

FOR QUESTIONS, CALL THE
Florida National Accounts
REGION 60
PHONE: (407) 682-3100
EMAIL: reg60@captiveaire.com

HOOD INFORMATION - JOB#5703827

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	GRIDDLE HOOD	3347 BD-2	CAPTIVEAIRE	5' 6"	600 DEG	I	HEAVY	273	1500			4'	12'	1500	1910	-1.412"	430 SS WHERE EXPOSED	ALONE	ALONE
2	FRYER HOOD	3347 BD-2	CAPTIVEAIRE	7' 0"	600 DEG	I	HEAVY	214	1500			4'	12'	1500	1910	-1.090"	430 SS WHERE EXPOSED	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	
1	GRIDDLE HOOD	CAPTRATE SOLO FILTER	4	16"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO	WALL MNT	12"x36"x24"	TANK FS	4.0/4.0			YES	229 LBS
2	FRYER HOOD	CAPTRATE SOLO FILTER	5	16"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO							YES	274 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	GRIDDLE HOOD	FIELD WRAPPER 14.00' HIGH FRONT, LEFT, RIGHT.
		RIGHT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.
		LEFT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.
2	FRYER HOOD	FIELD WRAPPER 14.00' HIGH FRONT, LEFT, RIGHT.
		RIGHT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.
		LEFT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.

WALL-MOUNT UTILITY CABINET

HOOD NO	LOCATION	SIZE	UTILITY CABINET(S)				WEIGHT
			TYPE	SIZE	ELECTRICAL	SWITCHES	
1	WALL MNT	12"x36"x24"	TANK FS	4.0/4.0			300.00 LBS

SPECIFICATION: CAPTRATE GREASE-STOP SOLO FILTER

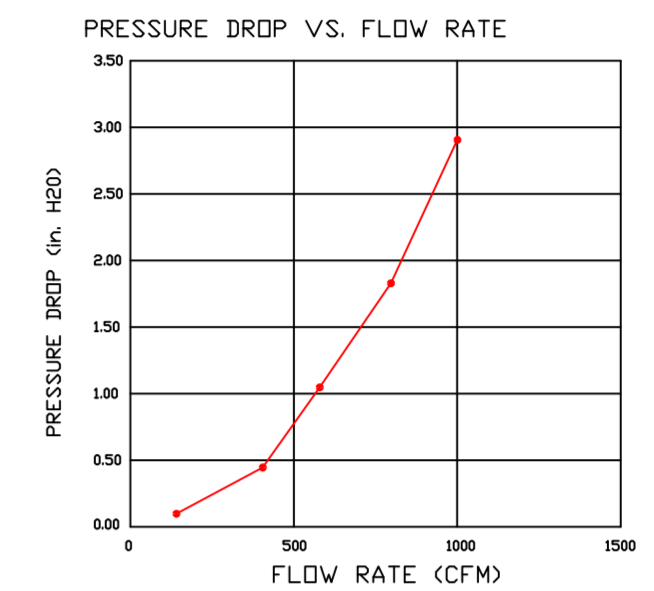
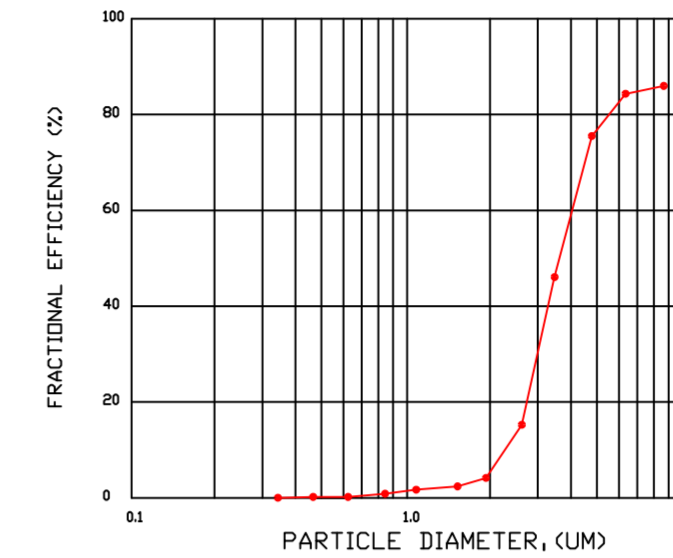
THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

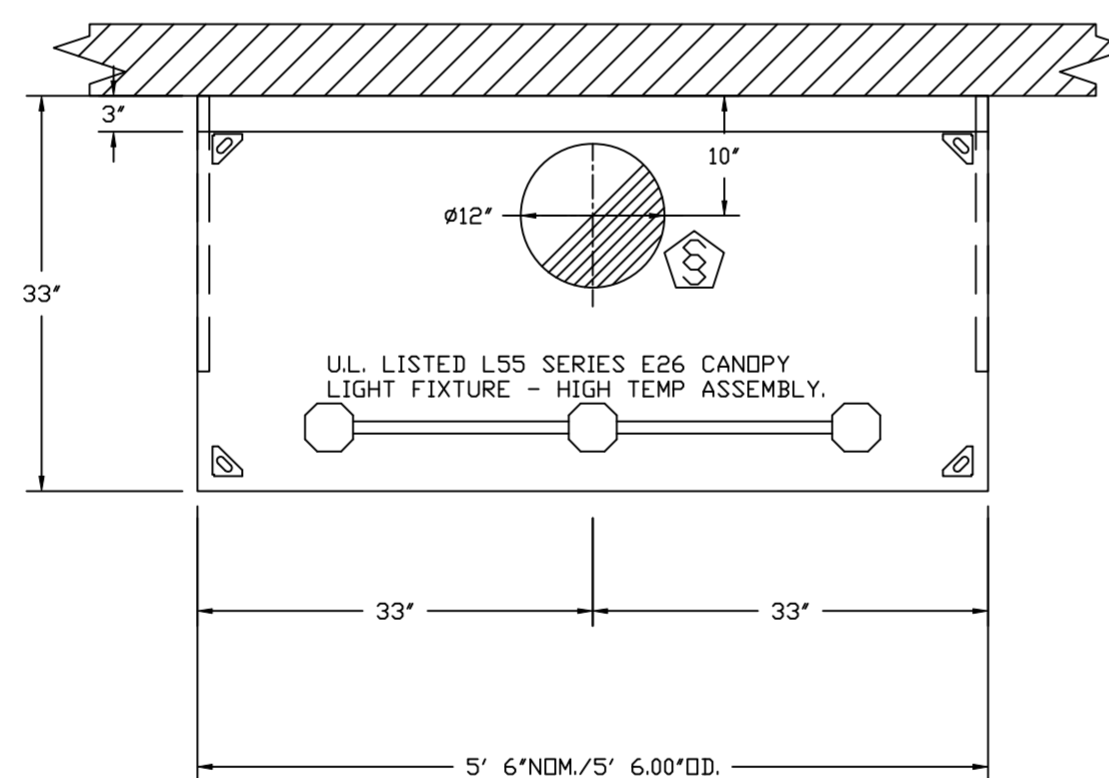
THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER. EFFICIENCY VS. PARTICLE DIAMETER



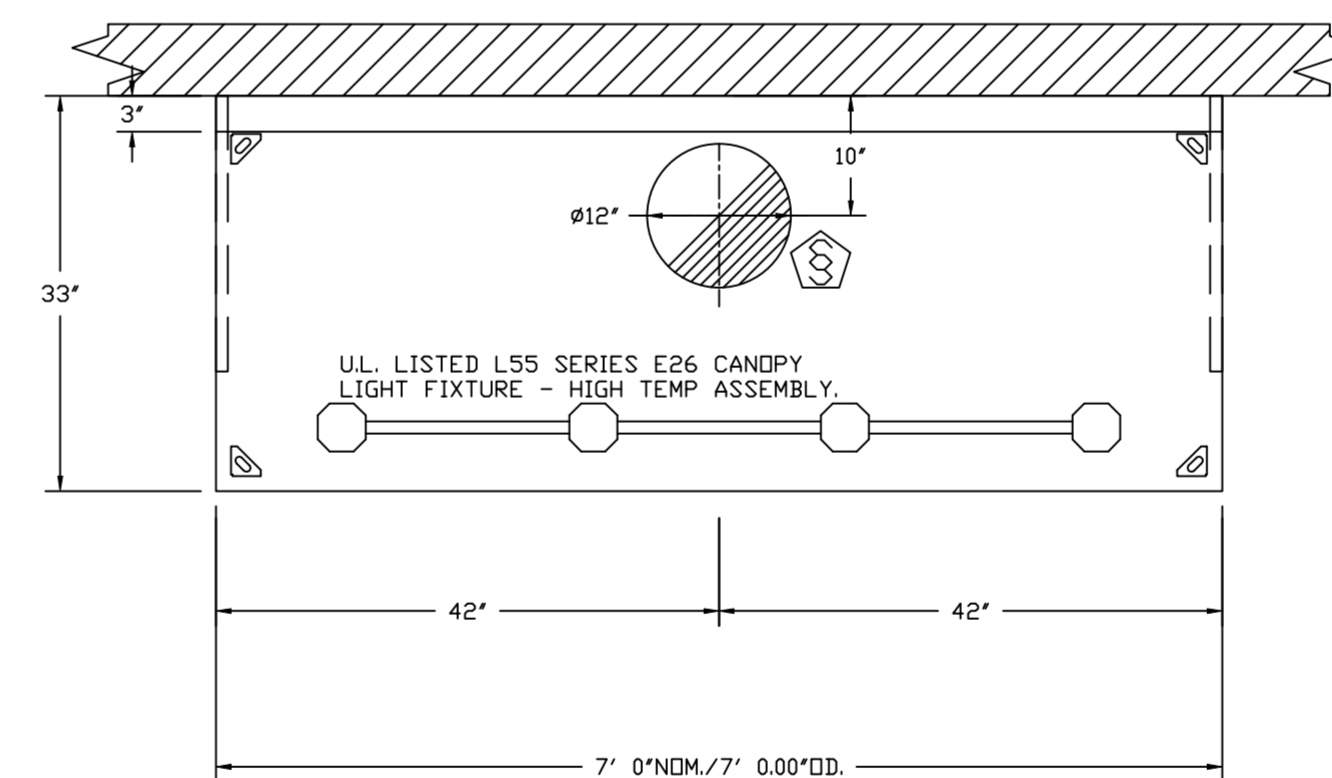
CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.



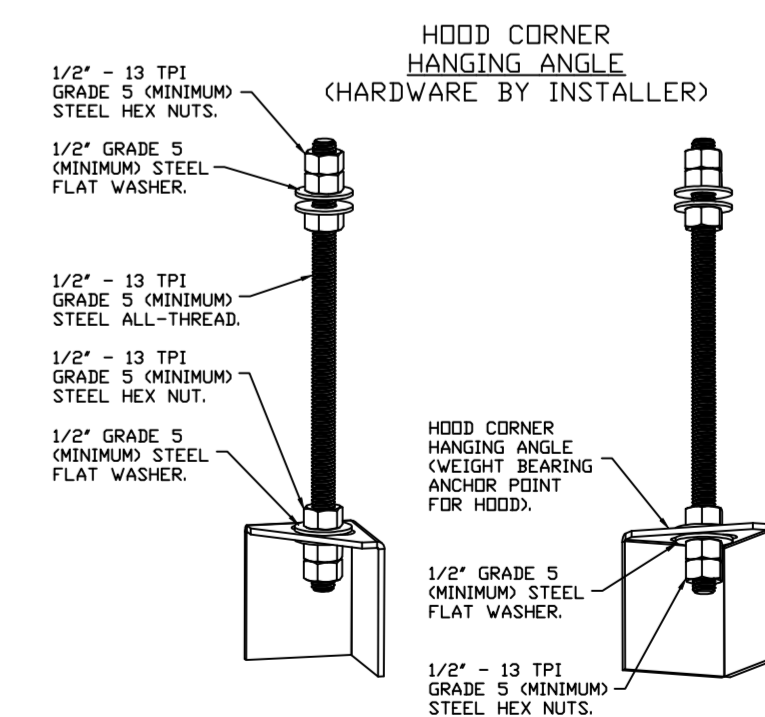
ROOM TEMP SENSOR TO BE INSTALLED ON WALL BY ELECTRICIAN AND WIRED BY ELECTRICIAN INTO HOOD ELECTRICAL PACKAGE AS PER WIRING DIAGRAM. INSTALL ON WALL WHERE IT WILL NOT BE AFFECTED BY ANY HEAT PRODUCING ITEMS.



PLAN VIEW - HOOD #1 (GRIDDLE HOOD)
5' 6.00" LONG 3347BD-2



PLAN VIEW - HOOD #2 (FRYER HOOD)
7' 0.00" LONG 3347BD-2



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.

CAPTIVE-AIRE HOODS ARE ETL SANITATION LISTED AND BUILT IN COMPLIANCE WITH NSF/ANSI STANDARD 2, AND TO UL 710 & ULC710 STANDARDS.



E.T.L. LISTED 102900319PRT-001

REVISIONS

DESCRIPTION	DATE

CAPTIVEAIRE

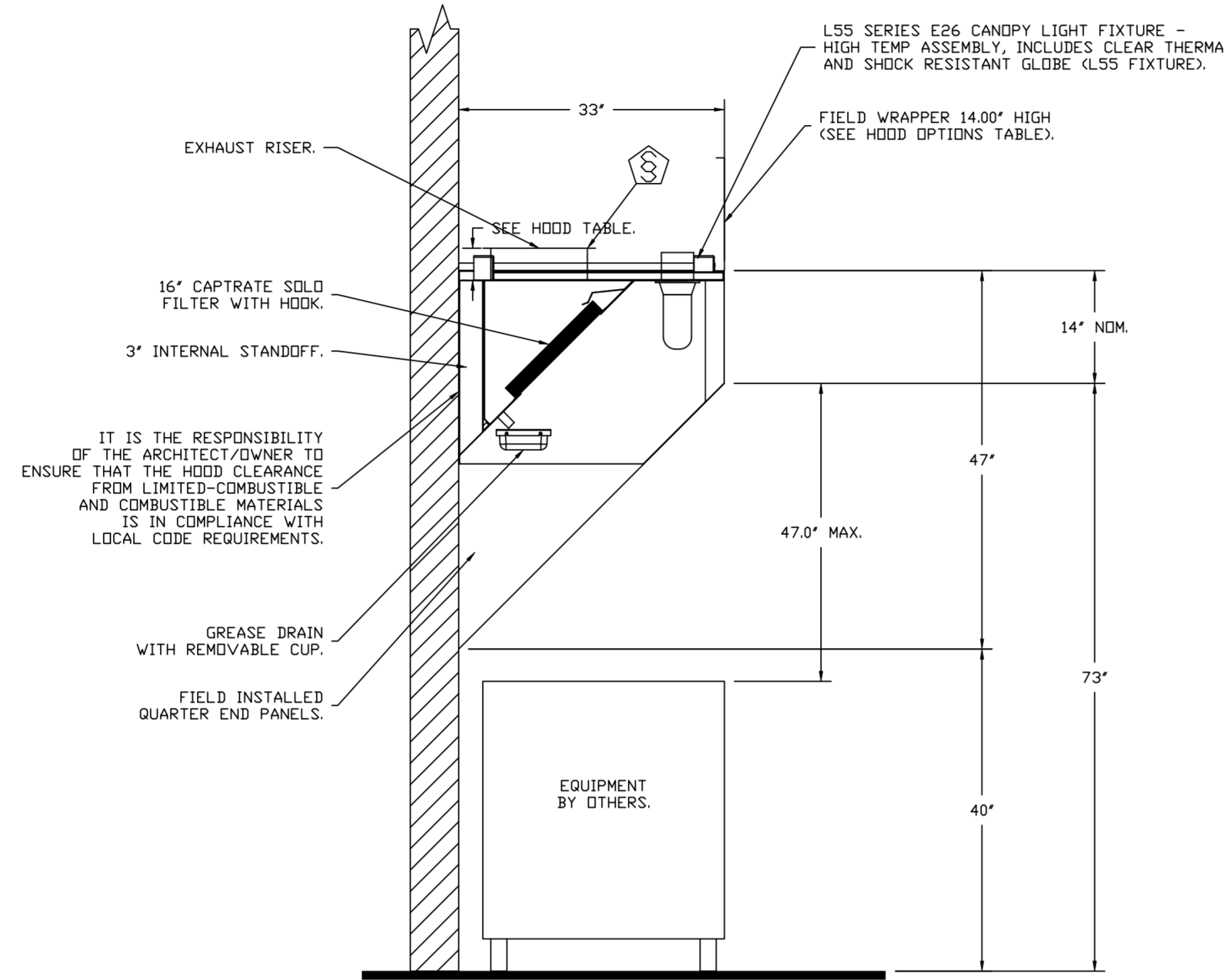
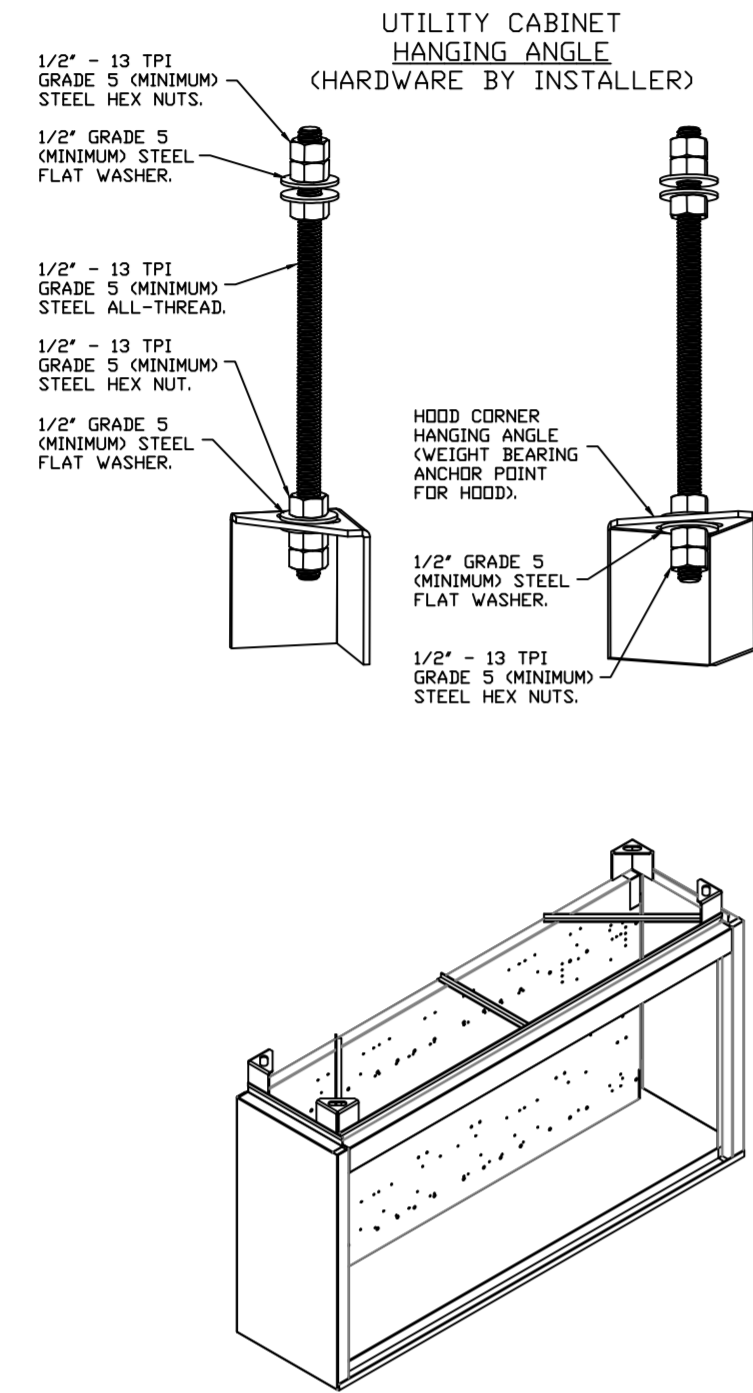
Florida National Accounts
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Culvers Grain Valley MD
1180 NW BUCKNER TARSNEY BLVD,
Grain Valley, MD, 64029

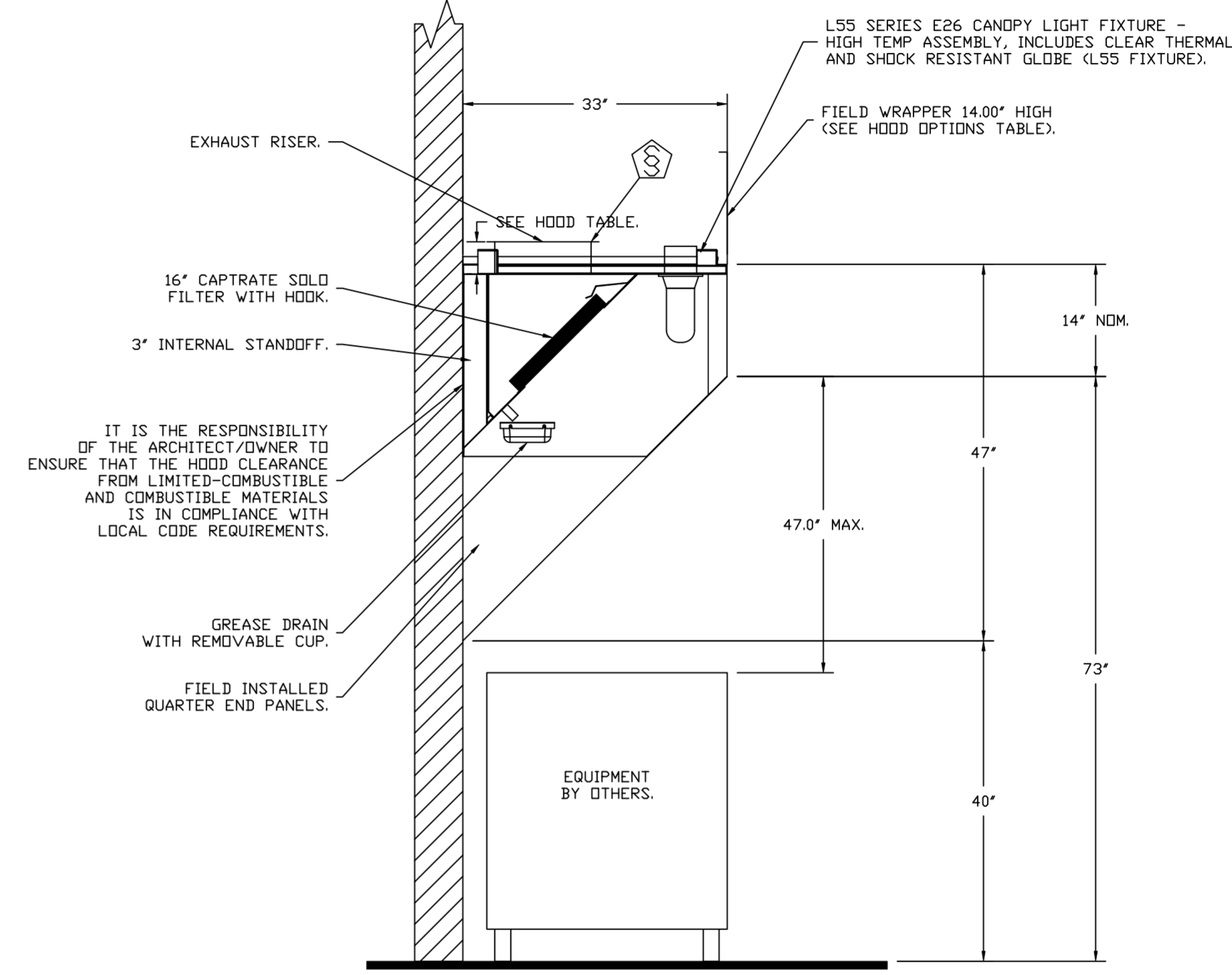
DATE: 11/8/2022
DWG.#: 5703827
DRAWN BY: studdyjr
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1

WALL-MOUNT UTILITY CABINET
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 UTILITY CABINET HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



SECTION VIEW - MODEL 3347BD-2
HOOD - #1 (GRIDDLE HOOD)



SECTION VIEW - MODEL 3347BD-2
HOOD - #2 (FRYER HOOD)

SYSTEM DESIGN VERIFICATION (SDV)

IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF CAS SERVICE HAS TO RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP CHARGES.

DURING THE SDV, CAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER DISCREPANCIES.

