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ADDENDUM NO. 1

TO: All Prospective Bidders
DATE: May 24, 2016
PROJECT: Speert Hall Rooftop Unit Replacement (WP-16-07-16)
1600 Valley Road Chiller Replacement (WP-16-08-46)

This Addendum No. 1 forms a part of the contract bidding documents and answers all questions submitted regarding the bidding documents. Please acknowledge receipt of this Addendum No. 1 on Bid Document Checklist (WPU01) and Bid Form (WPU03) included in the Bid Document package.

Clarifications and Update:

1. Speert Hall RTU Replacement Drawings:
   Drawing SIV – Structural Plan and Details should be titled as S1S as indicated on G1S.

   Valley Road Chiller Replacement Drawings:
   Drawing M2V – BMS Integration shown on the G1V General Information Sheet-1 should be titled as No. M3V.

2. For Valley Road Drawing M2V and Specification Section 236423 were updated. Specification 236426 is superceded by 236423 as part of this addendum.

Questions and Answers:

Q1. Please forward at the list of contractors that attended the mandatory site visit.

A1. Attendance list has been posted to project website: http://www.wpunj.edu/capital-planning/rfp.dot

Q2. The Docs attachment with ref number makes reference to DPMC classifications but paragraph D of the Supplemental Instructions states that DPMC classification is not required for the project. Please clarify this conflict.

A2. DPMC classification is not required. On the Bid Document Checklist, WPU-DOC-1 and WPU-DOC-2 are listed as "N/A" – not applicable.

Q3. The contractor is required to recover the refrigerant in the existing equipment. Does the University want this refrigerant (which they are entitled to under EPA regulations) or is the recovered refrigerant the property of the contractor?

A3. The refrigerant in the existing units must be reclaimed/recovered per all Local, State and Federal Regulations. Once removed, the University does not require the return of the refrigerant.

Q4 Bid Bond - Is the bid bond required to cover the alternate prices or just the base bid(s)? The electrical add alternates for replacement of feeders can be substantial.

A4. The bid bond is required to cover the value of the alternates.

Q5. CHW Loop - Is it the intent to completely drain & refill the glycol loop?
If so, what is the volume of the system ?

A5. Yes, it is the contractor's responsibility to completely drain & refill the glycol loop. The volume is approximately 1,500 gallons.

Q6. The schedule on the drawings states in note 6: 'Provide scroll compressors. Reciprocating, rotary screw, or stepped screw chillers are not acceptable.' The specification section 236426 paragraph 2.2 A. states: 'Construct chillers using semi-hermetic rotary screw compressors with independent circuits. Reciprocating, scroll or stepped screw compressors will not be acceptable.' The plans and specification are in conflict with each other – which should be followed for this bid?

A6. Schedule on the drawings is correct, chillers are Scroll compressors. Drawing M2V has been updated and Specification Section 236423 has been added and supercedes 236426 as part of this addendum. See Clarification #2 above.

SECTION 236423 - SCROLL WATER CHILLERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Packaged, air-cooled, electric-motor-driven, scroll chillers.

1.3 DEFINITIONS

A. COP: Coefficient of performance. The ratio of the rate of heat removal to the rate of energy input using consistent units for any given set of rating conditions.

B. DDC: Direct digital control.

C. EER: Energy-efficiency ratio. The ratio of the cooling capacity given in terms of Btu/h to the total power input given in terms of watts at any given set of rating conditions.

D. IPLV: Integrated part-load value. A single number part-load efficiency figure of merit calculated per the method defined by ARI 506/110 and referenced to ARI standard rating conditions.

E. kW/Ton: The ratio of total power input of the chiller in kilowatts to the net refrigerating capacity in tons at any given set of rating conditions.

F. NPLV: Nonstandard part-load value. A single number part-load efficiency figure of merit calculated per the method defined by ARI 506/110 and intended for operating conditions other than the ARI standard rating conditions.

1.4 PERFORMANCE REQUIREMENTS

A. Seismic Performance: Scroll water chillers shall withstand the effects of earthquake motions determined according to SEI/ASCE 7.

1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified.

1.5 ACTION SUBMITTALS

A. Product Data: Include refrigerant, rated capacities, operating characteristics, furnished specialties, and accessories.

1. Performance at ARI standard conditions and at conditions indicated.
2. Performance at ARI standard unloading conditions.
3. Minimum evaporator flow rate.
4. Fluid capacity of evaporator.
5. Characteristics of safety relief valves.
6. Minimum entering condenser-air temperature
7. Performance at varying capacity with constant design entering condenser-air temperature. Repeat performance at varying capacity for different entering condenser-air temperatures from design to minimum in 10 deg F (6 deg C) increments.

