

**HOOD INFORMATION**

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	TOTAL EXH. CFM	EXHAUST PLENUM RISER(S)					MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG.			
						WIDTH	LENG.	HEIGHT	DIA.	CFM				VEL.	S.P.	END TO END	ROW
1	GRILLS	5424 ND-2-ACPSP-F	8' 9.00'	600 Deg.	1852			4'	14'	1852	1732	-0.705'	1408	584	430 SS Where Exposed	LEFT	ALONE
2	FRYERS	5424 ND-2-ACPSP-F	9' 9.00'	600 Deg.	1662			4'	14'	1662	1555	-0.594'	1413	584	430 SS Where Exposed	RIGHT	ALONE

**HOOD INFORMATION**

HOOD NO.	TAG	TYPE	FILTER(S)			EFFICIENCY @ 7 MICRONS	LIGHT(S)			WIRE GUARD	LOCATION	SIZE	UTILITY CABINET(S)			FIRE SYSTEM PIPING	HOOD HANGING WGT	
			QTY.	HEIGHT	LENGTH		QTY.	TYPE	FIRE SYSTEM				ELECTRICAL	SWITCHES				
1		Captrate Solo Filter	6	20"	16"	85% See Filter Spec.	3	12" x 12"	LED	NO	Left	12"x54"x24"	Ansul R102	3.0/3.0	DCV-2111	1 Light 1 Fan	YES	761 LBS
2		Captrate Solo Filter	7	20"	16"	85% See Filter Spec.	3	12" x 12"	LED	NO							YES	639 LBS

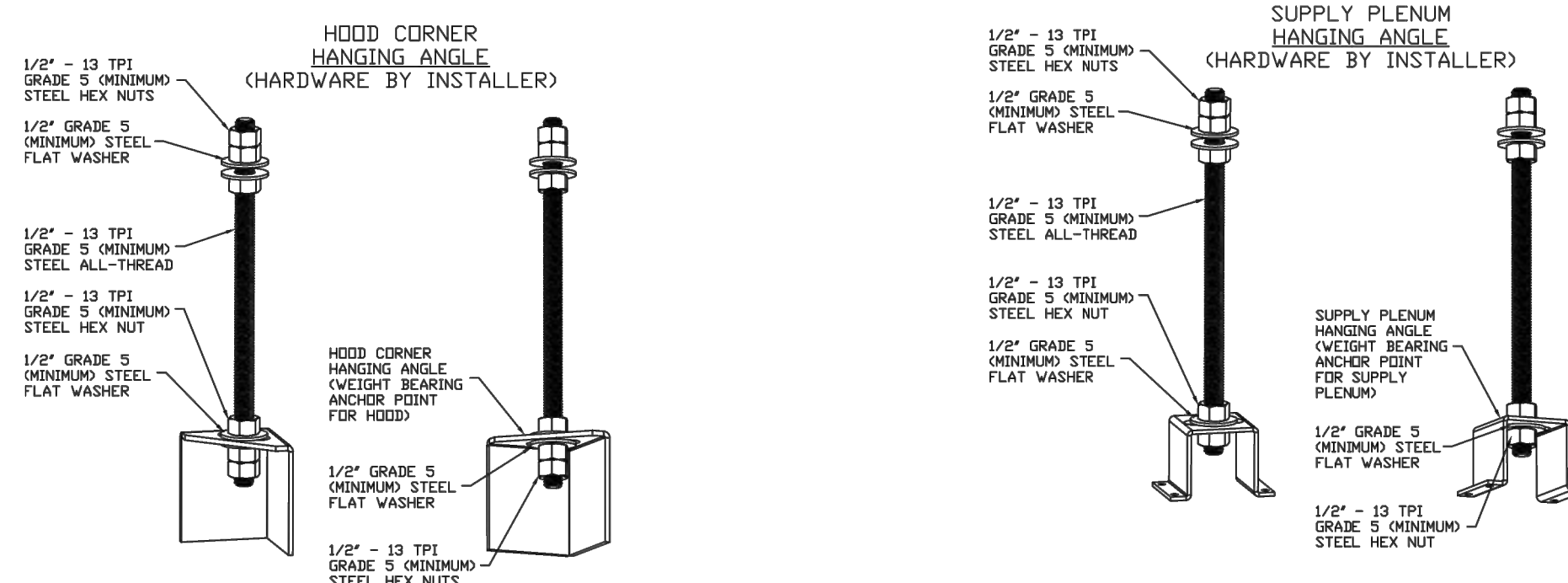
**HOOD OPTIONS**

HOOD NO.	TAG	OPTION
1		FIELD WRAPPER 18.00' High Front, Left BACKSPLASH 80.00' High X 234.00' Long 430 SS Vertical LEFT QUARTER END PANEL 23' Top Width, 0' Bottom Width, 23' High 430 SS
2		FIELD WRAPPER 18.00' High Front, Right RIGHT QUARTER END PANEL 23' Top Width, 0' Bottom Width, 23' High 430 SS

**PERFORATED SUPPLY PLENUM(S)**

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG.	DIA.	CFM	S.P.
1		Front	117'	24'	6'	MUA 12" 28"			706	0.162'	
						MUA 12" 28"			706	0.162'	
						AC 8" 16"			292	0.079'	
						AC 8" 16"			292	0.079'	
2		Front	117'	24'	6'	MUA 12" 28"			704	0.161'	
						MUA 12" 28"			704	0.161'	
						AC 8" 16"			292	0.079'	
						AC 8" 16"			292	0.079'	

**HANGING BRACKET DETAIL**



**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.

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 ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

**BALANCING NOTES:**

**Exhaust Requirements**  
100-105% OF DESIGN PER HOOD  
MEASURED AT THE EXHAUST FILTER WHILE THE FILTER IS INSTALLED

**Supply Requirements**  
95-100% OF DESIGN PER SUPPLY PLENUM  
MEASURED AT THE BOTTOM FACE OF THE PERFORATION (DISCHARGE POINT)

**SCOPE OF WORK**

HOOD(S): PROVIDED BY OWNER. INSTALLED BY GC.  
FIRE SYSTEM(S): PROVIDED & INSTALLED BY OWNER.  
EXHAUST FAN(S): PROVIDED BY OWNER. INSTALLED BY GC.  
MAKEUP AIR UNIT(S): PROVIDED BY OWNER. INSTALLED BY GC.  
ELECTRICAL CONTROL(S): PROVIDED BY OWNER. INSTALLED BY GC.  
GC IS RESPONSIBLE FOR COMPLETE START-UP OF EXHAUST FANS AND MAKEUP AIR UNIT PER CAPTIVEAIRE OPERATION & INSTALLATION MANUAL

**GREASE DUCT SPECIFICATION**

Furnish single-wall, factory built, grease duct for use with Type I kitchen hoods, which conforms to the requirements of NFPA-96. Products shall be ETL listed to UL-1978 for venting air and grease vapors from commercial cooking operations as described in NFPA-96. The duct wall shall be constructed of .036 thick type 430 stainless steel and be available in diameters 8" through 24". All supports, fan adapters, hood connections, fittings and expansion joints required to install grease duct shall be included. Roof penetrations shall comply with listed clearance to combustibles, see "Clearance to Combustibles" guide for details. The grease duct will terminate at the fan adapter plate, will be fully welded to the fan adapter plate and the fan adapter plate will be fastened to the curb using a suitably sized fastener provided by others; see page 12 of the "Installation, Operation and Maintenance Manual" for details. Grease duct joints shall be held together by means of formed vee clamps and sealed with 3M Fire Barrier 2000+. Screws used to secure the vee clamps shall be of the hex-head type with flanged stops and tapered "lead in" threads for easy starting. Nuts shall be retained by means of a free-floating cage to allow easy alignment. Single-Wall Grease Duct shall be installed in accordance with the manufacturer's "Installation, Operation and Maintenance Manual", ETL listing and state and local codes. Grease duct installed outside of the building shall be protected against accidental damage or vandalism. Support vertically installed grease duct from the building structure using rigid structural supports. Anchor supports to the structure by welding or bolting steel expansion anchors or concrete inserts. Support horizontally installed grease duct from the building structure using above method or use Duct Mate, Wire Rope & Clutchers, part numbers WR20 & CL20. 1/2" Threaded rod and saddles may also be used for the support of horizontal grease duct. Fans shall be supported independently from the grease duct sections. Protect grease duct from twisting or movement caused by fan torque or vibration.

