

# PACKAGED TERMINAL AIR CONDITIONER (PTAC) CERTIFIED DRAWING

DWG. NO. \_\_\_\_\_  
Submittal Template RSNU-HP (R32)  
REV. - 2.1

PROJECT		DATE		1/27/24		BY		ML		REVISIONS						
PURCHASER		P.O. #		QTY		DATE		BY		DESCRIPTION						
ARCHITECT		SHIP DATE		SLEEVES												
ENGINEER				HTG COIL												
HVAC CONTR.				ENCLOSURE												
GEN. CONTR.				CHASSIS												
DESIGNATION	MODEL NUMBER	QTY	ENCLOSURE (1)		SLEEVE (2)		LOUVER (3)		HTG COIL (4)		MOTORIZED VALVE		HEAT STAT		HTG COIL FRAME	
			STD	SPCL	STD	SPCL	STD	SPCL	STEAM	HOT WATER	YES	NO	YES	NO	YES	NO
A																
B																
C																
TOTAL																

## UNIT SPECIFICATIONS+

SERIES MODEL #	5RSNU07-H	5RSNU09-H	5RSNU13-H	8RSNU09-H	8RSNU13-H	8RSNU18-H
COOLING CAPACITY*	8,300	9,000	11,500	9,600	11,900	16,600
SENSIBLE COOLING CAPACITY*	6,600	7,200	9,200	7,700	9,500	11,600
EER	11.6	11.4	10.6	11.2	11.0	9.5
REVERSE HEAT CYCLE**	7,500	8,700	11,400	9,300	11,600	16,000
COP	3.4	3.8	3.5	3.8	3.7	3.3
VOLTAGE	115	115	115	208/230	208/230	208/230
ELECTRIC HEATER (kW) ***	1.5	1.5	1.5	3.0   3.5	3.0   3.5   4.3	3.0   3.5   4.3
ELECTRIC HEATER (A) ***	13	13	13	14.4   16.8	14.4   16.8   20.7	14.4   16.8   20.7
COOLING AMPERAGE	6.2	6.9	9.4	4.1	5.2	8.4
COOLING WATTS	716	789	1,085	857	1,082	1,747
MCA (NO ELECTRIC HEAT)	8.5	9.6	12.1	5.3	6.6	9.0
MOCP (NO ELECTRIC HEAT)	15	15	15	15	15	15
MCA (ELECTRIC HEAT)	16.7	17.2	17.2	18.5   21.5	18.5   21.5   26.3	18.6   21.6   26.5
MOCP (ELECTRIC HEAT)	20	20	20	20   25	20   25   30	20   25   30
CFM ROOM AIR HIGH	380	380	400	380	400	540
CFM ROOM AIR LOW	300	300	350	300	350	450
CFM OUTSIDE AIR	60	60	60	60	60	60
CFM X OUTSIDE AIR	110	110	110	110	110	110
WEIGHT NET/SHIP	130/141	134/145	134/145	134/145	134/145	137/148

## SPECIFICATION NOTES:

- \* = COOLING MODE PERFORMANCE RATINGS ARE IN COMPLIANCE WITH AHRI STANDARD 310/380 AND CSA STANDARD 744.
- \*\* = HEATING MODE PERFORMANCE RATINGS ARE IN COMPLIANCE WITH AHRI STANDARD 310/380 AND CSA STANDARD 744.
- 3: HEAT PUMP OPERATION DISABLED BELOW 38°F (+/- 3°F)
- 4: OPTIONAL CAN BE MOTORIZED
- 5: PERFORMANCE DATA BASED ON R32 REFRIGERANT

## CUSTOM NOTES:

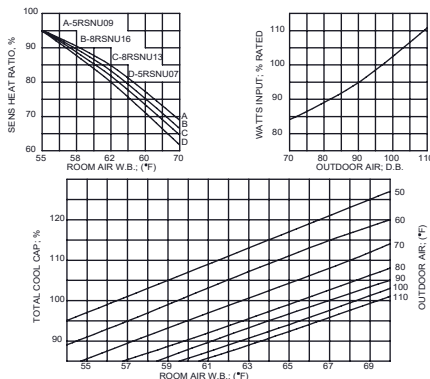
1:

## GENERAL NOTES:

- 1: ROOM ENCLOSURE IS FURNITURE TYPE PAINT-GRIP STEEL.
- 2: WALL SLEEVE IS #18 GAUGE GALVANIZED STEEL.
- 3: LOUVER IS EXTRUDED ALUMINUM, WITH CLEAR ANODIZED FINISH.
- 4: IT IS RECOMMENDED THAT THE ELECTRICAL OUTLET IS INSTALLED OPPOSITE TO THE HEATING RISERS.
- 5: N.Y.C. DEPARTMENT OF BUILDINGS ACCEPTED. MEA 250-93-E.-VOL. II
- 6: HEATING COIL QUANTITY AND BREAKDOWN BY MECHANICAL CONTRACTOR.
- 7: SEE ACCOMPANYING DRAWINGS FOR UNIT CONFIGURATION.
- 8: STANDARD ROOM COLOR ENCLOSURE TO BE "ANTIQUE WHITE" OR "ARCTIC WHITE".
- 9: PROVIDE LOUVERS FOR ALL MASONRY OPENING. LOUVERS FOR PANEL WALL OPENINGS PROVIDED BY OTHERS.

