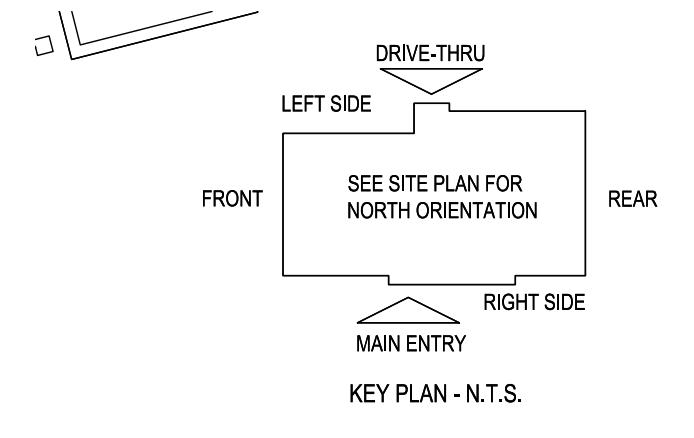


4" DRYER EXHAUST TO HOODED WALL CAP w/ BACKDRAFT DAMPER. PAINT WALL CAP TO MATCH EXTERIOR. INSTALL PER MANUFACTURER'S INSTRUCTIONS. EACH VERTICAL RISER SHALL BE PROVIDED WITH A MEANS FOR CLEANOUT PER 2018 IMC SECTION 504.3. CODE OFFICIAL SHALL BE PROVIDED WITH A COPY OF THE INSTALLATION INSTRUCTIONS PRIOR TO CONCEALMENT INSPECTION.

E5 HVAC PLAN
SCALE: 1/4" = 1'-0"

NOTE: ALL DUCTWORK TO BE LOCATED IN TRUSS SPACE WHERE POSSIBLE. SEE FRAMING PLAN.
HVAC SETPOINTS RECOMMENDED BY CORPORATE OPERATIONAL GUIDELINES:
1. DINING: HEATING 70 DEGF. COOLING 72 DEGF.
2. KITCHEN: HEATING 68 DEGF. COOLING 74 DEGF



SUPPLY DUCTWORK SIZING TABLE*				
SIZE	ROUND		RECTANGULAR	
	CFM RANGE	SIZE	CFM RANGE	SIZE
8"	115 - 235	8" x 8"	205 - 300	
10"	240 - 435	10" x 8"	305 - 400	
12"	440 - 710	10" x 10"	405 - 550	
14"	715 - 1,070	12" x 10"	555 - 700	
16"	1,075 - 1,530	12" x 12"	705 - 900	
18"	1,535 - 2,090	14" x 12"	905 - 1,105	
20"	2,095 - 2,760	16" x 12"	1,110 - 1,315	
22"	2,765 - 3,550	18" x 12"	1,320 - 1,520	
24"	3,555 - 4,470	20" x 12"	1,525 - 1,740	
*CONTRACTOR MAY SUBSTITUTE RECTANGULAR FOR ROUND DUCTWORK ON MAIN RUNS AT THEIR DISCRETION. BRANCHES TO DIFFUSERS TO REMAIN ROUND.				
		22" x 12"	1,745 - 1,950	
		24" x 12"	1,955 - 2,170	
		26" x 12"	2,175 - 2,400	
		28" x 12"	2,405 - 2,610	
		30" x 12"	2,615 - 2,840	
		32" x 12"	2,845 - 3,070	
		34" x 12"	3,075 - 3,290	
		36" x 12"	3,295 - 3,520	
		36" x 14"	3,525 - 4,420	

DIFFUSER, REGISTER, AND GRILLE SCHEDULE									
TAG	SERVICE	TYPE	MATERIAL	THROW	FACE	NECK	MOUNTING	MANUFACTURER/MODEL	Notes
SD-1	SUPPLY	LOUVERED	STEEL	4-WAY	24X24	SEE PLAN	LAY-IN	RAYMON PRO2	2.4
SD-2 - NOT USED									
SD-3	SUPPLY	LOUVERED	STEEL	3-WAY	12X12	SEE PLAN	SURFACE	RAYMON PRO2/QMF/DAG	2.4
SD-4	SUPPLY	LOUVERED	STEEL	4-WAY	12X12	SEE PLAN	SURFACE	RAYMON PRO2/QMF	2.4
SD-5	SUPPLY	PERFORATED	STEEL	PERFORATED	24X24	SEE PLAN	LAY-IN	RAYMON RPR	2.4
RG-1	RETURN	SQUARE EGGRATE	ALUMINUM	N/A	24X24	22x22	LAY-IN	RAYMON RA-HV1	2.3, 4
EG-1	EXHAUST	LOUVERED GRILLE	ALUMINUM	N/A	12X12	SEE PLAN	SURFACE	RAYMON RA-HVD	1.2, 4
TG-1	TRANSFER	LOUVERED GRILLE	ALUMINUM	N/A	SEE PLAN	SEE PLAN	SURFACE	RAYMON RA-RH	2.4
DIFFUSER NOTES:									
1. PROVIDE w/ ADJUSTABLE OPPOSED BLADE DAMPER									
2. VERIFY ALL DIFFUSERS AND RETURN GRILLE COLORS WITH OWNER AND ARCHITECT									
3. PROVIDE w/ 22X22 PLENUM BOX.									
4. ALL DIFFUSERS AND RETURNS LOCATED IN BLACK CEILING SHALL BE FLAT BLACK FINISH.									

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NEW CULVER'S RESTAURANT
819 Loganville Highway
Bethlehem, GA 30620
County of BARROW

OWNER: TEAM ADAMS BETHLEHEM, LLC
2109 Isla Bonita Drive
Sierra Vista, AZ 85650
Kevin Adams
520-249-4043

ARCHITECTS: OLLMANN ERNEST MARTIN ARCHITECTS
200 South State Street
Belvidere Illinois 61008
815-544-7190 Phone
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HVAC PLAN, DIFFUSER SCHEDULE

Date: 6-21-2024
Revision: 4-7-2025

2024-011
M101

GENERAL NOTES

- DEVIATIONS FROM THE HVAC PLANS ARE THE RESPONSIBILITY OF THE HVAC CONTRACTOR & WILL NOT RESULT IN ADDITIONAL COSTS TO THE OWNER UNLESS WRITTEN CHANGE ORDERS ARE APPROVED BY THE OWNER.
- ALL WORK TO BE PERFORMED TO STATE CODE & SMACNA GUIDELINES.
- INSTALL UNITS ACCORDING TO MANUFACTURERS GUIDELINES.
- PROVIDE OWNER W/ OPERATION & MAINTENANCE MANUALS & SYSTEM SCHEMATICS.
- CONTRACTOR TO CONFIRM VOLTAGES & PHASES OF EQUIPMENT PRIOR TO INSTALLATION.
- VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION (DRAWINGS ARE DIAGRAMMATIC IN NATURE & DO NOT REFLECT EXACT LOCATIONS OF EQUIPMENT OR OTHER APPARATUSES.)
- PROVIDE SHOP DRAWINGS TO THE ARCHITECT/DESIGNER FOR EQUIPMENT, FANS, REGISTERS, ETC. PRIOR TO PROCUREMENT.
- PROVIDE OWNER W/ COLOR CHOICES FOR SWITCHES & OTHER APPARATUSES WHERE APPLICABLE.
- VENT OWNER WATER HEATER AS REQUIRED.
- VENT DRYER THRU SIDEWALL TO EXTERIOR AS REQUIRED. MAINTAIN CLEARANCE FROM INTAKES AS NOTED.
- HANG & SUPPORT MATERIALS SHALL BE INSTALLED THE LATEST EDITION OF THE ASHRAE HANDBOOK OF FUNDAMENTALS.
- MAINTAIN AT LEAST 10 FEET CLEARANCE FROM INTAKES OR WINDOWS ON ALL EXHAUST VENTS.
- TEST, ADJUST, & CALIBRATE CONTROL SYSTEMS AS REQUIRED. PROVIDE SCHEMATICS / DESCRIPTION TO THE OWNER PRIOR TO INSTALLATION.
- INSTALLER RESPONSIBLE FOR FINAL TEST & BALANCING DURING TRAINING WEEK. PROVIDE WRITTEN REPORT BY THIRD PARTY INDEPENDENT TAB CONTRACTOR.
- VERIFY W/ OWNER EXACT HEATER LOCATION TO AVOID BUILDING FUNCTION INTERFERENCE.
- REPLACE ALL AIR FILTERS PRIOR TO TURNING SYSTEM OPERATIONS OVER TO OWNER.
- HVAC CONTRACTOR IS RESPONSIBLE FOR A COMPLETE & FULLY WORKING SYSTEM.
- DUCT DIMENSIONS LISTED ARE NET FREE - CLEAR INSIDE DIMENSIONS.
- VERIFY DUCT LOCATIONS PRIOR TO FABRICATION. (VERIFY LIMITED AREA FOR DUCTWORK & OTHER APPARATUSES.)
- INSULATE DUCT WORK TO SMACNA GUIDELINES & STATE CODES.
- INSTALL VOLUME CONTROL DAMPERS AS INDICATED ON PLANS.
- FLEXIBLE ROUND DUCT WORK NOT TO EXCEED 8 FEET IN LENGTH. AVOID UNNECESSARY TURNS & SLACK.
- RETURN AIR DUCT WORK TO BE LINED FOR SOUND ATTENUATION.
- DUCT WORK TO BE STANDARD GAUGE SHEET METAL (FIBROUS DUCT NOT ALLOWED.)
- INSULATE EXHAUST DUCT FOR EXHAUST FAN TO EXTERIOR TERMINATION.
- COORDINATE WORK W/ GENERAL CONTRACTOR & OWNER TO MAXIMIZE CEILING HEIGHT & AVOID CONFLICTS.
- SS WALL PANELS FOR THE KITCHEN AREA ARE TO BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR. PANELS ARE TO BE 18 GA. TYPE 304 SS. SEE DETAILS AND LOCATIONS ON THE A103 DRAWING.
- EXHAUST FANS AND FURNACE FANS TO RUN CONTINUOUSLY DURING OCCUPIED MODE.
- NIGHT SET BACK THERMOSTATS TO BE INSTALLED ON ALL HVAC EQUIPMENT.

NATIONAL ACCOUNT PROGRAM

- LENNOX INDUSTRIES, INC.** - ROOFTOP HVAC EQUIPMENT
SALES: LennoxNationalAccounts@Lennoxinc.COM copy to Dave.Ebner@Lennoxinc.com
NATIONAL ACCOUNTS SALES & TECH SUPPORT: (800) 367-6285 Option #2 Lennoxinc.com
- ACCUREX/ GREENHECK FAN CORPORATION** - KITCHEN HOODS, EXHAUST FANS, ROOF CURBS, ANSUL SYSTEMS, ACCESSORIES AND TEST AND BALANCE
CONTACT PHILLIP KRAFT: 1-282-227-7865 philip.kraft@accurex.com
SECONDARY CONTACT BRAD BORCHARDT: 1-715-551-0829 brad.borchardt@accurex.com
SECONDARY CONTACT ANDY JACOBS: andy.jacobs@accurex.com
ACCUREX WILL PROVIDE BALANCED AIRFLOW AND FUNCTIONAL CHARACTERISTICS OF THE HVAC AS THEY RELATE TO AIRFLOW AND RESISTANCE ONLY. SERVICES TO BE PERFORMED BY A CERTIFIED NEBB FIRM AND ITS MANAGING GROUP - NATIONAL TAB
- RAYMON AIR DISTRIBUTION EQUIPMENT** - DIFFUSERS AND GRILLES
NATIONAL ACCOUNTS SALES: HUNZICKER LLC, MARIE WILSON - (608) 845-9551 marie@hunzickerllc.com

2024-011 CULVER'S OF BETHLEHEM, GA BETHLEHEM, GA

RTU SCHEDULES

UNIT No	AREA SERVED	SUPPLY FAN				COOLING						HEATING				ELECTRICAL (1)		MANUFACTURER, MODEL			
		SUPLY FAN TYPE	SA FAN VFD	SUPPLY CFM	MIN OA CFM	ESP	OA TEMP °FDB	°FWB	MIXED AIR TEMP °FDB	°FWB	SUPPLY TEMP COIL LAT °FDB	°FWB	COIL CAPACITY SENSIBLE MBH	LATENT MBH	GAS OR ELEC	OUTPUT MBH	OAT °FDB		HEATING STAGES	VOLTAGE	PHASE
RTU-1	DINING ROOM	MSAV	YES	6,150	1,750	0.75"	94	74	80.41	66.40	55.00	54.80	166	49	GAS	142	14	2	208	3	LENNOX ENLIGHT LGT
RTU-2	KITCHEN	MSAV	YES	6,150	1,700	0.75"	93	74	79.98	66.31	55.00	54.79	164	50	GAS	113	14	2	208	3	LENNOX ENLIGHT LGT

ADDITIONAL FACTORY INSTALLED OPTIONS FOR BOTH UNITS:

- WEATHERPROOF DISCONNECT
- FACTORY INSTALLED/FIELD POWERED GFCI
- RETURN SMOKE DETECTOR
- DRAIN PAN OVERFLOW SWITCH
- SINGLE ENTHALPY ECONOMIZER W/ FAULT DETECTION DIAGNOSTICS
- BAROMETRIC RELIEF
- HAIL GUARDS
- 2" MERV 13 FILTERS
- SS HEAT EXCHANGER
- HOT GAS REHEAT

ADDITIONAL FIELD INSTALLED OPTIONS FOR BOTH UNITS:

- 14" DOWNFLOW HYBRID CURB
- PVC DRAIN TRAP KIT
- REMOTE TEMPERATURE AND HUMIDITY SENSORS
- LENNOX MODEL CS7500 PROGRAMMABLE THERMOSTAT
- OUTDOOR AIR CFM CONTROL

NOTES:

- NOTIFY ELECTRICAL CONTRACTOR OF BREAKER REQUIREMENTS AFTER SELECTION

PRV-1 RESTROOM EXHAUST FAN - REFER TO SHEET M204

PRV-2 GRIDDLE EXHAUST FAN - REFER TO SHEET M202

PRV-3 FRYER EXHAUST FAN - REFER TO SHEET M203

EF-1A MOP ROOM EXHAUST FAN - REFER TO SHEET M204

ITEM #49A GRIDDLE HOOD - REFER TO SHEET M202

ITEM #59A FRYER HOOD - REFER TO SHEET M203

ECH-1 ELECTRIC CEILING HEATER Q-MARK OR EQUAL CDF-548 ELECTRIC CEILING HEATER & CDF RECESSED MOUNTING FRAME, CDF-TR4 TRANSFORMER & WALL MOUNTED THERMOSTAT. 208/240 VOLT SINGLE PHASE = 19.2 AMPS (SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.)

CONTROL NOTES

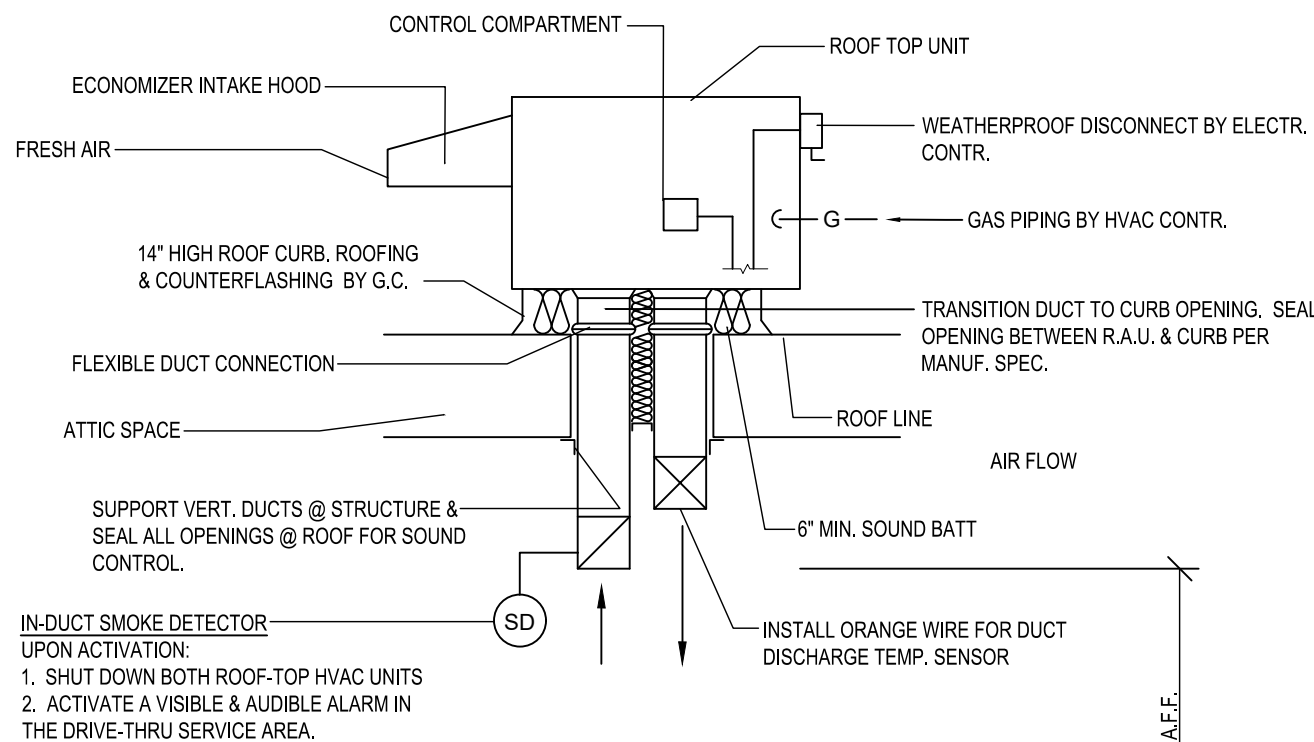
NOTE: KITCHEN HOODS SUPPLIED AND INSTALLED BY HVAC CONTRACTOR

- WIRE RTU-1, RTU-2 TO SHUT-DOWN & EXHAUST HOOD FANS TO CONTINUE TO RUN UPON ACTIVATION OF THE ANSUL SYSTEM.
- WIRE RTU-1 & RTU-2 TO SHUT-DOWN UPON ACTIVATION OF ANY IN-DUCT SMOKE DETECTOR.
- OCCUPIED MODE: FANS IN RTU-1 & RTU-2, EXHAUST FANS PRV-1, PRV-2, PRV-3 AND EF-1 TO RUN CONTINUOUSLY.
- UNOCCUPIED MODE: FANS IN RTU-1 & RTU-2 TO RUN ONLY WHEN COOLING OR HEATING IS CALLED FOR.

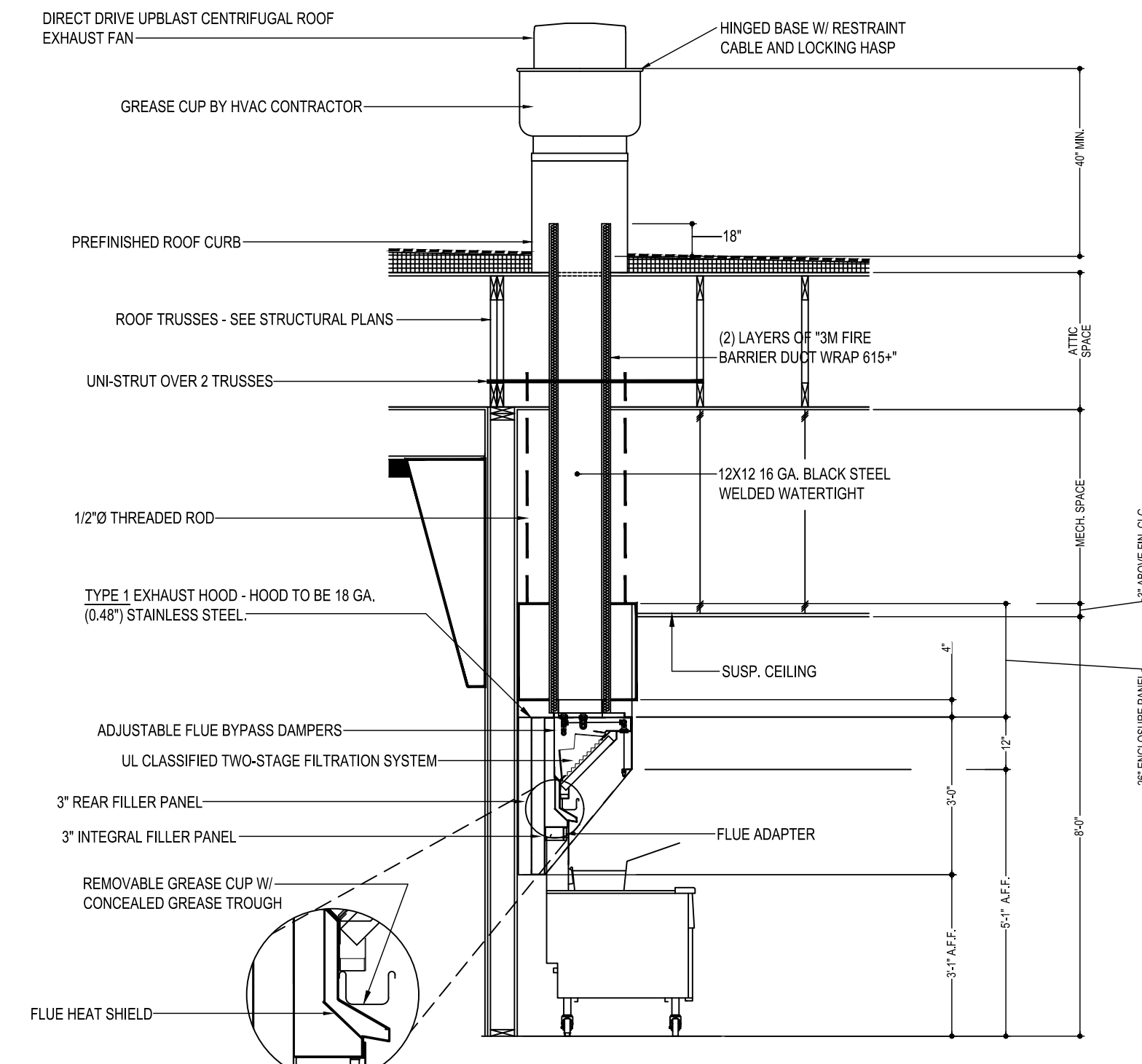
TEST & BALANCE NOTES

- ACCUREX WILL PROVIDE BALANCED AIRFLOW & FUNCTIONAL CHARACTERISTICS OF THE HVAC SYSTEM AS THEY RELATE TO AIRFLOW & AIR PRESSURE ONLY. SERVICES TO BE PERFORMED BY A CERTIFIED NEBB FIRM & ITS MANAGING GROUP NATIONAL TAB.
- SERVICES NOT INCLUDED: PULLEY / SHEAVE CHANGES, MOTOR CHANGE OUTS, OR RETURN TRIPS DUE TO DELAYS CAUSED BY JOB INCOMPLETENESS.
- ESTABLISH MINIMUM OUTSIDE AIR FLOW INDICATED ON SCHEDULES AT ALL SUPPLY FAN SPEEDS.

