

AMENDMENT A00004
ISSUE DATE: 06-06-16
2B & 3: RENOVATION OF OR, ER & TRIAGE
SSC# 2013-130

FROM: SSC ENGINEERING, INC.
18207 EDISON AVENUE
CHESTERFIELD, MO 63005
PH: 636-530-7770
FAX: 636-530-7877

GENERAL

- A. Drawings 1-2B-PL-001, 1-3-PL-001, 1-2B-FP-001, 1-3-FP-001, 1-2B-E-001, 1-3-E-001, (Sheets not re-issued)
1. "BID ITEMS AND PROJECT PHASING" Note 1 referring to "8:00PM – 5:00PM" shall be changed to read, "8:00PM – 5:00**AM**."

MECHANICAL

- B. Specifications 23 09 23 (PH 2B)
1. Add 2.10, E, 6, a to read, "Water coil optimization is required only required chilled water valves serving Air Handling Units. Terminal unit and fan coil unit coils do not require water coil optimization (energy valve)."
- C. Specifications 23 09 23 (PH 3)
1. Change 2.7, B, (7, 8 & 9) to read, "Not Used".
 2. Add 2.10, E, 6, a to read, "Water coil optimization is required only required chilled water valves serving Air Handling Units. Terminal unit and fan coil unit coils do not require water coil optimization (energy valve)."
 3. Add 2.11, B, 5 to read, "Outside Airflow Measurement Systems for Rainhoods - The system shall be capable of direct measurement of airflow through an outside air inlet and produce dual outputs; one representing the measured airflow, and the other to control the inlet damper. The sensors shall be corrosion resistant; all non-painted surfaces shall be constructed of stainless steel. The electronics enclosure shall be NEMA 1."
 4. Add 2.11, C, 5 to read, "Thermal Fan Inlet Airflow Measuring Probe: Each probe array shall consist of one pair of single-point measuring probes and a single microprocessor based transmitter. The transmitter shall be supplied by the same manufacturer as the probe array(s). Each probe array shall be assembled using heavy wall anodized aluminum tubing, stainless steel adjustable support struts, stainless steel mounting brackets, and an aerodynamically optimized molded sensing apertures to ensure accurate measurement in angular airflow conditions. Probe arrays shall be connected to the transmitter using cable of up to 100' in length, included with the transmitter. Each stand-alone sensing point shall use an ambient temperature thermistor and an externally heated thermistor to determine the point velocity and temperature. Automatic equal area averaging of the individual point measurements shall be performed in the transmitter. Each airflow sensor shall have an operating range of 0-10,000 FPM, with a NIST traceable accuracy of $\pm 2\%$ of reading for velocity measurement and 0.1°F for temperature measurement. Individual sensors shall be fully field serviceable without need for field calibration, not requiring that the probe be returned to the Factory for repair and/or calibration. The operating temperature range of the transmitter shall be from -20° to 140°F. The transmitter with probe array shall measure with an accuracy of $\pm 2-3\%$ of actual flow with field calibration."
 5. Change 2.11, D and associated subparagraphs to read, "NOT USED".
 6. Change 2.11, E to read, "NOT USED".
 7. Change 2.11, F and associated subparagraphs to read, "NOT USED".
- D. Specifications 23 37 13 (PH 3)
1. Change 1.7 C, 4 to read, "Structural calculations and drawings for the integrated ceiling system. Calculations are required to be signed/sealed by a Registered Professional Engineer and

AMENDMENT A00004
ISSUE DATE: 06-06-16
2B & 3: RENOVATION OF OR, ER & TRIAGE
SSC# 2013-130

- submitted for review.”
2. Change 2.3, C, 2, b to read, “Air devices inside the operating room shall be fabricated of minimum 1.0 mm (20 Gauge) thick 18-8 stainless steel (ASTM A167).”
- E. Specifications 23 74 13
1. Change 2.1, A, 7 to read, “Not Used”.
- F. Drawings (Phase 2B – All sheets below re-issued)
1. 1-2B-M-001
 - a. Added existing direct digital controls system coordination note.
 - b. “BID ITEMS AND PROJECT PHASING” Note 1 referring to “8:00PM – 5:00PM” shall be changed to read, “8:00PM – 5:00**AM**.”
 2. 1-2B-M-105
 - a. Added “Mechanical General Note” #7.
 3. 1-2B-M-501
 - a. Revised “VAV Box With Heating Coil – 2-Way” details.
 4. 1-2B-M-601
 - a. Revised “VAVR Terminal Unit Schedule”.
- G. Drawings (Phase 3 – All sheets below re-issued)
1. 1-3-M-001
 - a. Added existing direct digital controls system coordination note.
 - b. “BID ITEMS AND PROJECT PHASING” Note 1 referring to “8:00PM – 5:00PM” shall be changed to read, “8:00PM – 5:00**AM**.”
 2. 1-3-M-101
 - a. Revised VAVR tags.
 3. 1-3-M-502
 - a. Revised “VAV Box With Heating Coil – 2-Way” details.
 - b. Added “Fan Coil Unit Cooling Coil – 2-Way” detail.
 4. 1-3-M-504
 - a. Revised “Terminal Unit (Supply) Sequence of Operation” to include occupancy sensors.
 - b. Revised “AC Control Diagram” Airflow Measuring Device locations.
 - c. Revised “Terminal Unit” run conditions sequence.
 5. 1-3-M-601
 - a. Remove remark #2 from “Humidifier Schedule”.
 - b. Add condensate overflow alarm to “Computer Room Fan Coil Unit” FCU-2.
 - c. Revised “Airflow Measuring Station Schedule”.

