

HOOD INFORMATION - JOB#7078080

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)					TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM			VEL	SP
1	COOKLINE	6030 ND-2-PSP-F	CAPTIVEAIRE	15' 0"	600 DEG	I	HEAVY	190	2850	4"	12"	1425	1814	-0.642"	2000	430 SS WHERE EXPOSED	ALONE	ALONE
2	SF GRILL	6030 ND-2-PSP-F	CAPTIVEAIRE	9' 4"	700 DEG	I	EXTRA-HEAVY	360	3360	4"	18"	3360	1901	-1.386"	1200	430 SS 100%	ALONE	ALONE
3	PREP	6030 ND-2	CAPTIVEAIRE	13' 0"	600 DEG	I	HEAVY	180	2340	4"	12"	1170	1490	-0.479"	0	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM	HOOD HANGING PIPING WEIGHT
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM TYPE	SIZE		
1	COOKLINE	CAPTRATE SOLD FILTER	11	20"	16"	85% SEE FILTER SPEC	6	RECESSED ROUND	NO	LEFT	12"x60"x30"	TANK FS	4.0/4.0/4.0		1464 LBS
2	SF GRILL	CAPTRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	5	RECESSED ROUND	NO	RIGHT	12"x60"x30"	CORE PROTECTION	0	SC-342110MA	967 LBS
3	PREP	CAPTRATE SOLD FILTER	9	20"	16"	85% SEE FILTER SPEC	6	RECESSED ROUND	NO	LEFT	12"x60"x30"	TANK FS	4.0/4.0	SC-342110MA	1184 LBS

HOOD OPTIONS

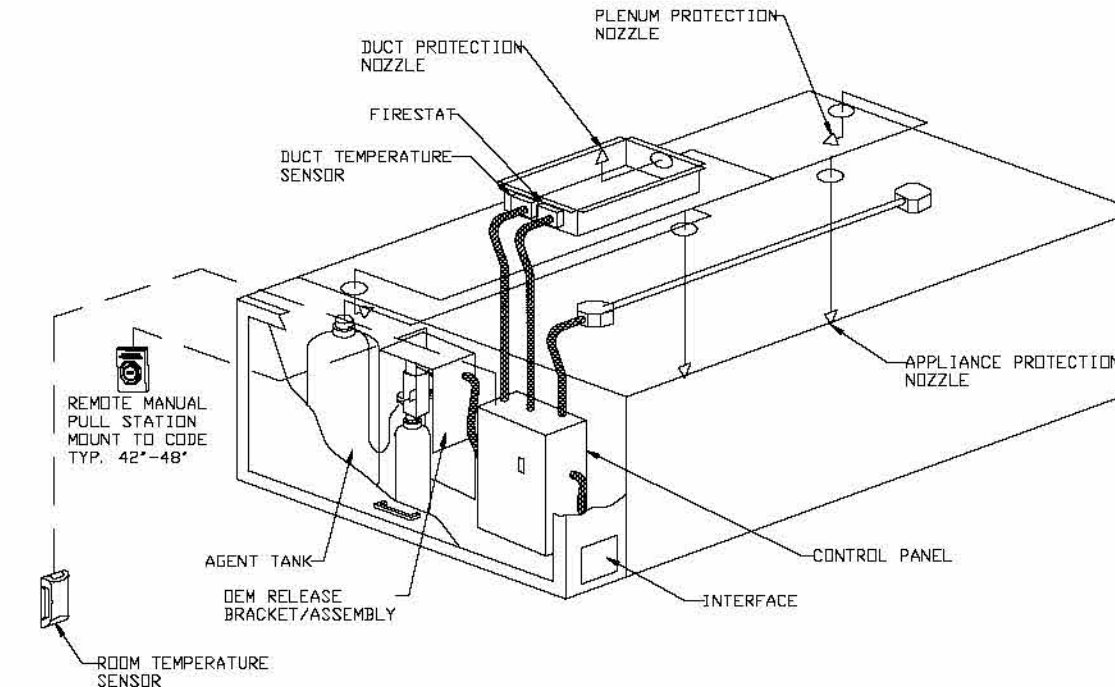
HOOD NO	TAG	OPTION
1	COOKLINE	FIELD WRAPPER 12.00" HIGH FRONT, LEFT, RIGHT, RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. INSULATION FOR TOP OF HOOD. STRUCTURAL FRONT PANEL. INSULATION FOR BACK OF HOOD. SENSOR-CV.
2	SF GRILL	FIELD WRAPPER 12.00" 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. INSULATION FOR TOP OF HOOD. INSULATION FOR BACK OF HOOD. RISER SENSOR INSTALL 6IN PLEN. VC-CORE PROTECTION.
3	PREP	FIELD WRAPPER 12.00" 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. INSULATION FOR TOP OF HOOD. STRUCTURAL FRONT PANEL. INSULATION FOR BACK OF HOOD. SENSOR-CV.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)			
							WIDTH	LENG	DIA	CFM
1	COOKLINE	Front	192"	12"	6"	MUA	8"	36"	666	0.169"
2	SF GRILL	Front	124"	12"	6"	MUA	8"	36"	666	0.169"
						MUA	8"	36"	600	0.139"
						MUA	8"	36"	600	0.139"

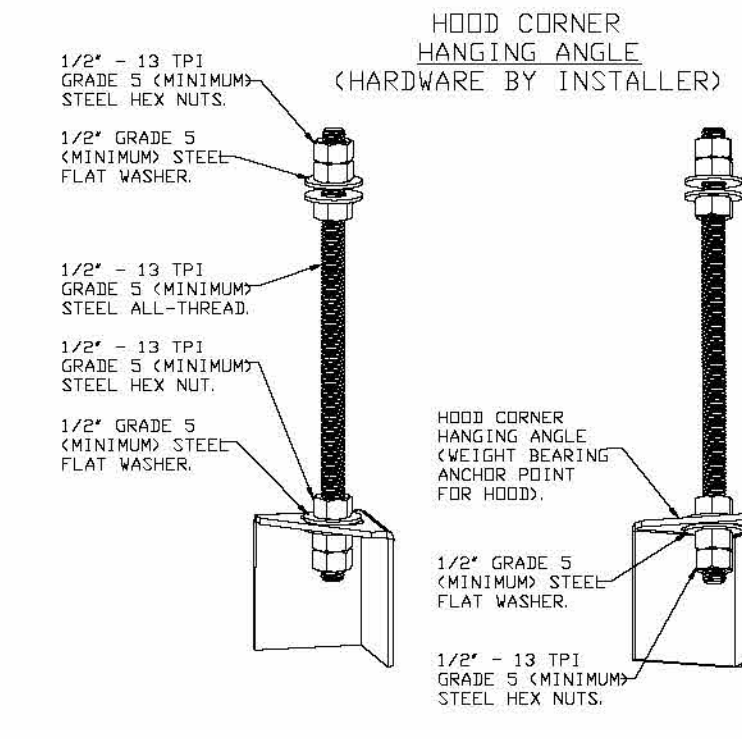
FIRE SYSTEM INFORMATION - JOB#7078080

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1	H1-H2 FS	TANK FS	4.0/4.0/4.0	60	44	FIRE CABINET LEFT	LEFT, HOOD 1
2	H3 FS	CORE PROTECTION	0	0	0	FIRE CABINET RIGHT	RIGHT, HOOD 2
3	H4 FS	TANK FS	4.0/4.0	40	40	FIRE CABINET LEFT	LEFT, HOOD 3



TYPICAL TANK SYSTEM LAYOUT SPECIFICATIONS:
 THE RESTAURANT FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FINED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWATERS LABORATORIES, INC. (UL3)
 THE SYSTEM CONTROLS SHALL PROVIDE ALL NECESSARY MONITORING, TALKING AND SUPERVISION FUNCTIONS REQUIRED FOR THE RELIABLE OPERATION OF THE VET. CONTROL FIRE SUPPRESSION SYSTEM. ALL DEVICES THAT ARE CRITICAL TO PROPER OPERATION SHALL BE SUPERVISED. THE SYSTEM SHALL INCLUDE A BATTERY-BACK UP SYSTEM. IN THE EVENT OF A LOSS OF POWER TO THE BUILDING, THE HOOD SYSTEM SHALL POWER ALL SYSTEMS NECESSARY FOR PROPER OPERATION.
 THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND ACTUATION WITH LOCAL OR REMOTE MANUAL ACTUATION. THE DETECTION PORTION OF THE FIRE SUPPRESSION SYSTEM ALONE FOR AUTOMATIC DETECTION BY MEANS OF AN ELECTRIC THERMAL DETECTOR LOCATED IN THE HOOD DUCT CONNECTIONS.

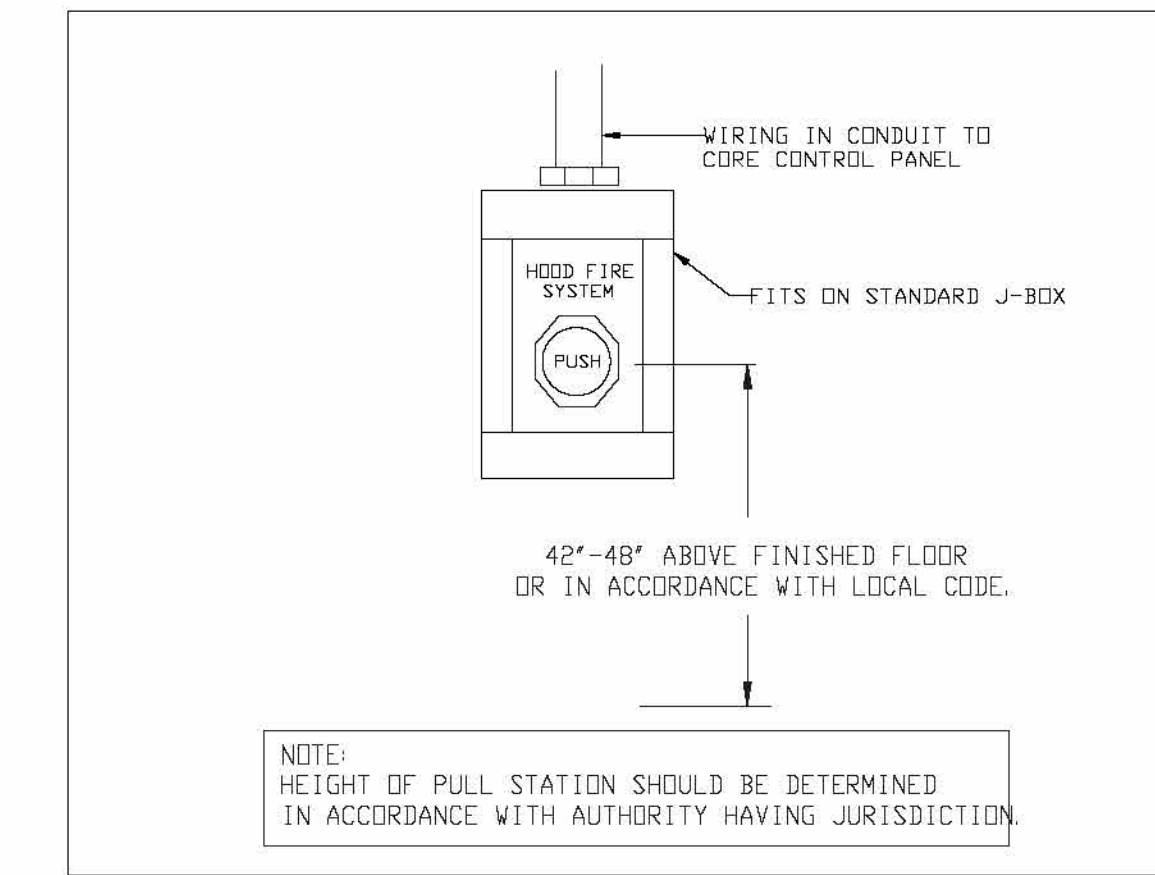
NOTE: GRILL HOOD USES A CORE FIRE SUPPRESSION SYSTEM THAT REQUIRES A SPRINKLER LINE, HOT WATER LINE, AND DRAINS.



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.

TANK PULL STATION DETAIL



FOR QUESTIONS, CALL THE CHARLOTTE, NORTH CAROLINA OFFICE
 EVAN ZIPPERER
 PHONE: 919-719-7636
 EMAIL: neg3@captiveaire.com

CAPTIVE-AIRE HOODS ARE ETL LISTED AND LABELED IN COMPLIANCE WITH

 NFPA #96
 NSF
 UL 710 & ULC710 STANDARDS
 E.T.L. LISTED 3054804-001

REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
 Charlotte/Piedmont
 6030 Cammer Road Suite 105, Charlotte, NC 28226 PHONE: (704) 841-8400 FAX: 919-271-9552 EMAIL: neg3@captiveaire.com

Firebirds - Chesterfield, VA
 CHESTERFIELD, VA, 23832

DATE: 12/10/2024
DWG.#: 7078080
DRAWN BY: evan.zipperer
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
 1

FIREBIRDS CHESTERFIELD COUNTY
 15700 Hull Street Road
 Chesterfield, VA 23832

FIREBIRDS
 WOOD FIRED GRILL

starr design
 branded environments
 Starr Design, PLLC
 2459 Wilkinson Blvd, Suite 310
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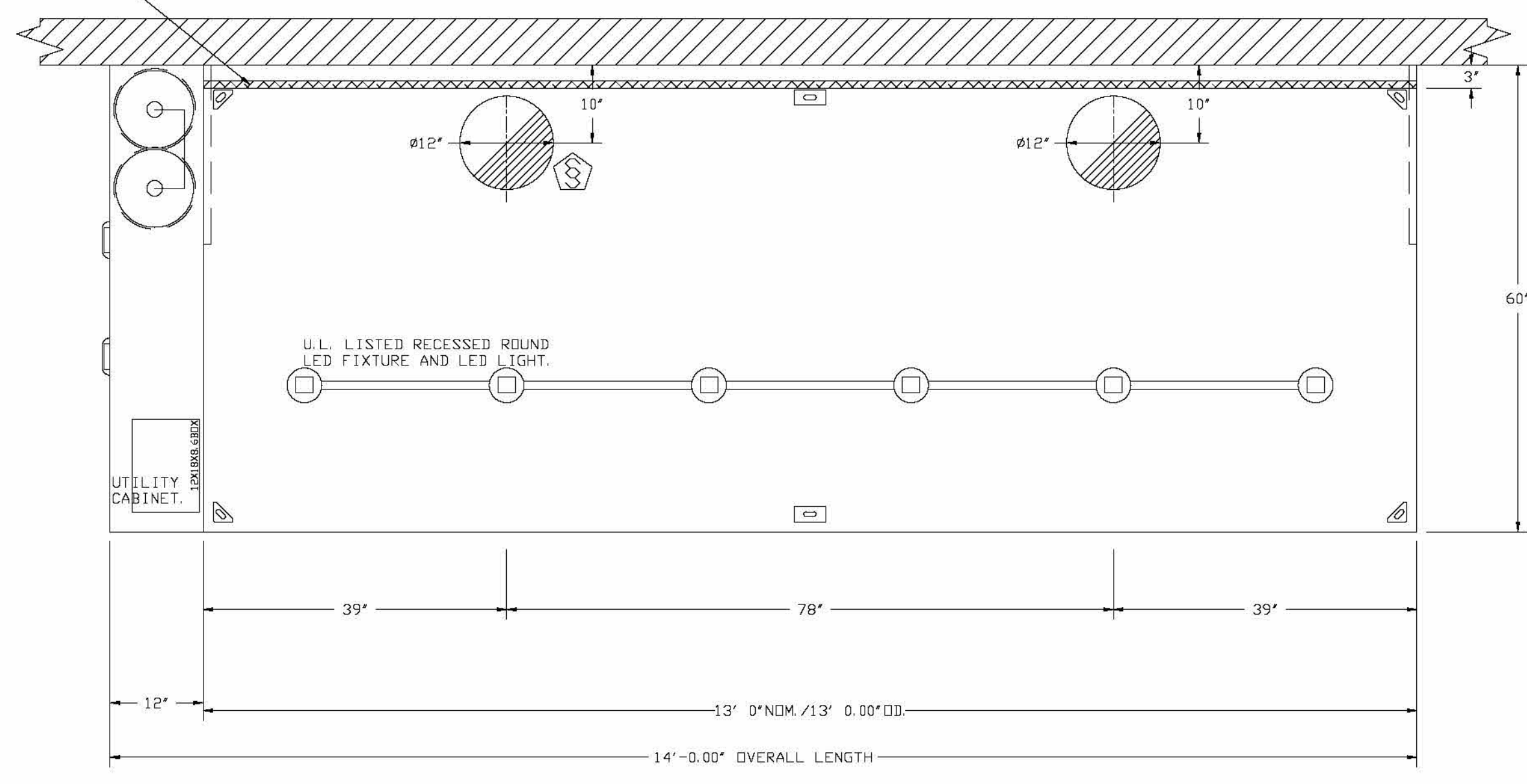
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12/19/24

CAPTIVEAIRE DRAWINGS - MECHANICAL
M3.01
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1" LAYER OF INSULATION FACTORY
 INSTALLED IN INTERNAL BACK STANDOFF.
 MEETS 6 INCH REQUIREMENTS FOR
 CLEARANCE TO COMBUSTIBLE SURFACES.



PLAN VIEW - HOOD #3 (PREP)
 13' 0.00" LONG 6030ND-2
 NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12" AND LONGER.

REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
 Charlotte/Piedmont
 6300 Camel Road Suite 105, Charlotte, NC 28226 PHONE: (704) 844-9088 FAX: 9192275952 EMAIL: info@captivaire.com
 www.captivaire.com

Firebirds - Chesterfield, VA
 CHESTERFIELD, VA, 23832

DATE: 12/10/2024

DWG.#:
7078080

DRAWN BY: evan.zipper

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

MASTER DRAWING

SHEET NO.
3

FIREBIRDS
 CHESTERFIELD
 COUNTY

15700 Hull Street Road
 Chesterfield, VA 23832

FIREBIRDS
 WOOD FIRED GRILL

starr
 design
 branded environments

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 MECHANICAL
M3.03
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REVISIONS	
DISCRIPTION	DATE

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Firebirds - Chesterfield, VA
CHESTERFIELD, VA, 23832

DATE: 12/10/2024

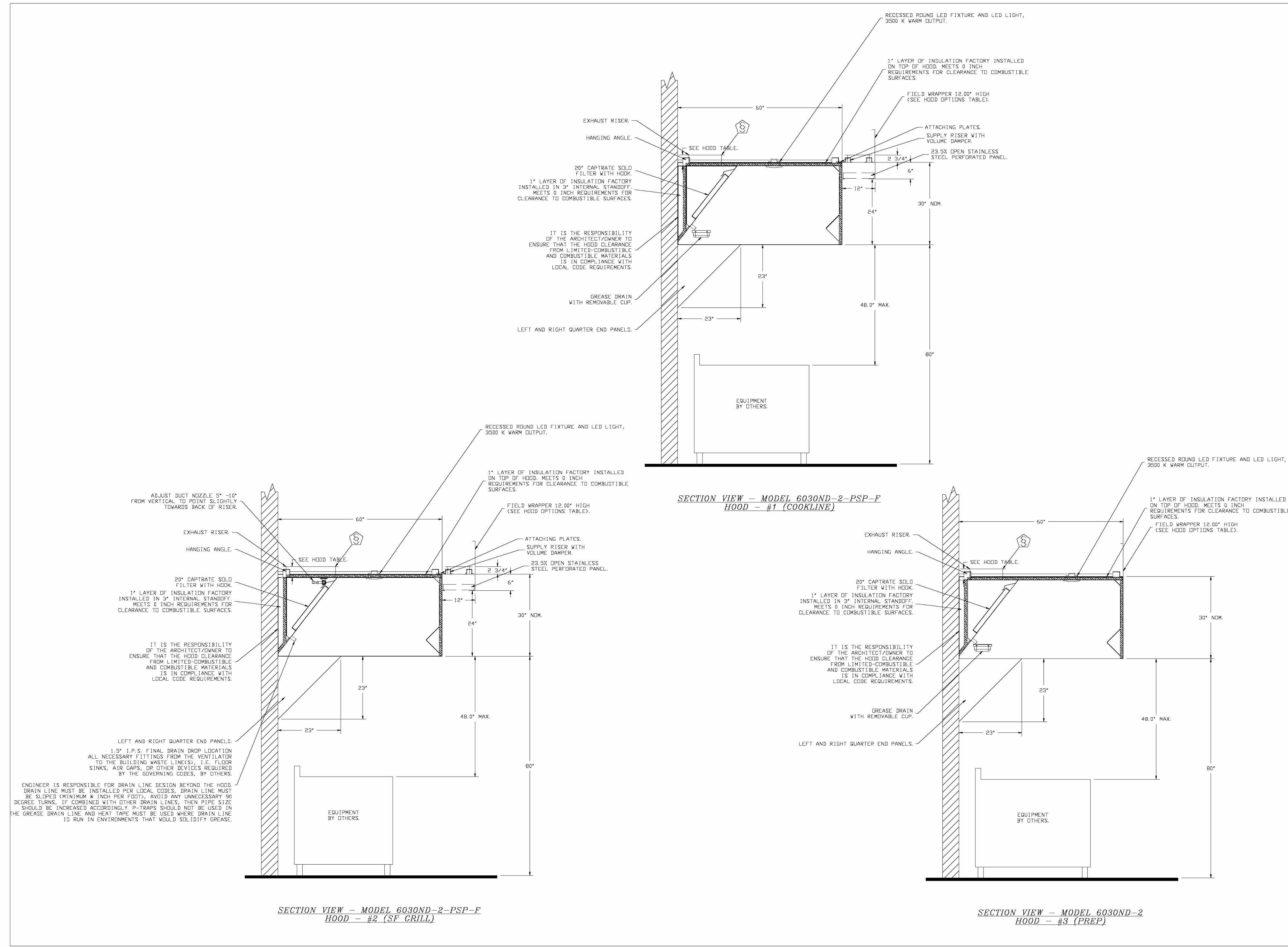
DWG.#:
7078080

DRAWN BY: e.van.zipper

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

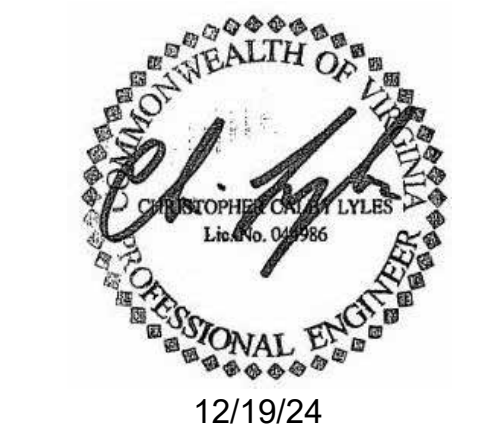
MASTER DRAWING

SHEET NO.
4



ISSUE FOR
CONSTRUCTION
12/19/2024

No.	Description	Date



EXHAUST FAN INFORMATION - JOB#7078080

FAN UNIT NO.	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF-HIL	1	DUBSHFA	CAPTIVEAIRE	1425	1.400	1417	DDP	0.750	0.5110	3	208	2.6	451 FPM	96	12.6
2	KEF-HIR	1	DUBSHFA	CAPTIVEAIRE	1425	1.400	1417	DDP	0.750	0.5110	3	208	2.6	451 FPM	96	12.6
3	KEF-H4	1	DUBSHFA	CAPTIVEAIRE	2340	1.600	1241	DDP, PREMIUM	2.000	1.3030	3	208	7.2	540 FPM	215	16.6
4	EF-DISH	1	DUBSHFA	CAPTIVEAIRE	800	0.500	1411	DDP	0.333	0.1730	1	115	5.6	396 FPM	76	13.8

FAN ACCESSORIES

FAN UNIT NO.	TAG	EXHAUST			SUPPLY		
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF-HIL	YES					
2	KEF-HIR	YES					
3	KEF-H4	YES					
4	EF-DISH	YES					

CURB ASSEMBLIES

NO.	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF-HIL	44 LBS	CURB	23.000"W X 23.000"L X 26.000"H VENTED HINGED.
2	# 2	KEF-HIR	44 LBS	CURB	23.000"W X 23.000"L X 26.000"H VENTED HINGED.
3	# 3	KEF-H4	34 LBS	CURB	26.500"W X 26.500"L X 28.000"H VENTED HINGED.
4	# 4	EF-DISH	30 LBS	CURB	19.500"W X 19.500"L X 22.000"H.
5	# 5	MJA-1	90 LBS	CURB	49.500"W X 75.000"L X 14.000"H INSULATED.
6	# 6	DDAS-1 (KITCHEN)	112 LBS	CURB	59.500"W X 91.000"L X 16.000"H INSULATED.
7	# 7	RTU-1 (DINING)	112 LBS	CURB	59.500"W X 91.000"L X 16.000"H INSULATED.
8	# 8	RTU-2 (DINING)	112 LBS	CURB	59.500"W X 91.000"L X 16.000"H INSULATED.
9			85 LBS	CURB	28.000"W X 28.000"L X 36.000"H.

