

HAMMEL ASSOCIATES ARCHITECTS, LLC

25 EAST GRANT STREET, SUITE 102 LANCASTER, PENNSYLVANIA 17602

CFP 50117 MODERNIZATION OF DEVELOPMENTS
HOUSING AUTHORITY OF THE CITY OF YORK
YORK, PA 17403
ARCHITECT'S PROJECT NO: 1612

ADDENDUM ISSUE DATE: February 12, 2018

BID DUE DATE: TUESDAY FEBRUARY 20, 2018 AT 2:00 PM

ADDENDUM # 1:

Total pages: 2 notes + 8 sketches or specification + 0 full size sheets = 10 pages total
THE CONTENTS OF THIS ADDENDUM ALTER AND AMEND DRAWINGS AND SPECIFICATIONS DATED JANUARY 2018 FOR THE ABOVE REFERENCED PROJECT. THIS ADDENDUM SUPERSEDES AND SUPPLEMENTS ALL PORTIONS OF THE CONTRACT DOCUMENTS WITH WHICH IT CONFLICTS. ALL ASPECTS OF THE GENERAL CONDITIONS APPLY TO THIS ADDENDUM. ALL OTHER PROVISIONS OF THE CONTRACT DOCUMENTS NOT ALTERED OR AMENDED REMAIN PART OF THE CONTRACT WORK. COSTS FOR ALL ITEMS ENUMERATED IN THIS ADDENDUM SHALL BE ADDED OR DELETED TO THE CONTRACTOR'S BID, AS APPROPRIATE.

SPECIFICATION / DRAWING NO	ACTION	DESCRIPTION
Bid Packet Requirements	CLARIFICATION	Bid package is required to be submitted in triplicate, One (1) original and Two (2) copies
Bid Packet Requirements	CLARIFICATION	Liquidated Damages are \$150/day
Bid Packet Requirements	CLARIFICATION	Pages 5-8, 18, 21 of the EEO & section 3 forms are to be signed and returned with the bid package
Drawing M1.0	REPLACE	Replace CU-2 with CU-1 as indicated on SKM-1
Drawing M2.0	REPLACE/DELETE	Replace the CONDENSING UNITS schedule and Delete the SPLIT SYSTEM HEAT PUMP schedule as per SKM-2
Specification Section 230835	REPLACE	Replace Specification Section 230835 with the attached revised Specification. Revisions were made to Section 230835, 2.1, D-1 & D-3 to remove references to electric heating coils. Section 230835, 2.1, E has revised thermostat requirements.
SKA-1	ADD	Add cavity wall insulation for perimeter of PTAC unit at void between exterior veneer and backup masonry as per SKA-1

CONFIRM RECEIPT OF THIS ADDENDUM BY SENDING A SIGNED COPY OF THE LAST PAGE TO HAMMEL ASSOCIATES ARCHITECTS – SEND A CONFIRMATION EMAIL TO: cdzurko@hammelarch.com

RETURN A SIGNED COPY OF THIS ADDENDUM WITH THE BID FOR CONSTRUCTION.

NAME

TITLE

COMPANY

DATE

END OF ADDENDUM #1

PTAC-1	15.1	360	72	95	79/65	1546	208/10	160°F	1.0	13.0	7.1	9.5	COMITALE NATIONAL INC. MODEL PC154D20EA
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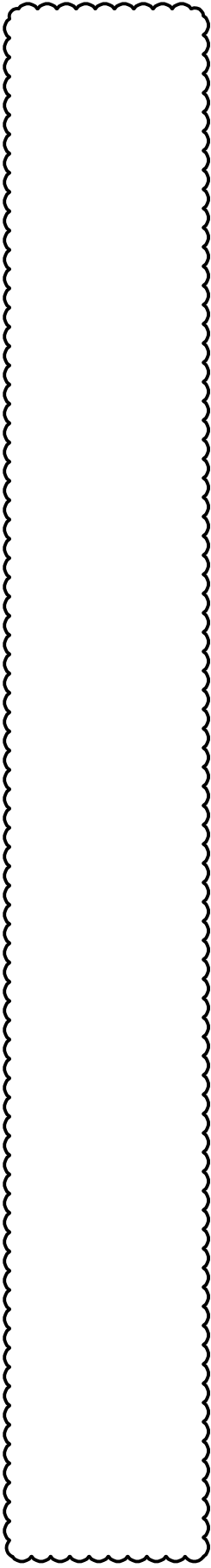
* PROVIDE CONDENSATE DRAIN KIT TO EXTERIOR, ARCHITECTURAL REAR GRILLE, AND MOTORIZED FRESH AIR DAMPER