**REVISIONS**

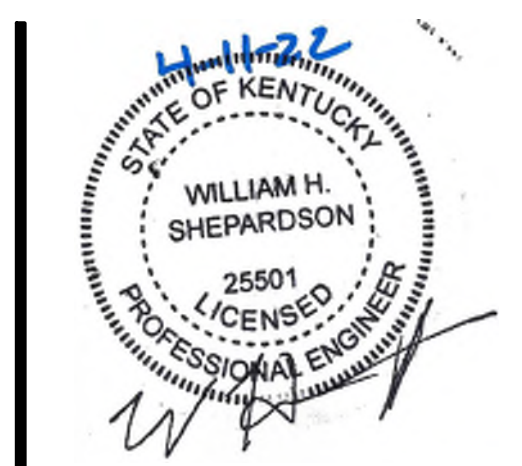
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Five Guys - Highland Heights, KY FCL

DATE: 3/2/2022  
DWG.#: 5321541  
DRAWN BY: JMN-28  
SCALE: 3/4" = 1'-0"  
MASTER DRAWING

SHEET NO. 1



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parma, oh 44130  
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BURGERS and FRIES

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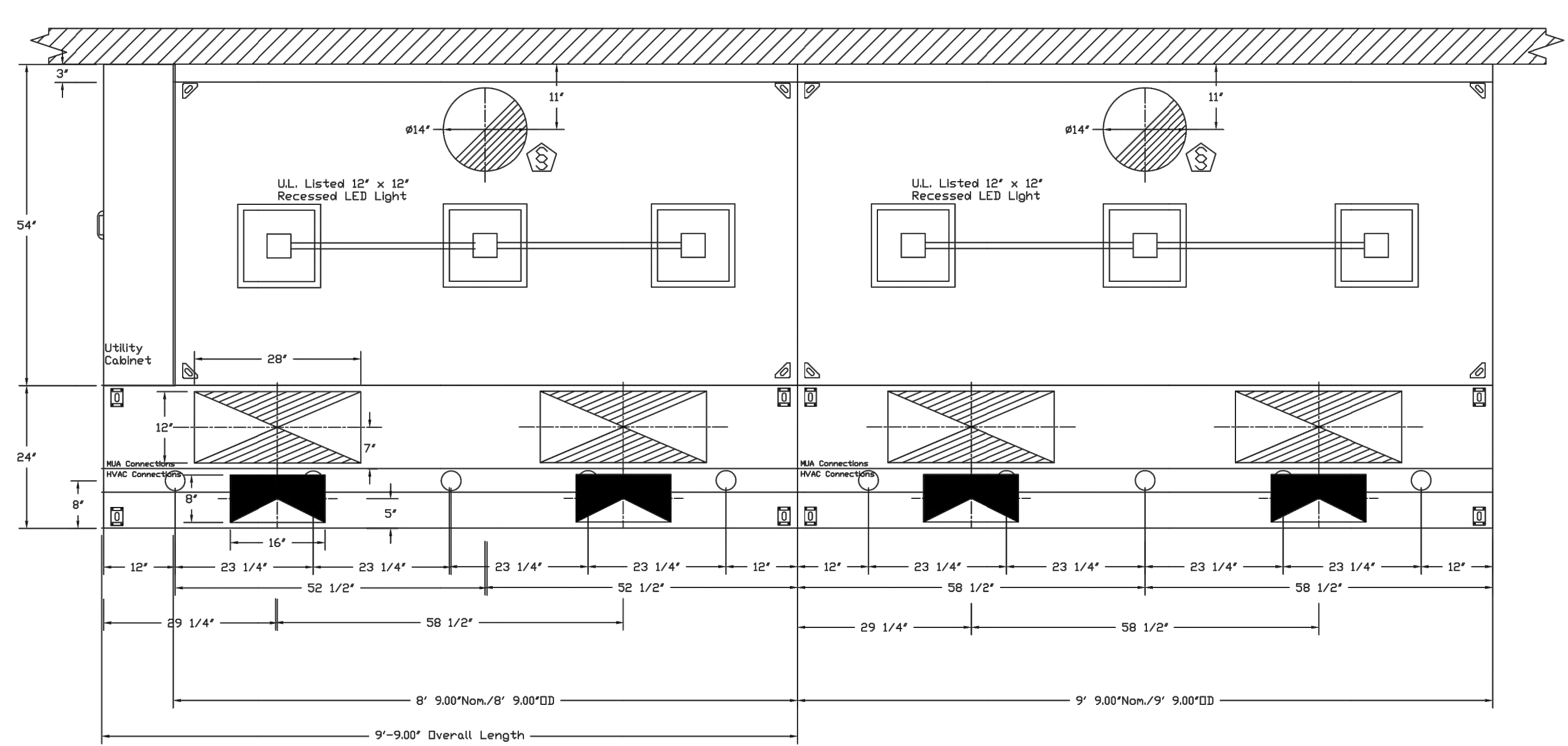
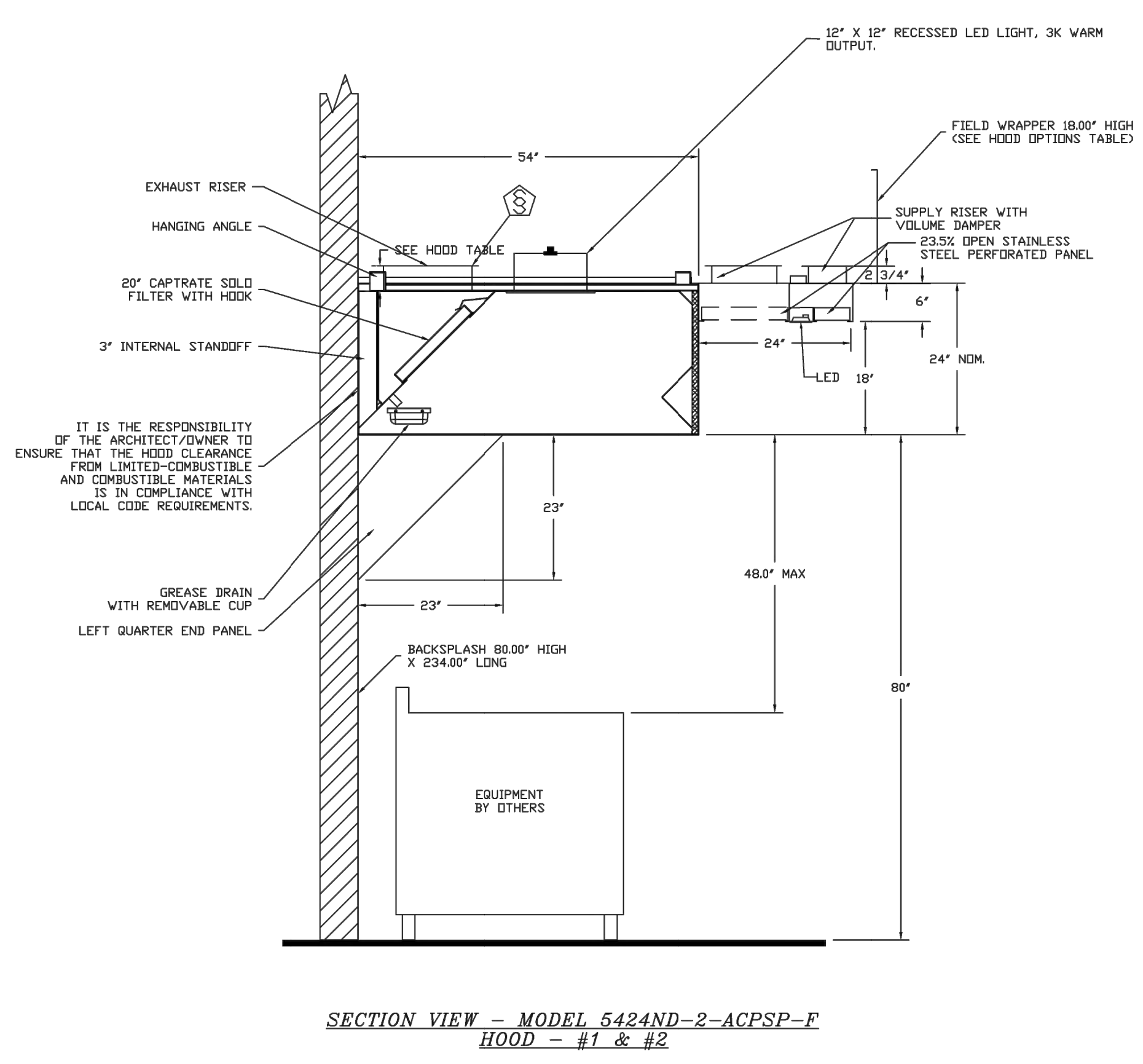
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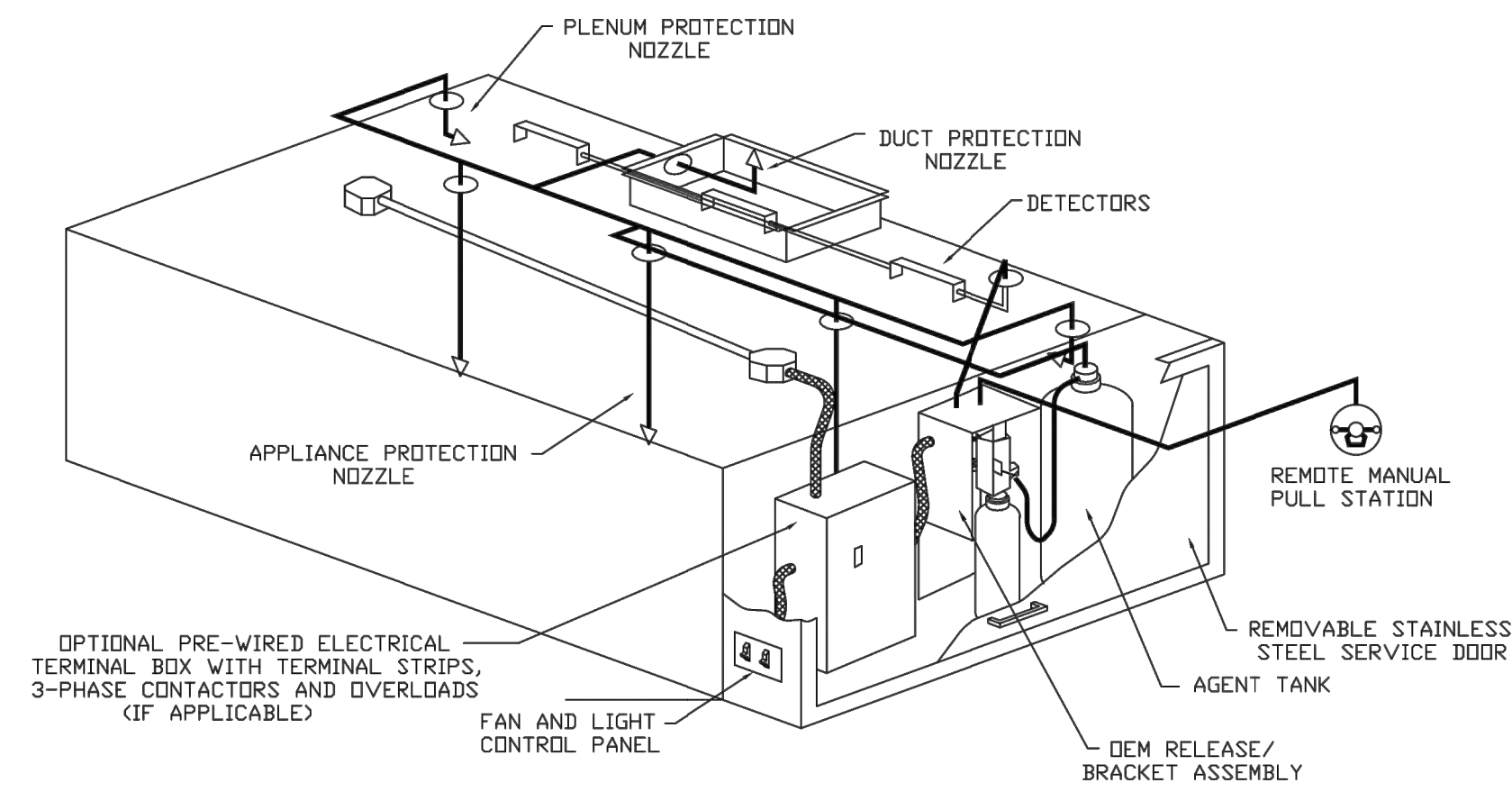
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 2



