

FOR QUESTIONS, CALL THE  
Maryland Mechanical  
REGION 76  
PHONE: (800) 988 - 0881  
EMAIL: reg76@captiveaire.com

PATENT NUMBERS  
AC-PSP (UNITED STATES) - US PATENT 7963830 B2.  
AC-PSP WALL (CANADA) - CA PATENT 2820509.  
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

**HOOD INFORMATION - JOB#7212130**

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)					MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG			
										WIDTH	LENG	HEIGHT	DIA	CFM				VEL	SP	END TO END	RDW
1		6030 ND-2-ACPSP-F	CAPTIVEAIRE	11' 7"	600 DEG	I	HEAVY	200	2317			4'	16'	2317	1659	-0.765"	1854	927	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		CAPTRATE SOLD FILTER	8	20"	16"	85% SEE FILTER SPEC	6	L55 SERIES E26	NO	LEFT	12"x60"x30"	TANK FS	4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	1168 LBS

**HOOD OPTIONS**

HOOD NO	TAG	OPTION
1		FIELD WRAPPER 10.00" HIGH FRONT, LEFT. RIGHT END STANDOFF (FINISHED) 1" WIDE 60" LONG INSULATED. INSULATION FOR BACK OF HOOD. LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.

**PERFORATED SUPPLY PLENUM(S)**

HOOD NO	TAG	PDS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1		Front	152"	22"	6"	MUA	8"	36"	618	0.171"	
						MUA	8"	36"	618	0.171"	
						MUA	8"	36"	618	0.171"	
						AC	6"	28"	309	0.080"	
						AC	6"	28"	309	0.080"	
						AC	6"	28"	309	0.080"	

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

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

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

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

**VERIFY CEILING HEIGHT**

\_\_\_' - \_\_\_"

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

**CUSTOMER APPROVAL TO MANUFACTURE:**

APPROVED AS NOTED

APPROVED WITH NO EXCEPTION TAKEN

REVISE AND RESUBMIT

SIGNATURE \_\_\_\_\_

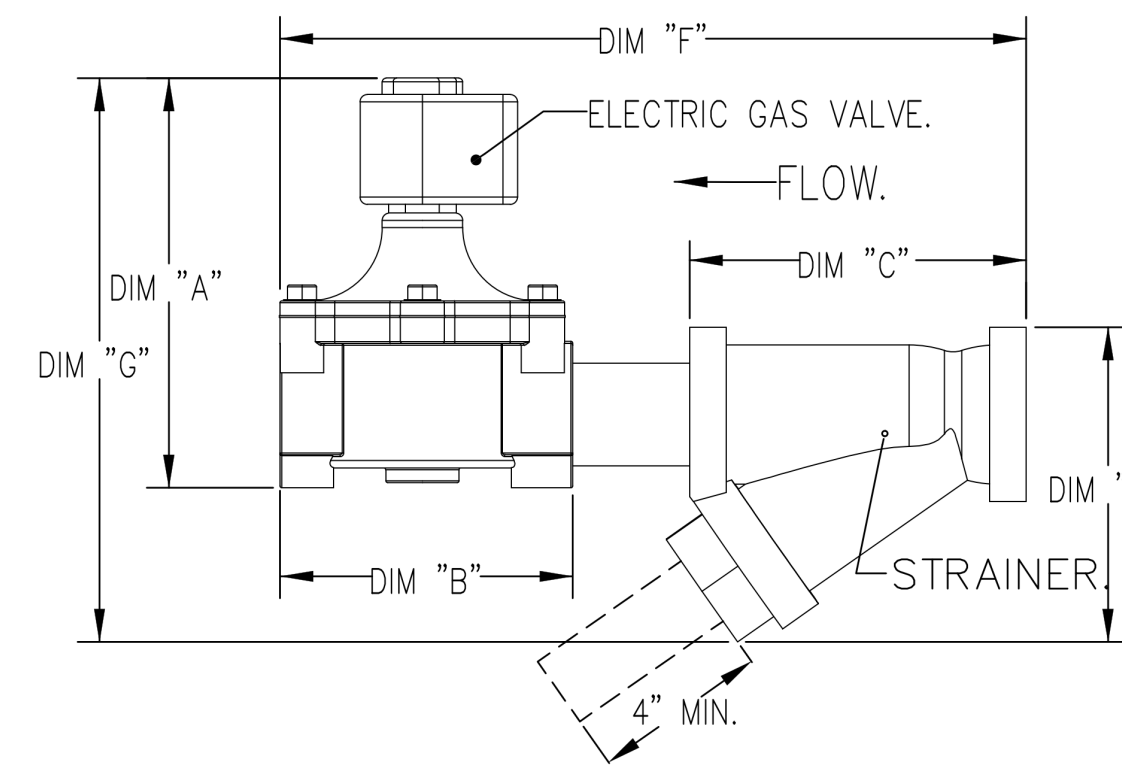
YOUR TITLE \_\_\_\_\_ DATE \_\_\_\_\_

GAS VALVES AND STRAINERS																
TYPE	SIZE	VOLTAGE	GAS VALVE SIZING			GAS VALVE DIMENSIONS					INSTALLATION	PART NUMBERS				
			MIN. INLET PRESSURE	MAX. INLET PRESSURE	FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	DIM "A"	DIM "B"	DIM "C"	DIM "D"		DIM "E"	DIM "G"	MOUNTING ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER
ELECTRICAL	2"	120 VAC	0 PSI (0 IN.W.C.)	5 PSI (138 IN.W.C.)	2,940,500 BTU/HR	1,908,048 BTU/HR	7-5/8"	6-3/8"	7-1/4"	7-13-16"	15-5/8"	13-15/16"	HORIZONTAL	8214280	4417K68	(SC)EGVA2

**ELECTRIC GAS VALVES ONLY:**  
3/4"-2" 120VAC GAS VALVES CAN BE MOUNTED WITH THE SOLENOID IN ANY POSITION ABOVE HORIZONTAL.  
2 1/2"-3" 120VAC GAS VALVES MUST BE MOUNTED WITH THE SOLENOID VERTICAL AND UPRIGHT.  
24VDC GAS VALVES MUST BE MOUNTED WITH THE SOLENOID VERTICAL AND UPRIGHT.

**ALL GAS VALVES/STRAINERS:**  
PROPER CLEARANCE MUST BE PROVIDED IN ORDER TO SERVICE THE STRAINERS A MINIMUM OF 4" CLEARANCE DISTANCE MUST BE PROVIDED AT THE BASE OF THE STRAINER CUSTOMER MUST VERIFY BTU CONSUMPTION AS WELL AS PRESSURE RATING SPECIFIC GRAVITY OF NATURAL GAS = 0.64, SPECIFIC GRAVITY OF LP = 1.52.

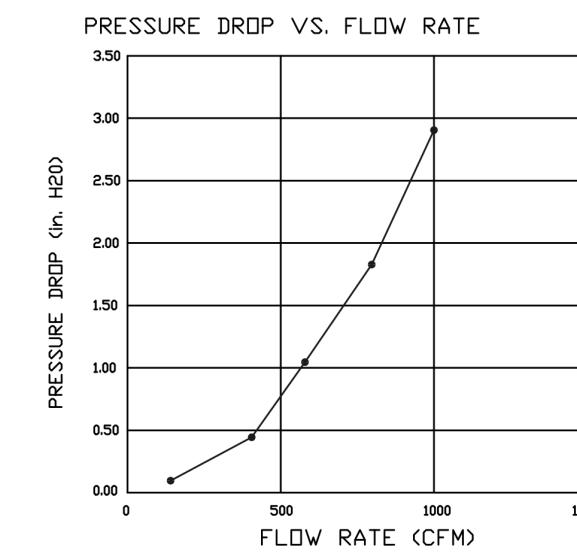
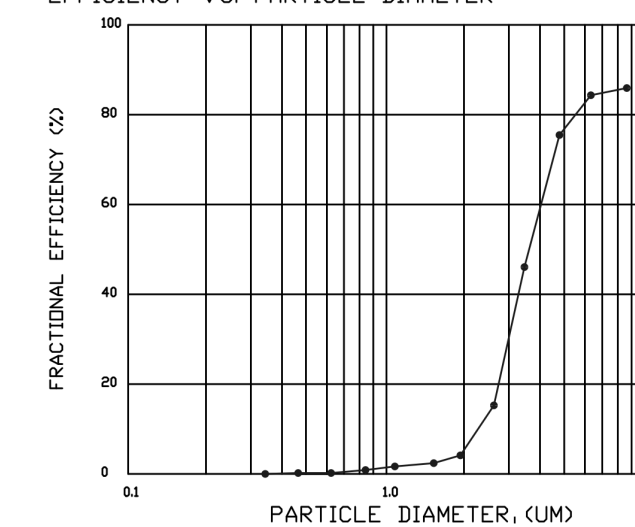
**CALCULATIONS:**  
TO CALCULATE GAS FLOW FOR OTHER THAN 1 IN.W.C. PRESSURE DROP  
NEW BTU/HR = (BTU/HR AT 1 IN.W.C. PRESSURE DROP) X NEW PRESSURE DROP<sup>0.5</sup>  
TO CALCULATE GAS FLOW FOR OTHER THAN 0.64 SPECIFIC GRAVITY  
NEW BTU/HR = (BTU/HR AT 0.64) X (0.64 / NEW SPECIFIC GRAVITY)<sup>0.5</sup>



**SPECIFICATION: CAPTRATE® GREASE-STOP® SOLD FILTER**

THE CAPTRATE GREASE-STOP SOLD 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.

