

FOR QUESTIONS, CALL THE
Wilmington, NC Mechanical
REGION 154
PHONE:
EMAIL: reg154@captiveaire.com

PATENT NUMBERS
EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) - CA PATENT 2520435 C.

HOOD INFORMATION - JOB#7621664

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)							HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP		END TO END	ROW
1	KH-Left	6024 ND-2	CAPTIVEAIRE	8' 6"	600 DEG	I	HEAVY	200	1700			4'	12"	1700	2165	-0.885'	430 SS 100%	LEFT	ALONE
2	KH-Right	6024 ND-2	CAPTIVEAIRE	8' 6"	600 DEG	I	HEAVY	200	1700			4'	12"	1700	2165	-0.885'	430 SS 100%	RIGHT	ALONE
3	KH-2	5424 VHB-G-ND	CAPTIVEAIRE	7' 0"	700 DEG	II	N/A	125	875			4'	12"	875	1114	-0.090'	430 SS 100%	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)					FIRE SYSTEM PIPING	HOOD HANGING WEIGHT	
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM		ELECTRICAL			SWITCHES
												TYPE	SIZE	MODEL #			QUANTITY
1	KH-Left	CAPTRATE SOLO FILTER	6	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	LEFT	12"x60"x24"	CORE PROTECTION	0	SC-321110MA	1 LIGHT 1 FAN	YES	836 LBS
2	KH-Right	CAPTRATE SOLO FILTER	6	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO							YES	635 LBS
3	KH-2						0									NO	372 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION						CLEARANCE TO COMBUSTIBLES		
		FIELD WRAPPER	18.00"	HIGH	FRONT, LEFT.			HOODS #	SURFACE	#CLEARANCE
1	KH-Left	BACKSPLASH	80.00"	HIGH X	216.00" LONG	430 SS VERTICAL.		1	TOP	0"
		INSULATION FOR TOP OF HOOD.							FRONT	0"
		INSULATION FOR BACK OF HOOD.							BACK	0"
		WC-CORE PROTECTION.							LEFT	0"
		SENSOR-CV.							RIGHT	18"
		LEFT WIDE VERTICAL END PANEL	42"	TOP WIDTH,	36" BOTTOM WIDTH,	80" HIGH INSULATED 430 SS.			TOP	0"
2	KH-Right	FIELD WRAPPER	18.00"	HIGH	FRONT, RIGHT.			2	FRONT	0"
		INSULATION FOR TOP OF HOOD.							BACK	0"
		INSULATION FOR BACK OF HOOD.							LEFT	18"
		WC-CORE PROTECTION.							RIGHT	18"
		SENSOR-CV.							TOP	0"
		RIGHT WIDE VERTICAL END PANEL	42"	TOP WIDTH,	36" BOTTOM WIDTH,	80" HIGH INSULATED 430 SS.			FRONT	0"
3	KH-2	FIELD WRAPPER	18.00"	HIGH	FRONT, LEFT, RIGHT.				BACK	0"
		BACKSPLASH	80.00"	HIGH X	84.00" LONG	430 SS VERTICAL.			LEFT	18"
		RIGHT QUARTER END PANEL	23"	TOP WIDTH,	0" BOTTOM WIDTH,	23" HIGH 430 SS.			RIGHT	18"
		LEFT QUARTER END PANEL	23"	TOP WIDTH,	0" BOTTOM WIDTH,	23" HIGH 430 SS.				
		INSULATION FOR TOP OF HOOD.								

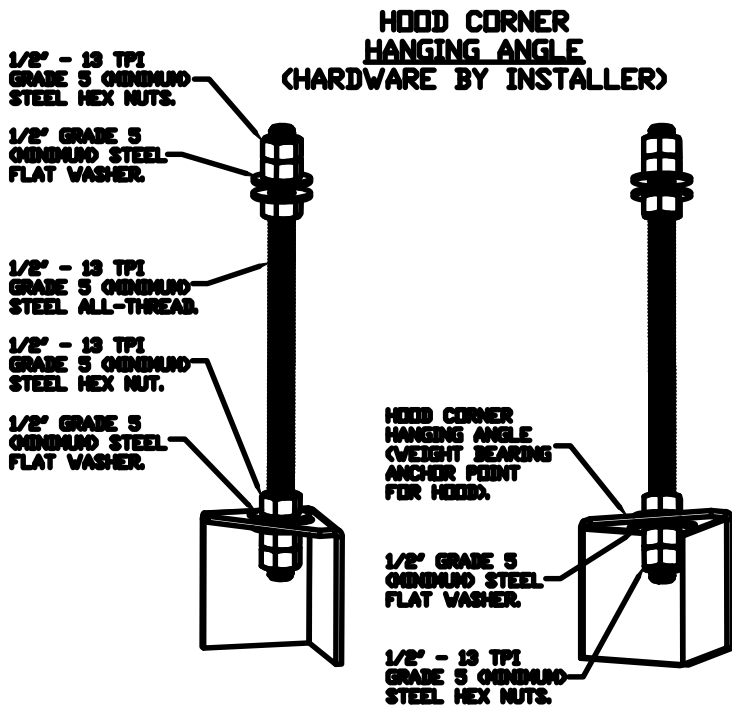
- #0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.

FIRE SYSTEM INFORMATION - JOB#7621664

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1		CORE PROTECTION	0	0	0	FIRE CABINET LEFT	LEFT, HOOD 1

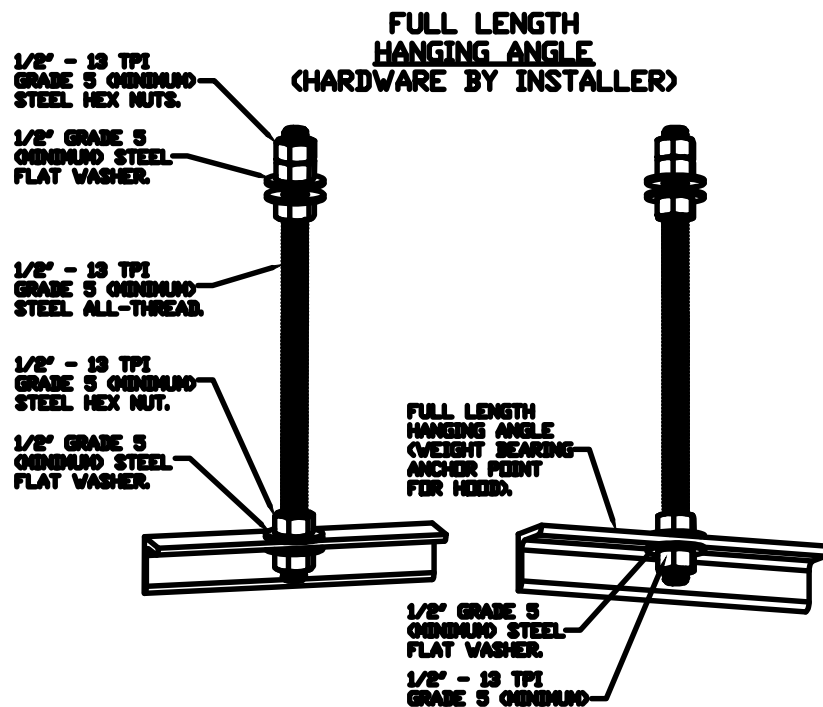
ELECTRICAL PACKAGE - JOB#7621664

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	Ø	HP	VOLT	FLA
				UTILITY CABINET LEFT	1 LIGHT		KEF-Left	EXHAUST	1	1.000	208	6.9
1		SC-321110MA	UTILITY CABINET LEFT		1 FAN	SMART CONTROLS THERMOSTATIC CONTROL V/ RELAY ON/OFF WITH SUPPLY	KEF-Right	EXHAUST	1	1.000	208	6.9
				HOOD # 1			N/A	SUPPLY	3	5.000	460	6.8