PLAN VIEW - Hood #1  
 8' 9.00\"/>

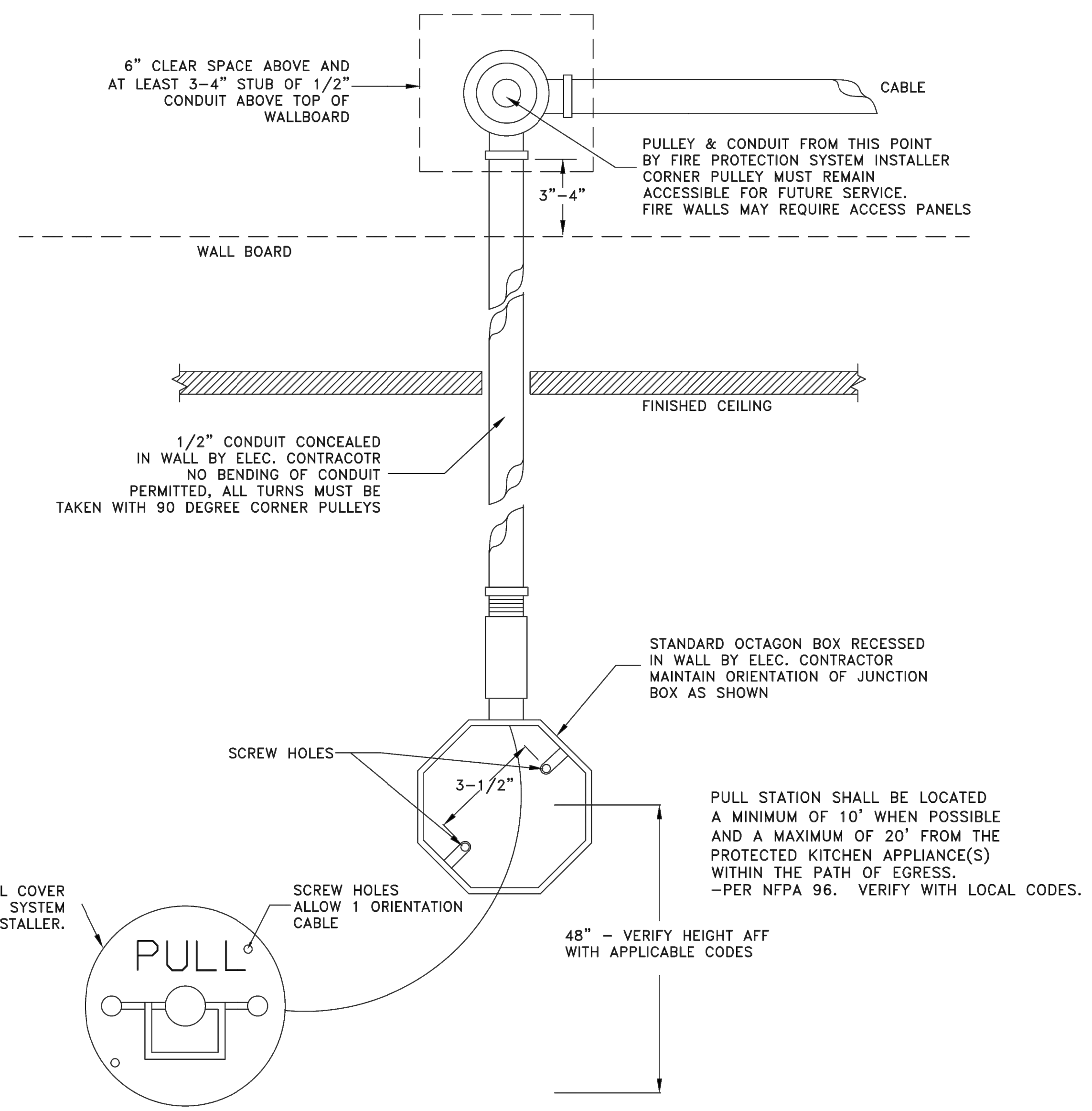
PLAN VIEW - Hood #2  
 9' 9.00\"/>

ACPSP ships loose for field installation



TYPICAL ANSUL R-102 SYSTEM LAYOUT

TYPICAL ANSUL R102 SYSTEM LAYOUT  
NOTE: FIRE SYSTEM TO INCLUDE ALL NECESSARY PERMITS, FIELD HOOKUP, AND FINAL TEST.  
NOTE: FIRE SYSTEM ENCLOSURE WILL BE FACTORY-MOUNTED ON RIGHT SIDE OF THE RIGHT HOOD



## RECESSED REMOTE FIRE PROTECTION PULL STATION DETAIL

BOX AND CONDUIT INSTALLED & SECURED BY ELECTRICAL TRADE  
FIRE SYSTEM INSTALLATION TO BE BY AUTHORIZED ANSUL DISTRIBUTOR

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606 Danbigh Blvd, Suite 406, Newport News, VA 23606 PHONE: (804) 684-2700 FAX: (819) 227-5911 EMAIL: rmg28@captiveaire.com

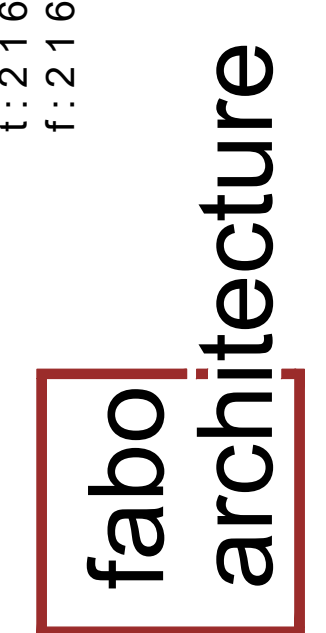
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**EXHAUST FAN INFORMATION - JOB#5321541**