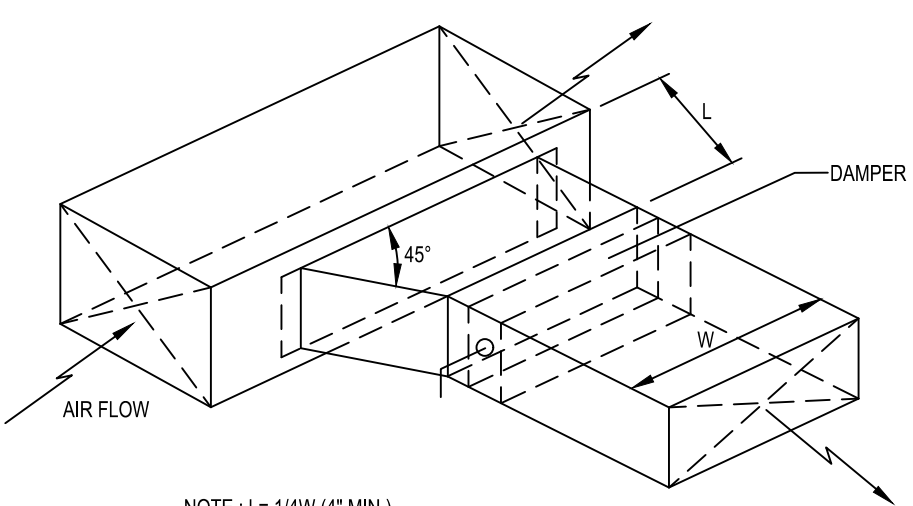
AIR BALANCE TABLE				
EXHAUST AIR FLOW				
EQUIPMENT TAG	SERVICE	CFM		
PRV-1	RESTROOMS	375		
PRV-2	ITEM #49	1,500		
PRV-3	ITEM #59	1,500		
EF-1A	MOP ROOM	75		
TOTAL =		3,450		
VENTILATION REQUIRED PER 2018 INTERNATIONAL MECHANICAL CODE				
EQUIPMENT TAG	SERVICE	CFM		
RTU-1	DINING ROOM	1,725		
RTU-2	KITCHEN	215		
TOTAL =		1,940		
3,450 > 1,940 -> USE 3,450 CFM FOR OUTSIDE AIR CFM				
OVERALL AIRFLOW SUMMARY				
EQUIPMENT TAG	SERVICE	SUPPLY CFM	RETURN CFM	OUTSIDE AIR CFM
RTU-1	DINING ROOM	6,150	4,400	1,750
RTU-2	KITCHEN	6,150	4,450	1,700
TOTAL OUTSIDE AIR CFM =				3,450



A6 ROOFTOP HVAC UNIT
SCALE: N.T.S.



C3 KITCHEN HOOD EXHAUST DETAIL
SCALE: N.T.S.
VERIFY MOUNTING HEIGHTS W/ OWNER AND GENERAL CONTRACTOR



C6 BRANCH DUCT TAKEOFF DETAILS
SCALE: N.T.S.

LENNOX SETTINGS FOR CULVERS

IN ORDER TO SET UP THE RTU'S YOU WILL NEED TO DOWNLOAD LENNOX CORE SERVICE APP, AND PAIR YOUR DEVICE WITH THE CORE CONTROLLER. ONCE PAIRED YOU WILL SEE THE OPERATION OVERVIEW SCREEN. SEE INSTALLATION MANUAL FOR INSTRUCTIONS ON DOWNLOADING THE APP, OR SCAN THE QR CODE ON THE FRONT COVER OF THE CONTROLLER

HEAT DELAY ADJUSTMENT

- HEAT DELAY WILL BE PR65 IN THE CORE CONTROLLER AND CHANGED IN THE APP AS SHOWN IN THE MENU PATH BELOW. DEFAULT IS SET AT 3000 SECONDS.
- TAP THE MENU BUTTON (THREE LINES IN THE UPPER LEFT OF THE SCREEN) TO OPEN THE MENU
 - TAP SETUP
 - TAP TEST AND BALANCE
 - TAP DAMPER
- THERE ARE SEVERAL SETTINGS TO SELECT IN THIS MENU PATH BEFORE REACHING THE DESIRED SETTING. FRESH AIR HEATING ENABLED =YES OR NO. AFTER ENABLING FAH THE NEXT SCREEN WILL ALLOW THE FAH SET POINT TO BE CONFIGURED. SUGGESTED FAH TEMPERATURE RANGES 69-77 DEGREES F. VERIFY WITH ENGINEER

GLOBAL ECONOMIZER MODE (KITCHEN UNIT ONLY)

- THIS IS SET BY CHANGING CONFIGURATION ID#1 CHARACTER 2 TO G
- FROM THE MAIN SCREEN (OPERATION OVERVIEW) TAP THE MENU BUTTON (THREE LINES IN THE UPPER LEFT OF THE SCREEN) TO OPEN THE MENU
 - TAP INSTALL
 - TAP NEXT ON DATE AND TIME
 - TAP NEXT ON RTU NAME, MODEL NUMBER, SERIAL NUMBER AND CATEGORY IF ALREADY ENTERED. IF NOT PLEASE ENTER
 - TAP CONFIGURATION ID 1 AND CHANGE 2ND CHARACTER TO G

ECONOMIZER MINIMUM POSITION SET-UP

- THIS IS ADJUSTED THROUGH THE MENU FROM THE MAIN SCREEN
- TAP THE MENU BUTTON (THREE LINES IN THE UPPER LEFT OF THE SCREEN)
 - SCROLL DOWN AND TAP RTU OPTIONS
 - TAP EDIT PARAMETERS
 - CHOOSE FROM THE CATEGORY OF PARAMETERS LISTED (AIRFLOW)
 - CHOOSE THE PARAMETER TO ADJUST (132) MINIMUM FRESH AIR DAMPER POSITION DURING OCCUPIED OPERATION

OCCUPIED AND UNOCCUPIED

- USING 24V THERMOSTAT CONTROL. OCCUPIED/ UNOCCUPIED WILL BE DETERMINED BY INPUT ON P297-8 ON THE M4 BOARD
- FOR (KITCHEN UNIT ONLY) BOTH THE THERMOSTAT AND HOOD FANS MUST BE TIED INTO P297-8 ON THE M4 CONTROL BOARD

FRESH AIR TEMPERING (HEATING)

- THIS IS ADJUSTED THROUGH THE MENU FROM THE MAIN SCREEN
- TAP THE MENU BUTTON (THREE LINES IN THE UPPER LEFT OF THE SCREEN) TO OPEN THE MENU
 - TAP SETUP
 - TAP TEST AND BALANCE
 - TAP DAMPER
- THERE ARE SEVERAL SETTINGS TO SELECT IN THIS MENU PATH BEFORE REACHING THE DESIRED SETTING. FRESH AIR HEATING ENABLED =YES OR NO. AFTER ENABLING FAH THE NEXT SCREEN WILL ALLOW THE FAH SET POINT TO BE CONFIGURED. SUGGESTED FAH TEMPERATURE RANGES 69-77 DEGREES F. VERIFY WITH ENGINEER

FRESH AIR TEMPERING (COOLING)

- THIS IS ADJUSTED THROUGH THE MENU FROM THE MAIN SCREEN
- TAP THE MENU BUTTON (THREE LINES IN THE UPPER LEFT OF THE SCREEN) TO OPEN THE MENU
 - TAP SETUP
 - TAP TEST AND BALANCE
 - TAP DAMPER
- THERE ARE SEVERAL SETTINGS TO SELECT IN THIS MENU PATH BEFORE REACHING THE DESIRED SETTING. FRESH AIR HEATING ENABLED =YES OR NO. AFTER ENABLING FAH THE NEXT SCREEN WILL ALLOW THE FAH SET POINT TO BE CONFIGURED. SUGGESTED FAH TEMPERATURE RANGES 73-75 DEGREES F. VERIFY WITH ENGINEER

ENSURE THAT THE PROBE STYLE SENSOR GETS INSTALLED IN THE SUPPLY DUCTWORK FOR FAH/FAO TO OPERATE PROPERLY.

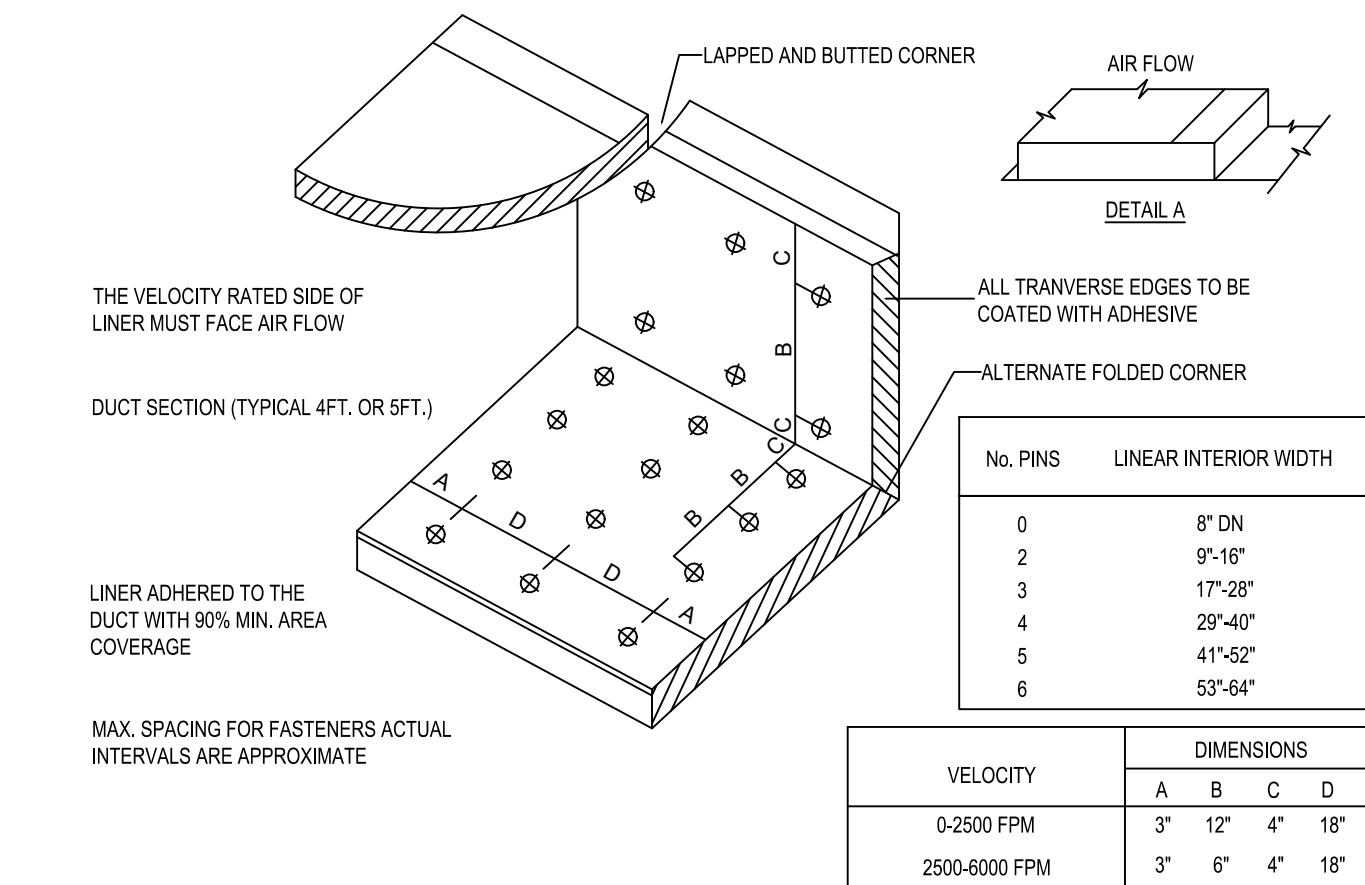
FOR HELP PLEASE CALL LENNOX NATIONAL ACCOUNT TECH SUPPORT AT 1-800-367-6285
CHECK FOR CORRECT OPERATION AND WIRING OF ALL SENSORS

COOKING APPLIANCE / TYPE 1 HOOD INTERLOCK

- REMOTE SWITCH ON -POWER TO KITCHEN FAN CONTROL CENTER (KFCC)
- KFCC CONTROLS:
 - EXHAUST FANS PRV-2 (GRILLE) & PRV-3 (FRYERS) ARE STARTED.
 - OPENS OUTSIDE AIR INTAKE ON RTU-1 & RTU-2 TO MINIMUM FRESH AIR OPENING.
 - POWER TO OUTLETS #51 (GRILLE) & #60 (FRYERS).
- GRILLE & FRYER CAN BE STARTED.
- IN CASE OF FIRE:
 - SHUNT TRIP BREAK FOR GRILLE & FRYERS OUTLET TRIPS.
 - ANSUL SYSTEM IS ACTIVATED.
 - THE MECHANICAL GAS VALVES CLOSES.
 - SHUT DOWN RTU-1 & RTU-2 & CLOSE OUTSIDE AIR.
 - EXHAUST FANS PRV-2 & PRV-3 CONTINUE TO RUN.

GREASE HOOD FIRE SUPPRESSION SYSTEM

WET-CHEMICAL EXTINGUISHING SYSTEMS SHALL BE INSTALLED, MAINTAINED, PERIODICALLY INSPECTED AND TESTED IN ACCORDANCE WITH NFPA 17A AND THEIR LISTING.



E5 DUCT LINER INSTALLATION DETAIL
SCALE: N.T.S.
NOTE: USE ONLY ON VERTICAL DROP FROM RTU TO WITHIN 9'-10" A.F.F. DUCT LINER WILL NOT BE PERMITTED ON ANY HORIZ. RUNS.

DOAS/RTU FAN SCHEDULE -- JOB#6941487

FAN INFORMATION										ELECTRICAL INFORMATION										COOLING INFORMATION										REHEAT INFORMATION										GAS HEAT INFORMATION										A2L MINIMUM ROOM VOLUME			NOTES
FAN UNIT NO	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	WEIGHT (LBS)	ESP	HP	PHASE	VOLT	MCA	MDCP	DISCHARGE DB	DISCHARGE WB	MIXED AIR DB	MIXED AIR WB	LEAVING AIR DB	LEAVING AIR WB	TOTAL CAPACITY	IEER	ISMRE2	DISCHARGE DB	DISCHARGE WB	DESIRED	MAX	MOISTURE REMOVAL RATE	GAS TYPE	INPUT BTU/H	OUTPUT BTU/H	TEMP RISE	REQUIRED INPUT GAS PRESSURE	ROOM AREA (FT ²)	AIRFLOW (CFM)	HEIGHT (FT)																
1	RTU-1 DINING	1	CAS-HVAC3-1300-24-20T	CAPTIVEAIRE	24MF-3-RTU	4400	1750	6150	2775	0.750	10.00	3	208	1031A	125A	88.5°F	78.2°F	78.8°F	67.2°F	53.2°F	53.2°F	53.3°F	252.0 MBH	163.9 MBH	18.2	7.9	70.0°F	59.6°F	112.8 MBH	129.6 MBH	81.1 LBS/HR	NATURAL	179009	144997	22°F	7 IN. W.C. - 14 IN. W.C.	572.7	1031	7.2	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19													
2	RTU-2 KITCHEN	1	CAS-HVAC3-1250-24-20T	CAPTIVEAIRE	24MF-3-RTU	4450	1700	6150	2806	0.750	10.00	3	208	1031A	125A	88.5°F	78.2°F	78.8°F	67.2°F	53.2°F	53.2°F	53.3°F	252.0 MBH	163.9 MBH	18.2	7.9	70.0°F	59.6°F	112.8 MBH	129.6 MBH	81.1 LBS/HR	NATURAL	138325	112043	17°F	7 IN. W.C. - 14 IN. W.C.	572.7	1031	7.2	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19													

NOTES:
 1. INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL
 2. DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE
 3. INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER
 4. REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE
 5. EC MOTOR CONDENSING FANS
 6. ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE
 7. SUCTION LINE ACCUMULATOR
 8. FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY, 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER
 9. AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT)
 10. 2" EXTERIOR DUAL-WALL CONSTRUCTION W/ R-13 INSULATION-MINIMUM 20GA EXTERIOR W/ 14GA BASE
 11. 81% EFFICIENT FURNACE, WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 6:1 TURNDOWN WITH NG AND 5:1 TURNDOWN WITH LP
 12. SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE
 13. FULLY MODULATING HOT GAS REHEAT
 14. 15 DEGREE LDW AMBIENT OPERATION
 15. HAIL GUARD FOR CONDENSING COIL
 16. RTU ECONOMIZER WITH FIXED ENTHALPY CONTROL
 17. BAROMETRIC RELIEF DAMPER
 18. DOWN DISCHARGE/DOWN RETURN
 19. MINIMUM ROOM AREA ASSUMED 7.2' SUPPLY DIFFUSER HEIGHT AND IS CALCULATED PER UL60335-2-40 4TH ED. VALUES BASED ON FACTORY CHARGE. ACTUAL SITE CHARGE MAY DIFFER.

FOR QUESTIONS, CALL THE
 Florida National Accounts
 REGION 60
 PHONE: (407) 688 - 3100
 EMAIL: reg60@captivaire.com

CURB ASSEMBLIES

NO	IN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	RTU-1 DINING	104 LBS	CURB	59,500"W X 91,000"L X 14,000"H 0.250/12.000 PITCH ALONG WIDTH, LEFT INSULATED.
2	# 2	RTU-2 KITCHEN	104 LBS	CURB	59,500"W X 91,000"L X 14,000"H 0.250/12.000 PITCH ALONG WIDTH, LEFT INSULATED.

FAN OPTIONS

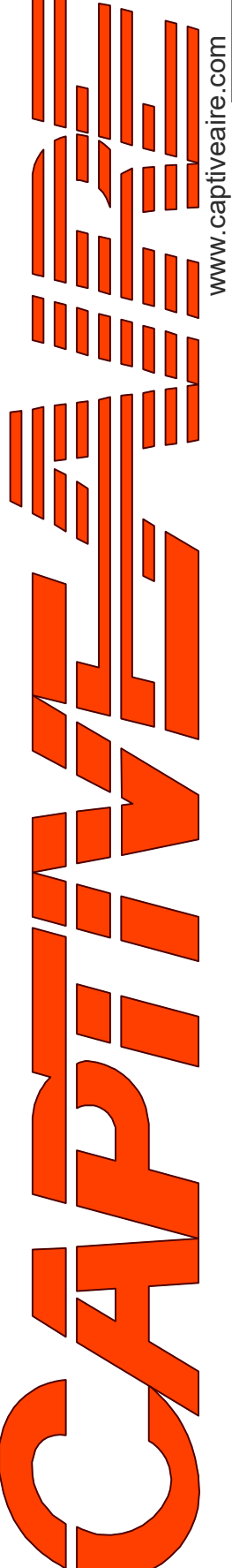
FAN UNIT NO	TAG	QTY	DESCRIPTION
1	RTU-1 DINING	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	TOTAL CFM MONITORING
		1	INTAKE FIRESTAT SET TO 135°F
		1	FREEZESTAT
		1	DISCHARGE FIRESTAT SET TO 240°F
		1	SNIP LODGE GAS STRAINER 1"
		1	SINGLE POINT ELECTRICAL CONNECTION 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	RTU3 DOWN DISCHARGE
		1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)
		1	2" MERV 8 FILTERS FOR RTU3 (QTY. 4)
		1	OVERHEAT STAT
		1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	OCCUPIED SCHEDULING
		1	RTU3 CURB DUCT HANGER
		1	RTU RETURN MOUNTED SMOKE DETECTOR AND SAMPLING TUBE - FACTORY INSTALLED
		1	LDW AMBIENT COOLING OPERATION - DOWN TO OF AMBIENT
		1	RTU3 CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J-BOX
		1	RTU ECONOMIZER - FIXED ENTHALPY CONTROL
1	RTU3 ECONOMIZER BAROMETRIC RELIEF		
1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI		
1	RTU3 HAIL GUARD		
1	RTU3 DOWN RETURN		
1	VAV PACKAGE W/ MANUAL/DDC CONTROL (S71 VFD INCLUDED)		
1	RTU BLOWER DOOR SWITCH		
1	2" METAL MESH FILTERS FOR RTU3 OUTDOOR INTAKE		
1	24VAC FIRE INPUT		
1	20 TON MODULATING COOLING OPTION, 208/230V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS		
1	R454B LEAK DETECTOR OPTION FOR RTUS		
1	20 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL - R454B		
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 OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
2	RTU-2 KITCHEN	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	TOTAL CFM MONITORING
		1	INTAKE FIRESTAT SET TO 135°F
		1	FREEZESTAT
		1	DISCHARGE FIRESTAT SET TO 240°F
		1	SNIP LODGE GAS STRAINER 1"
		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	RTU3 DOWN DISCHARGE
		1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)
		1	2" MERV 8 FILTERS FOR RTU3 (QTY. 4)
		1	OVERHEAT STAT
		1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	OCCUPIED SCHEDULING
		1	RTU3 CURB DUCT HANGER
		1	RTU RETURN MOUNTED SMOKE DETECTOR AND SAMPLING TUBE - FACTORY INSTALLED
		1	LDW AMBIENT COOLING OPERATION - DOWN TO OF AMBIENT
		1	RTU3 CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J-BOX
		1	RTU3 ECONOMIZER BAROMETRIC RELIEF
1	RTU ECONOMIZER - FIXED ENTHALPY CONTROL		
1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI		
1	RTU3 HAIL GUARD		
1	RTU3 DOWN RETURN		
1	VAV PACKAGE W/ MANUAL/DDC CONTROL (S71 VFD INCLUDED)		
1	RTU BLOWER DOOR SWITCH		
1	2" METAL MESH FILTERS FOR RTU3 OUTDOOR INTAKE		
1	24VAC FIRE INPUT		
1	20 TON MODULATING COOLING OPTION, 208/230V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS		
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1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET		

HMI SCHEDULE

UNIT NUMBER	HMI #	HMI LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN #1	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55
FAN #1	HMI #2 - SPACE		AVERAGED	56
FAN #1	HMI #3 - SPACE		AVERAGED	57
FAN #2	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55
FAN #2	HMI #2 - SPACE		AVERAGED	56
FAN #2	HMI #3 - SPACE		AVERAGED	57



