KNOX BUILDING
WINDOW WALL & HVAC RENOVATIONS
PROJECT MC11-03
AT
MANCHESTER COMMUNITY COLLEGE
1066 FRONT STREET
MANCHESTER, NEW HAMPHIRE

ADDENDUM NUMBER 01
APRIL 4, 2013

TO: ALL CONTRACT BIDDERS OF RECORD
This Addendum forms a part of the Contract Documents and modifies the Request for
Proposals Plans and Specifications Documents Dated February 14, 2013 with amendments and additions
noted below.

All contract documents can be found on the CCSNH website at www.ccsnh.edu/open-bids. Before your
submission, always check for any addenda or other materials that may have been issued which would
affect the RFP by checking the CCSNH website.

Acknowledge receipt of this Addendum with the Proposal Form.
Failure to do so may disqualify the Bidder.
This Addendum consists of 7 (seven) pages plus 8(eight) SK drawings.

QUESTIONS

1. QUESTION: “Section 01113 states the Award of Bid being based on 4 categories.
The Bid Form only allows for pricing (one of the categories) – please clarify.

   ANSWER. The 4 categories indicated are criteria the Owner will use to make the bid
selection. The first category – Cost of Base Proposal – is provided by the Bidder. The
other categories are subjective items considered by the Owner.
2. **QUESTION** “There is an allowance listed on the Bid Form – I have reviewed the specs and plans but can’t find out what the Allowance is for….”

**ANSWER:** The indicated $30,000.00 Allowance is a contingency to be carried by all bidders.

3. **QUESTION** “…It appears to me that the asbestos to be remediated is contained in the existing storefront “window glaze”. The only material not contained in the window systems appears to be in samples HG04 and HG04b. The clarification requested is whether the window glaze is the material that the storefront glazing is set into.”

**ANSWER:** Yes. Window Glaze is the setting compound between glass and frame.

4. **QUESTION** “Detail B5 on A 50.1 shows a wall closure and wall end cap. I think it is by the window manufacturer but can’t find it in their spec or elsewhere in spec. Please direct me as to where to find it so that I am certain it is appropriately included in bid”.

**ANSWER:** Provide “Mullion Mate 4 – Adjustable Partition Closure”, Gordon Interior Specialties Division. Clear Anodized Aluminum Finish, to match window finish; or similar product.

5. **QUESTION** “Insulation Specifications calls for 1” ridged board fiberglass duct liner 3 lb. density. Would 1” close cell k-flex liner be acceptable in lieu of ridged board fiberglass liner”?

**ANSWER** K-Flex USA’s product “K-Flex Duct Liner Gray” will be added to the Specifications as an acceptable substitute. Evonik Foams “Solcoustic” will also be added. However, Armacell will not be allowed because of lower acoustic performance. See below under “Changes to Specifications.”

6. **QUESTION** : “Please clarify the following item in an addendum: Detail A4/A50.1 & A3/A50.1 are labeled for a 3-5/8” steel stud, but appear in the detail and other wall cuts to actually be 6” studs.”

**ANSWER** Use all 6” stud.
7. **Question**: “Drawing M10.2 3rd floor ductwork. There are RGD grill symbol RR SR that are not listed in rdg schedule on M40.1. Please provide additional schedule for these grills.”

**Answer**: SR and RR indicate RGDs “relocated” within the same room. SE and RE indicate RGDs “existing” to remain and be rebalanced.

8. **Question**: “In reviewing the specs for the above referenced project I can’t find a requirement for a bid bond. Will you require one?”