B. Shop Drawings: Complete set of manufacturer's prints of water chiller assemblies, control panels, sections and elevations, and unit isolation. Include the following:

1. Assembled unit dimensions.
2. Weight and load distribution.
3. Required clearances for maintenance and operation.
4. Size and location of piping and wiring connections.
5. Wiring Diagrams: For power, signal, and control wiring.

1.6 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Floor plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

1. Structural supports.

2. Piping roughing-in requirements.

3. Wiring roughing-in requirements, including spaces reserved for electrical equipment.

4. Access requirements, including working clearances for mechanical controls and electrical equipment, and tube pull and service clearances.

B. Certificates: For certification required in "Quality Assurance" Article.

C. Seismic Qualification Certificates: For chillers, accessories, and components from manufacturers.

1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.

2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.

3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.

D. Source quality-control test reports.

E. Startup service reports.

F. Warranty: Sample of special warranty.

1.7 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For each chiller to include in emergency, operation, and maintenance manuals.

1.8 QUALITY ASSURANCE

A. ARI Certification: Certify chiller according to ARI 590 certification program.

B. ASHRAE Compliance: ASHRAE 15 for safety code for mechanical refrigeration.

C. ASHRAE/IESNA 90.1 Compliance: Applicable requirements in ASHRAE/IESNA 90.1, Section 6 - "Heating, Ventilating, and Air-Conditioning."

D. ASME Compliance: Fabricate and stamp chiller heat exchangers to comply with ASME Boiler and Pressure Vessel Code.

E. Comply with NFPA 70.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Ship chillers from the factory fully charged with refrigerant and filled with oil.

1.10 COORDINATION

A. Coordinate sizes, locations, and anchoring attachments of structural-steel support structures.

B. Coordinate sizes and locations of equipment supports with actual equipment provided.

1.11 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of chillers that fail in materials or workmanship within specified period.

1. Compressor Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PACKAGED AIR-COOLED CHILLERS

A. The contractor shall furnish and install air-cooled chillers as shown and scheduled in the plans. The units shall be installed in accordance with this specification and produce the specified tonnage per the scheduled data in accordance with AHRI Standard 550/590-2003. The unit shall be AHRI certified as applicable.

B. Basis of design manufacturer:

1. Carrier

C. Approved manufacturers:

1. Daikin-McQuay

2. Trane
3. York

D. Description: Factory-assembled and run-tested chiller complete with base and frame, condenser casing, compressors, compressor motors and motor controllers, evaporator, condenser coils, condenser fans and motors, electrical power, controls, and accessories.

E. Fabricate base, frame, and attachment to chiller components strong enough to resist movement during a seismic event when chiller base is anchored to field support structure.

F. Cabinet:

1. Base: Galvanized-steel base extending the perimeter of chiller. Secure frame, compressors, and evaporator to base to provide a single-piece unit.
2. Frame: Rigid galvanized-steel frame secured to base and designed to support cabinet, condenser, control panel, and other chiller components not directly supported from base.
3. Casing: Galvanized steel.
4. Finish: Coat base, frame, and casing with a corrosion-resistant coating capable of withstanding a 500-hour salt-spray test according to ASTM B 117.
5. Sound-reduction package consisting of the following:
    a. Acoustic enclosure around compressors.
    b. Reduced-speed fans with acoustic treatment.
    c. Designed to reduce sound level without affecting performance.

G. Compressors:

1. Description: Positive-displacement direct drive with hermetically sealed casing.
2. Each compressor provided with suction and discharge service valves, crankcase oil heater, and suction strainer.
3. Operating Speed: Nominal 3600 rpm for 60-Hz applications.
4. Capacity Control: On-off compressor cycling, plus hot-gas bypass.

5. Oil Lubrication System: Automatic pump with strainer, sight glass, filling connection, filter with magnetic plug, and initial oil charge.
6. Vibration Isolation: Mount individual compressors on vibration isolators.

H. Compressor Motors:

1. Hermetically sealed and cooled by refrigerant suction gas.
2. High-torque, two-pole induction type with inherent thermal-overload protection on each phase.