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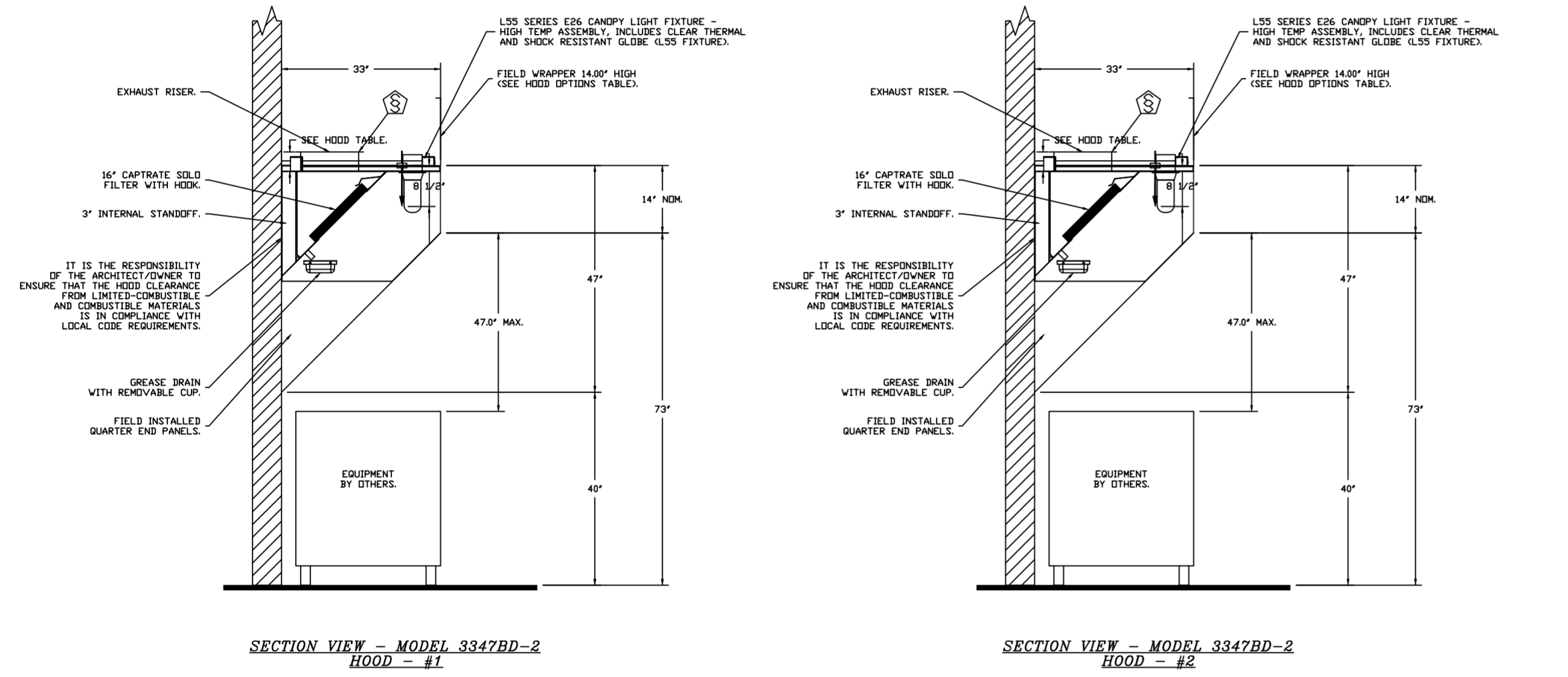
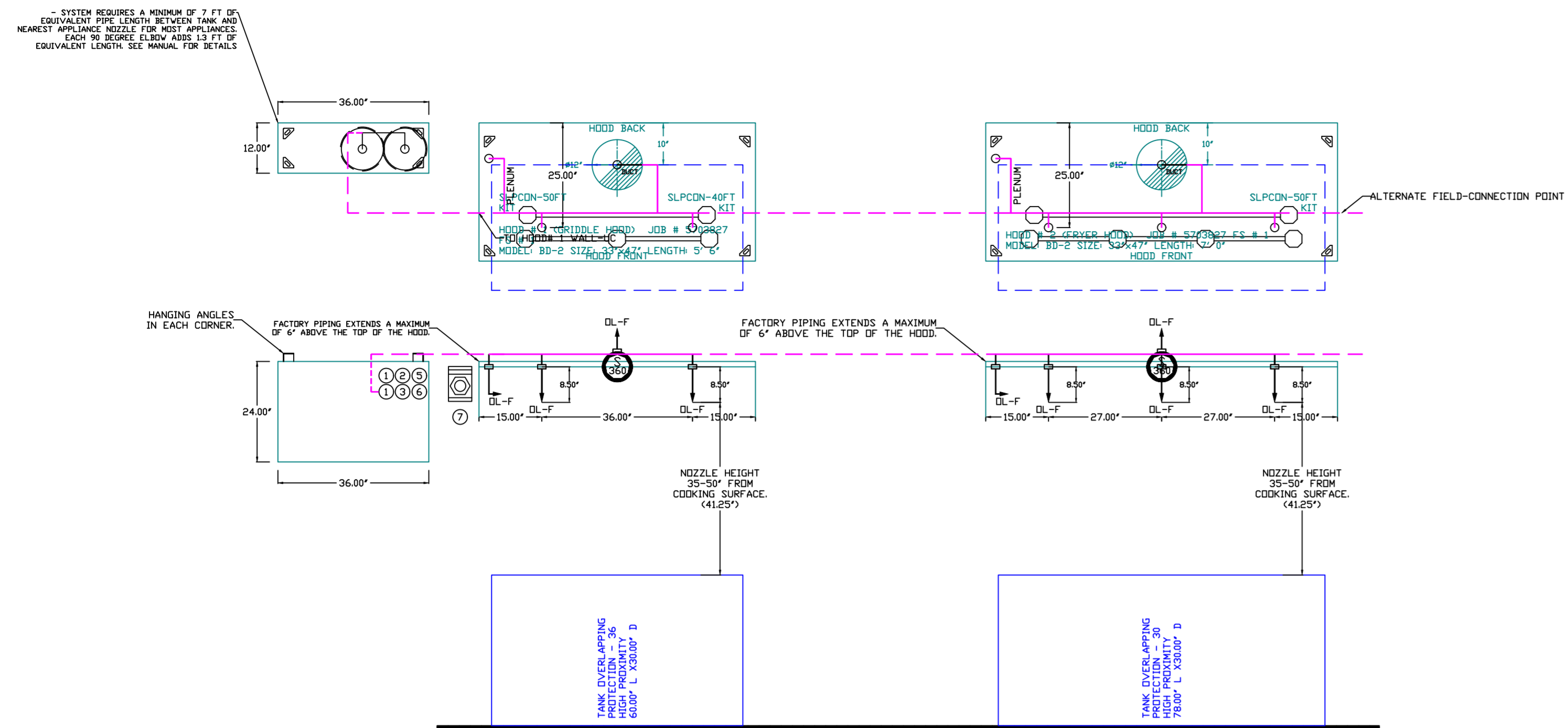
DWG.#:
5703827

DRAWN BY: sluddy jr

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

MASTER DRAWING

SHEET NO.
2



NOTES

- FIELD PIPE DROPS AS SHOWN
- PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6' ABOVE THE TOP OF THE HOOD.
- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
- THIS FIRE SYSTEM COMPLIES WITH UL 300 REQUIREMENTS.
- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB # 5703827
JOB NAME: CULVERS GRAIN VALLEY MD

SYSTEM SIZE: TANK-SP-2-WC. TOTAL FP REQUIRED: 39.
HOOD # 1 5' 6.00" LONG x 33" WIDE x 47" HIGH.
RISER # 1 SIZE: 12" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.
HOOD # 2 7' 0.00" LONG x 33" WIDE x 47" HIGH.
RISER # 1 SIZE: 12" DIA.
HOOD # 2 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

LEGEND - FIRE CABINET TANK SYSTEM

- 4 GALLON TANK.
- PRIMARY ACTUATOR RELEASE.
- SECONDARY ACTUATOR RELEASE.
- PRESSURE SUPERVISION SWITCH.
- PRIMARY HOSE ASSEMBLY.
- SECONDARY HOSE ASSEMBLY.
- REMOTE MANUAL ACTUATION DEVICE.

FIRE SYSTEM INFORMATION - JOB#5703827

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		TANK FS	40/40	39	WALL UTILITY CABINET LEFT	N/A

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1	0 - 0	TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
	0 - 0	TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
	0 - 0	12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. ND, CLOSE ON TEMP RISE AT 360°F.	2	0
	0 - 0	361591 3/8" BRASS PLUG.	5	0
	0 - 0	79425 3/8" NPT FEMALE TO 1/2" MALE PROGRESS ADAPTER.	5	0
	0 - 0	87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	1	0
	0 - 0	87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	1	0
	0 - 0	87-30001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	2	0
	0 - 0	87-30003-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
	0 - 0	87-30015-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	8	0
	0 - 0	905545SPC PRO PRESS 1/2" PRESS X PRESS 90 ELBOW LD.	11	0
	0 - 0	9097200PC PRO PRESS PC611 1/2" PRESS TEE LD.	4	0
	0 - 0	98694115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	4	0
	0 - 0	A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
	0 - 0	B145 3/8" BLACK IRON 90 ELL.	4	0
	0 - 0	DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
	0 - 0	SLPCDN-40FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UP TO 39' GAP. KIT CONTAINS 42 FEET OF BLACK MG WIRE, 42 FEET OF TAN MG WIRE, 40 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
	0 - 0	SLPCDN-50FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UP TO 49' GAP. KIT CONTAINS 52 FEET OF BLACK MG WIRE, 52 FEET OF TAN MG WIRE, 50 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
	0 - 0	TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	6	0
	0 - 0	TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
	0 - 0	WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	2	0
	16 - 16	79210 1/2" X 3/8" NPT MALE ADAPTER, WIEGA.	9	0
	16 - 16	DL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE)- 4 FLOW POINTS.	9	0
	26 - 26	QSA-3/8 QUIK SEAL - 3/8" (UL).	9	0
	34 - 34	A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT, RED COLOR.	1	0

REVISIONS

DESCRIPTION	DATE

CAPTIVE

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Culvers Grain Valley MD
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Grain Valley, MD, 64029

DATE: 11/8/2022
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DRAWN BY: sluddyjr
SCALE: 1/2" = 1'-0"
MASTER DRAWING

SHEET NO. 3

EXHAUST FAN INFORMATION - JOB#5703827

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
1	PRV-1 RESTROOM	1	DR12HFA	CAPTIVEAIRE	300	0.250	1010	TEAD-ECM	0.250	0.0440	1	115	2.9		49	3.7
2	PRV-2 GRIDDLE	1	DUB5HFA	CAPTIVEAIRE	1500	1.412	1406	DDP	0.750	0.5330	3	208	2.6	475 FPM	99	12.3
3	PRV-3 FRYER	1	DUB5HFA	CAPTIVEAIRE	1500	1.250	1348	DDP	0.750	0.4700	3	208	2.6	475 FPM	99	11.3
4	EF-1	2	CFA 100CA	CAPTIVEAIRE	75	0.125	493	GENERALPURPOSE	0.116	0.0510	1	115	1.1		26	N/A

DOAS/RTU FAN SCHEDULE - JOB#5703827

FAN UNIT NO	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	ELECTRICAL INFORMATION										COOLING INFORMATION						REHEAT INFORMATION				GAS HEAT INFORMATION				NOTES							
					BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	WEIGHT (LBS)	ESP	HP	PHASE	VOLT	MCA	MDCP	OUTSIDE AIR		MIXED AIR		LEAVING AIR			CAPACITY		IEER	ISMRE	DISCHARGE			CAPACITY		MOISTURE REMOVAL RATE	GAS TYPE	INPUT BTUs	OUTPUT BTUs	TEMP RISE
																DB	WB	DB	WB	DB	WB	DP	TOTAL	SENS.			DB	WB		DESIRE	MAX					
5	RTU-1 DINING	1	CASRTU3-I.300-24-20T-DOAS	CAPTIVEAIRE	24MF-3-RTU	4400	1750	6150	2689	0.750	10.00	3	208	103.1A	125A	86.7°F	79.0°F	78.3°F	67.5°F	53.4°F	53.4°F	53.5°F	257.3 MBH	160.5 MBH	18.2	6.0	70.0°F	59.9°F	111.7 MBH	129.6 MBH	88.8 LBS/HR	NATURAL	267901	217000	30°F	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18
6	RTU-2 KITCHEN	1	CASRTU3-I.250-24-20T-DOAS	CAPTIVEAIRE	24MF-3-RTU	4525	1700	6225	2720	0.750	10.00	3	208	103.1A	125A	86.7°F	79.0°F	78.2°F	67.3°F	53.4°F	53.4°F	53.5°F	255.8 MBH	161.5 MBH	18.2	6.0	70.0°F	59.9°F	113 MBH	129.6 MBH	86.7 LBS/HR	NATURAL	230864	187000	25°F	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18

- NOTES:**
1. INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL
 2. DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE
 3. INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER
 4. REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE
 5. EC MOTOR CONDENSING FANS
 6. ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE
 7. SUCTION LINE ACCUMULATOR
 8. FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY, 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER
 9. AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT)
 10. 2" EXTERIOR DUAL-WALL CONSTRUCTION W/ R-13 INSULATION-MINIMUM 20GA EXTERIOR W/ 14GA BASE
 11. 81% EFFICIENT FURNACE, WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 6:1 TURNDOWN WITH NG AND 5:1 TURNDOWN WITH LP
 12. SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE
 13. FULLY MODULATING HOT GAS REHEAT
 14. 15 DEGREE LOW AMBIENT OPERATION
 15. HAIL GUARD FOR CONDENSING COIL
 16. RTU ECONOMIZER WITH FIXED ENTHALPY CONTROL
 17. BAROMETRIC RELIEF DAMPER
18. DOWN DISCHARGE/DOWN RETURN

REVISIONS

DESCRIPTION	DATE:



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DRAWN BY: studdy jr

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

MASTER DRAWING

SHEET NO.
4

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	PRV-1 RESTROOM	1	1 12-BDD DAMPER
		1	ECM WIRING PACKAGE - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCW ROTATION
2	PRV-2 GRIDDLE	1	2 YEAR PARTS WARRANTY
		1	GREASE BOX
3	PRV-3 FRYER	1	FAN BASE CERAMIC SEAL - SHIP LOOSE - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
4	EF-1	2	MGI - METAL GRILLE KIT
		2	FAN CONTROL - IVDRY FAN & LIGHT CONTROL
5	RTU-1 DINING	2	WALL CAP - ACCEPTS 6" ROUND DUCT
		2	2 YEAR PARTS WARRANTY
6	RTU-2 KITCHEN	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	RTU TOTAL CFM MONITORING
		1	SHIP LOOSE GAS STRAINER 3/4"
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, 'MA', OR 'E2' PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
		1	LOW AMBIENT COOLING OPERATION - DOWN TO 0F AMBIENT
		1	RTU3 DOWN DISCHARGE
		1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)
		1	2" MERV 8 FILTERS FOR RTU3 (QTY. 4)
		1	OVERHEAT STAT
		1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	20 TON MODULATING COOLING OPTION, 208/230V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
		1	20 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL
		1	REMOTE TEMPERATURE AND HUMIDITY SPACE SENSOR
		1	RTU3 CURB DUCT HANGER
		1	RTU RETURN MOUNTED SMOKE DETECTOR AND SAMPLING TUBE - FACTORY INSTALLED
		1	OCCUPIED SCHEDULING
		1	RTU3 CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J-BOX
		1	RTU ECONOMIZER - FIXED ENTHALPY CONTROL
		1	RTU3 ECONOMIZER BAROMETRIC RELIEF
		1	RTU3 HAIL GUARD
		1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI
		1	RTU3 DOWN RETURN
		1	VAV PACKAGE W/ MANUAL/DDC CONTROL (S71 VFD INCLUDED)
		1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)

FAN ACCESSORIES

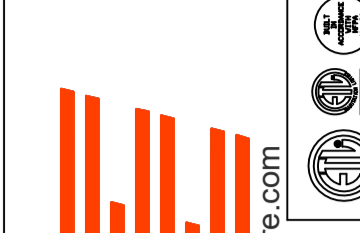
FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	PRV-1 RESTROOM		YES					
2	PRV-2 GRIDDLE	YES						
3	PRV-3 FRYER	YES						
4	EF-1							

CURB ASSEMBLIES

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	PRV-1 RESTROOM	25 LBS	CURB	17.500"W X 17.500"L X 20.000"H ALONG LENGTH, RIGHT.
2	# 2	PRV-2 GRIDDLE	49 LBS	CURB	23.000"W X 23.000"L X 28.000"H ALONG LENGTH, RIGHT HINGED.
3	# 3	PRV-3 FRYER	49 LBS	CURB	23.000"W X 23.000"L X 28.000"H ALONG LENGTH, RIGHT HINGED.
5	# 5	RTU-1 DINING	78 LBS	CURB	59.500"W X 91.000"L X 14.000"H 0.250:12.000 PITCH ALONG WIDTH, RIGHT INSULATED.
6	# 6	RTU-2 KITCHEN	78 LBS	CURB	59.500"W X 91.000"L X 14.000"H 0.250:12.000 PITCH ALONG WIDTH, RIGHT INSULATED.

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Culvers Grain Valley MD
 1180 NW BUCKNER TARSNEY BLVD,
 Grain Valley, MD, 64029

DATE: 11/8/2022

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5703827

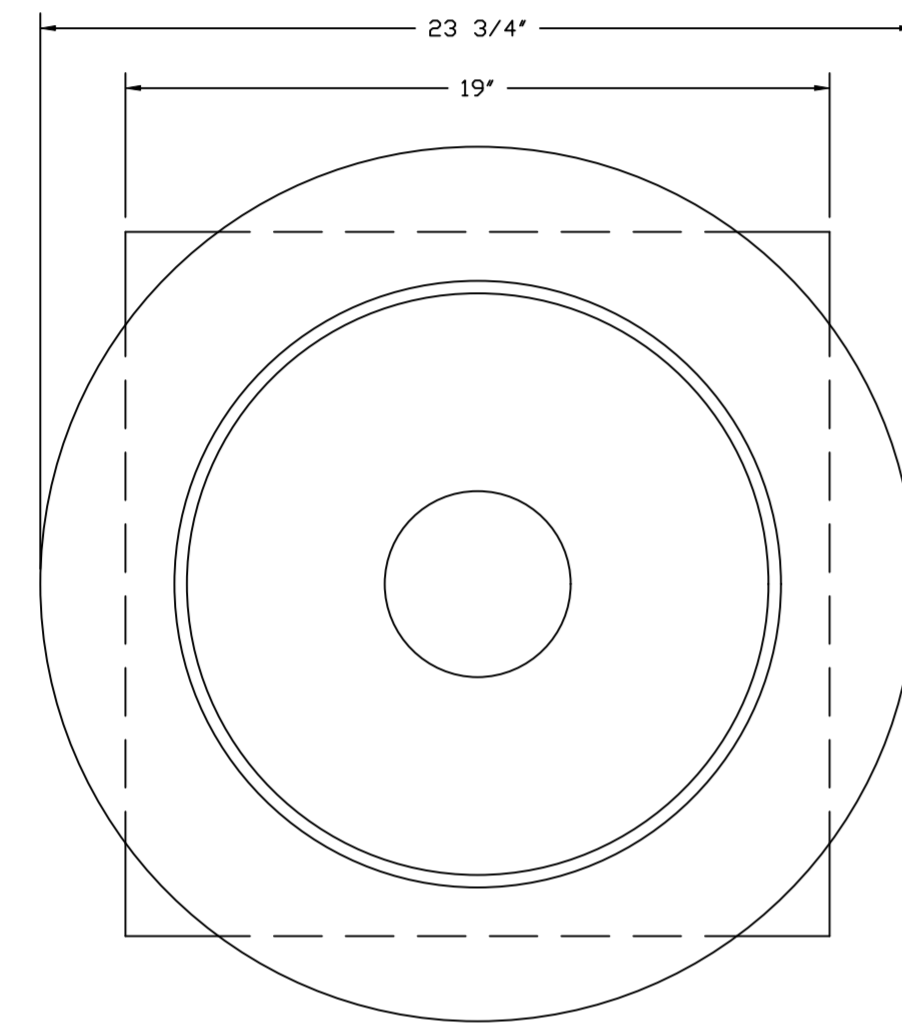
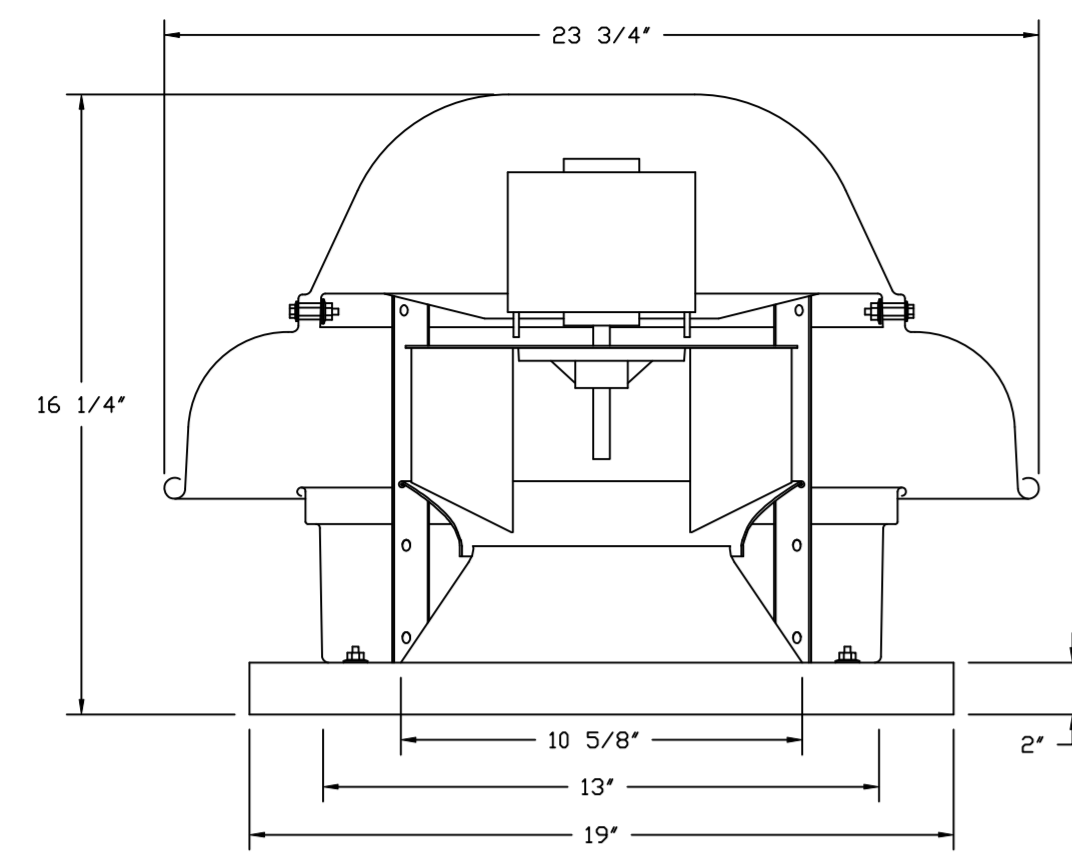
DRAWN BY: studdy jr

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

MASTER DRAWING

SHEET NO.
5

FAN #1 DR12HFA - EXHAUST FAN (PRV-1 RESTROOM)



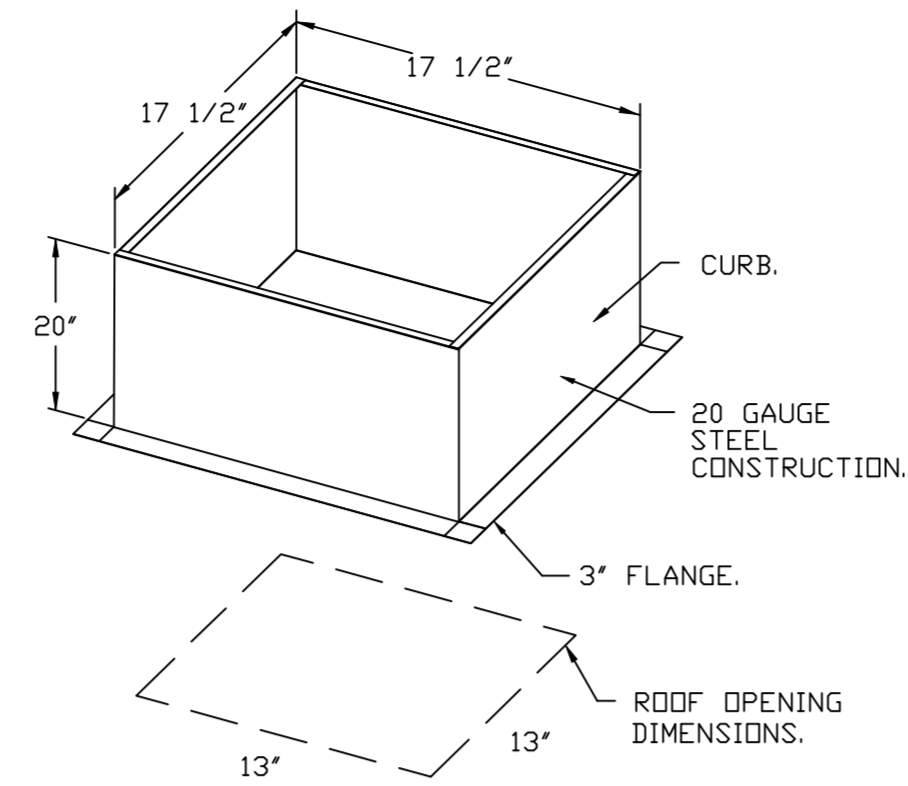
TOP VIEW

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- SAFETY DISCONNECT.
- STANDARD BIRD SCREEN.
- SPEED CONTROL.

