ICE AIR
World Class Comfort™

Project Name:	**Revision:**
Project Address:	**Date:**
Purchaser:	**P.O. #:**
Engineer:	**Submitted by:**
Mech. Contractor:	**Email:**
Architect:	**Pages:**
Equipment:	

Submittal Notes:

80 Hartford Avenue, Mount Vernon, NY 10553 Tel 1-877-ICE-AIR-1 Fax (914) 668-5643

www.ice-air.com

PTAC

ICE AIR®
World Class Comfort®

80 Hartford Avenue,
Mount Vernon, NY 10553
Tel: 877-ICE-AIR-1 (877-423-2471)
Main: 914-668-4700
Fax: 914-668-5643
email: sales@ice-air.com
www.ice-air.com

Packaged Terminal Air Conditioner for New Construction

RSNU Series

Ice Air's line of new construction PTACs provide the perfect solution in a durable, user-friendly package.

Commercial grade construction provides reliability and longevity unmatched in this market category. With an attractive durable enclosure, whisper quiet operation, and highest energy efficiency available, the RSNU series is the perfect solution for new construction.

Features:

- Ultra-high efficiency – EERs to 12.0
- Advanced tangential indoor blower provides balanced air flow
- Whisper quiet sound levels
- Standard programmable digital touchpad controls
- 5/2 or 7 day programming
- Puron© R-410A Green refrigerant
- Heavy duty, commercial-grade construction throughout
- G90 galvanized steel construction, powder-coated drain and base pans
- Furniture-grade, powder-coated cabinetry

For custom solutions, please consult factory.

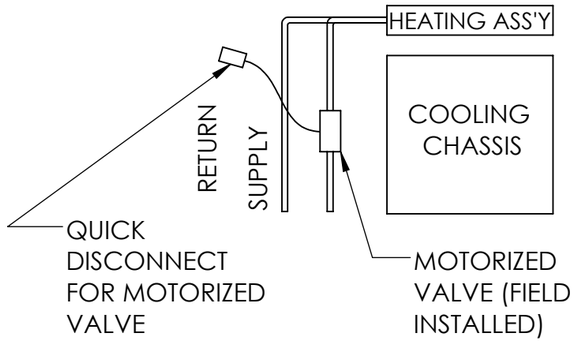
SERIES MODEL #	RSNU07			RSNU09			RSNU13			RSNU16		RSNU18	
Total Cooling Capacity (Btu/hr)[1]	7,700			9,700			12,800			14,400		16,400	
Sensible Cooling Capacity (Btu/hr)[1]	5,390			6,790			8,960			10,080		11,480	
EER[1]	12.0			12.0			11.4			10.5		10.3	
Heating Capacity (Hot Water)[2]	16,500			16,500			16,500			19,400		19,400	
Heating Capacity (Steam)[3]	18,700			18,700			18,700			20,200		20,200	
Voltage	115	208/230	277	115	208/230	277	115	208/230	277	208/230	277	208/230	277
Current in cooling mode (Amps)	5.6	3.1	2.3	7	3.9	2.9	9.8	5.4	4.1	6.6	4.9	7.7	5.7
Power in cooling mode (Watts)	642			808			1,123			1,371		1,592	
MCA	7	3.9	2.9	8.8	4.9	3.6	12.3	6.8	5.1	8.3	6.1	9.6	7.1
MOCP	15	15	15	15	15	15	20	15	15	15	15	15	15
Airflow - High Speed (CFM)	380	380	380	380	380	380	400	400	400	450	450	540	540
Airflow - Low Speed (CFM)	300	300	300	300	300	300	350	350	350	380	380	450	450
Outside Airflow (CFM)	60			60	60	60	60	60	60	60		60	
Outside Airflow with fan assist option (CFM)	110			110			110			110		110	
Weight (Lbs.)	130			134			134			134		137	

SPECIFICATION NOTES:

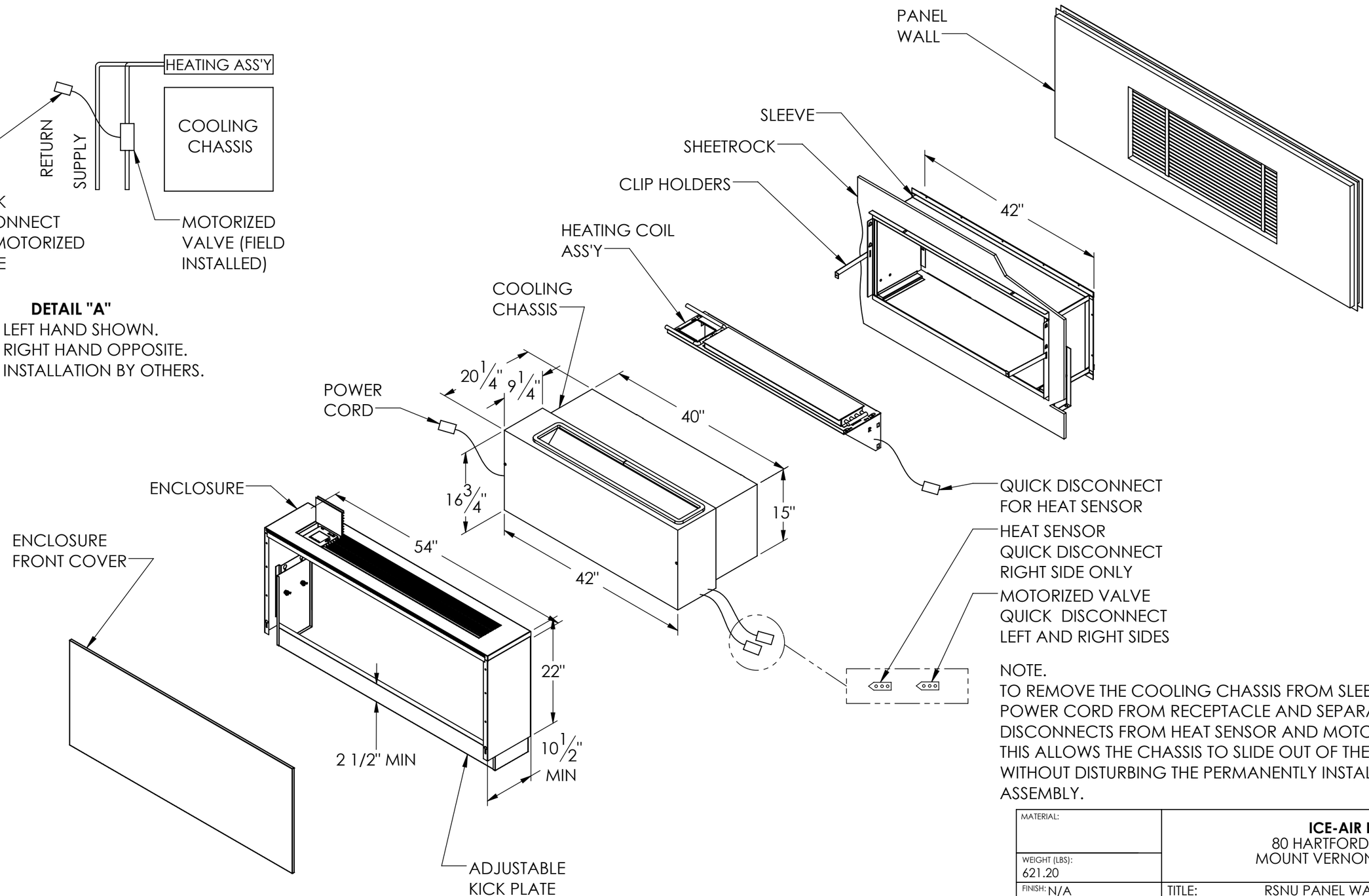
1. Cooling capacity rated @ EAT = 80/67 °F db/wb; Ambient = 95 °F db
2. Hot water heating capacity rated @ EAT = 65 °F, EWT=200 °F, Flow Rate = 2-GPM
3. Steam heating capacity rated @ EAT=65 °F, Inlet Steam Pressure = 2 PSIG