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS

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REVISIONS

DESCRIPTION	DATE

Wilmington, NC Mechanical

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BROWNS SUMMIT, NC, 27214

DATE: 7/7/2025

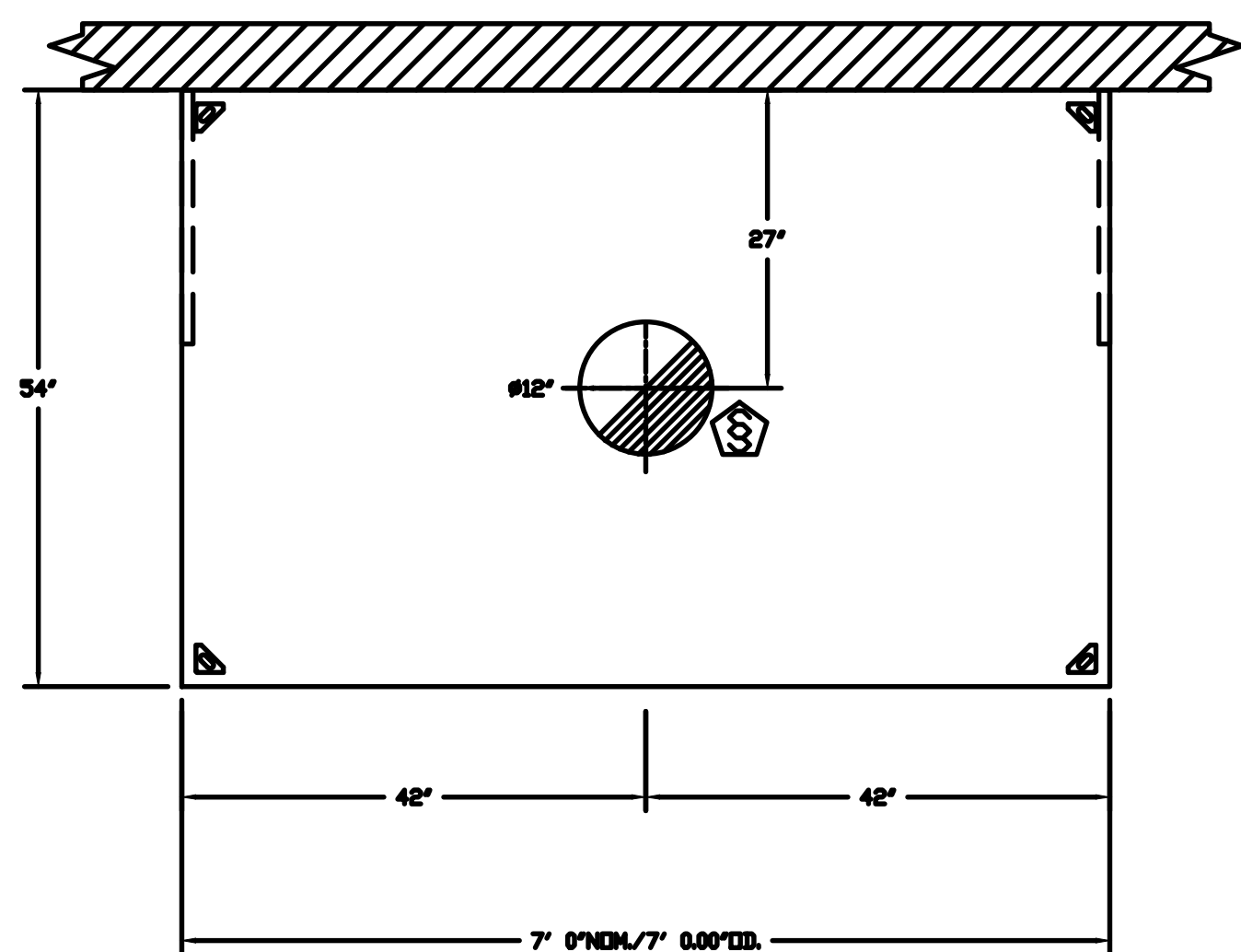
DWG.#:
7621664

DRAWN BY: ben.denchak

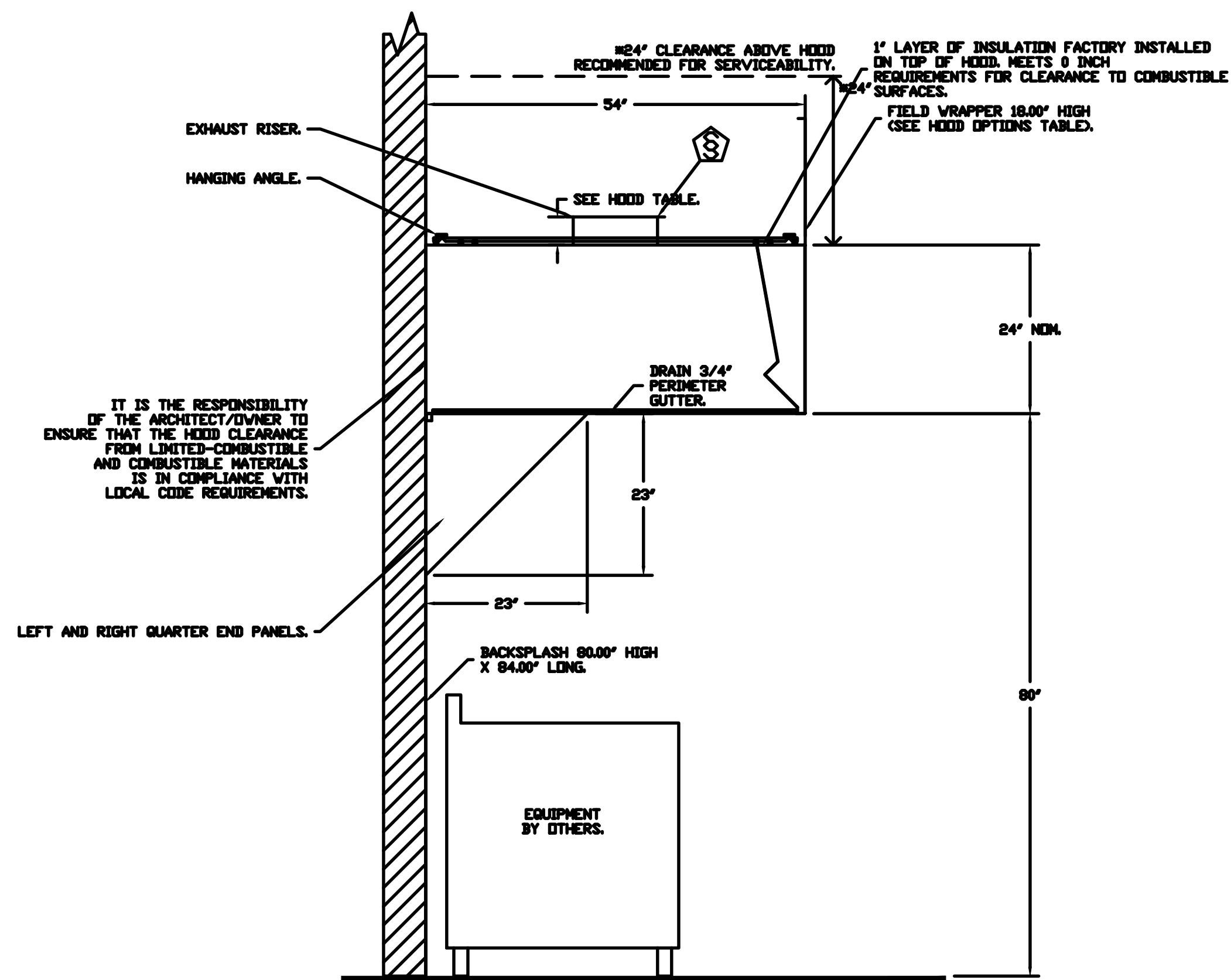
SCALE:
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.
1



PLAN VIEW - HOOD #3 (KH-2)
7' 0.00" LONG 5424VHB-G-ND



SECTION VIEW - MODEL 5424VHB-G-ND
HOOD - #3 (KH-2)

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW"
ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW"
IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING
CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW"
DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER
THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER.
PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE
SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12".
DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE
ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE
UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY
EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE
430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE
OF LISTED, PRE-FABRICATED ROUND GREASE
EXHAUST DUCT TO REDUCE STATIC PRESSURE
IN THE SYSTEM, MINIMIZE INSTALLATION AND
INSPECTION TIMES, AND ENSURE DUCT IS
LIQUID TIGHT

HVAC DISTRIBUTION NOTE
HIGH VELOCITY DIFFUSERS OR HVAC RETURNS
SHOULD NOT BE PLACED WITHIN TEN (10) FEET
OF THE EXHAUST HOOD. PERFORATED
DIFFUSERS ARE RECOMMENDED.