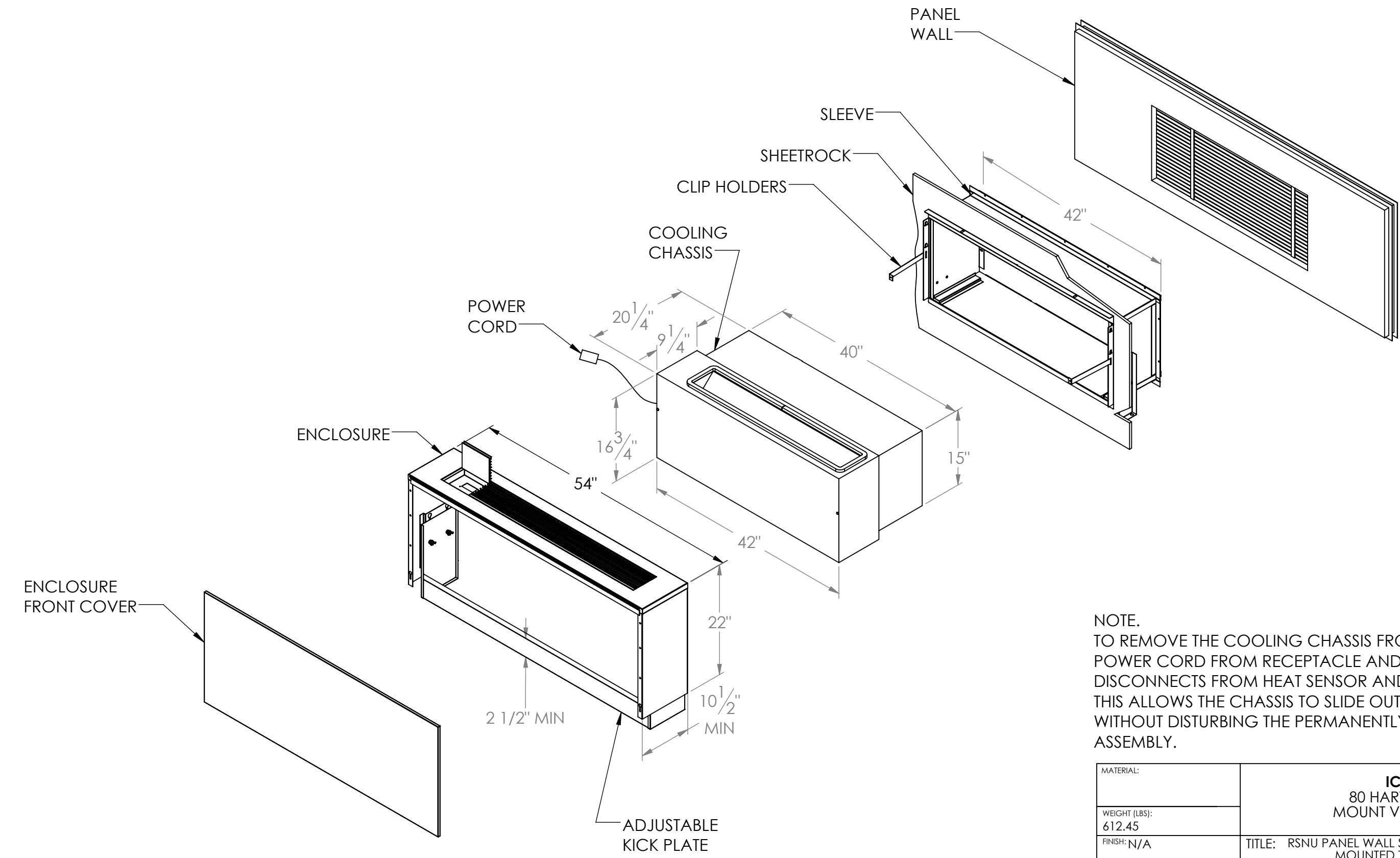
## PERFORMANCE DATA

### COOLING CAPACITY CORRECTION FACTORS



RSNU SLEEVE (NEW DESIGN) LAYOUT

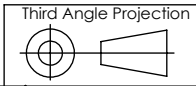
REVISIONS			
REV.	DESCRIPTION	BY	DATE



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.

