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HERMAN HOLLOWAY CAMPUS ADMINISTRATION BUILDING  
HVAC RENOVATIONS  
OMB/DFM CONTRACT # MC3501000021  
ADDENDUM #4

QUESTIONS:

1. Sequence of operations section 23 09 58. Item 3.01 H. page 2 – Can you clarify the requirements under this contract for power control units? For which equipment/switchgear are they to be supplied, and where would this equipment be located in the facility?

**Answer:**

**Monitoring the building electrical power is not required under this scope, therefore phase monitoring will not be part of this scope of work.**

2. Are we required to monitor total building electric power under this scope?

**Answer:**

**No, monitoring the building electrical power is not required under this scope.**

3. Are we required to monitor steam flow?

**Answer:**

**No, monitoring steam flow is not required.**

4. For new room sensors for VAV boxes that indicate having override and set point adjustment, can you clarify which ones (if any) are to be provided with LCD display?

**Answer:**

**No LCD displays are required.**

5. For new steam valve zone room temperature sensors, can you clarify if they are to be provided with override and set point adjustment? LCD display?

**Answer:**

**Override, set point adjustment, and LCD displays are not to be provided.**

6. Is it acceptable to reuse any/all of the existing control enclosures and wiring?

**Answer:**

**Yes. However, existing wiring shall be tested for continuity before use.**



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7. Where will the main VRF panel and BACnet gateway be located?

**Answer:**

See drawing M-201 revision 2.

8. Can you clarify install requirements for low voltage wiring on the ground floor and attic? Does all control wiring need to be in EMT, or can plenum cable supported with J-hooks or bridle rings acceptable?

**Answer:**

Provide EMT for basement & attic unless an accessible ceiling is present. If an accessible ceiling is present then plenum cable is acceptable.

9. Can you confirm that all low voltage wiring associated with the VRF system is to be performed under the BAS/controls portion of the contract?

**Answer:**

This is a single point contract. This work shall be performed under this contract by an experienced contractor.

10. Will the BAS installed under this project required to connect into the existing Admin Building Automated Logic System, and the Holloway Campus Automated Logic WebCTRL server?

**Answer:**

Yes, the BAS installed under this project is required to connect into the existing Automated Logic System.

11. Drawing M-101: Please confirm that existing boiler room panel with local lead/lag switches and indicator lights is to be demo'd/removed, and that these points are not required for the new system.

**Answer:**

Drawing M-703 indicates BAS to enable/disable boilers. Lead/Lag schedule to be controlled by BAS. The functionality of this panel is intended to be in the BAS.

12. Drawing M-201: Is there an OA intake damper with end switch required for SF-1? Any smoke/fire alarm interlock required for SF-1?

**Answer:**

No, there is not an OA intake damper with end switch or a smoke/fire alarm interlock required for SF-1.



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13. Drawing M-203: Is there an OA intake damper with end switch required for SF-2? Any smoke/fire alarm interlock required for SF-2?

**Answer:**

**No, there is not an OA intake damper with end switch or a smoke/fire alarm interlock required for SF-2.**

14. Drawing M-701: Should room sensors associated with HWC-1 thru 4 also include humidity to allow for dehumidification sequence in each individual area served? For CO2 detail sensor shown associated with AHU-2 and 3, can you provide quantity of CO2 sensors required. Can you clarify intent of the "HC status" DI point shown on AHU-2 and 3 point list?

**Answer:**

**See drawing M-204 for location of humidity sensors.**

**Two CO2 sensors are required. One to be placed in each conference room. See drawing M-204 for locations of CO2 sensors.**

**See drawing M-701 for revised points list.**

15. Please provide flow diagram, sequence, and point list for unit heaters, including whether unit heater valves are 2-position or fully modulating?

**Answer:**

**See drawing M-703 revision 2.**

16. Please provide flow diagram for steam zone valves. Note that existing steam valves have modulating 10VDC output and space temperature input only.

**Answer:**

**See drawing M-703 revision 2.**

17. Can any work be performed during normal business hours? For example, work in the attic, ground floor unused areas, boiler room?