HMI SCHEDULE				
UNIT NUMBER	HMI #	HMI LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN #5	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55
FAN #6	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55
FAN #6	HMI #2 - SPACE	MGR OFFICE	AVERAGED	56
FAN #6	HMI #3 - SPACE	NOT AVERAGED	57	
FAN #7	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55
FAN #7	HMI #2 - SPACE	MGR OFFICE	AVERAGED	56
FAN #7	HMI #3 - SPACE	DINING SPACE 1	AVERAGED	57
FAN #7	HMI #4 - SPACE	DINING SPACE 2	AVERAGED	58
FAN #8	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55
FAN #8	HMI #2 - SPACE	MGR OFFICE	AVERAGED	56
FAN #8	HMI #3 - SPACE	DINING SPACE 1	AVERAGED	57
FAN #8	HMI #4 - SPACE	DINING SPACE 2	AVERAGED	58

FAN OPTIONS

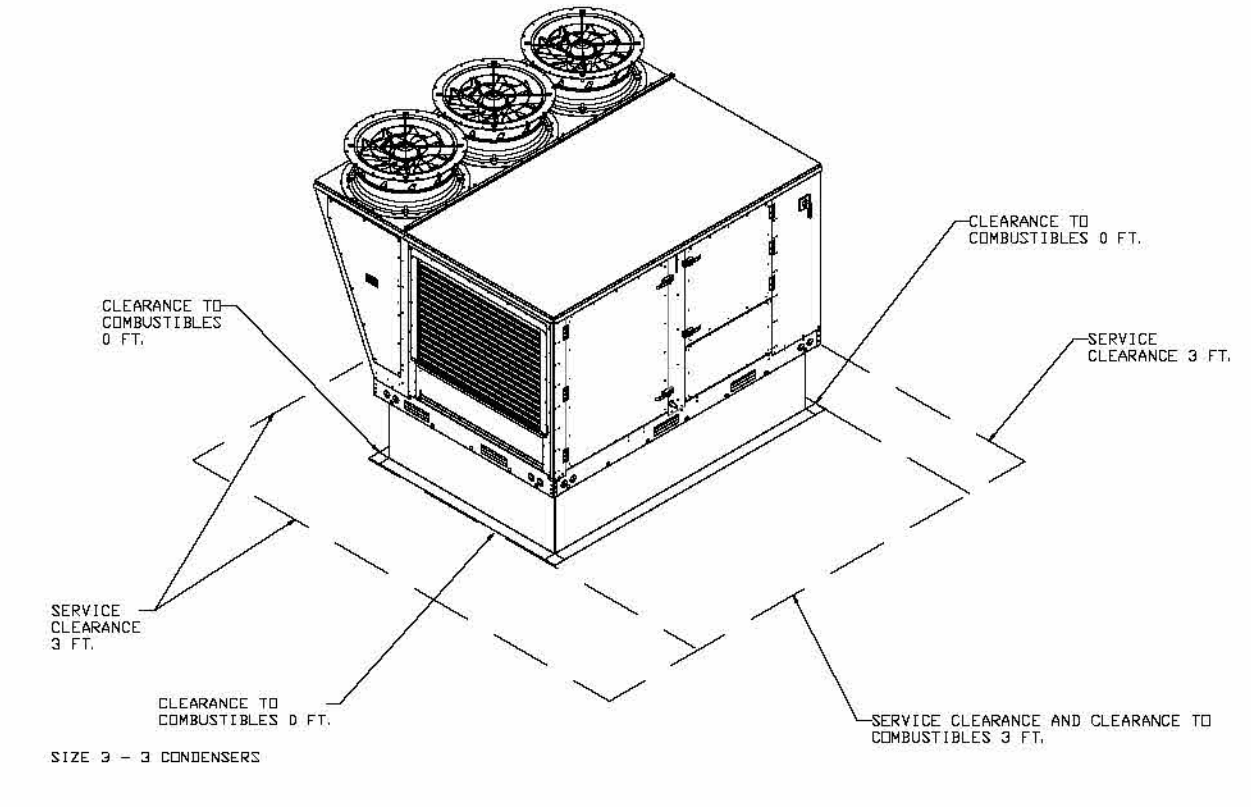
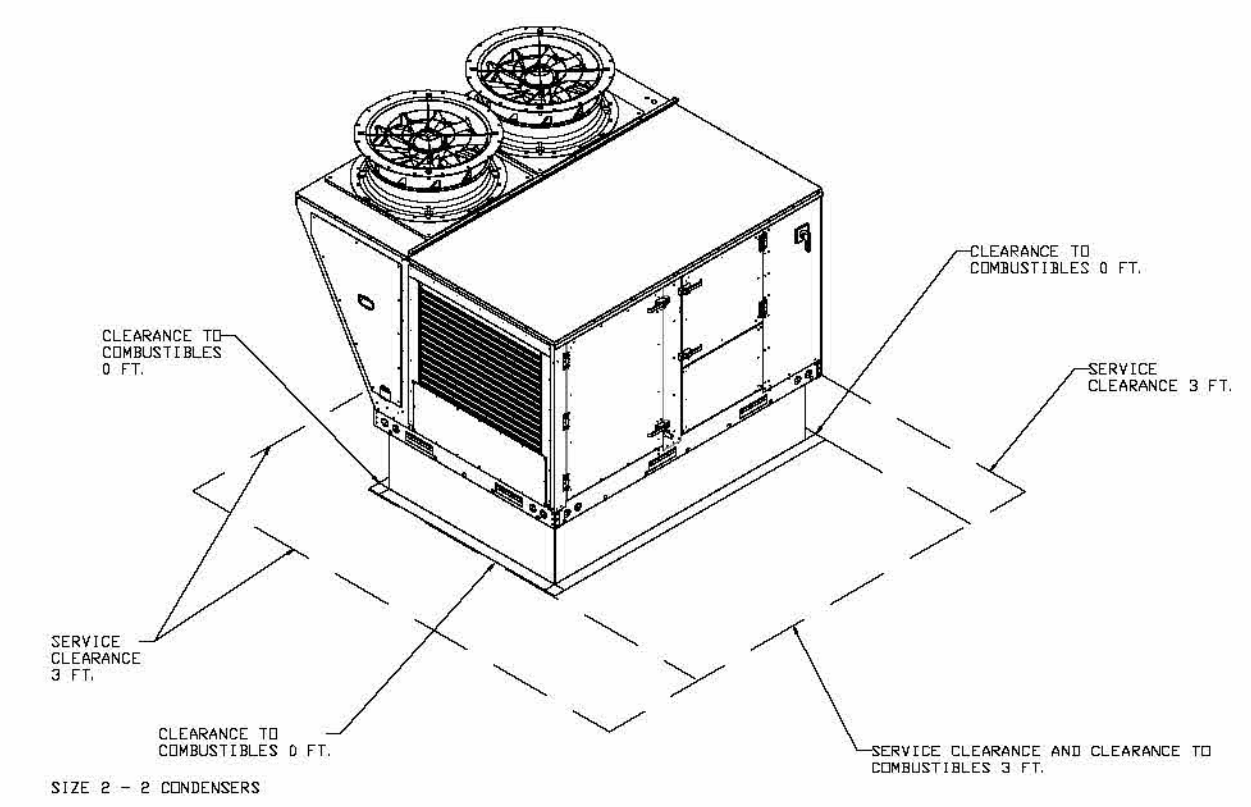
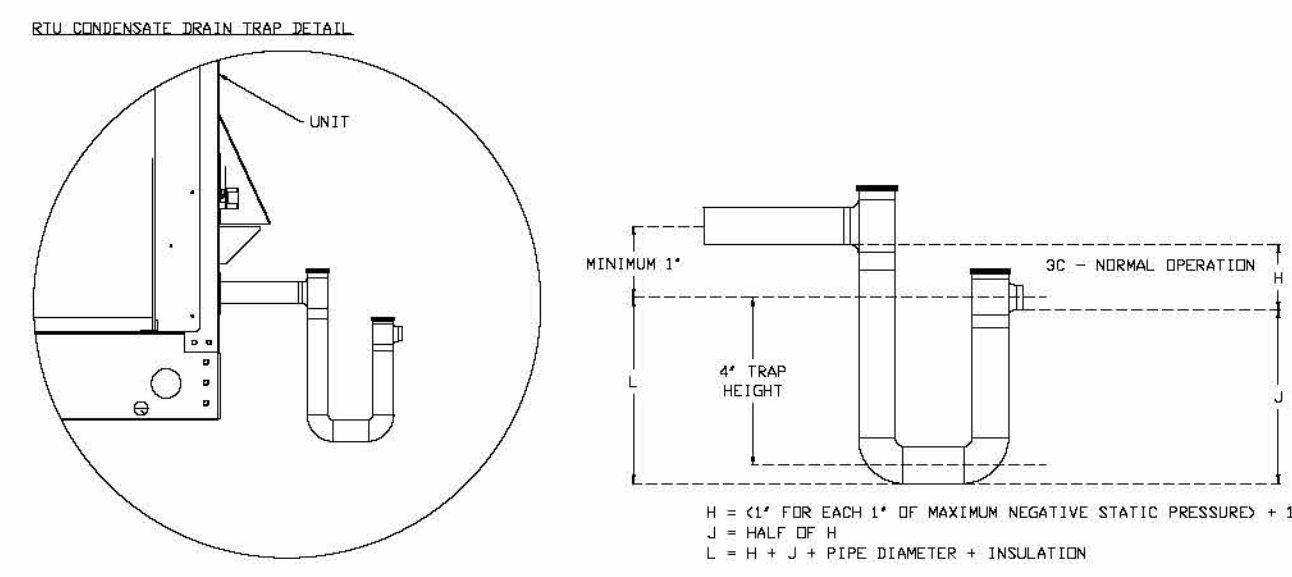
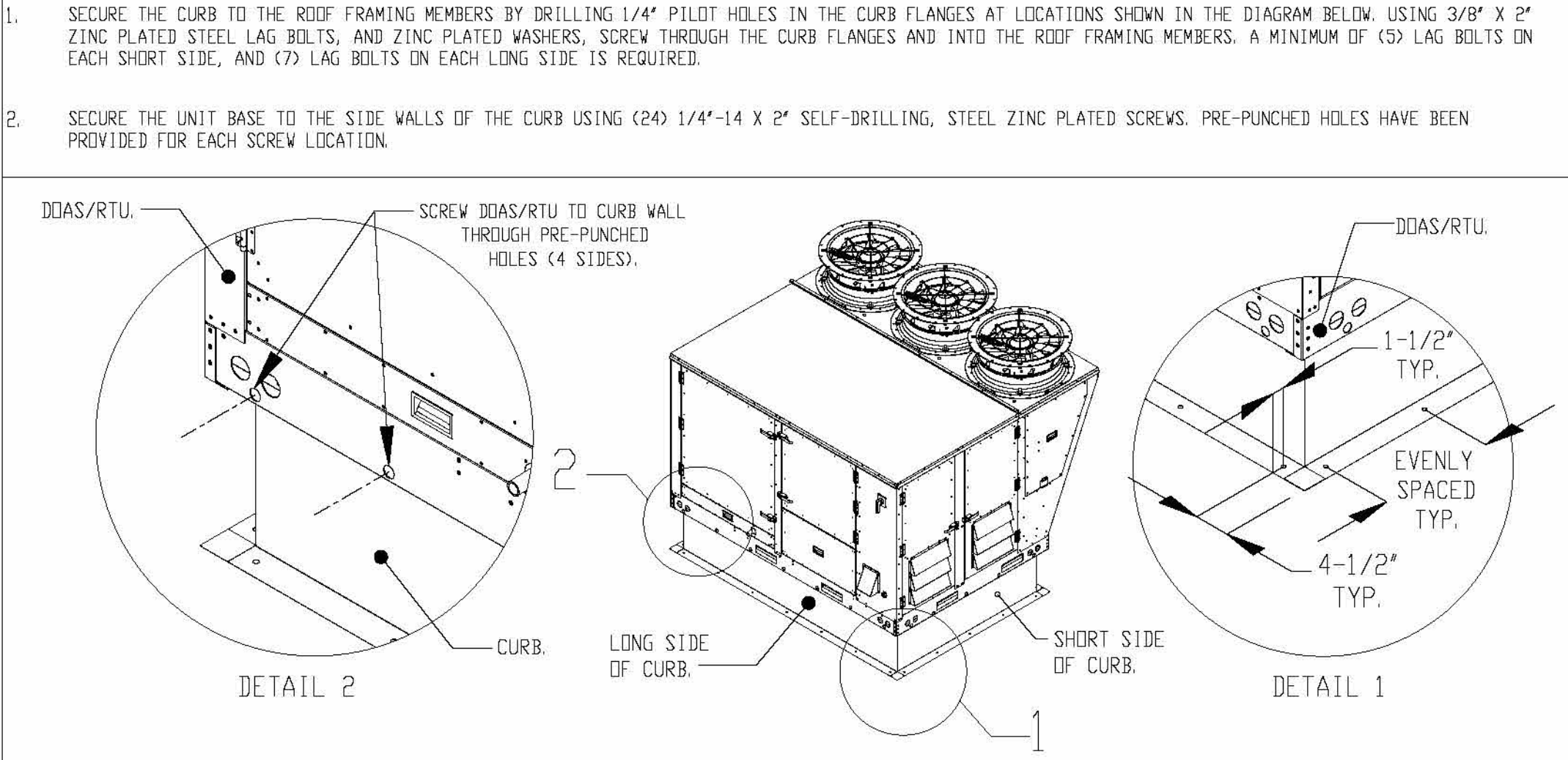
FAN UNIT NO.	TAG	QTY	DESCRIPTION	FAN UNIT NO.	TAG	QTY	DESCRIPTION
1	KEF-HIL	1	GREASE BOX	7	RTU-1 (DINING)	1	UNIT MOUNTED VFD CONFIGURED FOR DCV
		1	FAN BASE CERAMIC SEAL - DU/DR8SHFA - INSTALLED AT PLANT - FOR GREASE DUCTS			1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)
		1	2 YEAR PARTS WARRANTY			1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET
2	KEF-HIR	1	GREASE BOX	7	RTU-1 (DINING)	1	INLET PRESSURE GAUGE, 0-35"
		1	FAN BASE CERAMIC SEAL - DU/DR8SHFA - INSTALLED AT PLANT - FOR GREASE DUCTS			1	TOTAL CFM MONITORING
		1	2 YEAR PARTS WARRANTY			1	INTAKE FIRESTAT SET TO 135°F
3	KEF-H4	1	GREASE BOX	7	RTU-1 (DINING)	1	FREEZESTAT
		1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS			1	DISCHARGE FIRESTAT SET TO 240°F
		1	2 YEAR PARTS WARRANTY			1	SHIP LODGE GAS STRAINER 1"
4	EF-DISH	1	GREASE BOX	7	RTU-1 (DINING)	1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU, 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #2B, #4Z, "MA", OR "EP" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE
		1	FAN BASE CERAMIC SEAL - DU/DR30/33HFA - INSTALLED AT PLANT - FOR GREASE DUCTS			1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
		1	2 YEAR PARTS WARRANTY			1	RTU3 DOWN DISCHARGE, 400, 500 MBH
5	MJA-1	1	SHIP LODGE GAS STRAINER 3/4"	7	RTU-1 (DINING)	1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE			1	2" MERV 8 FILTERS FOR RTU3 (QTY. 4)
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU, 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #2B, #4Z, "MA", OR "EP" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE			1	OVERHEAT STAT
6	DDAS-1 (KITCHEN)	1	CONSTRUCTION MODE - MODIFIES START-UP SETTINGS TO ALLOW TEMPERING A BUILDING STILL UNDER CONSTRUCTION	7	RTU-2 (DINING)	1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	RTU BLOWER DOOR SWITCH			1	RTU3 CURB DUCT HANGER
		1	RTU2 DOWN DISCHARGE			1	OCCUPIED SCHEDULING
7	RTU-1 (DINING)	1	TOTAL CFM MONITORING	7	RTU-1 (DINING)	1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)
		1	30 TON MODULATING COOLING OPTION, 208/230V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS			1	RTU3 DOWN RETURN
		1	R454B LEAK DETECTOR OPTION FOR RTUS			1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI
8	RTU-2 (DINING)	1	RTU FIXED 100% DA INTAKE CONTROL	7	RTU-2 (DINING)	1	AUXILIARY REHEAT - 1BT
		1	DISCHARGE FIRESTAT SET TO 240°F			1	HIGH TURNDOWN OPTION FOR DDAS UNITS
		1	FREEZESTAT			1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 2 FURNACES
9	RTU-2 (DINING)	1	INTAKE FIRESTAT SET TO 135°F	7	RTU-2 (DINING)	1	120V FIRE INPUT
		1	RTU2 NO RETURN - 100% DA - MPU			1	RTU RETURN MOUNTED SMOKE DETECTOR AND SAMPLING TUBE - FACTORY INSTALLED
		1	RTU SIZE 2 INTAKE HOOD, SHIPPED LODGE			1	RTU BLOWER DOOR SWITCH
10	RTU-2 (DINING)	1	2" METAL MESH FILTERS FOR RTU2 (QTY. 4)	7	RTU-2 (DINING)	1	30 TON MODULATING COOLING OPTION, 208/230V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
		1	SIZE 2 MOISTURE ELIMINATOR FOR SIZE 2, 10 TON RTU, NO REHEAT			1	R454B LEAK DETECTOR OPTION FOR RTUS
		1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)			1	30 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL - R454B
11	RTU-2 (DINING)	1	RTU2 CURB DUCT HANGER	7	RTU-2 (DINING)	1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET
		1	UNIT MOUNTED VFD CONFIGURED FOR DCV			1	INLET PRESSURE GAUGE, 0-35"
		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)			1	TOTAL CFM MONITORING
12	RTU-2 (DINING)	1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET	7	RTU-2 (DINING)	1	INTAKE FIRESTAT SET TO 135°F
		1	INLET PRESSURE GAUGE, 0-35"			1	FREEZESTAT
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE			1	DISCHARGE FIRESTAT SET TO 240°F
13	RTU-2 (DINING)	1	TOTAL CFM MONITORING	7	RTU-2 (DINING)	1	SHIP LODGE GAS STRAINER 1"
		1	INTAKE FIRESTAT SET TO 135°F			1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU, 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #2B, #4Z, "MA", OR "EP" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE
		1	FREEZESTAT			1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
14	RTU-2 (DINING)	1	DISCHARGE FIRESTAT SET TO 240°F	7	RTU-2 (DINING)	1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)
		1	SHIP LODGE GAS STRAINER 1"			1	RTU3 DOWN DISCHARGE, 400, 500 MBH
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU, 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #2B, #4Z, "MA", OR "EP" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE			1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)
15	RTU-2 (DINING)	1	CONSTRUCTION MODE - MODIFIES START-UP SETTINGS TO ALLOW TEMPERING A BUILDING STILL UNDER CONSTRUCTION	7	RTU-2 (DINING)	1	OVERHEAT STAT
		1	RTU BLOWER DOOR SWITCH			1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	RTU2 DOWN DISCHARGE			1	RTU3 CURB DUCT HANGER
16	RTU-2 (DINING)	1	TOTAL CFM MONITORING	7	RTU-2 (DINING)	1	OCCUPIED SCHEDULING
		1	30 TON MODULATING COOLING OPTION, 208/230V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS			1	RTU DOWN RETURN
		1	R454B LEAK DETECTOR OPTION FOR RTUS			1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI
17	RTU-2 (DINING)	1	RTU FIXED 100% DA INTAKE CONTROL	7	RTU-2 (DINING)	1	AUXILIARY REHEAT - 1BT
		1	DISCHARGE FIRESTAT SET TO 240°F			1	HIGH TURNDOWN OPTION FOR DDAS UNITS
		1	FREEZESTAT			1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 2 FURNACES
18	RTU-2 (DINING)	1	INTAKE FIRESTAT SET TO 135°F	7	RTU-2 (DINING)	1	120V FIRE INPUT
		1	RTU2 NO RETURN - 100% DA - MPU			1	RTU RETURN MOUNTED SMOKE DETECTOR AND SAMPLING TUBE - FACTORY INSTALLED
		1	RTU SIZE 2 INTAKE HOOD, SHIPPED LODGE			1	RTU BLOWER DOOR SWITCH
19	RTU-2 (DINING)	1	2" METAL MESH FILTERS FOR RTU2 (QTY. 4)	7	RTU-2 (DINING)	1	30 TON MODULATING COOLING OPTION, 208/230V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
		1	SIZE 2 MOISTURE ELIMINATOR FOR SIZE 2, 10 TON RTU, NO REHEAT			1	R454B LEAK DETECTOR OPTION FOR RTUS
		1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)			1	30 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL - R454B
20	RTU-2 (DINING)	1	RTU2 CURB DUCT HANGER	7	RTU-2 (DINING)	1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET
		1	UNIT MOUNTED VFD CONFIGURED FOR DCV			1	INLET PRESSURE GAUGE, 0-35"
		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)			1	TOTAL CFM MONITORING
21	RTU-2 (DINING)	1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET	7	RTU-2 (DINING)	1	INTAKE FIRESTAT SET TO 135°F
		1	INLET PRESSURE GAUGE, 0-35"			1	FREEZESTAT
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE			1	DISCHARGE FIRESTAT SET TO 240°F
22	RTU-2 (DINING)	1	TOTAL CFM MONITORING	7	RTU-2 (DINING)	1	SHIP LODGE GAS STRAINER 1"
		1	INTAKE FIRESTAT SET TO 135°F			1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU, 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #2B, #4Z, "MA", OR "EP" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE
		1	FREEZESTAT			1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
23	RTU-2 (DINING)	1	DISCHARGE FIRESTAT SET TO 240°F	7	RTU-2 (DINING)	1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)
		1	SHIP LODGE GAS STRAINER 1"			1	RTU3 DOWN DISCHARGE, 400, 500 MBH
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU, 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #2B, #4Z, "MA", OR "EP" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE			1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)
24	RTU-2 (DINING)	1	CONSTRUCTION MODE - MODIFIES START-UP SETTINGS TO ALLOW TEMPERING A BUILDING STILL UNDER CONSTRUCTION	7	RTU-2 (DINING)	1	OVERHEAT STAT
		1	RTU BLOWER DOOR SWITCH			1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	RTU2 DOWN DISCHARGE			1	RTU3 CURB DUCT HANGER
25	RTU-2 (DINING)	1	TOTAL CFM MONITORING	7	RTU-2 (DINING)	1	OCCUPIED SCHEDULING
		1	30 TON MODULATING COOLING OPTION, 208/230V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS			1	RTU DOWN RETURN
		1	R454B LEAK DETECTOR OPTION FOR RTUS			1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI
26	RTU-2 (DINING)	1	RTU FIXED 100% DA INTAKE CONTROL	7	RTU-2 (DINING)	1	AUXILIARY REHEAT - 1BT
		1	DISCHARGE FIRESTAT SET TO 240°F			1	HIGH TURNDOWN OPTION FOR DDAS UNITS
		1	FREEZESTAT			1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 2 FURNACES
27	RTU-2 (DINING)	1	INTAKE FIRESTAT SET TO 135°F	7	RTU-2 (DINING)	1	120V FIRE INPUT
		1	RTU2 NO RETURN - 100% DA - MPU			1	RTU RETURN MOUNTED SMOKE DETECTOR AND SAMPLING TUBE - FACTORY INSTALLED
		1	RTU SIZE 2 INTAKE HOOD, SHIPPED LODGE			1	RTU BLOWER DOOR SWITCH
28	RTU-2 (DINING)	1	2" METAL MESH FILTERS FOR RTU2 (QTY. 4)	7	RTU-2 (DINING)	1	30 TON MODULATING COOLING OPTION, 208/230V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
		1	SIZE 2 MOISTURE ELIMINATOR FOR SIZE 2, 10 TON RTU, NO REHEAT			1	R454B LEAK DETECTOR OPTION FOR RTUS
		1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)			1	30 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL - R454B
29	RTU-2 (DINING)	1	RTU2 CURB DUCT HANGER	7	RTU-2 (DINING)	1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET
		1	UNIT MOUNTED VFD CONFIGURED FOR DCV			1	INLET PRESSURE GAUGE, 0-35"
		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)			1	TOTAL CFM MONITORING
30	RTU-2 (DINING)	1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET	7	RTU-2 (DINING)	1	INTAKE FIRESTAT SET TO 135°F
		1	INLET PRESSURE GAUGE, 0-35"			1	FREEZESTAT
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE			1	DISCHARGE FIRESTAT SET TO 240°F
31	RTU-2 (DINING)	1	TOTAL CFM MONITORING	7	RTU-2 (DINING)	1	SHIP LODGE GAS STRAINER 1"
		1	INTAKE FIRESTAT SET TO 135°F			1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU, 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #2B, #4Z, "MA", OR "EP" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE
		1	FREEZESTAT			1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
32	RTU-2 (DINING)	1	DISCHARGE FIRESTAT SET TO 240°F	7	RTU-2 (DINING)	1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)
		1	SHIP LODGE GAS STRAINER 1"			1	RTU3 DOWN DISCHARGE, 400, 500 MBH
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU, 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #2B, #4Z, "MA", OR "EP" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE			1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)
33	RTU-2 (DINING)	1	CONSTRUCTION MODE - MODIFIES START-UP SETTINGS TO ALLOW TEMPERING A BUILDING STILL UNDER CONSTRUCTION	7	RTU-2 (DINING)	1	OVERHEAT STAT
		1	RTU BLOWER DOOR SWITCH			1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	RTU2 DOWN DISCHARGE			1	RTU3 CURB DUCT HANGER
34	RTU-2 (DINING)	1	TOTAL CFM MONITORING	7	RTU-2 (DINING)	1	OCCUPIED SCHEDULING
		1	30 TON MODULATING COOLING OPTION, 208/230V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS			1	RTU DOWN RETURN
		1	R454B LEAK DETECTOR OPTION FOR RTUS			1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI
35	RTU-2 (DINING)	1	RTU FIXED 100% DA INTAKE CONTROL	7	RTU-2 (DINING)	1	AUXILIARY REHEAT - 1BT
		1	DISCHARGE FIRESTAT SET TO 240°F			1	HIGH TURNDOWN OPTION FOR DDAS UNITS
		1	FREEZESTAT			1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 2 FURNACES
36	RTU-2 (DINING)	1	INTAKE FIRESTAT SET TO 135°F	7	RTU-2 (DINING)	1	120V FIRE INPUT
		1	RTU2 NO RETURN - 100% DA - MPU			1	RTU RETURN MOUNTED SMOKE DETECTOR AND SAMPLING TUBE - FACTORY INSTALLED
		1	RTU SIZE 2 INTAKE HOOD, SHIPPED LODGE			1	RTU BLOWER DOOR SWITCH
37	RTU-2 (DINING)	1	2" METAL MESH FILTERS FOR RTU2 (QTY. 4)	7	RTU-2 (DINING)	1	30 TON MODULATING COOLING OPTION, 208/230V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS

DOAS/RTU FAN SCHEDULE - JOB#7078080

FAN UNIT NO.	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	BLOWER	RETURN AIR COMP. %	MAX. TOTAL CFM	WEIGHT (LBS)	ESP	HP	PHASE	VOLT	MCA	MOP	COOLING INFORMATION					CAPACITY (TONS)	DISCHARGE (TONS)	REHEAT INFORMATION	GAS HEAT INFORMATION				AB. MINIMUM ROOM VOLUME	NOTES																		
															OUTSIDE AIR	MIXED AIR	LEAVING AIR	COOLING AIR	DISCHARGE				DISCHARGE	REHEAT	REHEAT	REHEAT			REHEAT	REHEAT	REHEAT	REHEAT	REHEAT	REHEAT	REHEAT	REHEAT	REHEAT	REHEAT								
5	MUA-1	1	EARTUP-1-200-18-101-MPU	ECON-AIR	EMF-2-RTU	0	3200	2013	0.750	3.00	3	208	60.3A	75A	0.03"	80.4"	91.3"	80.4"	73.0"	56.6"	68.1"	53.0	7	MH	61.8	MH	18.6	4.2	---	---	---	---	NATURAL	261873	212119	56°F	7	IN. W.C. - 14	IN. W.C.	443.6	793	7.2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15			
6	DOAS-1 (KITCHEN)	1	CAS-HVAC3-1-400-24-30T	CAPTIVEAIRE	EMF-3-RTU	300	3700	4000	3162	0.500	3.00	3	208	146.6A	150A	91.3"	80.4"	90.0"	79.2"	53.3"	53.4"	53.4"	259.1	MH	58.7	MH	14.5	6.0	70.0"	59.9"	73.7	MH	204.6	MH	175.6	NATURAL	355036	080310	60°F	7	IN. W.C. - 14	IN. W.C.	734.3	1362	7.2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, 16, 17
7	RTU-1 (DINING)	1	CAS-HVAC3-1-400-24-30T	CAPTIVEAIRE	EMF-3	0350	1850	3900	2798	0.500	3.00	3	208	88.3A	100A	91.3"	80.4"	80.7"	71.6"	50.6"	50.4"	50.3"	251.1	MH	35.8	MH	18.2	6.0	70.0"	58.4"	84.8	MH	129.6	MH	107.5	NATURAL	298436	041733	55°F	7	IN. W.C. - 14	IN. W.C.	587.4	1037	7.2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17
8	RTU-2 (DINING)	1	CAS-HVAC3-1-400-24-30T	CAPTIVEAIRE	EMF-3	0350	1850	3900	2798	0.500	3.00	3	208	88.3A	100A	91.3"	80.4"	80.7"	71.6"	50.6"	50.4"	50.3"	251.1	MH	35.8	MH	18.2	6.0	70.0"	58.4"	84.8	MH	129.6	MH	107.5	NATURAL	298436	041733	55°F	7	IN. W.C. - 14	IN. W.C.	587.4	1037	7.2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17

- NOTES:**
- INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL.
 - DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE.
 - INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER.
 - REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE.
 - IC MOTOR CONDENSING FAN.
 - ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE.
 - FACTORY LONG ACTION MOTOR.
 - FACTORY COMBUSTION WITH 5 YEAR PARTS WARRANTY. 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER.
 - AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT.
 - 2" EXTERIOR DRAIN-WALL CONSTRUCTION w/ R-13 INSULATION-MINIMUM ROOM FACTOR OF 14 FROM BASE.
 - 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.
 - 81% EFFICIENT FURNACE WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 15/1 TURNDOWN WITH NG AND 10/1 TURNDOWN WITH LP.
 - SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE.
 - DOWN DISCHARGE/RETURN.
 - MINIMUM ROOM AREA ASSUMED 7.0' SUPPLY DIFFUSER HEIGHT AND IS CALCULATED PER UL60300-2-40 4TH ED. VALUES BASED ON FACTORY CHARGE. ACTUAL SITE CHARGE MAY DIFFER.
 - FULLY INSULATING RET. GAS ROOF.
 - DOWN DISCHARGE/DOWN RETURN.

TYPICAL DOAS/RTU ROOF MOUNTING INSTALLATION INSTRUCTIONS



REVISIONS

NO.	DESCRIPTION	DATE

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Firebirds - Chesterfield, VA
CHESTERFIELD, VA, 23832

DATE: 12/10/2024
DWG.#: 7078080
DRAWN BY: evan.zipper
SCALE: 1/2" = 1'-0"
MASTER DRAWING

SHEET NO.
7

FIREBIRDS
CHESTERFIELD
COUNTY

15700 Hull Street Road
Chesterfield, VA 23832

FIREBIRDS
WOOD FIRED GRILL

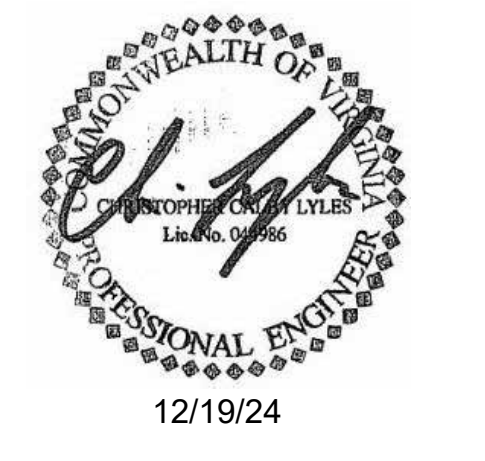
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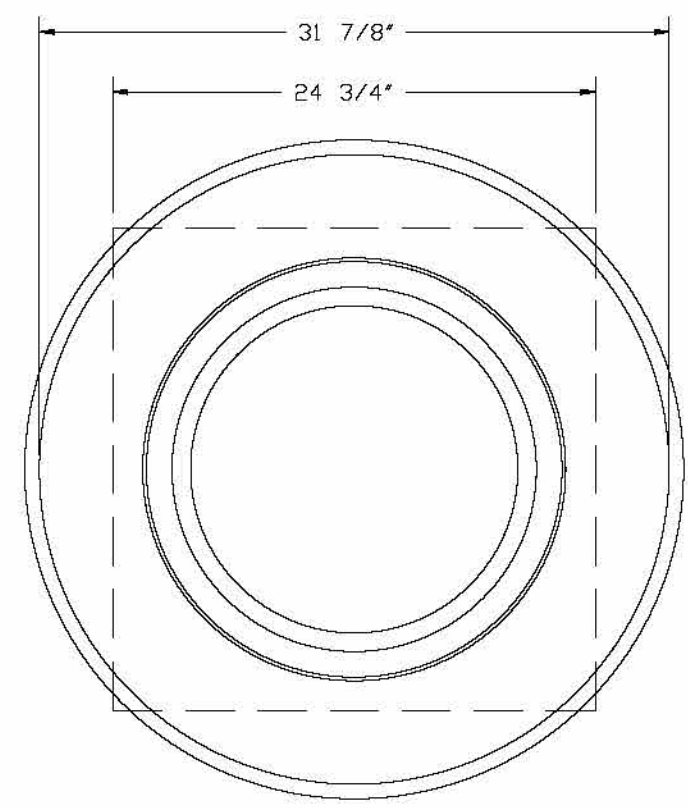
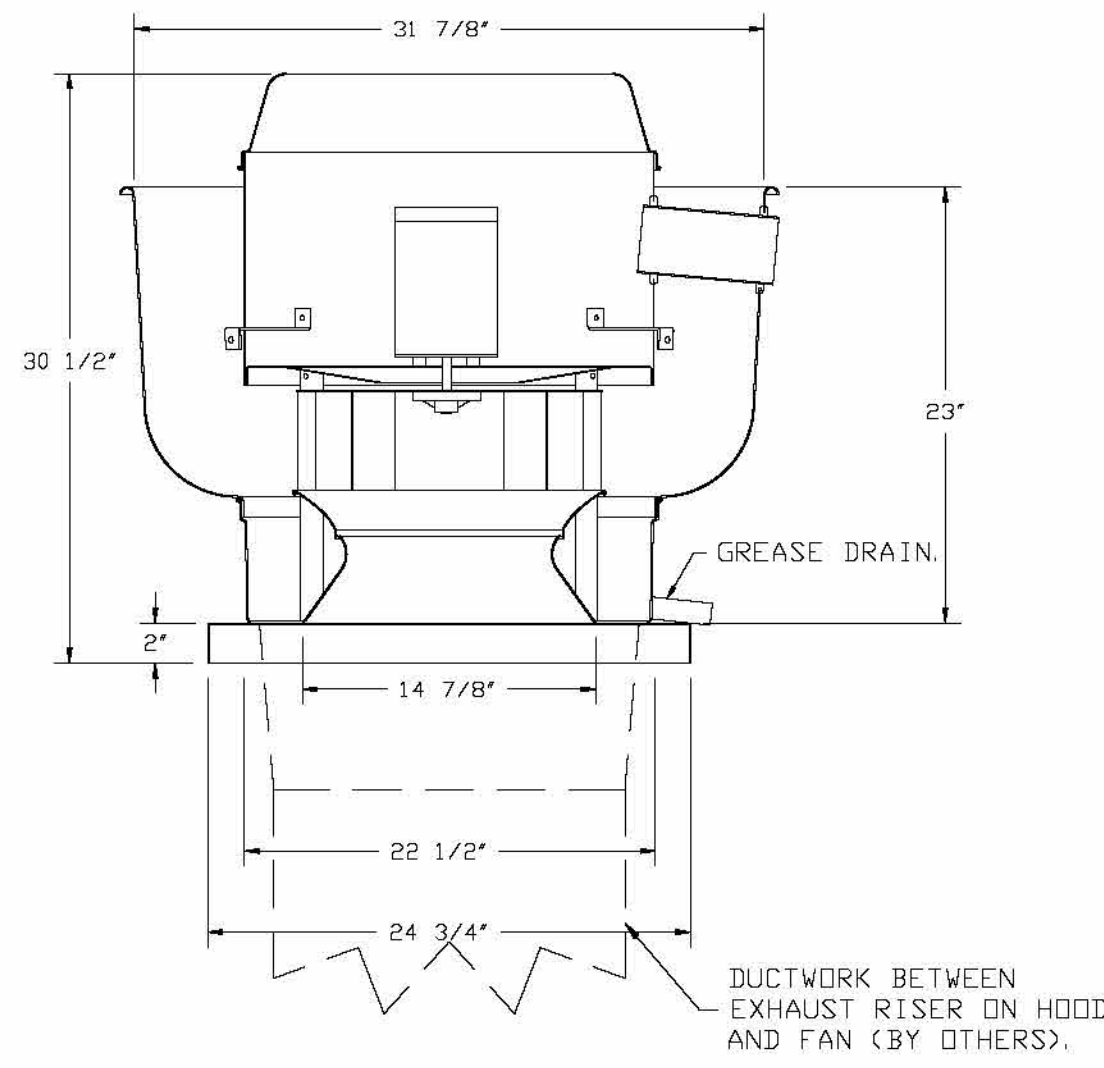
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DRAWINGS -
MECHANICAL
M3.07
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FANS #1 (KEF-HLL), #2 (KEF-HLR) - DUBSHFA EXHAUST FAN



TOP VIEW

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND UL-C-5645
- 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.

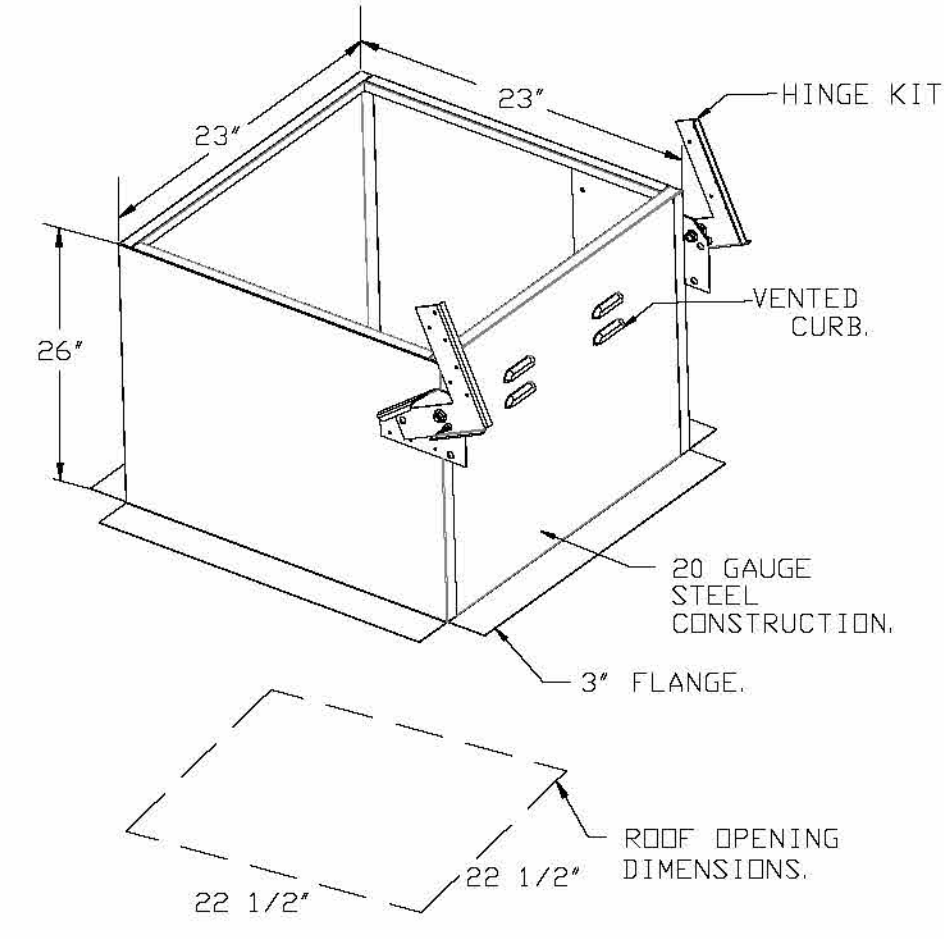
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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.