UNIT VENTILATOR

SYMBOL	UNIT TYPE	TOTAL CFM NOMINAL	MIN. O.A. CFM	HP	VOLTAGE	COOLING CAPACITY			HEATING CAPACITY			UNIT SIZE	REMARKS				
						TOTAL MBH	EAT DB	EAT WB	TOTAL MBH	EAT	GPM			EWT	TD	WPD	
HUV-1	HORIZONTAL EXPOSED	1025	MATCH EXISTING	1.0	120/1	31.0	80	67	DX	42.3	60°F	1.34	160°F	63.3	0.17	1000	FRONT DOUBLE DEFLECTION GRILLE DISCHARGE

CONDENSING UNITS

SYMBOL	CAPACITY MBH	OUTDOOR TEMP	ELECTRICAL			SEER	BASIS OF DESIGN	REMARKS
			RLA	MCA	MOP			
CU-1	31.0	95	12.8	17	25	14.0	208/1	TRANE 4TTR4031L1000A PROVIDE RAWAL AIR VALVE IN UNIT



GENERAL NOTES:

(THESE NOTES APPLY TO ALL MECHANICAL DRAWINGS)

- ANY PHYSICAL INSTALLATION MODIFICATIONS DUE TO FIELD CONDITIONS SHALL BE RESOLVED BY THE MECHANICAL CONTRACTOR IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MECHANICAL ENGINEER AND NATIONAL.
- THE ENTIRE INSTALLATION SHALL COMPLY WITH ALL CODES, LOCAL, STATE, AND NATIONAL.
- THIS CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS STEEL AND SUPPORTS TO SUSPEND DUCTWORK AND EQUIPMENT.
- ALL EQUIPMENT SHALL BE INSTALLED WITH VIBRATION ISOLATORS.
- THIS CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT TO ENSURE A COMPLETE SYSTEM.

MECHANICAL NOTES:

(THESE NOTES APPLY TO ALL MECHANICAL DRAWINGS)