**Answer**: A Bid Bond is not required.

**Changes to Specifications**

1. **SECTION 237413 – ROOFTOP AIR CONDITIONING UNITS**
   a. Article 2.2, Paragraph B, Subparagraph 5, delete and replace with the following:
   
   “5. Insulation: Provide 2-inch (100 mm) thick 1-1/2 lb/cu.ft (24 kg/m3) density, R-6.5 h ft2 °F/Btu (R=1.14 K m2/W) fiberglass insulation on exterior and floor panels. Insulation shall be airstream-coated where in contact with the conditioned air stream. Protect insulation with galvanized steel sheet metal inner liners, perforated in fan sections, solid in other sections.”

   a. Article 2.2, Paragraph F, Subparagraph 1, delete and replace with the following:
   
   “1. Coil with seamless copper tubing mechanically expanded into aluminum plate fins. Coil circuiting shall be interlaced to maintain full active coil face area at part load conditions. Coil shall be factory leak tested with high pressure air under water.”

2. **SECTION 230713 – DUCT INSULATION**
   a. Article 2.1, Add the following:
   
   “F. Elastomeric Foam Products:
   1. K-Flex USA.
   2. No substitutions.

   G. Polyimide Foam Products:
   1. Evonik Foams, Inc.
   2. No substitutions.”
b.  Article 2.11, Add the following:

“2.11  ELASTOMERIC FOAM DUCT LINER
A.  Products:
   2.  No substitutions.
B.  Insulation: ASTM C534; flexible cellular elastomeric foam, molded or sheet, factory-treated with antimicrobial agent.
   1.  'K' ('Ksi') value: ASTM C177; 0.25 Btu-in/(h-ft²-°F) at 75°F (0.04 W/m-K at 24°C).
   2.  Minimum service temperature: -70°F (-57°C) (flexible to -40°F (-40°C)).
   4.  Maximum moisture absorption: ASTM C209, 0.2% by volume; or ASTM D1056, 5% by weight.
   5.  Moisture vapor transmission: ASTM E96; <0.20 perm-inches (1.16x10⁻¹⁰ Kg/(s-m-Pa)).
   6.  Maximum velocity on airstream side: UL 181; 4,000 fpm (20.3 m/sec).
   8.  Density: 3.0 to 6.0 lb/cu ft (48 to 96 kg/cu m).
   9.  Minimum sound absorption coefficients, ASTM C423, Type A mounting (sabins/sq. ft):
      a.  At 250 Hz center band frequency: 0.17 for 1 inch (25 mm) thickness.
      b.  At 500 Hz center band frequency: 1.06 for 1 inch (25 mm) thickness.
      c.  At 1000 Hz center band frequency: 0.32 for 1 inch (25 mm) thickness.
      d.  NRC: 0.55 for 1 inch (25 mm) thickness.
C.  Elastomeric Foam Adhesive: Air dried, contact adhesive, compatible with insulation.
D.  Self-Adhesive Coating: At the Contractor's option, the insulation may be provided with a factory-applied self-adhesive coating with peel-off release liner. If the Manufacturer recommends installation of self-adhesive liner without mechanical pin fasteners at all velocities, the pins may be omitted. Provide suitable cleaner for the ductwork to ensure adhesion.”

c.  Article 2.12, Add the following:

“2.12  POLYIMIDE FOAM DUCT LINER
A.  Products:
   1.  Evonik Foams Inc., Solcoustic duct liner.
   2.  No substitutions.
B.  Insulation: ASTM C1482; flexible cellular polyimide foam, formaldehyde-free, sheet form, factory-treated with acrylic polymer impregnated surface and edge coat meeting ASTM G21 containing
an immobilized EPA-registered preservative to inhibit biological growth.

1. 'K' ('Ksi') value: ASTM C518; 0.30 Btu-in/(h-ft²-ºF) at 75ºF (0.049 W/m-K at 24ºC).
2. Maximum service temperature: ASTM C411; 250ºF (121ºC).
5. Maximum velocity on coated air side: ASTM C1071; 5,000 fpm (25.4 m/sec).
7. Minimum sound absorption coefficients, ASTM C423, Type A mounting (sabins/sq. ft):
   a. At 250 Hz center band frequency: 0.30 for 1 inch (25 mm) thickness.
   b. At 500 Hz center band frequency: 0.73 for 1 inch (25 mm) thickness.
   c. At 1000 Hz center band frequency: 1.02 for 1 inch (25 mm) thickness.
   d. NRC: 0.70 for 1 inch (25 mm) thickness.