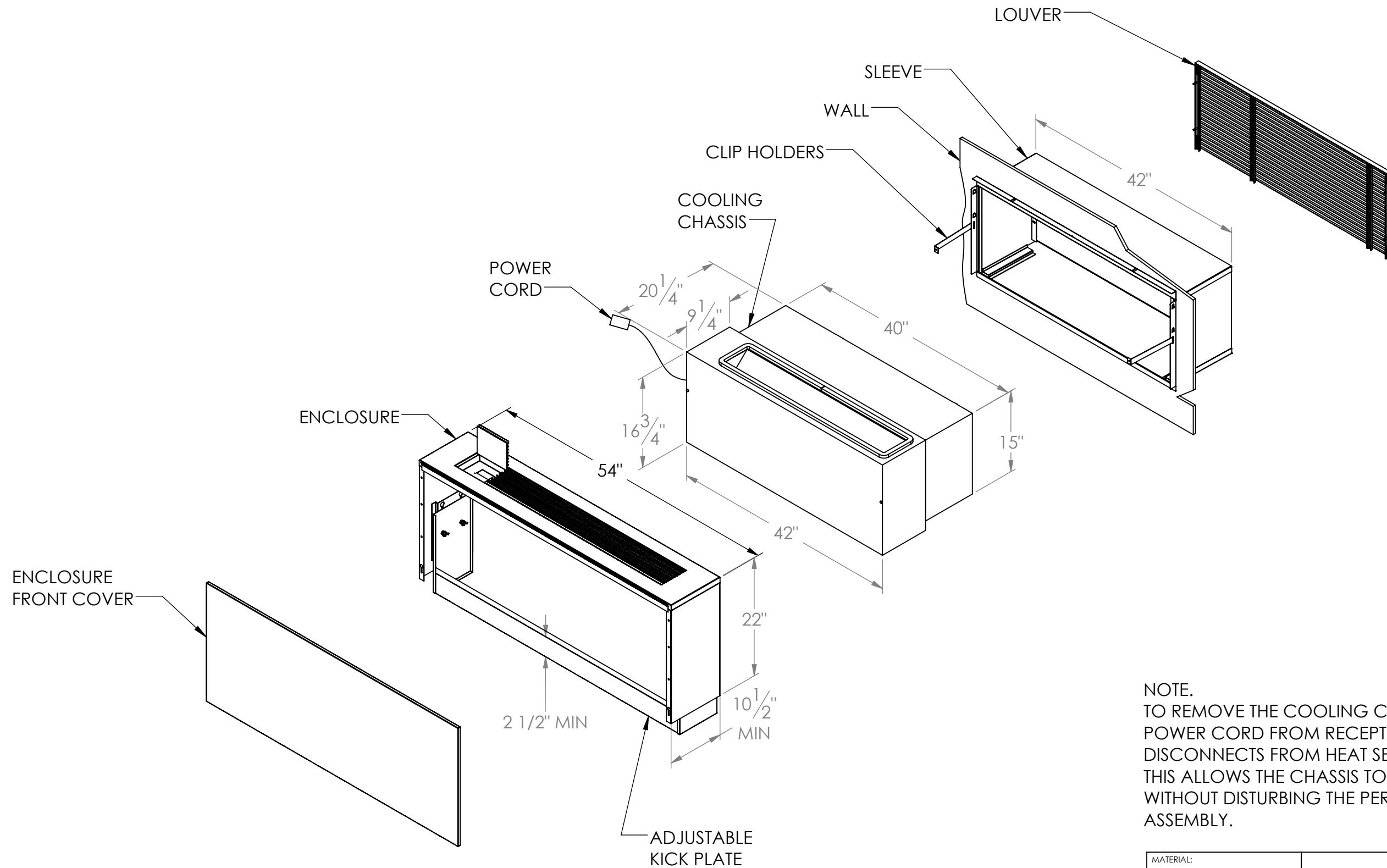
MATERIAL:	<b>ICE-AIR LLC.</b> 80 HARTFORD AVENUE MOUNT VERNON, NY 10553		
WEIGHT (LBS): 612.45	TITLE: RSNU PANEL WALL SLEEVE (NEW DESIGN), ENCLOSURE MOUNTED T-STAT, HEAT PUMP-EL.HEAT		
FINISH: N/A	MODEL BY: VP	DATE 06/14/16	DWG. NO.
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	DRAWING BY:	DATE:	RSNU SLEEVE (NEW DESIGN) LAYOUT
<b>SIZE B</b>	SCALE: NONE DO NOT SCALE DRAWING	SHEET 1 OF 1	REV

**PROPRIETARY AND CONFIDENTIAL**  
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RSNU SLEEVE (NEW DESIGN) LAYOUT

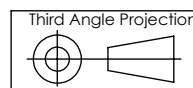
REVISIONS			
REV.	DESCRIPTION	BY	DATE



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.

