

MECHANICAL FLOOR PLAN
1/4" = 1'-0"

REDESIGN OF SYSTEM BECAUSE OF SUPPLY CHAIN ISSUES WILL BE BILLED HOURLY TO CLIENT. GENERAL CONTRACTOR TO PLACE ORDER FOR ALL EQUIPMENT AS SOON AS CONTRACT IS AWARDED. COORDINATE WITH OWNER TO ENSURE OWNER HAS NOT PREORDERED EQUIPMENT.

GENERAL NOTES

- CONTRACTOR SHALL VERIFY THAT ALL EQUIPMENT, AS SHOWN ON THESE DRAWINGS, WILL NOT CONFLICT WITH ANY DRAINS, SCUTTLERS, JOINTS, VENTS, PIPING OR EQUIPMENT.
- ALL ROOFTOP EQUIPMENT SHALL HAVE MANUFACTURER SUPPLIED ROOF CURBS AND PIPE SEALS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ADMINISTERING ALL WARRANTIES ON EQUIPMENT WHICH HE INSTALLS. THIS INCLUDES, BUT IS NOT LIMITED TO REFRIGERANT LINES, ETC.
- ALL OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF 10'-0" FROM ANY EXHAUST FANS OR FLAMING VENT.
- PROVIDE VIBRATION ISOLATION DEVICES AND FLEXIBLE CONNECTIONS TO ALL MOVING MACHINERY.
- ALL FLEXIBLE DUCTS SHALL BE SUPPORTED EVERY 3'-0" WITH 2" WIDE GALV. STEEL BANDS WITH A MINIMUM OF ONE PER EACH SECTION OF FLEXIBLE DUCT. THE MAXIMUM ALLOWABLE LENGTH OF THE FLEX DUCT SHALL BE 5'-0".
- NO FLEXIBLE DUCTWORK SHALL BE ALLOWED ABOVE INACCESSIBLE CEILINGS.
- ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS. NO ALLOWANCE MADE FOR LINER OR WRAP.
- CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES. ALL REQUIRED OPENINGS AND EXCAVATIONS. ALL REQUIRED OPENINGS IN FOUNDATIONS, FLOORS, WALLS AND ROOF SHALL BE CONSTRUCTED INTO THE STRUCTURE WITH THE USE OF SLEEVES, CURBS, ETC. CUTTING AND PATCHING SHALL BE HELD TO A MINIMUM.
- ALL ITEMS PROJECTING THROUGH ROOFS SHALL BE FLASHED THROUGH CURBS OR PIPE SEALS A MINIMUM OF 1" ABOVE THE ROOF. THE PIPE CURBS AND SEALS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ROOFING CONTRACTOR. INSURE THAT AMPLE BOOT OPENINGS ARE PROVIDED TO ACCOMMODATE ANY ELECTRICAL CONDUIT PENETRATIONS REQUIRED.
- ALL SUPPLY AND RETURN AIR DEVICES SHALL BE PAINTED AS REQUIRED BY THE OWNER.
- ALL DUCTWORK IS TO BE INSTALLED AS HIGH AND AS TIGHT TO STRUCTURE AS NOTED. REFER TO KEY NOTES. CONTRACTOR TO FIELD VERIFY CONDITIONS OF CEILING AND ROOF STRUCTURES PRIOR TO START OF WORK AND TO REPORT ANY AND ALL DISCREPANCIES.
- ALL HORIZONTAL GREASE DUCT IS TO SLOPE 1/4" PER FOOT PER NFPA 96, CURRENT EDITION.
- ALL TURNS IN KITCHEN EXHAUST DUCT ARE TO BE ACCOMPLISHED BY THE USE OF 1.5 CENTERLINE RADIUS SMOOTH RADIUS ELBOWS.
- COORDINATE BRANCH DUCT LOCATIONS WITH TRUSS WEBS, ROOF SCREEN POSTS AND LIGHTING.
- HOOD EXHAUST SYSTEMS SHALL BE CONSTRUCTED AND INSTALLED PER NFPA 96 AND INTERNATIONAL MECHANICAL CODE (IMC), CURRENT EDITIONS.
- ALL EXPOSED DUCT AND FITTINGS SHALL BE PROVIDED WITH A MILL PHOSPHATIZED FINISH ("PAINT GRIP", ZINC GRIP OR SIMILAR ETCH TREATMENT) TO ALLOW THE DUCTWORK TO BE PAINTED.
- DUCT SMOKE DETECTORS REQUIRE A REMOTE LED INDICATOR THRU THE CEILING LEVEL. NFPA 72 3-8.4.2.2 AND 2-10.5.8.
- THE INSTALLING CONTRACTOR IS TO PROVIDE THE OWNER WITH A COMPLETE SET OF AS-BUILT DRAWINGS, SHOWING ALL FIELD MODIFICATIONS, AT THE CONCLUSION OF THE PROJECT.
- ALL EXPOSED DUCTWORK IS TO BE LINED 1" SUPPLY, 1" RETURN.
- ALL ROOF PENETRATIONS SHALL BE BY THE GENERAL CONTRACTOR. ROOFING WORK SHALL BE PERFORMED BY THE ROOFING CONTRACTOR.

KEY NOTES

- EXISTING TO REMAIN. MODIFY ANY EXISTING DUCTWORK (AS REQUIRED) WITH NEW WALL CONSTRUCTION.
- CONNECT NEW DUCTWORK TO EXISTING DUCTWORK OR EXISTING AIR DEVICE. CONTRACTOR TO PROVIDE ALL NECESSARY TRANSITIONS AND HARDWARE TO ENSURE OPERABLE SYSTEM.
- DEMOLISH AND CAP EXISTING DUCTWORK AND ASSOCIATED AIR DEVICES FROM POINT AS SHOWN.
- PROVIDE GREASE EXHAUST DUCTWORK UP THROUGH ROOF TO KITCHEN EXHAUST FAN. SEE PLAN FOR SIZE. PROVIDE FULL SIZED ROOF PENETRATION AND SEAL AIR TIGHT. DUCTWORK MATERIAL TO BE DOUBLE-WALLED EXHAUST DUCTWORK AS PROVIDED BY CAPTIVEAIRE. PROVIDE ALL CODE REQUIRED ACCESS DOORS IN DUCTWORK.
- PROVIDE DUCTWORK TRANSITION AT HOOD COLLAR. REFER TO CAPTIVEAIRE DRAWINGS FOR MORE INFORMATION.
- EXISTING TOILET EXHAUST DUCTWORK AND DEVICES TO REMAIN. CONTRACTOR TO CLEAN AND BRING TO LIKE NEW CONDITION. EXISTING DUCTWORK THROUGH ROOF TO BE CONNECTED TO NEW CONTRACTOR INSTALLED EXHAUST FAN (EF-1) ON ROOF. CONTRACTOR TO PROVIDE NECESSARY TRANSITION HARDWARE AND DUCTWORK TO ENSURE OPERABLE SYSTEM.
- PROVIDE REMOTE TEMPERATURE SENSOR AT INDICATED LOCATION AND MOUNT DEVICE ON WALL 5' A.F.F. PROVIDE INSULATED BASE IF ON EXTERIOR WALL.
- PROVIDE FULLY DIGITAL, 7-DAY PROGRAMMABLE THERMOSTAT WITH AUTOMATIC CHANGE OVER AND SETBACK SERVING RTU1, RTU2, RTU3, RTU4, RTU5 & RTU6 AT INDICATED LOCATION. COORDINATE EXACT LOCATION, SPACING, AND MOUNTING HEIGHTS WITH OWNER PRIOR TO START OF WORK.
- PROVIDE ANSUL SYSTEM REMOTE MANUAL PULL STATION AT INDICATED LOCATION. VERIFY EXACT LOCATION AND MOUNTING HEIGHT WITH KITCHEN EQUIPMENT SUPPLIER PRIOR TO START OF WORK.
- PROVIDE DUCT SMOKE DETECTOR TEST/RESET STATION SERVING RTU1, RTU2, RTU3, RTU4, RTU5 & RTU6 AT INDICATED LOCATION. COORDINATE EXACT LOCATION, SPACING, AND MOUNTING HEIGHTS WITH OWNER PRIOR TO START OF WORK.
- INSTALL EXPOSED DUCTWORK IN DINING AREA BELOW CEILING GRID AND AS HIGH AS POSSIBLE IN DINING SPACE. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO START OF WORK.
- ALL NEW AND EXISTING DUCTWORK IN KITCHEN AREAS TO BE INSTALLED ABOVE CEILING GRID AND ROUTED TIGHT TO BUILDING STRUCTURE. COORDINATE ROUTING WITH ALL OTHER TRADES PRIOR TO START OF WORK. CONTRACTOR TO FIELD VERIFY CONDITION OF EXISTING KITCHEN AREA DUCTWORK AND REPAIR AS NECESSARY.
- REUSE FULL SIZE DUCTWORK ROOF PENETRATIONS AND RESEAL WHERE NECESSARY. CONTRACTOR TO REPAIR ROOF WHERE REQUIRED.
- NEW FULL SIZE DUCTWORK ROOF PENETRATION. CONTRACTOR TO SEAL PENETRATION AIR AND WATER TIGHT. COORDINATE ROOF PENETRATION WITH STRUCTURAL AND ALL OTHER TRADES PRIOR TO START OF WORK.
- COORDINATE DUCT PENETRATION WITH NEW EXISTING WALLS.
- SMOKE DETECTOR. PROVIDE SMOKE DETECTOR IN ROOFTOP UNIT RETURN AIR DUCT. INTERLOCK ROOFTOP UNIT WITH DETECTOR. ROOFTOP UNIT SHALL DEACTIVATE ON DETECTION OF SMOKE. PROVIDE AN AUDIBLE ALARM DEVICE AND HORN TESTING STATION IN MONITORED AREA. LOCAL CODE. THE SMOKE DETECTOR INTO THE FIRE ALARM SYSTEM AS REQUIRED. SEE ELECTRICAL DRAWINGS FOR LOCATIONS.
- PROVIDE CO2 SENSOR/MONITOR. MOUNT DEVICE AT 12' AFF AND IN ACCESSIBLE LOCATION. CO2 SENSOR/MONITOR SERVING CO2 TANKS TO BE INSTALLED WITHIN 12'-0" OF TANKS. SENSOR SHALL BE A LOGCO2 MK10 ALL IN ONE SENSOR. ON LOGCO2 MK8 IF CENTRAL SYSTEM IS REQUIRED.
- PROVIDE CO2 REMOTE ALARM AND STROBE IN MANAGER'S OFFICE. WIRE CO2 SENSORS LOCATED IN UTILITY ROOM AND BEER COOLER TO OFFICE ALARM AND STROBE.
- PROVIDE AND INSTALL AIR CURTAIN ABOVE DOORWAY. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO SCHEDULE ON SHEET M103 FOR MORE INFORMATION. COORDINATE ELECTRICAL REQUIREMENTS WITH EC. GC TO PROVIDE BLOCKING AS NECESSARY.
- PROVIDE AND INSTALL AIR CURTAIN ABOVE GARAGE DOOR ON EXTERIOR WALL. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO SCHEDULE ON SHEET M103 FOR MORE INFORMATION. PROVIDE ANY NECESSARY ACCESSORIES FOR EXTERIOR MOUNTING. COORDINATE ELECTRICAL REQUIREMENTS WITH EC.
- ELECTRIC DUCT HEATER TO BE MOUNTED IN DUCTWORK ROUTED TO RESTROOMS. HEATERS TO BE CONTROLLED BY THERMOSTAT AND FLOW SENSOR MOUNTED IN DUCT BETWEEN HEATER AND RESTROOM DIFFUSERS. PROVIDE TEMPERATURE SENSOR IN TOILET EXHAUST FAN DUCT AND THERMOSTAT MOUNTED ON UNIT. SET AT 70°F. SYSTEM SHALL HAVE SELF CONTAINED CONTROL SYSTEM. LOCATE THERMOSTAT IN EXHAUST DUCT 90 AS NOT TO GET BACKDRIFT FROM OUTSIDE AIR.
- ELECTRIC BASEBOARD HEATER TO BE MOUNTED AT 6" A.F.F. BASEBOARD HEATER THERMOSTAT TO BE SET AT 55°F TO AVOID FREEZING OF EQUIPMENT. INSTALLATION TO BE PER MANUFACTURER'S SPECIFICATIONS. COORDINATE ELECTRICAL REQUIREMENTS WITH EC.
- RECONNECT NEW GAS WATER HEATER TO EXISTING WATER HEATER FLUE SYSTEM. CONTRACTOR TO FIELD VERIFY AND REPAIR AS NECESSARY.
- CONTRACTOR TO FIELD VERIFY ROOFTOP UNIT VERTICAL DUCTWORK DROPS WITH NEW WALLS. COORDINATE ALL DUCTWORK DROPS IN FIELD.

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
→	DIRECTION OF FLOW	—	LINED DUCTWORK
⊕	THERMOSTAT	⊕	RECTANGULAR ELBOW WITH TURNING VANES
⊖	TEMPERATURE SENSOR	⊖	ROUND FLEXIBLE DUCT CONNECTION
EA	EXHAUST AIR	⊘	90 DEGREE ELBOW DOWN
O.A.	OUTSIDE AIR	⊘	90 DEGREE ELBOW UP
R.A.	RETURN AIR	⊘	FLEXIBLE DUCT CONNECTION
⊙	DUCT OR UNIT MOUNTED SMOKE DETECTOR	⊙	DUCT SIZE TRANSITION
⊕	MANUAL BALANCING DAMPER	⊕	POINT OF CONNECTION
⊕	MOTORIZED DAMPER	⊕	SMOKE DETECTOR REMOTE RESET SWITCH
⊕	CEILING RETURN AIR DEVICE	⊕	CO2 DETECTOR
⊕	SUPPLY AIR DEVICE	NOTE: NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT.	

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BUFFALO WILD WINGS
FRANCHISE - STAND ALONE
VALLEY VIEW BLVD NW
4869 VALLEY VIEW BLVD NW
ROANOKE, VA 24012



