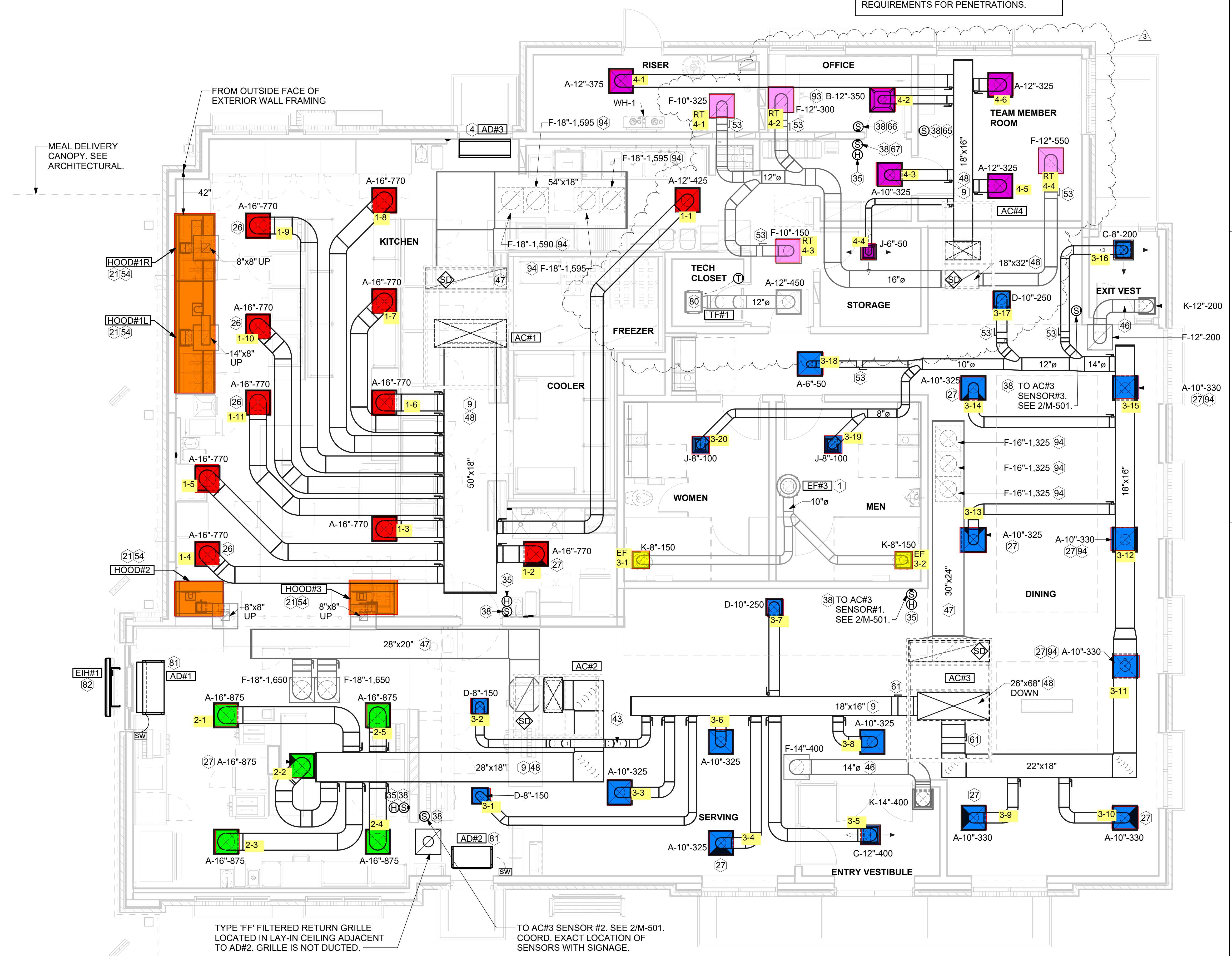


**KEY NOTES**

- 1 10" DIA. DUCT UP THRU ROOF.
- 4 AIR CURTAIN MOUNTED OVER DOOR HEADER AT 7'-2" AFF TO BOTTOM OF UNIT. PROVIDE BLOCKING IN WALL BEHIND AIR CURTAIN. USE FACTORY PRE-PUNCHED MOUNTING HOLES ON BACK SIDE OF AIR CURTAIN ONLY. ATTACH AIR CURTAIN TO WALL USING 3/8" LAG BOLTS. LENGTH AS REQUIRED TO FULLY PENETRATE BLOCKING. LOCATE MAGNETIC CONTACT TYPE MICROSWITCH IN DOOR FRAME ON STRIKE SIDE.
- 9 BRANCH TAKE-OFFS ARE NOT TO BE LOCATED CLOSER THAN 3'-0" FROM ANY OFFSET OR ELBOW INCLUDING THE SUPPLY AIR DROP FROM CURB.
- 21 HALT ON KBD DAMPER AT HOOD COLLAR BY MECHANICAL CONTRACTOR. SEE HOOD ELEVATIONS ON M-201 FOR LOCATION.
- 26 MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
- 27 MECHANICAL CONTRACTOR TO CLOSE THE AIR PATTERN DEFLECTORS ON SHADED SIDE.
- 35 MOUNT HUMIDITY SENSOR ON WALL ABOVE SPACE TEMP SENSOR AND ROUTE WIRING TO UNIT ON ROOF.
- 38 MOUNT REMOTE SENSOR ON WALL AT 5'-0" AFF U.N.O. AND ROUTE WIRING BACK TO SUNCOAST TEMP CONTROL PANEL. FOR SENSOR SERVING AC#1, COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT.
- 43 ROUTE DUCT WITHIN STRUCTURE.
- 46 TRANSFER DUCT. NO BALANCING DAMPER.
- 47 TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. SEE DETAIL 6/M-501 FOR REQUIRED TRANSITION GEOMETRY. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. WHERE THE DUCT IS SHOWN OFFSET HORIZONTALLY, PROVIDE ELBOW WITHOUT TURNING VANES. FOR DROPS WITH NO HORIZONTAL OFFSET, EXTEND DROP BELOW STRUCTURE TO ACCOMMODATE START COLLARS. TERMINATE DROP A MINIMUM 0'-10" ABOVE CEILING (0'-4" ABOVE CEILING IF REQUIRED TO ACCOMMODATE TAKE-OFF AND DROP IS NOT LOCATED DIRECTLY ABOVE A LIGHT).
- 48 TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. WHERE THE DUCT IS SHOWN OFFSET HORIZONTALLY, PROVIDE ELBOW WITH TURNING VANES. FOR DROPS WITH NO HORIZONTAL OFFSET, EXTEND DROP BELOW STRUCTURE TO ACCOMMODATE START COLLARS. TERMINATE DROP A MINIMUM 0'-10" ABOVE CEILING (0'-4" ABOVE CEILING IF REQUIRED TO ACCOMMODATE TAKE-OFF AND DROP IS NOT LOCATED DIRECTLY ABOVE A LIGHT).
- 53 RUSKIN MDRS25 MVD W/LOCKING QUADRANT HANDLE.
- 54 SEE ELEVATIONS ON M-201 FOR CJ FAN DUCTING REQUIREMENT.
- 61 PROVIDE RUSKIN CD35 MANUAL BALANCING DAMPER WITH 6" MAXIMUM BLADE WIDTH, OPPOSED BLADE ACTION, LOCKING QUADRANT HANDLE WITH 2" STANDOFF AND 16 GA GALVANIZED BLADE AND FRAME CONSTRUCTION.
- 65 TO AC#4, SENSOR #1. SEE 2/M-701.
- 66 TO AC#4, SENSOR #2. SEE 2/M-701.
- 67 TO AC#4, SENSOR #3. SEE 2/M-701.
- 80 CEILING MOUNTED RECIRCULATING FAN. DUCT AND DISCHARGE TO TYPE 'A' DIFFUSER AS SHOWN.
- 81 MOUNT AIR DOOR IN CEILING. CENTERED ON DRIVE-THRU/MFA DOOR OPENING. REFER TO WIRING DIAGRAM ON SHEET M-702 FOR MORE INFORMATION.
- 82 ELECTRIC HEATER. MC TO MOUNT ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
- 93 MAXIMUM HEATING AND COOLING AIRFLOWS INDICATED. SET MINIMUM AIRFLOW TO 25 CFM.
- 94 TAKE OFF WITH DAMPER AT THE BOTTOM OF DUCTWORK, TYP.

SEAL PENETRATIONS IN DRAFTSTOPPING CURTAIN AIR-TIGHT. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF DRAFTSTOPPING CURTAIN AND REQUIREMENTS FOR PENETRATIONS.



**1 EQUIPMENT AND DUCTWORK PLAN**  
1/4" = 1'-0"

**H.E.S. SYSTEM**  
MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SUNCOAST H.E.S. SYSTEM FOR ALL HOODS. SEE HOOD FAN/EQUIPMENT INTERLOCK WIRING DIAGRAM ON M-702 FOR MORE INFORMATION.

**AIR BALANCE SCHEDULE TRANE**

Mark	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	BUILDING POSITIVE PRESSURE
AC#1	8,125	6,375	1,750	0	
AC#2	4,375	3,300	1,075	0	
AC#3	5,250	3,975	1,275	0	
AC#4	1,750	1,325	425	0	
EF#1	0	0	0	1,913	
EF#2	0	0	0	1,402	
EF#3	0	0	0	300	
	19,500	14,975	4,525	3,615	910



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**FSR#05649**  
BUILDING TYPE / SIZE: P14 SE BN  
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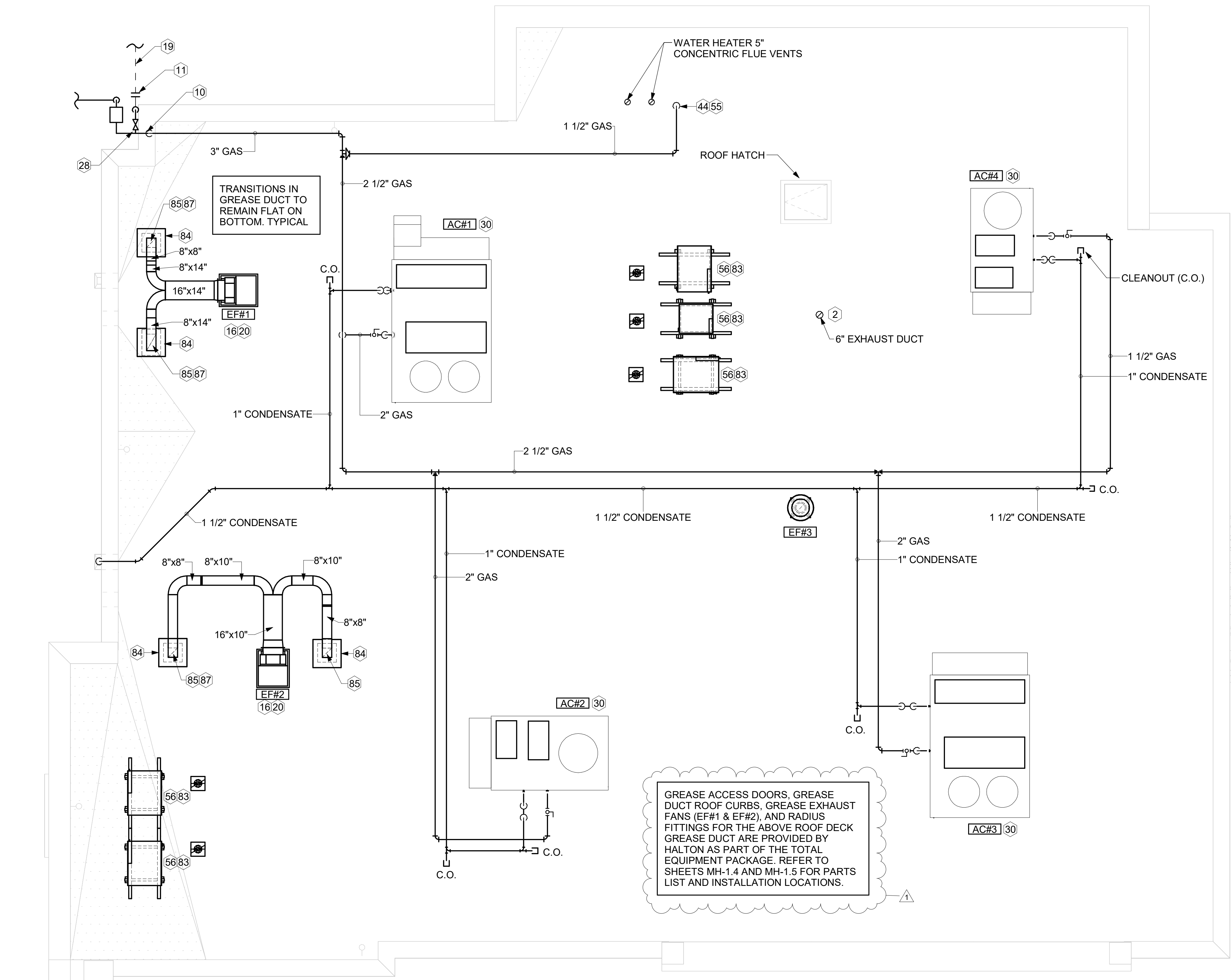
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**EQUIPMENT AND DUCTWORK PLAN - TRANE**  
SHEET NUMBER

**M-101**

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### KEY NOTES

- 2 PROVIDE DUCT AS SHOWN. TERMINATE DUCT 24" ABOVE ROOF WITH ALUMINUM WEATHER CAP WITH INTEGRAL BIRD SCREEN. EXHAUST DUCT DISCHARGE SHALL BE LOCATED A MINIMUM OF 10 FT FROM ANY OUTSIDE AIR INTAKE.
- 10 TURN 3" GAS UP WITHIN WALL, THRU PARAPET AND ONTO ROOF.
- 11 ROUTE POLYETHYLENE GAS BELOW GRADE FROM THE METER. FOR TRANSITION FROM POLYETHYLENE PIPING BELOW GRADE TO STEEL AT THE METER, INSTALL ANODELESS RISER WITH INTEGRAL CONSTAB PE-TO-IPS TRANSITION FITTING BY CONTINENTAL INDUSTRIES OR EQUAL BY ELSTER.
- 16 VERIFY EXHAUST TERMINATION IS A MINIMUM 10'-0" FROM PARAPETS AND OUTSIDE AIR INTAKES. REFER TO MH-1.4 AND MH-1.5 FOR DETAILS.
- 19 1-1/2" GAS BELOW GRADE TO ORDER CANOPY, SEE DETAIL 2 SHEET M-103.
- 20 GREASE EXHAUST DUCT LOCATED ON ROOF SHALL SLOPE 1/4" PER FOOT TOWARDS THE HOOD, THE FAN, OR A COMBINATION OF THE TWO SUCH THAT NO PORTION OF THE RADIUS ELBOW AT THE CURB IS BELOW THE CURB CAP AND SUCH THAT THE FAN BASE SETS DIRECTLY ON THE CURB RAILS. THE BOTTOM OF THE RADIUS ELBOW MAY BE EVEN OR FLUSH WITH THE CURB CAP, BUT NOT BELOW THE CAP. THE DUCT AT THE FAN MUST BE CENTERED ON THE FAN INLET.
- 28 PROVIDE FULL PORT BALL VALVE EQUAL TO APOLLO 50GB SERIES WITH WINGS HANDLE OPTION ABOVE GRADE AT THE METER. PROVIDE BRASS VALVE TAG WITH JACK CHAIN AT VALVE MARKED "SERVICE SHUTOFF FOR CANOPY HEATERS."
- 30 MECHANICAL CONTRACTOR TO SEE ARCHITECTURAL ROOF PLAN FOR NOTES REGARDING LEVELING FRAMES FOR RTUS. COORDINATE WITH GENERAL CONTRACTOR EXACT LOCATIONS AND SIZE NEEDED.
- 44 1-1/2" GAS DOWN THRU ROOF TO WATER HEATER. SEE DETAIL 2/M-502 FOR MORE INFORMATION ON CONSTRUCTION AND PENETRATION.
- 55 SEE ARCHITECTURAL DETAILS FOR ROOFTOP PIPE PENETRATIONS.
- 56 GC SHALL PROVIDE EQUIPMENT STANDS AS MANUFACTURED BY AVCOA OR EQUAL STANDS SHALL BE INSTALLED PRIOR TO ROOF INSULATION SO THAT THE INSULATION IS CONTINUOUS UP TO THE PIPE POSTS. POSTS SHALL BE FLASHED IN ACCORDANCE WITH ROOFING MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE BLOCKING BELOW THE ROOF DECK AS REQUIRED.
- 83 DO NOT DISCHARGE OF CONDENSING UNITS INTO CONDENSER SECTION OF ROOFTOP UNITS, TYP.
- 84 ROOF CURB FOR DUCT PENETRATION. REFER TO MH-1.4 AND MH-1.5 FOR DETAILS.
- 85 TURN DOWN THRU ROOF. SEE M-101 FOR CONTINUATION.
- 87 DUCT PENETRATIONS ON ROOF MUST BE AT LEAST 18" FROM ADJACENT PARAPETS.



**1 EQUIPMENT ROOF PLAN - TRANE**  
1/4" = 1'-0"

3. GAS LOAD SCHEDULE	
EQUIPMENT	GAS LOAD
AC#1	400,000 BTUS
AC#2	250,000 BTUS
AC#3	400,000 BTUS
AC#4	130,000 BTUS
IRH (2 @ 50,000 BTU EA.)	100,000 BTUS
IRH (FUTURE 4 @ 50,000 BTU EA.)	200,000 BTUS
WATER HEATER	398,000 BTUS
<b>TOTAL FUTURE CONNECTED LOAD</b>	<b>1,878,000 BTUS</b>
REMARKS:	<ol style="list-style-type: none"> <li>1. EQUIVALENT TO 1,878.0 CFH</li> <li>2. 7" W.C. DELIVERY PRESSURE</li> <li>3. DEVELOPED LENGTH: 180 FT. (METER TO AC#4)</li> <li>4. GAS PIPING SIZED FOR FUTURE LOAD</li> </ol>



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**ISSUE FOR CONSTRUCTION**

CONSULTANT PROJECT #	23200.CD.S
DATE	12/18/2023
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 SHEET: EQUIPMENT ROOF PLAN - TRANE  
 SHEET NUMBER: **M-102**

ROOFTOP UNIT SCHEDULE - TRANE

MARK	TOTAL COOLING MBH	SENSIBLE COOLING MBH	HEATING INPUT MBH	HEATING OUTPUT MBH	SUPPLY AIRFLOW (CFM)	OA (CFM)	HP	# OF FANS	ESP (in-wg)	EER	IEER/SEER	VOLTAGE (V)	PHASE	MCA (A)	MOCP (A)	MODEL	MFR	REMARKS
AC#1	271.1	202.4	400	324	8,125	1,750	3.1	2	0.80	9.8	13	208	3	125	150	YSJ300A3S	TRANE	1,3,4,5,6,8,9,10,11,12,13,14,15,16,17
AC#2	150.9	114.9	250	202.5	4,375	1,075	4.6	1	0.80	10.8	14	208	3	71	90	YSJ150A3S	TRANE	1,3,4,5,6,8,9,10,11,12,13,14,15,16,17
AC#3	184.3	140.4	400	324	5,250	1,275	3.1	2	0.80	10.8	14	208	3	83	110	YSJ180A3S	TRANE	1,3,4,5,6,8,9,10,11,12,13,14,15,16,17
AC#4	58.1	44.2	130	104	1,750	425	1	1	0.80	13	17.2	208	3	33	45	YHC067E3R	TRANE	2,3,4,5,6,7,8,9,10,11,12,13,14,16,17

NOTES

- MECHANICAL CONTRACTOR TO VERIFY TRANE SUBMITTAL WITH CONSTRUCTION DOCUMENTS. NATIONAL ACCOUNTS - NO SUBSTITUTIONS PERMITTED - SEE DRAWING G-004.

REMARKS

- DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST. PROVIDE WITH FACTORY FAULT DETECTION AND DIAGNOSTICS.
- DIFFERENTIAL ENTHALPY ECONOMIZER WITH BAROMETRIC EXHAUST. PROVIDE WITH FACTORY FAULT DETECTION AND DIAGNOSTICS.
- 14" HIGH ROOF CURB.
- SEE DETAIL 2M-701 FOR SETTING OF CONTROL PARAMETERS BY MC.
- FACTORY INSTALLED 115V GFI SERVICE OUTLET. SEPERATE 115V CIRCUIT PROVIDED BY ELECTRICAL CONTRACTOR.
- FACTORY INSTALLED RETURN AIR SMOKE DETECTOR.
- FACTORY INSTALLED NON-FUSED DISCONNECT.
- 2" MERV 8 THROW AWAY FILTERS.
- HINGED PANELS FOR ACCESS TO FILTER(S), FAN BLOWER & MOTOR, COMPRESSOR(S) ACCESS AND CONTROLS.
- FACTORY COIL HAIL GUARD, FIELD INSTALLED.
- HOT GAS DEHUMIDIFICATION OPTION WITH WALL MOUNTED HUMIDITY SENSOR.
- FACTORY INSTALLED BELT TENSIONER.
- FACTORY CONFIGURED PHASE LOSS PROTECTION.
- FACTORY INSTALLED CONDENSATE PAN DRAIN OVERFLOW SWITCH.
- PROVIDE FACTORY HIGH FAULT (65K) SCRR AND FACTORY CIRCUIT BREAKER.
- FRESH AIR TEMPERING KIT.
- PROVIDE WITH STAINLESS STEEL HEAT EXCHANGER.

TYPE 1 HOOD SCHEDULE

MARK	EXHAUST CFM	SP @ TAB PORT (in-wg)	CAPTURE JET CFM & S.P.	TYPE	COLLAR SIZE	WIDTH	DEPTH	HEIGHT	MANUFACTURER	MODEL	REMARKS
HOOD#1L	1,204	0.13	80 @ 0.30"	BACKSHELF	14"x8"	107"	37"	38"	HALTON	KVL-2 IC	1
HOOD#1R	709	0.13	47 @ 0.30"	BACKSHELF	8"x8"	63"	37"	38"	HALTON	KVL-2 IC	1
HOOD#2	701	0.3	30 @ 0.29"	BACKSHELF	8"x8"	45"	34"	38"	HALTON	KVL-C-IC	1
HOOD#3	701	0.3	30 @ 0.29"	BACKSHELF	8"x8"	42"	34"	38"	HALTON	KVL-C-IC	1

NOTES

DIMENSIONS OF HOODS INCLUDE BACK AND SIDE SPACERS (HEIGHT DOES NOT INCLUDE CLOSURE PANELS). NATIONAL ACCOUNTS - NO SUBSTITUTIONS PERMITTED - SEE DRAWING G-004.

REMARKS

- REFER TO HOOD SHOP DRAWINGS FOR HOOD CONSTRUCTION AND OPTIONS. HOOD SHOP DRAWINGS ARE INCLUDED FOR REFERENCE ON SHEETS MH-1.1, MH-1.2, AND MH-1.3.

HEATER SCHEDULE

MARK	HEATING INPUT		FRAME LENGTH	FRAME WIDTH	FRAME DEPTH	MOUNTING TYPE	VOLTAGE (V)	PHASE	FLA (A)	MOCP (A)	MODEL	MFR	REMARKS
	INPUT (KW)	INPUT (MBH)											
EIH#1	6.00	0.0	56"	8.5"	3.5"	WALL BRACKET	208	1	29	40	BH0420035	BROMIC	1,2,3
IRH	0.00	50.0	48"	13.4"	9.7"	BRACKET	120	1	0	0	WB50-N7-CM	SPACE RAY	5,6,7

NOTES

- CONFIRM HEATER QUANTITY WITH CANOPY SHOP DRAWINGS.
- NATIONAL ACCOUNT NO SUBSTITUTIONS PERMITTED - SEE DRAWING G-004.

REMARKS

- STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING.
- PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND.
- PROVIDE BLACK HEATER WITH HIGH TEMPERATURE COATING, AND MANUFACTURER MOUNTING BRACKETS.
- NOT USED.
- STEEL BURNER WITH CERAMIC BURNER TILES.
- PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO CANOPY DECK, FACING FORWARD, 12" Laterally FROM THE LONG SIDE OF THE HEATER.
- STAINLESS STEEL HEAT SHIELDS PROVIDED BY TOM BARROW COMPANY.

FAN SCHEDULE

MARK	FAN CFM	ESP (in-wg)	MOTOR RPM	HP	AREA SERVED	VOLTAGE (V)	PHASE	FLA (A)	MOCP (A)	MODEL	MANUFACTURER	REMARKS
CF-1	1,900	0.01	1,625	0.1	OUTDOOR CANOPY	120	1	1.1	20	U-18-TE-HD	TPI	20,21,24
EF#1	1,913	0.75	1,331	0.75	HOOD#1	120	1	0	25	KEFB-14-CFA	HALTON	1,2,3,4,5,6,7,8,9,10,11
EF#2	1,402	0.95	1,199	0.75	HOOD#2 & HOOD#3	115	1	0	25	KEFB-14-CFA	HALTON	1,2,3,4,5,6,7,8,9,10,11
EF#3	300	0.375	1,550	0.125	RESTROOMS	120	1	2.2	20	XRED-09S-VG	ACCUREX	1,3,11,12,13,14,15,16
TF#1	450	0.3	1,144	0.127	TECH CLOSET	120	1	2.5	0	SP-A510-VG	GREENHECK	1,17,18,19

NOTES

- GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL.

REMARKS

- FANS SUPPLIED BY HALTON.
- U.L. 705 LISTED AND LABELED FOR RESTUARANT APPLICATIONS.
- FACTORY INSTALLED PREWIRED DISCONNECT SWITCH.
- 19" HIGH ROOF CURB.
- INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MECHANICAL CONTRACTOR TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034.
- FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.
- FACTORY DRAIN CONNECTION.
- FACTORY BOLTED ACCESS DOOR ON SCROLL.
- FACTORY INSTALLED BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE, SPARE BELT, AND BELT TENSIONER.
- FACTORY INSTALLED OUTLET WITH QUICK RELEASE, HINGED ACCESS, AND GRAVITY BACKDRAFT DAMPER.
- INTEGRAL THERMAL OVERLOAD.
- BIRDSCREEN.
- BACKDRAFT DAMPER IN DUCT BY MECHANICAL CONTRACTOR AS SHOWN ON 5/M-501.
- STARTER BY ELECTRICAL CONTRACTOR. INTERLOCK WITH LIGHTS BY ELECTRICAL CONTRACTOR.
- 12" HIGH CURB.
- FACTORY INSTALLED AND WIRED SPEED CONTROLLER.
- PROVIDE NEMA 1 PREWIRED DISCONNECT.
- INTEGRAL POTENTIOMETER ON FAN MOTOR, SET TO FULL SPEED.
- PROVIDE THERMOSTAT / TEMPERATURE CONTROLLER, SET TO 76°F.
- INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE WITH ON/OFF SWITCH.
- NOT USED.
- NOT USED.
- FAN SUPPLIED BY TOM BARROW.

AIR DOOR SCHEDULE

MARK	CFM	VELOCITY (FPM)	HEATING (KW)	MOTOR HP	MCA (A)	MOCP (A)	VOLTAGE (V)	PHASE	AREA SERVED	MODEL	MANUFACTURER	REMARKS
AD#1	1,543	2,338	10	0.75	31.4	40	208	3	DRIVE THRU	CHA-1-48E	POWERED AIRE	1,2,3,5
AD#2	1,197	2,443	10	0.75	31.4	40	208	3	SERVING	CHA-1-36E	POWERED AIRE	1,2,3,6
AD#3	3,867	4,218	0	0.75	3.6	20	208	1	REAR DOOR	RBT-1-48	POWERED AIRE	4

NOTES

- NATIONAL ACCOUNT - NO SUBSTITUTIONS PERMITTED - SEE DRAWING G-004

REMARKS

- FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER ABOVE CEILING.
- FACTORY WIRED DISCONNECT.
- FACTORY PROVIDED, FIELD INSTALLED BY MC. REMOTE WALL SWITCHES FOR HEATING ON/OFF AND FAN ON/AUTO SWITCH. SEE DETAILS ON M-702.
- FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.
- PROVIDE WITH A DIVERTER BOX. PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE WITH NOZZLE EXTENSION, SEE DETAIL 4/M-301 .

AIR DEVICE SCHEDULE

MARK	DESCRIPTION	LOCATION	NECK SIZE	FACE SIZE	FRAME TYPE	REMARKS
A	PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.	DINING/KITCHEN	VARIES	24"x24"	LAY-IN	1,7
B	VARITHERM PLAQUE DIFFUSER	OFFICE	12"	24"x24"	LAY-IN	1,7,8
C	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	ENTRY	14"x14"	16"x16"	BEVELLED	1,3,5,6
D	PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.	DINING	VARIES	16"x16"	SURFACE	1,3,5,6
F	PRICE MODEL 80 EGGRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CORE, FACTORY FLAT BLACK BACKPAN AND ROUND NECK.	DINING/OFFICE/ KITCHEN	VARIES	24"x24"	LAY-IN	1,7
FF	PRICE MODEL 80FF STEEL FILTER RETURN AIR GRILLE WITH REMOVABLE WHITE CORE, FACTORY FLAT BLACK BACKPAN AND 2" FILTER FRAME.	MFA	VARIES	24"x24"	LAY-IN	1
J	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	<varies>	<varies>	15"x15"	BEVELLED	1,2,3,5,6
K	PRICE MODEL APDDR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS/ ENTRY	14"x14"	16"x16"	SURFACE	1,4,5,6

NOTES

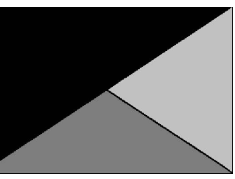
- NATIONAL ACCOUNT - NO SUBSTITUTIONS PERMITTED - SEE DRAWING G-004

REMARKS

- STANDARD OFF WHITE FINISH.
- PROVIDE MODEL VCS3 NECK DAMPER.
- SEE DRAWING M-101 FOR THROW.
- PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS SERVING EXHAUST FAN.
- PROVIDE BACKPAN. MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY.
- FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 3/M-501.
- FACTORY INSULATED R-6 BACKPAN.
- PROVIDE RELIEF COLLAR ACCESSORY FOR VAV DIFFUSER.



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SHEET EQUIPMENT SCHEDULES - TRANE

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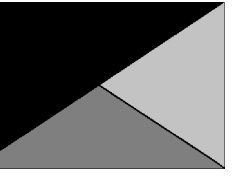
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2 02/19/2024 ISSUE FOR CONSTRUCTION

CONSULTANT PROJECT # 23200.CD.S  
DATE 12/18/2023  
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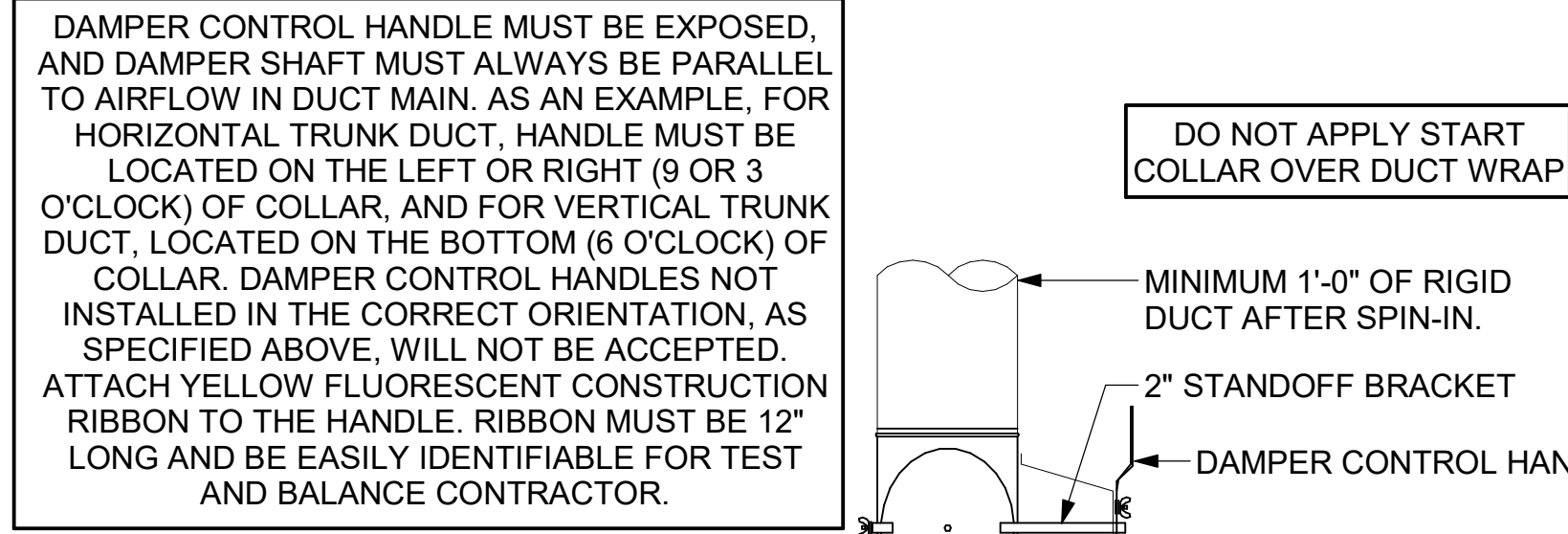
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SHEET DETAILS

SHEET NUMBER

**M-501**

CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ROYAL METAL PRODUCTS START COLLARS FOR BOTH WITH AND WITHOUT A MANUAL BALANCING DAMPER. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE ROYAL METAL PRODUCTS START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICINGS AND AVAILABILITY. ROYAL METAL PRODUCTS START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

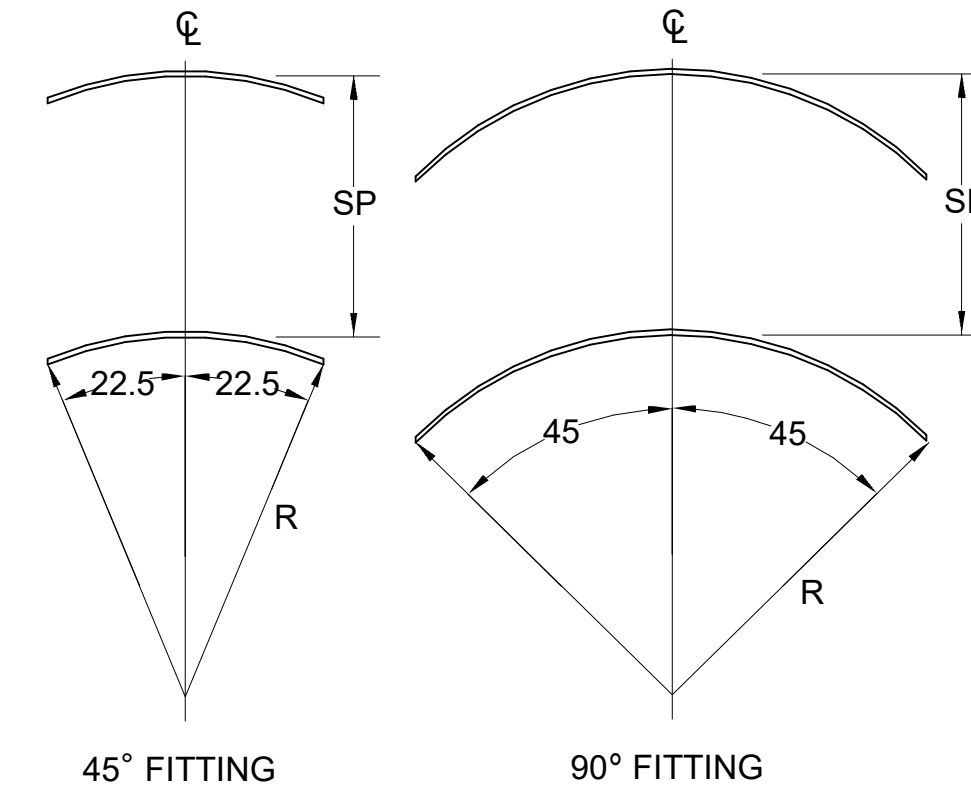


**2 START COLLAR**  
NOT TO SCALE

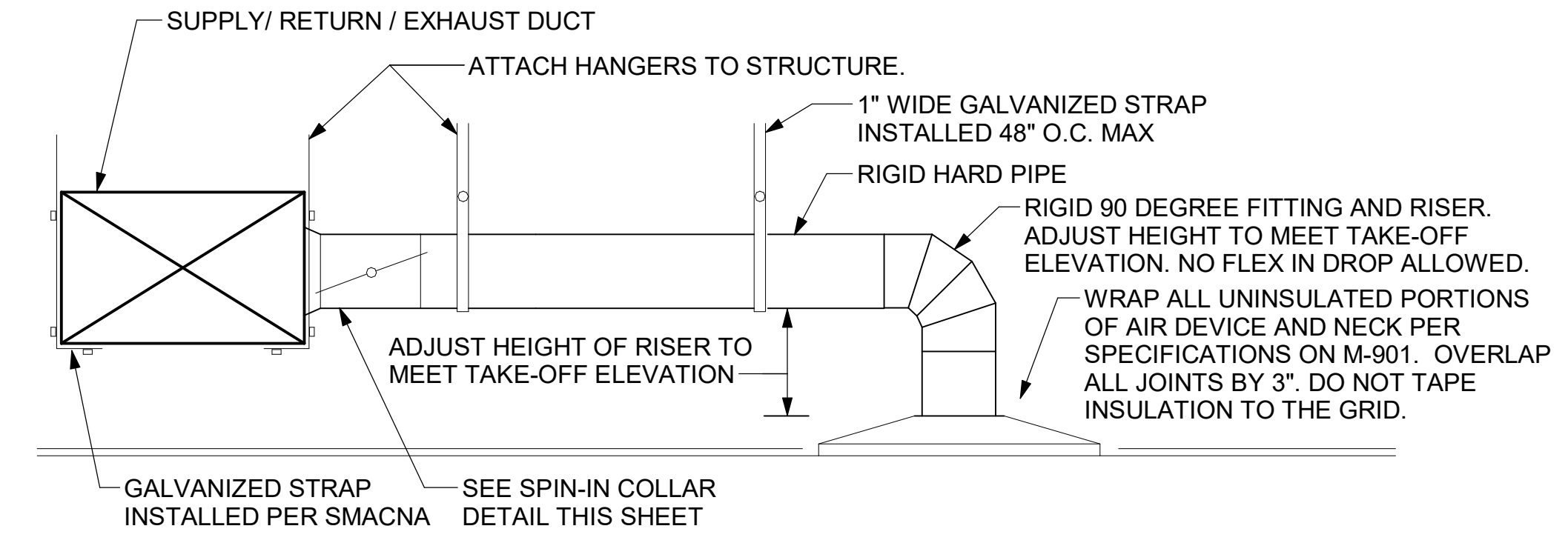
**TURNING VANE SCHEDULE**

R	SP	GA
2"	1.5"	24

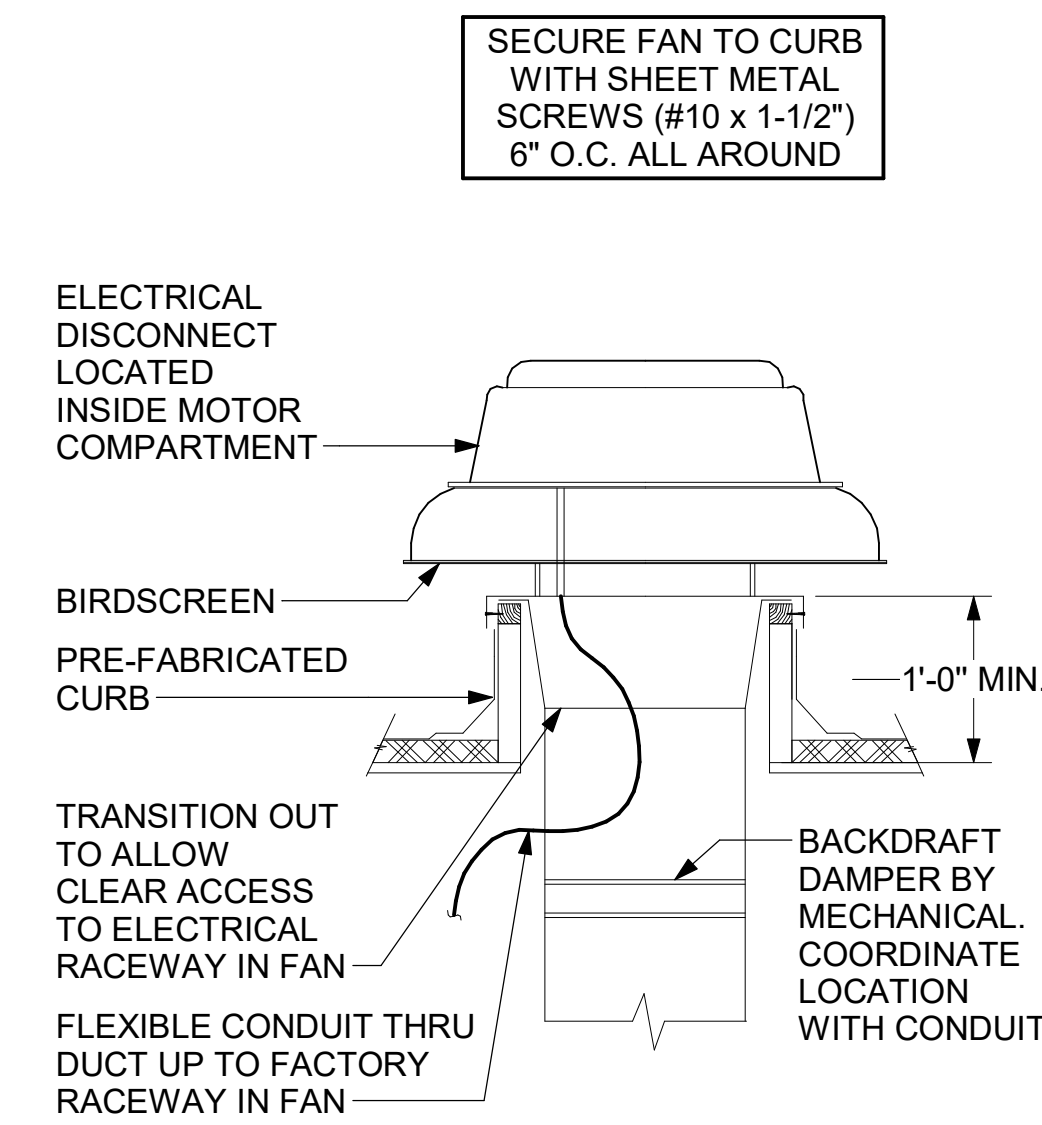
1. NO TRAILING EDGE.  
2. SINGLE THICKNESS CONSTRUCTION.



**4 TURNING VANES**  
NOT TO SCALE



**1 SAG/RAG/GRILLE TAKE-OFF**  
NOT TO SCALE

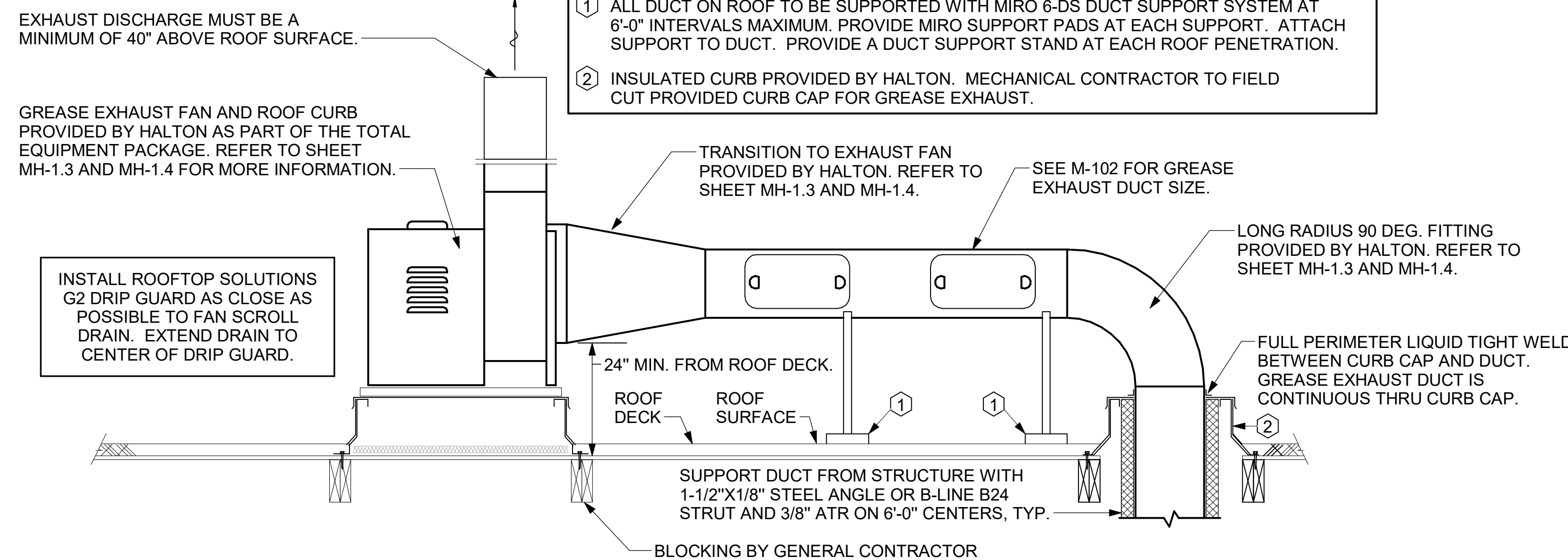


**3 RESTROOM EXHAUST FAN**  
NOT TO SCALE

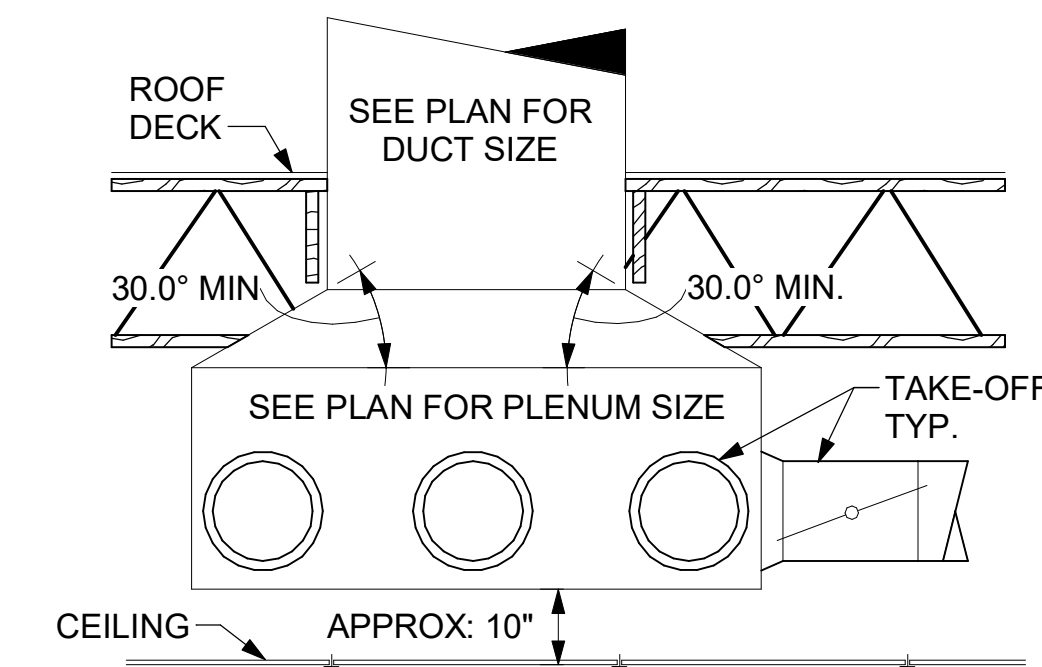
ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS B66-200 SERIES DTM WHITE ACRYLIC SEMI-GLOSS INDUSTRIAL MAINTENANCE COATING. DEGREASE AND PRIME BARE METAL SURFACE WITH ONE COAT OF SHERWIN WILLIAMS DTM ACRYLIC PRIMER PRIOR TO PAINTING.

**KEYED NOTES:**

- 1 ALL DUCT ON ROOF TO BE SUPPORTED WITH MIRO 6-DS DUCT SUPPORT SYSTEM AT 6'-0" INTERVALS MAXIMUM. PROVIDE MIRO SUPPORT PADS AT EACH SUPPORT. ATTACH SUPPORT TO DUCT. PROVIDE A DUCT SUPPORT STAND AT EACH ROOF PENETRATION.
- 2 INSULATED CURB PROVIDED BY HALTON. MECHANICAL CONTRACTOR TO FIELD CUT PROVIDED CURB CAP FOR GREASE EXHAUST.

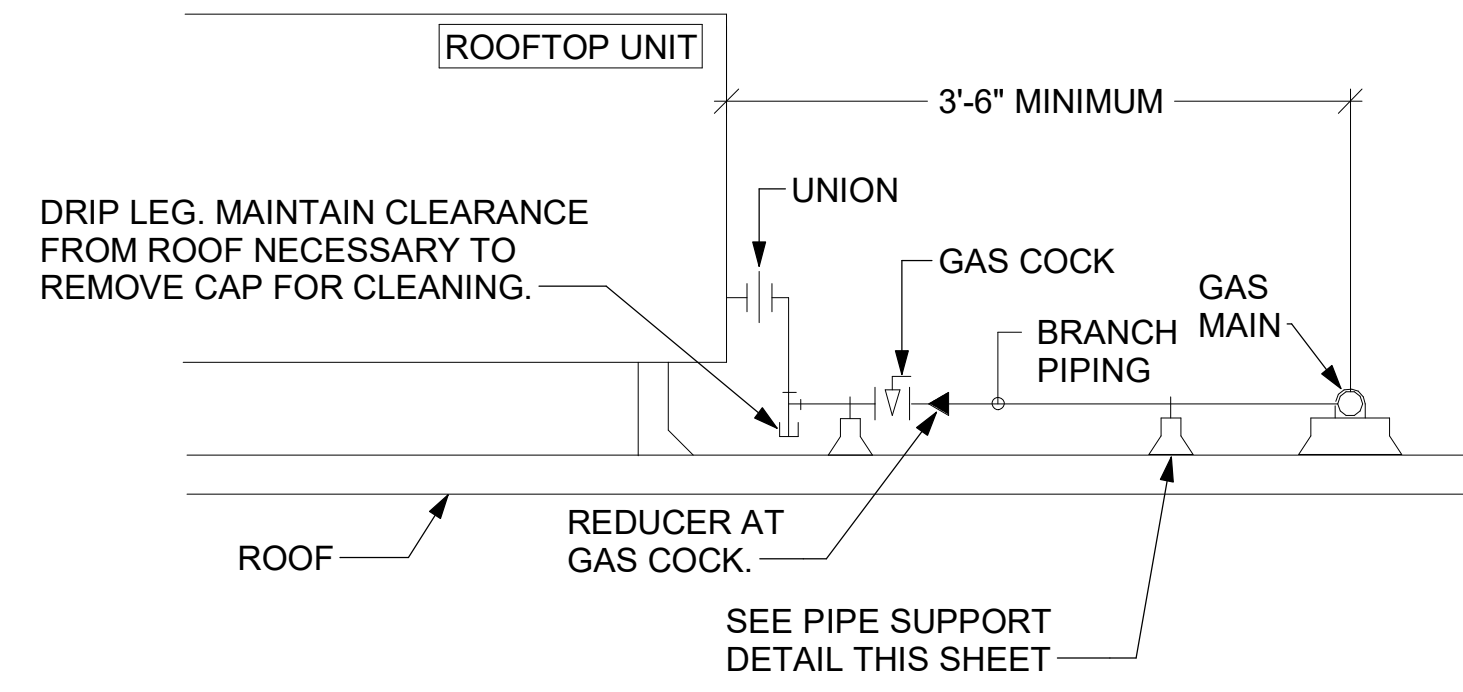


**6 KITCHEN HOOD EXHAUST FANS**  
NOT TO SCALE



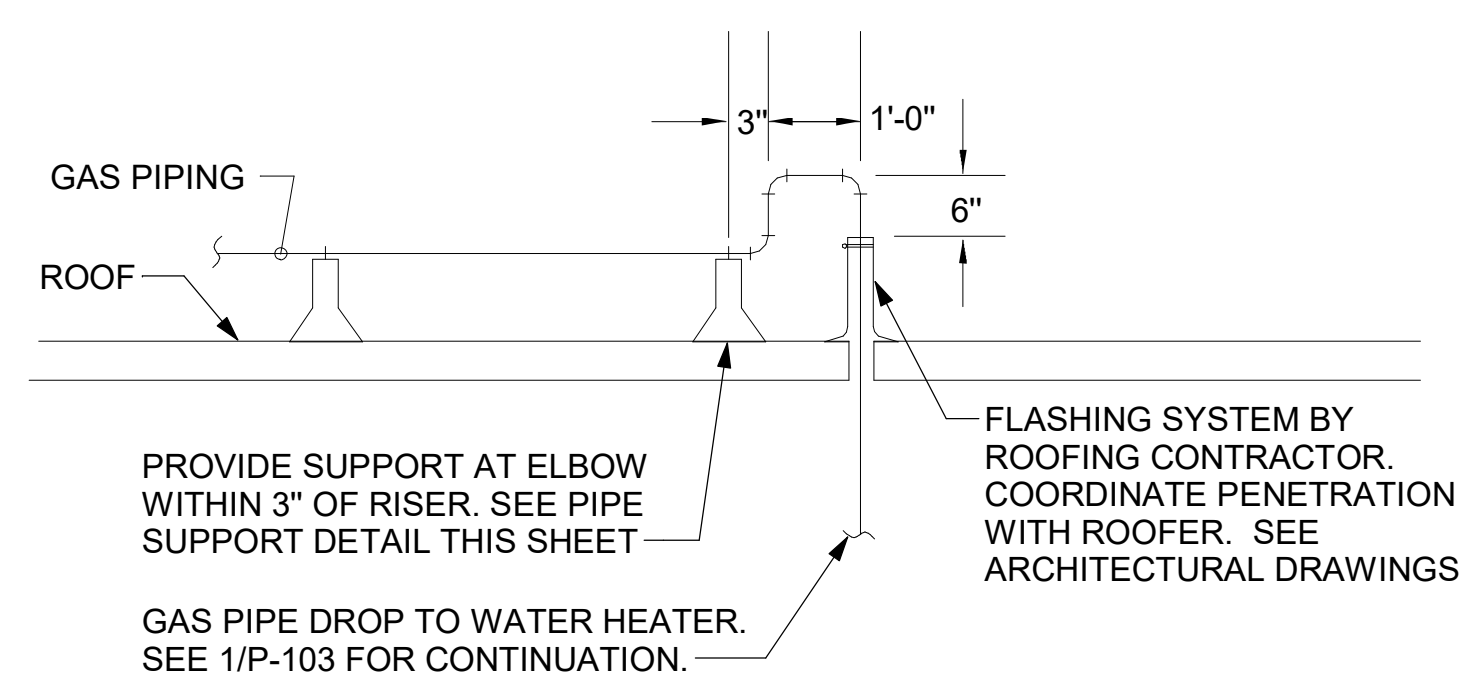
**5 RETURN DROP GEOMETRY**  
NOT TO SCALE

- NOTES:**
1. INSTALL GAS PIPING SUCH THAT HVAC EQUIPMENT ACCESS PANELS AND/OR DOORS ARE IN NO WAY OBSTRUCTED BY PIPING, VALVES, OR SUPPORTS.
  2. TO AVOID CONFLICT WITH AC UNIT ACCESS DOORS, INSTALL GAS PIPING NO CLOSER THAN 3'-6" FROM AC UNIT. (EXCEPT FOR BRANCH LINE CONNECTED TO AC UNIT.)
  3. ROUTE BRANCH TAKE-OFF DIRECTLY FROM MAIN TO ROOFTOP UNIT AS SHOWN ON PLAN AND DETAILS WITHOUT LATERAL OFFSETS WHICH MAY OBSTRUCT UNIT ACCESS DOORS.