ELECTRICAL

A. Specifications 27 15 00 (PH 2B)

1. Change 2.2, B, 5 to read:
 5. Fiber Optics Backbone Cable:

AMENDMENT A00004
ISSUE DATE: 06-06-16
2B & 3: RENOVATION OF OR, ER & TRIAGE
SSC# 2013-130

- a. The contractor shall provide redundant fiber backbone cable system to feed the TC indicated on the drawings. The redundant backbone system paths shall be from the TC to Room C218 on the 2nd floor and from the new TC to Room A01 in the basement. The backbone cable system shall be as indicated on the drawings. These fiber backbone cable systems shall exit the TC room at different locations and take different paths to Room C218 and A01.
- b. Provide single-mode and multi-mode cable as indicated on the drawings.
- c. Provide loose tube cable, which separates individual fibers from the environment, for indoor/outdoor cables, for outdoor runs or any area that includes an outdoor run.
- d. Provide tight buffered fiber cable or indoor/outdoor cables for indoor runs.
- e. Terminate multimode fibers at both ends with LC type female connectors installed in an appropriate patch or breakout panel and secured with a cable management system. Provide minimum 610 mm (2 ft.) cable loop at each end.
- f. Terminate single mode fibers at both ends with LC type female connectors installed in an appropriate patch or breakout panel and secured with a cable management system. Provide minimum 610 mm (2 feet) cable loop at each end to allow for future movement.
- g. Install fiber optic cables in TR's in rack mounted fiber optic patch panels.
- h. All fiber optic cable shall be interlocked armored hybrid cable. To determine the exact cable type to be used on the project, the bidding contractor shall contact the VA OI&T network specialist.
- i. Test all fiber optic strands' cable transmission performance in accordance with TIA standards. Measure attenuation in accordance with fiber optic test procedures TIA-455-C ('-61', or -53). Provide written results to COR for review and approval.

B. Drawings (Phase 2B – All sheets below re-issued)

- 1. Sheet 1-2B-E-603
 - a. Clarified Telecommunications Riser Diagram

C. Drawings (Phase 3 – All sheets below re-issued)

- 1. Sheet 1-3-E-102
 - a. Added electrical connection to Fan Coil Unit on 5th Floor serving Rm. D402C.

STRUCTURAL

A. Sheet 1-3-S-101 – Sheet re-issued

- 1. Revised plan note
 - a. From: "BID ALTERNATE-PREFABRICATED MEDICAL EQUIPMENT SUPPORT SYSTEM(SIMILAR TO HUNT AIR SYSTEM). CONTRACTOR RESPONSIBLE FOR SUBMITTING REACTIONS ON EXISTING STRUCTURE TO STRUCTURAL EOR FOR REVIEW PRIOR TO PURCHASING. INCLUDE LINE ITEM FOR REINFORCING EXISTING STRUCTURE."
 - b. To: "INTEGRATED CEILING SYSTEM TO BE SUPPORTED BY UNISTRUTSYSTEM ABOVE. REF MECHANICAL DRAWINGS AND SPECIFICATION FOR REQUIREMENTS"

PLUMBING

A. Specifications 22 63 00 (PH 3)

1. Add Paragraph 2.12, to read:

2.12 NITROGEN CONTROL PANEL (NCP)

A. General: For nitrogen service, consisting of a line pressure control regulator, outlet line pressure gage, DISS service outlet, and supply valve, assembled and rigidly mounted in a roughing-in assembly, and provided with a metal cover plate. Panel shall be designed to deliver 10 L/s (20 SCFM) at 1538 kpa (223 psig). Unit may be recessed wall mounted or integral with the articulating arm or column with individual regulators for each outlet.

B. Sheet 1-3-PL-202 – Sheet re-issued

1. Revised water pipe route around Bi-Plane Hybrid OR room.