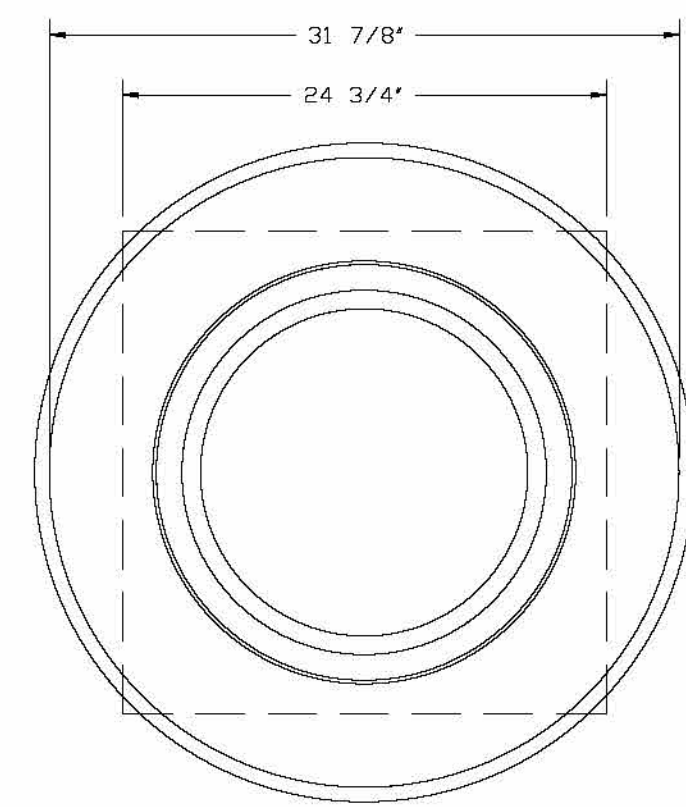
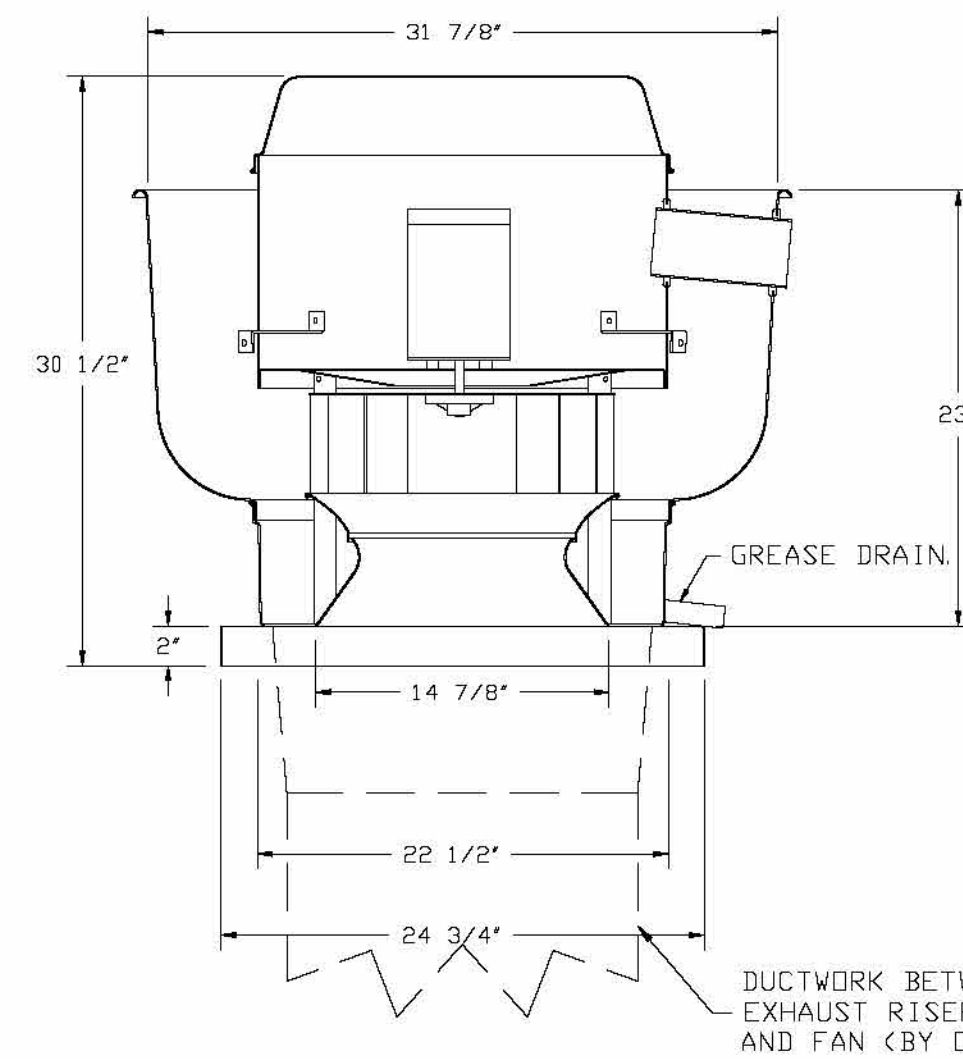
OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DRBSHFA
- INSTALLED AT PLANT - FOR GREASE DUCTS.
- 2 YEAR PARTS WARRANTY.

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



FANS #1 (KEF-HLL), #2 (KEF-HLR) - DUBSHFA EXHAUST FAN



TOP VIEW

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND UL-C-5645
- 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.

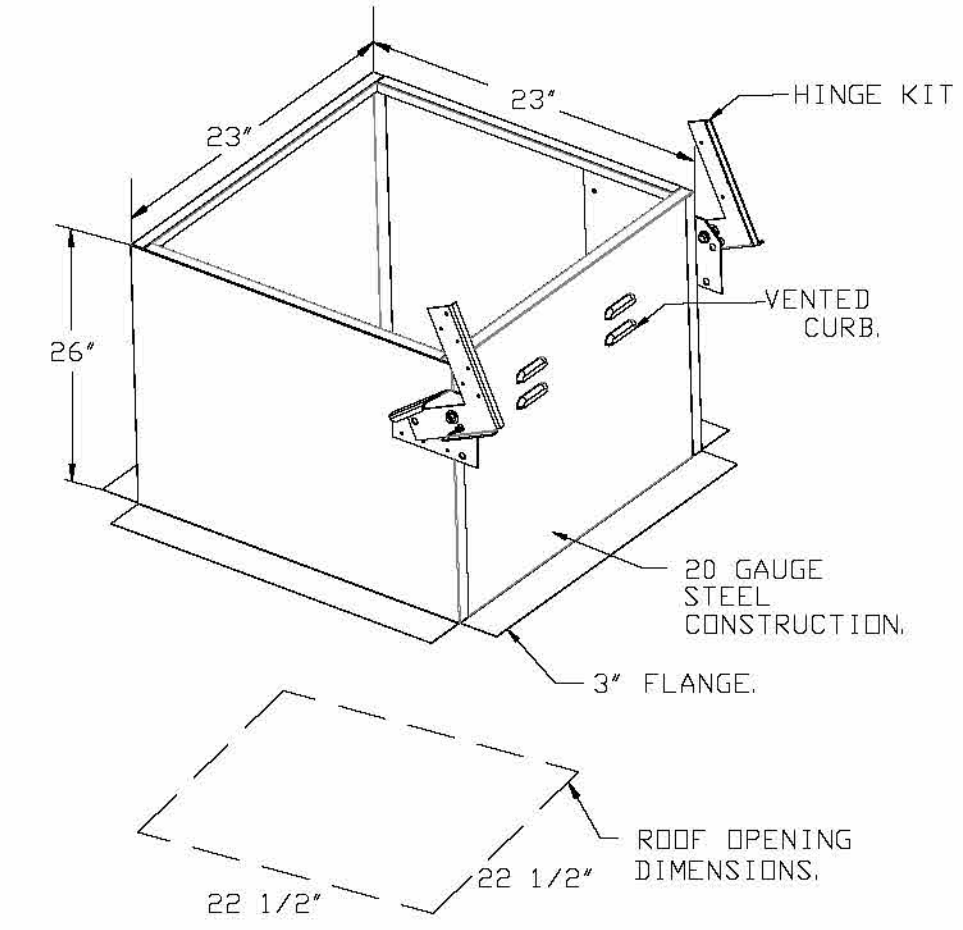
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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 - DU/DRBSHFA
- INSTALLED AT PLANT - FOR GREASE DUCTS.
- 2 YEAR PARTS WARRANTY.

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



REVISIONS

DESCRIPTION	DATE

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Firebirds - Chesterfield, VA
CHESTERFIELD, VA, 23832

DATE: 12/10/2024
DWG.#: 7078080
DRAWN BY: evan.zipper
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
8

FIREBIRDS CHESTERFIELD COUNTY

15700 Hull Street Road
Chesterfield, VA 23832

FIREBIRDS
WOOD FIRED GRILL

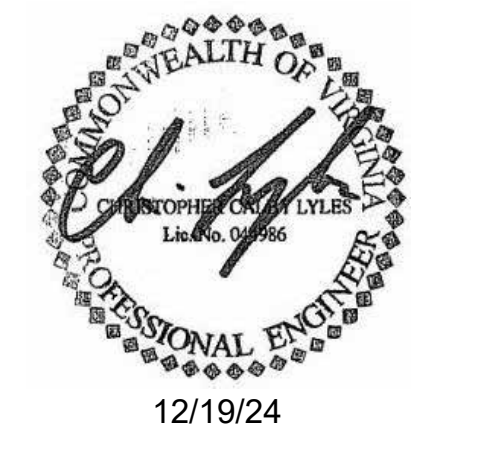
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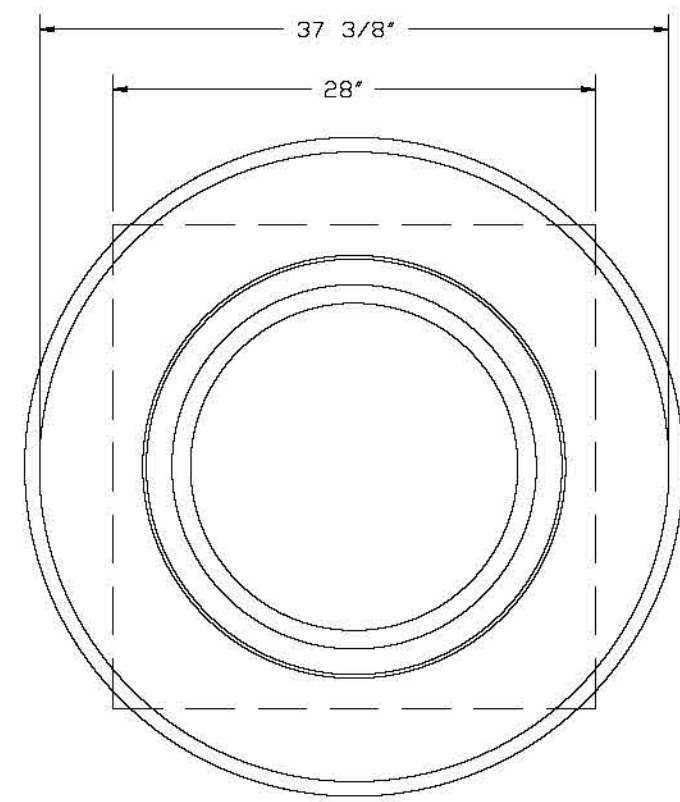
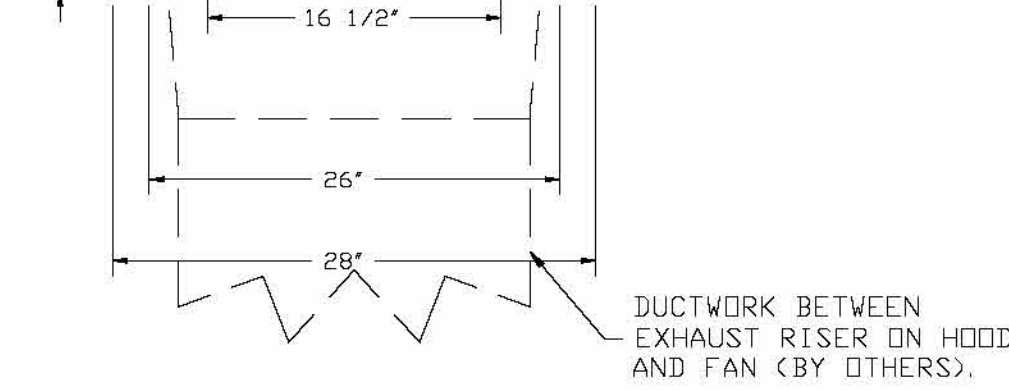
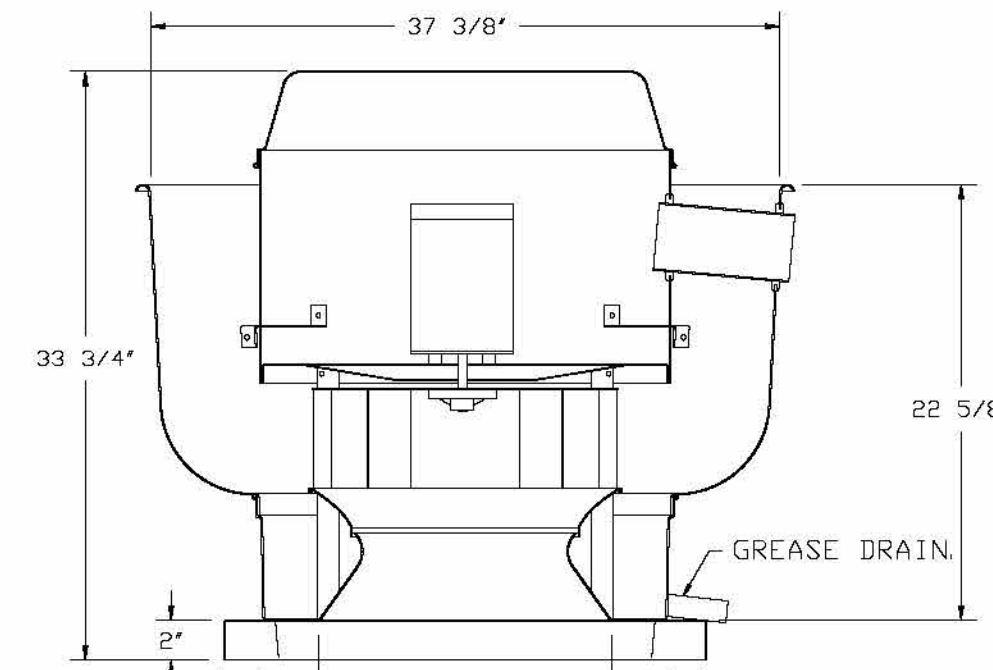
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FAN #9 DULBQHA - EXHAUST FAN (KEF-H4)



TOP VIEW

FEATURES:

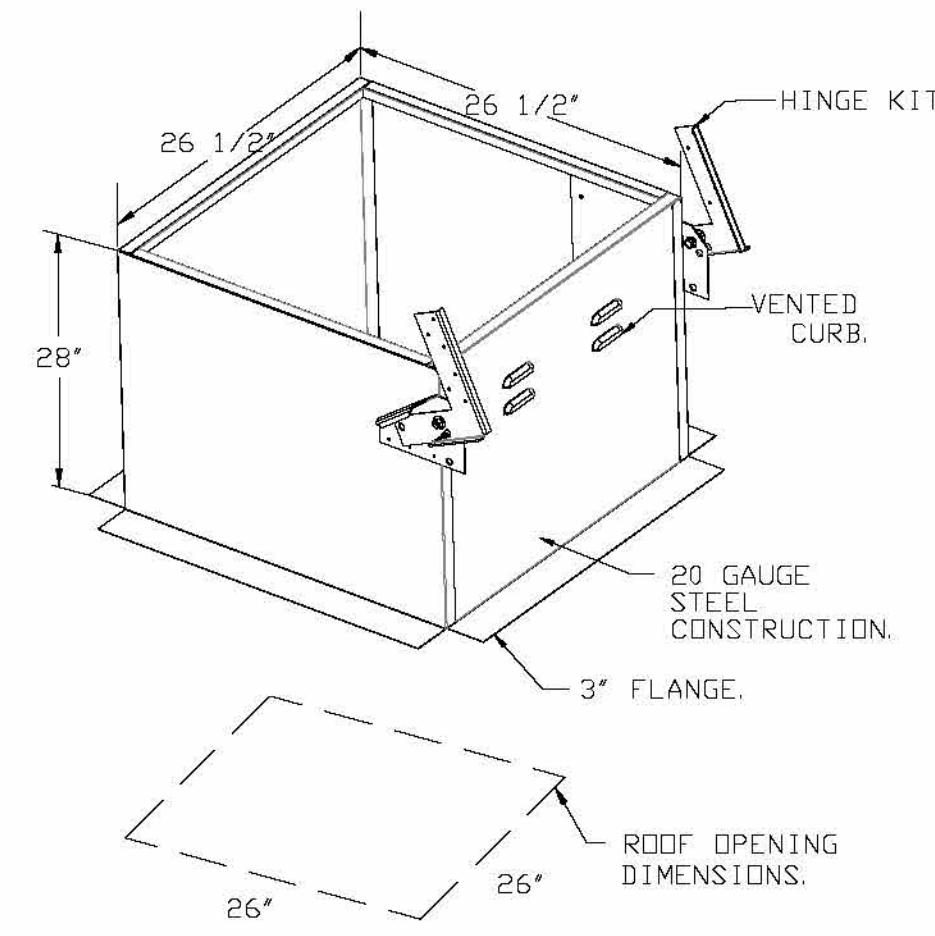
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT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

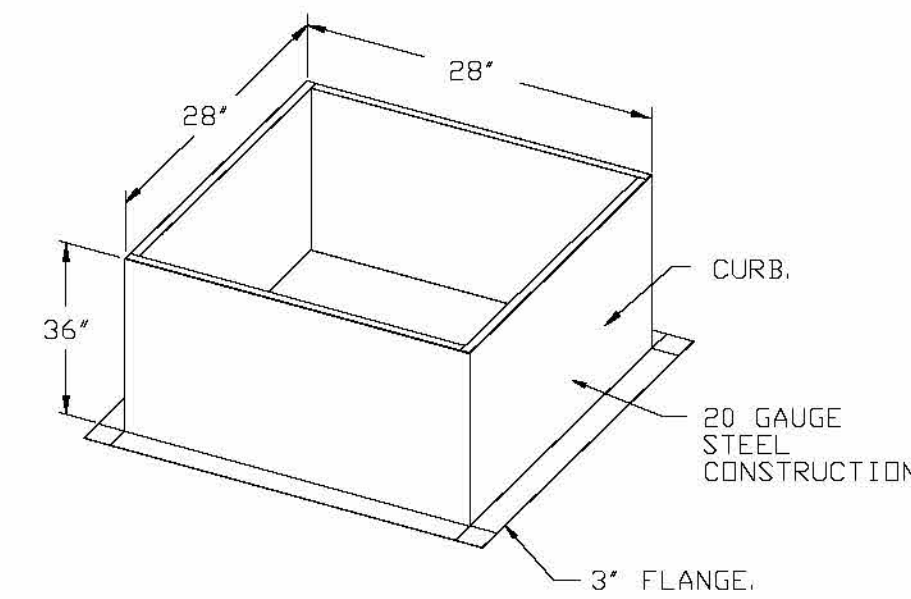
OPTIONS:

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DUJBR1BQHA
- INSTALLED AT PLANT - FOR GREASE DUCTS.
- 2 YEAR PARTS WARRANTY.



CURB #9 HRE2BX36E

- OPTIONS:**
- FULL BOTTOM CORNERS.



REVISIONS	
DESCRIPTION	DATE

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Firebirds - Chesterfield, VA
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DATE: 12/10/2024
DWG.#: 7078080
DRAWN BY: E.van.zippen
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
 9

**FIREBIRDS
CHESTERFIELD
COUNTY**

15700 Hull Street Road
Chesterfield, VA 23832

FIREBIRDS
WOOD FIRED GRILL

**starr
design**
branded environments

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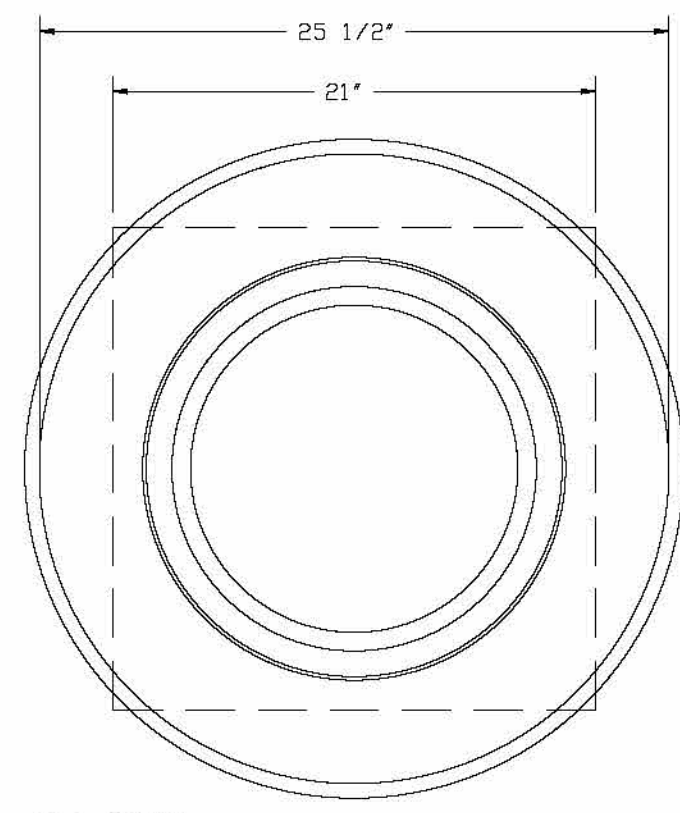
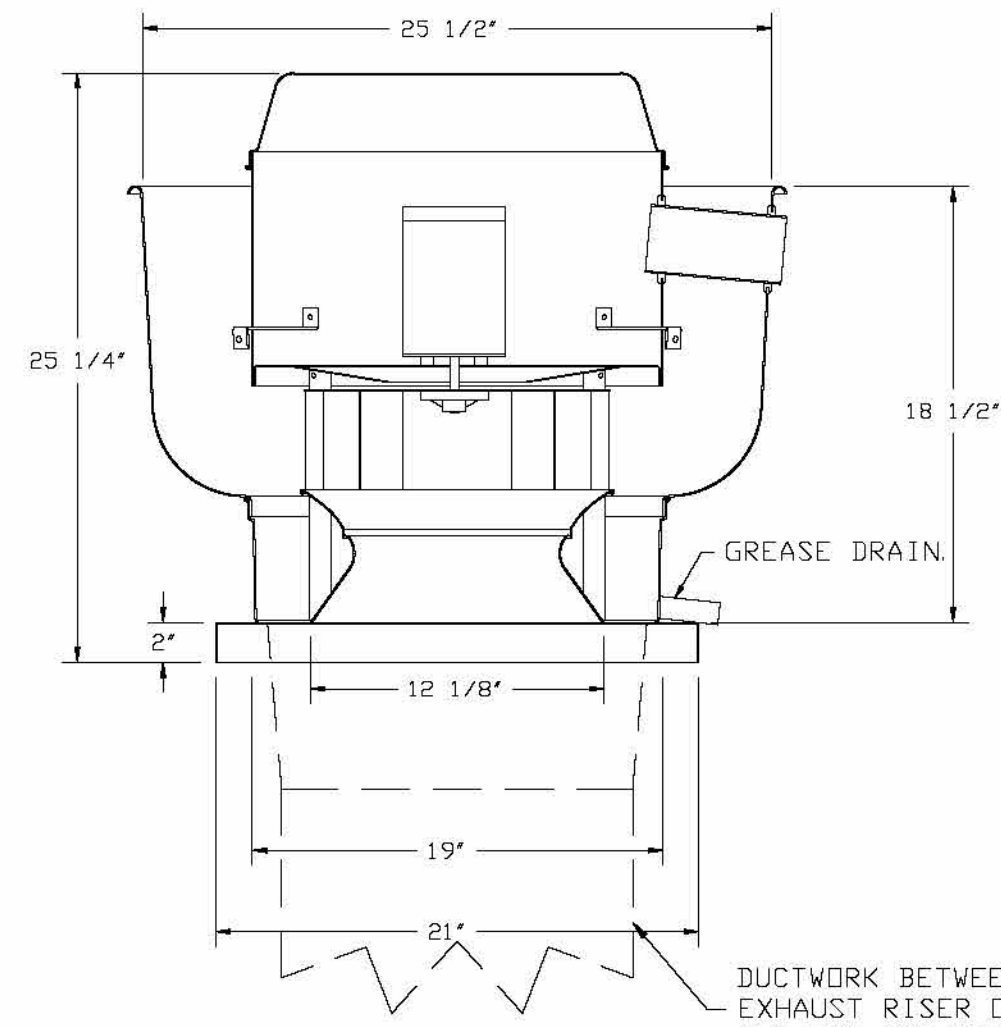
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12/19/2024

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CAPTIVEAIRE
 DRAWINGS -
 MECHANICAL
M3.09

FAN #4 DU33HFA - EXHAUST FAN (EF-DISH)



TOP VIEW

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND UL-C-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.