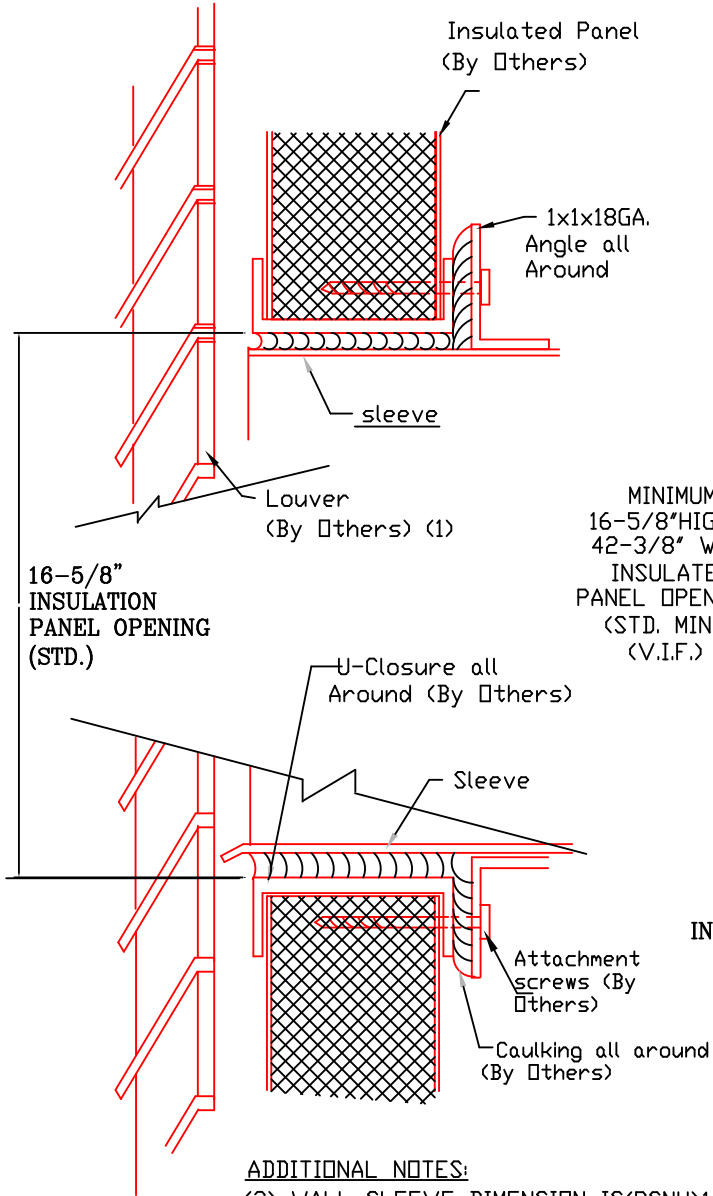
MATERIAL:	<b>ICE-AIR LLC.</b> 80 HARTFORD AVENUE MOUNT VERNON, NY 10553		
WEIGHT (LBS): 541.86			
FINISH: N/A	TITLE: RSNU MASONRY WALL SLEEVE (NEW DESIGN), ENCLOSURE MOUNTED T-STAT, HEAT PUMP-EL. HEAT		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° 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>B</b>	SCALE: NONE DO NOT SCALE DRAWING	SHEET 1 OF 1	REV <b>A</b>