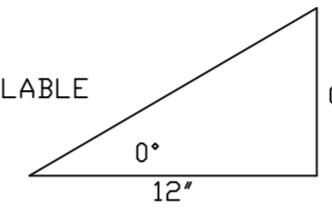
OPTIONS

- 1 12-BDD DAMPER.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL.
- RTC- (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.

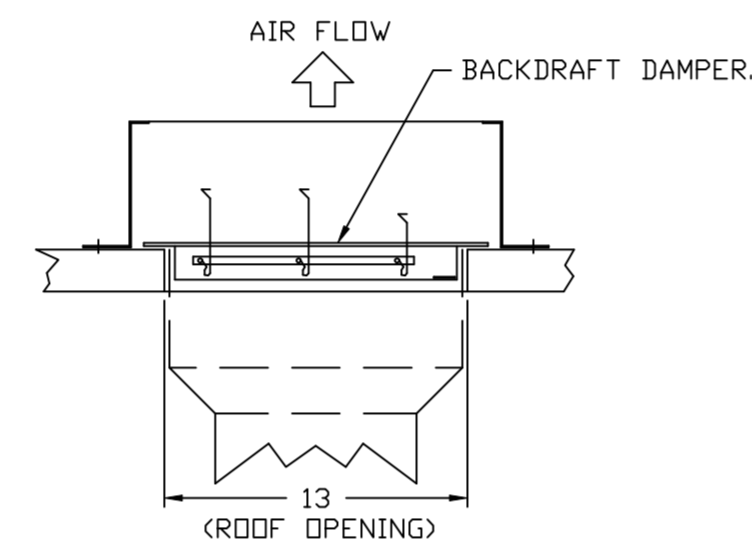


PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

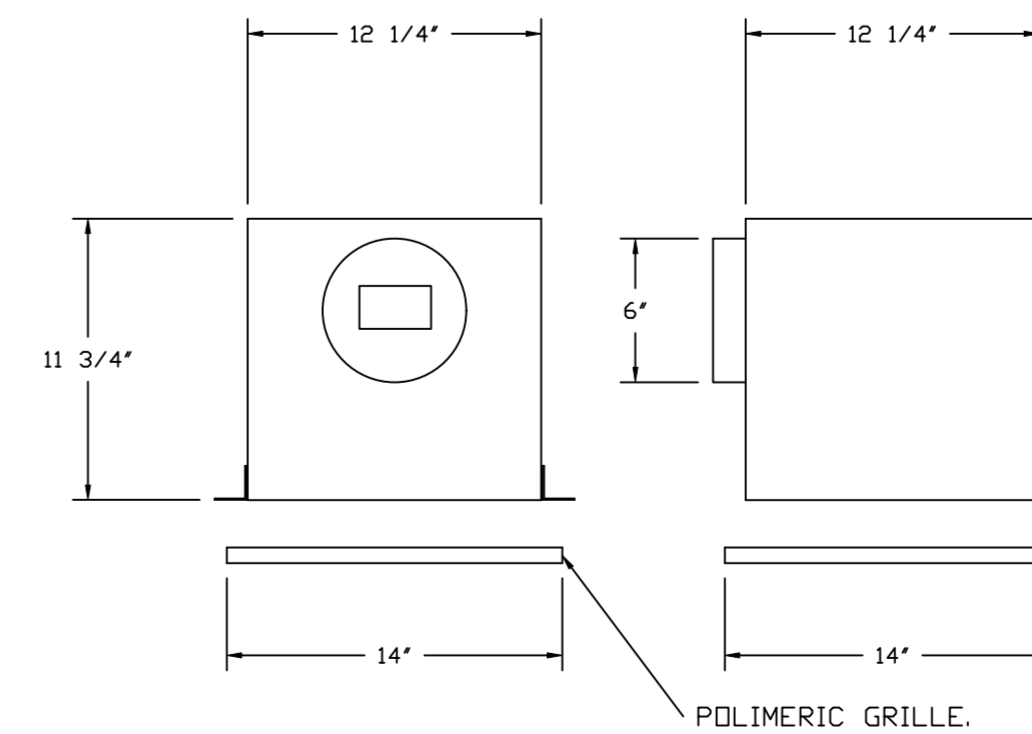
SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.



BACKDRAFT DAMPER INSTALLATION



FAN #4 CFA 100CA - EXHAUST FAN (EF-1)



FEATURES:

- 1/2" ACOUSTIC HOUSING INSULATION.
- 20 GA. GALVANIZED STEEL HOUSING.
- PLUG TYPE DISCONNECT.
- BUILT IN AUTOMATIC BACKDRAFT DAMPER.
- AMCA SOUND & AIR CERTIFIED.
- UL LISTED.
- CAN BE INSTALLED IN CEILING OR WALL.
- 8 POSITION MOUNTING BRACKETS.

OPTIONS

- MG1 - METAL GRILLE KIT.
- FAN CONTROL - IVORY FAN & LIGHT CONTROL.
- WALL CAP - ACCEPTS 6" ROUND DUCT.
- 2 YEAR PARTS WARRANTY.

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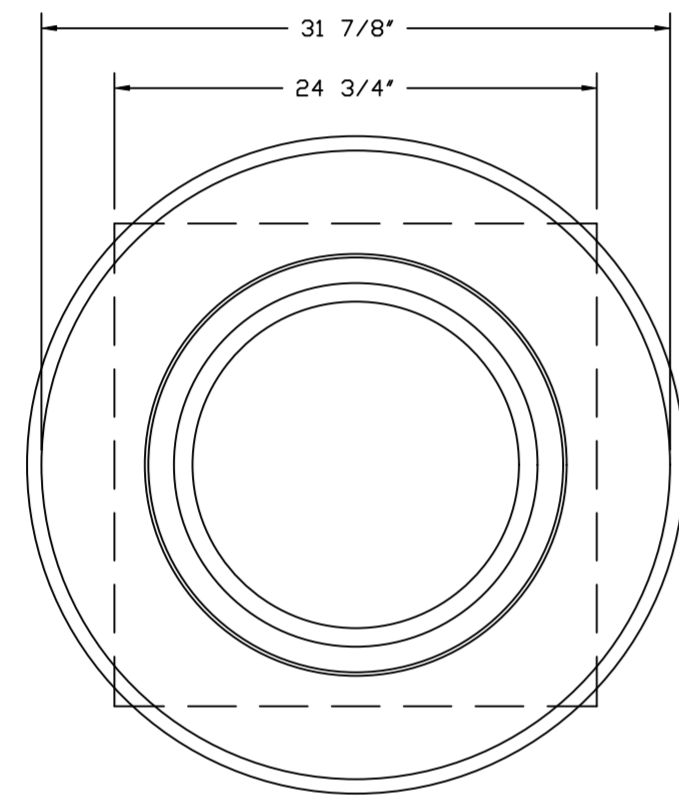
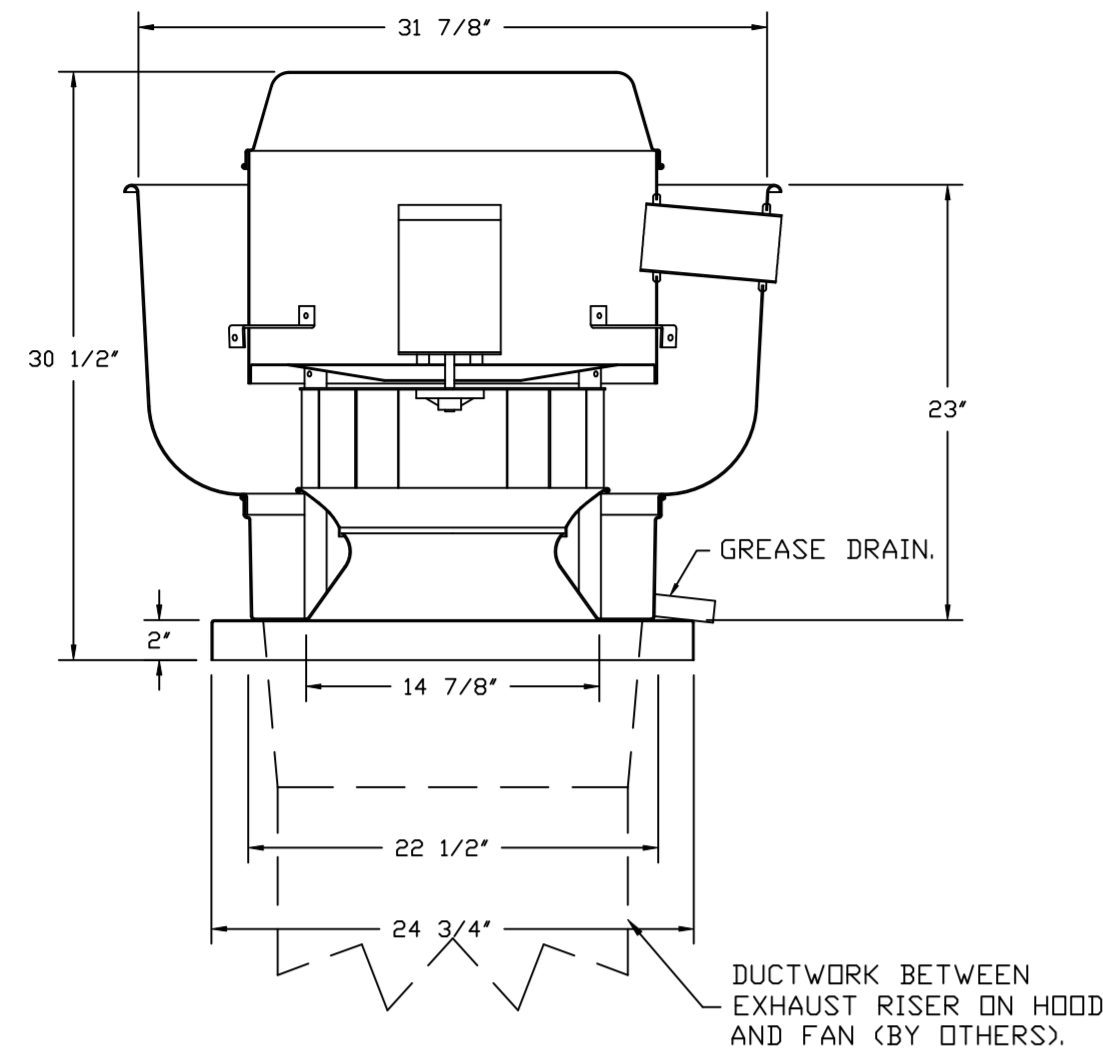
DRAWN BY: sluddyjr

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

MASTER DRAWING

SHEET NO.
6

FANS #2 (PRV-2 GRIDDLE), #3 (PRV-3 FRYER) - DUBSHEA EXHAUST FAN



TOP VIEW

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

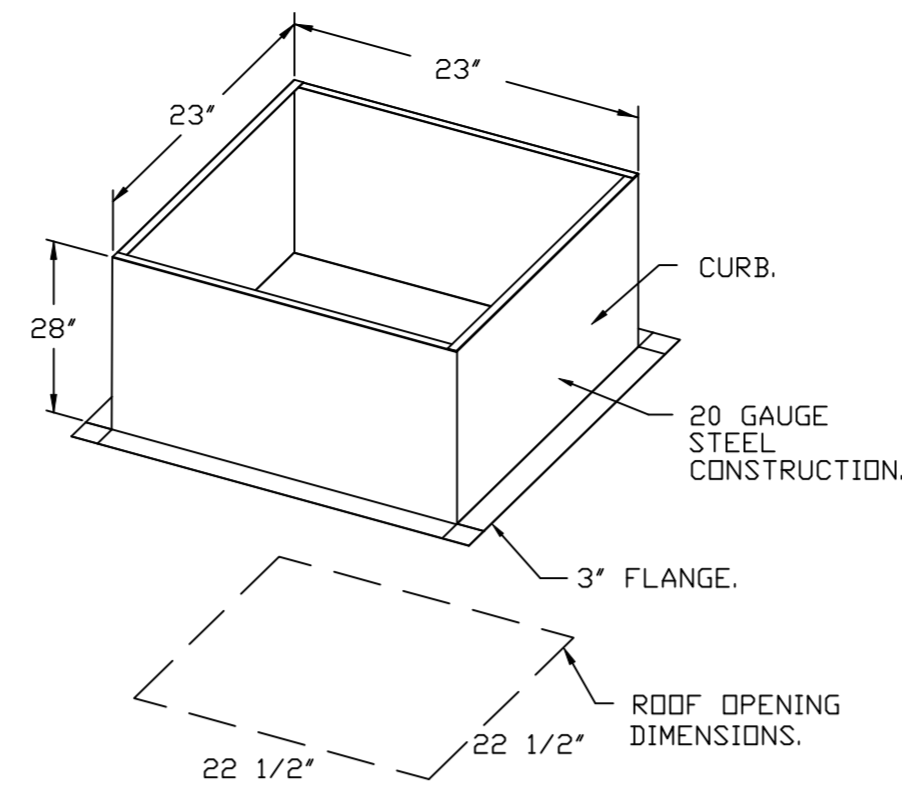
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

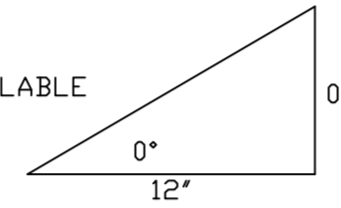
- GREASE BOX.
- FAN BASE CERAMIC SEAL - SHIP LOOSE
- FOR GREASE DUCTS.
- 2 YEAR PARTS WARRANTY.

DUCTWORK BETWEEN EXHAUST RISER ON HOOD AND FAN (BY OTHERS).

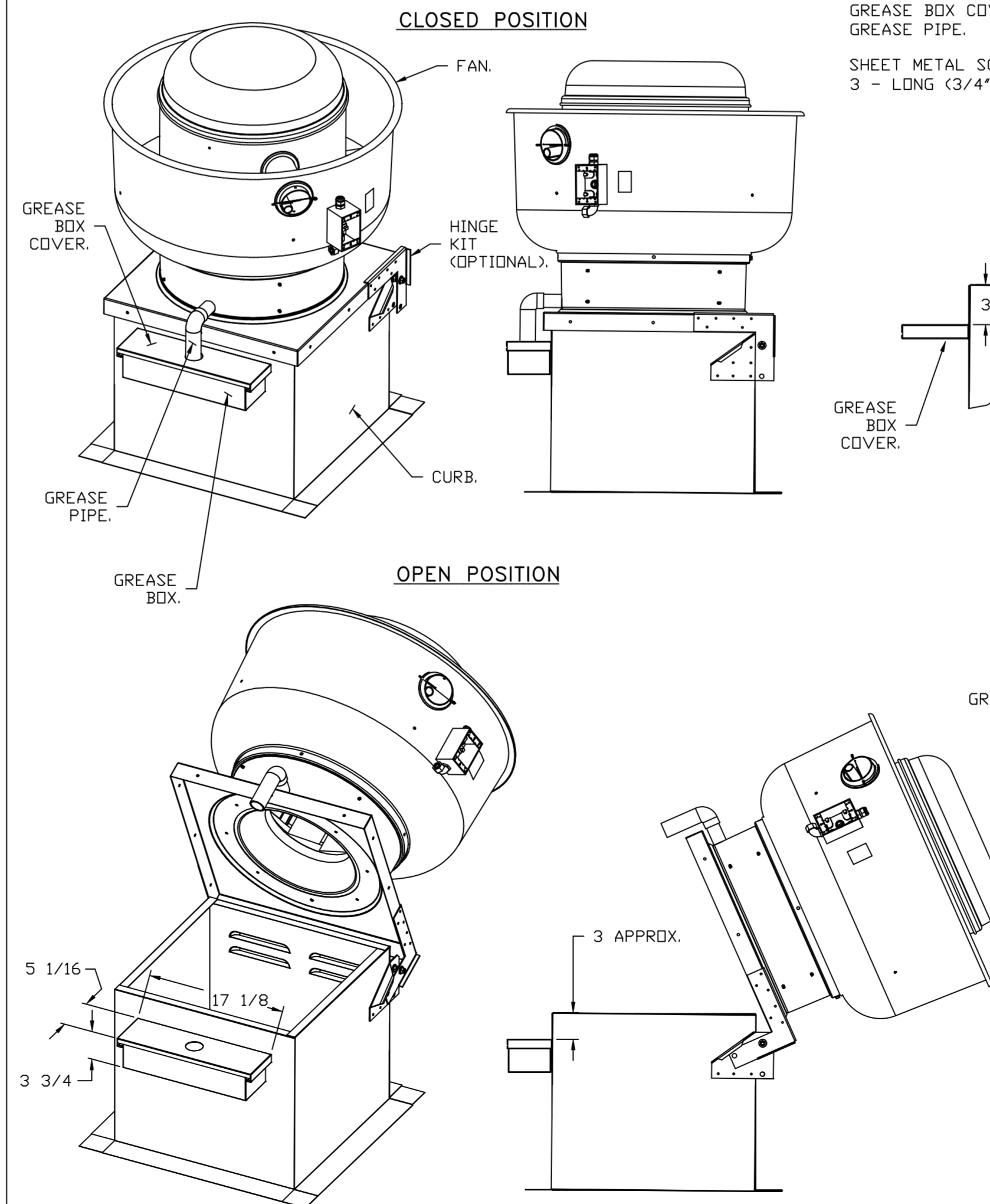


PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.



GREASE BOX INSTALLATION



*NOTE: UL 705 INSTALL.

PARTS INCLUDED

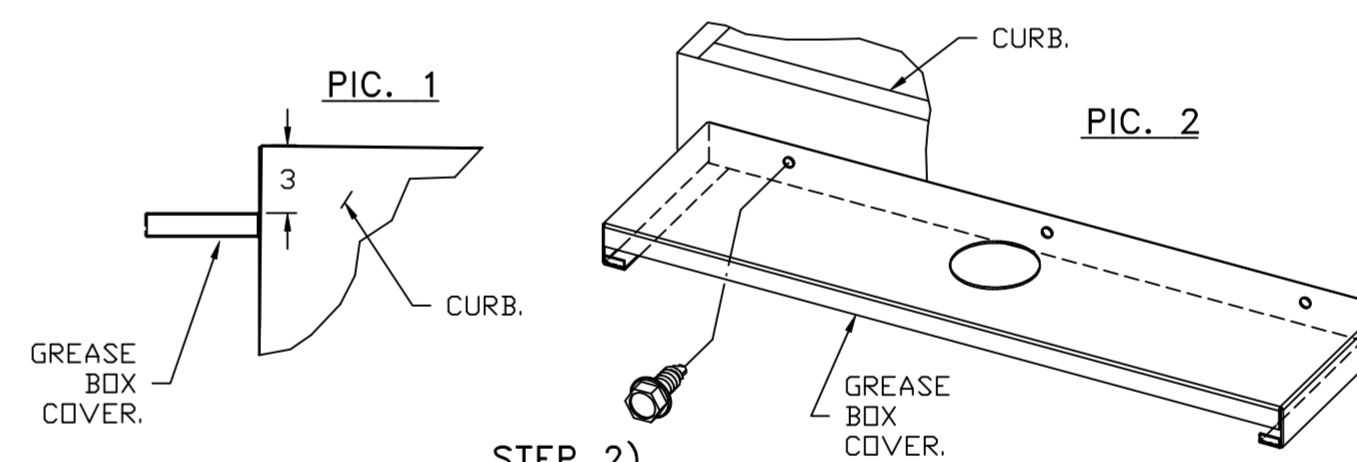
- GREASE BOX.
- GREASE BOX COVER.
- GREASE PIPE.

SHEET METAL SCREWS
3 - LONG (3/4" LG.).

GREASE BOX FIELD INSTALLATION

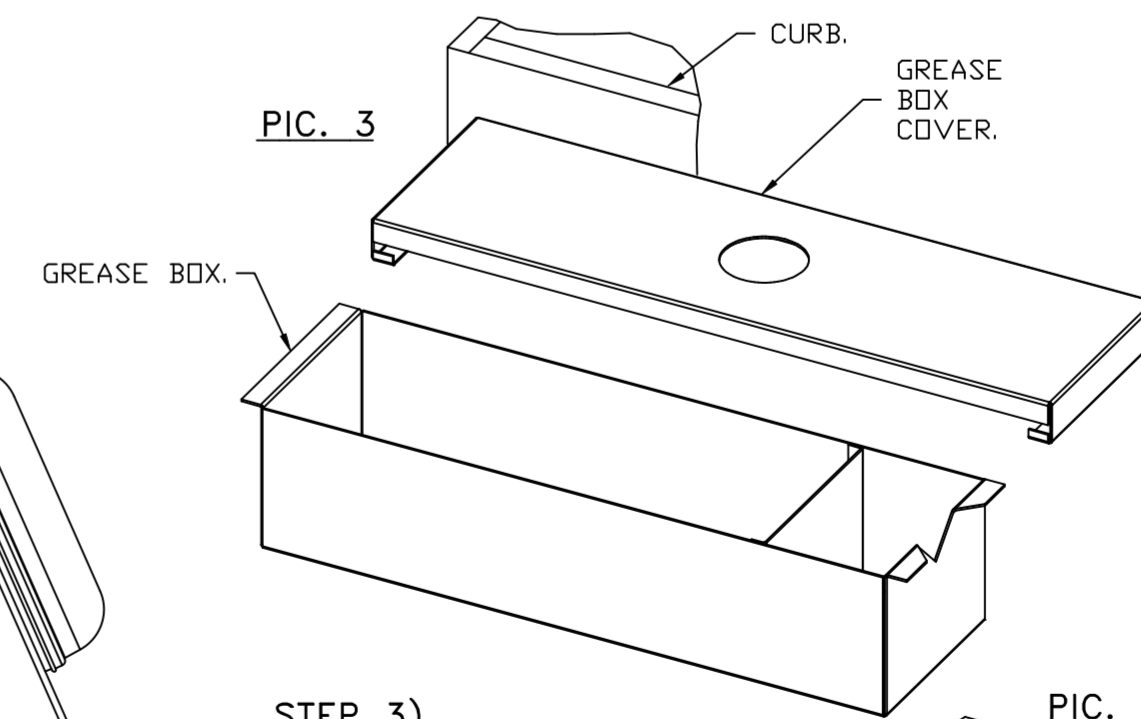
STEP 1)

ATTACH GREASE BOX COVER TO THE CURB, HOLD 3" DIMENSION AS SHOWN ON PIC. 1. SCREW GREASE BOX COVER TO CURB USING (3) LONG (3/4" LG.) SCREWS AS SHOWN ON PIC. 2.



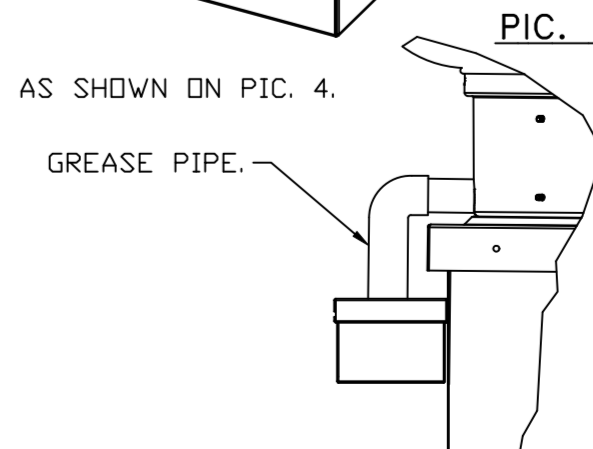
STEP 2)

ATTACH GREASE BOX TO GREASE BOX COVER, SLIDE AND DROP, AS SHOWN ON PIC. 3.



STEP 3)

INSTALL GREASE PIPE AS SHOWN ON PIC. 4.