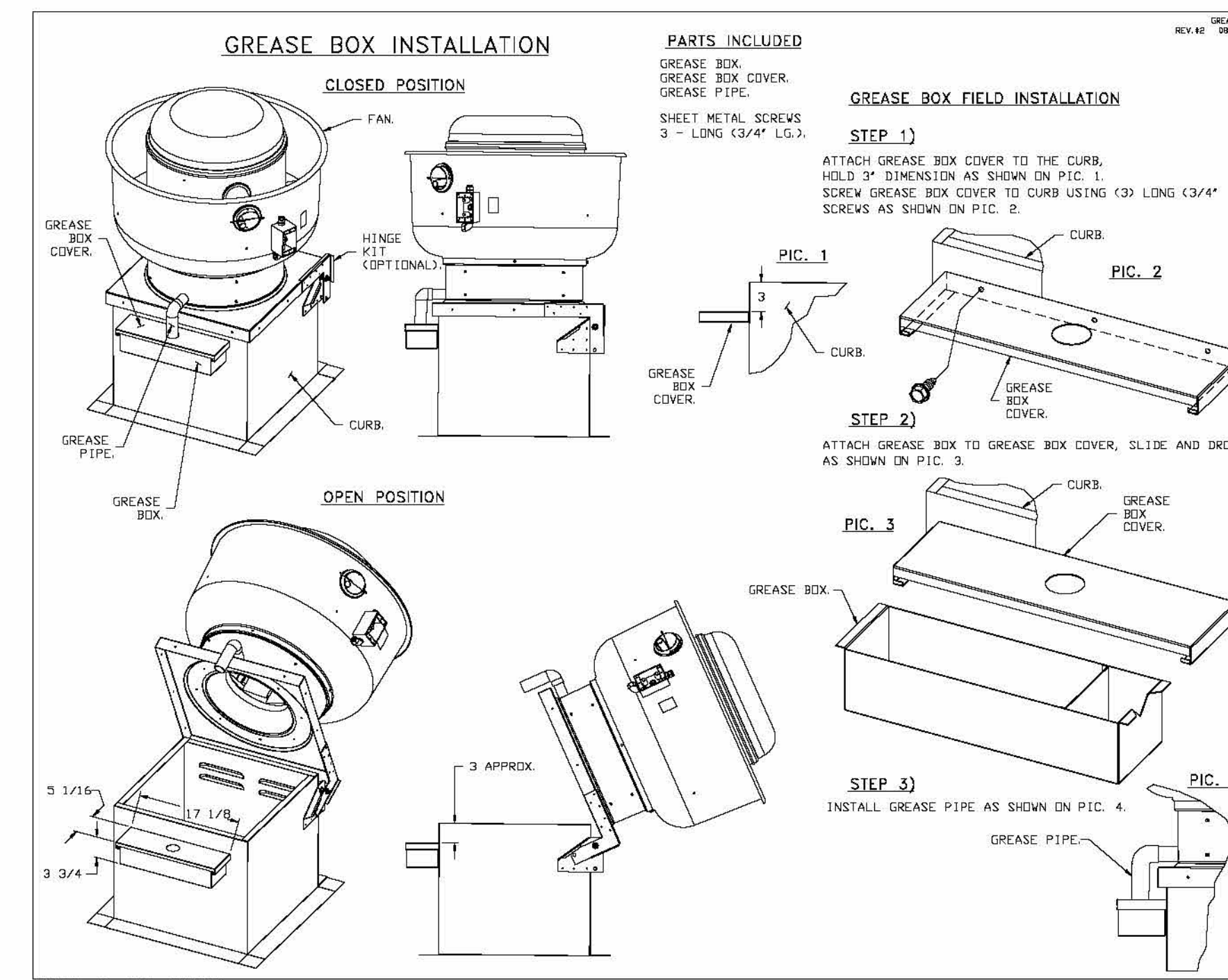
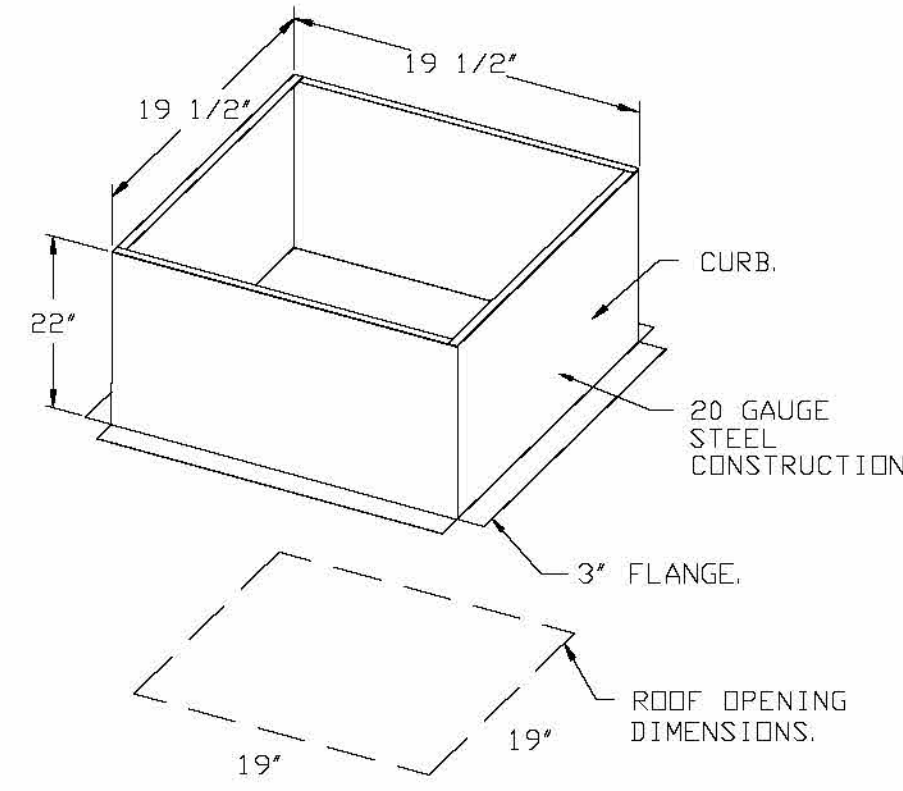
NORMAL TEMPERATURE TEST:
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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.

NOTES:

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR3B/23HFA - INSTALLED AT PLANT - FOR GREASE BUCKS.
- 2 YEAR PARTS WARRANTY.

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



REVISIONS

DISCRIPTION	DATE

CAPTIVEAIRE

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Firebirds - Chesterfield, VA
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DATE: 12/10/2024
DWG.#: 7078080
DRAWN BY: e.van.zi.ppen
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
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WOOD FIRED GRILL

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DRAWINGS -
MECHANICAL**

M3.10

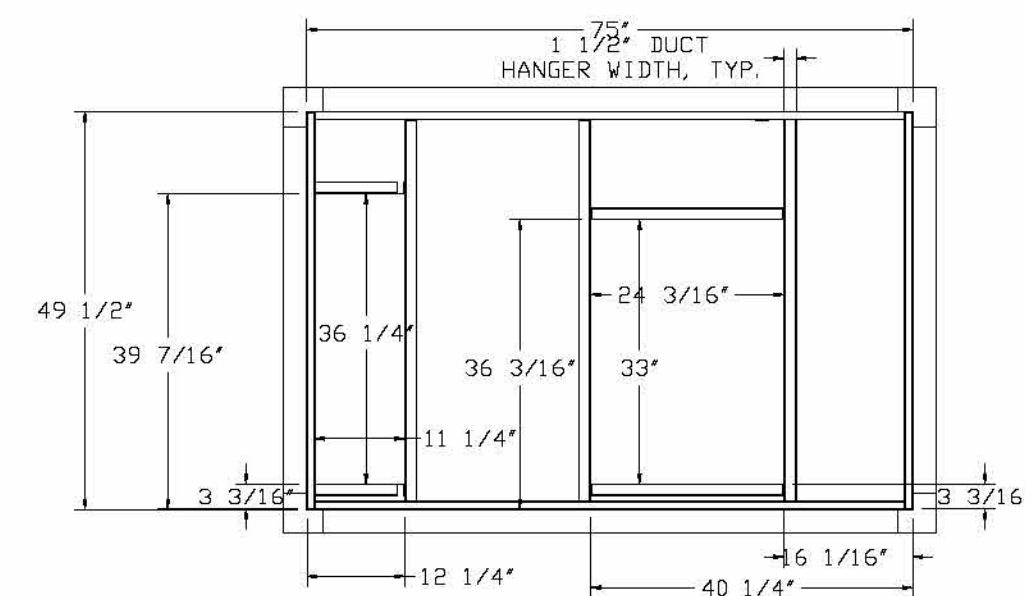
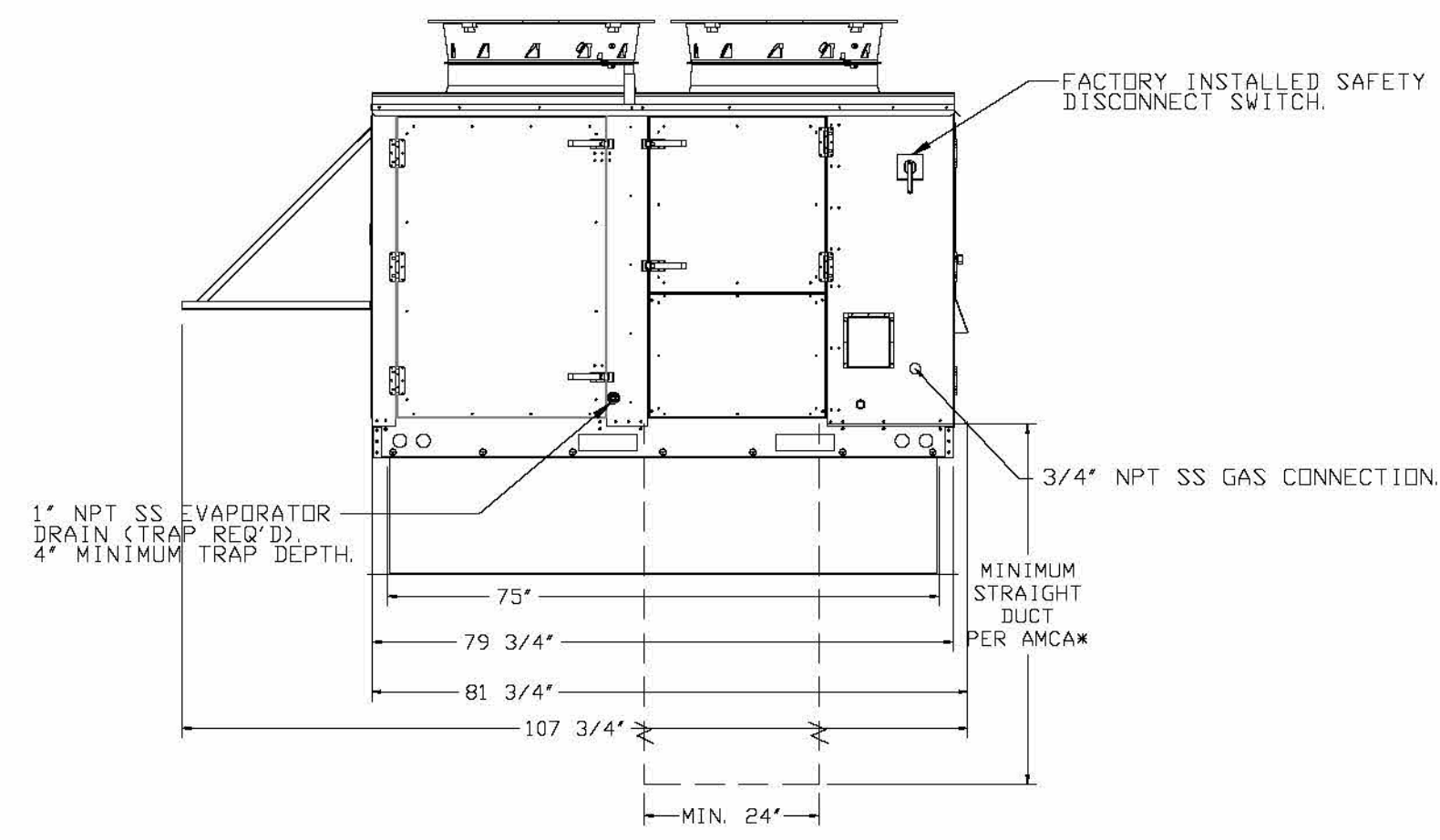
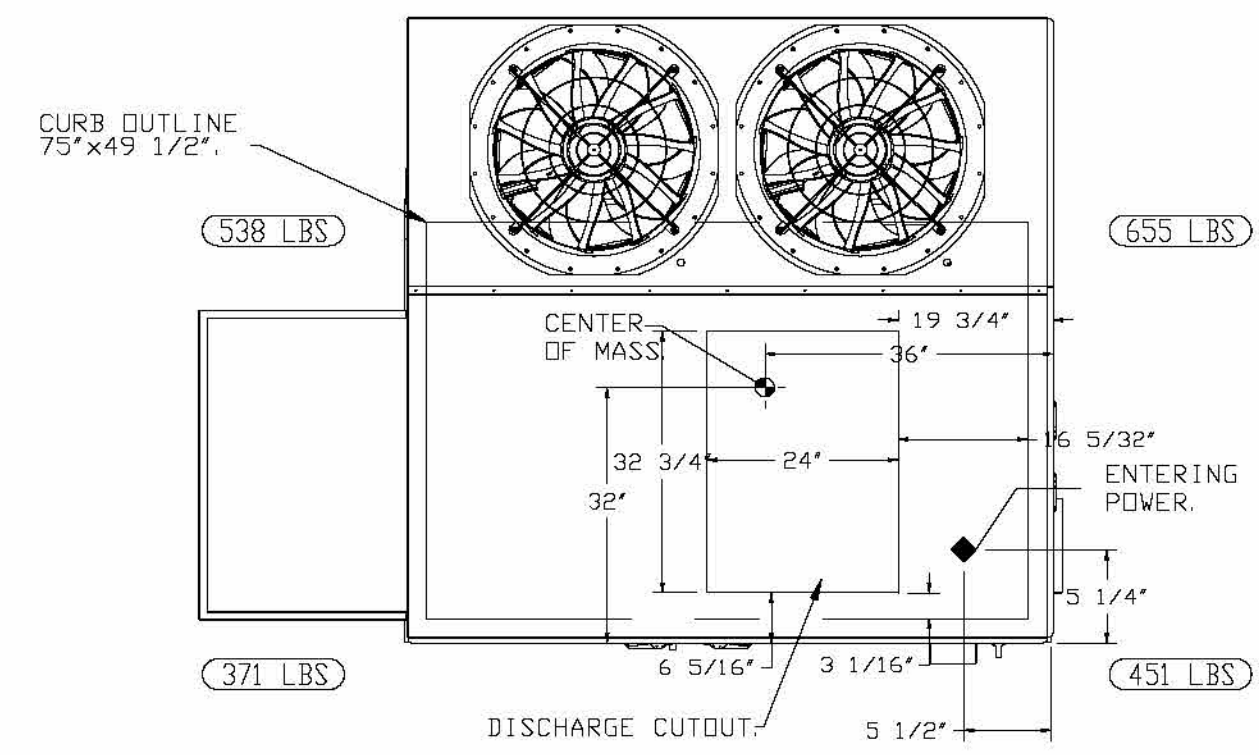
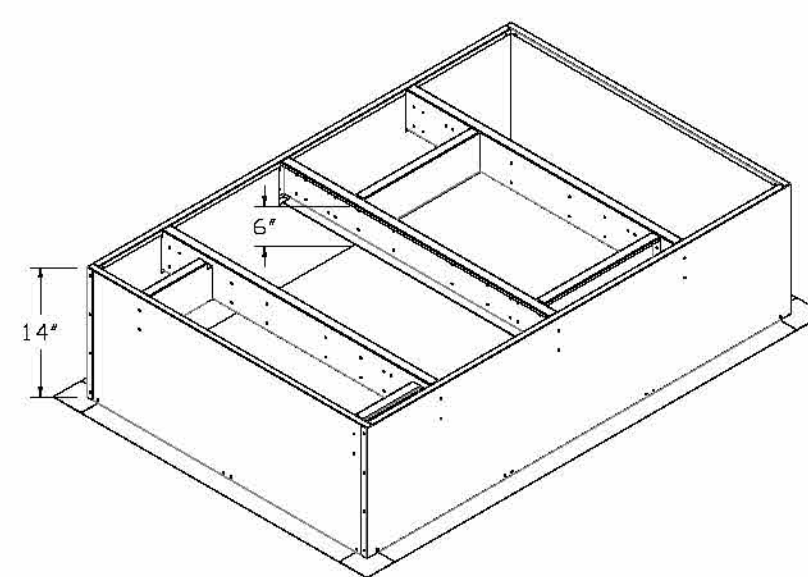
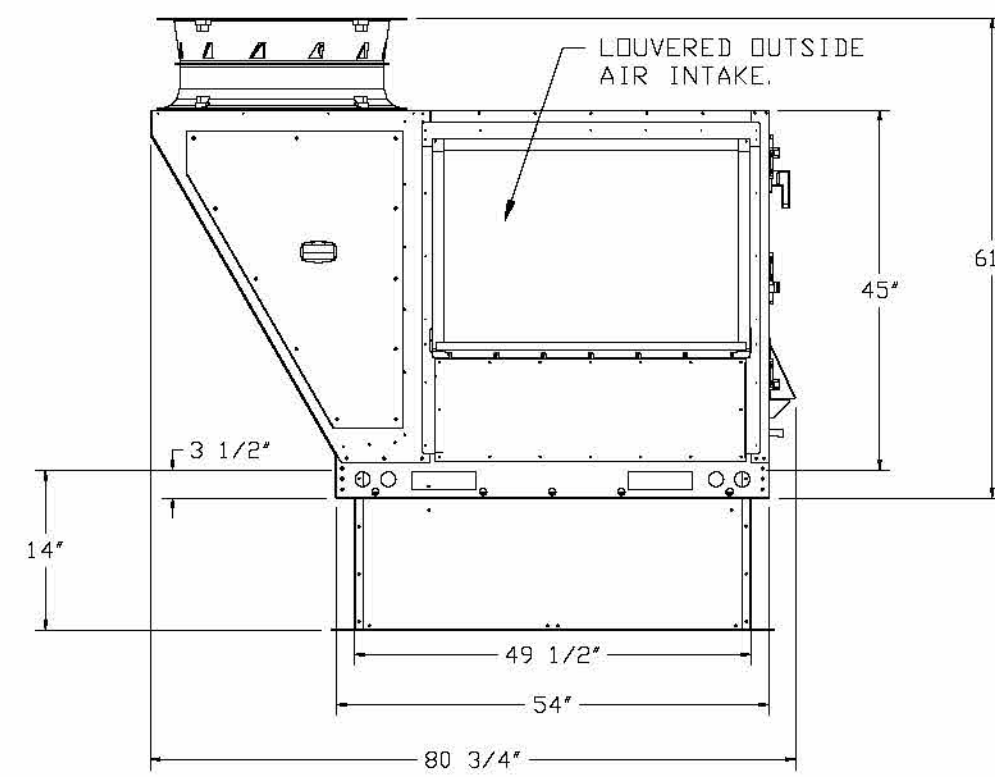
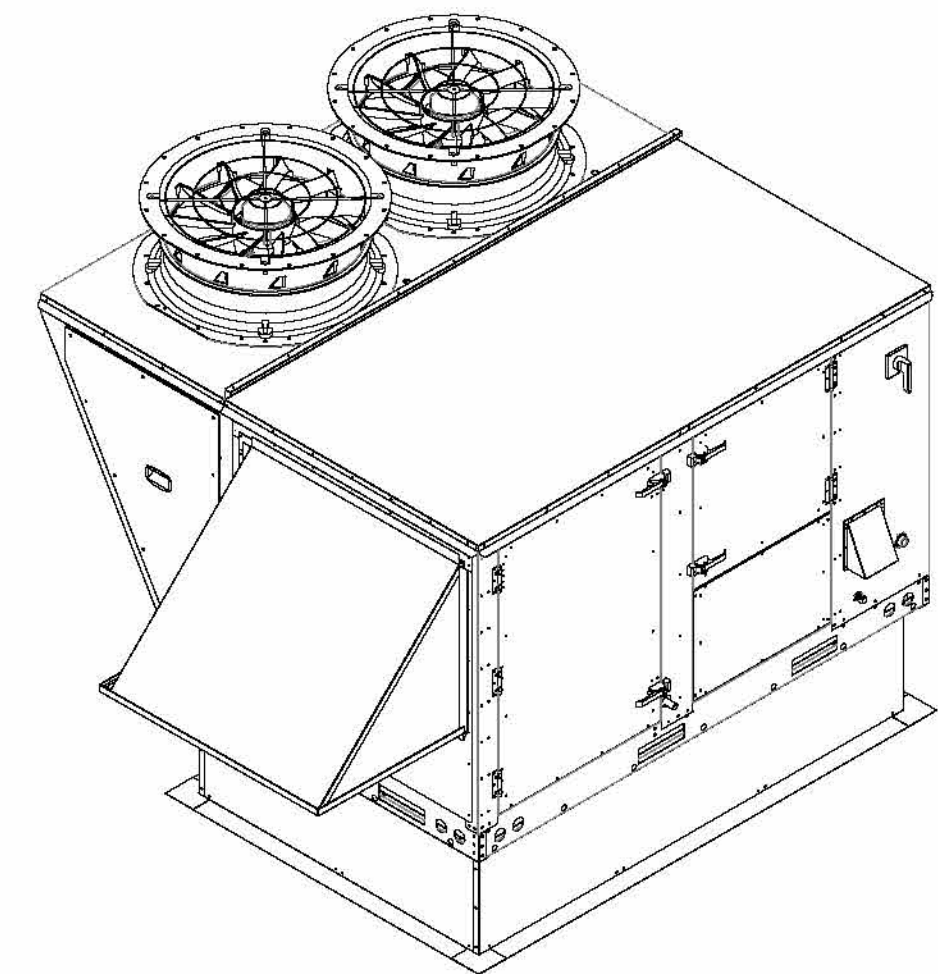
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FAN #5 FARTU2-1.300-18MF-10T-MPU - HEATER (MUA-1)

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.
- CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
- EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

*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 24" x 30.25".

