

HVAC ABBREVIATIONS	SUPPLIER/VENDOR ABBREVIATIONS
ACC AIR COOLED CONDENSING UNIT (HVAC)	COZAS TENANT'S COZ ALARM SUPPLIER
AFB ABOVE FINISHED FLOOR	GC GENERAL CONTRACTOR
AFG ABOVE FINISHED GRADE	HES TENANT'S HVAC EQUIPMENT SUPPLIER
AHU AIR HANDLING UNIT	HS TENANT'S HOOD SUPPLIER
CD CEILING DIFFUSER	KES TENANT'S KITCHEN EQUIPMENT SUPPLIER
CU CONDENSING UNIT (COOLER)	TAB TENANT'S TEST & BALANCE VENDOR
EF EXHAUST FAN	TCC TENANT'S CABLING CONTRACTOR
ER EXHAUST REGISTER	TDC TENANT'S DUCT CLEANER
(E)/EXTG EXISTING	TEMS TENANT'S ENERGY MANAGEMENT SYSTEM SUPPLIER
HD HOOD	TLS TENANT'S LIGHT/LAMP SUPPLIER
MAU MAKEUP AIR UNIT	TMB TENANT'S MENU BOARD SUPPLIER
OBDD BLADE DAMPER	TMS TENANT'S MILLWORK SUPPLIER
RG RETURN GRILL	TP TENANT'S PHONE SUPPLIER
RTU ROOFTOP UNIT	TRS TENANT'S RAILING SUPPLIER
SR SUPPLY REGISTER	TSV TENANT'S SIGN VENDOR
VSC VARIABLE SPEED CONTROL	TUV TENANT'S UV SANITIZER SUPPLIER
	WCS TENANT'S WALK-IN COOLER SUPPLIER
	WHS TENANT'S WATER HEATER SUPPLIER

MATERIAL SCHEDULE		
CATEGORY	APPLICATION	ALLOWABLE MATERIAL
DUCT	EXPOSED SUPPLY	RECT. LINED OR ROUND AS SHOWN, NO EXPOSED DUCT SEALING MASTIC
	EXPOSED RETURN	RECTANGULAR, NO EXPOSED DUCT SEALING MASTIC
	EXPOSED GEN. EXHAUST	RECTANGULAR, NO EXPOSED DUCT SEALING MASTIC
	CONCEALED, SUPPLY	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED, RETURN	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED, GEN. EXHAUST	RECT. OR ROUND AS SHOWN
	CONCEALED, TYPE I HOOD EXHAUST	RECTANGULAR 16 GA. BLACK IRON W/ WRAP OR UL 1978 FACTORY-MANUFACTURED DUCT W/ WRAP (SUBMIT SHOP DRAWINGS FOR FACTORY-MANUFACTURED DUCT PRIOR TO ORDERING FOR APPROVAL)

HVAC SYMBOLS

	CEILING DIFFUSER
	CEILING-MOUNTED RETURN REGISTER
	CEILING-MOUNTED EXHAUST REGISTER
	SUPPLY REGISTER
	RETURN REGISTER
	FLEXIBLE DUCT
	MITERED CORNER WITH TURNING VANES
	DUCTWORK INTERNAL FREE DIMENSIONS (WIDTH x HEIGHT)
	RECTANGULAR TO ROUND DUCT TRANSITION
	DUCT-MOUNTED SMOKE DETECTOR
	MOTOR-OPERATED DAMPER
	MANUAL VOLUME DAMPER
	GREASE DUCT CLEANOUT
	MITERED CORNER WITHOUT TURNING VANES
	GRIDPOINT THERMOSTAT
	GRIDPOINT ZONE SENSOR MODULE
	GRIDPOINT SUPPLY PROBE
	PLAN NOTE: SEE PLAN NOTES LISTED ON THE SAME SHEET FOR NOTE MEANING
	CONNECT TO EXISTING
	EQUIPMENT TAG: SEE EQUIPMENT SCHEDULE ON SHEET M-600 FOR EQUIPMENT INFORMATION
	AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET
	MOTORIZED DAMPER
	FIRE DAMPER W/ ACCESS DOOR
	GRILL, REGISTER, OR DIFFUSER TAG CD-1 12" ROUND 550 CFM NECK SIZE AIRFLOW

HVAC GENERAL NOTES

- GENERAL NOTES APPLY TO HVAC SHEETS.
- WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION, INCLUDING APPLICABLE SECTIONS OF NFPA, THE MECHANICAL CODE, AND ANY INTERIM AMENDMENTS AT THE TIME OF THE PROPOSAL. PURCHASE PERMITS ASSOCIATED WITH THE WORK. OBTAIN INSPECTIONS REQUIRED BY CODE. SEE SHEET G-001 FOR THE PREVAILING CODES.
- CONTRACTOR AND SUBCONTRACTORS SHALL REVIEW A COMPLETE SET OF THE CONSTRUCTION DOCUMENTS.
- COORDINATE WORK WITH THE WORK OF OTHER TRADES, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND OF THE EXISTING CONDITIONS AT THE PROJECT SITE.
- DRAWINGS FOR THE MECHANICAL WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWING SHALL NOT BE SCALED FOR EXACT MEASUREMENTS, REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, OFFSETS, ACCESSORIES, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
- DUCT DIMENSIONS ON PLANS INDICATE DIMENSIONS OF INTERNAL FREE AREA.
- PERFORATED CEILING DIFFUSERS SHALL BE 4-WAY UNLESS NOTED OTHERWISE.
- COORDINATE ROOF WORK WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
- UNLESS NOTED OTHERWISE, RECTANGULAR DUCT ELBOWS GREATER THAN 45° SHALL BE MITERED ELBOWS WITH DOUBLE-THICKNESS TURNING VANES AND RECTANGULAR DUCT ELBOWS 45° OR LESS SHALL BE RADIUSSED ELBOWS WITH AN INSIDE RADIUS OF AT LEAST 1/2 THE WIDTH OF THE DUCT.
- REPLACE AIR FILTERS WITH NEW, CLEAN, MERV 7 AIR FILTERS AT TURNOVER.
- THE TERM "FURNISH" MEANS SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS. THE TERM "INSTALL" DESCRIBES THE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
- INSTALL LABELING CALLED FOR IN THE MECHANICAL DRAWINGS USING ENGRAVED PHENOLIC PLATES (WHITE WITH BLACK LETTERING).
- PROVIDE P3000 12 GA. UNISTRUT WITH PG FINISH FOR DUCT SUPPORTS AND OTHER UNISTRUT IN AREAS EXPOSED TO VIEW. SLOTTED UNISTRUT AND OTHER UNISTRUT WITH HOLES IS NOT ACCETABLE.

HVAC SPECIFICATIONS

- SECTION 15732 - PACKAGED ROOFTOP AIR-CONDITIONING UNITS
- PART 1 - GENERAL
- 1.1 SECTION REQUIREMENTS
- Submittals: Product Data and Shop Drawings.
 - Comply with ASHRAE 15.
 - EER: Equal to or greater than prescribed by ASHRAE 90.1-2019
 - Warranties: Submit a written warranty, signed by the manufacturer, agreeing to the repair or replacement of components that fail within 5 years of Substantial Completion.
- PART 2 - PRODUCTS
- 2.1 PACKAGED UNITS, 5 TO 20 TONS
- Factory assembled and tested, consisting of compressors, condensers, evaporator coils, condenser and evaporator fans, refrigeration and temperature controls, filters, and dampers.
 - Refer to Rooftop Heating/Cooling Unit Schedule on drawing M600 for capacities, and manufacturers.
 - Evaporator Fans: Belt or direct driven, forward curved centrifugal.
 - Exhaust/Relief Fans: Direct drive, forward curved centrifugal or propeller.
 - Condenser Fans: Direct drive propeller.
 - Refrigerant Coils: Aluminum fins and copper coil.
 - Compressors: Serviceable hermetic or fully hermetic, with safety controls, hot gas bypass, and timed off controls.
 - Heat Exchangers: Gas fired, with gas controls, electronic ignition, high limit cutout, and forced draft proving switch.
 - Economizer controls (Comparative Enthalpy, 100% capacity).
 - Low ambient controls.
 - Smoke Detectors: Photoelectric - In supply and/or return as called for on teh schedule on M-600.
 - Operating Controls: Two stage heating and two stage cooling on units 8-1/2 tons and over.
 - Roof curb.
 - Control Wiring from T-stat to rooftop unit: Shall be 18ga / 7 conductor, rated for plenum applications.
 - Control Wiring from T-stat to remote sensor: Shall be a separate 18ga / 2 conductor shielded, rated for plenum applications.
- PART 3 - EXECUTION
- 3.1 INSTALLATION
- Install units level and plumb and firmly anchored.
 - Connect gas piping to burner with pipe same size as gas train inlet, and provide union with sufficient clearance for burner removal and service.
 - Connect to supply and return hydronic piping with shutoff valve and union or flange at each connection.
 - Install ducts to termination in roof mounting frames. Terminate return air duct through roof structure.
 - Connect units to wiring systems and to ground.
- END OF SECTION 15732
- SECTION 15810 - DUCTS AND ACCESSORIES
- PART 1 - GENERAL
- 1.1 SECTION REQUIREMENTS
- Submittals: Product Data for fire and smoke dampers.
 - Comply with NFPA 90A for systems serving spaces more than 25,000 cu. ft. in volume or building Types II, IV, and V construction more than 3 stories in height.
 - Comply with NFPA 90B for systems serving spaces in 1 or 2 family dwellings or serving spaces less than 25,000 cu. ft.
 - Comply with NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations," Chapter 3, "Duct System," for range hood ducts, except single family residential usage, unless otherwise indicated.
 - Comply with UL 181 and UL 181A for ducts and closures.
 - Testing, Adjusting, and Balancing Agency Qualifications: AABC certified.
- PART 2 - PRODUCTS
- 2.1 DUCTS
- Spiral Duct: Spiral Lock Seam, without insulation, G90 galvanized finish, ASTM A-653/924
 - Basis of Design Manufacturers: Lindab SPIROsafe, alternates to the basis of design must be submitted for review.
 - Fittings: Factory produced standing seam construction with internal sealing. Fittings with a major axis of 36" or smaller shall be 20 gauge. Fittings with a major axis of 37"-48" shall be 18 gauge.
 - Galvanized Steel Sheet: Forming steel, ASTM A 653/653M, G90 coating designation.
 - Duct Liner: ASTM C 1071, Type II, with an airstream surface coated with a temperature resistant coating. Thickness: 1-1/2 inch. R-value : 6.3.
 - Adhesive: ASTM C 916, Type I.
 - Mechanical Fasteners: Galvanized steel pin, length as required to penetrate liner plus a 1/8 inch projection maximum into the airstream.
 - Joint and Seam Tape: Comply with UL 181A.
 - Joint and Seam Sealant: Comply with UL 181A.
 - Rectangular Metal Duct Fabrication: Comply with SMACNA's "HVAC Duct Construction Standard" for metal thickness, reinforcing types and intervals, tie rod applications, and joint types and intervals.
- 2.2 ACCESSORIES
- Volume-Control Dampers: Factory fabricated volume control dampers, complete with required hardware and accessories. Single blade and multiple opposed blade, standard leakage rating, and suitable for horizontal or vertical applications.
 - Fire Dampers: Factory-fabricated fire dampers, complete with required hardware and accessories. UL labeled according to UL 555, "Fire Dampers".
 - Flexible Connectors: Flame retardant or noncombustible fabrics, coatings, and adhesives complying with UL 181, Class 1.
 - Flexible Ducts: Factory fabricated, insulated, round duct, with an outer jacket enclosing 2 inch thick, glass fiber insulation, R-value: 6.0, around a continuous inner liner.
- PART 3 - EXECUTION
- 3.1 INSTALLATION
- Duct System Pressure Class: Construct and install each duct system with 2 inch positive and negative duct pressure classifications.
 - Conceal ducts from view in finished and occupied spaces. Except where noted as exposed.
 - Avoid passing through electrical equipment spaces and enclosures.
 - Support and connect metal ducts according to SMACNA's "HVAC Duct Construction Standard".
 - Install duct accessories according to applicable portions of details of construction as shown in SMACNA standards.
 - Install liner on all supply and return duct.
 - Install volume control dampers in lined duct with methods to avoid damage to liner and to avoid erosion of duct liner.
 - Install fire and smoke dampers according to manufacturer's UL approved written instructions.
 - Install fusible links in fire dampers.
 - Provide saddle taps at tees for exposed ductwork.
- 3.2 TESTING, ADJUSTING, AND BALANCING
- The owner will supply an independent balance agent to to balance and adjust the HVAC installation. The balance agent will be responsible for any pulley or belt changes required.
 - The general contractor is to have trained staffed available during the balancing to correct issues noted by the balance agent.
 - The balance agent is to balance airflow within distribution systems, including submains, branches, and terminals to indicated quantities +/- 10%. The hood exhaust system shall be balanced to a tolerance of -0+10% and the make-up air system to a tolerance of -10+0%.
 - The balance agent is to supply a copy of the balance report to the owner, engineer and general contractor for review.
- END OF SECTION 15810

- SECTION 15855 - DIFFUSERS, REGISTERS, AND GRILLES
- PART 1 - GENERAL
- 1.1 SECTION REQUIREMENTS
- Submittals: None.
- PART 2 - PRODUCTS
- 2.1 OUTLETS AND INLETS
- Diffusers:
 - Refer to Grills, Registers, and Diffusers Schedule for equipment schedule
 - Manufacturer: As scheduled (NO SUBSTITUTIONS)
 - Material: As scheduled.
 - Finish: As scheduled.
 - Mounting: As scheduled.
 - Wall and Ceiling Registers:
 - Refer to Grills, Registers, and Diffusers Schedule for equipment schedule
 - Manufacturer: As scheduled (NO SUBSTITUTIONS)
 - Material: As scheduled.
 - Finish: As Scheduled.
 - Mounting: Countersunk screw.
 - Wall and Ceiling Grilles:
 - Refer to Grills, Registers, and Diffusers Schedule for equipment schedule
 - Manufacturer: As scheduled (NO SUBSTITUTIONS)
 - Material: As scheduled.
 - Finish: As Scheduled.
 - Mounting: Countersunk screw or lay in depending location.
- PART 3 - EXECUTION
- 3.1 INSTALLATION
- Coordinate location and installation with duct installation and installation of other ceiling and wall mounted items.
 - Locate ceiling diffusers, registers, and grilles, as indicated on general construction "reflected ceiling plans." Unless otherwise indicated, locate units in center of acoustical ceiling panels.
- END OF SECTION 15855
- SECTION 15900 - HVAC INSTRUMENTATION AND CONTROLS
- PART 1 - GENERAL
- 1.1 SECTION REQUIREMENTS
- Summary: Electric/electronic control sequences for HVAC systems and equipment.
 - Submittals: Shop Drawings detailing operating control sequences of each item of HVAC equipment and system and Product Data for controllers, sensors, operators, control panels, thermostats, humidistats, actuators, control valves and dampers.
 - System Description: Control systems consists of sensors, indicators, actuators, final control elements, interface equipment, and other apparatus, accessories, required to operate mechanical systems according to sequences of operation indicated and specified.
 - Operation Sequence:
 - Unoccupied Cycle: During unoccupied hours, as set by the Energy Management System, the outside air and return dampers for the HVAC unit close, and the thermostat set point resets to 65° F (user adjustable). Upon a call for heating, the HVAC unit energizes.
 - Occupied Cycle: During occupied hours, as set by the Energy Management System, the outside air and return dampers open to a minimum set point. The furnace and exhaust fans run continuously. Upon a call for heating, the furnace heating energizes. Upon a call for cooling, the condensing unit energizes.
- PART 2 - PRODUCTS (Not Applicable)
- PART 3 - EXECUTION
- 3.1 INSTALLATION
- Install control wiring concealed, except in mechanical rooms, and according to requirements specified in Division 16 Sections.
- END OF SECTION 15900

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REV.	DATE	DESCRIPTION
02.16.2024	02.16.2024	PERMIT SET
1	05.03.2024	BID SET
3	08-20-2024	CONSTRUCTION SET

PROFESSIONAL SEAL

Anthony J. Scalamandre, P.E.
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DRAWN BY: PCE
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PROJECT NUMBER:
22045

SHEET TITLE:

MECHANICAL
SPECIFICATIONS,
SYMBOLS, & GENERAL
INFORMATION

SHEET NUMBER:

M-010

Consultant:



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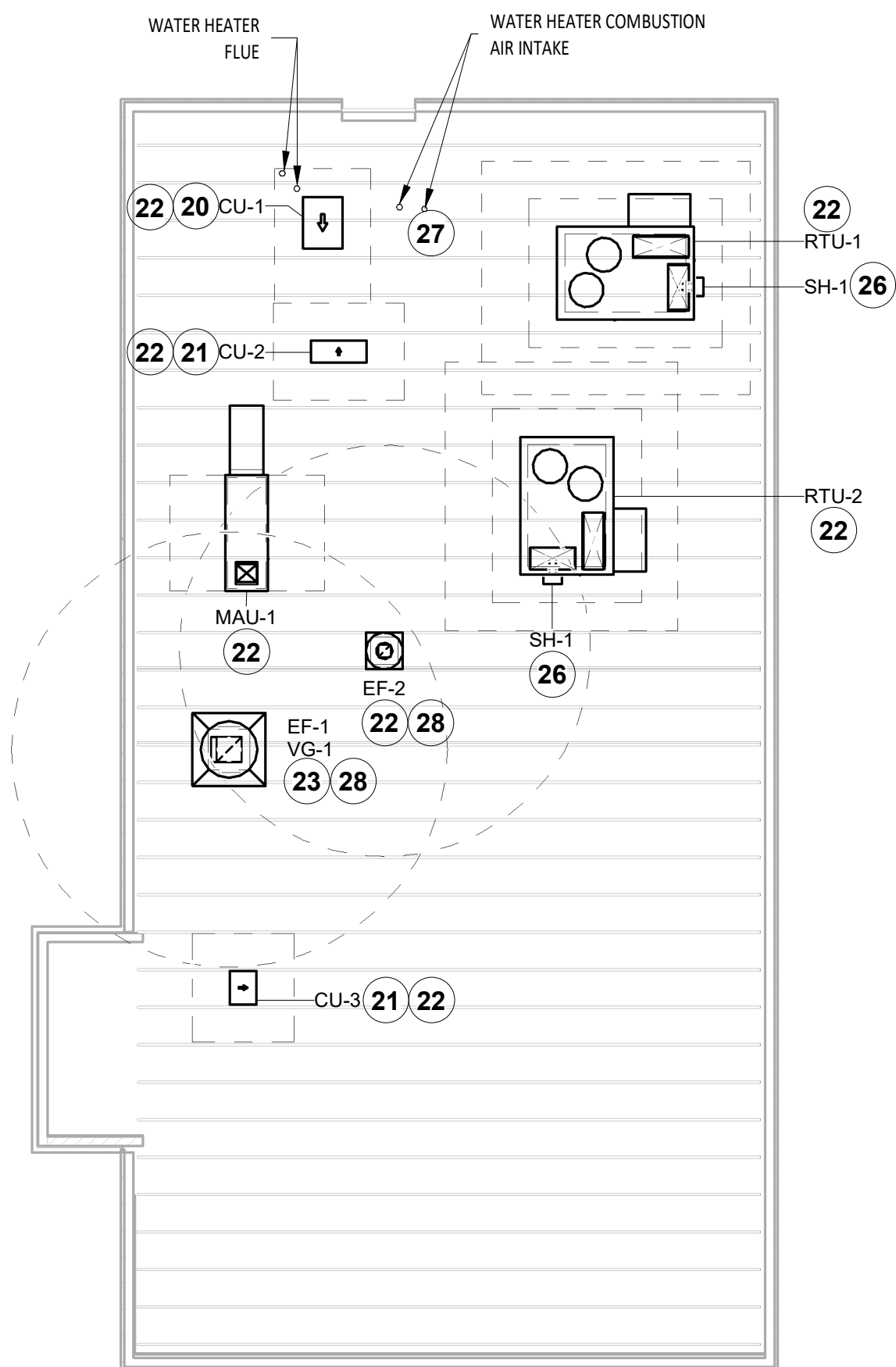
HVAC PLAN

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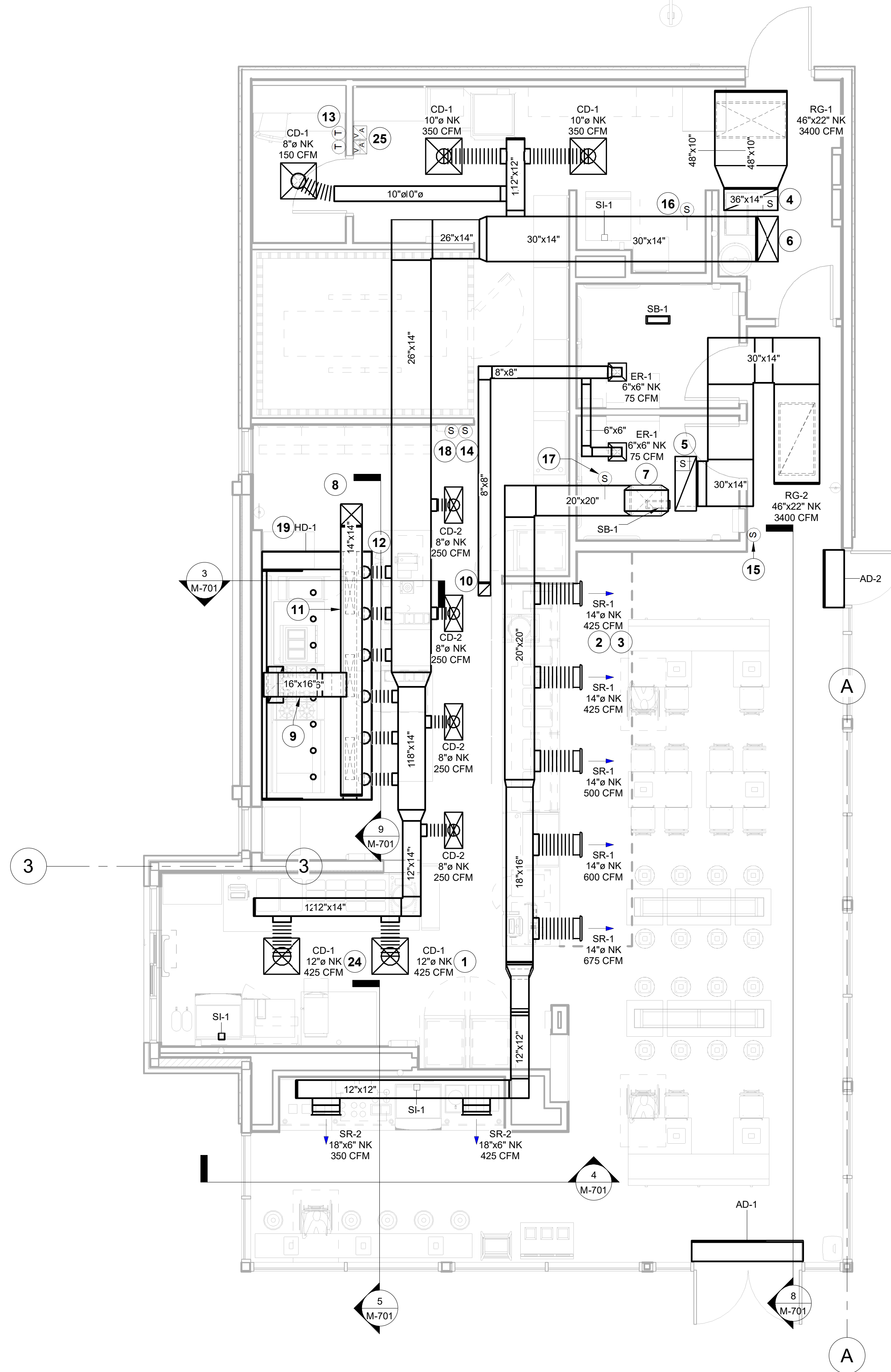
M-100