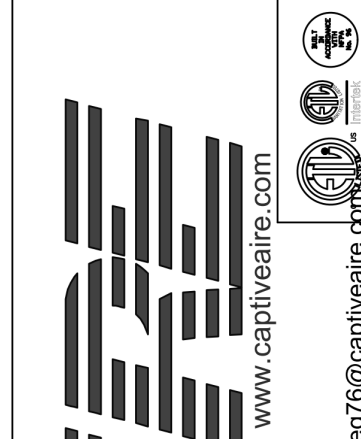
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.  
THE CAPTRATE GREASE-STOP SOLD WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.  
EFFICIENCY VS. PARTICLE DIAMETER



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



REVISIONS	
DESCRIPTION	DATE



CAVA - Zionsville IN  
4775 West 116th Street,  
Zionsville, IN, 46077

DATE: 12/9/2024  
DWG.#: 7212130  
DRAWN BY: ABS-76  
SCALE: NTS  
MASTER DRAWING

SHEET NO. 1



ferris+sloane  
100 N. Howard Street, Suite 4503 Spokane, WA 99201



CAVA #010583  
4775 W 116th ST  
ZIONSVILLE, IN 46077  
FOR CAVA

14 Ridge Square NW #500, WASHINGTON, DC 20016

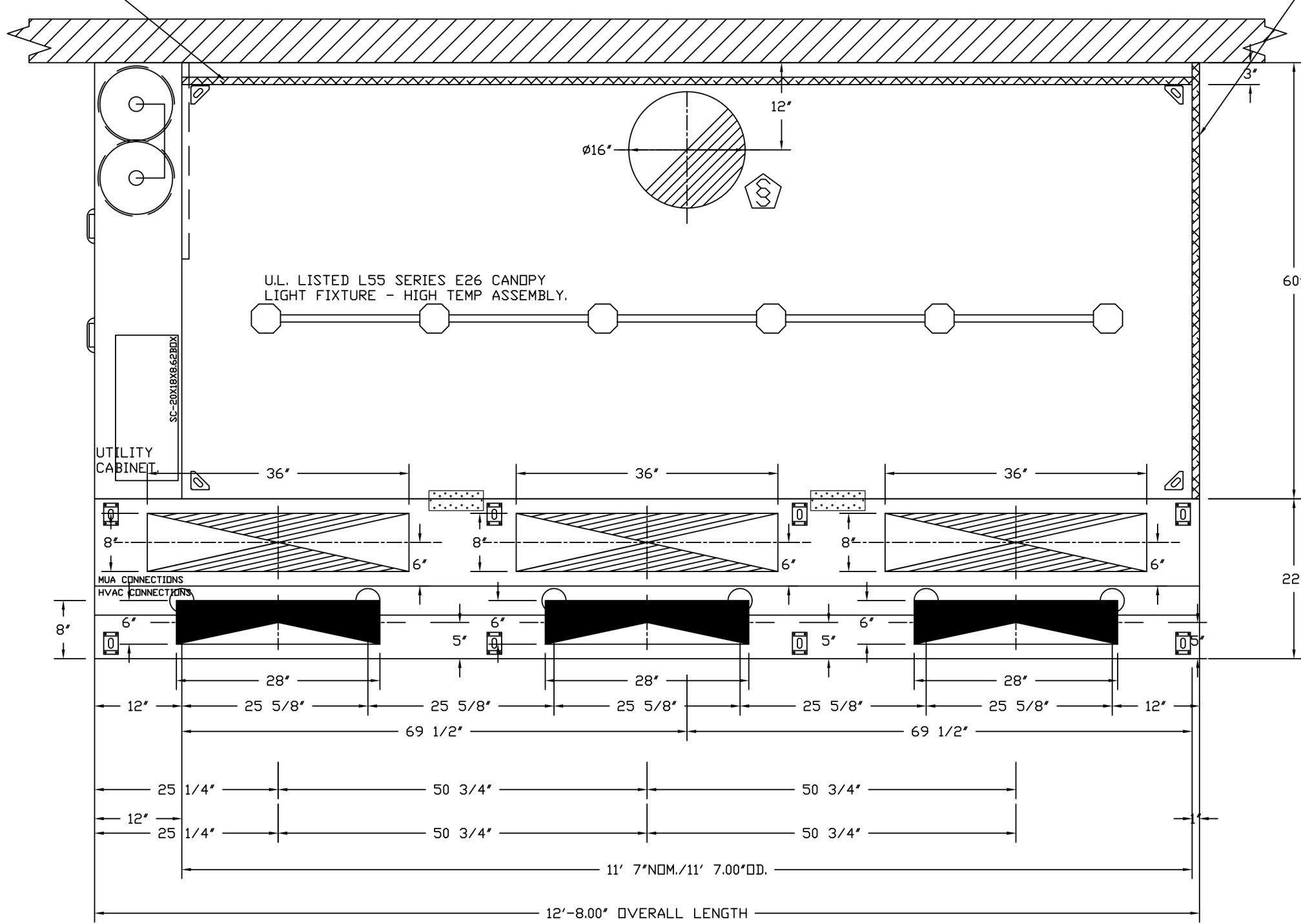
AOR PROJECT NUMBER:	
CAV073	

ISSUE	DATE
PERMIT	01/10/2025
BID SET	03/24/2025
IFC SET	06/09/2025

MECHANICAL HOOD DETAIL PLAN

SHEET: M601

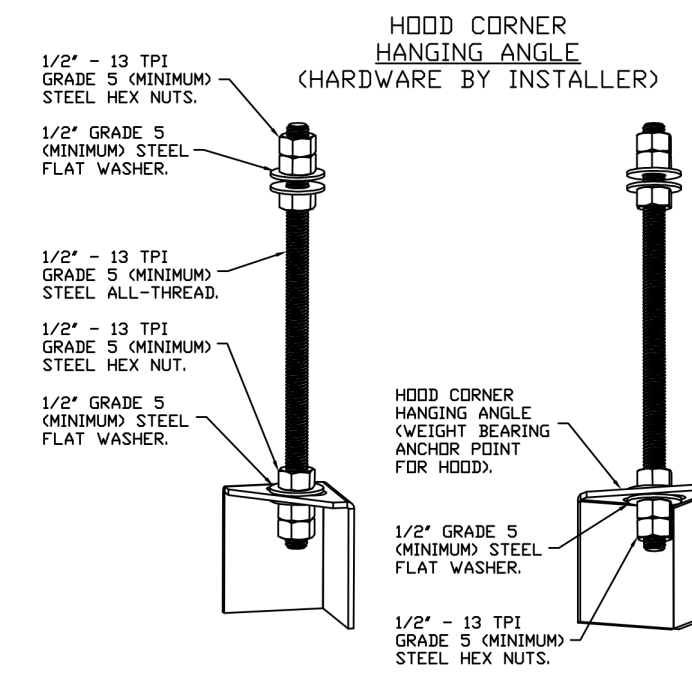
1" LAYER OF INSULATION FACTORY INSTALLED IN INTERNAL BACK STANDOFF. MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.



PLAN VIEW - HOOD #1  
11' 7.00\"/>

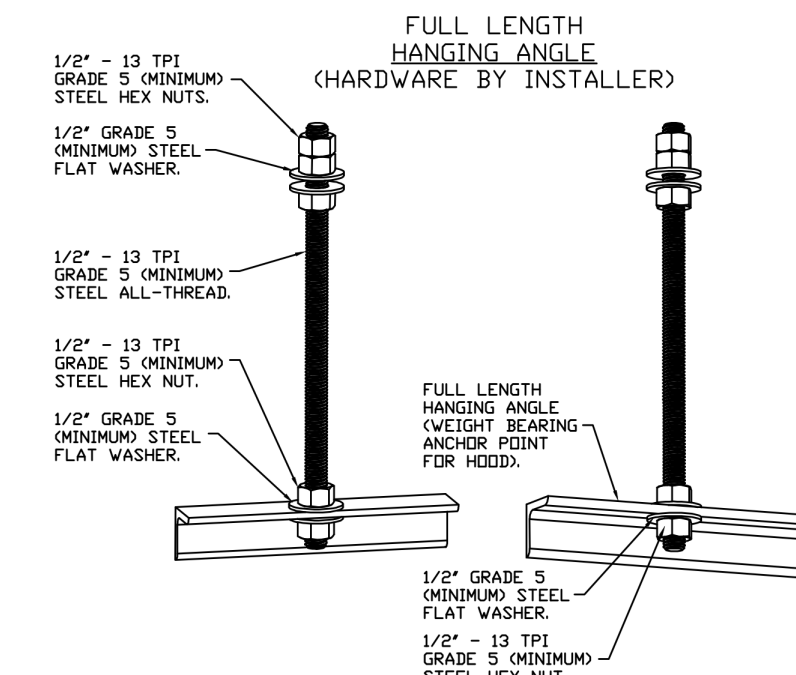
ACPSP SHIPS LOOSE FOR FIELD INSTALLATION

1" LAYER OF INSULATION FACTORY INSTALLED IN 100\"/>



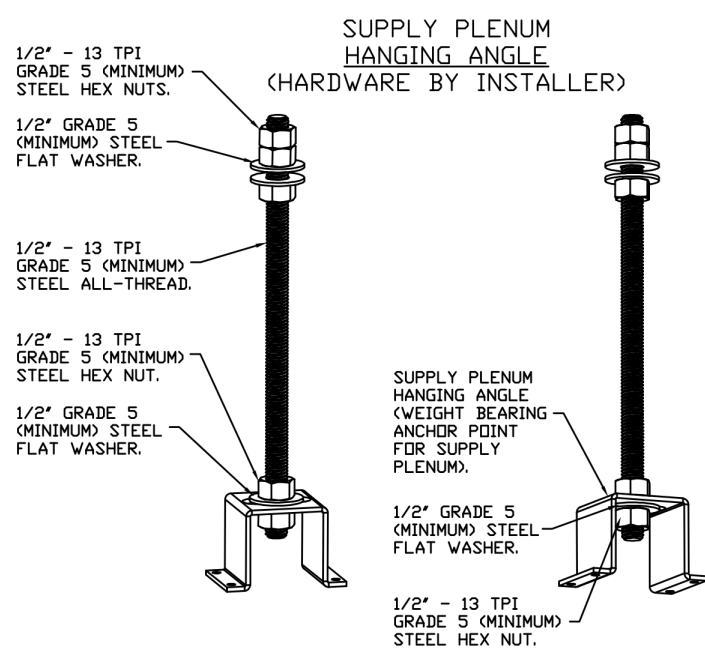
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2\"/>