C. Adhesive: Waterproof, ASTM E162 fire-retardant type, duct liner adhesive, air-dried, compatible with insulation. Water-based (ASTM C916) preferable, and required for occupied buildings. Solvent-based contact adhesive may be used in unoccupied buildings, except where prohibited by requirements of LEED certification or other requirements.

D. Repair Coating: Vac Systems International Tough-Coat acrylic polymer mechanical insulation repair coating.

E. Liner Fasteners: Galvanized steel, self-adhesive pad with press-on head. Heads must be cupped or beveled; flat washer type not allowed.

F. Storage and Exposure: Avoid exposure to direct sunlight.

   d. Table 1, Ductwork Insulation Material and Wall Thickness, Add the following note:

      “Where Glass Fiber Duct Liner, Rigid is scheduled, elastomeric foam and polyimide foam duct liner as specified may be used instead.”


CHANGES TO DRAWINGS

1. **DRAWING A15.1 – ROOF PLAN AND DETAILS**
   a. Detail B1 – Change “See B2/15.1 for enclosure detail” to “See B3/15.1 for flashing detail”.
   c. Detail B3 - Delete reference to vent stack. Rename “Typical pipe/conduit flashing detail”.
   d. Detail B4 – Change “Prefabricated roof curb furnished w/unit” to “Custom fabricated curb to be coordinated with roof top unit”. Note: Provide all materials necessary for custom fabrication of curb and coordinate flashing with existing roofing.

2. **DRAWING A20.1 – EXTERIOR ELEVATIONS**
   a. North-East Elevation Detail C1 – Transom units at First Floor Building Facilities Classroom 102, shown between column lines P to M, will all have louvers. Coordinate with mechanical, including SKA2 – this Addendum. Note: louvers connect above the ceiling plane, which may need to angle down between the transom and door frame at this location. Field verify.

3. **DRAWING A30.1 – WALL SECTIONS**
   a. Detail D1 – Change detail bubble at top of section from “D01” to “D02”, indicating removal of plywood soffit.
   b. Details D1 thru D6 – Column Line 2 – include in demolition all rigid board insulation installed above curtainwall to close off extended soffit.
   c. Details A1 thru A6 – Column Line 2 – extend metal stud, exterior gyp. bd. and rigid insulation to underside of deck to close off extended soffit. Modify deflection track detail as required to allow deflection at underside of existing deck.

4. **DRAWING A50.1 – DETAILS, SECTIONS AND WINDOW TYPES**
   a. Details A3 and A4 – ADD “w/1” spray foam insulation at outside face of stud cavity” to 3 5/8” steel studs. Spray foam insulation is already specified in section 072100 – BUILDING INSULATION.
   b. Detail E1 - extend metal stud, exterior gyp. bd. and rigid insulation to underside of deck to close off extended soffit. Modify deflection track detail as required to allow deflection at underside of existing deck. Replace note “Remove exg 2’ portion of pwd adjacent to exterior wall and replace w/new p.t. ¾” pwd – paint to match.” With: “Remove existing plywood soffit. Replace with new 5/8” painted MDO. Score at midpoint and kerf edges. Paint to match (minimum 1 coat primer, two coats finish). Verify existing support at 24” o.c. or supplement, as required. Face fasten and putty to smooth finish prior to paint.
DRAWINGS ISSUED WITH THIS ADDENDUM, DATED 4-3-2013:


Acknowledge receipt of this Addendum with the Proposal Form

Matthew Moore, P.E., Director
Capital Planning & Projects
Community College System of New Hampshire

END OF DOCUMENT
MANCHESTER COMMUNITY COLLEGE
KNOX BUILDING WINDOW WALL & HVAC

REVISION PARTIAL PLAN 1/M20.1

DRAWING NUMBER
Auburn, ME
Manchester, NH
Portland, ME

MANCHESTER, NH
KNOX BUILDING WINDOW WALL & HVAC

1/8" = 1'-0"