- KEYNOTES FOR THIS SHEET 1, 2 ETC.**
- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING MOUNTED EQUIPMENT LOCATION. TYPICAL.
 - PAINT DUCTWORK VISIBLE THROUGH DINING ROOM SUPPLY REGISTERS BLACK. TYPICAL.
 - ADJUST SUPPLY REGISTERS SO THAT SUPPLY AIR HITS WALL ON OPPOSITE SIDE OF ROOM AT APPROXIMATELY 7' AFF WITH NO DRAFTS FELT IN THE DINING ROOM.
 - 36/14 DUCT UP FOR TRANSITION TO RTU-1 RETURN CONNECTION IN ROOF CURB. RTU-1 SHALL HAVE A FACTORY FURNISHED, FIELD INSTALLED SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM. INTERLOCK SMOKE DETECTOR TO RTU-1 OPERATION.
 - 30/14 DUCT UP FOR TRANSITION TO RTU-2 RETURN CONNECTION IN ROOF CURB. RTU-2 SHALL HAVE A FACTORY FURNISHED, FIELD INSTALLED SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM. INTERLOCK SMOKE DETECTOR TO RTU-2 OPERATION.
 - 30/14 DUCT UP FROM BUILDING SUPPLY THROUGH ROOF. TRANSITION TO RTU-1 SUPPLY CONNECTION IN ROOF CURB.
 - 20/20 DUCT UP FROM BUILDING SUPPLY THROUGH ROOF. TRANSITION TO RTU-2 SUPPLY CONNECTION IN ROOF CURB.
 - 14/14 DUCT UP THROUGH ROOF. TRANSITION TO MAU-1 SUPPLY CONNECTION IN ROOF CURB.
 - 16/16 DUCT UP FROM HOOD THROUGH ROOF TO EF-1 COMPLIANT WITH NFPA 96. PROVIDE RADIUS ELBOWS WITH AN INSIDE RADIUS OF 0.5W AT ELBOWS IN GREASE DUCT. PROVIDE DUCT CLEANOUT ACCESS DOOR AT ALL CHANGES IN DIRECTION AND AT ALL LINEAR INTERVALS PER LOCAL CODE.
 - 8/8 DUCT UP THROUGH ROOF TO EF-2. SEE DETAIL 6/M-701.
 - 28/6 DUCT DOWN TO MAKEUP AIR PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL FOR 3.
 - 8" DIA. DUCT DOWN TO AC PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL. CAP UNUSED DUCT CONNECTIONS.
 - INSTALL SINGLE-GANG VERTICAL J-BOX FOR GRIDPOINT THERMOSTATS FURNISHED BY TEMS FOR RTU-1 AND RTU-2 AT THIS LOCATION AT 48" AFF. COORDINATE WITH ELECTRICAL SWITCHING IN THIS AREA. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710. LABEL THERMOSTAT WITH CORRESPONDING UNIT.
 - INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-1 AT THIS LOCATION AT 72" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710. LABEL SENSOR WITH CORRESPONDING UNIT.
 - INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-2 AT THIS LOCATION AT 66" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710. LABEL SENSOR WITH CORRESPONDING UNIT.
 - INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TEMS FOR RTU-1 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
 - INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TEMS FOR RTU-2 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
 - INSTALL REMOTE TEMPERATURE SENSOR FOR HOOD HD-1 AT THIS LOCATION AT 72" AFF. COORDINATE LOCATION WITH EQUIPMENT. PROVIDE (2) #18 G. THERMISTOR CABLE FROM TEMPERATURE SENSOR TO HOOD CONTROL PANEL. LABEL SENSOR "HD-1".
 - INSTALL KITCHEN HOOD, HD-1. SUPPORT HOOD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL HOOD ACCORDING TO THE REQUIREMENTS OF ITS LISTING, IN COMPLIANCE WITH NFPA 96, THE BUILDING CODE, AND AUTHORITIES HAVING JURISDICTION. HOOD SHALL HAVE AN INTEGRAL DUCT COLLAR TEMPERATURE SENSOR TO AUTOMATICALLY ENERGIZE THE EXHAUST AND MAKEUP AIR FANS IF COOKING TEMPERATURES ARE DETECTED. EXHAUST DUCT SYSTEM TO BE WELDED OR FACTORY-MANUFACTURED WATER AND AIR TIGHT. INSTALL CLEANOUTS PER CODE AND AS SHOWN. INSTALL HOOD PER DETAILS 4/M-700, AND 2, 3, & 9/M-701. CHIPOTLE WILL PROVIDE AN INDEPENDENT TESTING AGENCY FOR TESTING THE INTEGRITY OF THE GREASE DUCT SYSTEM.
 - INSTALL REMOTE CONDENSING UNIT FOR WALK-IN COOLER ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. SEAL PIPING PENETRATIONS THROUGH ROOF. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3'-0" OF THE CONDENSING UNIT. CUT 2-1/2" HOLE IN WALK-IN COOLER ROOF FOR REFRIGERANT LINE SET AND SEAL PER THE COOLER MANUFACTURER'S INSTALLATION INSTRUCTIONS AFTER LINE SET IS INSTALLED.

- KEYNOTES FOR THIS SHEET 1, 2 ETC.**
- INSTALL REMOTE CONDENSER FOR ICE MACHINE ON ROOF. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS AND WEATHERPROOF HOUSING. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. SEAL PIPING PENETRATIONS THROUGH ROOF. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3'-0" OF THE REMOTE CONDENSER. IF REFRIGERANT PIPING TO ICE MACHINE IS EXPOSED TO PUBLIC VIEW, CONCEAL WITHIN A STAINLESS STEEL SHROUD AS SHOWN IN THE ARCHITECTURAL DRAWINGS.
 - INSTALL ROOFTOP EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
 - INSTALL EXHAUST FAN EF-1 PER DETAIL 8/M-700 AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL GREASE VIROGUARD SYSTEM FURNISHED BY CHIPOTLE ON EXHAUST FAN EF-1.
 - PROVIDE SUPPLY DIFFUSER CONNECTION TO SUPPLY SYSTEM PER DETAIL 6/M-700. TYPICAL.
 - PROVIDE AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET. WIRE A UNIT BACK TO EACH SMOKE DETECTOR. MOUNT UNIT 60" AFF. LABEL ANNUNCIATOR WITH CORRESPONDING UNIT. TYPICAL.
 - INSTALL REME HALO AIR PURIFIER FURNISHED BY TUV IN RTU PER DETAIL 5/M-700. SEE ELECTRICAL DRAWINGS FOR POWER CONNECTION INFORMATION. INSTALL UV WARNING STICKERS ON FACE OF ENCLOSURE PER DETAIL AND ON ANY RTU ACCESS DOOR(S) THROUGH WHICH THE REME HALO WOULD BE VISIBLE IF OPENED.
 - MAINTAIN 10' CLEARANCE BETWEEN WATER HEATER FLUE TERMINATION AND OUTSIDE AIR INTAKES. MAINTAIN 10' CLEARANCE BETWEEN WATER HEATER COMBUSTION AIR INTAKE AND EXHAUST FAN EF-1 DISCHARGE. SEE PLUMBING DRAWINGS FOR MORE INFORMATION ON WATER HEATER FLUE AND COMBUSTION AIR TERMINATIONS.
 - 10'-0" MIN. CLEARANCE FROM OUTER EDGE OF EXHAUST FAN TO FRESH AIR INTAKES. TYPICAL.



2 HVAC ROOF PLAN
1/8" = 1'-0"



1 HVAC PLAN
1/4" = 1'-0"

**HOOD SHOP DRAWING PRODUCED BY
MANUFACTURER - FOR REFERENCE ONLY**

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PROJECT NUMBER:
22045

SHEET TITLE:
**CAPTIVEAIRE
DRAWINGS**

SHEET NUMBER:
M-401

REVISIONS

NO.	DESCRIPTION	DATE

CAPTIVEAIRE
Highwoods Group
4641 Paragon Park Rd., Raleigh, NC 27616 PHONE: (919) 975-0420 FAX: 9198750577 EMAIL: reg40@captivaire.com

CHIPOTLE #4549 HAMBURG TURNPIKE, NJ
1195 Hamburg Turnpike,
Wayne, NJ, 07470

DATE: 1/15/2024
DWG.#: 6535972
DRAWN BY: ZDH
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
1

FOR QUESTIONS, CALL THE
Highwoods Group
REGION 40
PHONE: (919) 875-0420
EMAIL: reg40@captivaire.com

PATENT NUMBERS
AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2820330.

HOOD INFORMATION - JOB#6535972

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)				MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG			
										WIDTH	LENG	HEIGHT	DIA				CFM	VEL	SP	END TO END
1		5424 ND-2-ACPSP-F	CAPTIVEAIRE	12' 9"	600 DEG	I	HEAVY	200	2550	10'	24'	4'	2550	1530	-0.966'	1300	696	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 TYPE	SIZE			ELECTRICAL MODEL #	QUANTITY
1		CAPTRATE SOLID FILTER	9	16"	16"	85% SEE FILTER SPEC	8	L55 SERIES E26	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0	SC-31110MA	1 LIGHT 1 FAN	YES	1194 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		FIELD WRAPPER 10.00" HIGH FRONT, LEFT, RIGHT. INSULATION FOR BACK OF HOOD. RISER SENSOR INSTALL 6IN PLEN. RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS. LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS. FULL DIMENSION HANGING BRACKET - FRONT.

PERFORATED SUPPLY PLENUM(S)

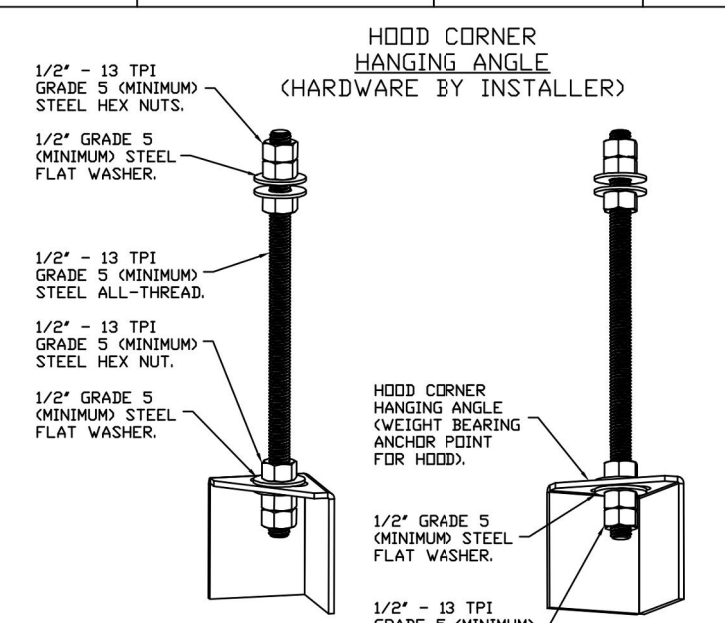
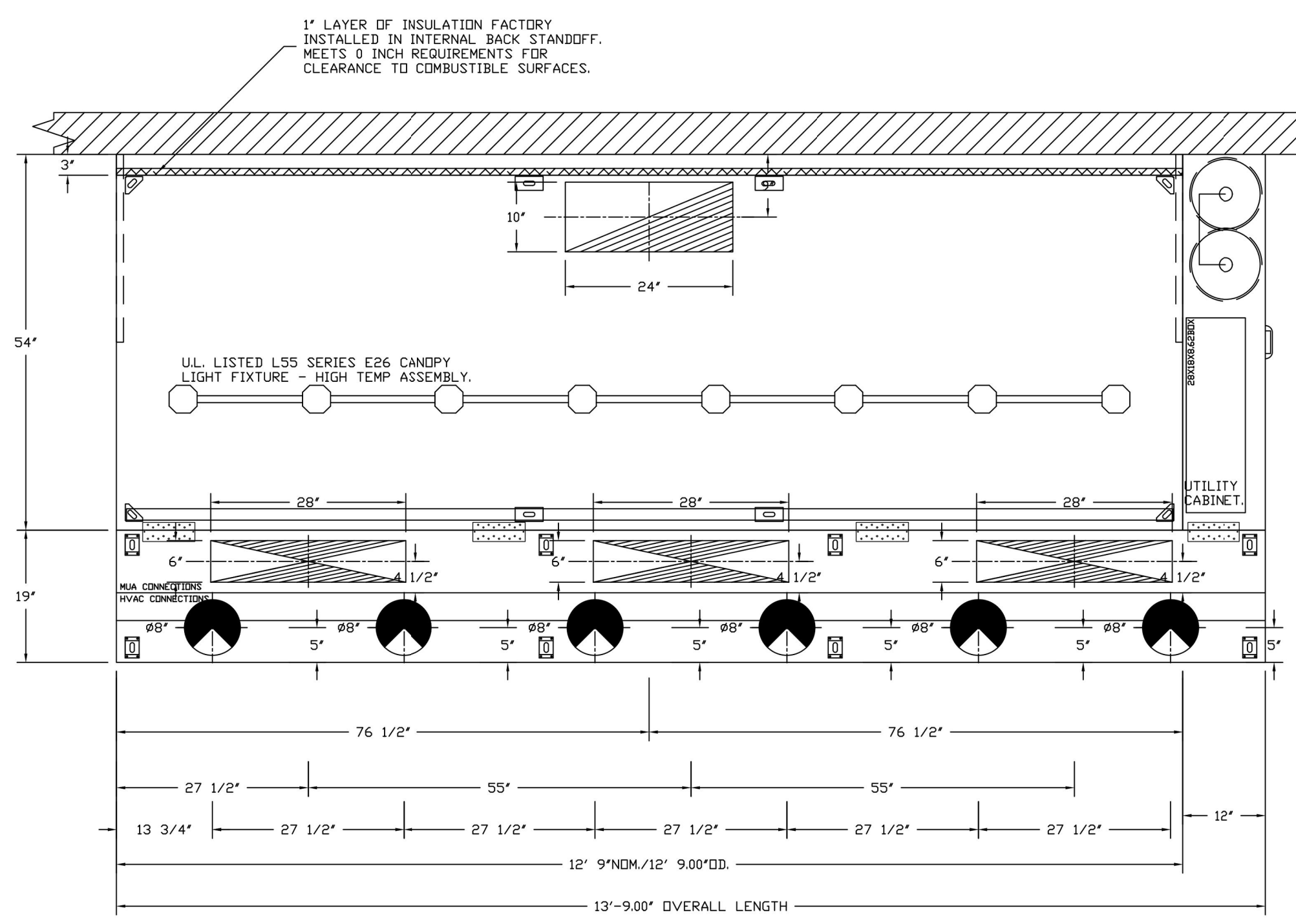
HOOD NO	TAG	PDS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1		Front	165'	19'	6'	MUA	6"	28"		432	0.127'
						MUA	6"	28"		432	0.127'
						MUA	6"	28"		432	0.127'
						AC	8"	116		0.043"	
						AC	8"	116		0.043"	
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						AC	8"	116		0.043"	
						AC	8"	116		0.043"	

FIRE SYSTEM INFORMATION - JOB#6535972

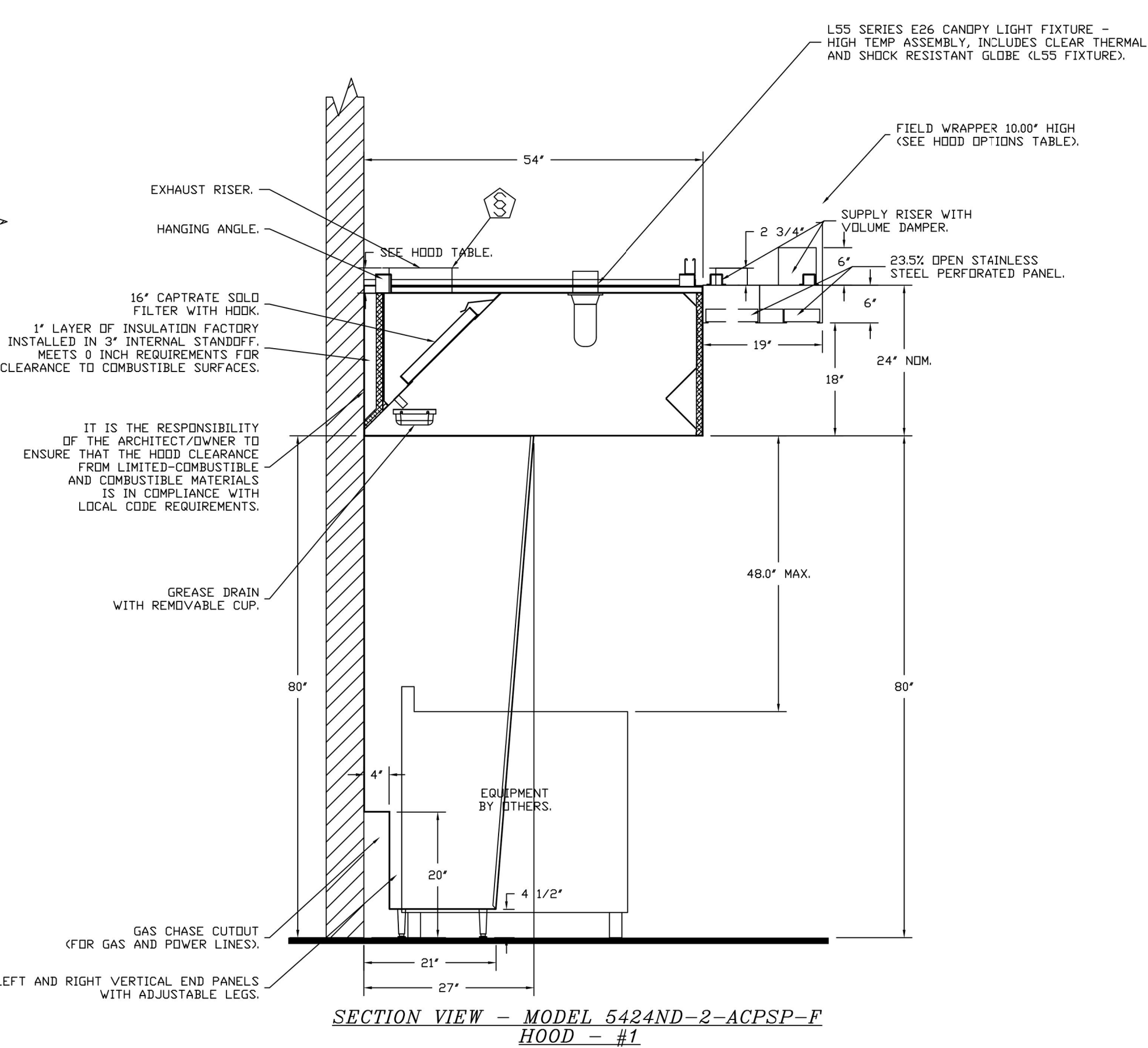
FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	40	32	FIRE CABINET RIGHT	RIGHT, HOOD 1

GAS VALVE(S)

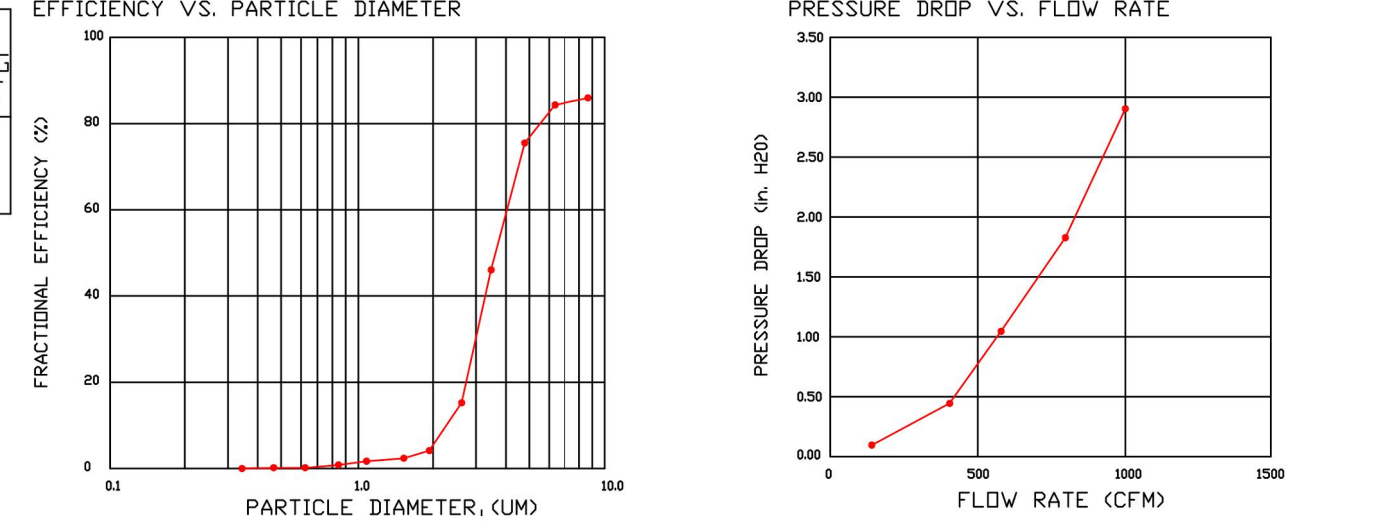
FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	1.500	CAPTIVEAIRE SYSTEMS



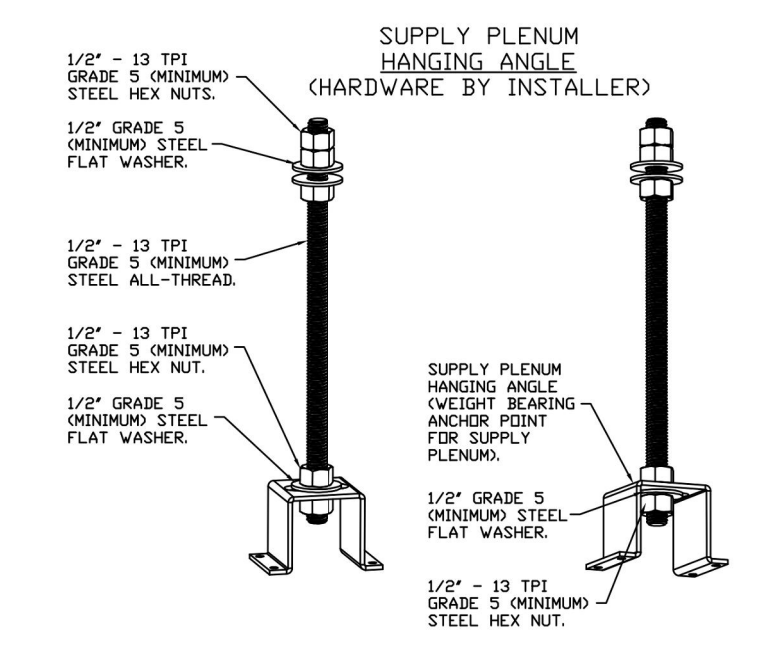
ASSEMBLY INSTRUCTIONS
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH 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.