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DATE: 11/8/2022

DWG.#:
5703827

DRAWN BY: studdy jr

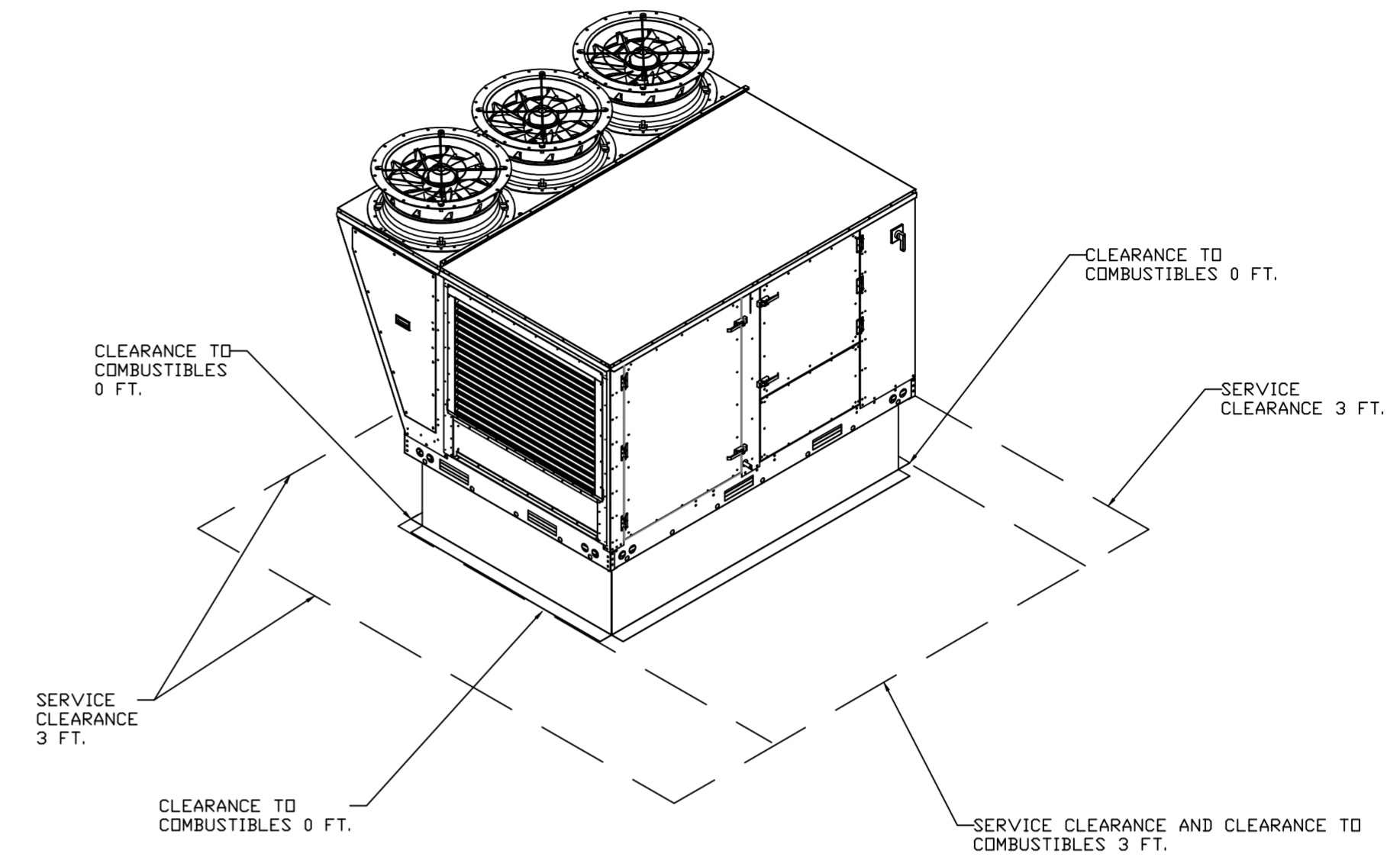
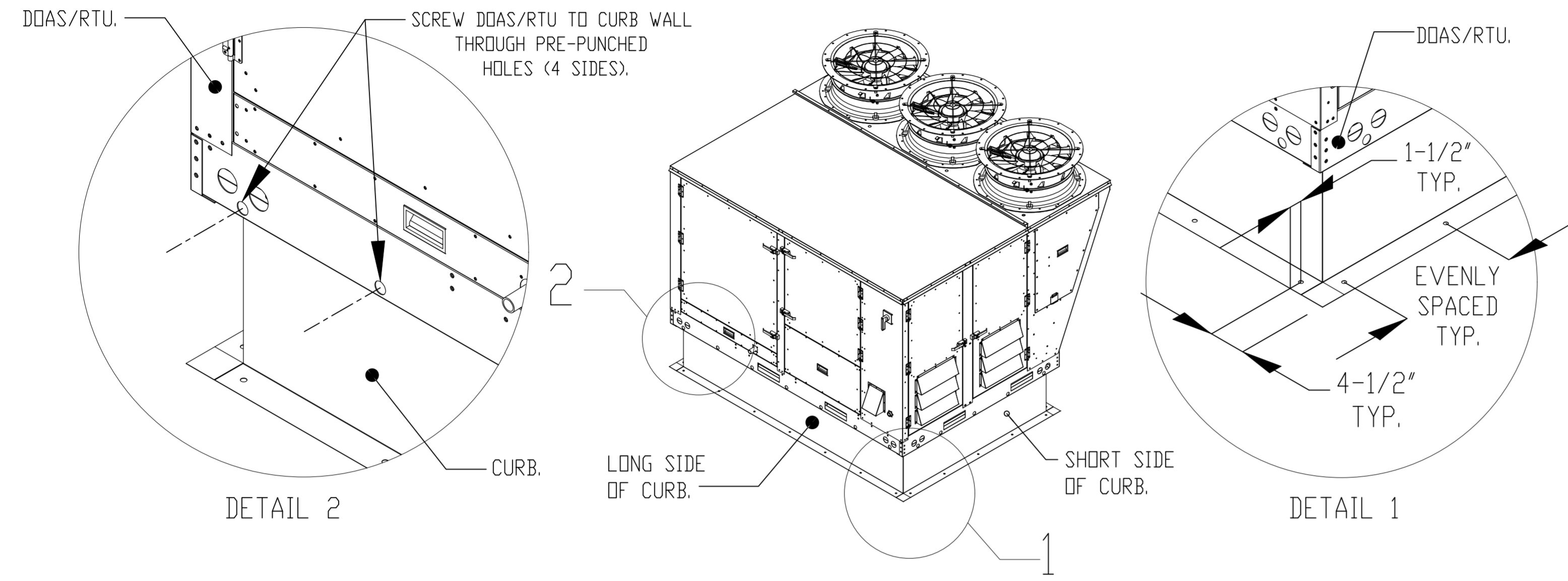
SCALE:
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.
7

TYPICAL DOAS/RTU ROOF MOUNTING INSTALLATION INSTRUCTIONS

1. SECURE THE CURB TO THE ROOF FRAMING MEMBERS BY DRILLING 1/4" PILOT HOLES IN THE CURB FLANGES AT LOCATIONS SHOWN IN THE DIAGRAM BELOW. USING 3/8" X 2" ZINC PLATED STEEL LAG BOLTS, AND ZINC PLATED WASHERS, SCREW THROUGH THE CURB FLANGES AND INTO THE ROOF FRAMING MEMBERS. A MINIMUM OF (5) LAG BOLTS ON EACH SHORT SIDE, AND (7) LAG BOLTS ON EACH LONG SIDE IS REQUIRED.
2. SECURE THE UNIT BASE TO THE SIDE WALLS OF THE CURB USING (24) 1/4"-14 X 2" SELF-DRILLING, STEEL ZINC PLATED SCREWS. PRE-PUNCHED HOLES HAVE BEEN PROVIDED FOR EACH SCREW LOCATION.



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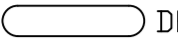
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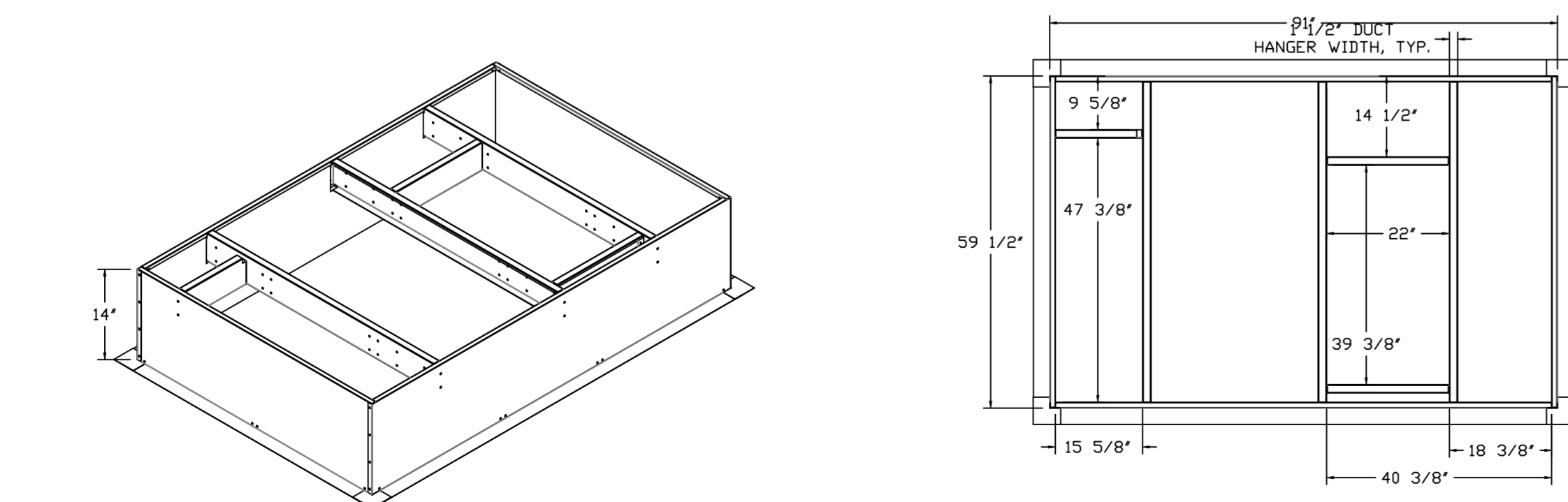
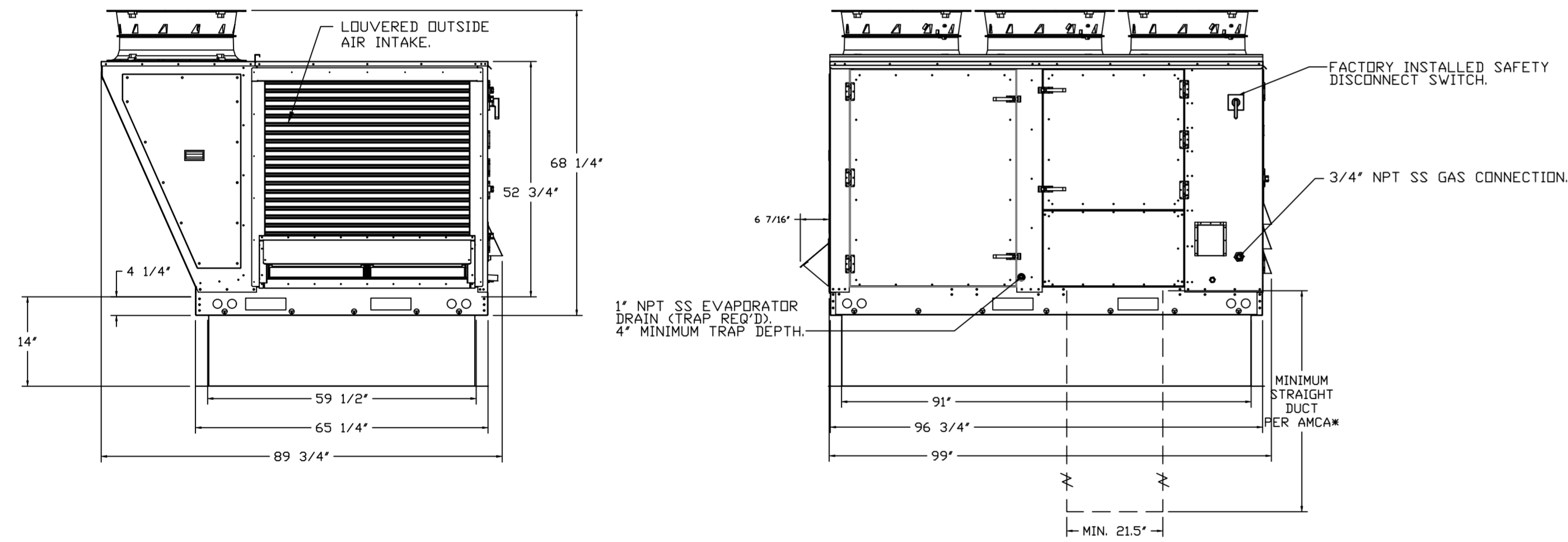
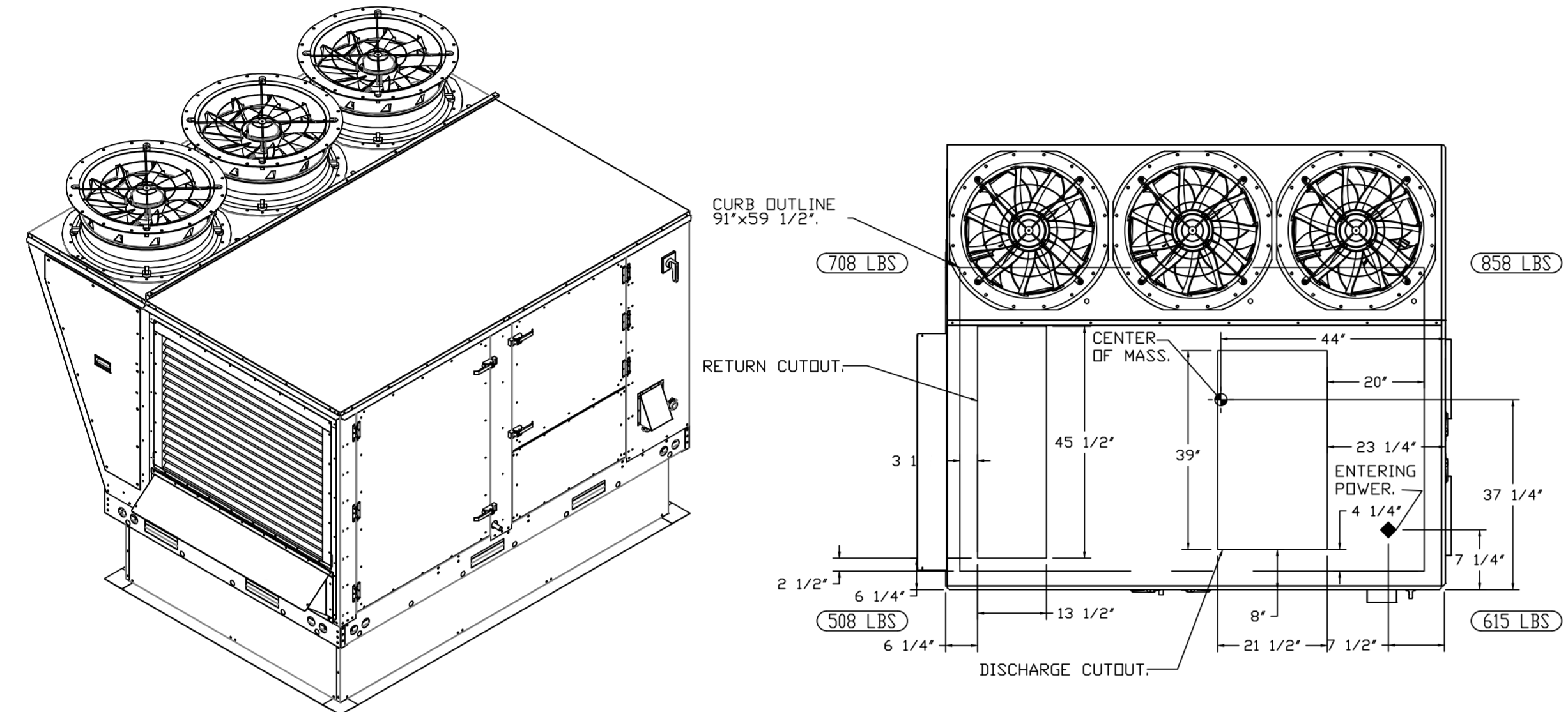
DATE: 11/8/2022
DWG.#: 5703827
DRAWN BY: sluddy jr
SCALE: 3/4" = 1'-0"
MASTER DRAWING

FAN #5 CASRTU3-I.300-24MF-20T-DDAS - HEATER (RTU-1 DINING)

NOTES:

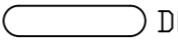
- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
-  DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA 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, RADIUS 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 CAUSE 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 21.5" x 39".

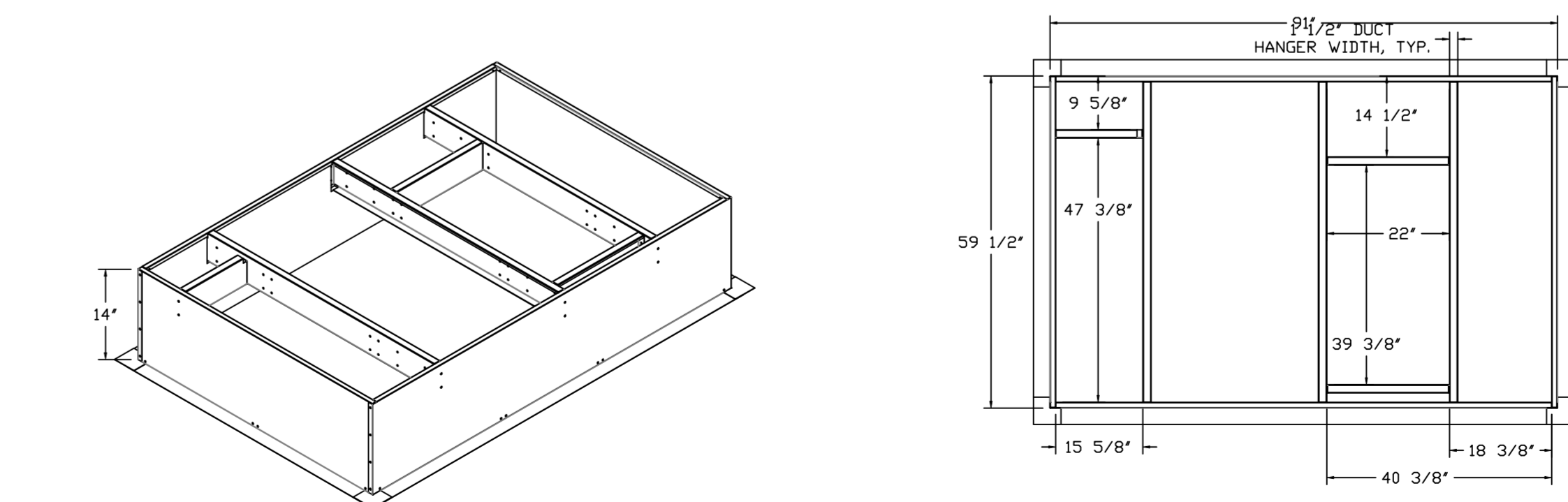
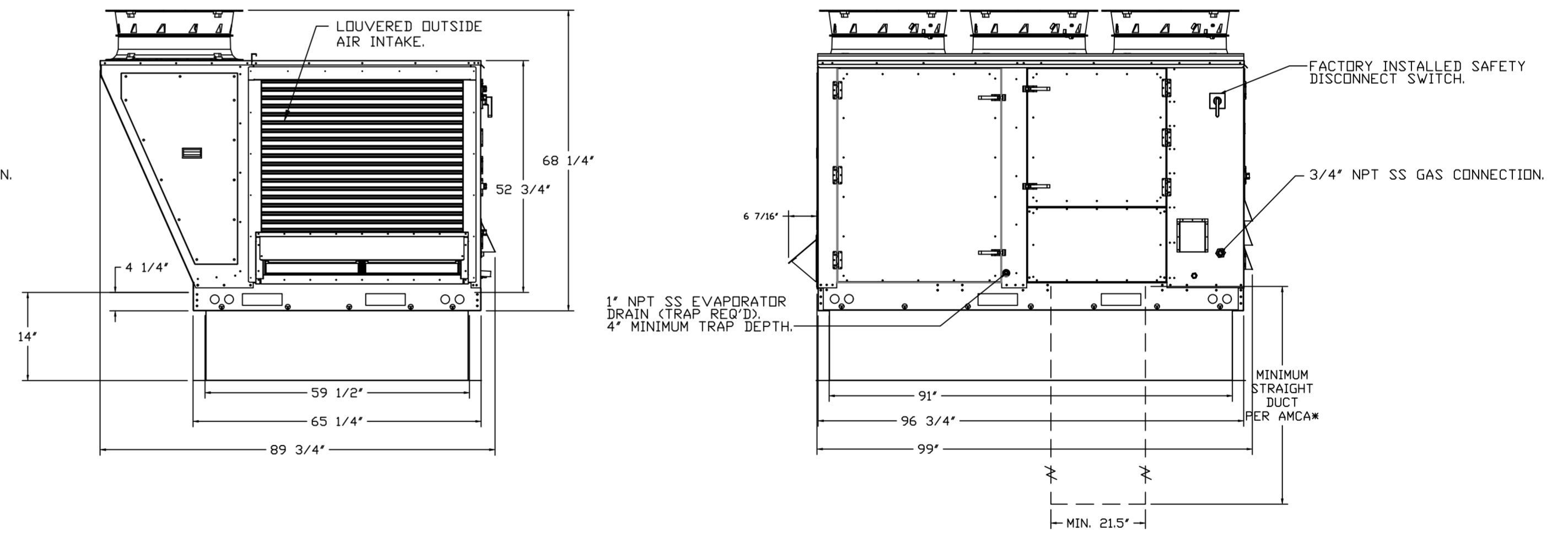
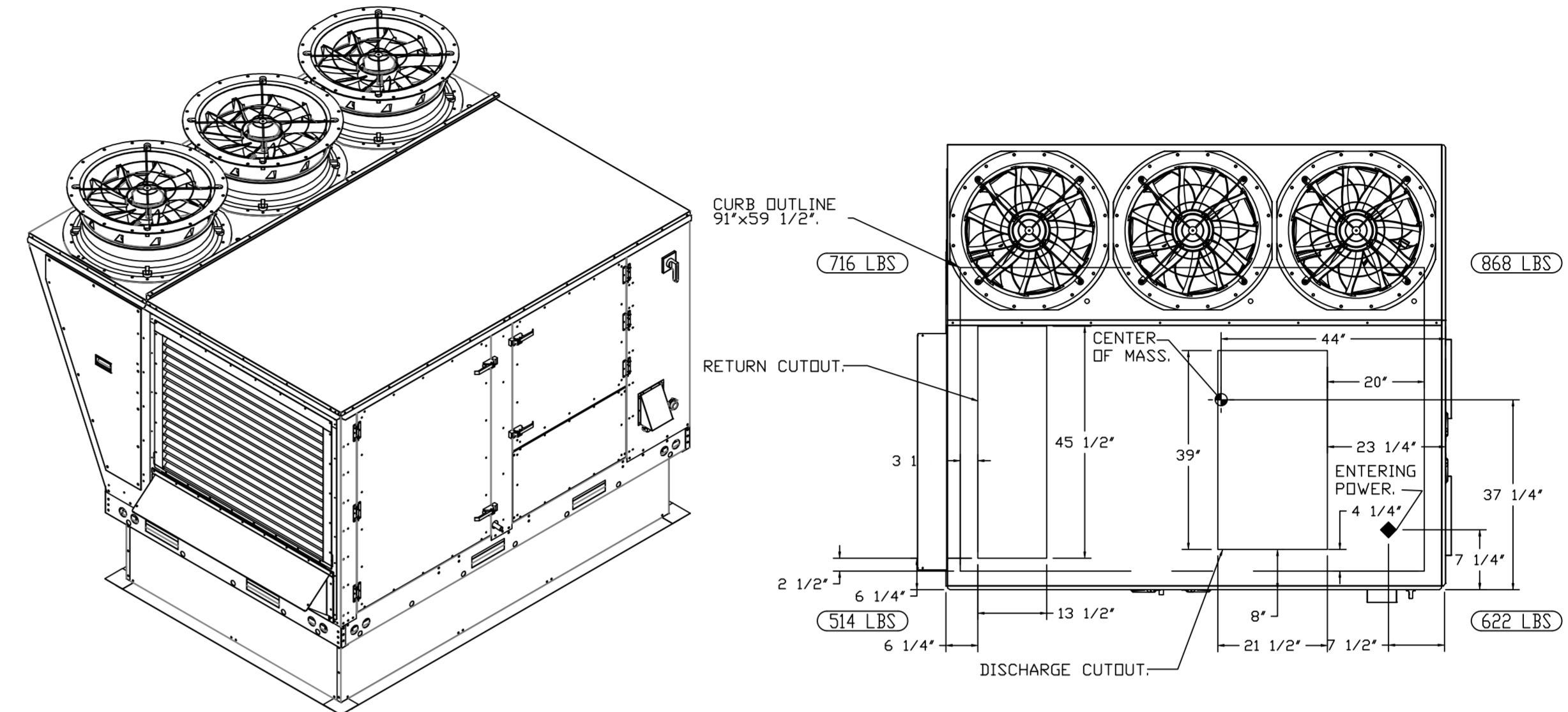


FAN #6 CASRTU3-I.250-24MF-20T-DDAS - HEATER (RTU-2 KITCHEN)

NOTES:

- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
-  DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA 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, RADIUS 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 CAUSE 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 21.5" x 39".