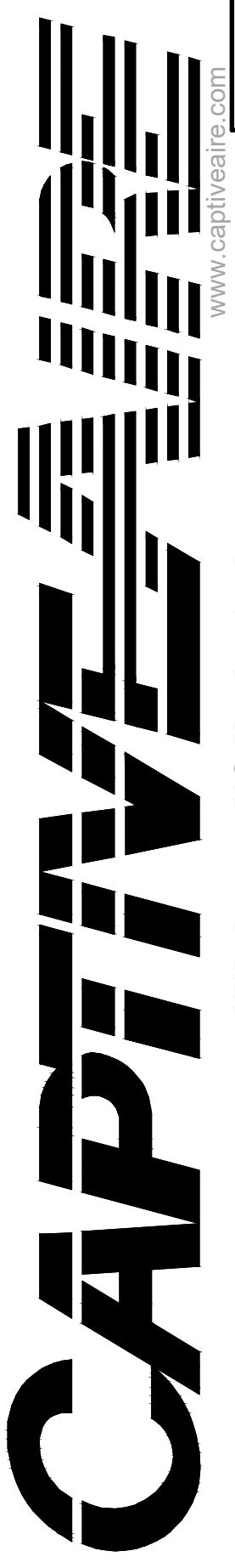
VERIFY CEILING HEIGHT
____' - ____"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED	☐
APPROVED WITH NO EXCEPTION TAKEN	☐
REVISE AND RESUBMIT	☐
SIGNATURE _____	
YOUR TITLE _____	DATE _____

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DWG.#: 7621664
DRAWN BY: ben.denchak
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
3

DOAS/RTU FAN SCHEDULE - JOB#7621684

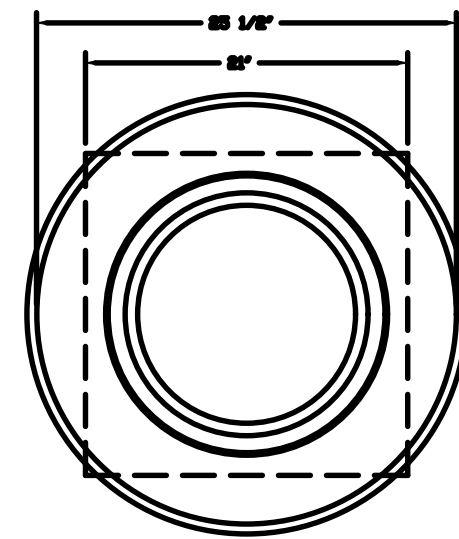
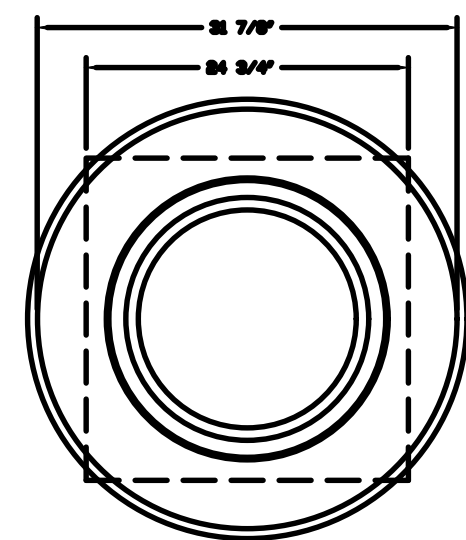
FAN ACCESSORIES

CURB ASSEMBLIES

EXHAUST FAN INFORMATION - JOB#7621684

FAN OPTIONS

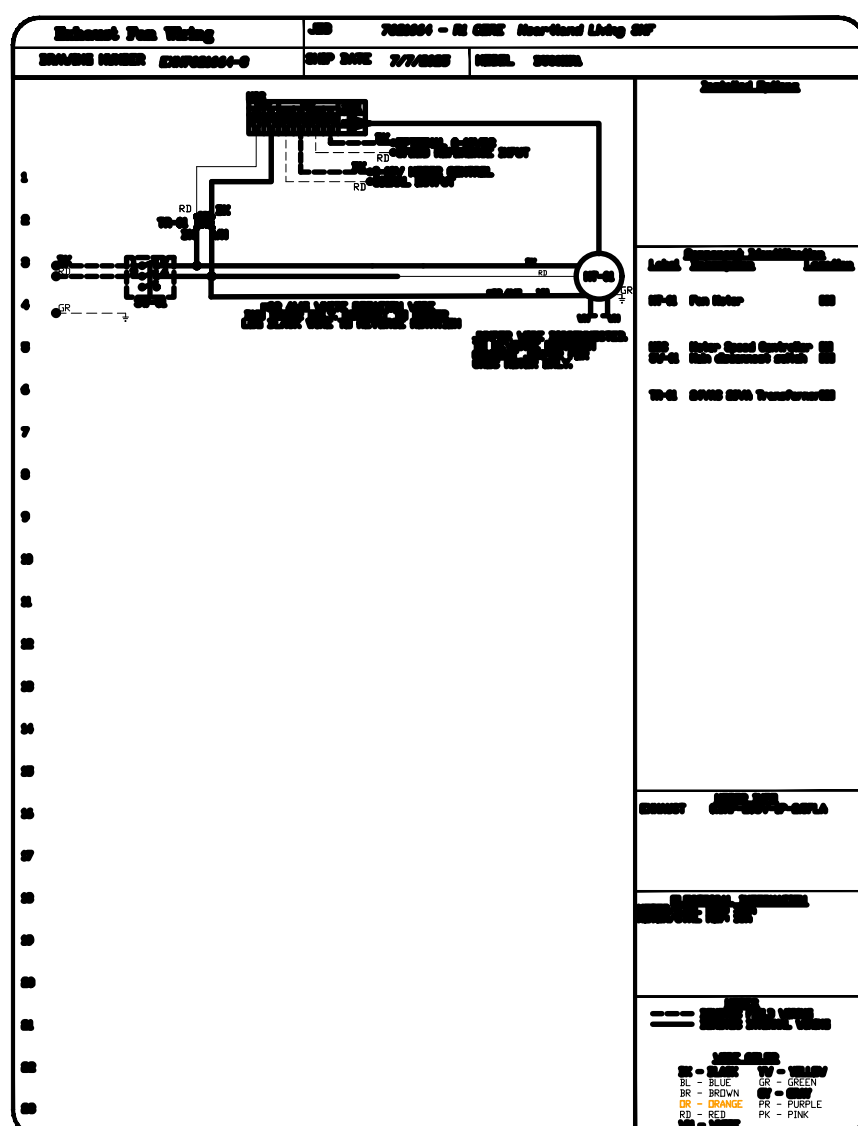
HME SCHEDULE				
UNIT NUMBER	HME #	HME LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN 04	HME 01 - UNIT	IN UNIT	NOT AVERAGED	55
FAN 04	HME 02 - SPACE	KITCHEN	AVERAGED	56



- ## FEATURES:

- NORMAL TEMPERATURE TEST**
EXHAUST FAN MUST OPERATE CONTINUOUSLY
WHILE EXHAUSTING AIR AT 300° G40PC
UNTIL ALL FAN PARTS HAVE REACHED
THERMAL EQUILIBRIUM, AND WITHOUT ANY
DETERIORATING EFFECTS TO THE FAN WHICH
WOULD CAUSE UNSAFE OPERATION.

- FEATURES**
- GREASE BOX.
 - PAN BACK CERAMIC SEAL - SIL/BRONZA.
 - INSTALLED AT PLANT - FOR GREASE SUCTION.
 - EEN VIBRANT PACKAGE - PAN SIGNAL FROM EXPOSED PNEUMATIC CYLINDER MOUNTED, COV. NOTATION.
 - 2 YEAR PARTS WARRANTY.

