem so they can check into problem before it becomes an emergency and comfort issue.

- Bond is included

Your investment: **$35,259.00**

Exclusions:

- Any Ibex unitary controllers to remain in service
- Any controllers that are not connected to the Alerton building automation system
- Local area network settings to allow remote connections

Accepted By: _Jerry Taylor_

Date: _5-17-16_

Sincerely,

Kevin Welty

Kevin Welty
Star Control
Phone: 712-252-3007