ADDENDUM NO. 7

PROJECT: **LECOM**
Classroom Building

QPK Project Number 216128.02

OWNER: **Lake Erie College of Osteopathic Medicine (LECOM)**

ARCHITECT: **QPK DESIGN**
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DATE: **November 7, 2018**

All Contractors submitting proposals for the above named project shall take note of the following changes to the Contract Documents. Such changes are to be incorporated into the Contract Documents and shall apply with the same meaning and force as if they had been included in the original documents. Wherever this Addendum modifies a portion of a document, the remainder of the document shall remain in force. The following instructions have precedence over anything contrarily shown or described in the Contract Documents, and all such shall be taken into consideration and be included in the Contractor's bids. Receipt of this Addendum shall be noted on the Form of Proposal. Failure to do so may subject bidder to disqualification.

Addendum No. 7 consists of 4 pages and 0 attachments.

CLARIFICATIONS

1. Addendum #7 Drawings

a. All Mechanical sheets were re-issued. Sheets with no clouded changes or a revision tag in the revision schedule are included for reference only.

b. All Electrical sheets were re-issued. Sheets with no clouded changes or a revision tag in the revision schedule are included for reference only.

c. Drawings E-601 ONE LINE DIAGRAM, and E-605 LIGHTING SCHEDULE
ADD the following heading to the revision schedule
"1 11/06/18 ADDENDUM #6"

d. Drawing S-304 FOUNDATION SECTIONS & DETAILS
CLOUD the following note and associated leaders on detail
D5 FOUNDATION SECTION AT EXTERIOR STAIR
"#4 Bars @ 12" o.c., E.W. PROVIDE #4 DWL's SPLICER INTO FDN. WALL"

2. Request for Information Responses

(Note: Duplicate RFIs, and RFIs answered in clarifications above are not listed, numbering continues from previous RFI responses)

66. Q: Is damp proofing used on this project?
A: Damproofing is not required. Provide waterproofing membrane and drainage board at all basement walls below grade per 071326 Self-Adhering Sheet Waterproofing

67. Q: Specification section 042200 Concrete Unit Masonry is duplicated in the original specification manual.
    A: Omit section 042200 on PDF pages 47 - 59
    The correct section to remain can be identified by reviewing part 1.2 B Related requirements; which lists only numbers 1 and 2.

68. Q: The specs are clear on the surface prep for painted steel but we are assuming this project to be all unprimed due to the fact that there is a ceiling (spec 51200,2.8-A.5) and we usually go with an SP-3 surface prep in this case?
    A: All steel which will not receive fireproofing shall be prime painted.

69. Q: The wall sections on pages A301-A303 state at the precast joints to be grouted solid. Since these are cladding panels attached to the structure, typically the precast joints are caulked. Also details on A500 show caulking, so the horizontal joints are to be grouted solid and vertical joints to be caulked?
    A: Grout horizontal joints solid; provide sealant at vertical joints.

70. Q: Will substitutions be accepted for the Barracuda Water Quality Units? In this area, almost all of the project we work on we use Crystal Stream Water Quality units.
    A: Substitutions will not be accepted for this product.

71. Q: For the Rooftop AHU's, spec 237523 is calling for the units to be provided with thermostats. Should these units be controlled by DDC controls, and if so are the controls to be provided by the Unit Manufacturer or the Controls Contractor?
    A: Controls Contractor to control the units.

72. Q: Spec 233600 2.2 N., O., and P. refer to different VAV Box controls. Should paragraphs O. and P. be deleted, and just leave the paragraph referring to the control spec for the control devices?
    A: Paragraph O. and P. are not to be referenced for this project as they do not apply.

73. Q: Spec 230900 3.2 E. 2. calls for Type B space sensors to have LCD temperature display. Please confirm this is required.
    A: Provide LCD temperature display type sensor as per specifications.

74. Q: Spec 230900 3.3 C. 2. & 3. indicate that this is an all conduit job. Is this correct, or can wiring above suspended ceilings be run in plenum cable "free air"?
    A: Plenum cable "free air" is acceptable provided it is independently supported and is not directly on ceiling tiles.

75. Q: Spec 230993 3.5 calls for Demand Ventilation Control. Please clarify where CO2 sensors are to be located, and if they are to be space CO2 sensors or duct CO2 sensors.
    A: Demand Ventilation to be removed from Sequence of Operation of the project.

76. Q: Spec 230993 3.6 A. Line Voltage Control. This paragraph can be deleted if the CUH's/UH's are to controlled by the EMS as described in paragraphs C. and D.
    A: Paragraph above does not apply to the project as the units are to be controlled by the BMS.

77. Q: Spec 230993 3.8 A. 2. calls for the VAV Box manufacturer to furnish the control transformers. I did not see this called for in the VAV Box specification 233600. Please confirm the VAV Boxes will be furnished with the control transformers.
    A: VAV box schedule calls out for VAV boxes to be provided with transformer for controls.