I. Compressor Motor Controllers:

1. Across the Line: NEMA ICS 2, Class A, full voltage, nonreversing.

J. Refrigeration:

1. Refrigerant: R-410a. Classified as Safety Group A1 according to ASHRAE 34.
2. Refrigerant Compatibility: Parts exposed to refrigerants shall be fully compatible with refrigerants, and pressure components shall be rated for refrigerant pressures.
3. Refrigerant Circuit: Each circuit shall include a thermal-expansion valve, refrigerant charging connections, a hot-gas muffler, compressor suction and discharge shutoff valves, a liquid-line shutoff valve, a replaceable-core filter-dryer, a sight glass with moisture indicator, a liquid-line solenoid valve, and an insulated suction line.
4. Refrigerant Isolation: Factory install positive shutoff isolation valves in the compressor discharge line and the refrigerant liquid-line to allow the isolation and storage of the refrigerant charge in the chiller condenser.

K. Evaporator:

1. Brazed-plate or shell-and-tube design, as indicated.
2. Shell and Tube:
   a. Description: Direct-expansion, shell-and-tube design with fluid flowing through the shell and refrigerant flowing through the tubes within the shell.
   b. Code Compliance: Tested and stamped according to ASME Boiler and Pressure Vessel Code.

c. Shell Material: Carbon steel.

d. Shell Heads: Removable carbon-steel heads with multipass baffles designed to ensure positive oil return and located at each end of the tube bundle.

e. Shell Nozzles: Fluid nozzles located along the side of the shell and terminated with mechanical-coupling end connections for connection to field piping.

f. Tube Construction: Individually replaceable copper tubes with enhanced fin design, expanded into tube sheets.

3. Brazed Plate:

a. Direct-expansion, single-pass, brazed-plate design.

b. Type 316 stainless-steel construction.

c. Code Compliance: Tested and stamped according to ASME Boiler and Pressure Vessel Code.

d. Fluid Nozzles: Terminate with mechanical-coupling end connections for connection to field piping.

4. Heater: Factory-installed and -wired electric heater with integral controls designed to protect the evaporator to minus 20 deg F (minus 29 deg C).

5. Remote Mounting: Designed for remote field mounting where indicated. Provide kit for field installation.

L. Air-Cooled Condenser:

1. Plate-fin coil with integral subcooling on each circuit, rated at 450 psig (3103 kPa).

a. Construct coils of copper tubes mechanically bonded to aluminum with precoated epoxy-phenolic fins.

2. Fans: Direct-drive propeller type with statically and dynamically balanced fan blades, arranged for vertical air discharge.

3. Fan Motors: Totally enclosed nonventilating (TENV) or totally enclosed air over (TEAO) enclosure, with permanently lubricated bearings, and having built-in overcurrent- and thermal-overload protection.

4. Fan Guards: Steel safety guards with corrosion-resistant coating.

M. Electrical Power:

1. Factory-installed and -wired switches, motor controllers, transformers, and other electrical devices necessary

shall provide a single-point field power connection to chiller.

2. House in a unit-mounted, NEMA 250, Type 3R enclosure with hinged access door with lock and key or padlock and key.
3. Wiring shall be numbered and color-coded to match wiring diagram.
4. Install factory wiring outside of an enclosure in a raceway.
5. Field power interface shall be to NEMA KS 1, heavy-duty, nonfused disconnect switch.
6. Provide branch power circuit to each motor and to controls with one of the following disconnecting means:
   a. NEMA KS 1, heavy-duty, fusible switch with rejection-type fuse clips rated for fuses. Select and size fuses to provide Type 2 protection according to IEC 60947-4-1.
   b. NEMA KS 1, heavy-duty, nonfusible switch.
   c. NEMA AB 1, motor-circuit protector (circuit breaker) with field-adjustable, short-circuit trip coordinated with motor locked-rotor amperes.
7. Provide each motor with overcurrent protection.
8. Overload relay sized according to UL 1995, or an integral component of chiller control microprocessor.
9. Phase-Failure and Undervoltage: Solid-state sensing with adjustable settings.
10. Transformer: Unit-mounted transformer with primary and secondary fuses and sized with enough capacity to operate electrical load plus spare capacity.
    a. Power unit-mounted controls where indicated.
    b. Power unit-mounted, ground fault interrupt (GFI) duplex receptacle.
11. Control Relays: Auxiliary and adjustable time-delay relays.
12. Indicate the following for chiller electrical power supply:
    a. Current, phase to phase, for all three phases.
    b. Voltage, phase to phase and phase to neutral for all three phases.
    c. Three-phase real power (kilowatts).

d. Three-phase reactive power (kilovolt amperes reactive).

e. Power factor.

f. Running log of total power versus time (kilowatt hours).

g. Fault log, with time and date of each.