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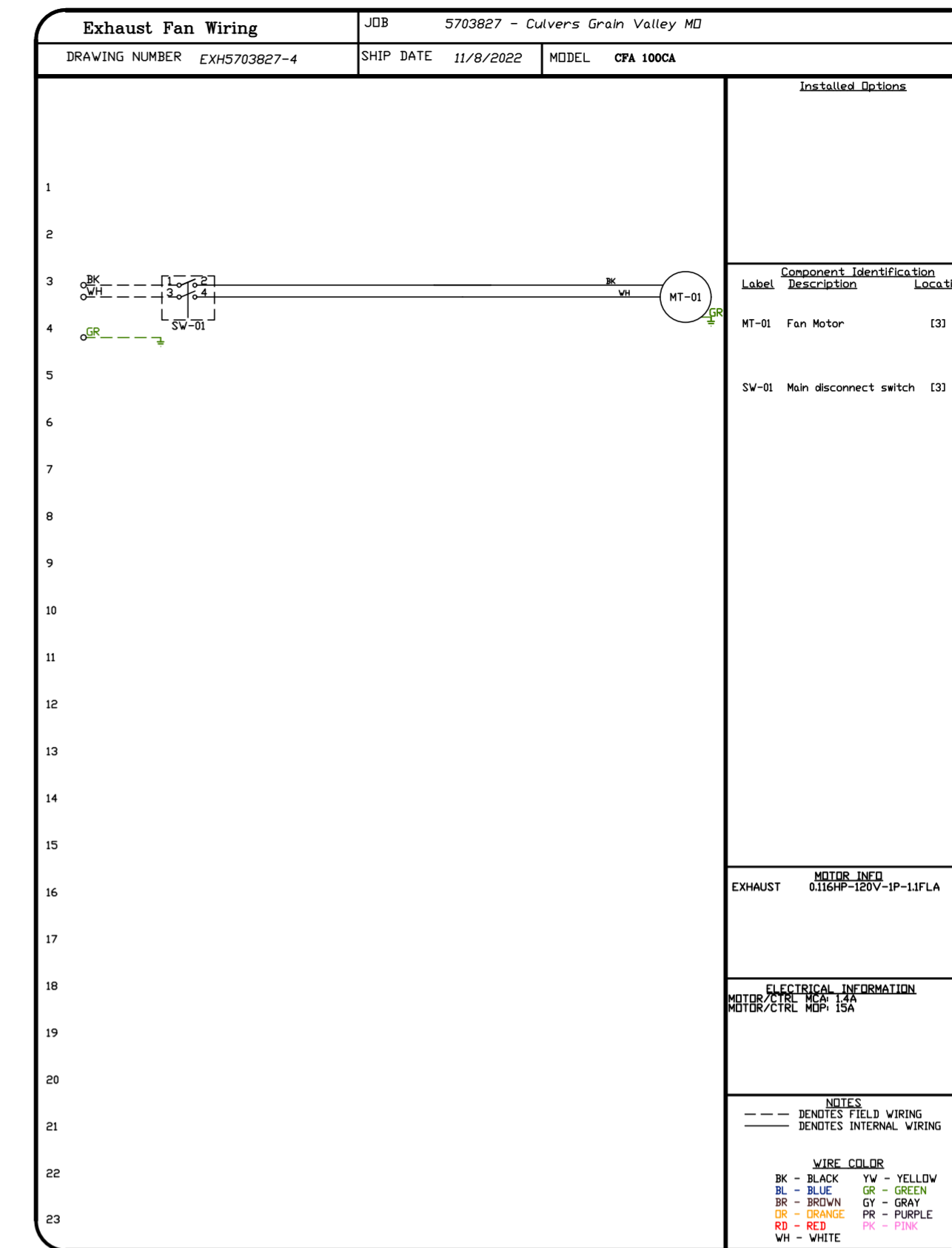
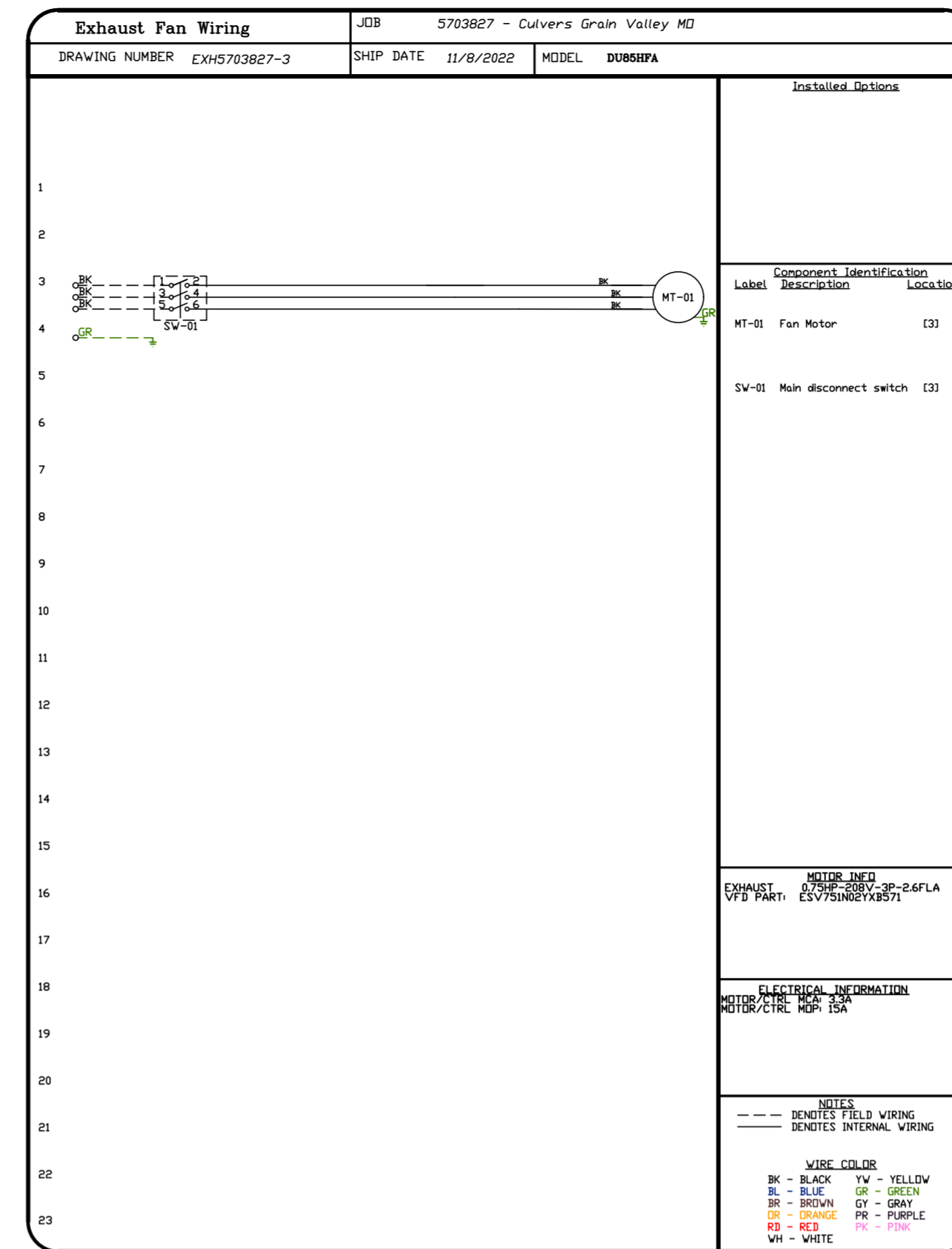
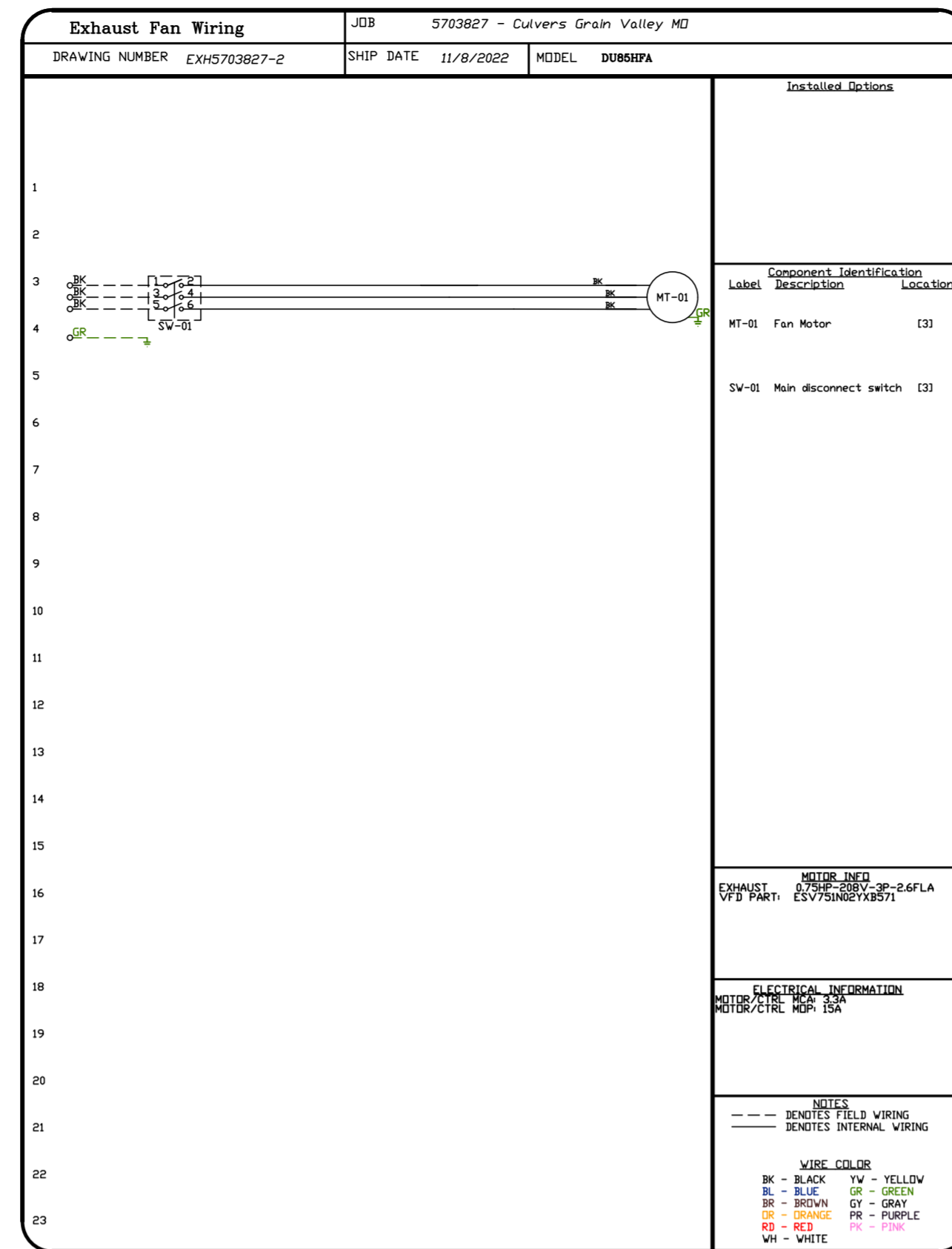
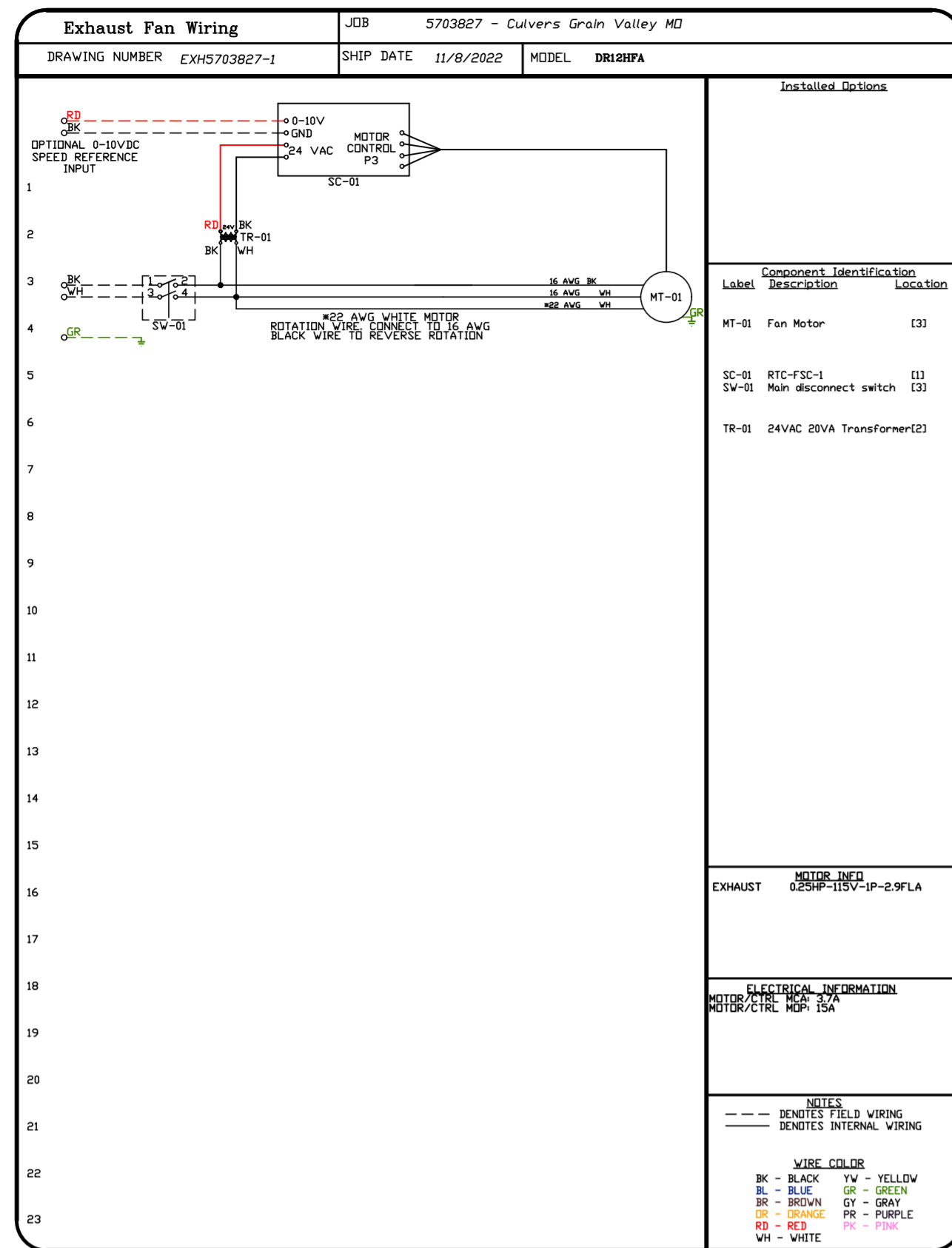
DWG.#:
 5703827