78. Q: Please provide a sequence of operation for the snow melt system controls. Are all the controls for this system to be provided by the controls contractor
    A: Snow melt SOO is provided in ADDENDUM #6. Controls contractor to provide controls of snow met.

79. Q: There is a lack of fire dampers and / or fire smokes in any of the duct. drawings as issued for bid show none. Please advise.
    A: Fire dampers are called out in coded notes.

80. Q: there is a lack of any detail for the install of the egg grate return grills for this project. Above ceiling areas are to be utilized as a return plenum. similar projects have specified a " return boot " to be furnished at each egg crate. boots typically with 1' liner drawings as issued for bid are inconclusive as to install of the egg crate please advise
    A: Bids are not to include a return boot per drawings and specifications.

81. Q: Please refer to M-501 detail 1 and M-602 detail 2. Since all of the VAV's are called to be 2-way, should there be a bypass valve installed 2/3 downstream with the DPT sensor? If not, should some of the VAV's near the end of the loop be 3-way valves instead of 2-way? If so, which VAV's?
    A: Provide a single bypass valve 2/3 downstream with a DPT for bypass during low load.

82. Q: Please refer to M-501 detail 1. Will an emergency breakglass station be required? If so, who will be providing and installing it?
    A: Yes. Mechanical contractor to provide emergency breakglass station.

83. Q: Please refer to M-501 detail 2 RTU Air Flow and RTU specification 237523. Are all of the control devices that are shown on the plans to be factory mounted and installed by the RTU equipment manufacturer, or field installed by the controls vendor? If installed by the RTU unit manufacturer, will each RTU come with a BACnet MS/TP interface?
    A: RTU controls to be by controls contractor.

84. Q: Please refer to M-501 detail 2 RTU Air Flow Schematic. This detail shows a discharge air damper and end switch for the RTU's but the ductwork plans do not show these dampers. Does each RTU come with a discharge air isolation damper, or is this to be field installed?
    A: air damper are to be provided by RTU manufacturer, endswitch to be provided by controls contractor.

85. Q: Please refer to M-501 detail 2 RTU Air Flow and DDC sequences 237523. Should the following devices be added in order to meet the sequences?
    - Return air temperature and humidity (for enthalpy control)
    - Return air CO2 for demand ventilation
    - Discharge air static pressure for SF VSD control"

    A: Provide above devices for proper system operations.

86. Q: Ductwork located in the basement is exposed, supply and return air ductwork in this area to receive board insulation or ductwrap, is the return ductwork to be insulated as its not located in return air plenum and exposed in the basement?
    A: Supply ductwork in the basement to receive board insulation. Return ductwork in the basement to be uninsulated.

87. Q: Duct Schedule Spec Section #23 07 00 3.14 mentions "Exterior concealed HVAC Supply, Return, and plenums to be insulated - what ductwork is being referred to when mentioning "Exterior Concealed"?
    A: There is not external Supply, Return and plenums on the project. Hence no insulation is required for external Supply, Return and plenums.

88. Q: The ductwork that is being internally lined with 1" duct lining is not required to receive additional external insulation?
    A: Internally lined ductwork may need additional insulation to maintain R-6 depending the R value of lining. Minimum of R-6 lining is required.

89. Q: Mechanical insulation specs mention that interior exposed insulation is to receive PVC Jackets? Is the intent to put PVC jacket material on all piping exposed in Mech Rooms and Spaces that do not have ceilings or is PVC jacket or other jacket not required on the project?
    A: Provide PVC jacket in all finished spaces with exposed piping with the exception of the mechanical, and fire protection room.

90. Q: Are the boiler flues / breeching to be insulated - if so can a spec / schedule be issued? Is the outside air to the boilers to be insulated - if so can a spec / schedule be issued?
    A: Outside air to the boilers to be insulated outside of the boiler room. Boiler flue not to be insulated.

91. Q: Section 230993 paragraph 3.5 “DEMAND VENTILATION CONTROL” states, “On high level of CO2 of any space, the associated roof top unit OA dampers shall increase outdoor air up to 100% until there is no high CO2 level alarm. Roof top unit’s heating section and DX coil shall modulate are required to maintain set discharge temperature.” The floor plans do not show any wall mounted CO2 sensors. Also the control diagrams on drawing M-501 do not show wall or duct mounted CO2 sensors. The most typical application for Demand Ventilation Control is for large spaces such as auditoriums, gyms or lecture rooms. Perhaps it is the intent of the engineer to only have demand ventilation control for RTU-1 and RTU-5? RTU-1 serves Lecture room 110A and RTU-5 serves lecture room 108A. If this is not the case and Demand Ventilation Control is desired every Roof Top Unit, may I suggest installing a return air duct CO2 sensor in each RTU instead of (80) space CO2 Sensors?
    A: Demand Ventilation to be removed from Sequence of Operation of the project.

SPECIFICATIONS

-None-

DRAWINGS

-None-

END OF ADDENDUM NO. 7