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CULVERS BETHLEHEM GA RTUS
Bethlehem, GA, 30620

REVISIONS

DESCRIPTION	DATE:

DATE: 7/1/2025

DWG.#: 6941487

DRAWN BY: sluddy jr

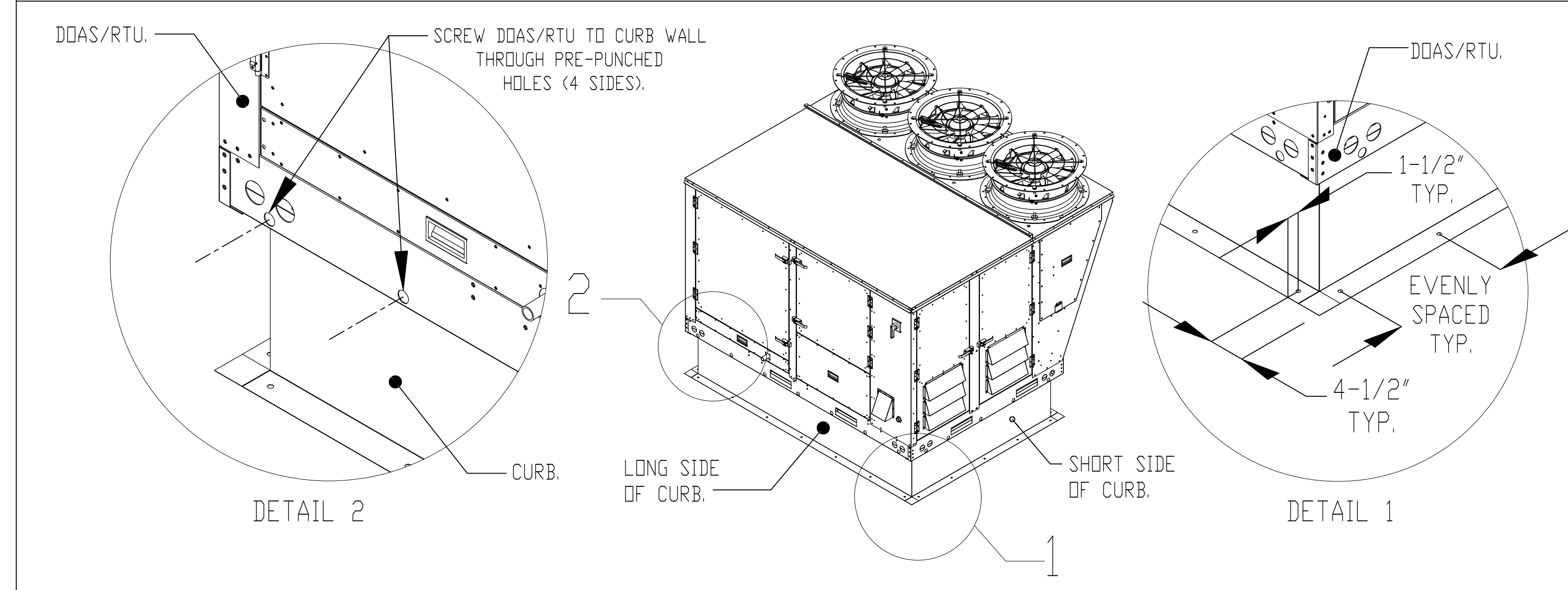
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MASTER DRAWING

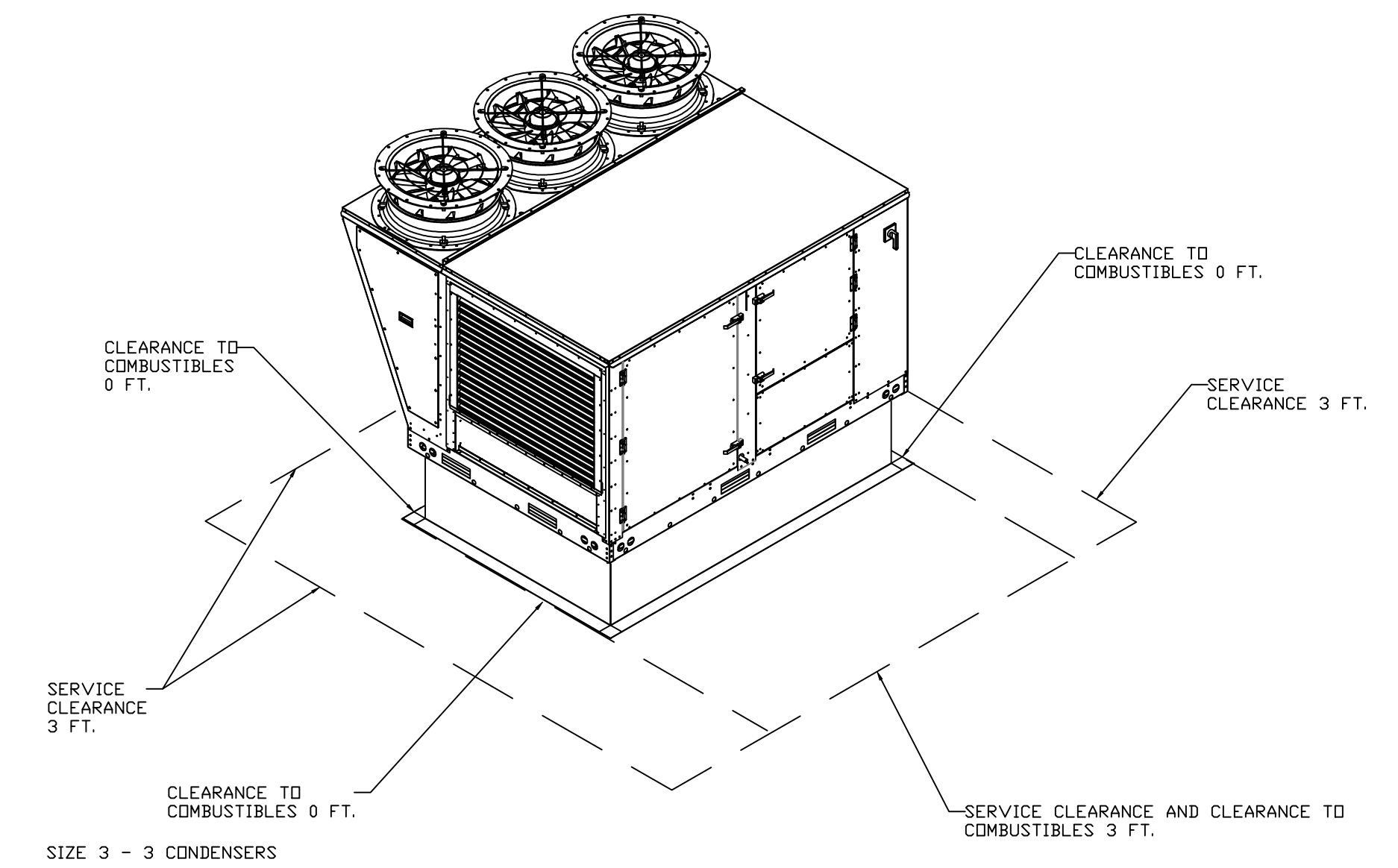
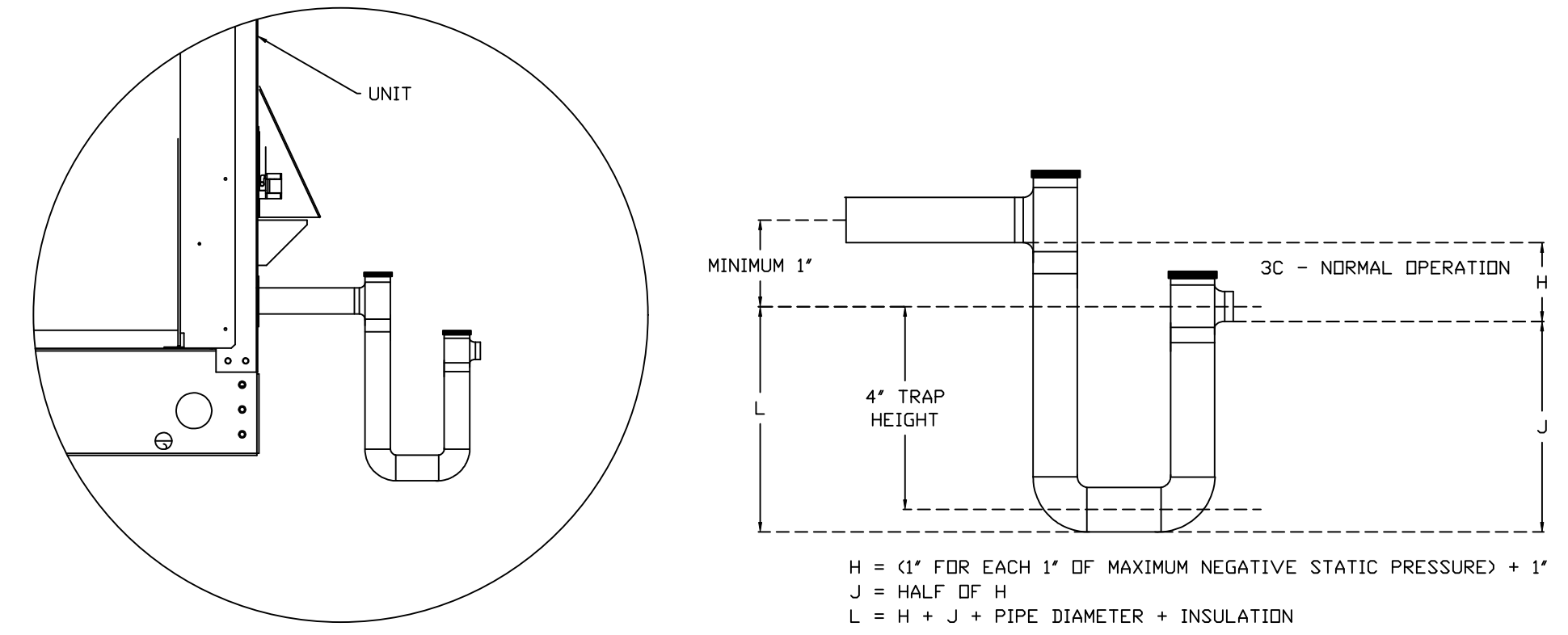
SHEET NO.
1

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.



RTU CONDENSATE DRAIN TRAP DETAIL



REVISIONS	
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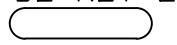
CULVERS BETHLEHEM GA RTUS
 Bethlehem, GA, 30620

DATE: 7/1/2025
 DWG.#: 6941487
 DRAWN BY: sluddy jr
 SCALE: 3/4" = 1'-0"
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SHEET NO.
 2

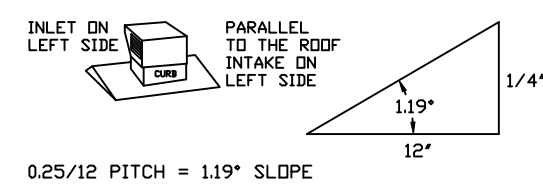
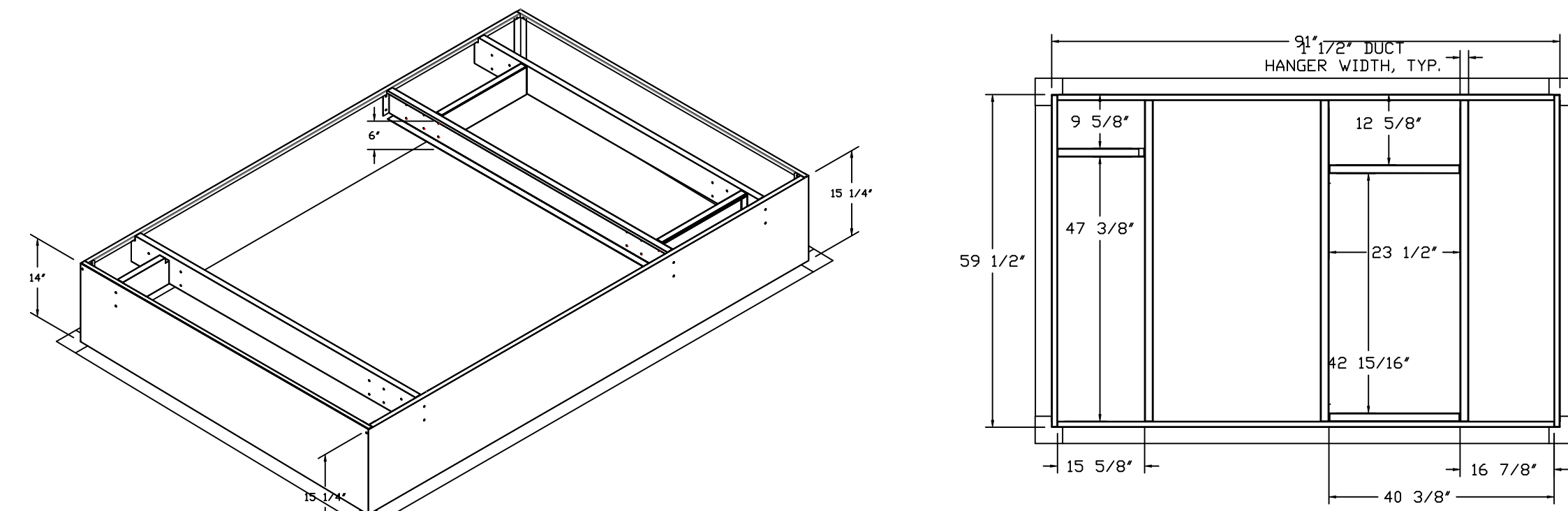
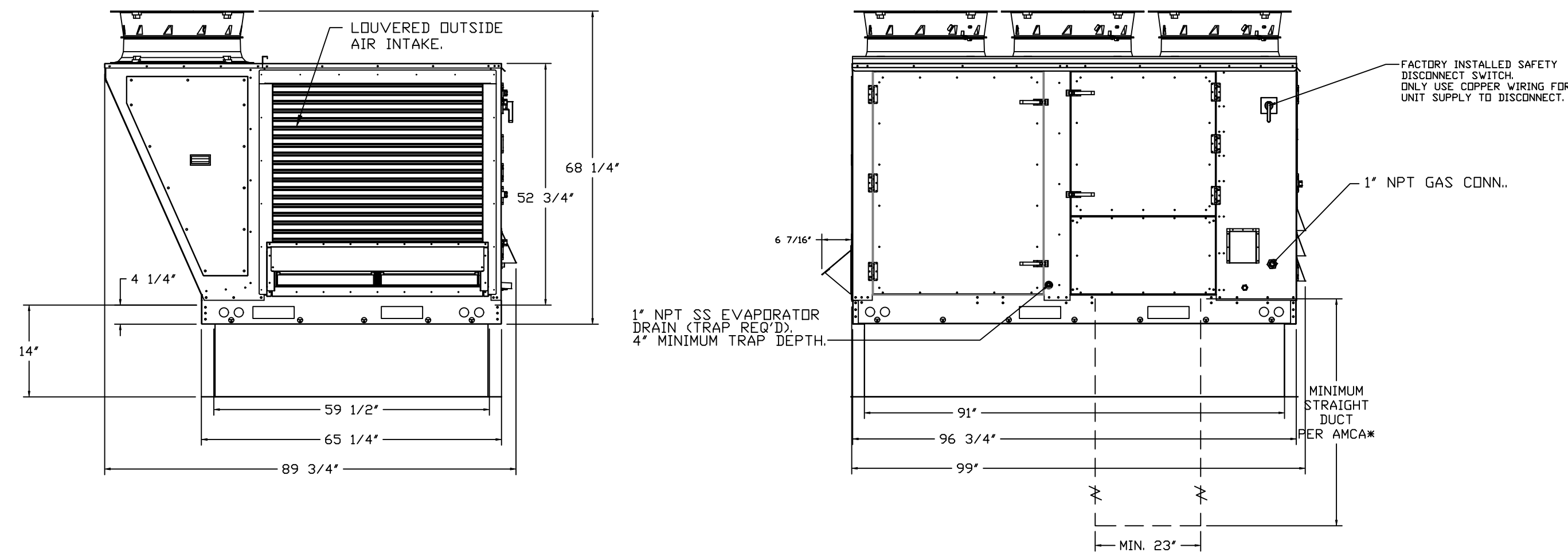
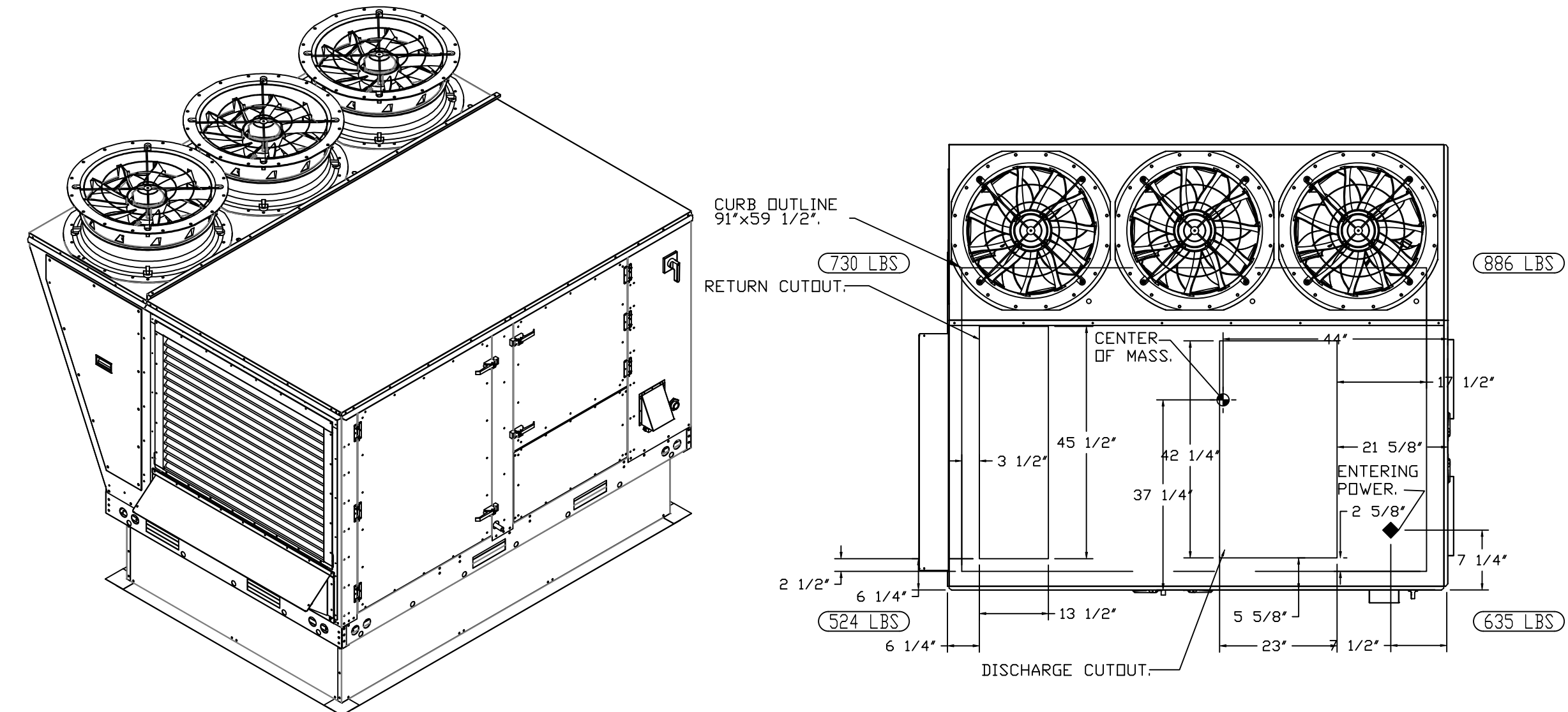
FAN #1 CAS-HVAC3-I.300-24MF-20T - HEATER (RTU-1 DINING)

NOTES:

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

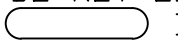
*NOTE: INTEGRAL CO2 MONITORING AND CONTROL CAPABILITIES FOR ALL SPACE MOUNTED THERMOSTATS.

*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 23" x 39".