DRAWN BY: studdy jr

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

MASTER DRAWING

SHEET NO.
 9



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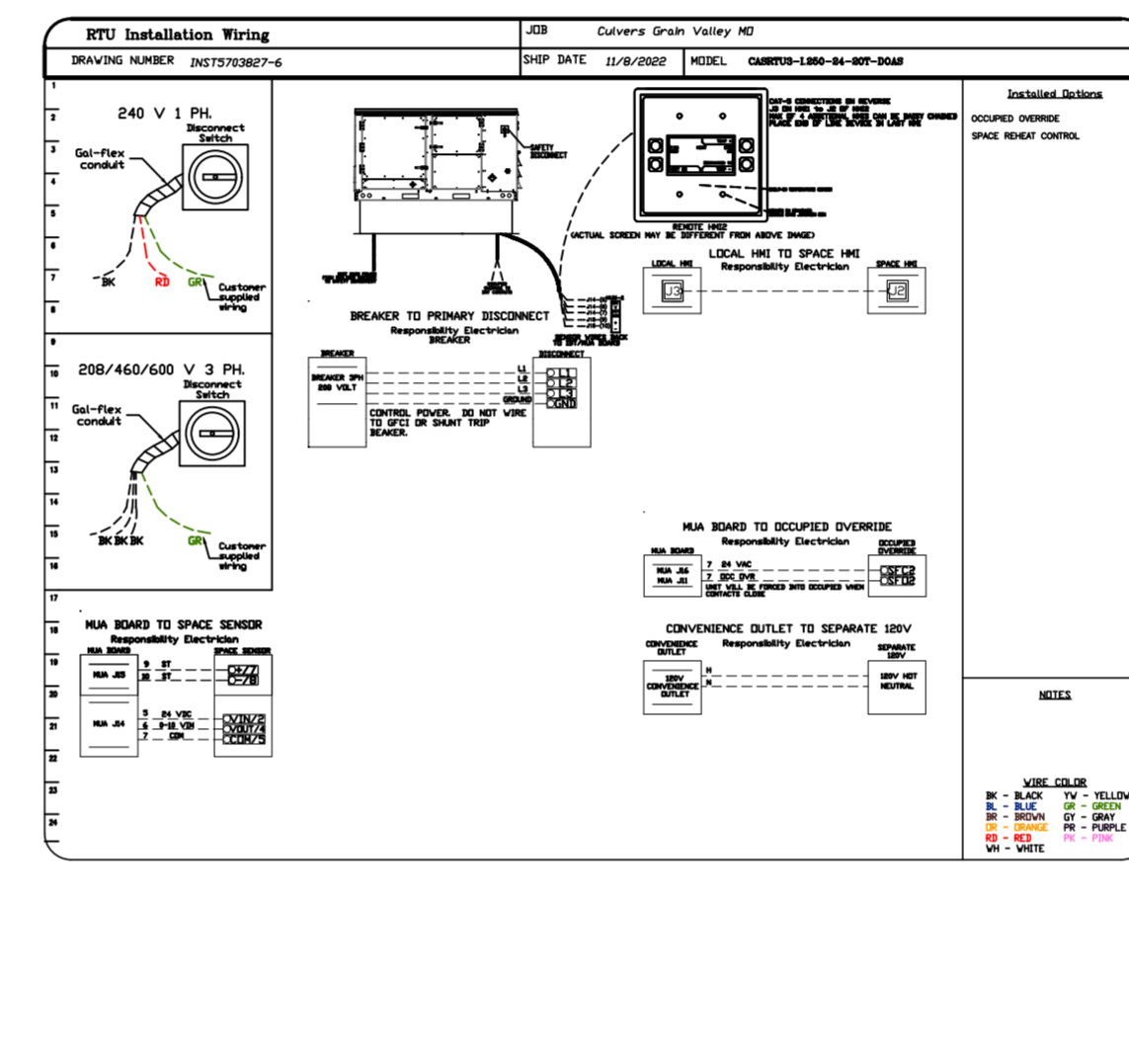
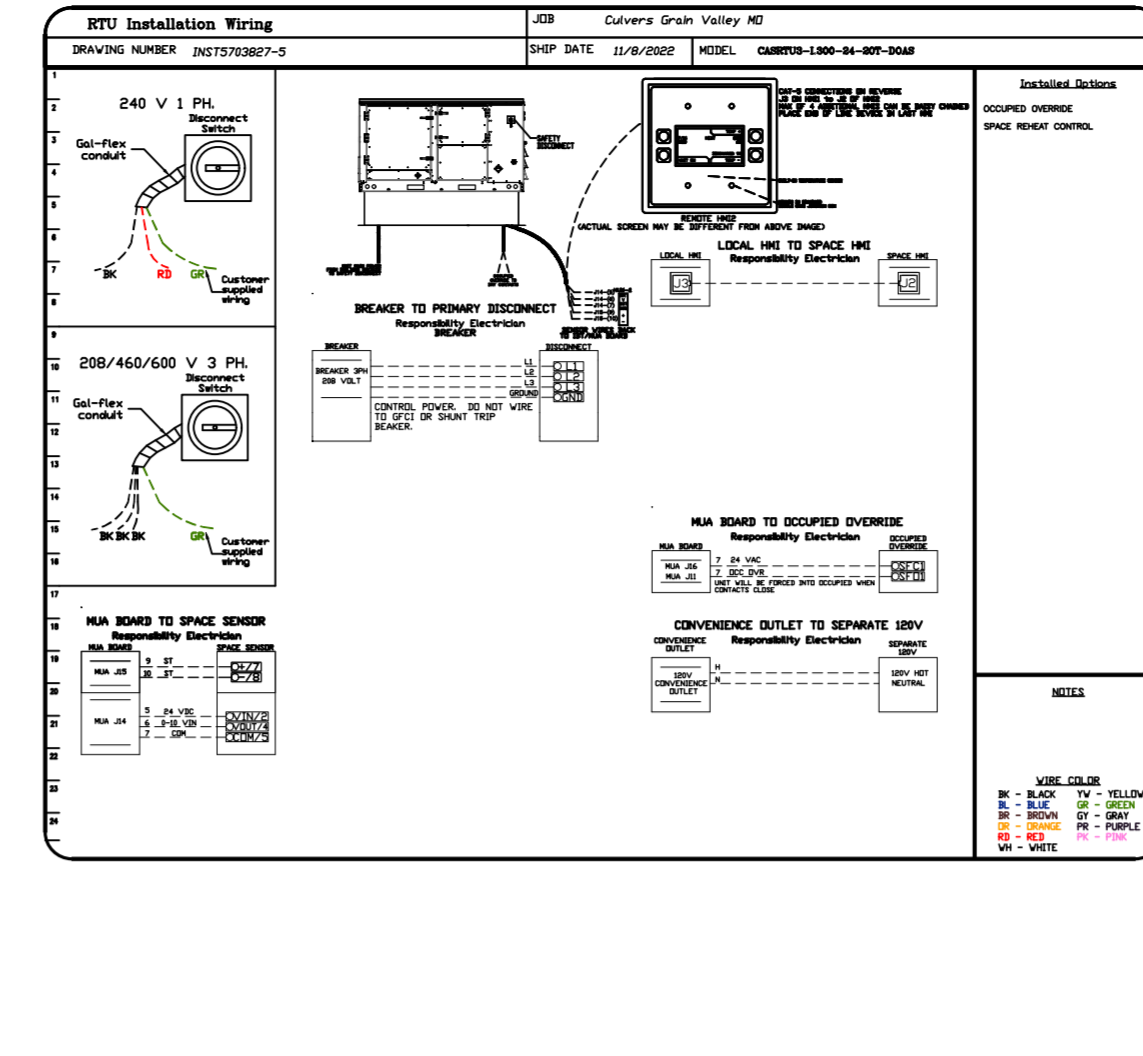
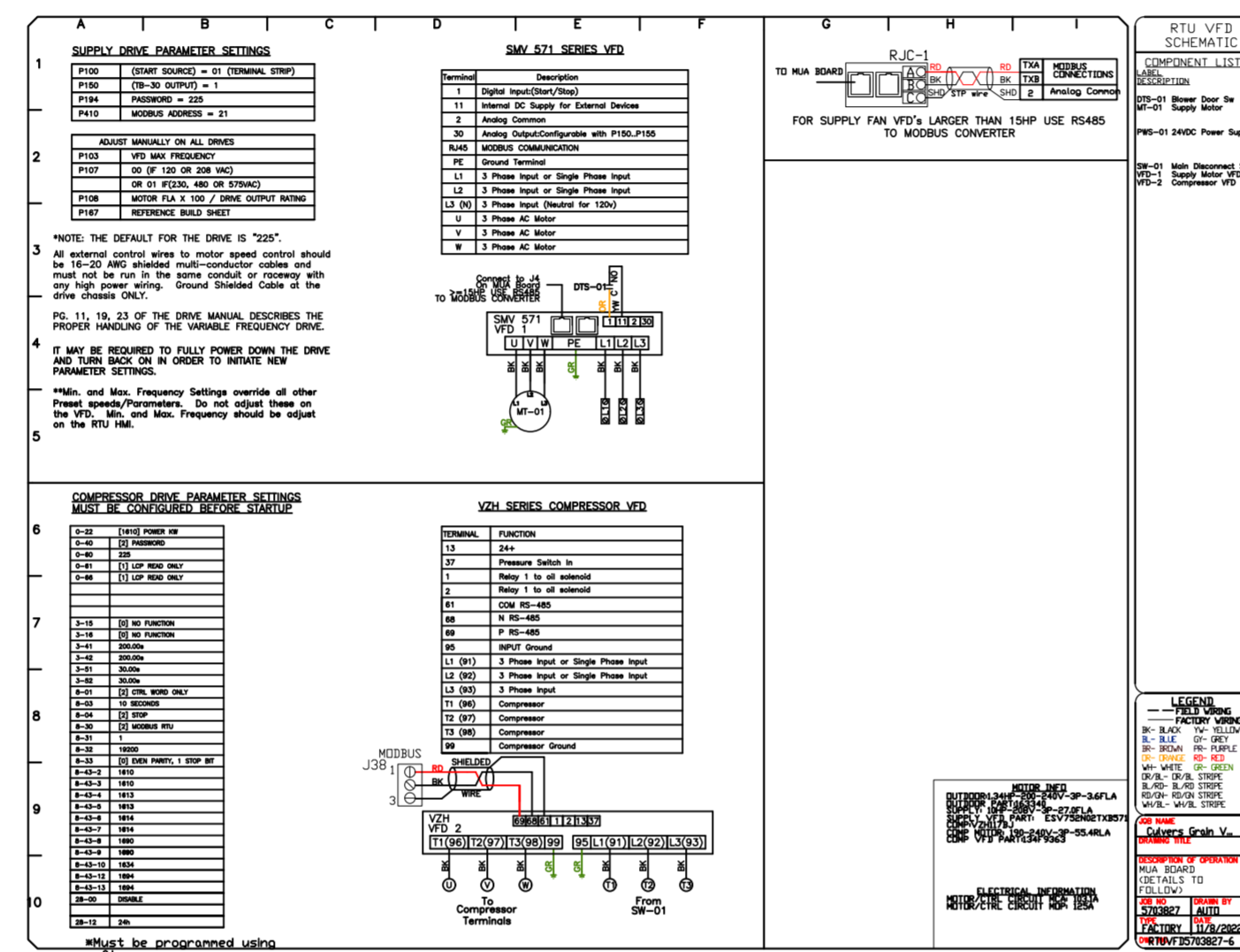
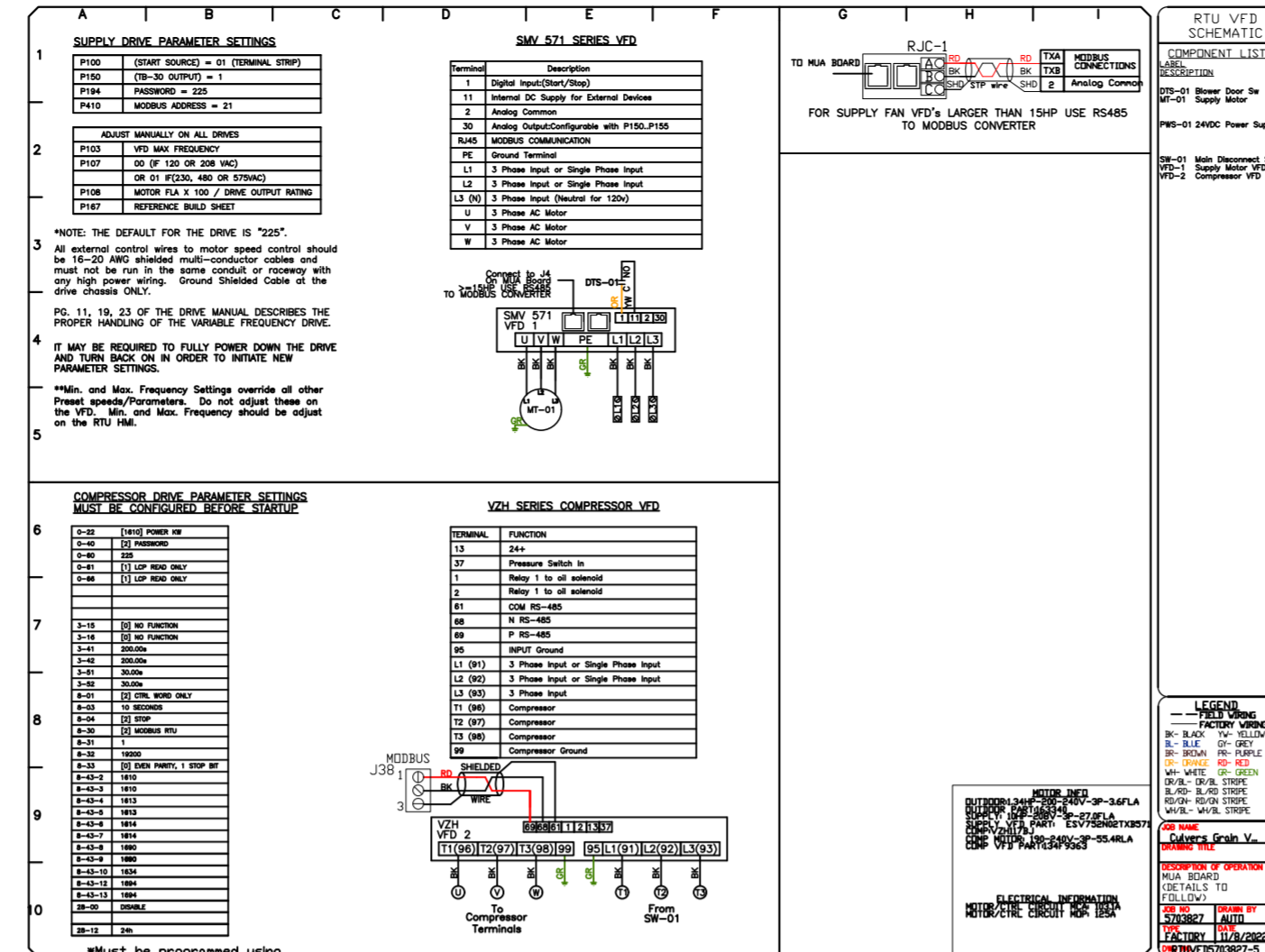
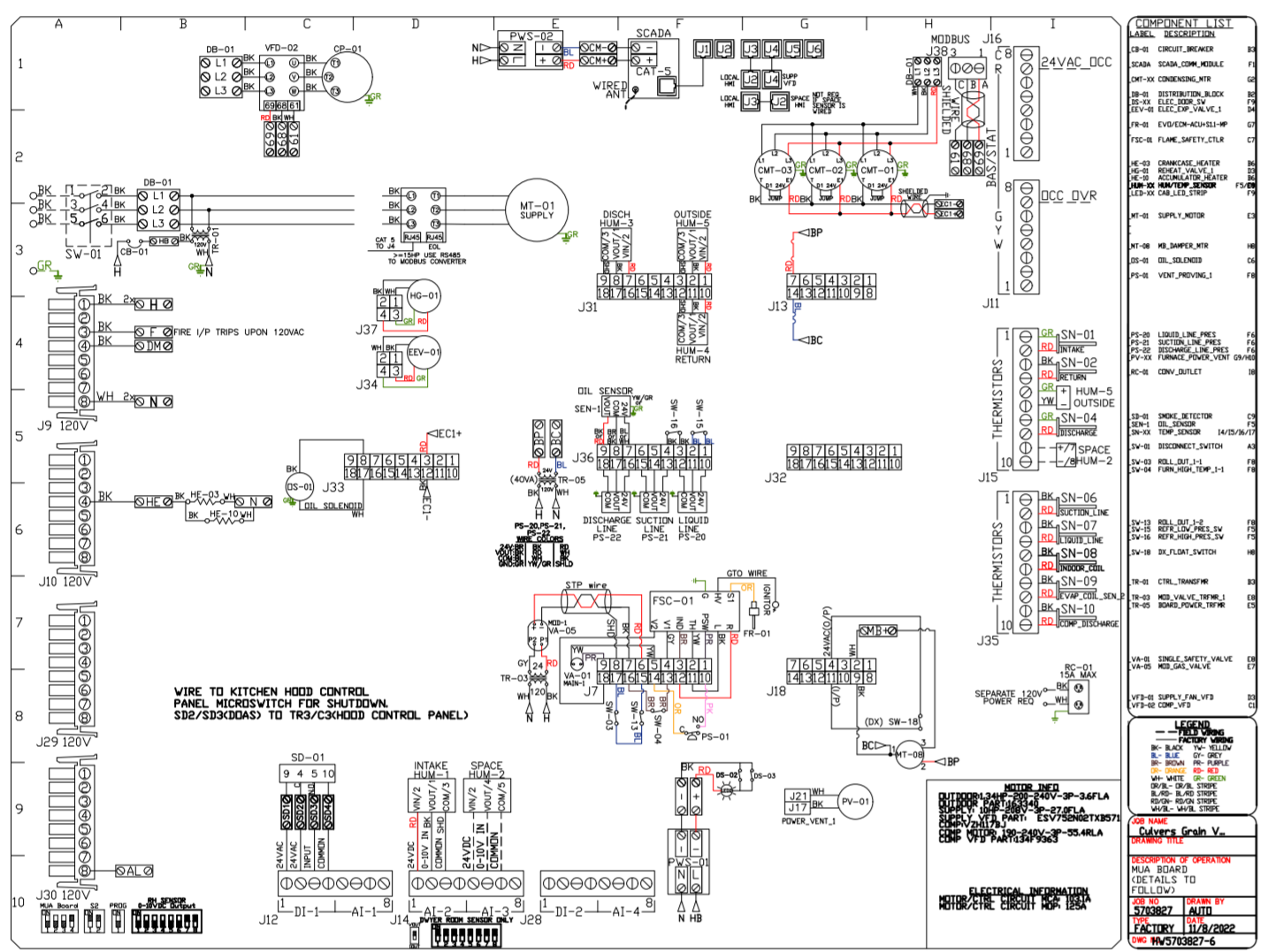
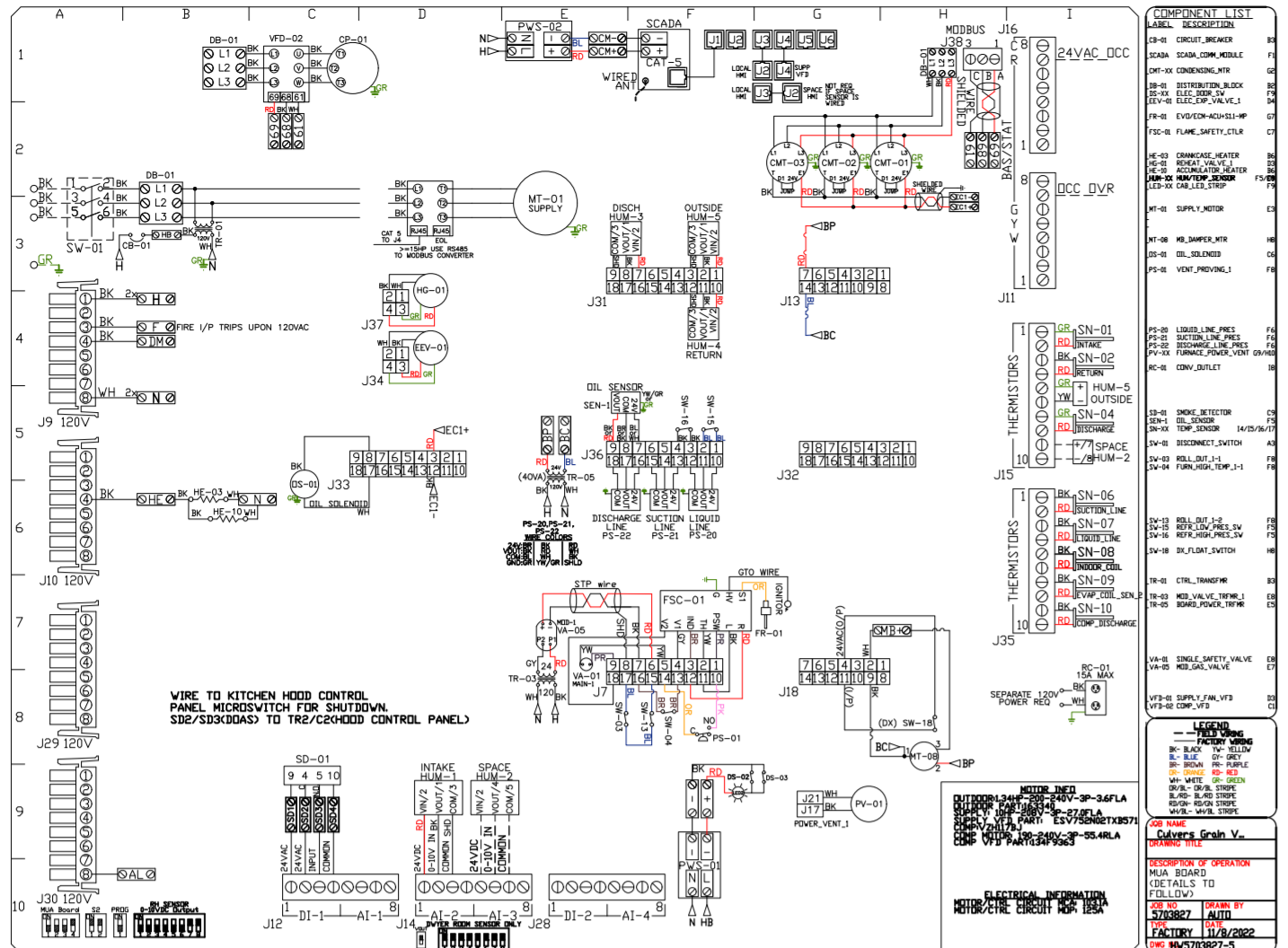
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SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
10



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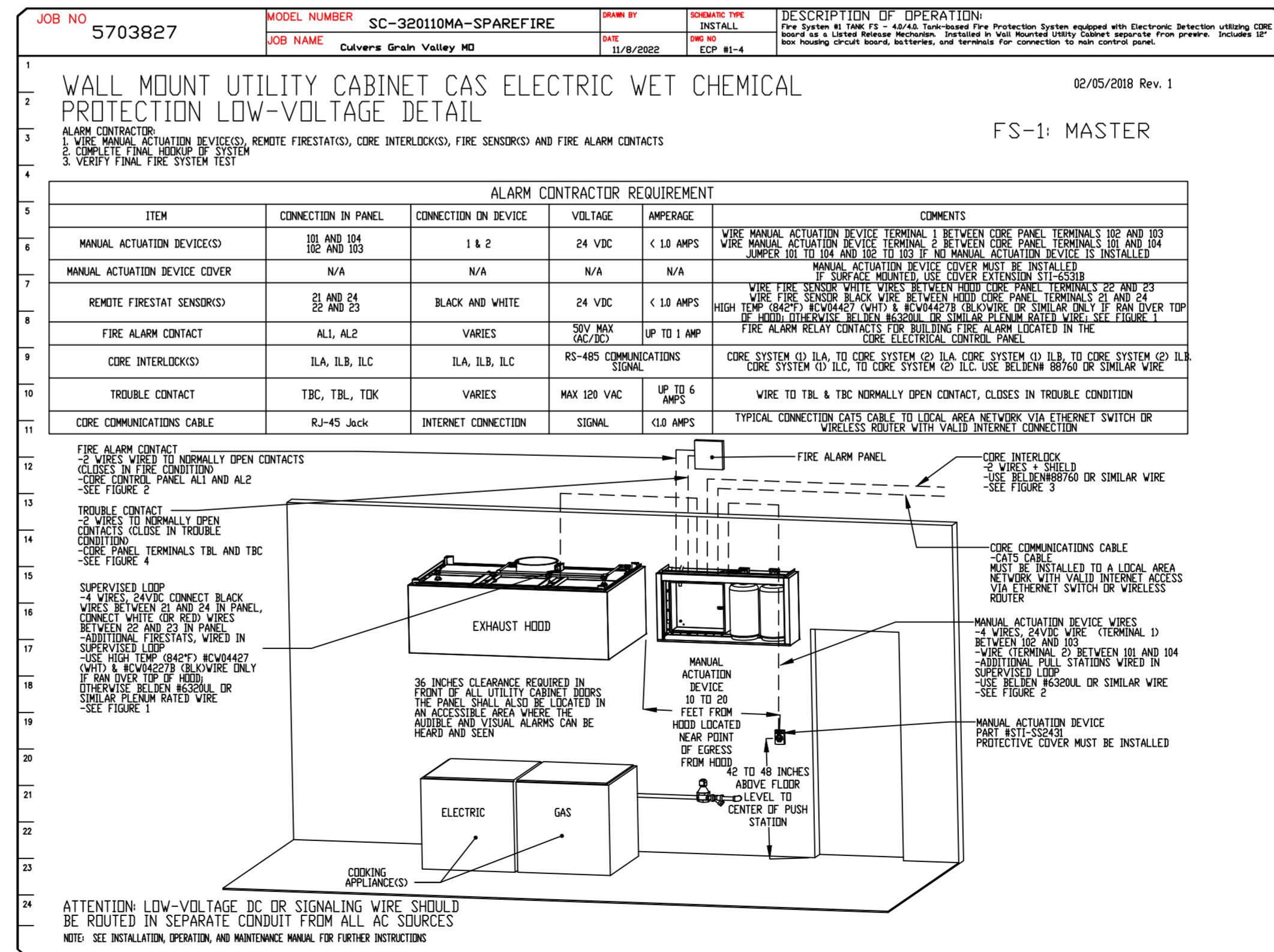
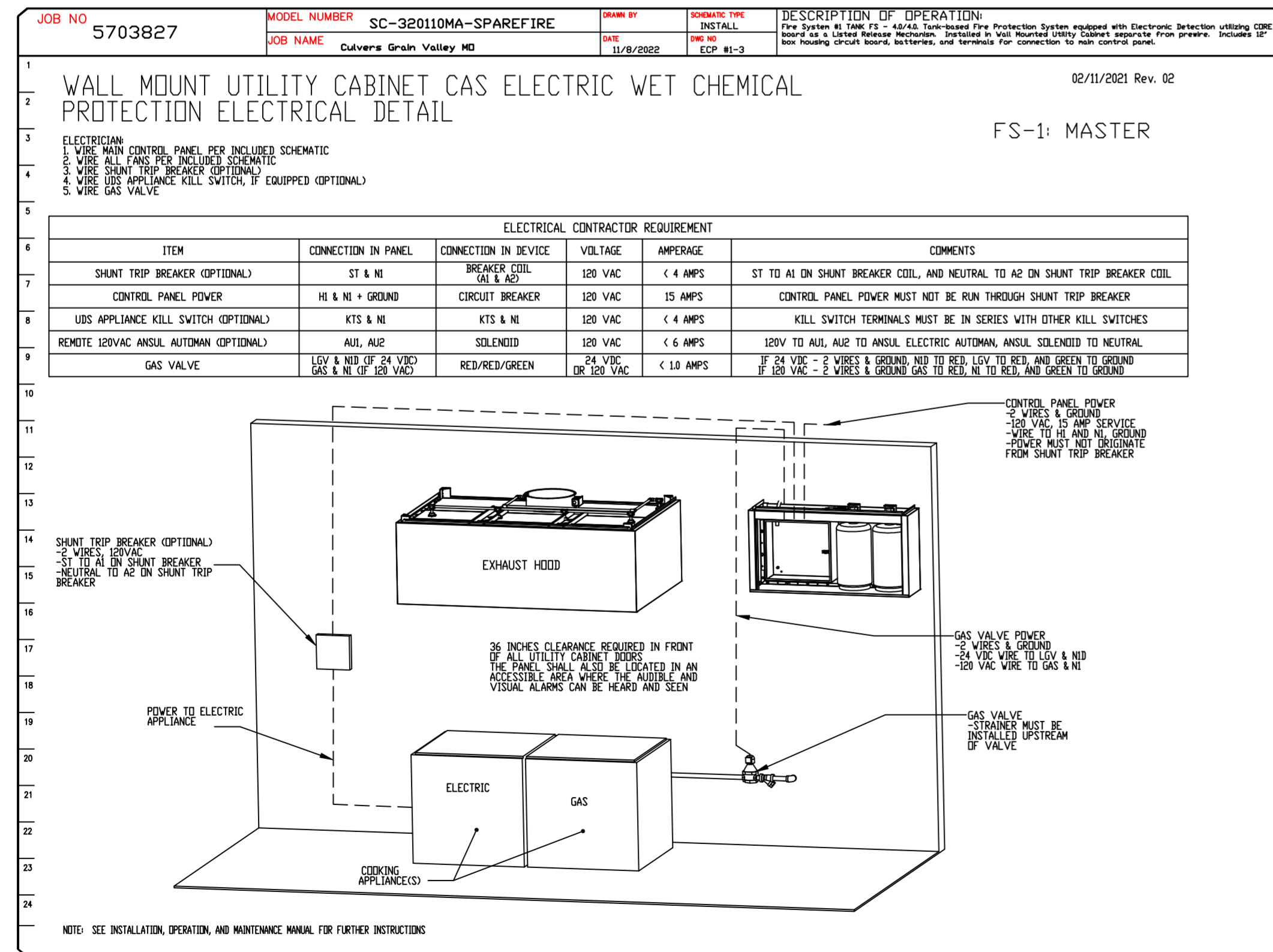
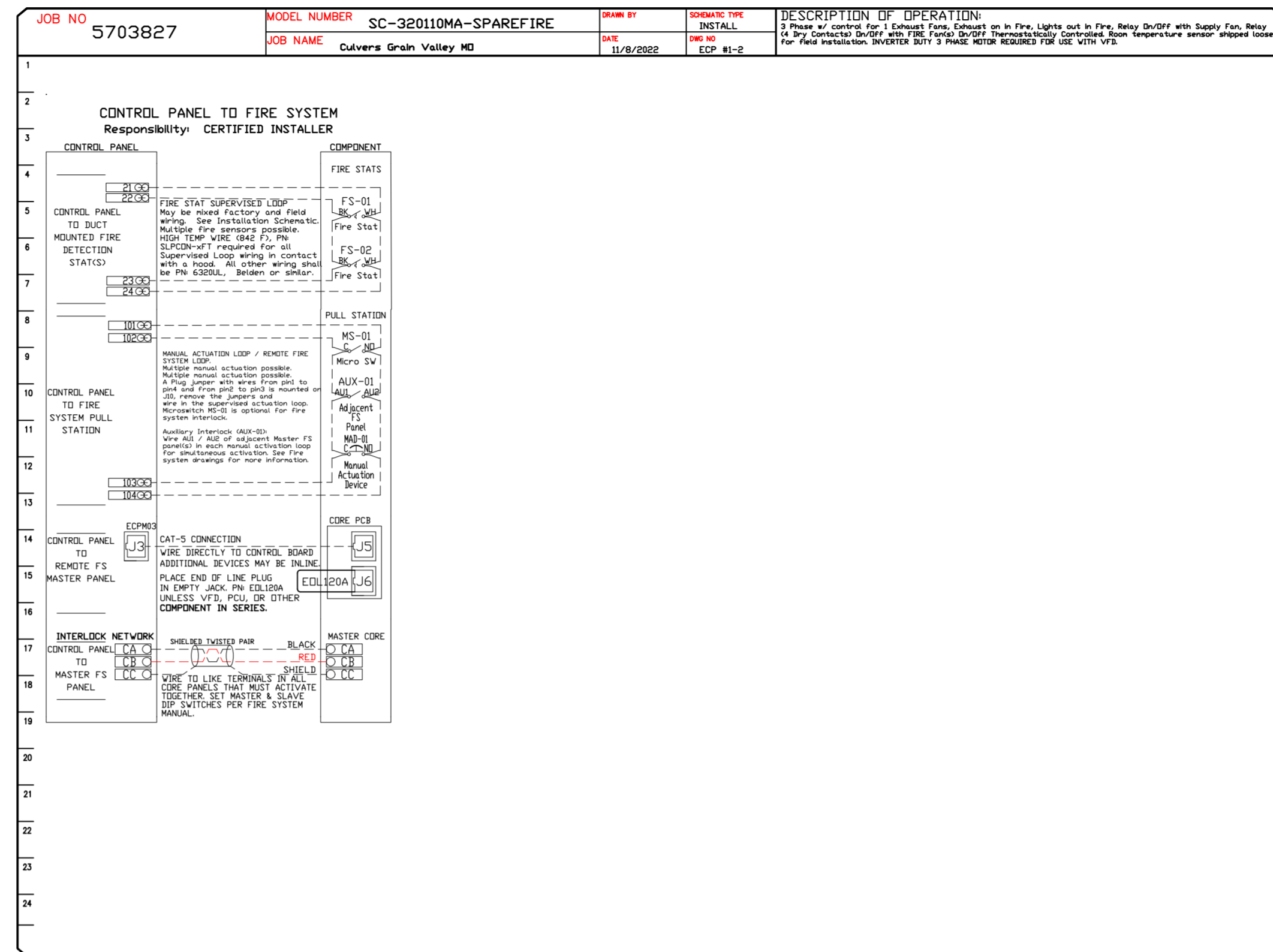
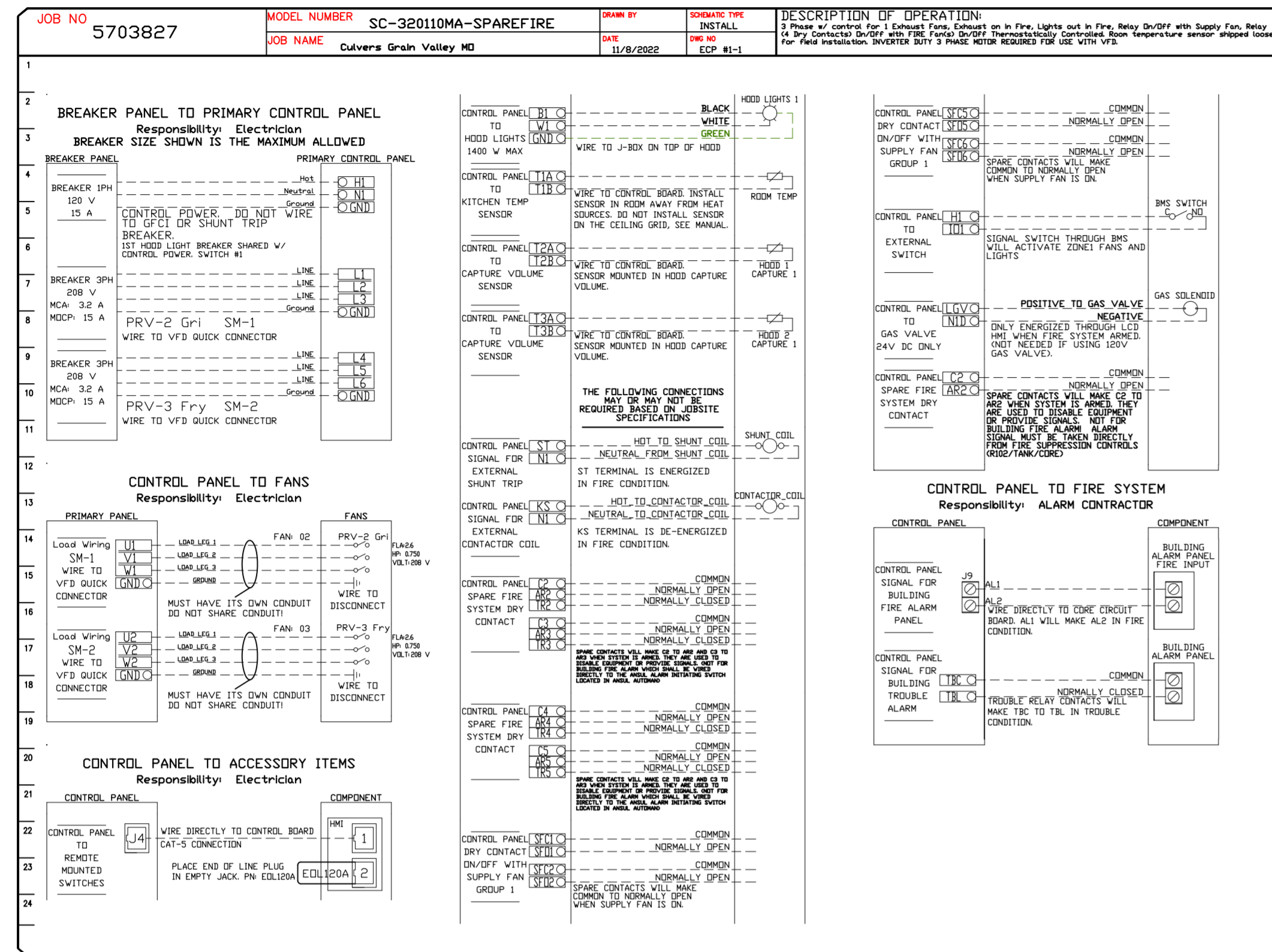
SCALE: 1/2" = 1'-0"