RSNU SLEEVE (NEW DESIGN) LAYOUT

REVISIONS			
REV.	DESCRIPTION	BY	DATE



DETAIL "A"
LEFT HAND SHOWN.
RIGHT HAND OPPOSITE.
INSTALLATION BY OTHERS.



NOTE.
TO REMOVE THE COOLING CHASSIS FROM SLEEVE, DISCONNECT POWER CORD FROM RECEPTACLE AND SEPARATE QUICK DISCONNECTS FROM HEAT SENSOR AND MOTORIZED VALE. THIS ALLOWS THE CHASSIS TO SLIDE OUT OF THE WALL SLEEVE WITHOUT DISTURBING THE PERMANENTLY INSTALLED HEATING ASSEMBLY.

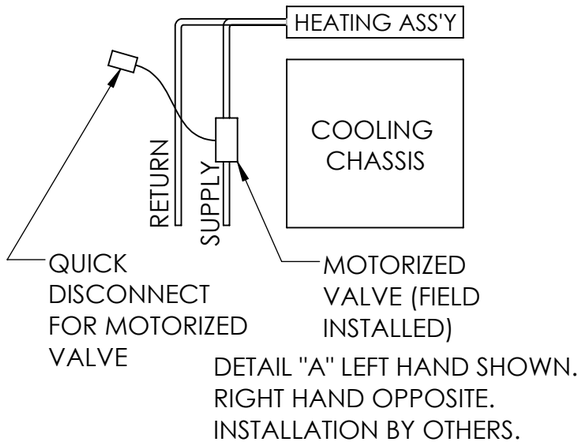
MATERIAL:	**ICE-AIR LLC.** 80 HARTFORD AVENUE MOUNT VERNON, NY 10553
WEIGHT (LBS): 621.20	
FINISH: N/A	TITLE: RSNU PANEL WALL SLEEVE (NEW DESIGN)+ENCLOSURE MOUNTED T-STAT
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	MODEL BY: YOU — DATE 01/01/01 — DWG. NO. DRAWING BY: — DATE: — RSNU SLEEVE (NEW DESIGN) LAYOUT SIZE B — SCALE: NONE DO NOT SCALE DRAWING — SHEET 1 OF 1 — REV A

Third Angle Projection

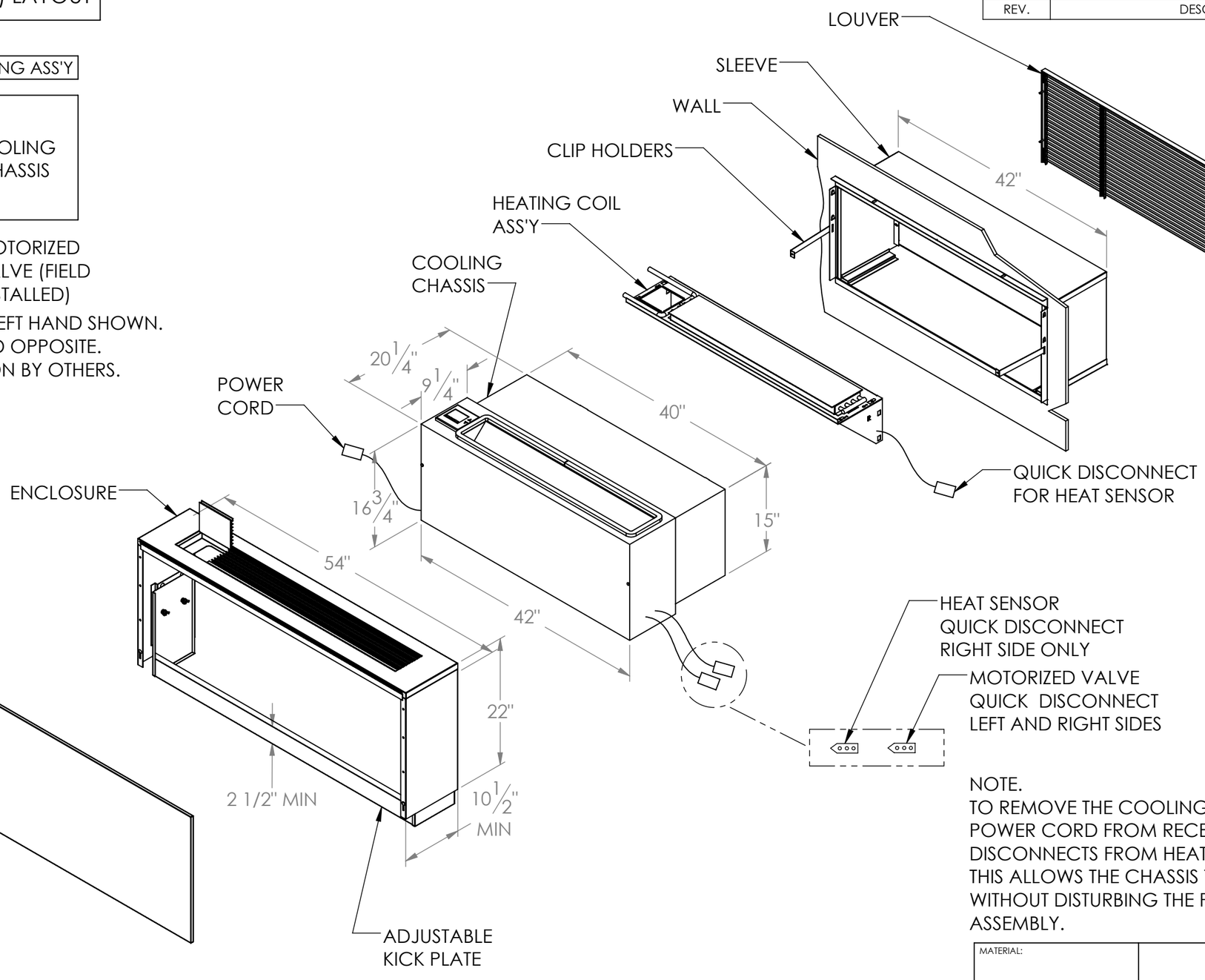
8 7 6 5 4 3 2 1

RSNU SLEEVE (NEW DESIGN) LAYOUT

REVISIONS			
REV.	DESCRIPTION	BY	DATE



DETAIL "A" LEFT HAND SHOWN.
RIGHT HAND OPPOSITE.
INSTALLATION BY OTHERS.