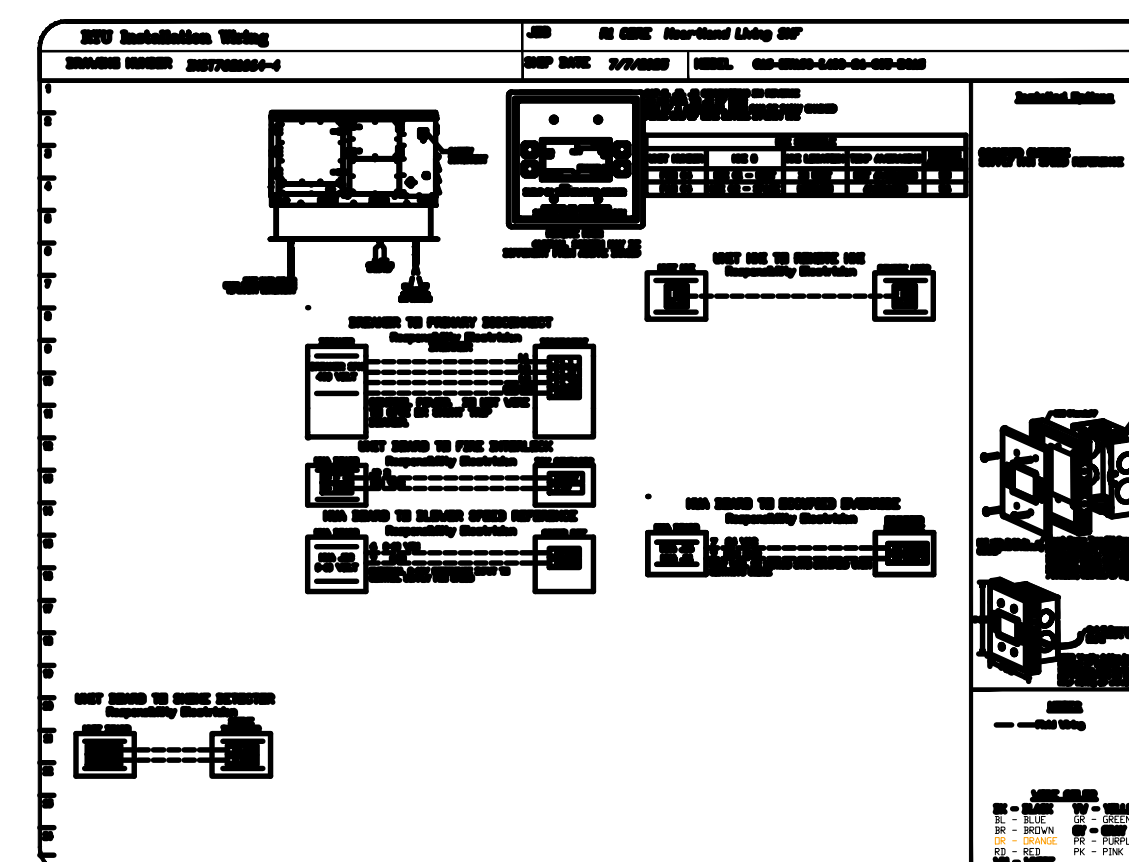
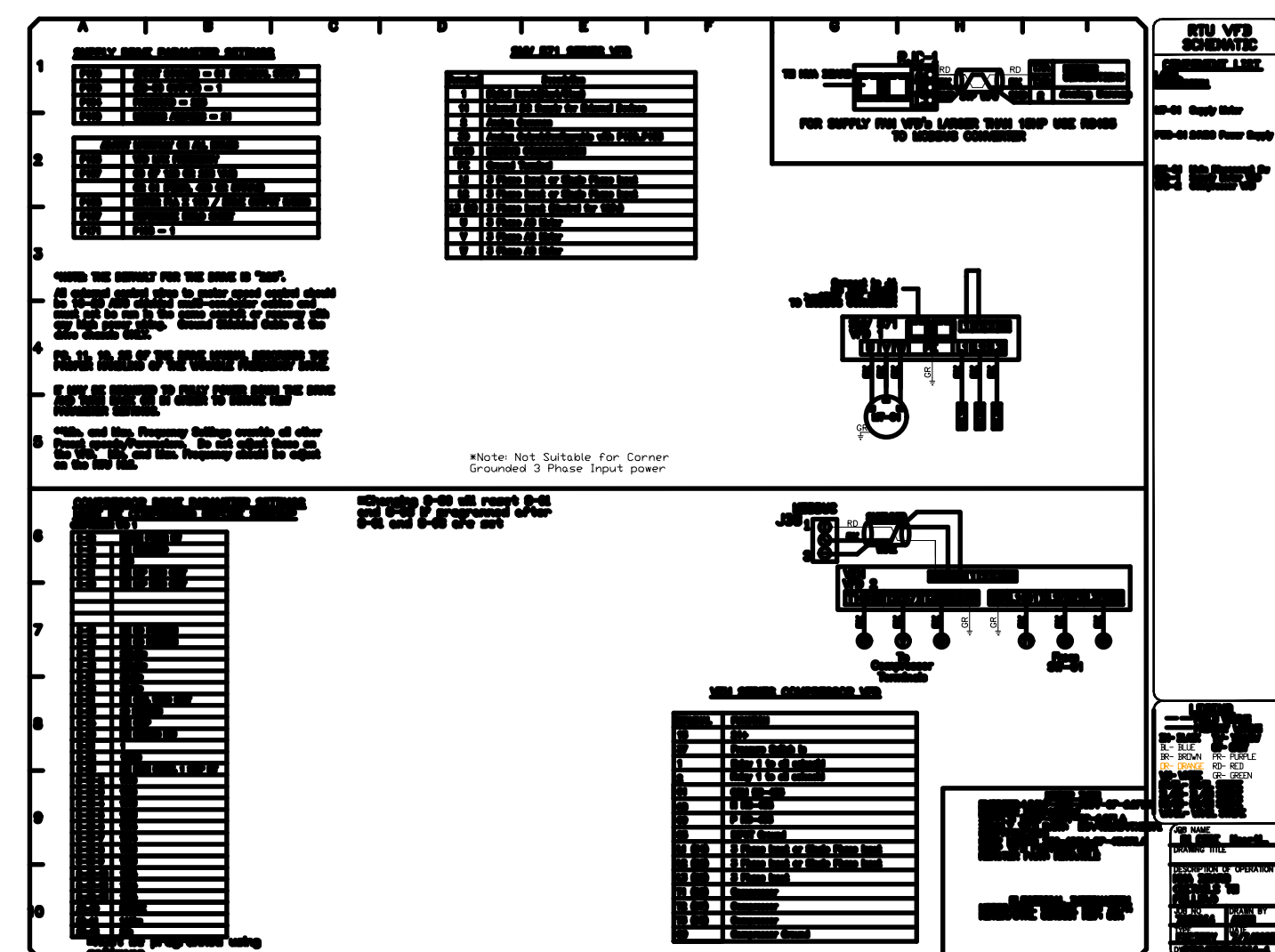
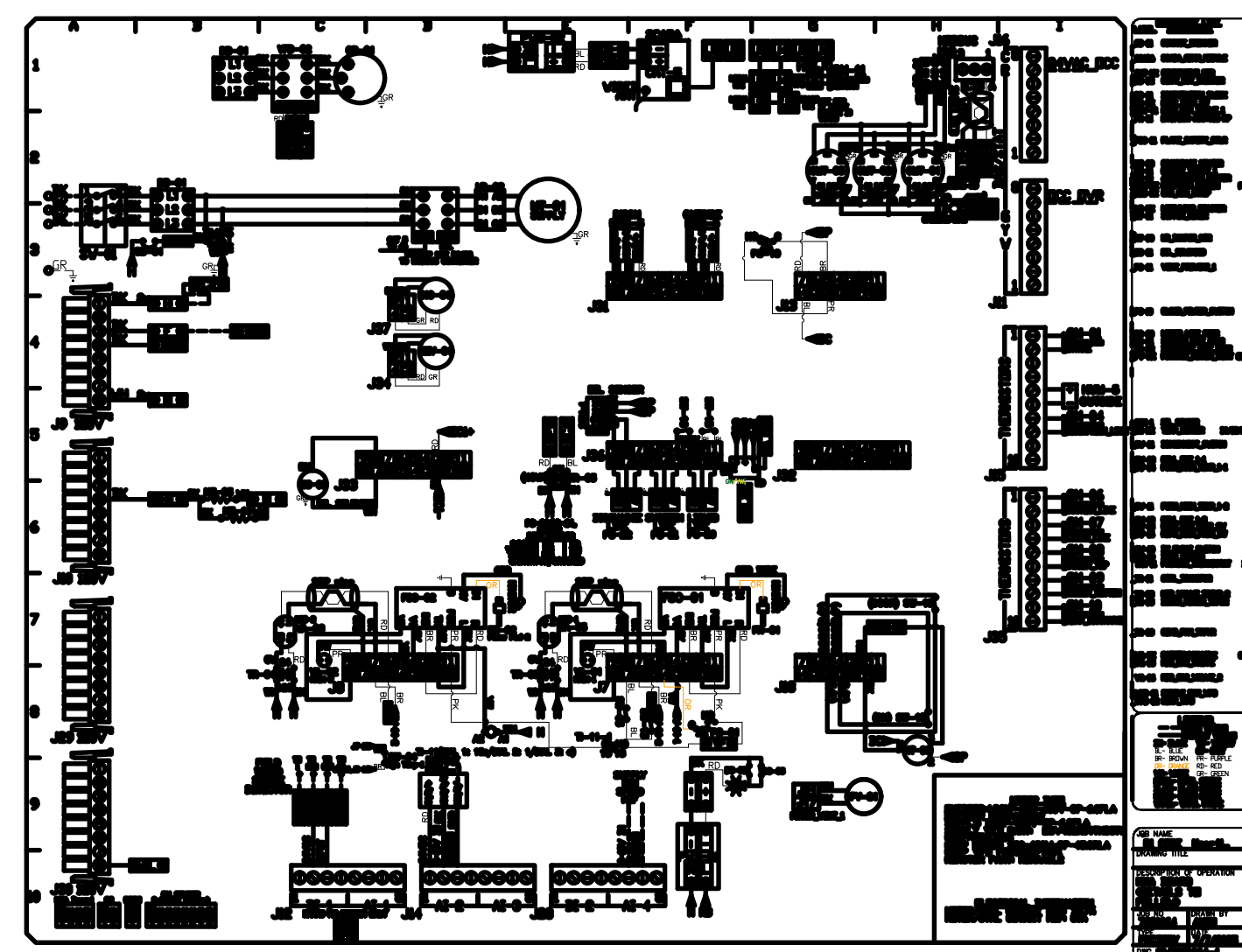