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	GRILL	1	CASRE15DD	CAPTIVEAIRE	1852	1.100	1591	DDP, PREMIUM	3.000	0.9860	3	208	8.7	1361 FPM	252	28
2	FRYER	1	DU180HFA	CAPTIVEAIRE	1662	1.250	1055	DDP, PREMIUM	3.000	0.5530	3	208	9.5	384 FPM	183	11.8

**MUA FAN INFORMATION - JOB#5321541**

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MDCP	WEIGHT (LBS)	SDNES
3	MUA-1	1	A2-D.250-20D	20MF-2-MOD	A2-D.250	2000	2821	0.375	1123	DDP, PREMIUM	2.000	0.8140	3	208	6.1	7.7A	15A	678	9.3

**GAS FIRED MAKE-UP AIR UNIT(S)**

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
3	MUA-1	136604	125676	42°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

**FAN OPTIONS**

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	GRILL	1	RE15 - RAIN CAP ASSEMBLY - INCLUDES HARDWARE AND GASKET
		1	2 YEAR PARTS WARRANTY
2	FRYER	1	GREASE BOX
		1	2 YEAR PARTS WARRANTY
3	MUA-1	1	AC INTERLOCK RELAY - 24VAC COIL
		1	LOW FIRE START
		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" VC
		1	MOTORIZED BACKDRAFT DAMPER FOR A2-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	SIZE 2 TEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	SIZE 2 DIRECT FIRED HEATER LOW CFM PROFILE PACKAGE - USED ON HEATERS UNDER 2500 CFM
		1	2 YEAR PARTS WARRANTY

**FAN ACCESSORIES**

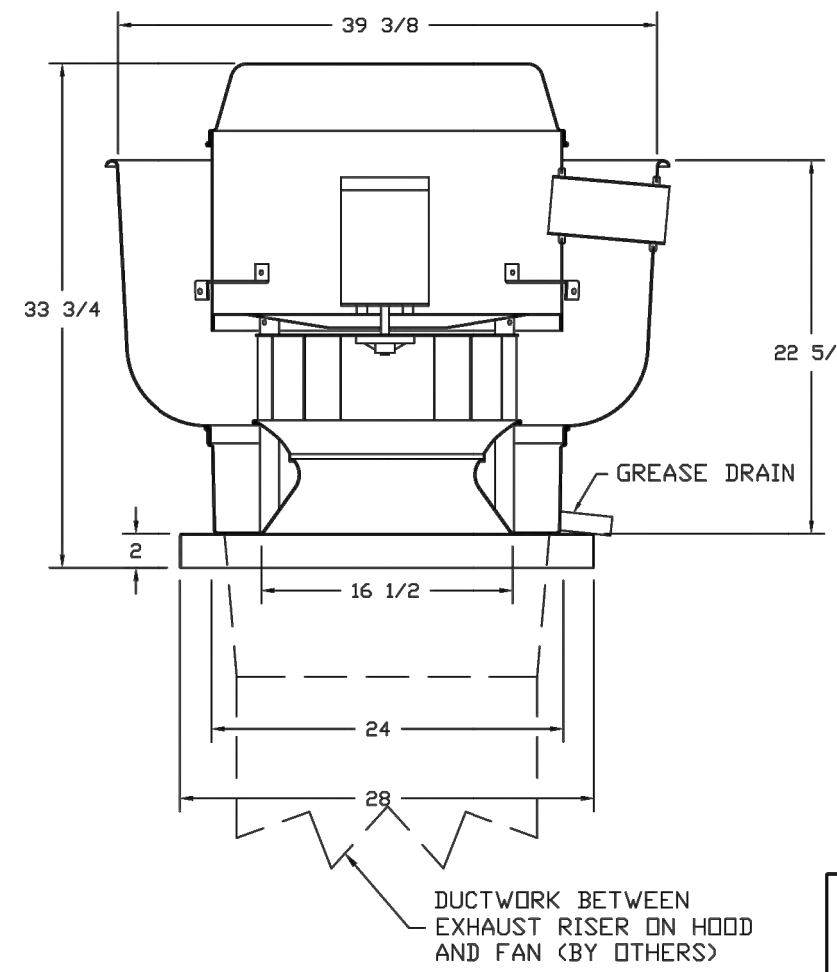
FAN UNIT NO	TAG	EXHAUST				SUPPLY		
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	GRILL							
2	FRYER	YES						
3	MUA-1					YES		

**CURB ASSEMBLIES**

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	GRILL	61 LBS	CURB	23.000"W X 23.000"L X 24.000"H ALONG LENGTH, RIGHT VENTED 16 GAUGE.
2	# 2	FRYER	53 LBS	CURB	26.500"W X 26.500"L X 26.000"H ALONG LENGTH, RIGHT VENTED HINGED 16 GAUGE.
3	# 3	MUA-1	80 LBS	CURB	31.000"W X 79.000"L X 20.000"H ALONG WIDTH, RIGHT INSULATED.

**FAN #1 DU180HFA  
\*\*\*EXHAUST FAN FOR HOOD COVERING FRYERS\*\*\***

FAN #1 DU180HFA - EXHAUST FAN (FRYERS)