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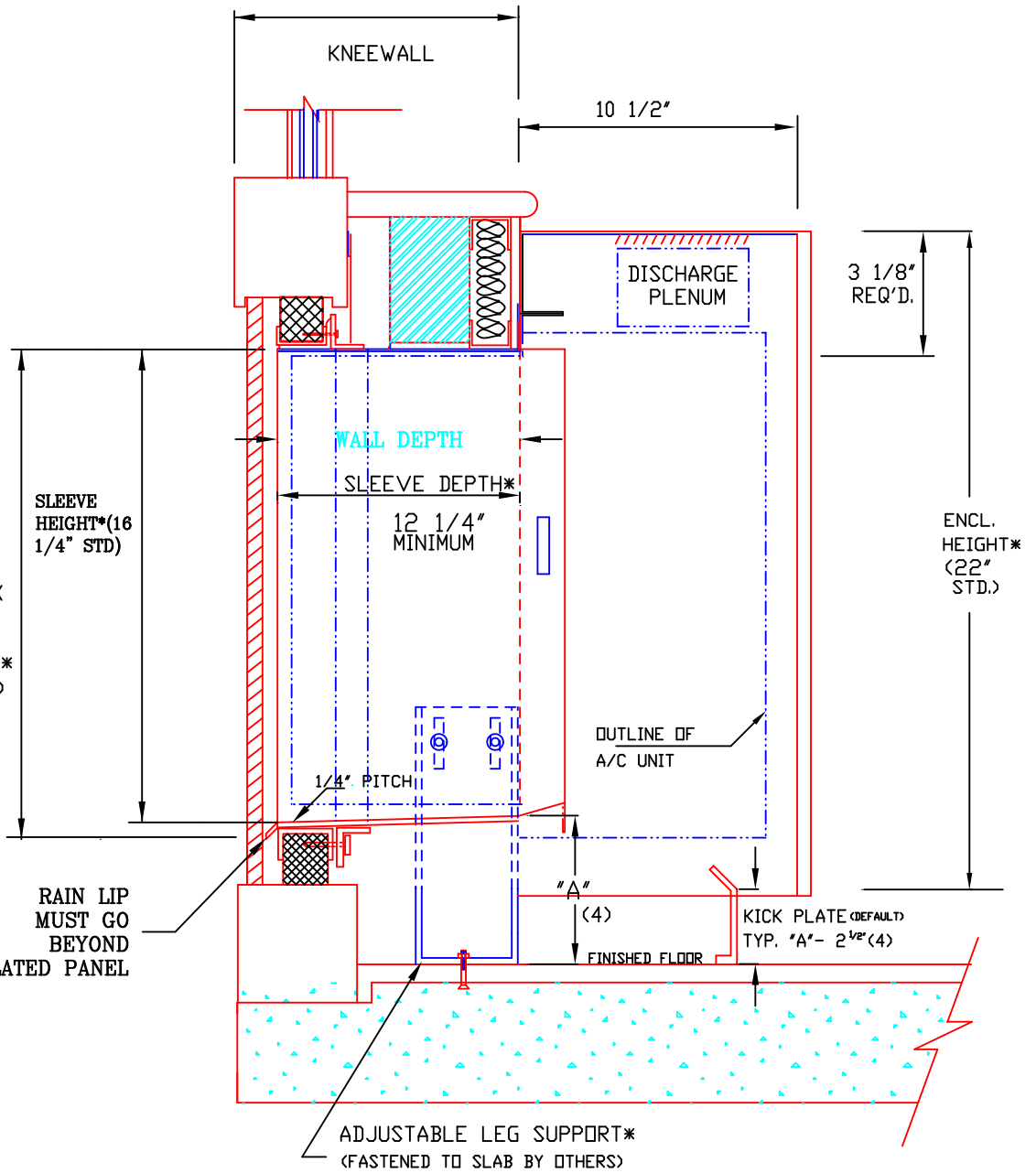