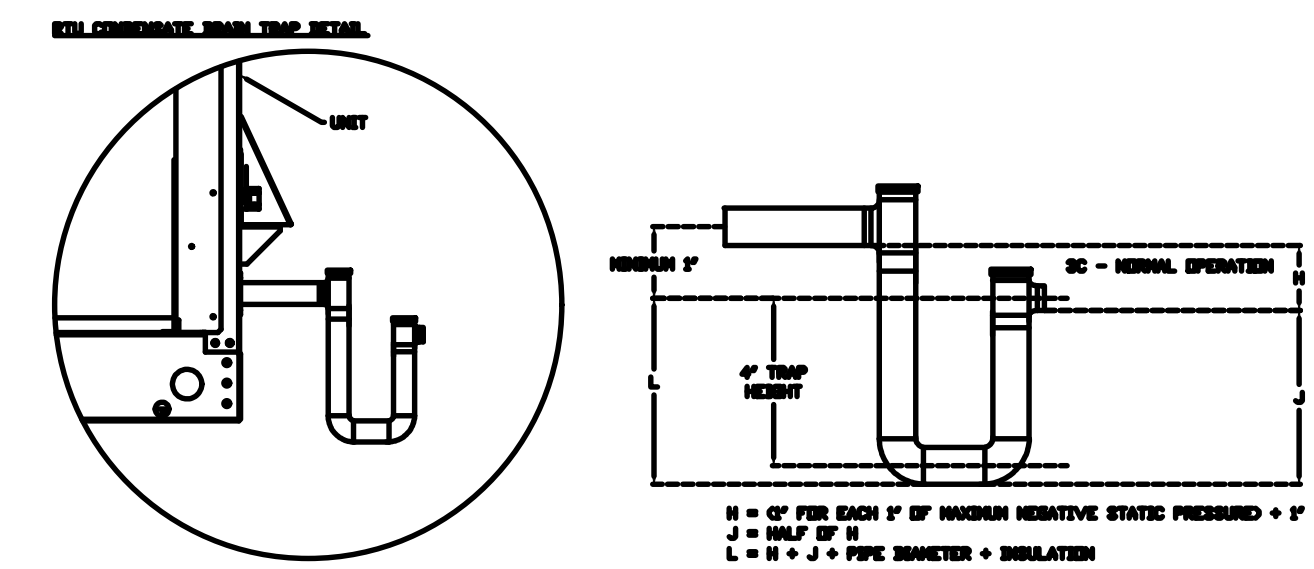
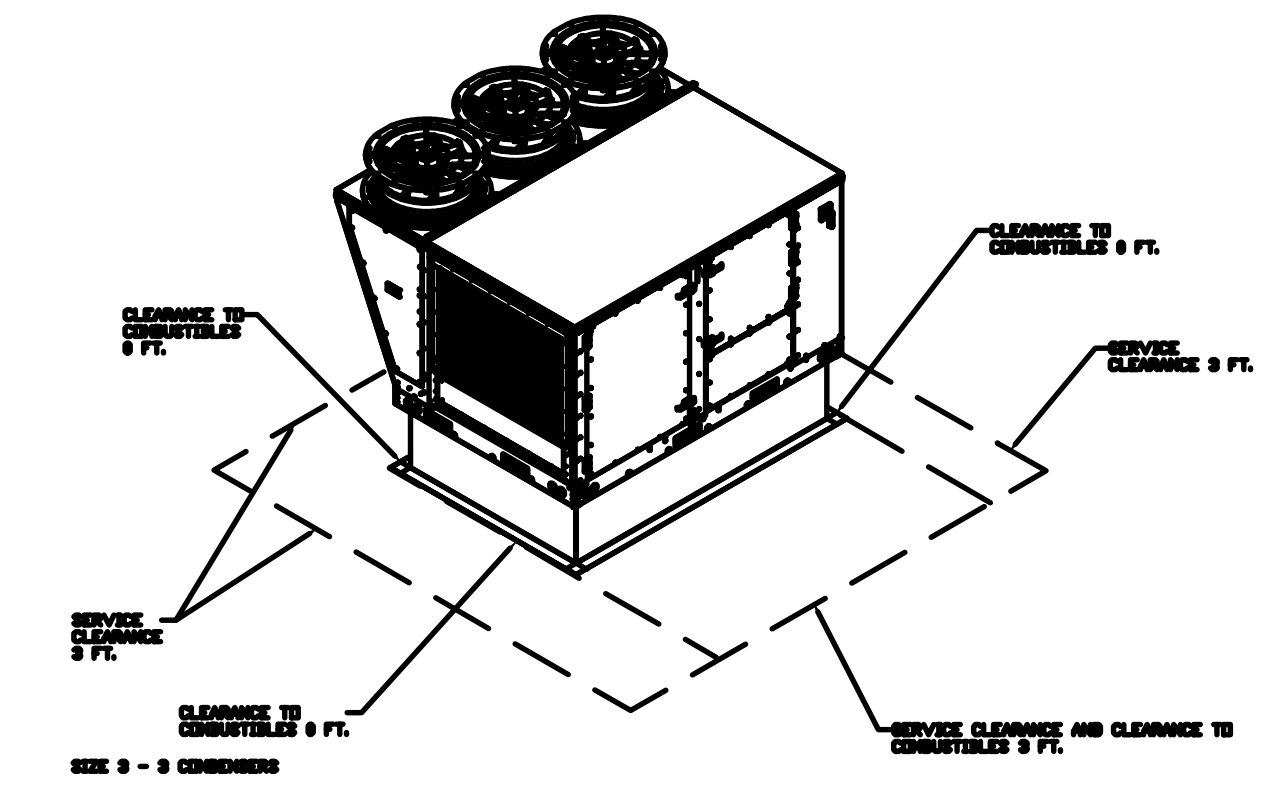
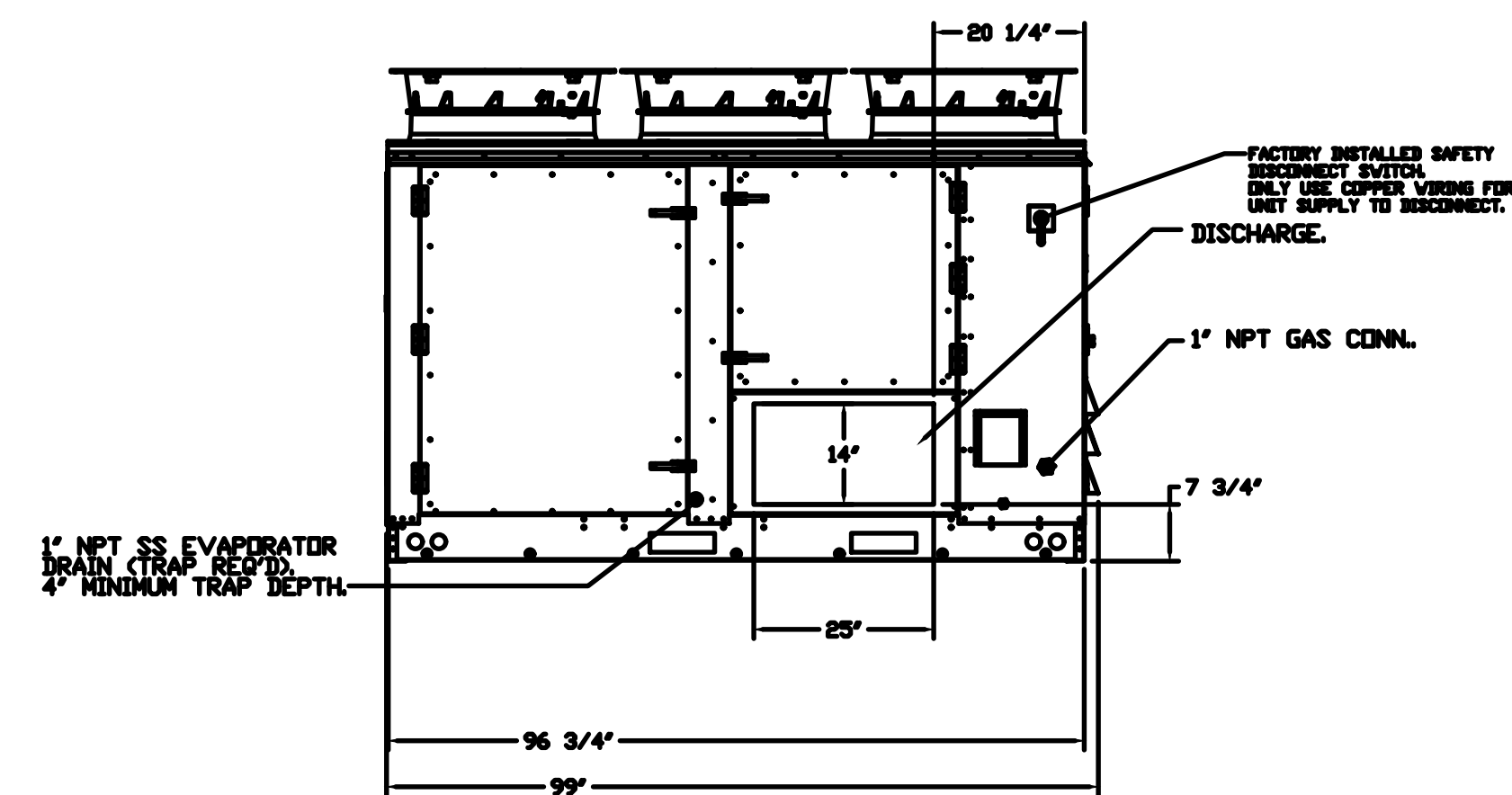