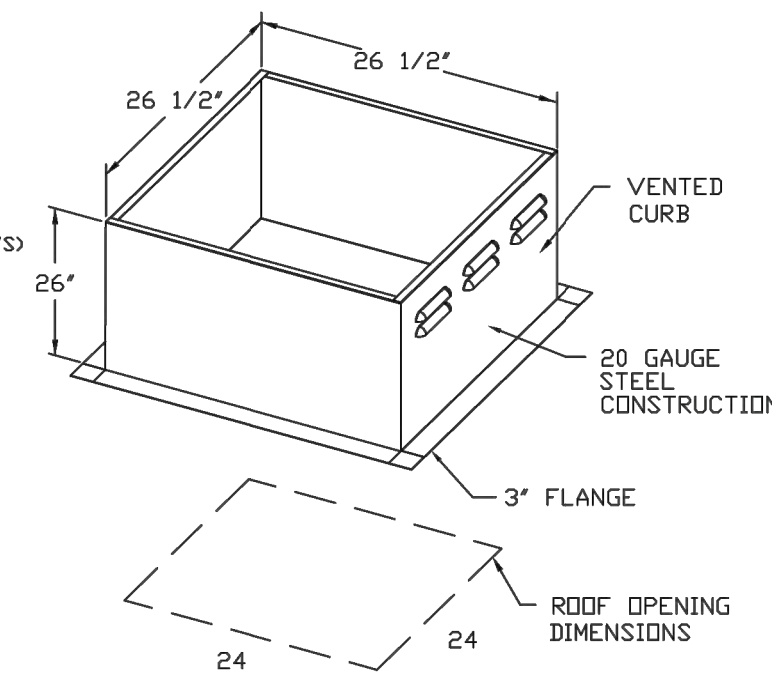
**FEATURES:**

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

**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.

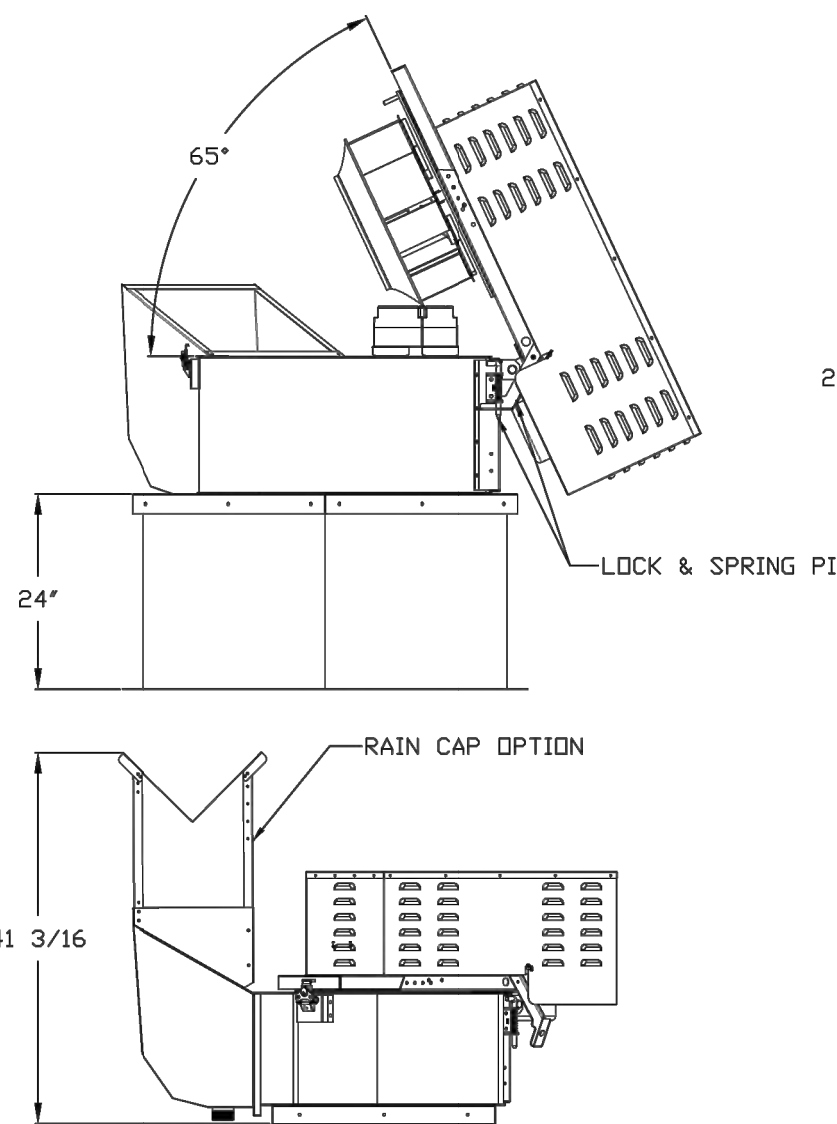
**OPTIONS**  
GREASE BOX



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

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

**FAN #2 CASRE15DD  
\*\*\*EXHAUST FAN FOR HOOD COVERING GRILLS\*\*\***



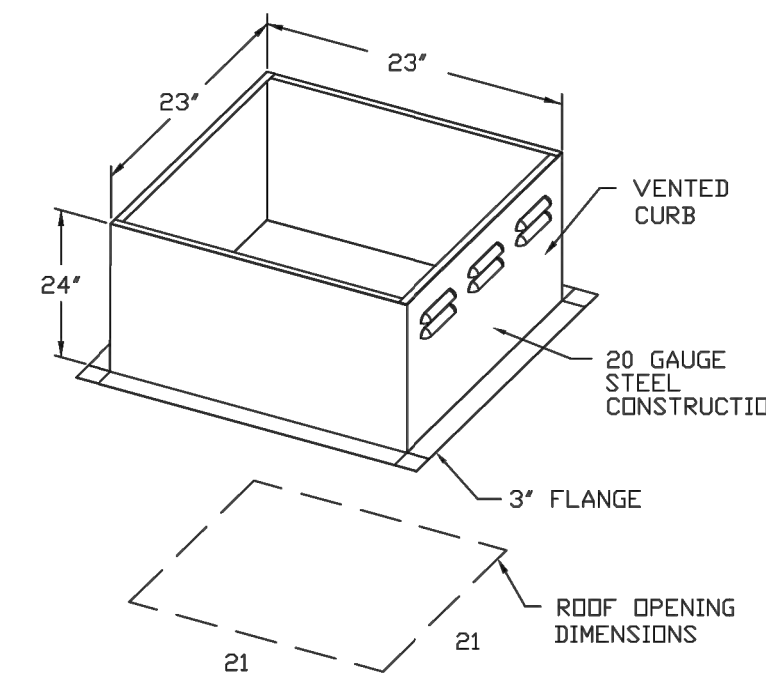
**FEATURES:**

- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL762
- HIGH HEAT OPERATION DIRECT DRIVE 300°F (149°C)
- HIGH HEAT OPERATION BELT DRIVE 500°F (260°C)
- HEAT SLINGER
- GREASE CLASSIFICATION TESTING
- TILT OUT WHEEL
- LOCKING PIN FOR POWER PACK
- MOTOR WEATHER COVER
- INTERLOCKED DISCONNECT SWITCH

**NORMAL TEMPERATURE TEST DIRECT DRIVE**  
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 BELT & DIRECT DRIVE**  
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**  
RE15 - RAIN CAP ASSEMBLY - INCLUDES HARDWARE AND GASKET.



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Five Guys - Highland Heights, KY FCL

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DWG.#: 5321541

DRAWN BY: JMN-28

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

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SHEET NO.

4

**ATTENTION!**

INSTALLER MUST READ LABEL NEAR DISCONNECT SWITCH!

MESSAGE ON LABEL:

"INSTALLER SHOULD SUPPLY ENOUGH ELECTRICAL CORD TO LET FAN MAKE COMPLETE

**IMPORTANT INSTALLATION NOTES:**

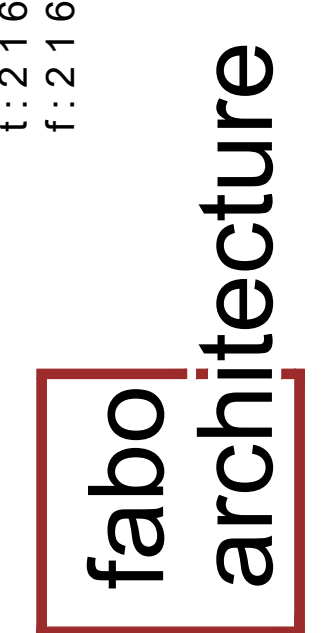
- ELECTRICAL CONNECTION SHOULD BE MADE ON THE HINGE SIDE OF THE EXHAUST FANS TO ENSURE FANS CAN BE HINGED FOR CLEANING
- RAIN CAP MUST BE FIELD INSTALLED ON FAN #2 AT THE HEIGHT AND ORIENTATION SHOWN ON DETAIL

**SCOPE OF WORK**

HOOD(S): PROVIDED BY OWNER. INSTALLED BY GC.  
FIRE SYSTEM(S): PROVIDED & INSTALLED BY OWNER.  
EXHAUST FAN(S): PROVIDED BY OWNER. INSTALLED BY GC.  
MAKEUP AIR UNIT(S): PROVIDED BY OWNER. INSTALLED BY GC.  
ELECTRICAL CONTROL(S): PROVIDED BY OWNER. INSTALLED BY GC.  
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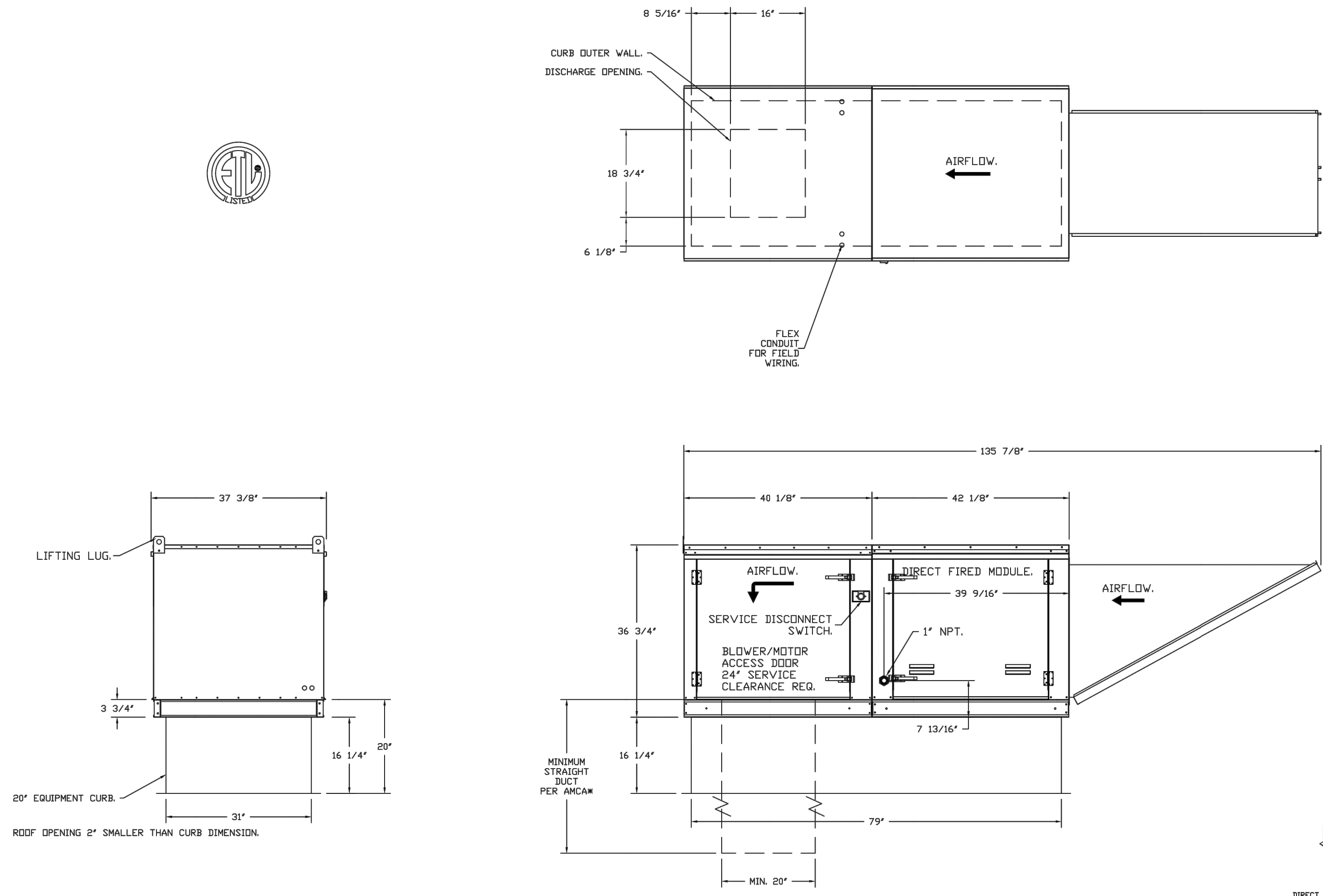
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- FAN #3 A2-D250-200 - HEATER (MUA-1)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN.
  2. INTAKE HOOD WITH EZ FILTERS.
  3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
  4. COOLING INTERLOCK RELAY - 24VAC COIL, 120V CONTACTS, LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.
  5. LOW FIRE START - ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
  6. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
  7. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC, 2.5" DIAMETER, 1/4" THREAD SIZE.
  8. MOTORIZED BACK BRATT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF120S ACTUATOR INCLUDED.
  9. DOWN DISCHARGE CONSTRUCTION FOR SIZE 2 DIRECT DRIVE AHUS.
  10. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
  11. PROFILE PLATE CONFIGURATION FOR SIZE 2 DIRECT FIRED UNIT FOR LDW CFM APPLICATIONS.
  12. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
  13. 2 YEAR PARTS WARRANTY.