**Answer:**

**All work shall be performed during off hours. Building is occupied Monday through Friday, from 8 a.m. until 5 p.m.**

18. M601 schedule for the VRF show 10 units; however, drawings show 11 VRF indoor units. Please revise.

**Answer:**

**See drawing M-601 revision 2.**



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19. What is the substantial completion of work duration for the Holloway Admin HVAC Renovation project?

**Answer:**

It is at the contractor's discretion to identify the number of calendar days from notice to proceed to completion of this project. Please account for equipment lead times, and seasonal installation requirements. This timeline will be considered as part of the bid selection process.

20. Will abatement be continuous or will there be lag time between installations as required?

**Answer:**

The intent is for the replacement of the attic air conditioners to occur during heating season when air conditioners are not running, allowing for continuous abatement. Mechanical contractor to coordinate with asbestos abatement contractor for removal of affected ductwork.



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## SUBSTITUTION REQUESTS

- Goodman ARUF & AR Commercial were submitted for approval. Goodman ARUF & AR were **not** found as equal.
- Daikin DX13S Commercial was submitted for approval. Daikin DX13S was **not** found as equal.
- Johnson Controls SDR/TSS VAV terminals were submitted for approval. Johnson Controls SDR/TSS VAV terminals were found as equal (VAV-#).\*
- The York Predator split system was submitted for approval. The York Predator split system was **not** found as equal (AHU-4&5, CU-4&5).\*
- The York Affinity series was submitted for approval. The York Affinity series was found as equal (AHU-2&3, CU-2&3).\*
- Daikin VRV IV was submitted for approval. Daikin VRV IV was found as equal (VRF-#, CU-1,6,&7).\*
- Samsung VRF was submitted for approval. Samsung VRF was found as equal (VRF-#, CU-1,6,&7).\*

\* It is the contractor's responsibility for any costs associated with deviating from the basis of design that subsequently become apparent or that are apparent now. Costs associated could include but are not limited to additional structure, space constraints for equipment service, electrical power requirements (breaker/fuse sizing and wire sizing changes), and piping connection location modifications. The contractor shall ensure approved as equal equipment meets or exceeds all requirements found both on the drawings and in the specifications provided for this project. Any approved as equal equipment submitted may be rejected that does not satisfy the specifications. The engineer has not redesigned the project around this substitution.



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## DRAWING REVISIONS:

M-101:

-CU-4&5 have been moved off the roof of the mechanical room to a new concrete pad located on grade.

M-102:

-Revised thermostat labels for VAV boxes to match Addendum #2.

M-201:

-Location of VRF panel and BACnet gateway panel added.

M-204:

-Location of CO2 sensors added.

M-205 & M-206:

-Refrigerant pipes moved to exit closer to new location of condensing units.

M-501:

-Revised AHU-2 airflow diagram.

M-601:

-Revised VRF Unit and Condensing Unit schedule.

M-701:

-Revised point list and addition of humidity sensor.

M-703:

-Boiler control diagram updated.

-Unit heater control diagram added.

E-000:

-Revised Electrical Legend, Electrical Abbreviations and Branch Circuit Identification.

ED-100:

-Corrected circuit serving AHU/1.

ED-101:

-Indicated demolition of electric reheat box and VAV box near AHU/4.



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ED-102:

- Indicated demolition of DH/24.
- Corrected AHU and CU designations.

E-100:

- Revised 1/E-100, 2/E-100, Keyed Sheet Notes and Key Plan.

E-101:

- Revised 1/E-101, 2/E-101 and Keyed Sheet Notes.

E-102:

- Revised 1/E-102, 2/E-102, 3/E-102 and Keyed Sheet Notes.

E-103:

- Revised 1/E-103, 2/E-103 and Keyed Sheet Notes.

E-200:

- Revised schedules for Panels "LD", "PA" and "DP1".
- Added schedules for Panels "DPA1", "MDPB" and "PP1".
- Minor revision to Fractional HP Motor Starter Wiring Diagram.

#### Addendum #4

1. Addendum #4 (this document) (7 pages)
2. Revised Drawings (19 pages)

Summarized By: DEDC, LLC  
Matt Lano

Date: November 18, 2015