



**ITB-19-10**  
**ADDENDUM III** KH  
**RECREATION CENTER ROOF & HVAC REPLACEMENT**

**Date:** June 10, 2019  
**Bid Number:** ITB-19-10  
**Bid Due Date:** TUESDAY, JUNE 18, 2019 BY 1:00 PM OUR CLOCK

The following information is provided to all prospective bidders and is hereby made a part of the above bid documents. Bidders must acknowledge this Addendum III with their bid.

**CLARIFICATION, ADDITIONAL INFORMATION, AND CHANGES:**

**Questions and Answers:**

Q 1: On the first page of the roof and mechanicals scope document, this line appears:

*The purpose of this project is to replace the existing standing- seam metal and EPDM roofing, as well as all mechanical repairs as listed below at the Wheat Ridge Recreation Center, located in Wheat Ridge, Colorado.*

The document then goes on to describe the shingle roof. Are we doing the shingles, the EPDM or both?

A 1: This project is to replace the shingles, HVAC units, and flashing, vents, seams, etc. as identified in document ITB-19-10.00. Replacement of the EPDM is not required.

Q 2: Remove and replace 5 domed skylights - are we installing new skylights or just detach/reattaching?

A 2: Existing skylights are to be removed and re-installed.

Q 3: Does the lightning protection system need to be certified, tested, and ensured that it meets lightning protection code post completion? (This will require a lightning protection subcontractor) Or are we just Detach/reattaching what is existing?

A 3: The lightning protection system will need to be re-installed, inspected, and certified.

Q 4: In the ITB it states that the weathervane is removed and replaced. Usually that means it is replaced with a new item. Is this the case for the rooster weathervane on the shingles or are we just putting the same weathervane back in place? Same question for the spire on the standing seam roof.

A 4: Both are to be removed and re-installed.

Q 5: What class of shingles are being specified for this job? The ITB just says laminate shingles.

A 5: The replacement shingles are to be laminate composition 30 year shingles.

Q 6: Is the reroof of the barn included?

A 6: No, the roof of the barn is not part of this project.

Q 7: The parapet cap metal is not all 18" – there is approximately 550' that is 22" across. Are we just replacing the 18" parapet metal or all of it?

A 7: From document ITB-19-10 .00: Roof Replacement Mechanicals Scope

**Sheet Metal Flashing and Trim:**

Furnish and install all labor and material to complete all flashing and trim work related to the building, including but not limited to the following:

Gravel Ballast Roofs:

All metal parapet cap flashing – 24 GA, 18" wide 1,350 LF

If the 1,350 LF of identified cap metal includes 550' of 22" metal, then replace that with new 22" metal.

Q 8: Does the parapet cap metal have to meet ES-1 wind specifications?

A 8: The parapet cap metal has to meet City Code.

Q 9: Please clarify if job will be a Mechanical Prime, Roofing Prime or a Split Bid Package?

A 9: The City is seeking one bid that addresses both the mechanical and roofing work that is required. Any bid received that does not address both will be disqualified as non-responsive. Whether the mechanical or roofing contractor assumes the responsibility as prime is up to the bidding entity.

Q 10: Can we confirm the scope of work is as listed on the HVAC Investigators Damage Assessment?

A 10: The equipment and materials listed as needing to be replaced on the HVAC Investigators Damage Assessment is correct. The Ballard Report and document ITB-19-40 .04 identify the required new equipment and materials to be purchased and installed.

Q 11: Question from Setpoint Systems: Any chance we can get some Floor Plans for this Rec Center? They have some very old equipment that is daisy chained coax which cannot be used anymore.

A 11: A Setpoint upgrade and install is scheduled to take place within the next 4 weeks. The specifications for the Setpoint upgrade are included with this addendum. See attached specs.