N. Controls:

1. Stand-alone, microprocessor based.

2. Enclosure: Share enclosure with electrical power devices or provide a separate enclosure of matching construction.

3. Operator Interface: Keypad or pressure-sensitive touch screen. Multiple-character, backlit, liquid-crystal display or light-emitting diodes. Display the following:

a. Date and time.

b. Operating or alarm status.

c. Operating hours.

d. Temperature and pressure of operating set points.

e. Entering and leaving temperatures of chilled water.

f. Refrigerant pressures in evaporator and condenser.

g. Saturation temperature in evaporator and condenser.

h. No cooling load condition.

i. Elapsed time meter (compressor run status).

j. Pump status.

k. Antirecycling timer status.

l. Percent of maximum motor amperage.

m. Current-limit set point.

n. Number of compressor starts.

4. Control Functions:

a. Manual or automatic startup and shutdown time schedule.

b. Entering and leaving chilled-water temperatures, control set points, and motor load limit.

c. Current limit and demand limit.

d. External water chiller emergency stop.

e. Antirecycling timer.

f. Automatic lead-lag switching.

5. Manual-Reset Safety Controls: The following conditions shall shut down chiller and require manual reset:

a. Low evaporator pressure or high condenser pressure.

b. Low chilled-water temperature.

c. Refrigerant high pressure.

d. High or low oil pressure.

e. High oil temperature.

f. Loss of chilled-water flow.

g. Control device failure.

6. Interface with DDC System for HVAC: Factory-installed hardware and software to enable DDC system for HVAC to monitor, control, and display chiller status and alarms.

a. Hardwired Points:

1) Monitoring: On/off status, chilled-water supply and return temperature, common trouble alarm, electrical power demand (kilowatts).

2) Control: On/off operation, chilled-water discharge temperature set-point adjustment.

b. Industry-accepted open-protocol communication interface with DDC system for HVAC shall enable DDC system for HVAC operator to remotely control and monitor the chiller from an operator workstation. Control features and monitoring points displayed locally at chiller control panel shall be available through DDC system for HVAC.

O. Insulation:

1. Material: Closed-cell, flexible elastomeric, thermal insulation complying with ASTM C 534, Type I, for tubular materials and Type II, for sheet materials.

2. Thickness: 3/4 inch (19 mm).

3. Factory-applied insulation over cold surfaces of chiller components.

a. Adhesive: As recommended by insulation manufacturer and applied to 100 percent of insulation contact surface. Seal seams and joints.

4. Apply protective coating to exposed surfaces of insulation.

P. Accessories:

1. Factory-furnished, chilled-water flow switches for field installation.

2. Individual compressor suction and discharge pressure gages with shutoff valves for each refrigeration circuit.

3. Factory-furnished neoprene or spring isolators for field installation.

Q. Capacities and Characteristics:

1. As scheduled.

2.2 SOURCE QUALITY CONTROL

A. Perform functional test of chillers before shipping.

B. Factory performance test chillers, before shipping, according to ARI 506/110, "Water Chilling Packages Using the Vapor Compression Cycle."

C. Factory test and inspect evaporator according to ASME Boiler and Pressure Vessel Code: Section VIII, Division 1. Stamp with ASME label.

D. For chillers located outdoors, rate sound power level according to ARI 370 procedure.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Before chiller installation, examine roughing-in for equipment support, anchor-bolt sizes and locations, piping, and electrical connections to verify actual locations, sizes, and other conditions affecting chiller performance, maintenance, and operations.

1. Chiller locations indicated on Drawings are approximate. Determine exact locations before roughing-in for piping and electrical connections.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 CHILLER INSTALLATION

A. Install chillers on support structure indicated.

B. Equipment Mounting:

1. Install chillers on existing rooftop dunnage.
2. Provide vibration isolation devices.

C. Maintain manufacturer's recommended clearances for service and maintenance.

D. Charge chiller with refrigerant if not factory charged and fill with oil if not factory installed.

E. Install separate devices furnished by manufacturer and not factory installed.

3.3 CONNECTIONS

A. Comply with requirements in Section 232113 "Hydronic Piping." Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to chiller to allow service and maintenance.

C. Evaporator Fluid Connections: Connect to evaporator inlet with shutoff valve, flexible connector, thermometer, and plugged tee with pressure gage. Connect to evaporator outlet with shutoff valve, balancing valve, flexible connector, flow switch, thermometer, plugged tee with pressure gage, and drain connection with valve. Make connections to chiller with a union, flange, or mechanical coupling.