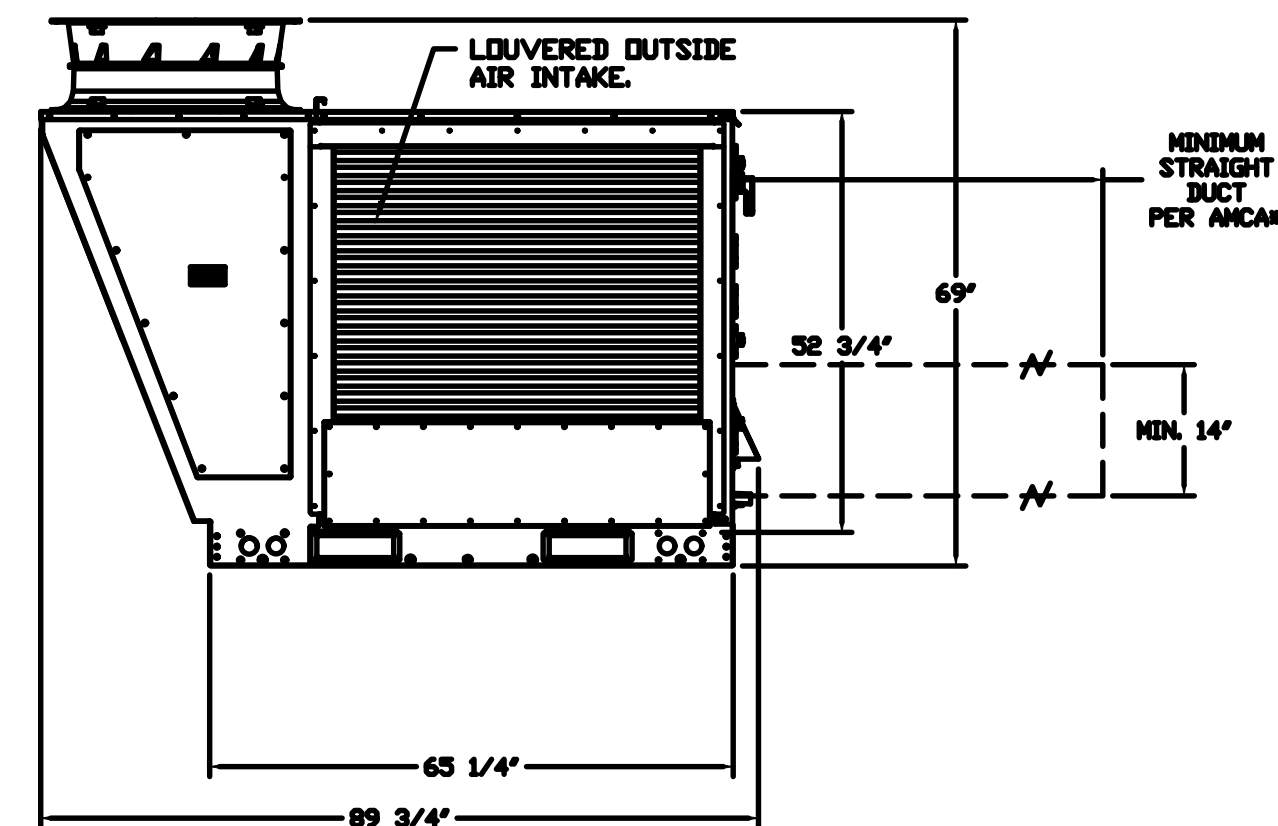
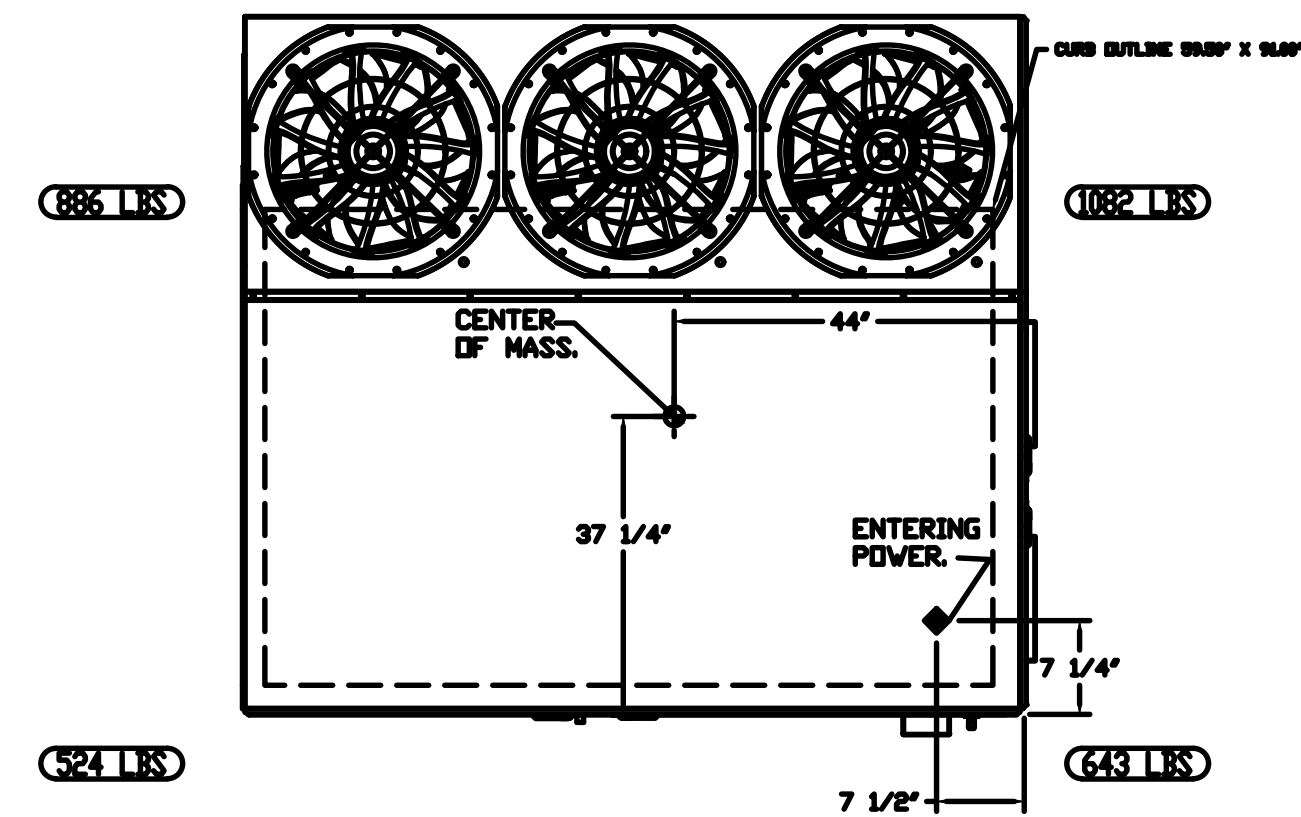
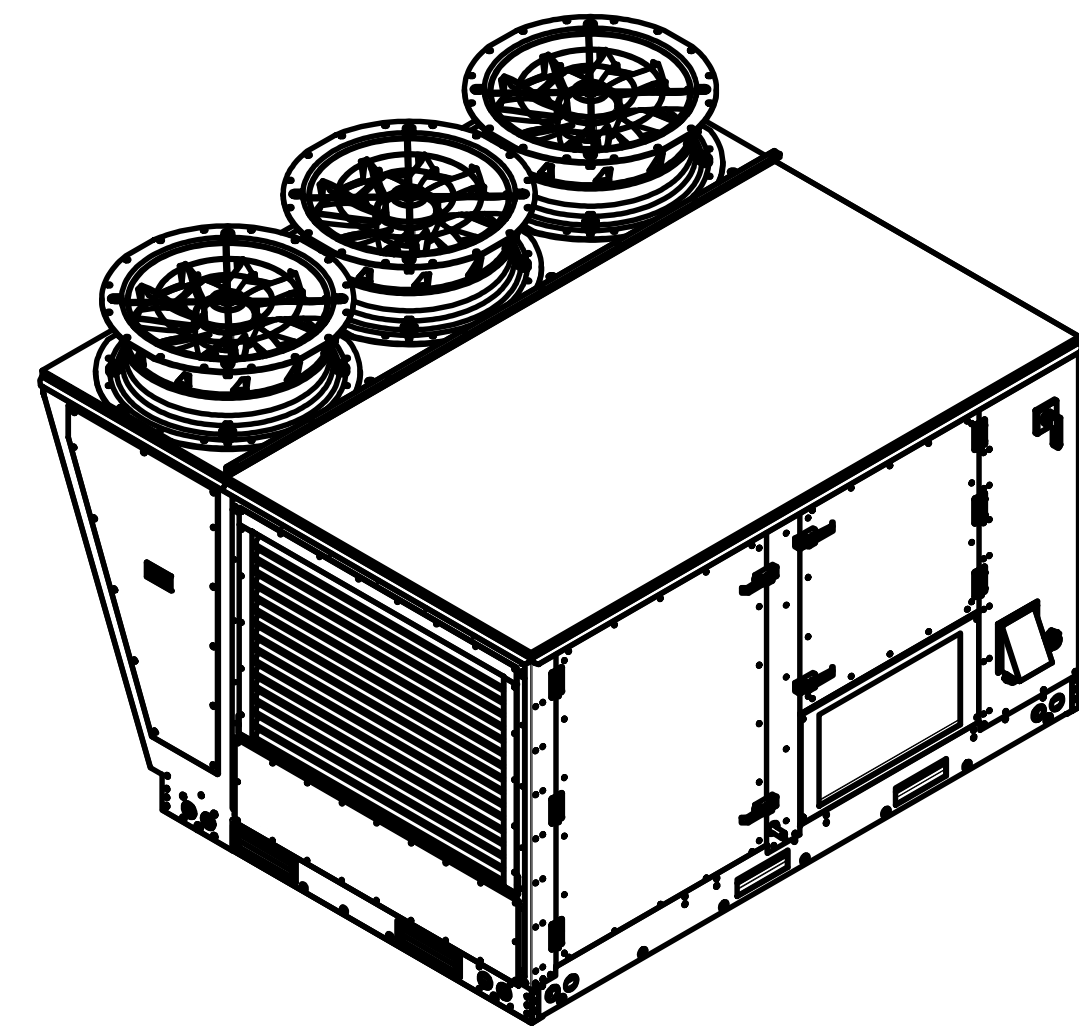