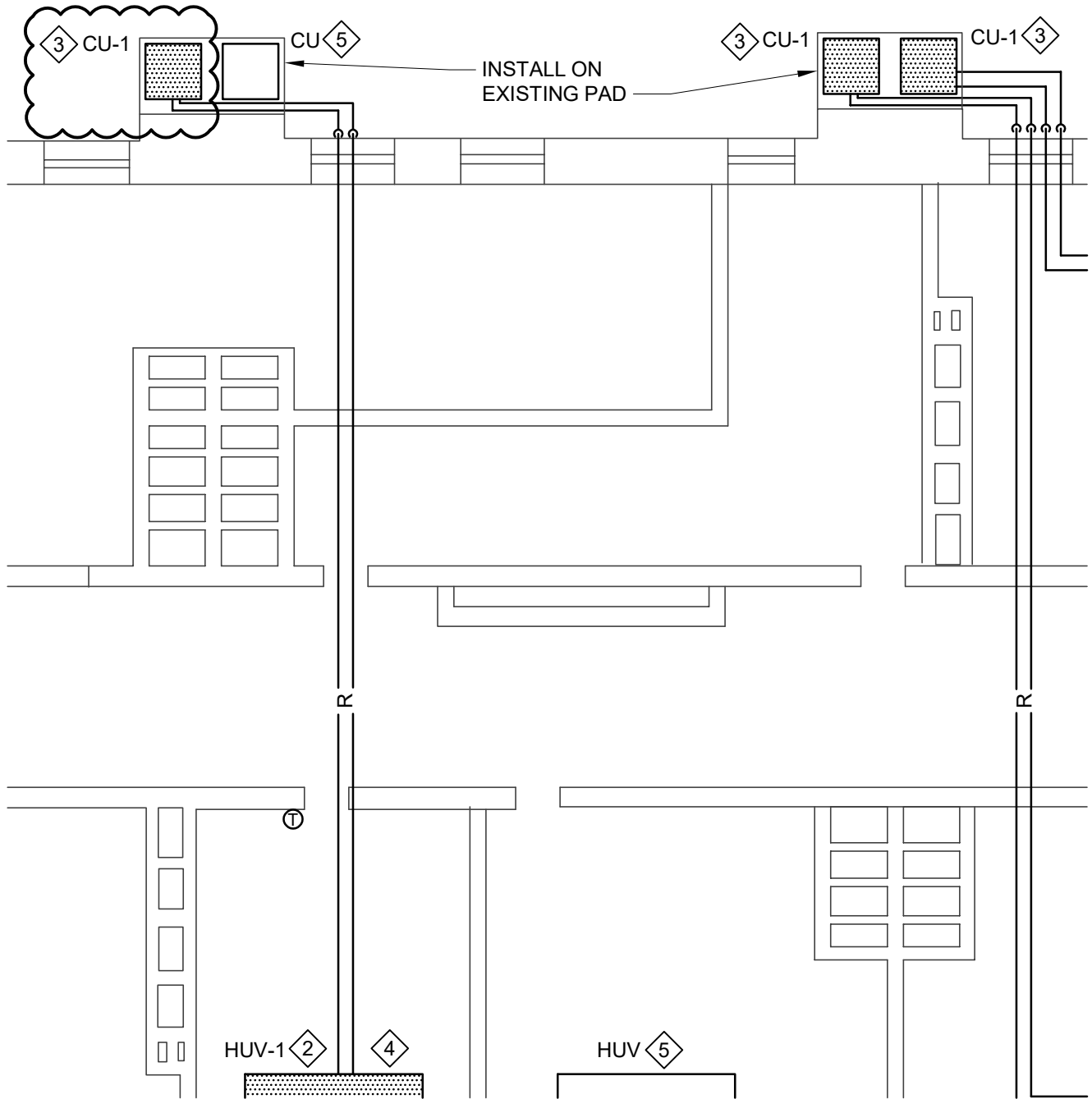
- FOR THE HOT WATER SYSTEM, THE MECHANICAL CONTRACTOR SHALL PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS IN THE SYSTEM AND AT EACH UNIT AND SHALL PROVIDE DRAINS AT ALL LOW POINTS.
- ALL REFRIGERATION PIPING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. PIPE SIZES SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
- ALL REFRIGERANT PIPING SHALL BE PITCHED A MINIMUM OF 1/2" IN 10' - 0" IN THE DIRECTION OF THE REFRIGERANT FLOW.
- ALL PIPE PENETRATIONS THROUGH CHASES, WALLS, OR FLOORS WHICH ARE FIRE-RATED SHALL BE PROPERLY SEALED TO MAINTAIN FIRE PROTECTION.


DUCTWORK NOTES:

(THESE NOTES APPLY TO ALL MECHANICAL DRAWINGS)

- ALL DUCTWORK SIZES NOTED ARE FREE AREA SIZES.
- TURNING VANES SHALL BE PROVIDED IN ALL DUCT ELBOWS.
- PROVIDE ALL DAMPERS, SPLITTERS, AND EXTRACTORS AS REQUIRED FOR PROPER AIR DISTRIBUTION IN GENERAL ACCORDANCE WITH THE STANDARDS OF THE NATIONAL ENVIRONMENTAL BALANCING BUREAU.
- FURNISH AND INSTALL AS NECESSITATED BY EXISTING CONDITIONS ALL SUPPORT MATERIALS TO INSURE A RIGID INSTALLATION.
- ALL SUPPLY AND RETURN DUCTWORK EXCEPT SPIRAL ROUND DUCTWORK SHALL BE INTERNALLY INSULATED IN ACCORDANCE WITH THE SPECIFICATIONS.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING

TITLE: MECHANICAL REVISIONS		REF.	M2.0	PROJ. NO.	16058
PROJECT: HOUSING AUTHORITY OF THE CITY OF YORK		DATE	2-09-18	SCALE	NO SCALE
 Moore Engineering Company 3637 Columbia Avenue Lancaster, PA 17603		DRAWN BY	JDB	SKETCH NO.	SKM-2



