

**IMAGE
Group
Architecture
& Interiors**

June 15, 2016

AMENDMENT NO. 3

VA Health Care System
Replace Central Chiller Plant
Fargo, ND Image 1304.09 / VAHCS 437-14-111



Architecture & Interiors

**Richard
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A. Refer to the SPECIFICATIONS of the above project and make the following additions, corrections, deletions, corrections and/or interpretations.

1. Refer to Specification Section 23 64 00 PACKAGED WATER CHILLERS:
 - a. Paragraph 1.4.D.2: For the existing relocated air-cooled chiller, provide a 1-year warranty to include materials, parts, and labor.
 - b. Paragraph 1.4.H: The chiller manufacturer shall have a minimum of two (2) local technicians trained to work on their chillers located within 100 miles of the job site.
 - c. Paragraph 2.1.A: Chillers shall have two (2) oil-free, magnetic bearing, semi-hermetic centrifugal compressors (no exceptions).
 - d. Paragraph 2.1.B: In general, unit shall consist of two (2) magnetic bearing, completely oil-free centrifugal compressors, refrigerant, condenser and evaporator, and control systems including integrated variable frequency drive, operating controls and equipment protection controls.
 - e. Paragraph 2.1.G.2: DELETE reference to marine water box.
 - f. Paragraph 2.1.G.3: DELETE reference to marine water box.
 - g. Paragraph 3.3.E: Engage manufacturer's factory-trained representative to perform start-up and testing service for the relocated air-cooled chiller. Provide for as long a time as is necessary to ensure proper operation of the unit, but in no case for less than two (2) full working days. During the period of start-up, the start-up technician shall instruct the owner's representative in proper care and operation of the unit.

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2. Refer to Specification Section 23 64 10 MODULAR CHILLER PLANT, Paragraph 1.5.A: ADD Epsilon (www.epsilonfab.com) and TMI Climate Solutions (www.tmiclimate solutions.com) to the approved manufacturer's list.

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3. Refer to Specification Section 23 65 00 COOLING TOWERS, Paragraph 2.1.C.2: Maximum sound pressure level of 74 dB(A) measured at 5 feet above the fan discharge during full speed operation in accordance with CTI Standard ATC-128.

B. Refer to the DRAWINGS of the above project and make the following additions, corrections, deletions, corrections and/or interpretations.

1. Refer to attached DEMOLITION REVISION Drawing R1/C1: New retaining wall to be constructed with new CMU retaining wall units to match existing. Existing CMU retaining wall units are glued together and are unable to be salvaged.
2. Refer to Drawing Sheet H8 MECHANICAL CONTROLS: ADD a new return chilled water temperature sensor (analog input) on the existing secondary pump loops (3/H8). Refer to attached new Sheet H13 for sensor locations.
3. Refer to Drawing Sheet H9 MECHANICAL SCHEDULES:

- a. The cooling tower schedule sound rating should be revised to 64dBA at 50-feet from the top of the tower.
 - b. The cooling tower schedule shall reference Notes 1 and 2 listed on the schedule.
4. Refer to Drawing Sheet H11 HVAC COIL SCHEMATIC DEMOLITION PLAN: Remove the existing auto-flow valves located in the hospital in preparation for replacement. Refer attached new Sheet H11 for more information.
5. Refer to Drawing Sheet H12 HVAC COIL SCHEMATIC PLAN:
 - a. Replace the existing auto-flow valves located in the hospital with manual flow meters. Refer to attached new Sheet H12 for more information.
 - b. All coils located on the schematic shall be balanced to the specified flow.
6. Refer to Drawing Sheet H13 CHILLED WATER SECONDARY LOOP SCHEMATICS: Provide new check valves in each secondary chilled water loops. Refer to attached new Sheet H13 for more information.
7. Refer to Drawing Sheet E2 SITE REMODELING PLAN:
 - a. Plan Note 3:
 - 1) REVISE conduits to two (2) 4 inch conduits.
 - 2) ADD the following:

"25 pair copper cable shall be equal to Superior Essex SEALPIC-F Series (RUS PE39), 24 AWG, water resistant, with aluminum armor and shield, ETPR compound filling with polyethelene jacket. Outdoor copper backbone cable shall be transitioned to an indoor rated cable in the existing boiler plant on inside wall where the cable enters the building. Provide lighting protection equipment per 27 10 05 and bond cable shield and armor to building grounding electrode. Outdoor interbuilding speaker cable shall be waterblocked construction, with moisture resistant PVC jacket. Provide surge protection module at speaker wiring entrance point, bond to grounding electrode at building entrance at each end. Transition to indoor rated cable at entrance point to each building."
 - b. REVISE the routing of speaker wire and associated 3/4 inch conduit in Boiler Plant indicated by Plan Note 10. Connect to the existing paging equipment located adjacent to the Boiler Plant data rack, similar routing to Plan Note 2, in lieu of connecting to existing office speaker as shown on the drawing.
8. Refer to Drawing Sheet E3 CHILLER BUILDING - LIGHTING, POWER, SYSTEMS, AND ELECTRICAL SCHEDULES, Detail 3/E3: DELETE reference to new PA amplifier, speakers to be connected to existing amplifier in Boiler Plant. Provide surface junction box and surge protection modules as necessary to bond wiring and transition to indoor rated wire.

C. Attachments:

1. Civil Drawing R1/C1 dated June 13, 2016.
2. Mechanical Drawings H11, H12, and H13 dated REVISED June 15, 2016.