DRAWING ISSUE

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	11/12/24

STAMP

BRUCE C. BRANSCUM
No. 0402952195
11/12/2024

MECHANICAL FLOOR PLAN

PROJECT NUMBER
24-0212

SHEET NUMBER
M101

Drawn By: SAC
Checked: BCB



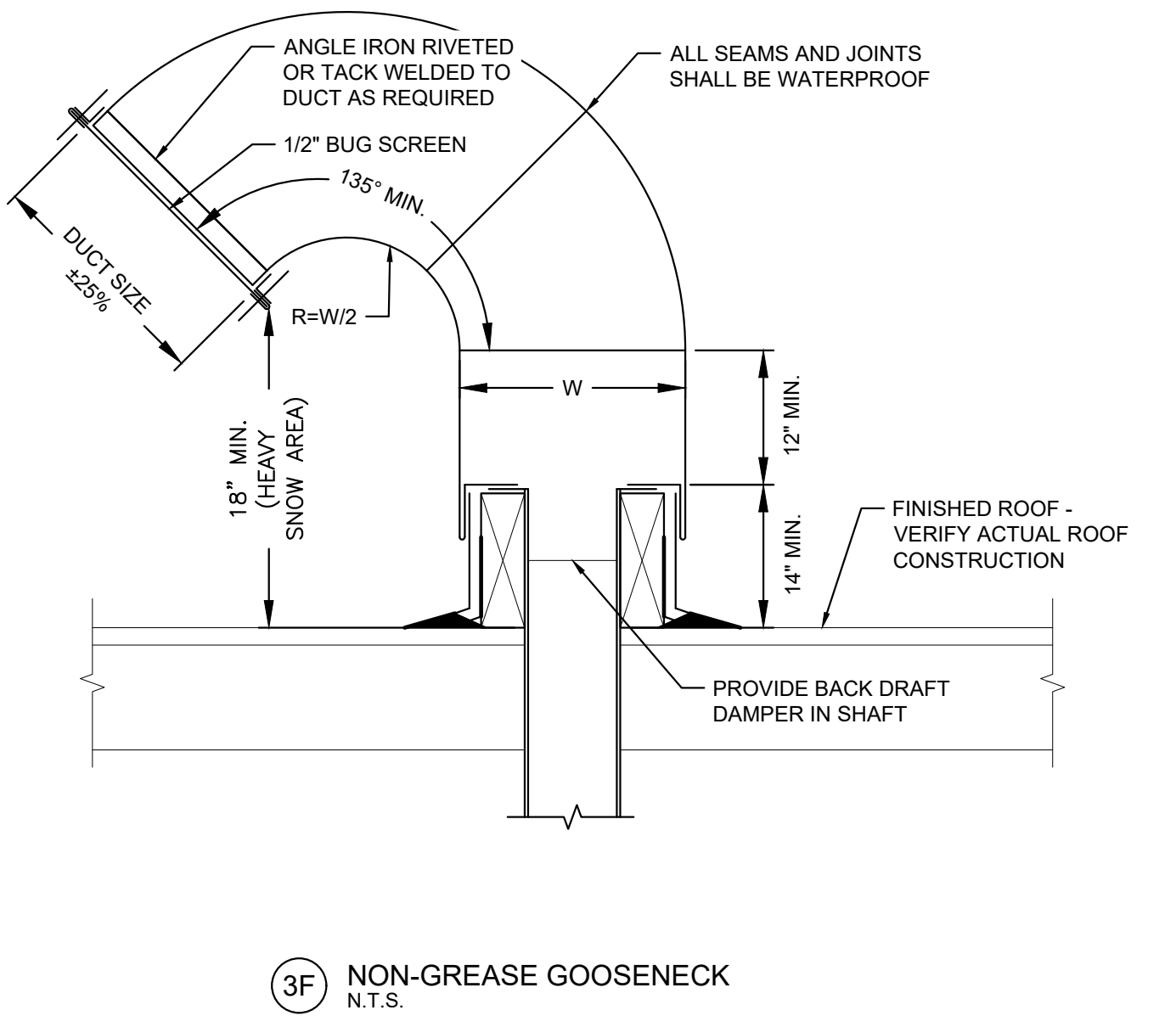
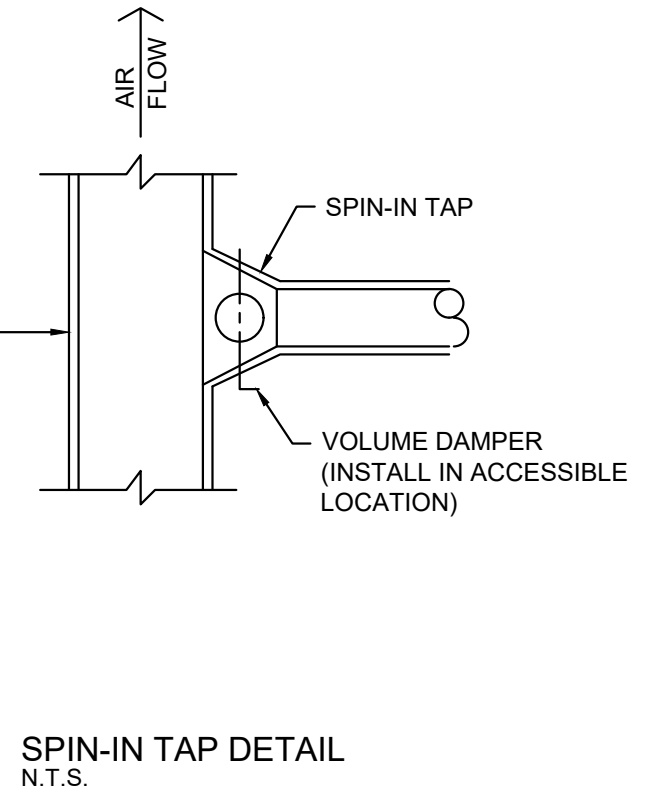
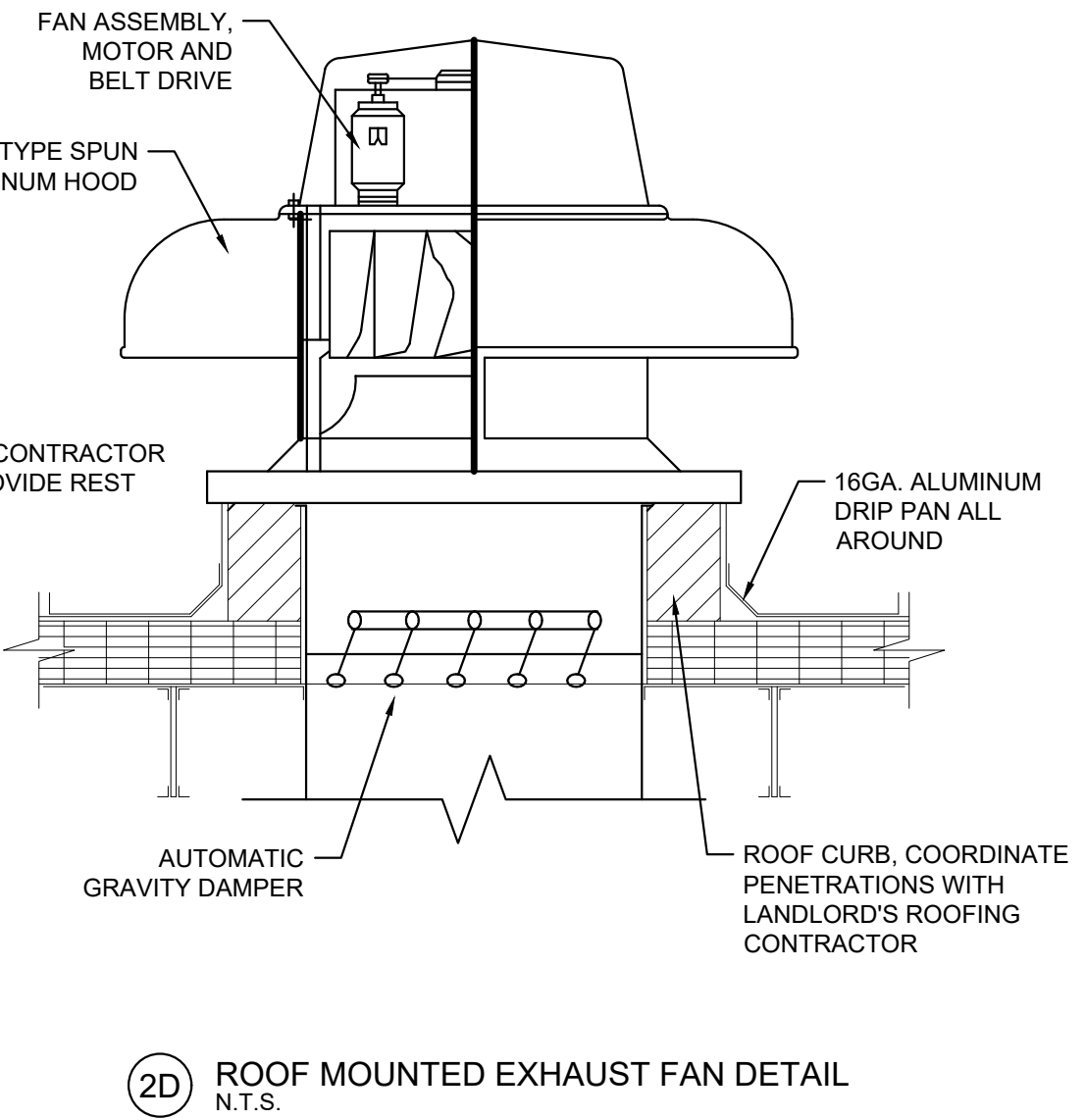
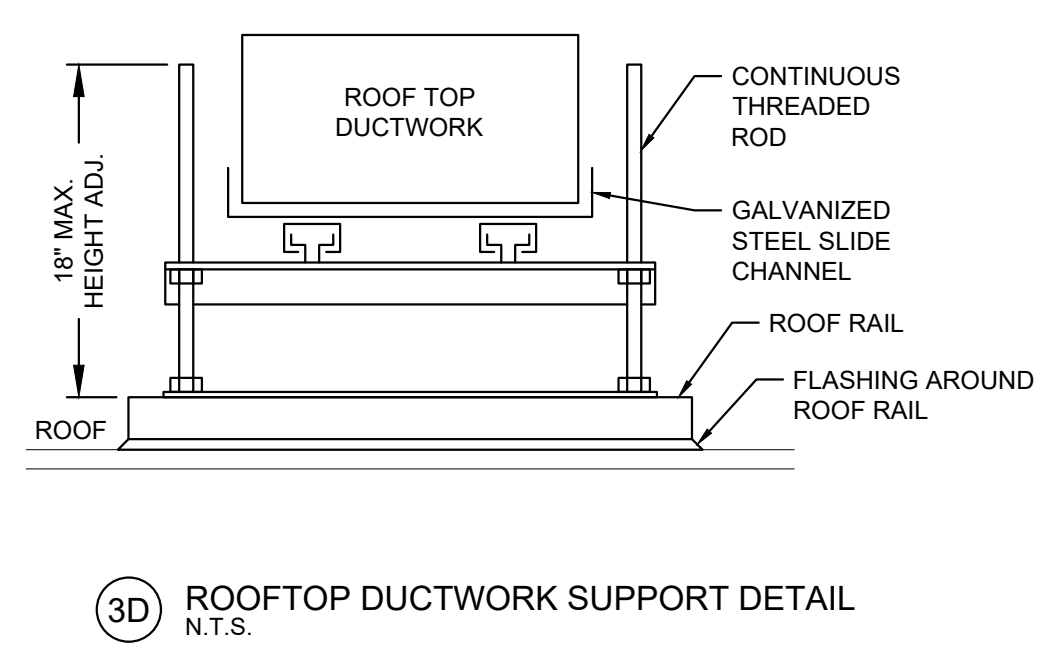
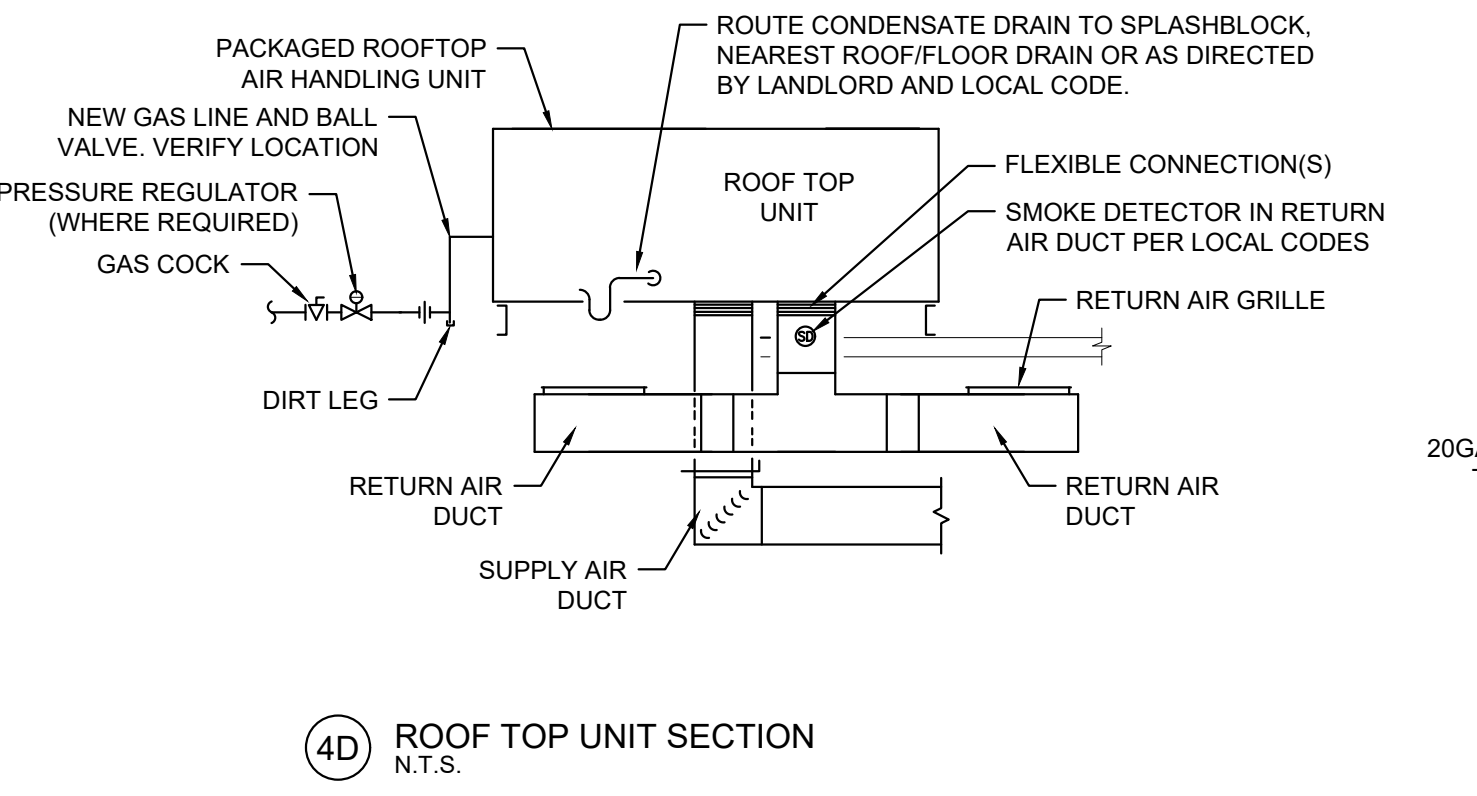