TITLE: MECHANICAL REVISIONS	REF. M1.1	PROJ. NO. 16058
PROJECT: HOUSING AUTHORITY OF THE CITY OF YORK	DATE 2-09-18	SCALE 3/32"=1'-0"
 Moore Engineering Company 3637 Columbia Avenue Lancaster, PA 17603	DRAWN BY JDB	SKETCH NO. SKM-1

SECTION 230835 - HVAC EQUIPMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Package Terminal Air Conditioner (PTAC)

1.2 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code.

1.3 SUBMITTALS

- A. Submit shop drawings in accordance with provisions of Section 230010.

1.4 REGULATORY REQUIREMENTS

- A. Conform to ANSI/NFPA 70 code for internal wiring of factory wired equipment.

PART 2 - PRODUCTS

2.1 PACKAGE THRU-WALL AIR CONDITIONING UNIT (PTAC)

- A. Manufacturers:
 - 1. Basis of Design: Comitale National Inc. Model PC154D2OEA
 - 2. Acceptable Manufacturers: McQuay, EMI Retroaire, Cold Point Adirondack-Aire
- B. Unit shall consist of wall sleeve, exterior louver, heating coil assembly, 3-way valve assembly, cooling chassis and room enclosure and remote wall thermostat along with all required support below sleeve as required for the entire width of existing wall.
- C. Wall Sleeve: Wall sleeves are to be fabricated from 18 ga galvanized steel and provided with coated cardboard weatherboard, which is to be removed prior to louver and chassis installation. Wall sleeve is to have a built-in 1/4" pitch towards building exterior for proper drainage. Wall sleeve is to be installed plumb. Wall sleeve depths are available from 15" to 24" in 1" increments to accommodate overall wall depths. Wall sleeves are to be equipped with condenser air baffles to prevent condenser air re-circulation.
- D. Cooling Chassis:
 - 1. The cooling chassis shall contain the complete refrigeration system consisting of compressor, condenser, evaporator, single fan motor, controls. It shall be 100% factory run tested prior to shipment from the factory. The chassis sheet metal shall only be a minimum of 18 ga G-90 grade galvanized, zinc phosphatized steel the cassis base pan shall be a minimum of 16 ga galvanized steel. The evaporator and condenser coil construction shall

- be copper tubes with aluminum ripple fins and mounted for accessible cleaning. Condensate disposal shall be accomplished by atomization and entrainment of water particles in the condenser air stream with evaporation on the condenser coil. Slinger rings and propeller type are not acceptable.
2. The refrigeration circuit shall be precharged and shall utilize an internal and external spring mounted hermetic compressor, PSC motor with automatic reset overload. Compressor shall be equipped with suction and discharge mufflers. Compressor capacitor shall be located in control box only. Refrigerant metering shall be accomplished by an automatic expansion valve. Capillary tubes are not acceptable. The unit shall operate at capacity to 35°F outdoor, with no frosting of the evaporator, short cycling of the compressor, or liquid slugging. A hot gas bypass valve shall be used to protect the evaporator coil from frosting due to clogged filter, or low airflow.
 3. One row serpentine coil, performed tubing and normally opened motorized two position control valve shall be provided for field installation and piping to hot water service. Right hand supply/return connections. Control valve shall be three-way type and power lead shall plug into the control box.
 4. Power harness shall be a quick connect. Plug shall be provided for connection of the cooling/heating chassis to the power supply connection box in the wall sleeve.
 5. The fan motor shall be PSC, two-speed, double extended shaft. There shall be one totally enclosed motor driving both fan wheels. Two motor applications are not acceptable. The evaporator fan wheel shall be formed metal single inlet centrifugal type. The condenser fan wheel shall be aluminum formed single inlet centrifugal type. Plastic or polymer type are not acceptable.
 6. The cooling/heating chassis shall be equipped for a pressurized automatic ventilation air. An outdoor damper shall be positioned on the discharge side of the condenser fan to insure a positive supply of ventilation air whenever called for. The damper must close when the unit stops. Outdoor air shall be filtered at all times.
- E. Controls: Automatic ventilation shall be controlled by a means of a rocker switch at the control panel. Controls shall consist of digital non-programmable remote wall thermostat compatible with the manufacturer of the HVAC unit.
- F. Cabinets:
1. The room cabinet shall consist of a front enclosure made from a minimum of 18 ga cold rolled steel, finished in a baked or textured finish and shall be removed without the use of tools. The front closure shall have top discharge. The discharge grille shall have the fixed 15° deflection to insure proper air throw.
 2. The anodized aluminum discharge grille must allow users to access the unit controls through a factory installed access door. Plastic or resin type discharge grilles are not acceptable.
 3. The wall cabinet which houses the cooling chassis shall be of 18 ga phosphatized steel and finished with two coats of baked textured acrylic enamel. The wall cabinet shall also be insulated top and sides with a closed cell neoprene rubber insulation. The wall cabinet shall be designed for either wall installation or flush floor installation, without a regard for unit voltage. The wall cabinet is provided with extruded aluminum louver finished in a clear anodized. Color selections shall be by the Architect.