NOTE.
TO REMOVE THE COOLING CHASSIS FROM SLEEVE, DISCONNECT POWER CORD FROM RECEPTACLE AND SEPARATE QUICK DISCONNECTS FROM HEAT SENSOR AND MOTORIZED VALE. THIS ALLOWS THE CHASSIS TO SLIDE OUT OF THE WALL SLEEVE WITHOUT DISTURBING THE PERMANENTLY INSTALLED HEATING ASSEMBLY.

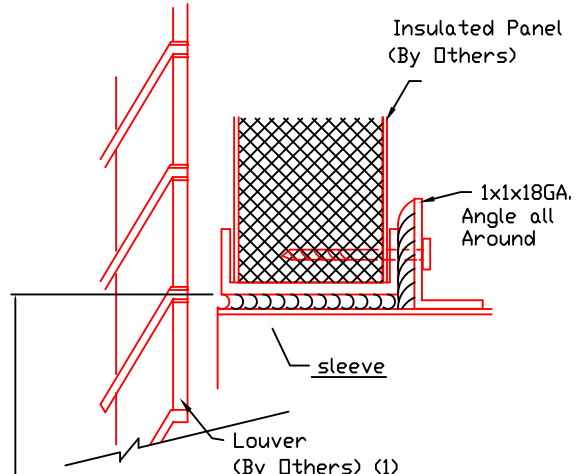
MATERIAL:	**ICE-AIR LLC.** 80 HARTFORD AVENUE MOUNT VERNON, NY 10553
WEIGHT (LBS): 549.49	
FINISH: N/A	TITLE: RSNU MASONRY WALL SLEEVE (NEW DESIGN)+UNIT MOUNTED T-STAT
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	MODEL BY: YOU — DATE 01/01/01 — DWG. NO. RSNU SLEEVE (NEW DESIGN) LAYOUT DRAWING BY: — DATE:
	SIZE B — SCALE: NONE DO NOT SCALE DRAWING — SHEET 1 OF 1 — REV A

Third Angle Projection

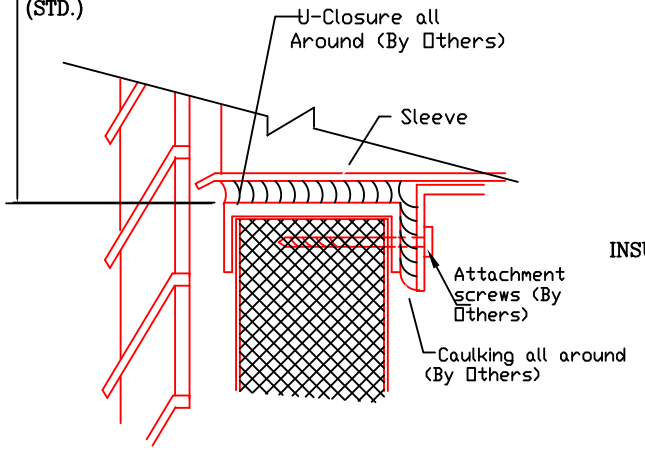
8 7 6 5 4 3 2 1

* ARCHITECT TO PROVIDE DETAILS FOR EACH FLOOR

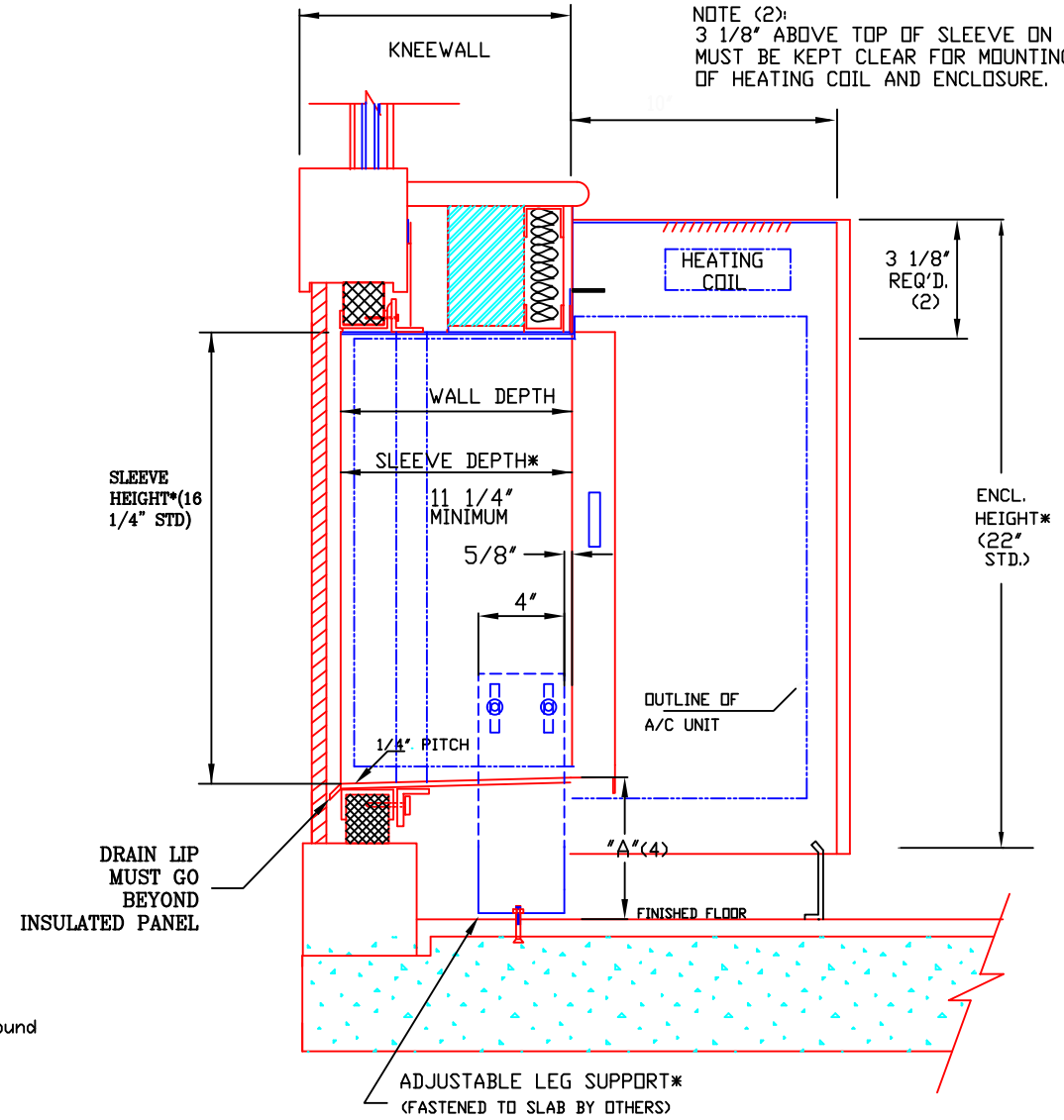
NOTE (1):
PROVIDED LOUVER WILL HAVE AN AREA OF
60% MINIMUM FREE AIR



16-5/8"
INSULATION
PANEL OPENING
(STD.)