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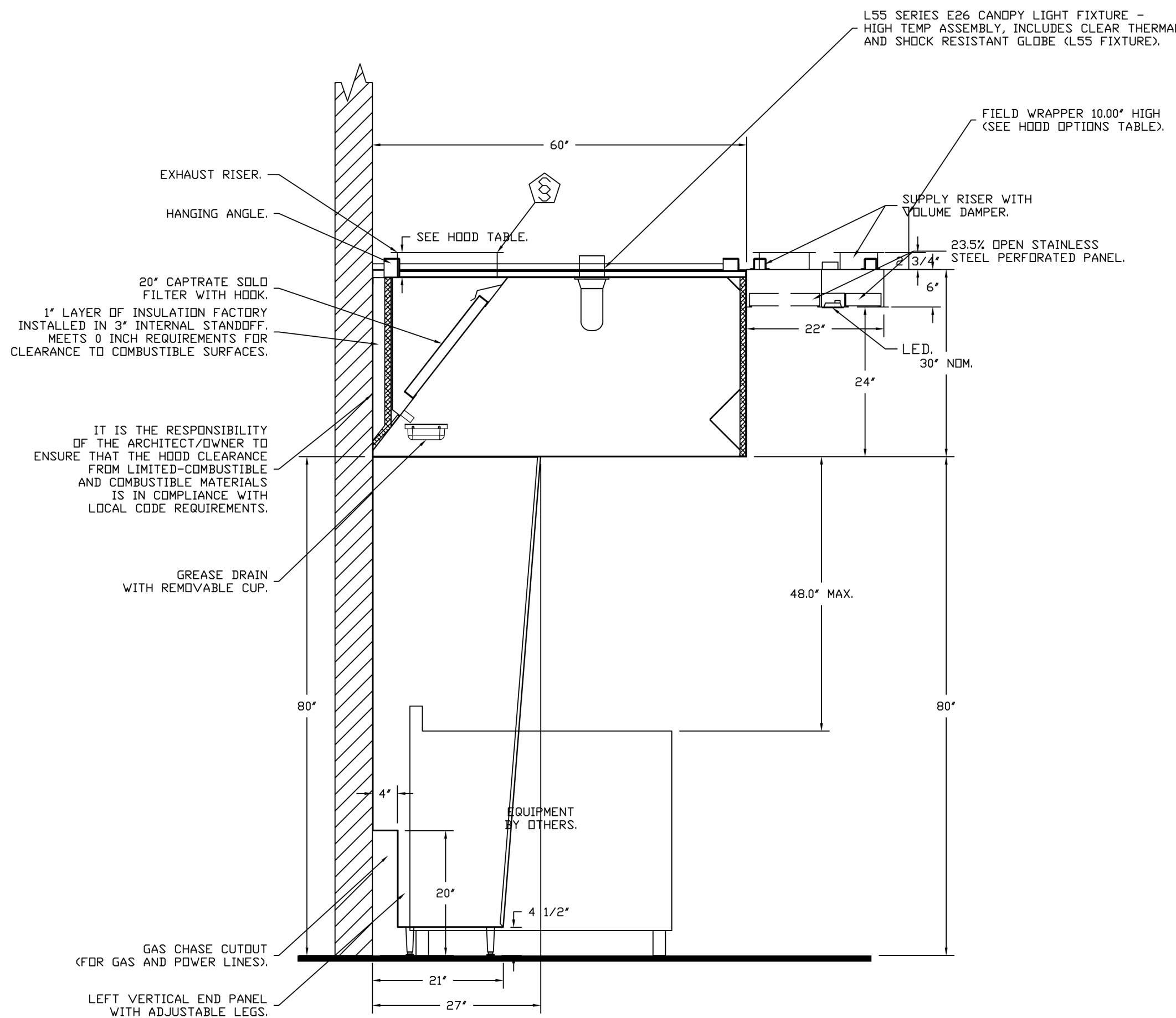
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2\"/>

CLEARANCE TO COMBUSTIBLES

HOODS #	SURFACE	*CLEARANCE
1	TOP	18"
	FRONT	0"
	BACK	0"
	LEFT	0"
	RIGHT	0"

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



SECTION VIEW - MODEL 6030ND-2-ACPSP-F  
HOOD - #1

IT IS THE RESPONSIBILITY OF THE ARCHITECT/OWNER TO ENSURE THAT THE HOOD CLEARANCE FROM LIMITED-COMBUSTIBLE AND COMBUSTIBLE MATERIALS IS IN COMPLIANCE WITH LOCAL CODE REQUIREMENTS.

GAS CHASE OUTLET (FOR GAS AND POWER LINES).  
LEFT VERTICAL END PANEL WITH ADJUSTABLE LEGS.

LIGHTING FOR ACPSP JOB # 7212130 - HOOD #1 INPUT: 120V AC, 1 PHASE, 50/60HZ, 3.5 WATTS PER LIGHT. TO CONTROL LIGHTS WITH HOOD LIGHT SWITCH, WIRE PER HOOD ELECTRICAL CONTROL PANEL SCHEMATIC TO CONTROL LIGHTS WITH BUILDING LIGHT SWITCH. WIRE BLACK AND WHITE WIRE TO A 120VAC SERVICE. END TO END ACPSPS REQUIRE 120VAC FIELD WIRING FROM J-BOX TO J-BOX. REPLACE LIGHTS WITH LED LIGHTS ONLY.

**REVISIONS**

DESCRIPTION	DATE

**CAPTIVE**

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DATE: 12/9/2024  
DWG.#: 7212130  
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MASTER DRAWING  
SHEET NO. 2

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**CAVA**

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AOR PROJECT NUMBER: CAV073

ISSUE	DATE
PERMIT	01/10/2025
BID SET	03/24/2025
IFC SET	06/09/2025

MECHANICAL HOOD DETAIL PLAN

SHEET: M602

**FIRE SYSTEM INFORMATION - JOB#7212130**

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	40	37	FIRE CABINET LEFT	LEFT, HOOD 1

**GAS VALVE(S)**

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS

**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
1		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
1		0 - 0 - 12-F28021-32144-0T-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	1	0
1		0 - 0 - 32-00002 QUIK SEAL - 1/2" (UL).	1	0
1		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	2	0
1		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	1	0
1		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	1	0
1		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
1		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	1	0
1		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	1	0
1		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	2	0
1		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
1		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	8	0
1		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	6	0
1		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	7	0
1		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	4	0
1		0 - 0 - A0034332 JUNCTION BDX FOR MANUAL PULL STATION. 15" DEEP BACK BDX, RED COLOR.	1	0
1		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	1	0
1		0 - 0 - B1145 3/8" BLACK IRON 90 ELL.	3	0
1		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
1		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	6	0
1		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
1		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	2	0
1		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	8	0
1		16 - 16 - DL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	8	0
1		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL).	8	0
1		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0

**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 #: 7212130.  
JOB NAME: CAVA - ZIONSVILLE IN.

SYSTEM SIZE: TANK-SP-2 DESIGN FP: 37, MAXIMUM FP: 40.  
HOOD # 1 11' 7.00" LONG x 60" WIDE x 30" HIGH.  
RISER # 1 SIZE: 16" DIA.  
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

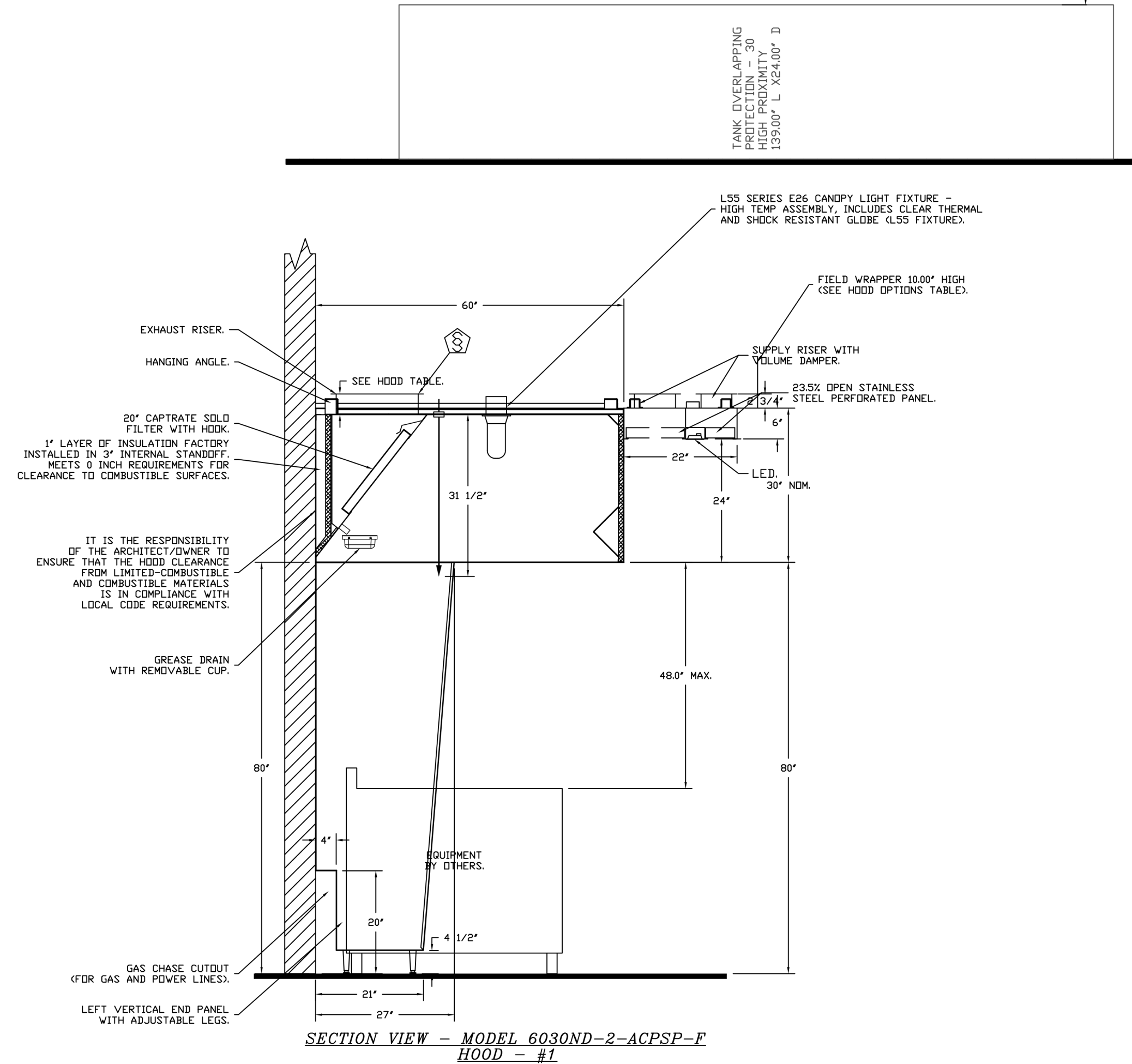
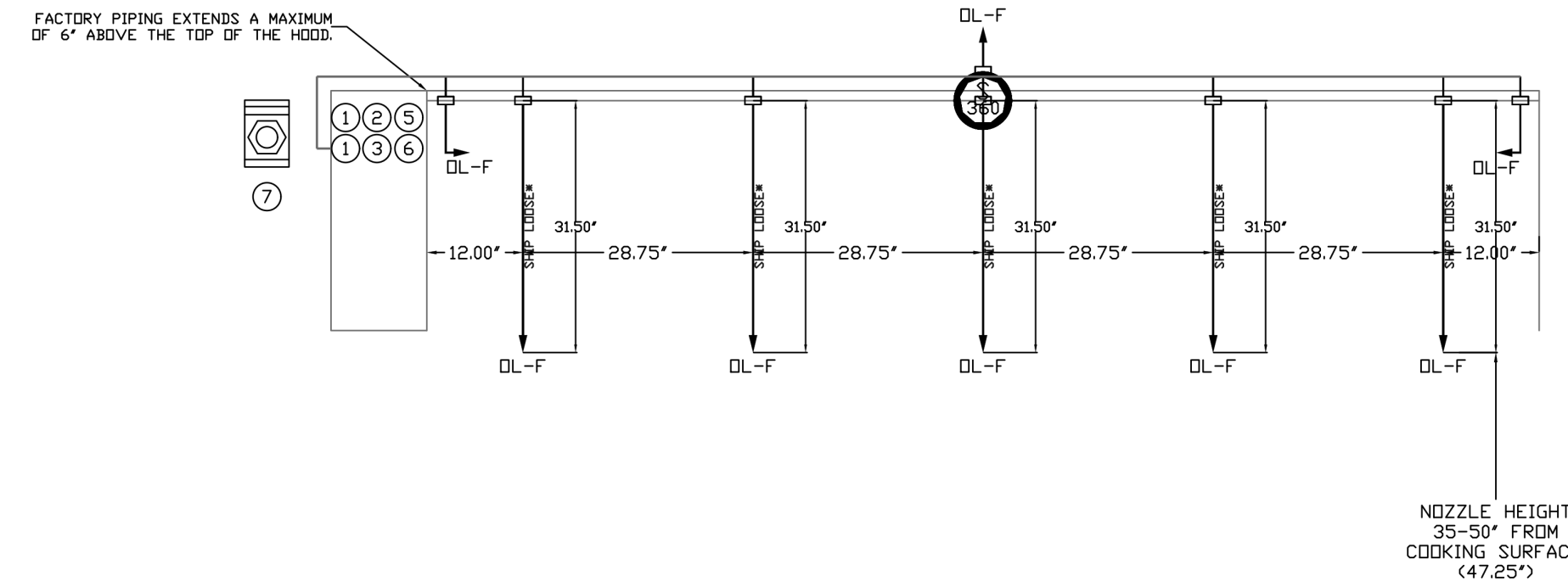
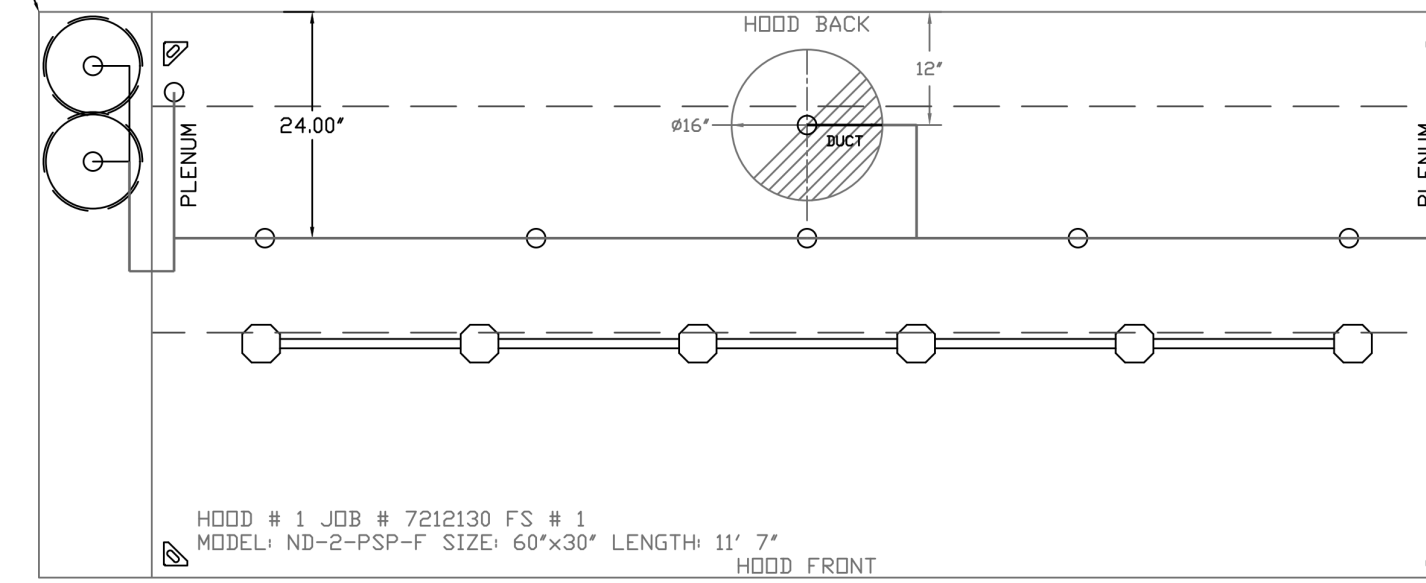
- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