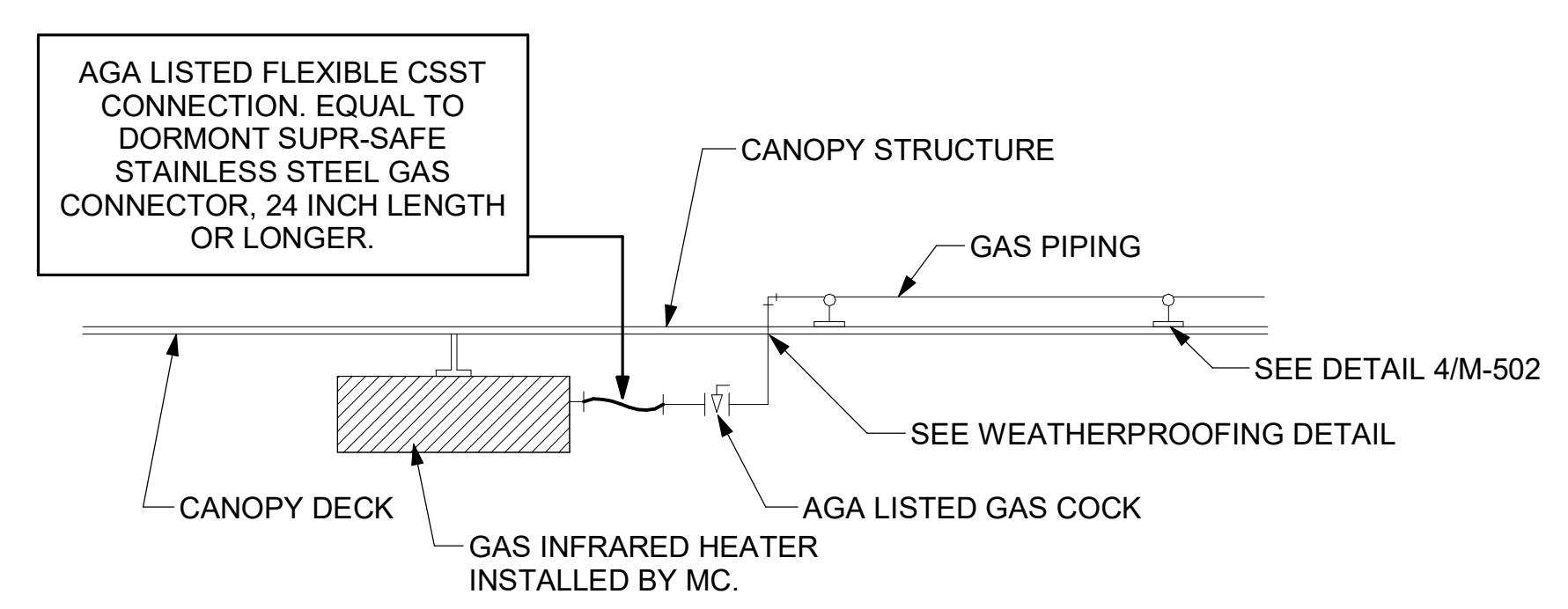


**3 GAS PIPING AT RTU**  
NOT TO SCALE

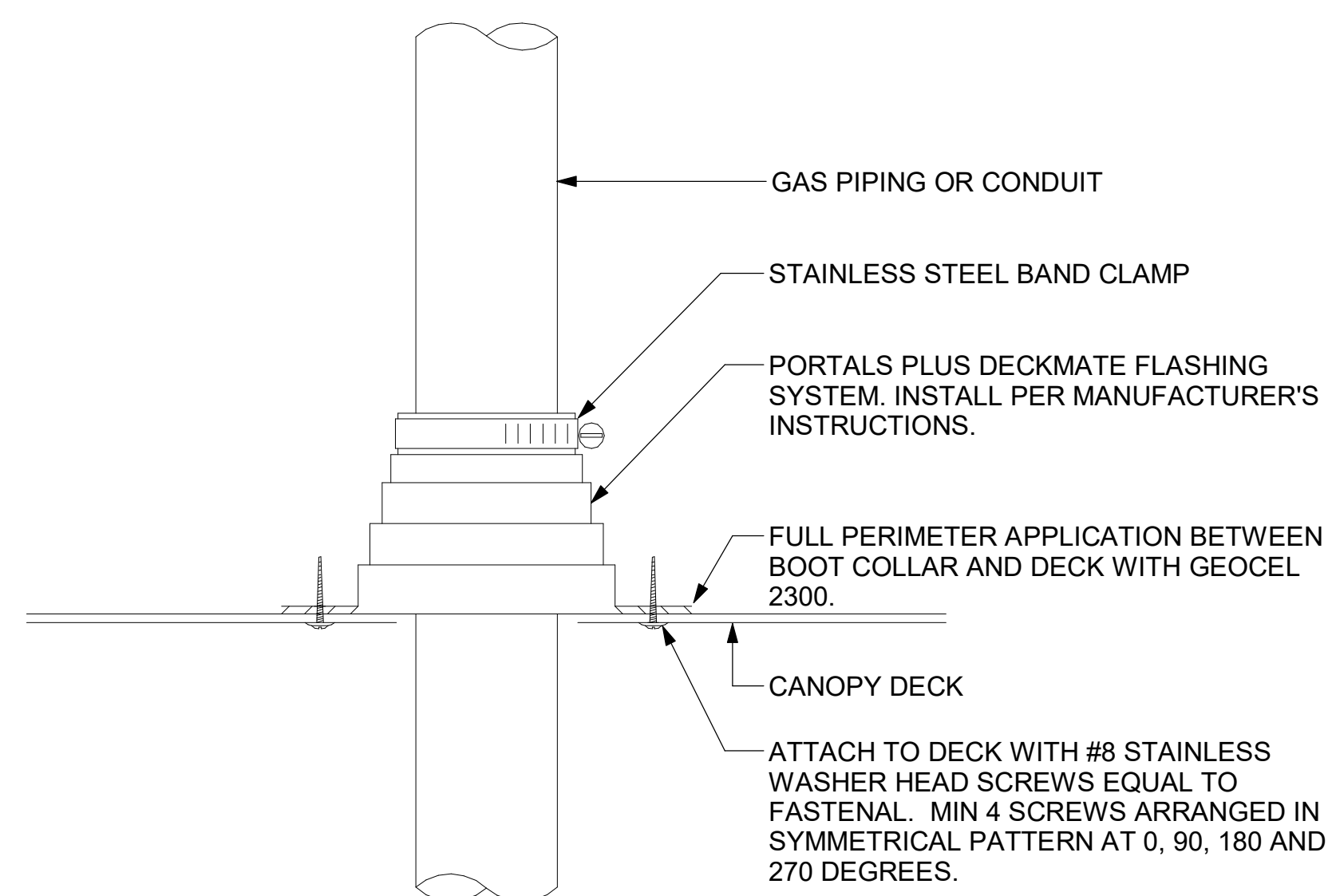
OFFSET PIPING A MINIMUM OF 6" ABOVE TOP EDGE OF FLASHING.



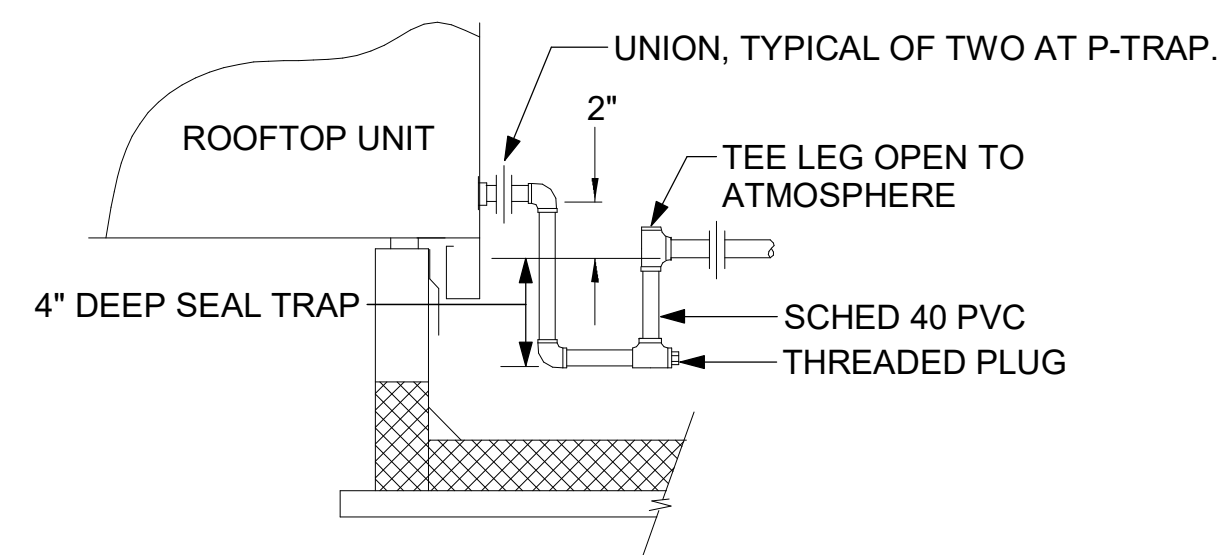
**2 GAS PIPE DROP TO WATER HEATER**  
NOT TO SCALE



**1 GAS CONNECTION AT APPLIANCE**  
NOT TO SCALE

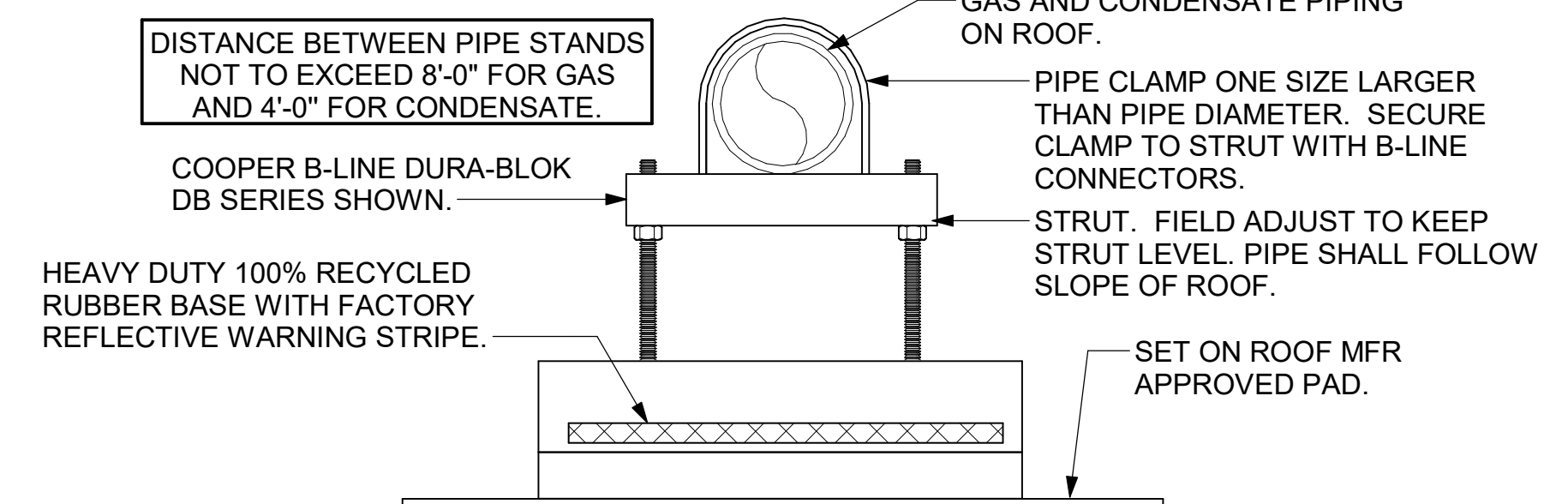


**6 WEATHERPROOFING AT CANOPY PENETRATION**  
NOT TO SCALE

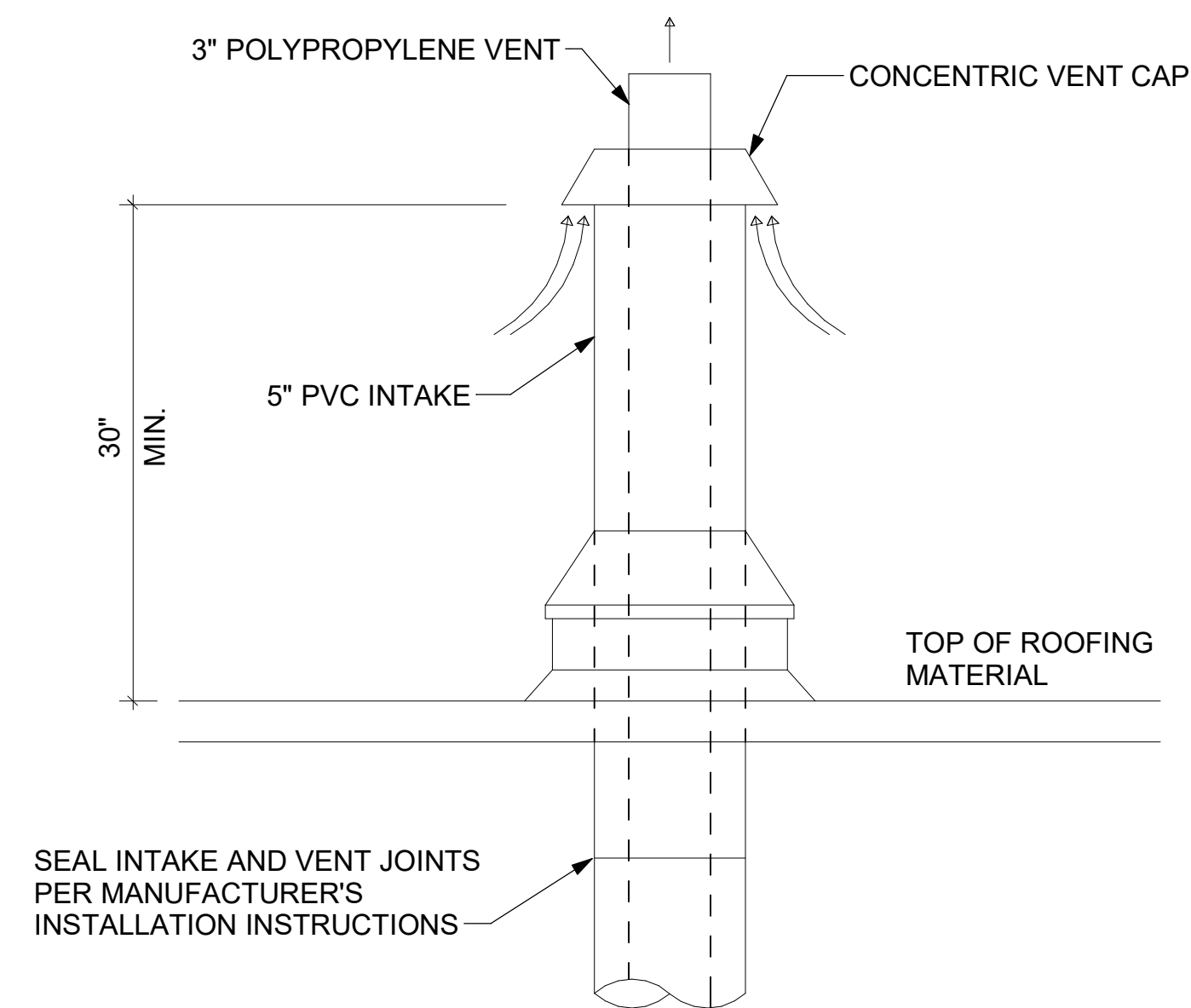


**5 CONDENSATE DRAIN PIPING**  
NOT TO SCALE

- NOTES:**
1. NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
  2. PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING CONDENSATE PIPING TO MAINTAIN PROPER SLOPE AND FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
  3. ENSURE GAS AND CONDENSATE PIPING DO NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS OPENINGS. RE-PIPING OF SYSTEMS DUE TO CONFLICTS WITH EQUIPMENT ACCESS OPENINGS SHALL BE DONE AT PLUMBING CONTRACTOR'S EXPENSE.



**4 PIPING SUPPORT ON ROOF**  
NOT TO SCALE

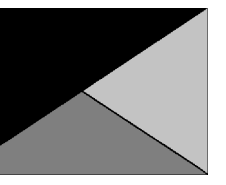


**7 WATER HEATER VENT ROOF PENETRATION**  
NOT TO SCALE



**Chick-fil-A**

**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998



**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
Telephone: (615) 255-5203



**CHICK-FIL-A**  
Blairs Ferry Rd FSU

3233 Blairs Ferry Road  
Cedar Rapids, IA 52402

**FSR#05649**

BUILDING TYPE / SIZE: P14 SE BN  
RELEASE: 23.09  
PRINTED FOR:  
ISSUE FOR CONSTRUCTION  
REVISION SHEET/DATE

NO.	DATE	DESCRIPTION
2	02/19/2024	ISSUE FOR CONSTRUCTION

ISSUE FOR CONSTRUCTION

CONSULTANT PROJECT # 23200.CD.S  
DATE 12/18/2023  
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SHEET DETAILS

SHEET NUMBER

**M-502**

Product Information Sheet



FyreWrap® Elite® 1.5 Duct Insulation – Grease Duct ASTM E2336 System



**Introduction**  
Unifrax's FyreWrap® Elite® 1.5 Duct Insulation is a two-layer flexible enclosure for two-hour rated commercial kitchen grease ducts. FyreWrap Elite 1.5 Duct Insulation is tested per ASTM E2336 and is acceptable as an alternate to a traditional fire-rated shaft. Installed as a two-layer system, FyreWrap Elite 1.5 complies with the International Mechanical Code (IMC) and Uniform Mechanical Code (UMC). FyreWrap Elite 1.5 Duct Insulation offers the following product features:

- 2-hour fire-resistance rating
- Alternate to shaft enclosure
- Complies with IMC and UMC
- Tested per ASTM E2336
- Two-layer system
- High-temperature, bioisolable insulation
- Zero clearance to combustibles, at any location
- GREENGUARD listed for Microbial Resistance

**Product Components**  
Core Material: FyreWrap Elite 1.5 incorporates Insulfrax® Thermal Insulation as its core material. Insulfrax is a high-temperature insulation made from a calcia, magnesia, silica chemistry designed to enhance bioisolation. It provides excellent insulation in a noncombustible blanket product form rated to 2300°F (1260°C).  
Encapsulating Material: The core insulation blanket is completely encapsulated in an aluminum foil fiberglass-reinforced scrim covering. This scrim provides additional handling strength as well as protection from grease, moisture absorption and tearing.

**Typical Product Parameters**

Thickness	1.5"
Nominal Density	6pcf
Standard Product Form	Scrim Encapsulated
Product Availability	24" w x 25L F 48" w x 25L F

**Typical Product Properties**

ICC Evaluation Services	.....	Evaluation Report ESR-2224
Intertek Laboratories Listed	.....	Duct System: Design No. UN/BI 120-02, UN/BI 120-14, UN/VA 120-01
ASTM E2336	.....	Passes all tests
ASTM E2336 Internal Grease Duct Test	.....	Zero Clearance to Combustibles at all locations on wrap
ASTM E119 Full Scale Engrulfment Test	.....	2-hour Fire Resistance Rating
ASTM E119 Vertical Wall Test	.....	2-hour Fire Resistance Rating
ASTM E84, UL 723, UL C102.2 - UL File No. R14514	.....	Unfaced Blanket - Encapsulated
Flame Spread/Smoke Developed Rating	.....	Zero/Zero <25/-50
ASTM E814 Firestop Test	.....	Firestop System: UN/IFRD 120-19, UN/BI 120-02, F-Rating = 2 Hrs., T-Rating = 2 Hrs.
ASTM E136 Non-Combustibility Test	.....	Passes
ASTM C518 Durability Test	.....	Passes: R-Value = 4.8 per inch at 75°F
ASTM C518 Thermal Resistance	.....	R-Value of Elite 1.5 (1 1/2") = 7.2
ASTM D6329-03 Microbial Resistance	.....	Highly Resistant to Mold Growth
California State Fire Marshal Listing	.....	No. 2440-1478-100

Complies with NFPA 96 (all editions), 1997 CBCO Uniform Mechanical Code (UMC), 1997 CBCO Uniform Building Code (UBC), 2018 International Mechanical Code (IMC), 2018 IFPA/UMC Uniform Mechanical Code.



**Installation** (Figure 1)  
To minimize waste, FyreWrap Elite 1.5 should be rolled out tautly before measuring and making any material cuts. Install both layers of wrap with transverse (perimeter) and longitudinal butted joints. Between the first and second layers of wrap stagger transverse joints and offset longitudinal joints to different corners. All visually exposed blanket edges are to be sealed with minimum 3" wide aluminum foil tape and the use of filament tape is not required but is permitted to ease installation. The installation materials must comply with the options listed in Table 1.  
Note: 3" material overlap can be substituted for compression butt joints.

**Table 1: Material Requirements**

Item	Type and Specification
Bands	• Carbon steel or Stainless steel • Min. 1/2" wide & nom. 0.015" thick
Crimp clips	• Carbon steel or Stainless steel • Min 1" long
Pins	• Steel • Weld Pins or Cup Head • Min. 12 Gauge
Washers	• Galvanized Steel • Min. 2 1/2" square or 1 1/2" round

**Attachment Options**  
**Banding only**  
Place bands at 1 1/2" on both sides of all second layer transverse butt joints and add additional bands as needed to ensure spacing is max. 10 1/2" on center. Tighten banding to firmly hold the wrap system in place but not so tight as to cut or damage the blanket. Secure bands with crimp clips.  
Note: No bands are required on the first layer.

**Banding and Pins**  
For ducts greater than 24", in addition to installing bands as described in the Banding Option, weld steel insulation pins in rows to the underside of horizontal runs. Locate pins on both sides of all second layer transverse butt joints 3" apart. Add additional rows as needed to ensure longitudinal spacing is max. 10". Pins in each row to be max. 6" from each duct edge and max. 12" on center. Impale FyreWrap Elite 1.5 Duct Insulation over the pins and secure with washers (cup head pins also permitted).  
\* Pins are not required on vertical duct sections when using this option.  
Note: In lieu of banding, pins installed on all sides of the duct is permitted.

**Access Door** (Figure 2)  
Field fabricated and prefabricated grease duct access doors are permitted for use with FyreWrap Elite 1.5 Duct Insulation. Field fabricated access doors are protected with three layers of FyreWrap Elite 1.5 Duct Insulation. A gasket of 0.5" thick unfaced FyreWrap or ceramic fiber blanket is installed between the duct and the access door cover. Weld threaded rod to each corner of the access door opening.

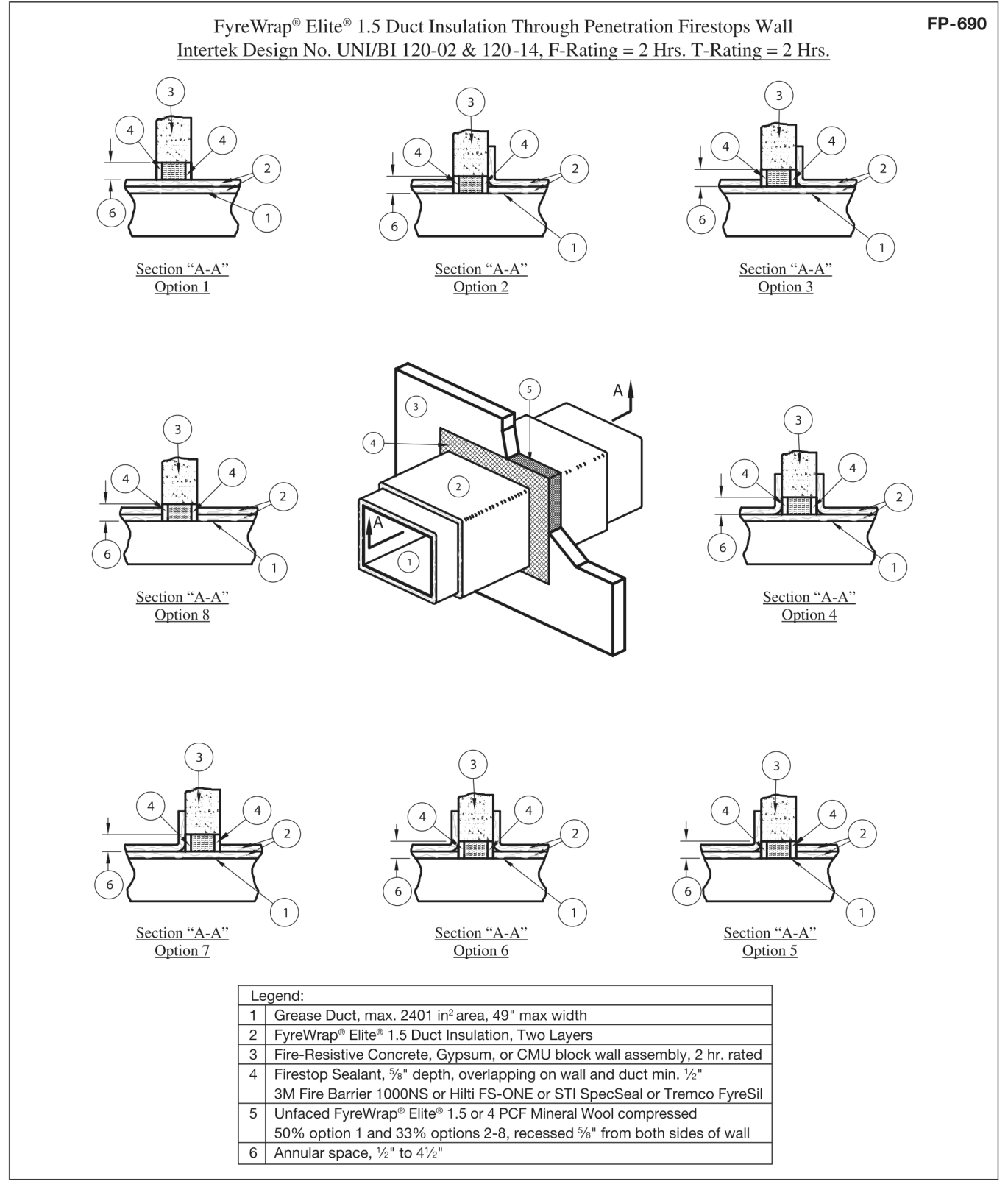
Cover with hollow steel tubes (optional) for easy removal of blanket. Weld at least four steel insulation pins to the outside of the door cover panel, 1" from each corner. Cut through the two layers of FyreWrap Elite 1.5 Duct Insulation already covering the duct and access door opening. Leave the interior piece in place. Cut back the outer layer to form an opening with perimeter dimensions that extend 1" beyond the inner layer. Cut a piece of FyreWrap Elite 1.5 Duct Insulation that matches the dimensions of the opening and install over pins to fit tightly within the existing material. Cut an additional piece of insulation with perimeter dimensions that extend 1" beyond the layer below. Install over the insulation pins. Throughout the installation process, seal all cut edges with aluminum foil tape. Secure with washers and bend over excess pin lengths to eliminate safety hazards. Place washers on threaded rod and secure with nuts. Do not install banding over this area.

Prefabricated - Ductmate Ultimate and Ductmate F2-HT prefabricated access doors are permitted and must be installed in accordance with Ductmate Industries, Inc. installation instructions and the applicable code. The prefabricated access door is protected with three layers of FyreWrap Elite 1.5 Duct Insulation. The first layer is cut to the size of the door. A successive layer (two additional layers) is sized to create an overlap of 1" beyond the layer immediately below. All edges of insulation blanket must be protected with aluminum foil tape. A No. 16 gauge outer plate the same dimension as the outer layer of insulation blanket is held in place over the insulation using threaded rod and wing nuts. The outer plate is supplied with the Ultimate door and F2-HT doors. Access doors are available from Ductmate Industries, Inc. Contact www.ductmate.com or 1-800-245-3188 for additional information or local distributors. Ask for the Access Door Product Line Manager.

**Firestop Systems** (Figures 3 and 4)  
Horizontal duct support systems do not require FyreWrap insulation when constructed using a minimum 1/4" diameter un-insulated all-thread steel rod and 1 1/2" x 1 1/2" x 1/4" un-insulated steel angle spaced a maximum 60" on center along the length of the duct. A minimum clearance of 1" is required between the protected duct and the steel rod. To increase hanger spacing to 72" on center, 1/2" all-thread steel rod and 2" x 2" x 1/4" steel angle are required. Vertical duct support systems do not require FyreWrap insulation when constructed using minimum 1 1/2" x 1 1/2" x 1/4" steel angle brackets located on opposite sides of the duct, on the top and bottom of each floor-ceiling assembly. The supports are attached to the duct with welds. Maximum spacing between vertical supports shall be established by structural calculations in accordance with the applicable code, that are submitted to the building official for approval.

**Duct Support** (Figure 5)  
Horizontal duct support systems do not require FyreWrap insulation when constructed using a minimum 1/4" diameter un-insulated all-thread steel rod and 1 1/2" x 1 1/2" x 1/4" un-insulated steel angle spaced a maximum 60" on center along the length of the duct. A minimum clearance of 1" is required between the protected duct and the steel rod. To increase hanger spacing to 72" on center, 1/2" all-thread steel rod and 2" x 2" x 1/4" steel angle are required. Vertical duct support systems do not require FyreWrap insulation when constructed using minimum 1 1/2" x 1 1/2" x 1/4" steel angle brackets located on opposite sides of the duct, on the top and bottom of each floor-ceiling assembly. The supports are attached to the duct with welds. Maximum spacing between vertical supports shall be established by structural calculations in accordance with the applicable code, that are submitted to the building official for approval.

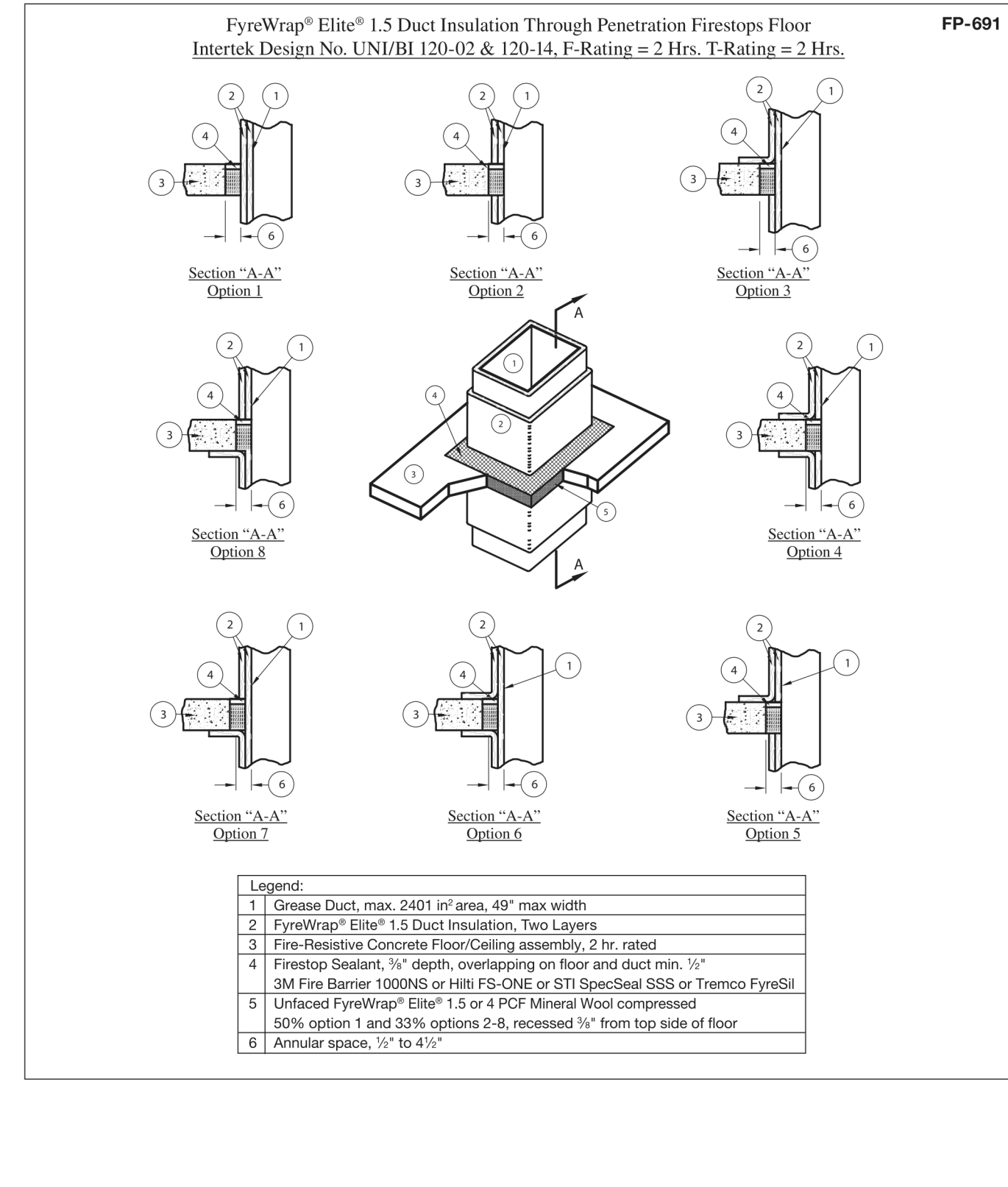
Figure 3. Firestop Installation



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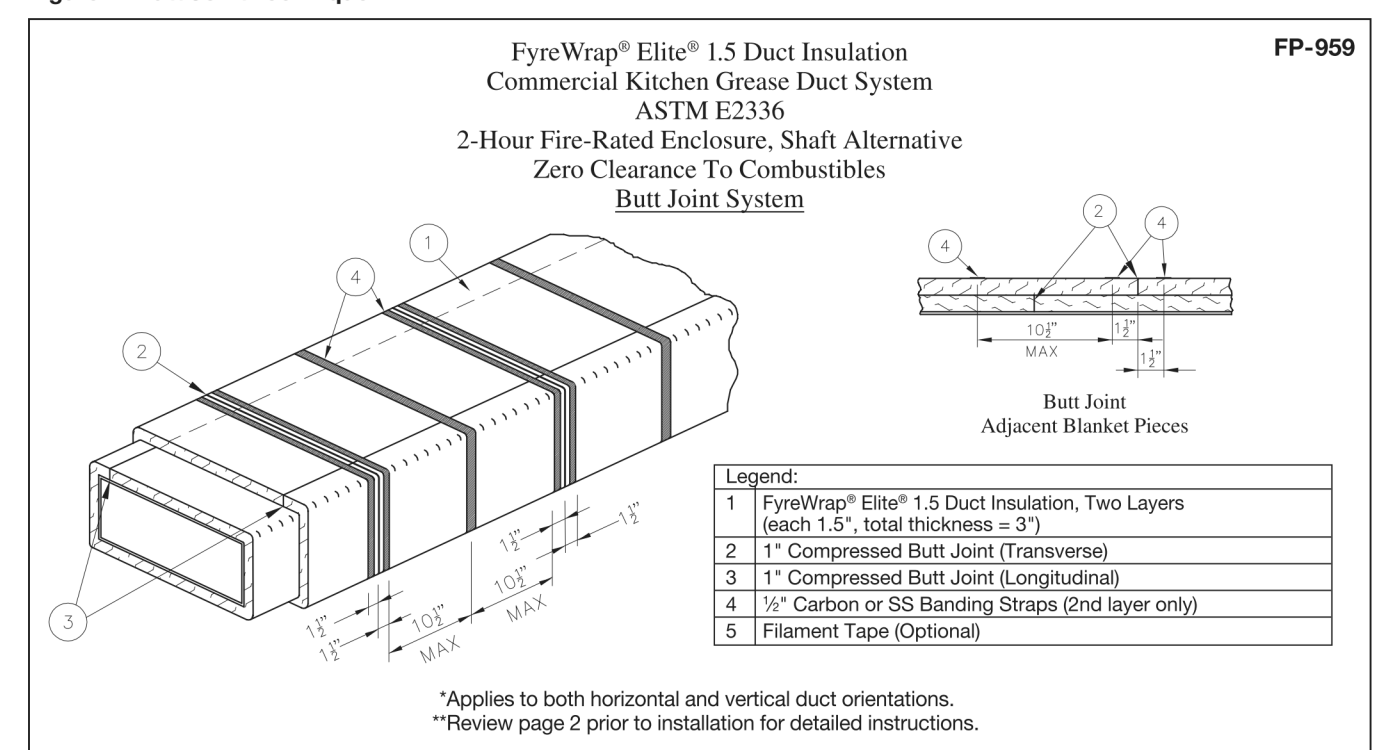
Figure 4. Firestop Installation



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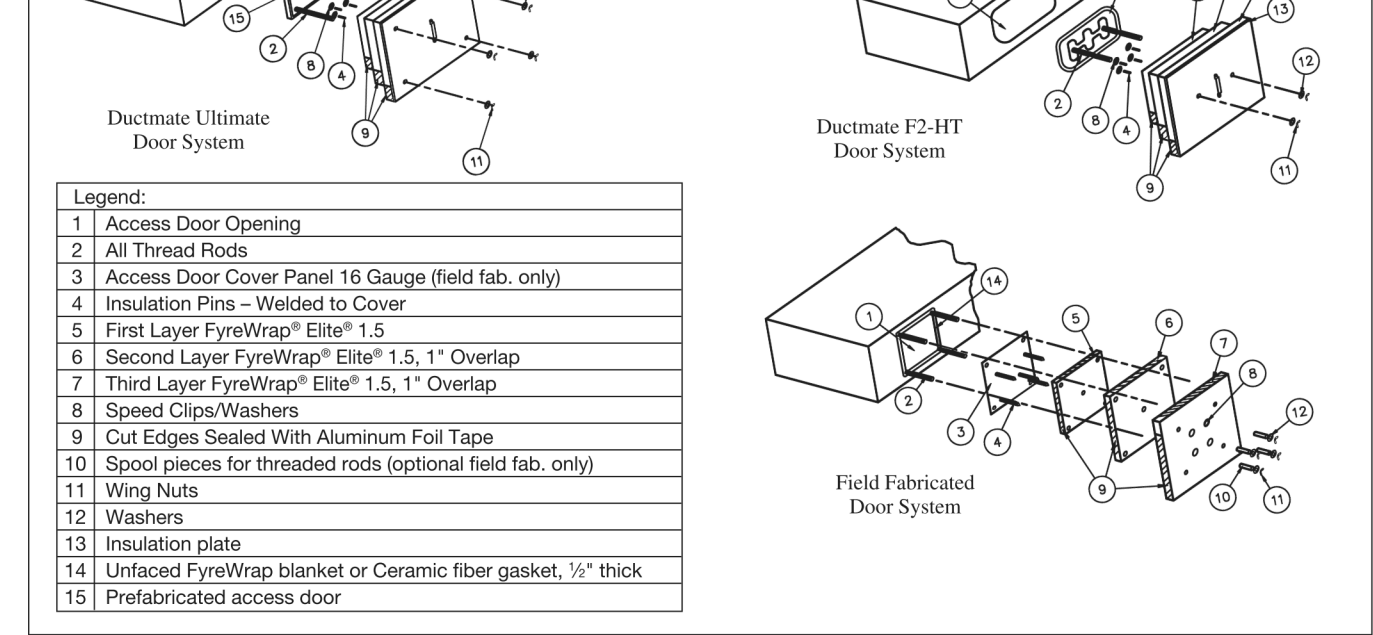
Figure 1. Butt Joint Technique



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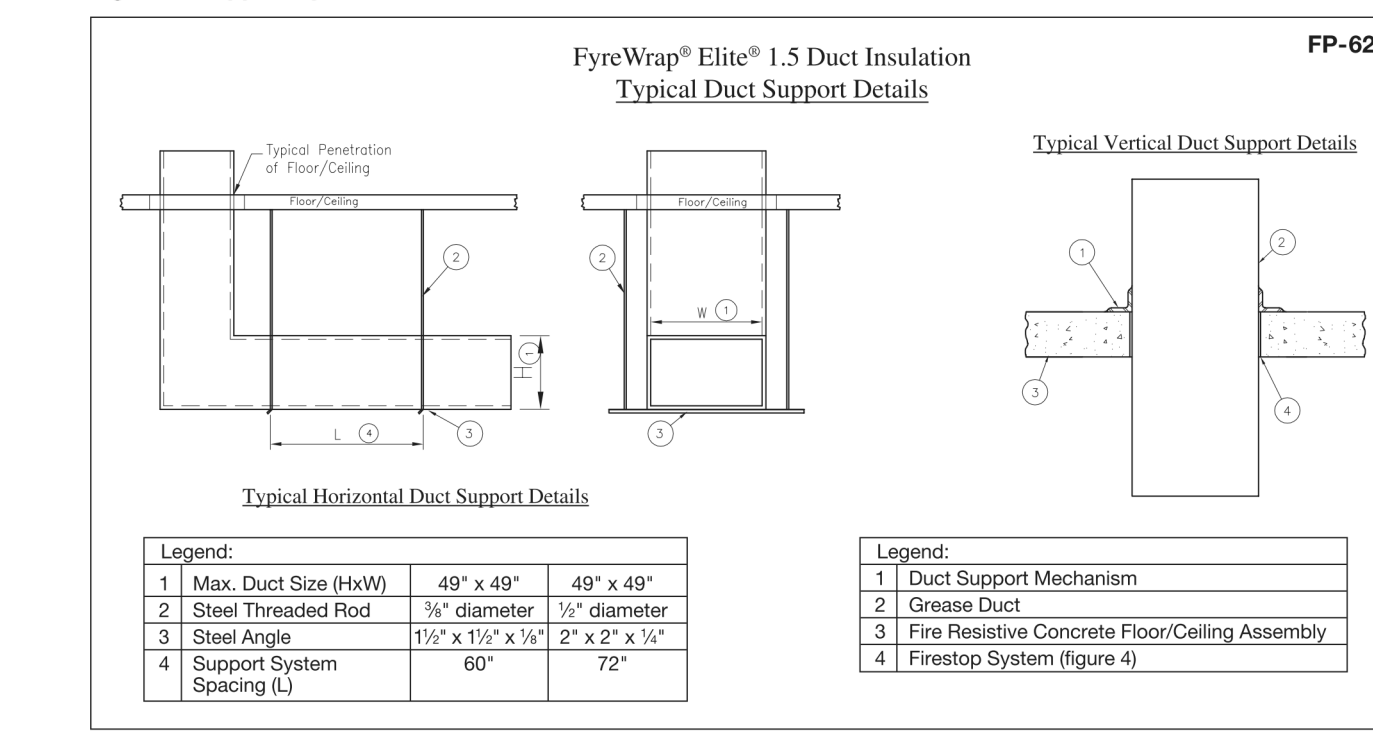
Figure 2. Access Door



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Figure 5. Support System



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For additional information about product performance or to identify the recommended product for your fire protection application, please contact Unifrax at 716-768-6500 and ask for Fire Protection Application Engineering.

FyreWrap

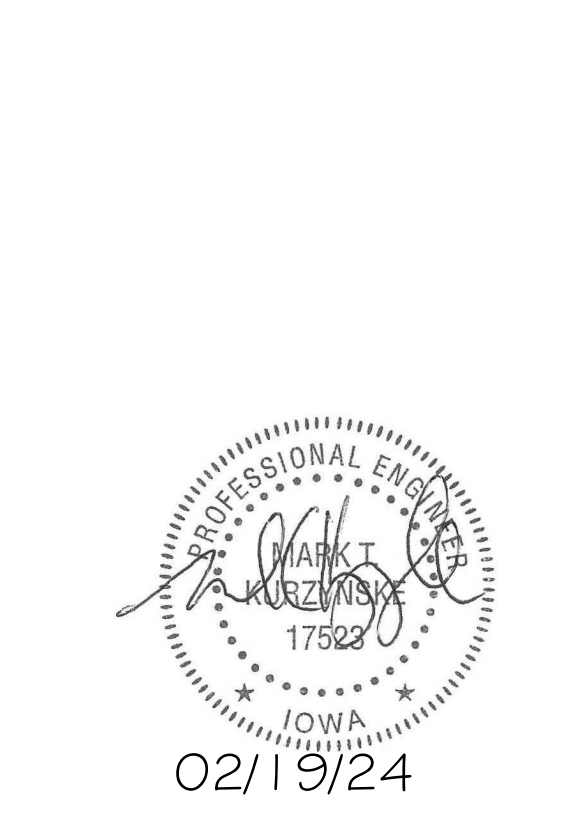
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**Chick-Fil-A**  
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30349-2998

**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
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Telephone: (615) 255-5203



**CHICK-FIL-A**  
Blairs Ferry Rd FSU  
3233 Blairs Ferry Road  
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FSR#05649

BUILDING TYPE / SIZE: P14 SE BN  
RELEASE: 23.09  
PRINTED FOR:  
ISSUE FOR CONSTRUCTION  
REVISION NUMBER

NO.	DATE	DESCRIPTION
1	01/23/2024	Plan Review Comments
2	02/19/2024	ISSUE FOR CONSTRUCTION

UNIFRAX I LLC  
Corporate Headquarters  
600 Riverwalk Parkway, Suite 120  
Tonawanda, NY 14150  
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Internet: www.unifrax.com  
Email: info@unifrax.com

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DATE 12/18/2023  
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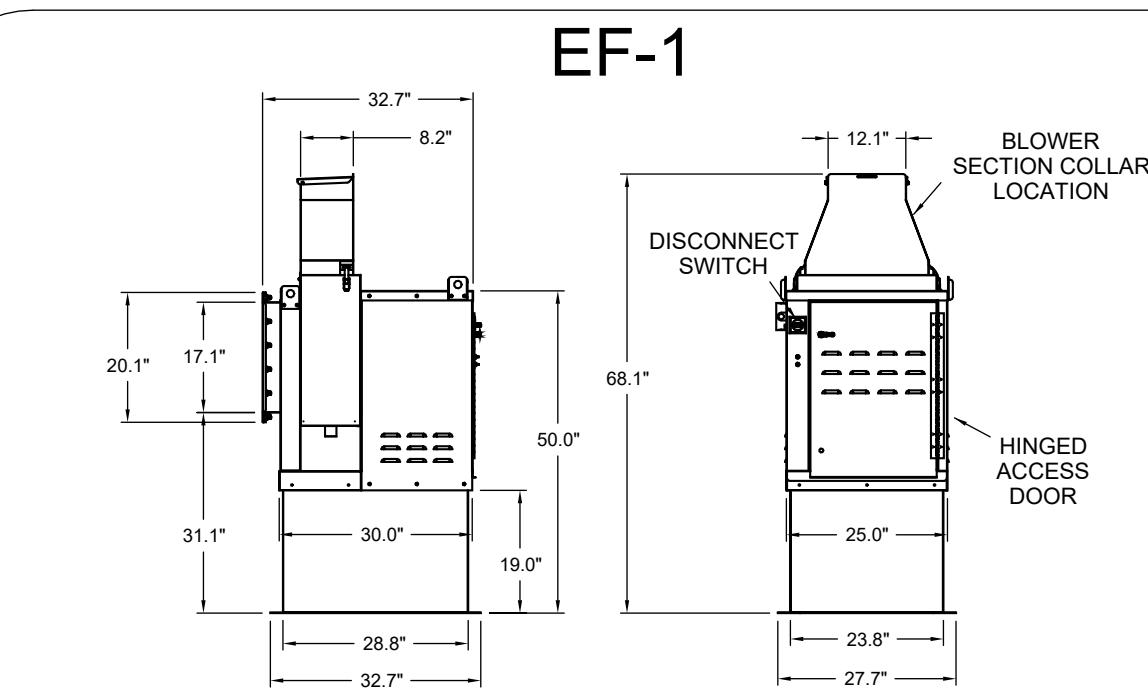
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SHEET NUMBER M-503