NOTE (2):
3 1/8" ABOVE TOP OF SLEEVE ON ROOMSIDE
MUST BE KEPT CLEAR FOR MOUNTING
OF HEATING COIL AND ENCLOSURE.



ADDITIONAL NOTES:

(3) WALL SLEEVE DIMENSION IS (RSNU)16-1/4 H x 42" W

(4) WHEN BOTTOM OF SLEEVE TO FINISHED FLOOR ("A")
MEASURES BETWEEN 2 3/4 TO 4 1/2,
THIS NECESSITATES ORDERING A FRONT INTAKE
ENCLOSURE AND CHASSIS AS OPPOSED TO A
BOTTOM INTAKE.

NO.	REVISIONS	DATE	BY

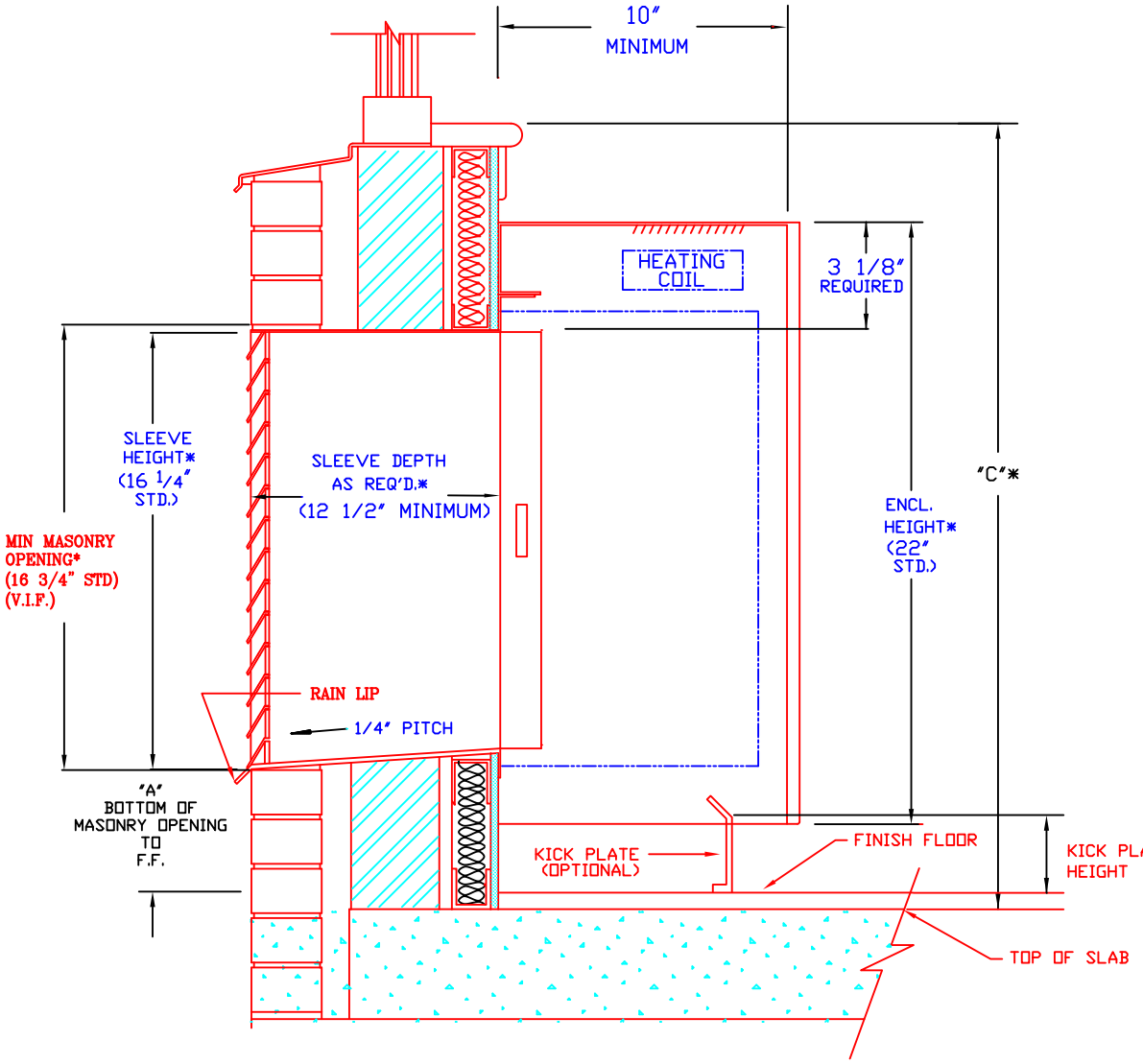
ICE-AIR LLC.