**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.

SYSTEM REQUIRES A MINIMUM OF 7 FT OF EQUIVALENT PIPE LENGTH BETWEEN TANK AND NEAREST APPLIANCE NOZZLE FOR MOST APPLIANCES. EACH 90 DEGREE ELBOW ADDS 13 FT OF EQUIVALENT LENGTH. SEE MANUAL FOR DETAILS.



**REVISIONS**

DESCRIPTION	DATE

**CAPTIVEAIRE**

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FOR CAVA  
14 Ridge Square NW #500, WASHINGTON, DC 20016

MECHANICAL HOOD DETAIL PLAN

SHEET: **M603**

**rtm**  
engineering consultants  
2801 156th Ave SE | Suite 115 Bellevue, WA 98007  
T: 847.756.4100 | www.rtmec.com

**EXHAUST FAN INFORMATION - JOB#7212130**

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	KEF	1	DUBSHFA	CAPTIVEAIRE	2317	1.000	1551	TEAD-ECM	1.000	0.6650	1	115	11.6	733 FPM	87	16.7

**DOAS/RTU FAN SCHEDULE - JOB#7212130**

FAN UNIT NO	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	FAN INFORMATION				ELECTRICAL INFORMATION					COOLING 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 DB	OUTSIDE AIR WB	MIXED AIR DB	MIXED AIR WB	LEAVING AIR DB	LEAVING AIR WB		DP	TOTAL	SENS.	IEER	ISMRE	GAS TYPE	INPUT BTUS	OUTPUT BTUS	TEMP RISE	REQUIRED INPUT GAS PRESSURE
2		1	EARTUI-1200-15-ST-MPU	ECON-AIR	15P-1	0	1854	1854	1202	0.000	1.00	3	208	25.5A	30A	86.1°F	77.8°F	86.1°F	77.8°F	71.6°F	69.0°F	67.9°F	64.0 MBH	27.9 MBH	17.9	6.1	NATURAL	198677	160928	72°F	7 IN. W.C. - 14 IN. W.C.	1,2,3,4,5,6,7,8,9,10,11,12,13

**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
- EC MOTOR CONDENSING FANS
- ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE
- SUCTION LINE ACCUMULATOR
- FACTORY COMMISSIONING 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)
- 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
- SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE
- 12" EXTERIOR DUAL-WALL CONSTRUCTION W/ R-4.3 INSULATION-MINIMUM 24GA EXTERIOR W/ 18GA BASE
- DOWN DISCHARGE/NO RETURN

**FAN OPTIONS**

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF	1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
2		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		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	CONSTRUCTION MODE - MODIFIES START-UP SETTINGS TO ALLOW TEMPERING A BUILDING STILL UNDER CONSTRUCTION
		1	RTU BLOWER DOOR SWITCH
		1	2" MERV 13 FILTERS FOR RTU (QTY. 4)
		1	2" MERV 8 FILTERS FOR RTU (QTY. 4)
		1	TOTAL CFM MONITORING
		1	RTU DOWN DISCHARGE
		1	RTU FIXED 100% DA INTAKE CONTROL
		1	DISCHARGE FIRESTAT SET TO 240°F
		1	FREEZESTAT
		1	INTAKE FIRESTAT SET TO 135°F
		1	RTU NO RETURN - 100% DA - MPU
		1	RTU CURB DUCT HANGER
		1	120V FIRE INPUT
		1	5 TON MODULATING COOLING OPTION, 208/230V. R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, DL ECM CONDENSING FAN
		1	R454B LEAK DETECTOR OPTION FOR RTUS
		1	SIZE 1 MOISTURE ELIMINATOR FOR SIZE 1, 5 TON RTU. NO REHEAT
		1	UNIT MOUNTED VFD CONFIGURED FOR DCV
		1	LOAD REACTOR MOUNTED IN FAN
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	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET		

**FAN ACCESSORIES**

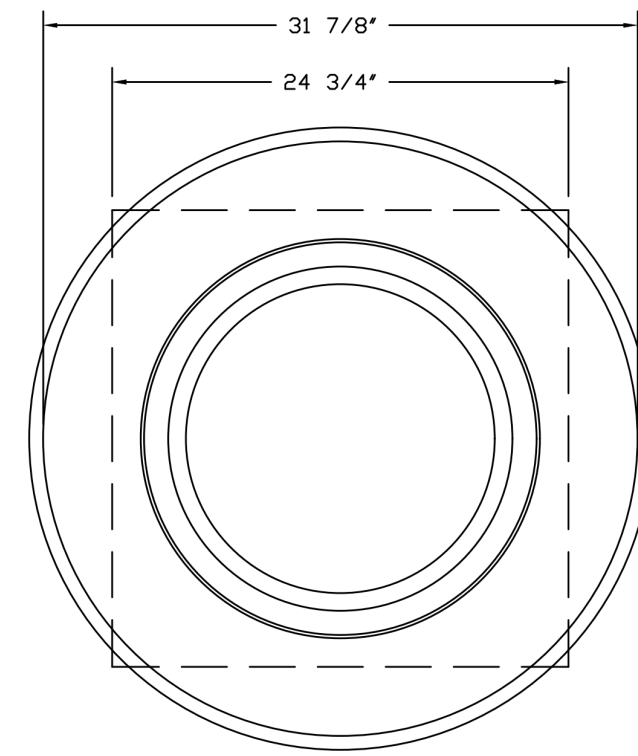
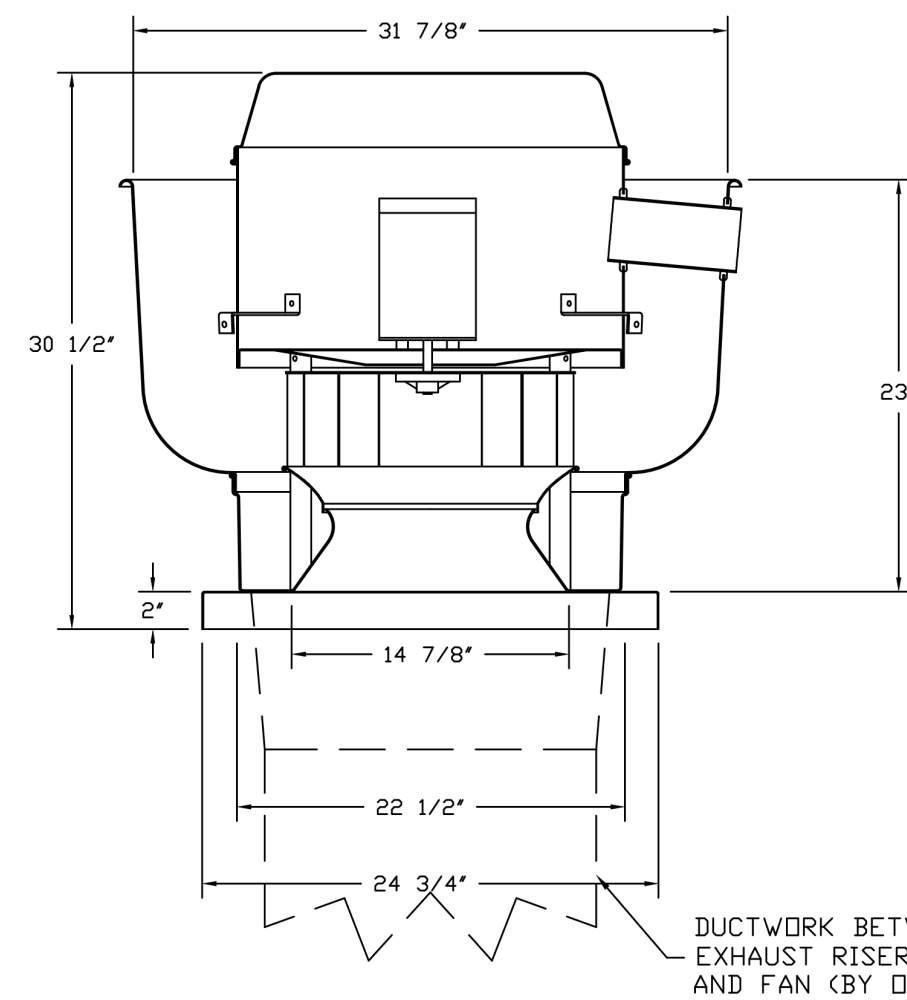
FAN UNIT NO	TAG	EXHAUST				SUPPLY		
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF							

**CURB ASSEMBLIES**

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF	37 LBS	CURB	23.000"W X 23.000"L X 24.000"H VENTED.
2	# 2		103 LBS	CURB	41.000"W X 71.000"L X 20.000"H INSULATED.