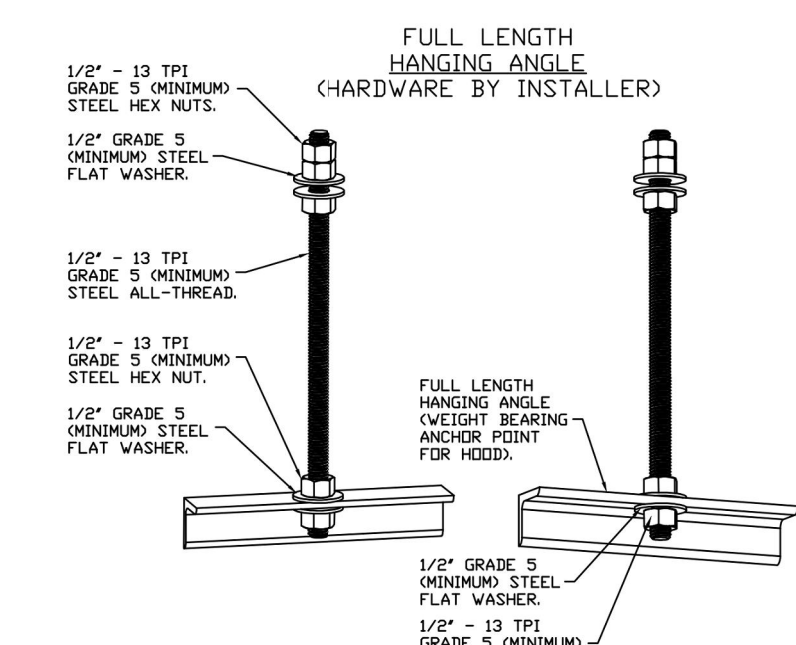
SPECIFICATION: CAPTRATE® GREASE-STOP® SOLID FILTER
THE CAPTRATE GREASE-STOP SOLID FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).
FILTERS 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 SOLID 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
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**HOOD SHOP DRAWING PRODUCED BY
MANUFACTURER - FOR REFERENCE ONLY**

EXHAUST FAN INFORMATION - JOB#6535972

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	EF-1	1	DJ180HFA	CAPTIVEAIRE	2550	1.450	1182	DDP,PREMIUM	2.000	1.2840	3	208	8.3	589 FPM	183	14.6
2	EF-2	1	DR12HFA	CAPTIVEAIRE	150	0.600	1262	TEAD-ECM	0.250	0.0930	1	115	2.9		50	6.1

MUA FAN INFORMATION - JOB#6535972

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MDCP	WEIGHT (LBS)	SDNES
3	MAU-1	1	A1-D.250-15D	15MF-1-MOD	A1-D.250	1000	1300	0.500	1548	DDP,PREMIUM	1.000	0.5670	3	208	3.1	3.9A	15A	495	12.2

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-1	7800	71769	52°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN #1 DJ180HFA - EXHAUST FAN (EF-1)

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-1	1	GREASE BOX
		1	2 YEAR PARTS WARRANTY
2	EF-2	1	I 12-BDD DAMPER
		1	ECM WIRING PACKAGE - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCD MOTOR), CCW ROTATION
3	MAU-1	1	2 YEAR PARTS WARRANTY
		1	SIZE 1 TEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS
		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	SHIP LOOSE GAS STRAINER 3/4"
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING
1	1	1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	2 YEAR PARTS WARRANTY

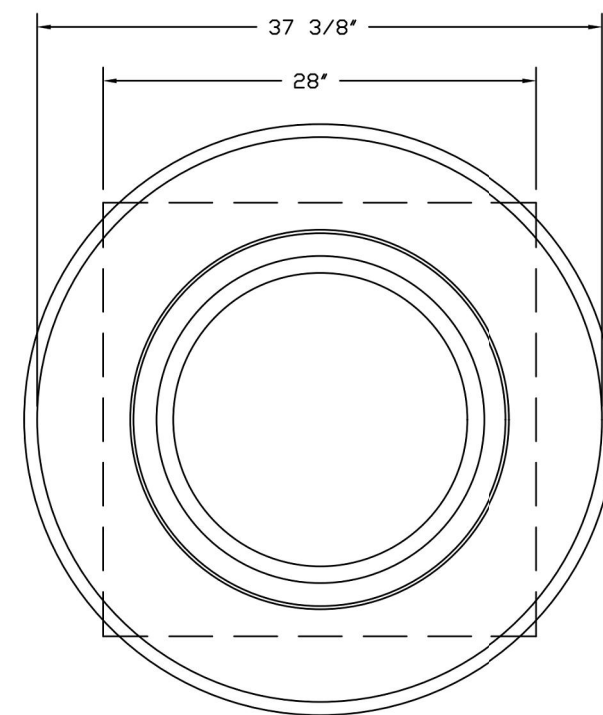
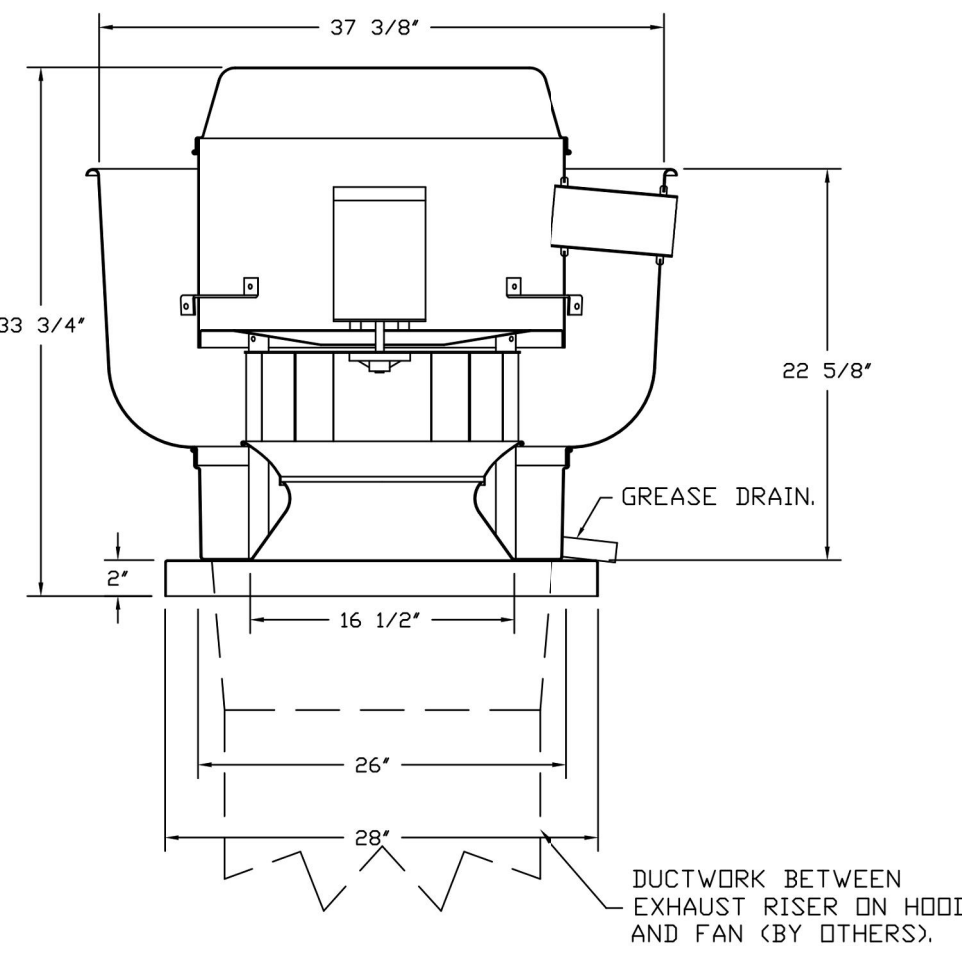
FAN ACCESSORIES

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

CURB ASSEMBLIES

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	EF-1	39 LBS	CURB	26.500"W X 26.500"L X 20.000"H VENTED.
2	# 2	EF-2	31 LBS	CURB	17.500"W X 17.500"L X 26.000"H.
3	# 3	MAU-1	65 LBS	CURB	21.000"W X 71.000"L X 20.000"H INSULATED.

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



TOP VIEW

FEATURES:

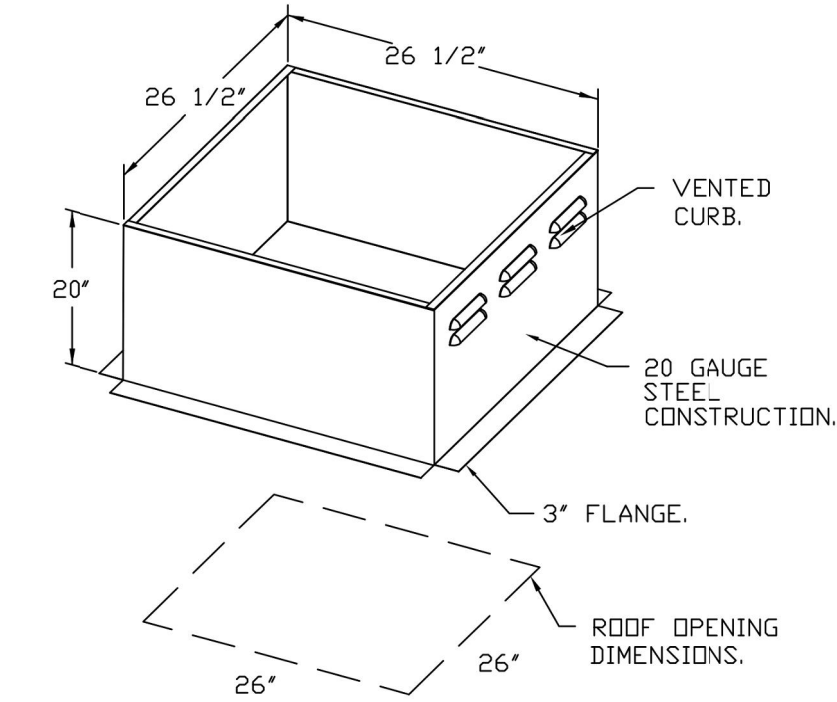
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-5645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT 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.

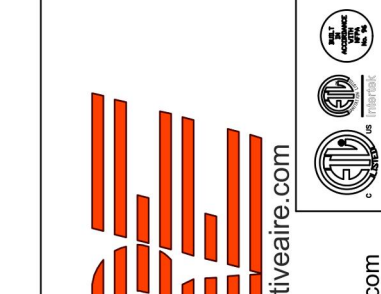
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

DETAILS

- GREASE BOX.
- 2 YEAR PARTS WARRANTY.



REVISIONS	
DESCRIPTION	DATE



CAPTIVE
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1195 Hamburg Turnpike,
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DATE: 1/15/2024
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DRAWN BY: ZDH
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 2

Consultant:
Polaris
Consulting Engineers, PC
214 W. Main Street, Suite 208
Moorestown, NJ 08057
(856) 778-5400

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STORE NO.: 4549
HAMBURG TURNPIKE
1207 HAMBURG TURNPIKE
WAYNE, NJ

REV. DATE	DESCRIPTION
02.16.2024	PERMIT SET
05.03.2024	BID SET
08.20.2024	CONSTRUCTION SET

PROFESSIONAL SEAL
Anthony J. Scalamandre, P.E.
NJ License #40486

PROFESSIONAL IN CHARGE: Anthony J. Scalamandre, P.E.
DRAWN BY: PCE
CHECKED BY: AIS
PROJECT NUMBER: 22045
SHEET TITLE:

CAPTIVEAIRE
DRAWINGS

SHEET NUMBER:
M-402

HOOD SHOP DRAWING PRODUCED BY
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CAPTIVEAIRE
Highwoods Group
4841 Pangloss Park Rd., Raleigh, NC 27616 PHONE: (919) 875-0420 FAX: 9198750577 EMAIL: rpg40@captiveaire.com

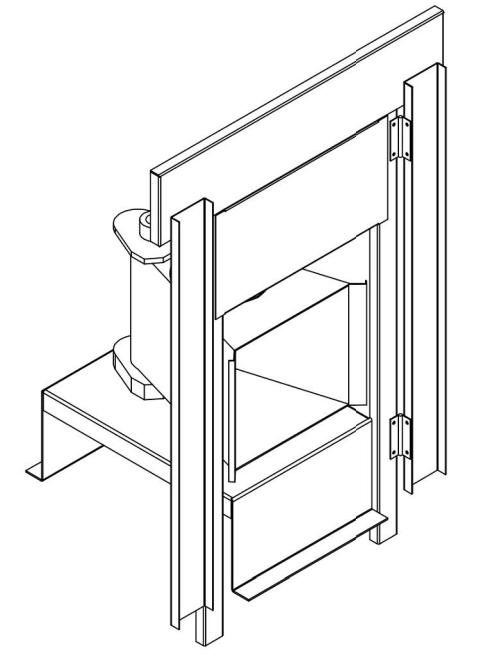
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- FAN #3 A1-D250-15D - HEATER (MAU-1)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN.
2. INTAKE HOOD WITH E2 FILTERS.
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. DOWN DISCHARGE CONSTRUCTION FOR SIZE 1 DIRECT DRIVE AHUS.
5. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
6. GAS PRESSURE GAUGE, -5 TO +15 INCHES VAC., 2.5" DIAMETER, 3/4" THREAD SIZE.
7. SHIP LOOSE GAS STRAINER, TO BE INSTALLED UPSTREAM OF UNIT CONNECTION, 3/4" CONNECTION.
8. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LEAKAGE, TFBERS ACTUATOR INCLUDED.
9. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM BOV TO MAIN SWITCH.
10. HINGED DOUBLE WALL INSULATED DDDR ASSEMBLY (BURNER/BLOWER SECTION).
11. 2 YEAR PARTS WARRANTY.

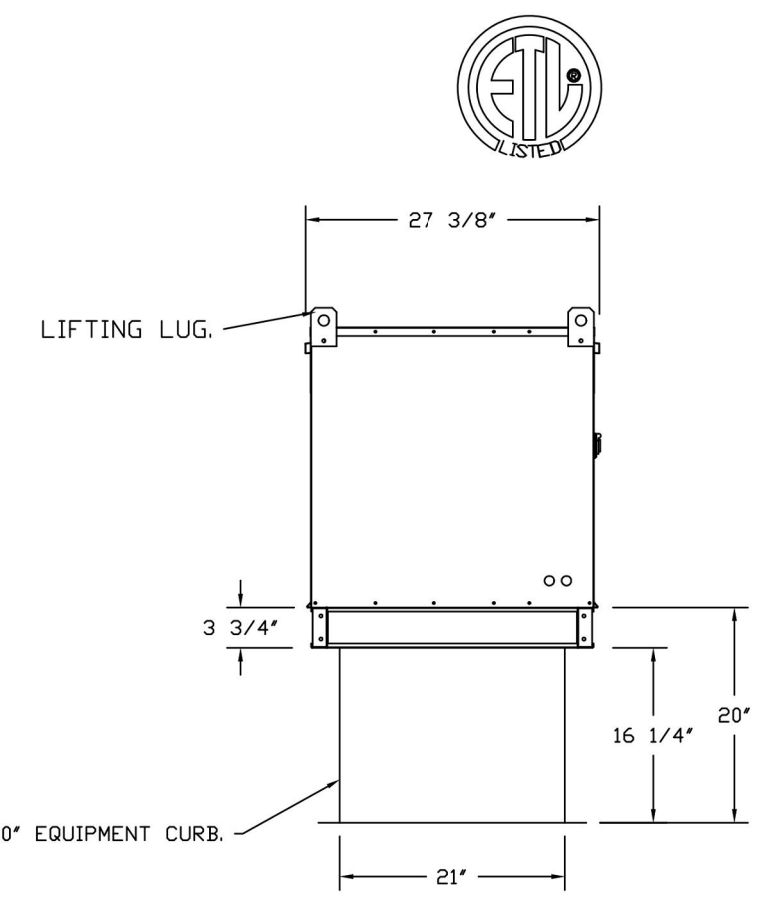
NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE 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 14" X 14".

SUPPLY SIDE HEATER INFORMATION
WINTER TEMPERATURE = 23°F. TEMP. RISE = 52°F.
BTUS CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 72820.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 78900.
OUTPUT BTUs AT ALTITUDE OF 173 FT. = 71769.
INPUT BTUs AT ALTITUDE OF 173 FT. = 78010.

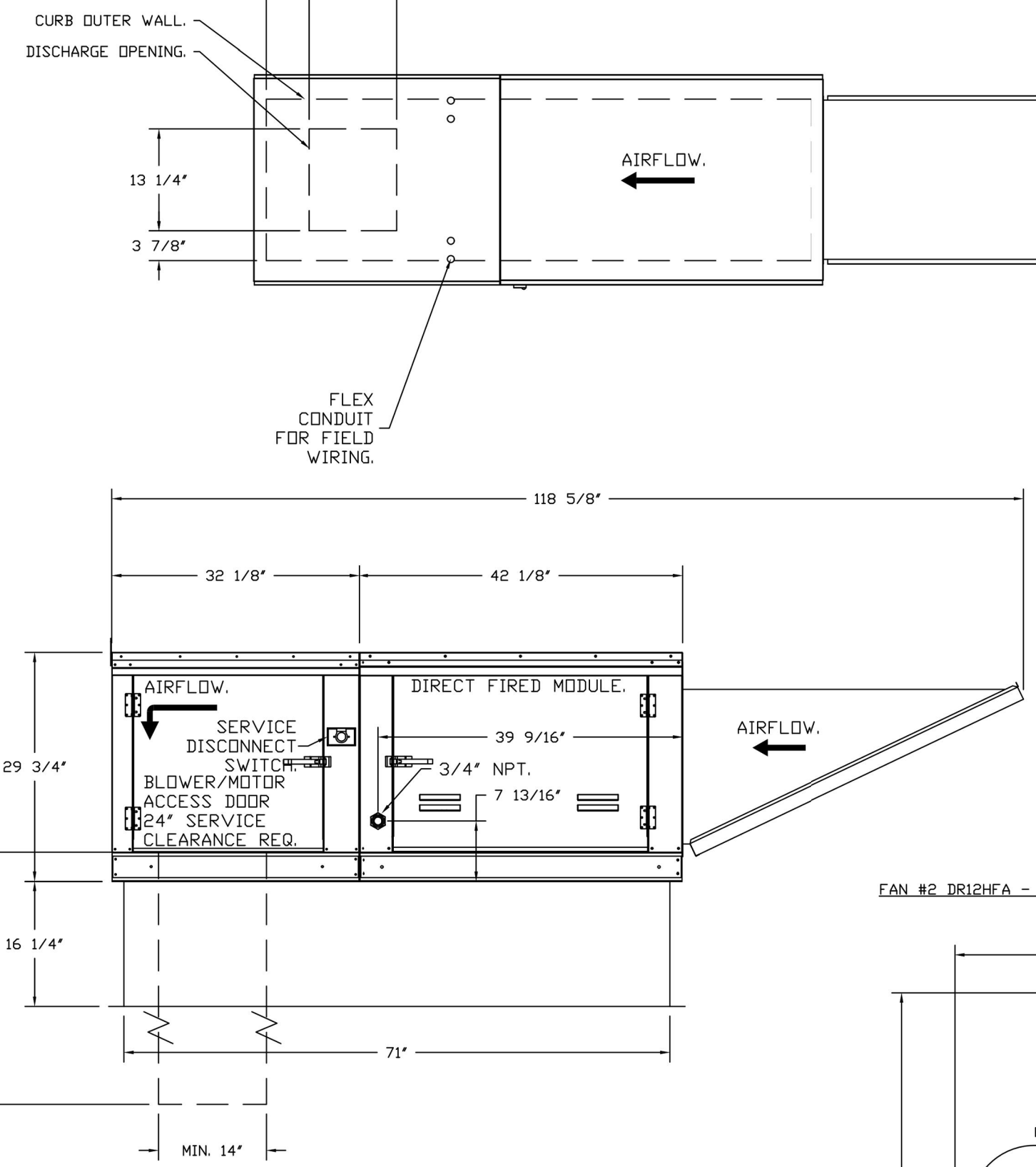
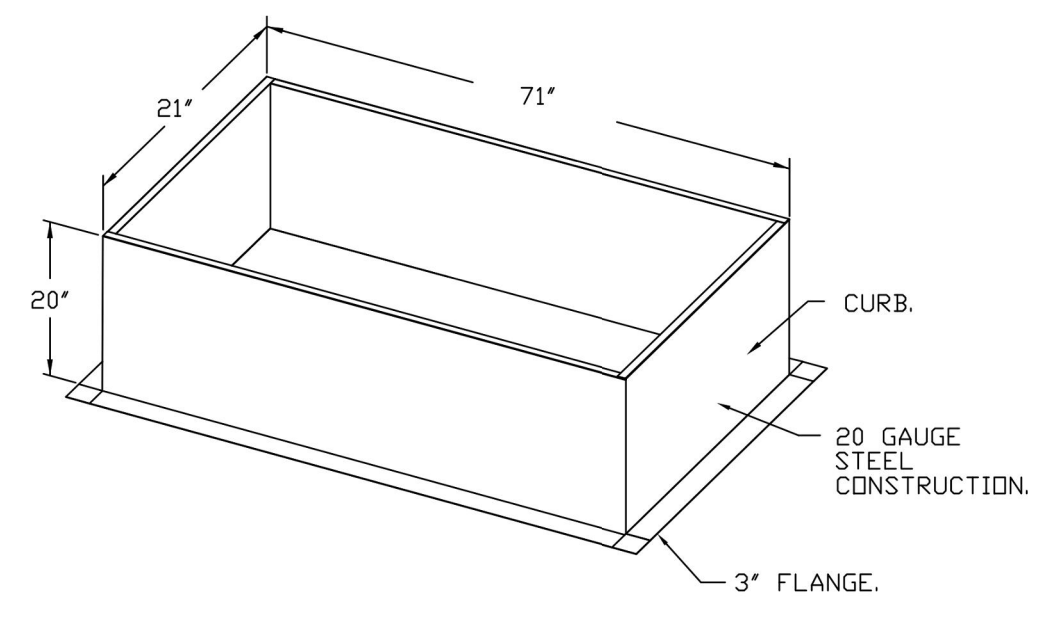


DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

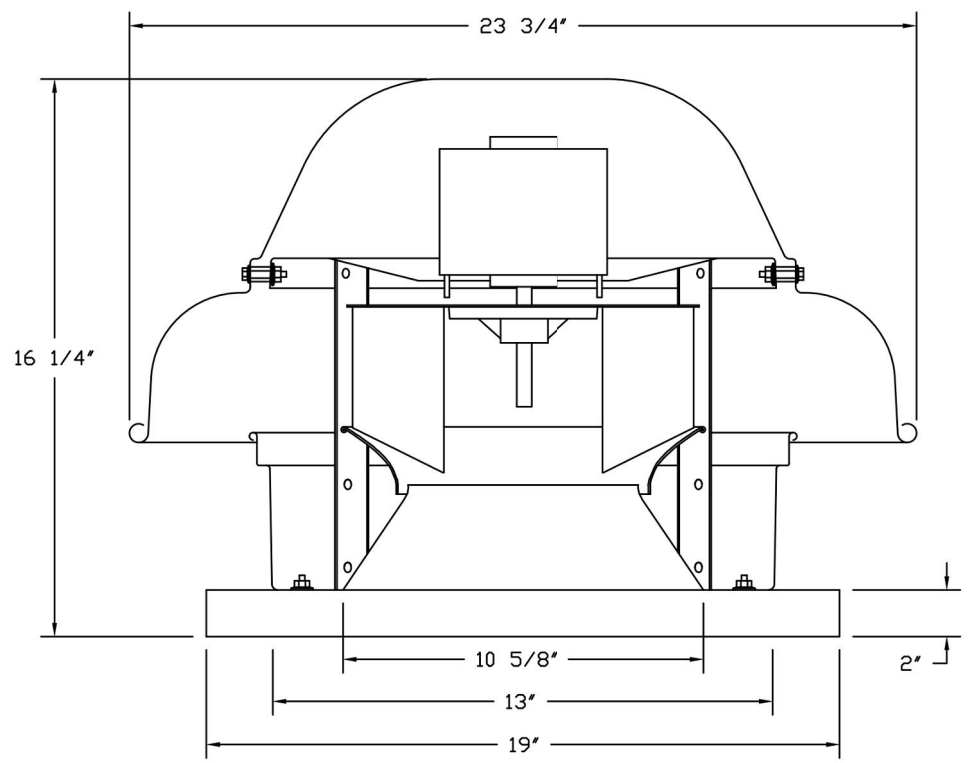
DIRECT FIRED PROFILE PLATE SPECIFICATIONS:
DESCRIPTION:
DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO. US4629523B2) SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 5PPM OF CARBON MONOXIDE (CO), AND 0.5PPM OF NITROGEN DIOXIDE (NO2). DIRECT FIRED UNITS SHALL BE CONFIGURED 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 STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM. WITH THIS FEATURE, ALL DF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.
CERTIFICATIONS:
ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.18 (RECIRCULATING DF HEATERS).
GENERAL CONSTRUCTION:
-PROFILE PLATES SHALL BE FORMED FROM G90 GALVANIZED STEEL.
-PROFILE PLATES SHALL VARY IN SIZE PER UNIT.
-PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
-DESIGN SHALL INCORPORATE PROPERLY TORQUED, PERMANENTLY MOUNTED SPRING HINGES.
-SPRING HINGES SHALL BE MADE FROM PLATED STEEL.



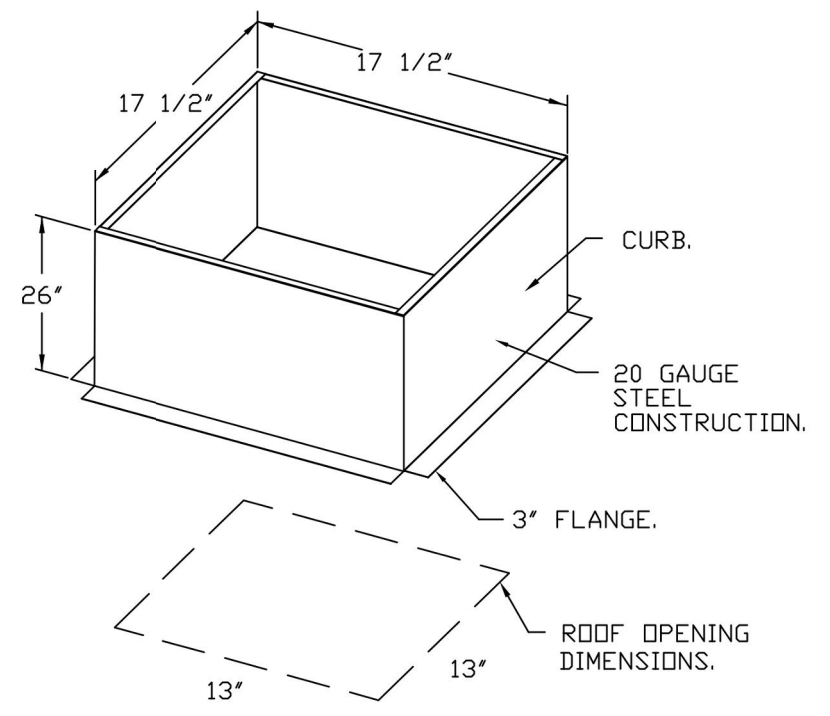
OPTIONS:
- FULL BOTTOM CORNERS.