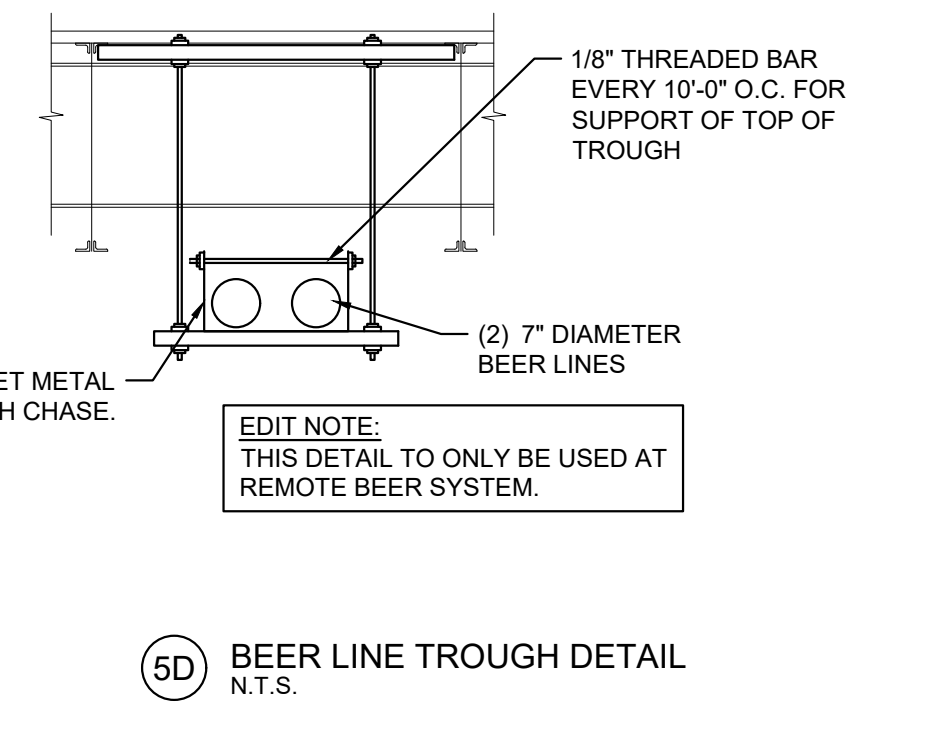
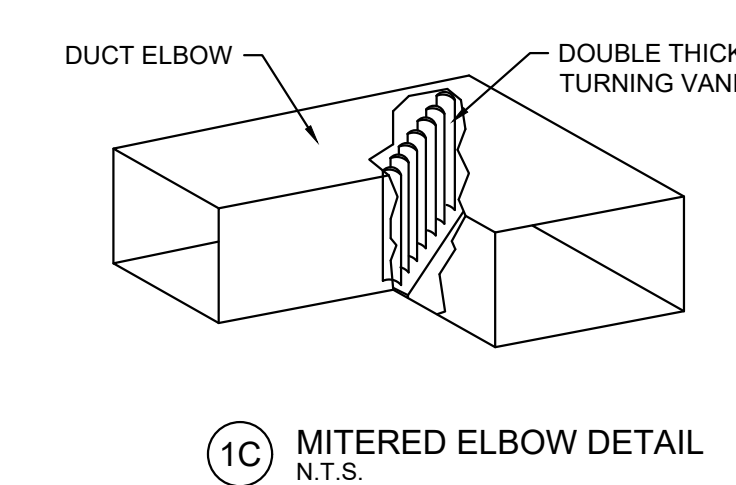
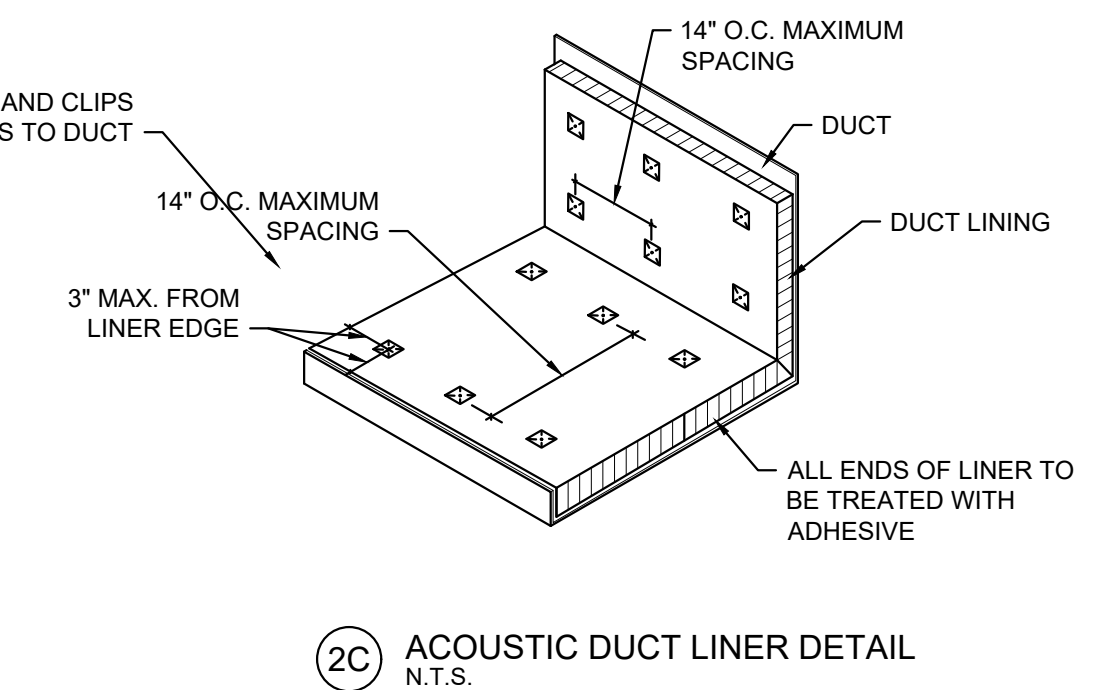
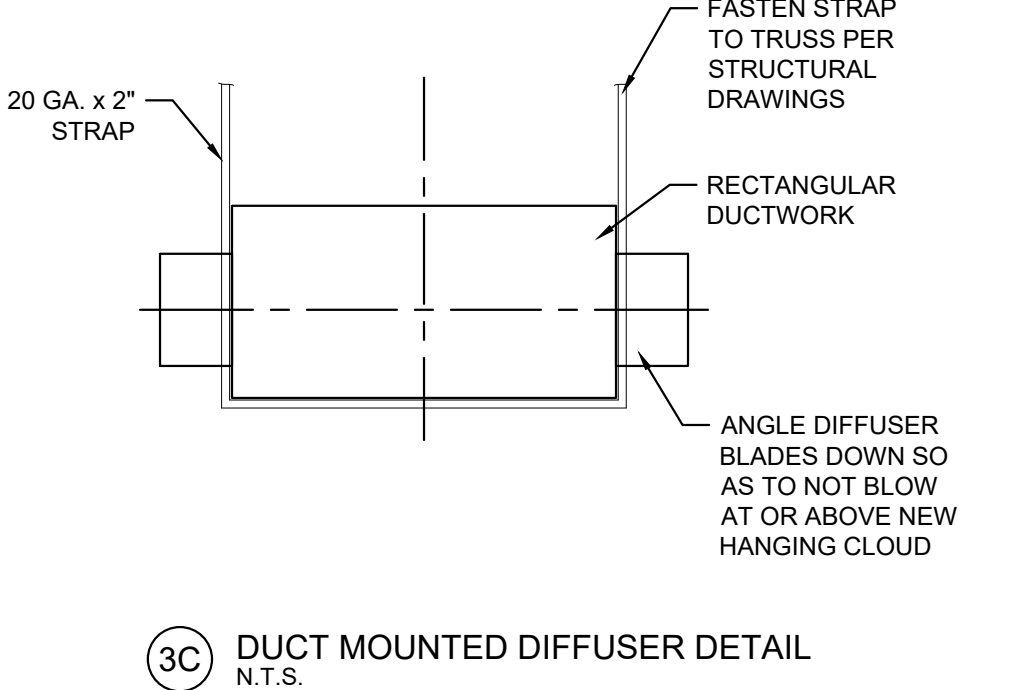
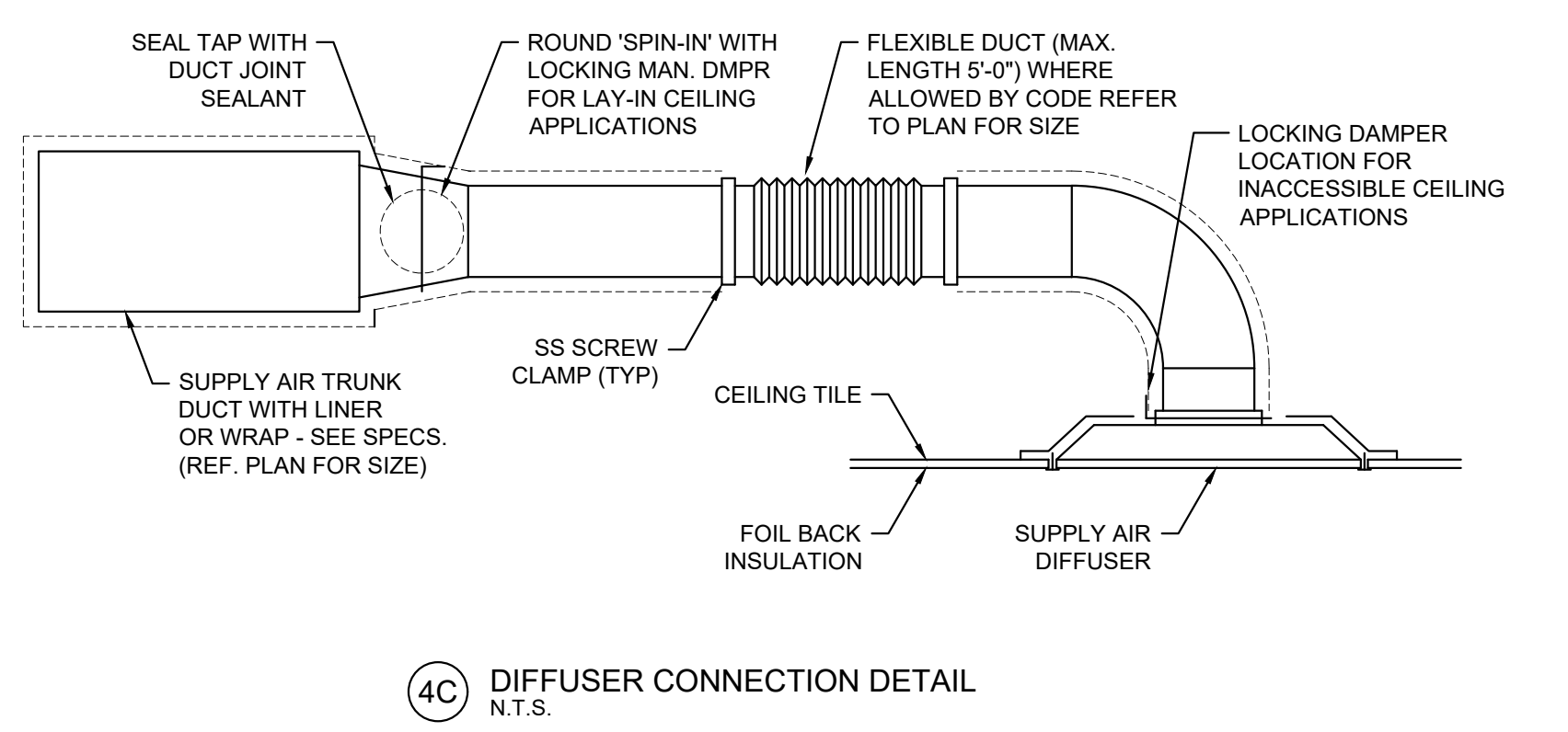
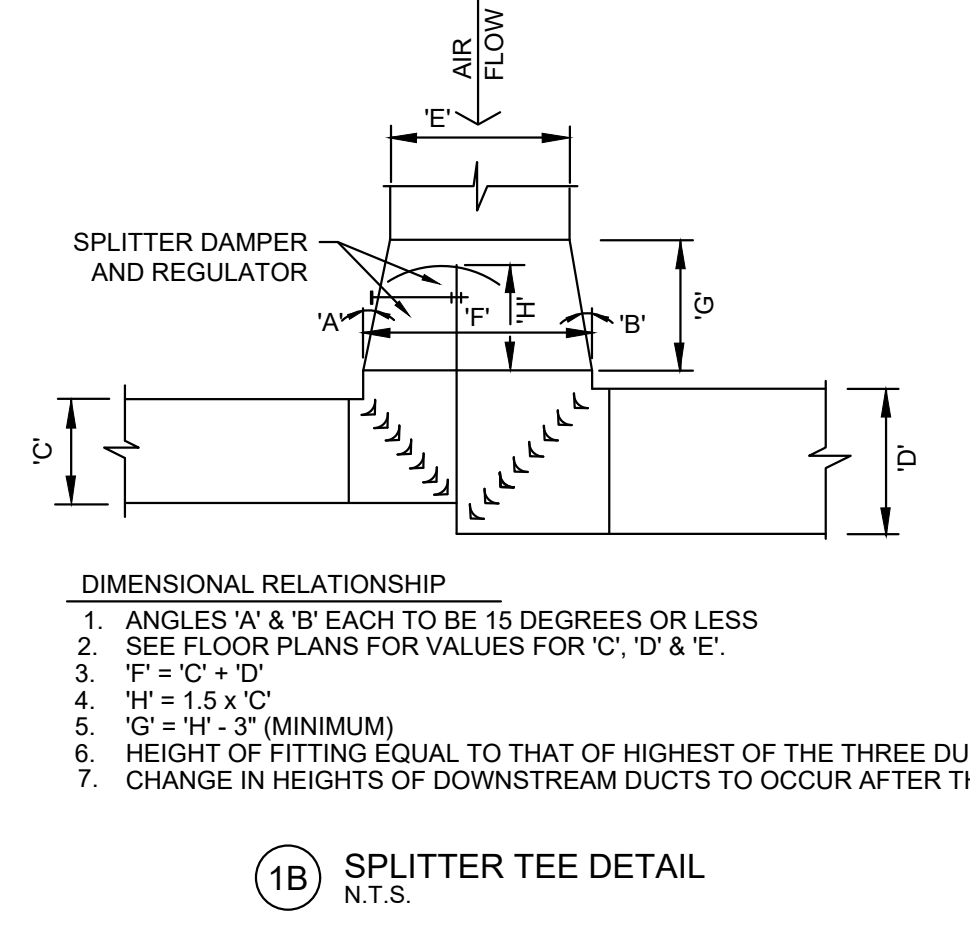
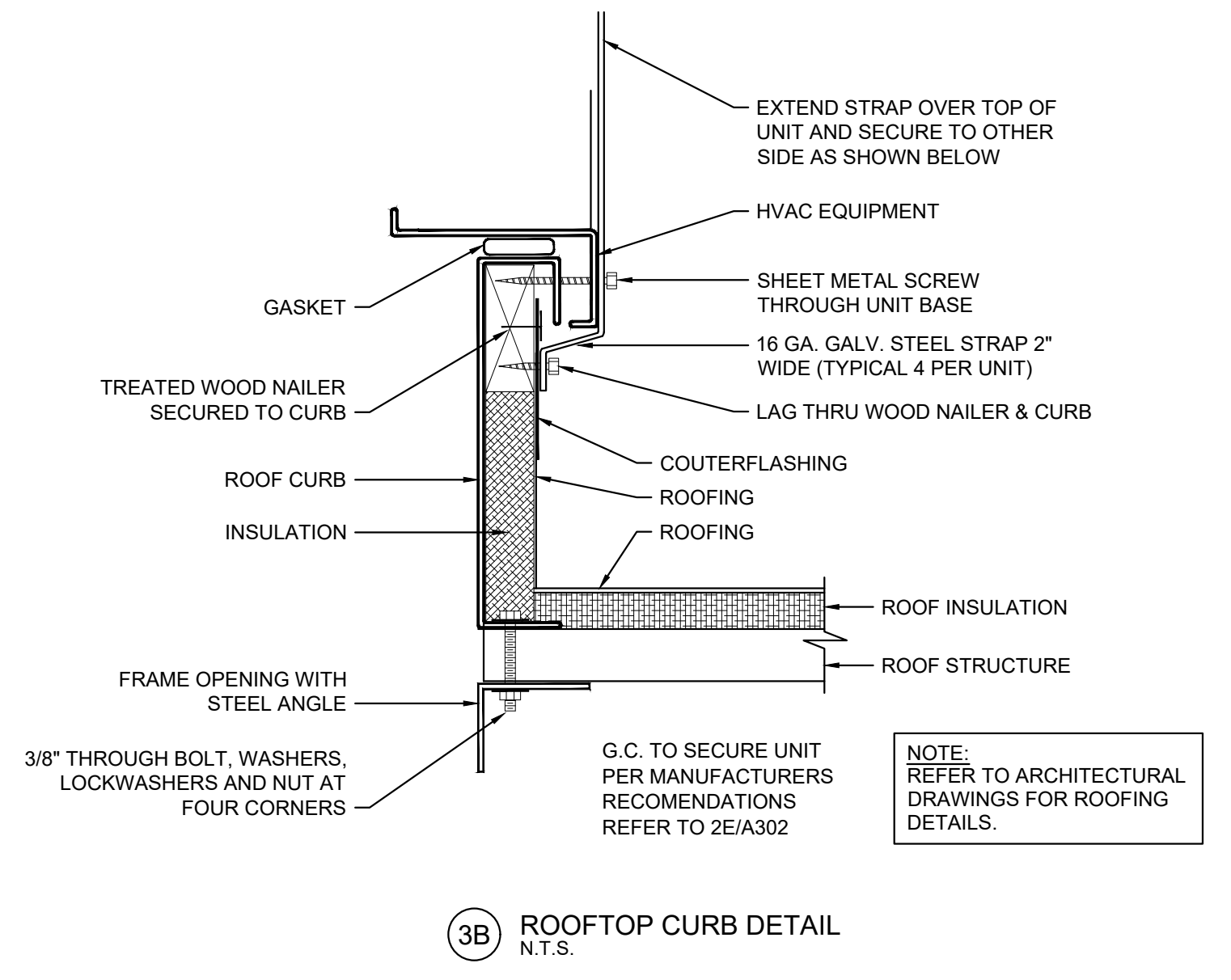
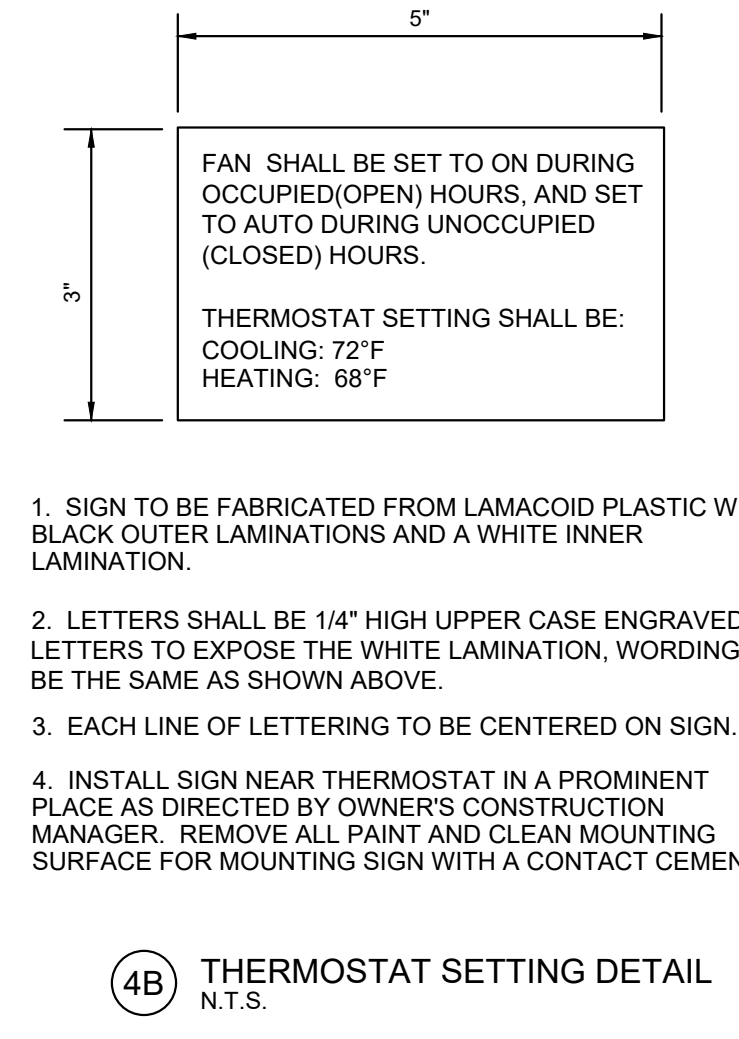
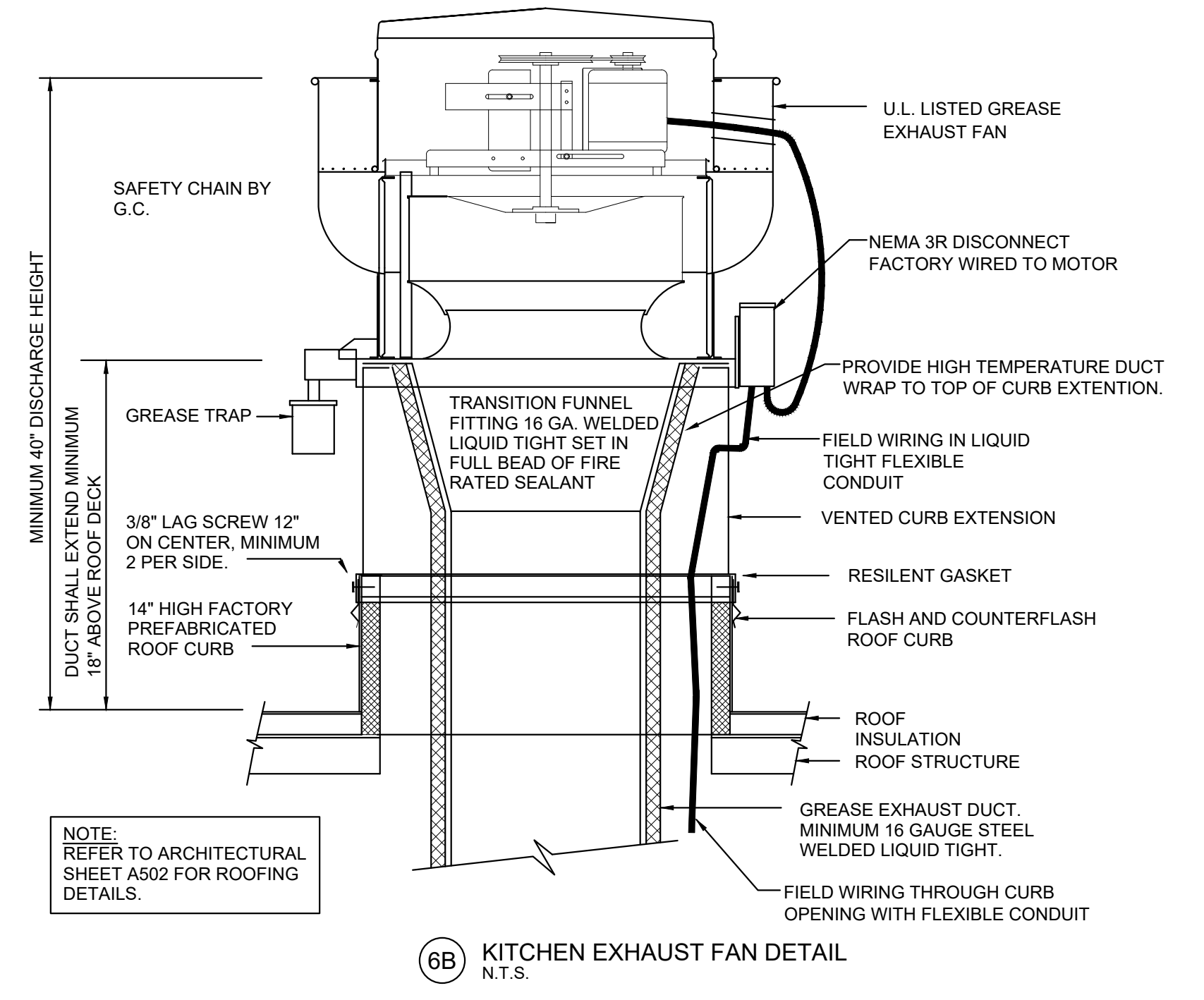
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NO.	DESCRIPTION	11/12/24