HMI SCHEDULE				
UNIT NUMBER	HMI #	HMI LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN #2	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55

FAN #1 DUBSHFA - EXHAUST FAN (KEF)



TOP VIEW

**FEATURES:**

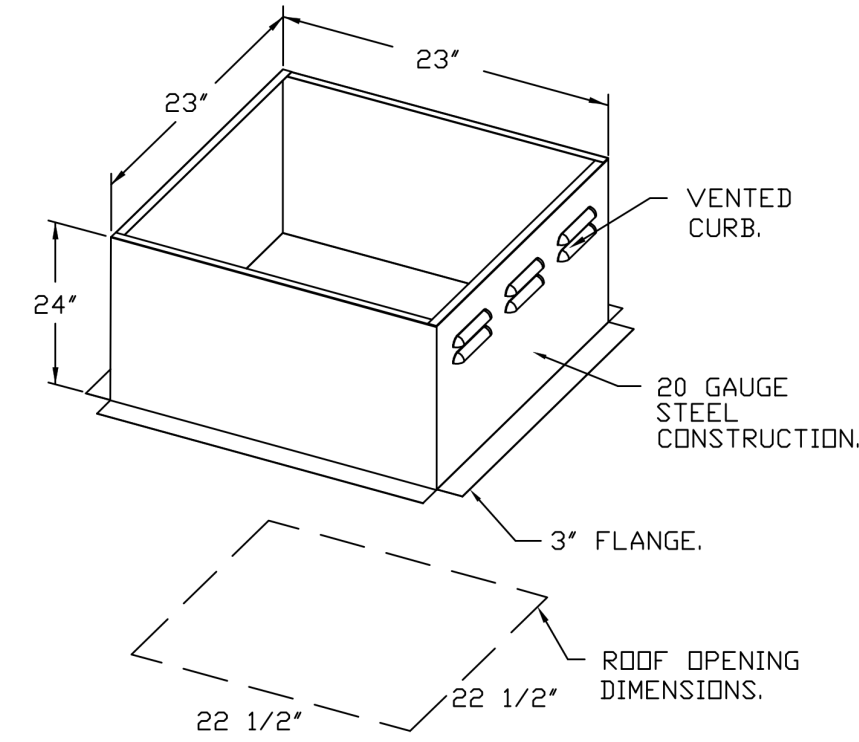
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).

**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.

**OPTIONS**

- ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.



**REVISIONS**

DESCRIPTION	DATE

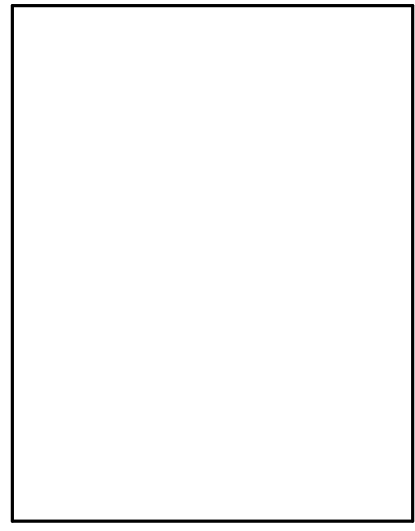
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**DATE:** 12/9/2024  
**DWG.#:** 7212130  
**DRAWN BY:** ABS-76  
**SCALE:** NTS  
**MASTER DRAWING**

**SHEET NO.**  
4

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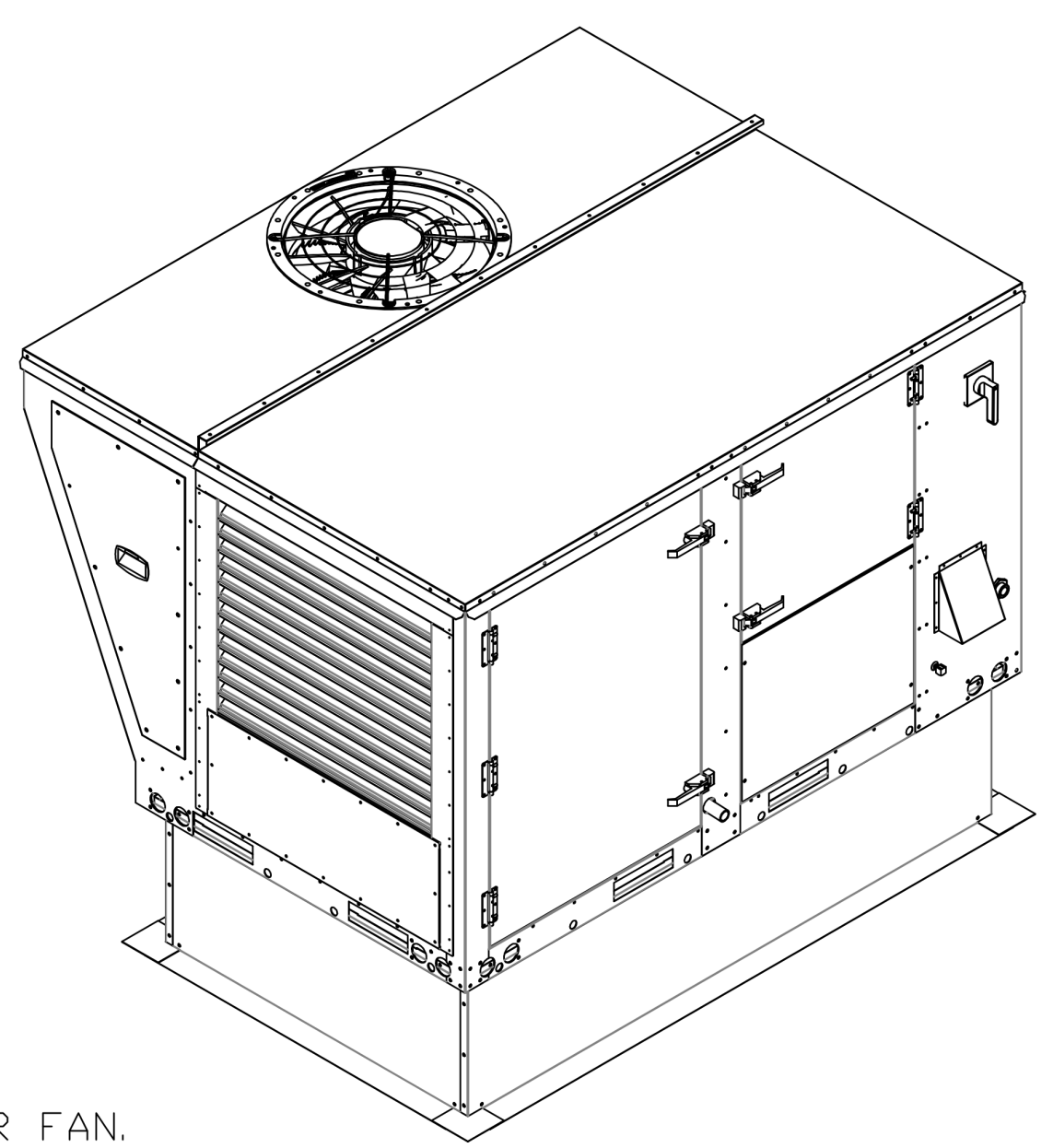
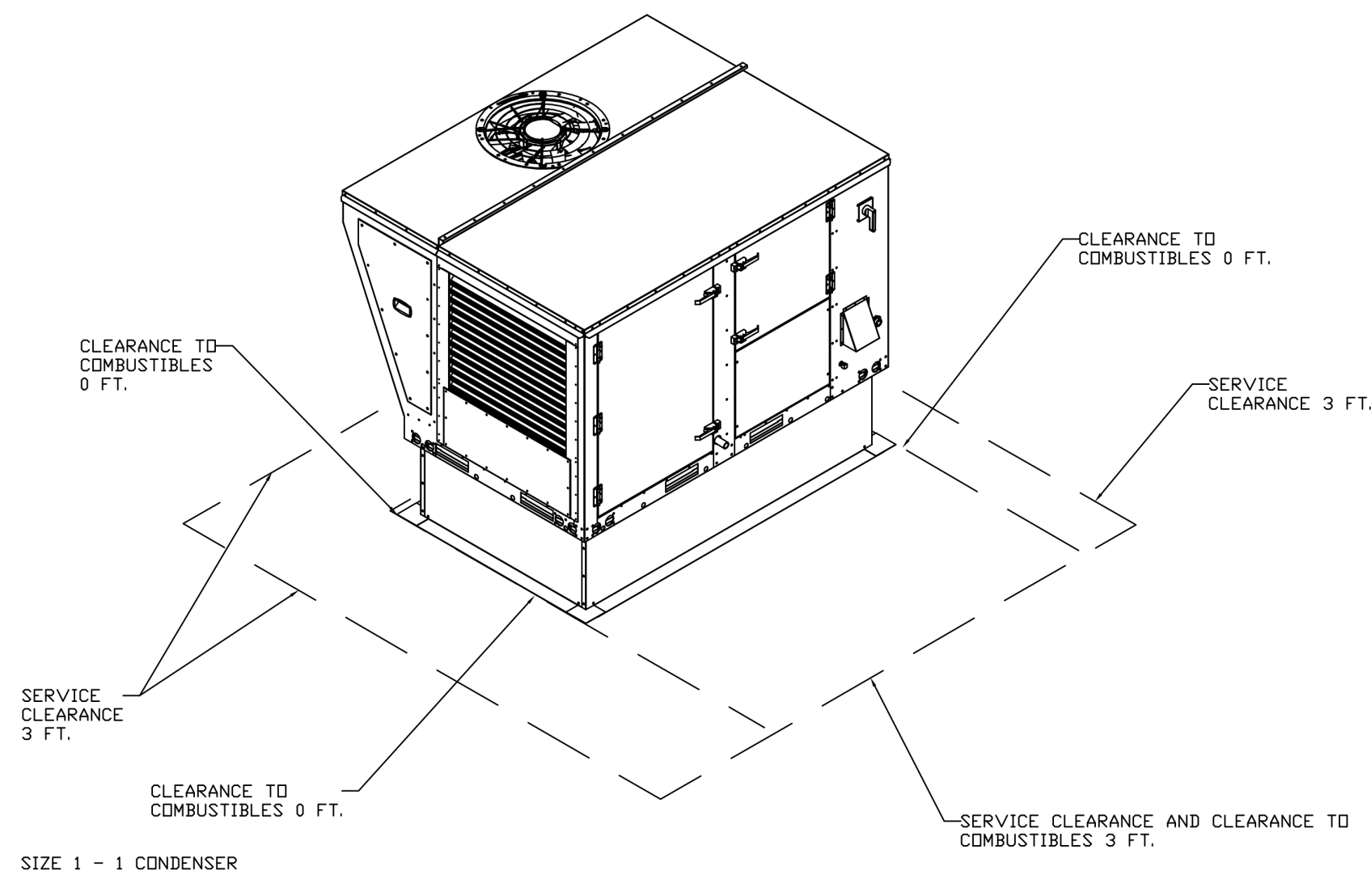
AOR PROJECT NUMBER: CAV073