\* ARCHITECT TO PROVIDE DETAILS FOR EACH FLOOR

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

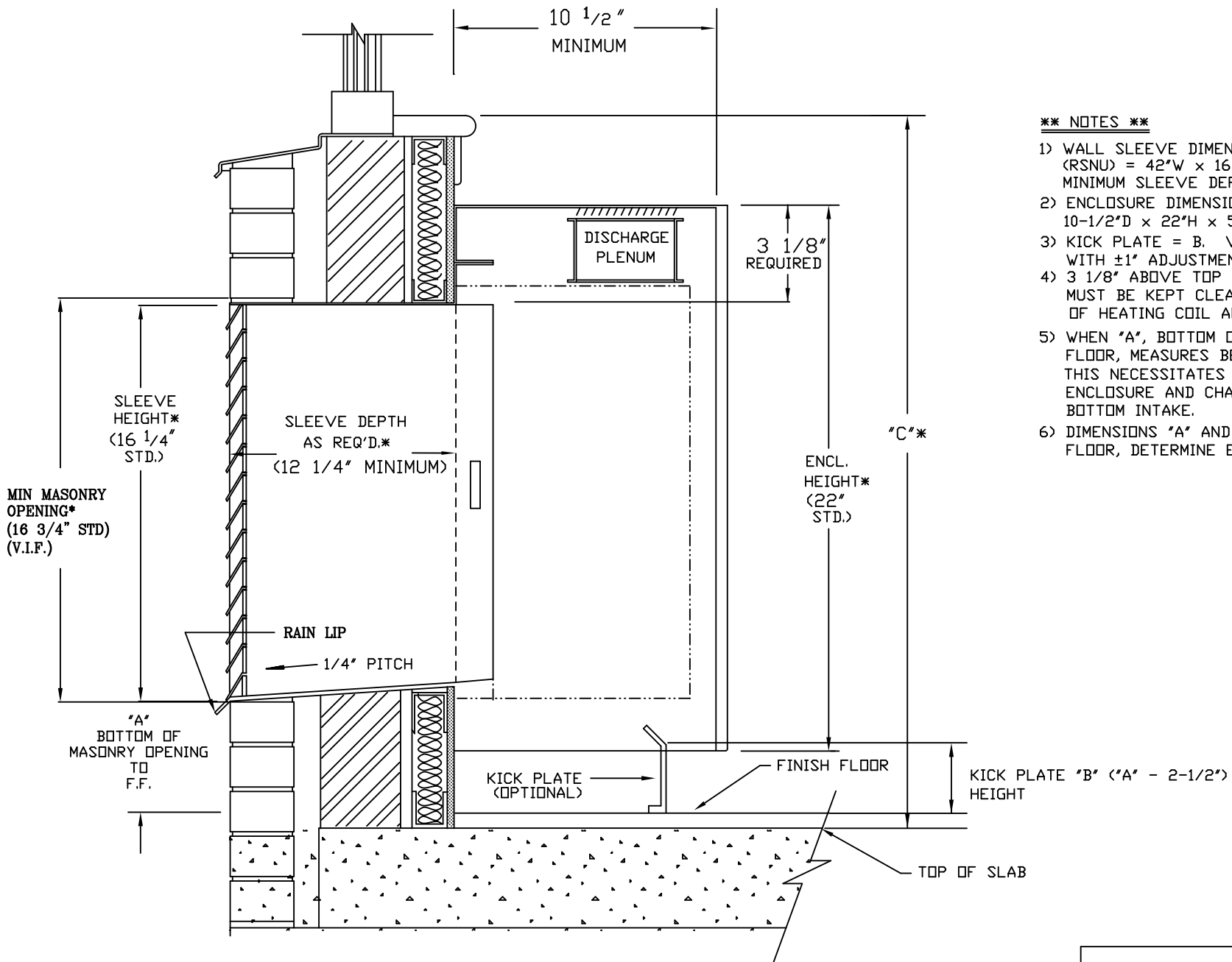


MINIMUM  
 16-5/8" HIGH X  
 42-3/8" WIDE  
 INSULATED  
 PANEL OPENING\*  
 (STD. MIN.) (3)  
 (V.I.F.)



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 HEAT PUMP - EL. HEAT			
TYP. PTAC @ PANEL WALL			
SCALE	N.T.S.	DR. BY	L.R.
DATE	07/08/13	DRG. NO.	REV.

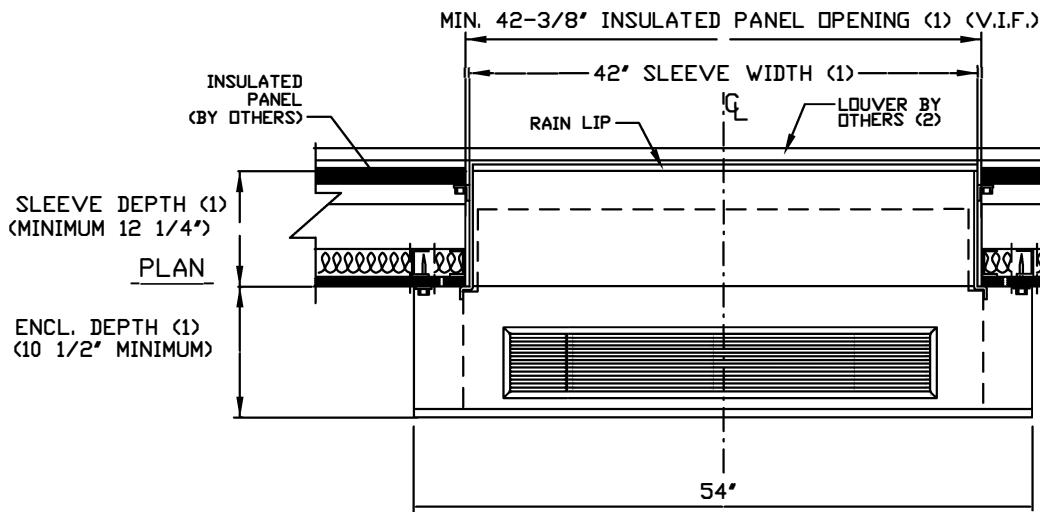


**\*\* NOTES \*\***

- 1) WALL SLEEVE DIMENSION:  
(RSNU) = 42"W x 16-1/4"H  
MINIMUM SLEEVE DEPTH: 12-1/2"
- 2) ENCLOSURE DIMENSION: TYPICAL\*  
10-1/2"D x 22"H x 54"W
- 3) KICK PLATE = B. VARIES ("A" - 2 1/2")  
WITH ±1" ADJUSTMENT.
- 4) 3 1/8" 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