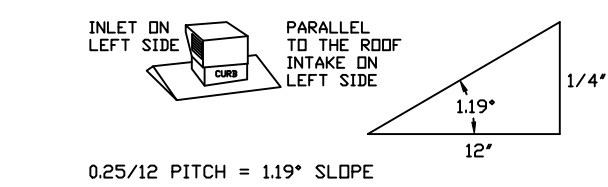
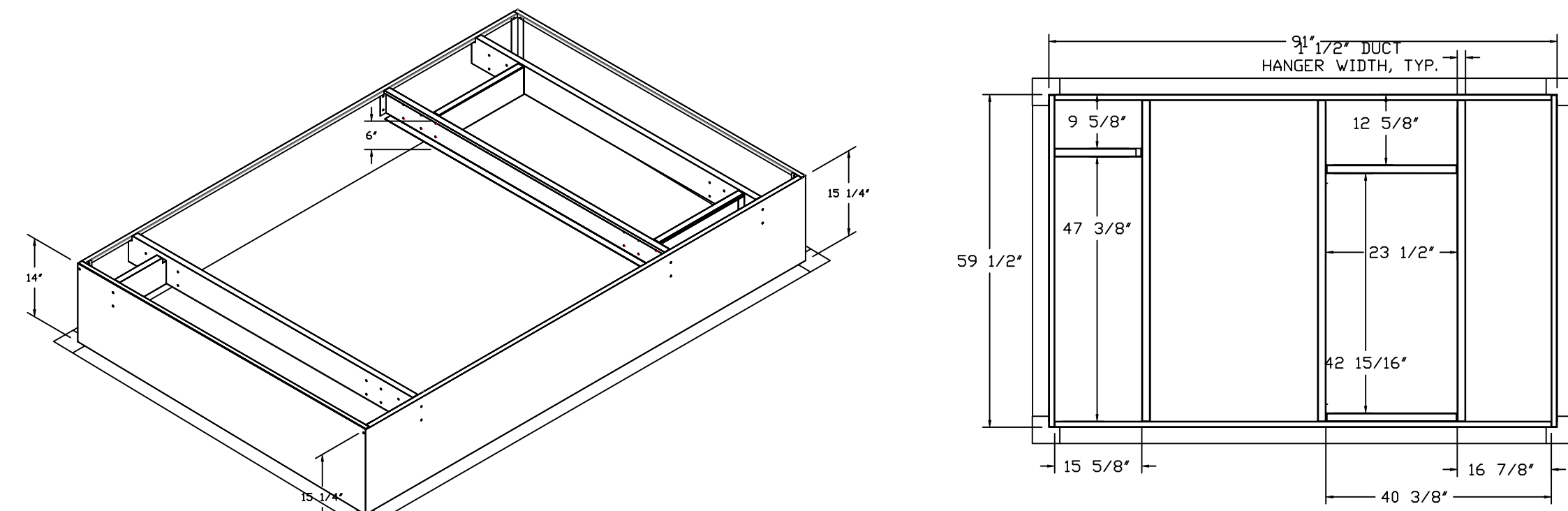
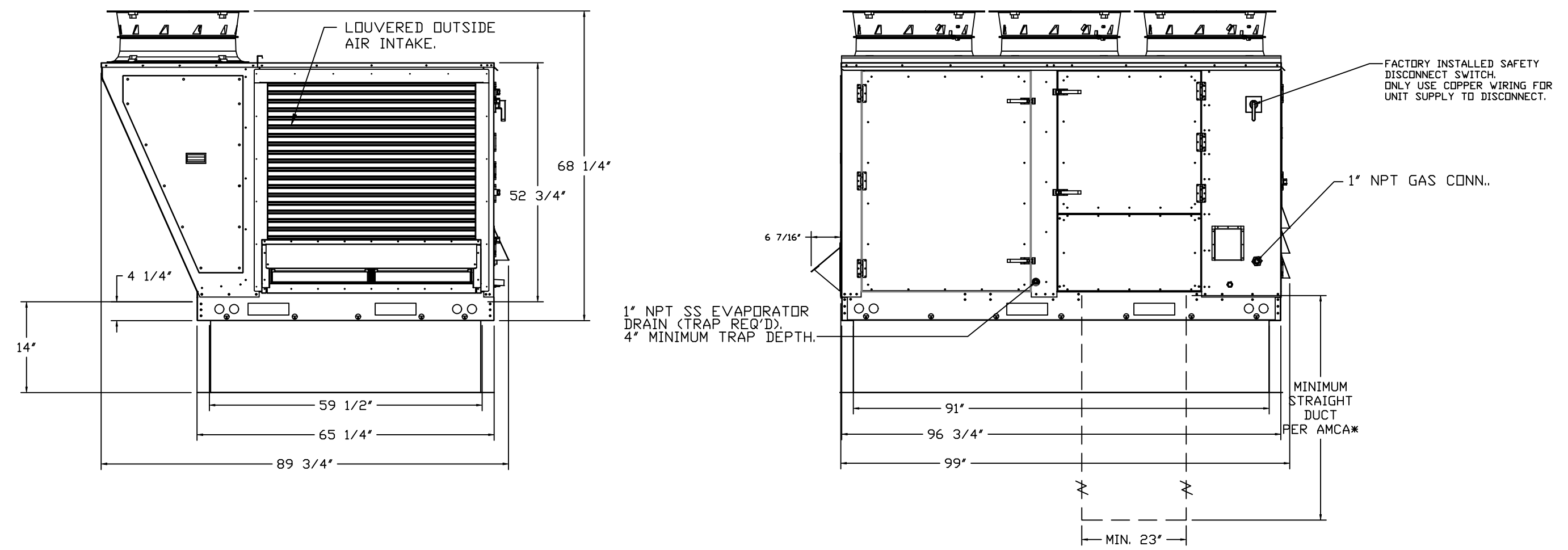
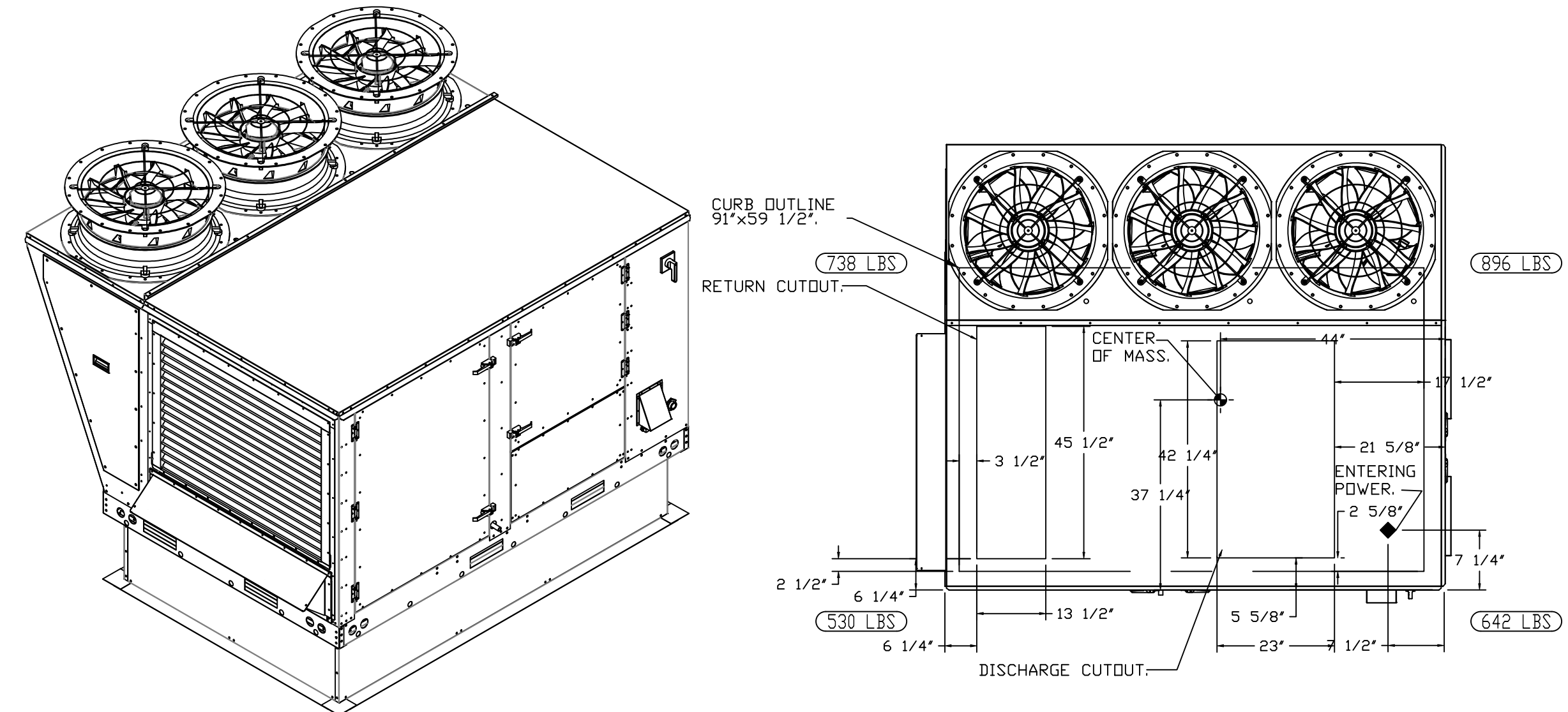
FAN #2 CAS-HVAC3-I.250-24MF-20T - HEATER (RTU-2 KITCHEN)

NOTES:

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

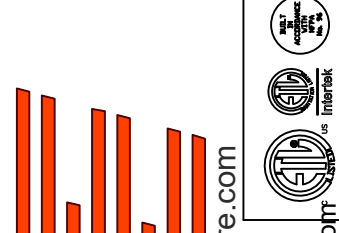
*NOTE: INTEGRAL CO2 MONITORING AND CONTROL CAPABILITIES FOR ALL SPACE MOUNTED THERMOSTATS.

*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 23" x 39".



REVISIONS

DESCRIPTION	DATE



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CULVERS BETHLEHEM GA RTUS
Bethlehem, GA, 30620

DATE: 7/1/2025

DWG.#:
6941487

DRAWN BY: sluddy jr

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

MASTER DRAWING

SHEET NO.
3

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

HOOD INFORMATION - JOB#7245190

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)						HOOD CONSTRUCTION	HOOD CONFIG		
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL		SP	END TO END	RDW
1	GRIDDLE HOOD	3347 BD-2	CAPTIVEAIRE	5' 6"	600 DEG	I	HEAVY	273	1500			4'	12"	1500	1910	-1.412"	430 SS WHERE EXPOSED	ALONE	ALONE
2	FRYER HOOD	3347 BD-2	CAPTIVEAIRE	7' 0"	600 DEG	I	HEAVY	214	1500			4'	12"	1500	1910	-1.090"	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

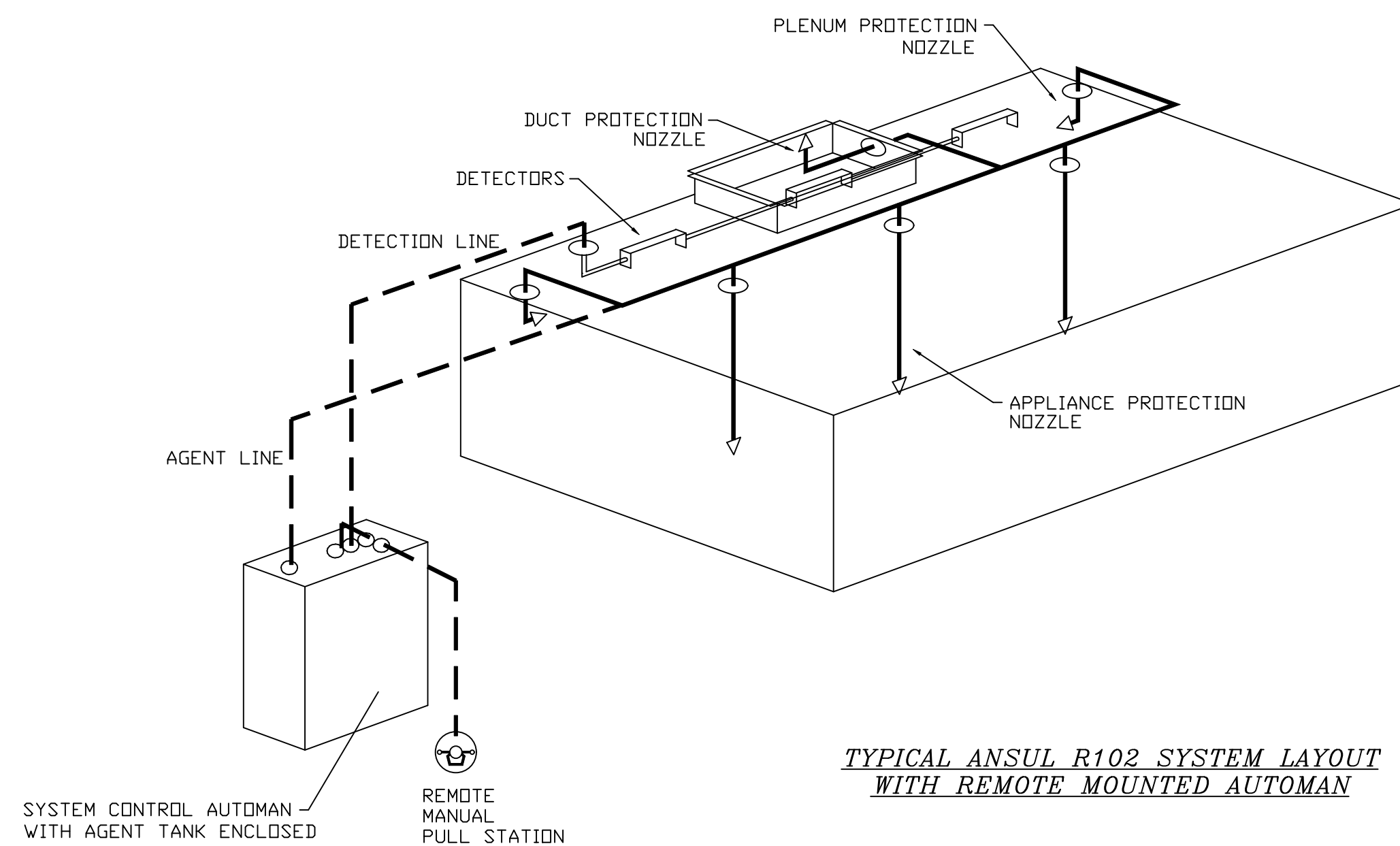
HOOD NO	TAG	FILTER(S)					LIGHT(S)					UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM	ELECTRICAL	SWITCHES			
1	GRIDDLE HOOD	CAPTRATE SOLO FILTER	4	16"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO							NO	235 LBS
2	FRYER HOOD	CAPTRATE SOLO FILTER	5	16"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO							NO	290 LBS

HOOD OPTIONS

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

FIRE SYSTEM INFORMATION - JOB#6086473

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		ANSUL R102	3.0/3.0	14	WALL MOUNT LEFT	N/A
2		ANSUL R102	3.0	6	WALL MOUNT LEFT	N/A



SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

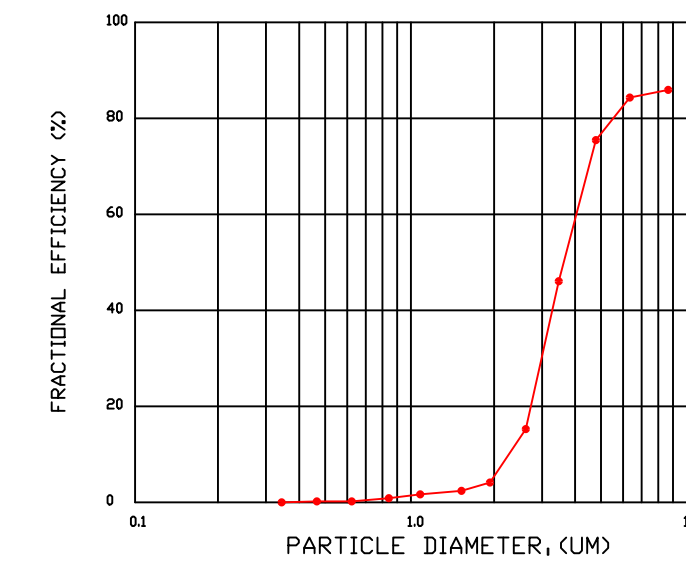
THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

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

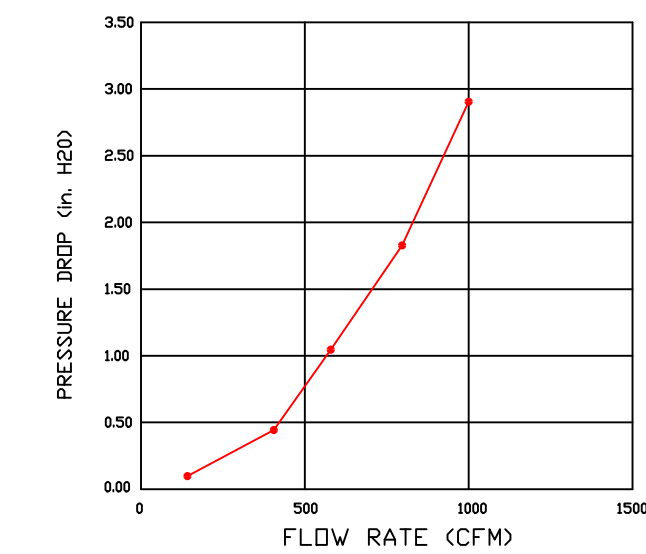
UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

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

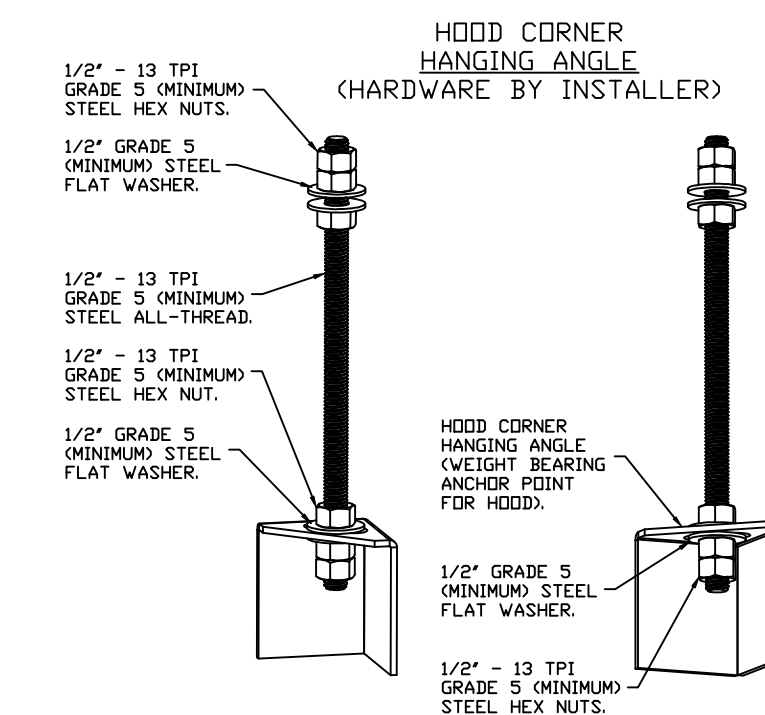
EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



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



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.

REVISIONS

DESCRIPTION	DATE

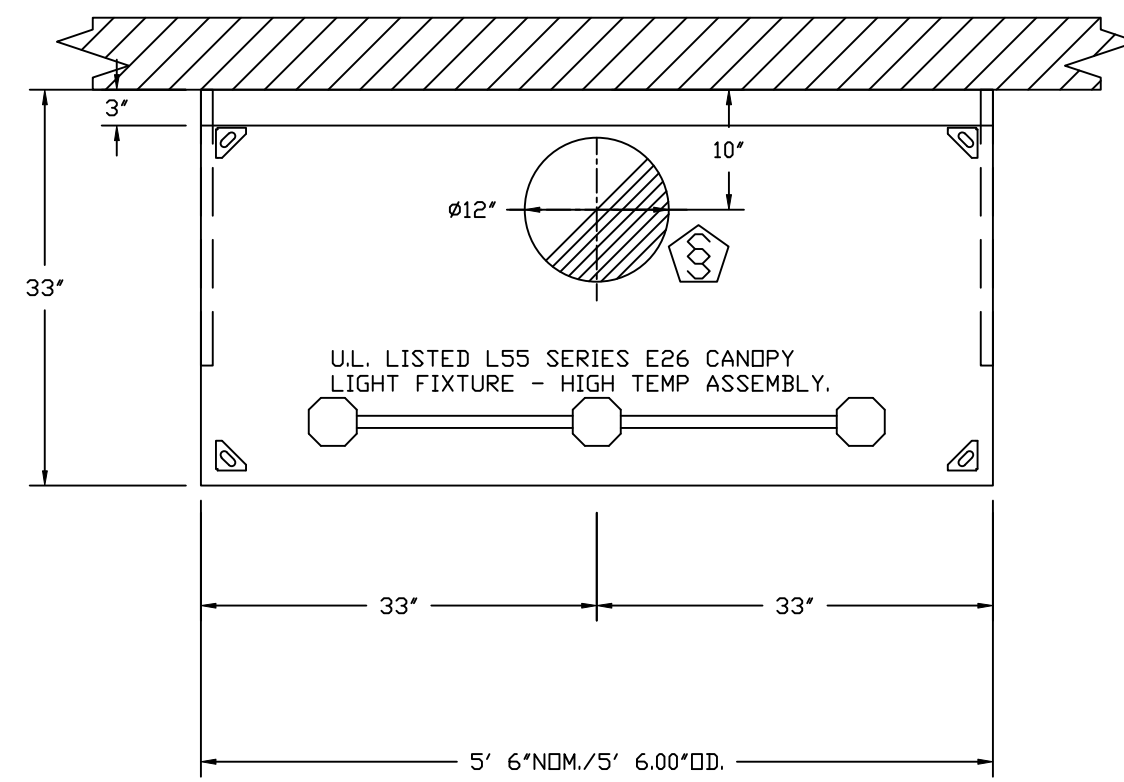
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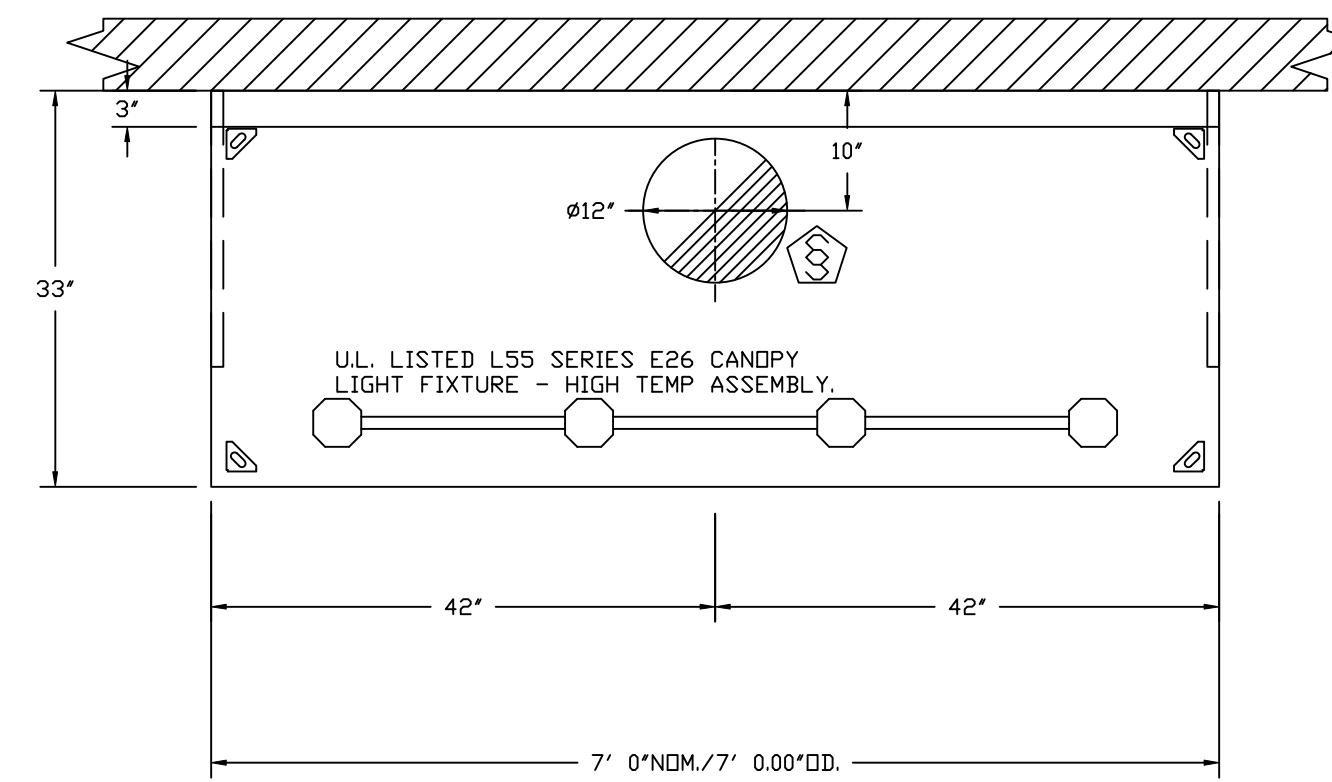
CULVERS BETHLEHEM GA
 Bethlehem, GA, 30620