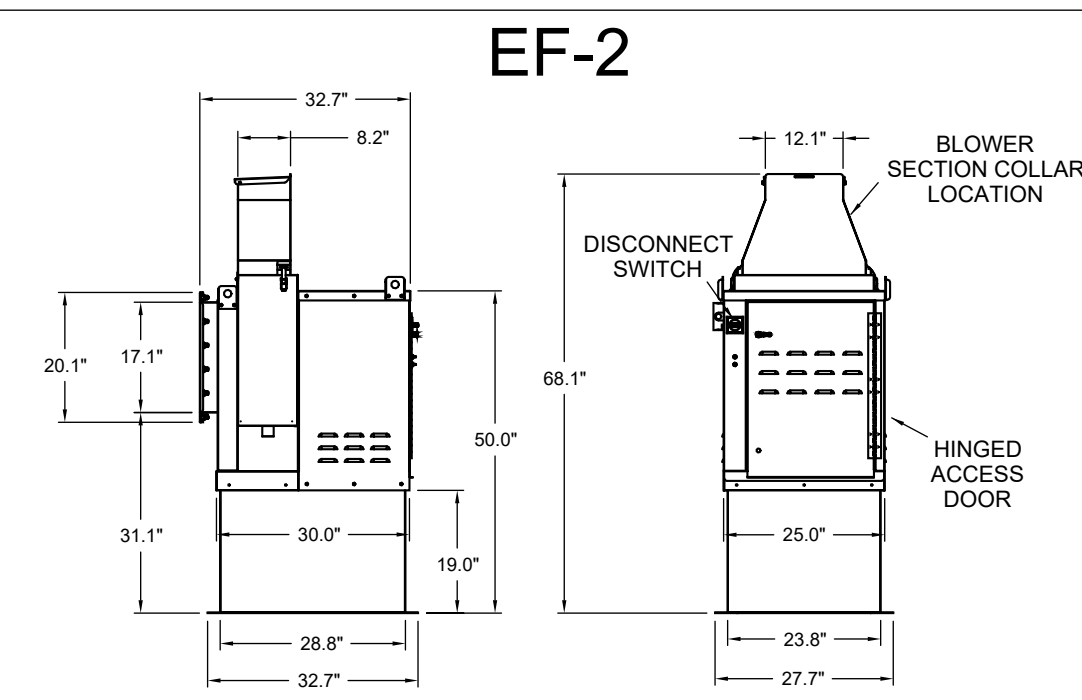
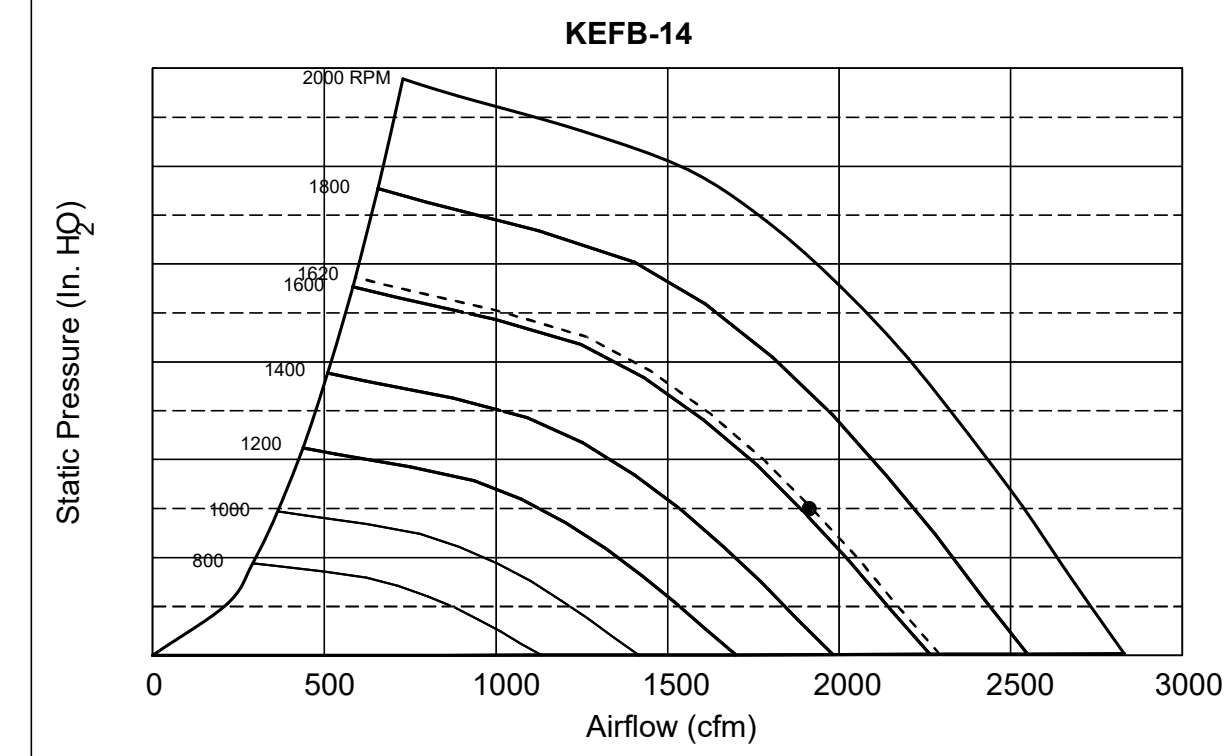
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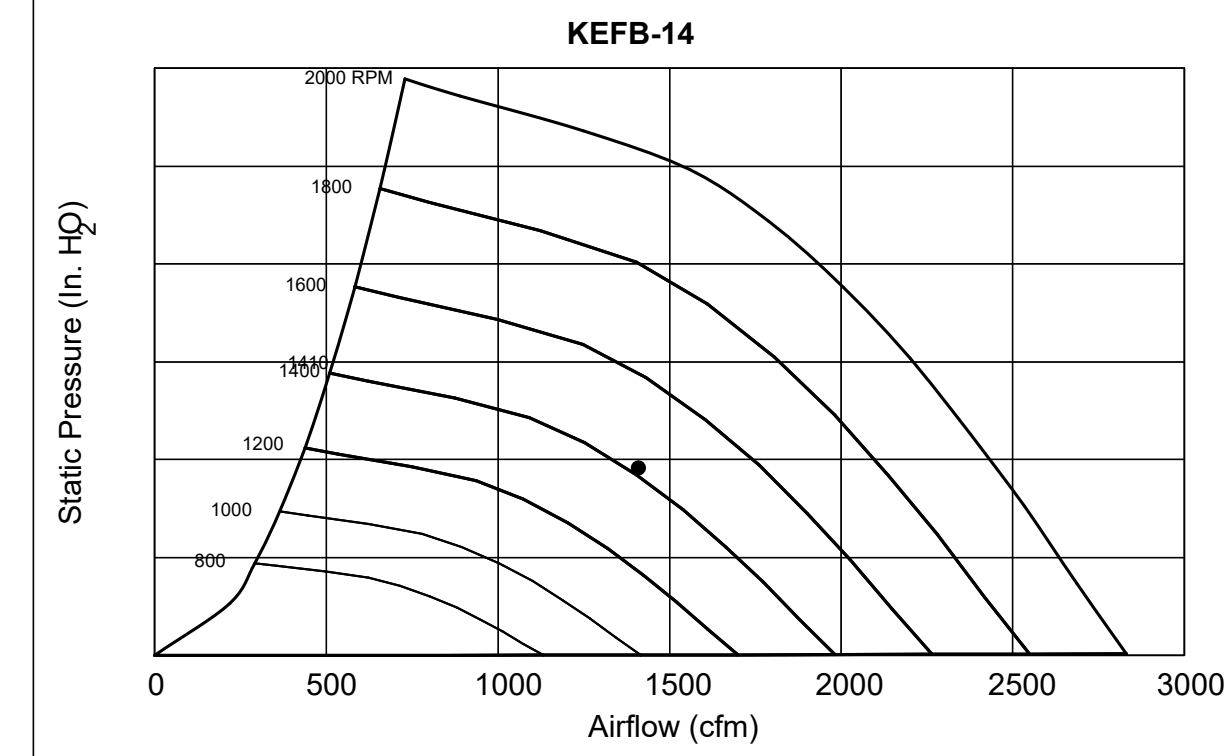
Haltom KEFB Exhaust Fan

Job Name	Chick-Fil-A	Location	EF-1
Date	1/26/2023	Item No	1,747
Model	KEFB-14	Fan RPM	1,747
Author	dm	Fan BHP	0.95
Static Pressure, in WC	1.913	Motor HP	66.3
		Volts/Ph/Amps	115/1/60
		Motor HP	0.75
		dB	85.3
		TAB Port, in WC	4



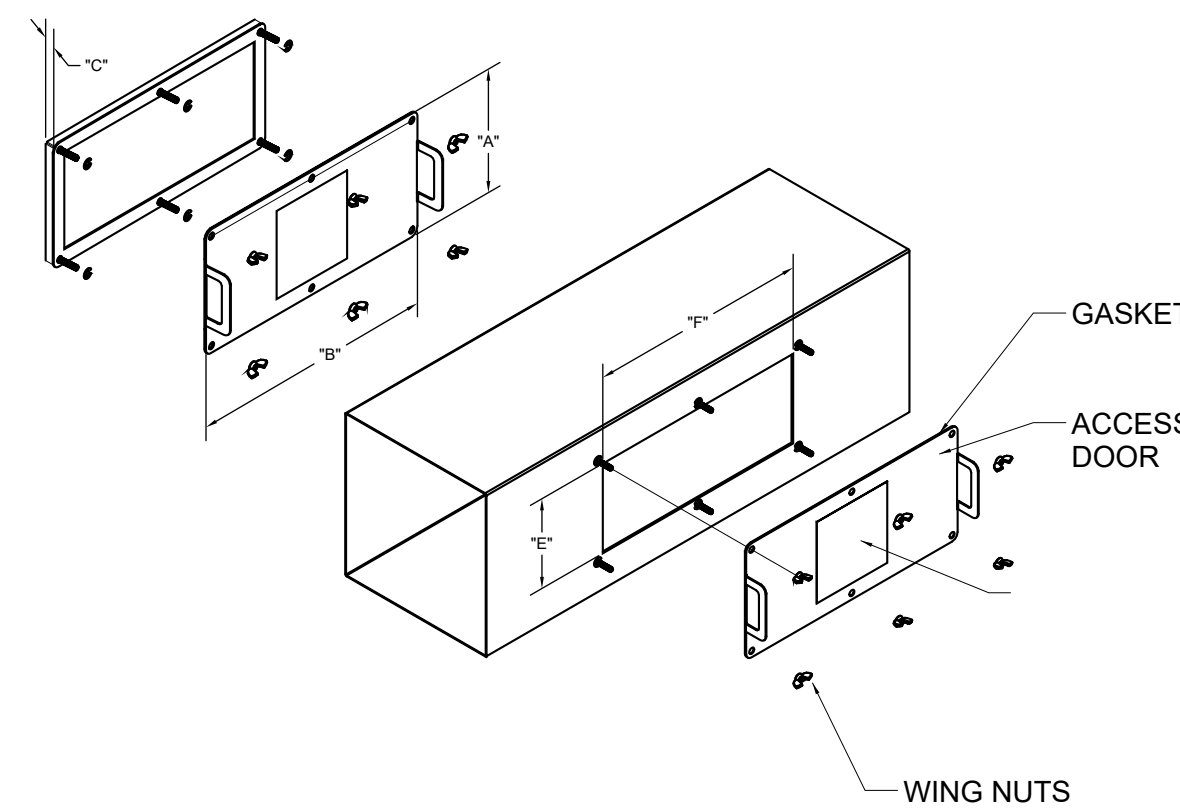
Haltom KEFB Exhaust Fan

Job Name	Chick-Fil-A	Location	EF-2
Date	1/26/2023	Item No	1,522
Model	KEFB-14	Fan RPM	1,522
Author	dm	Fan BHP	0.95
Static Pressure, in WC	1.402	Motor HP	61.6
		Volts/Ph/Amps	115/1/60
		Motor HP	0.75
		dB	81.6
		TAB Port, in WC	2.1

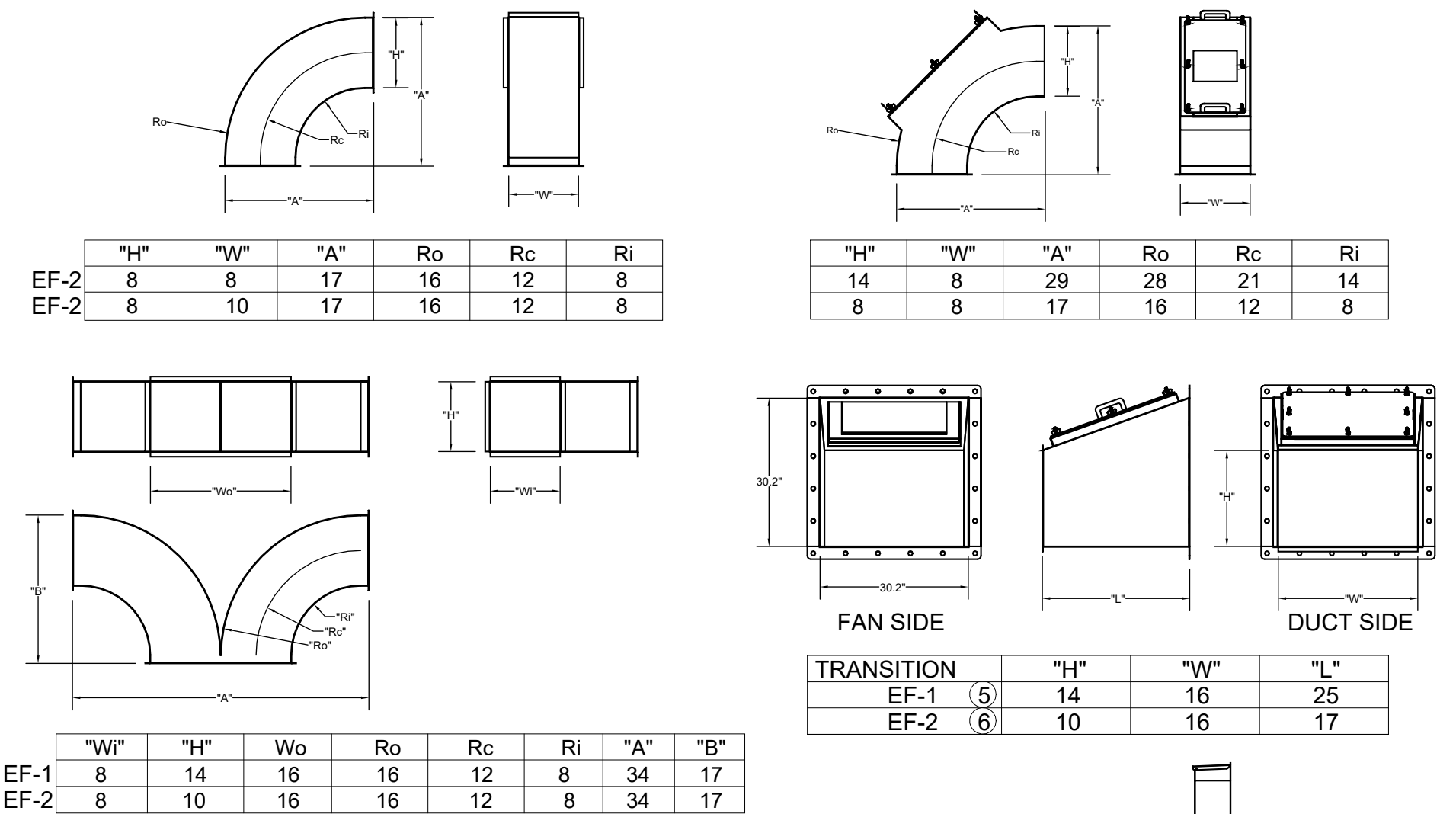


MODEL	DOOR SIZE	OPTIONAL FLANGE	OPENING SIZE
	"A"	"B"	"C"
KAP0715	7	15	FLAT
KAP1015	10	15	1/2"

ACCESS DOORS SHALL BE U.L. 1978 LISTED OR FIELD FABRICATED. REQUIRE NO TOOLS FOR REMOVAL AND MEET THE REQUIREMENTS OF THE CURRENT EDITION OF THE IMC. ACCESS DOOR SHALL BE SECURED WITH THUMB SCREWS. ACCESS DOORS SHALL BE SEALED WITH A MINIMUM 1500 DEGREE GASKET MATERIAL.



INSTALL PER MANUFACTURER'S INSTRUCTIONS

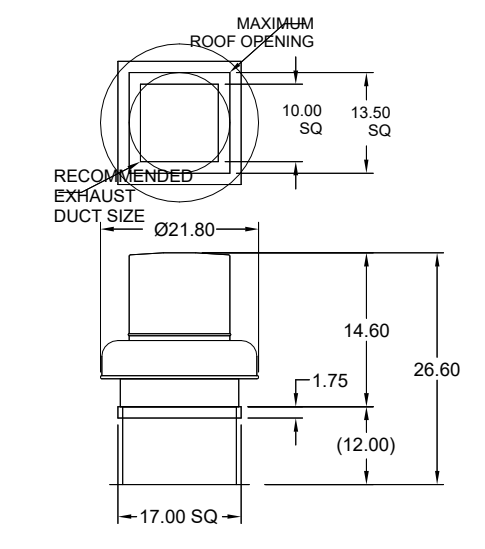


LABEL DOOR AS REQUIRED BY CODE. DO NOT PAINT OVER LABEL\*

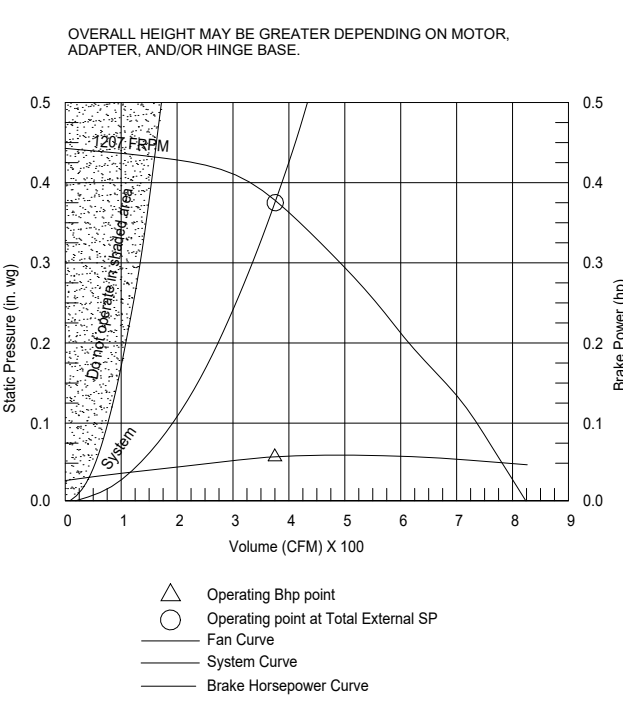
		"A"	
		14X8	8X18
EF-1	ELBOW	5	10
EF-2	ELBOW	5	10

Model: XRED-095-VG  
Direct Drive Centrifugal Roof Exhaust Fan

Dimensional	Quantity	1
Weight w/ Access (lb)		28
Weight w/ Access (lb)		35
Weight w/ Access and Curb (lb)		49
Standard Curb Cap Size (in.)		17 x 17
Optional Damper (in.)		10 x 10
Roof Opening (in.)		13.5 x 13.5

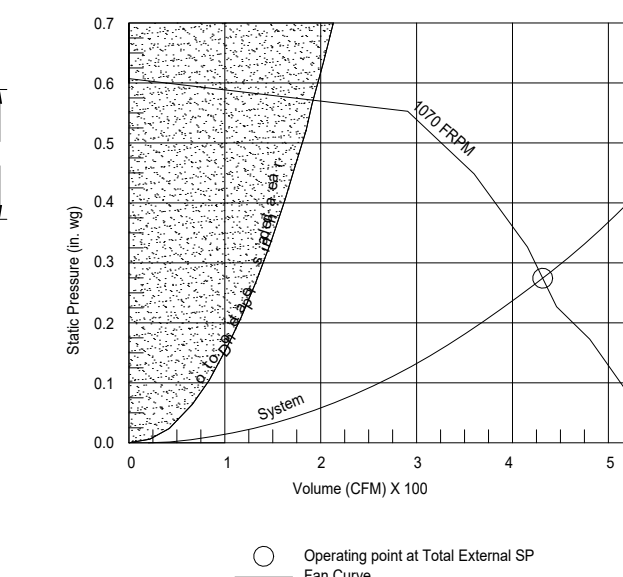
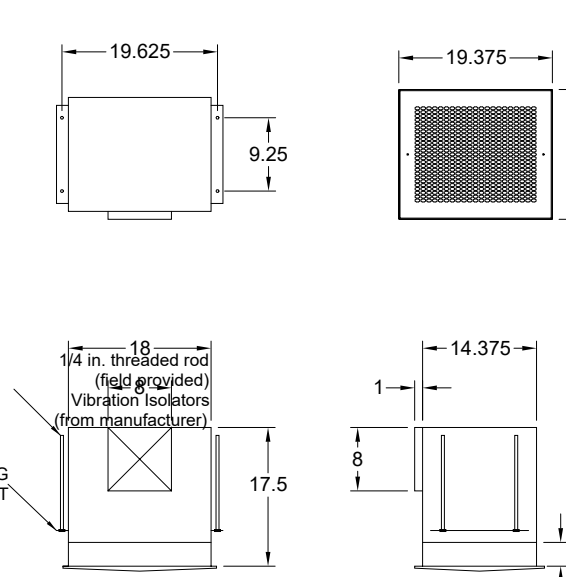


EF-3

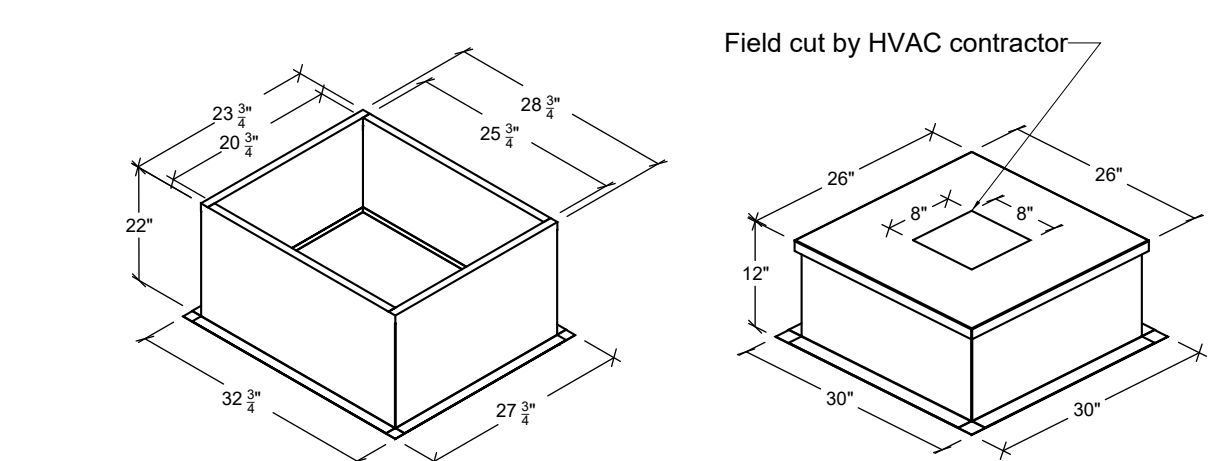


Model: SP-A510-VG  
RF-1

Dimensional	Quantity	1
Weight w/ Access (lb)		31
Weight w/ Access (lb)		40



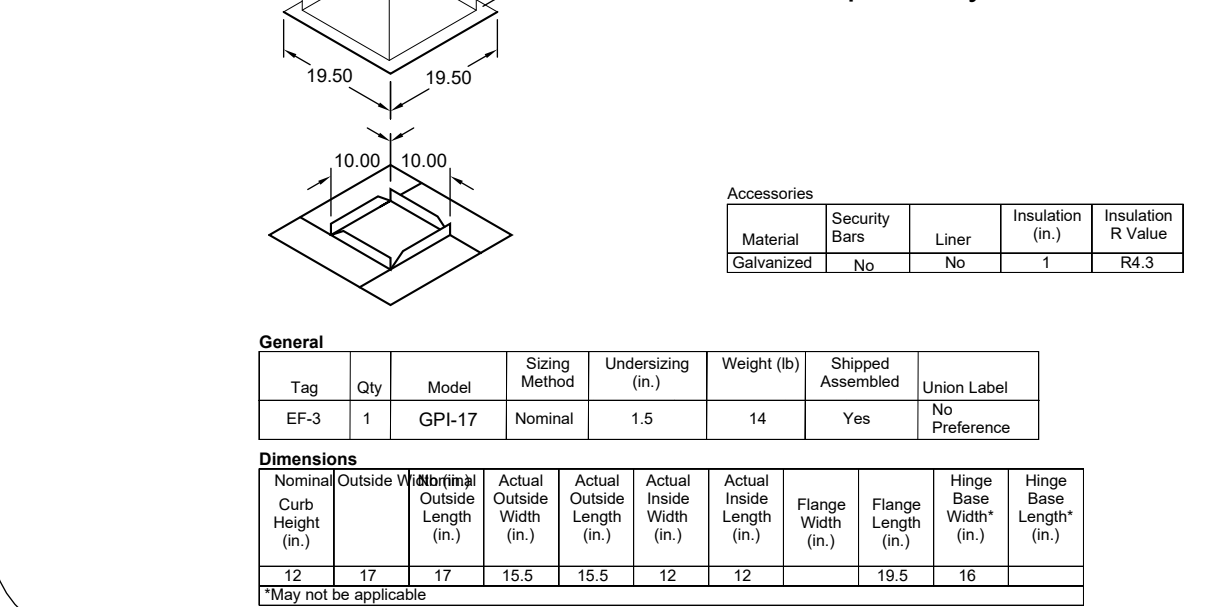
Haltom Kitchen Exhaust Fan Curb  
Insulated Duct Curb



**Kitchen Exhaust Fan Curb**  
Standard Construction Features:  
- Roof Curb fits between the building roof and the fan mounted directly to the roof support structure - Constructed of 18 ga aluminum steel - Straight flange without a curb - 2 in. mounting flange - height is 22 in.

**Insulated Duct Curb**  
Standard Construction Features:  
- Duct Curb fits between the building roof and the fan mounted directly to the roof support structure - Constructed of 18 ga aluminum steel - Straight flange without a curb - 2 in. mounting flange - height is 12 in. - 16 ga cap

Model: GPI  
For Model: XRED-090-VG  
Curb & Damper Tray



THIS DRAWING MUST BE REJECTED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFY THE FOLLOWING:  
1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS AND CLAMPED TYPE OF COOKING EQUIPMENT.  
2. THE DIMENSIONAL INFORMATION, MOUNTING POSITIONS AND CLAMPED TYPE OF COOKING EQUIPMENT.  
NOTE TO APPROVER:  
ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT CHANGES OCCUR, A RECALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.  
 REVISE AND RE-EMIT  
 APPROVED FOR FABRICATION  
 WITH NO CHANGES AS NOTED  
 WITH NO CHANGES  
APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

WEBSITE: www.haltom.com	DATE: 04/15/24
HALTON CO. (USA) 101 INDUSTRIAL DRIVE SCOTTSDALE, AZ 85264 1-214-237-8688	DATE: 04/19/24
HALTON CO. (CANADA) 1021 BREWSTER PLACE MISSISSAUGA, ON L4W 3R7 1-905-276-8688	DATE: 04/19/24
REVISION DESCRIPTION	SKK
ADDED EF-4 RELEASE	SKK
REMOVED EF-4 - POST RELEASE	SKK

PROJECT: CHICK-FIL-A #0649 BLAIRS FERRY RD	DATE: 01/19/24
LOCATION: CEDAR RAPIDS, IA	DATE: 01/19/24
DRAWN BY: ACF	DATE: 01/19/24
SCALE: NOT TO SCALE	
CONSULTANT:	
<b>Haltom</b>	
DRAWING TITLE: CFA FAN DETAILS	
DRAWING No.: U24-062	
REV. NO.: 0	SHEET NO.: 4 of 5



**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998

**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
Telephone: (615) 255-5203



**CHICK-FIL-A**  
Blairs Ferry Rd FSU  
3233 Blairs Ferry Road  
Cedar Rapids, IA 52402

**FSR#05649**  
BUILDING TYPE / SIZE: P14 SE BN  
RELEASE: 23.09  
ISSUE FOR PERMIT  
NO. DATE DESCRIPTION  
1 01/23/2024 Plan Review  
Comments  
2 02/19/2024 ISSUE FOR CONSTRUCTION  
3 05/17/2024 Owner Changes

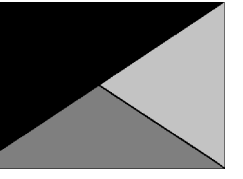
CONSULTANT PROJECT # 23200 CD.S  
DATE 12/18/2023  
DRAWN BY BLM  
Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.  
SHEET CFA FAN DETAILS  
SHEET NUMBER  
**MH-1.4**

SHEET ADDED TO SET





**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998



**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
Telephone: (615) 255-5203



02/19/24

**CHICK-FIL-A**  
Blairs Ferry Rd FSU

3233 Blairs Ferry Road  
Cedar Rapids, IA 52402

**FSR#05649**

BUILDING TYPE / SIZE: P14 SE BN

RELEASE: 23.09

PRINTED FOR:

ISSUE FOR CONSTRUCTION

REVISION SHEET

NO.	DATE	DESCRIPTION
2	02/19/2024	ISSUE FOR CONSTRUCTION

CONSTRUCTION

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ISSUE FOR CONSTRUCTION

**M-201**

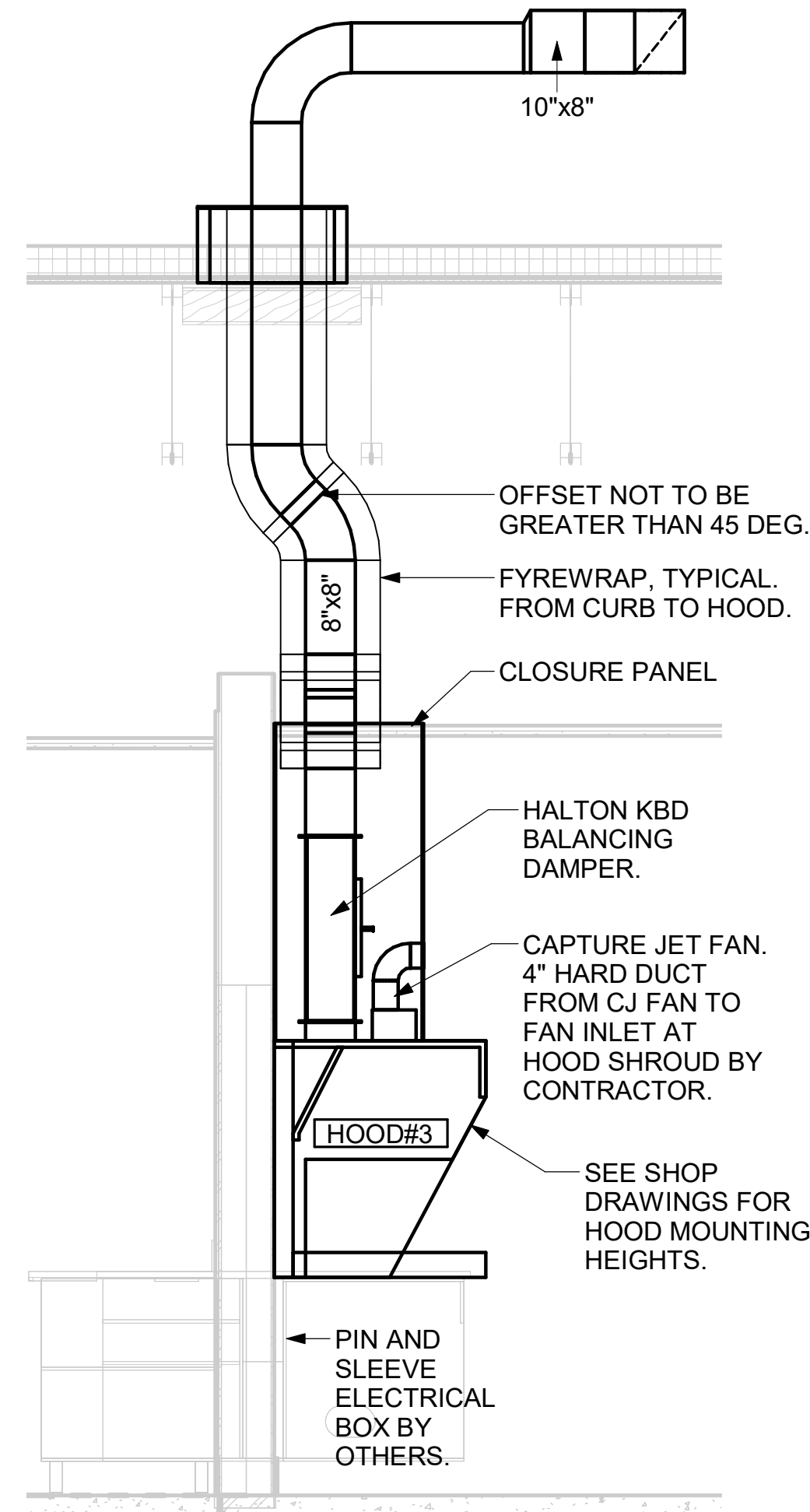
GREASE EXHAUST DUCT CLEARANCE NOTE:

CLEARANCES ABOVE CEILING ARE TIGHT. MECHANICAL CONTRACTOR TO FIELD VERIFY EXACT ROUTING AND CLEARANCES PRIOR TO FABRICATING GREASE EXHAUST DUCT.

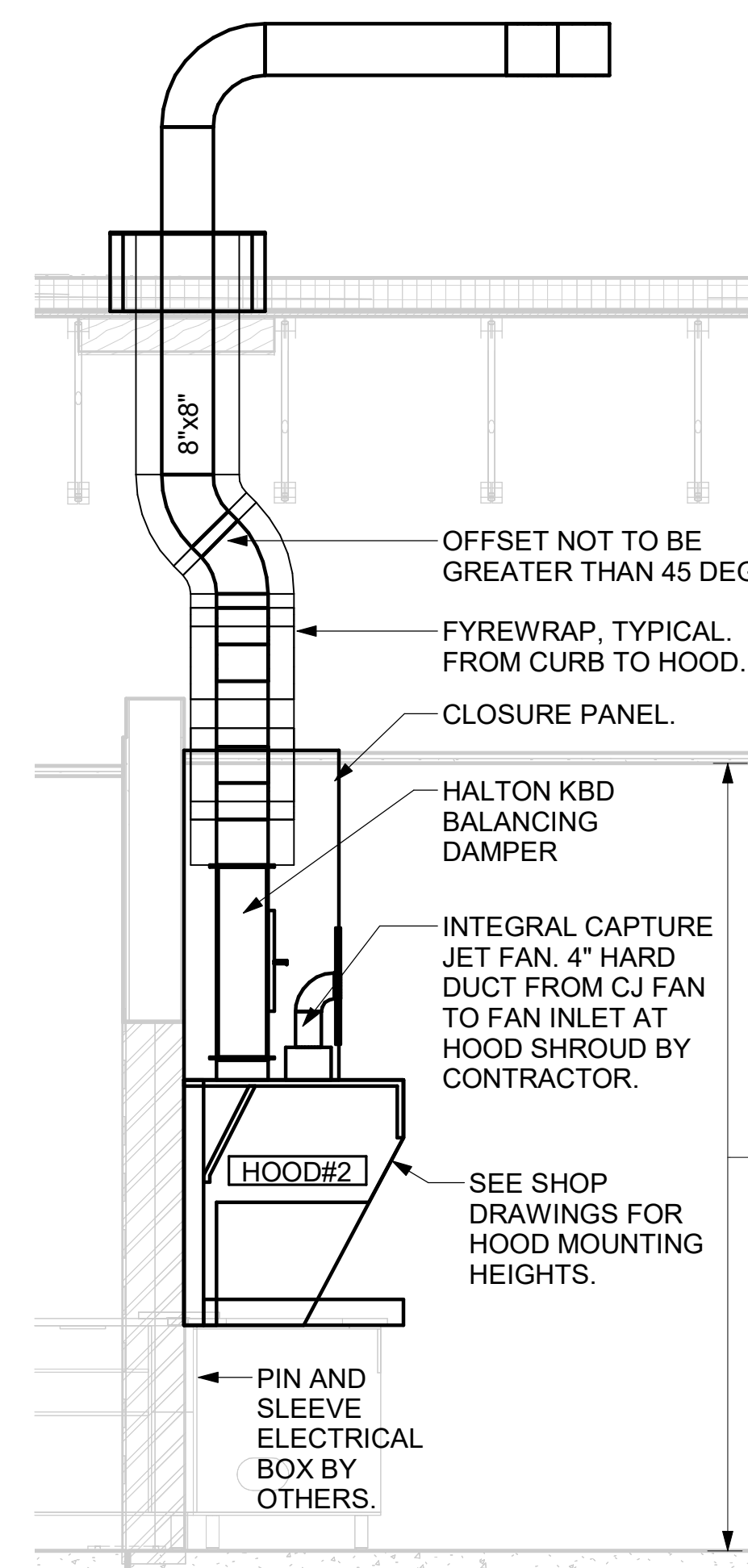
CLEANOUT DOOR NOTE:

DUCT WRAP SHALL BE APPLIED TO THE CLEANOUT DOOR PER THE WRAP MFR'S INSTALLATION INSTRUCTIONS. NO EXCEPTIONS. ALSO, THE CLEANOUT DOOR MUST BE REMOVABLE WITHOUT TOOLS AND MUST BE CLEARLY AND PERMANENTLY LABELED.

CRITICAL: SET RIGHT SIDE OF HOOD#3 FLUSH WITH FINISHED EDGE OF PASS THRU OPENING.

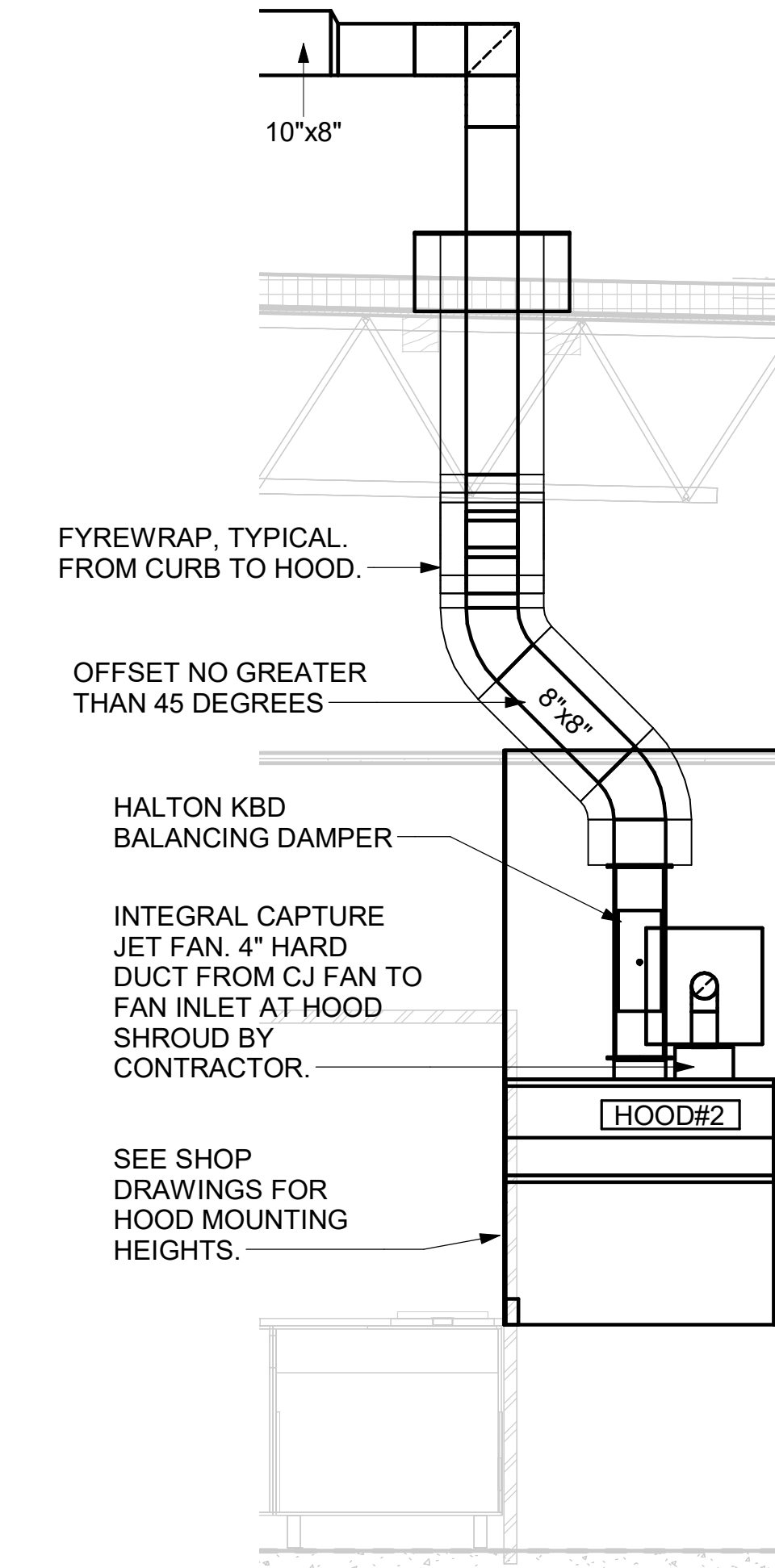


6 HOOD ELEVATION - HOOD#3  
NOT TO SCALE

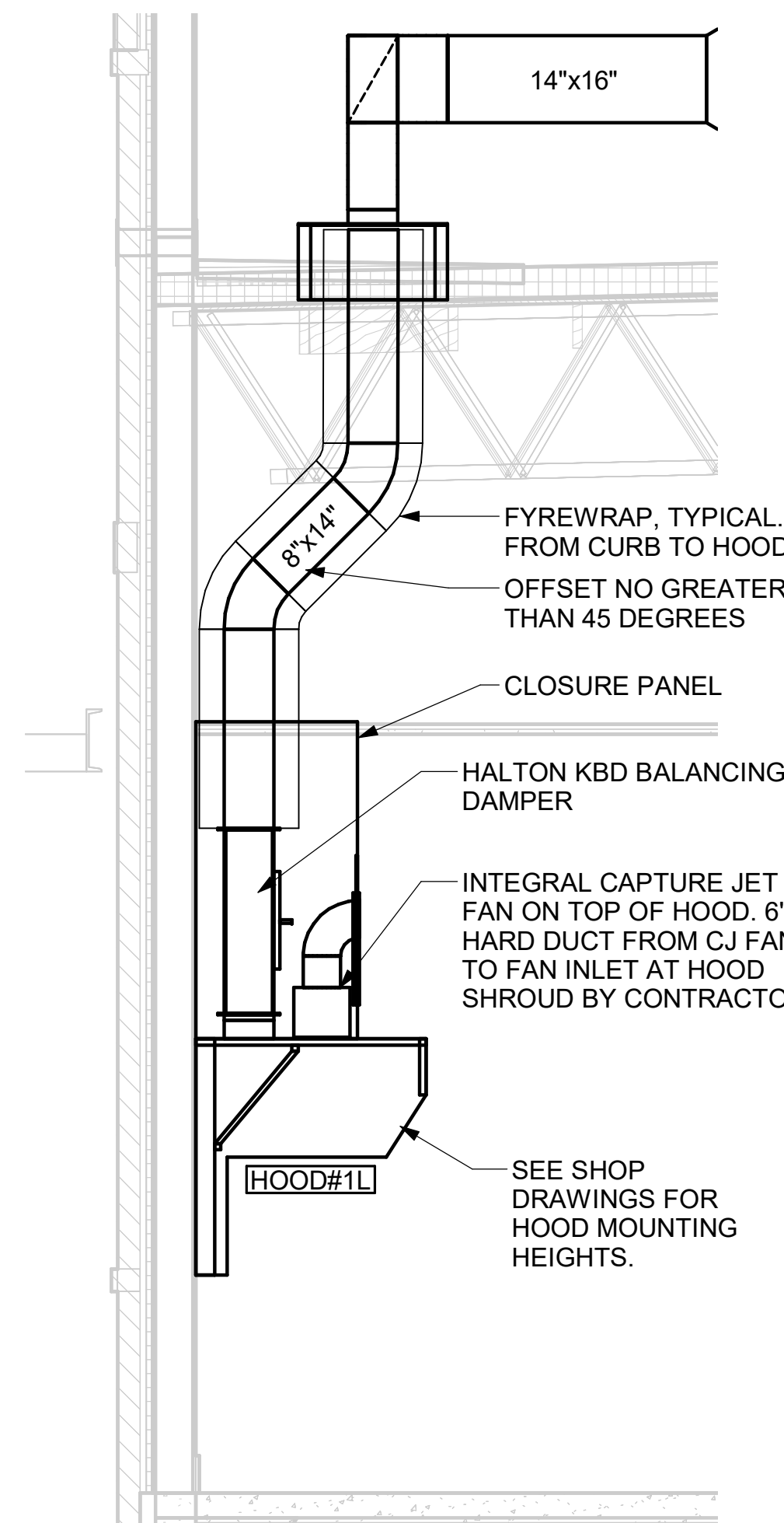


5 HOOD ELEVATION - HOOD#2 - SIDE  
NOT TO SCALE

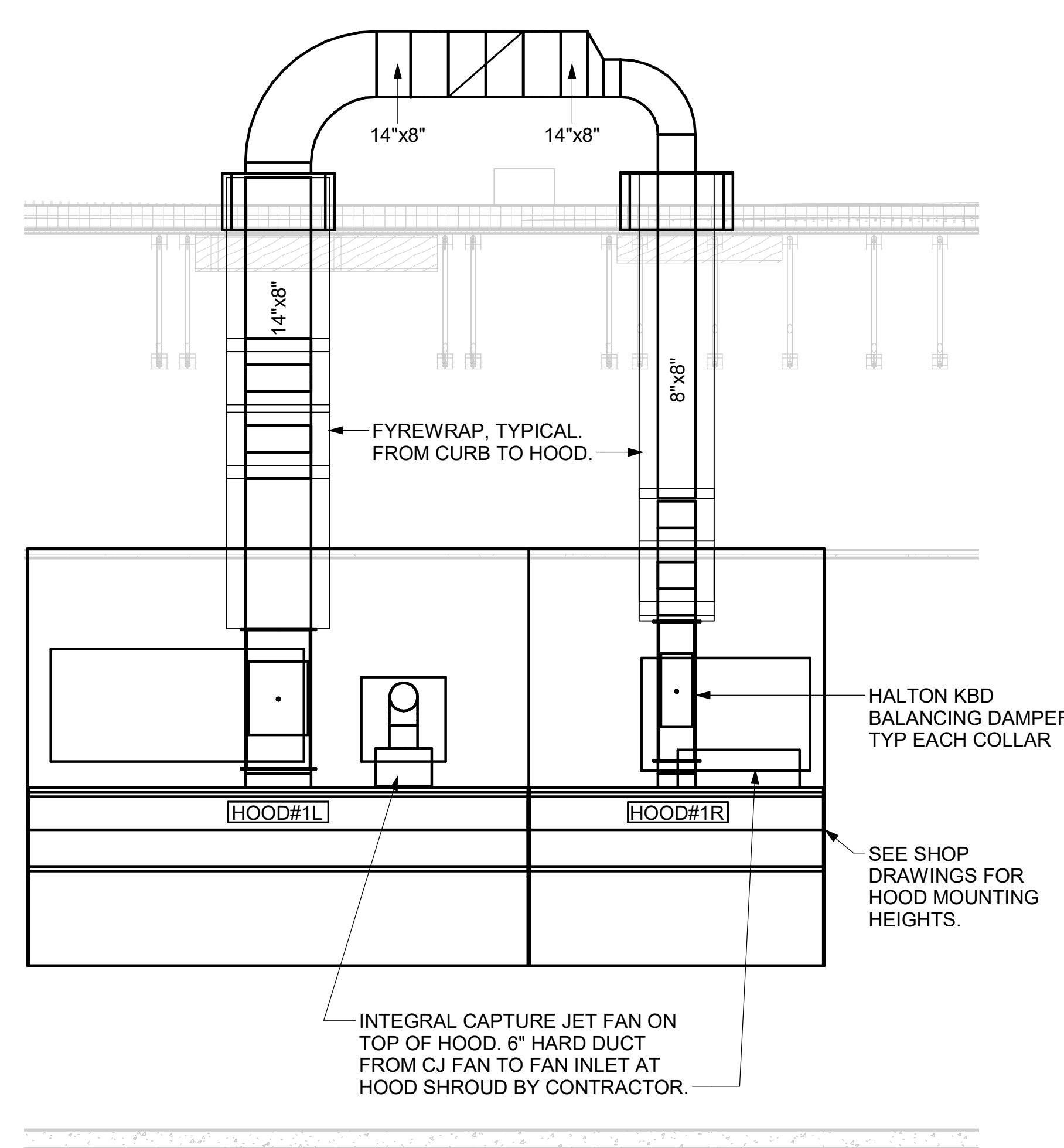
CRITICAL: SET LEFT SIDE OF HOOD FLUSH WITH FINISHED EDGE OF PASS THRU OPENING.



4 HOOD ELEVATION - HOOD#2 - FRONT  
NOT TO SCALE



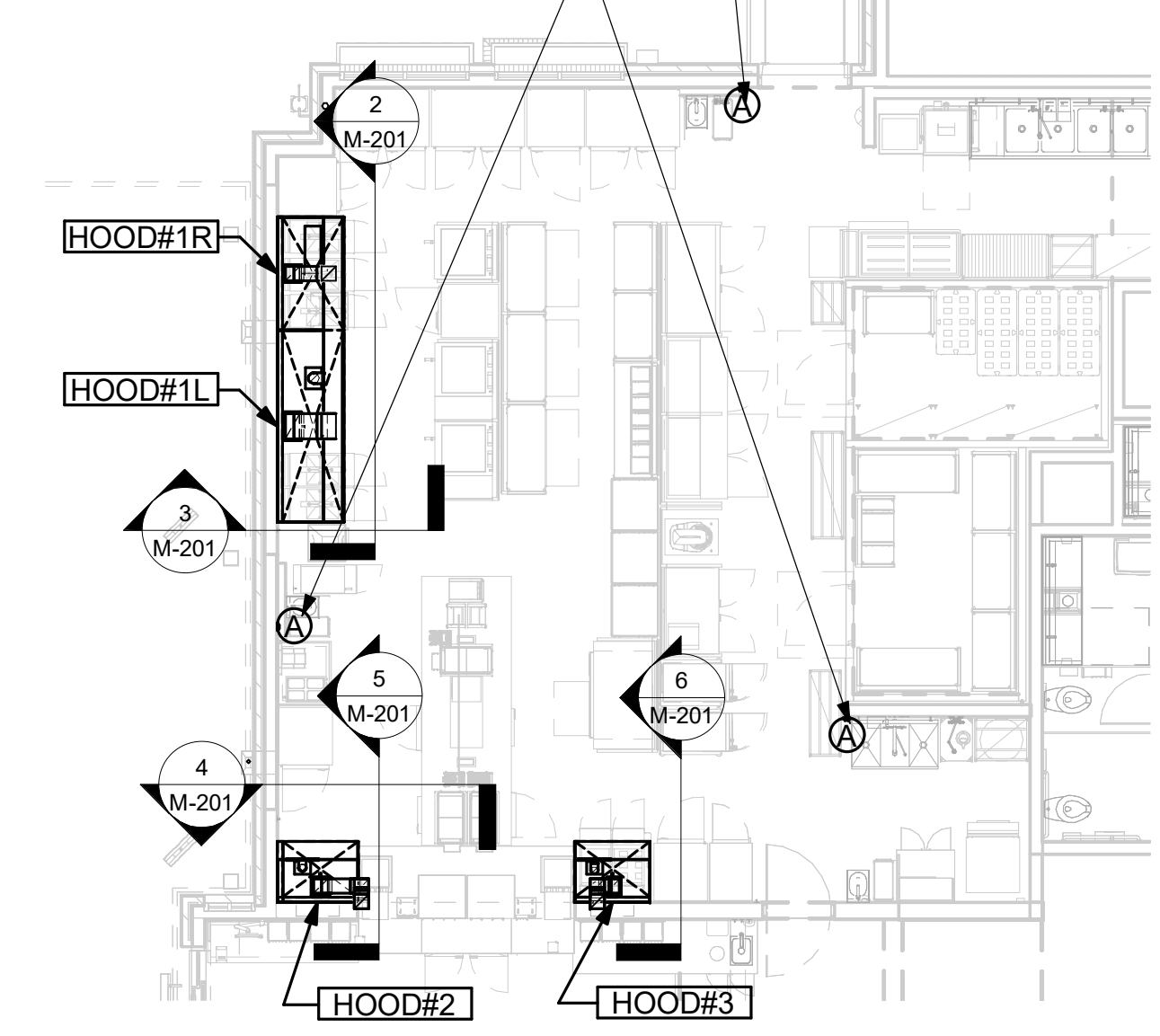
3 HOOD ELEVATION - HOOD#1 - SIDE  
NOT TO SCALE



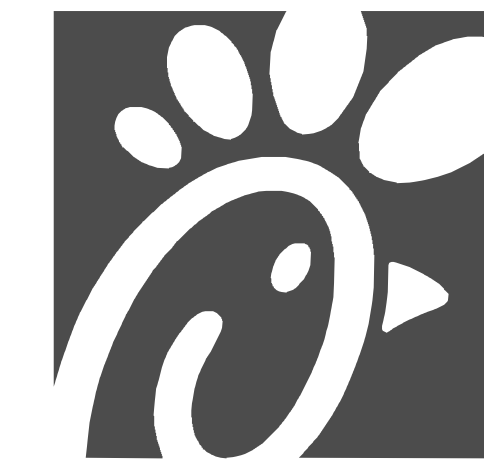
2 HOOD ELEVATION - HOOD#1 - FRONT  
NOT TO SCALE

PULL STATION SERVING HOOD#1 ADJACENT TO HANDSINK. LOCATE PULL STATION BETWEEN 42" AND 48" AFF. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT ELEVATIONS. J-BOX AND CONDUIT ARE BY ELECTRICAL. PROVIDE RED BAKELITE LABEL WITH 1/4" HIGH WHITE LETTERS INDICATING THE HOODS SERVED, I.E.: "MAIN COOKLINE HOOD".

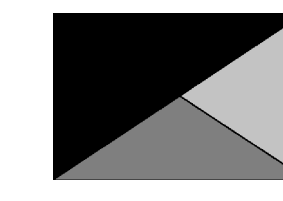
PULL STATIONS SERVING BOTH HOOD#2 AND HOOD#3 ON WALL WHERE SHOWN. LOCATE PULL STATION BETWEEN 42" AND 48" AFF. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT ELEVATIONS. J-BOX AND CONDUIT ARE BY ELECTRICAL. PROVIDE RED BAKELITE LABEL WITH 1/4" HIGH WHITE LETTERS INDICATING THE HOODS SERVED, I.E.: "PASS THRU HOODS".