ISSUE	DATE
PERMIT	01/10/2025
BID SET	03/24/2025
IFC SET	06/09/2025

MECHANICAL HOOD DETAIL PLAN

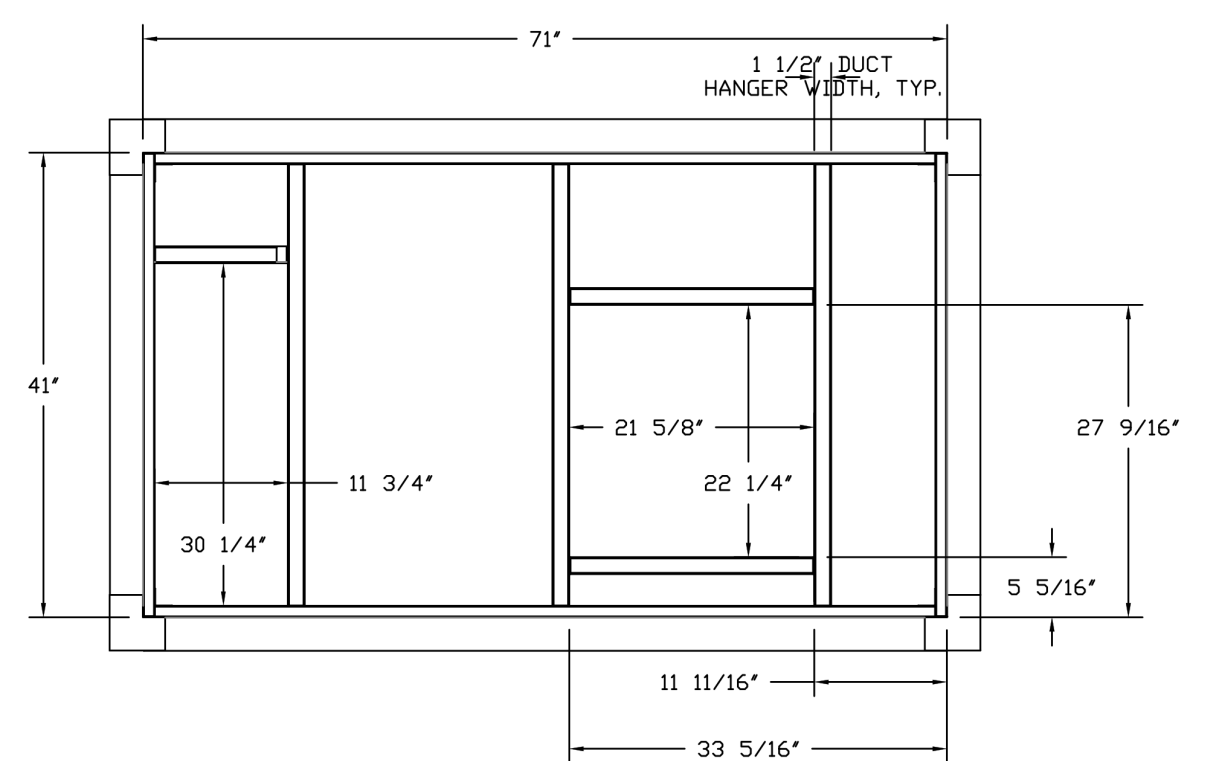
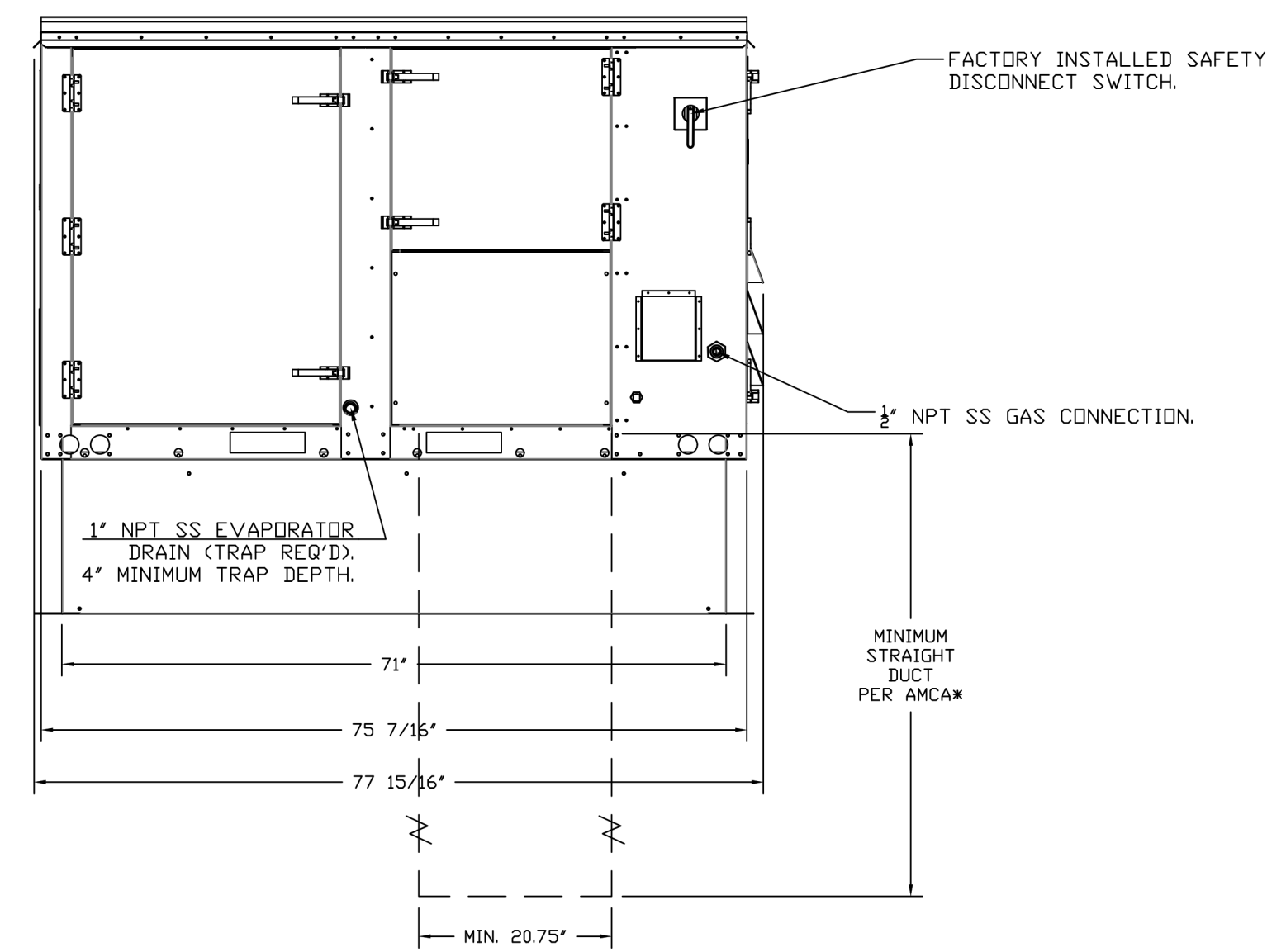
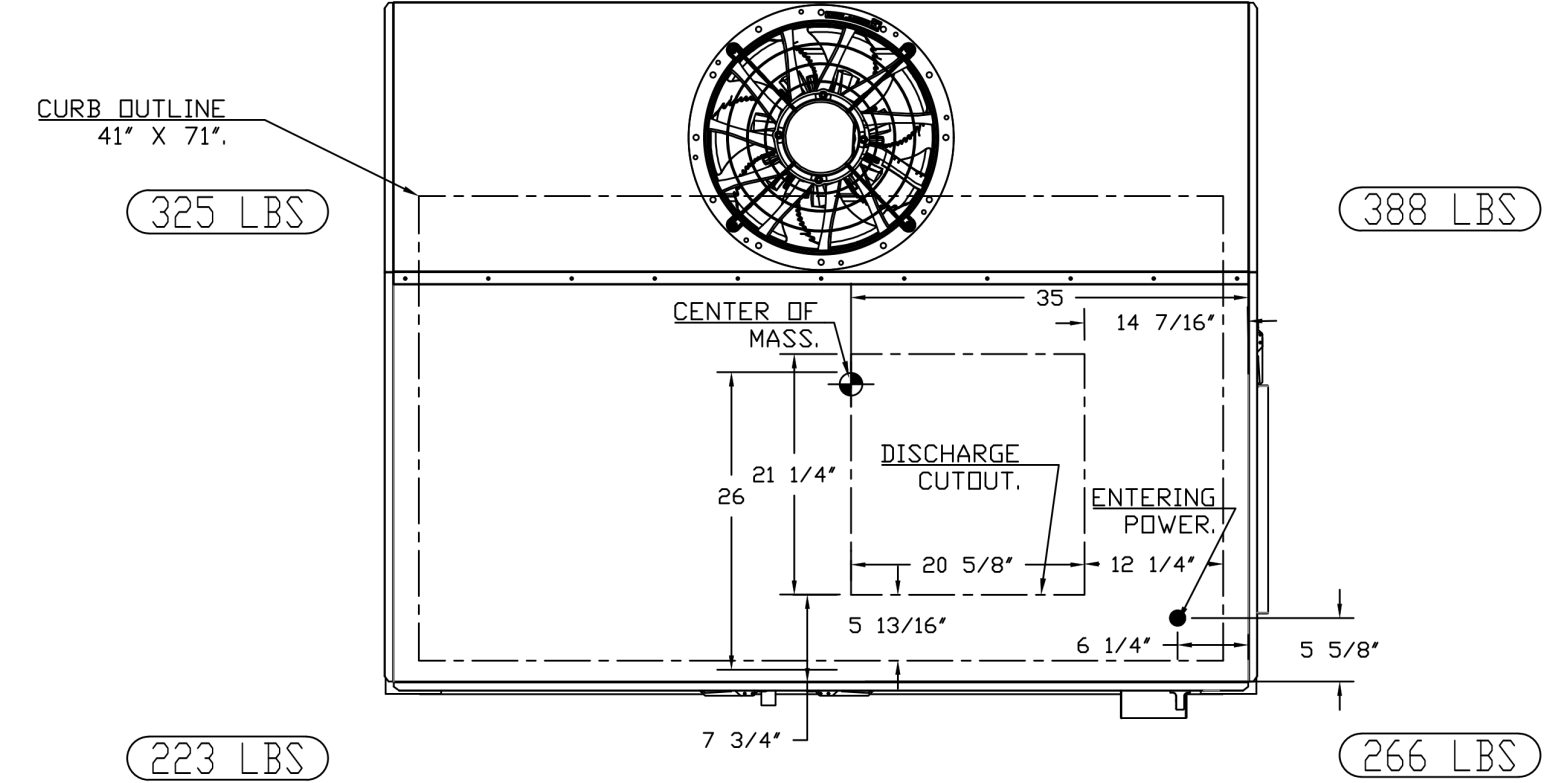
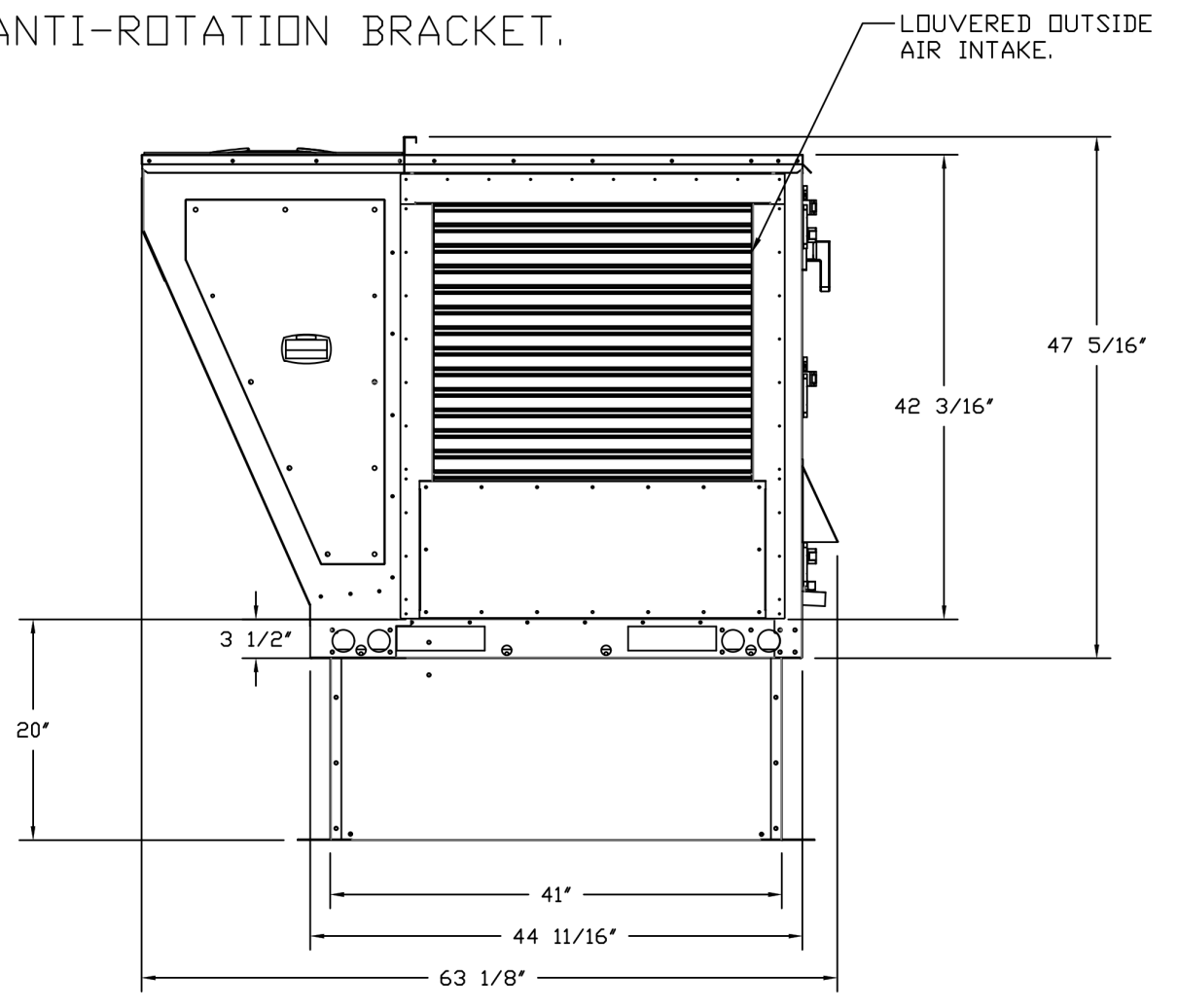
SHEET:  
**M604**