**Clarifications:**

**1. From the Ballard Group document for Lennox Landmark High Efficiency:**

- a) Replacement Scope of Work: The replacement scope of work for the Lennox Landmark High Efficiency unit option shall be identical to the Lennox Landmark Standard Efficiency however should include the following additional options
  - i) Include higher operating cooling efficiencies as indicated in Appendix A.
  - ii) Supply fan wired to a factory provided variable frequency drives with Multi-Stage Air Volume fan speed control.
  - iii) Stainless steel gas heat exchanger.
  - iv) Controls scope shall match the Landmark Standard Efficiency unit however configure unit factory controller to also include the Multi-Stage Air Volume fan speed control.

**The scope of work for the Lennox Landmark Standard Efficiency is as follows:**

- a) Replacement Scope of Work:

- i) Replace existing L-Series RTUs with Lennox Landmark Standard Efficiency units of capacities closely matching existing unless larger units are required to comply with local ventilation codes (see item x.). Provide each unit with an adapter curb and duct transitions necessary to install the equipment.
- ii) Replacement equipment and their installation shall be reviewed and permitted by the local permitting agency. Code references above assume compliance with the 2015 International Codes is required, verify with the local permitting agency.
- iii) Verify existing power connections to the RTU are of matching voltage and verify that the existing service is adequate for the connected load as per requirements of the 2017 NEC. Verify and provide electrical devices as required to meet the 2017 NEC, possible items required for compliance; disconnects, fuses, convenience outlets and/or short circuit protection.
- iv) Verify that the gas pressure available from the existing system is with-in the operating gas pressure range of the selected RTU and verify that the existing gas piping is adequately sized. Connect adequately sized gas piping to RTU with shut off valve and PRV (if required) per the 2015 IFGC requirements.
- v) Interface replacement units to the Delta DDC controllers via the factory controller terminal block with other miscellaneous sensors added to match existing. Controls available through the terminal block are limited to fan enable, heat stage 1, heat stage 2, cooling stage 1 and cooling stage 2. Additional field installed controls that shall be provided and wired by the Setpoint Systems to match the existing unit controls include a filter high pressure alarm switch, supply air temperature sensor, return air temperature sensor, supply fan current switch for fan monitoring, exhaust fan current switch for fan monitoring. The final controls installation should be configured and programmed to match existing. It is assumed that the existing delta controllers, temperature sensors and override switches shall remain for reuse with the replacement equipment unless upgraded and replaced with a separate project.
- vi) Existing duct mounted smoke detectors should be reconnected to the replacement equipment for unit shutdown.
- vii) Provide replacement rooftop units with a factory installed BACnet interface for connection to the Delta controls system upon its future upgrade.
- viii) Provide unit cooling coil with condensate drain and trap assembly in compliance with the 2015 IPC.
- ix) Provide the Rooftop unit with all other applicable options as necessary to match the existing equipment and as necessary meet the current local code requirements, including but not limited to; CO2 sensors for demand ventilation control, 100% outside air economizer, relief for outside air economizer, hail guards, short circuit protection and local disconnect switch. Set limits of the CO2 demand ventilation control as required by the 2015 IMC and as required for adequate building pressurization.
- x) Power Exhaust: Provide replacement equipment with factory mounted power exhaust fans to match the existing unit configurations. It is believed that units 5 ton and smaller have barometric relief air and units 8.5 ton and larger have power exhaust fans.
- xi) Rebalance rooftop unit total supply air to match existing equipment. Verify ventilation required by the 2015 IMC and balance outside air damper to comply. The required minimum OA may be greater than existing, which could require an increase in the gas heating and/or cooling capacity of the RTU to comply.
- xii) Provide commissioning of replacement equipment as required by the 2015 IECC.

- xiii) Adapter curbs should be adequately sized, installed and flashed for a complete water proof, support system.
- xiv) Roof penetrations for any new or modified electrical or controls conduit should be adequately flashed for a water proof system.
- xv) Verify that the final installation is in compliance with the manufactures installation requirements.
- xvi) Provide Comcheck report to the permitting agency to verify that the installation is in compliance with the 2015 IECC.
- xvii) Provide ventilation calculations to the permitting agency to verify that the final installation meets the 2015 IMC ventilation requirements.
- xviii) Where total RTU weights exceed limits noted in the original record structural drawings or where original record structural drawings do not indicate RTU weight limits; provide structural calculations to verify structural compliance with the 2015 IBC.