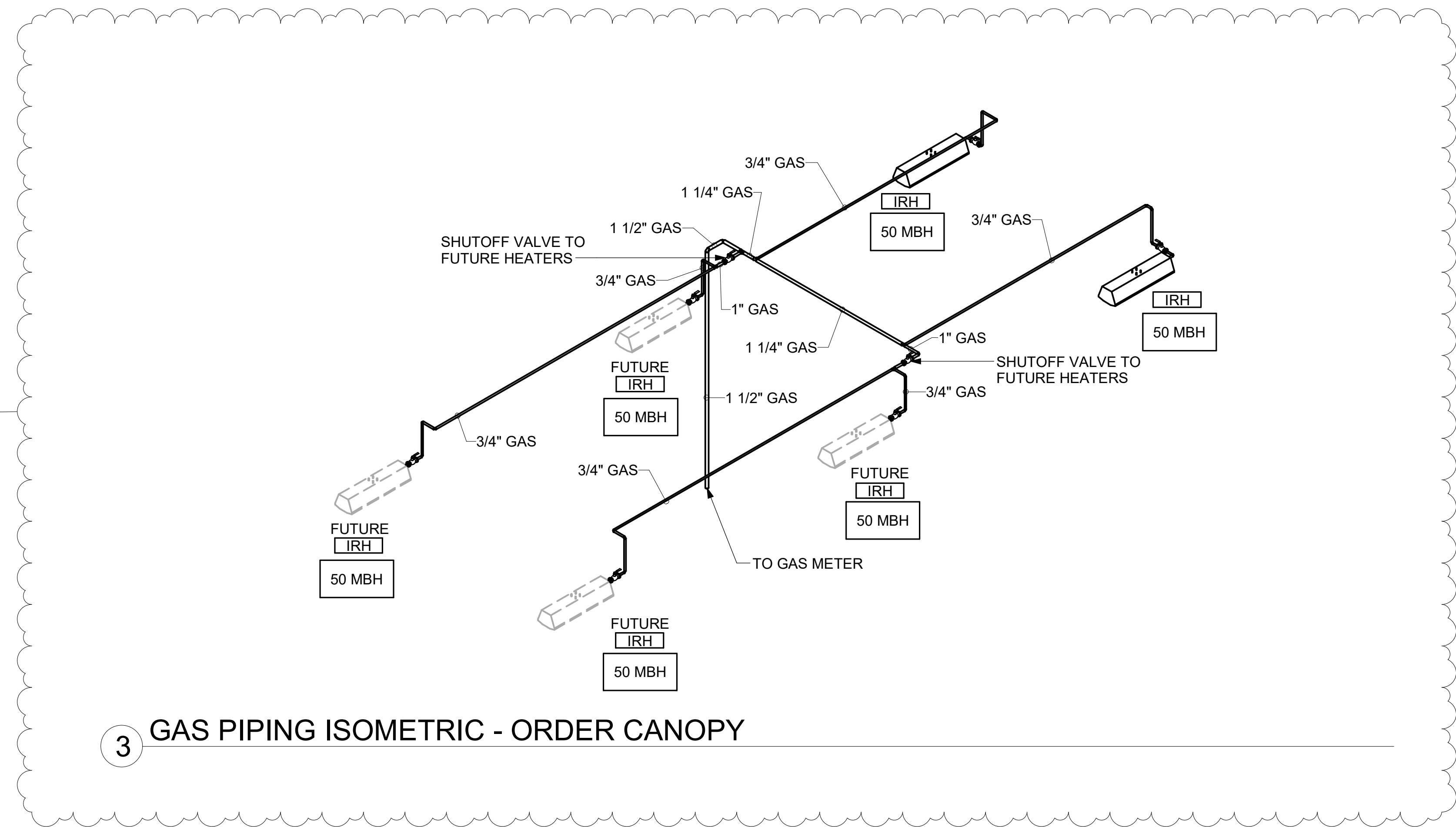
1 HOOD LAYOUT  
NOT TO SCALE



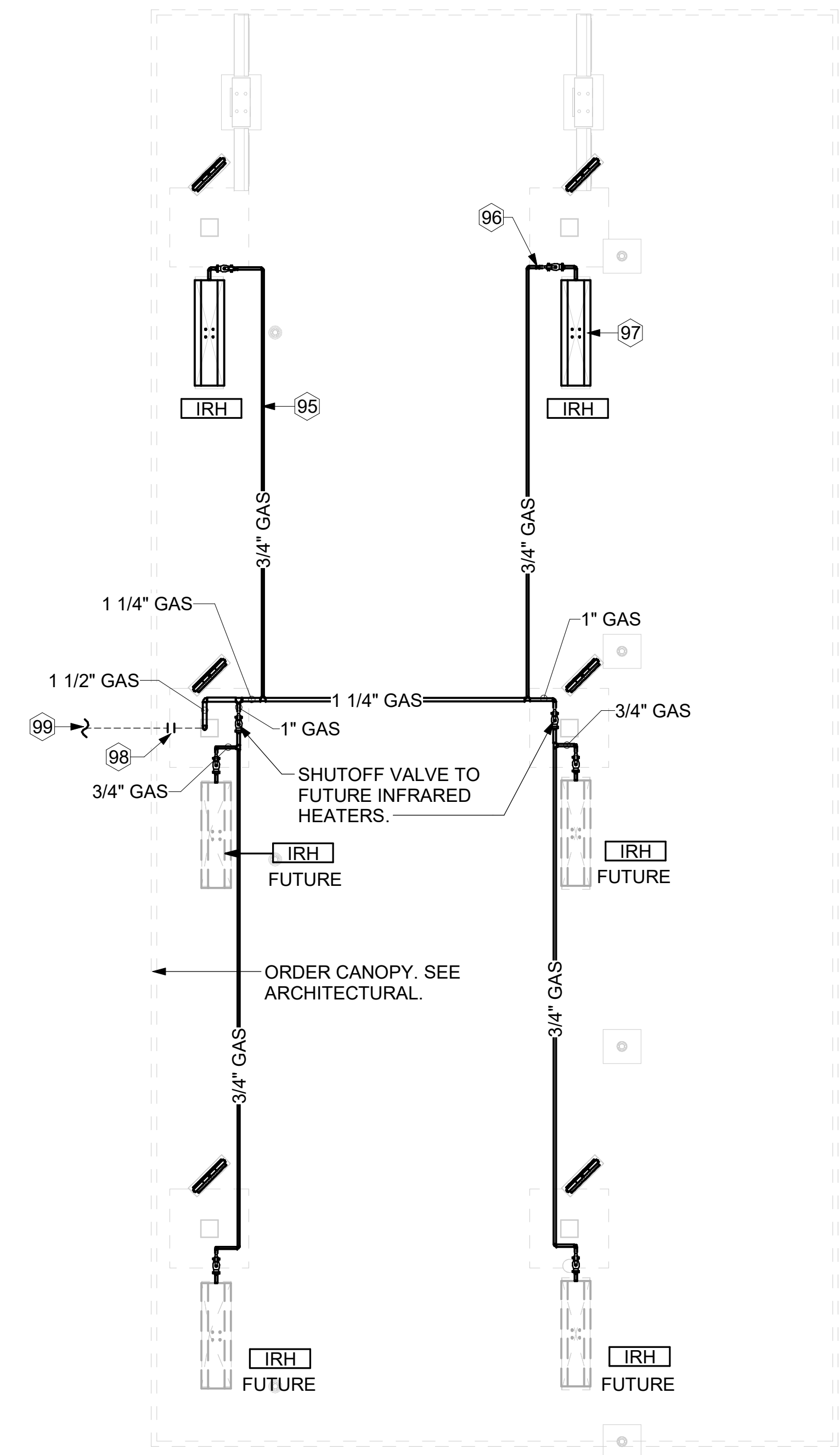
**Chick-fil-A**  
 Chick-fil-A  
 5200 Buffington Road  
 Atlanta, Georgia  
 30349-2998



**Kurzynske & Associates**  
 2705 Lebanon Pike - Suite One  
 Nashville, Tennessee 37214  
 Telephone: (615) 255-5203



3 GAS PIPING ISOMETRIC - ORDER CANOPY



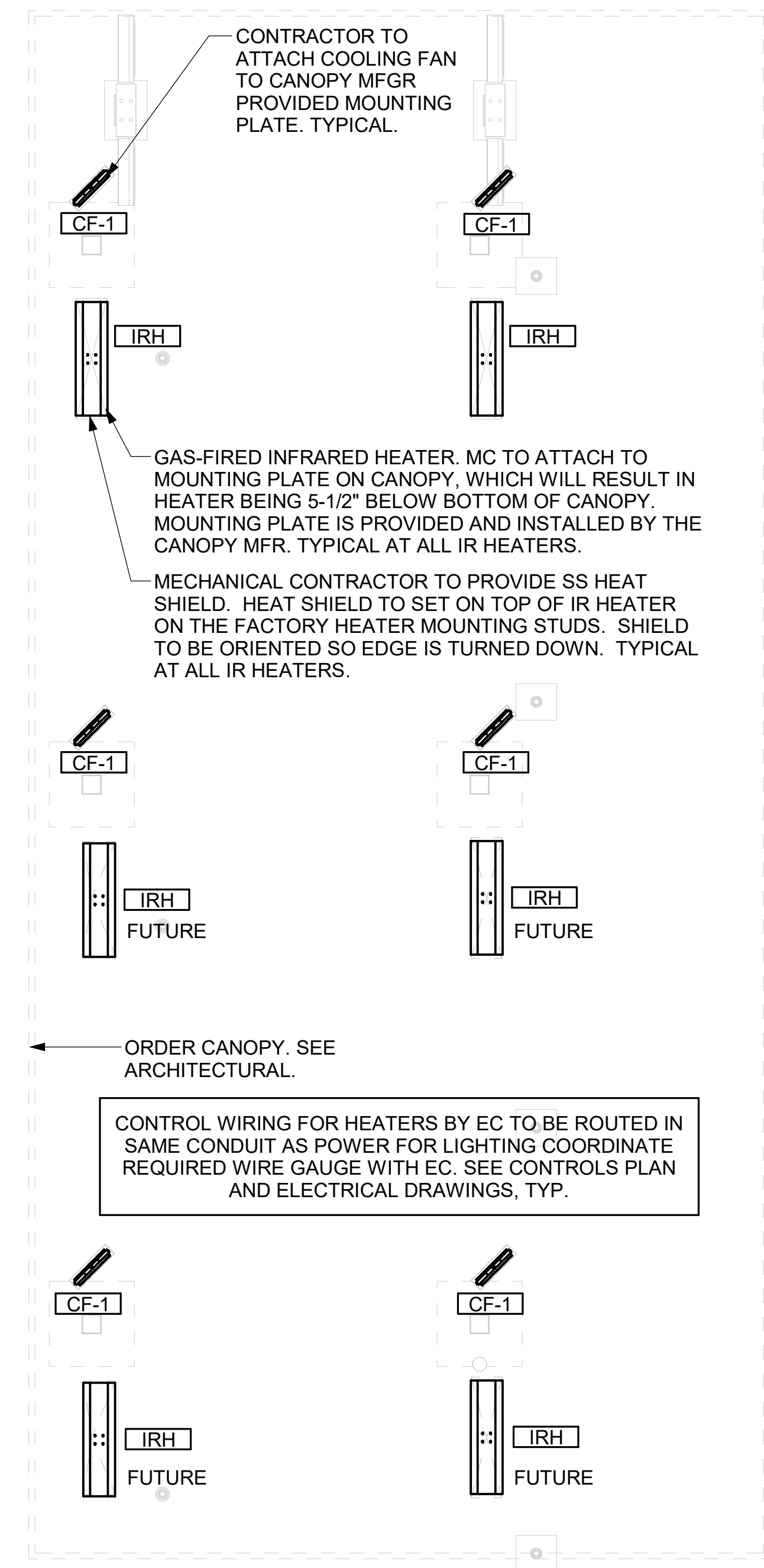
2 ORDER CANOPY GAS PIPING PLAN  
 1/4" = 1'-0"

**KEY NOTES**

- 95 GAS PIPING TO BE ROUTED ABOVE CANOPY, ON TOP OF STRUCTURAL MEMBERS, EXCEPT WHERE ROUTED DOWN THROUGH PENETRATIONS AS INDICATED.
- 96 GAS PIPING DOWN THROUGH DECK. WEATHERPROOF DECK PENETRATION PER DETAIL 6/M-502, TYPICAL.
- 97 SEE DETAIL 1/M-502 FOR PIPING AT IRH, TYPICAL.
- 98 GAS TRANSITION FITTING TO GAS PIPE STUB-OUT. GAS PIPING INSIDE COLUMN AND STUB-OUTS BY CANOPY MFR. JOIN UNDERGROUND POLYETHYLENE GAS PIPING TO TRANSITION FITTING WITH ELSTER PERMASERT COUPLING. CANOPY MFR'S EXPOSED STEEL PIPING BELOW GRADE SHALL BE PROTECTED WITH TWO COATS ASPHALT TUM BASE PAINT AND POLY SLEEVE.
- 99 1-1/2" GAS B/G TO METER SEE 1/M-102.

**CANOPY GENERAL NOTES**

- 1. COORDINATE WORK WITH CONDUIT, STRUCTURE, AND PIPING. FIELD VERIFY CONDITIONS PRIOR TO START OF WORK.
- 2. COORDINATE LOCATION AND RESPONSIBILITIES FOR UNDERGROUND PIPING AND ASSOCIATED TRENCHING WITH GENERAL CONTRACTOR PRIOR TO START OF WORK.
- 3. EXPOSED GAS PIPING SHALL BE COVERED WITH A RUST INHIBITING PAINT SUCH AS RUST-OLEUM 5200. PAINT COLOR SHALL MATCH STRUCTURE. ROOF MOUNTED GAS PIPING COLOR SHALL BE YELLOW.
- 4. CONTROL WIRING FOR HEATERS BY EC. COORDINATE REQUIRED WIRE GAUGE WITH EC. SEE CONTROLS PLAN AND ELECTRICAL DRAWINGS, (TYP.).



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

**CHICK-FIL-A**  
 Blairs Ferry Rd FSU  
 3233 Blairs Ferry Road  
 Cedar Rapids, IA 52402

**FSR#05649**

BUILDING TYPE / SIZE: P14 SE BN  
 RELEASE: 23.09  
 PRINTED FOR: ISSUE FOR CONSTRUCTION REVISION SHEET/DATE

NO.	DATE	DESCRIPTION
1	01/23/2024	Plan Review Comments
2	02/19/2024	ISSUE FOR CONSTRUCTION

CONSULTANT PROJECT # 23200.CD.S  
 DATE 12/18/2023  
 DRAWN BY BLM

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 SHEET CANOPY HVAC PLAN

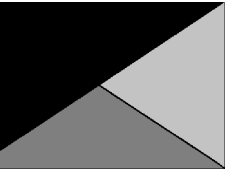
SHEET NUMBER **M-103**

Autodesk Docs://IA\_05649\_Blairs Ferry Rd (IA) FSR/05649\_Blairs Ferry Rd (IA) FSU\_K&A\_MEC.rvt  
 2/19/2024 10:21:05 AM  
 30-SE-05649-M-103-CANOPY HVAC PLAN

ISSUE FOR CONSTRUCTION



**Chick-fil-A**  
 5200 Buffington Road  
 Atlanta, Georgia  
 30349-2998



**Kurzynske & Associates**  
 2705 Lebanon Pike - Suite One  
 Nashville, Tennessee 37214  
 Telephone: (615) 255-5203



**CHICK-FIL-A**  
 Blairs Ferry Rd FSU  
 3233 Blairs Ferry Road  
 Cedar Rapids, IA 52402

**FSR#05649**

BUILDING TYPE / SIZE: P14 SE BN  
 RELEASE: 23.09  
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 ISSUE FOR CONSTRUCTION  
 REVISION SHEET

NO.	DATE	DESCRIPTION
2	02/19/2024	ISSUE FOR CONSTRUCTION

ISSUE FOR CONSTRUCTION

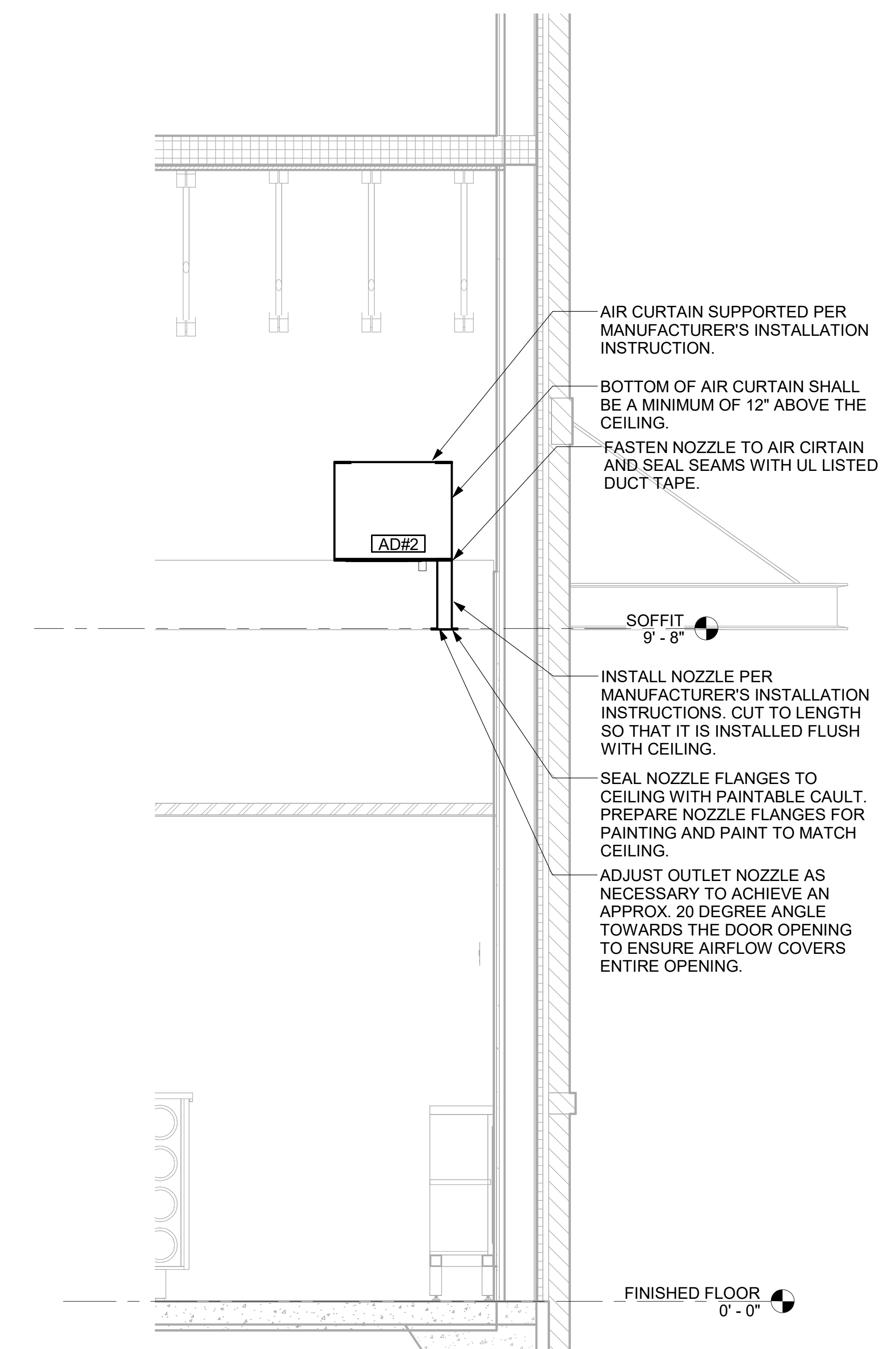
CONSULTANT PROJECT # 23200.CD.S  
 DATE 12/18/2023  
 DRAWN BY BLM

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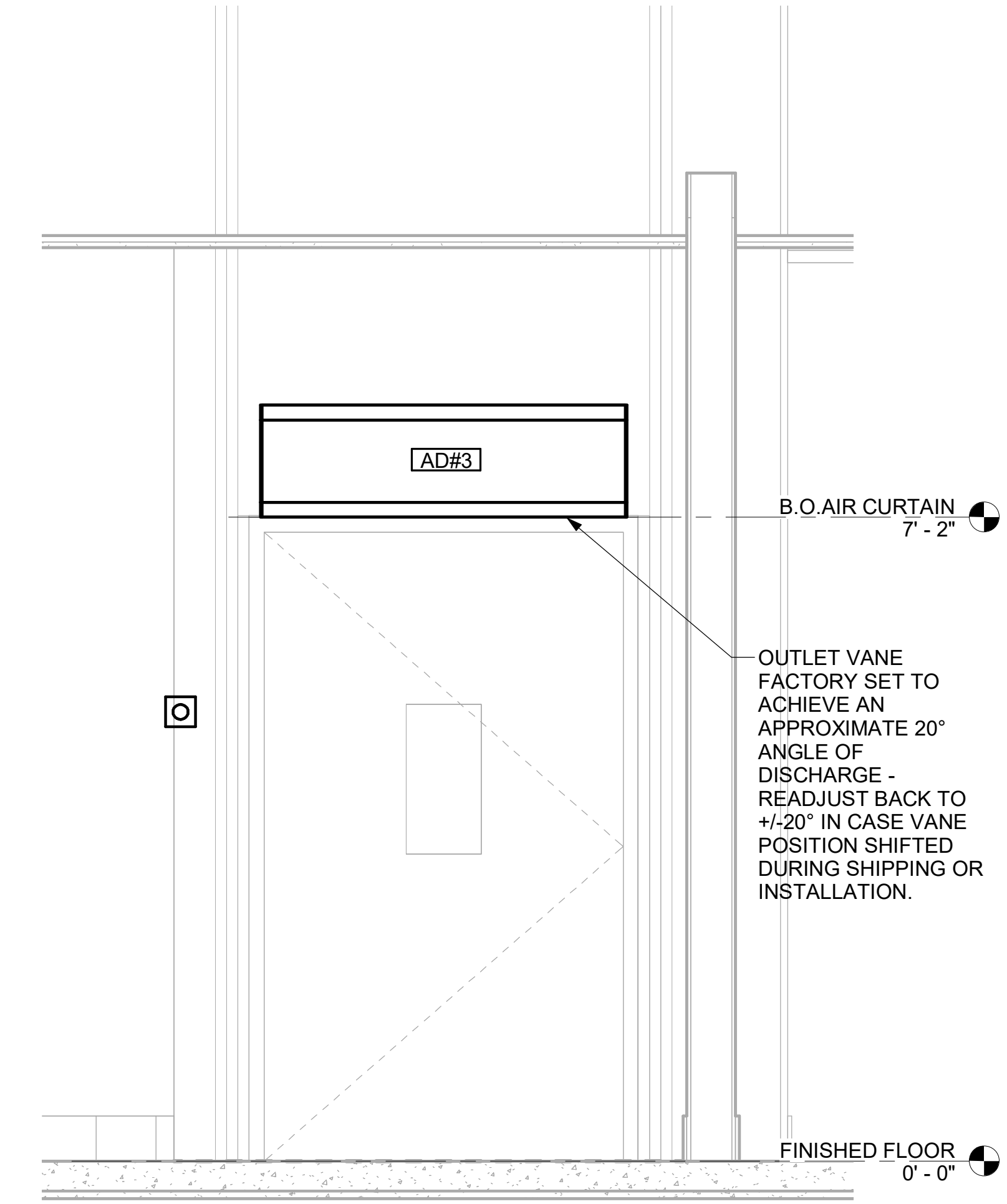
SHEET SECTIONS

SHEET NUMBER

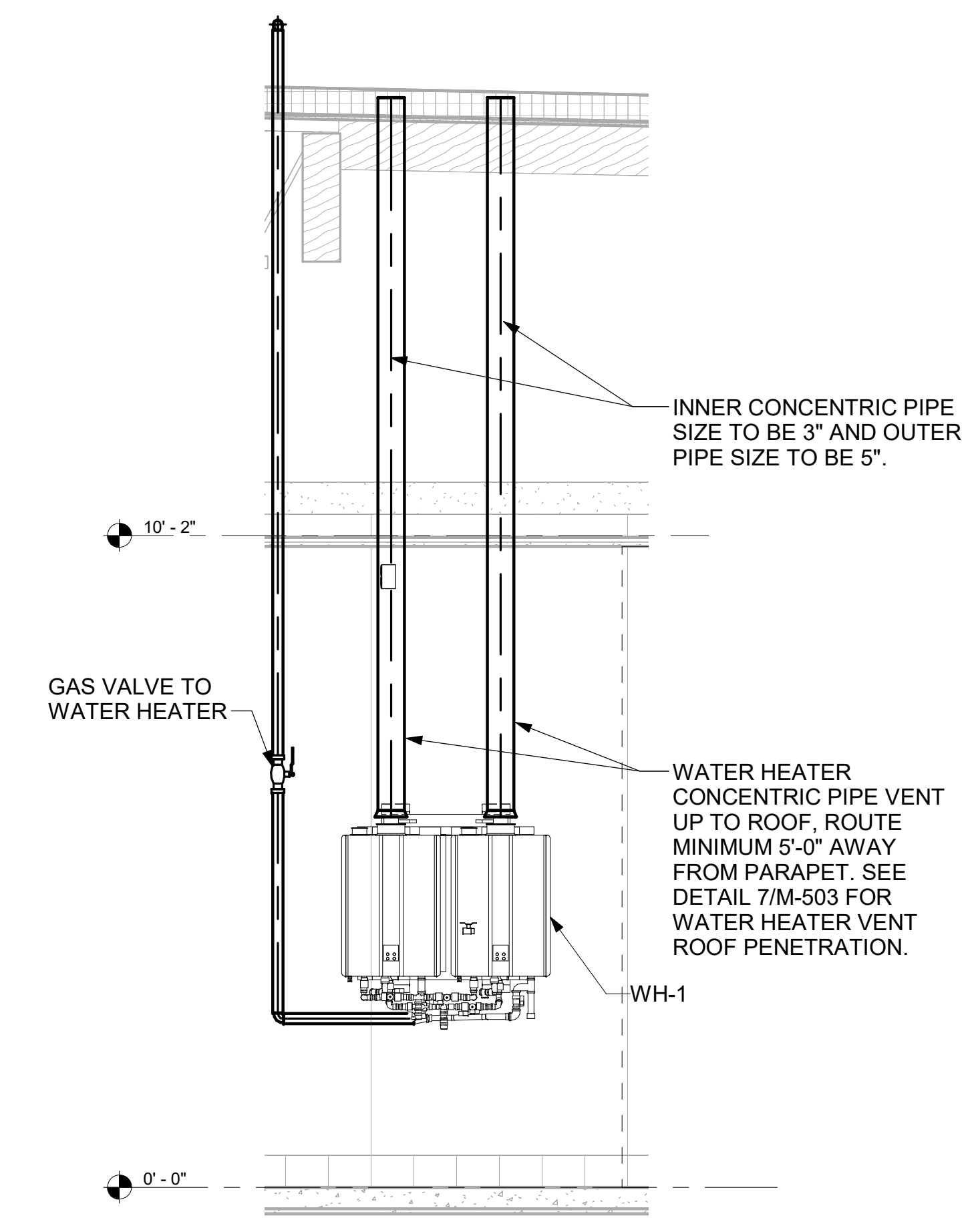
**M-301**



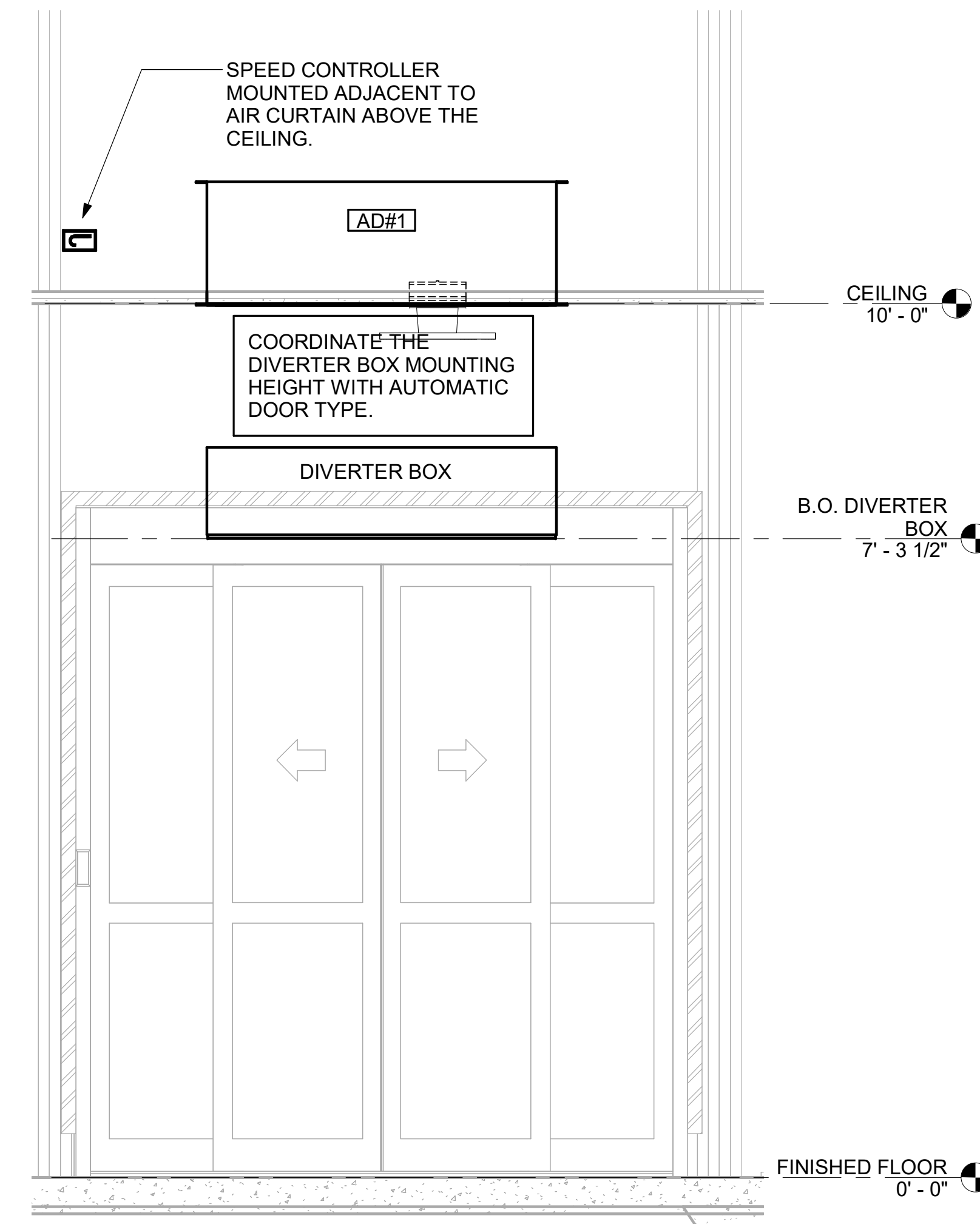
4 AD#2 SIDE VIEW  
 3/4" = 1'-0"



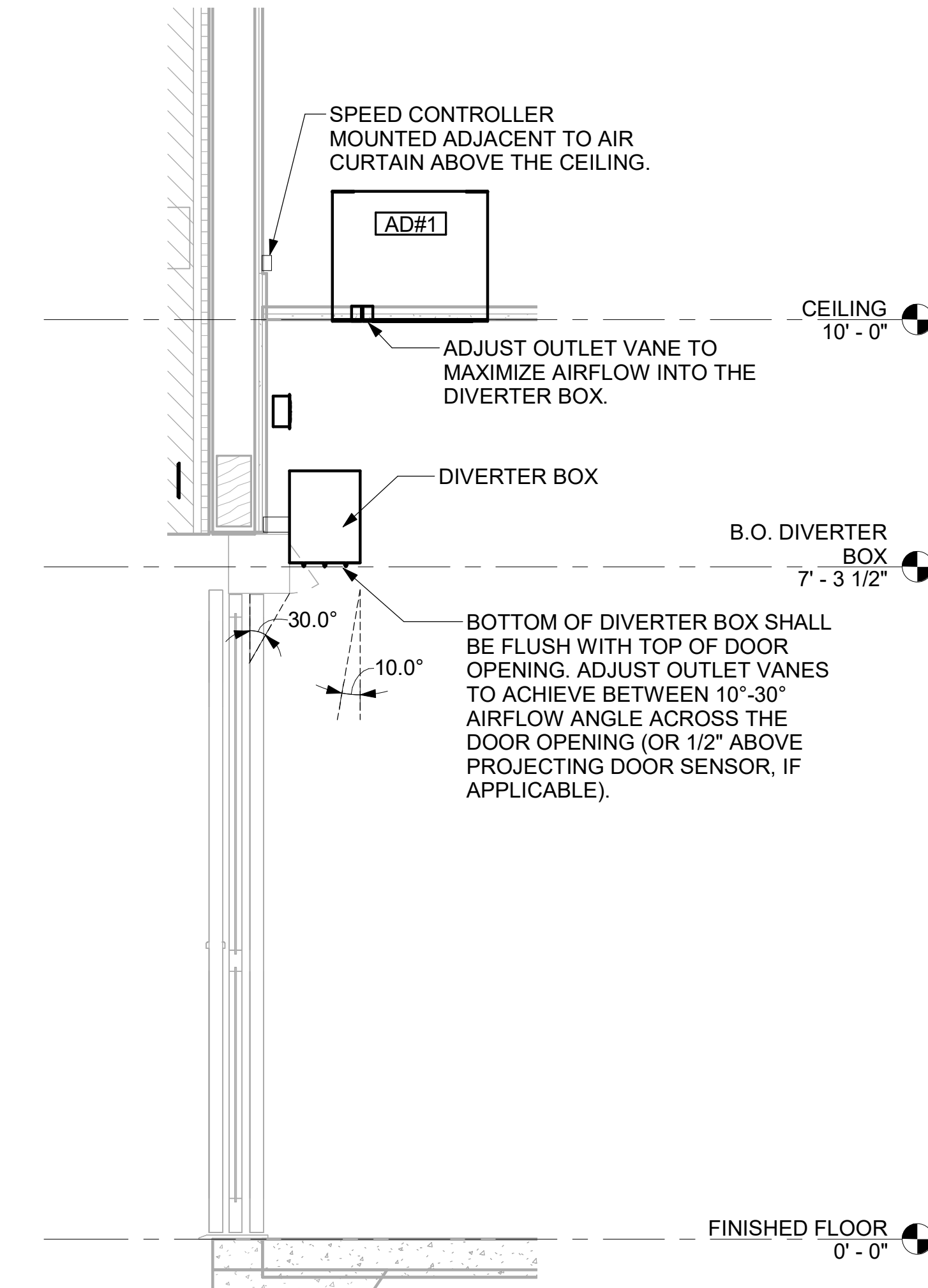
5 AD#3 FRONT VIEW  
 3/4" = 1'-0"



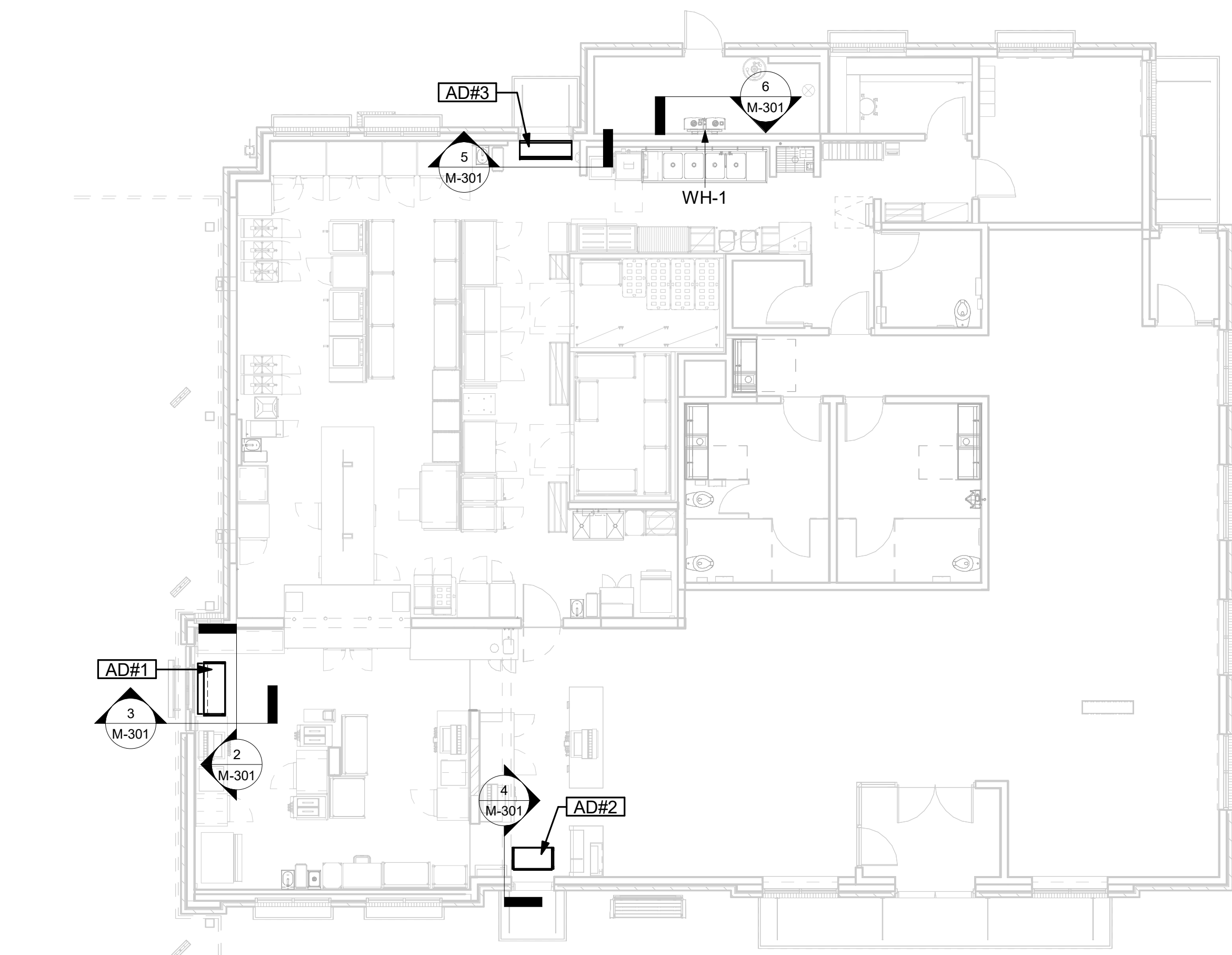
6 WATER HEATER GAS PIPING AND VENTING  
 NOT TO SCALE



2 AD#1 FRONT VIEW  
 3/4" = 1'-0"

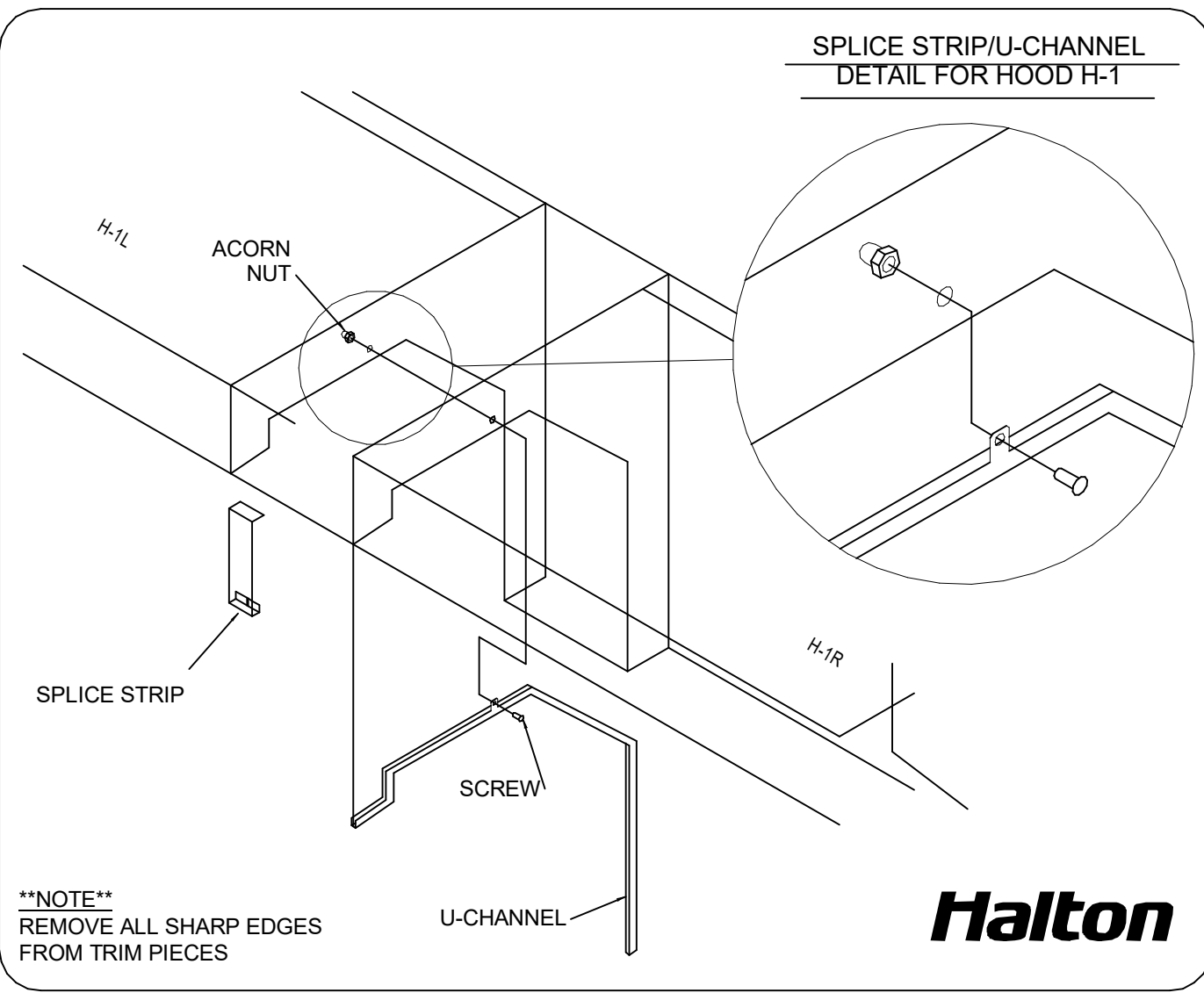
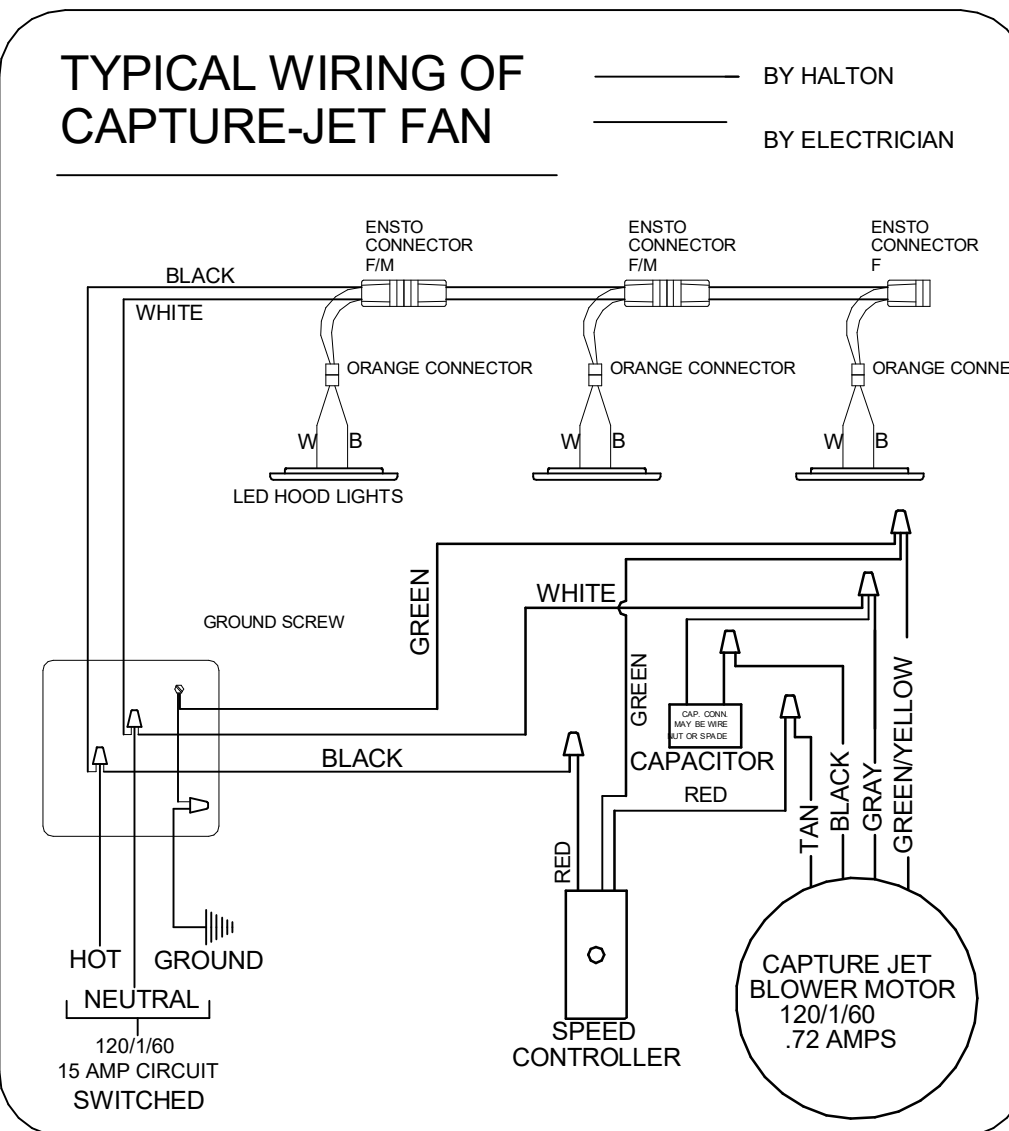
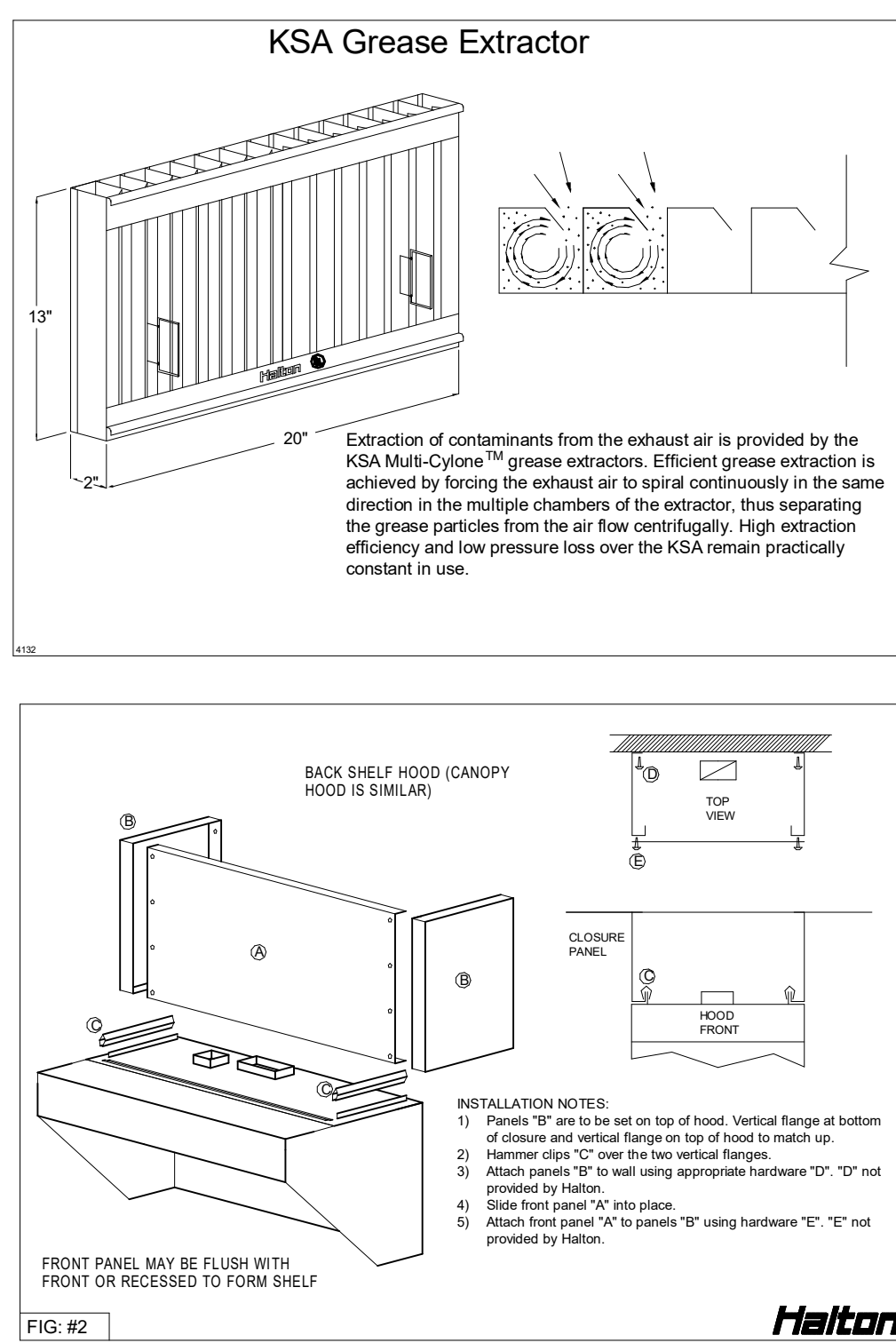
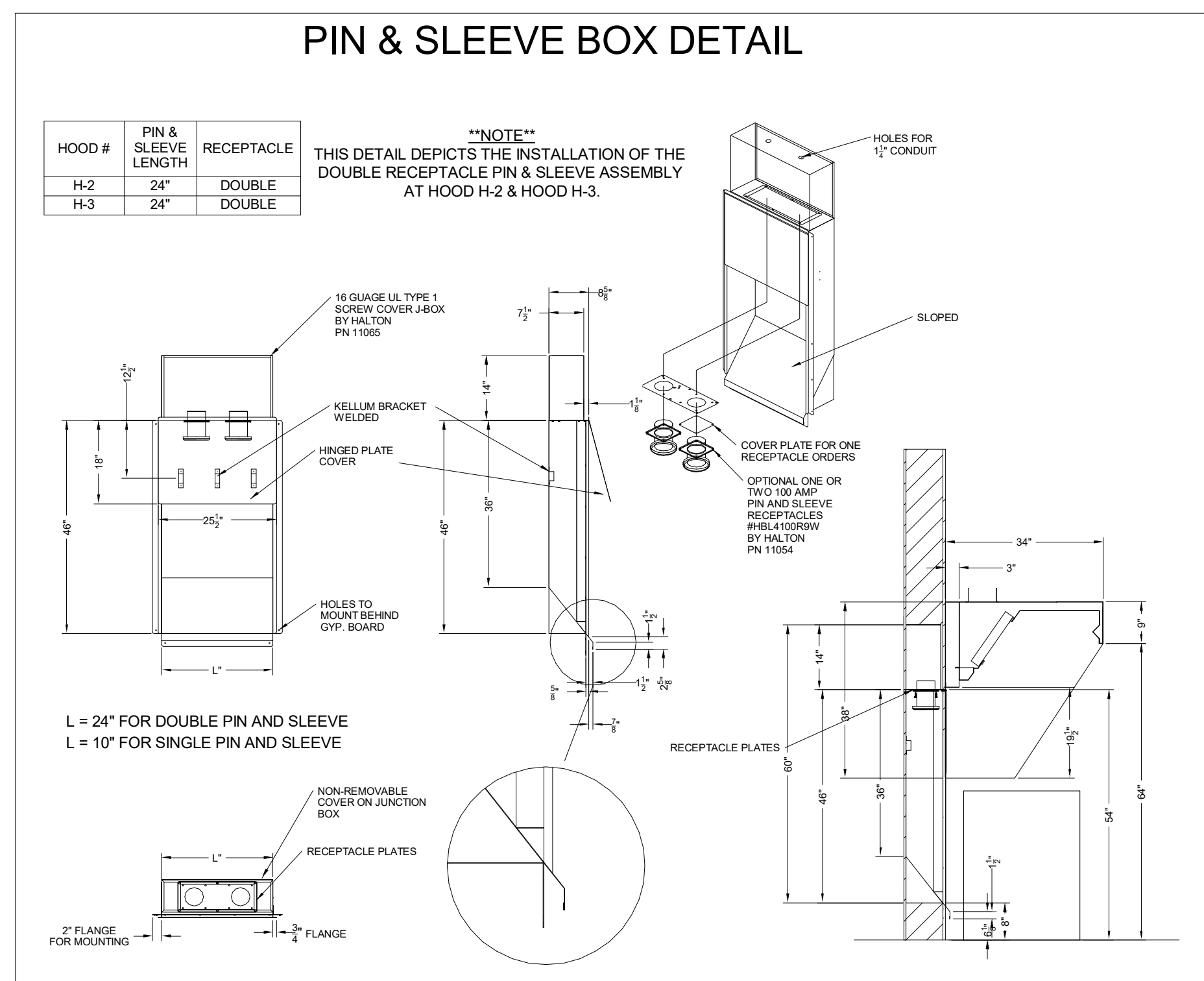
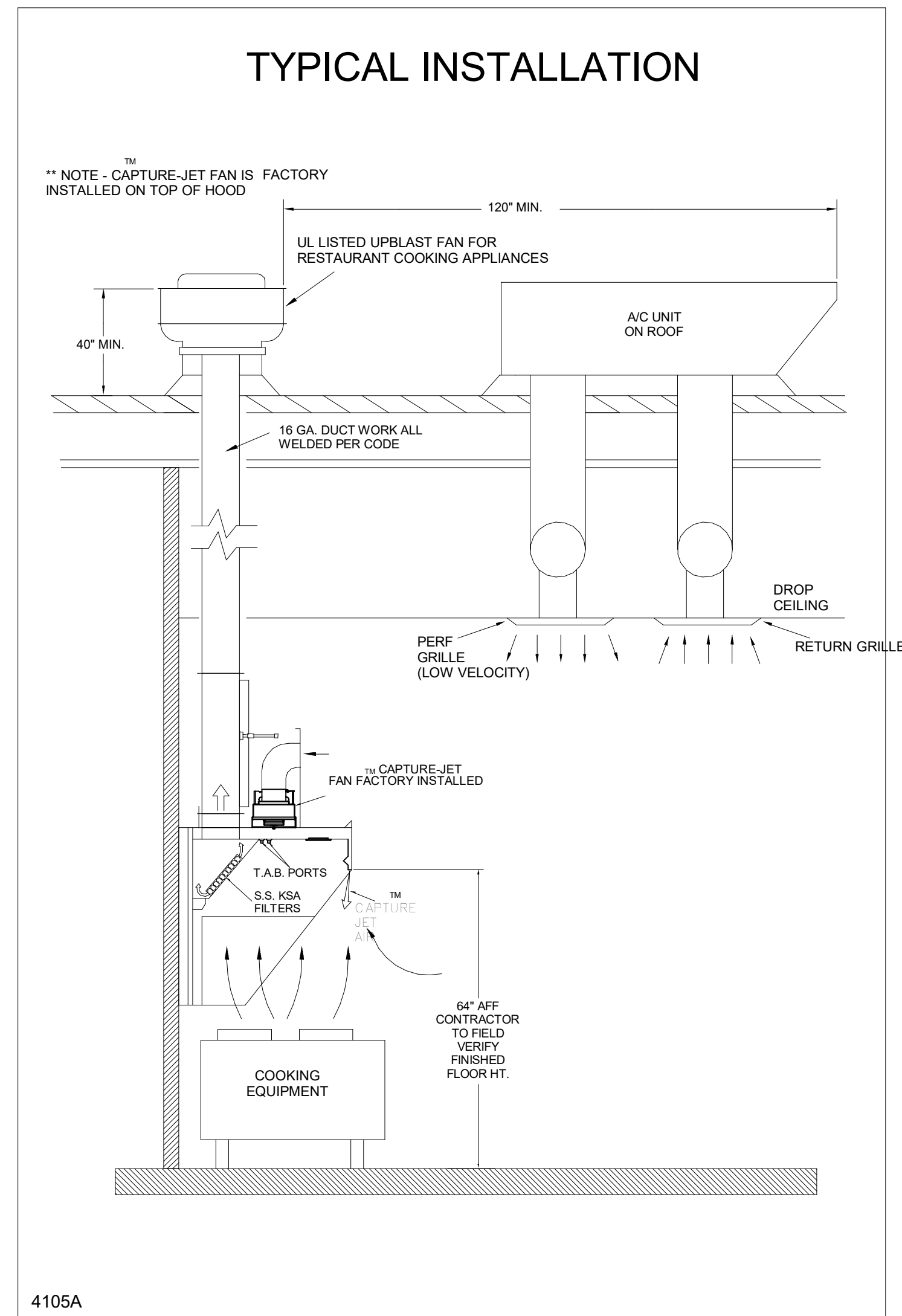
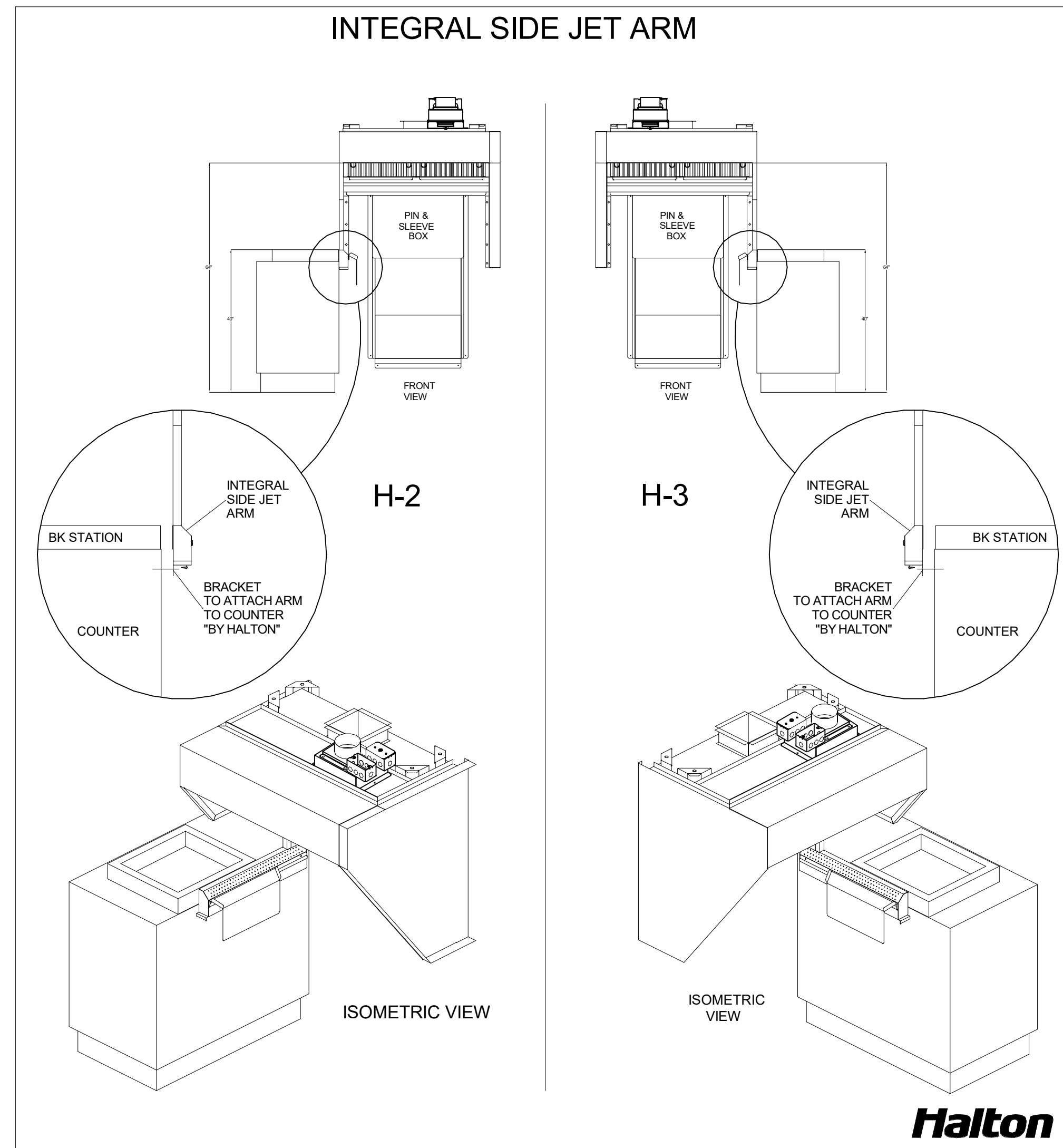
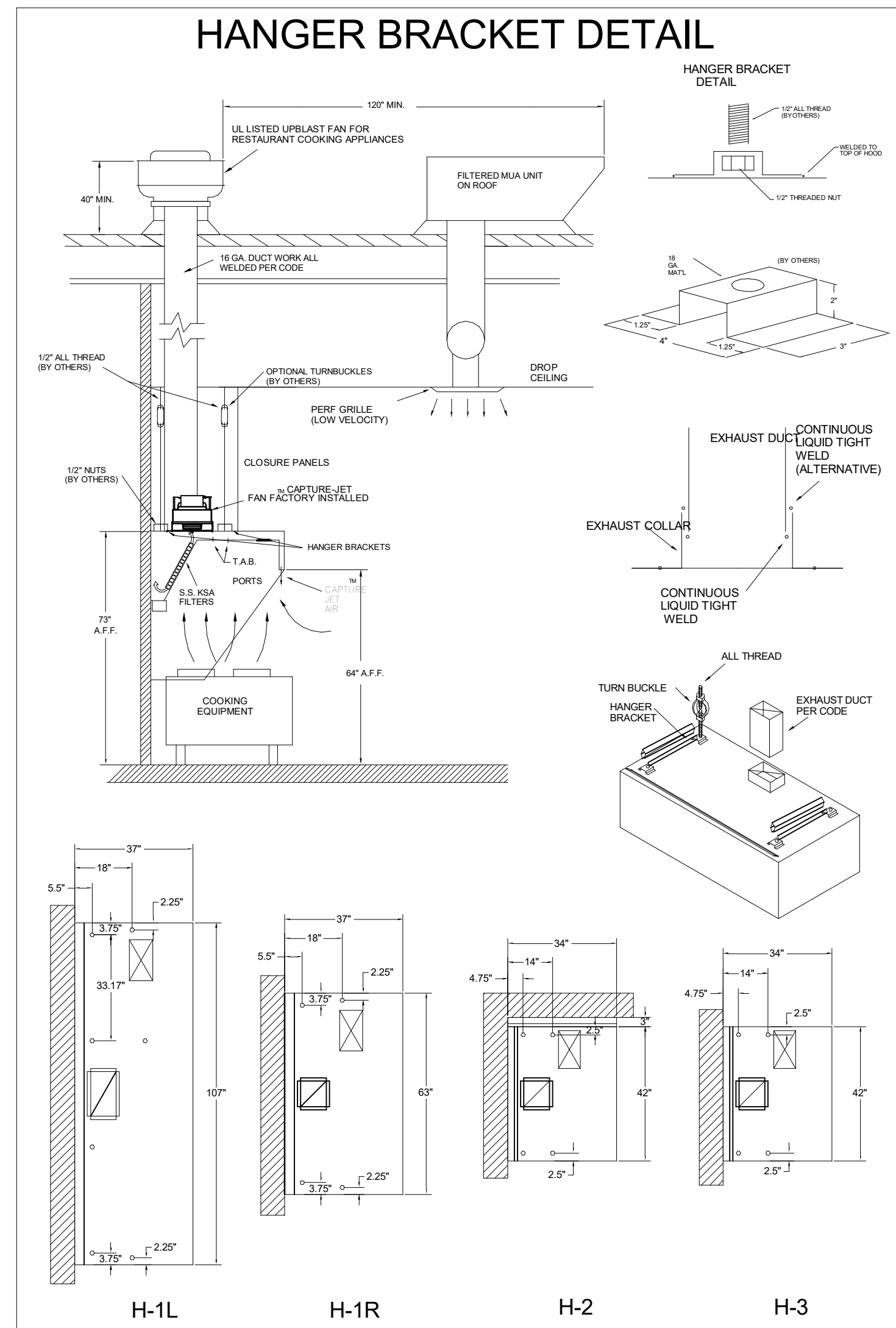