\* DETAILS TO BE PROVIDED FOR EACH FLOOR

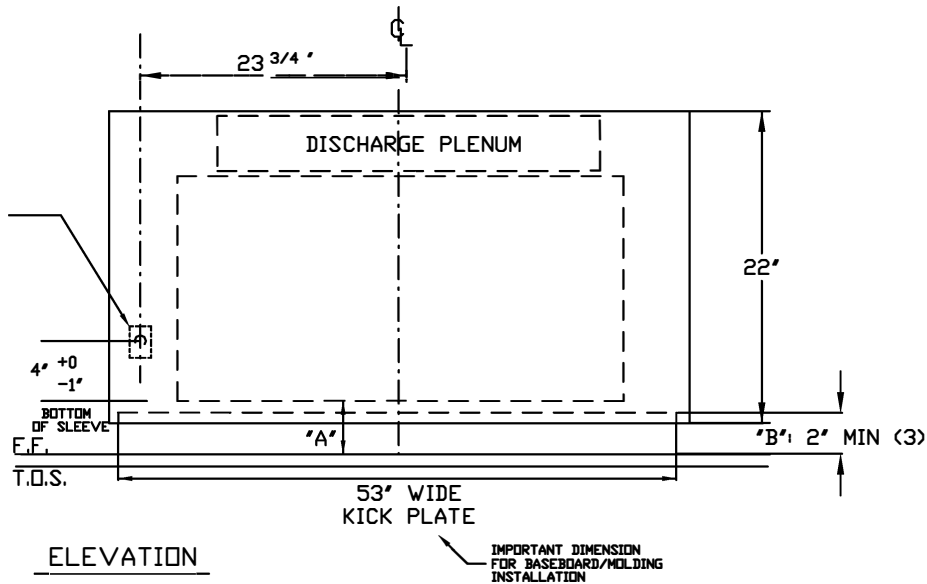
ICE-AIR LLC.				
RSNU HEAT PUMP - EL. HEAT				
TITLE TYP. PTAC @ MASONRY				
SCALE	N.T.S.	DR. BY	V.P.	DRG. NO.
DATE	07/08/13	CHK. BY		REV.



**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.

PROVIDE METAL GYP. BD. STUDS FOR ENCLOSURE ATTACHMENT (53" CENTER TO CENTER)



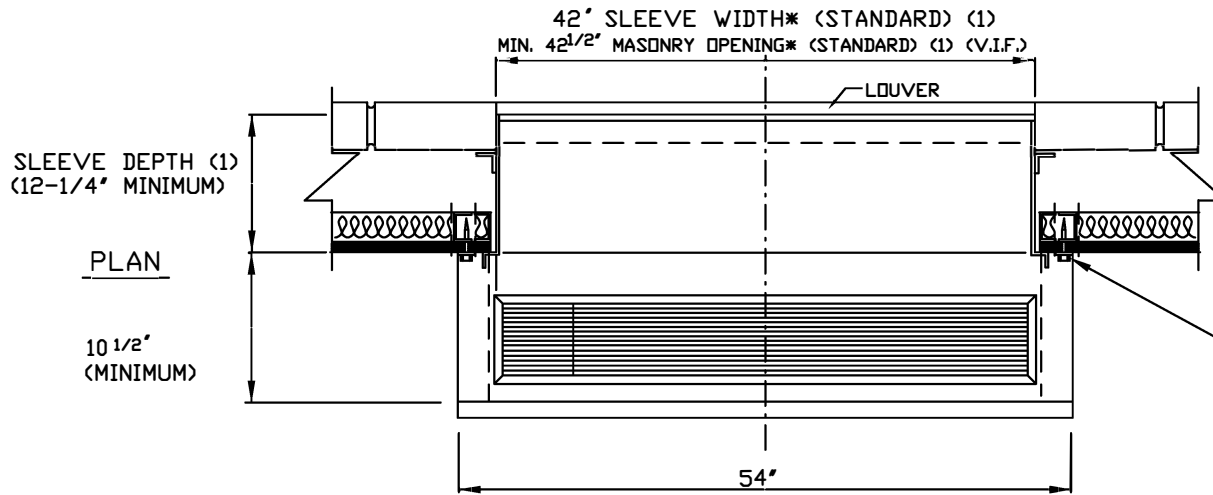
ELECTRIC OUTLET BY ELECTRICAL CONTRACTOR 115V, 15A OR 208V, 15A AS REQUIRED.