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 200. 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 20" x 20".

SUPPLY SIDE HEATER INFORMATION

WINTER TEMPERATURE = 33°F. TEMP. RISE = 42°F.  
BTUS CALCULATED OFF ACTUAL AIR DENSITY.  
OUTPUT BTUS AT ALTITUDE OF 0.0 FT. = 126579.  
INPUT BTUS AT ALTITUDE OF 0.0 FT. = 137386.  
OUTPUT BTUS AT ALTITUDE OF 198 FT. = 125676.  
INPUT BTUS AT ALTITUDE OF 198 FT. = 136604.



**DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY**

**DESCRIPTION:**  
DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO. US6499923B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 50PPM OF CARBON MONOXIDE (CO) AND 650PPM OF NITROGEN DIOXIDE (NO2). DIRECT FIRED UNITS SHALL BE CONSIDERED WITH THE BLOWER LOCATED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

**APPLICATION:**  
SPRING-LOADED BURNER PROFILE PLATES ARE ENGINEERED TO AUTOMATICALLY REACT TO THE MOMENTUM OF A FRESH AIR STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM WITH THIS FEATURE, ALL IF UNITS ARE DESIGNED FOR REWARD CONTROL, VENTILATION (CV) REQUIREMENTS.

**CERTIFICATIONS:**  
ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (OPEN-RECIRCULATING OF HEATERS) AND ANSI Z83.18 (RECIRCULATING OF HEATERS).

**GENERAL CONSTRUCTION:**  
-PROFILE PLATES SHALL BE FINISHED FROM G90 GALVANIZED STEEL.  
-PROFILE PLATES SHALL VARY IN SIZE PER UNIT.  
-PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.  
-SECTION SHALL INCORPORATE PROPERLY TORQUED PERMANENTLY MOUNTED SPRING HINGES.  
-SPRING HINGES SHALL BE MADE FROM PLATED STEEL.

REVISIONS	
DESCRIPTION	DATE

**CAPTIVE AIR**

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Five Guys - Highland Heights, KY FCL

DATE: 3/2/2022  
DWG.#: 5321541  
DRAWN BY: JMN-28  
SCALE: 3/4" = 1'-0"  
MASTER DRAWING

SHEET NO. 5



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**fabo architecture**

**FIVE GUYS**  
BURGERS and FRIES

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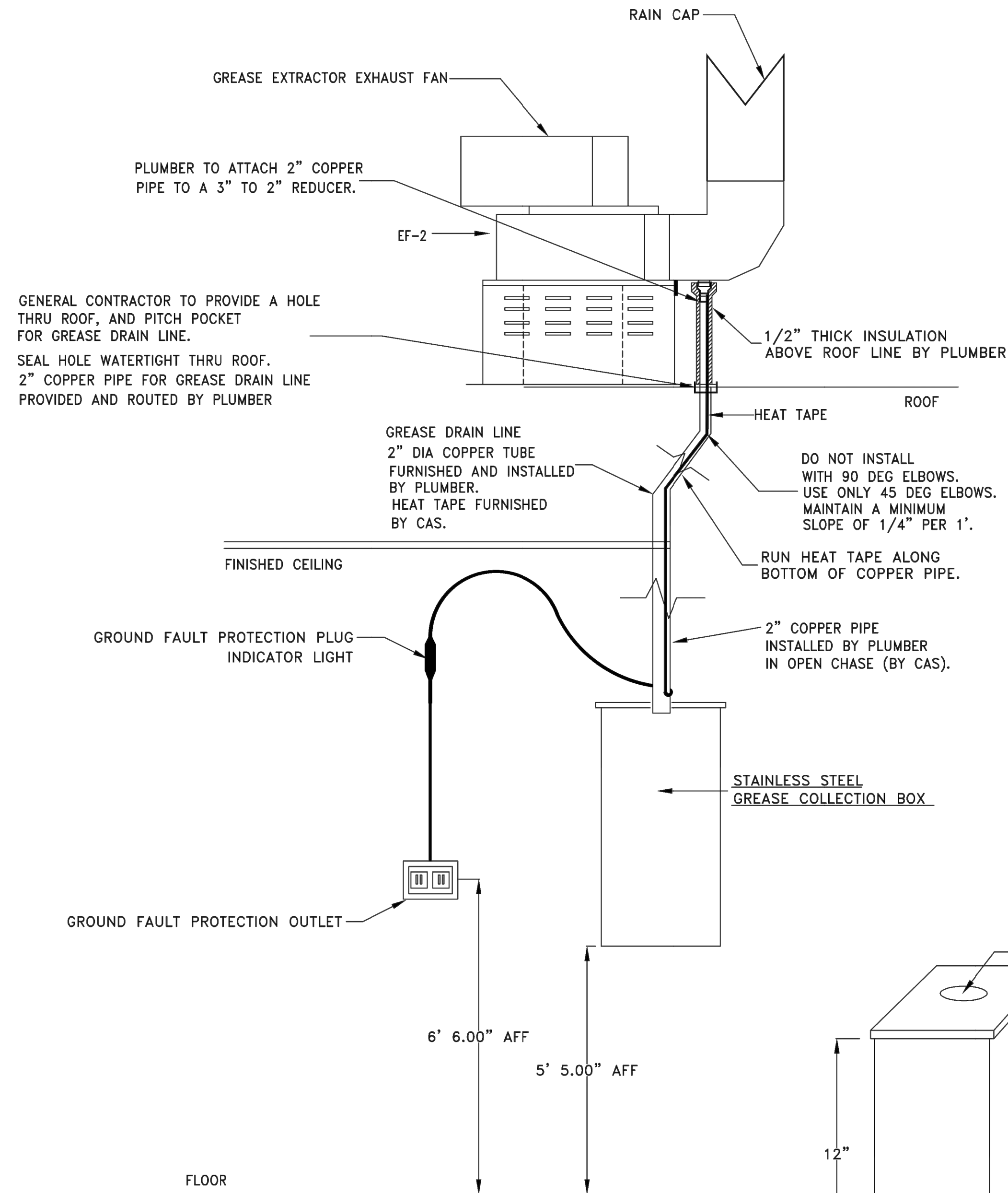
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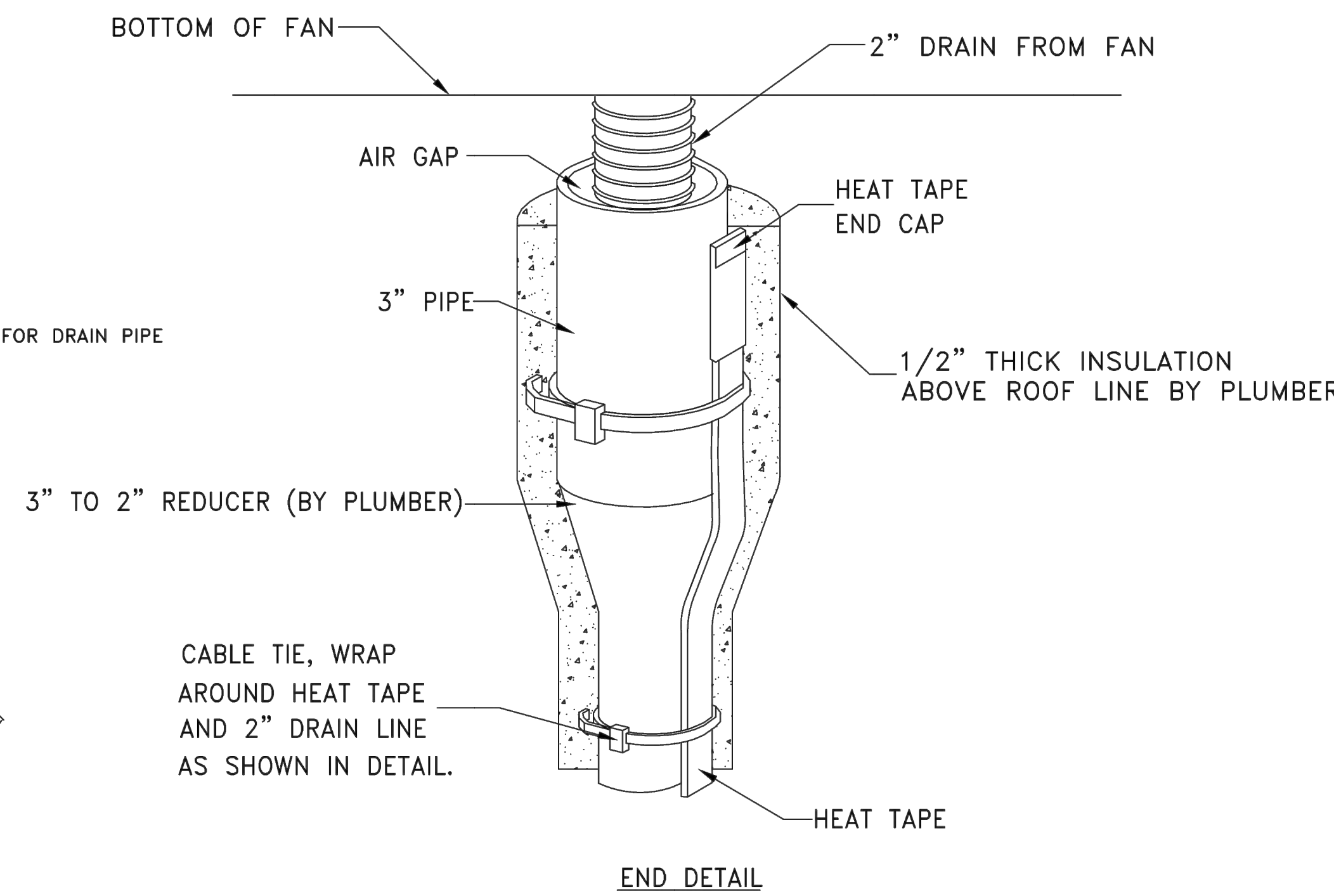
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job No. FA21139