STAMP

MECHANICAL DETAILS
Checked: BCB
Drawn By: SAC

PROJECT NUMBER
24-0212

SHEET NUMBER
M102



REVISION OF SYSTEM BECAUSE OF SUPPLY CHAIN ISSUES WILL BE BILLED HOURLY TO CLIENT. GENERAL CONTRACTOR TO PLACE ORDER FOR ALL EQUIPMENT AS SOON AS CONTRACT IS AWARDED. COORDINATE WITH OWNER TO ENSURE OWNER HAS NOT PREORDERED EQUIPMENT.

FOR QUESTIONS, CALL THE
Western Ohio Mechanical
REGION 133
PHONE: (513) 275 - 4986
EMAIL: reg133@econair.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#7066186

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RESER(S)							MJA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DA	CFM	VEL	SP				END TO END	ROW
1	Fryer HD	5424 EX-2-NCPSF-F	ECON-AIR	11' 0"	600 DEG	I	HEAVY	200	2200			4"	16"	2200	1576	-0.689"	1320	700	430 SS WHERE EXPOSED	ALONE	ALONE
2	Griddle Hood	6024 EX-2-NCPSF-F	ECON-AIR	9' 0"	600 DEG	I	HEAVY	200	1800			4"	14"	1800	1684	-0.666"	1080	648	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	TYPE	FILTER(S)			EFFICIENCY @ 7 MICRONS	QTY	LIGHT(S)			UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT	
			QTY	HEIGHT	LENGTH			TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM	SIZE	ELECTRICAL			MODEL #
1	Fryer HD	CAPTRATE SOLO FILTER	8	20"	16"	85% SEE FILTER SPEC	5	RECESSED ROUND	NO						YES	846 LBS	
2	Griddle Hood	CAPTRATE SOLO FILTER	6	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	LEFT	12"x60"x24"	TANK FS	4.0/4.0/4.0	DCV-2111	1 LIGHT 1 FAN	YES	1195 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	Fryer HD	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 122.00" HIGH X 151.00" LONG 430 SS VERTICAL.
		LEFT SIDESPLASH 122.00" HIGH X 42.00" LONG 430 SS VERTICAL.
		LEFT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.
		BACKSPLASH - INSIDE CORNER 80.00" HIGH X 2.00" LEG LENGTH 430 SS VERTICAL.
		INSULATION FOR TOP OF HOOD.
2	Griddle Hood	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 122.00" HIGH X 139.00" LONG 430 SS VERTICAL.
		RIGHT SIDESPLASH 122.00" HIGH X 78.00" LONG 430 SS VERTICAL.
		RIGHT END STANDOFF (FINISHED) 1" WIDE 60" LONG INSULATED.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RESER(S)			
							WIDTH	LENG	DIA	CFM
1	Fryer HD	Front	133"	22"	6"	MJA	8"	36"	660	0.157"
							8"	36"	660	0.157"
							6"	28"	350	0.083"
							6"	28"	350	0.083"
2	Griddle Hood	Front	121"	22"	6"	MJA	10"	28"	540	0.117"
							10"	28"	540	0.117"
							6"	28"	324	0.074"
							6"	28"	324	0.074"

SYSTEM DESIGN VERIFICATION (SDV)

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

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

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

SPECIFICATION: CAPTRATE GREASE-STOP SOLO FILTER

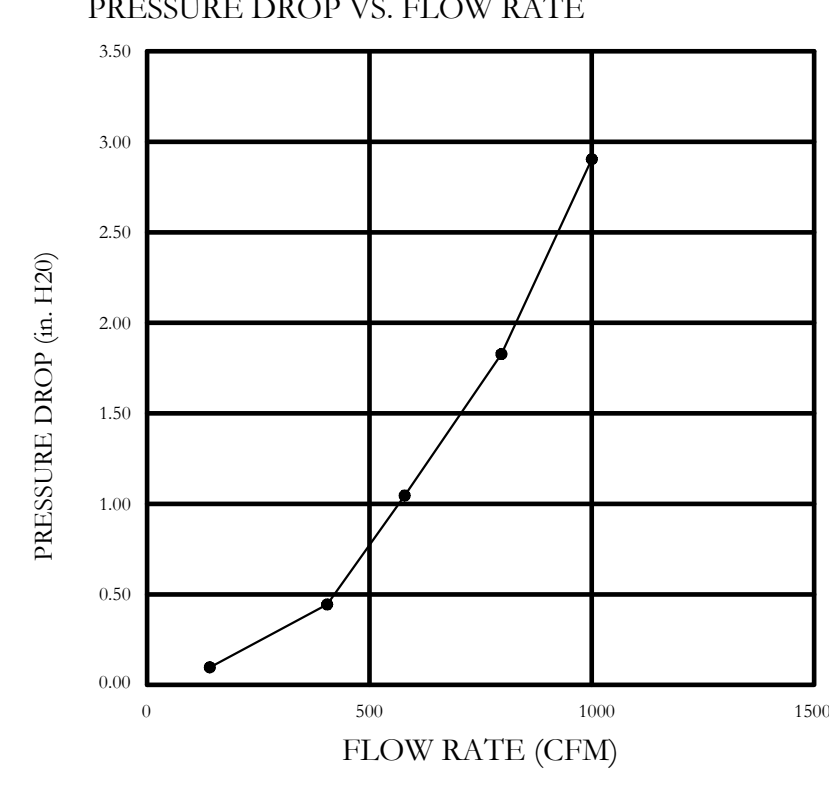
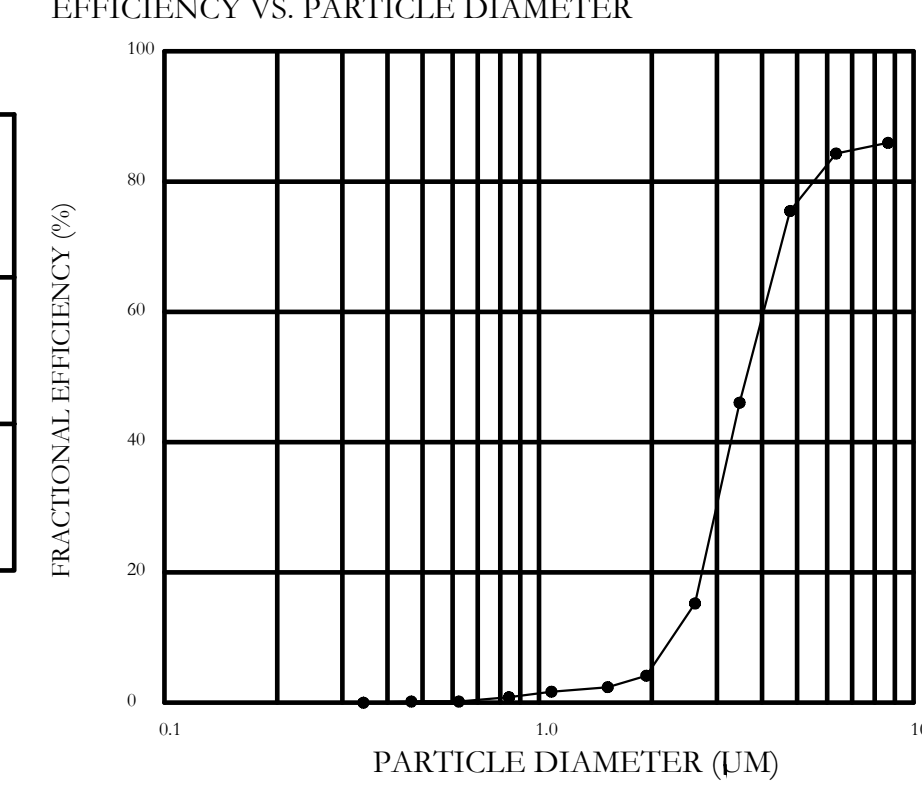
THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

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

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

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

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



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



GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO ECON-AIR MODEL "EDW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "EDW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "EDW" 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 "EDW" 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 ECON-AIR MODEL "EDW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

ECON-AIR 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 _____

REVISIONS

NO.	DESCRIPTION	DATE

CAPTIVE
Western Ohio Mechanical
www.captivevalve.com
11503 Springfield Pike, Cincinnati, OH 45246 PHONE: (513) 275-4986 FAX: 91951 669748 EMAIL: reg_133@econair.com