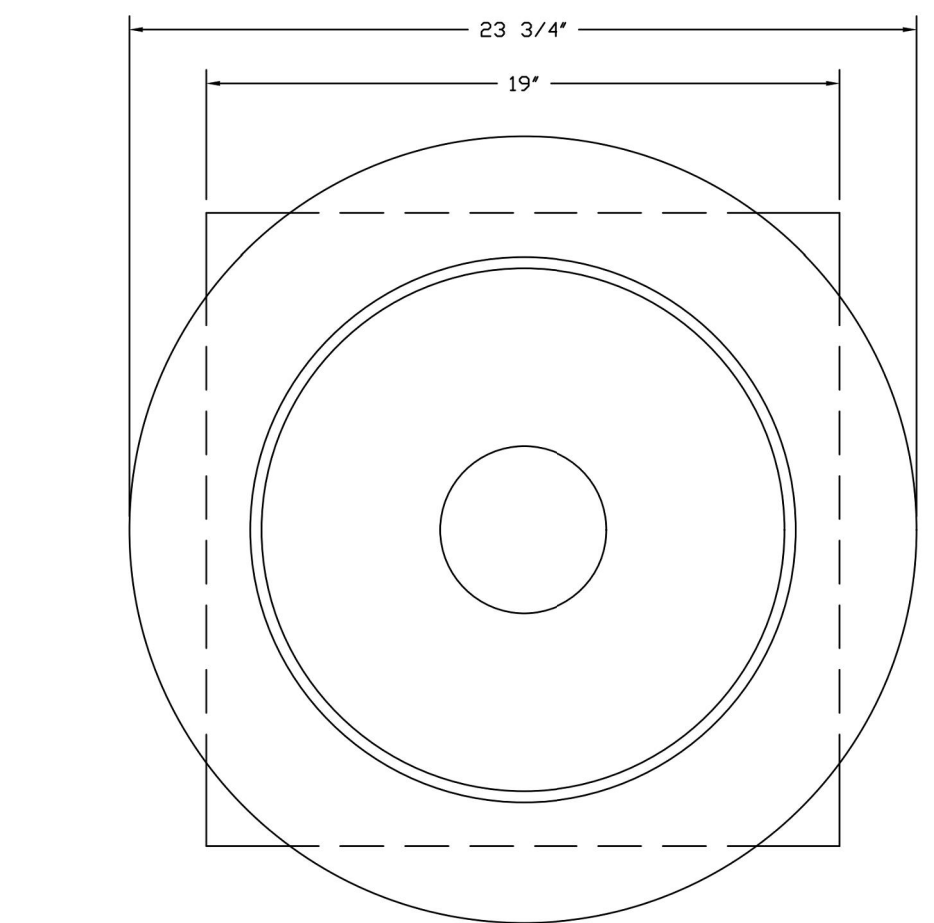
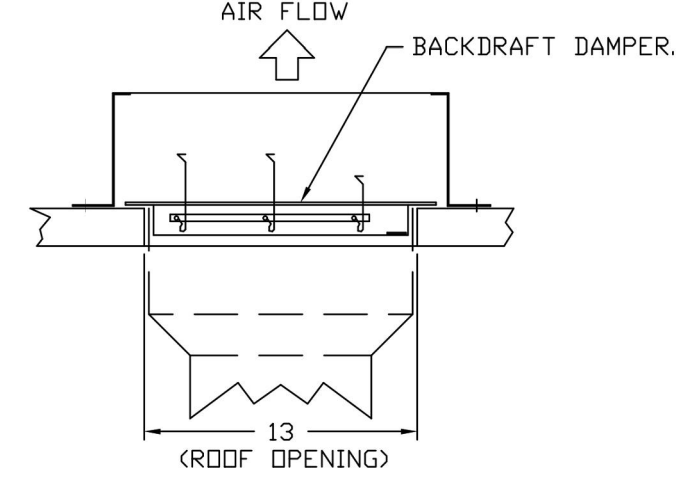
FAN #2 DR12HFA - EXHAUST FAN (CF-2)



- 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 1/2" BDD DAMPER.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL.
- RTC (TELECO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.



BACKDRAFT DAMPER INSTALLATION

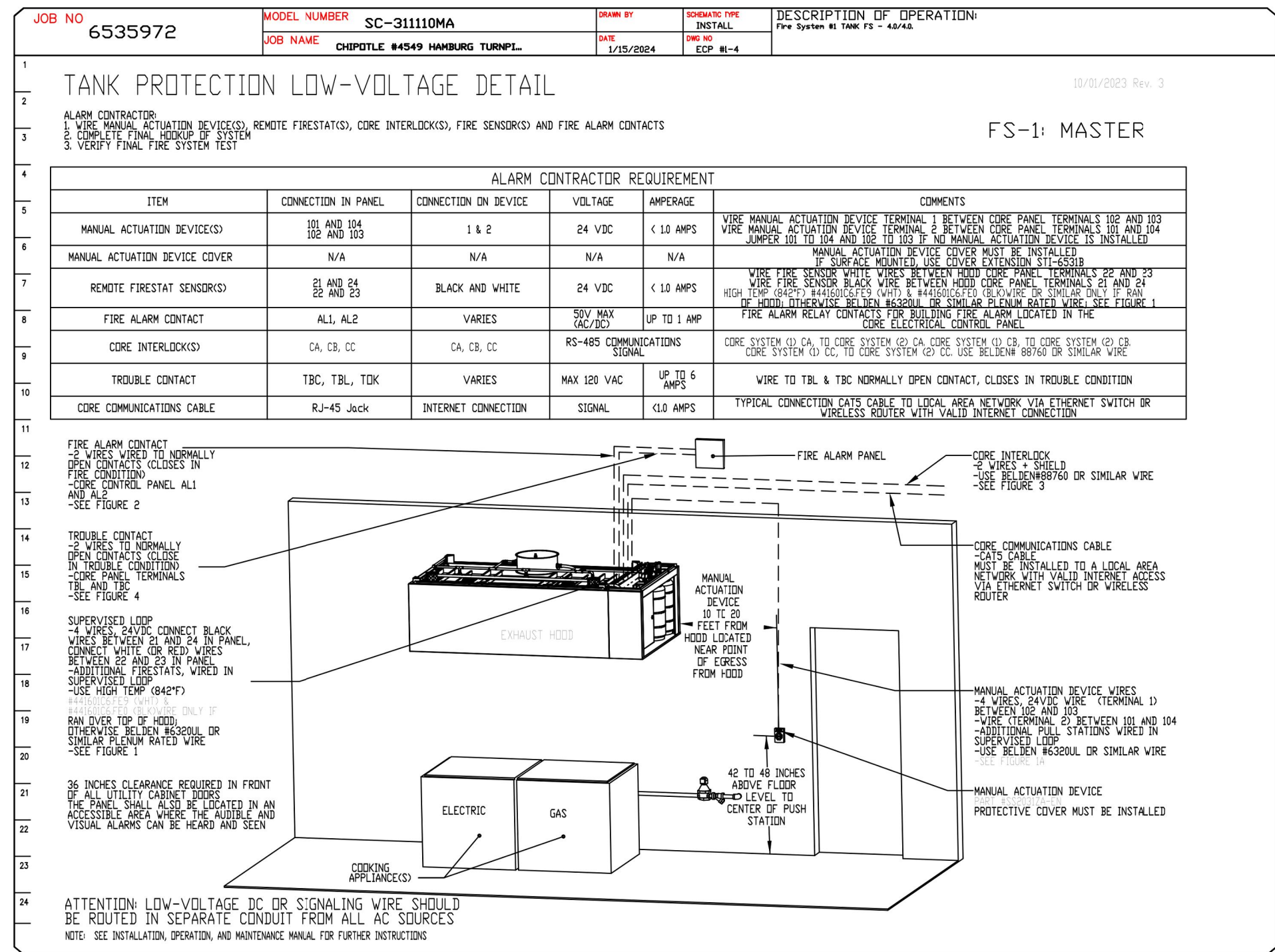
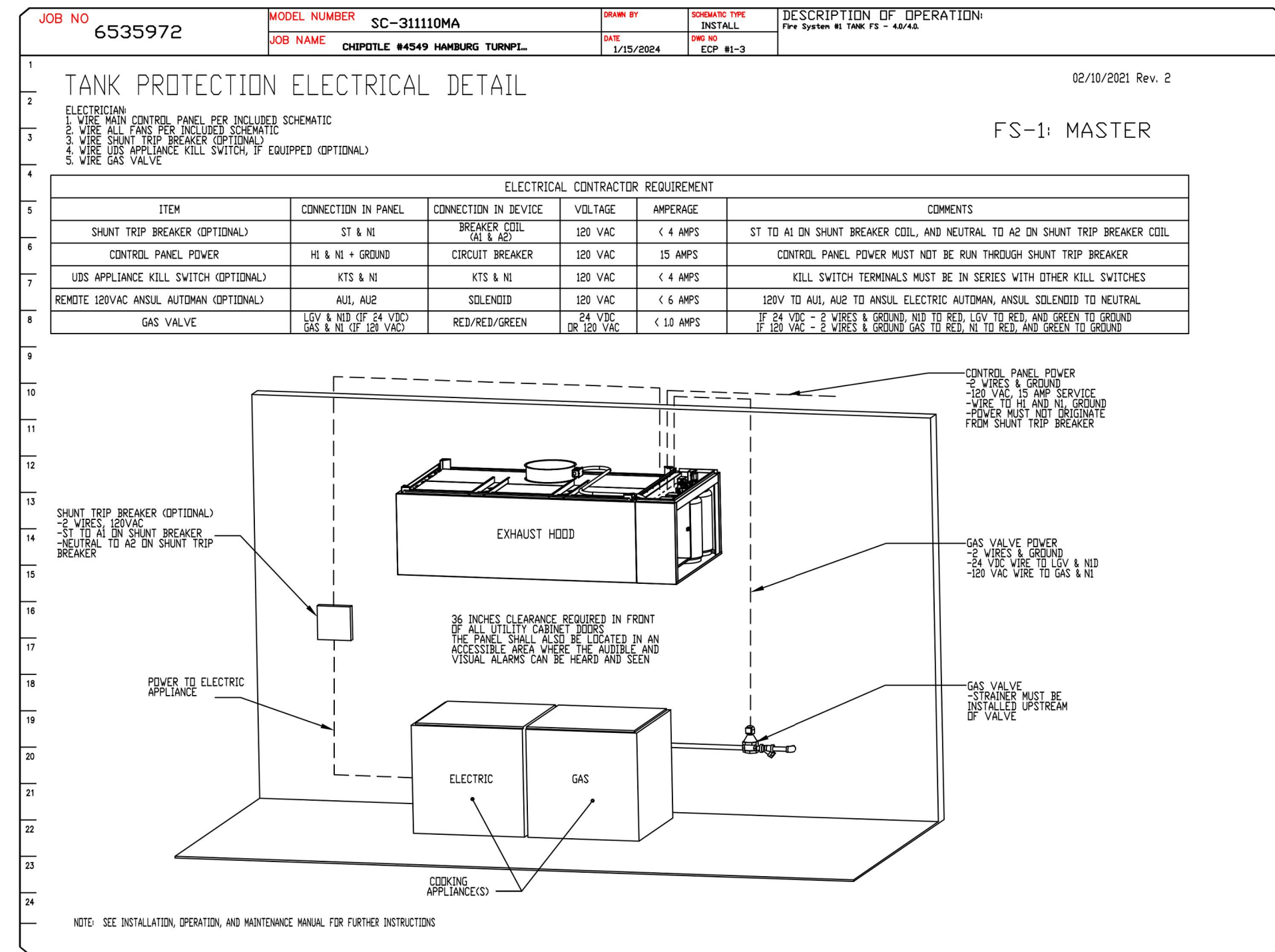
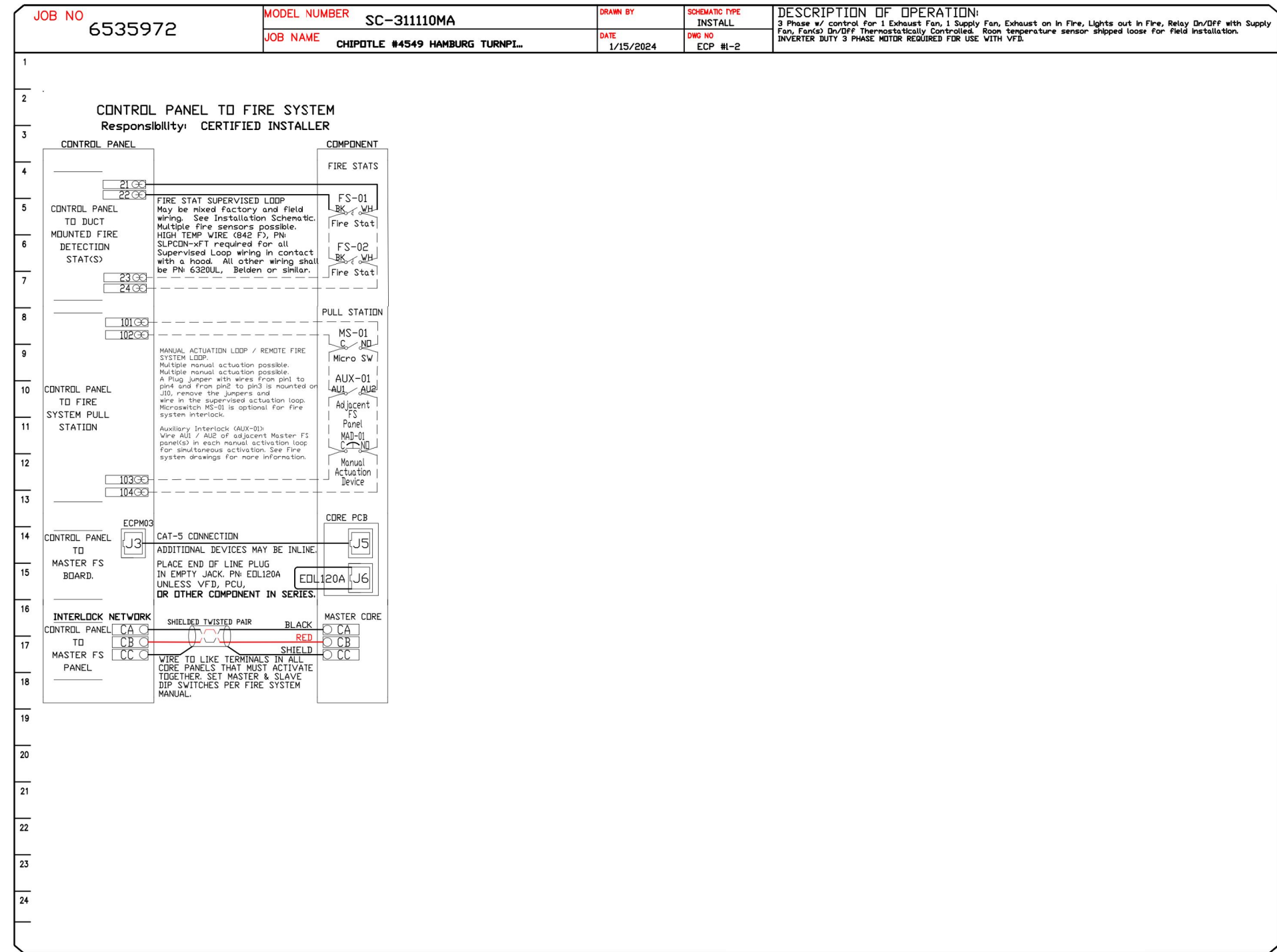
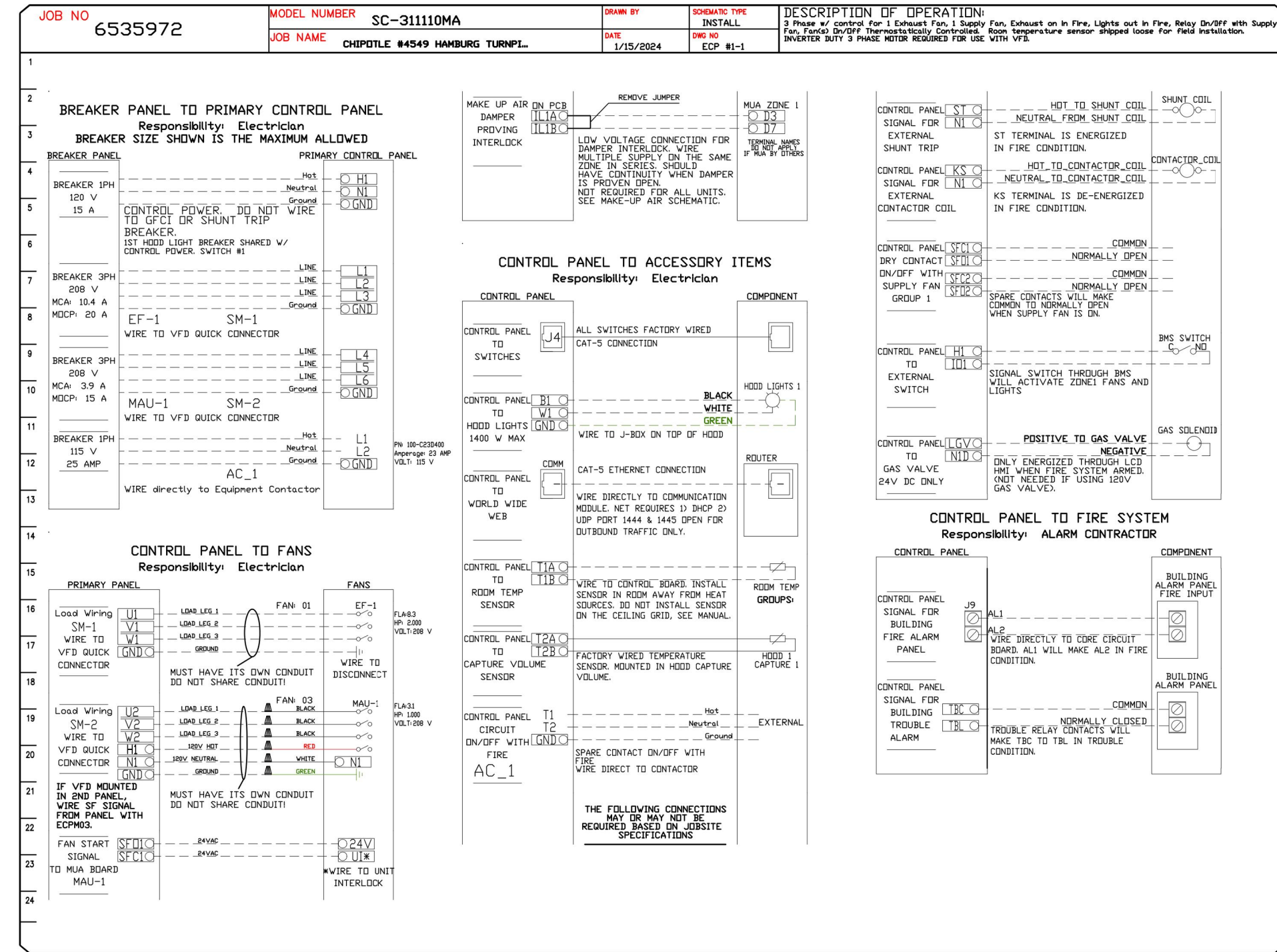


TOP VIEW

HOOD SHOP DRAWING PRODUCED BY MANUFACTURER - FOR REFERENCE ONLY

ELECTRICAL PACKAGE - JOB#6535972

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	HP	VOLT	FLA	
1		SC-31110MA	UTILITY CABINET RIGHT HOOD # 1	UTILITY CABINET RIGHT HOOD # 1	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	EF-1	EXHAUST	3	2,000	208	8.3
					1 FAN		MAU-1	SUPPLY	3	1,000	208	3.1



REVISIONS	
NO.	DESCRIPTION



CHIPOTLE #4549 HAMBURG TURNPIKE, NJ
 1195 Hamburg Turnpike,
 Wayne, NJ, 07470

DATE: 1/15/2024
 DWG.#: 6535972
 DRAWN BY: ZDH
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING

SHEET NO. 4

Consultant:
Polaris
 Consulting Engineers, PC
 214 W. Main Street, Suite 208
 Moorestown, NJ 08057
 (856) 778-5400