**2. From page 4 of the Ballard Group document, 'Replacement Equipment Controls':**

“An additional feature that we would recommend including with the replacement Lennox rooftop units is the optional BACnet interface. This would allow for interface of additional factory control points to the Delta control system once it is upgraded to a BACnet system in the future. This interface would allow for detailed equipment monitoring and additional Setpoint adjustment capability.”

The City of Wheat Ridge is **REQUIRING** that the BACnet interface to the Delta control system be included in the base bid. This is not a recommendation.

Visit our City website for pre-bid sign in sheet, addendum, plan holders list and project updates:  
[www.ci.wheatridge.co.us](http://www.ci.wheatridge.co.us)

**POINT OF CONTACT:** Kirby Hollums, Buyer II, [khollums@ci.wheatridge.co.us](mailto:khollums@ci.wheatridge.co.us), or phone 303-235-2885. Do not contact the user department, consultant, or any other staff.



*collaborative solutions. unmatched training.*

February 1, 2019

Mike Farrell  
City of Wheat Ridge  
7500 W 29<sup>th</sup> Ave  
Wheat Ridge, CO 80033

Subject: Upgrade- eweb, ebmgr, v2, convert graphics

Dear Mike,

As we discussed during our site-walks, meetings and email communications it is time to upgrade your front-end software from the outdated ORCAview/ORCAweb/Historian to the latest Delta Controls enteliWEB/enteliVIZ software. Delta is no longer developing updates or patches for ORCAview/ORCAweb/Historian.

As we discussed, this proposal accomplishes the following:

- Connect City Hall, Recreation Center and Senior Center into one centralized webserver- enteliWEB. This will be done by installing (1) EBMGR and (2) RTRs. This will allow for:
  - o Monitor and make changes to all 3 buildings from any site
  - o Reduce need to drive from building to building
  - o Mobile friendly - easily monitor your systems from home or on the road
  - o Custom dashboards
- Convert existing Illustrator graphics to be compatible with enteliWEB
- Flash Upgrade Rec Center V2 Controllers to version 3.40

City of Wheat Ridge will provide the server that the enteliWEB software resides on.

Thank you for the opportunity to submit a proposal for Setpoint Systems Corporation to upgrade your current Delta Controls System to the current enteliWEB. Once broadcasted from a web server you and your personnel will have the flexibility to access the interface locally, remotely and on your mobile devices.

We appreciate the opportunity to continue to earn your business and look forward to successfully completing this project.

Sincerely,

**SETPOINT SYSTEMS CORPORATION**

Ben Grover  
Service Account Manager  
Mobile: 720-665-2446

**ROCKY MOUNTAIN:** 8167 SouthPark Circle, Littleton, CO 80120 (303) 733-2300  
**CALIFORNIA:** 1370 Reynolds Ave., Suite 103, Irvine, CA 92614 (949) 271-2837  
**MINNESOTA:** 1831 – 121st Street East, Burnsville, MN 55337 (612) 259-3440

**24/7 service 1-800-372-8837**  
www.setpointsystems.com  
info@setpointsystems.com

## **SCOPE OF WORK**

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### **Project Documents:**

#### **A. Our proposal is based upon the following:**

1. Setpoint Systems is proposing to provide labor and material to install Delta Controls enteliWEB software, flash upgrade to all controllers and connect all 3 sites via eBMGRs and install one (1) CopperCube to replace Historian for trend log storage.
2. Setpoint Systems will tie in all trend logs from your existing Delta system into the CopperCube.
3. Setpoint Systems is proposing to install enteliVIZ graphics software and either convert the existing Illustrator graphics to webgraphics OR collaborate with City of Wheat Ridge and create new custom HTML5 graphics.

### **ENTELIWEB UPGRADE:**

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Setpoint Systems is proposing to provide labor and material to upgrade the existing ORCAView/ORCAWeb software with Delta Controls enteliWEB software on the City of Wheat Ridge BAS. Setpoint will also provide labor and material to convert existing Illustrator graphics to web graphics.