3 AD#1 SIDE VIEW  
 3/4" = 1'-0"



1 VARIOUS SECTIONS  
 1/8" = 1'-0"

Autodesk Docs://IA\_05649\_Blairs Ferry Rd (IA) FSR/05649\_Blairs Ferry Rd (IA) FSU\_K&A\_MEC.rvt  
 2/19/2024 10:21:21 AM  
 30-SE-05649-M-301-SECTIONS



**HALTON HOODS**  
 - ETL LISTED PER LATEST 710 STANDARD  
 - BUILT PER NFPA 96  
 - NSF LISTED

CONFORMS TO UL STD UL STD 710 CERTIFIED TO UL STD 9646

HALTON COMPANY, 101 INDUSTRIAL DR., SCOTTSVILLE, KY 42164

MODEL NO. SERIAL NO. ITEM NO.

**KVL-C-IC**

GENERAL REQUIREMENTS  
 FILTER TYPE EXHAUST HOOD FOR COMMERCIAL AND INSTITUTIONAL KITCHENS  
 THE HOOD IS DESIGNED TO BE INSTALLED IN A KITCHEN  
 THE HOOD IS DESIGNED TO BE INSTALLED IN A KITCHEN  
 THE HOOD IS DESIGNED TO BE INSTALLED IN A KITCHEN

DEPTH LEVEL	MINIMUM OVERHANG	MINIMUM CLEARANCE	MINIMUM CLEARANCE	MINIMUM CLEARANCE
FRONT IN	SIDE IN	MIN.	MAX.	MIN. EXHAUST FAN HOOD LENGTH
MEDIUM	6 1/4"	0"	20"	36"
MEDIUM	6"	0"	20"	36"
HEAVY	6"	0"	20"	36"
HEAVY	6"	0"	20"	36"
HEAVY	6"	0"	20"	36"

**NSF Halton ETL**

CONFORMS TO UL STD UL STD 710 CERTIFIED TO UL STD 9646

HALTON COMPANY, 101 INDUSTRIAL DR., SCOTTSVILLE, KY 42164

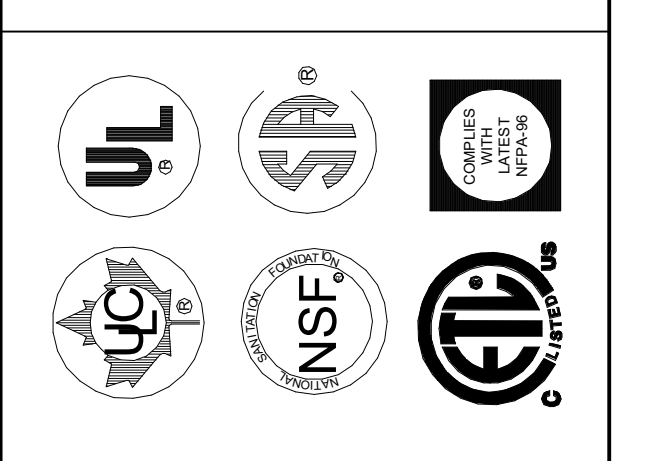
MODEL NO. SERIAL NO. ITEM NO.

**KVL-2-IC**

GENERAL REQUIREMENTS  
 FILTER TYPE EXHAUST HOOD FOR COMMERCIAL AND INSTITUTIONAL KITCHENS  
 THE HOOD IS DESIGNED TO BE INSTALLED IN A KITCHEN  
 THE HOOD IS DESIGNED TO BE INSTALLED IN A KITCHEN  
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DEPTH LEVEL	MINIMUM OVERHANG	MINIMUM CLEARANCE	MINIMUM CLEARANCE	MINIMUM CLEARANCE
FRONT IN	SIDE IN	MIN.	MAX.	MIN. EXHAUST FAN HOOD LENGTH
MEDIUM	6 1/4"	0"	20"	36"
MEDIUM	6"	0"	20"	36"
HEAVY	6"	0"	20"	36"
HEAVY	6"	0"	20"	36"
HEAVY	6"	0"	20"	36"

THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFY THE FOLLOWING:  
 1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS  
 2. THE LOCATION AND TYPE OF COOKING EQUIPMENT.  
 NOTE TO APPROVER  
 ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT CHANGES OCCUR, A RE-CALCULATION EXHAUST FLOW MAY BE REQUIRED.  
 REUSE AND RESUBMIT  
 WITH NO CHANGES  
 WITH CHANGES AS NOTED



WEBSITE: www.halton.com  
 HALTON CO. (USA)  
 101 INDUSTRIAL DRIVE  
 SCOTTSVILLE, KY 42164  
 1-270-237-5800

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

HALTON CO. (CANADA)  
 101 INDUSTRIAL DRIVE  
 MISSISSAUGA, ONT. L4V 3R7  
 1-905-624-0301

REV.	DESCRIPTION
1	
2	
3	
4	
5	
6	
7	

PROJECT: CHICK-FIL-A #5649  
 BLAIRS FERRY RD

LOCATION: CEDAR RAPIDS, IA

DRAWN BY: SKK DATE: 01/23/24

SCALE: NOT TO SCALE

**Halton**

DRAWING NO.: U24-062-02

SHEET NO.: H-1.2

**Chick-fil-A**  
 5200 Buffington Road  
 Atlanta, Georgia  
 30349-2998

**Kurzynske & Associates**  
 2705 Lebanon Pike - Suite One  
 Nashville, Tennessee 37214  
 Telephone: (615) 255-5203



# CHICK-FIL-A

Blairs Ferry Rd FSU

3233 Blairs Ferry Road  
 Cedar Rapids, IA 52402

**FSR#05649**

BUILDING TYPE / SIZE: P14 SE BN  
 RELEASE: 23.09

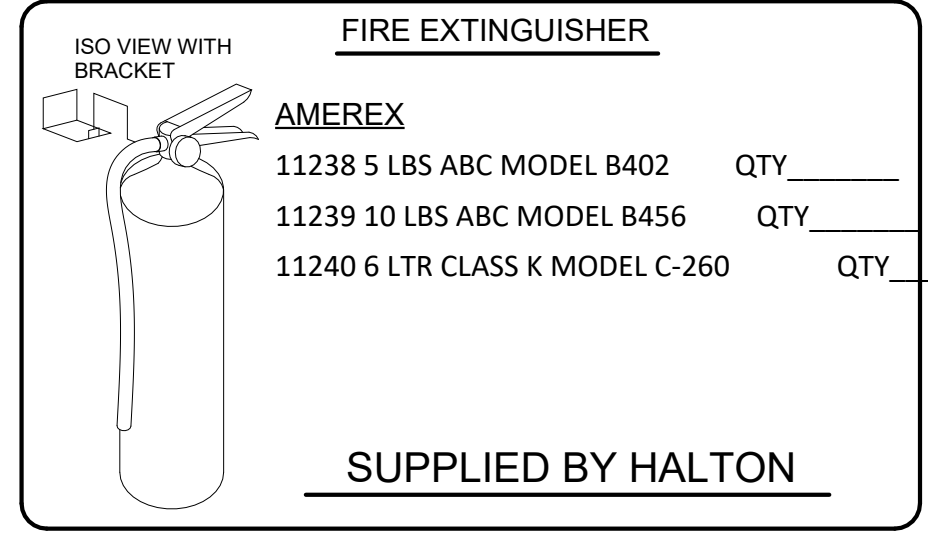
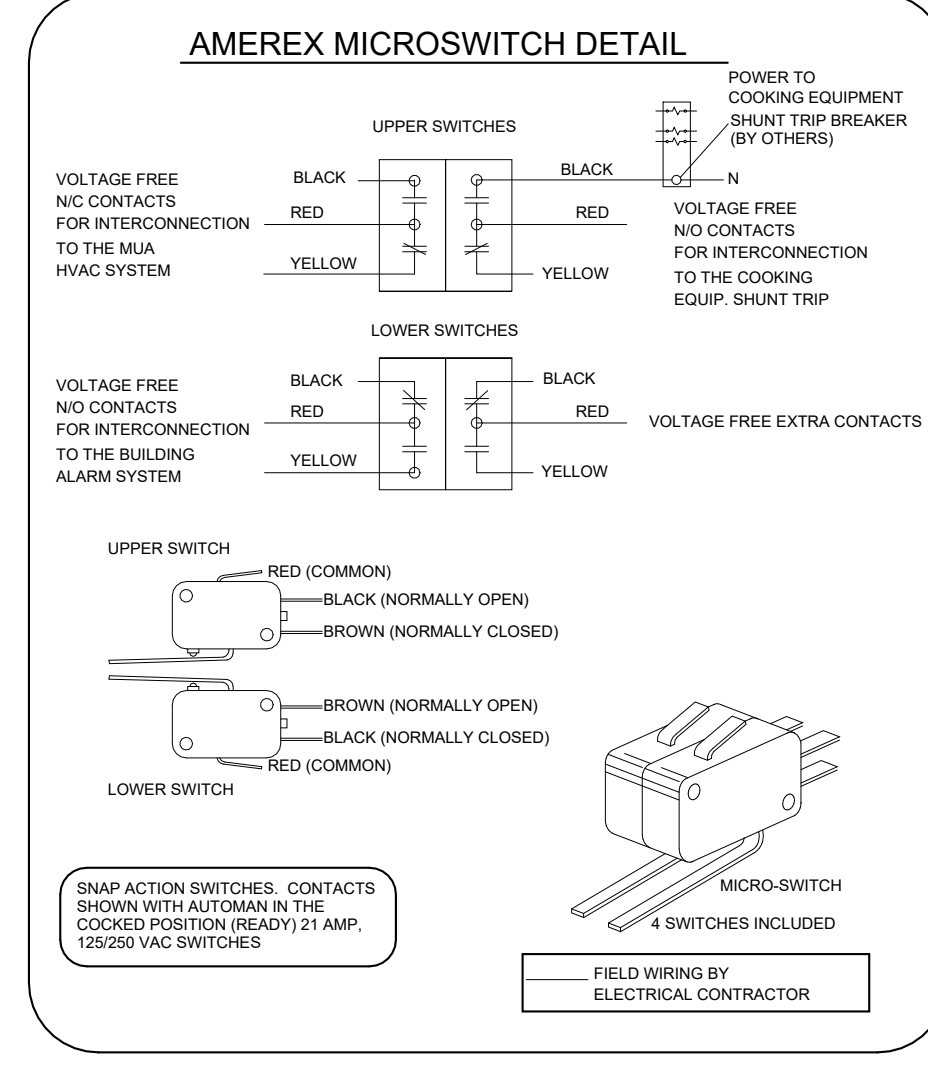
PRINTED FOR:  
 ISSUE FOR CONSTRUCTION  
 REVISION SUMMARY

NO.	DATE	DESCRIPTION
1	01/23/2024	Plan Review Comments
2	02/19/2024	ISSUE FOR CONSTRUCTION

CONSULTANT PROJECT # 23200.CD.S  
 DATE 12/18/2023  
 DRAWN BY BLM

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SHEET HALTON HOOD SHOP DRAWING  
 SHEET NUMBER MH-1.2



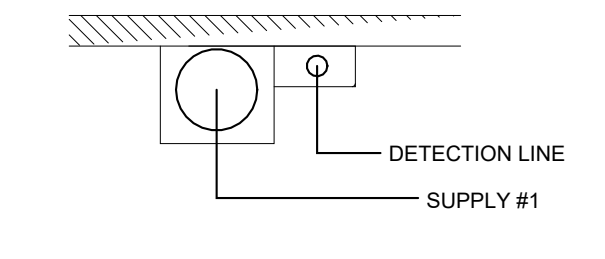
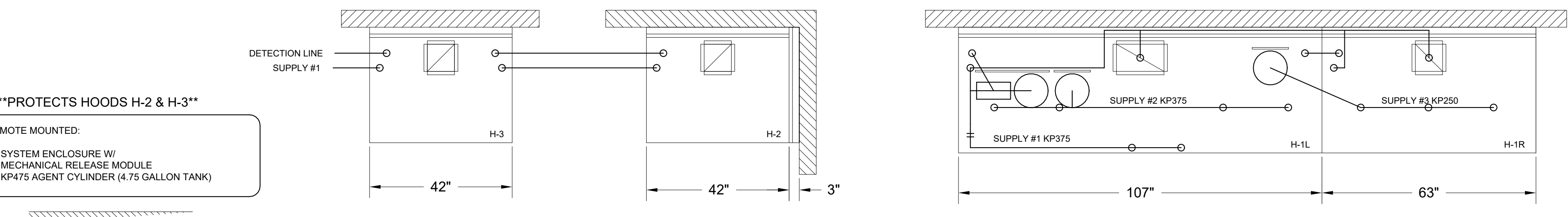
**1/2" BLACK IRON SUPPLY LINE REQ'D FROM TANK TO FIRST BRANCH LINE FOR 475 TANKS ONLY!**

**\*\*SHOP NOTE\*\***  
PROVIDE A QUANTITY OF TWO REMOTE PULL STATIONS FOR FIRE SYSTEM FOR HOODS H-2 & H-3. ONE PULL STATION REQUIRED FOR HOOD H-1/LR. PROVIDE A TOTAL OF THREE PULL STATIONS!!

**\*\*PROTECTS HOODS H-2 & H-3\*\***

REMOTE MOUNTED:

(1) SYSTEM ENCLOSURE W/ (1) MECHANICAL RELEASE MODULE (1) KP475 AGENT CYLINDER (4.75 GALLON TANK)



**AMEREX FIRE SYSTEM**

A) (1) KP475 TANKS - 14 FLOW POINTS (REMOTES MOUNTED) FOR HOODS H-2 & H-3

B) 3/8" BLACK IRON PIPING WITH 3/8" S.S. APPLIANCE DROPS

(1) SYSTEM ENCLOSURE (1) MECHANICAL RELEASE MODULE (2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN MECHANICAL REL. MODULE) (1) KP475 AGENT CYLINDERS (4.75 GALLON TANK)

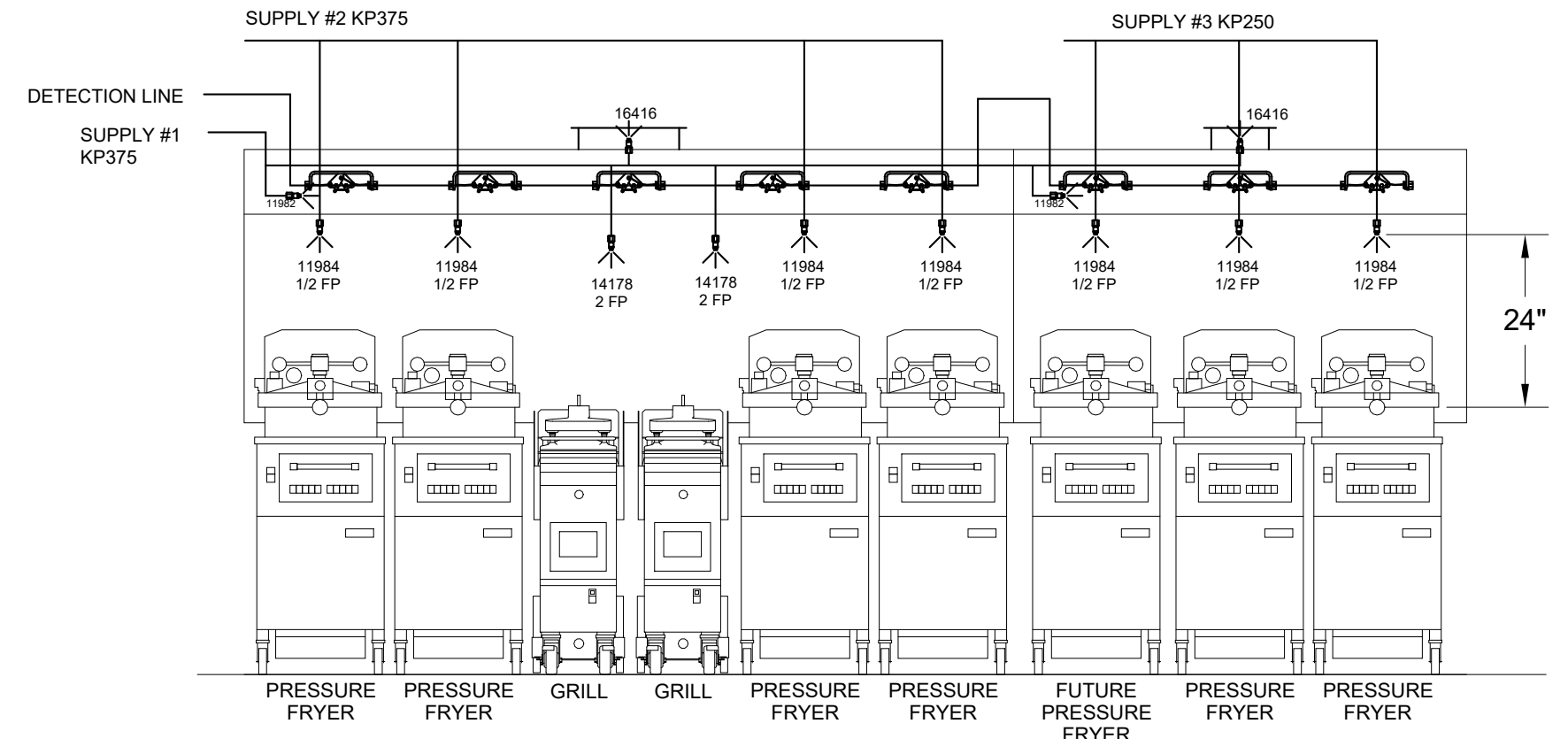
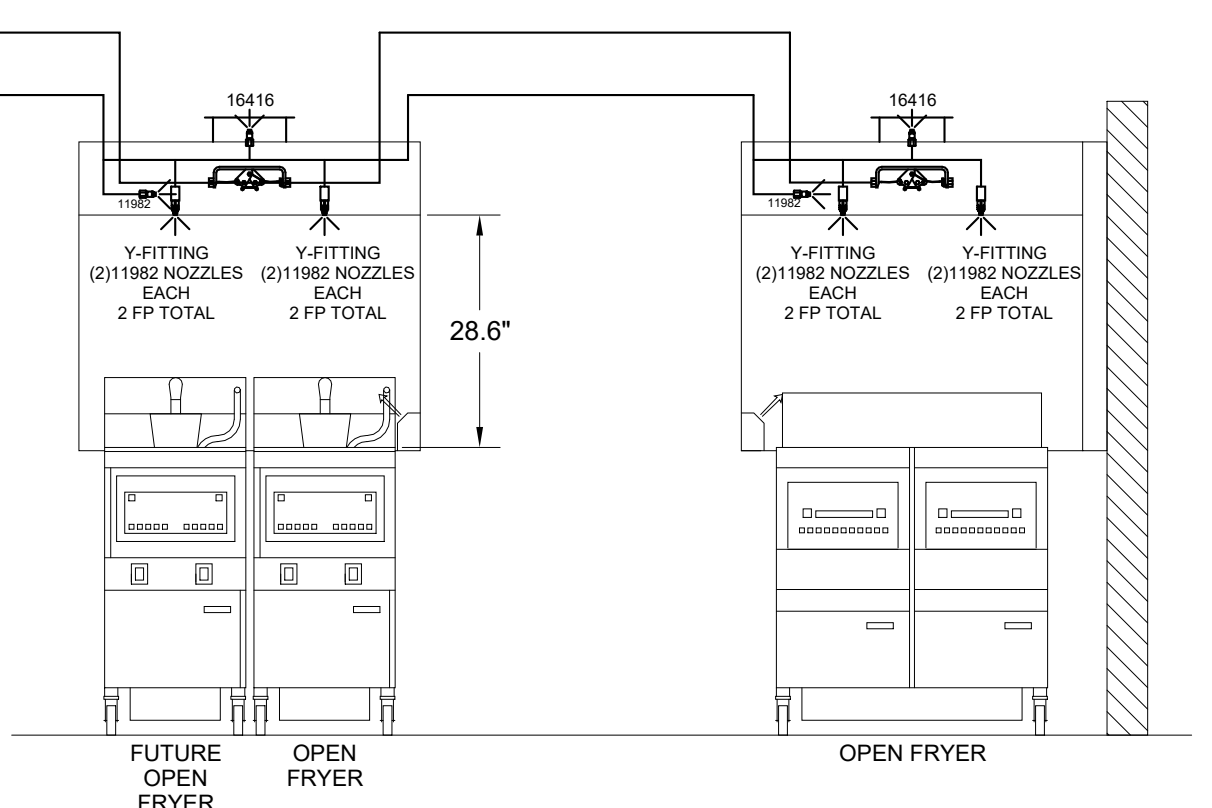
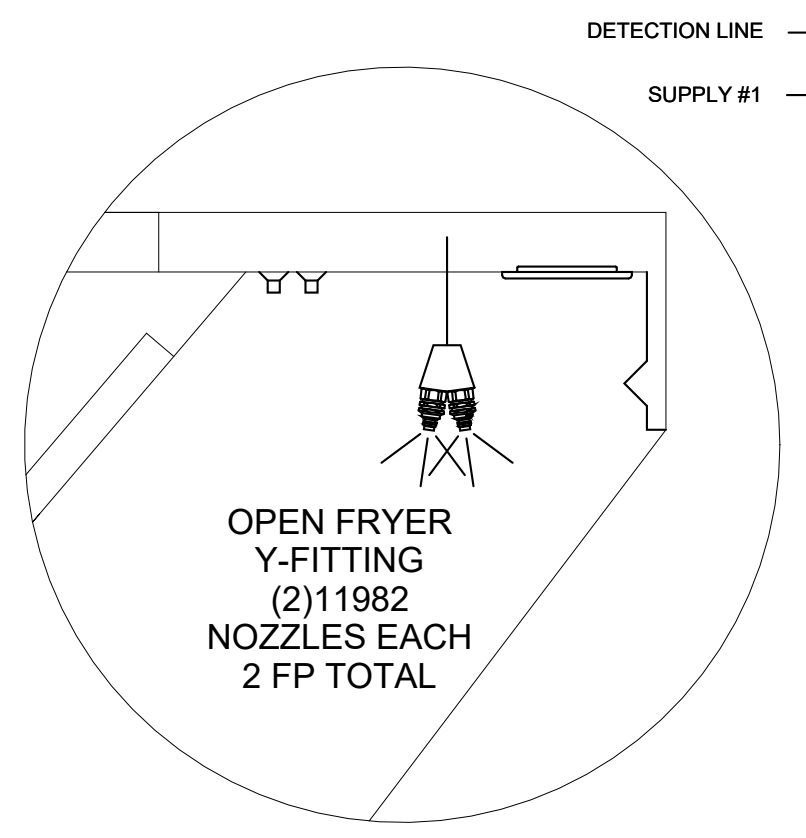
NOZZLE	ID	QTY	DESCRIPTION
16416	0R-0G	1 EA.	DUCT NOZZLES
11982	2R-0G	1 PER 10'	PLENUM NOZZLES
11982 Y-FITTING	2R-0G	1 FITTING WITH 2 NOZZLES PER FRYER	ALL OPEN FRYERS
11984	4R-0G	1 PER FRYER	ALL PRESSURE FRYERS
14178	0R-1G	1 PER GRILL	ALL GRILLS
ALL APPLIANCE NOZZLES WITH SWIVELS			

**AMEREX FIRE SYSTEM**

A) (2) KP375 TANKS & (1) KP250 TANK - 29 FLOW POINTS (MOUNTED ON HOOD H-1L FOR HOODS H-1L & H-1R)

B) 1/2" & 3/8" BLACK IRON PIPING WITH 3/8" S.S. APPLIANCE DROPS

(1) MECHANICAL RELEASE MODULE (2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN MECHANICAL REL. MODULE) (1) 2.51 GALLON TANK (2) 3.75 GALLON TANKS



**AMEREX FIRE SYSTEM LAYOUT**

# AMEREX

**FUSIBLE LINK RATINGS**

ITEM TEMP

OPEN FRYERS 450°

2 BURNER / FLAT TOP 450°

PRESSURE FRYERS 450°

GRILL 450°

EXHAUST COLLARS 450°

**AMEREX FIRE SYSTEM NOTES**

(2) KP375 & (1) KP250 TANK SYSTEM MOUNTED ON TOP OF (H-1L)

MAXIMUM FLOW POINTS = 29

**AMEREX FIRE SYSTEM NOTES**

(1) KP475 TANK SYSTEM REMOTE MOUNTED

MAXIMUM FLOW POINTS = 14

ITEM	QTY	DESCRIPTION	FLOW PTS (TOTAL)
16416	4	DUCT NOZZLES	4
11982	4	PLENUM NOZZLES	4
11982 Y-FITTING	4	APPLIANCE NOZZLES	8
14178	2	APPLIANCE NOZZLES	4
11984	7	APPLIANCE NOZZLES	3.5
<b>TOTAL FLOW POINTS</b>			<b>23.5</b>
ITEM	QTY	DESCRIPTION	
12508-P001	10	DETECTORS BRACKET ASSEMBLY	
26948	1	KP250 AGENT CYLINDER	
13334	2	KP375 AGENT CYLINDER	
17379	1	KP475 AGENT CYLINDER	
18001	1	MECHANICAL RELEASE MODULE WITH ENCLOSURE WITH DOUBLE POLE MICRO SWITCH	
11977	1	MECHANICAL RELEASE MODULE WITHOUT ENCLOSURE WITH DOUBLE POLE MICRO SWITCH	
21481	3	REMOTE MANUAL PULL STATION	

**AMEREX FIRE SYSTEM**

UL LISTED PER STD LATEST STD 300

- FINAL INSTALLATION IS TO BE MADE IN ACCORDANCE WITH ALL APPLICABLE CODES
- ALL ELECTRICAL COMPONENTS FOR EQUIPMENT SHUT DOWN TO BE PROVIDED BY THE ELECTRICIAN. MICRO-SWITCH INSTALLED IN REGULATED RELEASE BY AMEREX INSTALLER
- REMOTE PULL STATION LOCATED PER MECHANICAL DRAWINGS

THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE REFER TO THE FOLLOWING:

- FOR INFORMATION, MOUNTING POSITIONS AND CLEARANCES
- THE LOCATION AND TYPE OF COOKING EQUIPMENT.

NOTE TO APPROVER: THIS DRAWING IS FOR INFORMATION ONLY. AS INCREASED BUSINESS VOLUME OF EQUIPMENT POSITION MAY AFFECT EXHAUST AIRFLOW, HALTON MAY BE NOTIFIED IF ANY OF THESE CHANGES OCCUR. A RECALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.

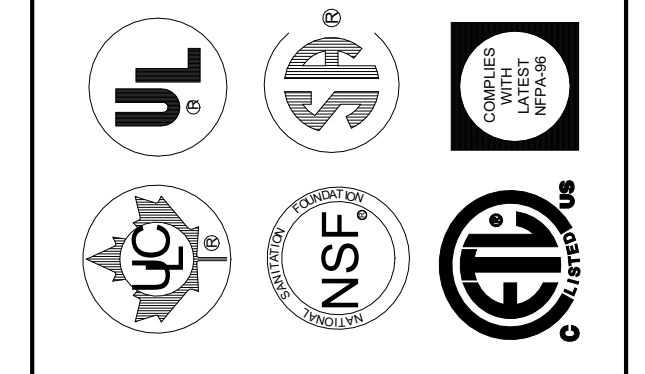
REVISE AND RESUBMIT

APPROVED FOR FABRICATION

WITH NO CHANGES

WITH CHANGES AS NOTED

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_



REV.	REVISION DESCRIPTION	DATE	BY
1	REVISED FRYER NOZZLES - RELEASE <td>04.15.24</td> <td>SKK</td>	04.15.24	SKK
2	REVISED FONTS <td>04.19.24</td> <td>SKK</td>	04.19.24	SKK
3			
4			
5			
6			
7			

WEBSITE: www.halton.com

MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

**HALTON CO. (USA)**  
101 INDUSTRIAL DRIVE  
SCOTTSDALE, KY 42184  
1-270-297-5500

**HALTON CO. (CANADA)**  
1021 BREVIK PLACE  
MISSISSAUGA ON L4W 4R7  
1-905-654-0301

PROJECT: CHICK-FIL-A #5649  
BLAIRS FERRY RD

LOCATION: CEDAR RAPIDS, IA

DRAWN BY: SKK DATE: 01.23.24

SCALE: NOT TO SCALE

DRAWING No.: **U24-062-03**

SHEET No.: **H-1.3**

**Halton**



**Chick-fil-A**

**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998

**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
Telephone: (615) 255-5203



**CHICK-FIL-A**  
Blairs Ferry Rd FSU

3233 Blairs Ferry Road  
Cedar Rapids, IA 52402

**FSR#05649**

BUILDING TYPE / SIZE: P14 SE BN

RELEASE: 23.09

PRINTED FOR: ISSUE FOR PERMIT

**REVISION SCHEDULE**

NO.	DATE	DESCRIPTION
1	01/23/2024	Plan Review Comments
2	02/19/2024	ISSUE FOR CONSTRUCTION
3	05/17/2024	Owner Changes

CONSULTANT PROJECT # 23200 CD.S

DATE 12/18/2023

DRAWN BY BLM

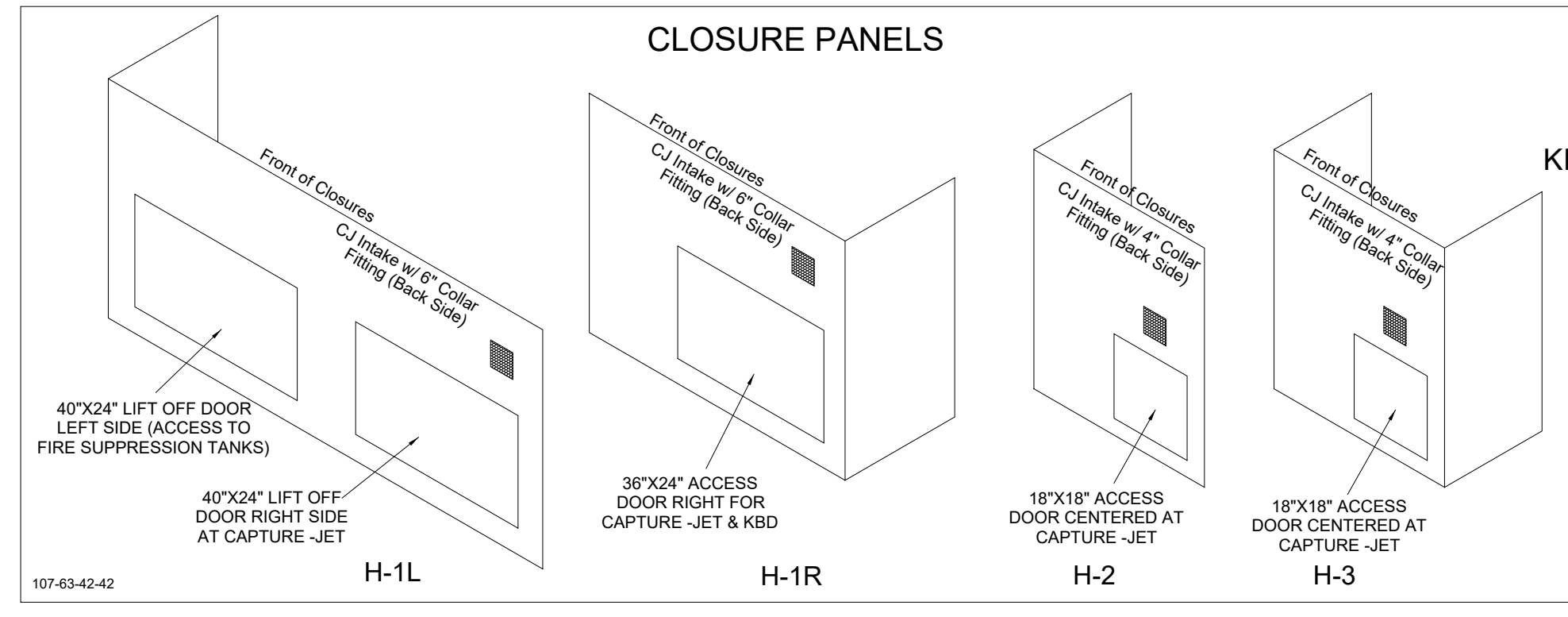
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SHEET HALTON HOOD SHOP DRAWING

SHEET NUMBER

SHEET ADDED TO SET

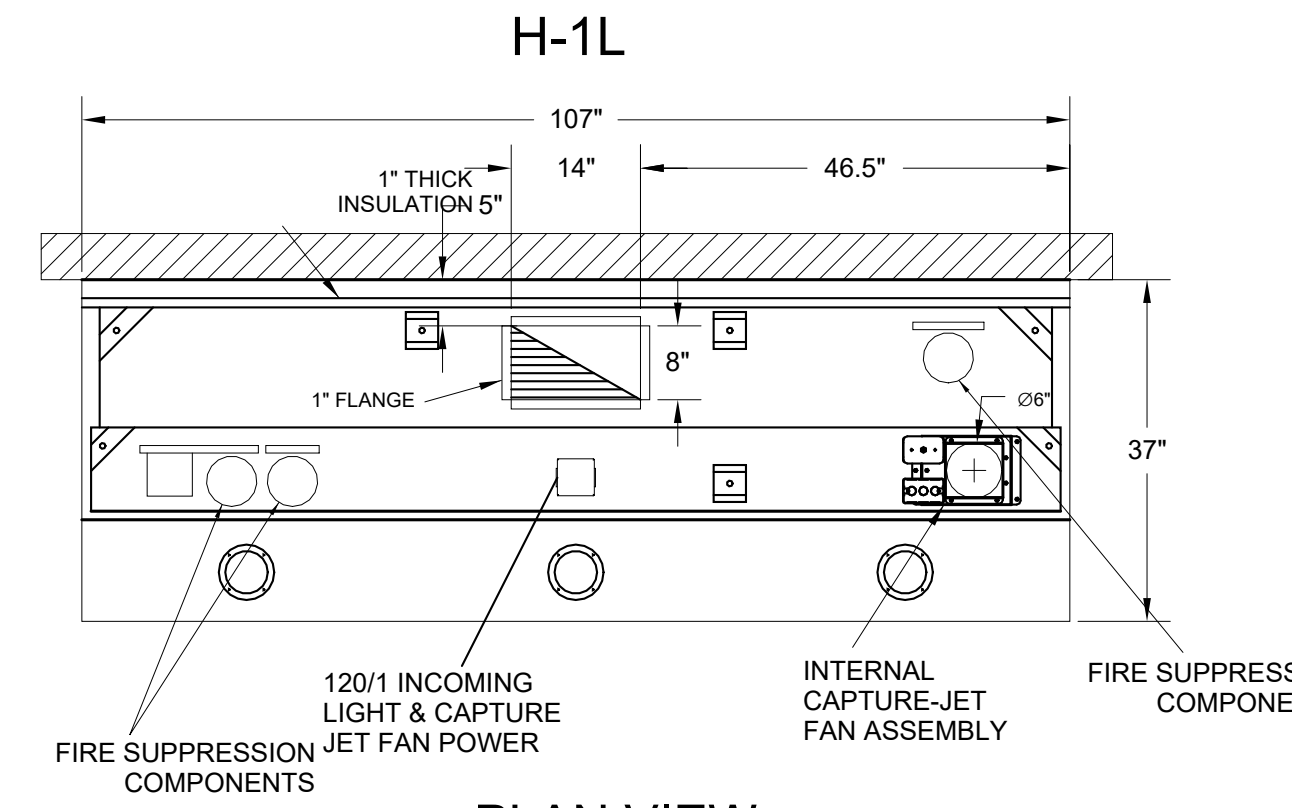
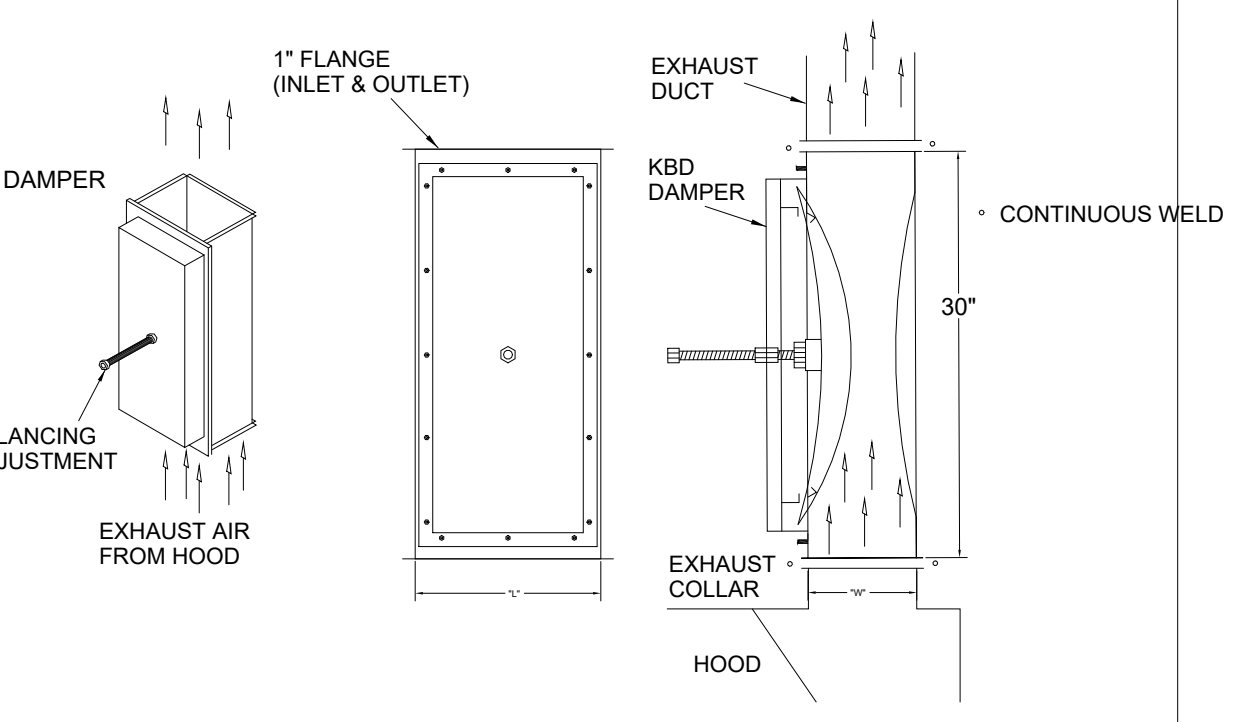
HOOD MODEL	HOOD NUMBER	QTY	EXHAUST COLLAR			EXHAUST AIR INFORMATION			CAPTURE AIR INFORMATION		S.S. KSA FILTERS		LED LIGHTS	QTY	CEILING CLOSURES		KBD DAMPER	K FACTOR (CFM = K FACTOR * VDP)	MATERIAL
			LENGTH	WIDTH	CFM	TAB	SP	CFM	SP	FULL	HALF	CLOSURE HEIGHT			CEILING HEIGHT	HOOD WEIGHT			
KVL-2-IC	H-1L	1	14"	8"	1204	0.13"	0.22"	80	0.30"	5	-	3	2	51"	122"	669 LBS	*	3369	ALL 18 GA 430 S.S.
KVL-2-IC	H-1R	1	8"	8"	709	0.13"	0.23"	47	0.30"	3	-	2	2			394 LBS	*	1971	
KVL-C-IC	H-2	1	8"	8"	701	0.30"	0.39"	30	0.29"	2	-	1	2			245 LBS	*	1291	
KVL-C-IC	H-3	1	8"	8"	701	0.30"	0.39"	30	0.29"	2	-	1	3			245 LBS	*	1291	



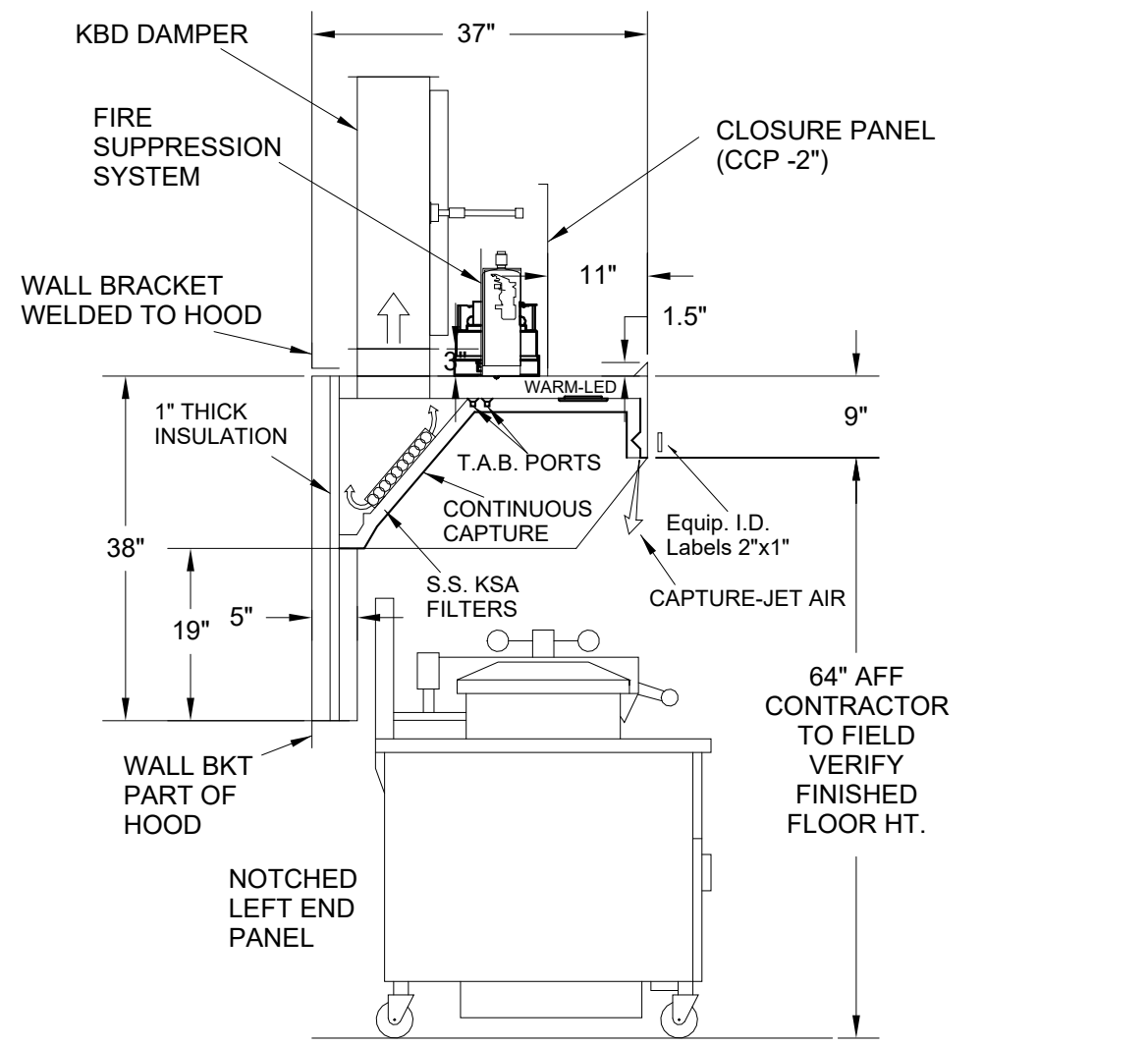
**MODEL:KBD  
CALIBRATED KBDs**  
KITCHEN BALANCING DAMPER EXHAUST VOLUME DAMPER

TAG	"L"	"W"	QUANTITY
H-1L	14"	8"	1
H-1R	8"	8"	1
H-2	8"	8"	1
H-3	8"	8"	1

MATERIAL: FRAME - 16GA CONT.  
GALV. ADJUSTABLE PANEL 18GA S.S.