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STORE NO.: 4549
 HAMBURG TURNPIKE
 1207 HAMBURG TURNPIKE
 WAYNE, NJ

REV. DATE	DESCRIPTION
02.16.2024	PERMIT SET
05.03.2024	BID SET
08-20-2024	CONSTRUCTION SET

PROFESSIONAL SEAL
 Anthony J. Scalamandre, P.E.
 NJ License #40486

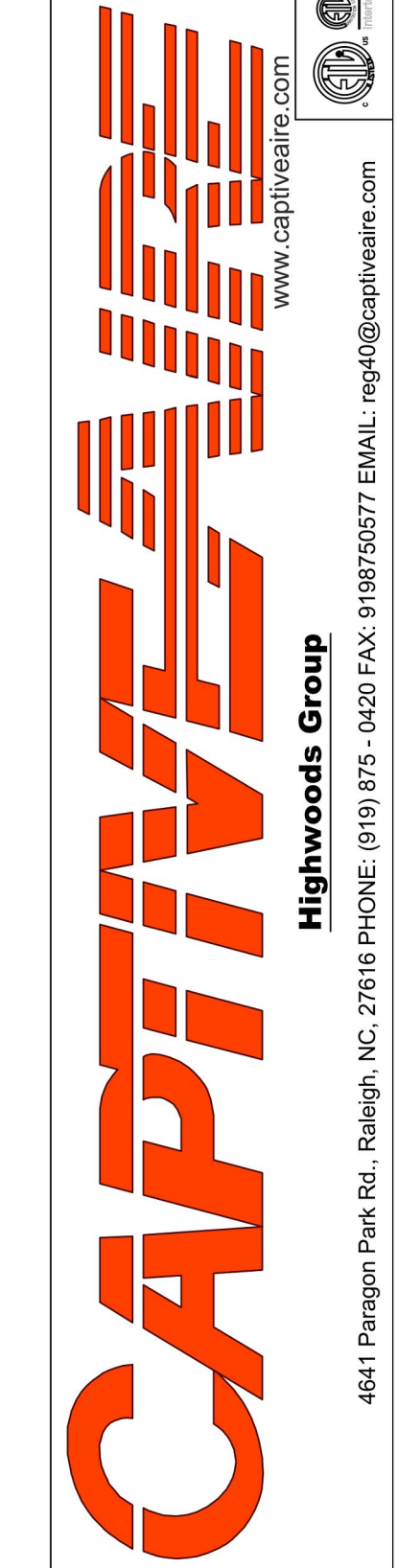
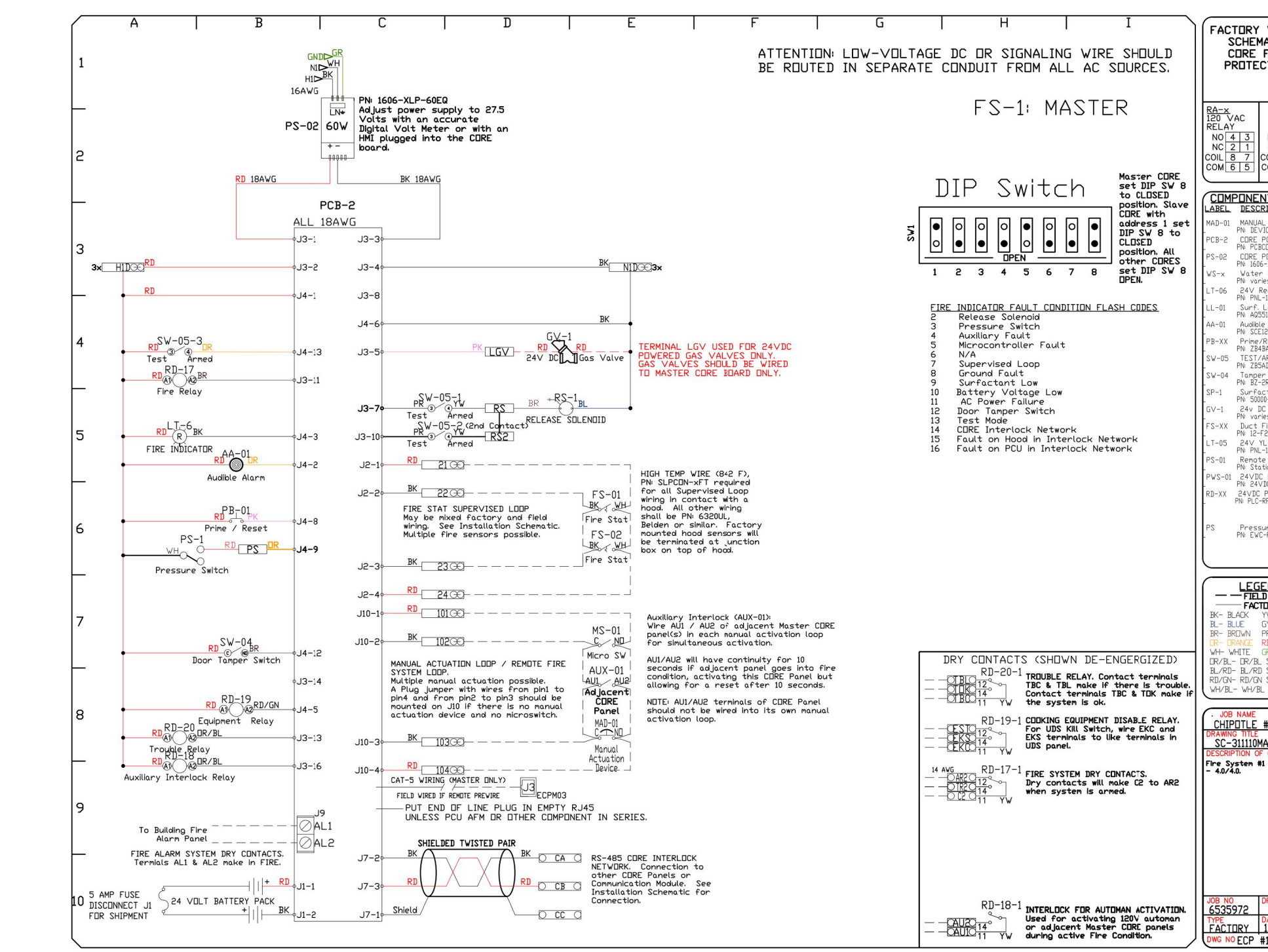
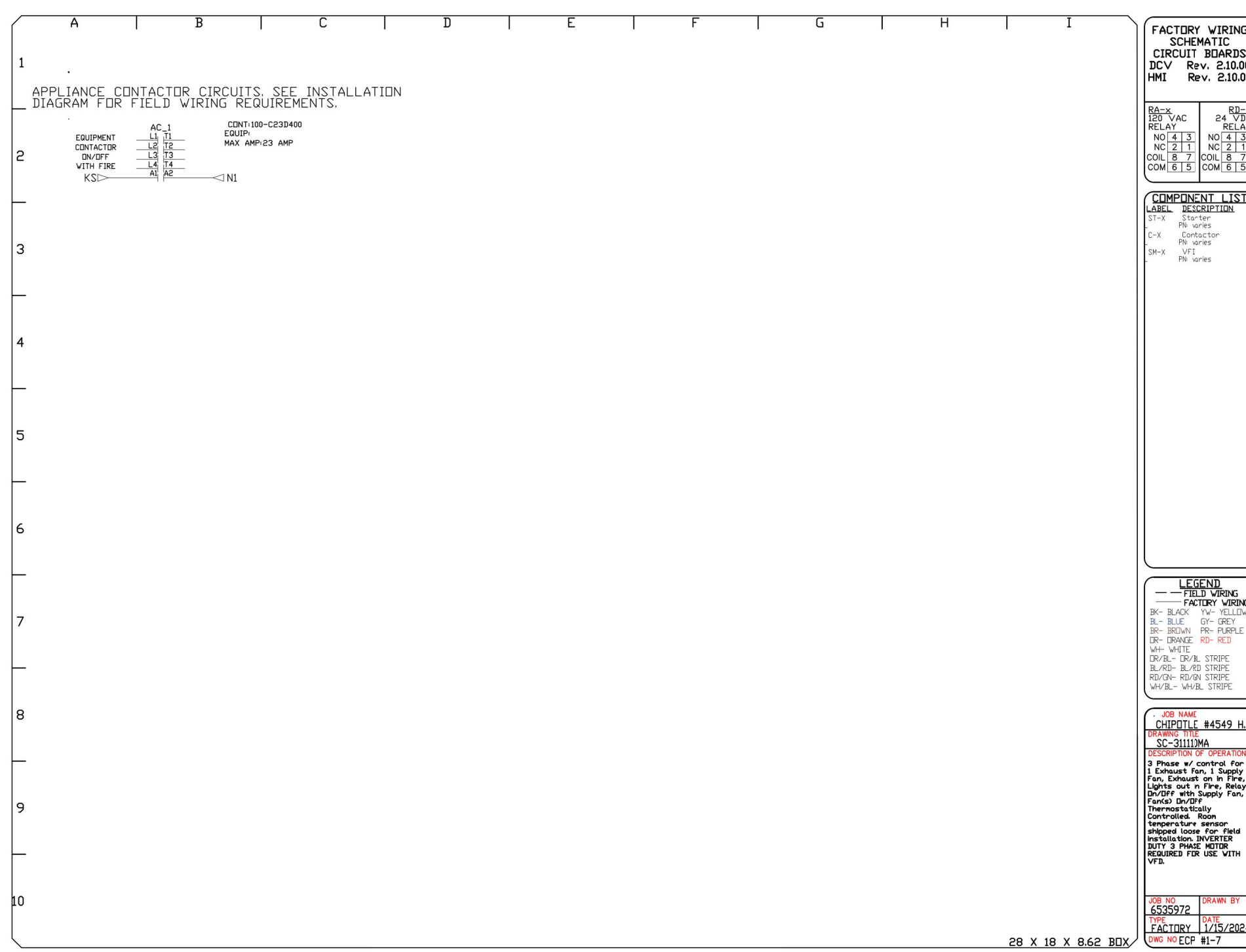
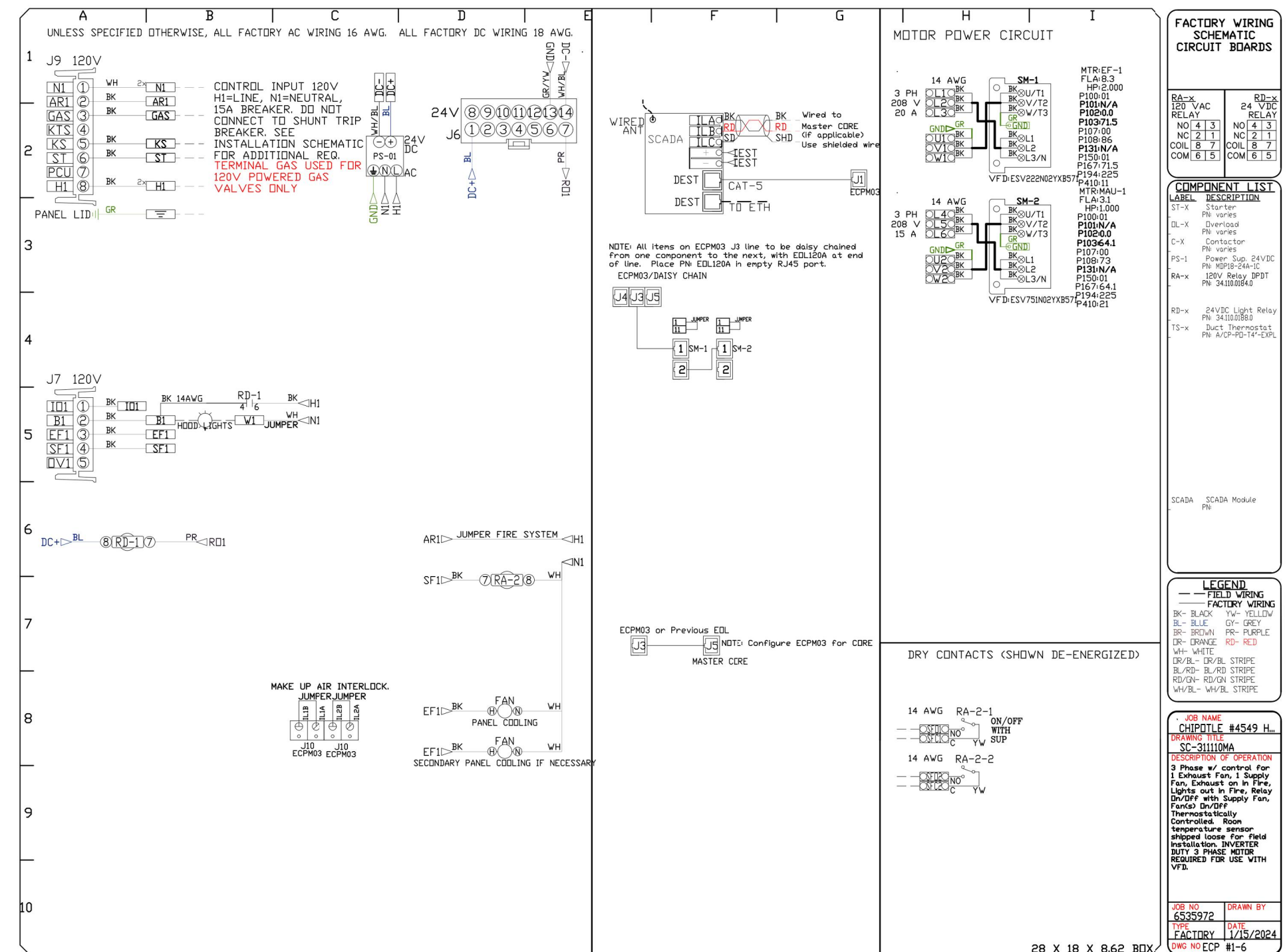
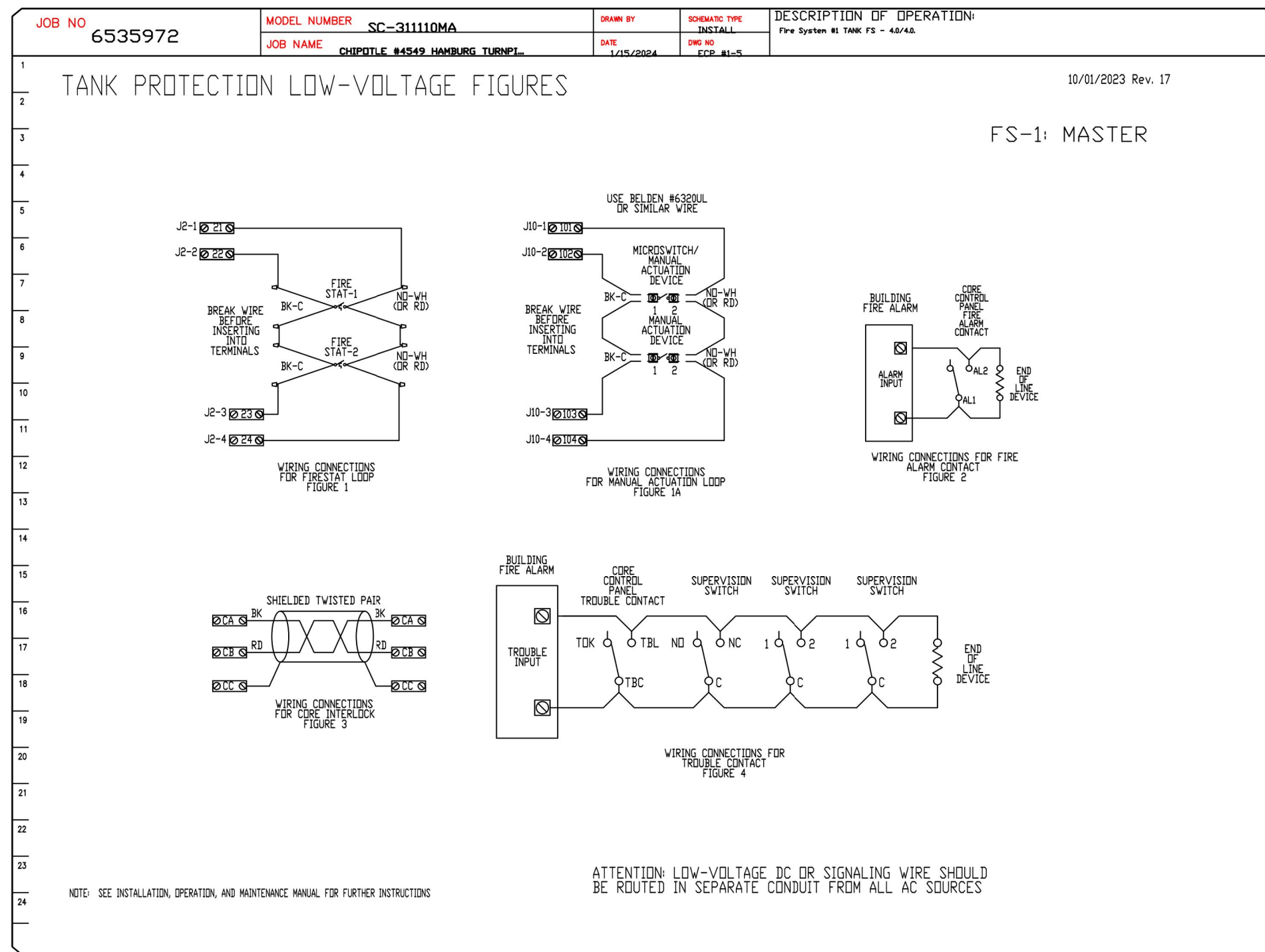
PROFESSIONAL IN CHARGE: Anthony J. Scalamandre, P.E.
 DRAWN BY: PCE
 CHECKED BY: AS
 PROJECT NUMBER: 22045

SHEET TITLE:
 CAPTIVEAIRE DRAWINGS

SHEET NUMBER:
 M-404

HOOD SHOP DRAWING PRODUCED BY
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REVISIONS	
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CHIPOTLE #4549 HAMBURG TURNPIKE, NJ
1195 Hamburg Turnpike,
Wayne, NJ, 07470

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SHEET NO.
5

Consultant:
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HAMBURG TURNPIKE
1207 HAMBURG TURNPIKE
WAYNE, NJ

REV. DATE	DESCRIPTION
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3 08.20.2024	CONSTRUCTION SET

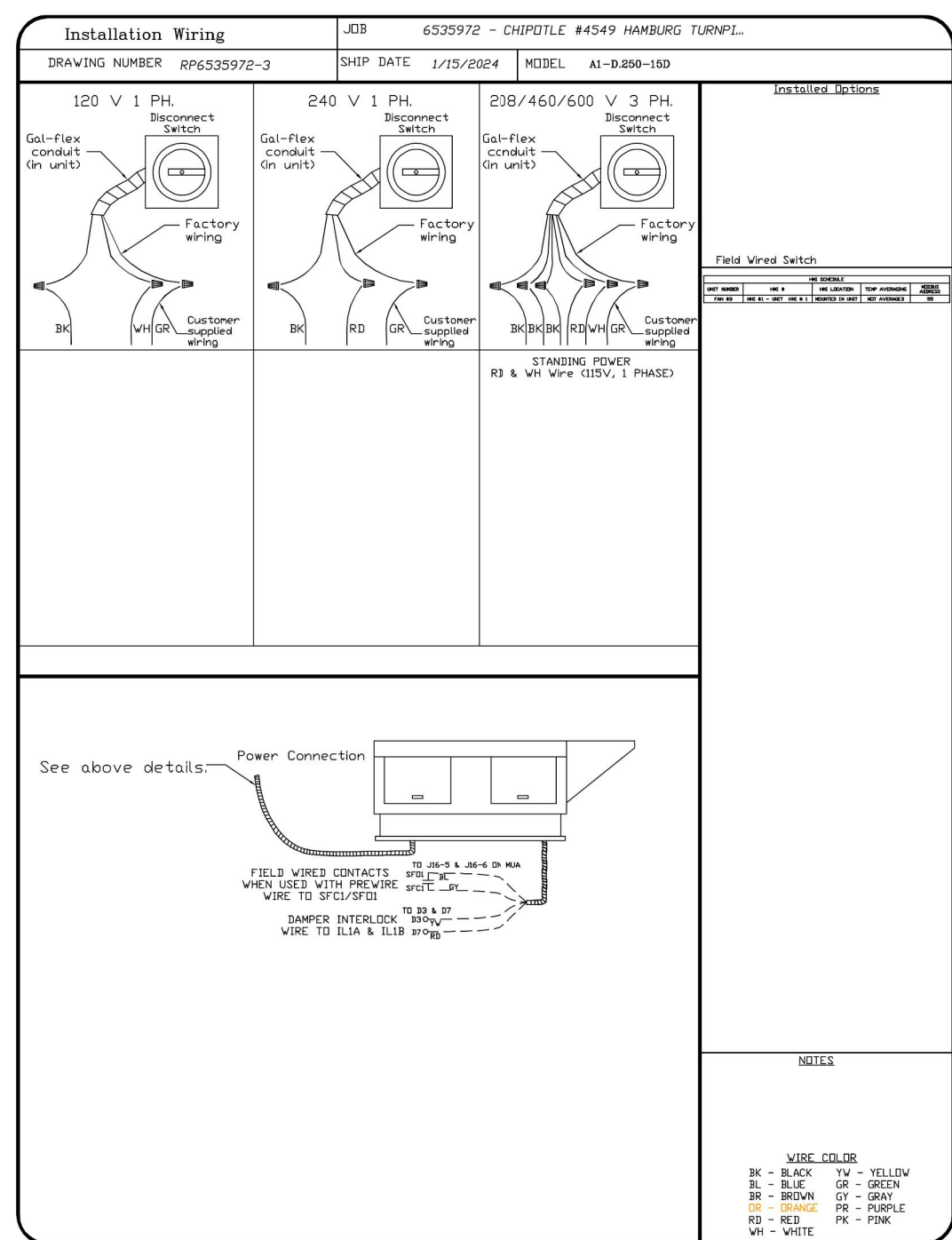
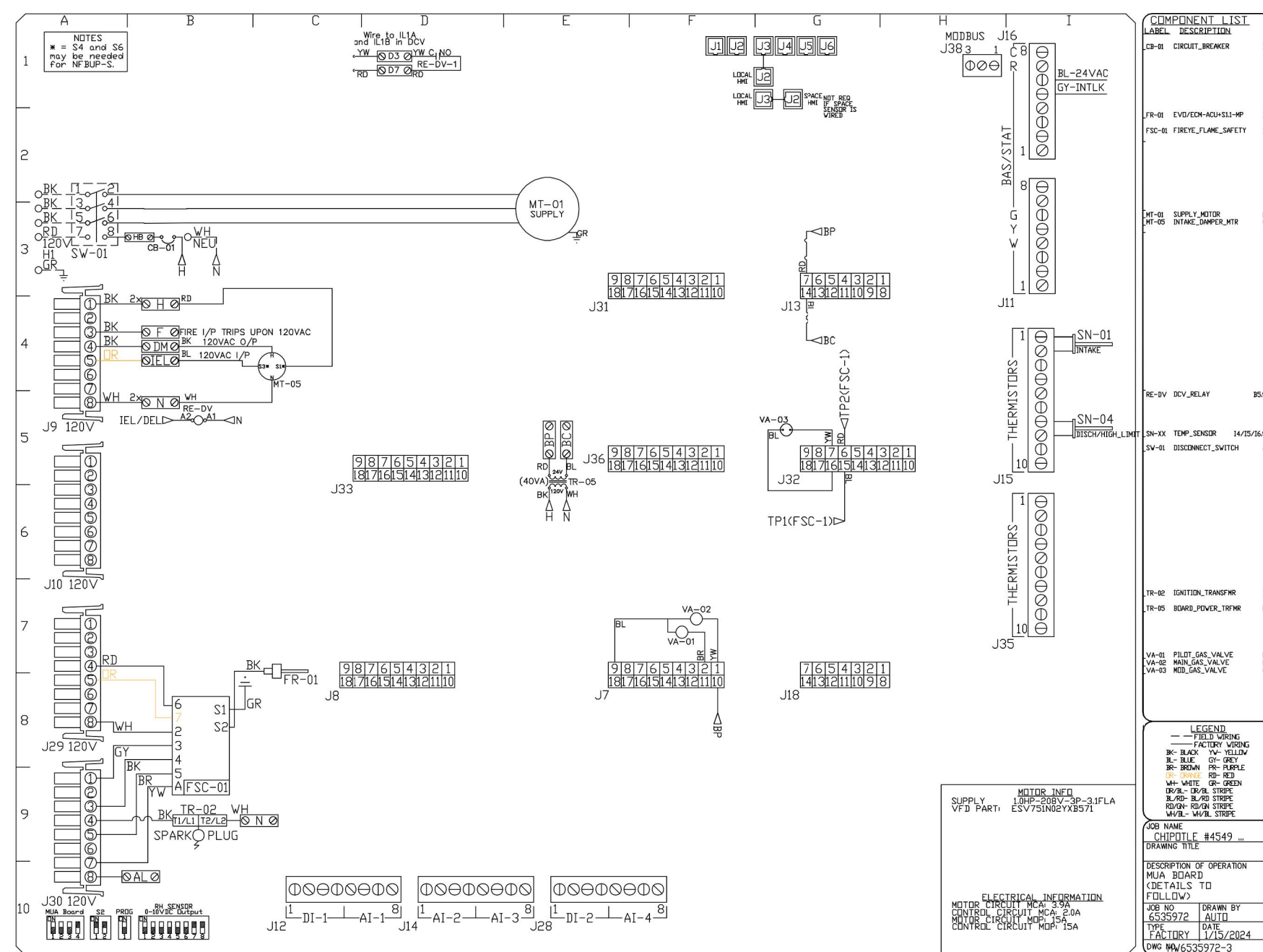
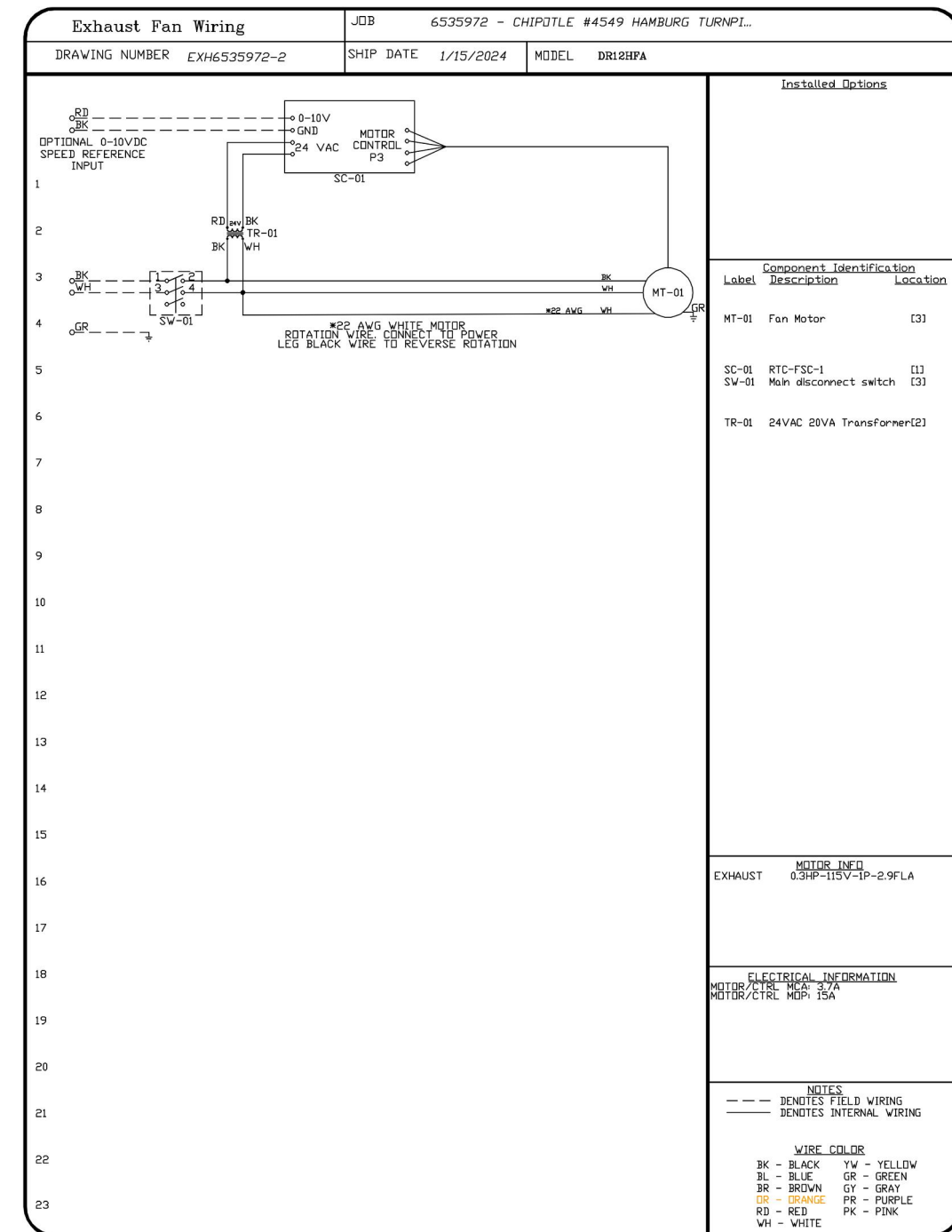
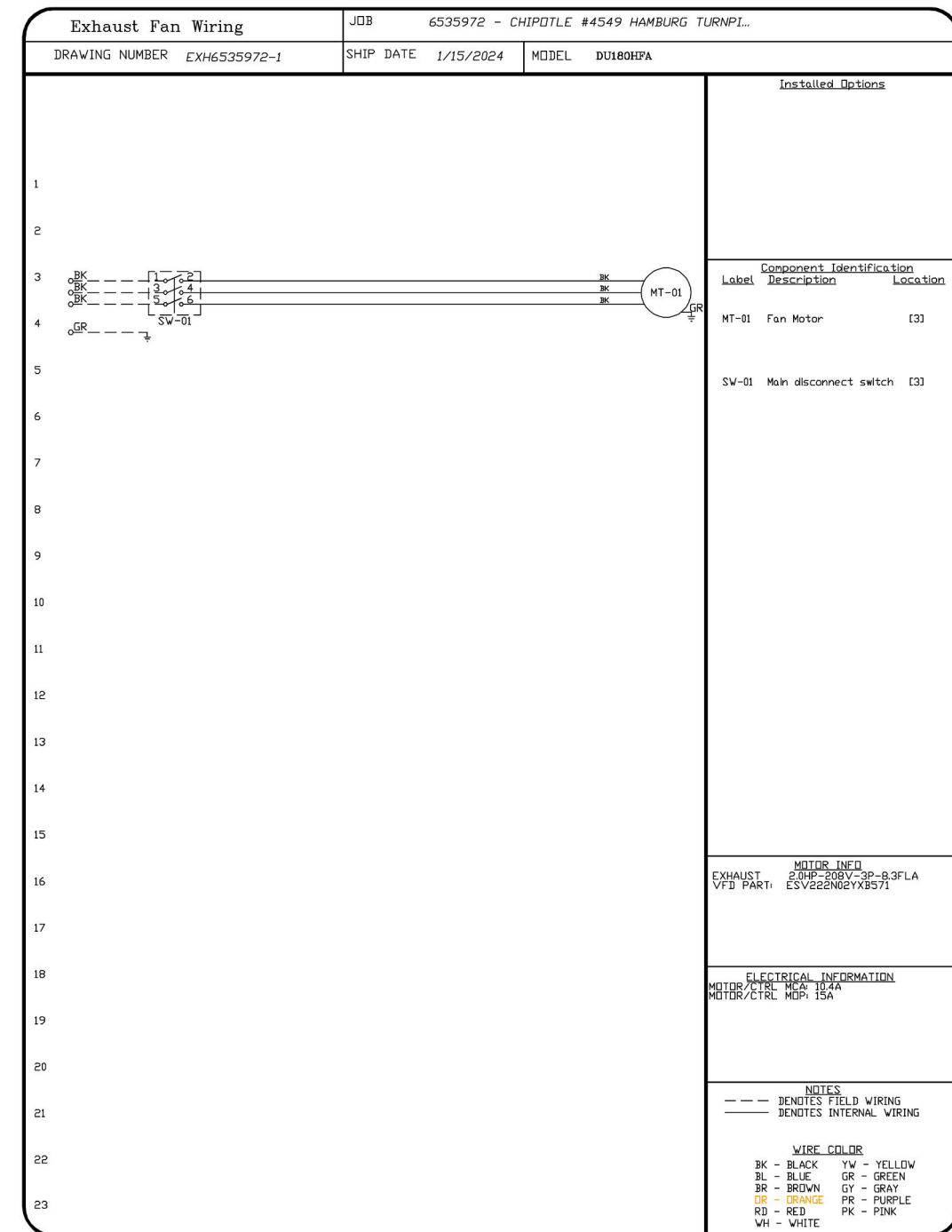
PROFESSIONAL SEAL
Anthony J. Scalamandre, P.E.
NJ License #40486