- G. Warranty: The entire PTAC Unit is furnished with a limited one (1) year parts and labor warranty standard. Units are to be UL listed, NYC MEA approved and tested in accordance with current ARI Standards.

2.2 UNIT VENTILATORS

- A. Manufacturers:
1. Trane
 2. Carrier
 3. Johnson Controls
- B. General – Furnish and install in accordance with the manufacturer's instructions Trane Classroom Air Conditioners of the type and size indicated in the plans.
1. Unit ventilator shall be constructed of 16 gauge furniture quality steel with exposed edges rounded.
 2. All steel unit ventilator surfaces shall be cleaned, phosphatized, and flow coated with baked prime paint before application of final finish coat. Unit shall be supplied in color selected by Engineer.
 3. Where noted, unit ventilator shall be a horizontal recessed unit with duct collar inlet on the back top (Arrangement K) and a discharge duct collar on the top front (Arrangement #4). Unit shall be complete with all standard equipment. Provide hinged panels on bottom exposed panel.
 4. Horizontal recessed units shall be provided with piping compartments on sides. Hinged access panel shall extend to piping compartments.
 5. For vertical units, provide matching false back and 18" wide side pipe compartment as shown on the drawings.
 6. For vertical units, provide matching shelving units as shown on the Drawings.
 7. For pipe compartments and shelving units, provide units with reduced height so that existing laminated top can be installed over top of units. C. Provide unit mounted and factory wired disconnect switch.
- D. Dampers – Unit ventilators shall be equipped with a dual blade type mixing dampers to ensure proper modulation and mixing of return and outdoor air. A continuous divider shall be placed between the damper blades to separate the fresh air and return air compartments and positively prevent blow-through.
1. Bypass dampers shall be aluminum and insulated for sound attenuation and to prevent formation of condensate. Dampers shall be tight sealing and designed to minimize heat pick up in bypass.
 2. Dampers for horizontal recessed unit will be provided by the ATC Contractor.
- E. Fan Board Assembly – The unit ventilator fan board assembly shall be a single, rigid assembly and include the fans, fan housings, bearings, fan shaft and motor. The fan motor shall be mounted on the fan board.
1. The wrap-around portion of the fan housings shall be constructed of six pounds density molded fiberglass, at least 3/4" thick, and vinyl coated on the exterior surface.

- F. Motors – Motors shall be permanent split capacity type with two speeds. A multiple tap auto transformer shall be wired to the motor to insure rated capacity with all coil combinations. Motor speed shall not be affected by damper positions or filter loading. The motor shall be easily removable without removing the fan board.
- G. Coils – All coils shall be 4-pipe chilled water, hot water Type D plate-fin type and manufactured by the unit ventilator manufacturer. Fins shall be heavy gauge aluminum and have crack-free, continuous fin collars. Tubes shall be 5/8" x .020" wall copper.
1. Unit shall be designed so a different type coil can be easily exchanged in the same basic unit.
- H. Filters – Each unit shall be equipped with a single 1" thick throwaway filter accessible without removal of the unit front panel. Filter in each unit shall be replaced at the completion of the project.
- I. Sound – The sound power level (re: 10^{-12} watts) generated when producing the specified CFM shall not exceed the following in any octave band:
1.