NOTES:

1. DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
2. DENOTES CORNER WEIGHT.
3. CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
4. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

*NOTE: THIS UNIT IS INTENDED TO SERVE IN PLACE OF THE KITCHEN HVAC ROOF TOP UNIT (RTU) IN ADDITION TO PROVIDING APPROPRIATE MAKE-UP AIR FOR THE KITCHEN HOOD(S). RTU AND ASSOCIATED DUCTWORK SHALL BE REMOVED FROM SCOPE UNLESS REQUIRED FOR INTERNAL LOAD ESTIMATES. FINAL DESIGN SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD.

NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMCA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADII BACK WITH TURNING VANES, FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL HAVE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 25" x 14".



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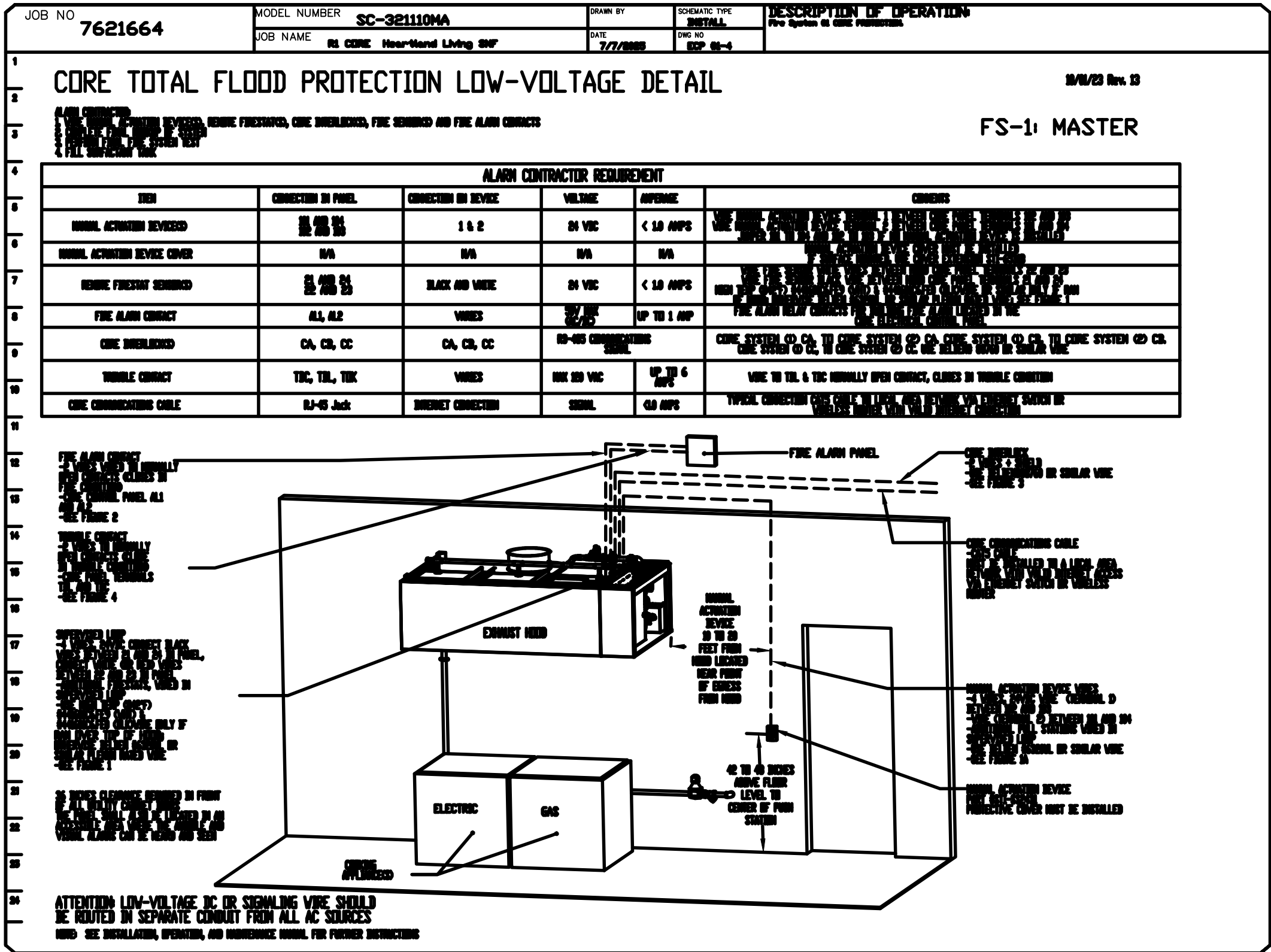
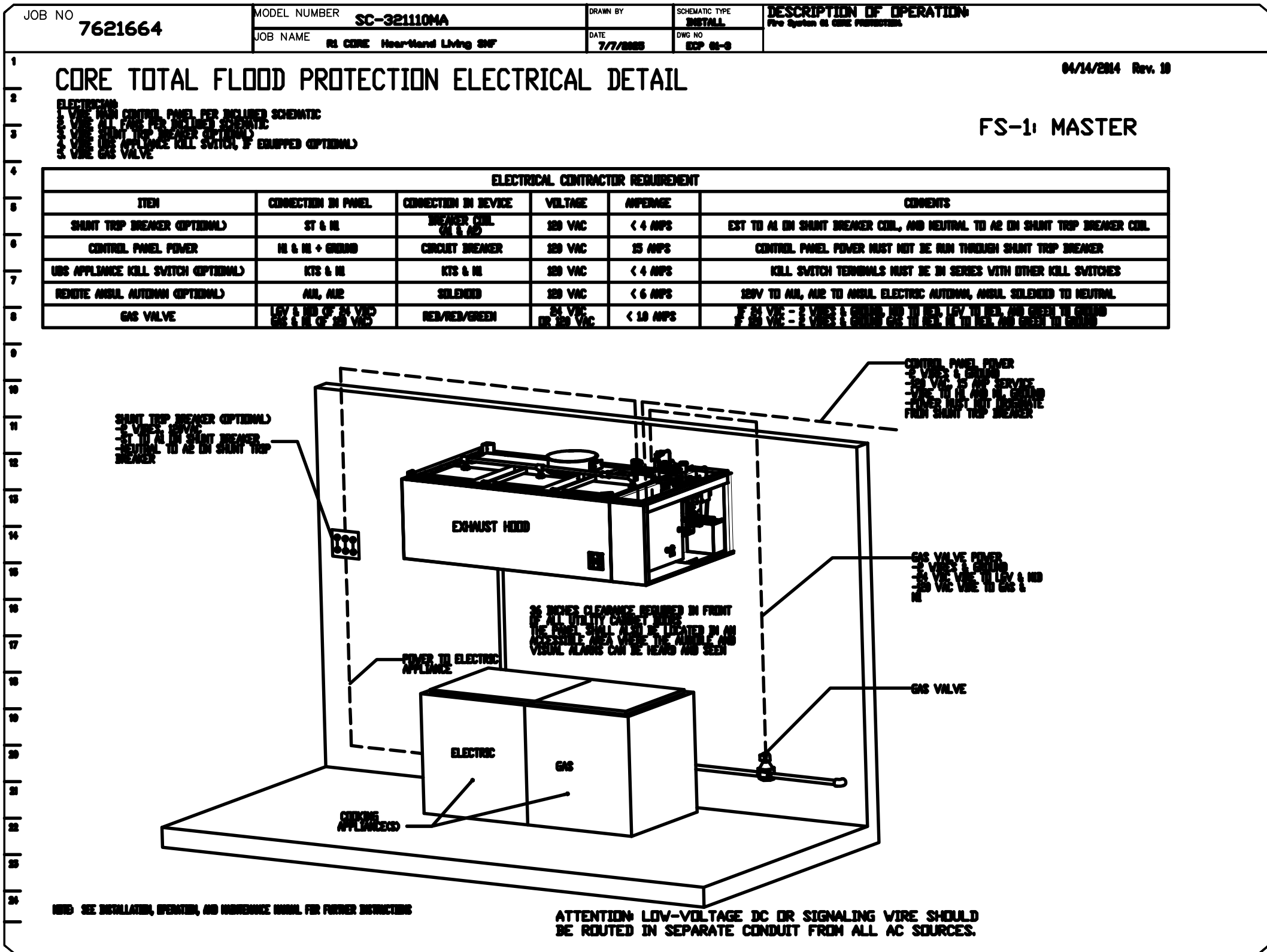
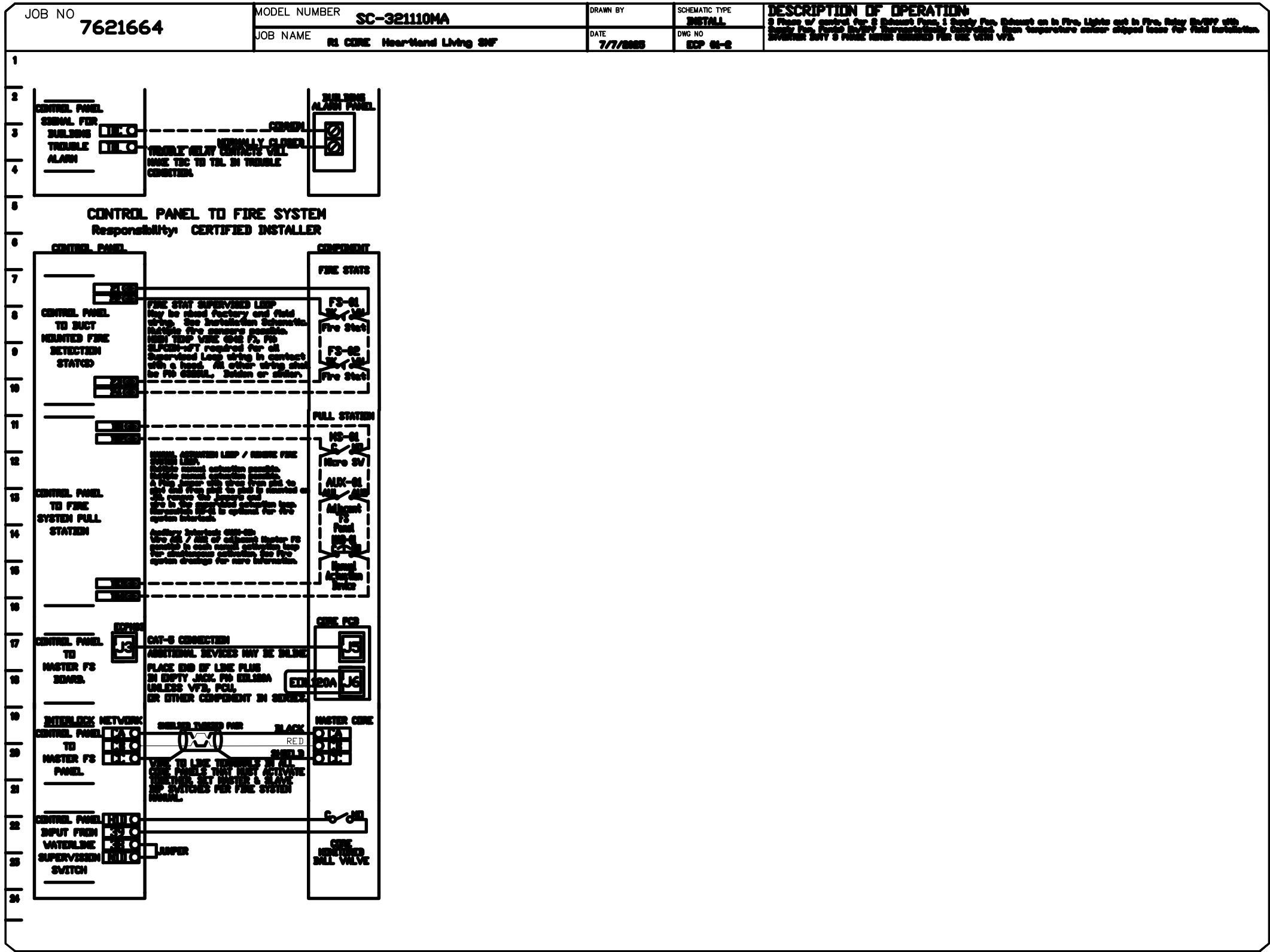
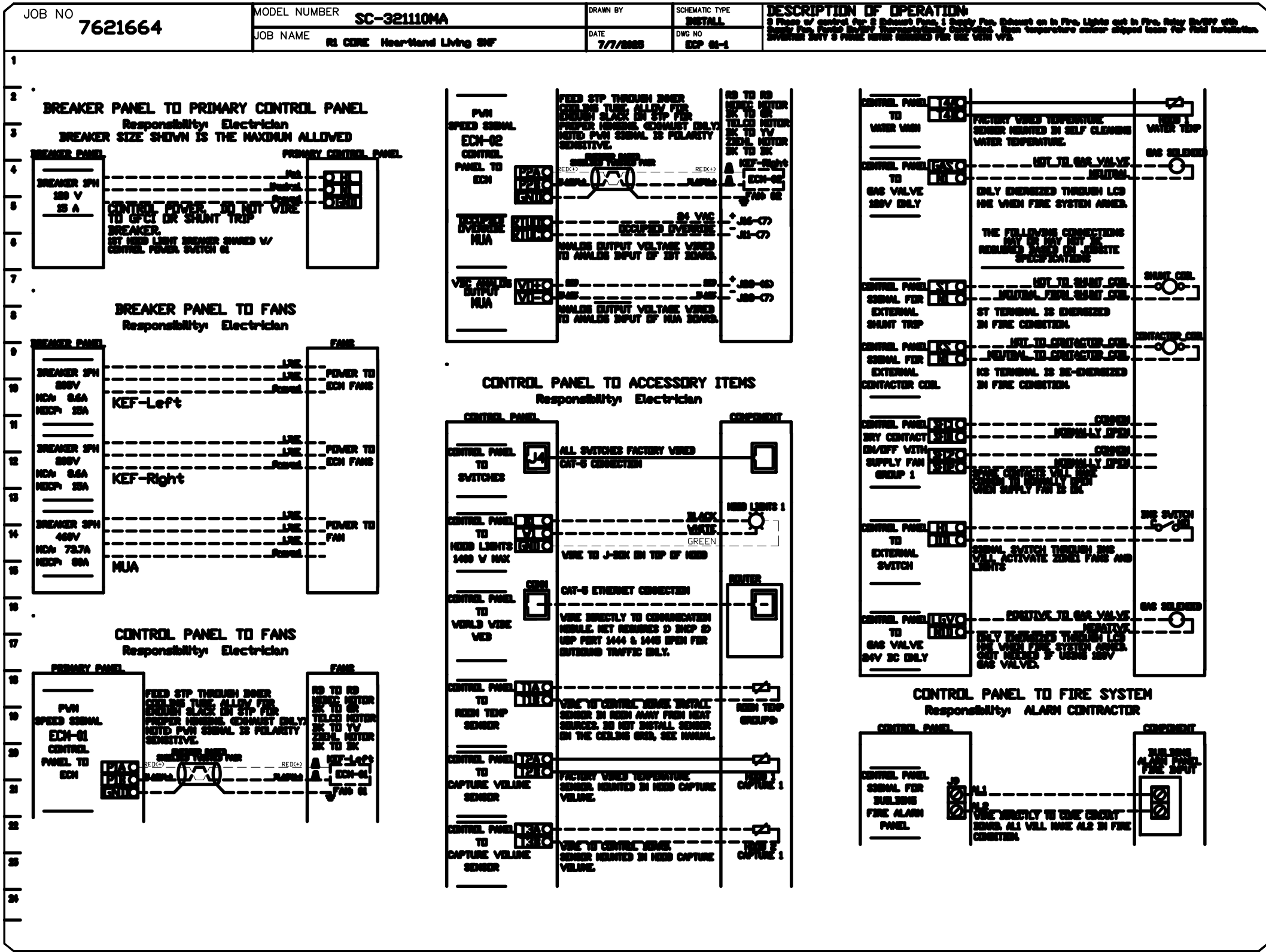
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SCALE:
1/2" = 1'-0"

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5



REVISIONS

REVISION	DATE
1	
2	
3	
4	

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SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 6

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DESCRIPTION	DATE

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7