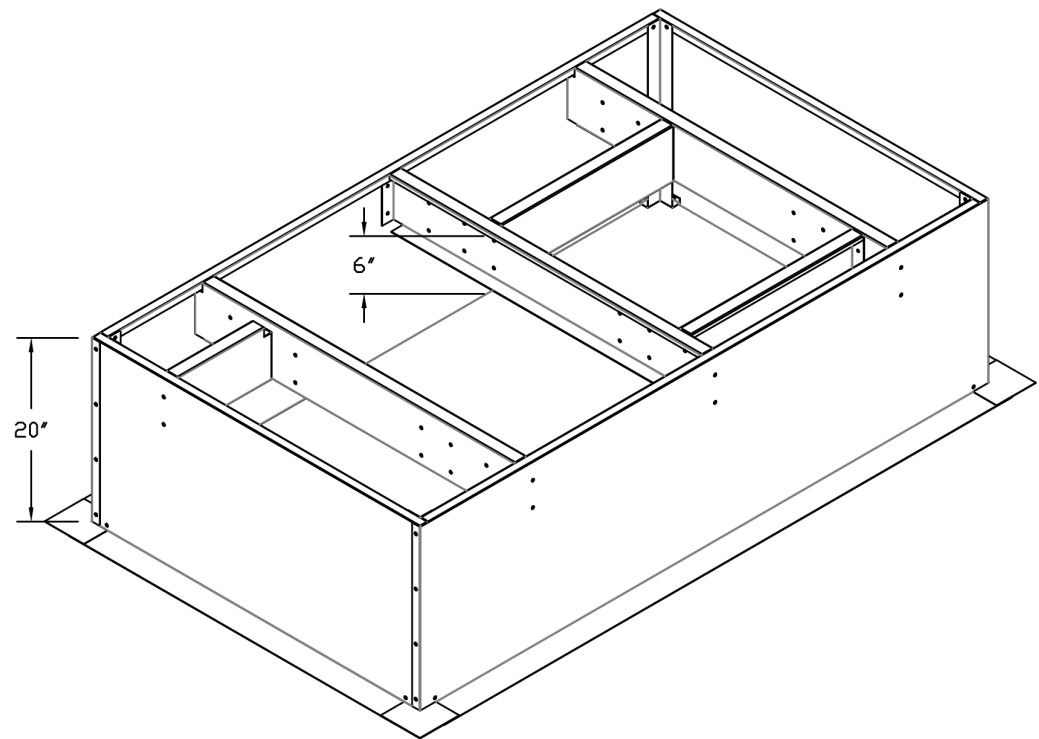
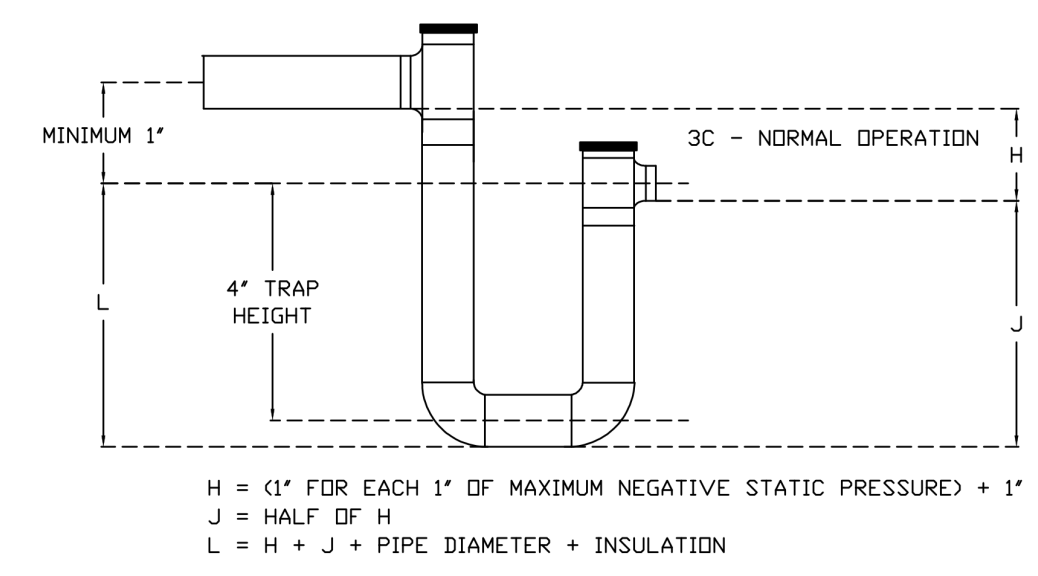
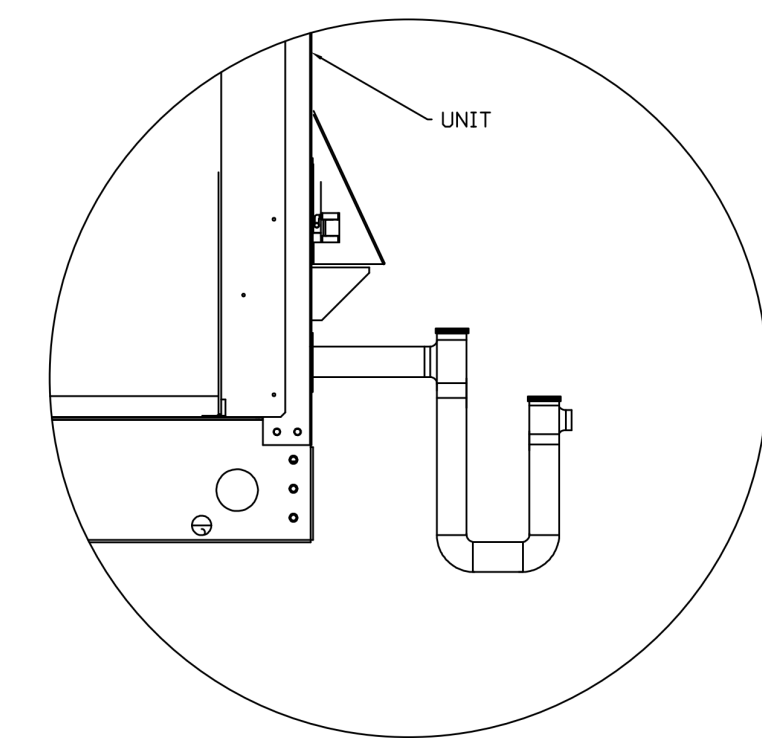
FAN #2 EARTU1-I.200-15-5T-MPU - HEATER

- 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 20.75" x 21.5".