DATE: 7/1/2025
 DWG.#: 7245190
 DRAWN BY: sluddy jr
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING

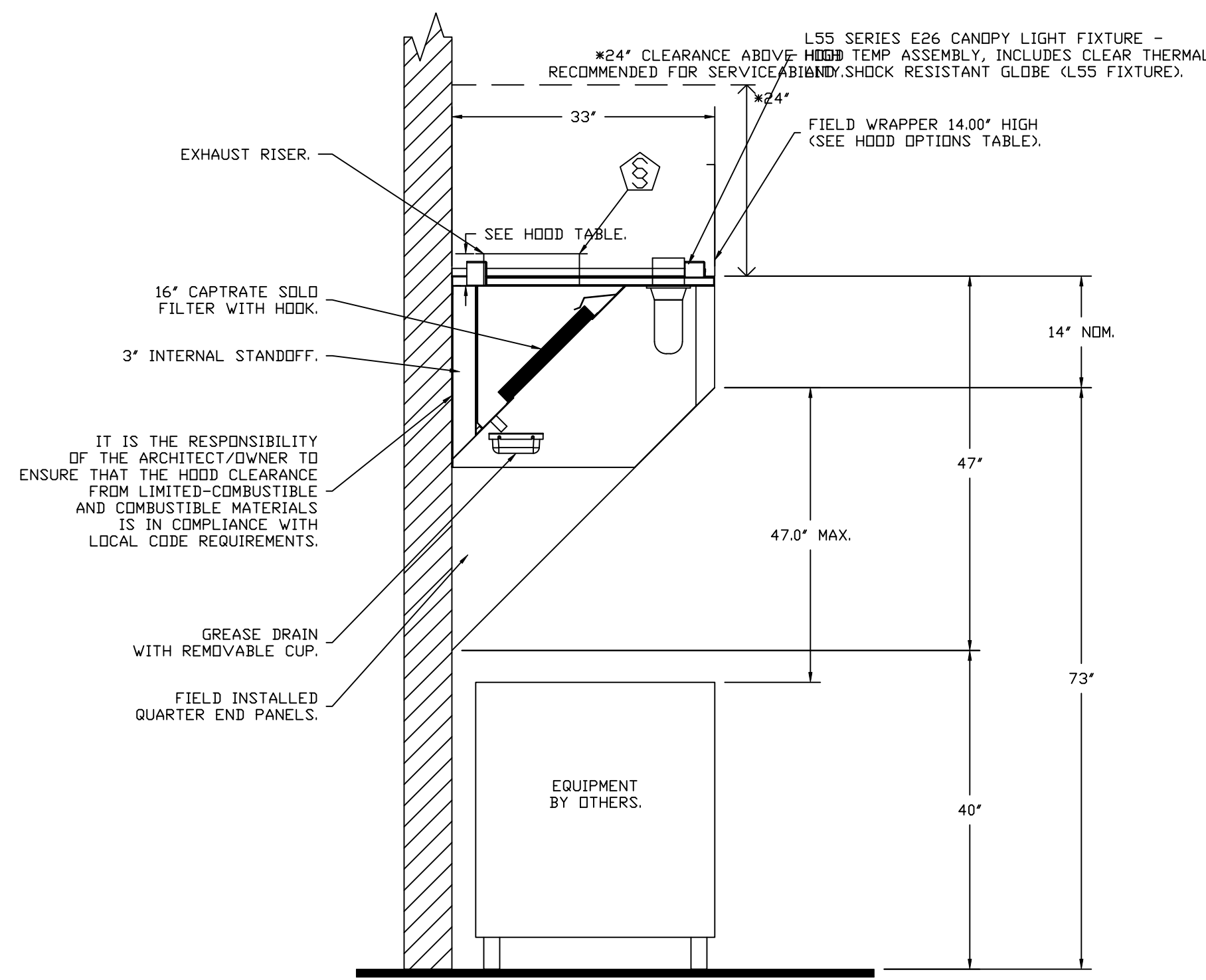
SHEET NO.
 1



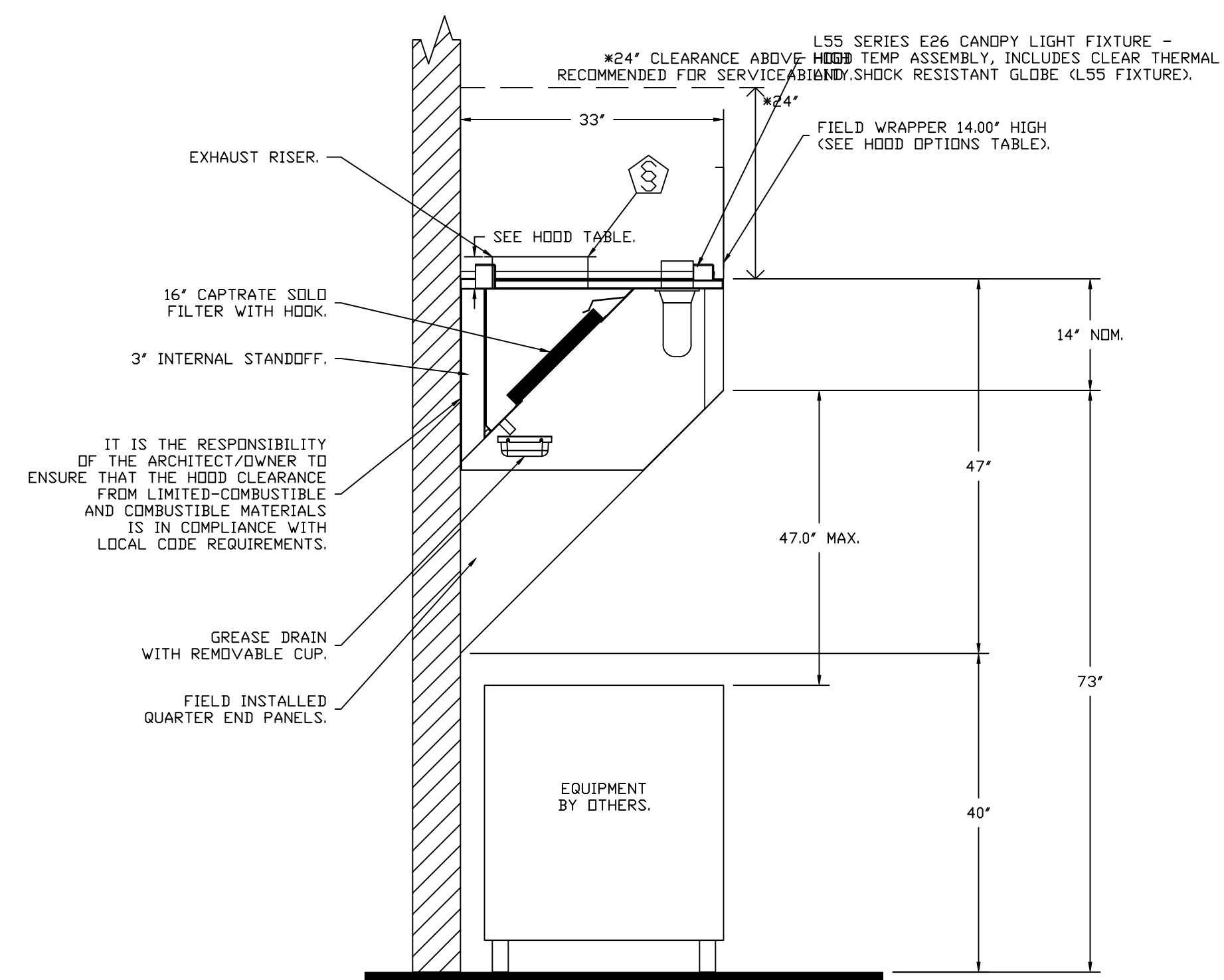
PLAN VIEW - HOOD #1 (GRIDDLE HOOD)
5' 6.00" LONG 3347BD-2



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



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



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

REVISIONS	
DESCRIPTION	DATE


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CULVERS BETHLEHEM GA
 Bethlehem, GA, 30620

DATE: 7/1/2025
 DWG.#: 7245190
 DRAWN BY: studdy jr
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING

SHEET NO.
 2

EXHAUST FAN INFORMATION -- JOB#7245190

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
1	PRV-1 RESTROOM	1	DR12HFA	CAPTIVEAIRE	375	0.500	1369	TEAO-ECM	0.250	0.1110	1	115	2.9		88	7
2	PRV-2	1	DU85HFA	CAPTIVEAIRE	1500	1.412	1406	TEAO-ECM	1.000	0.5330	1	115	11.6	475 FPM	129	12.3
3	PRV-3	1	DU85HFA	CAPTIVEAIRE	1500	1.250	1348	TEAO-ECM	1.000	0.4700	1	115	11.6	475 FPM	129	11.3
4	EF-1	2	CFA 100CA	CAPTIVEAIRE	75	0.125	493	GENERALPURPOSE	0.116	0.0510	1	115	1.1		25	N/A

FAN ACCESSORIES

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

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	PRV-1 RESTROOM	22 LBS	CURB	17.500"W X 17.500"L X 20.000"H.
2	# 2	PRV-2	78 LBS	CURB	23.000"W X 23.000"L X 28.000"H VENTED HINGED 16 GAUGE.
3	# 3	PRV-3	78 LBS	CURB	23.000"W X 23.000"L X 28.000"H VENTED HINGED 16 GAUGE.

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	PRV-1 RESTROOM	1	1 12-BDD DAMPER
		1	ECM WIRING PACKAGE - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCW ROTATION
		1	FULL CRATING FOR EXHAUST FANS
		1	MIAMI DADE CERTIFICATION - NDA-1 ALUMINUM DOWNBLAST 10
		1	2 YEAR PARTS WARRANTY
2	PRV-2	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR85HFA - SHIP LOOSE - FOR GREASE DUCTS
		1	FULL CRATING FOR EXHAUST FANS
		1	MIAMI DADE CERTIFICATION - NDA-1 ALUMINUM UPBLAST
		1	ECM WIRING PACKAGE - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCW ROTATION
3	PRV-3	1	2 YEAR PARTS WARRANTY
		1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR85HFA - SHIP LOOSE - FOR GREASE DUCTS
		1	FULL CRATING FOR EXHAUST FANS
		1	MIAMI DADE CERTIFICATION - NDA-1 ALUMINUM UPBLAST
4	EF-1	2	ECM WIRING PACKAGE - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
		2	MGI - METAL GRILLE KIT
		2	2 YEAR PARTS WARRANTY

REVISIONS

DESCRIPTION	DATE:



CULVERS BETHLEHEM GA
Bethlehem, GA, 30620

DATE: 7/1/2025

DWG.#:
7245190

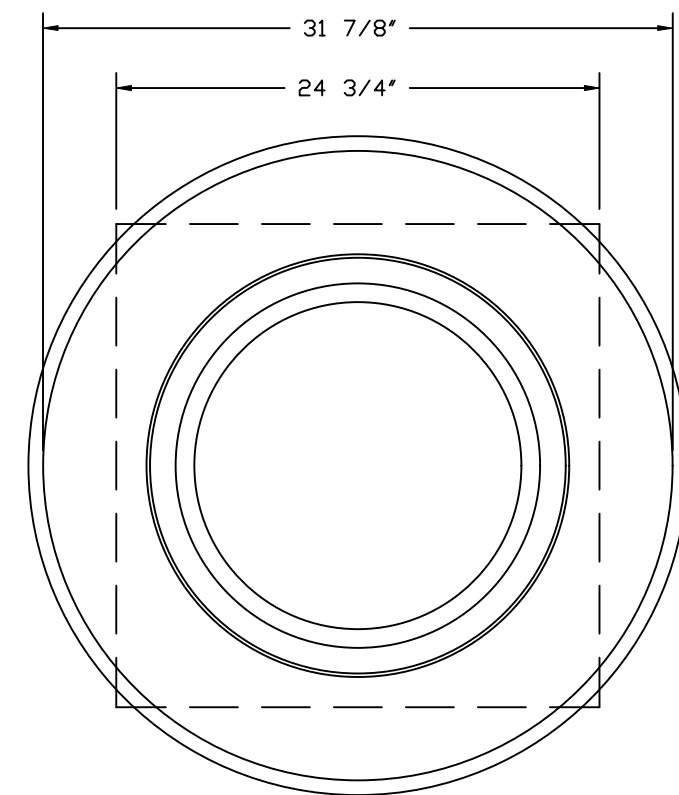
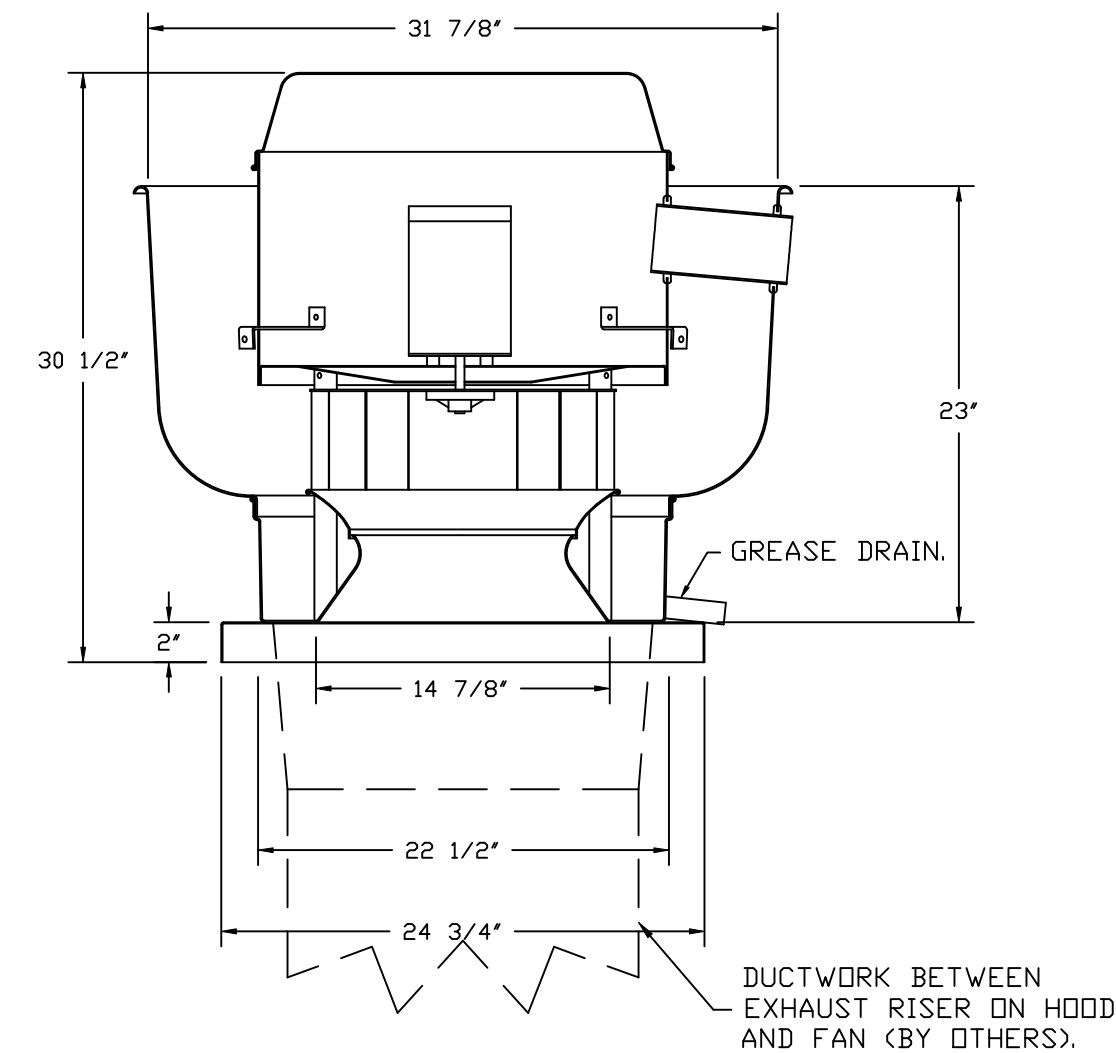
DRAWN BY: sluddy jr

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

MASTER DRAWING

SHEET NO.
3

FANS #2 (PRV-2), #3 (PRV-3) - DR85HFA EXHAUST FAN



TOP VIEW

FEATURES:

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

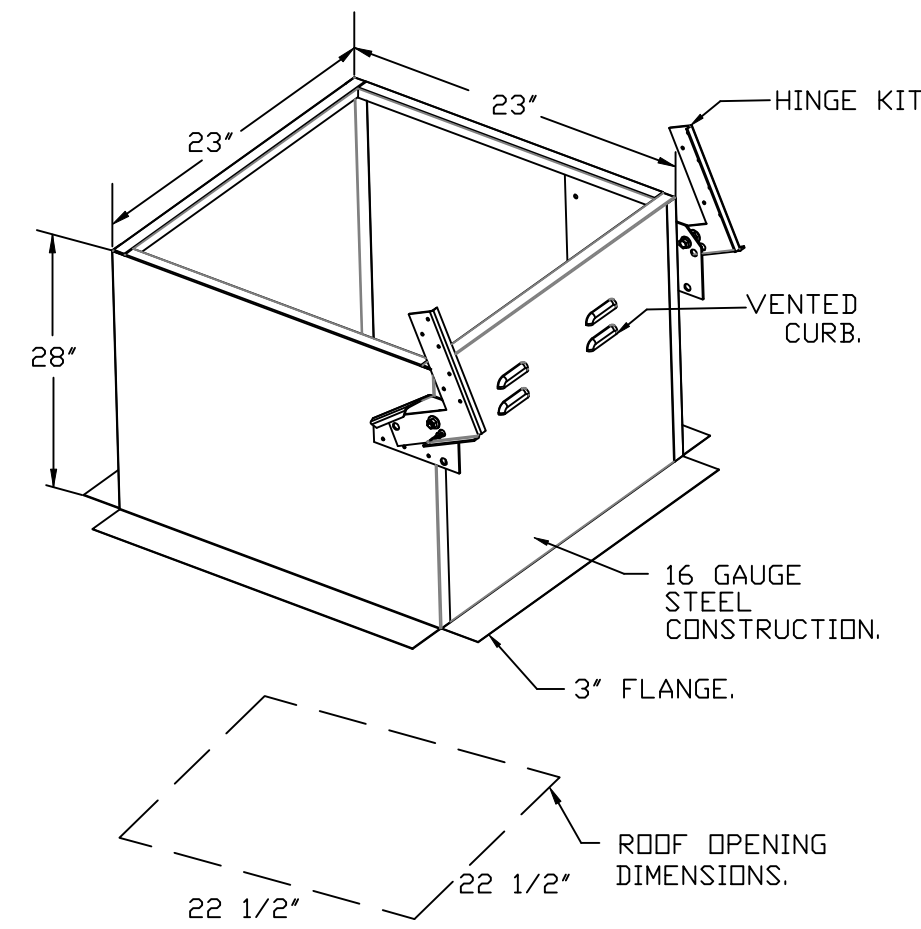
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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

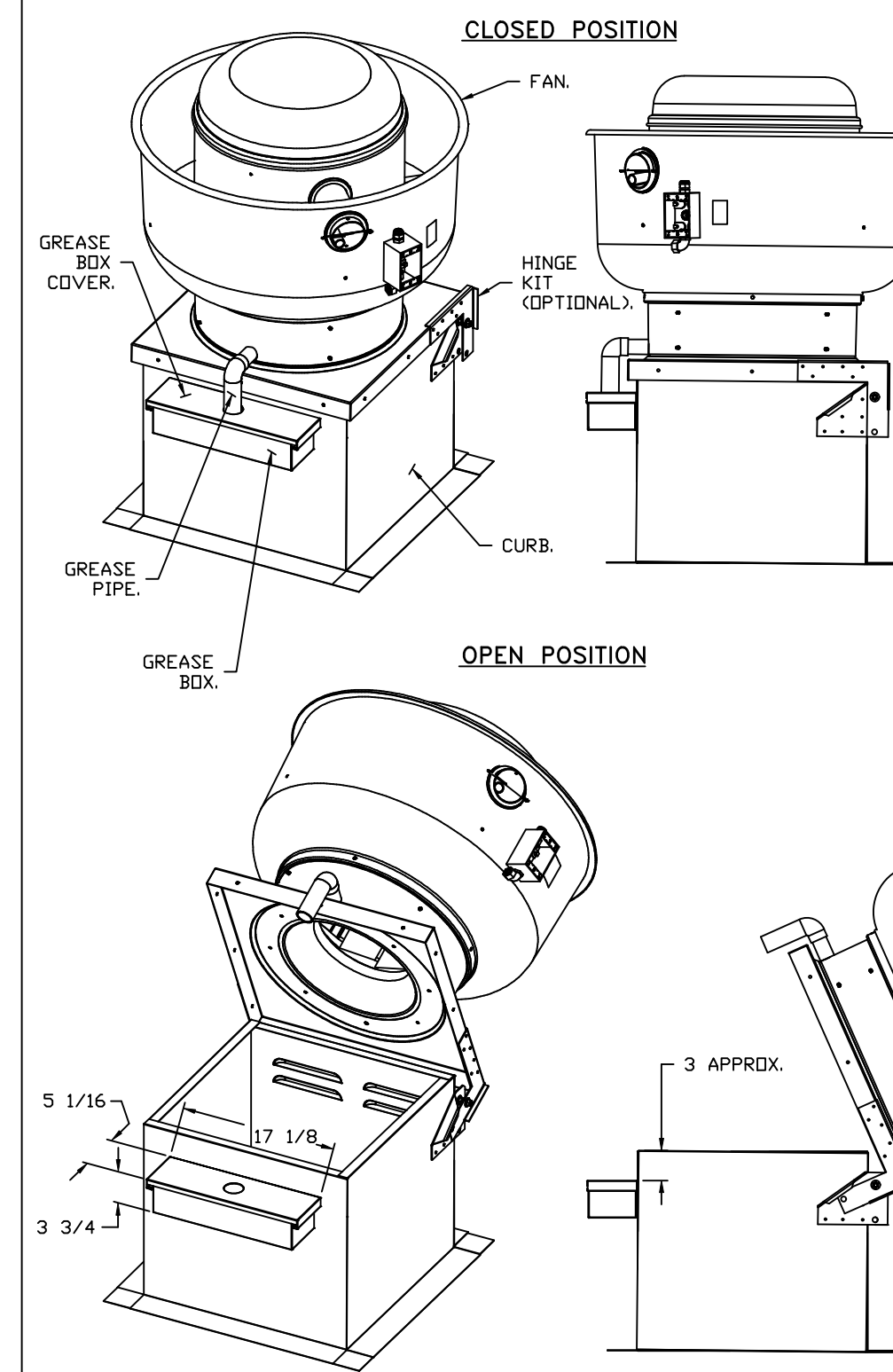
OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR85HFA
- SHIP LOOSE - FOR GREASE DUCTS.
- FULL CRATING FOR EXHAUST FANS.
- MIAMI DADE CERTIFICATION - NDA-1 ALUMINUM UPBLAST.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL.
- RTC- (TELCD MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.