PROFESSIONAL IN CHARGE: Anthony J. Scalamandre, P.E.
DRAWN BY: ZDH
PROJECT NUMBER:
22045

SHEET TITLE:
CAPTIVEAIRE
DRAWINGS

SHEET NUMBER:
M-405

HOOD SHOP DRAWING PRODUCED BY
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REVISIONS

NO.	DESCRIPTION	DATE

CAPTIVE
Highwoods Group
4611 Paragon Park Rd., Raleigh, NC 27616 PHONE: (919) 875-0020 FAX: 9198750877 EMAIL: neg40@captivate.com

CHIPOTLE #4549 HAMBURG TURNPIKE, NJ
1195 Hamburg Turnpike,
Wayne, NJ, 07470

DATE: 1/15/2024
DWG.#: 6535972
DRAWN BY: ZDH
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 6

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HAMBURG TURNPIKE
1207 HAMBURG TURNPIKE
WAYNE, NJ

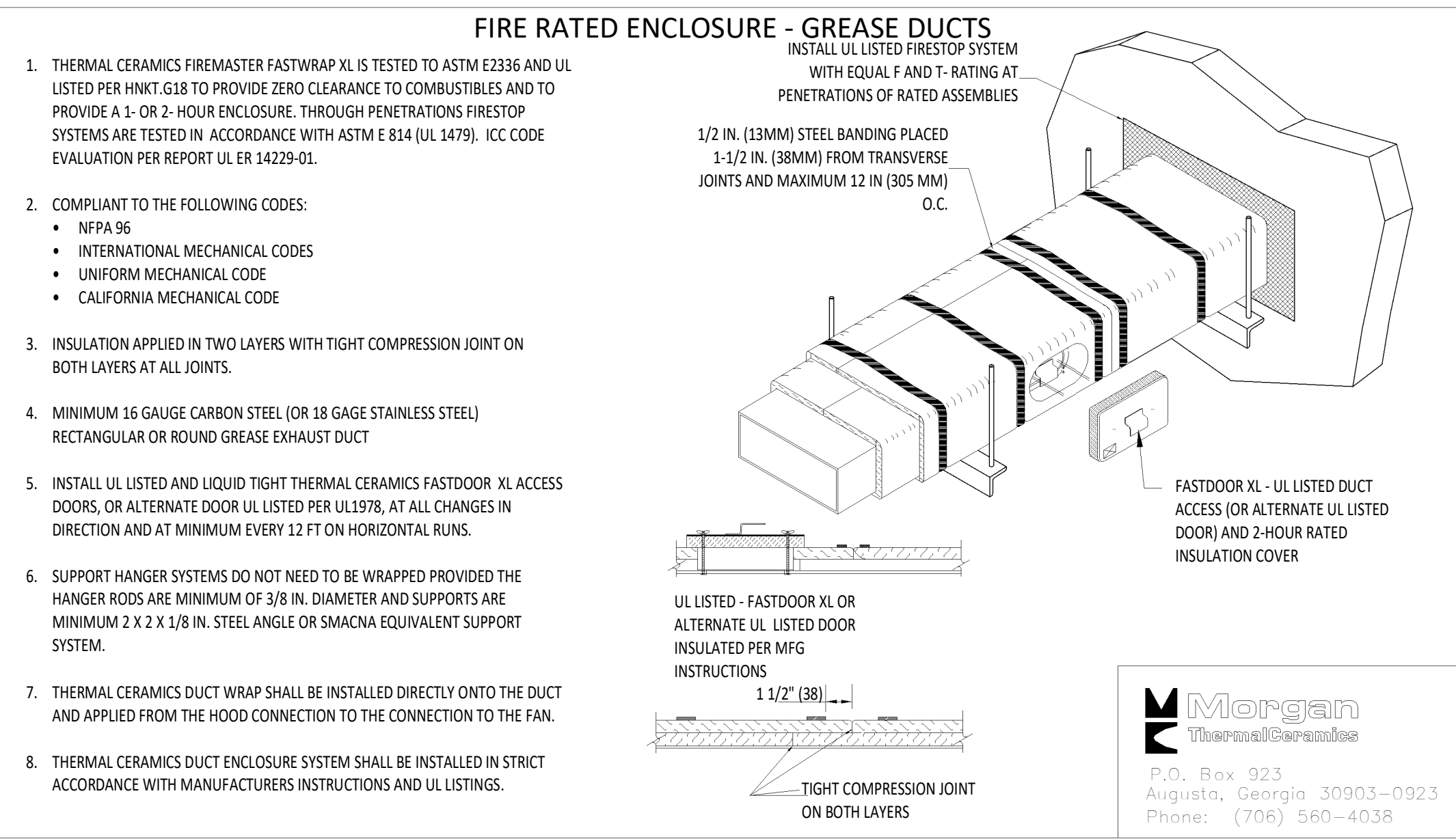
REV. DATE	DESCRIPTION
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Anthony J. Scalomandre, P.E.
NJ License #40486

PROFESSIONAL IN CHARGE: Anthony J. Scalomandre, P.E.
DRAWN BY: PCE
CHECKED BY: AIS
PROJECT NUMBER:
22045

SHEET TITLE:
CAPTIVEAIRE
DRAWINGS

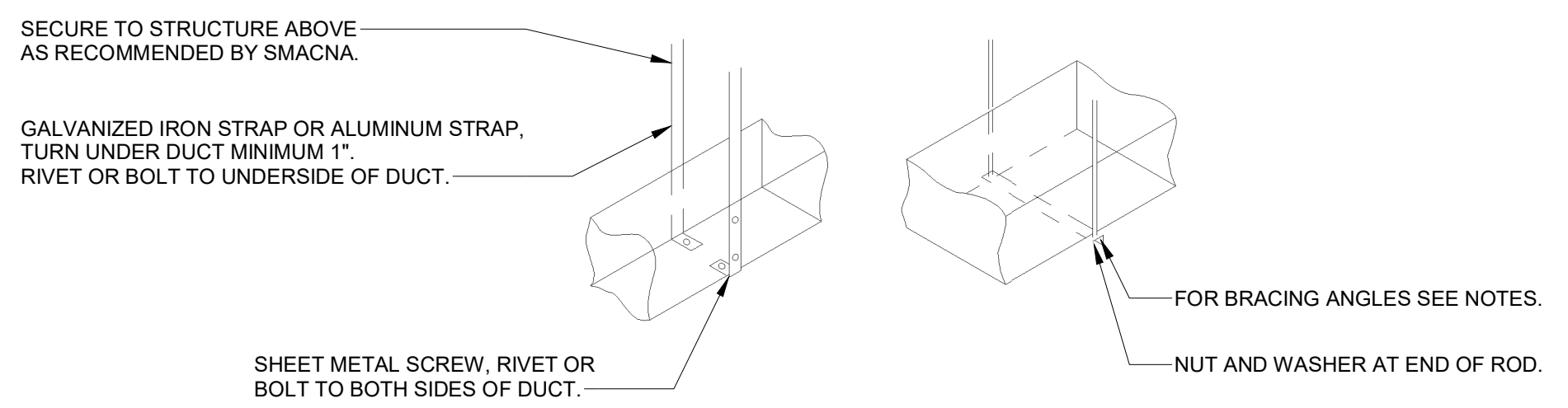
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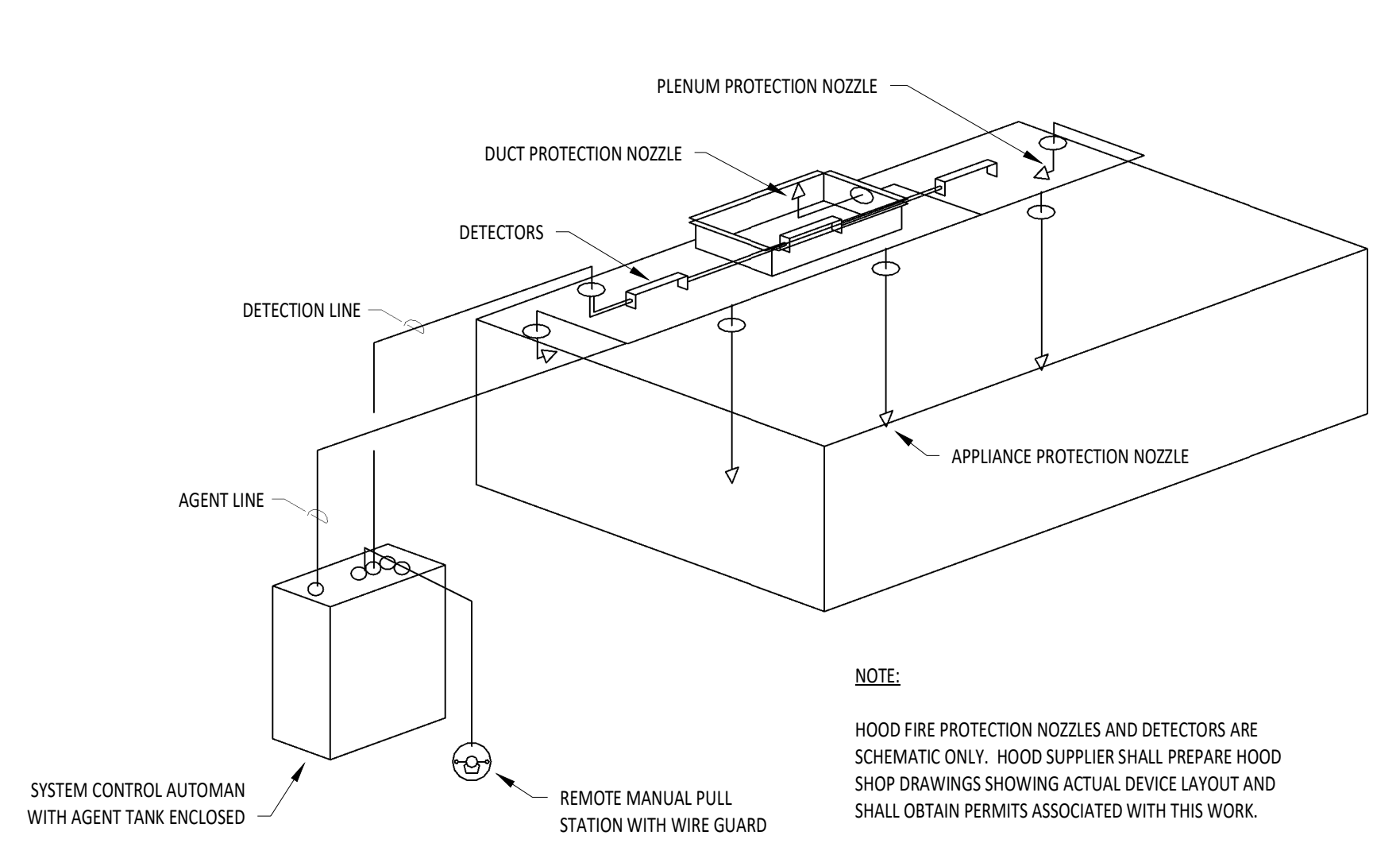
1 FIREMASTER DUCT WRAP - UL HNK1-G18 NOT TO SCALE

RECTANGULAR DUCT HANGER SCHEDULE (MINIMUM SIZES)

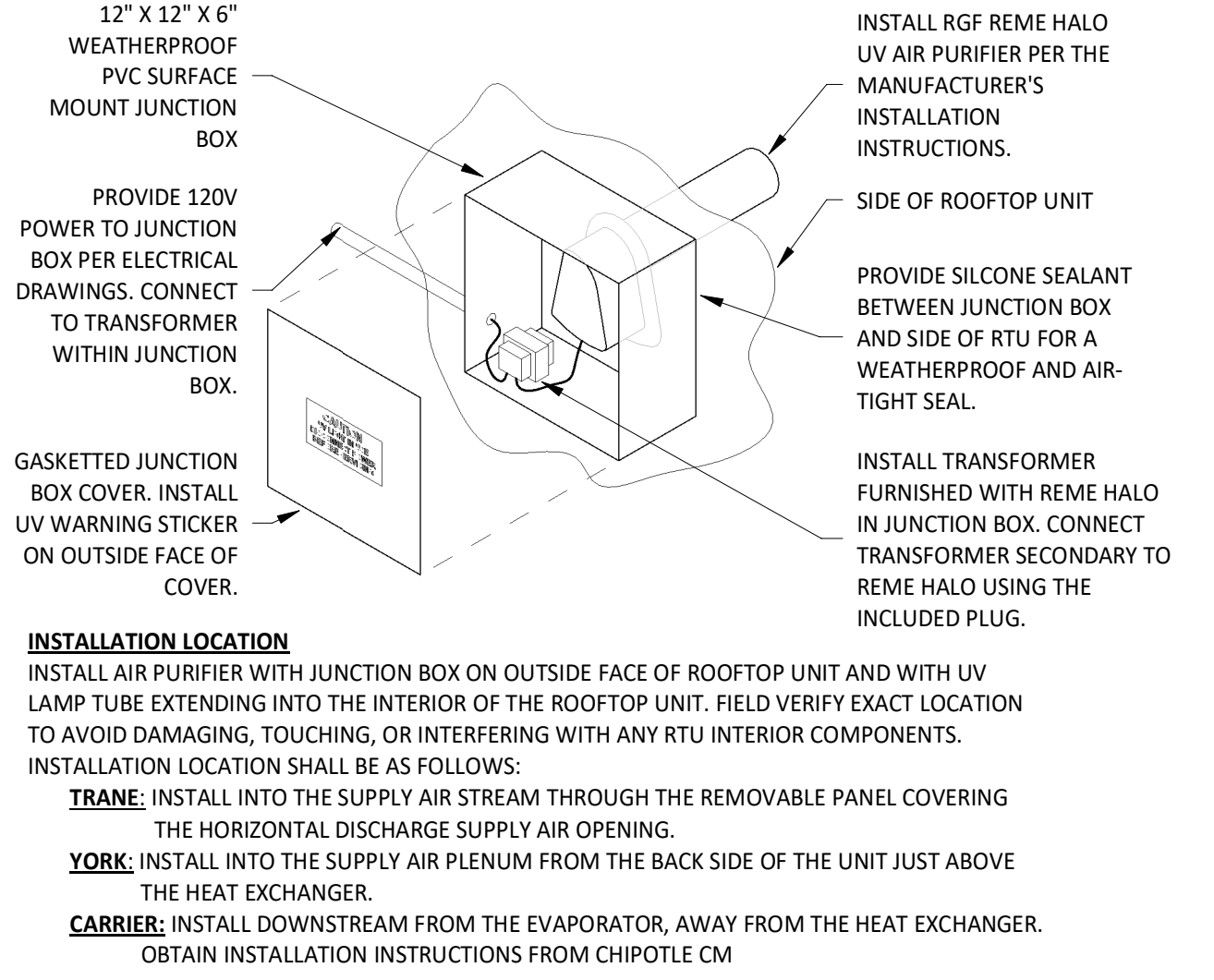
HALF DUCT PERIMETER RANGE	PAIR AT 10' SPACING		PAIR AT 8' SPACING		PAIR AT 5' SPACING		PAIR AT 4' SPACING	
	STRAP	WIRE/ROD	STRAP	WIRE/ROD	STRAP	WIRE/ROD	STRAP	WIRE/ROD
P/2<30"	1"x22 GA.	10 GA. (0.135")	1"x22 GA.	10 GA. (0.135")	1"x22 GA.	12 GA. (0.106")	1"x22 GA.	12 GA. (0.106")
P/2<72"	1"x18 GA.	3/8"	1"x20 GA.	1/4"	1"x22 GA.	1/4"	1"x22 GA.	1/4"
P/2<96"	1"x16 GA.	3/8"	1"x18 GA.	3/8"	1"x20 GA.	3/8"	1"x22 GA.	1/4"
P/2<120"	1-1/2"x16 GA.	1/2"	1"x16 GA.	3/8"	1"x18 GA.	3/8"	1"x20 GA.	1/4"
P/2<168"	1-1/2"x16 GA.	1/2"	1"x16 GA.	1/2"	1"x16 GA.	3/8"	1"x18 GA.	3/8"
P/2<192"	-	1/2"	1-1/2"x16 GA.	1/2"	1"x16 GA.	3/8"	1"x16 GA.	3/8"



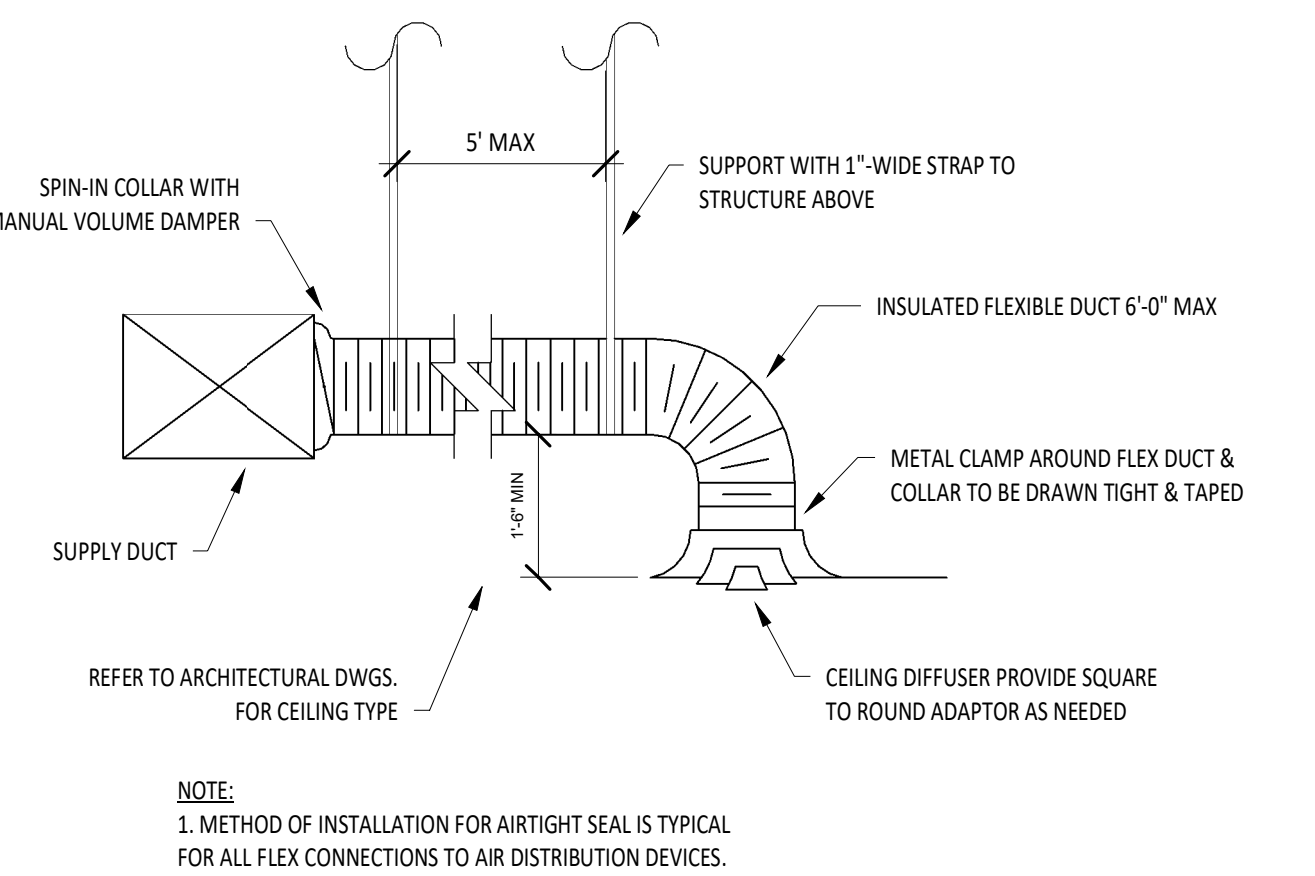
3 HVAC - DUCT HANGER DETAILS NOT TO SCALE