RTU CONDENSATE DRAIN TRAP DETAIL



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DESCRIPTION	DATE

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SCALE:	NTS
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SHEET NO.	5

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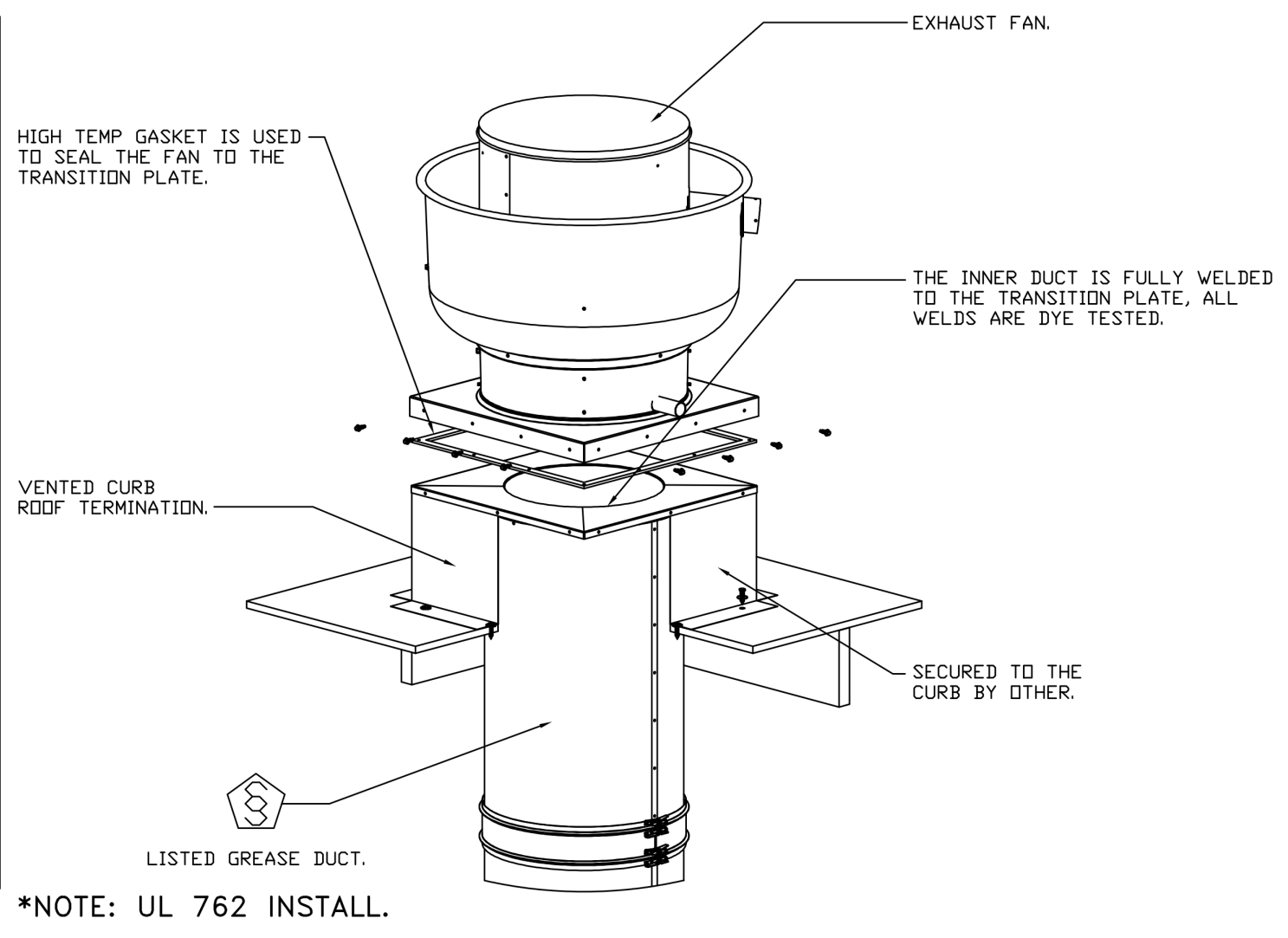
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 4775 W 116th ST  
 ZIONSVILLE, IN 46077  
 FOR CAVA  
 14 Ridge Square NW #500, WASHINGTON, DC 20016

MECHANICAL HOOD DETAIL PLAN

SHEET: **M605**

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

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



**CUSTOMER APPROVAL TO MANUFACTURE:**

APPROVED AS NOTED	<input type="checkbox"/>
APPROVED WITH NO EXCEPTION TAKEN	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
SIGNATURE _____	
YOUR TITLE _____	DATE _____

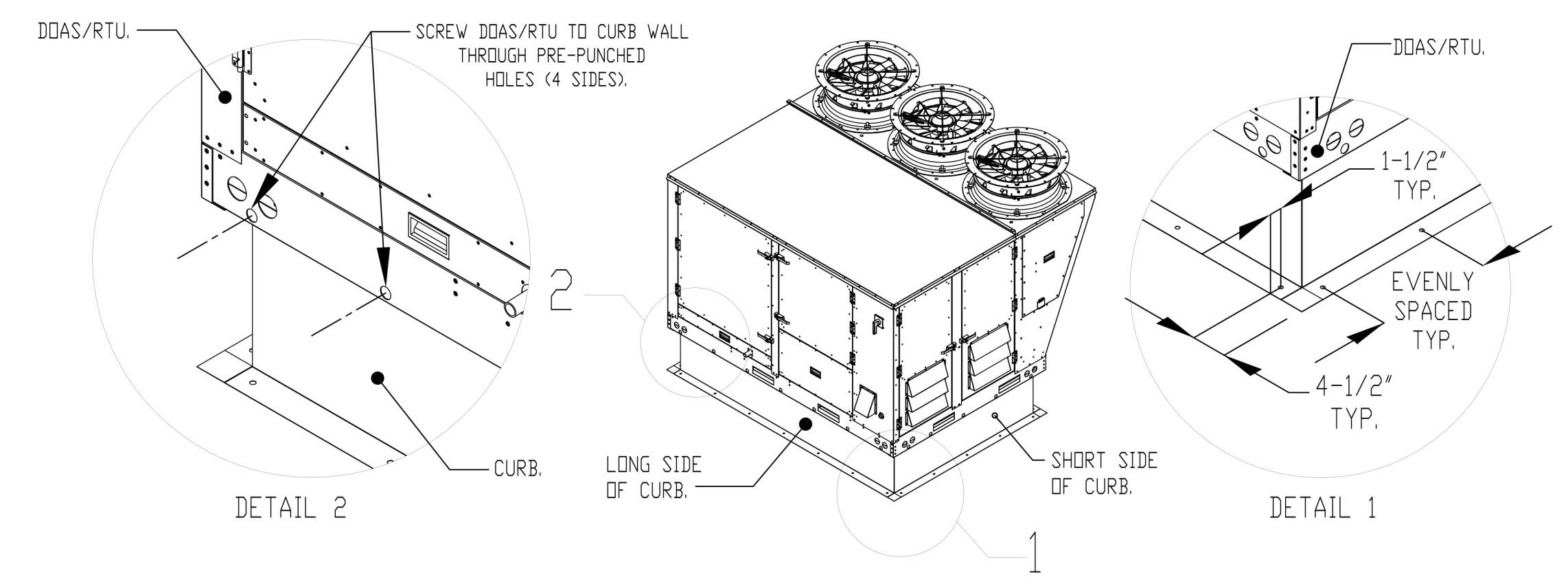
**AIR DIFFUSION SUPPLY DUCT SPECIFICATIONS:**  
 PROVIDE AIR DIFFUSION SUPPLY DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL DW-S0(HC), DW-S90(HC), & DW-S180(HC).  
 THREE DISTINCT HOLE PATTERN OPTIONS TO COVER A VARIETY OF CEILING HEIGHTS.  
 NO ADDITIONAL DIFFUSERS REQUIRED, AS THE DUCT ITSELF PROVIDES AIR DIFFUSION.  
 MADE OF HIGH QUALITY STAINLESS STEEL DESIGNED TO LAST 20+ YEARS.  
 HIGH INDUCTION SUPPLY DUCT IS CONSTRUCTED USING 24 GAUGE, 430 SS - 5" THRU 24".  
 HIGH INDUCTION SUPPLY DUCT IS CONSTRUCTED USING 20 GAUGE, 430 SS - 26" THRU 36".  
 QUICK ONSITE ASSEMBLY USING EPDM GASKETS & UNIVERSAL V-BANDS.  
 DOUBLE WALL SUPPLY DUCT AVAILABLE FOR INTERIOR AND EXTERIOR SPACES, EITHER CONDITIONED OR UNCONDITIONED.  
 DOUBLE WALL SUPPLY DUCT AVAILABLE IN DW-1S, DW-2S, & DW-3S TO MEET SPECIFIC REGIONAL "R" VALUE REQUIREMENTS.

Insulation R-Value Recommendations		
Supply Duct Type	Minimum R-value	Space Type
Single Wall - S & -HC	N/A	Conditioned Space Only
Double Wall - 1S	R-4	Unconditioned Interior Space Only
Double Wall - 2S	R-8	Unconditioned Space Climate Zones 1-4
Double Wall - 3S	R-12	Unconditioned Space Climate Zones 5-8

DOUBLE WALL SUPPLY DUCT IS INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.  
 AIR DIFFUSION SUPPLY DUCT COMPLIES WITH SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTORS) BEST PRACTICES.  
 POSITIONING OF SPRINKLERS TO AVOID OBSTRUCTION TO DISCHARGE, SEE NFPA 13, TABLE 8.12.5.1.1.

**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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DESCRIPTION	DATE

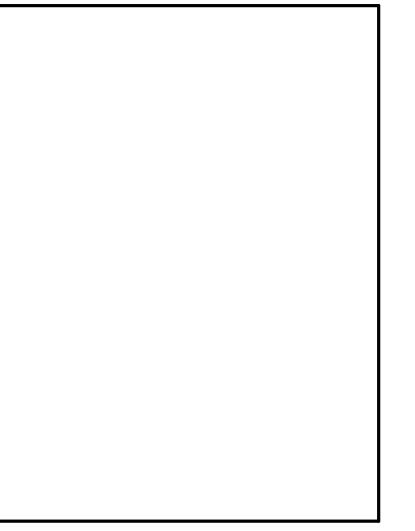
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IFC SET	06/09/2025

MECHANICAL HOOD DETAIL PLAN

SHEET: M606