



276-2008 ADDENDUM 2

MAKE-UP AIR REPLACEMENT AND NEW ROOF-TOP UNIT 90 SINCLAIR STREET

ISSUED: April 17, 2008
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URGENT

**PLEASE FORWARD THIS DOCUMENT TO
WHOEVER IS IN POSSESSION OF THE BID
OPPORTUNITY**

**THIS ADDENDUM SHALL BE INCORPORATED
INTO THE BID OPPORTUNITY AND SHALL
FORM A PART OF THE CONTRACT
DOCUMENTS**

Template Version: A20070419

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid Opportunity, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid may render your Bid non-responsive.

PART D – SUPPLEMENTAL CONDITIONS

Revise: D2.2 (g) to read: Supply and install new water reheat coil in janitor room ductwork.

PART E – SPECIFICATIONS

Add: E2. ROOF REPAIRS

Add: E2.1 All roof patching and repairs to be completed by an approved roofing company. Standard of Acceptance: Master Roofing, Normandeau Roofing, Oakwood Roofing.

SPECIFICATIONS

Add: 13.3.5 Contractor to remove and dispose of old disconnected natural gas piping at existing make-up air unit. Remove section from MUA on the roof down to janitor room. Cap off piping in janitor room. Piping is painted black, and is already disconnected in the mechanical room. Patch roof as necessary.

Add: 22.2.2 Close-Out Documents: Include copies of the updated panelboard directories.

Add: **22.6 Panelboard Directories**

Add: 22.6.1 Where circuits are added to or deleted from existing panels, an updated, typewritten panelboard directory shall be placed in front of the existing panelboard directory.

Add: **27.0 – Reheat Coil & Associated Equipment**

Add: **27.1 Scope of Work**

Add: 27.1.1 Disconnect, remove and dispose of existing reheat coil, control panel, 3-way valve, and associated piping back to isolation valves.

Add: 27.1.1.1 Cap piping.

Add: 27.1.1.2 Patch existing ductwork.

- Add: 27.1.1.3 Firestop piping holes through concrete floor.
- Add: 27.1.2 Supply and install new reheat coil in new location in existing 600mm x 500mm supply air make-up air duct. Contract Administrator to confirm location.
- Add: 27.1.2.1 Provide access doors for coil cleaning at both inlet and outlet.
- Add: **27.2 Submittals**
- Add: 27.2.1 Shop Drawings: Submit shop drawings and/or product data for review by the Contract Administrator, including coil, 3-way valve, pump and electrical equipment.
- Add: 27.2.2 Provide for Close-Out Documents:
- Add: 27.2.2.1 Maintenance data, including control and layout diagrams, specification sheets, and maintenance and repair instructions.
- Add: 27.2.2.2 Operating instructions.
- Add: **27.3 Material and Equipment**
- Add: 27.3.1 Provide one reheat coil (MUA REHEAT) as follows:
- Add: 27.3.1.1 Contractor to select from the following suggested sizes: 900mm x 750mm (36"x30"), 1000mm x 700mm (40"x28"), 1200mm x 600mm (48"x24").
- Add: 27.3.1.2 Air flow: 848 l/sec (4600 cfm).
- Add: 27.3.1.3 EAT: 21.1°C (70°F). LAT: 37.8°C (100°F).
- Add: 27.3.1.4 Heat: 43.7 kW (149 MBH).
- Add: 27.3.1.5 Fluid Flow: 0.945 l/sec (15 gpm).
- Add: 27.3.1.6 EWT: 76.7°C (170°F). LWT: 68.0°C (150°F).
- Add: 27.3.1.7 Fluid: domestic hot water.
- Add: 27.3.2 Provide one circulating pump (MUA CIRC PUMP) as follows:
- Add: 27.3.2.1 ¾ hp, 208V 3-phase.
- Add: 27.3.2.2 0.945 l/sec (15 gpm)
- Add: 27.3.2.3 Head at mid-speed: 95 kPa (32 feet)
- Add: 27.3.2.4 Pump to come complete with isolation valves, and shall be suitable for circulating medium in a closed loop.
- Add: 27.3.2.5 Standard of Acceptance: Grundfos, series 200, model # UPC-50-160.
- Add: 27.3.3 Piping to be schedule 40 steel with screwed fittings.
- Add: 27.3.3.1 Supply and install 40mm (1 ½") piping to new reheat coil from existing water heating piping in crawlspace below janitor room.
- Add: 27.3.3.2 Supply and install 50mm (2") thermal insulation.
- Add: 27.3.4 Provide 3-way control valve (MUA 3-WAY VALVE) as follows:
- Add: 27.3.4.1 Valve to come complete with isolation valves.