RECOMMENDED LOCATION OF ELECTRICAL OULET

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

NEMA 5-15	NEMA 6-15	NEMA 5-20	NEMA 6-20	NEMA 6-30
1.5 kW TO 2.5 kW	3.0 kW TO 4.0 kW	4.3 kW TO 5.0 kW		

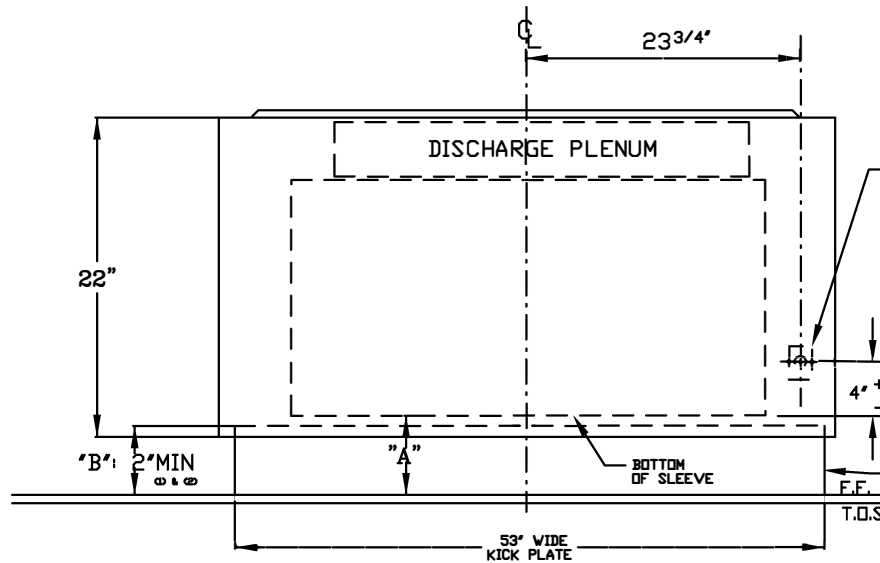
NO.	REVISIONS	DATE	BY
ICE-AIR LLC			
TITLE RSNU HEAT PUMP - EL. HEAT			
TYP. RSNU @ CURTAIN WALL			
SCALE	N.T.S.	DR. BY	V.P.
DATE	07/08/13	CHK. BY	
DRG. NO.		REV.	



**NOTES**

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- (2) PROVIDED LOUVER WILL HAVE AN AREA OF MINIMUM 60% FREE AIR FLOW
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 "A" IS BOTTOM OF SLEEVE TO FINISHED FLOOR  
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 "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.

PROVIDE METAL GYP. BD.  
STUDS FOR ENCLOSURE ATTACHMENT  
(53" CENTER TO CENTER)



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

RECOMMENDED LOCATION OF ELECTRICAL OUTLET

INSTALL THE ELECTRICAL OUTLET WHERE THE  
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THE POWER CORD PLUG.

NEMA 5-15	NEMA 6-15	NEMA 5-20	NEMA 6-20	NEMA 6-30
1.5 kW TO 2.5 kW	3.0 kW TO 4.0 kW	4.3 kW TO 5.0 kW		

IMPORTANT DIMENSION  
FOR BASEBOARD/MOLDING  
INSTALLATION

NO.	REVISIONS	DATE	BY
ICE-AIR LLC			
RSNU HEAT PUMP - EL. HEAT			
TITLE			
TYP. PTAC @ MASONRY WALL			
SCALE	N.T.S.	DR. BY	V.P.
DATE	07/08/13	CHK. BY	
		DRG. NO.	
		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, electric heating element, cooling chassis and room enclosure. Units to operate at either 115 volt or 208 / 230 volt, single phase, 60 hertz circuits.
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. Wall sleeves to be insulated with neoprene type insulation on interior facings. 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 rain 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 or 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. Provide a permanent, washable aluminum mesh filter with each unit.
- 5ai. Cooling 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, reversing valve 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 R32 Green refrigerant; units containing R22 or R407C refrigerant are not acceptable.

- 5a.ii. Heat Pump System: Heat Pump operation using reverse heating cycle. System to be factory charged and sealed and capable of operating in the heating mode until an outdoor ambient temperature of 38 °F. Electric heating element will automatically energize (manual activation switch available). All units to be manufactured with R32 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 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 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. Controller to be seven-day programmable type (optional non-programmable). (Optional Manual Changeover (MCO) or remote wall mount thermostats are available). 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 outside air damper with chassis mounted actuator. (Optional motorized or full time motorized fresh air dampers are available).
- 5h. Electric Heating Element: Electric heaters to include overheating protection heating elements with self-limiting temperature features.
- 6. Room Enclosure (Cabinet): Room enclosure to be (flat top) (slope top) type and to be fabricated of 18 gauge galvanized paint grip furniture steel. Enclosure front cover to be fabricated from 20 gauge galvanized 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.
- 7. Warranty and Code Compliance: Unit to be guaranteed free of defects in material and workmanship for one year from date of delivery. Provide (OPTIONAL) additional 2<sup>nd</sup> through 5<sup>th</sup> year compressor parts warranty. 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.