BUFFALO WILD WINGS
FRANCHISE - STAND ALONE
VALLEY VIEW BLVD NW
ROANOKE, VA 24012

BWW - Roanoke, VA R2 - DF MAU
ROANOKE, VA, 24012

DATE: 9/25/2024
DWG.#: 7066186
DRAWN BY: grant.homa

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

BUFFALO WILD WINGS

DRAWING ISSUE
NO. 1
DATE: 11/12/24

STAMP
BRUCE C. BRANSCUM
No. 0402952195
11/12/2024

HOOD DETAILS
Checked: BCB
Drawn By: SAG

PROJECT NUMBER 24-0212
SHEET NUMBER M201

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REVISIONS	
NO.	DESCRIPTION



BWW - Roanoke, VA R2 - DF MAU
 ROANOKE, VA, 24012

DATE: 9/25/2024
 DWG.#: 7066186
 DRAWN BY: grant.homan

SCALE: 3/4" = 1'-0"
 MASTER DRAWING
 SHEET NO. 2

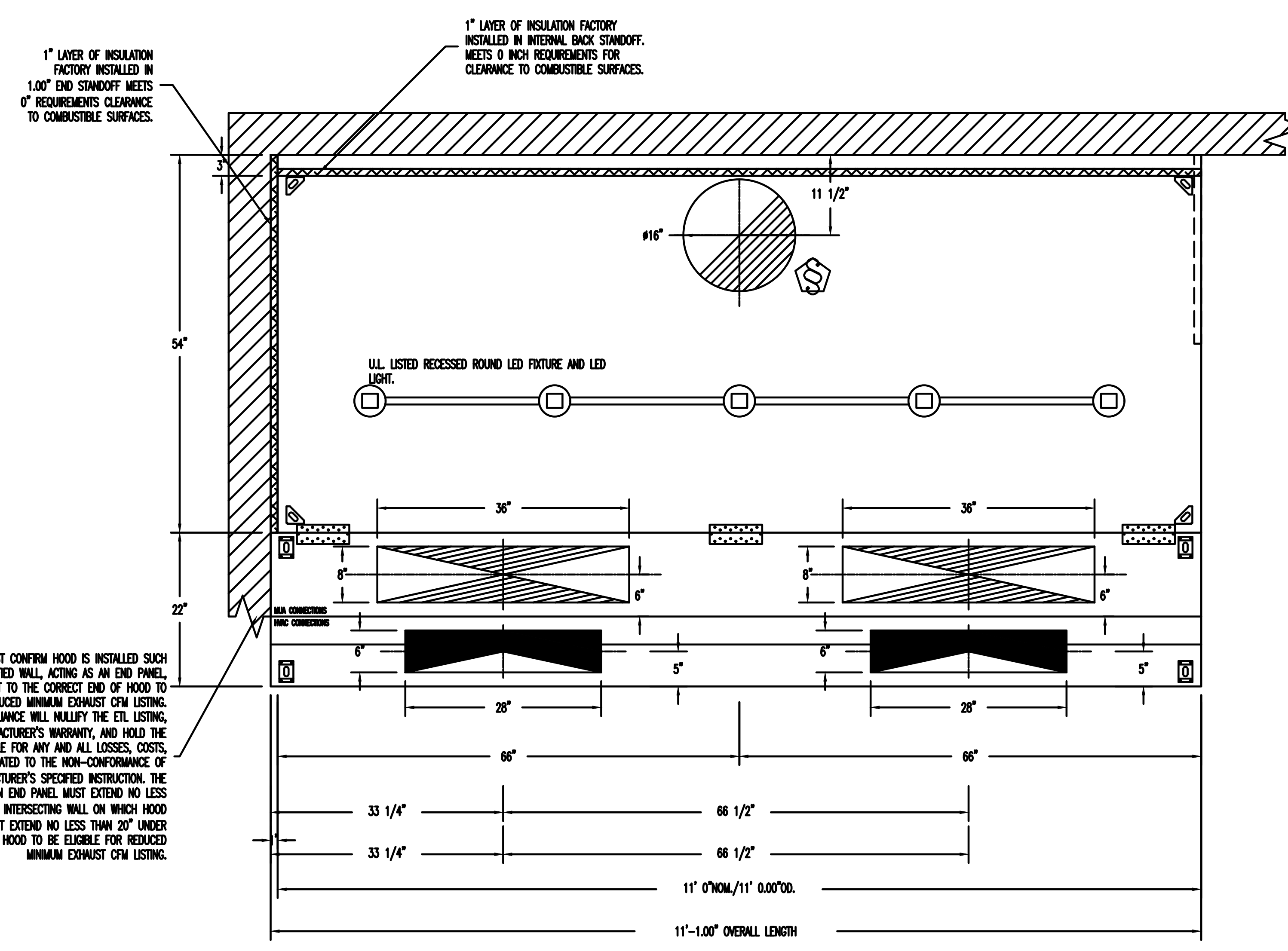
NO.	DESCRIPTION	DATE

STAMP
 BRUCE C. BRANSCUM
 No. 040292195
 11/12/2024

HOOD DETAILS
 Drawn By: SAG
 Checked: BCB

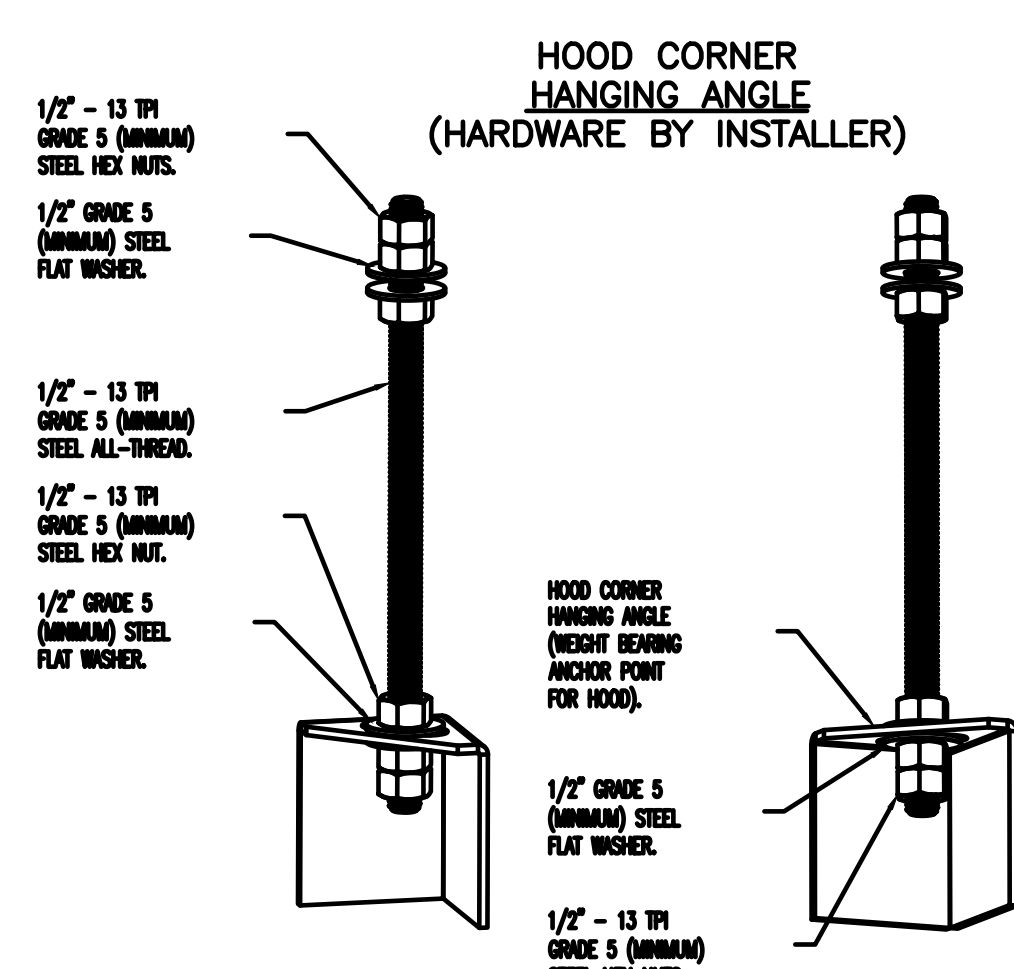
PROJECT NUMBER
 24-0212

SHEET NUMBER
 M202



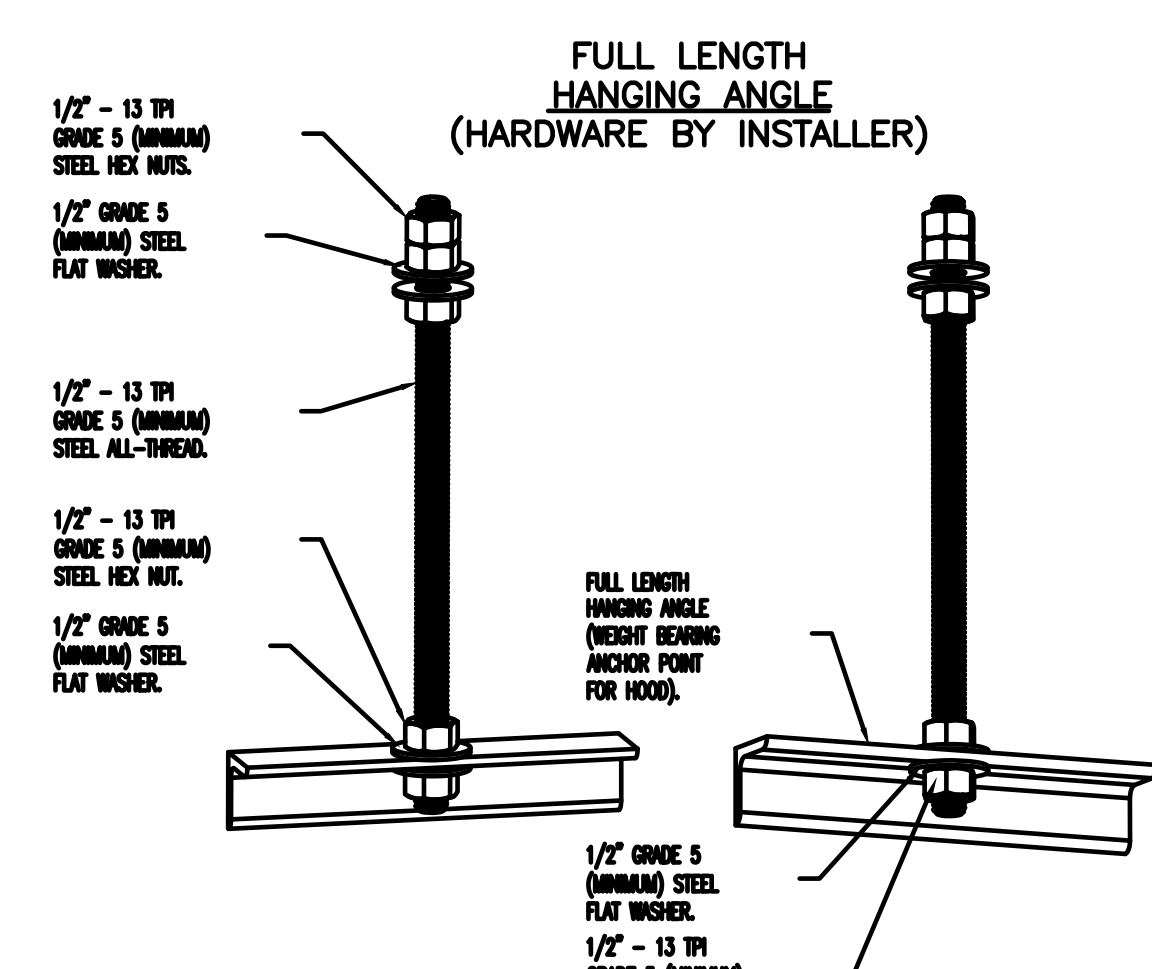
PLAN VIEW - HOOD #1 (Fryer HD)
 11' 0.00" LONG 5424EX-2-ACPSP-F

ACPSP SHIPS LOOSE FOR FIELD INSTALLATION



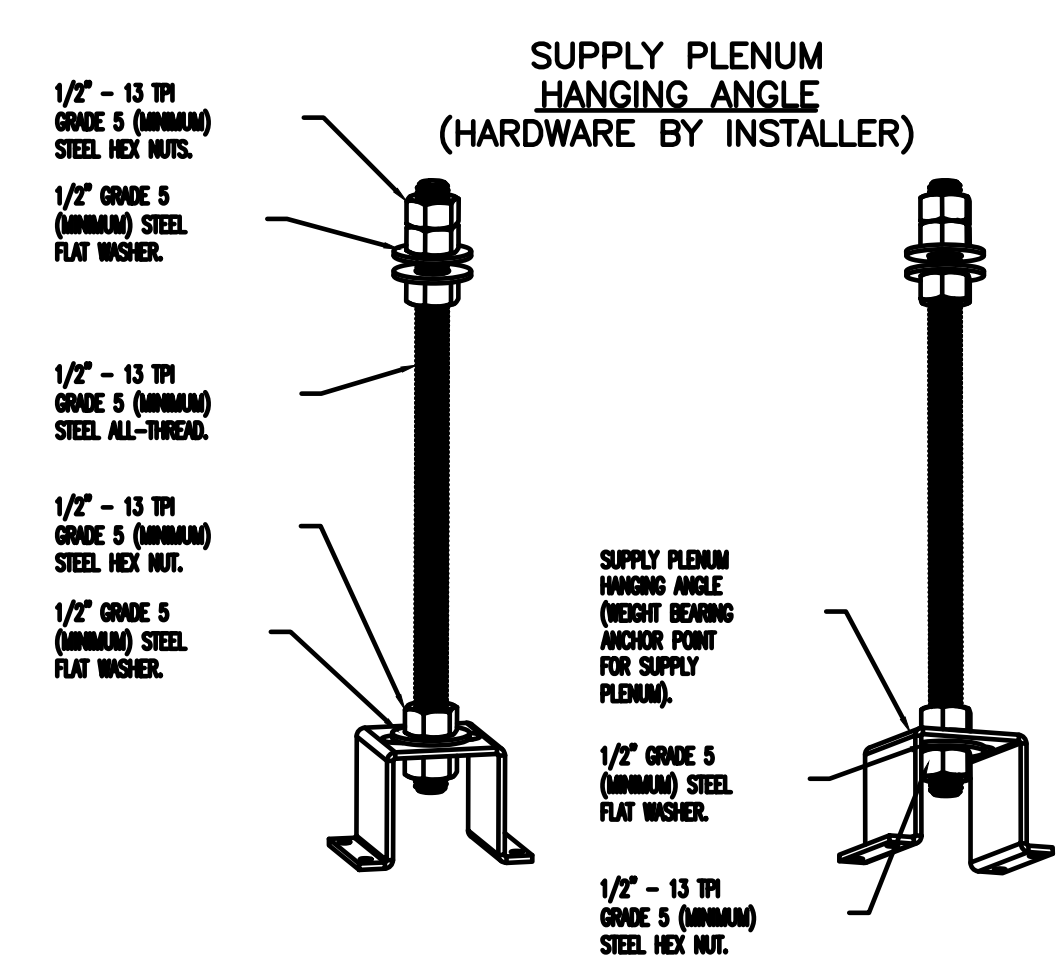
HOOD CORNER HANGING ANGLE (HARDWARE BY INSTALLER)

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. SINGLE HEX NUT BENEATH ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



FULL LENGTH HANGING ANGLE (HARDWARE BY INSTALLER)

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

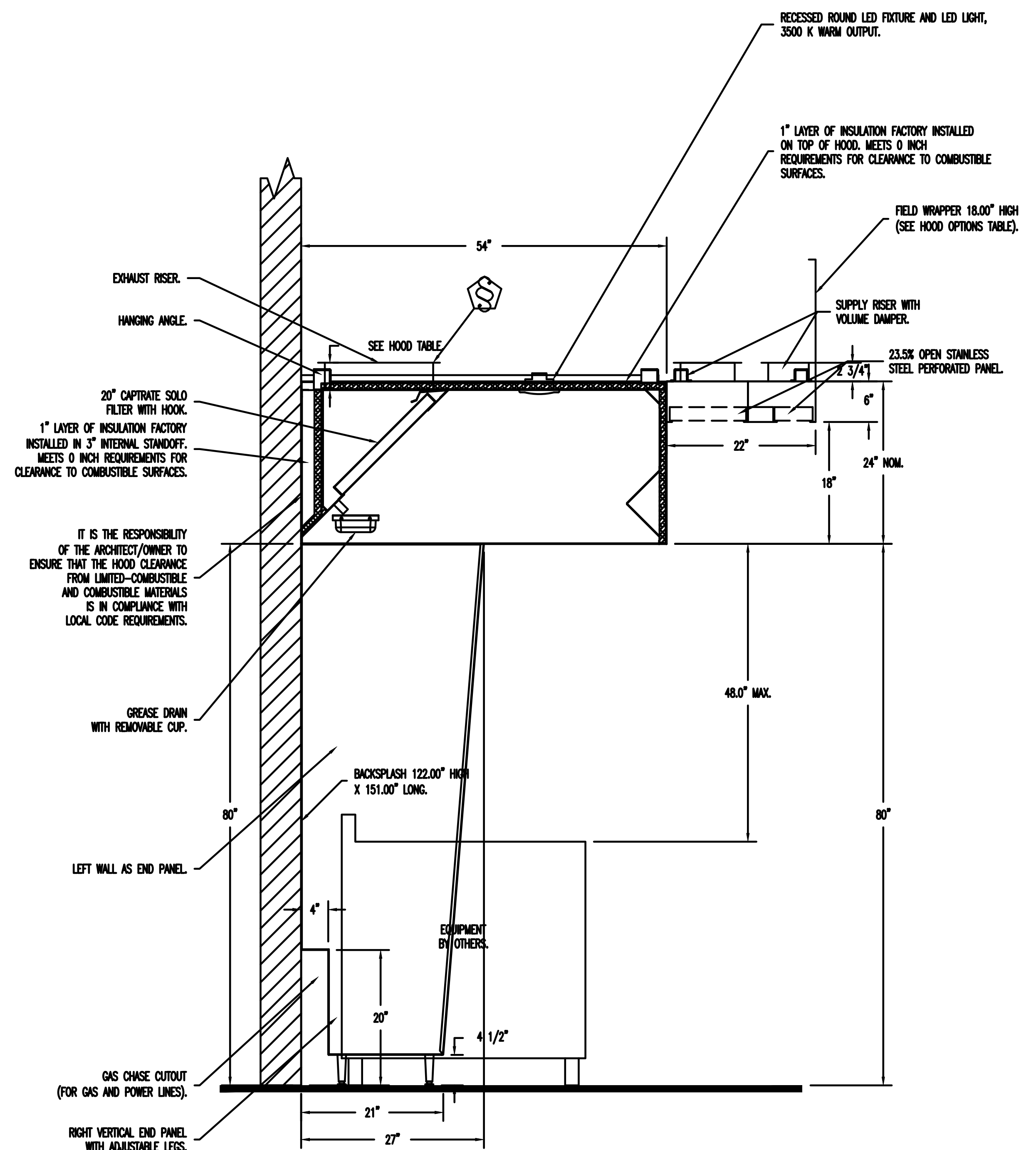


SUPPLY PLENUM HANGING ANGLE (HARDWARE BY INSTALLER)

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 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.

CLEARANCE TO COMBUSTIBLES		
HOOD #	SURFACE	*CLEARANCE
1	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	0"
2	RIGHT	18"
	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	0"
	RIGHT	0"

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



SECTION VIEW - MODEL 5424EX-2-ACPSP-F
 HOOD - #1 (Fryer HD)

REVISIONS	
NO.	DESCRIPTION



Western Ohio Mechanical
 www.captiveair.com
 11503 Springfield Pike, Cincinnati, OH 45246 PHONE: (513) 275-4886 FAX: 9155166748 EMAIL: reg133@ecomair.com

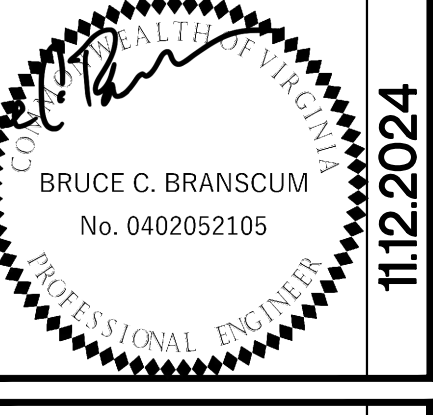
BUFFALO WILD WINGS
 FRANCHISE - STAND ALONE
 VALLEY VIEW
 4869 VALLEY VIEW BLVD NW
 ROANOKE, VA 24012



BWW - Roanoke, VA R2 - DF MAU
 ROANOKE, VA, 24012

DRAWING ISSUE	DATE
	11/12/24

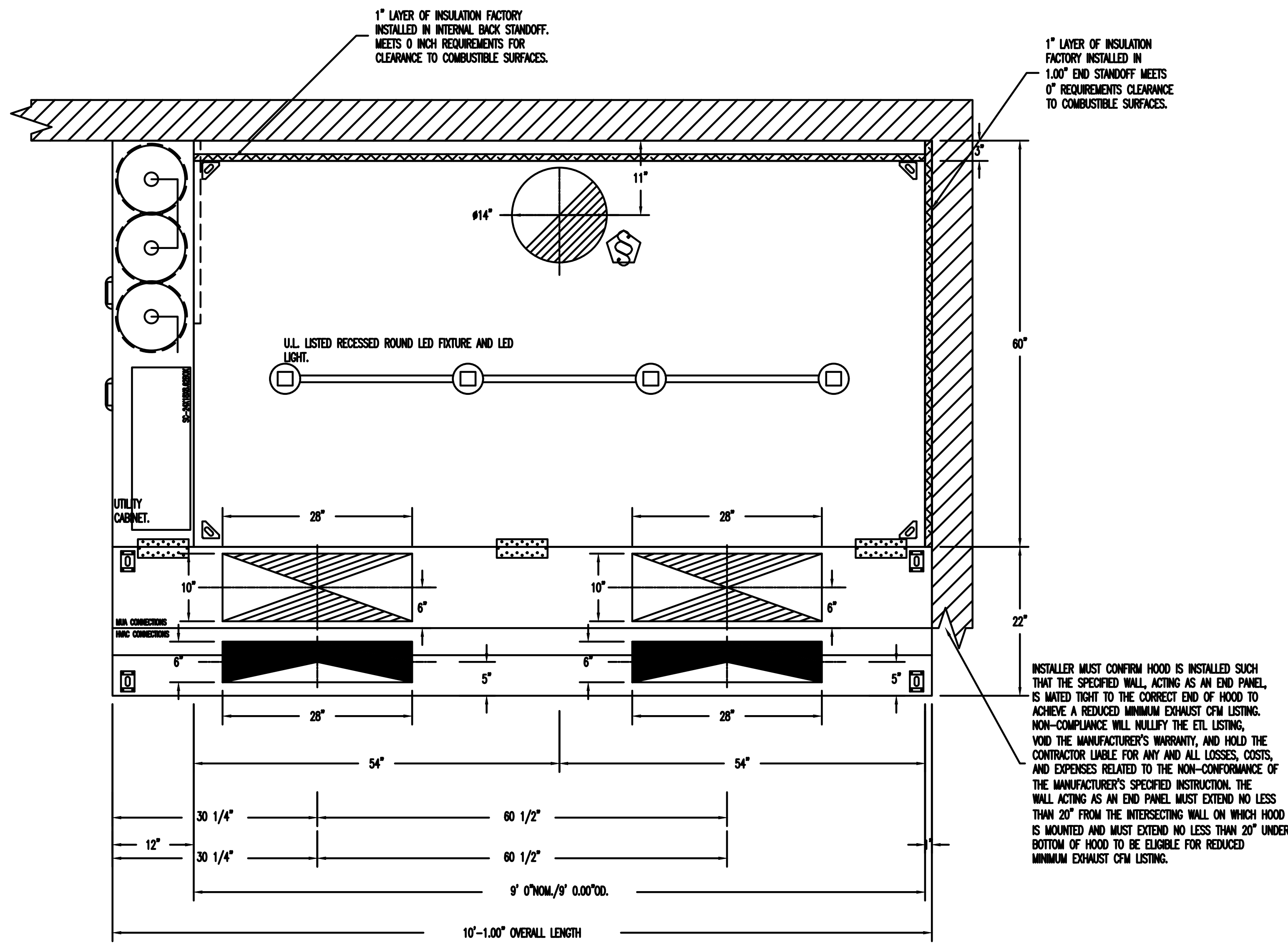
DATE: 9/25/2024
 DWG.#: 7066186
 DRAWN BY: grant.homan
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING

STAMP

 HOOD DETAILS
 Drawn By: SAG Checked: BCB

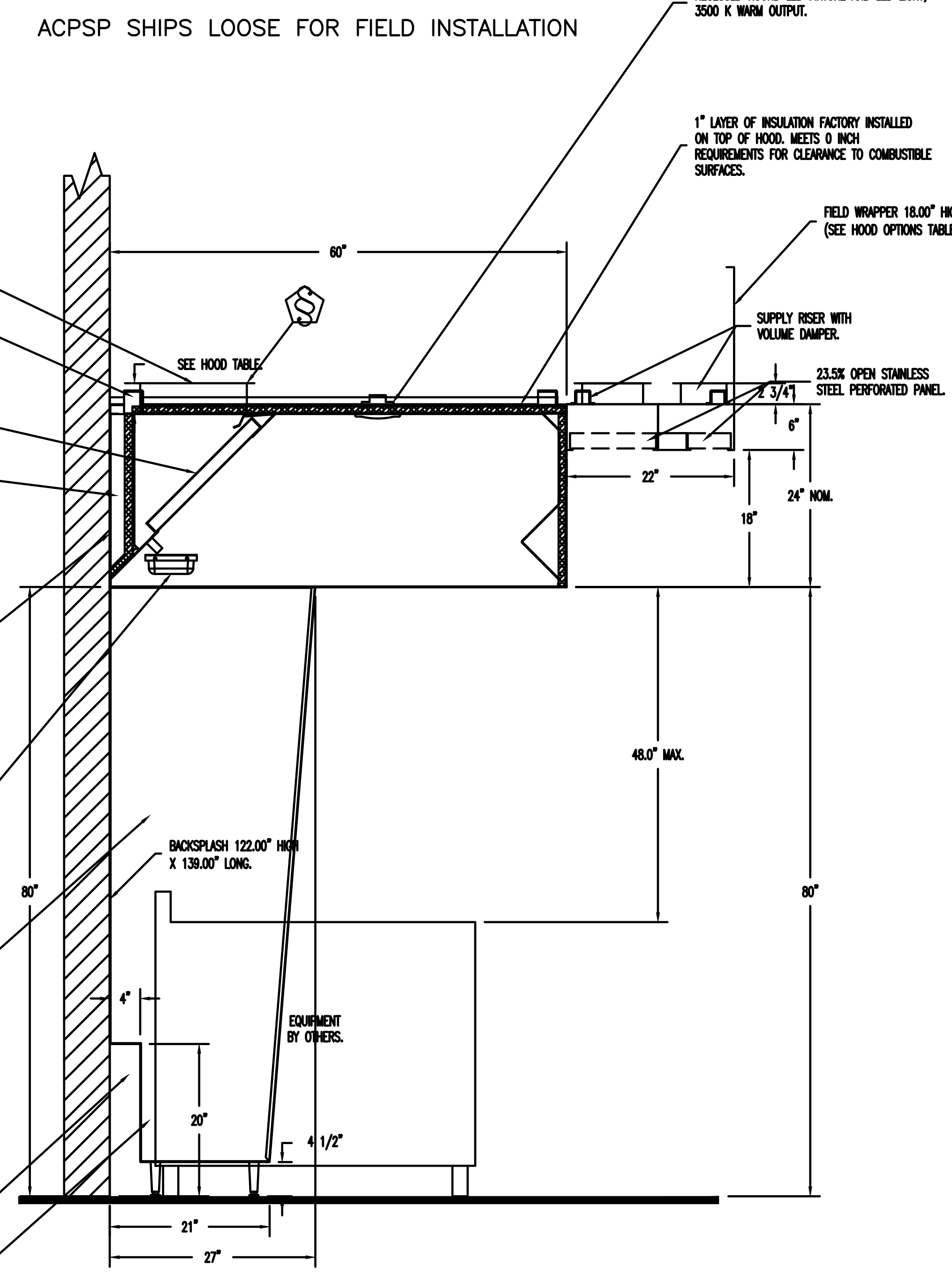
SHEET NO. 3

PROJECT NUMBER 24-0212

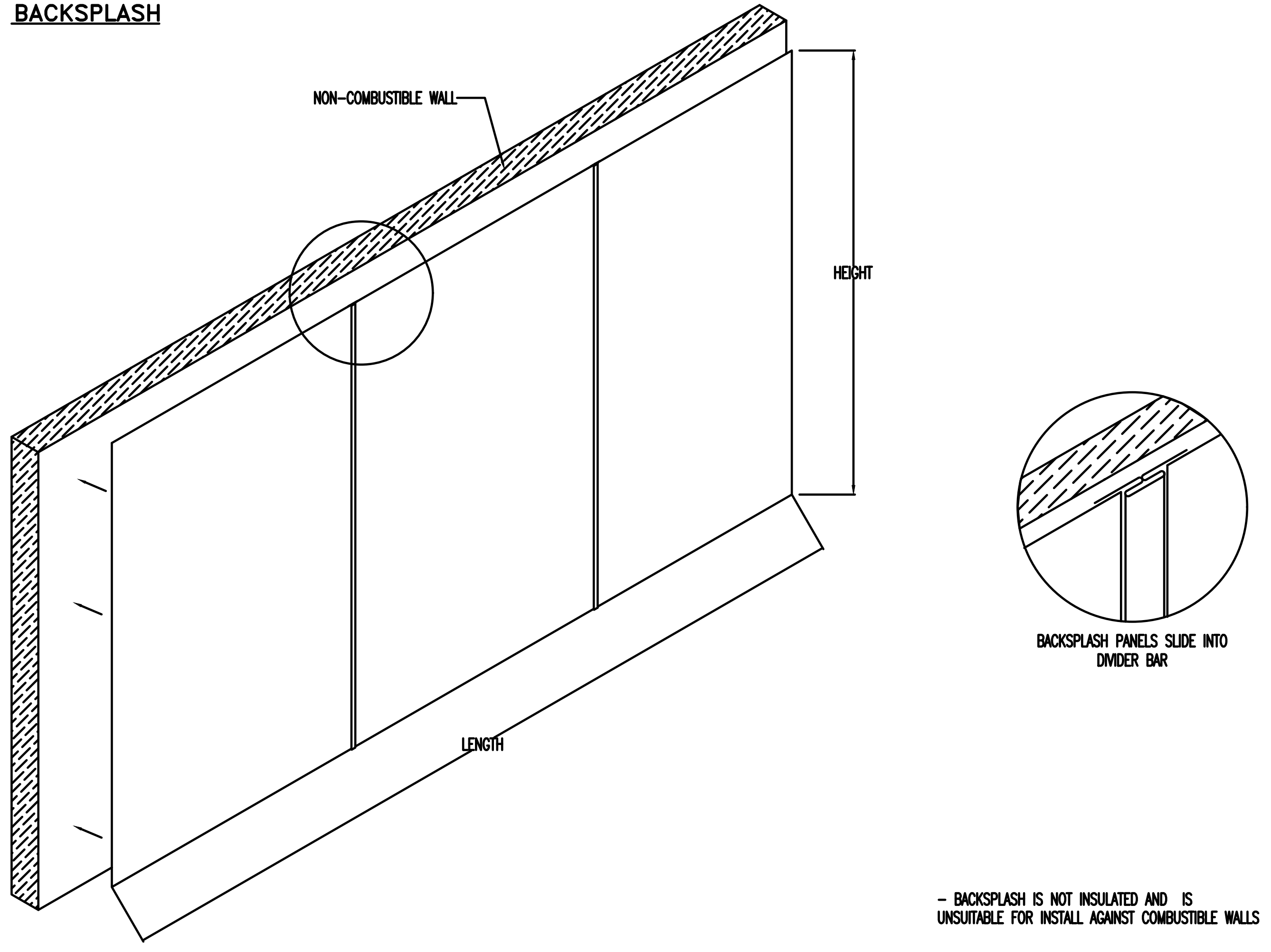
SHEET NUMBER M203



PLAN VIEW - HOOD #2 (Griddle Hood)
 9' 0.00" LONG 6024EX-2-ACPSP-F



SECTION VIEW - MODEL 6024EX-2-ACPSP-F
 HOOD - #2 (Griddle Hood)



BRUCE C. BRANSCUM, P.E. HAS EXERCISED NEUTRALITY IN THE PREPARATION OF THIS DRAWING. HE IS NOT A GUARANTEE OF THE PROJECT OR THE QUALITY OF THE WORK. THE RESPONSIBILITY IS LIMITED TO WORK SPECIFICALLY REFERENCED TO THE DRAWING. BRUCE C. BRANSCUM, P.E. HAS NOT VISITED THE PROJECT AND HAS NOT VERIFIED THE ACCURACY OF THE INFORMATION PROVIDED. BRUCE C. BRANSCUM, P.E. HAS NOT CONDUCTED A VISUAL CHECK OF THE DRAWING. BRUCE C. BRANSCUM, P.E. HAS NOT CONDUCTED A VISUAL CHECK OF THE DRAWING. BRUCE C. BRANSCUM, P.E. HAS NOT CONDUCTED A VISUAL CHECK OF THE DRAWING.

FIRE SYSTEM INFORMATION – JOB#7066186

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0/4.0	60	52	FIRE CABINET LEFT	LEFT, HOOD 2

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	2.000	ECON-AIR

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER – PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
		0 – 0 – TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 – 0 – TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 – 0 – 12-F28021-32144-01-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO. CLOSE ON TEMP. RISE AT 360°F. (A0034310).	2	0
		0 – 0 – 4429K153 1/2" X 1/4" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	3	0
		0 – 0 – 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0
		0 – 0 – 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2 NPT FEMALE CONNECTION, VEGA.	2	0
		0 – 0 – 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2 NPT FEMALE CONNECTION, VEGA.	3	0
		0 – 0 – 87-120042-001 SECONDARY ACTUATOR VALVE (SWA) – SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – 87-300001-001 TANK – PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	3	0
		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
		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
		0 – 0 – 87-300152-001 HARDWARE, SWA BOLTS, TANK FIRE SUPPRESSION.	12	0
		0 – 0 – 8869A1115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	6	0
		0 – 0 – A0034332 JUNCTION BOX FOR MANUAL PULL STATION, 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 – 0 – A31484 1/4" NPT SCHRAEDER VALVE AND CAP, JB INDUSTRIES, 1/4" FLARE X 1/4" NPT HALF UNION, USED ON TANK SERVICE PORT.	2	0
		0 – 0 – DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	3	0
		0 – 0 – SLP00N-03FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 2' GAP. KIT CONTAINS 5 FEET OF BLACK MG WIRE, 5 FEET OF TAN MG WIRE, 3 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
		0 – 0 – SLP00N-40FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UP TO 39' GAP. KIT CONTAINS 42 FEET OF BLACK MG WIRE, 42 FEET OF TAN MG WIRE, 40 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
		0 – 0 – TANK STRAP TANK STRAP – USED FOR TANK FIRE SUPPRESSION.	9	0
		0 – 0 – TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	3	0
		0 – 0 – WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	3	0
		34 – 34 – A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT, RED COLOR.	1	0
		ADDITIONAL PARTS TO BE DETERMINED...		

REVISIONS

NO.	DESCRIPTION	DATE

CAPTIVE
Western Ohio Mechanical
www.captivevalves.com
reg. 35@econair.com

11503 Springfield Pike, Cincinnati, OH 45246 PHONE: (513) 275-4986 FAX: 9195168748 EMAIL: reg. 35@econair.com

BUFFALO WILD WINGS
FRANCHISE - STAND ALONE
VALLEY VIEW
4869 VALLEY VIEW BLVD NW
ROANOKE, VA 24012

BWW – Roanoke, VA R2 – DF MAU
ROANOKE, VA, 24012

DATE: 9/25/2024
DWG.#: 7066186
DRAWN BY: grant.homa
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 4

DRAWING ISSUE

NO.	DESCRIPTION	DATE
		11/12/24

STAMP
BRUCE C. BRANSCUM
No. 040292195
11/12/2024

HOOD DETAILS
Checked: BCB
Drawn By: SAG

PROJECT NUMBER: 24-0212
SHEET NUMBER: M204

Bruce C. Branscum, P.E.
Professional Engineer
1998, Cover No. 146105
CONSTRUCTION FIELD
Phone (513) 712-0508
Fax (513) 712-1922

EXHAUST FAN INFORMATION - JOB#7066186

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	FRY EF	1	EA08SH	ECON-AIR	2200	1.200	1583	TEAO-ECM	1.000	0.7020	1	115	11.6	696 FPM	94	16.8
2	GRID EF	1	D8SHFA	CAPTIVEAIR	1800	1.000	1376	TEAO-ECM	0.750	0.4620	1	115	8.9	570 FPM	90	12.4

MUA FAN INFORMATION - JOB#7066186

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
3	MAU	1	EA2-D.250-200	20MF-2-MOD	A2-D.250	2000	2400	0.500	1074	ODP, PREMIUM	1.000	0.6620	3	208	3.8	4.8A	15A	685	7.8

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	MAU	149225	137287	56F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	FRY EF	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DRSHFA - SHIP LOOSE - FOR GREASE DUCTS
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
2	GRID EF	1	2 YEAR PARTS WARRANTY
		1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DRSHFA - SHIP LOOSE - FOR GREASE DUCTS
3	MAU	1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
		1	SIZE 2 TEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS
		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 2 (1" MOD VALVE)
		1	SHIP LOOSE GAS STRAINER 1"
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
		1	MOTORIZED BACKDRAFT DAMPER FOR A2-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	CURB DUCT HANGER
		1	SIZE 2 DIRECT FIRED HEATER LOW CFM PROFILE PACKAGE - USED ON HEATERS UNDER 2500 CFM
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH WFO) - THREE PHASE ONLY
1	2 YEAR PARTS WARRANTY		
1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET		