- Add: 27.3.4.2 Valve to come complete with thermostatic controller, with remote supply air discharge duct sensor and remote wall-mounted sensor.
- Add: 27.3.4.2.1 Wall sensor to be mounted in Women's Locker Room, and shall come complete with anti-tampering guard.
- Add: 27.3.4.2.2 Thermostatic controller to be mounted in Janitor's Closet in location of the old control panel for the old reheat coil.
- Add: 27.3.5 Supply and install air vents at high points in the system.
- Add: 27.3.6 Supply and install drain valves at low points in the system.
- Add: 27.3.7 Supply and install valve motor and controller.
- Add: 27.3.8 Equipment and valves shall be labelled as per section 13.8. Contract Administrator to confirm wording prior to label manufacture.
- Add: **27.4 Sequence of Operation**
- Add: 27.4.1 3-way valve shall modulate to maintain discharge air temperature setpoint, and shall go to full open (heat) on a call for heat from the wall temperature sensor.
- Add: **27.5 Electrical Requirements**
- Add: 27.5.1 Contractor shall revise electrical power distribution as follow to allow for the new coil circulation pump:
- Add: 27.5.1.1 The existing 100A/3P switch/fuse in the existing main distribution panel MD-1 previously noted for re-use for the new rooftop unit RTU-1 shall be retained.
- Add: 27.5.1.2 Disconnect, remove and dispose of existing unused Panel E and Input Controller, including associated wiring.
- Add: 27.5.1.3 Supply and install new 125A 208V 3-phase 4-wire 42-circuit distribution panel in the location vacated by the removed Panel E.
- Add: 27.5.1.3.1 New Panel shall be named Panel E, and shall be labelled per section 18.4 Equipment Identification. Lamacoid to be worded "Panel E, 208/120V 3P 4W", and sized to match existing.
- Add: 27.5.1.3.2 New Panel E shall be fed with four #2 RW90 conductors in minimum 32mm EMT conduit.
- Add: 27.5.1.3.3 Provide circuit for new RTU-1 in new Panel E, including 50A / 3P / J-type circuit breaker. RTU-1 to be fed with three #6 RW90 conductors in minimum 25mm EMT conduit.
- Add: 27.5.1.3.4 Provide circuit for new Reheat Circulation Pump in new Panel E, including 15A / 3P / J-type circuit breaker. CIRC PU-1 to be fed with three #12 RW90 conductors in minimum 19mm EMT conduit.
- Add: **28.0 – Electrical Panelboards**
- Add: **28.1 References**
- Add: 28.1.1 See drawing E-3.0 R-3 for Electrical specification.
- Add: 28.1.2 CSA C22.2 No. 29-M1989

Add: **28.2 Submittals**

Add: 28.2.1 Shop Drawings: Submit shop drawings for review by the Contract Administrator, Including electrical detail of panel, branch breaker type, quantity and ampacity. In addition to CSA requirements, manufacturer's nameplate shall show fault current that panel, including breakers, has been built to withstand.

Add: 28.2.2 Provide for Close-Out Documents: copies of approved shop drawings.

Add: **28.3 Materials**

Add: 28.3.1 Select panelboard to match existing manufacturer and interrupting capacity. Panelboards to have the following features:

Add: 28.3.1.1 Aluminum bus, suitable for bolt-on breakers.

Add: 28.3.1.2 Provide two keys for each panelboard.

Add: 28.3.1.3 Provide lock-on devices for roof-top unit (RTU-1) and and MUA circulating pump (MUA CIRC PUMP).

Add: **28.4 Equipment Identification**

Add: 28.4.1 Provide a lamacoid nameplate for each breaker.

Add: 28.4.2 Provide a lamacoid nameplate for each panelboard to indicate panel designation and voltage, number of phases, and number of wires.

Add: **28.5 Installation**

Add: 28.5.1 Install panelboards securely, plumb, true and square to adjoining surfaces.

Add: 28.5.2 Install panelboards on ¾" plywood backboards, painted with 1 coat of primer and 2 coats of ASA 61, grey oil-based paint