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



GREASE BOX INSTALLATION



*NOTE: UL 705 INSTALL.

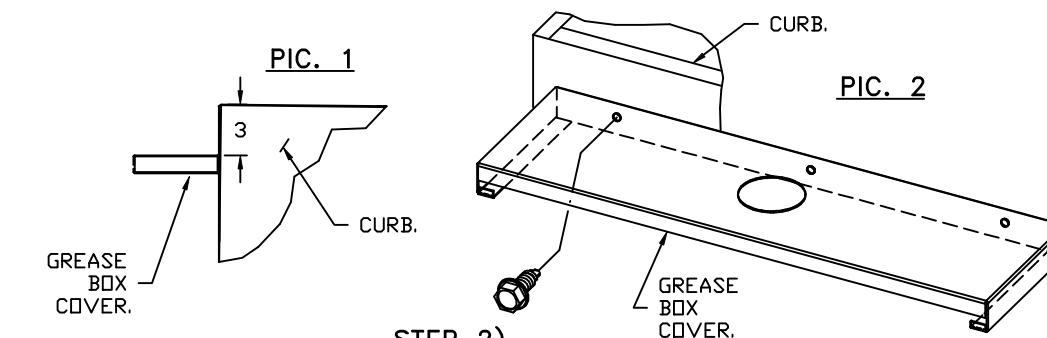
PARTS INCLUDED

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

GREASE BOX FIELD INSTALLATION

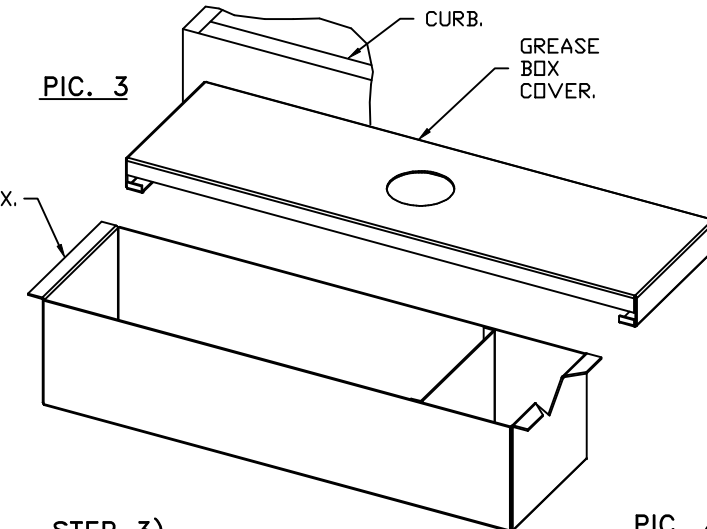
STEP 1)

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



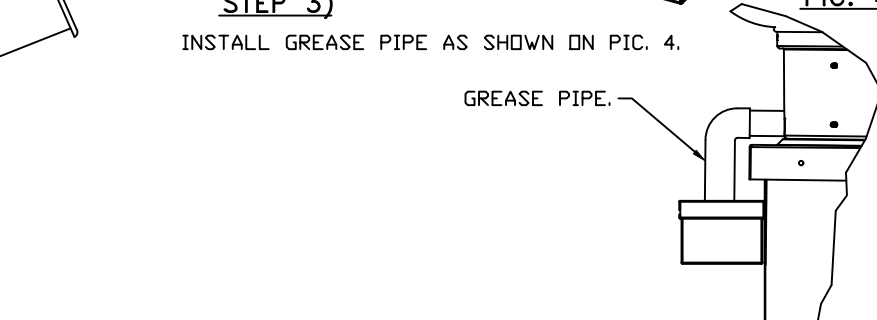
STEP 2)

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



STEP 3)

INSTALL GREASE PIPE AS SHOWN IN PIC. 4.



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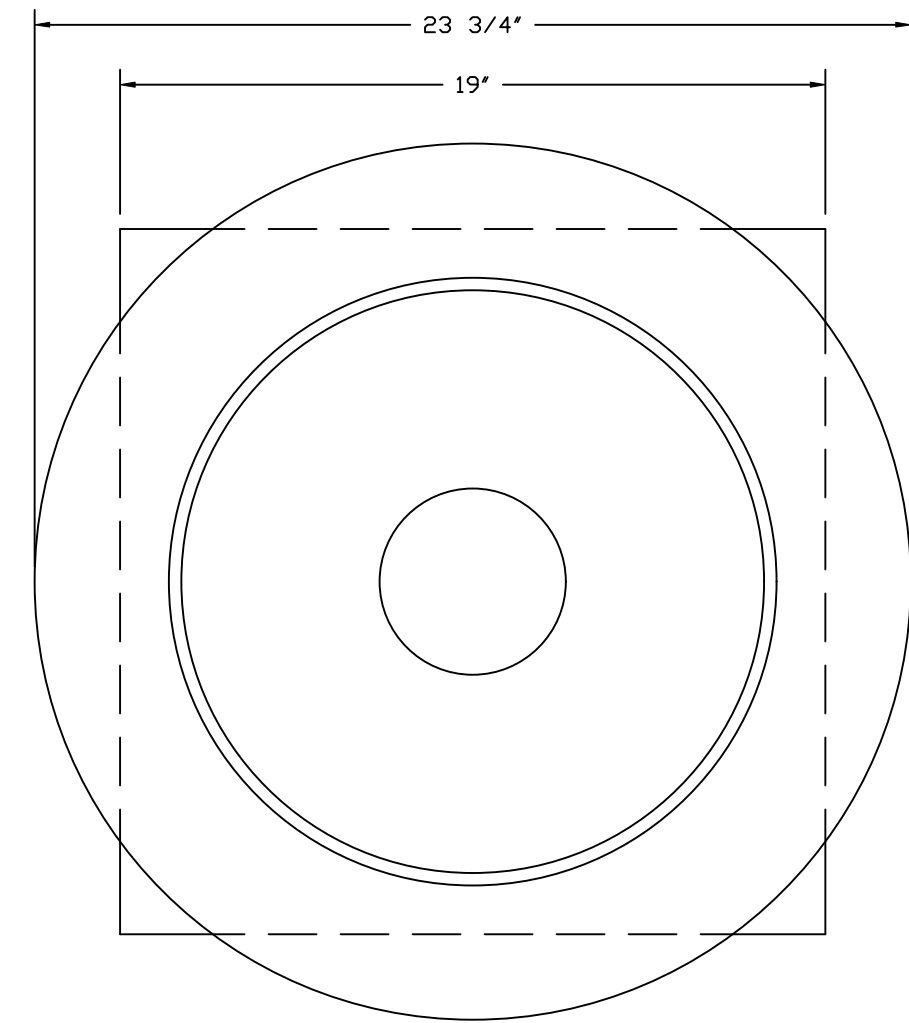
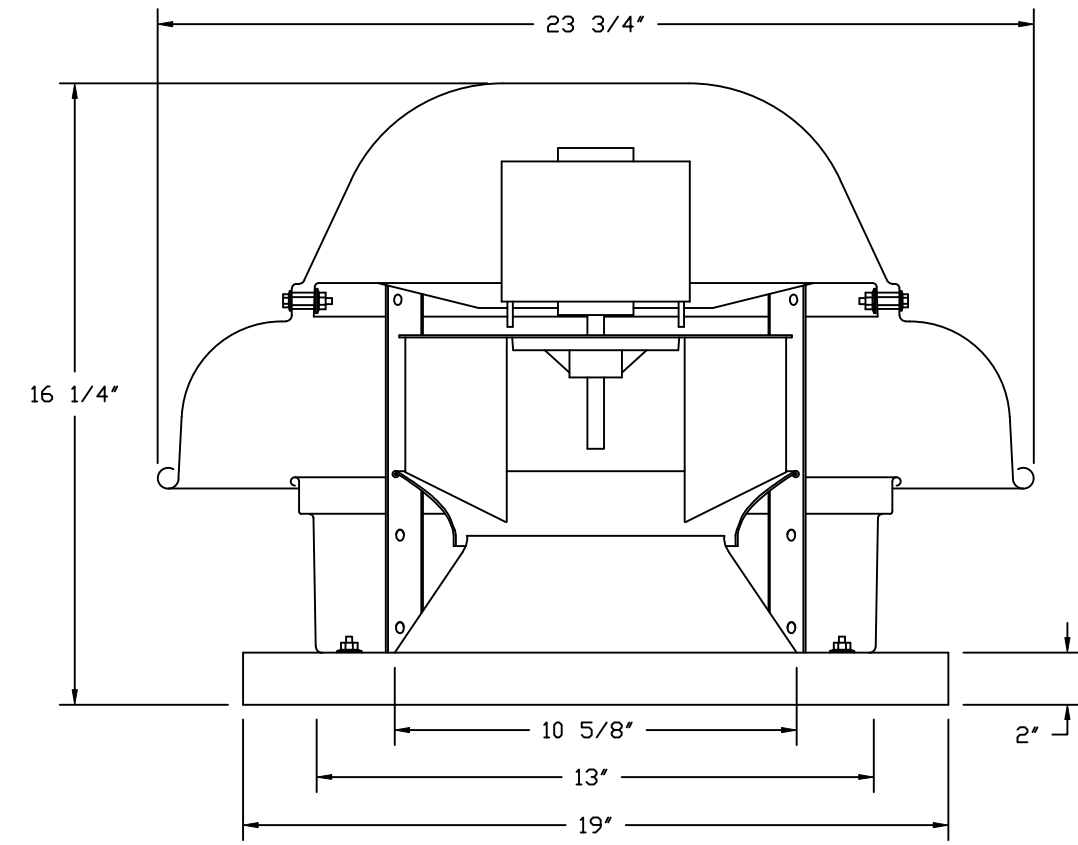
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Bethlehem, GA, 30620

DATE: 7/1/2025
DWG.#: 7245190
DRAWN BY: sluddy jr
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
4

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



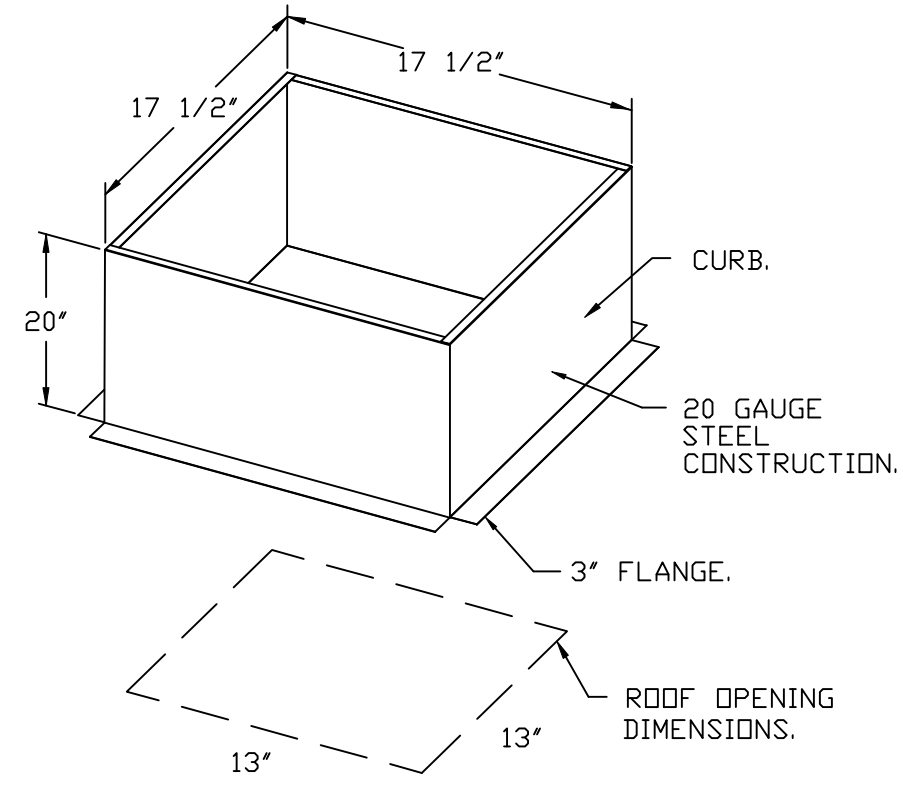
TOP VIEW

FEATURES:

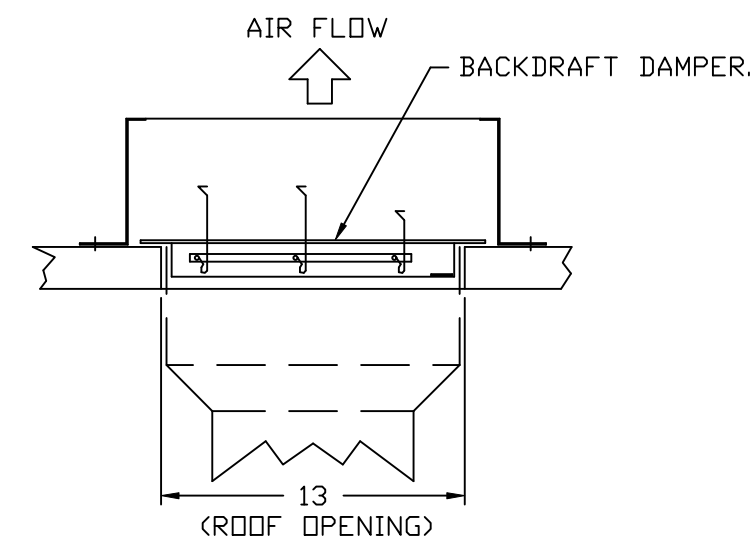
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- SAFETY DISCONNECT.
- STANDARD BIRD SCREEN.
- SPEED CONTROL.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).

OPTIONS

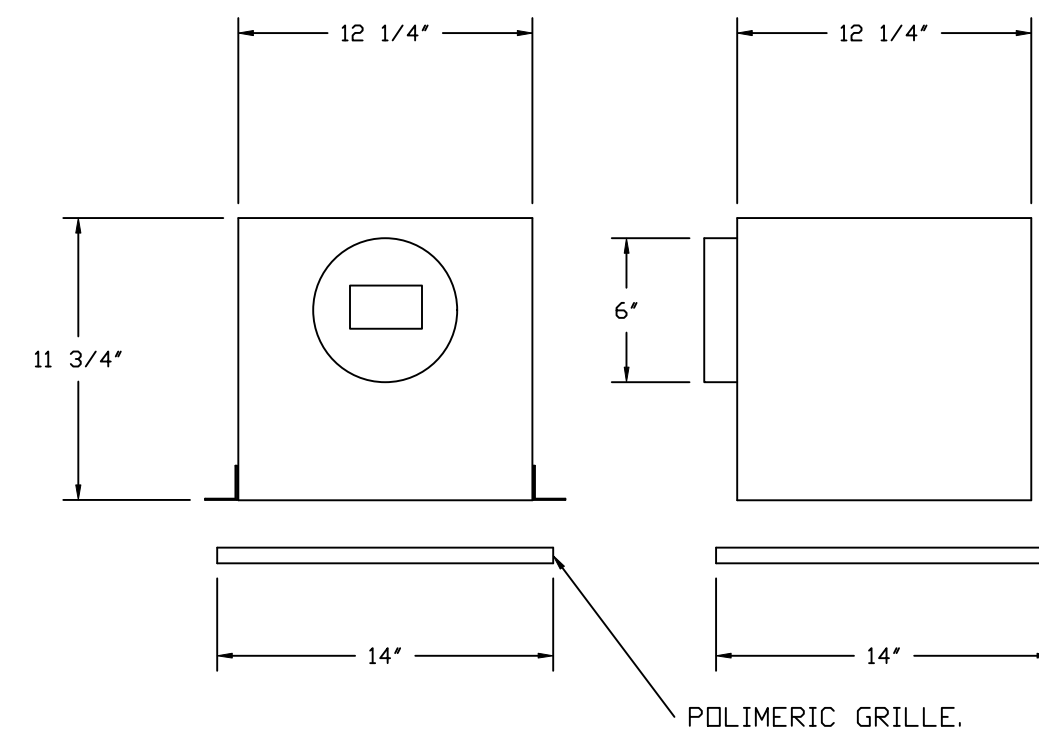
- 1 12-BDD DAMPER.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL.
- RTC- (TELED MOTOR), CCW ROTATION.
- FULL CRATING FOR EXHAUST FANS.
- MIAMI DADE CERTIFICATION - NDA-1 ALUMINUM DOWNBLAST 10.
- 2 YEAR PARTS WARRANTY.



BACKDRAFT DAMPER INSTALLATION



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



FEATURES:

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

OPTIONS

- MG1 - METAL GRILLE KIT.
- 2 YEAR PARTS WARRANTY.