# DRAIN LINE HEATER INSTALLATION DETAIL



**IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE IF THE GREASE DRAIN SYSTEM IS ACCEPTABLE TO LOCAL CODE AUTHORITIES**

	INSTALLATION PROCEDURE:	TRADE RESPONSIBLE
1.	THE HEAT TAPE ASSEMBLY IS SHIPPED LOOSE FROM THE EXHAUST FAN.	CAS
2.	THE GENERAL CONTRACTOR IS TO PROVIDE HOLE IN ROOF AND SEAL THE HOLE (SEE DIAGRAM).	GENERAL CONTRACTOR
3.	INSTALL THE COPPER GREASE LINE DRAIN PIPE, SUPPLIED BY THE PLUMBER.	PLUMBER / ELECTRICIAN
4.	REMOVE (AND SAVE) THE END CAP AND GROUND FAULT PLUG. (GIVE PARTS TO ELECTRICIAN)	PLUMBER
5.	ROUTE THE HEAT TAPE ON THE OUTSIDE OF THE COPPER TUBE.	PLUMBER
6.	SECURE HEAT TAPE AND END CAP TO DRAIN USING CABLE TIE AS SHOWN IN END DETAIL.	PLUMBER
7.	INSULATE COPPER DRAIN LINE ABOVE THE ROOF LINE.	PLUMBER
8.	THE ELECTRICIAN IS TO SUPPLY GROUND FAULT PROTECTION OUTLET LOCATED NEAR GREASE COLLECTION BOX (15 AMP, 120 VOLT CIRCUIT) THE POWER SOURCE SHOULD BE A SEPERATE CIRCUIT. THE HEAT TAPE IS TO BE PROTECTED BY G.F.C.I. CIRCUIT BREAKER. THE HEAT TAPE STAYS ON ALL THE TIME, AND IS NOT CONTROLLED BY THE FAN ON-OFF SWITCH.	ELECTRICIAN
9.	PLUMBER TO MOUNT GREASE COLLECTION BOX ON THE WALL IN PREP AREA. GREASE COLLECTION BOX PROVIDED BY CAS.	PLUMBER
10.	ELECTRICIAN TO MAKE FINAL CONNECTION BETWEEN GROUND FAULT PLUG AND HEAT TAPE. GROUND FAULT PLUG PROVIDED BY CAS.	ELECTRICIAN
11.	ELECTRICIAN TO MAKE FINAL CONNECTION BETWEEN END CAP AND HEAT TAPE (ON ROOF). END CAP PROVIDED BY CAS.	ELECTRICIAN



HEAT TAPE END CAP.  
HEAT TAPE EXTENDS ABOVE DRAIN PIPE.

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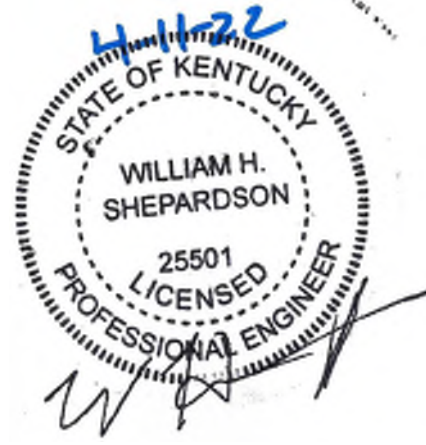
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Five Guys - Highland Heights, KY FCL