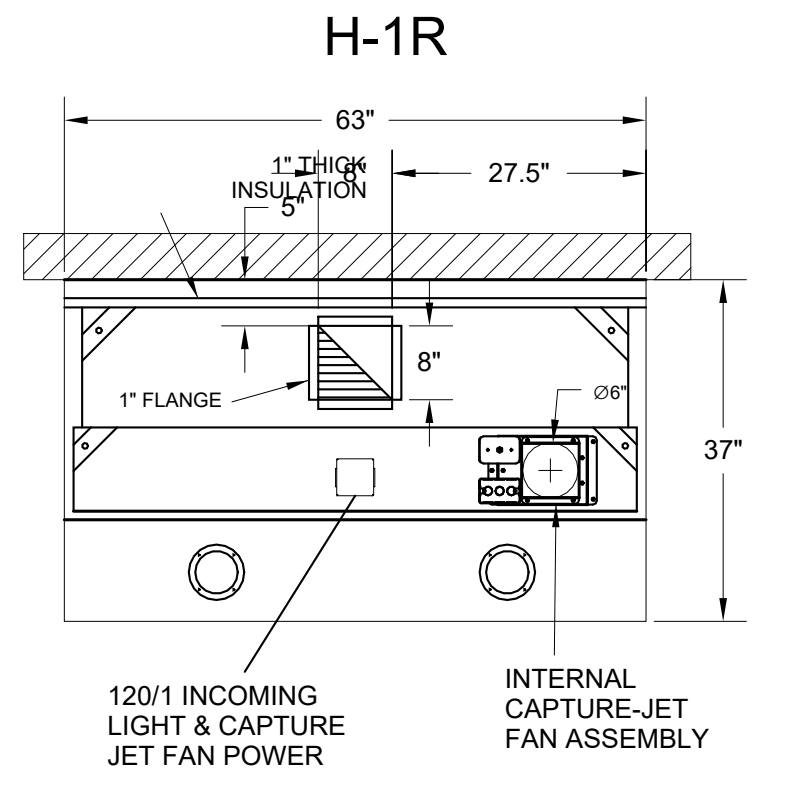
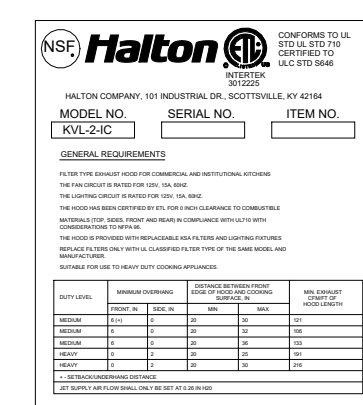


H-1L PLAN VIEW

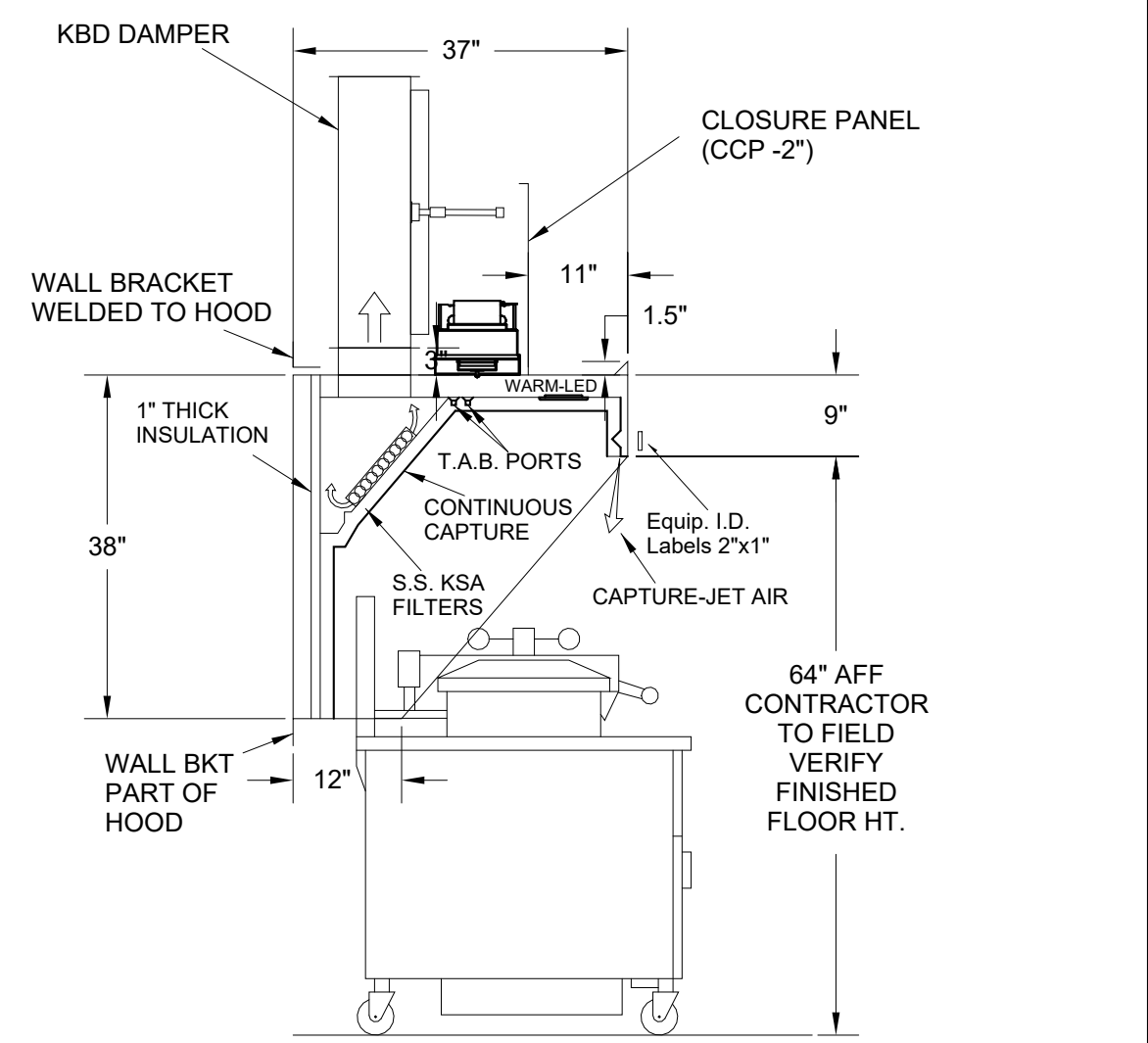


H-1L SECTION VIEW

- CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF
- FRONT CLOSURE PANEL WITH 40"X24" LIFT OUT DOOR LEFT SIDE (ACCESS TO FIRE SUPPRESSION)
- 40"X24" LIFT DOOR RIGHT SIDE AT CAPTURE-JET WITH FRONT CJ INTAKE
- CONTINUOUS CAPTURE INTERNAL RIGHT END CUTOFF
- 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
- NOTCHED LEFT END PANEL
- AMEREX WEIGHT = 264 LBS

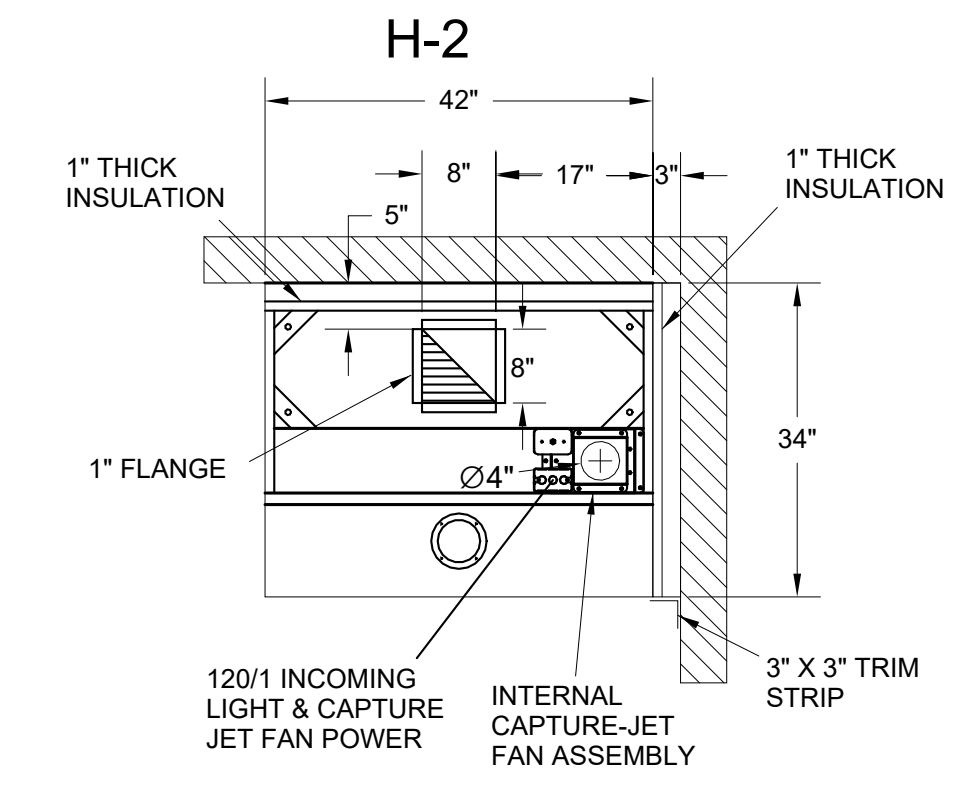
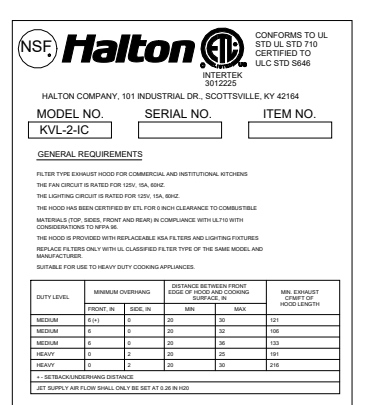


H-1R PLAN VIEW

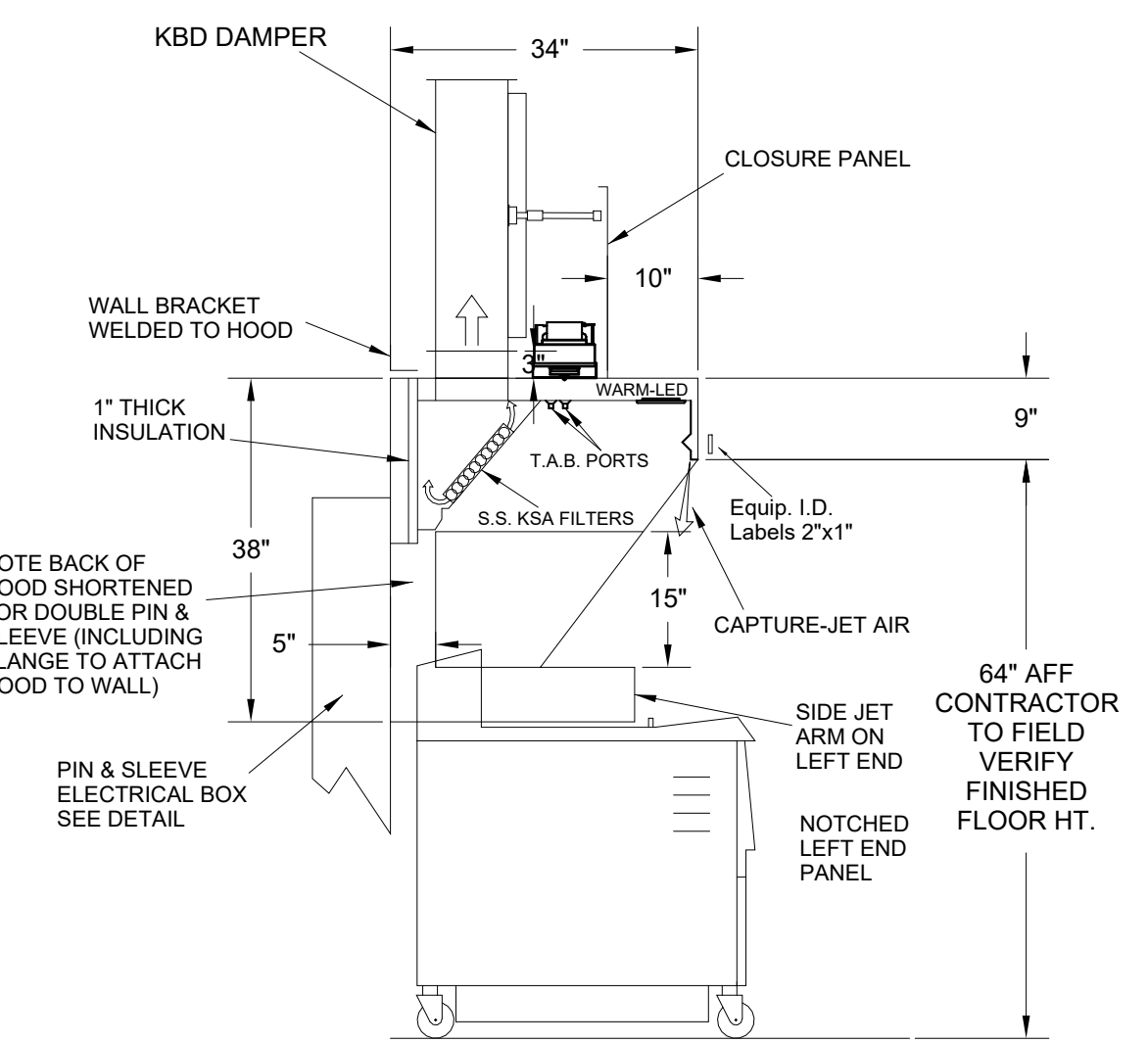


H-1R SECTION VIEW

- CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF
- 36"X24" ACCESS DOOR RIGHT SIDE FOR ACCESS TO CAPTURE-JET WITH FRONT CJ INTAKE & KBD
- CONTINUOUS CAPTURE INTERNAL LEFT END CUTOFF
- 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION

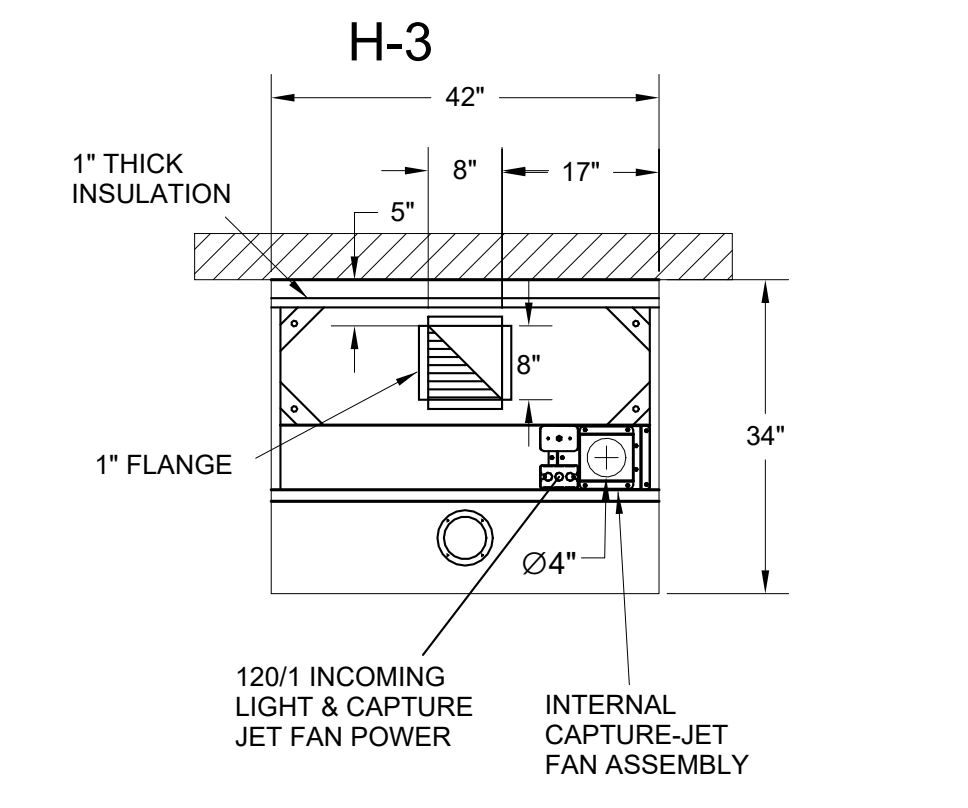
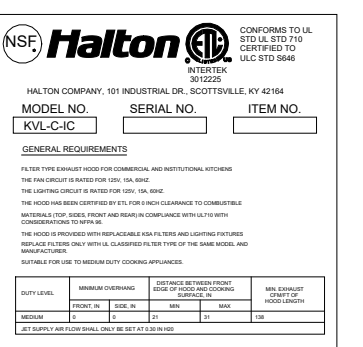


H-2 PLAN VIEW

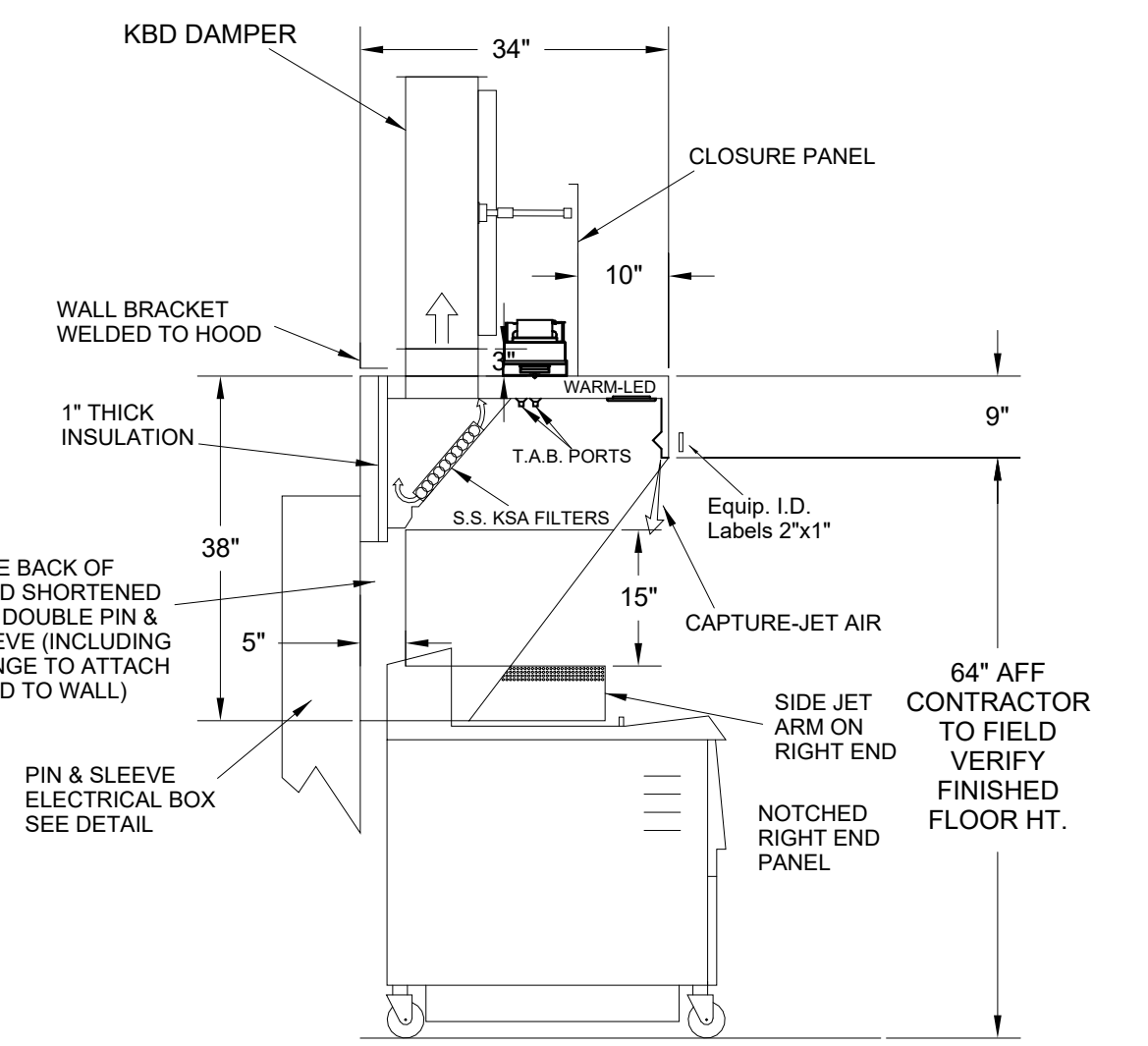


H-2 SECTION VIEW

- CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
- 18"X18" ACCESS DOOR CENTERED AT CAPTURE-JET WITH FRONT CJ INTAKE
- NOTCHED LEFT END PANEL
- DOUBLE RECEPTACLE PIN & SLEEVE
- 3"X3" TRIM STRIP FOR STANDOFF ON RIGHT END
- 3" SIDE & REAR STAND-OFF TO HAVE 1" THICK INSULATION

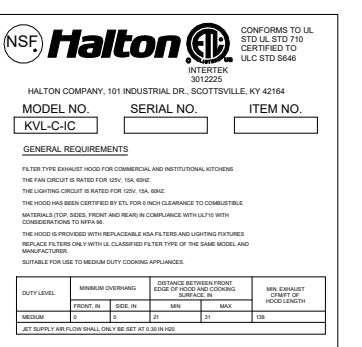


H-3 PLAN VIEW



H-3 SECTION VIEW

- CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
- 18"X18" ACCESS DOOR CENTERED AT CAPTURE-JET WITH FRONT CJ INTAKE
- NOTCHED RIGHT END PANEL
- DOUBLE RECEPTACLE PIN & SLEEVE
- 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION



THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFY THE FOLLOWING:  
1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS  
2. THE LOCATION AND TYPE OF COOKING EQUIPMENT.  
NOTE TO APPROVER  
ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT CHANGES OCCUR, A RE-CALCULATION EXHAUST FLOW MAY BE REQUIRED.  
 REVISE AND RESUBMIT  
 APPROVED FOR FABRICATION  
 WITH NO CHANGES  
 WITH CHANGES AS NOTED  
APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

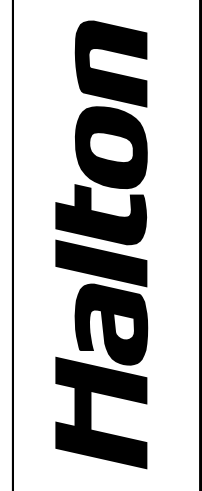


WEBSITE: www.halton.com  
HALTON CO. (USA)  
101 INDUSTRIAL DRIVE  
SCOTTSDALE, AZ 85264  
1-202-237-6600  
DATE: 04/15/24  
BY: SKK

REV	REVISION DESCRIPTION	DATE
3	REVISED CH & CCP - RELEASE	
2		
1		

MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:  
HALTON CO. (CANADA)  
1021 BREVIK PLACE  
MISSISSAUGA, ONT L4W 3R7  
CANADA  
905-624-0301  
PROJECT:  
CHICK-FIL-A #5649  
BLAIRS FERRY RD  
LOCATION: CEDAR RAPIDS, IA  
DRAWN BY: SKK DATE: 01/23/24  
SCALE: NOT TO SCALE

DRAWING No.: U24-062-01  
SHEET NO.: H-1.1



**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998

**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
Telephone: (615) 255-5203



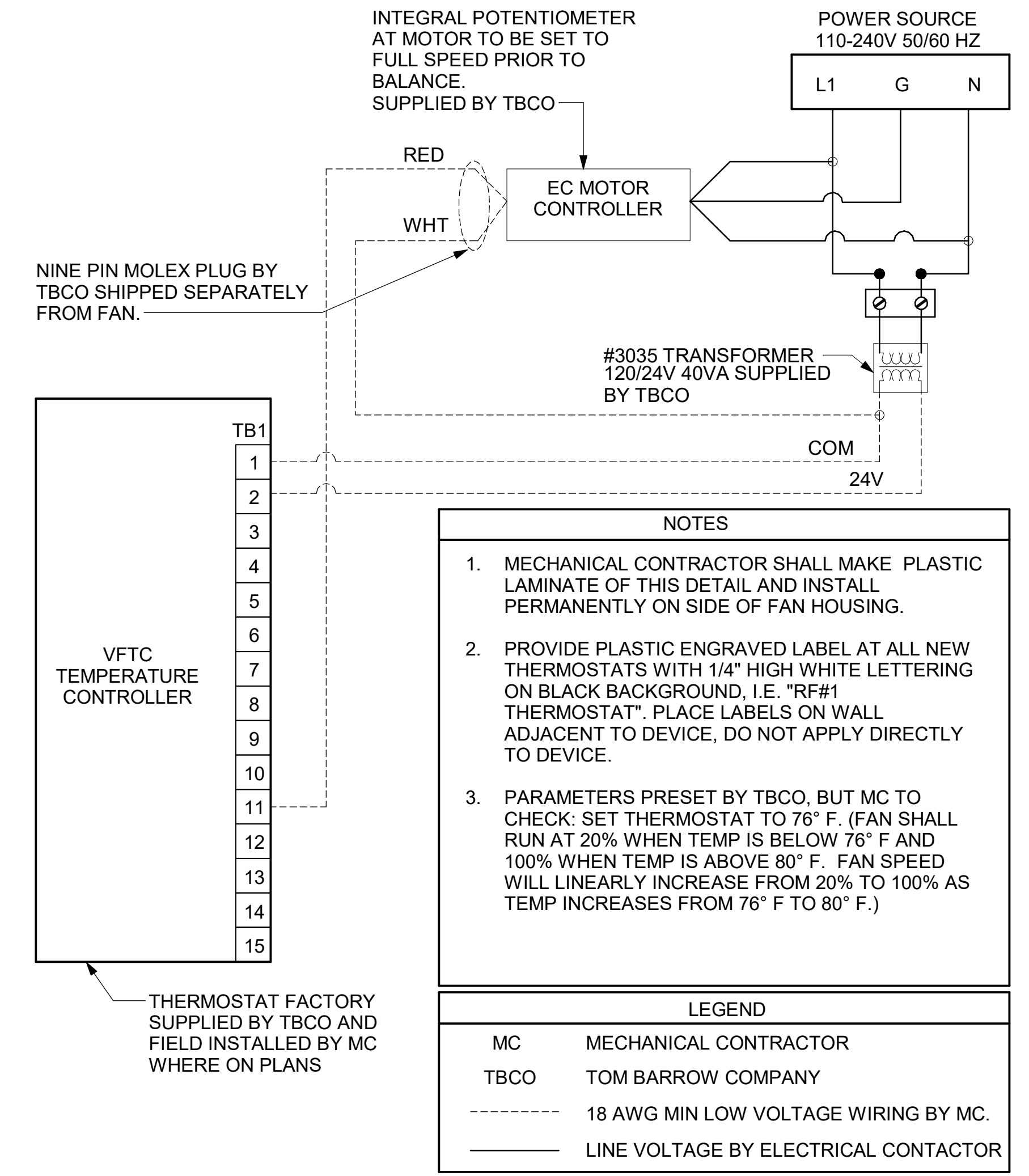
**CHICK-FIL-A**  
Blairs Ferry Rd FSU  
3233 Blairs Ferry Road  
Cedar Rapids, IA 52402

**FSR#05649**  
BUILDING TYPE / SIZE: P14 SE BN  
RELEASE: 23.09  
PRINTED FOR: ISSUE FOR PERMIT  
REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	01/23/2024	Plan Review Comments
2	02/19/2024	ISSUE FOR CONSTRUCTION
3	05/17/2024	Owner Changes

CONSULTANT PROJECT # 23200 CD.S  
DATE 12/18/2023  
DRAWN BY BLM  
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SHEET HALTON HOOD SHOP DRAWING  
SHEET NUMBER

SHEET ADDED TO SET



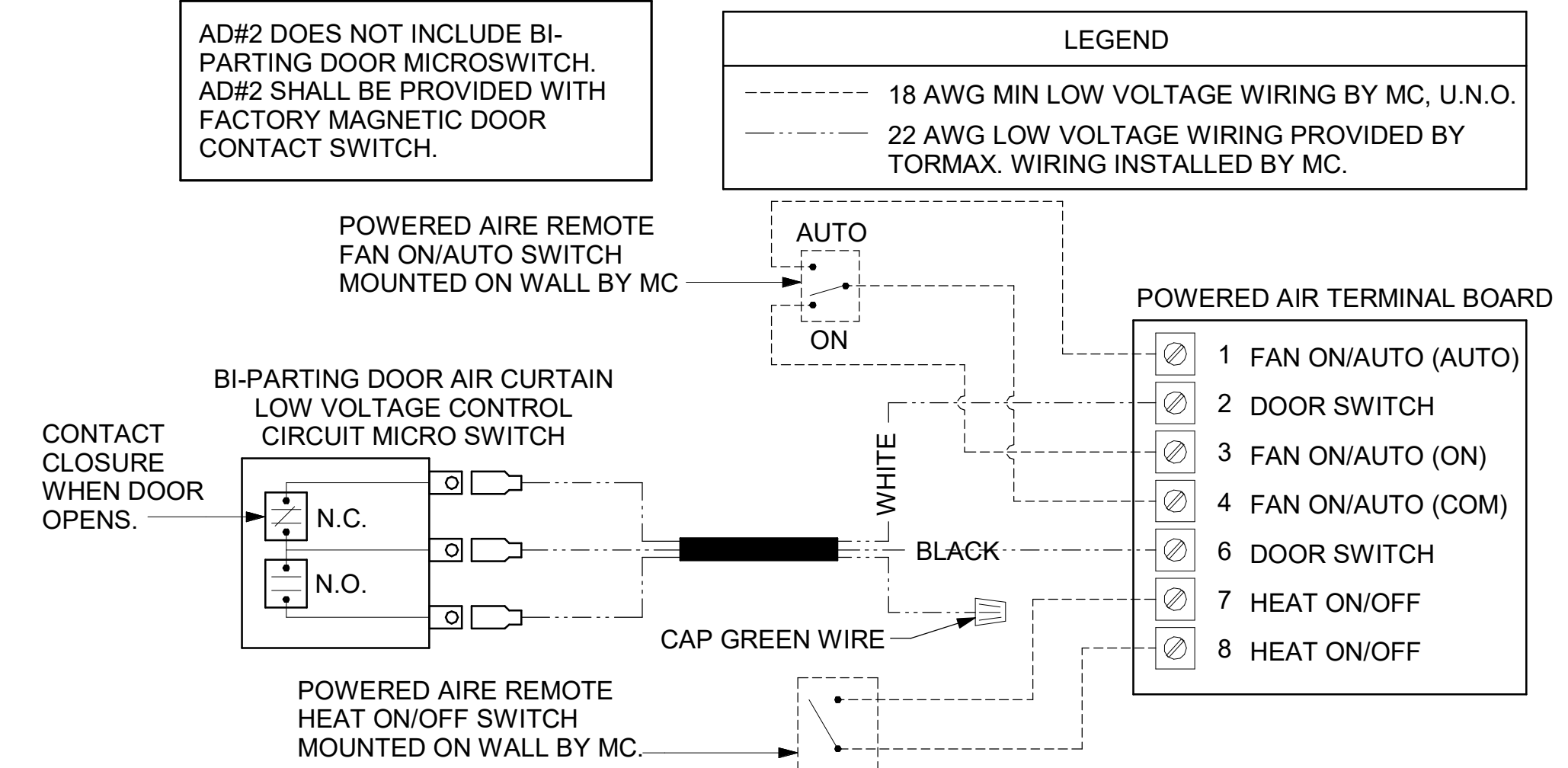
**NOTES**

- MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON SIDE OF FAN HOUSING.
- PROVIDE PLASTIC ENGRAVED LABEL AT ALL NEW THERMOSTATS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "RF#1 THERMOSTAT". PLACE LABELS ON WALL ADJACENT TO DEVICE, DO NOT APPLY DIRECTLY TO DEVICE.
- PARAMETERS PRESET BY TBCO, BUT MC TO CHECK; SET THERMOSTAT TO 76° F. (FAN SHALL RUN AT 20% WHEN TEMP IS BELOW 76° F AND 100% WHEN TEMP IS ABOVE 80° F. FAN SPEED WILL LINEARLY INCREASE FROM 20% TO 100% AS TEMP INCREASES FROM 76° F TO 80° F.)

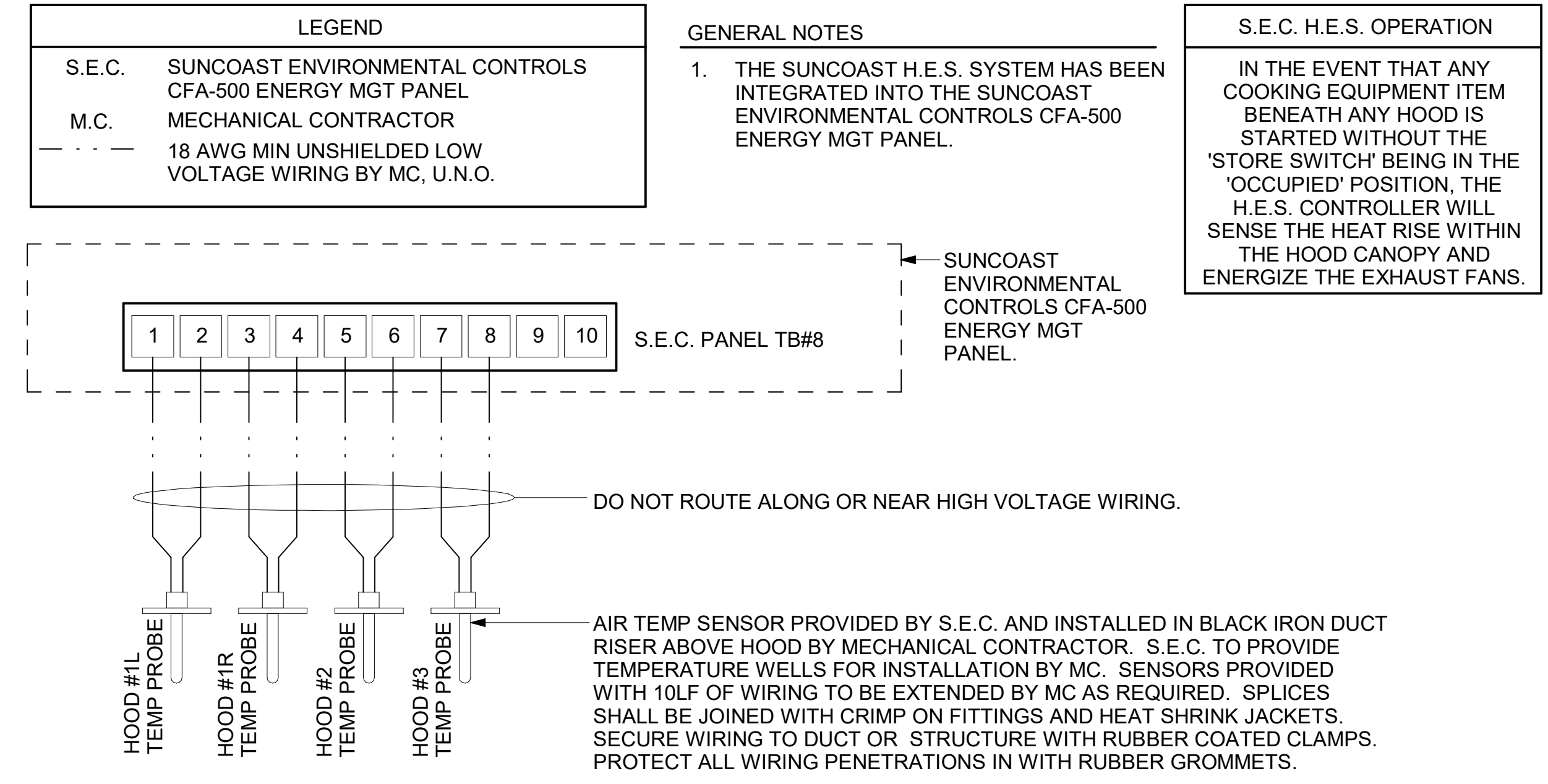
**LEGEND**

MC MECHANICAL CONTRACTOR  
TBCO TOM BARROW COMPANY  
- - - - - 18 AWG MIN LOW VOLTAGE WIRING BY MC.  
\_\_\_\_\_ LINE VOLTAGE BY ELECTRICAL CONTRACTOR

**1 TECH CLOSET CONTROL DIAGRAM**  
NOT TO SCALE



**2 AIR CURTAIN WIRING DIAGRAM**  
NOT TO SCALE

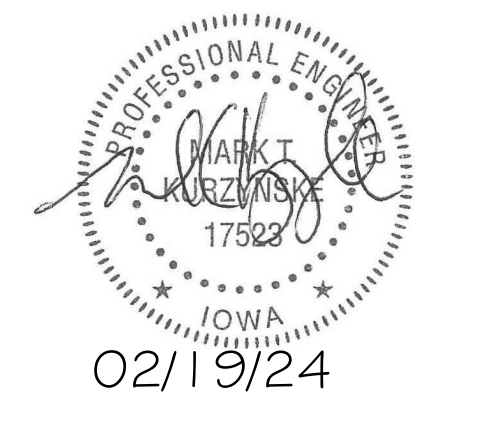


**3 HOOD FAN/EQUIPMENT INTERLOCK**  
NOT TO SCALE



**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998

**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
Telephone: (615) 255-5203



**CHICK-FIL-A**  
Blairs Ferry Rd FSU  
3233 Blairs Ferry Road  
Cedar Rapids, IA 52402

**FSR#05649**  
BUILDING TYPE / SIZE: P14 SE BN  
RELEASE: 23.09  
PRINTED FOR:  
ISSUE FOR CONSTRUCTION  
REVISION SHEET

NO.	DATE	DESCRIPTION
2	02/19/2024	ISSUE FOR CONSTRUCTION

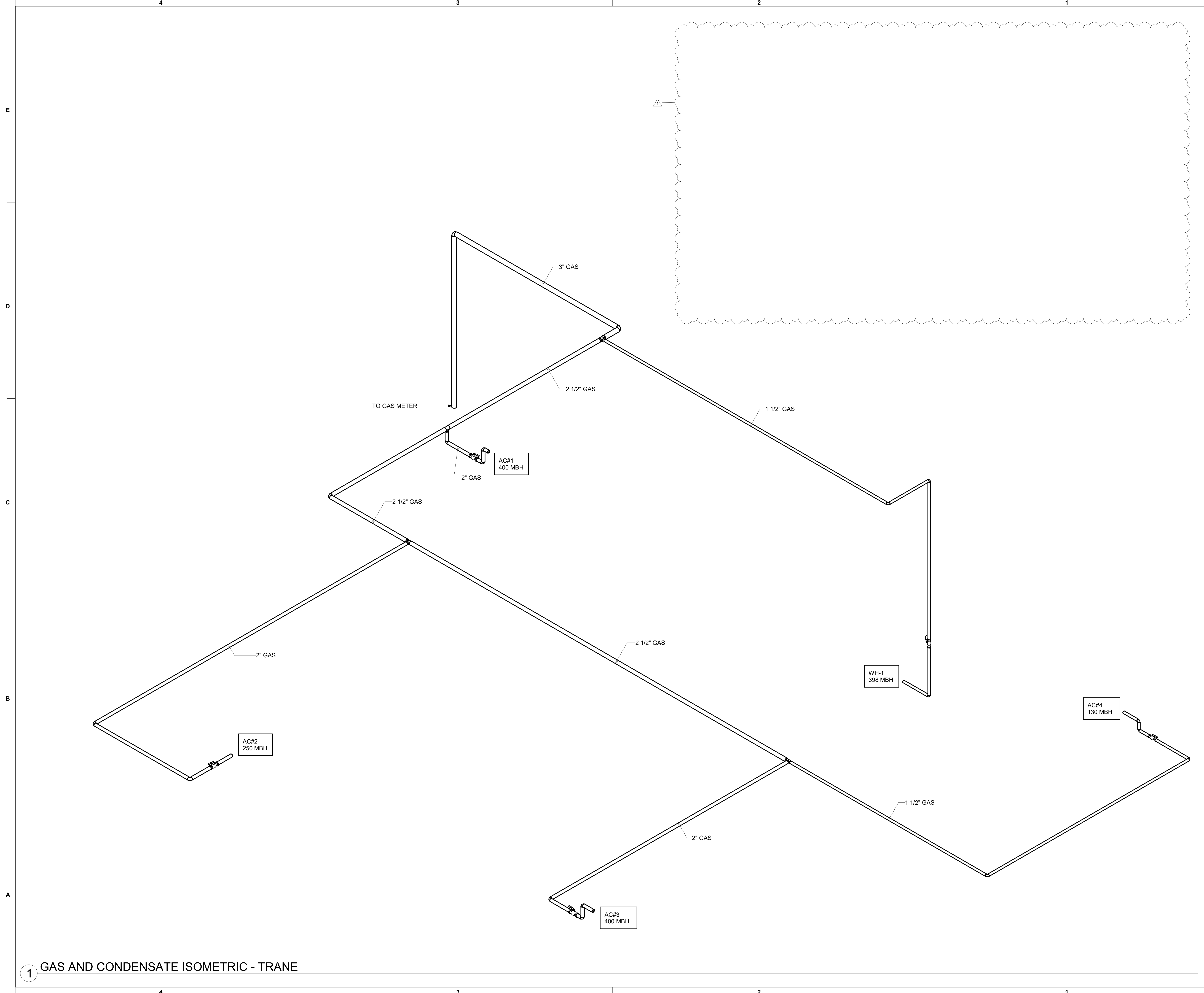
**ISSUE FOR CONSTRUCTION**

CONSULTANT PROJECT # 23200.CD.S  
DATE 12/18/2023  
DRAWN BY BLM

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SHEET CONTROL WIRING DIAGRAMS  
SHEET NUMBER **M-702**

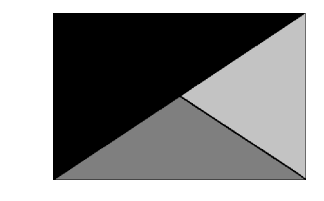
Autodesk Docs://IA\_05649\_Blairs Ferry Rd (IA) FSR/05649\_Blairs Ferry Rd (IA) FSU\_K&A\_MEC.rvt  
2/19/2024 10:21:37 AM  
30-SE-05649-M-901-GAS PIPING ISOMETRICS - TRANE



1 GAS AND CONDENSATE ISOMETRIC - TRANE



**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998



**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
Telephone: (615) 255-5203



**CHICK-FIL-A**  
Blairs Ferry Rd FSU  
3233 Blairs Ferry Road  
Cedar Rapids, IA 52402

**FSR#05649**  
BUILDING TYPE / SIZE: P14 SE BN  
RELEASE: 23.09  
PRINTED FOR:  
ISSUE FOR CONSTRUCTION  
REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	01/23/2024	Plan Review Comments
2	02/19/2024	ISSUE FOR CONSTRUCTION

CONSULTANT PROJECT # 23200.CD.S  
DATE 12/18/2023  
DRAWN BY BLM

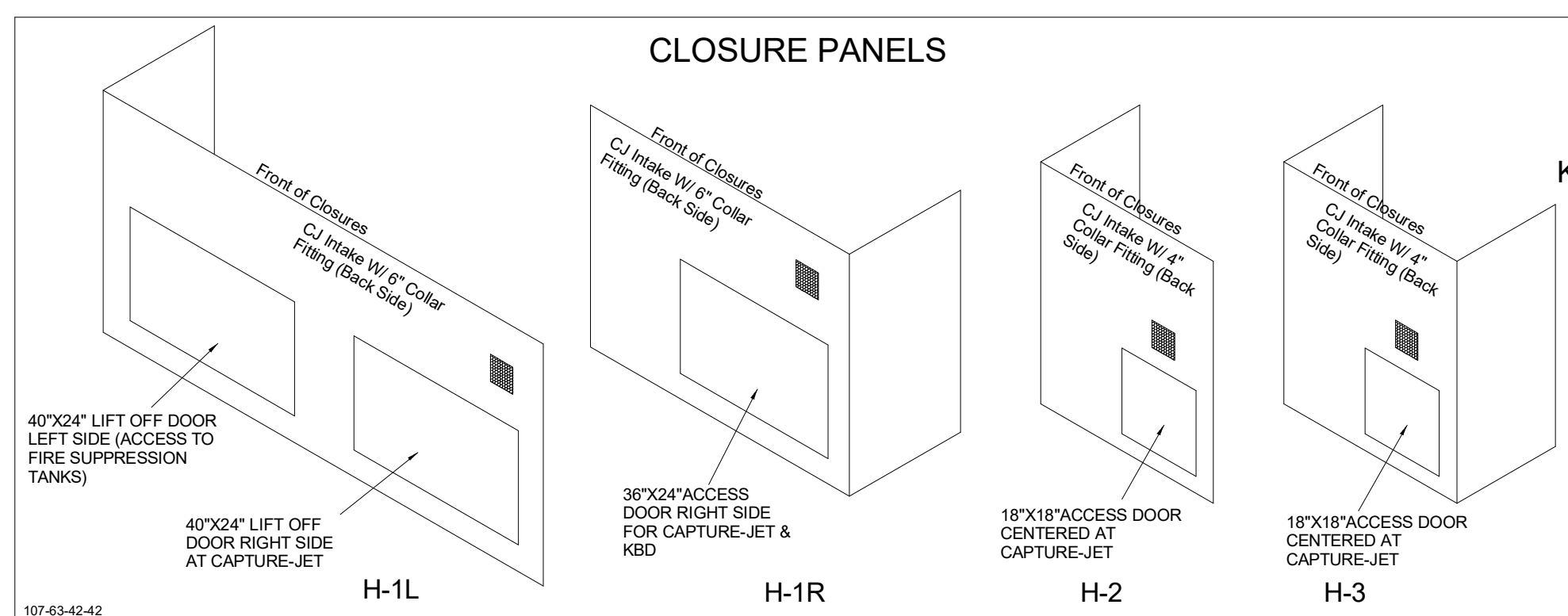
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SHEET GAS PIPING ISOMETRICS - TRANE  
SHEET NUMBER

ISSUE FOR CONSTRUCTION

**M-901**



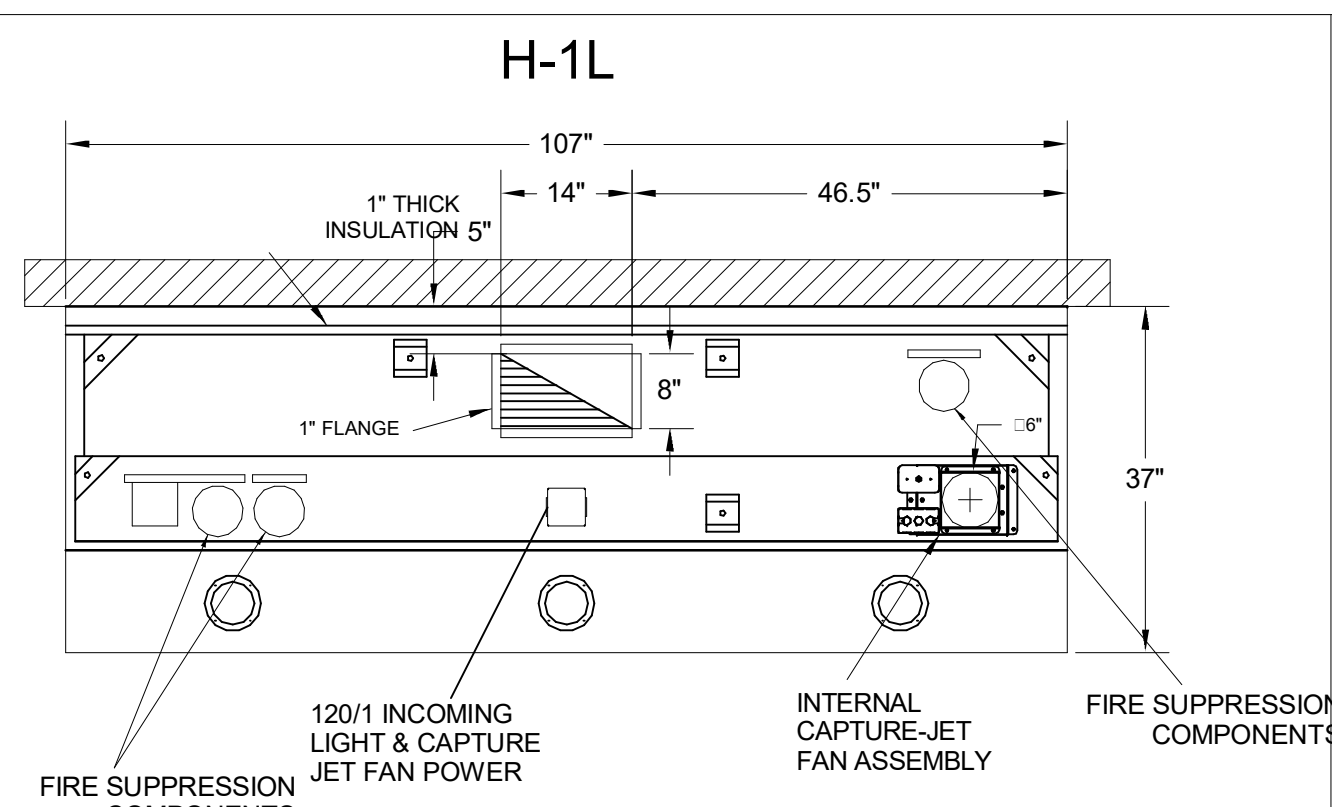
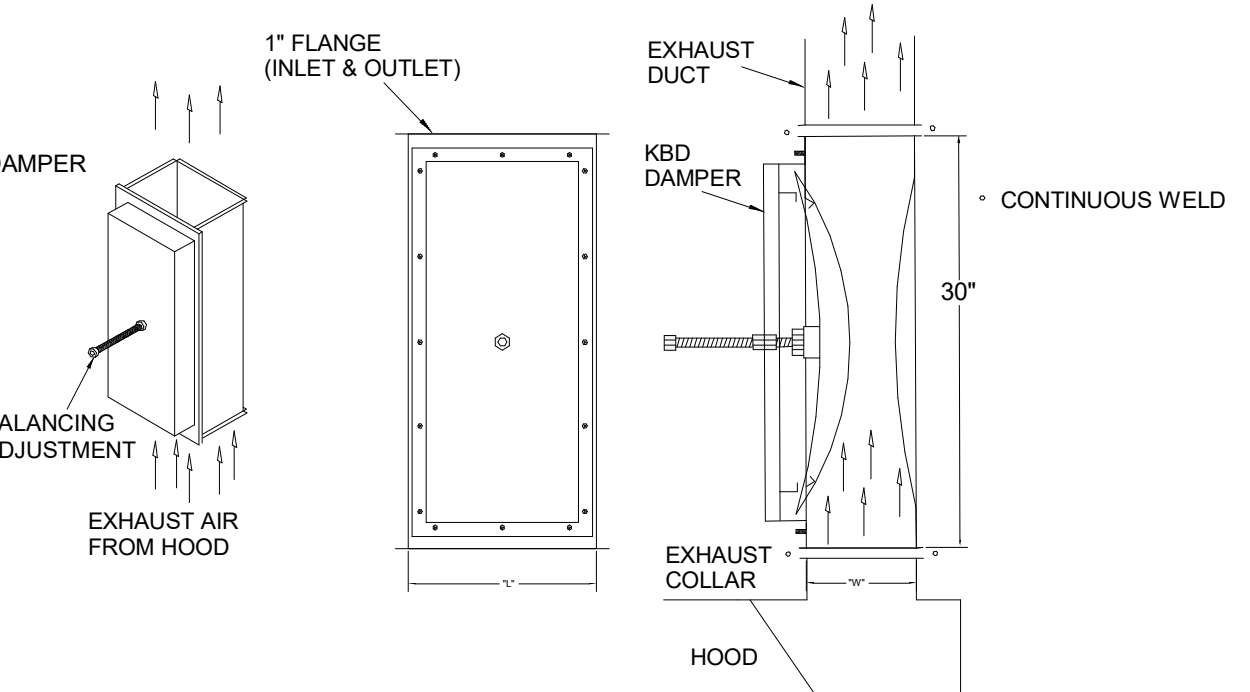
HOOD MODEL	HOOD NUMBER	QTY	EXHAUST COLLAR		EXHAUST AIR INFORMATION			CAPTURE AIR INFORMATION		S.S. KSA FILTERS		LED LIGHTS	QTY	CEILING CLOSURES			KBD DAMPER	K FACTOR (CFM = K FACTOR * √DP)	MATERIAL
			LENGTH	WIDTH	CFM	TAB	SP	CFM	SP	FULL	HALF			CLOSURE HEIGHT	CEILING HEIGHT	HOOD WEIGHT			
KVL-2-IC	H-1L	1	14"	8"	1204	0.13"	0.22"	80	0.30"	5	-	3	2	TBD	ADVISE	669 LBS	*	3365	EXPOSED SURFACES 18 GA. S.S.
KVL-2-IC	H-1R	1	8"	8"	709	0.13"	0.23"	47	0.30"	3	-	2	2		394 LBS	*	1959		
KVL-C-IC	H-2	1	8"	8"	701	0.30"	0.39"	30	0.29"	2	-	1	2		245 LBS	*	1291		
KVL-C-IC	H-3	1	8"	8"	701	0.30"	0.39"	30	0.29"	2	-	1	3		245 LBS	*	1291		



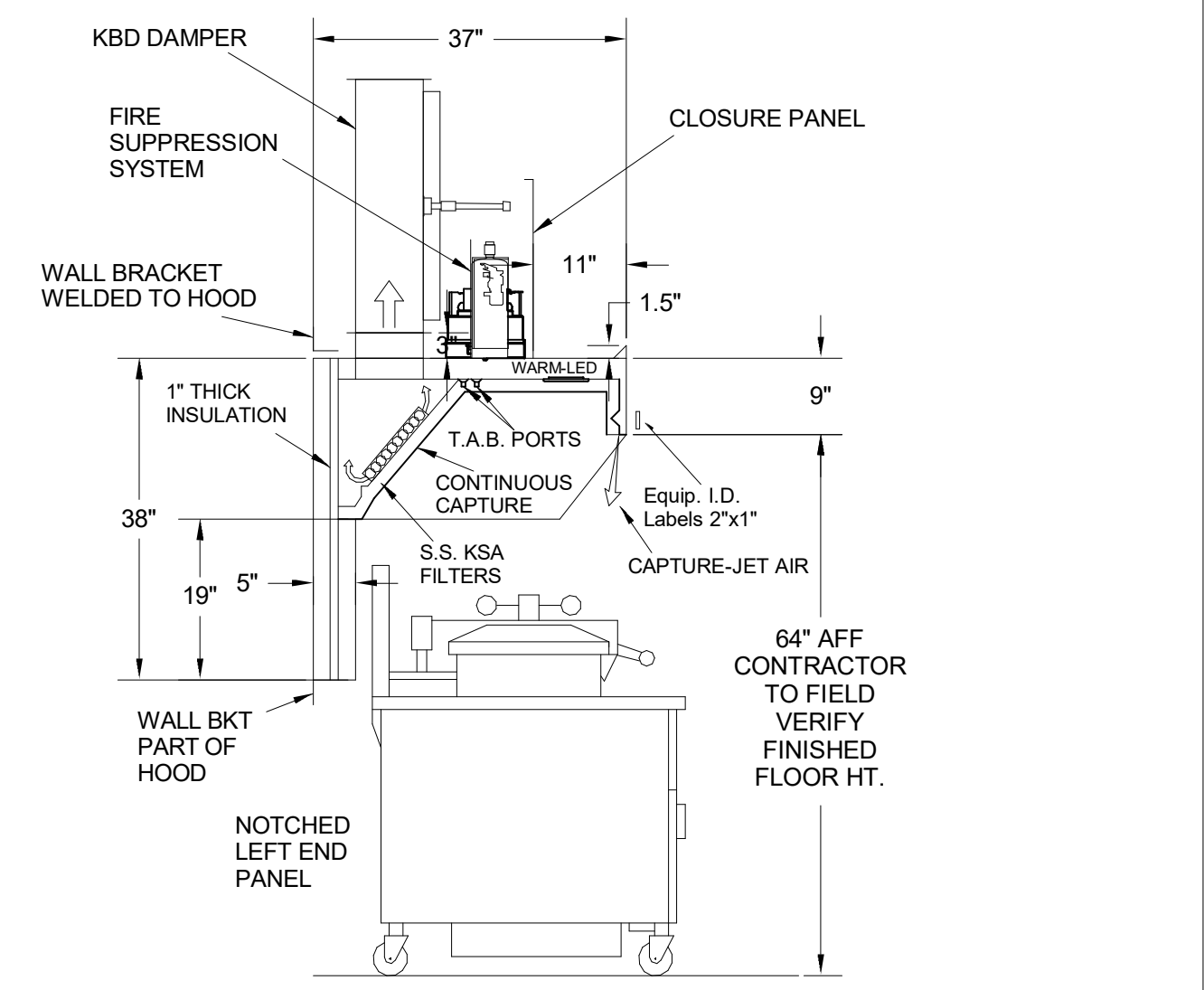
**MODEL:KBD  
CALIBRATED KBDs**  
KITCHEN BALANCING DAMPER EXHAUST VOLUME DAMPER

TAG	"L"	"W"	QUANTITY
H-1L	14"	8"	1
H-1R	8"	8"	1
H-2	8"	8"	1
H-3	8"	8"	1

MATERIAL: FRAME - 16GA CONT. GALV.  
ADJUSTABLE PANEL 18GA S.S.