D. Connect each drain connection with a union and drain pipe and extend pipe, full size of connection, to floor drain. Provide a shutoff valve at each connection if required.

3.4 STARTUP SERVICE

A. Engage a factory-authorized service representative to perform startup service.

B. Inspect field-assembled components, equipment installation, and piping and electrical connections for proper assemblies, installations, and connections.

C. Complete installation and startup checks according to manufacturer's written instructions and perform the following:

1. Verify that refrigerant charge is sufficient and chiller has been leak tested.
2. Verify that pumps are installed and functional.
3. Verify that thermometers and gages are installed.
4. Operate chiller for run-in period.
5. Check bearing lubrication and oil levels.
6. Verify proper motor rotation.
7. Verify static deflection of vibration isolators, including deflection during chiller startup and shutdown.
8. Verify and record performance of chilled-water flow and low-temperature interlocks.
9. Verify and record performance of chiller protection devices.
10. Test and adjust controls and safeties. Replace damaged or malfunctioning controls and equipment.

D. Prepare a written startup report that records results of tests and inspections.

3.5 DEMONSTRATION

A. Train Owner's maintenance personnel to adjust, operate, and maintain chillers. Video record the training sessions.

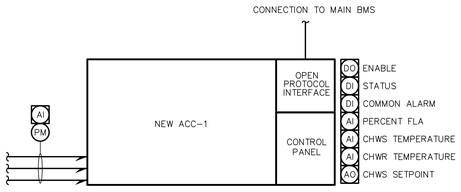
END OF SECTION 236423

AIR COOLED CHILLER SCHEDULE

UNIT ID	MODEL NO.	TYPE	LOCATION	PERFORMANCE			EVAPORATOR					ELECTRICAL						NOTES
				CAPACITY (TONS)	NOM. CAPACITY (MBH)	EFFICIENCY IPLV (EER)	FLOW (GPM)	WPD (FT. W.G.)	EWT (°F)	LWT (°F)	EVAP FOULDING FACTOR (HR.SQ.FT.DEG/BTU	VOLTAGE (V)	PHASE (Ø)	FREQ (HZ)	MCA (A)	MOCP (A)	WEIGHT (LBS)	
ACC-1,2,3	30RB190	COMPRESSOR SCROLL CHILLER	ROOF	190	2,124.0	17.0	443.9	18.8	55	45	0.0001	480	3	60	425	450	13,000	1 THRU 17

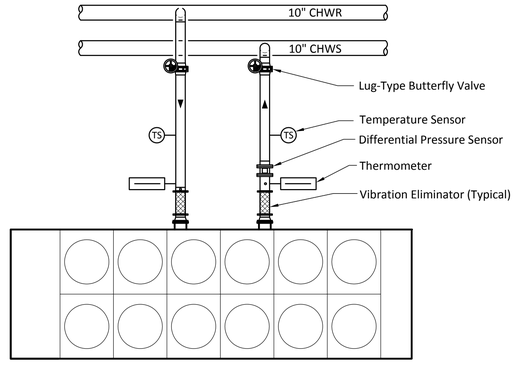
NOTES:
1. Selection Based On Equipment Manufactured By Carrier.
2. Provide Wye-Delta Chiller Starter With Single Point Power Connection To Chiller With Control Power Transformer And Disconnect.
3. Chiller Full-Load Sound Pressure Shall Not Exceed 74 dBA When Rated In Accordance With ARI Standard 575-94. Contractor Shall Be Responsible For Providing Proper Attenuation If Sound Pressure Levels Are Greater.
4. Chiller Shall Be Installed On Existing Dunnage On Roof.
5. Provide Factory Startup Services By Manufacturer. Chiller Ships With Nitrogen Charge. Manufacturer To Provide Sufficient Refrigerant And Charge System During Startup. Refrigerant Shall Be R410a.
6. Provide Neoprene Isolation.
7. Provide Scroll Chillers. Reciprocating, Rotary Screw, Or Stepped Screw Chillers Are Not Acceptable.
8. Provide Complete 5 Year Parts, Labor, And Refrigerant Warranty.
9. Provide IFM Efector Thermal Dispersion Proof Of Flow Switch Factory Installed In The Correct Location And Orientation To Provide Reliable Function And Chiller Protection.
10. Provide Factory Under/Over Voltage Protection.
11. Unit Shall Include Integral Primary Pump Package With VFD. Backup Pump Shall Be Included.
12. Provde Factory Insulation Of All Cold Parts.
13. Chiller Shall Be Utilize 30% Propylene Glycol Solution.
14. Air-Cooled Condenser To Be Provided With Low Ambient Control To 15F. Chiller To Be Provided With Integral Controls To Operate Fixed Speed Fans And A Single Inverter-Driven Fan.
15. Size Refrigerant Piping And Specialties In Accordance With Manufacturer's Recommendations.
16. Chiller To Ship Shrink-Wrapped In Opaque Plastic With UV Protection And Rust Inhibitors Around The Entire Unit, In Order To Protect The Unit During Shipping And Rigging.
17. Chiller Manufacturer To Provide 1 Year Recommended Maintenance Contract To Include All Items Recommended In Operation And Maintenance Manuals, To Include At At Minimum:
    a. Qty-1 Comprehensive Annual Inspection Each Year, Including Refrigerant Leak Test, Oil Level Check, Check And Tighten All Electrical Connections
    b. Qty-1 Seasonal Cooling Startup Logging Pressure Drop On Evaporator
    c. Qty-2 Annual Operating Inspections , Including Recording Of Subcooling
    d. Qty-1 Annual Oil Analysis Including Acid Test (Per Circuit)