FAN ACCESSORIES

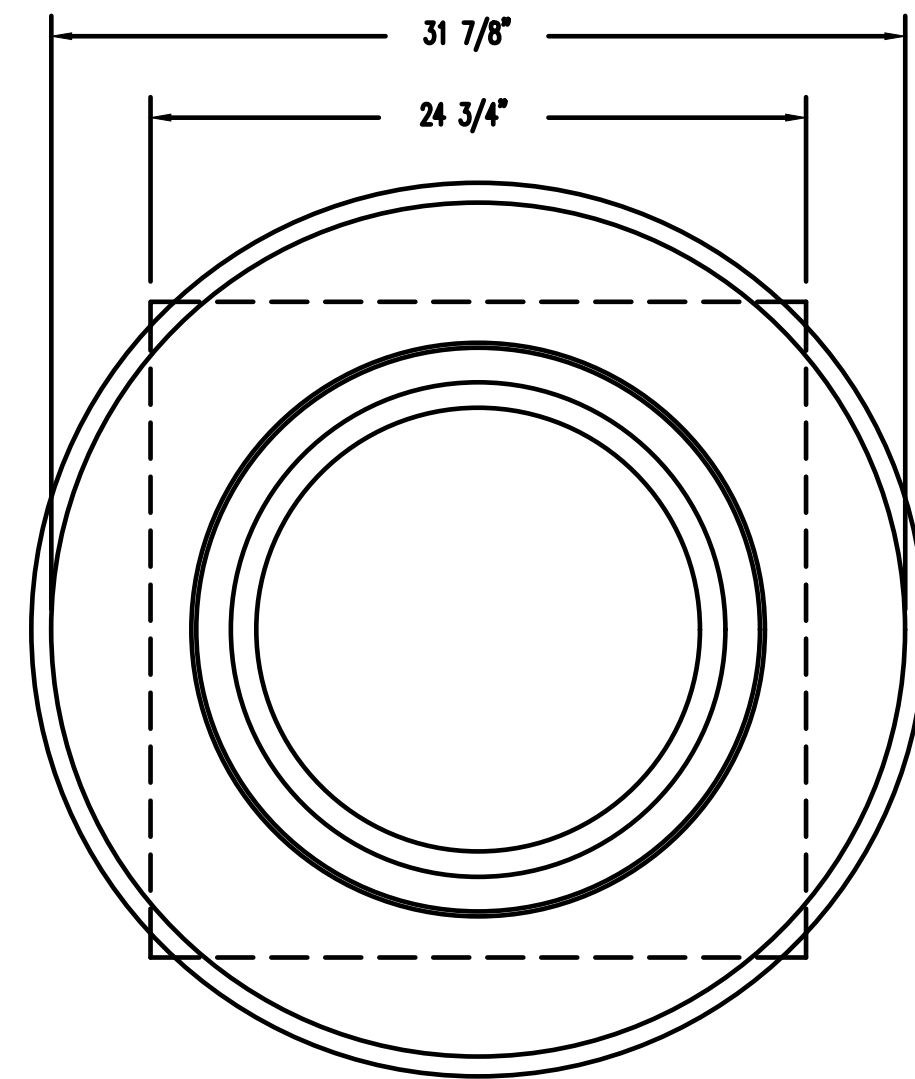
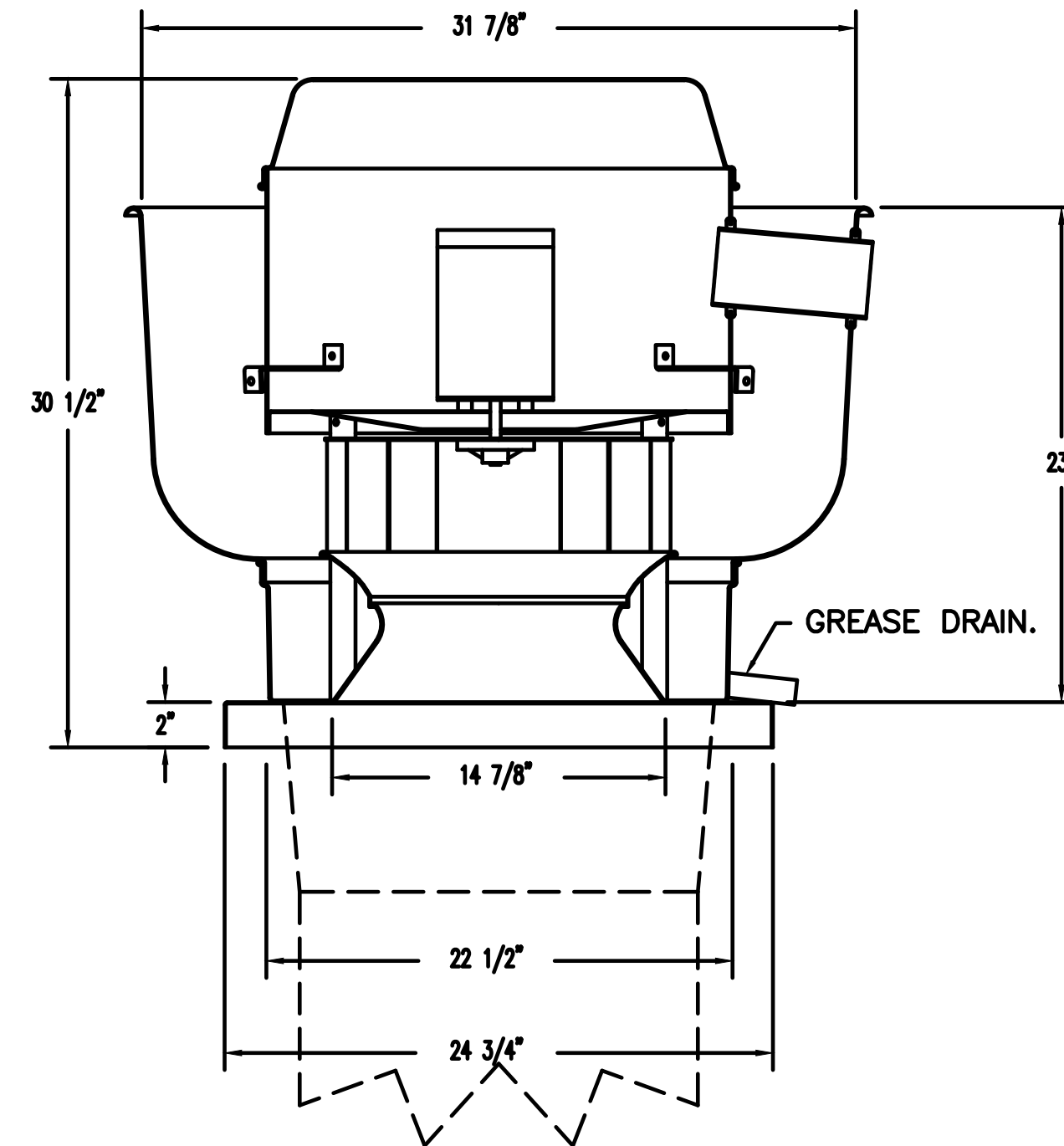
FAN UNIT NO	TAG	EXHAUST				SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT	
1	FRY EF	YES							
2	GRID EF	YES							
3	MAU						YES		

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	FRY EF	41 LBS	CURB	23,000" W X 23,000" L X 24,000" H VENTED HINGED.
2	# 2	GRID EF	41 LBS	CURB	23,000" W X 23,000" L X 24,000" H VENTED HINGED.
3	# 3	MAU	76 LBS	CURB	31,000" W X 78,000" L X 18,000" H INSULATED.

HMI SCHEDULE				
UNIT NUMBER	HMI #	HMI LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN #3	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55

FAN #1 EA08SH - EXHAUST FAN (FRY EF)



TOP VIEW

FEATURES:

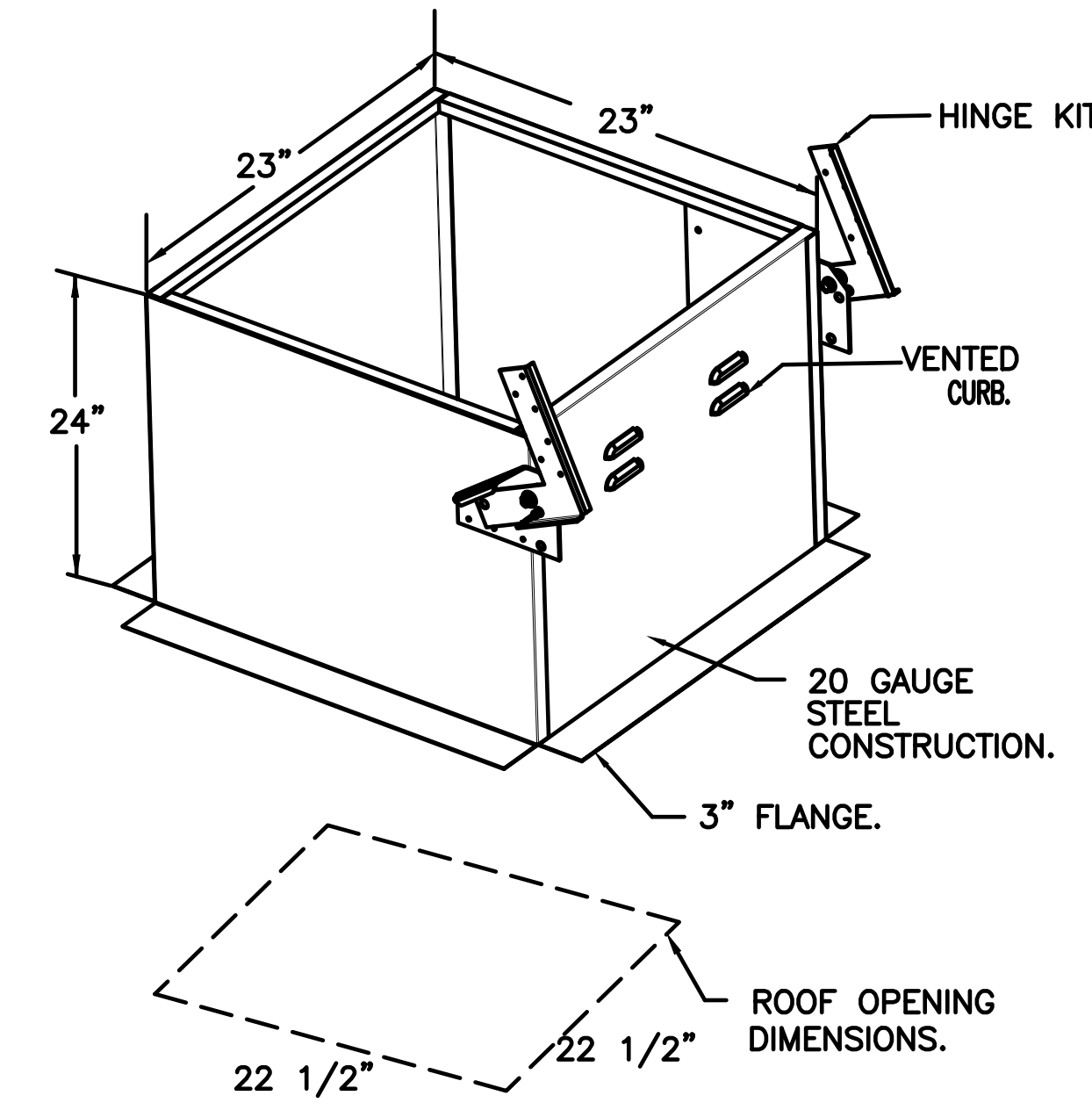
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT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

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

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

OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DRSHFA
- SHIP LOOSE - FOR GREASE DUCTS.
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.



REVISIONS

NO	DESCRIPTION	DATE

CAPTIVE
Western Ohio Mechanical
11503 Springfield Pike, Cincinnati, OH 45246 PHONE: (513) 275-4986 FAX: 9195168748 EMAIL: reg_33@econaal.com

BWW - Roanoke, VA R2 - DF MAU
ROANOKE, VA, 24012

DATE: 9/25/2024
DWG.#: 7066186
DRAWN BY: grant.homa
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 5

BUFFALO WILD WINGS
FRANCHISE - STAND ALONE
VALLEY VIEW BLVD NW
ROANOKE, VA 24012

DRAWING ISSUE
NO | DESCRIPTION | DATE
1 | 11/12/24

STAMP
BRUCE C. BRANSUM
No. 0402952195
11/12/2024

HOOD DETAILS
Checked By: SUG
Drawn By: SUG

PROJECT NUMBER
24-0212

SHEET NUMBER
M205

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REVISIONS	
DESCRIPTION	DATE



BUFFALO WILD WINGS
FRANCHISE - STAND ALONE
VALLEY VIEW BLVD NW
ROANOKE, VA 24012



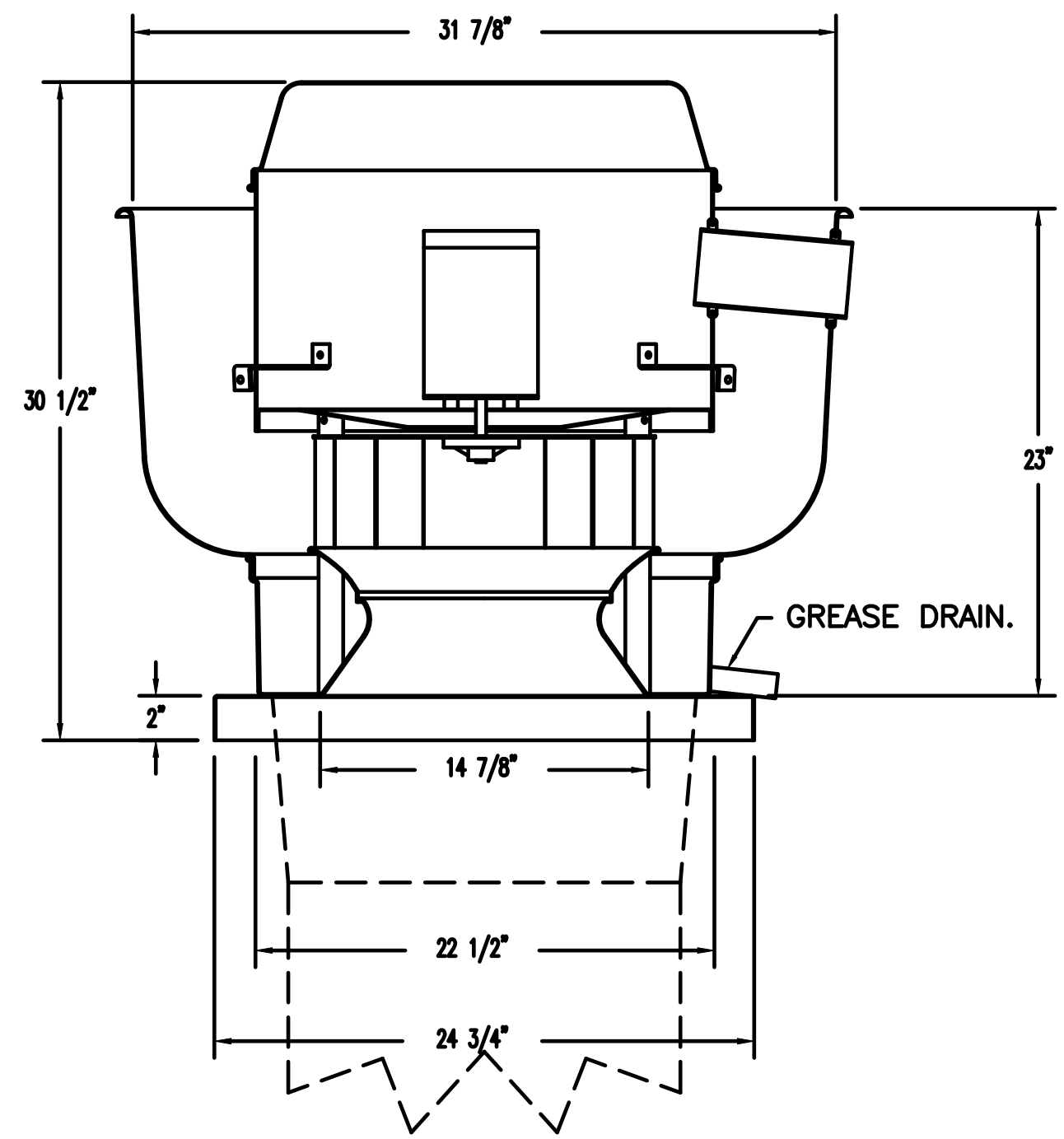
DRAWING ISSUE	DATE
NO. DESCRIPTION BY AND PERMIT	11/12/24

DATE: 9/25/2024
DWG.#: 7066186
DRAWN BY: grant.homa
SCALE: 3/4" = 1'-0"
MASTER DRAWING

HOOD DETAILS
Checked: BCB
Drawn By: SAG

PROJECT NUMBER: 24-0212
SHEET NUMBER: M206

FAN #2 DRBSHFA - EXHAUST FAN (GRID FT)

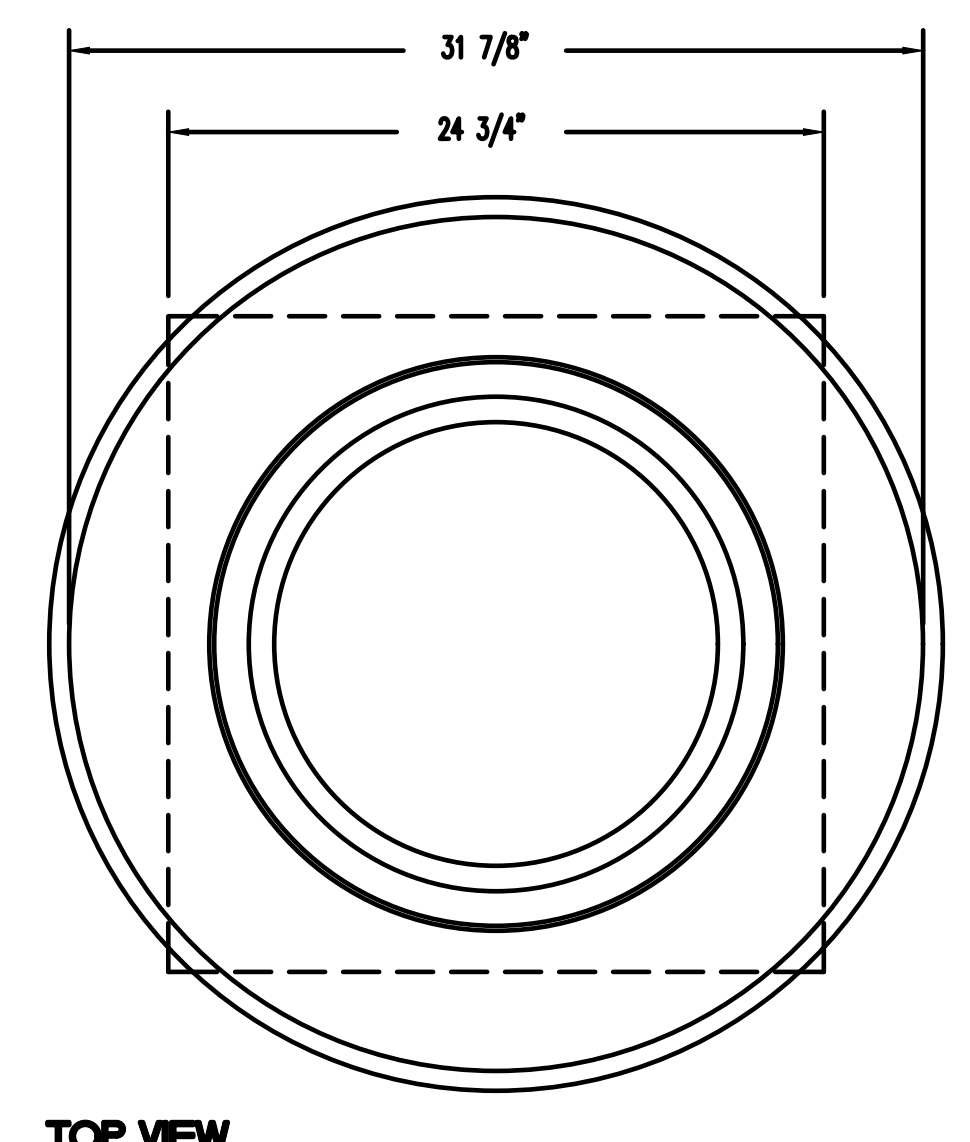


- FEATURES:**
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
 - ROOF MOUNTED FANS.
 - RESTAURANT MODEL.
 - UL705 AND UL782 AND ULC-5645
 - VARIABLE SPEED CONTROL.
 - INTERNAL WIRING.
 - THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
 - HIGH HEAT OPERATION 300°F (149°C).
 - GREASE CLASSIFICATION TESTING.
 - NEMA 3R SAFETY DISCONNECT SWITCH.