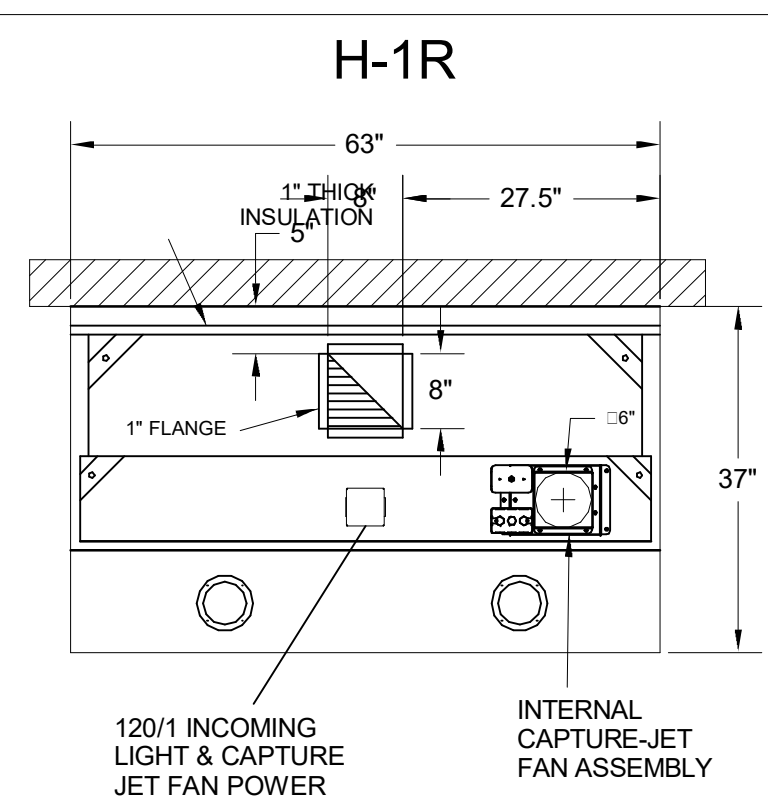
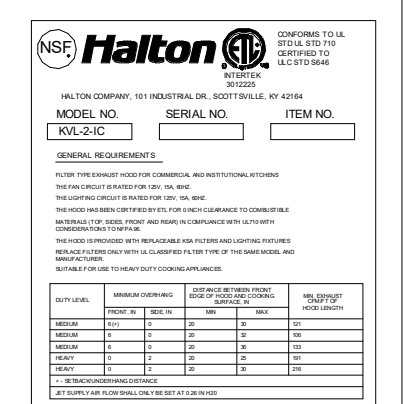


**H-1L PLAN VIEW**

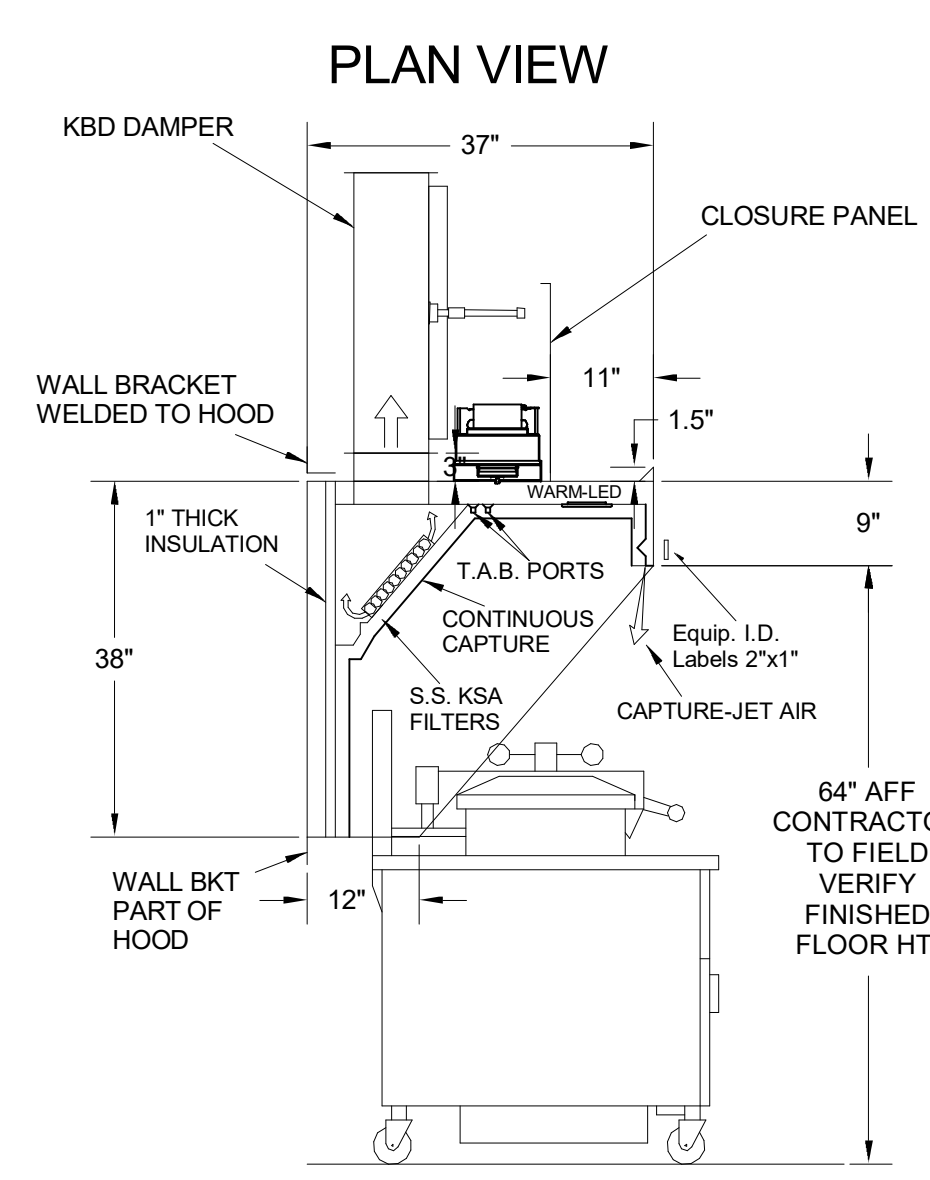


**H-1L SECTION VIEW**

- CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF
- FRONT CLOSURE PANEL WITH 40"x24" LIFT OUT DOOR LEFT SIDE (ACCESS TO FIRE SUPPRESSION)
- 40"x24" LIFT DOOR RIGHT SIDE AT CAPTURE-JET WITH FRONT CJ INTAKE
- CONTINUOUS CAPTURE INTERNAL RIGHT END CUTOUT
- 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
- NOTCHED LEFT END PANEL
- EQUIPMENT COVERED:  
(4) PRESSURE FRYERS  
(2) GRILLS
- AMEREX WEIGHT = 264 LBS

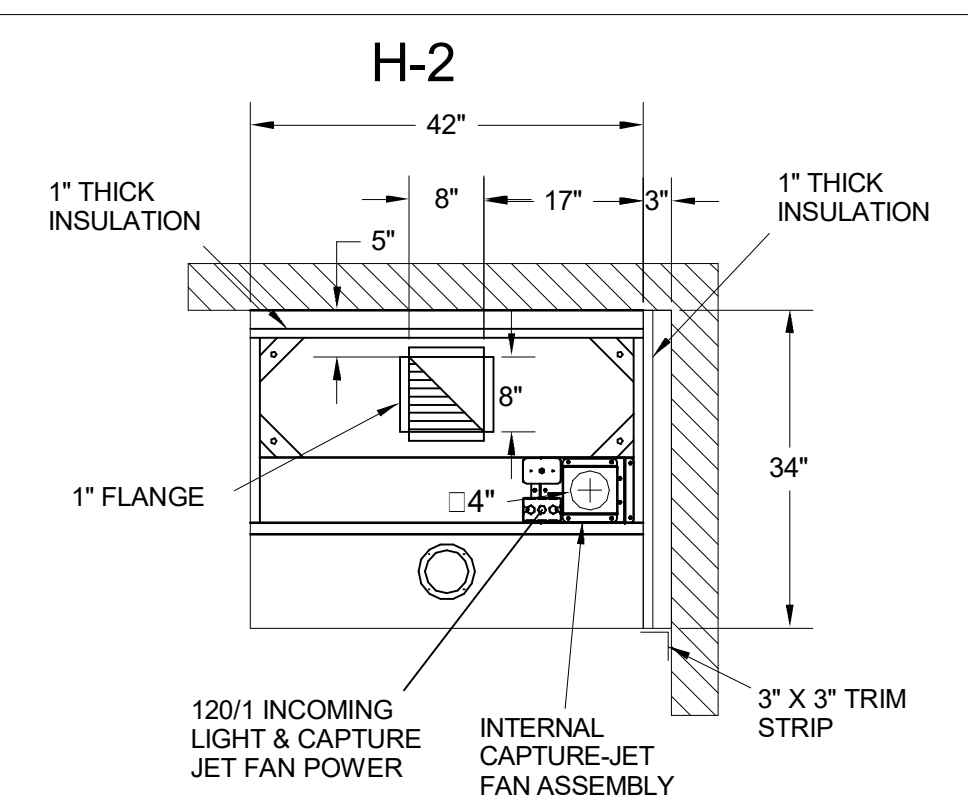
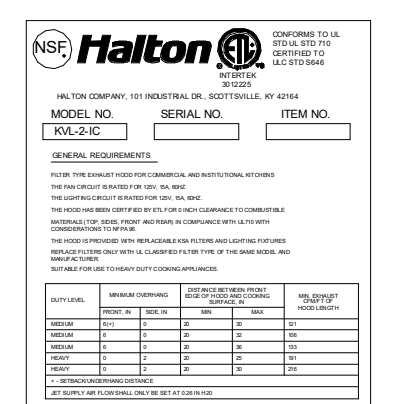


**H-1R**

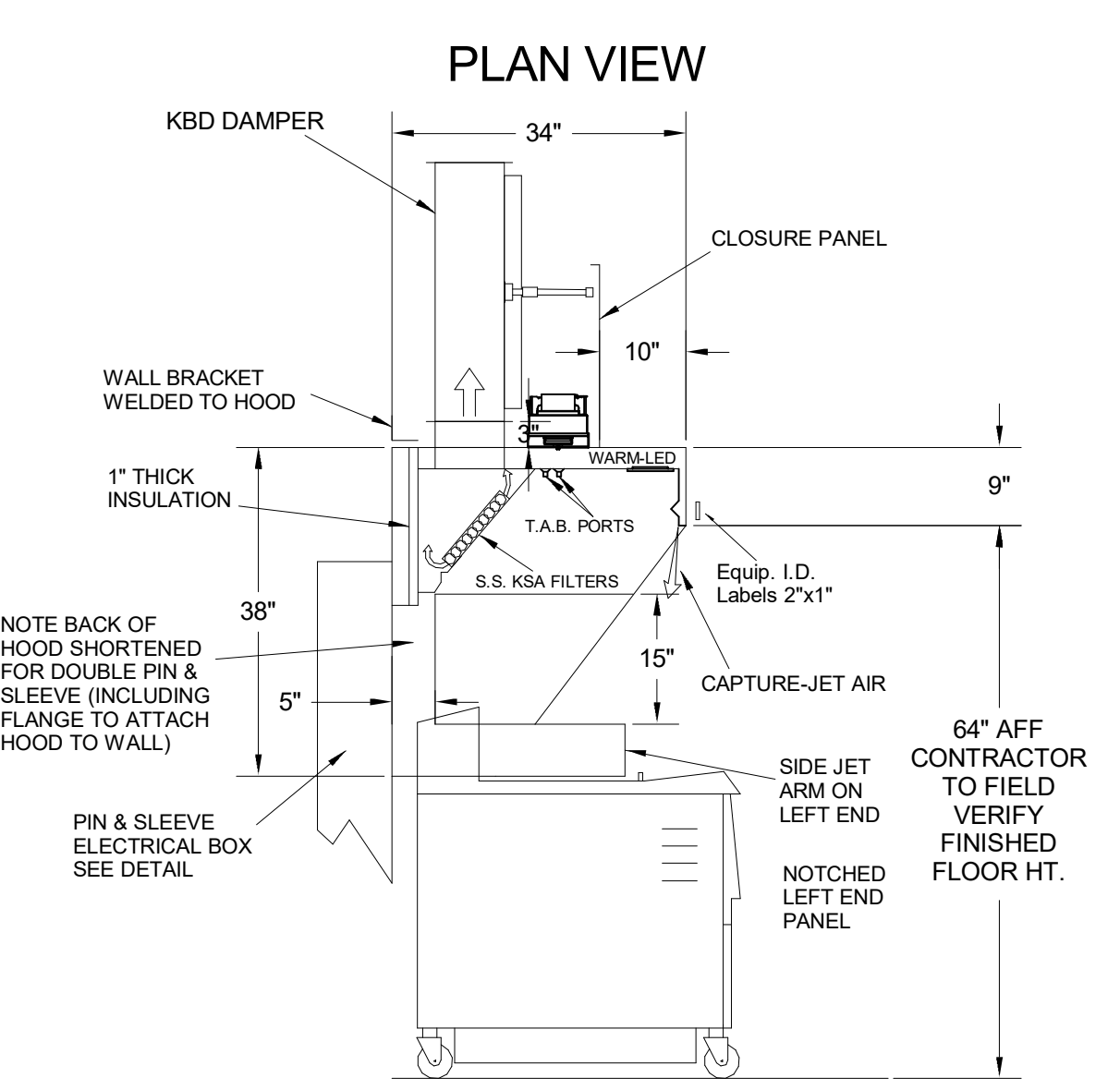


**H-1R SECTION VIEW**

- CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF
- 36"x24" ACCESS DOOR RIGHT SIDE FOR ACCESS TO CAPTURE-JET WITH FRONT CJ INTAKE & KBD
- CONTINUOUS CAPTURE INTERNAL LEFT END CUTOUT
- 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED:  
(3) PRESSURE FRYERS

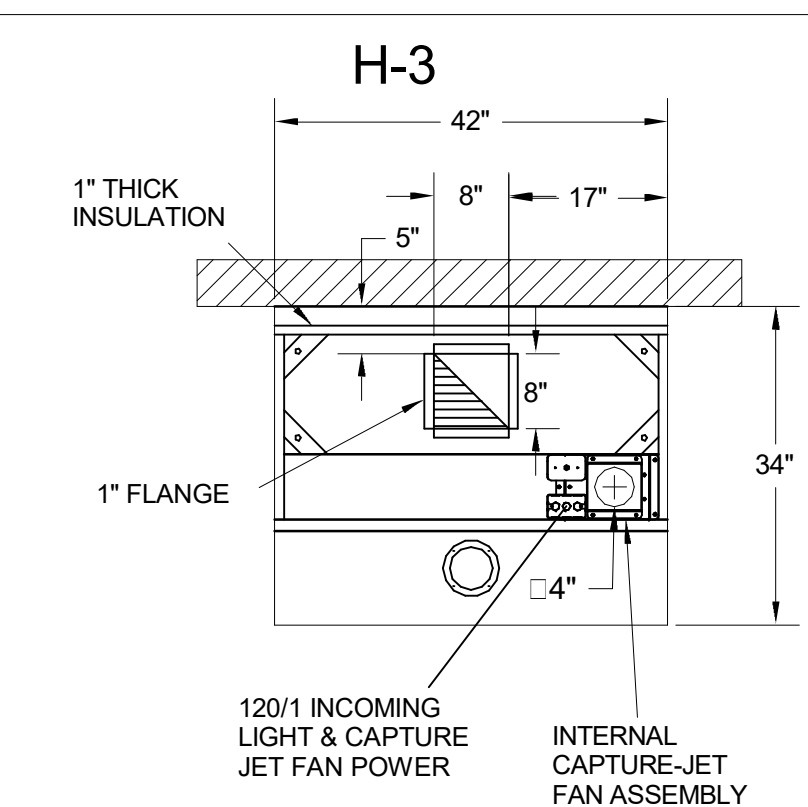


**H-2**

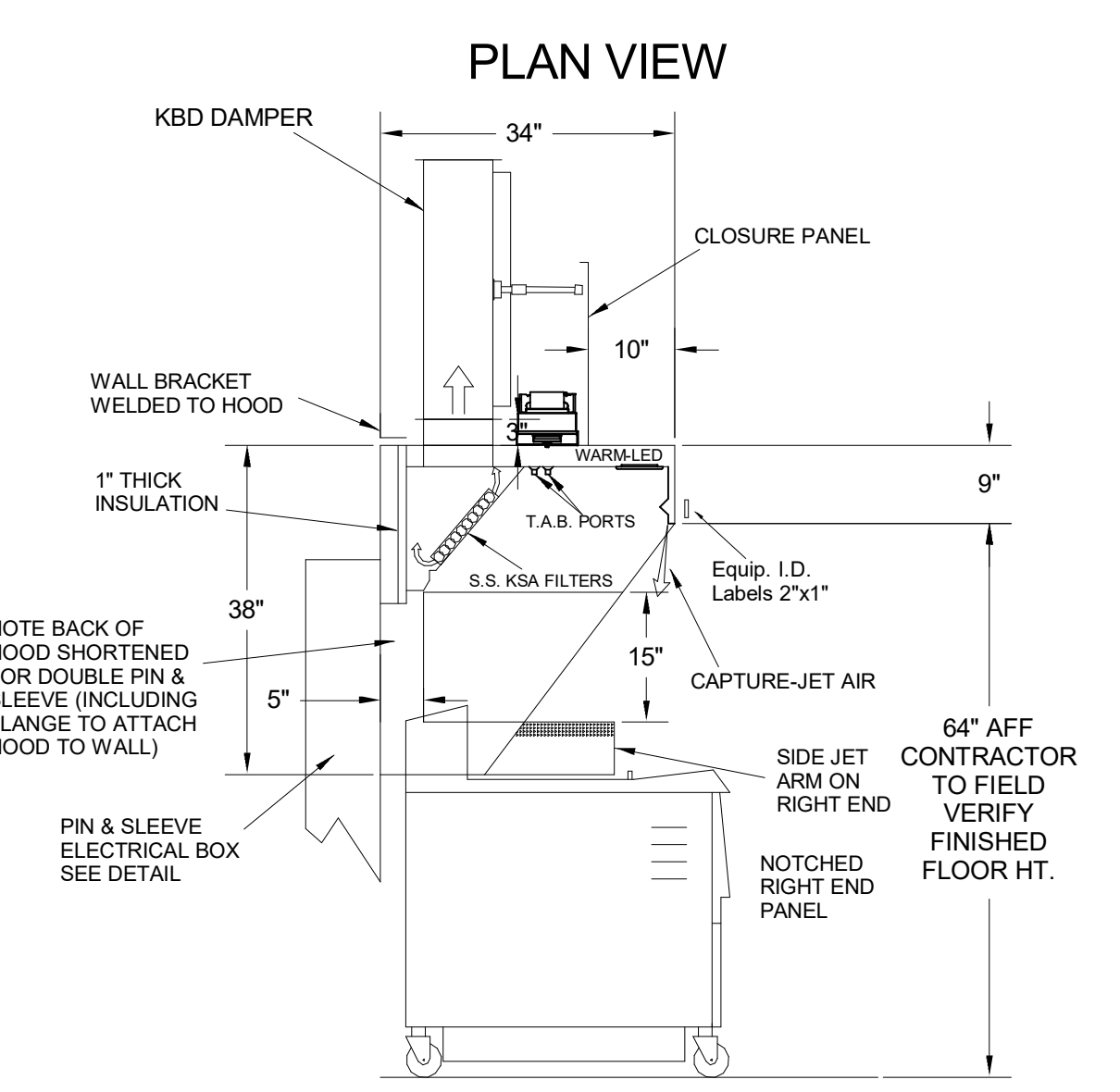


**H-2 SECTION VIEW**

- CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
- 18"x18" ACCESS DOOR CENTERED AT CAPTURE-JET WITH FRONT CJ INTAKE
- NOTCHED LEFT END PANEL
- DOUBLE RECEPTACLE PIN & SLEEVE
- 3"x3" TRIM STRIP FOR STANDOFF ON RIGHT END
- 3" SIDE & REAR STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED:  
(2) FRYERS



**H-3**

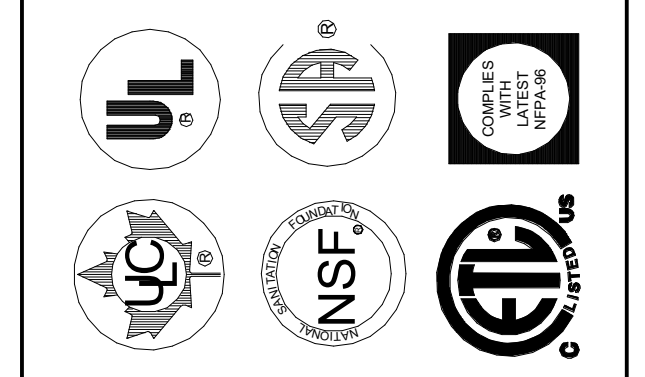


**H-3 SECTION VIEW**

- CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
- 18"x18" ACCESS DOOR CENTERED AT CAPTURE-JET WITH FRONT CJ INTAKE
- NOTCHED RIGHT END PANEL
- DOUBLE RECEPTACLE PIN & SLEEVE
- 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED:  
(2) FRYERS



THE DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY.  
PLEASE VERIFY THE FOLLOWING:  
1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS AND CLEARANCES  
2. THE LOCATION AND TYPE OF COOKING EQUIPMENT.  
NOTE TO APPROVER: THIS DRAWING IS FOR INFORMATION ONLY. ANY CHANGES TO THE EQUIPMENT POSITION MAY AFFECT EXHAUST AIRFLOW. HALTON MUST BE NOTIFIED IF ANY OF THESE CHANGES OCCUR. A RECALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.  
 REVISE AND RESUBMIT  
 APPROVED FOR FABRICATION  
 WITH NO CHANGES  
 WITH CHANGES AS NOTED  
APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



WEBSITE: www.halton.com  
HALTON CO. (USA)  
101 INDUSTRIAL DRIVE  
SCOTTSDALE, KY 42164  
1-270-237-5600

REV.	DATE	DESCRIPTION
1		
2		
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PROJECT:  
CHICK-FIL-A #5649  
BLAIRS FERRY RD

LOCATION: CEDAR RAPIDS, IA  
DRAWN BY: SKK  
SCALE: NOT TO SCALE  
DATE: 01.23.24

DRAWING No.:  
**U24-062-01**

SHEET NO.: **H-1.1**

SHEET ADDED TO SET



**CHICK-FIL-A**  
Blairs Ferry Rd FSU  
3233 Blairs Ferry Road  
Cedar Rapids, IA 52402

**FSR#05649**  
BUILDING TYPE / SIZE: P14 SE BN  
RELEASE: 23.09  
ISSUE FOR CONSTRUCTION  
REVISION SHEET/SCALE

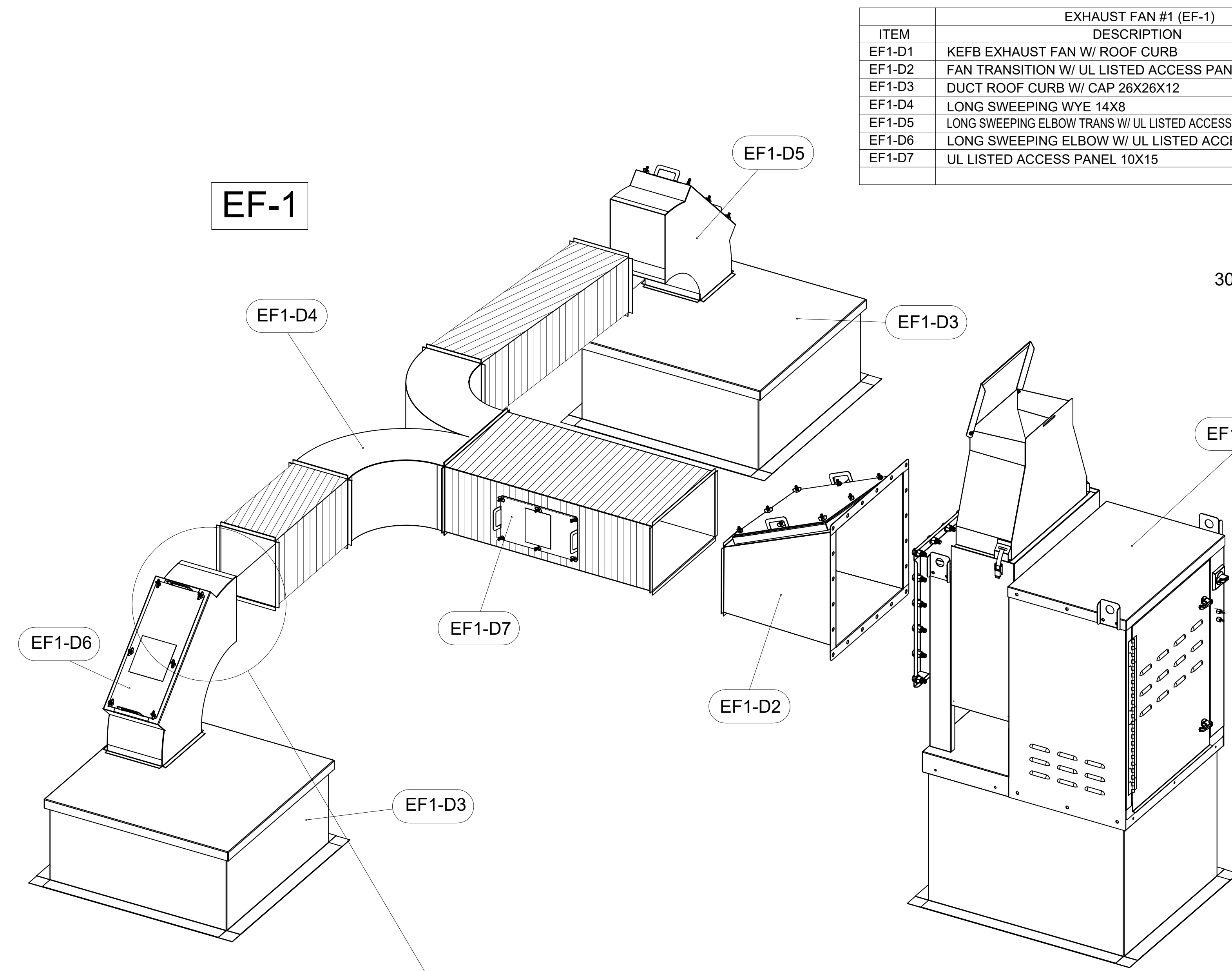
NO.	DATE	DESCRIPTION
1	01/23/2024	Plan Review Comments
2	02/19/2024	ISSUE FOR CONSTRUCTION

**ISSUE FOR CONSTRUCTION**

CONSULTANT PROJECT # 23200.CD.S  
DATE 12/18/2023  
DRAWN BY BLM

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SHEET HALTON HOOD SHOP DRAWING  
SHEET NUMBER **MH-1.1**



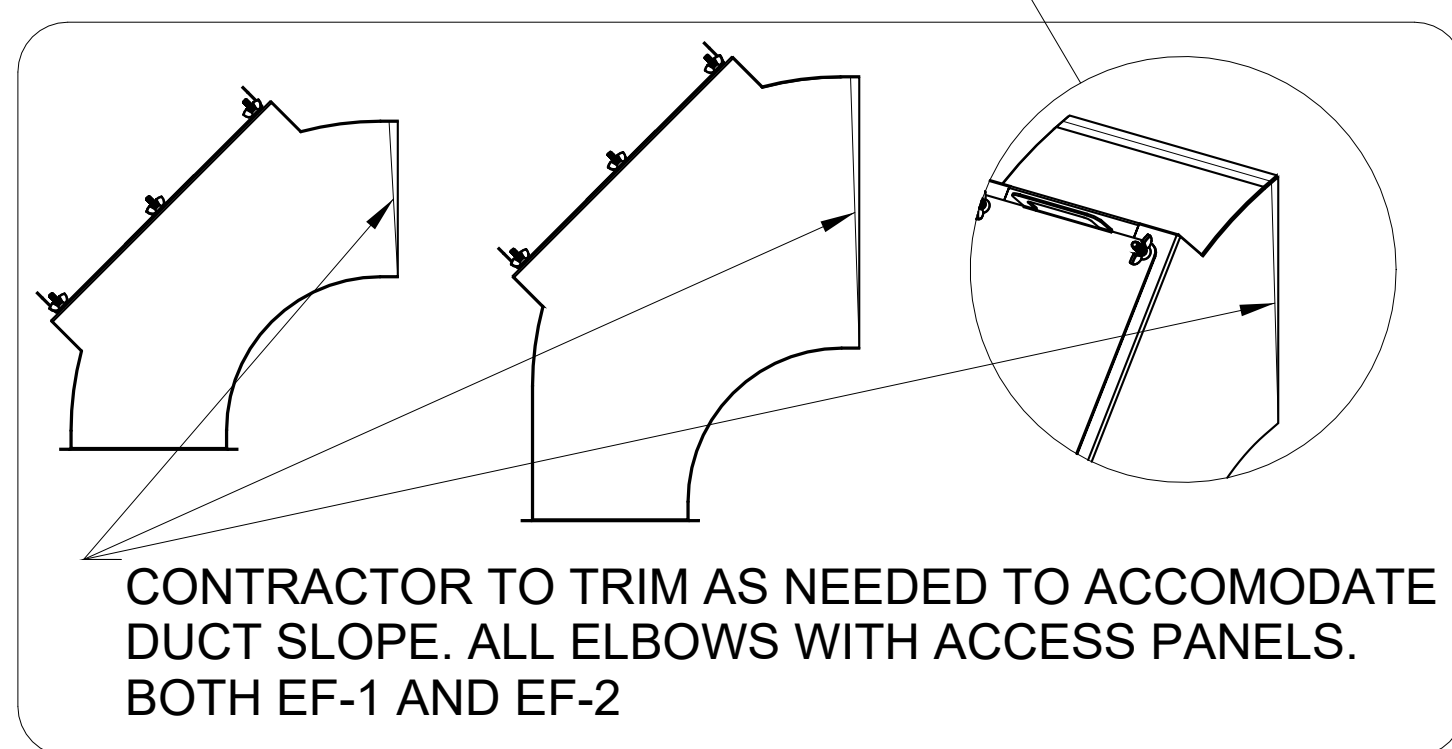
EXHAUST FAN #1 (EF-1)		
ITEM	DESCRIPTION	QTY
EF1-D1	KEFB EXHAUST FAN W/ ROOF CURB	1
EF1-D2	FAN TRANSITION W/ UL LISTED ACCESS PANEL 14X16	1
EF1-D3	DUCT ROOF CURB W/ CAP 26X26X12	2
EF1-D4	LONG SWEEPING WYE 14X8	1
EF1-D5	LONG SWEEPING ELBOW TRANS W/ UL LISTED ACCESS PANEL 8X8 TO 8X14	1
EF1-D6	LONG SWEEPING ELBOW W/ UL LISTED ACCESS PANEL 14X8	1
EF1-D7	UL LISTED ACCESS PANEL 10X15	2

EXHAUST FAN #2 (EF-2)		
ITEM	DESCRIPTION	QTY
EF2-D1	KEFB EXHAUST FAN W/ ROOF CURB	1
EF2-D2	FAN TRANSITION W/ UL LISTED ACCESS PANEL 10X16	1
EF2-D3	DUCT ROOF CURB W/ CAP 26X26X12	2
EF2-D4	LONG SWEEPING WYE 8X10	1
EF2-D5	LONG SWEEPING ELBOW W/ UL LISTED ACCESS PANEL 8X8	2
EF2-D6	UL LISTED ACCESS PANEL 7X15	4
EF2-D7	LONG SWEEPING ELBOW 8X8	1
EF2-D8	LONG SWEEPING ELBOW 8X10	1

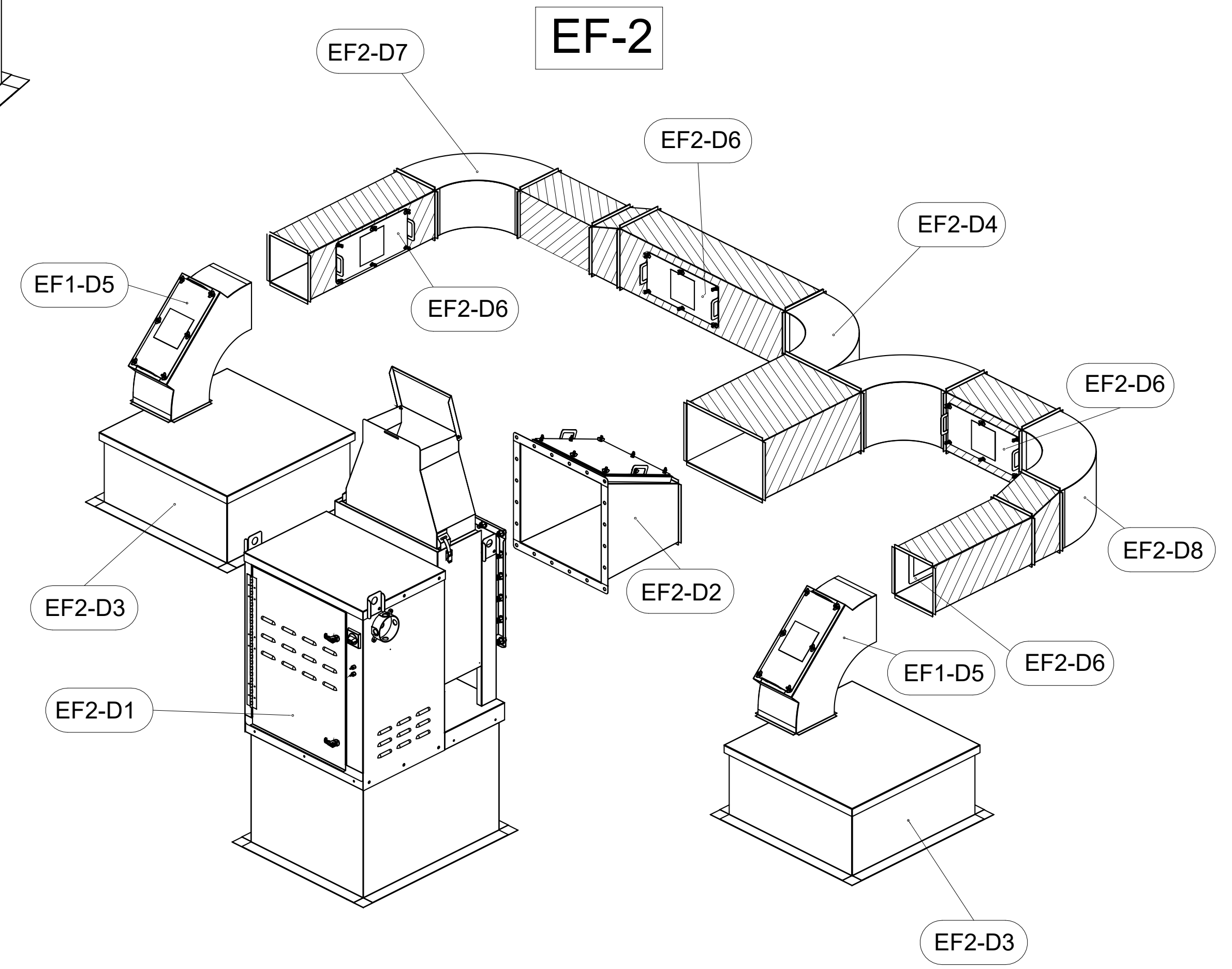
30-SE LBN

-CONTACT HALTON CUSTOMER SERVICE FOR HALTON PROVIDED ITEMS ONLY DUCT SECTIONS SPECIFIED BY NUMBERS AND SHOWN IN THE DRAWING PROVIDED BY HALTON

-ALL OTHER DUCTS AND FITTINGS BY HVAC CONTRACTOR. DUCT REVISIONS BY HVAC CONTRACTOR ARE SHOWN IN ORDER SYSTEMS ON DUCT SECTIONS SHOWN WITH UL TRANSITION ACCESS PANELS PROVIDED LONG SWEEPING ELBOWS PROVIDED BY HVAC CONTRACTOR. UL LISTED ACCESS PANELS NOT BY HVAC CONTRACTOR.



-ALL DUCTS AND FITTINGS DEPICTED BY HATCH AREAS ARE BY HVAC CONTRACTOR.



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NOTE TO APPROVER: ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OF EQUIPMENT CHANGES OCCUR, A RE-CALCULATION EXHAUST FLOW MAY BE REQUIRED.

APPROVED FOR FABRICATION:  WITH NO CHANGES  WITH CHANGES AS NOTED

REVISION AND RESUBMIT:  WITH NO CHANGES  WITH CHANGES AS NOTED

DATE: \_\_\_\_\_

---

MAIL-APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

WEBSITE: www.halton.com HALTON CO. (USA) 101 INDUSTRIAL DRIVE SCOTTSDALE, AZ 85257-5800	DATE: 04.15.24 BY: SKK DATE: 04.19.24 BY: SKK
--	--

---

MAIL-APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

WEBSITE: www.halton.com HALTON CO. (CANADA) 1021 BREVICK PLACE MISSISSAUGA, ONTARIO L4W 3R7 TEL: 905-624-1301	DATE: 04.15.24 BY: SKK DATE: 04.19.24 BY: SKK
---	--

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PROJECT: CHICK-FIL-A #5649  
BLAIRST FERRY RD

LOCATION: CEDAR RAPIDS, IA

SCALE: NOT TO SCALE

CONSULTANT: Halton

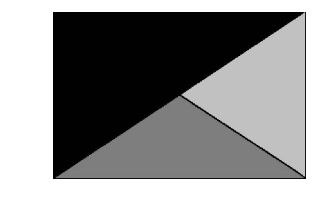
DRAWING TITLE: CFA FAN DETAILS

DRAWING NO.: U24-062

REV. NO.: 0 SHEET NO.: 5 of 5



**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998



**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
Telephone: (615) 255-5203



**CHICK-FIL-A**  
Blair's Ferry Rd FSU  
3233 Blair's Ferry Road  
Cedar Rapids, IA 52402

**FSR#05649**  
BUILDING TYPE / SIZE: P14 SE BN  
RELEASE: 23.09  
PRINTED FOR: ISSUE FOR PERMIT  
REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	01/23/2024	Plan Review Comments
2	02/19/2024	ISSUE FOR CONSTRUCTION

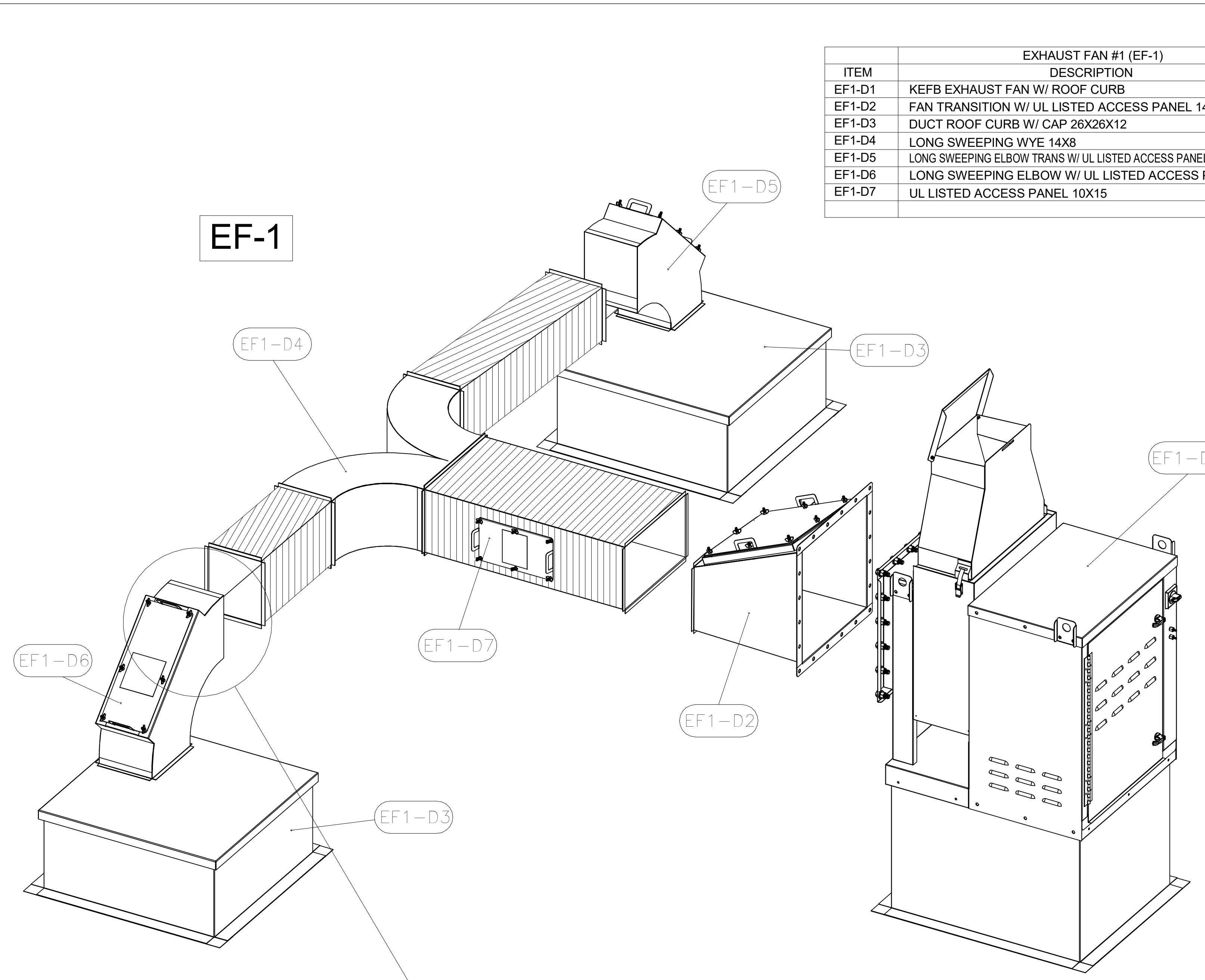
CONSULTANT PROJECT # 23200 CD-S  
DATE 12/18/2023  
DRAWN BY BLM

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SHEET: CFA FAN DETAILS  
SHEET NUMBER: MH-1.5

SHEET ADDED TO SET



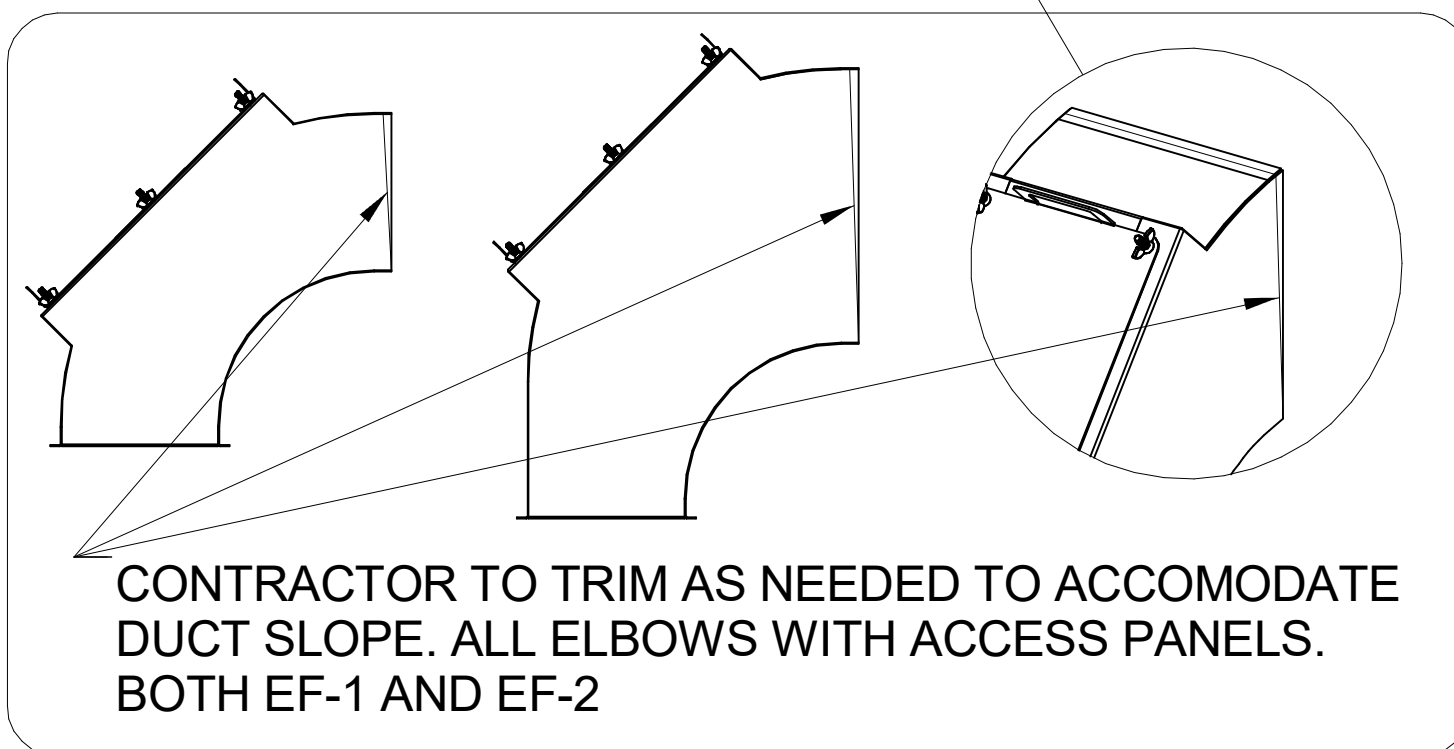


EXHAUST FAN #1 (EF-1)		
ITEM	DESCRIPTION	QTY
EF1-D1	KEFB EXHAUST FAN W/ ROOF CURB	1
EF1-D2	FAN TRANSITION W/ UL LISTED ACCESS PANEL 14X16	1
EF1-D3	DUCT ROOF CURB W/ CAP 26X26X12	2
EF1-D4	LONG SWEEPING WYE 14X8	1
EF1-D5	LONG SWEEPING ELBOW TRANS W/ UL LISTED ACCESS PANEL 8X8 TO 8X14	1
EF1-D6	LONG SWEEPING ELBOW W/ UL LISTED ACCESS PANEL 14X8	1
EF1-D7	UL LISTED ACCESS PANEL 10X15	2

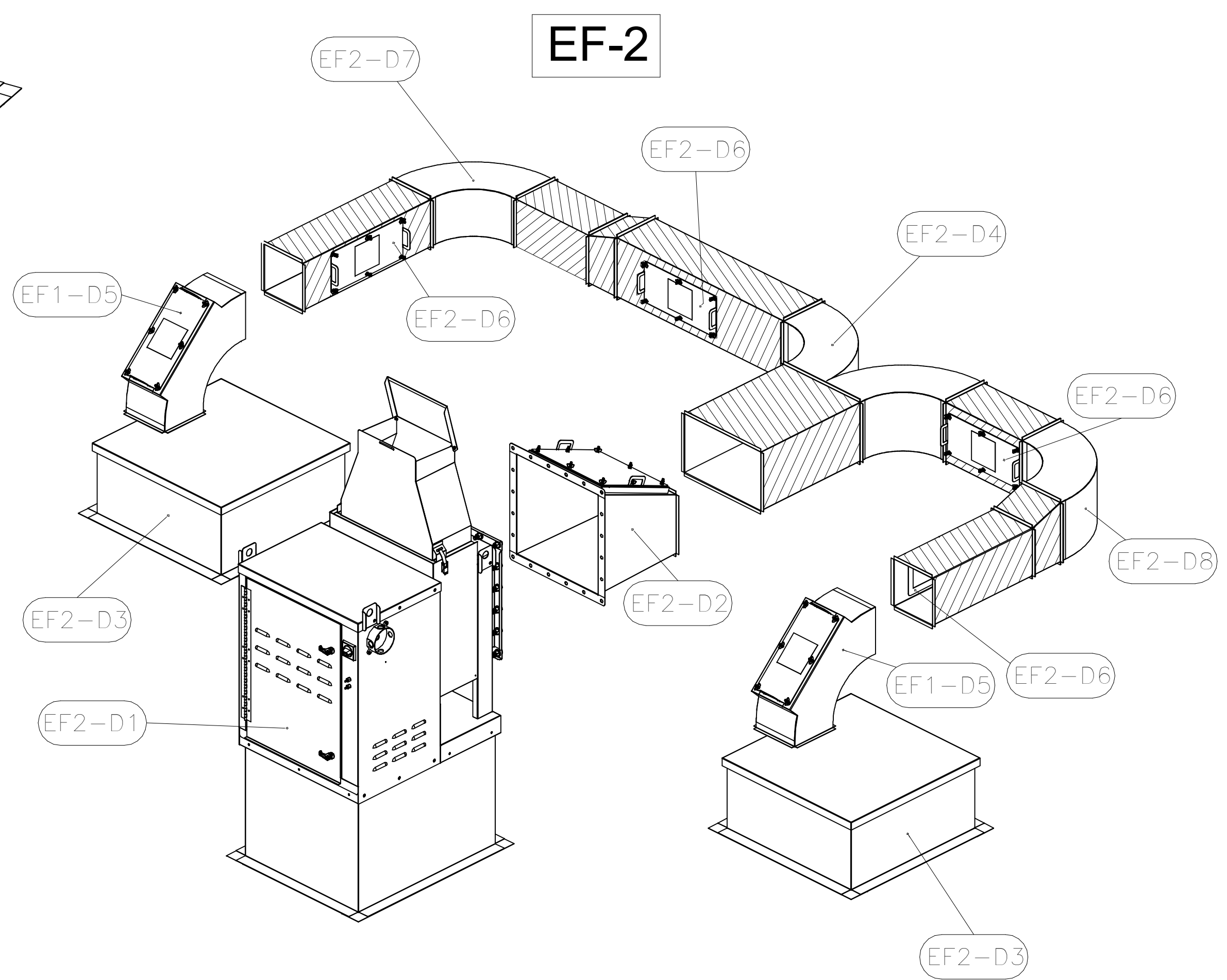
EXHAUST FAN #2 (EF-2)		
ITEM	DESCRIPTION	QTY
EF2-D1	KEFB EXHAUST FAN W/ ROOF CURB	1
EF2-D2	FAN TRANSITION W/ UL LISTED ACCESS PANEL 10X16	1
EF2-D3	DUCT ROOF CURB W/ CAP 26X26X12	2
EF2-D4	LONG SWEEPING WYE 8X10	1
EF2-D5	LONG SWEEPING ELBOW W/ UL LISTED ACCESS PANEL 8X8	2
EF2-D6	UL LISTED ACCESS PANEL 7X15	4
EF2-D7	LONG SWEEPING ELBOW 8X8	1
EF2-D8	LONG SWEEPING ELBOW 8X10	1

-CONTACT HALTON CUSTOMER SERVICE FOR HALTON PROVIDED ITEMS ONLY DUCT SECTIONS SPECIFIED BY NUMBERS AND SHOWN IN THE DRAWING ARE PROVIDED BY HALTON

-ALL OTHER DUCTS AND FITTINGS BY HVAC CONTRACTOR. DUCT FITTINGS BY HVAC CONTRACTOR ARE SHOWN IN ORDER SYSTEM DESIGN. DUCT SECTIONS SHOWN WITH UL LISTED ACCESS PANELS PROVIDED LONG SWEEPING ELBOWS PROVIDED BY HVAC CONTRACTOR FOR ELBOWS WITH UL LISTED ACCESS PANELS. ALL OTHER DUCT SECTIONS NOT BY HVAC CONTRACTOR.