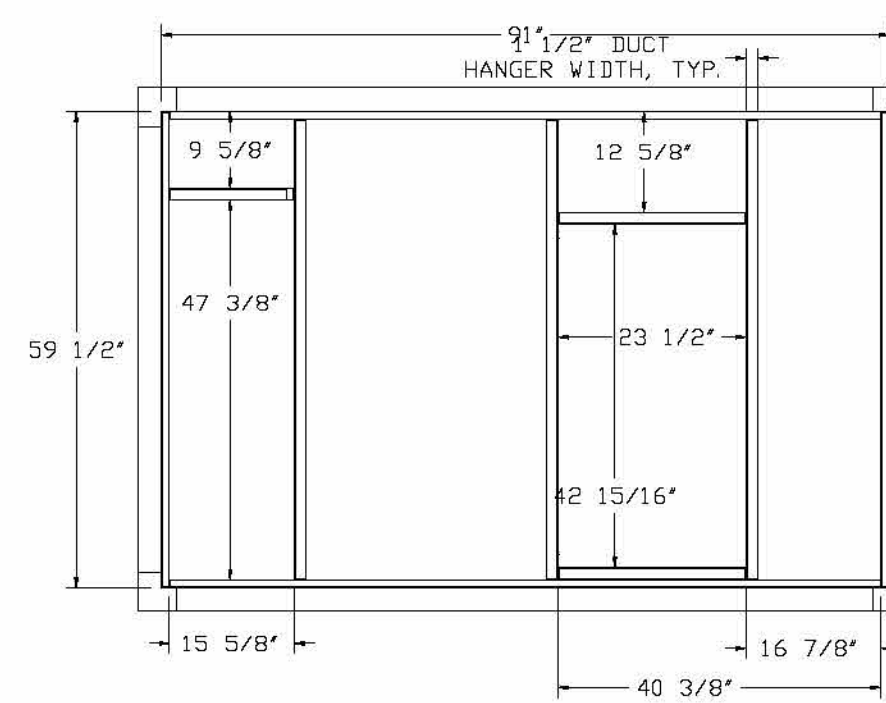
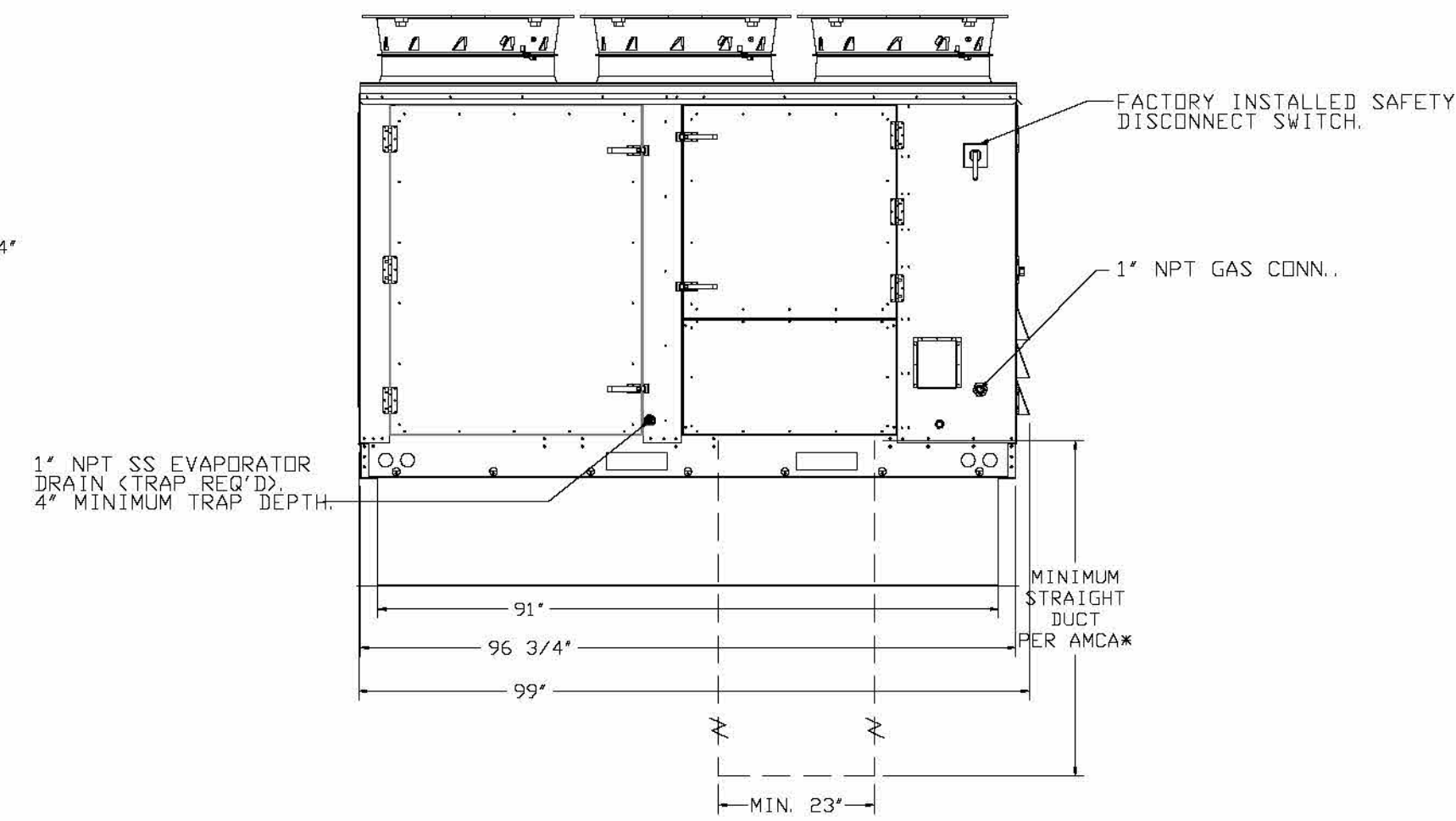
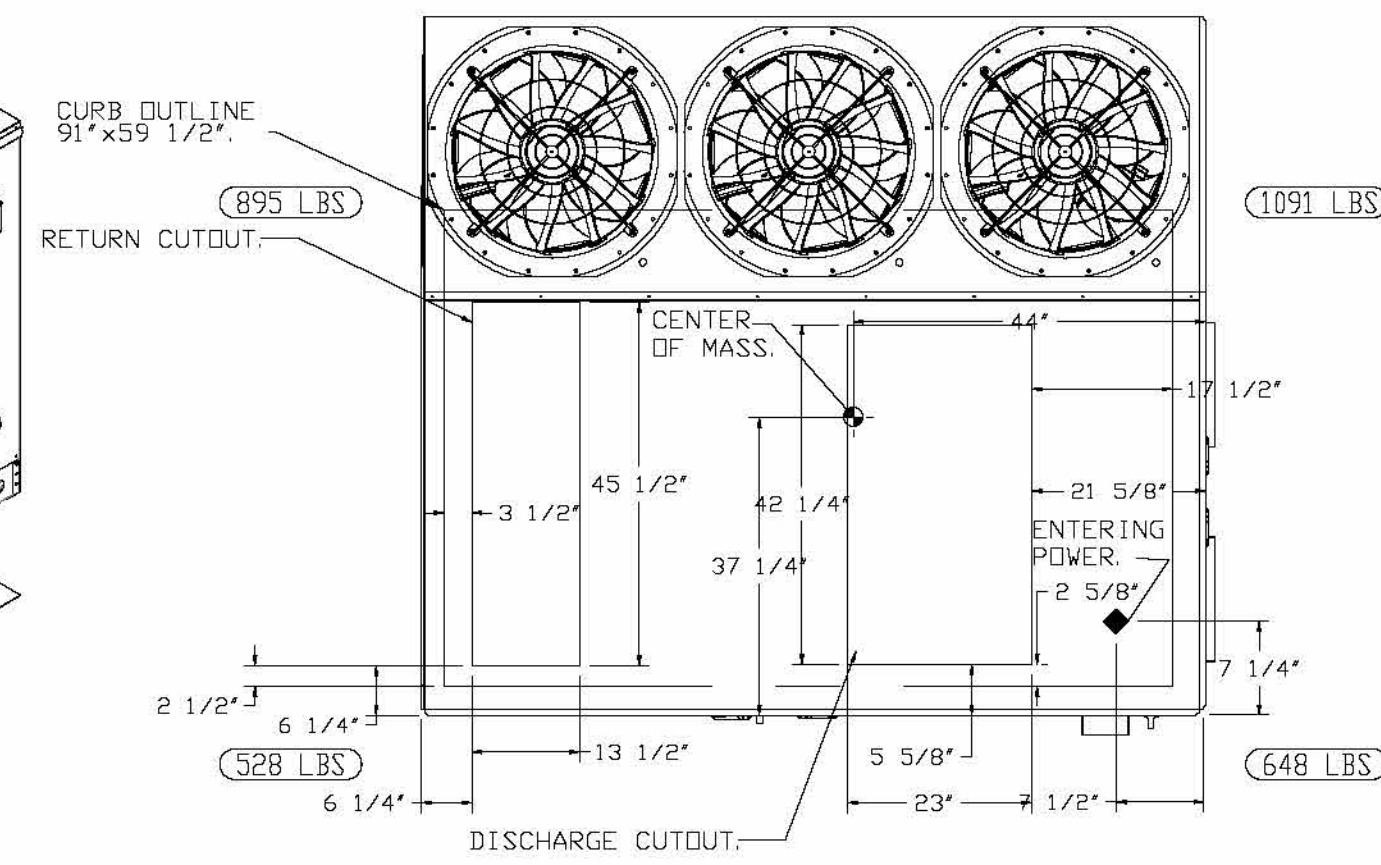
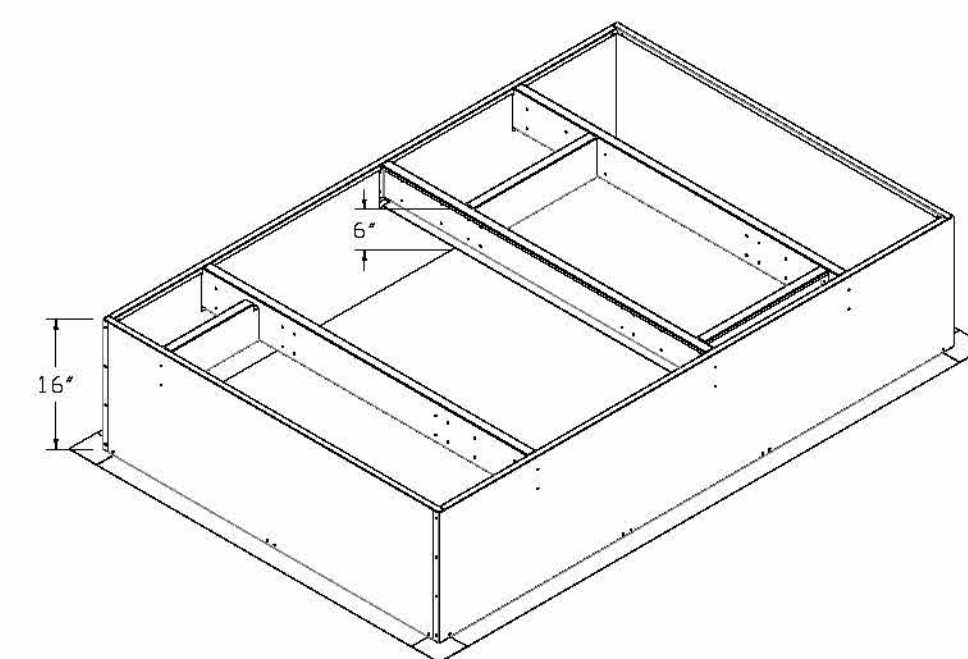
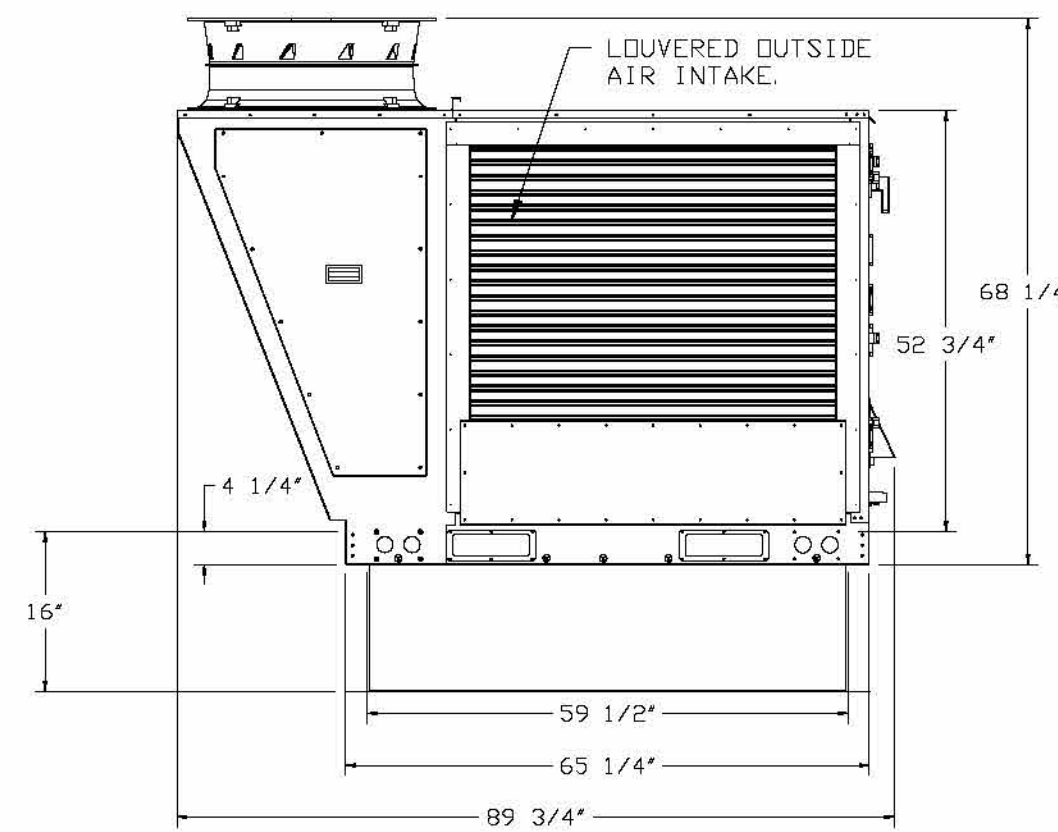
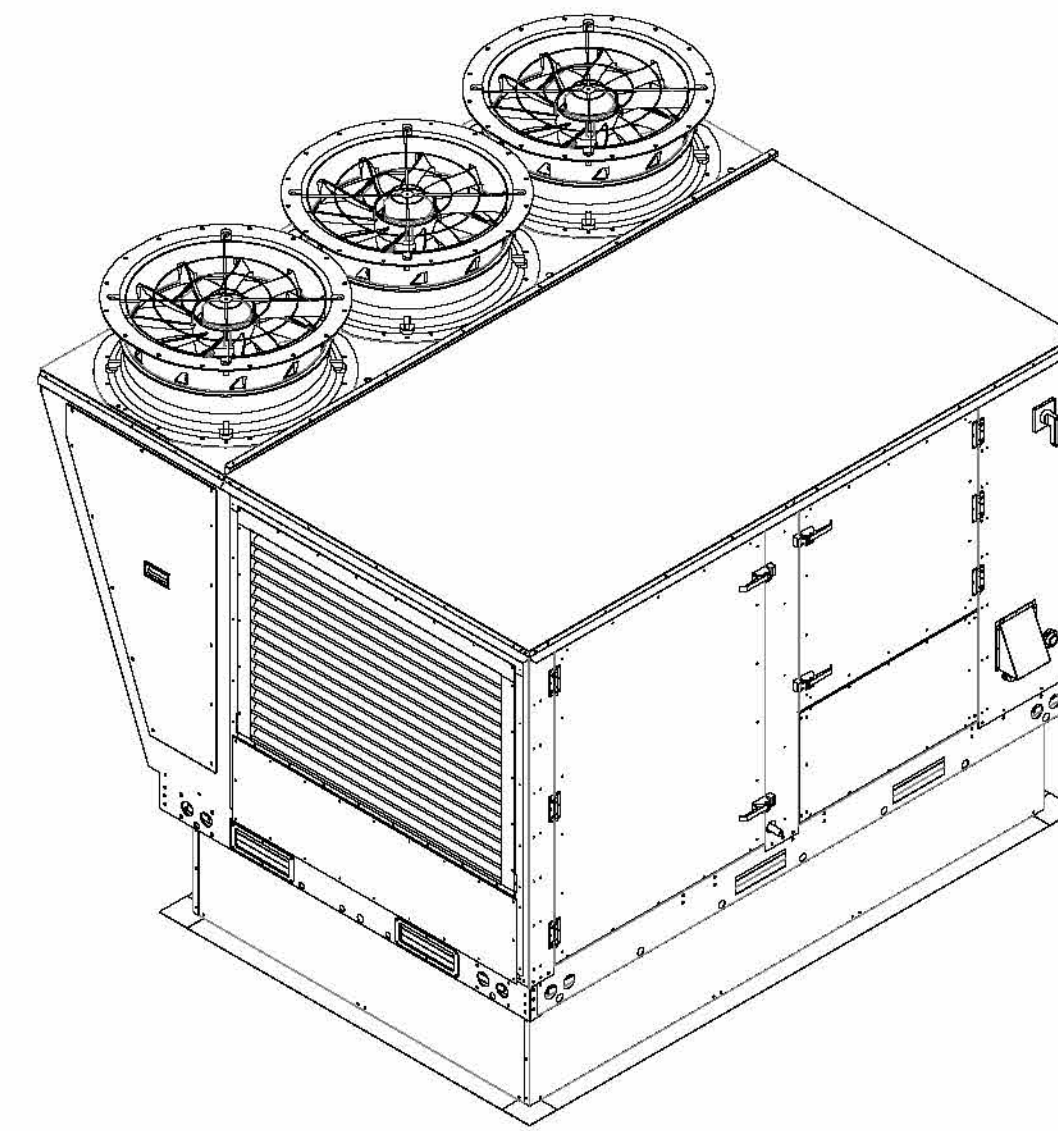


FAN #6 GAS-HVAC3-1.400-24MF-30T - HEATER (DDAS-1 (KITCHEN))

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.
- CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
- EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

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REVISIONS

NO.	DESCRIPTION	DATE

CAPTIVEAIRE

Charlotte/Piedmont

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Firebirds - Chesterfield, VA
CHESTERFIELD, VA, 23832

DATE: 12/10/2024
DWG.#: 7078080
DRAWN BY: evan.zippert
SCALE: 1/2" = 1'-0"
MASTER DRAWING
SHEET NO. 11

FIREBIRDS
CHESTERFIELD
COUNTY

15700 Hull Street Road
Chesterfield, VA 23832

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WOOD FIRED GRILL

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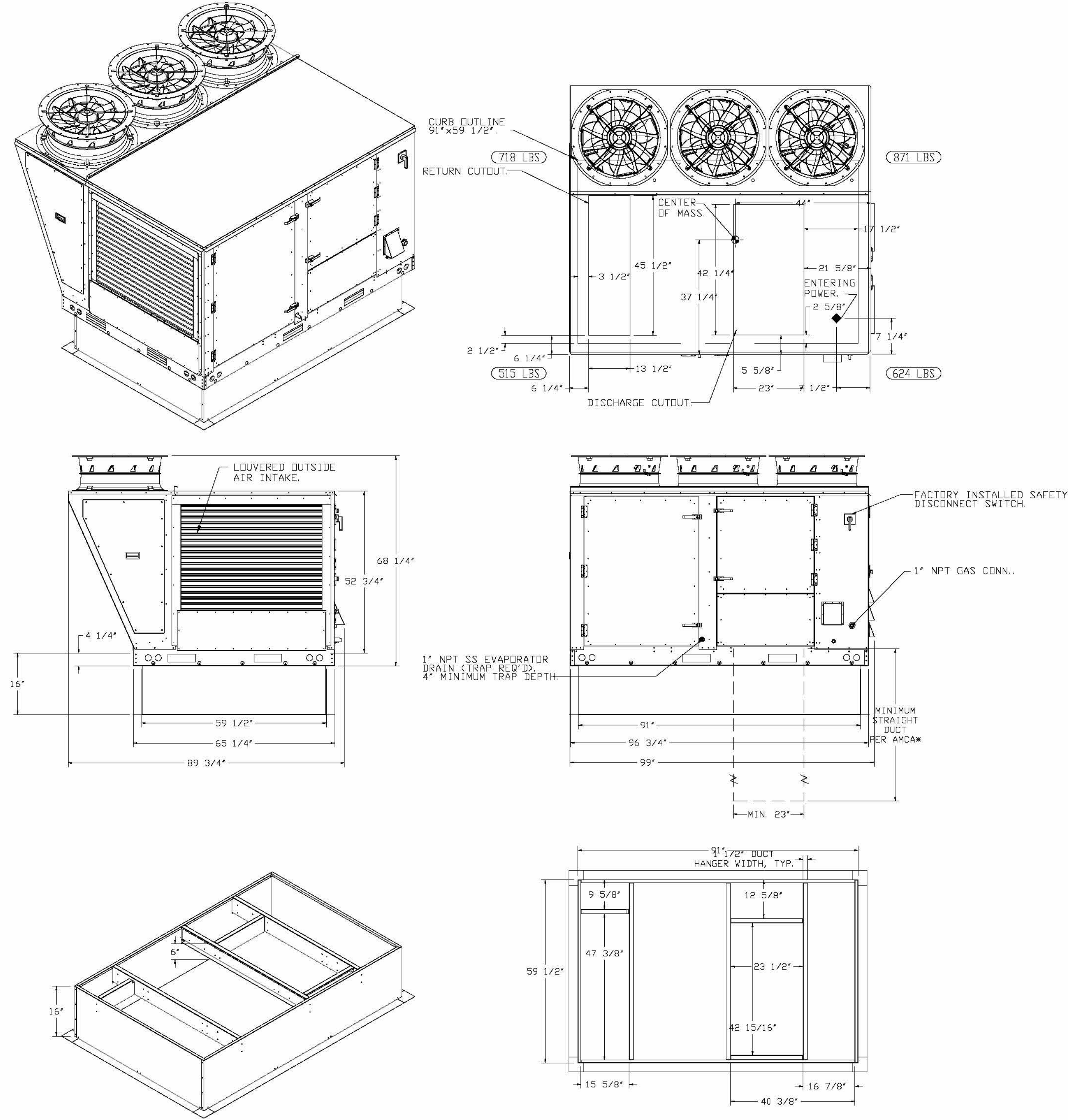
CAPTIVEAIRE
DRAWINGS -
MECHANICAL
M3.11

FAN #7 <RTU-1 <DINING>>, #8 <RTU-2 <DINING>> -
 GAS-HVAC3-1.400-24-20T HEATER

NOTES:

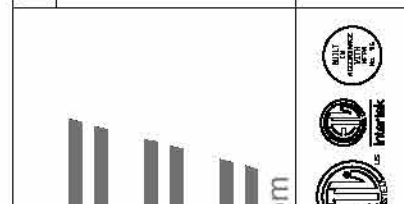
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Firebirds - Chesterfield, VA
 CHESTERFIELD, VA, 23832

DATE: 12/10/2024

DWG.#: 7078080

DRAWN BY: evan.zi.pper

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

MASTER DRAWING

SHEET NO. 12

FIREBIRDS
 CHESTERFIELD
 COUNTY

15700 Hull Street Road
 Chesterfield, VA 23832

FIREBIRDS
 WOOD FIRED GRILL

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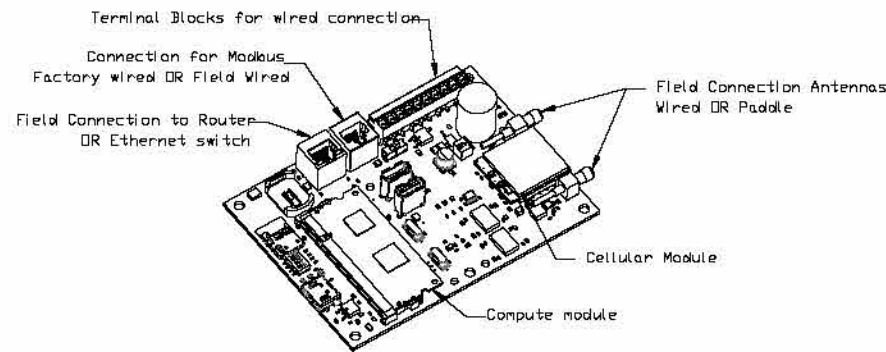
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 MECHANICAL

M3.12

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ELECTRICAL PACKAGE - JOB#7078080

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	#	HP	VOLT	FLA
1		SC-342110MA	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	KEF-HLL	EXHAUST	3	0.75@	208	2.6
				HOOD # 2	1 FAN		KEF-HLR	EXHAUST	3	2.00@	208	7.2
							MUA-1	SUPPLY	3	3.00@	208	9.5
							DDAS-1 (KITCHEN)	SUPPLY	3	5.00@	208	15.8
							EXHAUST	3	3.00@	208	9.5	

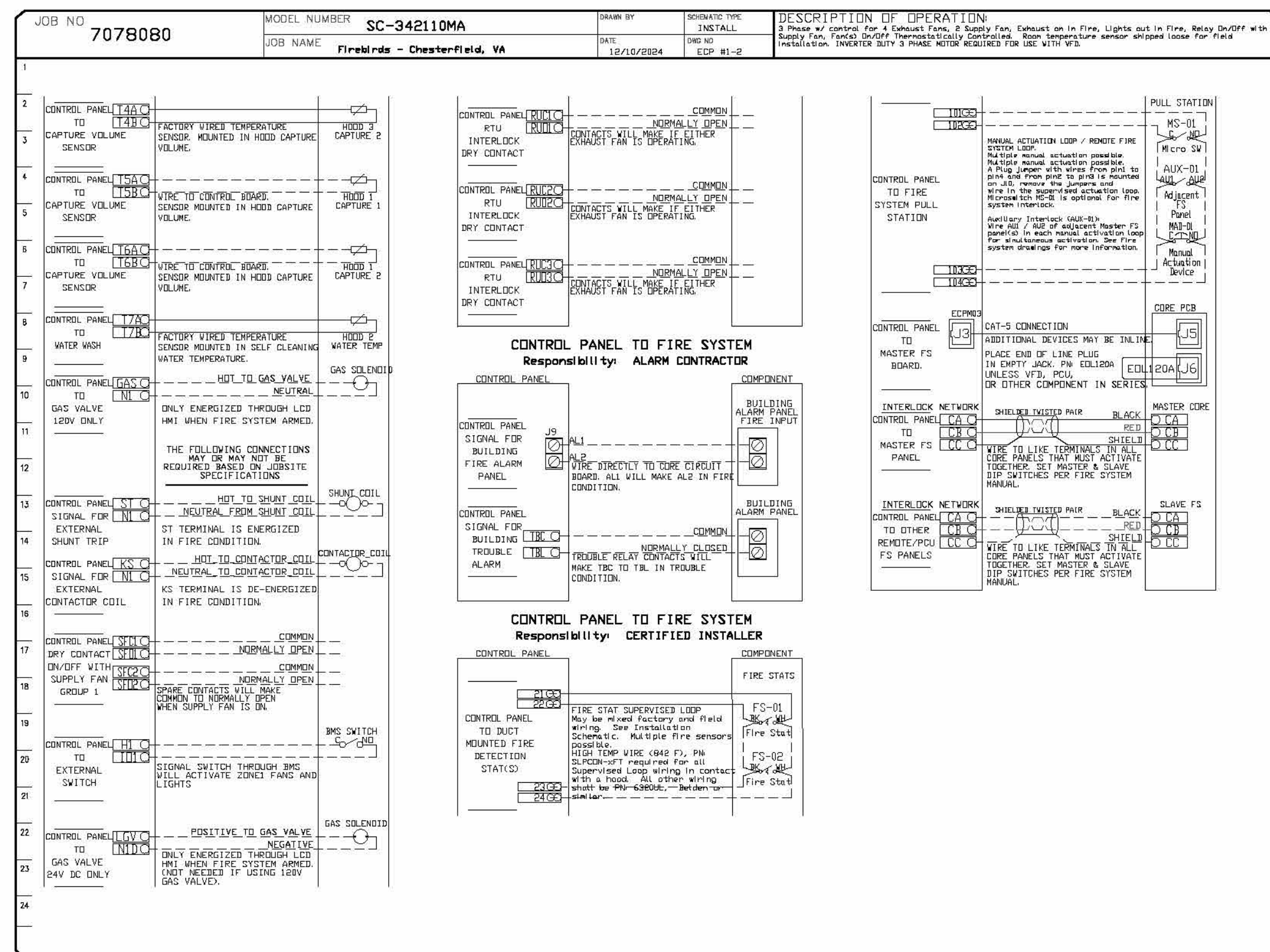
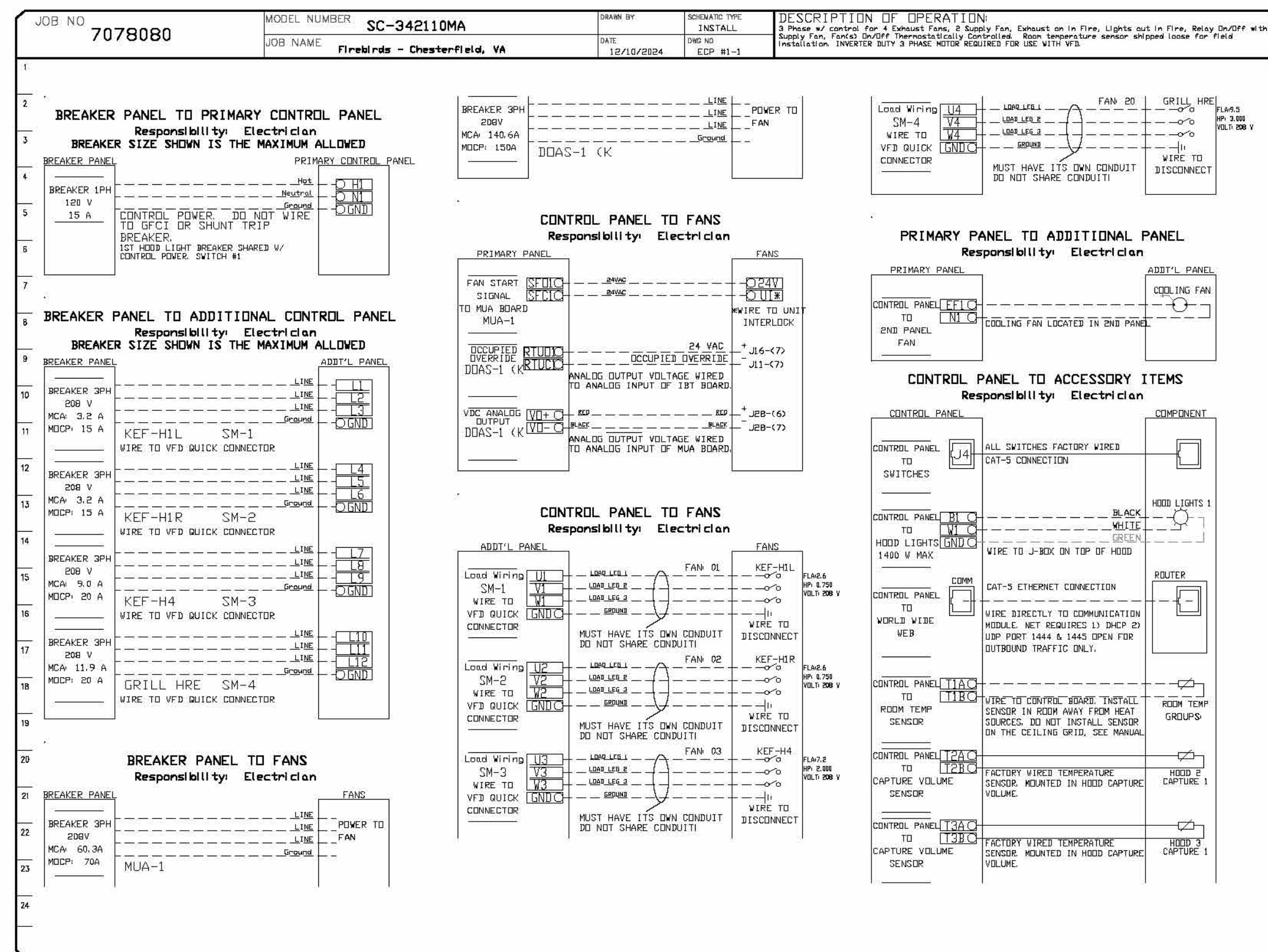


CASink Monitor and Control

Install control panel to support communications to cloud-based Building Management System.
 - Host Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
 - Host Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
 - Host Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

MONITORING AND CONTROL POINTS LIST

DCV Package	Function	RT Package	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Chiller Temperature(s)	MONITOR	Chiller Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR	MUA Discharge Temperature	MONITOR
Kitchen RTV Discharge Temperature	MONITOR	Kitchen RTV Discharge Temperature	MONITOR
Fan Speed	MONITOR	Control Panel	MONITOR
Fan Amperage	MONITOR	Fan Status	MONITOR
Fan Phase	MONITOR	Fan Status	MONITOR
FFV Faults	MONITOR	FFV Faults	MONITOR
Chiller Faults	MONITOR	FFV Filter Chg Percentage	MONITOR
Fan Status	MONITOR	Fan Condition	MONITOR
Fan Status	MONITOR	COSE Fan System	MONITOR
FFV Faults	MONITOR	Pushing Pressures	MONITOR
FFV Filter Chg Percentage	MONITOR	Fan Status(s)	MONITOR & CONTROL
Fan Condition	MONITOR	Light Status(s)	MONITOR & CONTROL
COSE Fan System	MONITOR	Push Button	MONITOR & CONTROL
Pushing Pressures	MONITOR		
Prep Time Status	MONITOR & CONTROL		
Fan Status	MONITOR & CONTROL		
Light Status	MONITOR & CONTROL		
Push Button	MONITOR & CONTROL		



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Firebirds - Chesterfield, VA
 CHESTERFIELD, VA, 23832

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 DWG #: 7078080
 DRAWN BY: evan.zi pper
 SCALE: 3/4" = 1'-0"
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Firebirds - Chesterfield, VA
 CHESTERFIELD, VA, 23832

DATE: 12/10/2024
 DWG #: 7078080
 DRAWN BY: evan.zi pper
 SCALE: 3/4" = 1'-0"
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FIREBIRDS CHESTERFIELD COUNTY

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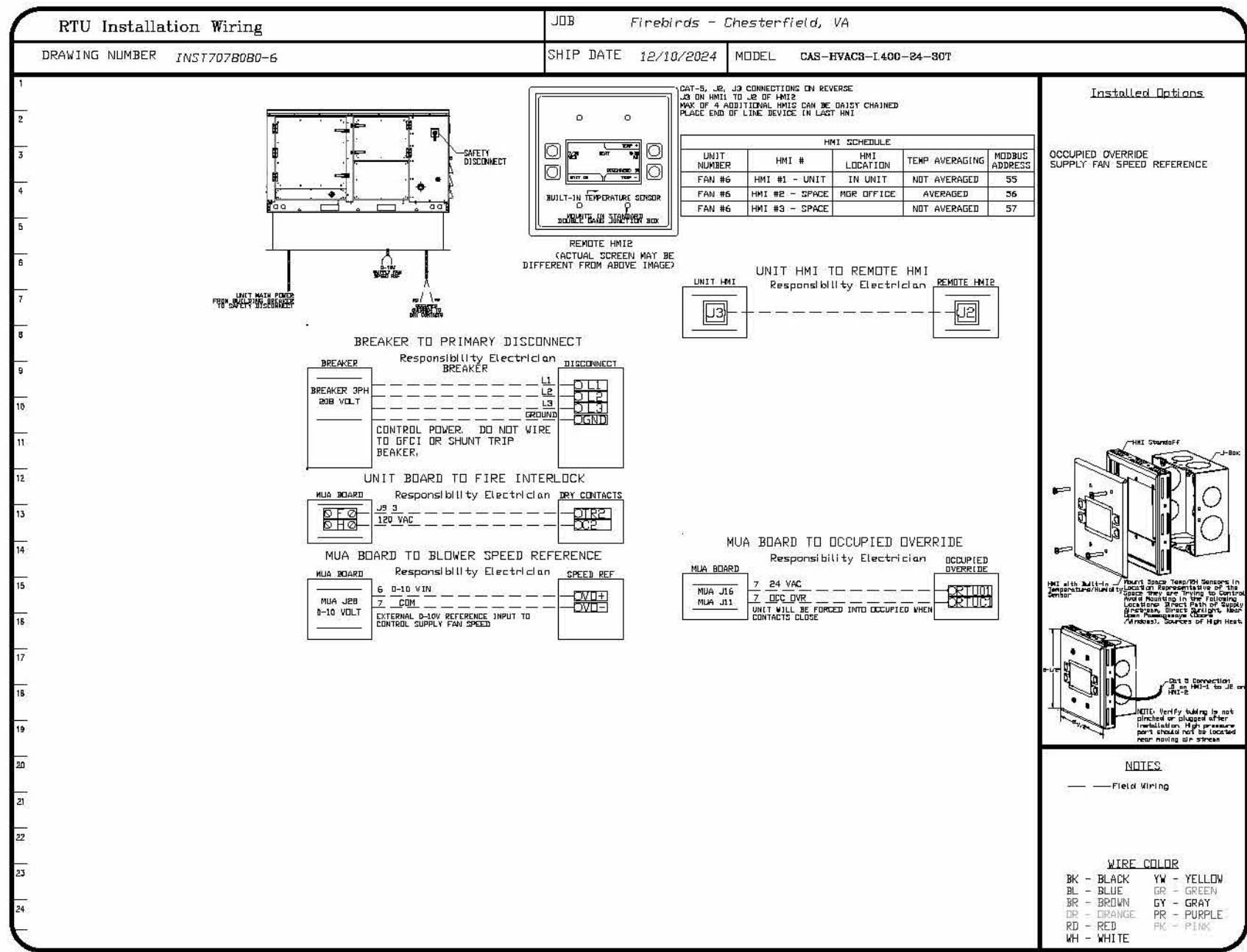
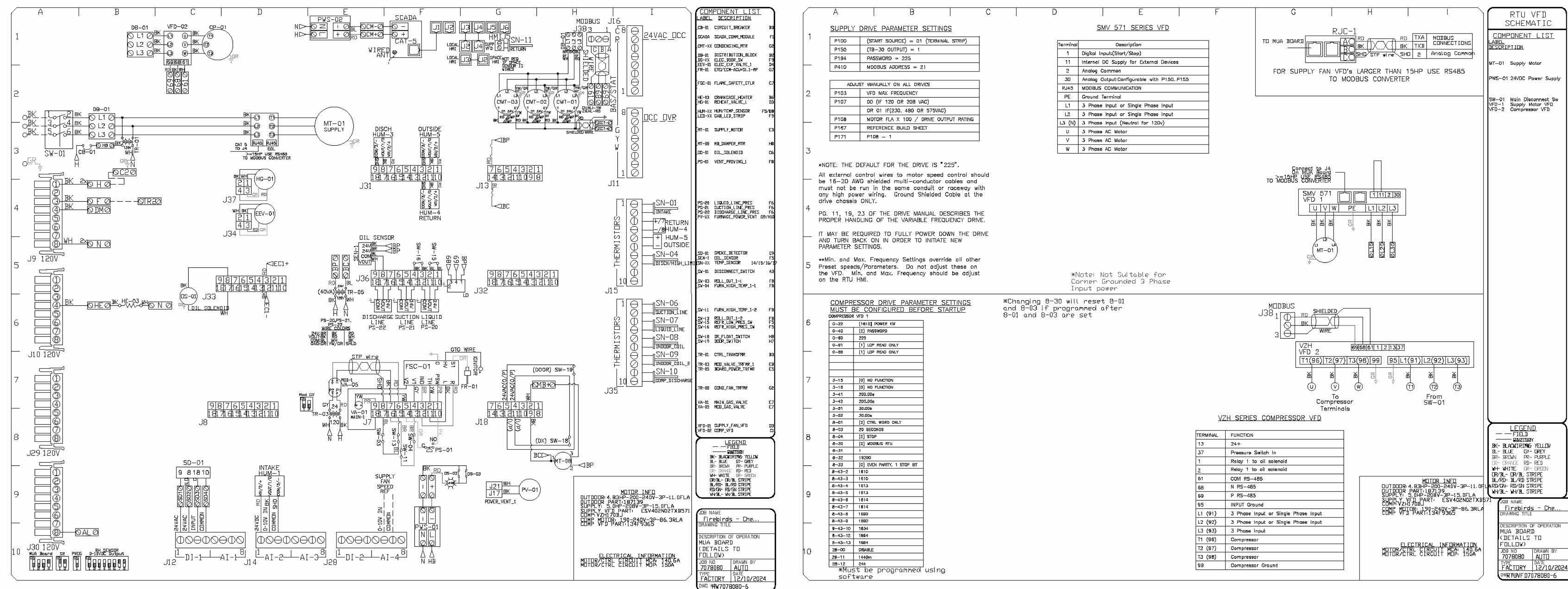
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CAPTIVEAIRE DRAWINGS - MECHANICAL

M3.13

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FAN #6 DOAS-1 WIRING DIAGRAMS



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DATE: 12/10/2024
DWG.#: 7078080
DRAWN BY: evan.zipper
SCALE: 3/4" = 1'-0"
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FIREBIRDS CHESTERFIELD COUNTY

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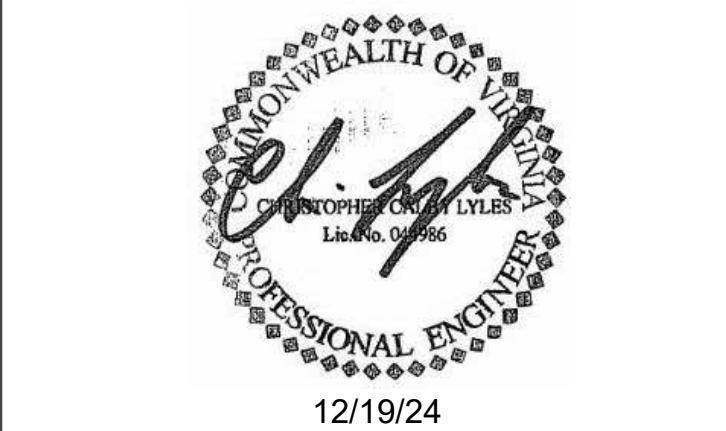
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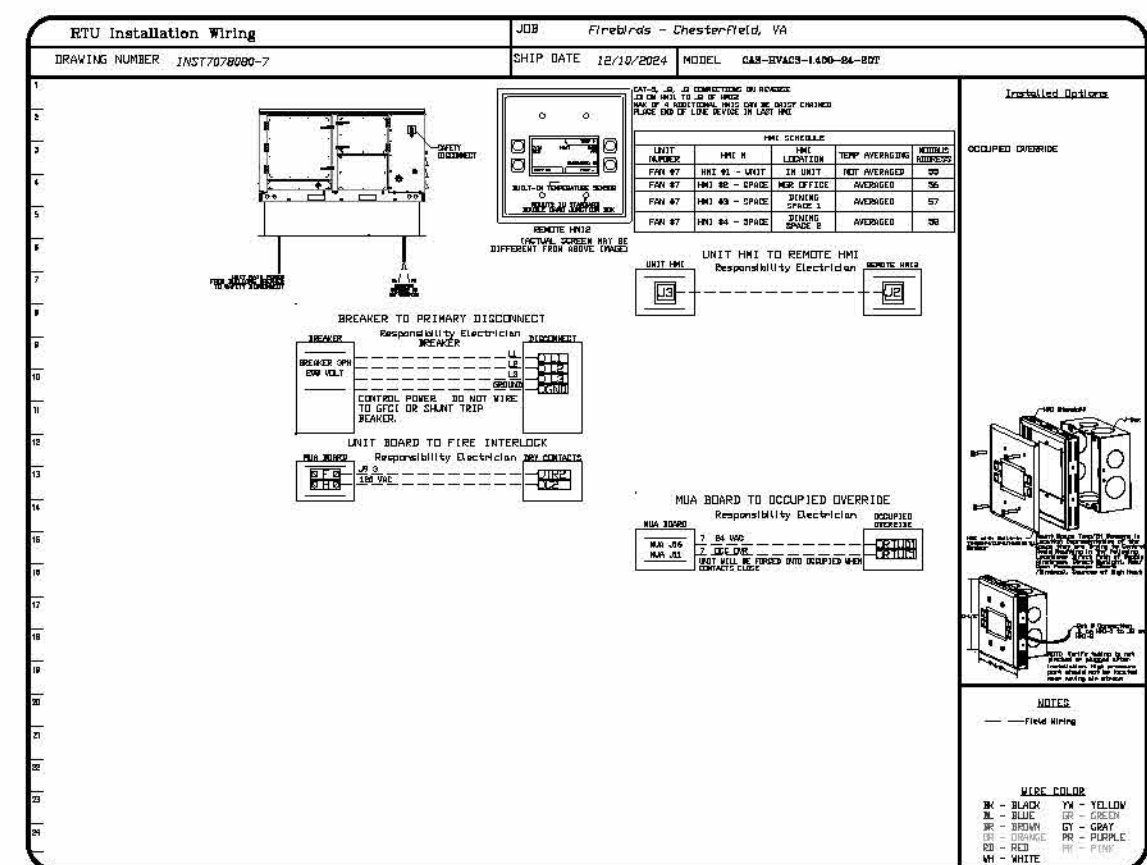
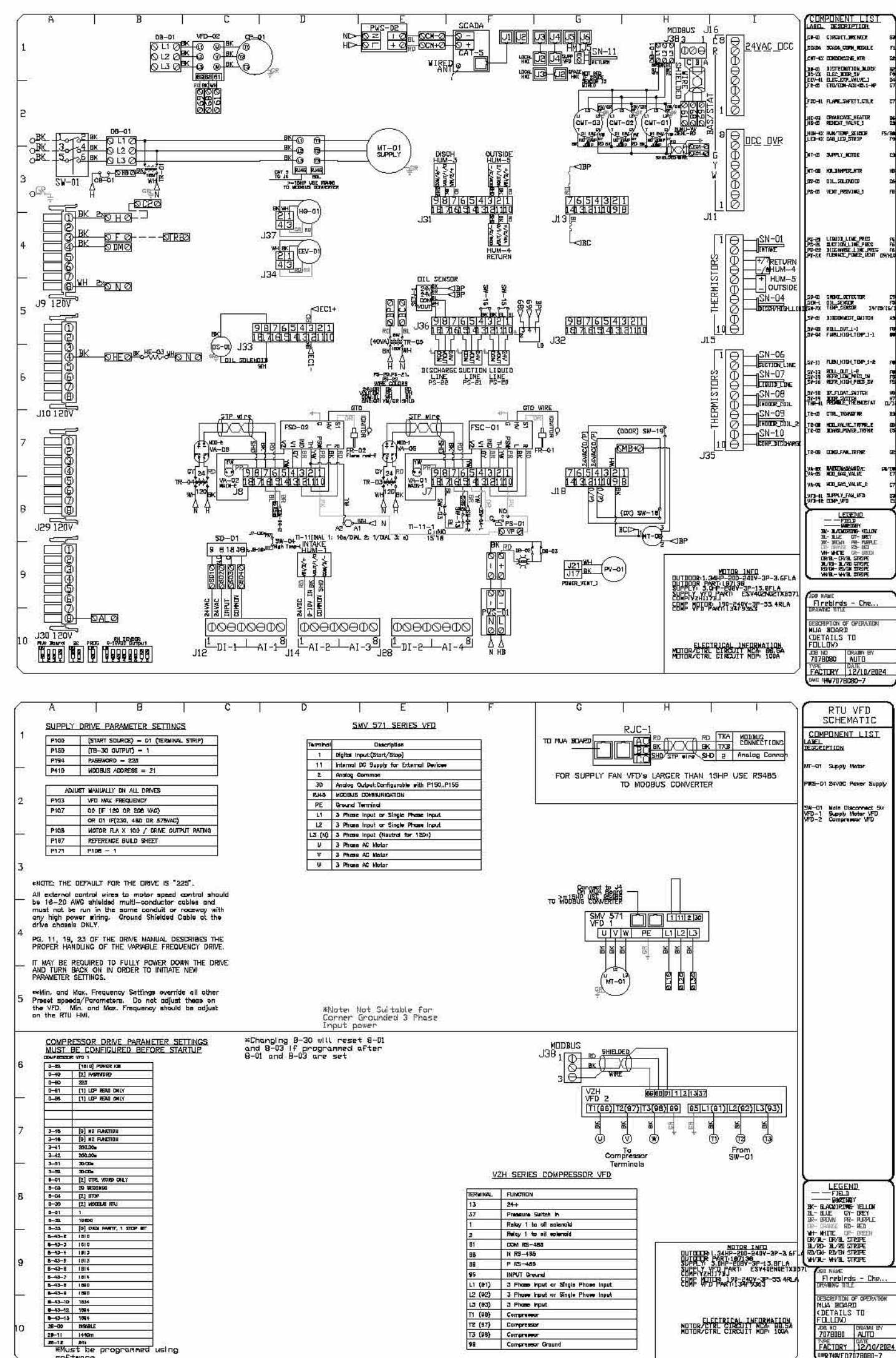