Proposal includes providing the following:

- enteliWEB software
- enteliVIZ software
- Creating custom dashboards for up to four (4) primary users of the system
- Create Sites and Users
  - Create Sites for each building
  - Password settings
  - User Lockout settings
- Create Management functions
  - Create Alerts
  - Create and manage device databases
  - Create and manage enteliWEB configuration backups
  - Site Graphic files
- Create to manage systems, views and dashboards
  - Create system views
  - Create custom views
- Creating custom widgets:
  - Multi trend templates for comparing up to 5 trend points on the same graph

- Map showing the physical location of each building (if applicable) along with a pop-up of the number of current alarms at each building
- Dynamic schedule for each mechanical system that show all input and output point in a table format
- An alarm summary report
- Watch list of critical points and systems
- Object Value Chart
- Custom point list
- Custom gauges
- Local weather information
- Energy alerts for all major mechanical equipment.
- Setpoint Systems will transfer all Delta Controls related files to the new web server.
- System database and programs will be backed-up by building

### Rec Center V2 Upgrade

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#### Project Documents:

#### B. Our proposal is based upon the following:

4. Setpoint Systems is proposing to provide labor and material to upgrade the (4) four ORCA panels at the Wheat Ridge Rec Center from version 2 to version 3 to allow for future integration into city-wide Delta Controls enteliWEB front-end software.
5. Setpoint Systems is proposing to re-program and re-map the existing MICRO controllers to interface with the upgraded ORCA panels.

### PROJECT DESCRIPTION

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This proposal is based on the following equipment:

#### BAS Controller Equipment List:

- (4) ORCA panels
- (4) MICRO Controllers

#### ORCA PANELS

#### A. ORCA 1 – located in store room

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##### 1. Equipment List:

- a. ORCA 1 Panel located in store room D202
  - i RTU 1, 2 & 3
  - ii CP1B located in 2<sup>nd</sup> floor electrical room, Area D
    - a. RTU 12
    - b. MICRO 101
    - c. MICRO 102
  - iii CP4B located in room B202
    - a. RTU 13
    - b. MICRO 103

- b. ORCA 2 Panel located in facility OPS room A116
    - i RTU 4 & 6
    - ii EHC 1-8
  - c. ORCA 3 Panel located in store room B114
    - i RTU 5, 7, 8, 9 & 10
  - d. ORCA 4 Panel located in store room B202
    - i HRU 1-3, MAU 1 & RTU 11
    - ii CP4C located in room C104
      - a. MAU 2
      - b. MICRO 402
      - c. MICRO 403
2. Providing
- a. Flash credits and technician labor to upgrade and reprogram ORCA Panels 1, 2, 3 and 4 up to version 3 firmware.
  - b. Technician labor to re-map and reprogram MICRO 101, 102, 103, 402 & 403.
  - c. Testing and check-out to ensure full functionality
3. Excluding
- a. Anything not specified herein

### **COPPERCUBE DATA ARCHIVING SYSTEM:**

Without an archiving system, your system will be limited in its ability to store historical trended information. To effectively troubleshoot and to evaluate the performance of your facility, you need access to historical data.

The CopperCube is an embedded industrial PC that connects to your BAS, locates all trend logs within the existing system and archives that data in its internal database, providing redundant, long-term storage of your buildings' valuable information. A small CopperCube will allow of a minimum of 250 Trend Logs to be stored for 5 years.

#### **Features:**

- Internal, local storage of trend log data.
- Built-in web UI for feedback, operational status and configuration. Vendor independent.
- Native BACnet device
- Built-in connectivity to enteliWEB software.
- Industrial embedded PC with an internal solid-state hard drive; no moving parts.
- Configurable auto back-up to external storage device.
- Email alerts of any faults.
- Firmware auto-update capability.

**Setpoint Systems will provide labor and material to install the CopperCube archiving system.**

- Setpoint Systems will fabricate a panel mounted with (1) CopperCube L and transformer.
- The CopperCube will be connected to the Delta Controls network via Ethernet.