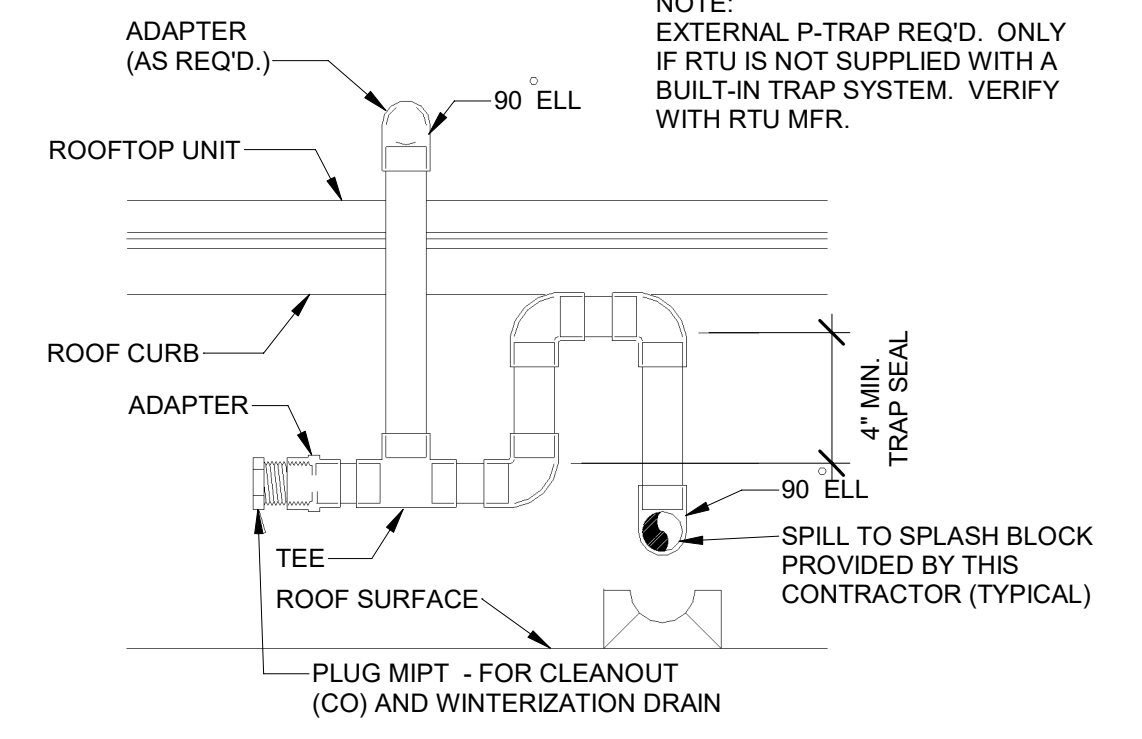
4 HVAC - FIRE SUPPRESSION SYSTEM SCHEMATIC NOT TO SCALE



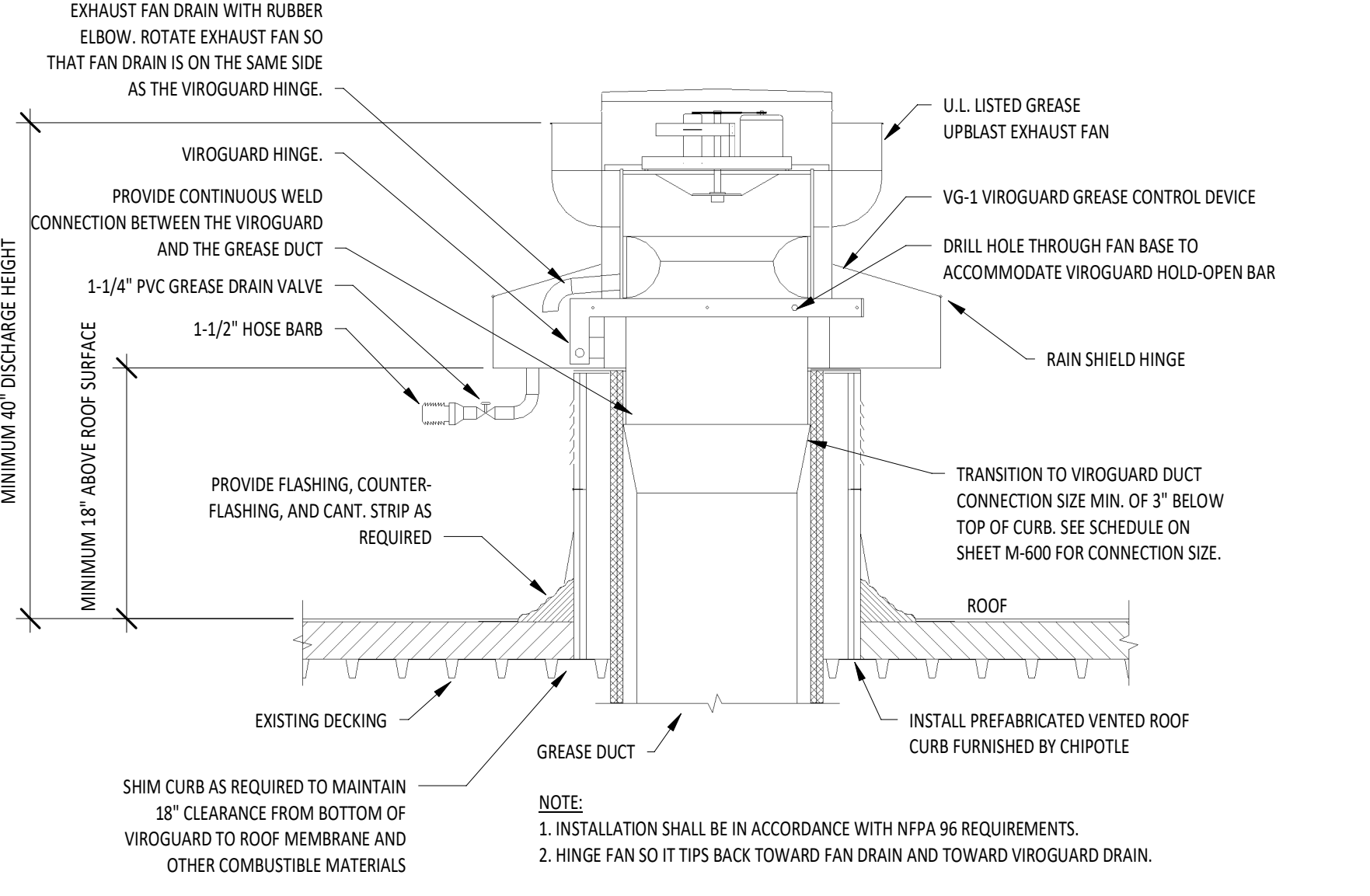
5 UV AIR PURIFIER INSTALLATION NOT TO SCALE



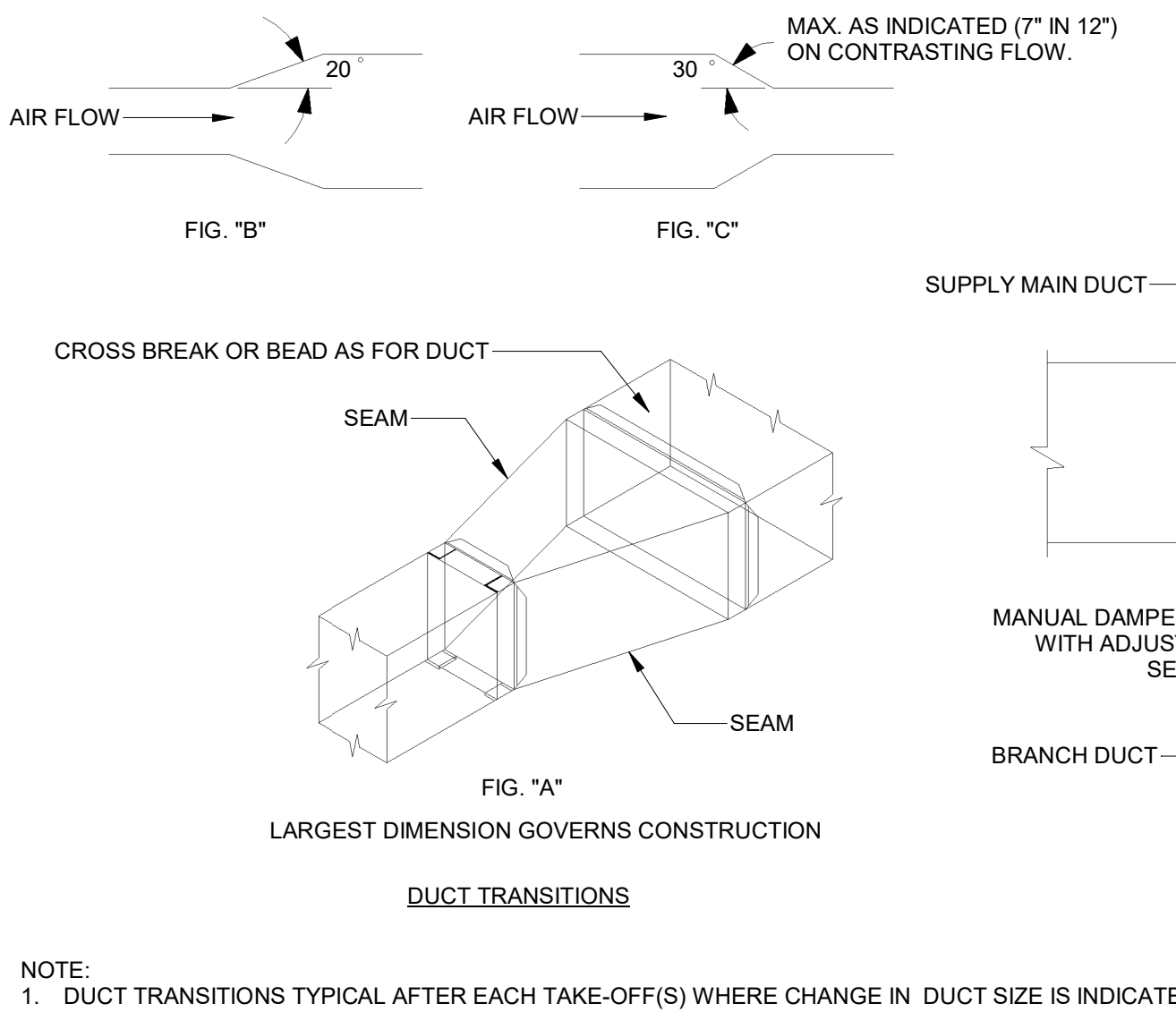
6 HVAC - DIFFUSER CONNECTION NOT TO SCALE



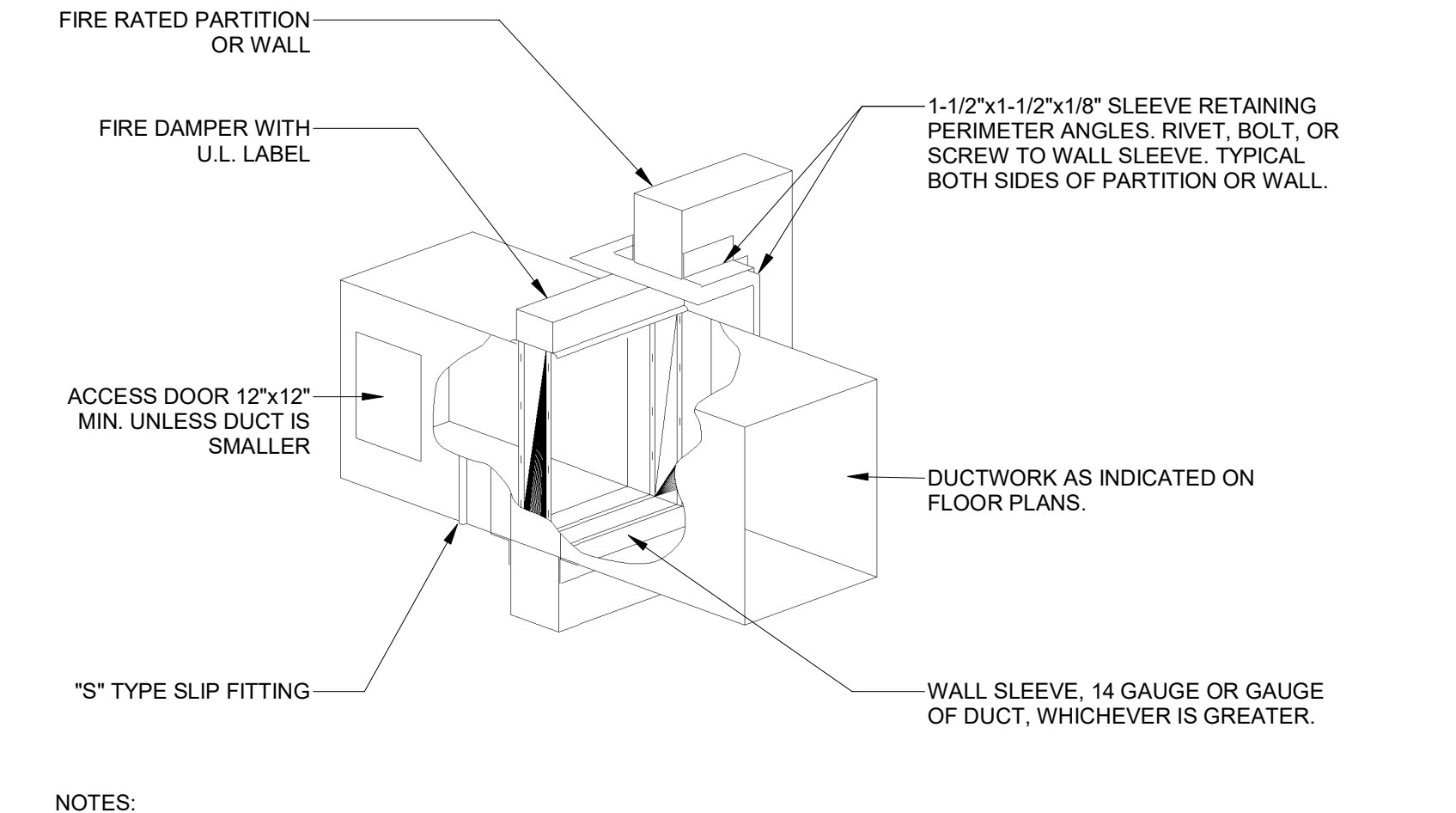
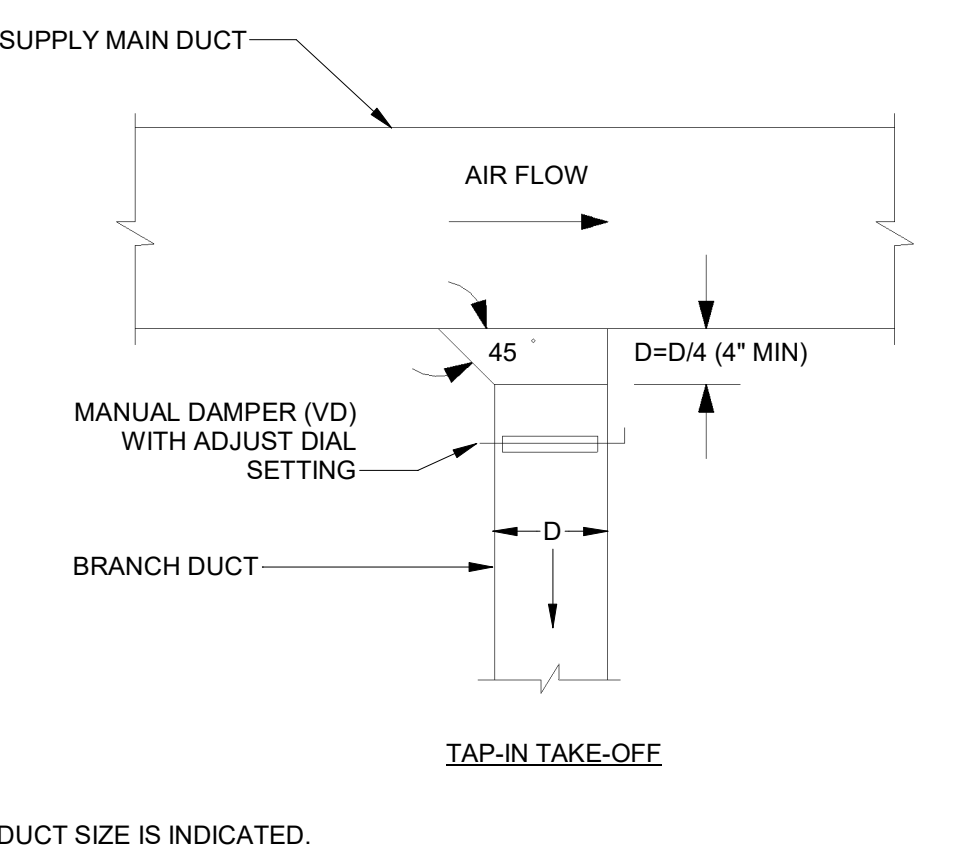
7 HVAC - CONDENSATE PIPING FROM RTU NOT TO SCALE



8 GREASE EXHAUST FAN NOT TO SCALE



9 HVAC - DUCT TRANSITION DETAILS NOT TO SCALE



10 HVAC - FIRE DAMPER DETAIL NOT TO SCALE

2023-DB#4/P#1-4

Consultant:

Polaris
Consulting Engineers, PC

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Moorestown, NJ 08057
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STORE NO.: 4549
HAMBURG TURNPIKE
1207 HAMBURG TURNPIKE
WAYNE, NJ

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PROFESSIONAL SEAL

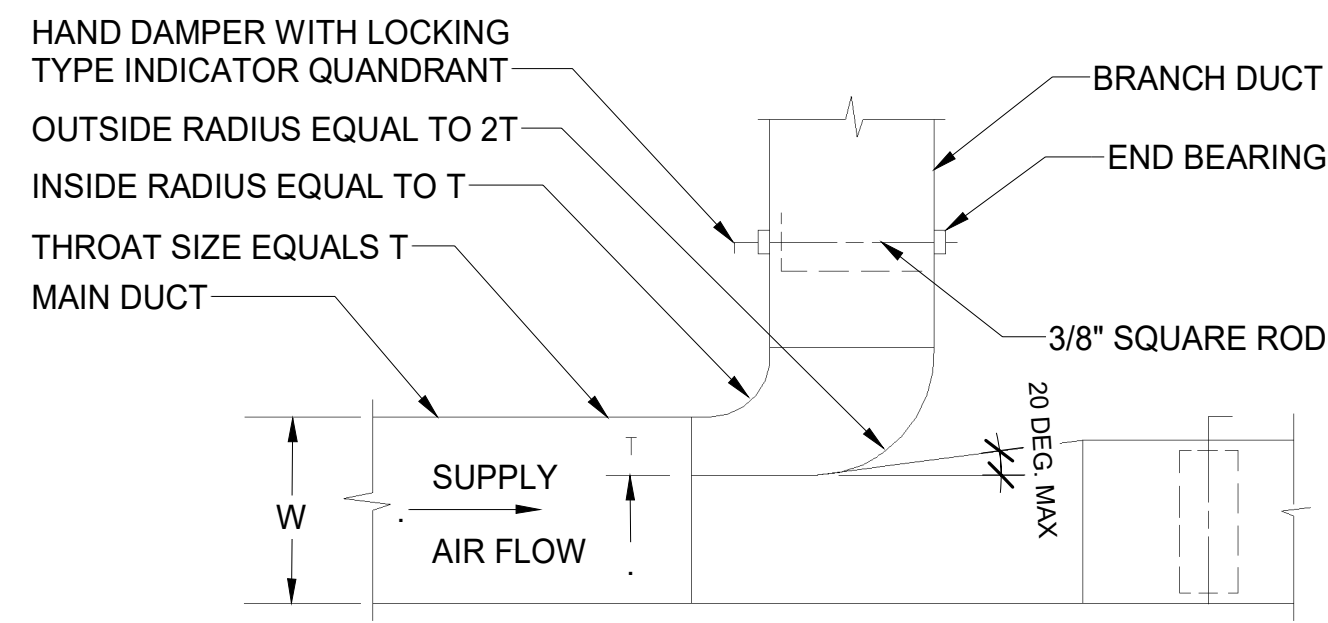
Anthony J. Scalamandre, P.E.
NJ License #40486

PROFESSIONAL IN CHARGE: Anthony J. Scalamandre, P.E.
DRAWN BY: PCE
CHECKED BY: AIS

