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REQUEST FOR INFORMATION DATE: June 02, 2016 NO.: RFI-144

To: Cannon Design

Attn: Kelvin Patel

From: Paric Corporation

Requested By: Joe Voypick

Project Name: 15051-Webster University Interdisciplinary Science Building Project No.: 15051

Subject: 2nd Floor Underfloor Fin Tube Radiation

Response Required By: June 09, 2016

Drawing / Spec Reference:

Information Requested:

Can the underfloor HW fin tube radiation be eliminated and replaced with seven (7) electric plenum rated unit heaters?

Suggestion: We propose to replace the hot water radiation in the 2nd floor overhang with electric unit heaters due to the freeze, burst and water damage potential. This recently occurred in the St. Louis area where a small controls glitch prevented the control valve, serving the fin tube, from opening and caused the pipes to freeze and burst resulting in extensive water damage. By replacing the hot water piping with electric heat, the threat of water damage is eliminated. There are many variables that could cause this piping to freeze, system glitch, control valve failure, future controls programming changes, etc..

This proposal includes seven (7) 3kW, plenum rated, electric unit heaters to replace the HW fin tube and associated piping. Unit heaters will come with local thermostat control and can be set to the desired setpoint for the underfloor heat.

Response:

The proposal of replacing the fin tube radiation with electric plenum rated unit heaters has been reviewed by the WTA, Cannon, and Webster University and has been determined to be unacceptable. Please proceed with the originally designed fin tube radiation system. - PJG

ARCHITECT'S RESPONSE:

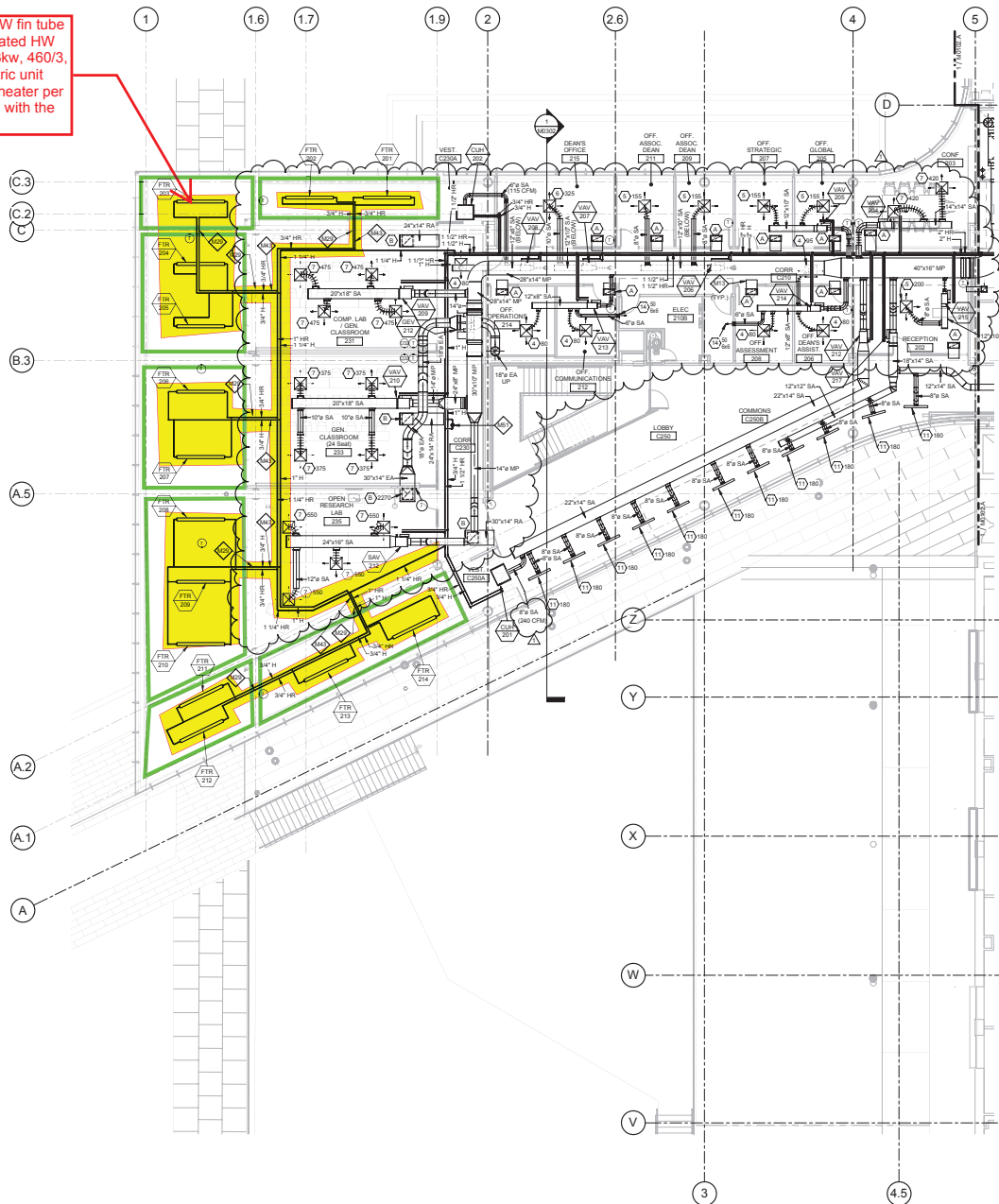
This information is provided as an interpretation of the Contract Documents for implementation. It is not an authorization for change to the Contract Sum or Contract Time. If this information results in a claim for a change to the Contract, the Contractor shall notify the [Construction Manager][Architect] of a change through the change process.