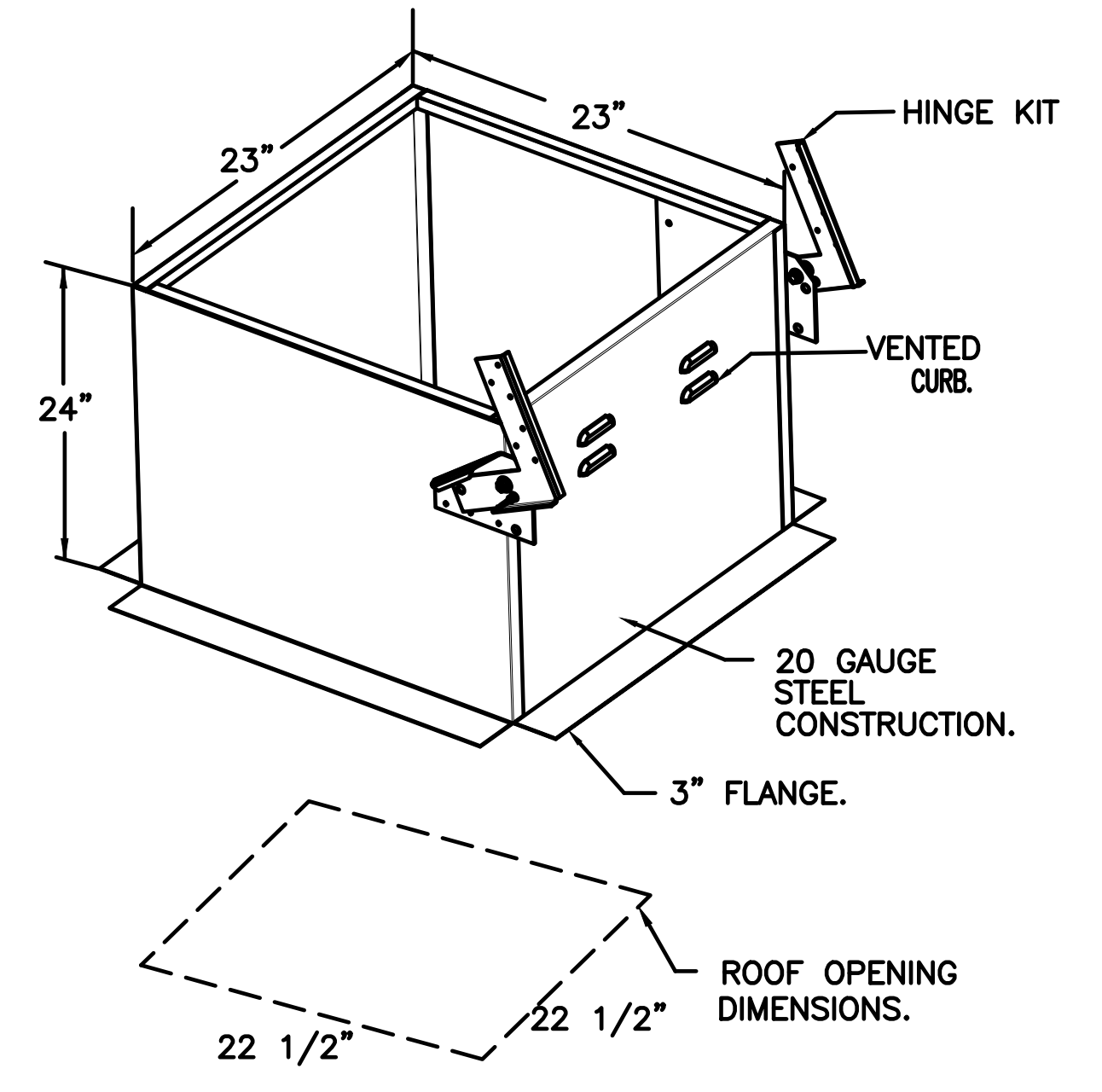
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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.

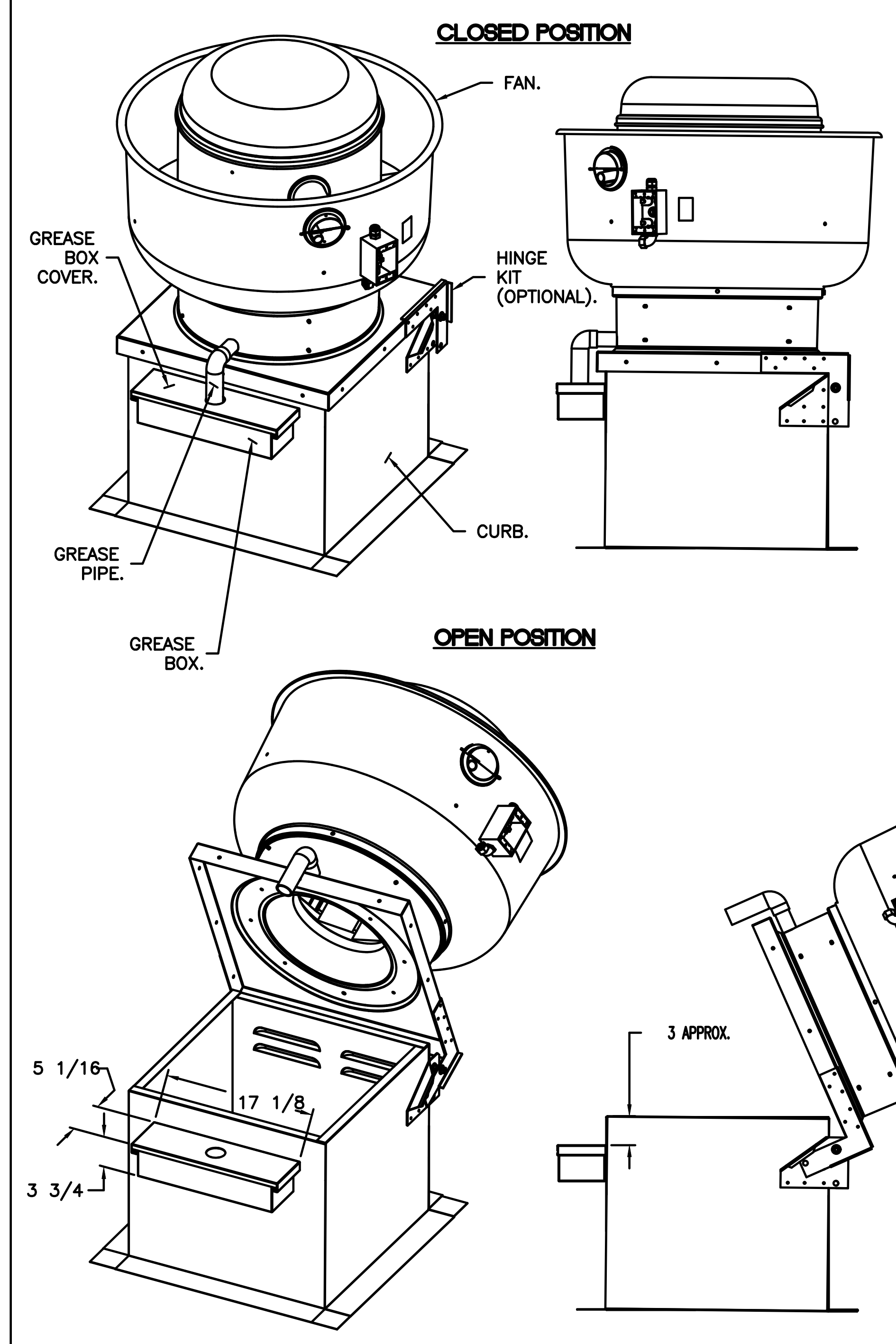
- OPTIONS**
- GREASE BOX.
 - FAN BASE CERAMIC SEAL - DU/DRBSHFA
 - SHIP LOOSE - FOR GREASE DUCTS.
 - ECM WIRING PACKAGE - PWM SIGNAL FROM ECM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
 - 2 YEAR PARTS WARRANTY.



TOP VIEW



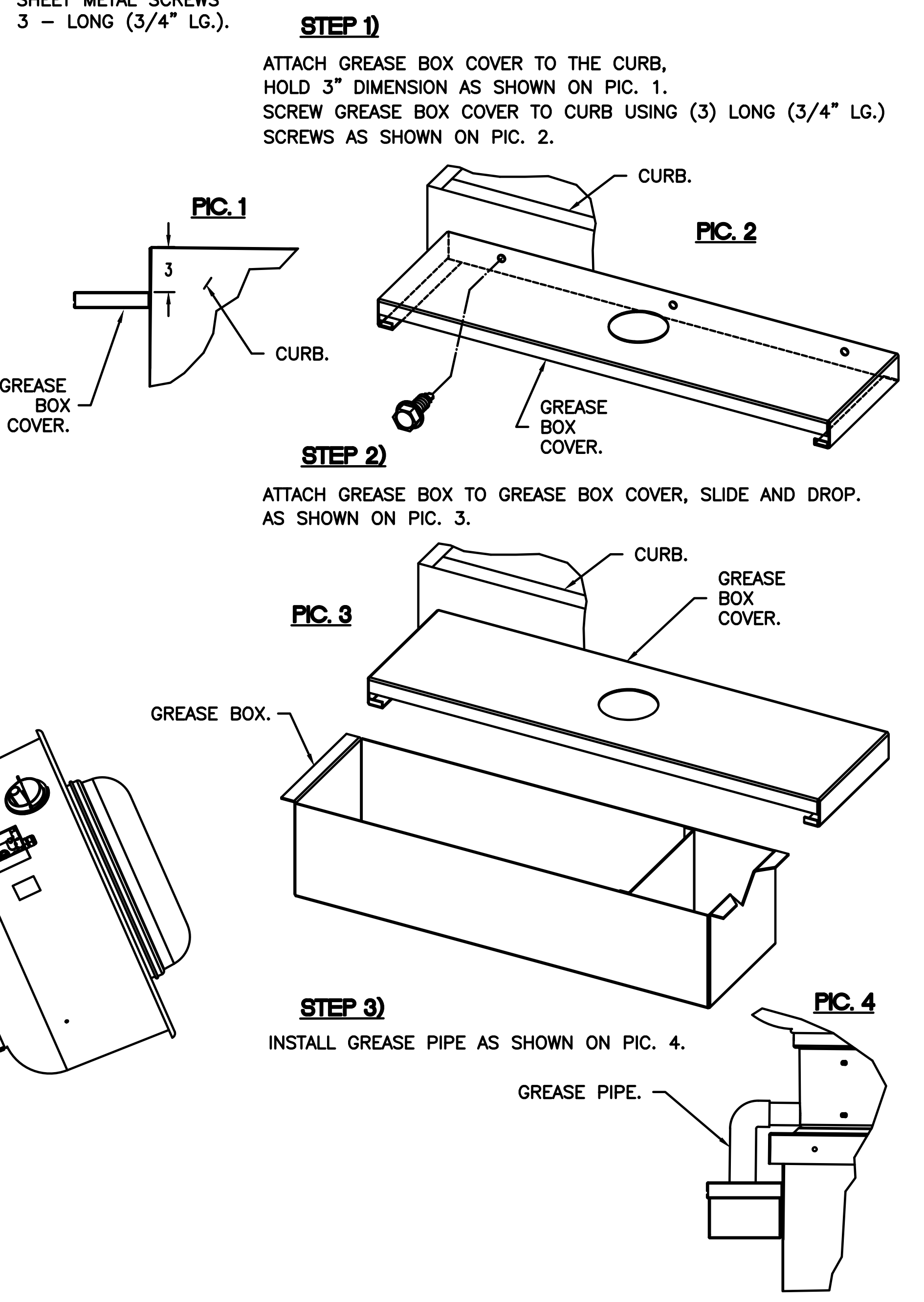
GREASE BOX INSTALLATION



*NOTE: UL 705 INSTALL.

- PARTS INCLUDED**
- GREASE BOX.
 - GREASE BOX COVER.
 - GREASE PIPE.
 - SHEET METAL SCREWS
3 - LONG (3/4" LG.).

GREASE BOX FIELD INSTALLATION



REV.#2 06/18/22

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REVISIONS	
NO.	DESCRIPTION



BUFFALO WILD WINGS
FRANCHISE - STAND ALONE
VALLEY VIEW
4869 VALLEY VIEW BLVD NW
ROANOKE, VA 24012



BWW - Roanoke, VA R2 - DF MAU
ROANOKE, VA, 24012

DRAWING ISSUE	
NO.	DATE
	11/12/24

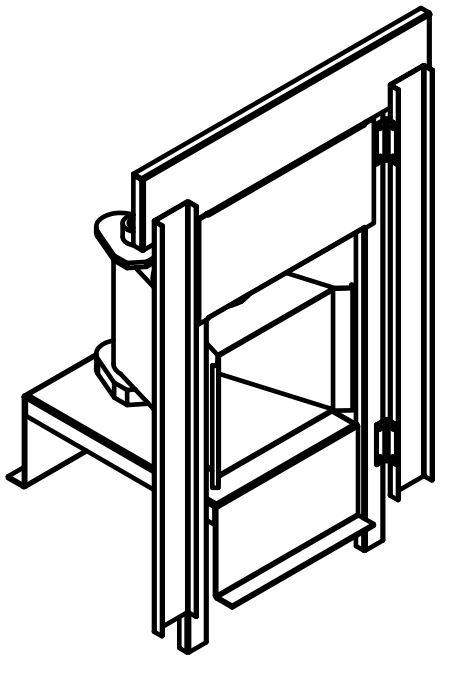
DATE: 9/25/2024
DWG.#: 7066186
DRAWN BY: grant.homa
SCALE: 1/2" = 1'-0"
MASTER DRAWING

STAMP
BRUCE C. BRANSCUM
No. 0402952195
11/12/2024

HOOD DETAILS
Checked: BCB
Drawn By: SHG

PROJECT NUMBER: 24-0212
SHEET NUMBER: M207

1. DIRECT FIRE PROTECT WIRE UP AND TEST WITH WIRE FROM DIRECT FIRE TEST.
2. DIRECT FIRE TEST PLAN.
3. WIRE PROTECTING - ALL FROM TEST - 1/2".
4. WIRE PROTECTING CONNECTION FOR SIZE 2 WIRE SIZE AWG.
5. WIRE PROTECTING WIRE - 1/2" WIRE SIZE AWG.
6. WIRE PROTECTING WIRE - 1/2" WIRE SIZE AWG.
7. WIRE PROTECTING WIRE - 1/2" WIRE SIZE AWG.
8. WIRE PROTECTING WIRE - 1/2" WIRE SIZE AWG.
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13. WIRE PROTECTING WIRE - 1/2" WIRE SIZE AWG.
14. WIRE PROTECTING WIRE - 1/2" WIRE SIZE AWG.
15. WIRE PROTECTING WIRE - 1/2" WIRE SIZE AWG.
16. WIRE PROTECTING WIRE - 1/2" WIRE SIZE AWG.



DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

DIRECT FIRED PROFILE PLATE SPECIFICATIONS:

GENERAL:

DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO. US4600332) 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 1% OF COMBUSTION PRODUCT GAS AND SUPPLY OF AIRBORNE OXYGEN (CALCULATED FROM) UNITS SHALL BE COMPATIBLE WITH THE BLOWER MOUNTED 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 STRIUM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM WITH THIS FEATURE, ALL OF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

CONSIDERATIONS:

ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE IF UNITS' EEL LISTING AND COMPLY WITH COMBUSTION SAFETY STANDARDS AND 283.4 AND CSA 3.7 (NON-RECIRCULATING OF HEATERS) AND AND 283.11 (RECIRCULATING OF HEATERS).

GENERAL CONSTRUCTION:

- PROFILE PLATES SHALL BE FORMED FROM G90 GALVANIZED STEEL.
- PROFILE PLATES SHALL HAVE 1/2" RISE PER INCH.
- PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
- SPRINGS SHALL BE MOUNTED PERMANENTLY MOUNTED SPRING HOOKS.
- SPRING HOOKS SHALL BE MADE FROM PLATED STEEL.