Mid Frequency	Maximum Sound Power Level DB
125	68
250	66
500	60
1000	55
2000	48
4000	43
8000	38
 2. Sound data for the unit shall be based on tests in a sound laboratory reverberant room strictly conforming to ASHRAE Standard 36-62. The test procedures for determining the unit sound level shall be in accordance with ARI Standard 443.
Sound data must be accurate to within \pm db in the first and second octave bands and ± 2 db in the third through eighth octave bands.
 3. Where the manufacturer's sound data is not published, the company must certify that sound data conforms with the above requirements. If the manufacturer cannot provide acoustical data in accordance with the requirements given above, the Contractor must submit certified data that the specified units have been tested in an independent acoustic laboratory, capable of testing equipment at specified operating conditions, to determine sound power levels by octave band.
 4. Where units do not meet the specified maximum sound power level given, they must operate at reduced rpm so as to comply. In this case, the units will be sized so as to provide the specified CFM at the reduced RPM.
- J. Outdoor Air Inlets – The unit manufacturer shall provide wall louvers for outside air intake. They shall be of vertical louver design and equipped with extruded aluminum channels for precise fit. Unit shall be complete with wall boxes with flush grilles similar to Trane Arrangement #2. Color and finish to be selected by the Engineer.
- K. Unit drain pans shall be deep formed galvanized steel, lined internally with closed cell inert plastic insulating material.

- L. Controls: Controls shall consist of a 7-day programmable remote wall thermostat as manufactured by the same manufacturer as the HVAC unit.

PART 3 - EXECUTION

3.1 INSTALLATION

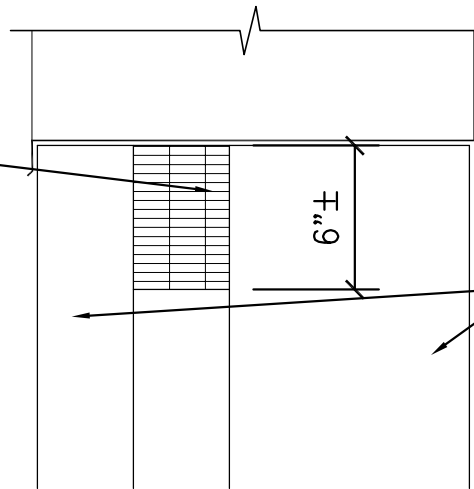
- A. Install in accordance with manufacturer's instructions.
- B. Protect units with protective covers during balance of construction.
- C. Locate blank fin cover on outside walls and run cover continuously from wall to unit as indicated on drawings. Install end caps where unit butts against walls.
- D. Install cabinet heaters as indicated. Coordinate to assure correct recess size for units.

3.2 CLEANING

- A. After construction is completed, including painting, clean exposed surfaces of units. Vacuum clean coils and inside of cabinets.
- B. Touch-up marred or scratched surfaces of factory-finished cabinets, using finish materials furnished by manufacturer. C. Install new filters.

END OF SECTION 230835

FILL CAVITY IN EXISTING MASONRY WALL WITH LOW EXPANSION SPRAY FOAM OR UNFACED FIBERGLASS BATT INSULATION AND PROVIDE ADDITIONAL SUPPORT FOR NEW PTAC SLEEVE. TYP. ALL SIDES OF WALL OPENING



NEW PTAC UNIT AND SLEEVE

EXISTING MASONRY WALL

CFP 50117

HAMMEL ASSOCIATES ARCHITECTS, LLC

PROJECT DESCRIPTION

THE HOUSING AUTHORITY OF THE CITY OF YORK
JEFFERSON COMMUNITY CENTER-PTAC REPLACEMENT
501 NORTH PERSHING AVE
YORK, PA 17401

SHEET TITLE PTAC SLEEVE INSULATION DETAIL

ISSUE DATE 02.12.18

SCALE 1-1/2" = 1'-0"

FILE NUMBER 1612

DRAWN BY CAD

SKA-1