RSNU SLEEVE (NEW DESIGN) STANDARD

TITLE: TYP. PTAC @ PANEL WALL

SCALE	DR. BY	DRG. NO.	REV.
N.T.S.	VP	SUB-9794-2	

DATE 11/04/15



* DETAILS TO BE PROVIDED FOR EACH FLOOR

**** NOTES ****

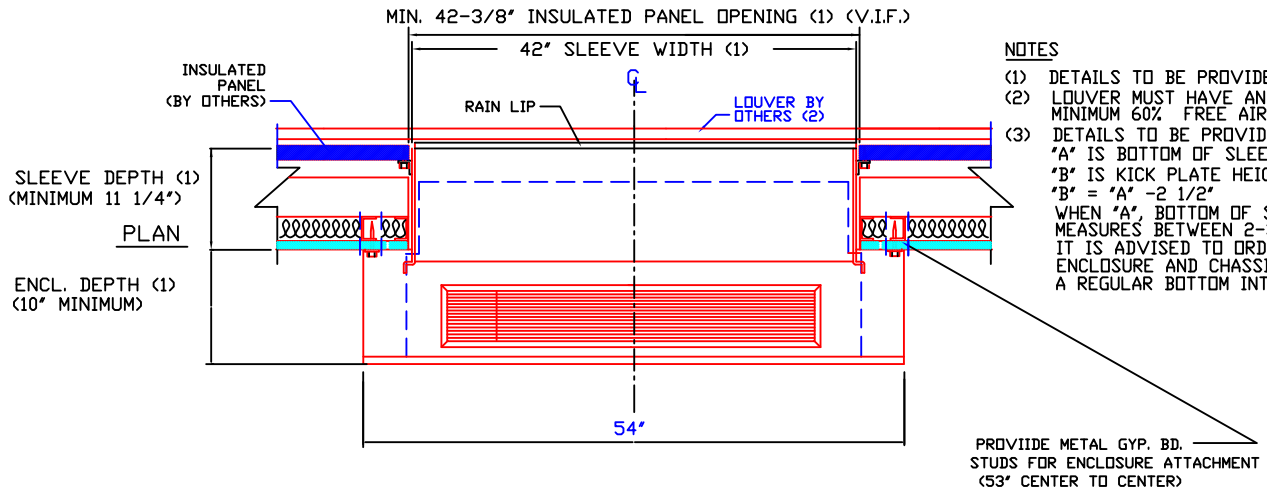
1) WALL SLEEVE DIMENSION:
   (RSNU) = 42"W x 16-1/4"H
   MINIMUM SLEEVE DEPTH: 12-1/4"
2) ENCLOSURE DIMENSION: TYPICAL*
   10"D x 22"H x 54"W
3) KICK PLATE = B. VARIES ("A" - 2 1/2")
   WITH ±1" ADJUSTMENT.
4) 3" ABOVE TOP OF SLEEVE ON ROOMSIDE
   MUST BE KEPT CLEAR FOR MOUNTING
   OF HEATING COIL AND ENCLOSURE.
5) WHEN "A", BOTTOM OF SLEEVE TO FINISHED
   FLOOR, MEASURES BETWEEN 2-3/4" TO 4-1/2,"
   THIS NECESSITATES ORDERING A FRONT INTAKE
   ENCLOSURE AND CHASSIS AS OPPOSED TO A
   BOTTOM INTAKE.
6) DIMENSIONS "A" AND "C", PROVIDED FOR EACH
   FLOOR, DETERMINE ENCLOSURE HEIGHT

ICE-AIR LLC.

RSNU SLEEVE (NEW DESIGN) STANDARD

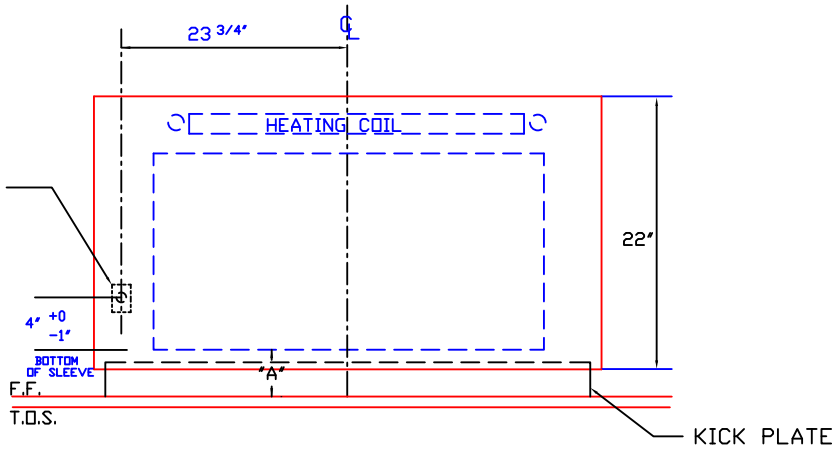
TITLE: TYP. PTAC @ MASONRY

SCALE	N.T.S.	DR. BY	VP	DRG. NO.	REV.
DATE	11/04/15	CHK. BY			



NOTES

(1) DETAILS TO BE PROVIDED BY GC FOR EACH FLOOR
(2) LOUVER MUST HAVE AN AREA OF MINIMUM 60% FREE AIR FLOW
(3) DETAILS TO BE PROVIDED FOR EACH FLOOR
"A" IS BOTTOM OF SLEEVE TO FINISHED FLOOR
"B" IS KICK PLATE HEIGHT WITH +/- 1" ADJ.
"B" = "A" -2 1/2"
WHEN "A", BOTTOM OF SLEEVE TO FINISHED FLOOR, MEASURES BETWEEN 2-3/4" TO 4-1/2" IT IS ADVISED TO ORDER A FRONT INTAKE ENCLOSURE AND CHASSIS AS OPPOSED TO A REGULAR BOTTOM INTAKE.



ELECTRIC OUTLET BY ELECTRICAL CONTRACTOR 115V, 15A OR 208V, 15A AS REQUIRED.

RECOMMENDED LOCATION OF ELECTRICAL OULET IS OPPOSITE HEATING RISERS.

INSTALL THE ELECTRICAL OUTLET WHERE THE END-USER CAN EASILY CONNECT/DISCONNECT THE POWER CORD PLUG.