CAPTIVEAIRE DRAWINGS - MECHANICAL

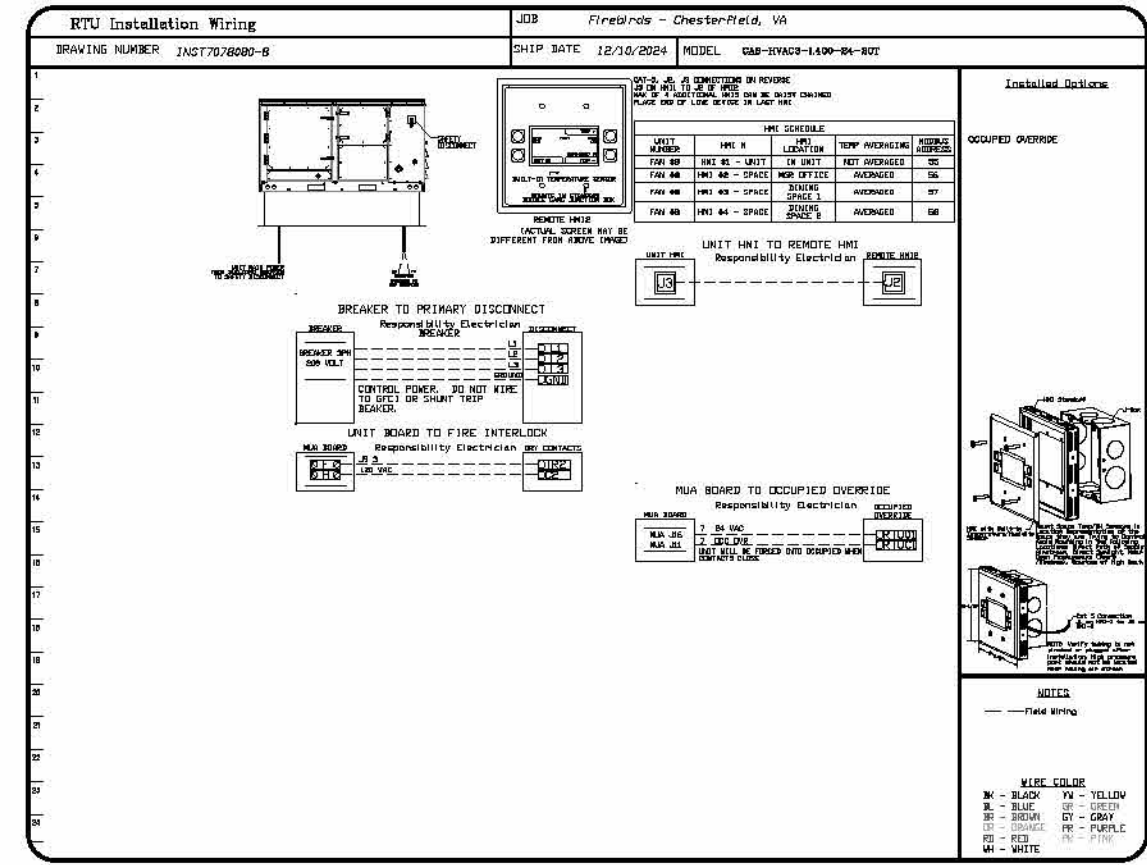
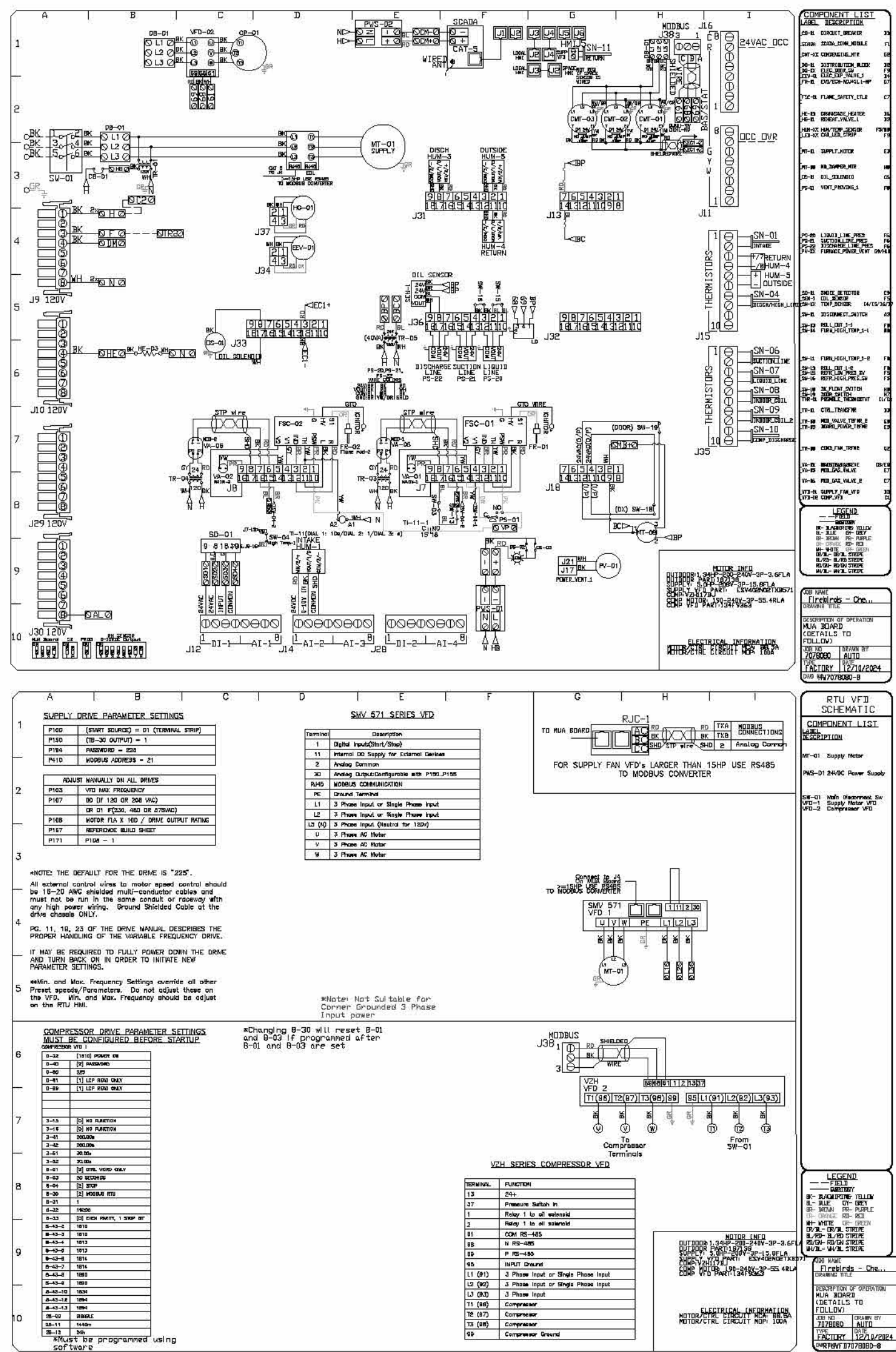
M3.15

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FAN #7 RTU-1 WIRING DIAGRAMS



FAN #8 RTU-2 WIRING DIAGRAMS



REVISIONS	DESCRIPTION	DATE
1		
2		
3		
4		
5		

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Firebirds - Chesterfield, VA
 CHESTERFIELD, VA, 23832

DATE: 12/10/2024

DWG.#: 7078080

DRAWN BY: evan zipper

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

MASTER DRAWING

SHEET NO. 16

FIREBIRDS
 CHESTERFIELD
 COUNTY

15700 Hull Street Road
 Chesterfield, VA 23832

FIREBIRDS
 WOOD FIRED GRILL

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 DRAWINGS -
 MECHANICAL
M3.16

DUCTWORK #1 PARTS - JOB#7078080 DOUBLE WALL										
TAG	PART #	CFM	GPM	ZONE/COVERBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION	
HQ-C1	2W42WRISER-32-S	3000				-1.193	11.62	0.00	1	DOUBLE WALL RISER COVER - USED ON 18" INNER RISER. 4" LONG - 3 LAYERS ZERO CLEARANCE - 24" STAINLESS STEEL OUTER RISER SHELL ASSEMBLY. INCLUDES INSULATION & SINGLE V CLAMPS FOR INNER & OUTER CONNECTIONS.
P1	2W1847WLT-32-S	3000				-0.010	94.70	1697.65	1	DOUBLE WALL DUCT - 18" INNER DUCT, 42" LONG - 3 LAYERS ZERO CLEARANCE - 24" STAINLESS STEEL OUTER SHELL.
P2	2W1823WLT-32-S	3000				-0.006	49.96	1697.65	1	DOUBLE WALL DUCT - 18" INNER DUCT, 23" LONG - 3 LAYERS ZERO CLEARANCE - 24" STAINLESS STEEL OUTER SHELL.
P3	2W1847WABTP-32-S	3000				-0.011	136.92	1697.65	1	DOUBLE WALL ADJUSTABLE DUCT TRANSITION PLATE - 18" INNER DUCT - 3 LAYERS ZERO CLEARANCE - 24" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11" / MAX LENGTH = 48.5" / ADJUSTMENT = 20.5". ADJUSTABLE SECTION MAY NEED TO BE CUT.
P4	2W1847WABTP-32-S	3000					12.00	1697.65	1	DUCT TO CURB TRANSITION, 23" CURB TO 18" DUCT, 16 GA ALUMINIZED, MISC. NON-STANDARD TRANSITION PLATE.
SYSTEM AT #4										
RC1	2W42WRISER-32-S						11.62		1	DOUBLE WALL RISER COVER - USED ON 18" INNER RISER. 4" LONG - 3 LAYERS ZERO CLEARANCE - 24" STAINLESS STEEL OUTER RISER SHELL ASSEMBLY. INCLUDES INSULATION & SINGLE V CLAMPS FOR INNER & OUTER CONNECTIONS.
	3M-RODPLUS						0.80		8	DUCT - 3M FIRE BARRIER 2500 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	2W180WCLASY-32-S						7.85		1	DUCT - 18" DUCT - 24" DOUBLE "V" CLAMP - 32 INSULATION & SINGLE "V" CLAMP INCLUDED - ZERO CLEARANCE.
TOTAL WEIGHT						317.87				

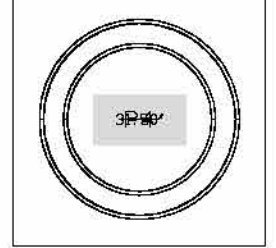
- DOUBLE WALL FACTORY BUILT DUCTWORK
- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
 - FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL.
 - DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE 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'

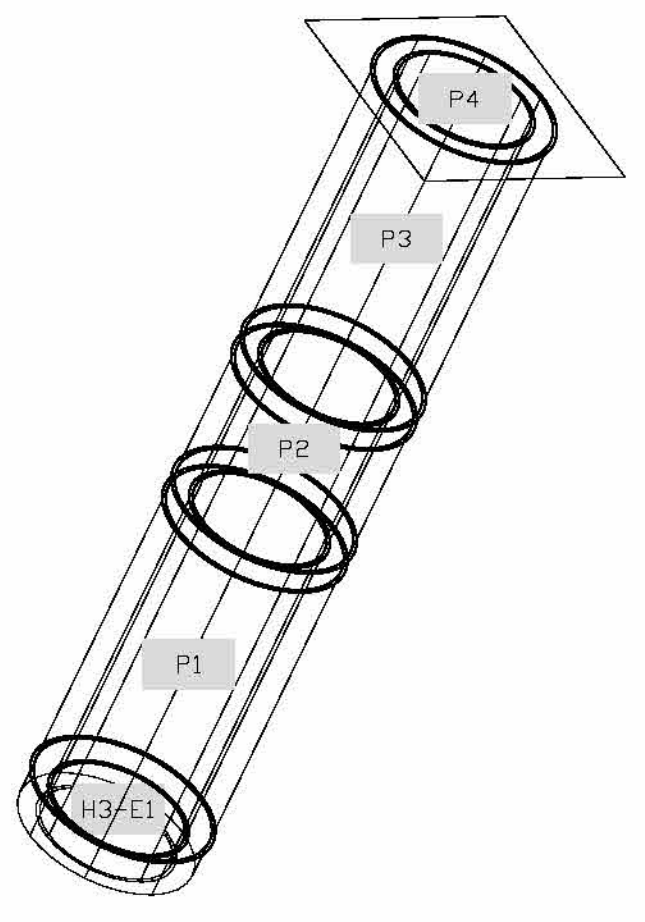
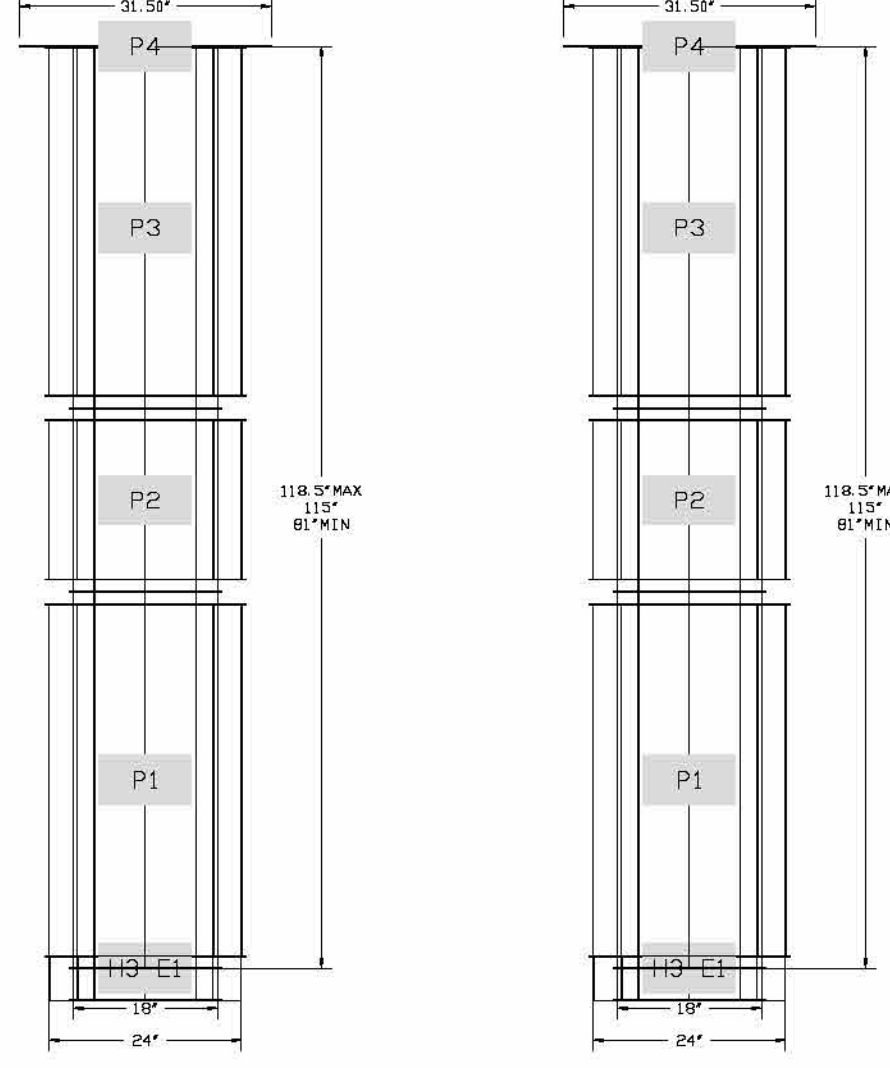
VERTICAL			
TYPE	WALL SUPPORT (FT)	CURB SUPPORT (FT)	FLOOR SUPPORT (FT)
DR & DR HT (15'-16")	20'	24'	24'
DR (18")	18'	24'	24'
3R & 3Z (15'-24")	10'	24'	24'
3Z (26'-36")	10'	20'	20'

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

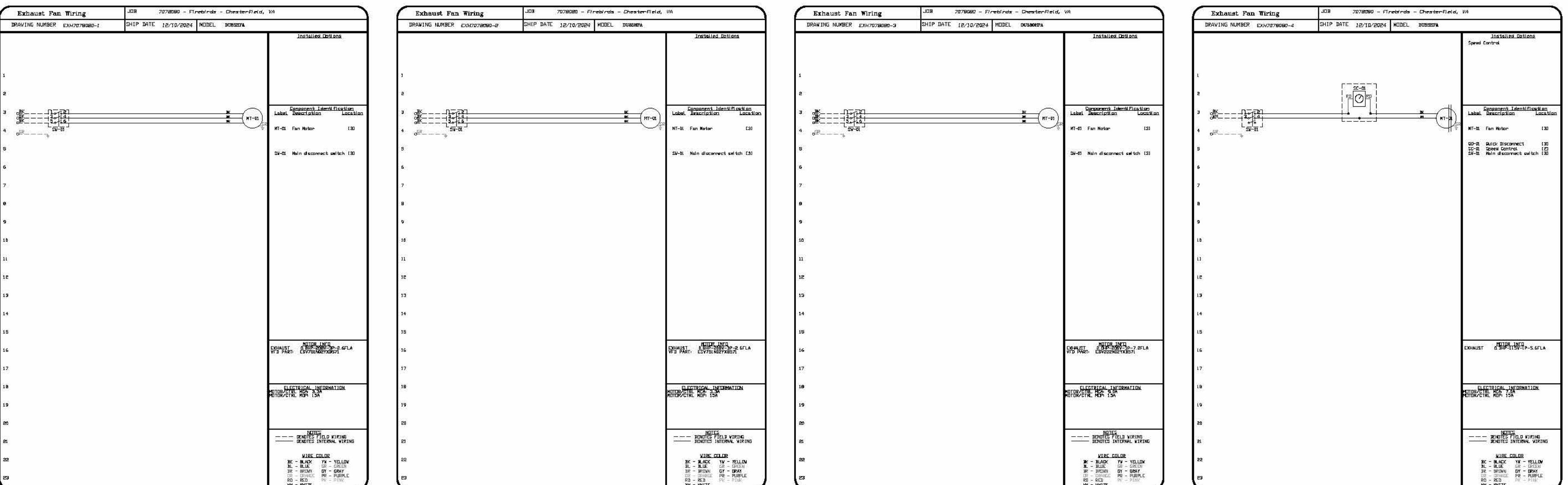
DUCTWORK #1 TOP VIEW



DUCTWORK #1 FRONT VIEW DUCTWORK #1 SIDE VIEW



DUCTWORK #1 SE VIEW



REVISIONS

NO.	DESCRIPTION	DATE

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Firebirds - Chesterfield, VA
CHESTERFIELD, VA, 23832

DATE: 12/10/2024
DWG.#: 7078080
DRAWN BY: evan.zipper
SCALE: 1/2" = 1'-0"
MASTER DRAWING
SHEET NO. 17

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FIREBIRDS
WOOD FIRED GRILL

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12/19/2024

No.	Description	Date



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