MASTER DRAWING

SHEET NO. 11

ELECTRICAL PACKAGE - JOB#5703827

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	#	HP	VOLTS	FLA
1		SC-320110A-SPAREFIRE	WALL MOUNT IN SS BDX	08 - SHIP LOOSE W/ PREWIRE	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ 2 RELAYS ON/OFF WITH SUPPLY	PRV-2 Griddle	EXHAUST	3	0.750	208	2.6
							PRV-3 Fryer	EXHAUST	3	0.750	208	2.6



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DRAWN BY: studdyjr
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 12

DUCTWORK #1 PARTS - JOB#5703827 DOUBLE WALL GREASE DUCT

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P2	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P3	DW1235DWLT-2R-S						40.86		1	DOUBLE WALL DUCT - 12" INNER DUCT, 35" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P4 ASSEMBLED W/P5	DW1247DWAJDTP-2R-S						82.74		1	DOUBLE WALL ADJUSTABLE DUCT TRANSITION PLATE - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P5 ASSEMBLED W/P4	DW2312TPDBEX						8.00		1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 12" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE DD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
P6	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P7	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P8	DW1235DWLT-2R-S						40.86		1	DOUBLE WALL DUCT - 12" INNER DUCT, 35" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P9 ASSEMBLED W/P10	DW1247DWAJDTP-2R-S						82.74		1	DOUBLE WALL ADJUSTABLE DUCT TRANSITION PLATE - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P10 ASSEMBLED W/P9	DW2312TPDBEX						8.00		1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 12" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE DD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
	3M-2000PLUS						0.80		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW12DWCLASY-2R-S						6.44		6	DUCT - 12" DUCT - 16" DOUBLE "V" CLAMP - 2R INSULATION & SINGLE "V" CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							522.28			

DOUBLE WALL FACTORY BUILT DUCTWORK

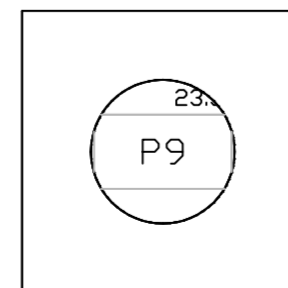
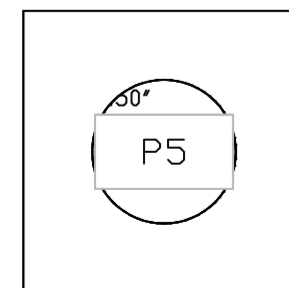
- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

HORIZONTAL	
DUCT DIAMETER	SUPPORT SPACING (FT)
5'	7'
6'	7'
7'	7'
8'	7'
10'	7'
12'	7'
14'	7'
16'	7'
18'	5'
20'	5'
22'	5'
24'	5'
26'	5'
28'	5'
30'	5'
32'	5'
34'	5'
36'	5'

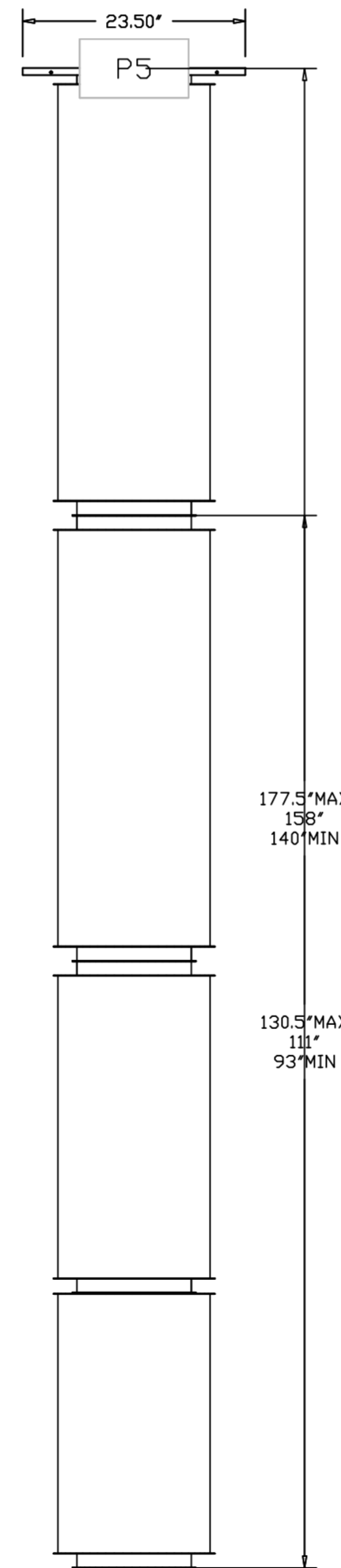
VERTICAL			
TYPE	WALL SUPPDRT (FT)	CURB SUPPDRT (FT)	FLOOR SUPPDRT (FT)
2R & 2R HT (5'-16')	20'	24'	24'
2R (18')	18'	24'	24'
3R & 3Z (5'-24')	10'	24'	24'
3Z (26' -36')	10'	20'	20'

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

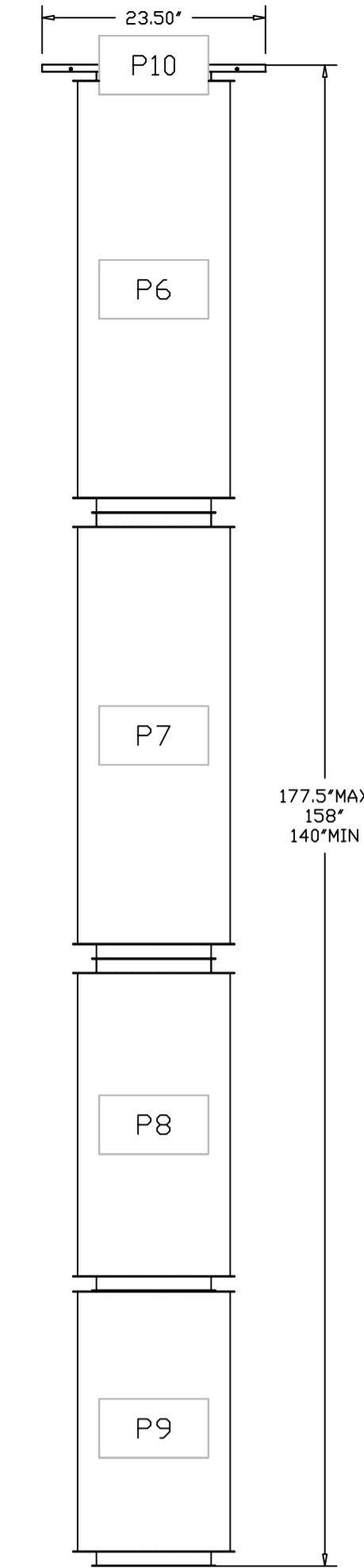
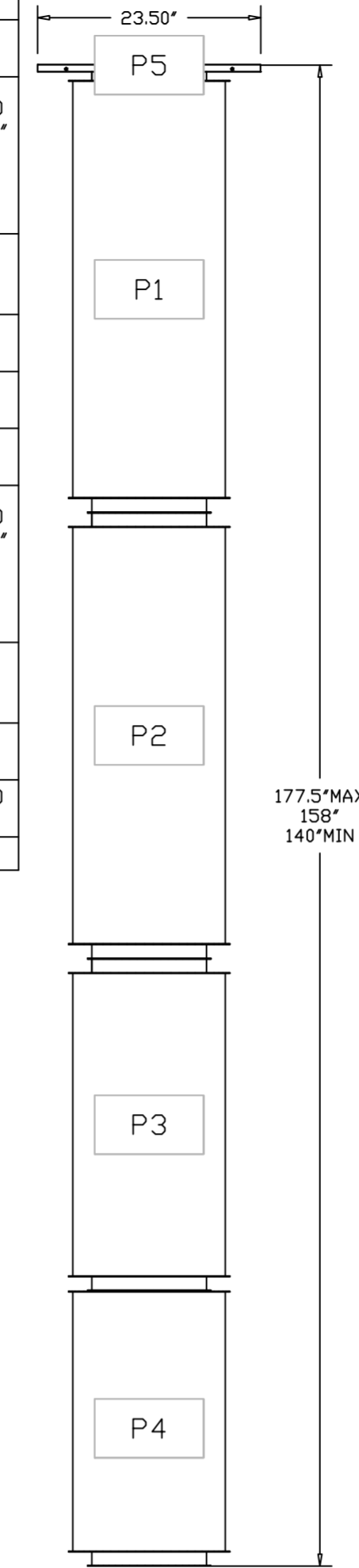
DUCTWORK #1 TOP VIEW GREASE DUCT



DUCTWORK #1 SIDE VIEW GREASE DUCT



DUCTWORK #1 FRONT VIEW GREASE DUCT



REVISIONS

DESCRIPTION	DATE



CAPTIVEAIRE
 Florida National Accounts
 238 N Hunt Club Blvd., STE 201, Longwood, FL 32779 PHONE: (407) 662-3100 FAX: (407) 227-5818 EMAIL: reg6@captiveaire.com

Culvers Grain Valley MD
 1180 NW BUCKNER TARSNEY BLVD,
 Grain Valley, MD, 64029

DATE: 11/8/2022

DWG.#:
5703827

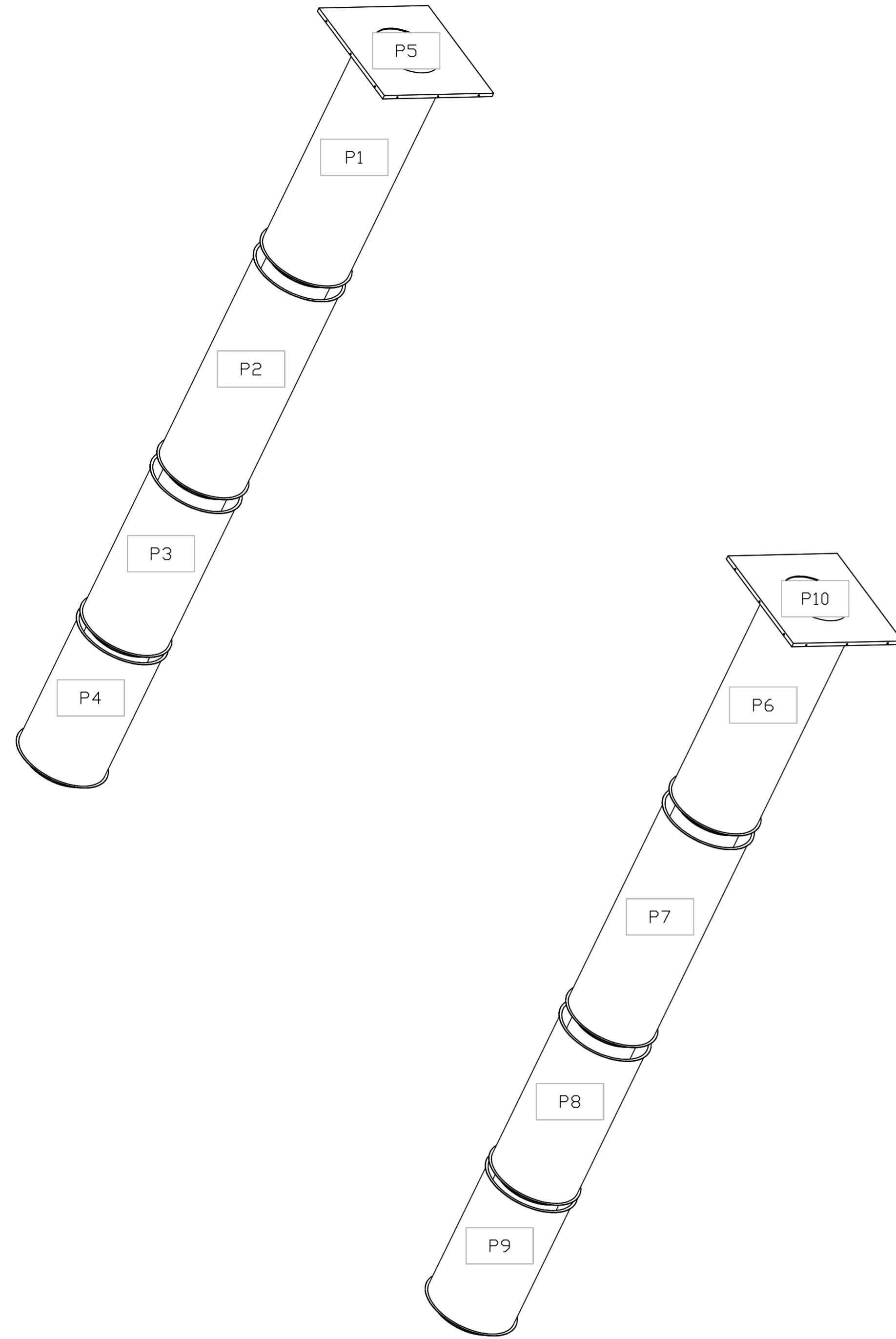
DRAWN BY: studdy jr

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

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14

DUCTWORK #1 SE VIEW
GREASE DUCT



REVISIONS

DESCRIPTION	DATE



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Grain Valley, MO, 64029

DATE: 11/8/2022

DWG.#:
5703827

DRAWN BY: sluddy jr

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

MASTER DRAWING

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15

WALL MOUNT UTILITY CABINET CAS ELECTRIC WET CHEMICAL PROTECTION ELECTRICAL DETAIL

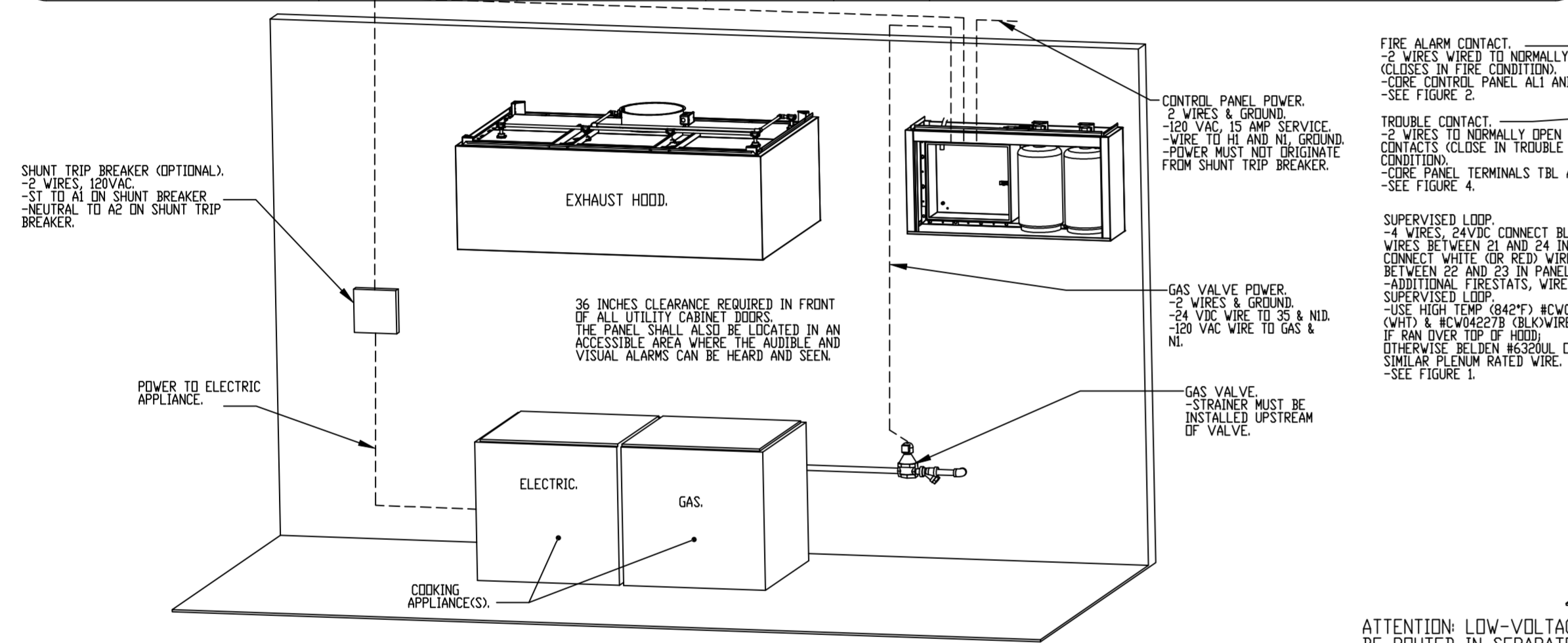
- ELECTRICIAN
- WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC.
- WIRE ALL FANS PER INCLUDED SCHEMATIC.
- WIRE SHUNT TRIP BREAKER (OPTIONAL).
- WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL).
- WIRE GAS VALVE.

ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & NI	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL.
CONTROL PANEL POWER	H1 & NI + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER.
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & NI	KTS & NI	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES.
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AUI, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AUI, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL.
GAS VALVE	2S & NID (IF 24 VDC GAS & NI (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VDC - 2 WIRES & GROUND, NID TO RED, 2S TO RED, AND GREEN TO GROUND. IF 120 VAC - 2 WIRES & GROUND, GAS TO RED, NI TO RED, AND GREEN TO GROUND.

WALL MOUNT UTILITY CABINET CAS ELECTRIC WET CHEMICAL PROTECTION LOW-VOLTAGE DETAIL

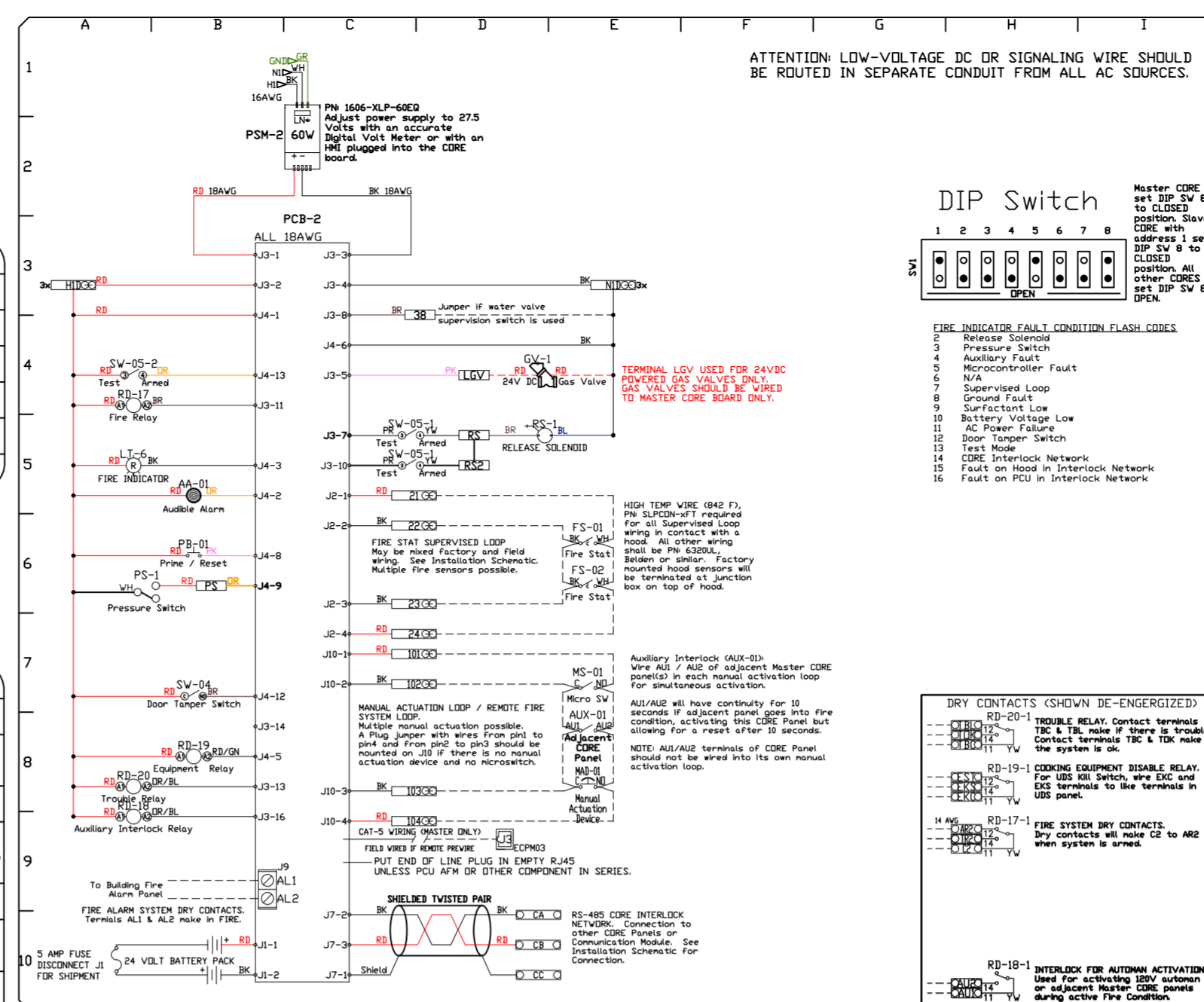
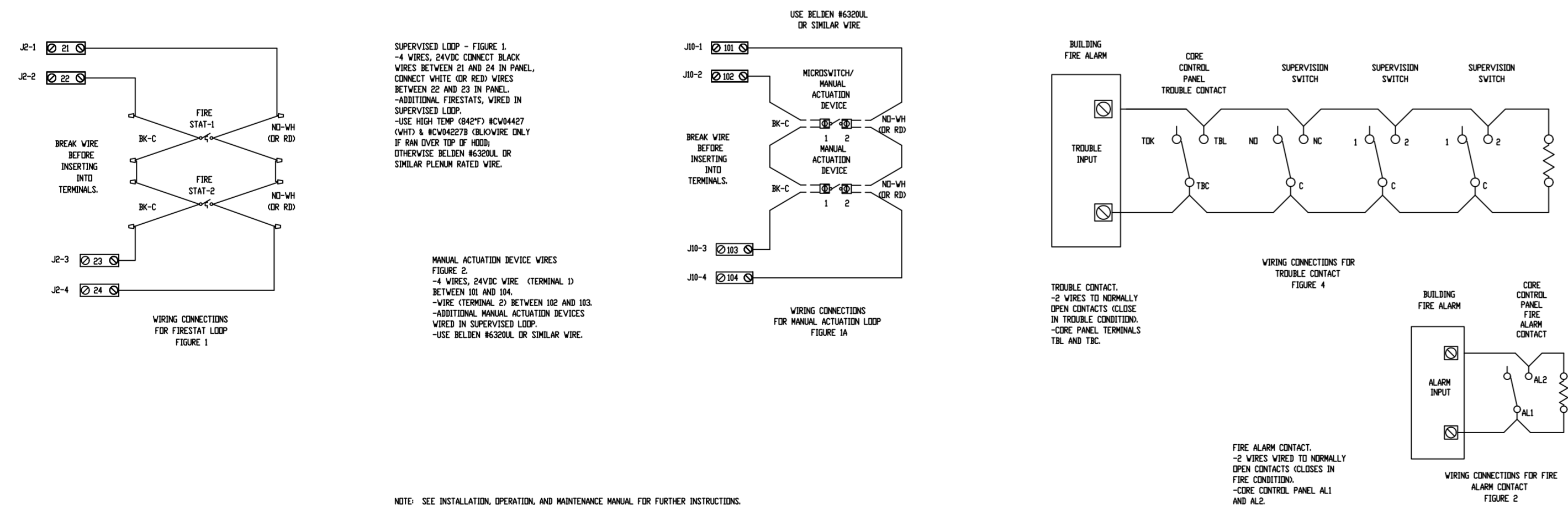
- ALARM CONTRACTOR
- WIRE MANUAL ACTUATION DEVICES(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS.
- COMPLETE FINAL HOOKUP OF SYSTEM.
- VERIFY FINAL FIRE SYSTEM TEST.

ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICES(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 1.0 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103. WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104. JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED.
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED. IF SURFACE MOUNTED, USE COVER EXTENSION ST1-6531B.
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 1.0 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23. WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24. WIRE FIRE SENSOR BLACK WIRE (WHIT) & BCW04427B (BLACK) WIRE OR SIMILAR ONLY IF RAN OVER TOP OF HOOD. OTHERWISE BELDEN #6330UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1.
FIRE ALARM CONTACT	ALL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL.
CORE INTERLOCK(S)	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) ILA, TO CORE SYSTEM (2) ILA. CORE SYSTEM (1) ILB, TO CORE SYSTEM (2) ILB. CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC. USE BELDEN 88760 OR SIMILAR WIRE.
TROUBLE CONTACT	TBC, TBL, TCK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSSES IN TROUBLE CONDITION.
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION.



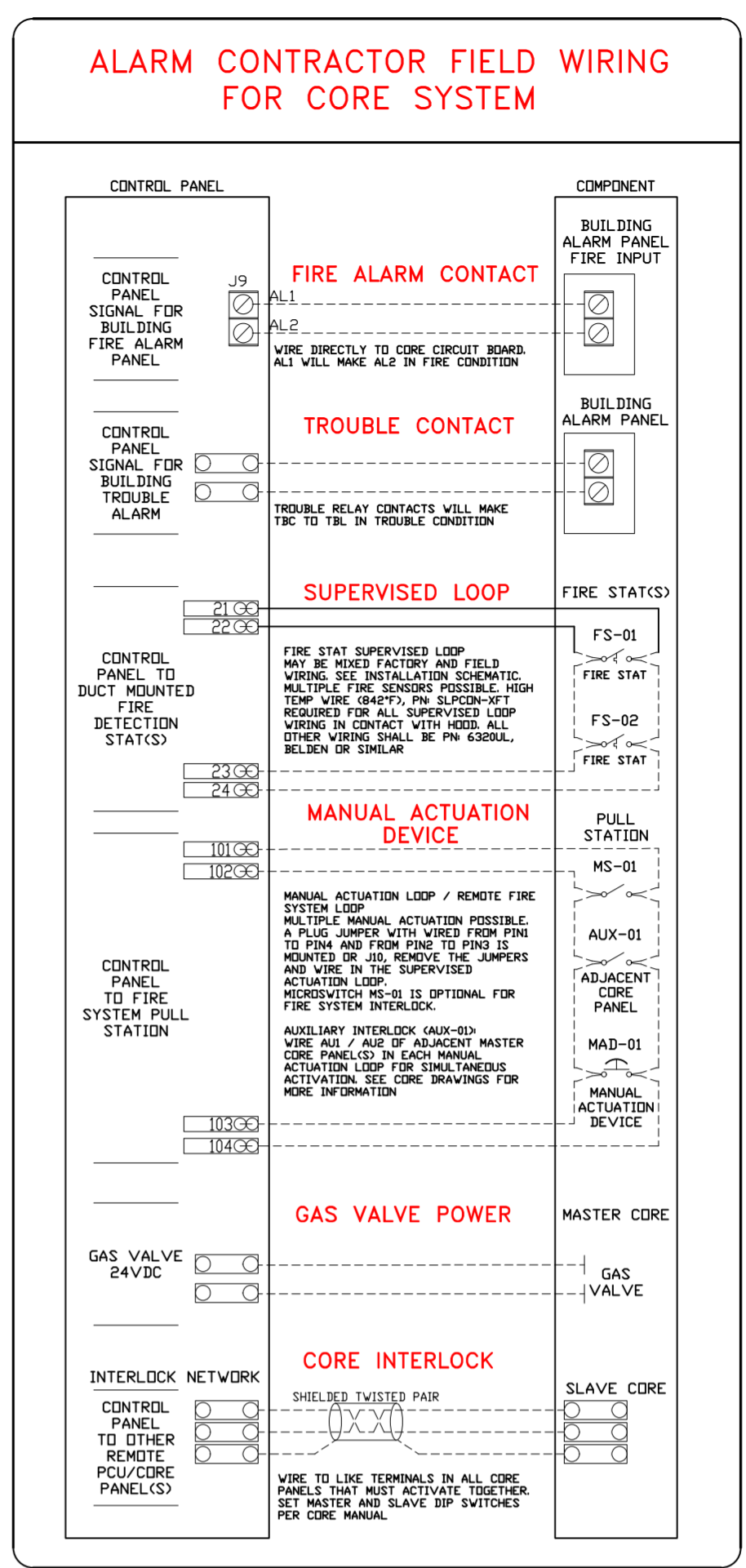
WALL MOUNTED CAS ELECTRIC WET CHEMICAL PROTECTION LOW-VOLTAGE FIGURES

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES.



FACTORY WIRING SCHEMATIC CODE FIRE PROTECTION

DESCRIPTION	TERMINAL
24 VDC	24
24 VDC	25
24 VDC	26
24 VDC	27
24 VDC	28
24 VDC	29
24 VDC	30
24 VDC	31
24 VDC	32
24 VDC	33
24 VDC	34
24 VDC	35
24 VDC	36
24 VDC	37
24 VDC	38
24 VDC	39
24 VDC	40
24 VDC	41
24 VDC	42
24 VDC	43
24 VDC	44
24 VDC	45
24 VDC	46
24 VDC	47
24 VDC	48
24 VDC	49
24 VDC	50
24 VDC	51
24 VDC	52
24 VDC	53
24 VDC	54
24 VDC	55
24 VDC	56
24 VDC	57
24 VDC	58
24 VDC	59
24 VDC	60
24 VDC	61
24 VDC	62
24 VDC	63
24 VDC	64
24 VDC	65
24 VDC	66
24 VDC	67
24 VDC	68
24 VDC	69
24 VDC	70
24 VDC	71
24 VDC	72
24 VDC	73
24 VDC	74
24 VDC	75
24 VDC	76
24 VDC	77
24 VDC	78
24 VDC	79
24 VDC	80
24 VDC	81
24 VDC	82
24 VDC	83
24 VDC	84
24 VDC	85
24 VDC	86
24 VDC	87
24 VDC	88
24 VDC	89
24 VDC	90
24 VDC	91
24 VDC	92
24 VDC	93
24 VDC	94
24 VDC	95
24 VDC	96
24 VDC	97
24 VDC	98
24 VDC	99
24 VDC	100



CORE ELECTRIC WET CHEMICAL PROTECTION FIRE SYSTEM

CORE ELECTRIC WET CHEMICAL (EWC) PROTECTION FIRE SYSTEMS CAN BE INSTALLED FOR HOOD FIRE PROTECTION, AS WELL AS POLLUTION CONTROL UNIT FIRE PROTECTION. IN THE EVENT OF A FIRE, OR ON MANUAL ACTUATION CORE EWC PROTECTION IS ACTIVATED.

IF THE INSTALLED FIRESTAT IN THE AIRSTREAM SENSES A TEMPERATURE HOTTIER THAN ITS INTERNAL SET POINT OR IF THE MANUAL ACTUATION DEVICE IS PUSHED THE FIRE SYSTEM IS ACTIVATED. IN KITCHEN HOODS AN ELECTRIC SOLENOID IS ENERGIZED ALLOWING THE FLOW OF WET CHEMICAL AGENT TO THE HOOD DUCT, PLENUM, AND APPLIANCES THROUGH THE FIRE SYSTEM DISTRIBUTION PIPING. IN A POLLUTION CONTROL UNIT, THIS ELECTRONIC SIGNAL ENERGIZES A SOLENOID ALLOWING THE FLOW OF WET CHEMICAL AGENT INTO THE INDIVIDUALLY PIPED MODULES.

ONCE THE FIRE SYSTEM IS ACTIVATED, A "FIRE SYSTEM ACTIVATED" LIGHT IS ILLUMINATED ON THE CORE CONTROL PANEL AND AN AUDIBLE ALARM SOUNDS. FOR KITCHEN HOOD PROTECTION ALL GAS AND ELECTRIC APPLIANCES UNDER THE HOOD MUST BE ELECTRICALLY INTERLOCKED TO SHUT OFF. THIS IS ACHIEVED VIA A GAS VALVE RELAY AND/OR A SHUNT TRIP BREAKER.

THE FIRE SYSTEM IS ELECTRICALLY OPERATED AND THUS REQUIRES A BATTERY BACKUP SYSTEM. IN THE EVENT OF A LOSS OF ELECTRICAL POWER, ALL GAS AND ELECTRIC APPLIANCES UNDER THE HOOD MUST BE ELECTRICALLY INTERLOCKED TO SHUT OFF. THIS IS ACHIEVED VIA A GAS VALVE RELAY AND/OR A SHUNT TRIP BREAKER. THE BATTERY BACKUP WILL MONITOR THE FIRE SYSTEM CIRCUIT FOR ONE DAY AND BE ABLE TO FLOW THE FIRE SYSTEM CIRCUIT FOR A MINIMUM OF 30 MINUTES. ONCE POWER IS RESTORED, THE BATTERY WILL AUTOMATICALLY RECHARGE.

CORE INSTALLATION GREASE HOOD ELECTRICAL

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.

REVISIONS

DESCRIPTION	DATE

CAPTIVE

Florida National Accounts

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Culvers Grain Valley MD
1180 NW BUCKNER TARSNEY BLVD,
Grain Valley, MD, 64029

DATE: 11/8/2022

DWG.#: 5703827

DRAWN BY: studdyjr

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

MASTER DRAWING

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SHEET NO.

16

ELECTRICAL PACKAGE - JOB#5703827												
NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	HP	VOLTS	FLA	
1		SC-380110M-SPAREFIRE	WALL MOUNT IN SS BOX	DR - SHIP LOOSE W/ PREWIRE	1 LIGHT 1 FAN	SMART CONTROLS THERMOSTATIC CONTROL W/ 2 RELAYS EXHAUST WITH SUPPLY	PRV-2 Griddle	EXHAUST	3	0.750	208	2.6
							PRV-3 Fryer	EXHAUST	3	0.750	208	2.6

NOTE TO ELECTRICAL CONTRACTOR
 CAPTIVEAIRE HOOD CONTROL PACKAGE IS FURNISHED BY KITCHEN EQUIPMENT CONTRACTOR AND SHOWN ON ELECTRICAL DRAWINGS FOR COORDINATION PURPOSES ONLY. ALL FIELD WIRING AND INTERLOCKS TO BE COMPLETED BY ELECTRICAL CONTRACTOR. CONTACT CAPTIVEAIRE WITH QUESTIONS REGARDING SCOPE OF WORK: (800) 988-0881

SEQUENCE OF OPERATION - HOOD CONTROLS

ELECTRICAL PACKAGE: DCV SERIES

ONCE ALL POWER, LIGHT AND TEMPERATURE SENSOR CIRCUITS ARE PROPERLY LANDED ON THE CONTROL TERMINAL BLOCK THE LCD INTERFACE WILL BE ILLUMINATED. ALL TEMPERATURE READINGS ARE MEASURED BY RESISTIVE TEMPERATURE SENSORS (THERMISTORS) INSTALLED IN EACH HOOD EXHAUST RISER. ONE ROOM TEMPERATURE SENSOR IS INSTALLED IN THE SPACE TO MEASURE AMBIENT AIR TEMPERATURE.

TWO METHODS TO ACTIVATE SYSTEM:

MANUAL ACTIVATION:

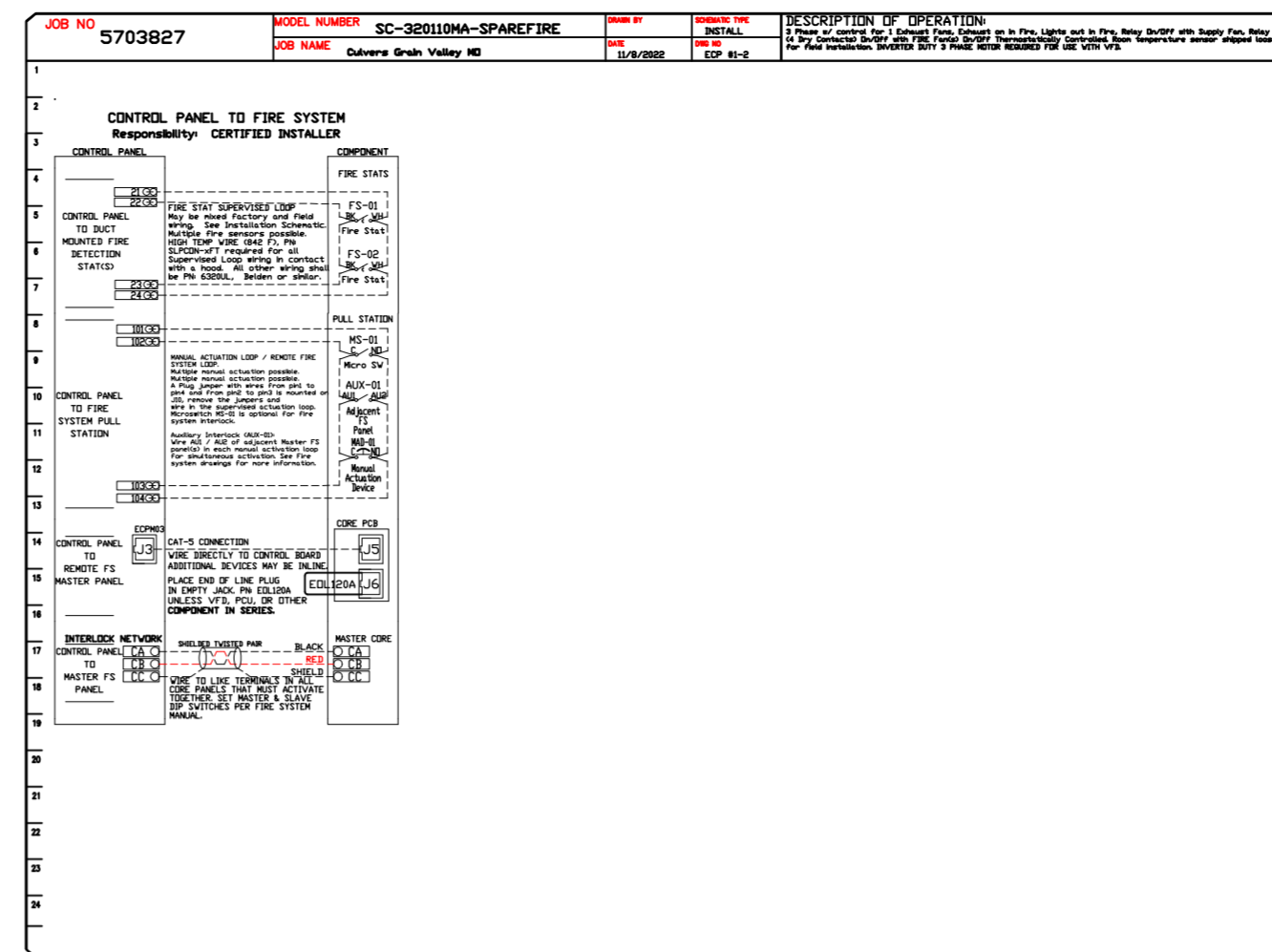
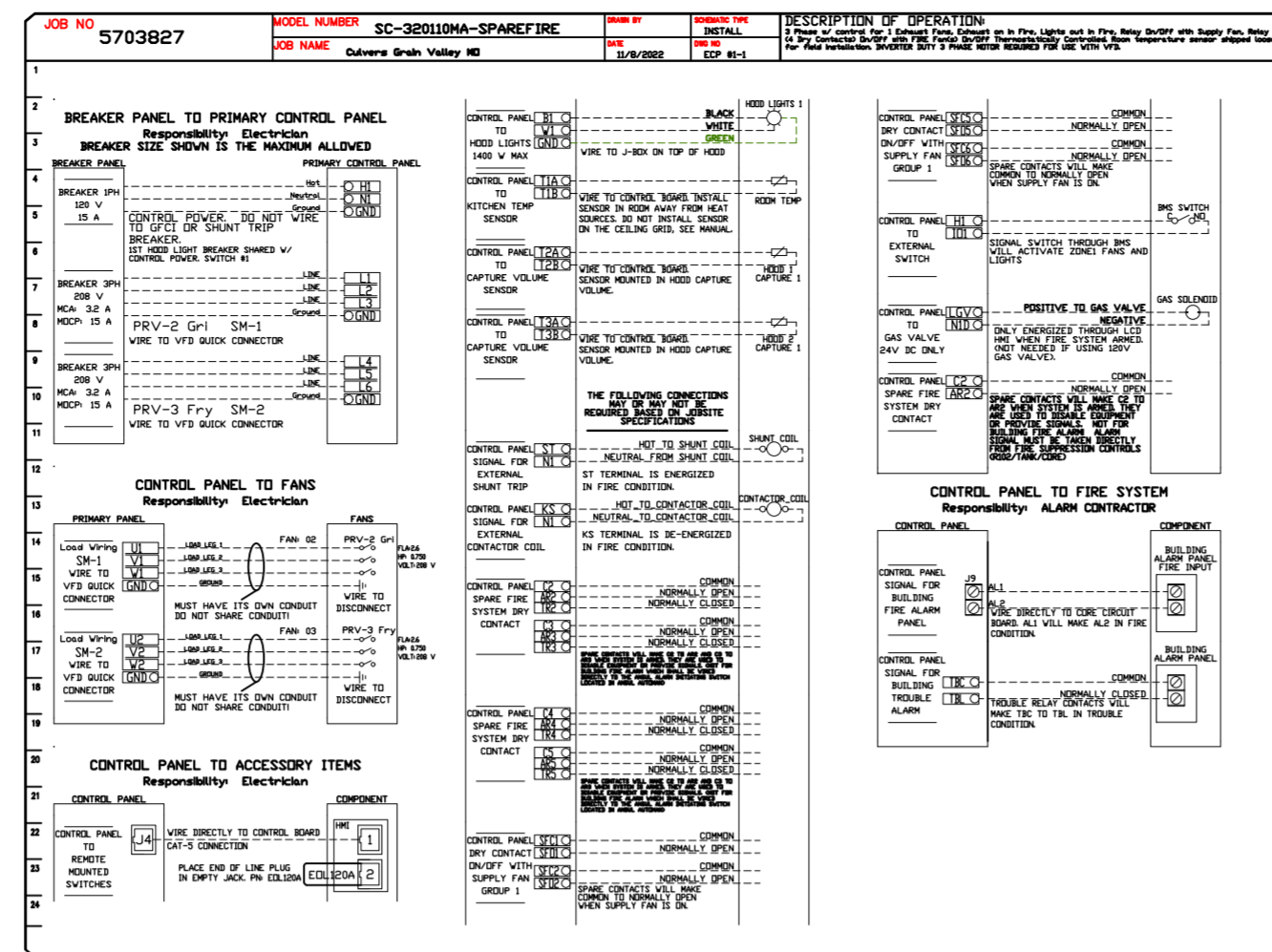
1. OPERATOR PRESSES THE FAN BUTTON TO ENGAGE THE EXHAUST FAN(S) AND THE EXHAUST FAN(S) BEGIN OPERATION IN LOW-CFM PREP MODE. DEDICATED MAKE-UP AIR UNITS (IF APPLICABLE) FOR THE HOOD REMAIN OFF IN PREP MODE.
2. OPERATOR TURNS ON THE COOKING APPLIANCES. ONCE THE EXHAUST AIR TEMPERATURE REACHES 10 DEGREES (F) ABOVE AMBIENT TEMPERATURE IN THE SPACE, THE EXHAUST SYSTEM WILL RAMP UP TO A PRESET MINIMUM SPEED (LOW-VOLUME COOKING CONDITIONS). MAKEUP AIR FAN WILL POWER ON AT THIS POINT (ALSO AT MINIMUM SPEED).
3. AS THE TEMPERATURE OF THE EXHAUST AIR INCREASES, THE EXHAUST AND MAKE-UP AIR FAN SPEEDS INCREASE PROPORTIONALLY. THE FANS WILL MODULATE BETWEEN PRESET LOW-SPEED AND HIGH-SPEED EXHAUST LEVELS, DEPENDANT UPON ON THE EXHAUST AIR TEMPERATURE (COOKING LOAD).
4. AT ANY POINT, OPERATOR MAY ENGAGE THE 100% OVERRIDE OPTION ON THE TOUCH SCREEN AND RUN THE FANS AT FULL SPEED FOR A FIXED PERIOD OF TIME (ADJUSTABLE). AFTER THIS PERIOD, FAN MODULATION BASED ON TEMPERATURE WILL RESUME.

AUTOMATIC ACTIVATION:

1. IF THE OPERATOR DOES NOT MANUALLY ENGAGE THE EXHAUST SYSTEM, THE SC-EMS WILL AUTOMATICALLY ACTIVATE PREP MODE WHEN THE EXHAUST AIR TEMPERATURE REACHES 5 DEGREES ABOVE AMBIENT TEMPERATURE. WHEN THE AIR TEMPERATURE AT THE HOOD COLLAR INCREASES TO 10 DEGREES ABOVE AMBIENT, THE EXHAUST AND MAKEUP AIR FANS WILL RAMP UP TO PRESET LOW SPEEDS FOR LOW VOLUME CONDITIONS.
2. SYSTEM WILL CONTINUE OPERATING PER STEPS 3 & 4 (ABOVE)

AT THE END OF THE DAY, AFTER COOKING OPERATIONS HAVE CEASED, THE SYSTEM WILL ENTER ITS COOL DOWN MODE (SIMILAR TO PREP MODE). ONCE THE EXHAUST AIR TEMPERATURE DROPS TO LESS THAN FIVE DEGREES ABOVE AMBIENT, THE FANS WILL SHUT OFF.

ELECTRICAL SCHEMATIC FOR COORDINATION PURPOSES ONLY
 CAPTIVEAIRE ELECTRIC PRE-WIRE CONTROL PACKAGE FIELD WIRING DIAGRAM SHOWN ABOVE. ALL FIELD WIRING BY ELECTRICAL CONTRACTOR. THE PRE-WIRE PANEL IS PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR OR MECHANICAL CONTRACTOR.



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS.

CORE INSTALLATION GREASE HOOD ELECTRICAL

REVISIONS

NO.	DESCRIPTION	DATE:

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 17