DI New DDC System Digital Input
DO New DDC System Digital Output
AI New DDC System Analog Input
AO New DDC System Analog Output



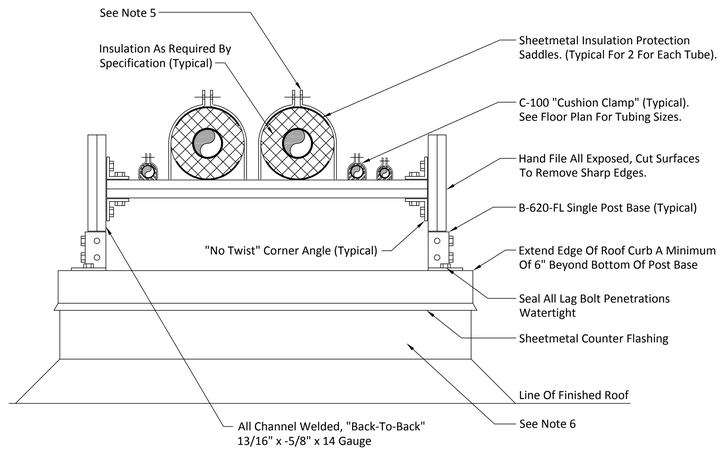
NOTES:
1. Contractor Shall Hire Automated Logic Controls For All Work Related To Controls.

AIR COOLED CHILLER ACC-1 CONTROLS (ECM C1) | Scale: NTS | Drawing: M2V | Detail: 01



NOTES:
1. Shut-Off Valves Should Not Be Closed With Cold Water In The Chiller.
2. Provide Air Vent At High Point In System And Drain At Low Point In System.

CHILLER PIPING DETAIL | Scale: NTS | Drawing: M2V | Detail: 02



NOTES:
1. All Model Numbers Are Based On Items Available From The Haydon Corporation.
2. All Materials, Fasteners, Etc., Used For A Roof Mounted Application Shall Be Galvanized.
3. All Piping Shall Pitch Down In The Direction Of The Suction Line Flow.
4. Roof Curbs Shall Be Fastened To The Building Structure To Resist All Gravity, Seismic And Wind Loads.
5. C-1101 Tubing Clamp (Typical). Clamp Shall Be Sized To Accommodate The Required Insulation And Sheetmetal Saddles. See Floor Plan For Tubing Sizes.
6. 12" High (Above Finished Roof) Piping Support Curb With Nominal 2 Inch "Nailer". Coordinate Curb Configuration (Overall Height, Cant, Roof Structure Attachment Method, Etc.) With General Contractor.

ROOF MOUNTED PIPING SUPPORT DETAIL | Scale: NTS | Drawing: M2V | Detail: 03

ITEM	DATE	ISSUE DESCRIPTION
1	5/23/16	ADDENDUM #1

dlb associates
CONSULTING ENGINEERS, P.C.
265 Industrial Way West, Eatontown, N.J. 07724
Questions For DLB Call: Scot Gowers
DLB Project ID: 47403 Phone: 732-927-5145

project: VALLEY ROAD HVAC
1600 VALLEY ROAD
WAYNE, NJ, 07470

title: SCHEDULES AND DETAILS

scale	drawn by	checked by	date	filename
AS SHOWN	DR	SG	05/09/2016	47403M2V

dwg. no. M2V