MANCHESTER COMMUNITY COLLEGE
KNOX BUILDING WINDOW WALL & HVAC

REVISION PARTIAL PLAN 1/M20.1

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Auburn, ME
Manchester, NH
Portland, ME

MANCHESTER, NH
KNOX BUILDING WINDOW WALL & HVAC

1/8" = 1'-0"

FT-B FINTUBE, 4.2 MBH, 1.0 GPM
3/4"HWS/R CTE, DROPS IN WALL CAVITY ON WARM SIDE OF INSULATION, TO FT-B

3/4"HWS/R CTE, DROPS IN WALL CAVITY ON WARM SIDE OF INSULATION, TO FT-B
DAC-108-A EXG.
DAC-108-B
DAC-110-A EXG.
DAC-111

RS/RL, CTE, TYP.

OFFICE

FOIL, CTE, TYP.

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THIS DETAIL APPLIES TO DUCTWORK CONNECTIONS TO LOUVERS. WHERE "LOUVER SIZED PLENUM" IS INDICATED ON DRAWINGS, COMPLY WITH THIS DETAIL.

NOTE

ARCHITECTURAL WALL BLOCKING OR WINDOW FRAME
ACCESS DOOR ON TOP AT UVs, ON SIDE AT OTHER LOCATIONS

DUCT PLENUM

2'-0" MIN.
(UNLESS SPACE CONDITIONS DO NOT ALLOW)

BOTTOM OF LOUVER PLENUM, PITCH DOWN TO LOUVER AT MINIMUM 1/4" PER FOOT, SEAL WATERTIGHT.

EXTERIOR WALL

TURN DOWN END OF DUCT OVER TOP OF BOTTOM BLADE OR WATERSTOP TO DRAIN PLENUM. IF THERE IS DRAINABLE GAP BETWEEN WATERSTOP AND BLADE, CONNECT TO WATERSTOP

LINE OF DUCT PLENUM

WATERSTOP INTEGRAL TO LOUVER

SILL FLASHING (BY G.C.) FORMING A WATERTIGHT PAN ON BACK AND SIDES

INTERIOR BIRDSCREEN

ARCHITECTURAL WALL BLOCKING OR WINDOW FRAME
ACCESS DOOR ON TOP AT UVs, ON SIDE AT OTHER LOCATIONS

MANCHESTER COMMUNITY COLLEGE
KNOX BUILDING WINDOW WALL & HVAC
MANCHESTER, NH

REVISED DETAIL 6/M30.1

Scale NO SCALE

HARRIMAN Architects + Engineers
Auburn, ME 207.784.5100 tel
Portland, ME 207.775.0053 tel
Manchester, NH 603.626.1242 tel
www.harriman.com 

PROJECT
MANCHESTER COMMUNITY COLLEGE
KNOX BUILDING WINDOW WALL & HVAC
MANCHESTER, NH

DRAWING NUMBER
SKA5

PROJECT NO.
11505

DATE
04-03-13
INTERIOR BIRDSCREEN
WATERSTOP INTEGRAL TO LOUVER
TURN DOWN END OF DUCT OVER ANGLE FOR DRAINAGE OF DUCT PLENUM
SET DUCT PLENUM IN BED OF SEALANT ON SILL FLASHING & FASTEN DOWN THRU ANGLE
LINE OF DUCT PLENUM
SILL FLASHING (BY G.C.) FORMING A WATERTIGHT PAN ON BACK AND SIDES
20 GAUGE BENT ANGLE PRE-ATTACHED TO LOUVER PRIOR TO INSTALLATION (BY G.C.)
PROVIDE SPACERS AT FASTENERS TO KEEP ANGLE AWAY FROM FACE OF LOUVER 1/4" MIN. (BY G.C.)
PROVIDE 1/8" SHIMS BETWEEN LOUVER & SILL FLASHING TO ALLOW WATER TO DRAIN OUTWARD. SEAL LOUVER AT HEAD & JAMBS, BUT NOT AT SILL