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MASTER DRAWING

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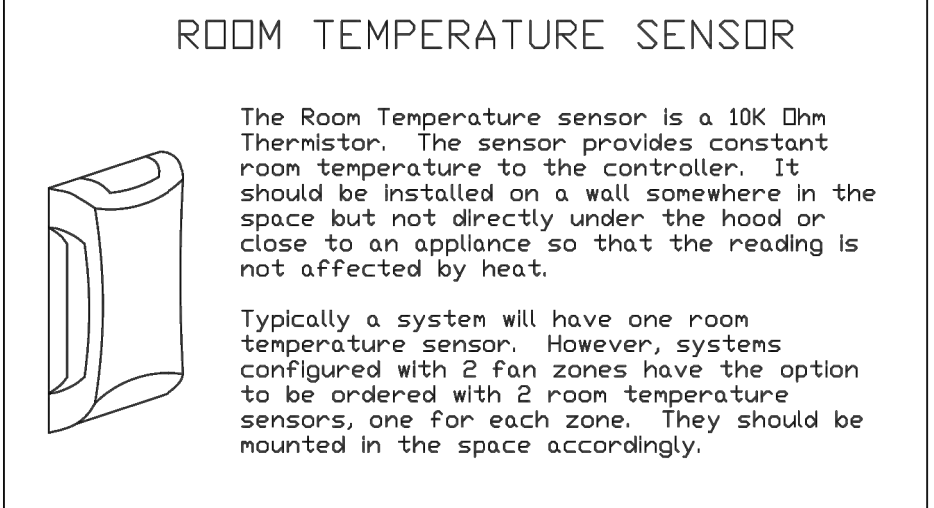
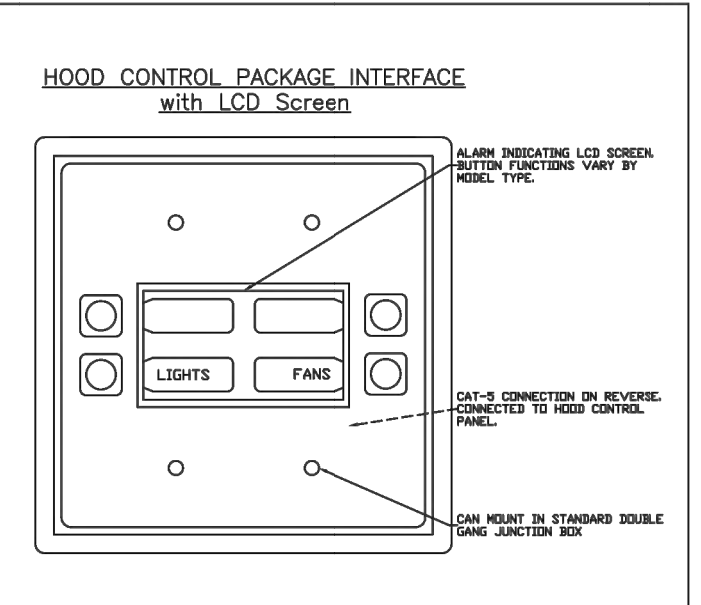
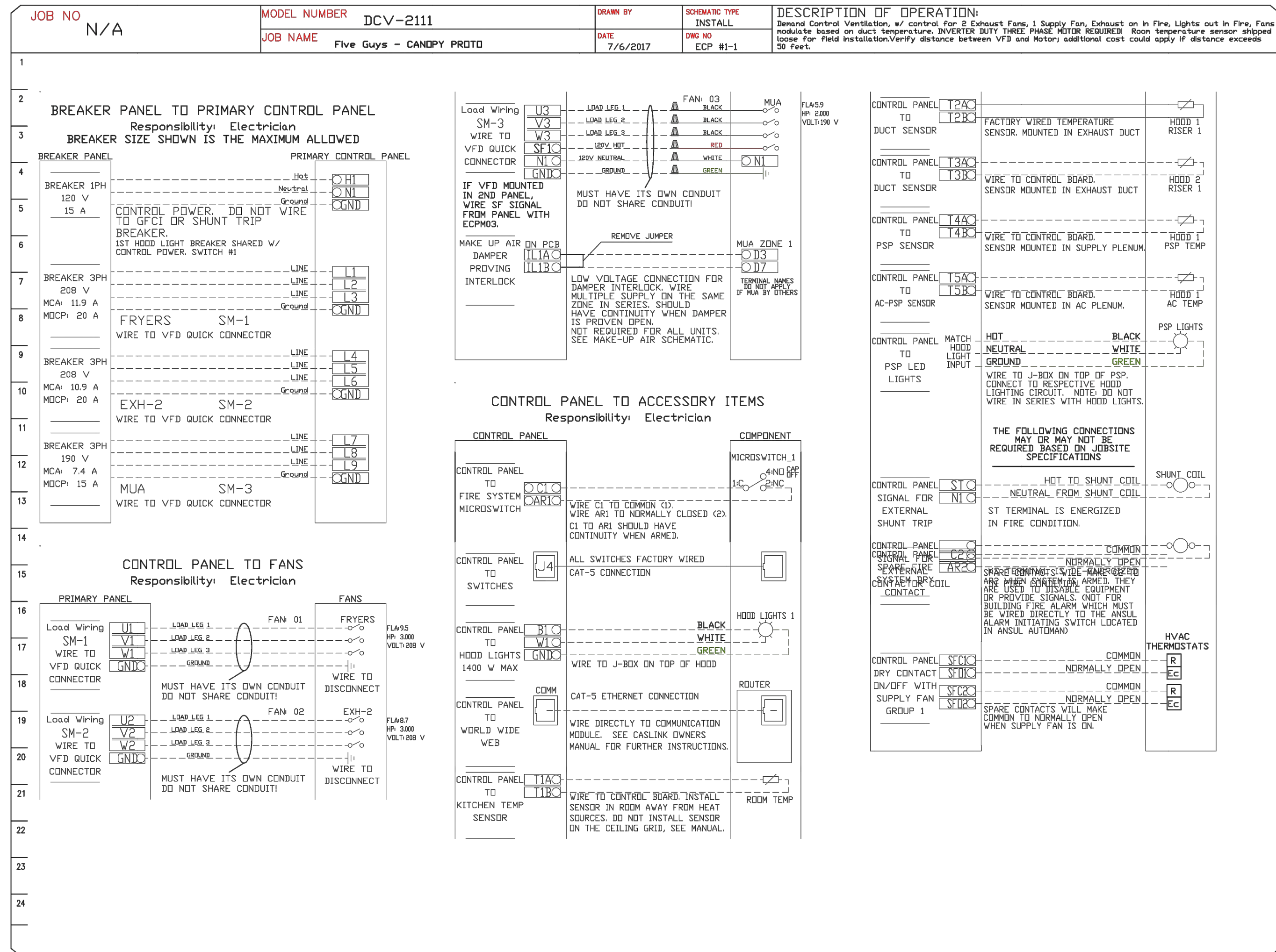
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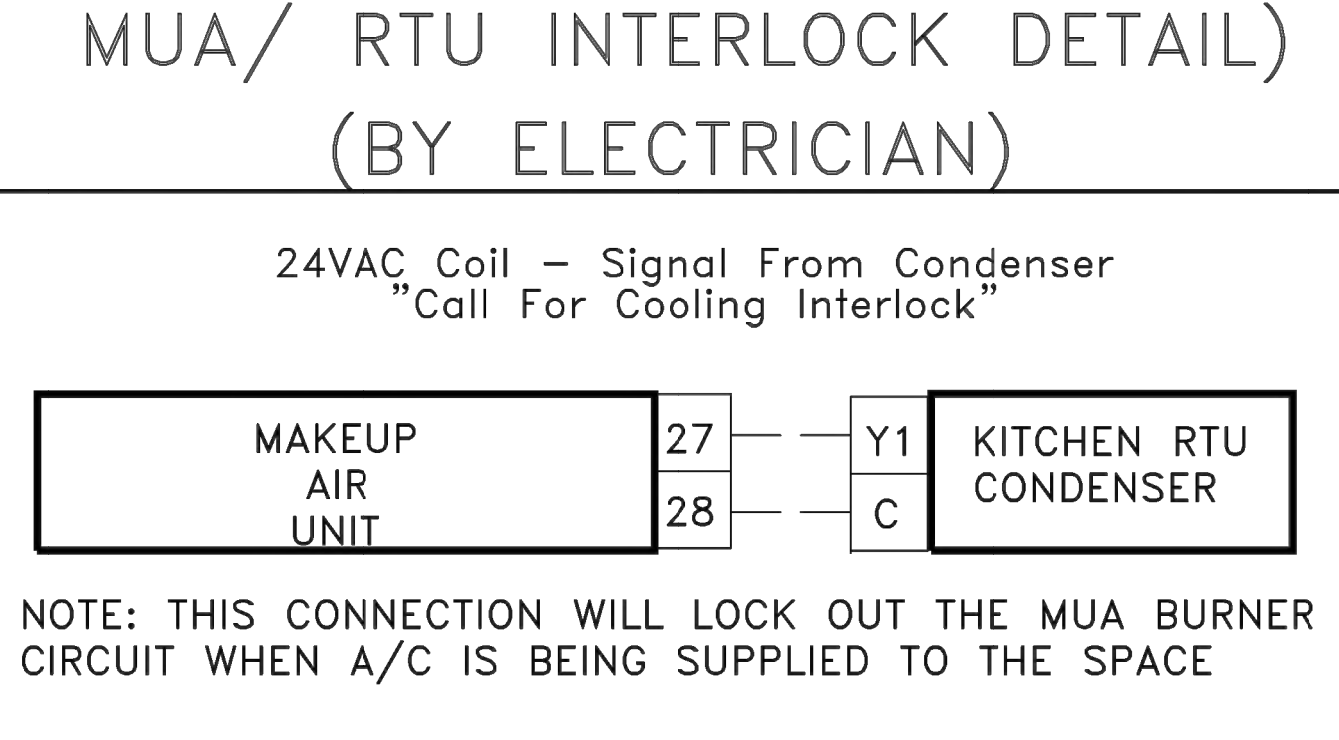
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**ELECTRICAL PACKAGE - JOB#5321541**

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	#	HP	VOLTI	FLA
1		DCV-2111	UTILITY CABINET LEFT	03 - UTILITY CABINET LEFT	1 LIGHT	SMART CONTROLS DCV	GRILL	EXHAUST	3	3,000	208	8.7
				HOOD # 1	1 FAN		FRYER	EXHAUST	3	3,000	208	9.5
							MUA-1	SUPPLY	3	2,000	208	6.1



**SCOPE OF WORK**  
 HOOD(S): PROVIDED BY OWNER. INSTALLED BY GC.  
 FIRE SYSTEM(S): PROVIDED & INSTALLED BY OWNER.  
 EXHAUST FAN(S): PROVIDED BY OWNER. INSTALLED BY GC.  
 MAKEUP AIR UNIT(S): PROVIDED BY OWNER. INSTALLED BY GC.  
 ELECTRICAL CONTROL(S): PROVIDED BY OWNER. INSTALLED BY GC.  
 GC IS RESPONSIBLE FOR COMPLETE START-UP OF EXHAUST FANS AND MAKEUP AIR UNIT PER CAPTIVEAIRE OPERATION & INSTALLATION MANUAL



**SEQUENCE OF OPERATION - APPLIANCE INTERLOCK**  
 - IN AUTO POSITION, FANS WILL TURN ON WHEN TEMPERATURE IS ABOVE 85 DEGREES AND WILL SHUT DOWN WHEN TEMPERATURE COOLS BELOW 85 DEGREES.  
 - IN ON POSITION, FANS WILL REMAIN ON CONSTANTLY  
 - IN FIRE CONDITION, EXHAUST WILL TURN ON OR REMAIN ON. MAKEUP AIR WILL SHUT DOWN AUTOMATICALLY.

REVISIONS	
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**Five Guys - Highland Heights, KY FCL**

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