NEMA 5-15 NEMA 6-15

ELEVATION

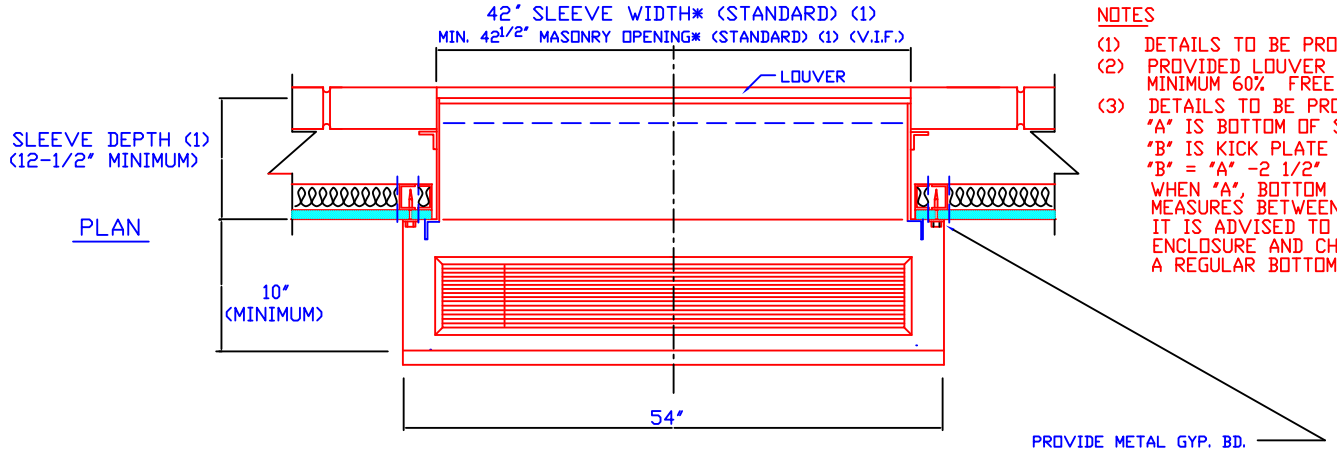
NO.	REVISIONS	DATE	BY

ICE-AIR LLC

TITLE
RSNU SLEEVE (NEW DESIGN) STANDARD

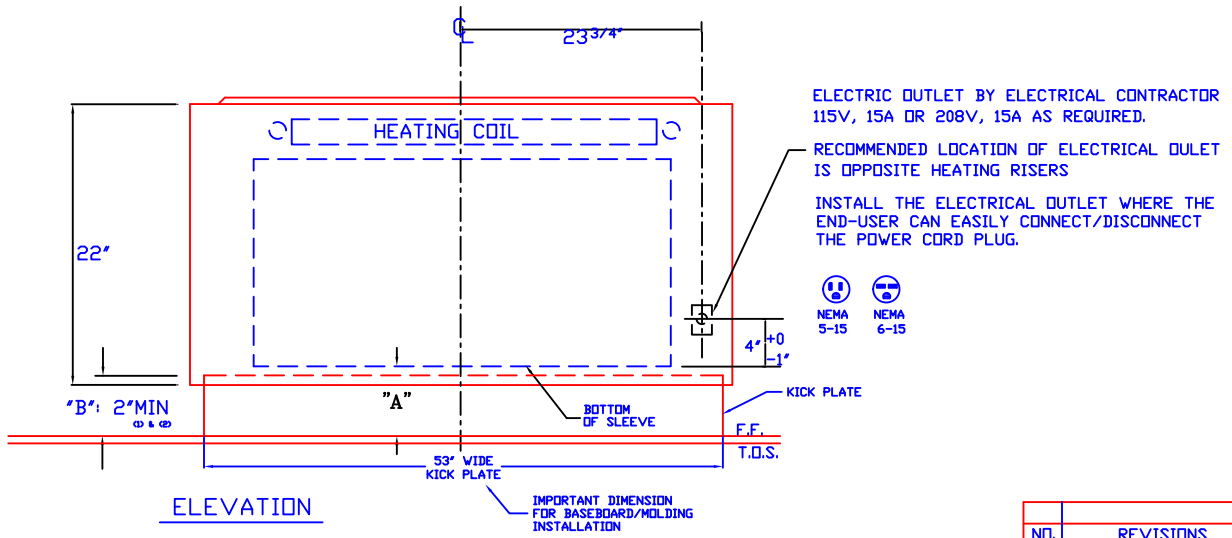
TYP. RSNU @ CURTAIN WALL

SCALE N.T.S.	DR. BY VP	DRG. NO. SUB-9794-3	REV.
DATE 11/04/15	CHK. BY		



NOTES

(1) DETAILS TO BE PROVIDED BY GC FOR EACH FLOOR
(2) PROVIDED LOUVER WILL HAVE AN AREA OF MINIMUM 60% FREE AIR FLOW
(3) DETAILS TO BE PROVIDED FOR EACH FLOOR
"A" IS BOTTOM OF SLEEVE TO FINISHED FLOOR
"B" IS KICK PLATE HEIGHT WITH +/- 1" ADJ.
"B" = "A" -2 1/2"
WHEN "A", BOTTOM OF SLEEVE TO FINISHED FLOOR, MEASURES BETWEEN 2-3/4" TO 4-1/2" IT IS ADVISED TO ORDER A FRONT INTAKE ENCLOSURE AND CHASSIS AS OPPOSED TO A REGULAR BOTTOM INTAKE.