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DATE: 7/1/2025

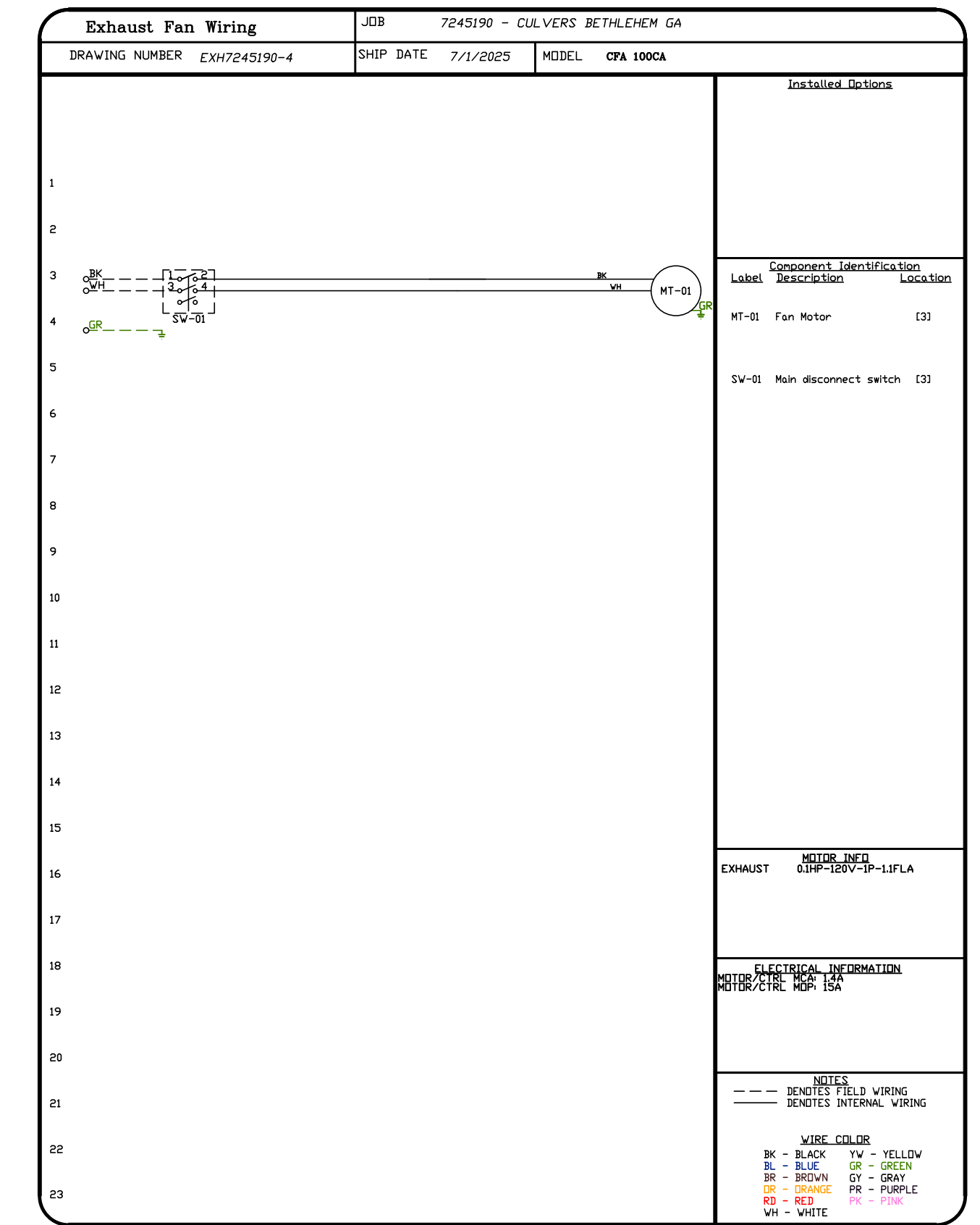
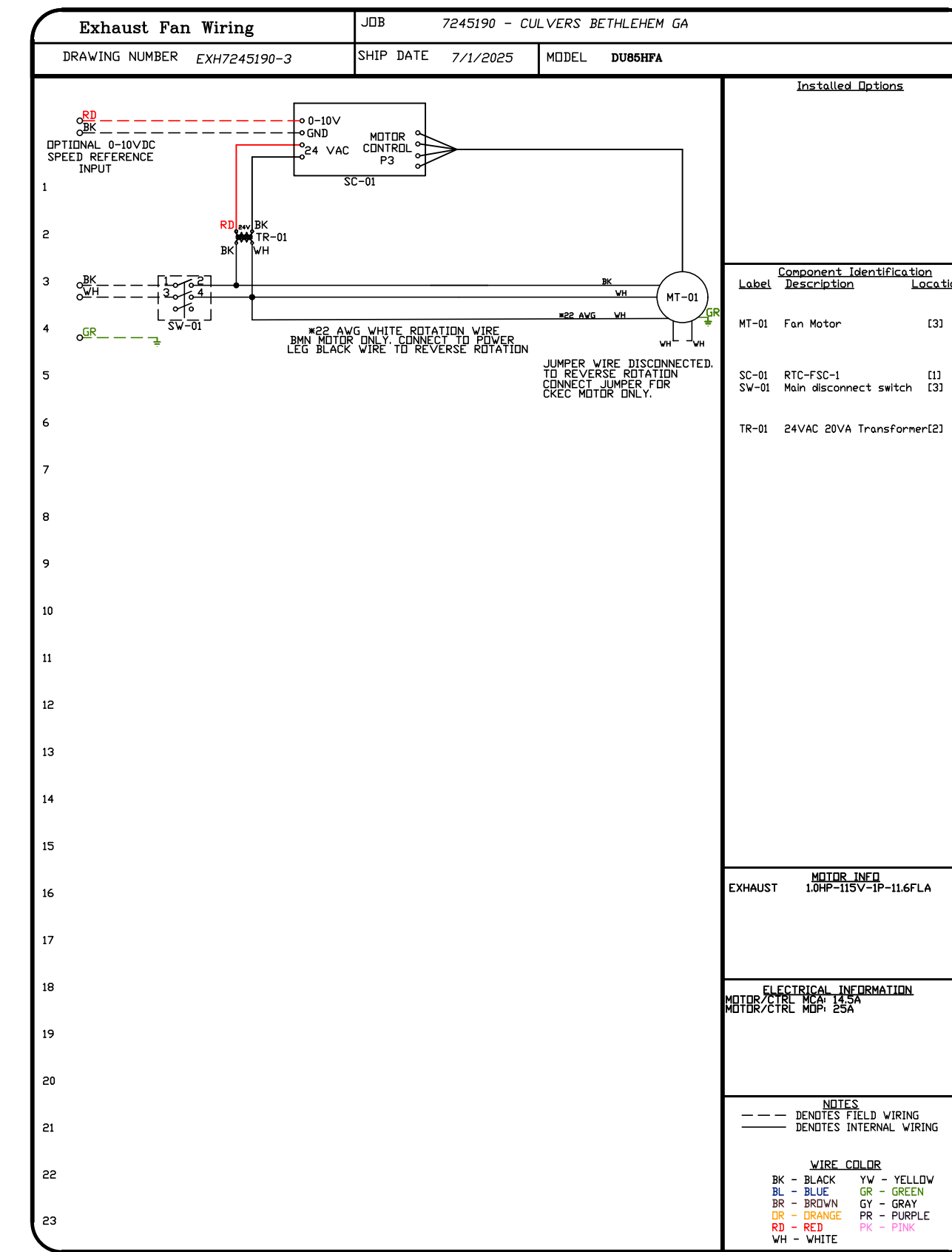
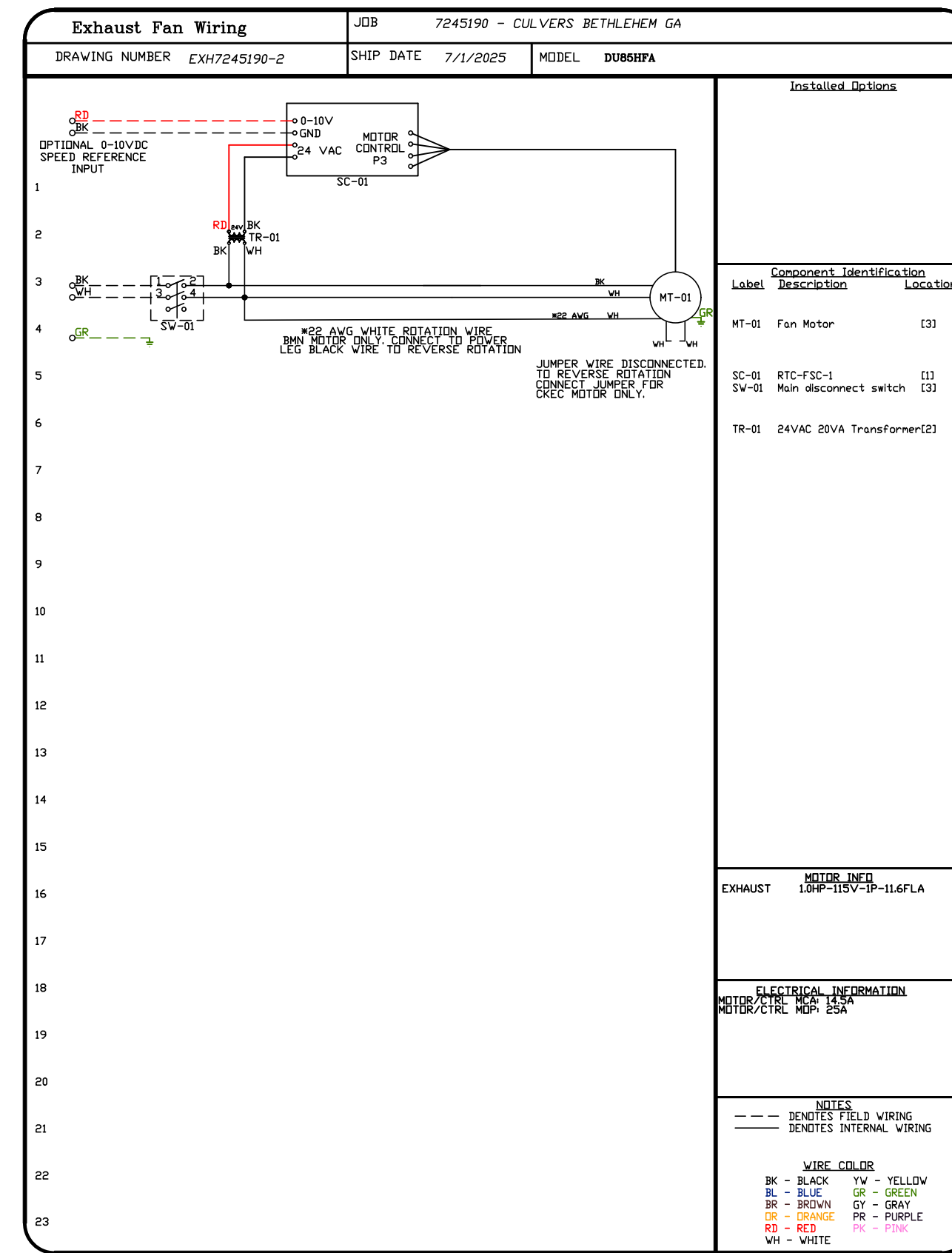
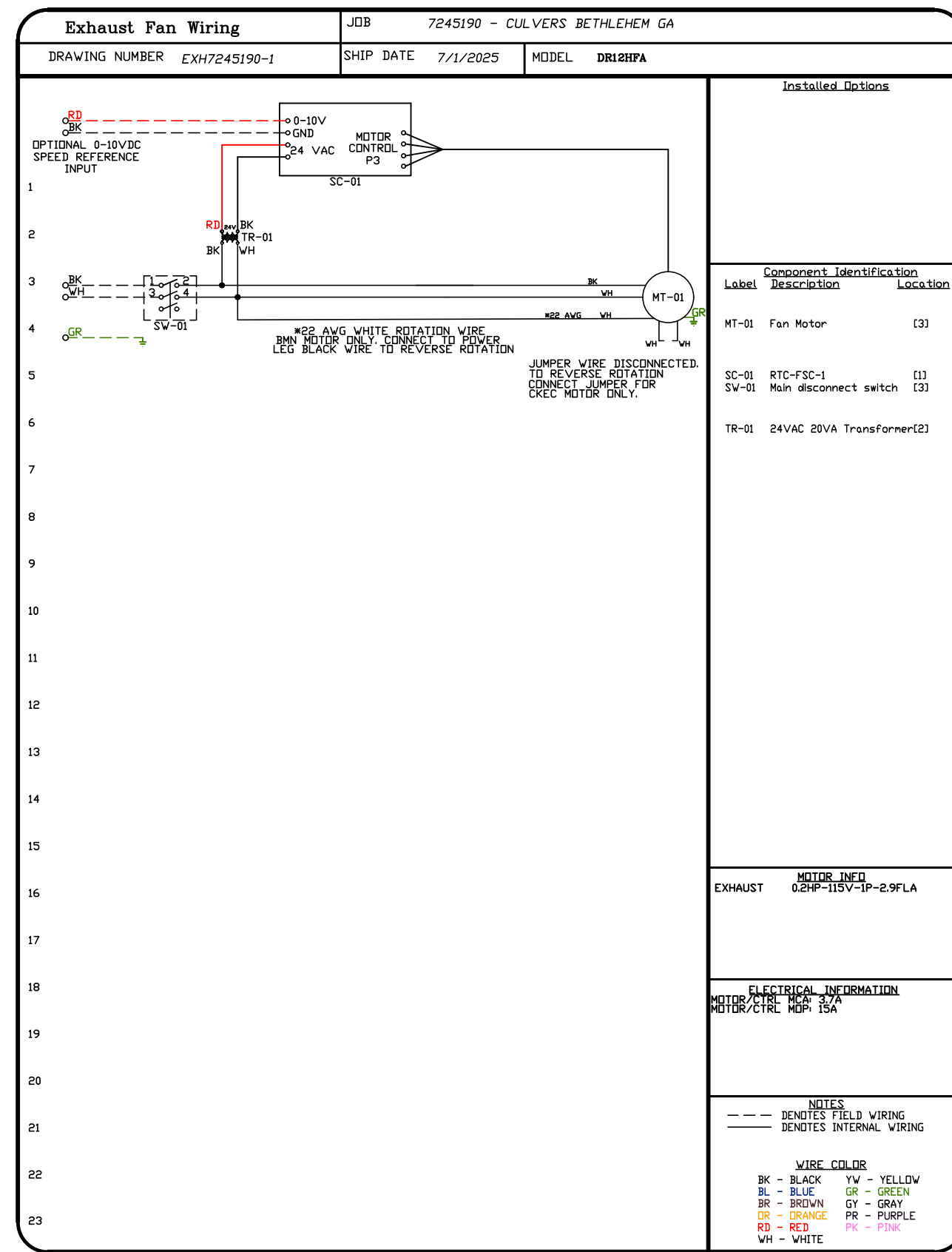
DWG.#:
7245190

DRAWN BY: studdy jr

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

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SHEET NO.
5



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 Bethlehem, GA, 30620

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DWG.#: 7245190
DRAWN BY: sluddy jr
SCALE: 3/4" = 1'-0"
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SHEET NO.
6

DUCTWORK #1 PARTS - JOB#7245190 DOUBLE WALL GREASE DUCT

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P2	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P3	DW1235DWLT-2R-S						40.86		1	DOUBLE WALL DUCT - 12" INNER DUCT, 35" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P4 ASSEMBLED W/P5	DW1247DWAJDP-2R-S						82.74		1	DOUBLE WALL ADJUSTABLE DUCT TRANSITION PLATE - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11" / MAX LENGTH = 48.5" / ADJUSTMENT = 30.5" / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL *V* CLAMPS.
P5 ASSEMBLED W/P4 D=B	DW2312TPDBEX						8.00		1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 12" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE OD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN.
P6	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P7	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P8	DW1235DWLT-2R-S						40.86		1	DOUBLE WALL DUCT - 12" INNER DUCT, 35" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P9 ASSEMBLED W/P10	DW1247DWAJDP-2R-S						82.74		1	DOUBLE WALL ADJUSTABLE DUCT TRANSITION PLATE - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11" / MAX LENGTH = 48.5" / ADJUSTMENT = 30.5" / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL *V* CLAMPS.
P10 ASSEMBLED W/P9 D=B	DW2312TPDBEX						8.00		1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 12" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE OD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN.
	3M-2000PLUS						0.80		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW12DWCLASY-2R-S						6.44		6	DUCT - 12" DUCT - 16" DOUBLE *V* CLAMP - 2R INSULATION & SINGLE *V* CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							522.28			

DOUBLE WALL FACTORY BUILT DUCTWORK

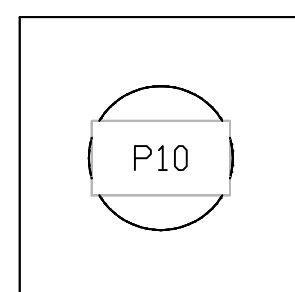
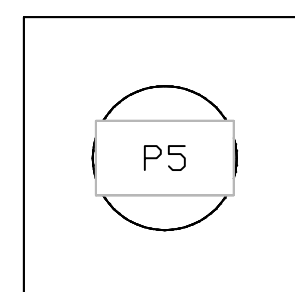
- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.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

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

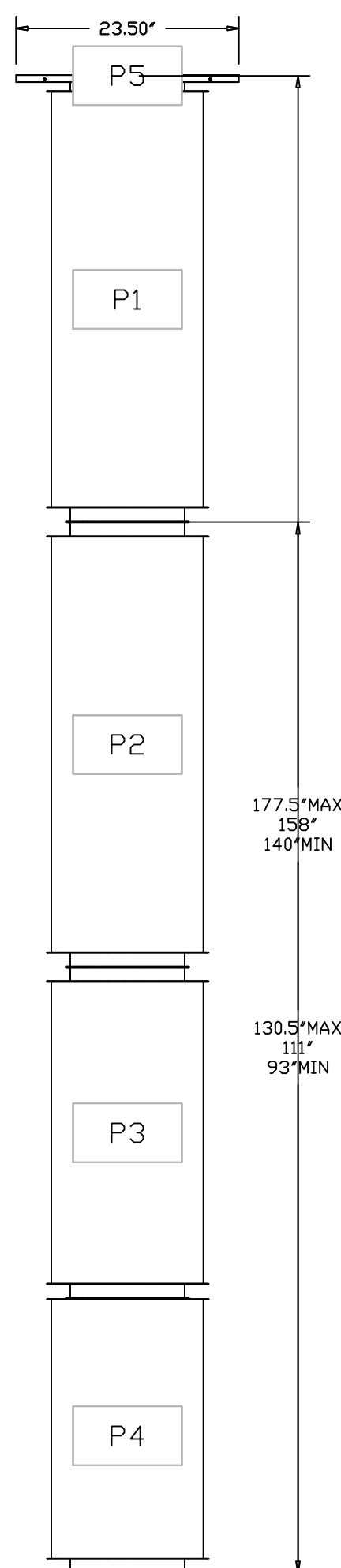
VERTICAL			
TYPE	WALL SUPPORT (FT)	CURB SUPPORT (FT)	FLOOR SUPPORT (FT)
2R & 2R HT (5'-16')	20'	24'	24'
2R (18')	18'	24'	24'
3R & 3Z (5'-24')	10'	24'	24'
3Z (26' -36')	10'	20'	20'

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

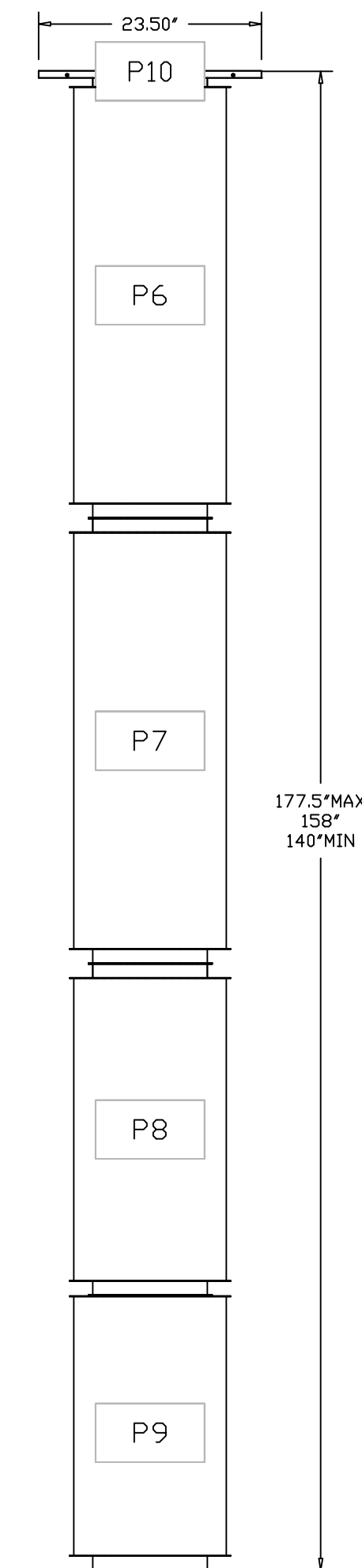
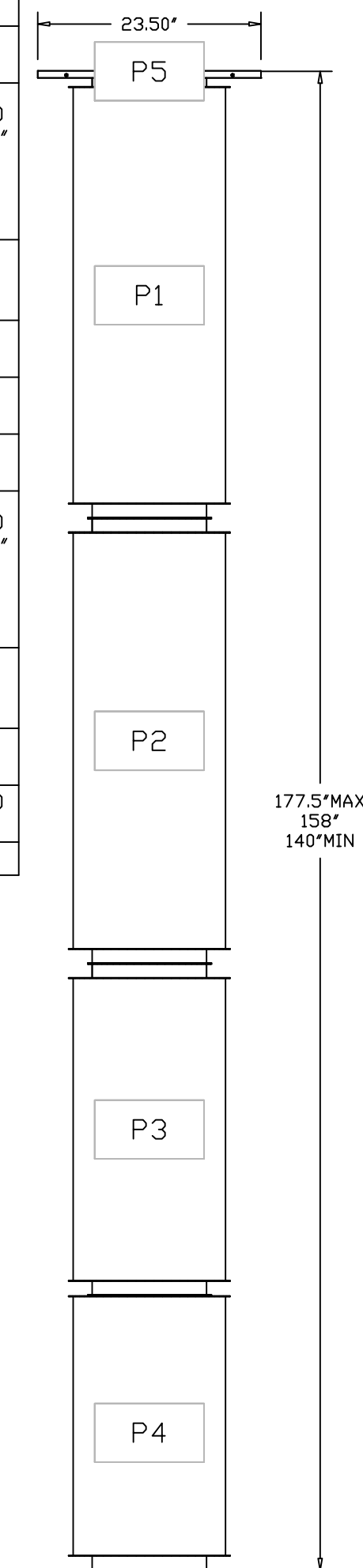
DUCTWORK #1 TOP VIEW GREASE DUCT



DUCTWORK #1 SIDE VIEW GREASE DUCT



DUCTWORK #1 FRONT VIEW GREASE DUCT



REVISIONS	
DESCRIPTION	DATE

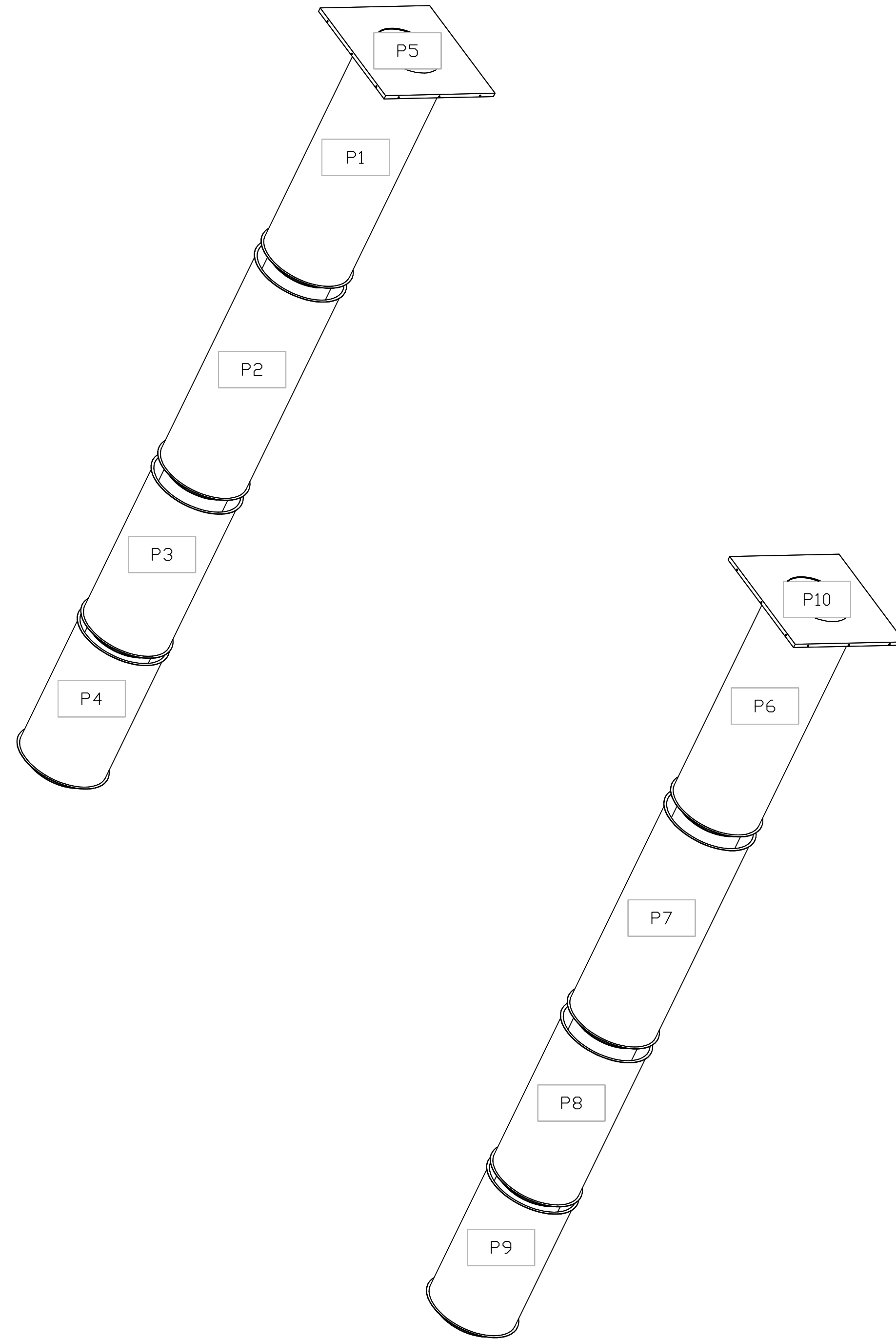
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CULVERS BETHLEHEM GA
Bethlehem, GA, 30620

DATE: 7/1/2025
DWG #: 7245190
DRAWN BY: sluddy jr
SCALE: 3/4" = 1'-0"
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8

DUCTWORK #1 SE VIEW
GREASE DUCT



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DWG. #: 7245190
DRAWN BY: sluddy jr
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
9

SYSTEM DESIGN VERIFICATION (SDV)

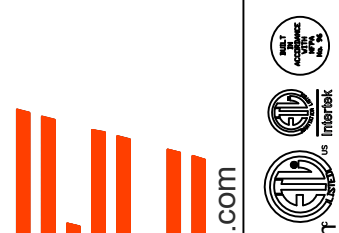
IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

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.