PROJECT NUMBER:
22045

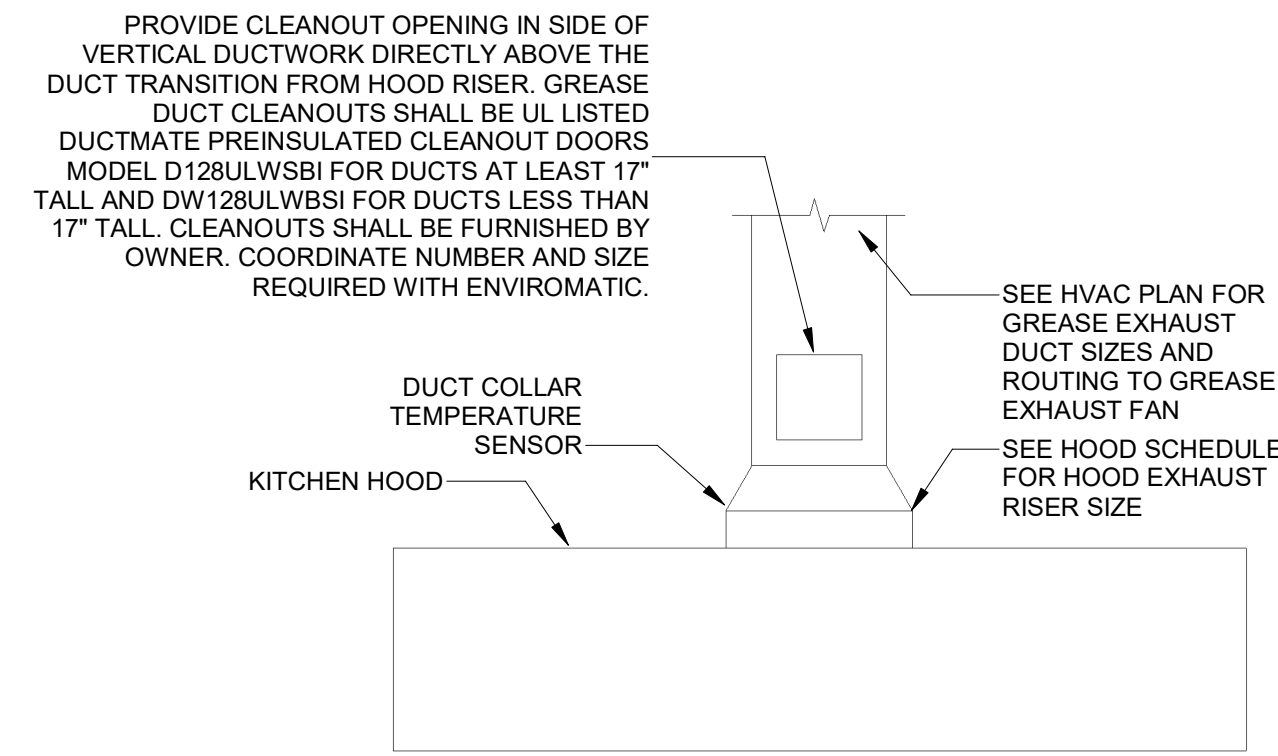
SHEET TITLE:
HVAC DETAILS

SHEET NUMBER:
M-700

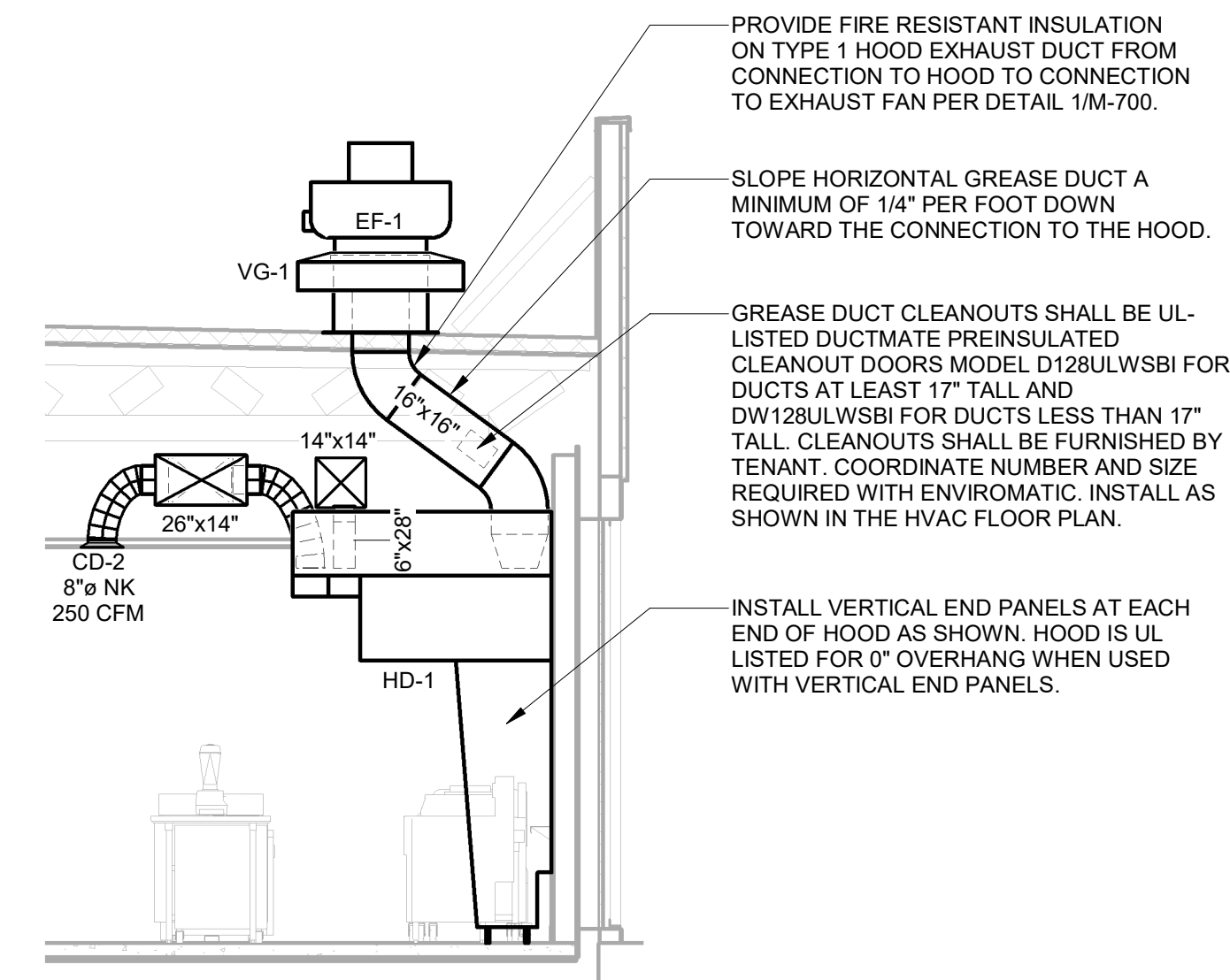


- NOTES:
- FURNISH THIS TYPE CONNECTION FOR BRANCHES WITH MORE THAN 200 CFM.
 - MUST BE USED WHEN W IS GREATER THAN, OR EQUAL TO 36".
 - MINIMUM T = 4".

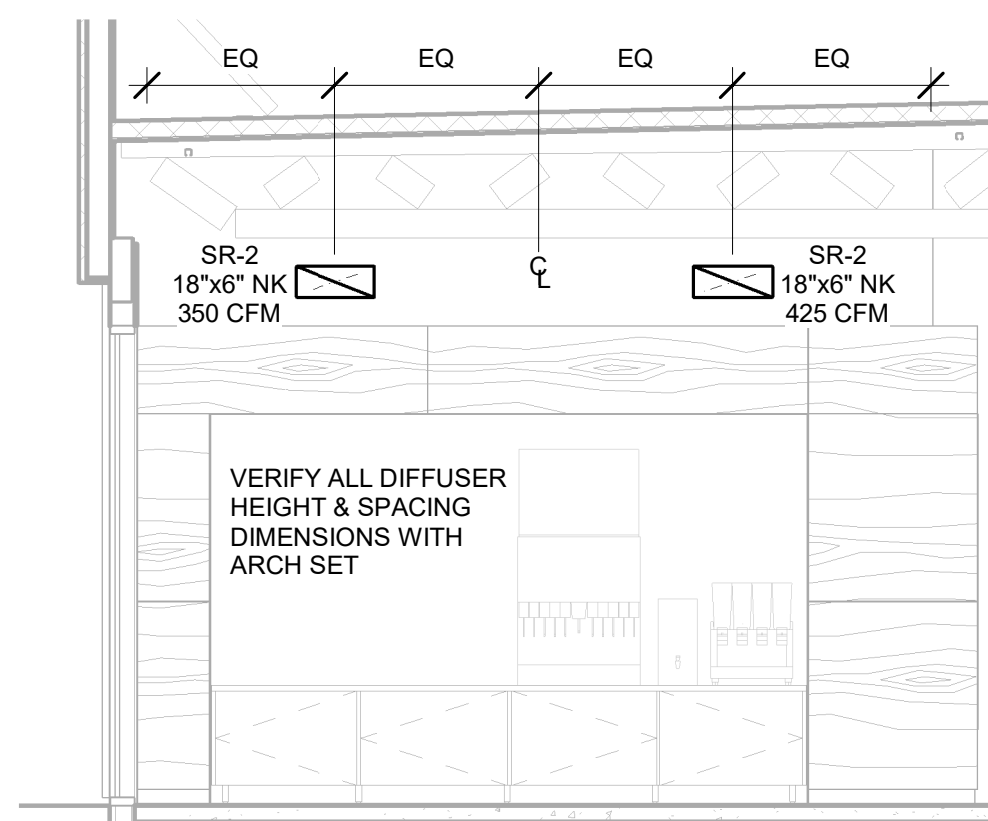
① HVAC - RECTANGULAR DUCT BRANCH
NOT TO SCALE



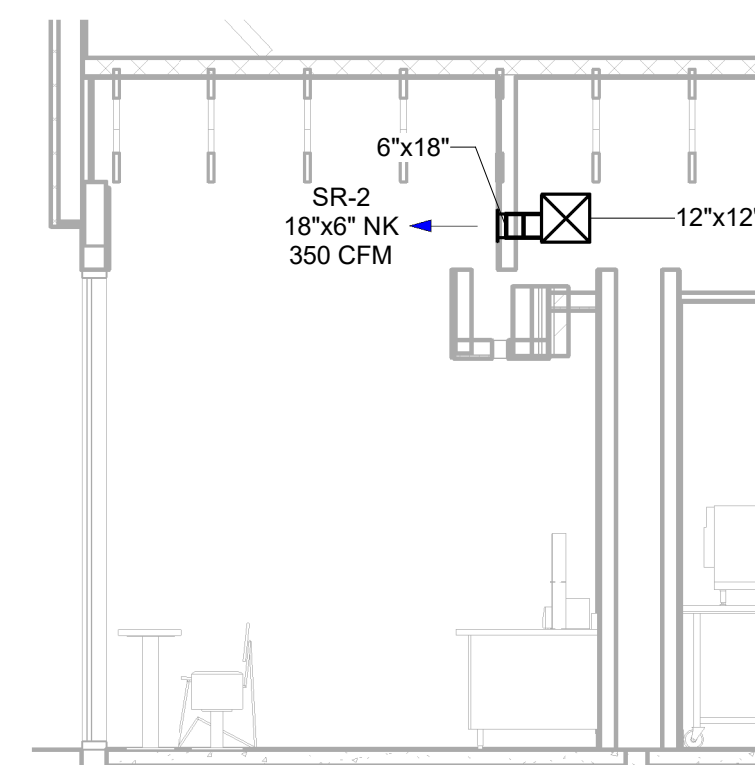
② HVAC - GREASE EXHAUST DUCT AT HOOD
NOT TO SCALE



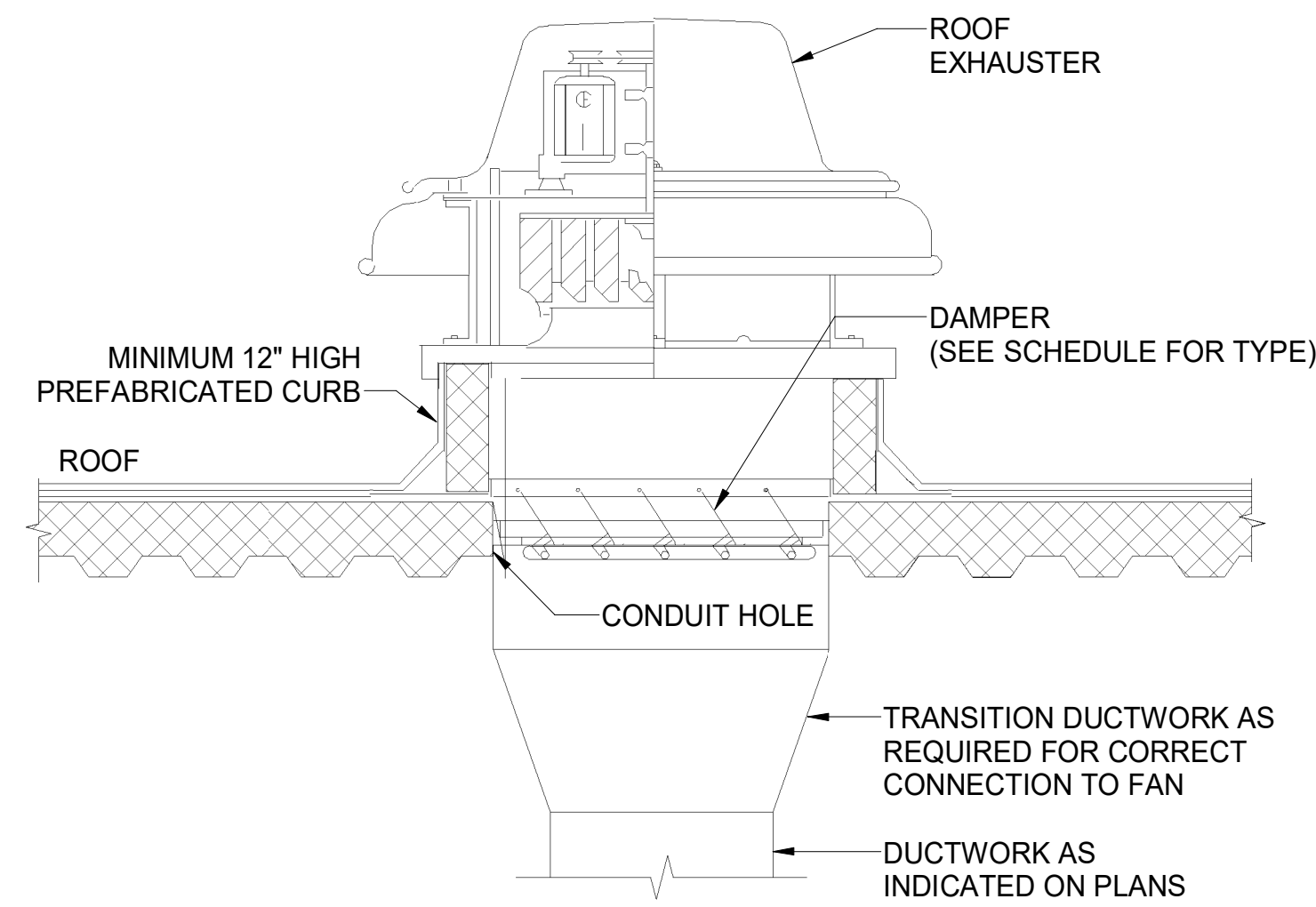
③ HVAC - HOOD DUCTWORK SECTION
1/4" = 1'-0"



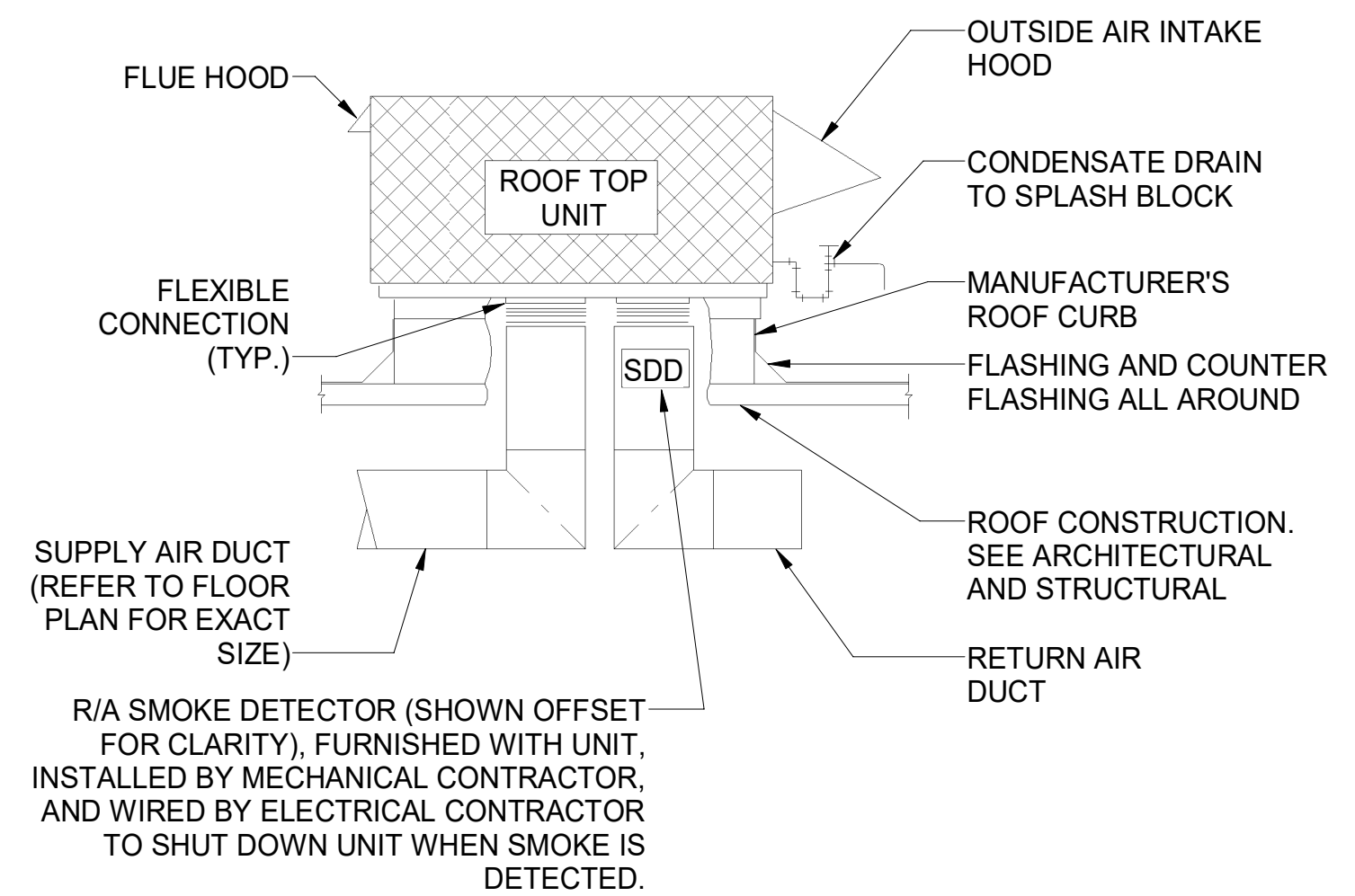
④ HVAC - UTENSIL COUNTER DUCTWORK SECTION 'A'
1/4" = 1'-0"



⑤ HVAC - UTENSIL COUNTER DUCTWORK SECTION 'B'
1/4" = 1'-0"

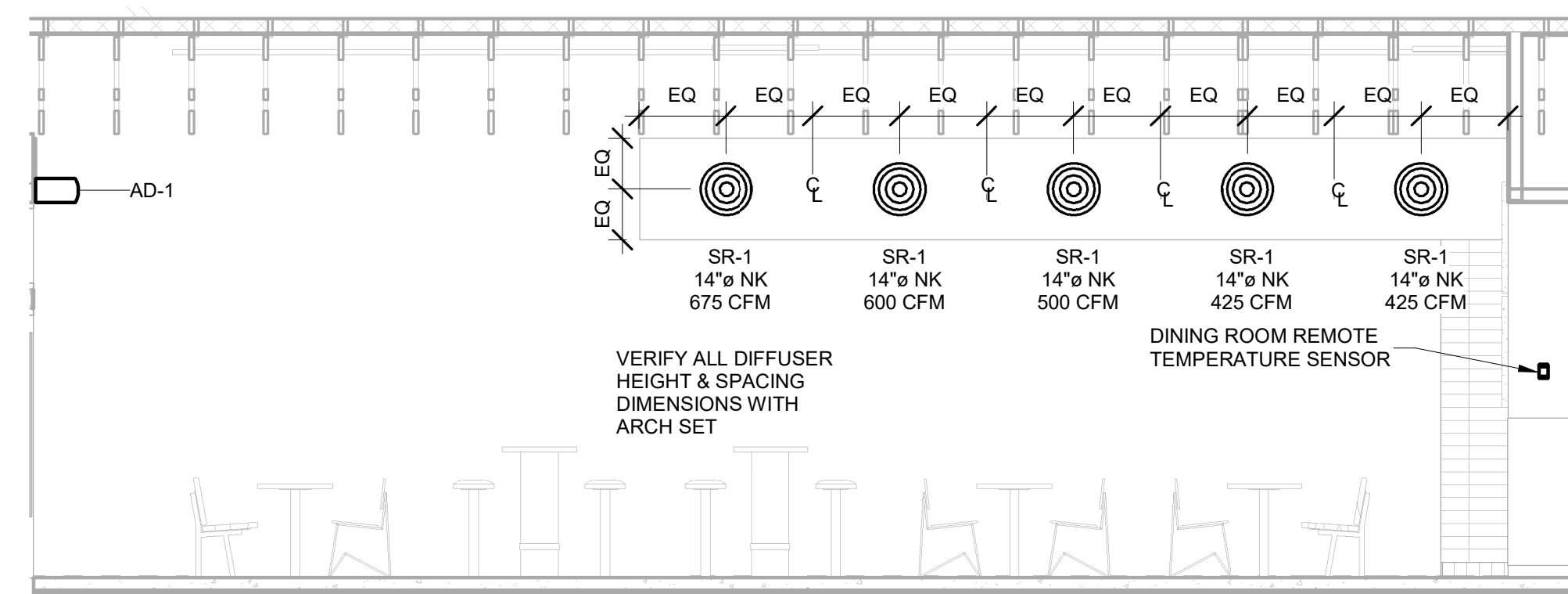


⑥ HVAC - ROOF MOUNTED EXHAUST FAN
NOT TO SCALE

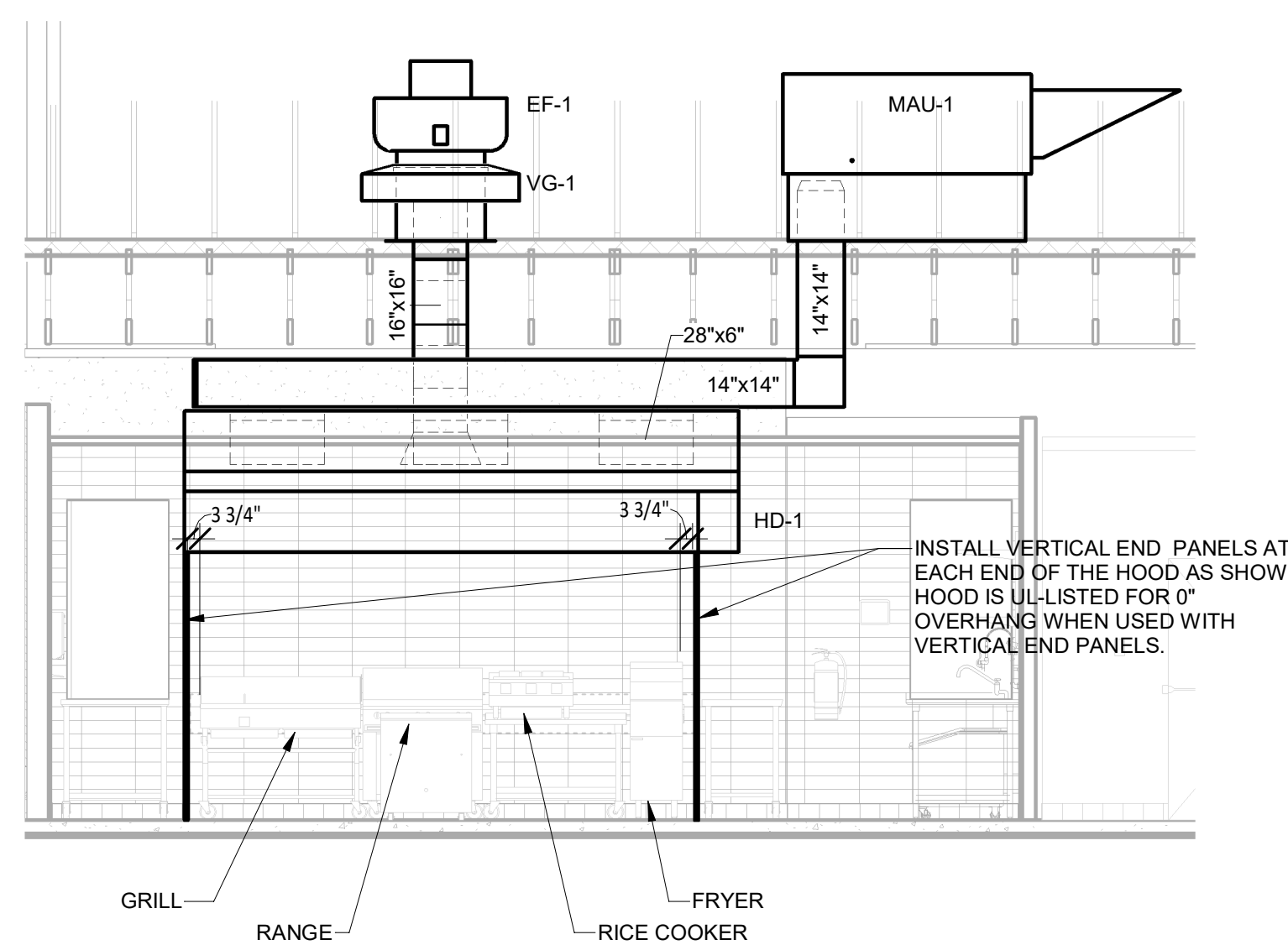


- NOTES:
- THIS DETAIL SHALL SERVE AS A STANDARD FOR INSTALLATION FOR ALL ROOFTOP UNITS. REFER TO FLOOR PLANS FOR EXACT REQUIREMENTS FOR EACH UNIT.
 - ALL ROOF PENETRATIONS ARE BASED ON MANUFACTURERS EQUIPMENT S/A TO R/A OPENING SIZE UNLESS NOTED OTHERWISE. EXTEND FULL SIZE DUCT DOWN TO ABOVE CEILING AND TRANSITION AS SHOWN ON PLANS.

⑦ HVAC - ROOFTOP UNIT MOUNTING DETAIL
NOT TO SCALE



⑧ HVAC - DINING ROOM DUCTWORK SECTION 'A'
1/4" = 1'-0"



⑨ HVAC - HOOD ELEVATION
1/4" = 1'-0"

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DRAWN BY: PCE

CHECKED BY: AIS

PROJECT NUMBER:

22045

SHEET TITLE:

HVAC DETAILS

SHEET NUMBER:

M-701