ELEVATION

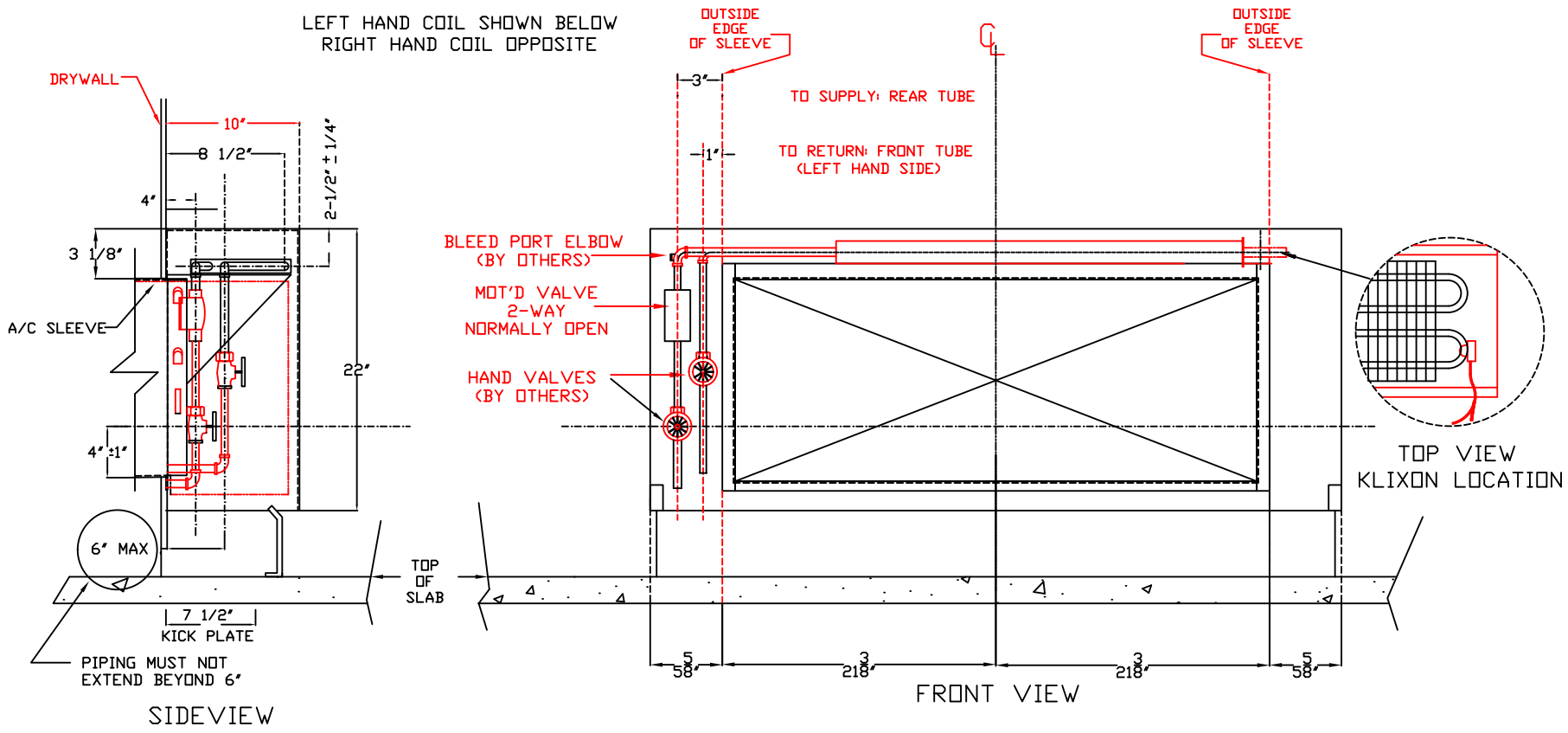
NO.	REVISIONS	DATE	BY

ICE-AIR LLC

RSNU SLEEVE (NEW DESIGN) STANDARD

TITLE: TYP. PTAC @ MASONRY WALL

SCALE	N.T.S.	DR. BY	VP	DRG. NO.	REV.
DATE	11/04/15	CHK. BY			

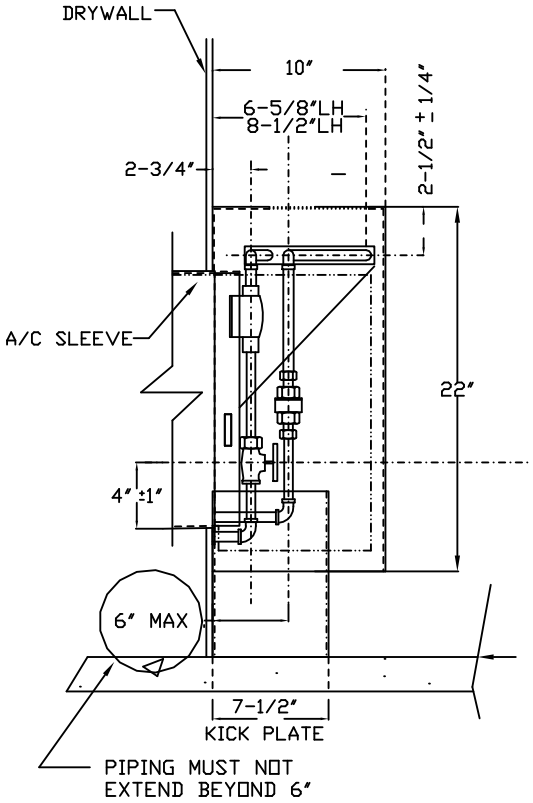


** NOTES **

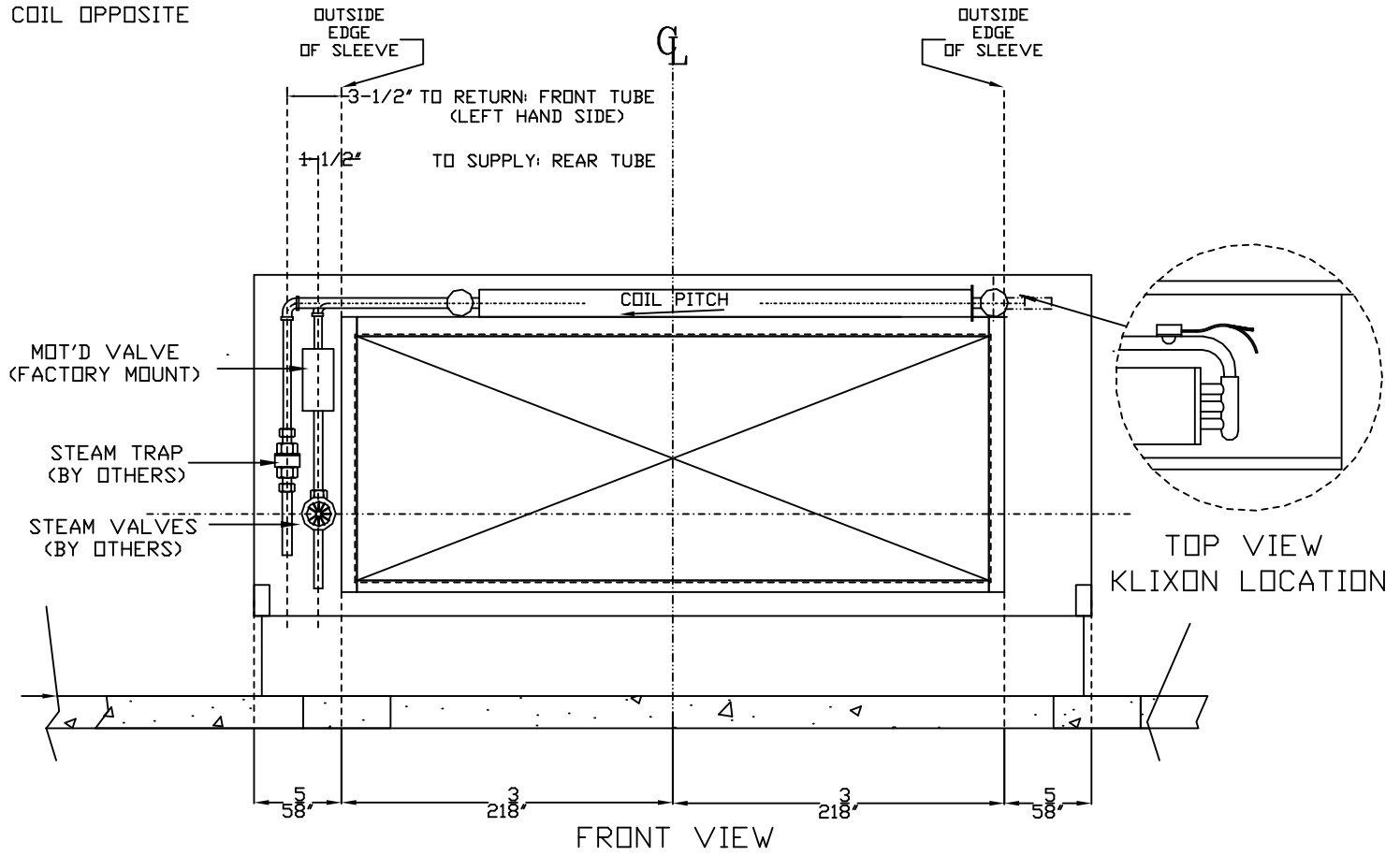
1) RECOMMENDED PIPING TO 5/8″ O.D. HEATING COIL TUBE STUBS.
2) ICE-AIR SUPPLIES HEATING COIL ASSEMBLY & MOT. VALVE LOOSE.
3) MOTORIZED VALVE IS NORMALLY OPEN FOR HOT WATER SYSTEM UNLESS OTHERWISE SPECIFIED.

ICE-AIR LLC. 80 HARTFORD AVE. MOUNT VERNON, NY 10553			
CUSTOMER:			
TITLE:	RSNU SLEEVE (NEW DESIGN) SERIES HOT WATER HEAT PIPING DIAGRAM (54″)		
DATE: 11/04/15	DWG BY: VP	DWG #:	REV.