COMBUSTION LOUVER CONNECTION DETAIL

NO SCALE
### FIN TUBE RADIATION

<table>
<thead>
<tr>
<th>TAG</th>
<th>MANUFACTURER</th>
<th>MODEL</th>
<th>CAPACITY (BTUH/FT)</th>
<th>PIPE SIZE</th>
<th>FIN DIMENSIONS W x H (IN.)</th>
<th>FPF</th>
<th>TIERS</th>
<th>ENCLOSURE DIMENSION W x H (IN.)</th>
<th>MOUNTING HEIGHT AFF (IN.)</th>
<th>NOTES</th>
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<tbody>
<tr>
<td>A</td>
<td>STERLING</td>
<td>JVB-S, C3/4-434</td>
<td>1,370</td>
<td>3/4&quot;</td>
<td>4-1/8 x 3-5/8</td>
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<td>2</td>
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<td>STERLING</td>
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<td>3-1/4 SQ</td>
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<td>1</td>
<td>4-3/8 x 11</td>
<td>4</td>
<td>1, 2, 4</td>
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**NOTES:**
1. CAPACITY BASED ON 3.0 FPS WATER VELOCITY, 180°F AVERAGE WATER TEMPERATURE, AND 65°F EAT.
2. PROVIDE ENCLOSURE TO FILL EXISTING SPACE WALL-TO-WALL, AND ELEMENT LENGTH FOR CAPACITY PER FLOOR PLAN.
3. CAPACITY DERATED BY FACTOR OF 0.93 FOR 1.5 GPM (@ 75 GPM EACH TIER) 1,274 BTU/HFT OF 2-TIER ELEMENT.
4. CAPACITY DERATED BY FACTOR OF 0.94 FOR 1.0 GPM. 658 BTU/HFT OF ELEMENT.

**1G AIRFLOW.**
### HEATING PUMPS

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<tr>
<th>TAG</th>
<th>IMPELLER</th>
<th>MAX. RPM (RPM)</th>
<th>MAX. IMP. (HP)</th>
<th>Suction</th>
<th>Discharge</th>
<th>N.O.L. (HP/SHP)</th>
<th>ELECTRIC</th>
<th>WEIGHT (LBS)</th>
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<td>TACO</td>
<td>KV2009</td>
<td>GLYCOL</td>
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<td>1750</td>
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<tr>
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<td>TACO</td>
<td>FJ-5000</td>
<td>HOT WATER</td>
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<td>65</td>
<td>1750</td>
<td>9.25</td>
<td>9.25</td>
<td>6</td>
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<td>TACO</td>
<td>FJ-5000</td>
<td>HOT WATER</td>
<td>690</td>
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<td>1750</td>
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<td>6</td>
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<tr>
<td>SHWP-3A</td>
<td>B&amp;G (RELOCATE)</td>
<td>PL-36</td>
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<td>32</td>
<td>3300</td>
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**Notes:**
1. Vertical, inline, with floor stand.
2. Rated with 40% Propylene Glycol.
3. Existing, frame mounted.
4. Relocated, provide flanges & gaskets.
5. Pumps rated with water at 60 deg. F unless otherwise noted.

### AIR SEPARATORS

<table>
<thead>
<tr>
<th>TAG</th>
<th>MANUFACTURER</th>
<th>MODEL</th>
<th>SERVICE</th>
<th>PIPE SIZE (IN.)</th>
<th>MAXIMUM RATED FLOW (GPM)</th>
<th>FLOW COEFFICIENT (GPM / PSI)</th>
<th>DESIGN FLOW (GPM)</th>
<th>WPD (FT WG)</th>
<th>RATED PRESSURE (PSI)</th>
<th>RATED TEMP. (DEG. F)</th>
<th>DIAMETER (IN.)</th>
<th>HEIGHT (IN.)</th>
<th>NOTES</th>
</tr>
</thead>
</table>

**GENERAL NOTES:**
1. N.O.L. = Non Overloading.
2. Pumps rated with water at 60 deg. F unless otherwise noted.