Cc: Kathy Bathe, Paric Corporation

Answered By: _____

Date: _____

Proposal to replace HW fin tube radiation and associated HW piping with seven (7) 3kw, 460/3, plenum rated electric unit heaters. One (1) unit heater per "pocket", highlighted with the green box.



GENERAL NOTES:

- Because of the limited space available to install all of the mechanical work, coordination between the various trades is of the utmost importance. This contractor shall coordinate with all other trades prior to the fabrication and installation of any work.
- Refer to the reflected ceiling plans for ceiling construction, ceiling grid layout, ceiling mounted devices, and coordinate exact location and mounting type of all air devices.
- All ductwork upstream of terminal units shall be Medium Pressure (MP). All ductwork downstream of terminal units shall be Low Pressure (LP). Refer to specifications.
- All ductwork dimensions indicated on plans are sheet metal sizes. All medium pressure ductwork shall be vented, externally insulated. All low pressure ductwork shall be lined. See specifications.
- All intersect 90° rectangular elbows shall be furnished with turning vanes having maximum $c = 0.12$. All smooth radius rectangular elbows shall have a throat radius greater than one half the duct width, unless furnished with splitter vanes. Under no circumstances shall the throat radius be less than one third the duct width. Unless otherwise noted or specified.
- Contractor shall furnish and install volume dampers for each duct take-off unless otherwise noted. See detail.
- Maximum length of Low Pressure (LP) flexible ductwork shall be 8'-0". Round LP duct of lengths greater than 8'-0" shall be rigid round. Flexible duct sizes on plans shall be neck size of diffusers or as indicated. See specifications.
- Maximum length of Medium Pressure (MP) flexible ductwork shall be 2'-0". Round MP duct of lengths greater than 2'-0" shall be rigid round. Flexible duct sizes on plans shall be air Terminal Unit inlet size or as indicated. See specifications.
- All ductwork runouts to Air Terminal Units and diffusers shall be the connection size unless otherwise noted.
- Piping runouts to terminal units shall be 3/4" unless otherwise noted. Refer to rehearse box schedule.
- Verify exact location of thermostats, humidistats, BAS sensors, and other exposed control sensors with architectural elevations and drawings before installation.
- Schedule systems or equipment shut downs required for new construction with owner two weeks in advance. Some premium time work may be required.
- Refer to piping details for final connections to equipment.
- Provide service shut-off valves in major piping branch lines. All connections to risers and each building wing, A & B.

THE SEALER AND SIGNATURES APPLY ONLY TO THE DOCUMENT TO WHICH THEY ARE AFFIXED, AND EXPRESSLY DISCLAIM ANY RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS RELATED TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE ARCHITECTURAL OR ENGINEERING PROJECT.

KEYED NOTES

- LINED RETURN AIR TRANSFER DUCT, 22x10 TYPICAL UNLESS NOTED OTHERWISE.
- BAS TEMPERATURE SENSOR TO MONITOR ITTCOM SPACES. FCU CONTROLLED BY UNIT MOUNTED THERMOSTAT.
- PIPING THROUGH HOLE IN BEAM. COORDINATE WITH STRUCTURAL DRAWINGS.
- INSTALL CONTROL VALVES AND SERVICE SHUT-OFF VALVES ABOVE ACCESSIBLE CEILING. PROVIDE FLOW MEASURING AND BALANCING VALVE AT EACH FTR ELEMENT. BALANCE WATER FLOW BEFORE OVERHANG ENCLOSURE IS INSTALLED.
- 1" HEATING HOT WATER BYPASS WITH BACKPRESSURE CONTROL VALVE (5 GPM).

1 LEVEL 02 - AREA B - MECHANICAL PLAN
1/8" = 1'-0"



Webster University
Interdisciplinary Science
Building

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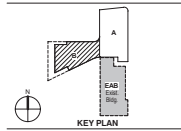
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1 ADDENDUM 2-1 17 MAR 2016
ISSUED FOR CONSTRUCTION (BPD) 01 MAR 2016
No Description Date



Drawing Title:

LEVEL 02 AREA B FLOOR PLAN - MECHANICAL

Project No.: 04561.01 Checked by:

M0102.B

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