REVISIONS

DESCRIPTION	DATE:
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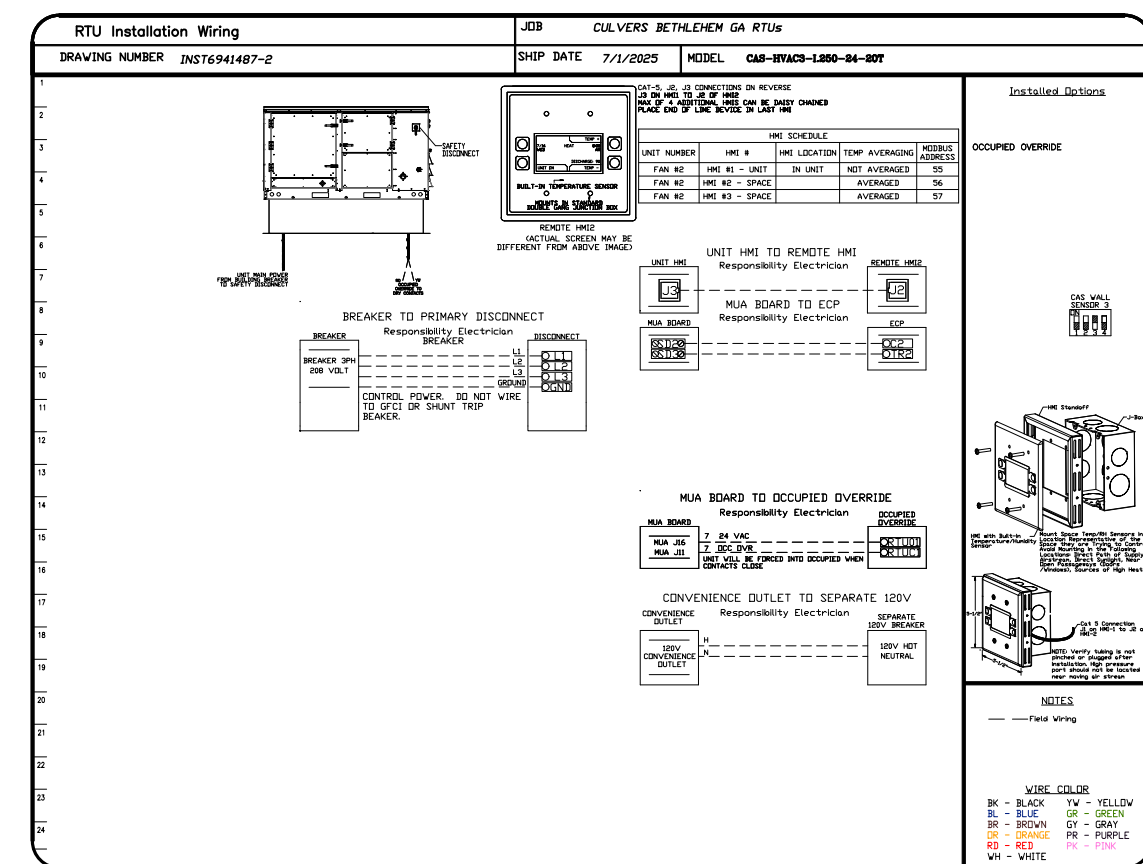
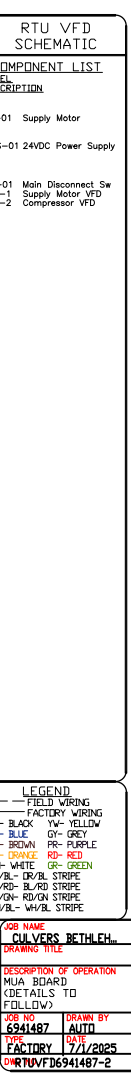
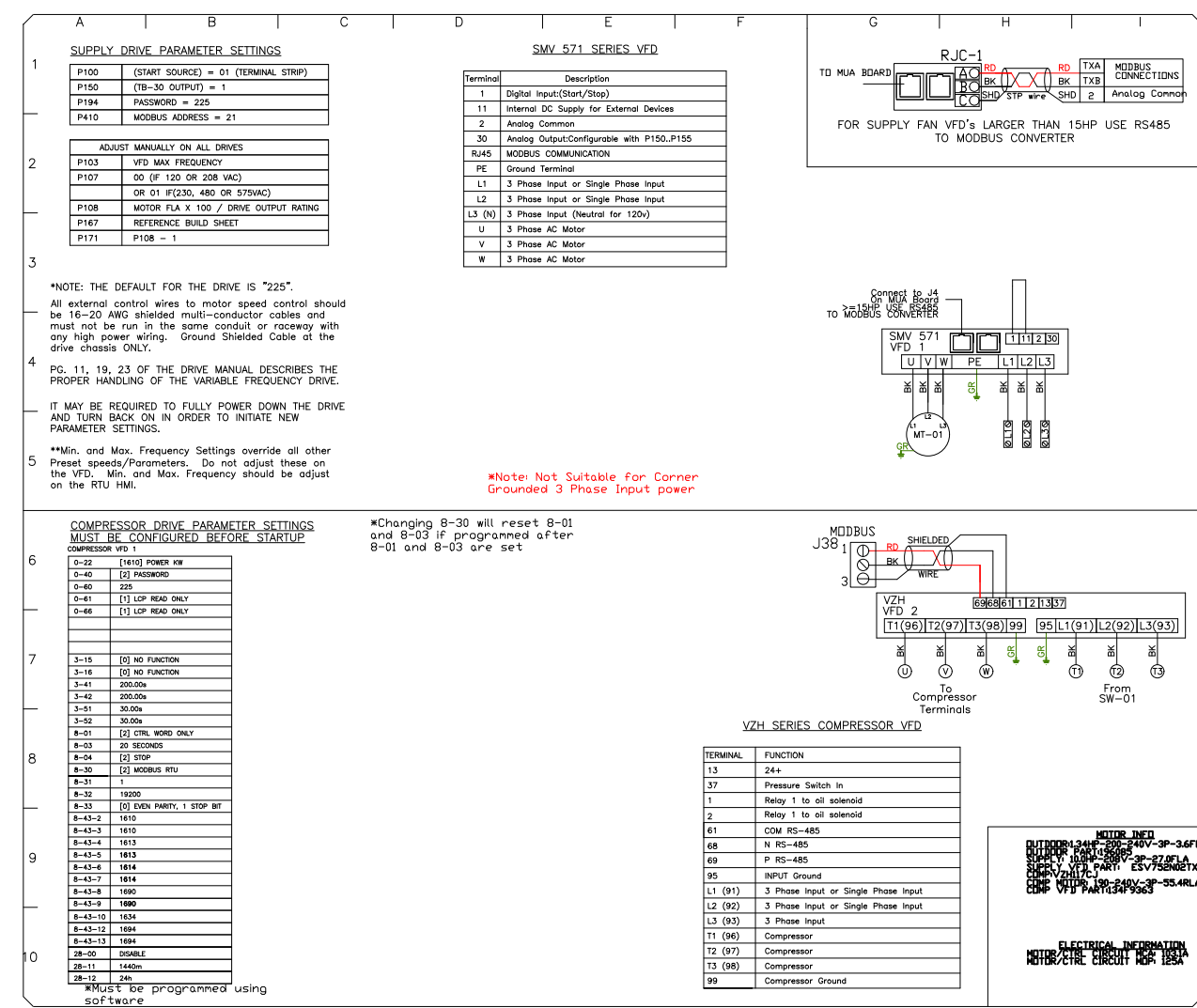
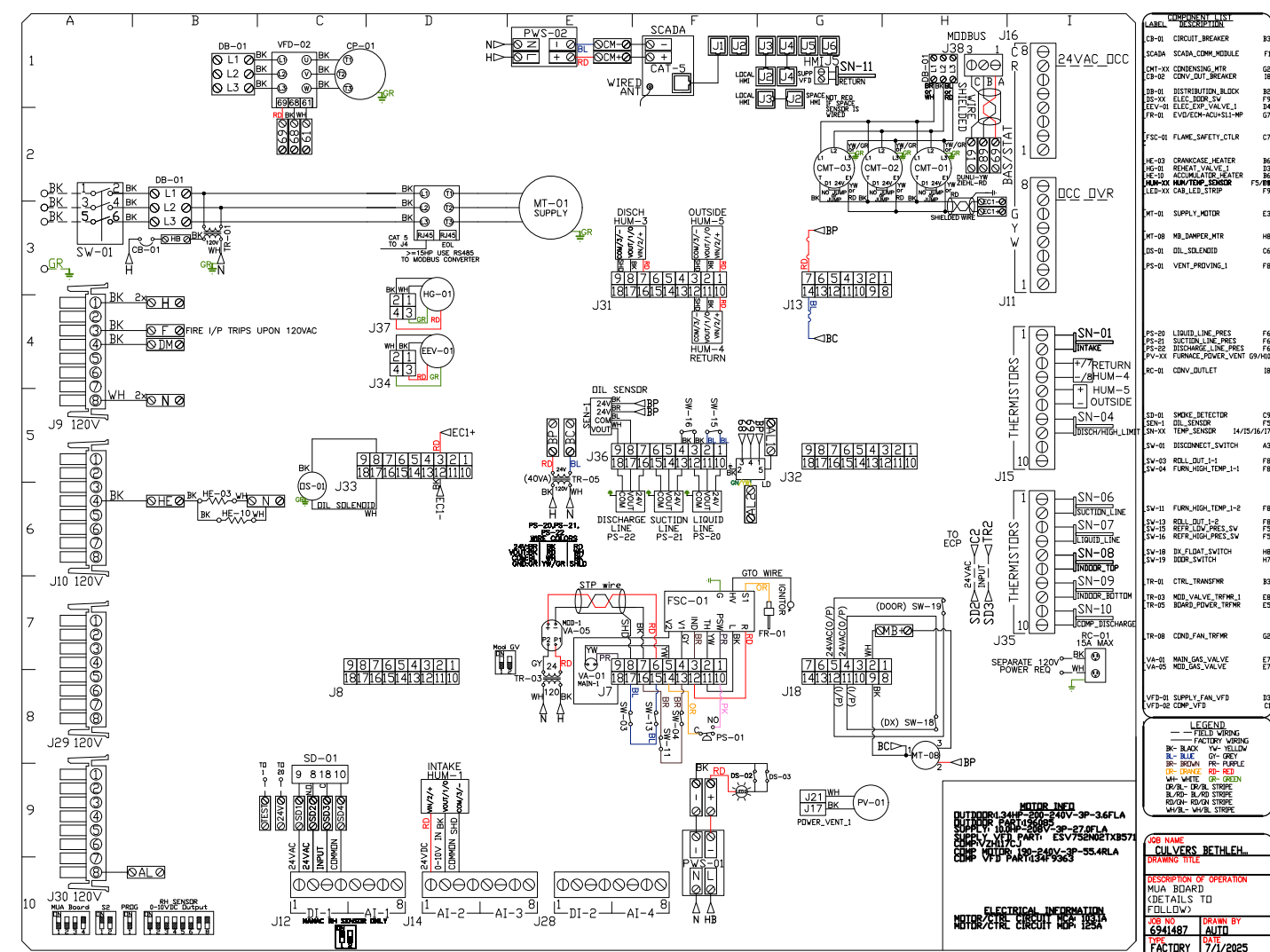
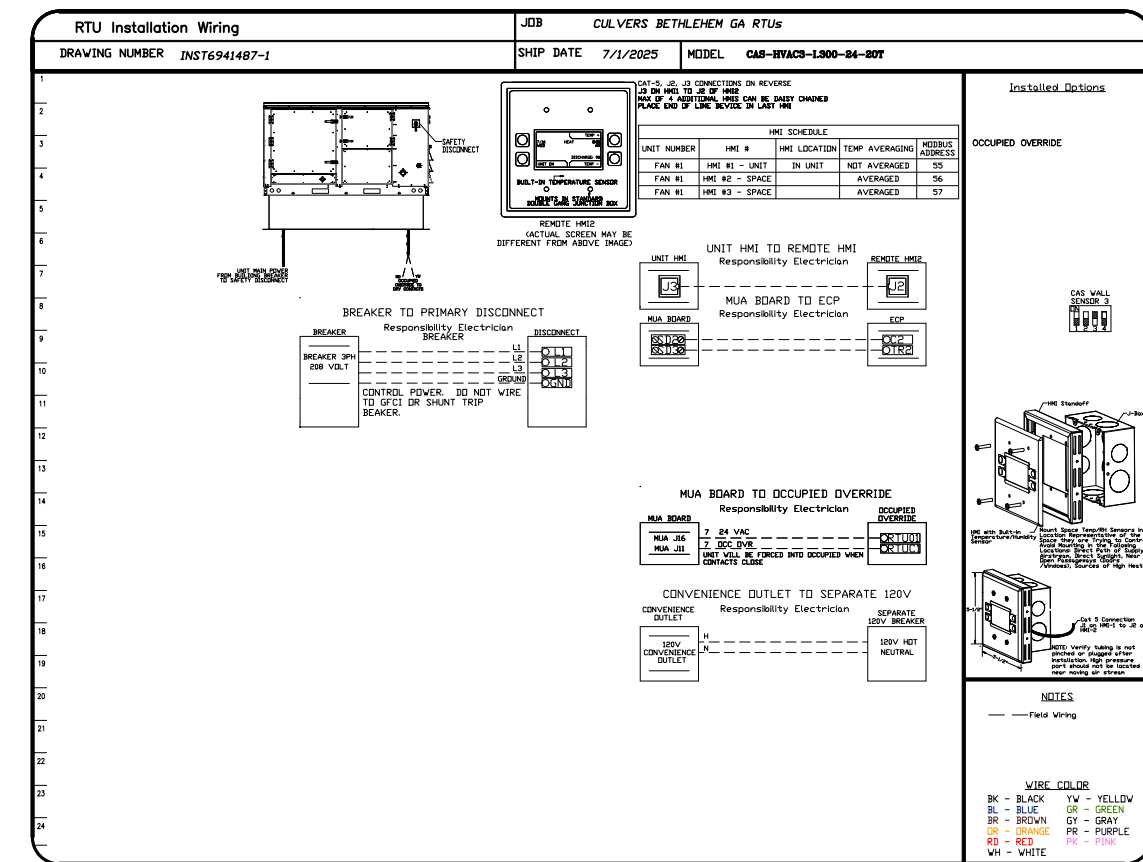
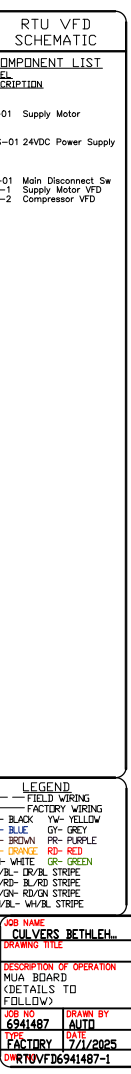
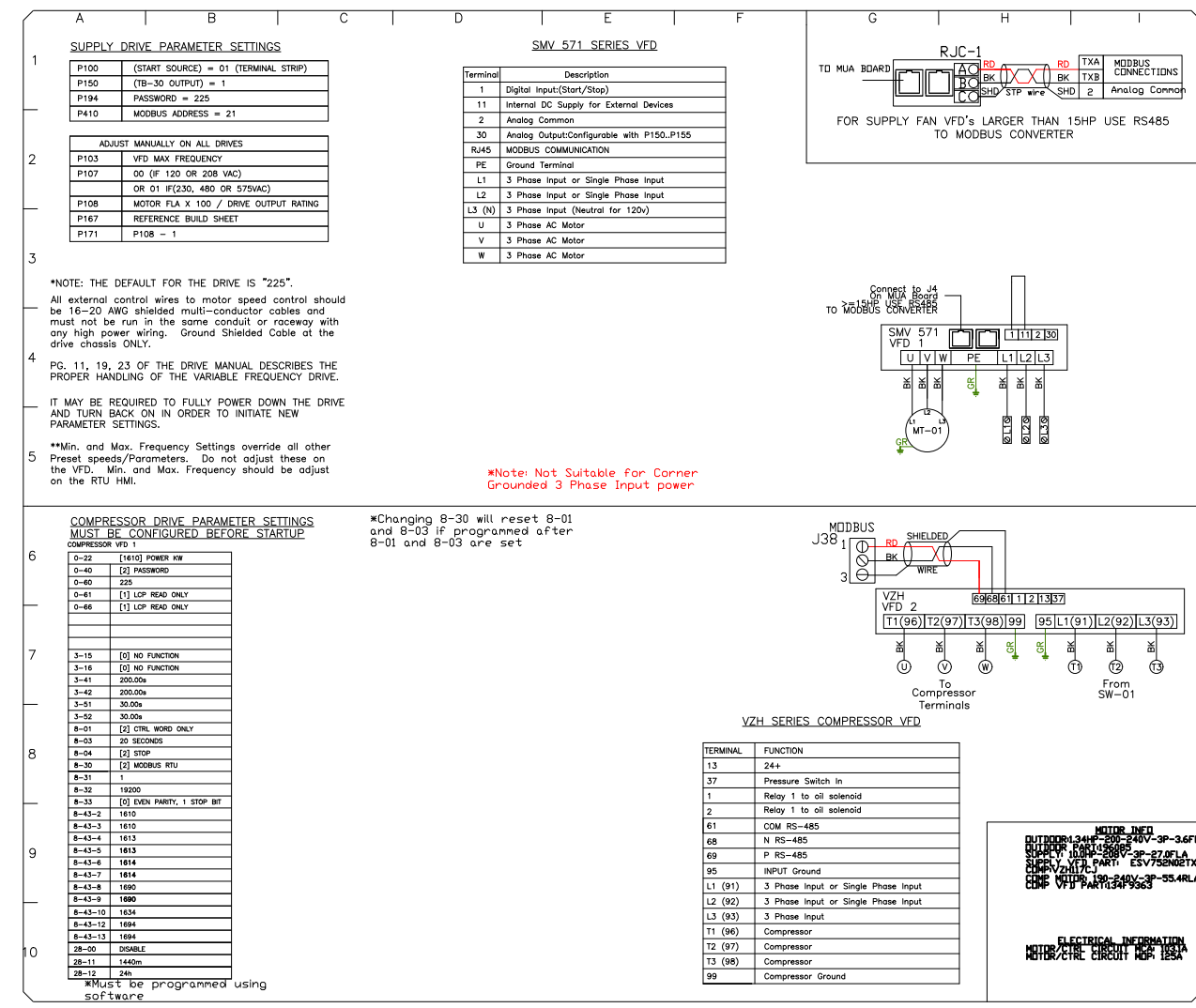
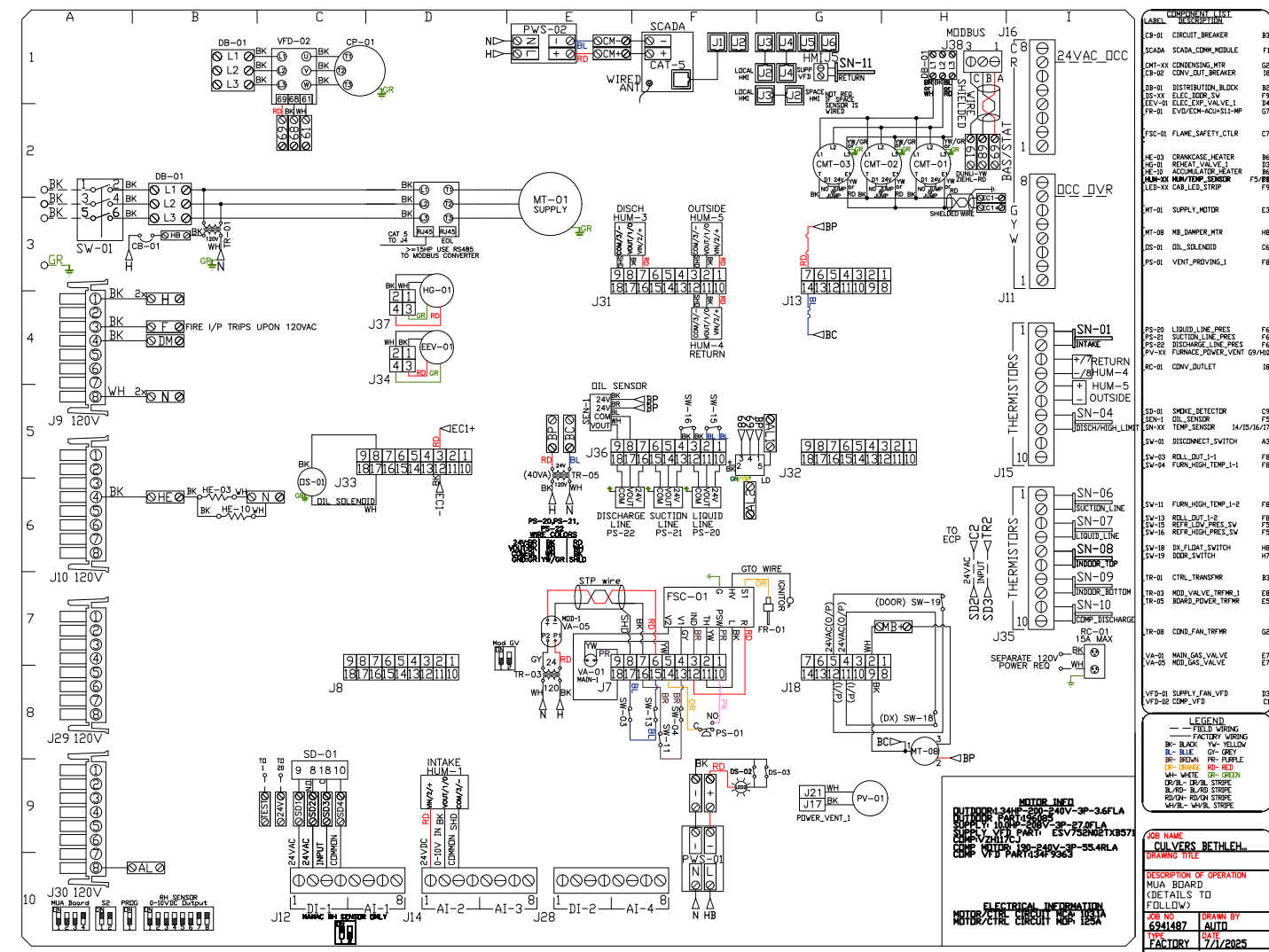
DWG.#:
7245190

DRAWN BY: sluddy jr

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

MASTER DRAWING

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10



SYSTEM DESIGN VERIFICATION (SDV)

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REVISIONS

NO.	DESCRIPTION	DATE



CULVERS BETHLEHEM GA RTUS
Bethlehem, GA, 30620

DATE: 7/1/2025
DWG.#: 6941487
DRAWN BY: sluddy jr
SCALE: 1/2" = 1'-0"
MASTER DRAWING

SHEET NO. 4