LEFT HAND COIL SHOWN BELOW
RIGHT HAND COIL OPPOSITE



SIDEVIEW



FRONT VIEW

TOP VIEW
KLIXON LOCATION

** NOTES **

1) RECOMMENDED PIPING TO 5/8" O.D. HEATING COIL TUBE STUBS.
2) ICE-AIR SUPPLIES HEATING COIL ASSEMBLY & MOT. VALVE LOOSE.
3) MOTORIZED VALVE IS NORMALLY CLOSED FOR STEAM SYSTEM UNLESS OTHERWISE SPECIFIED.
4) COIL & TUBING MUST BE PITCHED FOR CONDENSATE RETURN.

ICE-AIR LLC. 80 HARTFORD AVE. MOUNT VERNON, NY 10553			
CUSTOMER:			
TITLE: RSNU SLEEVE (NEW DESIGN) SERIES STEAM HEAT PIPING DIAGRAM (54")			
DATE: 11/04/15	DWG BY: VP	DWG #: SUB-9794-4	REV.

PRODUCT SPECIFICATIONS
PACKAGED TERMINAL AIR CONDITIONER (PTAC)

ICE AIR HI SPEC™ UNITS
'RSNU' SERIES UNITS

1. Equipment: Provide "RSNU" Series Packaged Terminal Air Conditioners (PTACs), as manufactured by Ice Air, LLC.

2. Components: Air conditioner to consist of wall sleeve, exterior louver, heating coil assembly, cooling chassis and room enclosure. Units to operate at either Wall sleeves to be insulated with neoprene type insulation on interior facings.

3. Wall Sleeves: Wall sleeve exterior dimensions to be 42" wide x 16" high (RSNU Series), to comply with US DOE requirements for new construction PTACs. Smaller dimension wall sleeves are not acceptable under DOE regulations. Wall sleeve to be factory fabricated of 18 gauge galvanized steel and to be shipped with a mechanically-attached temporary coated cardboard filler panel at the exterior for weather protection. Cardboard filler panel to be removed prior to chassis and louver installation. Wall sleeve to have built-in pitch of at least ¼" and to be fabricated with an angled drain lip for proper drainage to the exterior of the building. Wall sleeves for masonry locations to be factory fabricated to match the full wall depth at each location; wall sleeves with field-installed extension pieces are not acceptable. Wall sleeves for panel wall locations are to be provided with optional adjustable-height support legs and galvanized steel sleeve angles to attach to the building panel wall system.

4. Louvers: Exterior louver to be horizontal, extruded aluminum blade-type construction with clear anodized (painted Duranar) finish (color must be specified). Louver to be supplied with stainless steel fastening hardware and must be capable of being installed from within the wall sleeve. Louvers at panel wall locations to be supplied by others.

5. Chassis: Cooling chassis to be a self-contained, slide-in assembly consisting of a sealed refrigerant system, evaporator and condenser sections with separate PSC motors (single motor units are not acceptable), manual (optional motorized) outside fresh air damper, unit mounted controls and line cord (junction box for 265 / 277 volt applications). Provide a permanent, washable aluminum mesh filter with each unit.

5a. Refrigeration System: Sealed refrigerant system to consist of high efficiency rotary compressor, copper tube / aluminum fin evaporator and condenser coils, refrigeration metering device consisting of a capillary

tube expansion system and interconnecting tubing. System to be factory charged and sealed and capable of operating in the cooling mode to an outdoor ambient temperature of 35° F. All units to be manufactured with R410A Green refrigerant; units containing R22 or R407C refrigerant are not acceptable.

5b. Evaporator Section: Evaporator motor and tangential blower wheel to be mounted above the evaporator coil. Tangential blower wheel to be fabricated from aluminum and to be directly driven by a multi-speed PSC motor (optional EC) with built-in thermal overload protector. Evaporator section to contain an integral stamped and powder coated steel drain pan, draining into two 3/4" i.d. drain hoses (single drain units are not acceptable).

5c. Condenser Section: Condenser section to contain a separate PSC motor (optional EC) and plastic or metal propeller fan with an integral slinger ring. Condenser motor to cycle with compressor and to run during the cooling cycle only.

5d. Condensate Disposal: Condensate to drain from the indoor base pan into the exterior galvanized steel condenser base pan through two 3/4" i.d. drain hoses. Condensate disposal to be accomplished by the entrainment of water particles in the condenser air stream and evaporation upon the hot condenser coil. No building condensate drain lines are to be required.

5e. Chassis Sheet Metal: Chassis sheet metal parts to be manufactured entirely of 18 gauge and 20 gauge galvanized steel. Chassis base pan to be powder coated inside and out to prevent corrosion of sheet metal pan. Chassis to be manufactured with an outsized indoor section that mates with the wall sleeve interior flanges and creates a positive weather seal using crushable pressure-sensitive foam tape, thereby preventing air and water infiltration. Chassis seal must be an integral part of unit construction, and use of attached sealing angles or channels is not acceptable.

5f. Unit Controls: Unit controls to include a digital controller with integral electronic thermostat. Provide unit mounted seven-day programmable thermostat. Include standard low-temperature control to activate motorized heating control valve below 45°F. Interior room temperature, and Freezestat to be mounted on the evaporator coil only (condenser mounted freezestats are unacceptable) to provide true temperature readings.

5g. Manual Outside Air: Provide manual/motorized outside air damper with chassis mounted actuator.

6. Heating Assembly (Hydronic Heat): Heating Assembly to consist of a snap-in galvanized steel cradle and heating coil, with optional (Normally

Open) (Normally Closed) motorized heating control valve. Motorized valve to be provided with Molex-type pin connector for plug-in electrical connection to the chassis, and to be actuated by the unit thermostat. Heating coil to be fabricated of copper tubing, mechanically expanded into aluminum fins. (Hot water/Steam coil to be headered type.). Coils to be supplied either right- or left-handed in quantities specified in building plans. Entire heat assembly to permanently mount onto the wall sleeve horizontally above cooling chassis. In Steam systems they will have a proper pitch built into the cradle assembly to ensure correct drainage of condensate water towards the return. Supply of all required valves and fittings, other than the motorized valve, is by others. Motorized valve to be shipped loose for field installation (optional factory attachment to heat assembly).

7. Room Enclosure (Cabinet): Room enclosure to be flat top type and to be fabricated of 18 gauge galvanneal paint grip furniture steel. Enclosure front cover to be fabricated from 20 gauge galvanneal steel and to be removable without the use of tools. Enclosure to be finished in (Antique White) (Arctic White) baked powder coat finish. Room enclosure to mount to wall sleeve. Provide concealed flanges with clearance holes as an alternate means of enclosure attachment by fastening directly to the interior wall. Enclosure kick plate to be vertically adjustable.

8. Warranty and Code Compliance: Unit to be guaranteed free of defects in material and workmanship for one year from date of delivery(Optional 2nd thru 5th year compressor parts only).(and Labor). Units to be ETL listed for safety in the United States and Canada, to have New York City MEA and BEC approvals, to be in compliance with all local, state and federal energy efficiency and building codes and to be tested in accordance with current ARI standards.