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2. THE LOCATION AND TYPE OF COOKING EQUIPMENT. ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUT OR EQUIPMENT POSITION MAY AFFECT EXHAUST AIRFLOW. HALTON MUST BE NOTIFIED IF ANY OF THESE CHANGES OCCUR. CONSULTATION WITH HALTON IS REQUIRED.

REUSE AND RESUBMIT  
 WITH NO CHANGES  
 WITH CHANGES AS NOTED

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

---

MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

WEBSITE: www.halton.com HALTON CO. (USA) 101 INDUSTRIAL DRIVE SCOTTSVILLE, KY 42164 1-270-237-5600	<input checked="" type="checkbox"/>	DATE: _____ BY: _____
HALTON CO. (CANADA) 1021 BREVIK PLACE MISSISSAUGA, ON L4W 3R7 1-905-824-0301	<input type="checkbox"/>	DATE: _____ BY: _____

---

PROJECT: CHICK-FIL-A #5649  
 CHICK-FIL-A #5649  
 BLAIRS FERRY RD  
 LOCATION: CEDAR RAPIDS, IA

DATE: 01/19/24  
 DRAWN BY: ACF  
 SCALE: NOT TO SCALE  
 CONSULTANT:

**Halton**

DRAWING TITLE: CFA FAN DETAILS  
 DRAWING No.: U24-062

REV. NO.: 0 SHEET NO.: 5 of 5

SHEET ADDED TO SET



**Chick-fil-A**  
 5200 Buffington Road  
 Atlanta, Georgia  
 30349-2998

**Kurzynske & Associates**  
 2705 Lebanon Pike - Suite One  
 Nashville, Tennessee 37214  
 Telephone: (615) 255-5203



**CHICK-FIL-A**  
 Blairs Ferry Rd FSU  
 3233 Blairs Ferry Road  
 Cedar Rapids, IA 52402

**FSR#05649**  
 BUILDING TYPE / SIZE: P14 SE BN  
 RELEASE: 23.09  
 PRINTED FOR:  
 ISSUE FOR CONSTRUCTION  
 REVISION SHEET

NO.	DATE	DESCRIPTION
1	01/23/2024	Plan Review Comments
2	02/19/2024	ISSUE FOR CONSTRUCTION

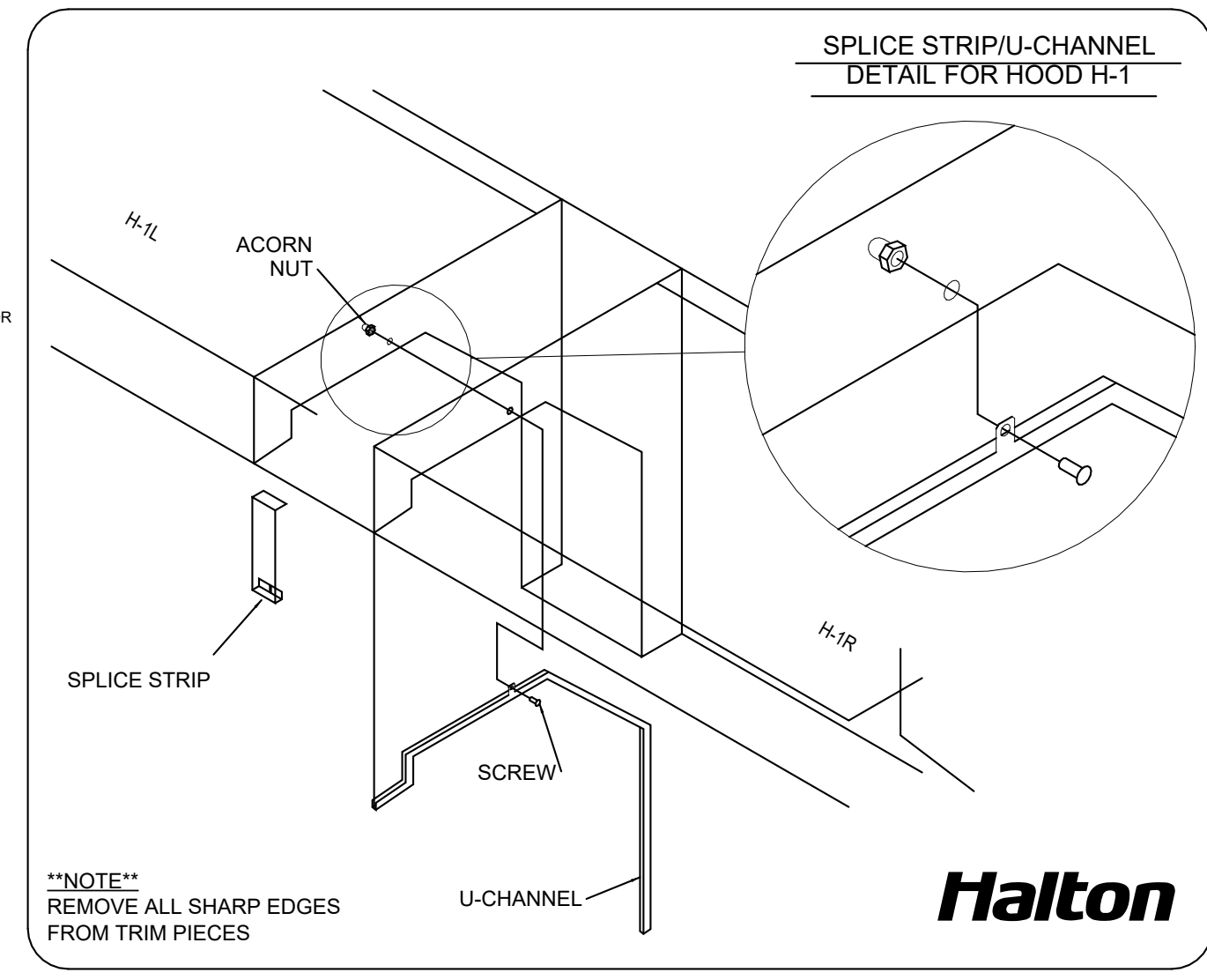
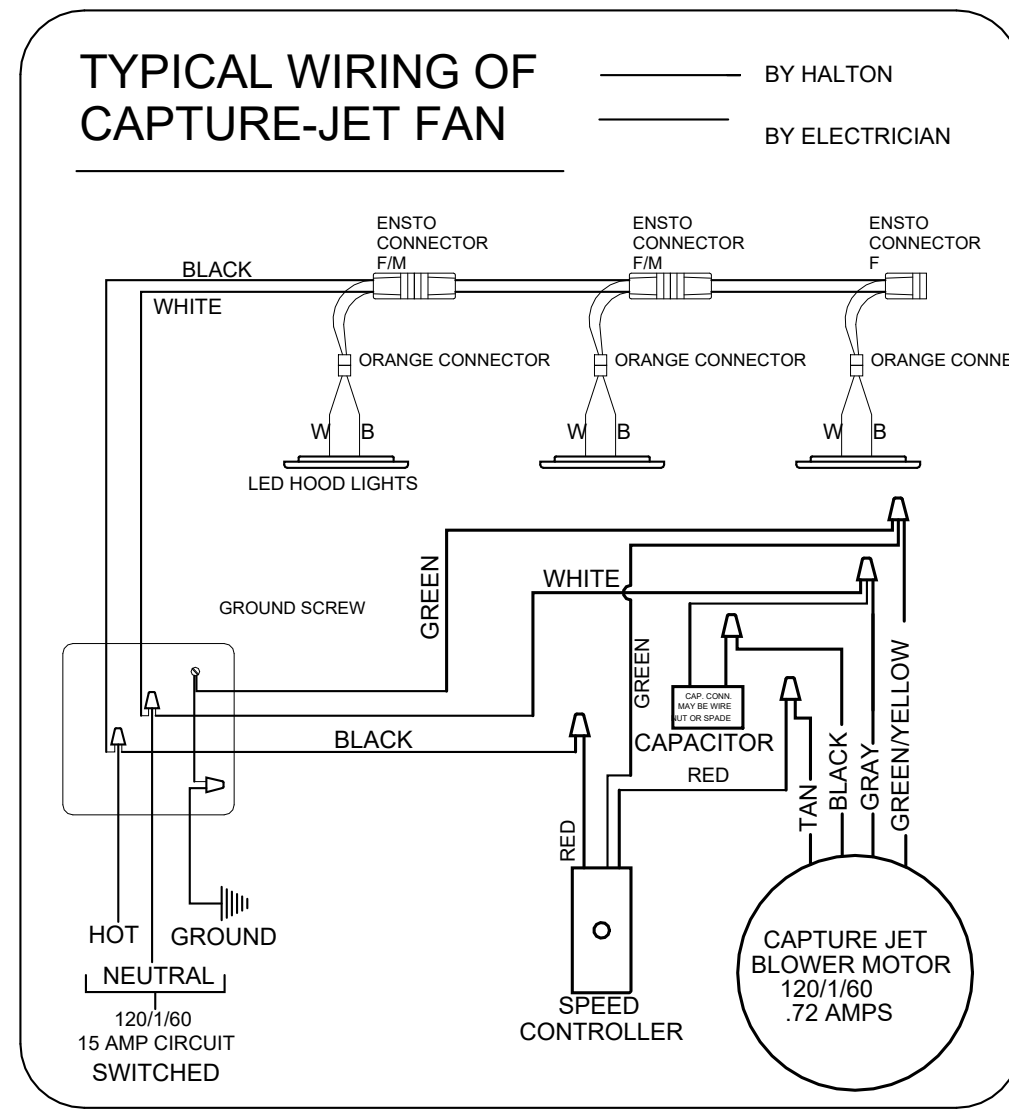
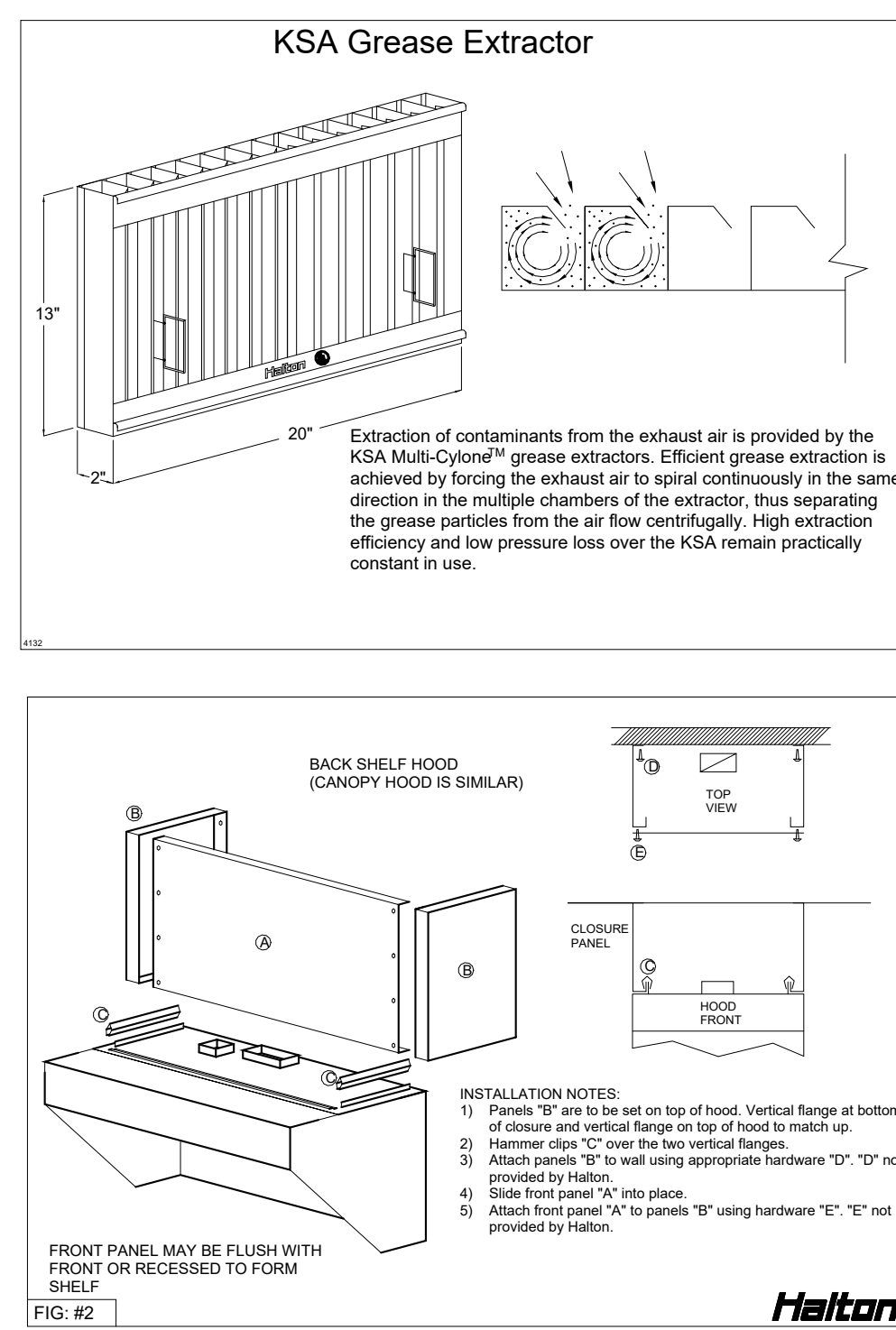
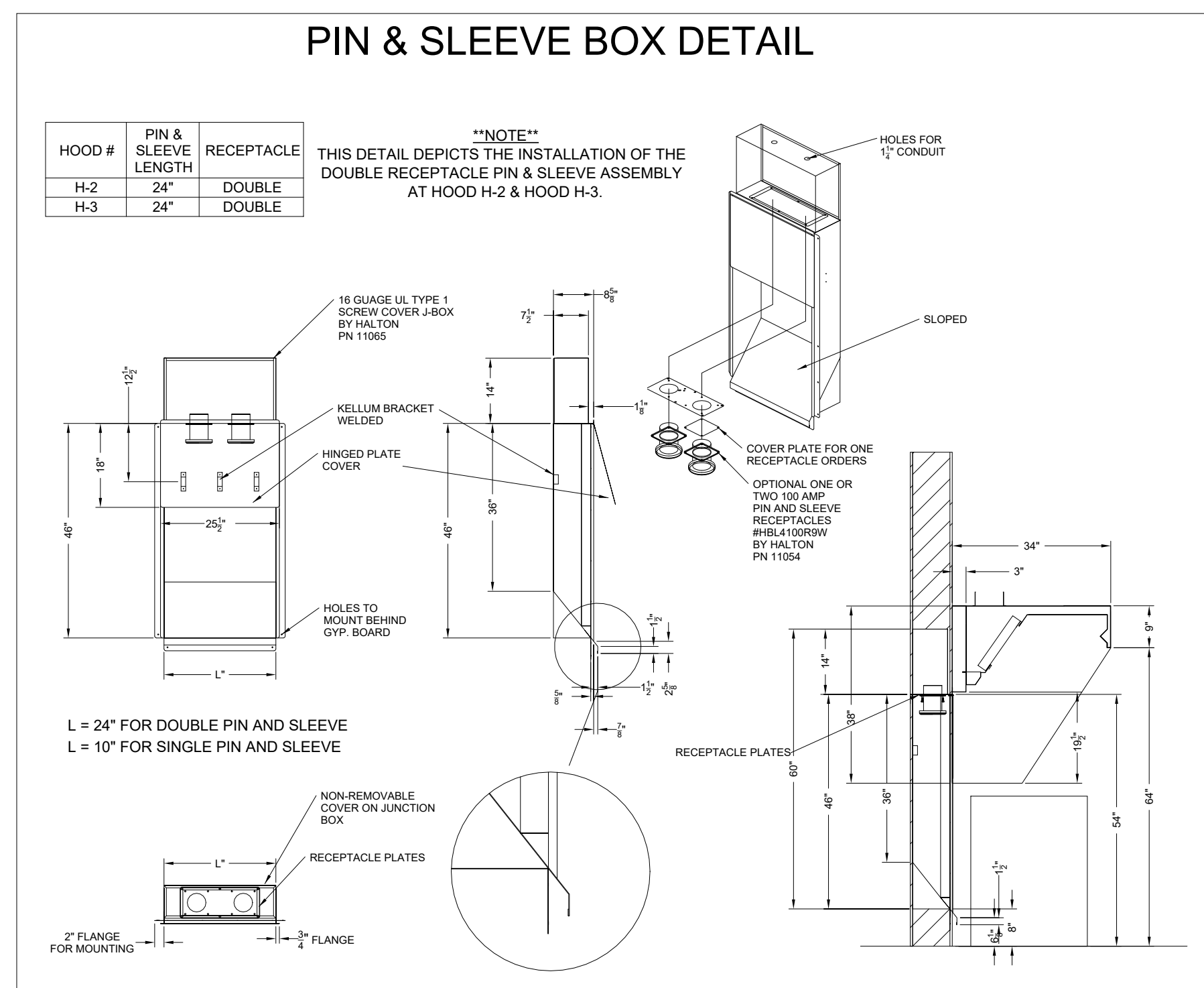
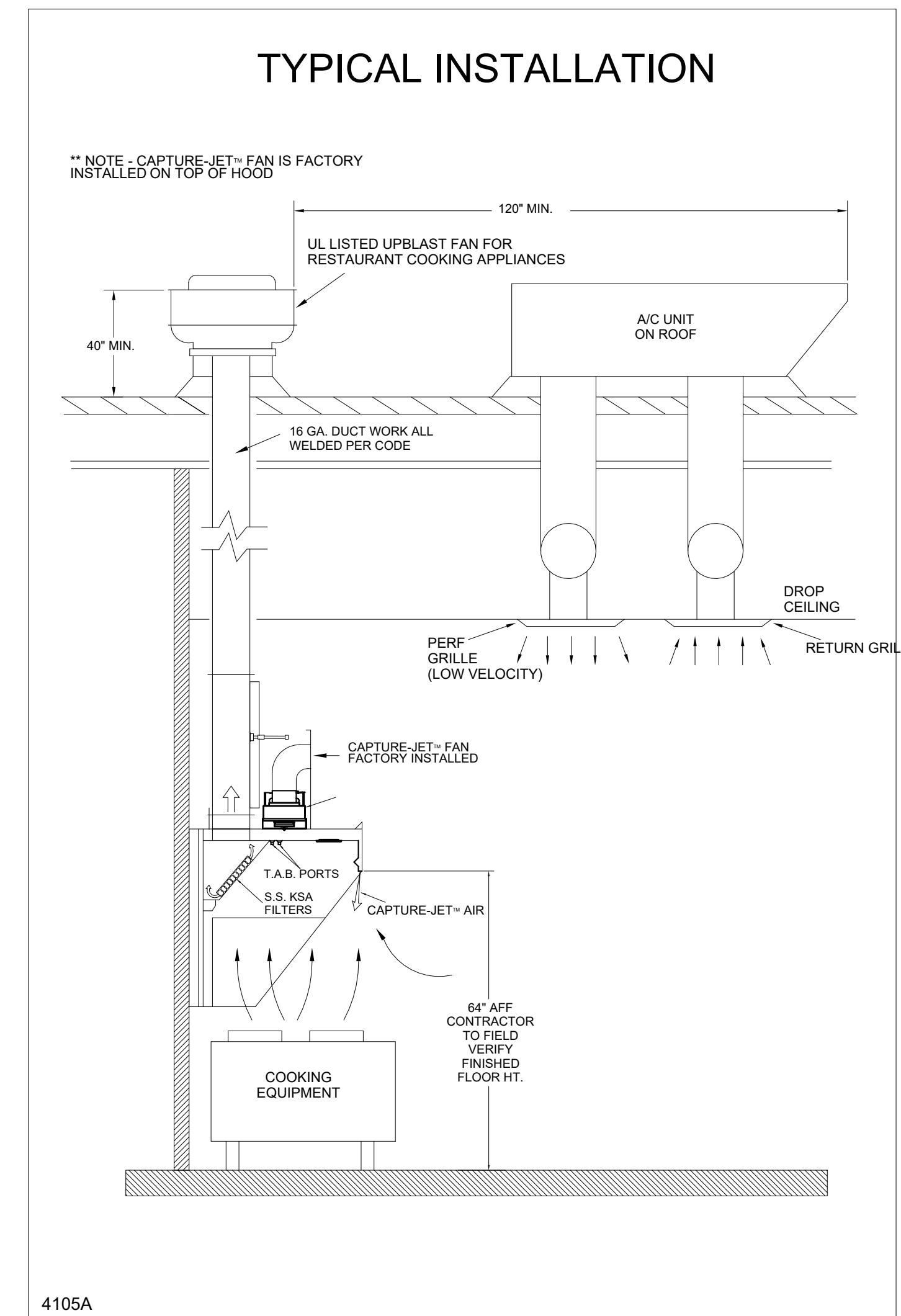
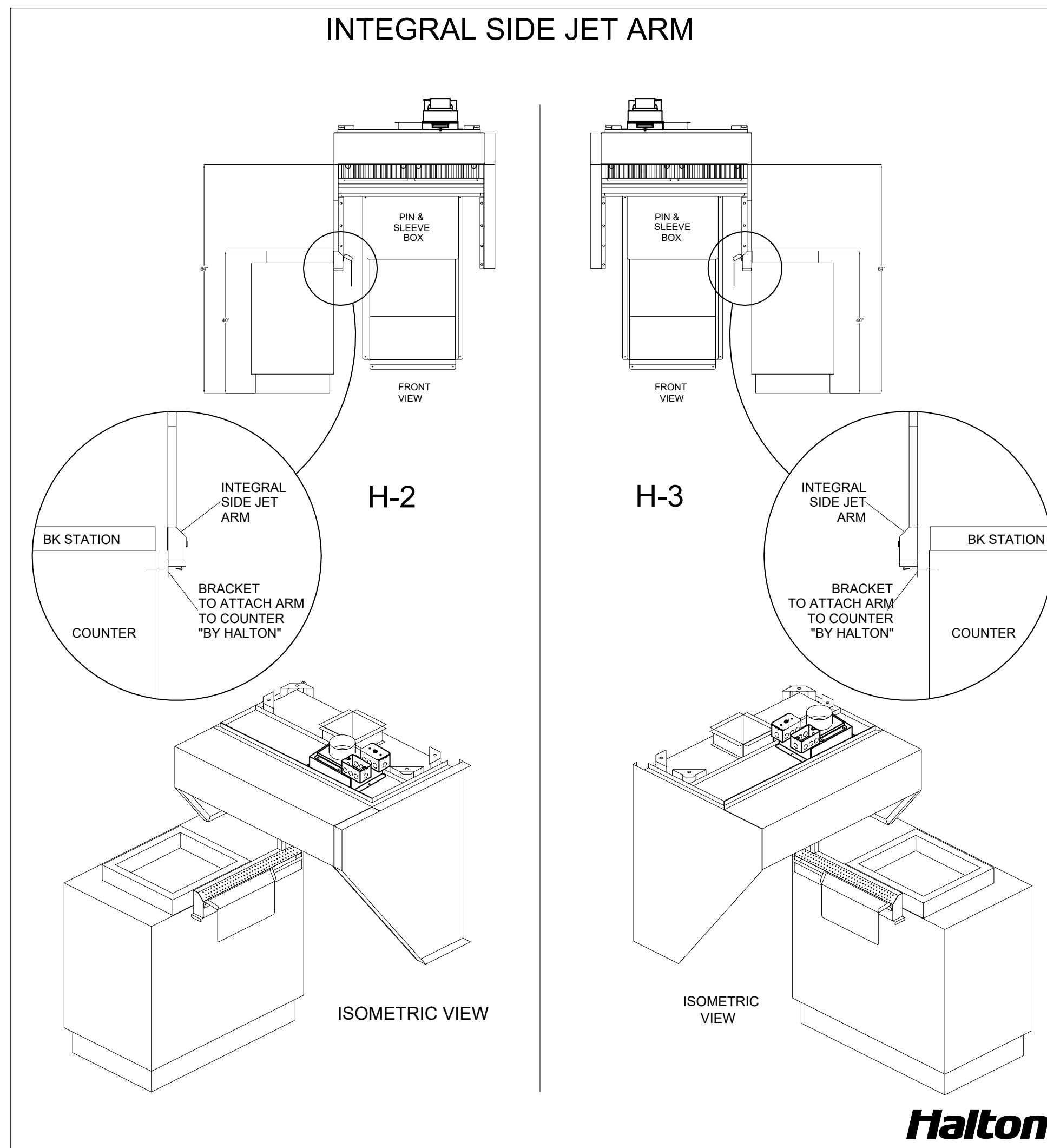
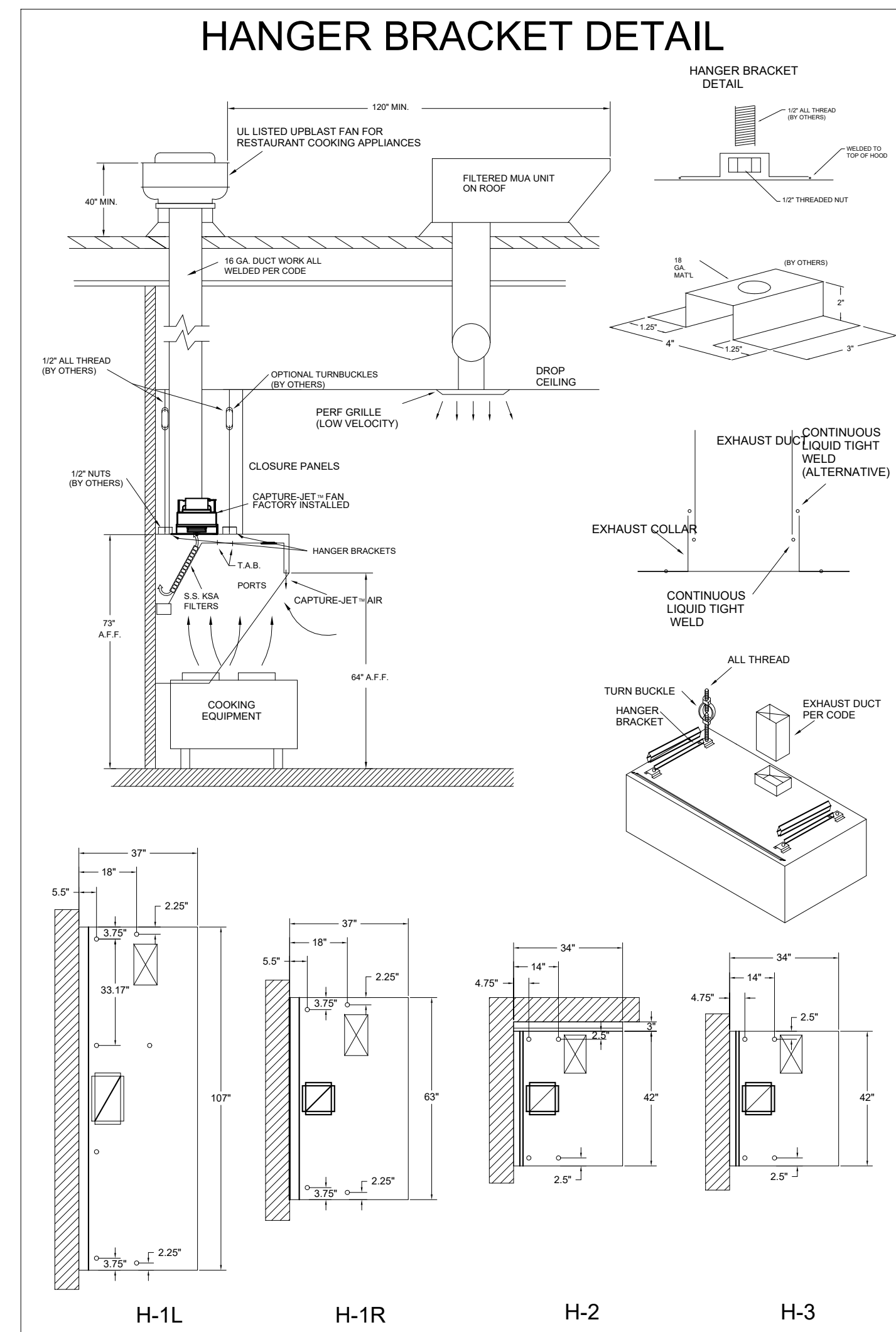
**ISSUE FOR CONSTRUCTION**

CONSULTANT PROJECT # 23200.CD.S  
 DATE 12/18/2023  
 DRAWN BY BLM

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SHEET CFA FAN DETAILS  
 SHEET NUMBER **MH-1.5**

Autodesk Docs://IA\_05649\_Blairs Ferry Rd (IA) FSU\_2023.9\_FSR05649\_Blairs Ferry Rd (IA) FSU\_K&A\_MEC.rvt  
5/24/2024 12:05:34 PM  
30-SE-05649-MH-1.2-HALTON HOOD SHOP DRAWING

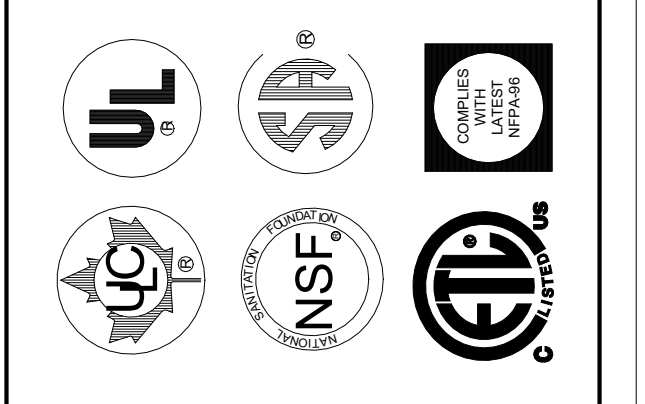


**HALTON HOODS**  
- ETL LISTED PER LATEST 710 STANDARD  
- BUILT PER NFPA 96  
- NSF LISTED

MODEL NO.	SERIAL NO.	ITEM NO.
KVL-C-IC		

DUTY LEVEL	MINIMUM OVERHANG	MINIMUM DISTANCE FROM EDGE OF HOOD TO COOKING APPLIANCE	MIN. DISTANCE FROM HOOD FRONT TO COOKING APPLIANCE
MEDIUM	6"	24"	24"
HEAVY	8"	24"	24"
VERY HEAVY	10"	24"	24"

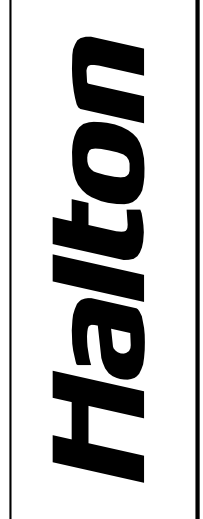
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2. THE LOCATION AND TYPE OF COOKING EQUIPMENT.  
NOTE TO APPROVER: ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT CHANGES OCCUR, A RE-CALCULATION EXHAUST FLOW MAY BE REQUIRED.  
 REVISE AND RESUBMIT  
 WITH NO CHANGES  
 WITH CHANGES AS NOTED  
APPROVED FOR FABRICATION: \_\_\_\_\_  
DATE: \_\_\_\_\_



WEBSITE: www.halton.com  
HALTON CO. (USA)  
101 INDUSTRIAL DRIVE  
SCOTTSDALE, AZ 85254  
1-202-237-5600

REV.	NO CHANGE	REVISION DESCRIPTION
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PROJECT: CHICK-FIL-A #5649  
BLAIRS FERRY RD  
LOCATION: CEDAR RAPIDS, IA  
DRAWN BY: SKK  
SCALE: NOT TO SCALE  
DATE: 01/23/24  
DRAWING No.: U24-062-02  
SHEET NO.: H-1.2



**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998

**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
Telephone: (615) 255-5203



**CHICK-FIL-A**  
Blairs Ferry Rd FSU  
3233 Blairs Ferry Road  
Cedar Rapids, IA 52402

**FSR#05649**  
BUILDING TYPE / SIZE: P14 SE BN  
RELEASE: 23.09  
PRINTED FOR: ISSUE FOR PERMIT  
REVISION SCHEDULE  
NO. DATE DESCRIPTION  
1 01/23/2024 Plan Review Comments  
2 02/19/2024 ISSUE FOR CONSTRUCTION

CONSULTANT PROJECT # 23200 CD.S  
DATE 12/18/2023  
DRAWN BY BLM  
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SHEET: HALTON HOOD SHOP DRAWING  
SHEET NUMBER: MH-1.2

SHEET ADDED TO SET

**VENTILATION SCHEDULE**

General		Ventilation													Exhaust					Served by				
Room #	Room Name	Area A <sub>r</sub> ft <sup>2</sup>	People			Area				Breathing Zone Outdoor Airflow CFM V <sub>bz</sub>	Zone Air Distribution Effectiveness E <sub>a</sub>	Zone Outdoor Airflow CFM V <sub>oz</sub>	Primary Zone Airflow CFM V <sub>pz</sub>	Primary Outdoor Air Fraction Z <sub>p</sub>	Actual Outdoor Airflow CFM	Area		Toilet			Supply	Exhaust		
			Occupant Density People/1,000 ft <sup>2</sup>	Occupants People P <sub>s</sub>	Outdoor Airflow Rate CFM/Person R <sub>p</sub>	Outdoor Airflow CFM P <sub>s</sub> x R <sub>p</sub>	Outdoor Airflow Rate CFM/ft <sup>2</sup> R <sub>a</sub>	Outdoor Airflow CFM A <sub>r</sub> x R <sub>a</sub>	Required Exhaust Rate CFM/ft <sup>2</sup> C <sub>fm</sub>							Total Required Exhaust CFM	Exhaust Control/Operation	Fixture Exhaust Rate CFM/Fixture	Required Exhaust CFM	Actual Exhaust CFM				
1	Kitchen (Dish Washing)	1,060	20	22	7.5	165	0.12	127	292	0.8	366	7,700	0.05	1,658	1	742	-	-	-	-	3,315	AC#1 / ALT AC#1	EF-1 / EF-2	
2	Kitchen (Dish Washing)	161	15	3	7.5	23	0.18	29	51	0.8	65	425	0.15	92	-	-	-	-	-	-	-	-	-	
<b>Total Area</b>		<b>1,221</b>				<b>Total V<sub>oz</sub></b>				<b>344</b>	<b>Total Supply Airflow</b>			<b>8,125</b>	<b>Actual Outdoor Airflow</b>									
						<b>Diversity (D)</b>				<b>0.80</b>	<b>Maximum Z<sub>p</sub></b>			<b>0.15</b>										
						<b>Uncorrected Outdoor Air Intake (V<sub>oa</sub>)</b>				<b>312</b>	<b>System Ventilation Efficiency (E<sub>v</sub>)</b>			<b>0.90</b>										
						<b>Required Outdoor Air Intake (CFM)</b>				<b>347</b>														

**VENTILATION SCHEDULE**

General		Ventilation													Exhaust					Served by				
Room #	Room Name	Area A <sub>r</sub> ft <sup>2</sup>	People			Area				Breathing Zone Outdoor Airflow CFM V <sub>bz</sub>	Zone Air Distribution Effectiveness E <sub>a</sub>	Zone Outdoor Airflow CFM V <sub>oz</sub>	Primary Zone Airflow CFM V <sub>pz</sub>	Primary Outdoor Air Fraction Z <sub>p</sub>	Actual Outdoor Airflow CFM	Area		Toilet			Supply	Exhaust		
			Occupant Density People/1,000 ft <sup>2</sup>	Occupants People P <sub>s</sub>	Outdoor Airflow Rate CFM/Person R <sub>p</sub>	Outdoor Airflow CFM P <sub>s</sub> x R <sub>p</sub>	Outdoor Airflow Rate CFM/ft <sup>2</sup> R <sub>a</sub>	Outdoor Airflow CFM A <sub>r</sub> x R <sub>a</sub>	Required Exhaust Rate CFM/ft <sup>2</sup> C <sub>fm</sub>							Total Required Exhaust CFM	Exhaust Control/Operation	Fixture Exhaust Rate CFM/Fixture	Required Exhaust CFM	Actual Exhaust CFM				
5	Meal Fulfillment Area	453	15	7	7.5	52.5	0.18	82	134	0.8	168	4,375	0.04	1,075	-	-	-	-	-	-	-	-	-	-
<b>Total Area</b>		<b>453</b>				<b>Total V<sub>oz</sub></b>				<b>134</b>	<b>Total Supply Airflow</b>			<b>4,375</b>	<b>Actual Outdoor Airflow</b>									
						<b>Diversity (D)</b>				<b>1.00</b>	<b>Maximum Z<sub>p</sub></b>			<b>0.03</b>										
						<b>Uncorrected Outdoor Air Intake (V<sub>oa</sub>)</b>				<b>134</b>	<b>System Ventilation Efficiency (E<sub>v</sub>)</b>			<b>1.00</b>										
						<b>Required Outdoor Air Intake (CFM)</b>				<b>134</b>														

**VENTILATION SCHEDULE**

General		Ventilation													Exhaust					Served by				
Room #	Room Name	Area A <sub>r</sub> ft <sup>2</sup>	People			Area				Breathing Zone Outdoor Airflow CFM V <sub>bz</sub>	Zone Air Distribution Effectiveness E <sub>a</sub>	Zone Outdoor Airflow CFM V <sub>oz</sub>	Primary Zone Airflow CFM V <sub>pz</sub>	Primary Outdoor Air Fraction Z <sub>p</sub>	Actual Outdoor Airflow CFM	Area		Toilet			Supply	Exhaust		
			Occupant Density People/1,000 ft <sup>2</sup>	Occupants People P <sub>s</sub>	Outdoor Airflow Rate CFM/Person R <sub>p</sub>	Outdoor Airflow CFM P <sub>s</sub> x R <sub>p</sub>	Outdoor Airflow Rate CFM/ft <sup>2</sup> R <sub>a</sub>	Outdoor Airflow CFM A <sub>r</sub> x R <sub>a</sub>	Required Exhaust Rate CFM/ft <sup>2</sup> C <sub>fm</sub>							Total Required Exhaust CFM	Exhaust Control/Operation	Fixture Exhaust Rate CFM/Fixture	Required Exhaust CFM	Actual Exhaust CFM				
1	Dining	1,374	70	97	7.5	727.5	0.18	247	975	0.8	1,219	3,900	0.312	947	-	-	-	-	-	-	-	-	-	-
2	Serving	300	15	5	7.5	38	0.18	54	92	0.8	115	500	0.23	121	-	-	-	-	-	-	-	-	-	-
3	Men's RR	155	-	-	-	-	-	-	-	0.8	-	100	-	24	-	-	Continuous	50	100	150	-	-	-	-
4	Women's RR	156	-	-	-	-	-	-	-	0.8	-	100	-	24	-	-	Continuous	50	100	150	-	-	-	-
5	RR Vestibule	100	-	-	-	-	0.06	6	6	0.8	8	50	0.15	12	-	-	-	-	-	-	-	-	-	-
6	Exit Vestibule	36	-	-	-	-	0.06	2	2	0.8	3	200	0.01	49	-	-	-	-	-	-	-	-	-	-
7	Entry Vestibule	77	-	-	-	-	0.06	5	5	0.8	6	400	0.01	97	-	-	-	-	-	-	-	-	-	-
<b>Total Area</b>		<b>2,198</b>				<b>Total V<sub>oz</sub></b>				<b>1,079</b>	<b>Total Supply Airflow</b>			<b>5,250</b>	<b>Actual Outdoor Airflow</b>									
						<b>Diversity (D)</b>				<b>0.80</b>	<b>Maximum Z<sub>p</sub></b>			<b>0.312</b>										
						<b>Uncorrected Outdoor Air Intake (V<sub>oa</sub>)</b>				<b>1,018</b>	<b>System Ventilation Efficiency (E<sub>v</sub>)</b>			<b>0.80</b>										
						<b>Required Outdoor Air Intake (CFM)</b>				<b>1,271</b>														

**VENTILATION SCHEDULE**

General		Ventilation													Exhaust					Served by				
Room #	Room Name	Area A <sub>r</sub> ft <sup>2</sup>	People			Area				Breathing Zone Outdoor Airflow CFM V <sub>bz</sub>	Zone Air Distribution Effectiveness E <sub>a</sub>	Zone Outdoor Airflow CFM V <sub>oz</sub>	Primary Zone Airflow CFM V <sub>pz</sub>	Primary Outdoor Air Fraction Z <sub>p</sub>	Actual Outdoor Airflow CFM	Area		Toilet			Supply	Exhaust		
			Occupant Density People/1,000 ft <sup>2</sup>	Occupants People P <sub>s</sub>	Outdoor Airflow Rate CFM/Person R <sub>p</sub>	Outdoor Airflow CFM P <sub>s</sub> x R <sub>p</sub>	Outdoor Airflow Rate CFM/ft <sup>2</sup> R <sub>a</sub>	Outdoor Airflow CFM A <sub>r</sub> x R <sub>a</sub>	Required Exhaust Rate CFM/ft <sup>2</sup> C <sub>fm</sub>							Total Required Exhaust CFM	Exhaust Control/Operation	Fixture Exhaust Rate CFM/Fixture	Required Exhaust CFM	Actual Exhaust CFM				
1	Employee RR	62	-	-	-	-	-	-	-	0.8	-	40	-	10	-	-	Intermittent	70	70	75	-	-	-	-
2	Service	122	-	-	-	-	0.12	15	15	0.8	19	385	0.05	94	-	-	-	-	-	-	-	-	-	-
3	Team Member Room	171	50	9	5	45	0.06	10	55	0.8	70	700	0.10	170	-	-	-	-	-	-	-	-	-	-
4	Office	70	5	1	5	5	0.06	4	9	0.8	12	200	0.06	49	-	-	-	-	-	-	-	-	-	-
5	Riser Room	107	-	-	-	-	0.12	13	13	0.8	17	425	0.04	103	-	-	-	-	-	-	-	-	-	-
<b>Total Area</b>		<b>532</b>				<b>Total V<sub>oz</sub></b>				<b>92</b>	<b>Total Supply Airflow</b>			<b>1,750</b>	<b>Actual Outdoor Airflow</b>									
						<b>Diversity (D)</b>				<b>0.90</b>	<b>Maximum Z<sub>p</sub></b>			<b>0.09</b>										
						<b>Uncorrected Outdoor Air Intake (V<sub>oa</sub>)</b>				<b>88</b>	<b>System Ventilation Efficiency (E<sub>v</sub>)</b>			<b>1.00</b>										
						<b>Required Outdoor Air Intake (CFM)</b>				<b>87</b>														

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 2/19/2024 10:21:31 AM  
 30-SE-05649-M-602-VENTILATION SCHEDULES



**Chick-fil-A**  
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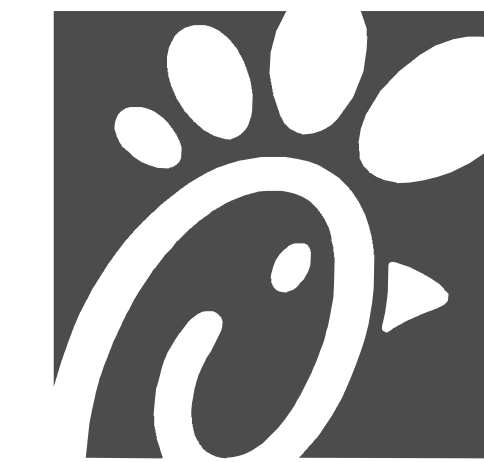
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**ISSUE FOR CONSTRUCTION**

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 SHEET  
**VENTILATION SCHEDULES**  
 SHEET NUMBER  
**M-602**



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**CHICK-FIL-A**  
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CONSULTANT PROJECT # 23200.CD.S  
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**CONTROL WIRING DIAGRAMS - TRANE**

SHEET NUMBER  
**M-701**

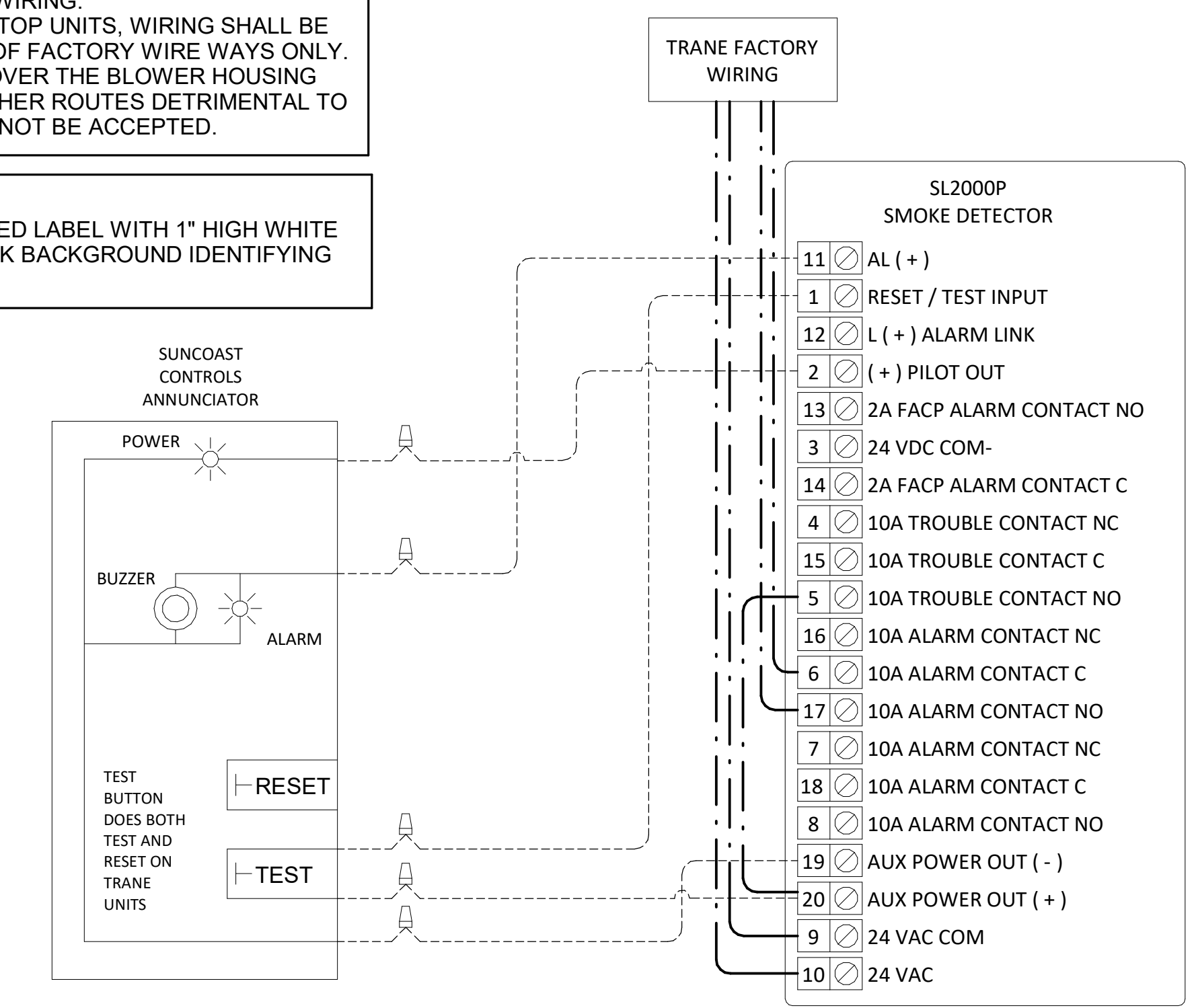
**SUPPLY SIDE DETECTORS:**  
 IF SUPPLY SIDE SMOKE DETECTORS ARE SHOWN ON DWG M-101, AND CALLED FOR ON RTU SCHEDULE, THE CONTRACTOR IS TO RELOCATE FACTORY INSTALLED SUPPLY SMOKE DETECTOR FROM BLOWER SECTION TO DUCTWORK. SEE NOTES ON DWG M-101.

**FIELD INSTALLED WIRING:**  
 WITHIN THE ROOFTOP UNITS, WIRING SHALL BE ROUTED BY WAY OF FACTORY WIRE WAYS ONLY. WIRING ROUTED OVER THE BLOWER HOUSING OR BY WAY OF OTHER ROUTES DETRIMENTAL TO WIRING LIFE WILL NOT BE ACCEPTED.

**LABELING:**  
 PROVIDE ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON BLACK BACKGROUND IDENTIFYING UNIT SERVED.

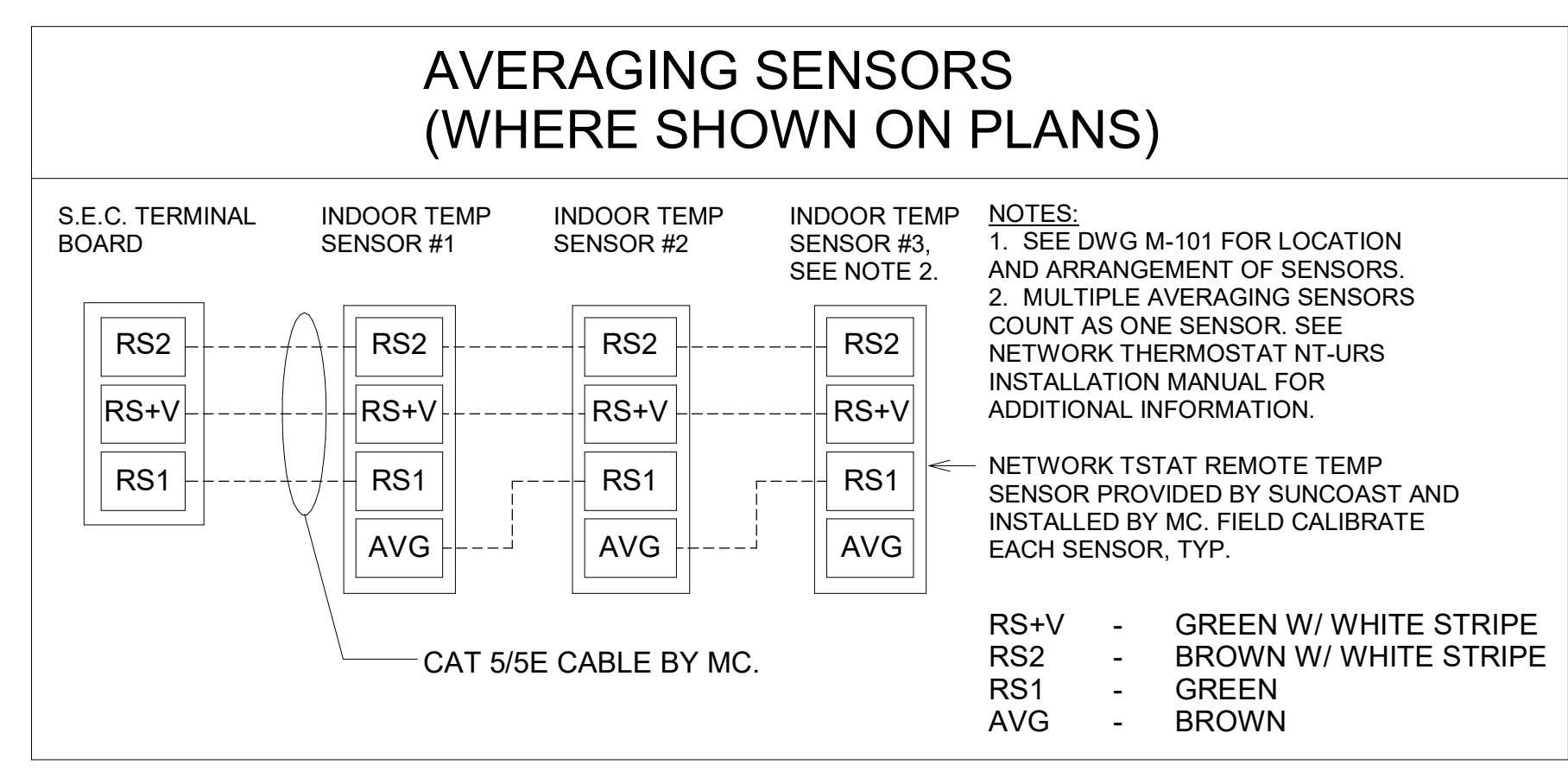
**LEGEND**

- 18 AWG MIN WIRING BY MECH CONTRACTOR
- FACTORY ANNUNCIATOR DETECTOR WIRING
- FACTORY TRANE WIRING



**1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - TRANE**  
 NOT TO SCALE

PROVIDE A PROFESSIONALLY LAMINATED COPY OF THESE DETAILS TO BE INSTALLED INSIDE THE ROOFTOP UNIT CONTROL CABINET. USE A SETON CHART FRAME STYLE # 68624. TELEPHONE NUMBER 800-243-6624. FOR MOUNTING THE DETAIL, ATTACH THE FRAME TO THE INTERIOR OF THE UNIT IN PLAIN AND EASY VIEW OF THE CONTROLS SECTION. CONTACT ENGINEER OF RECORD FOR A REPRODUCIBLE COPY OF THE DETAIL.



**KEYED NOTES:**

- LOW VOLTAGE WIRING TO RTU TO BE ROUTED TO UNIT THRU FACTORY WIREWAY.
- WIRING TO HUMIDITY SENSOR TO BE MADE WITH SINGLE 18/2 SENSOR CABLE: W221P-2003NT ONLY
- NETWORK TSTAT REMOTE TEMP SENSOR PROVIDED BY SUNCOAST AND INSTALLED BY MC. SENSOR IS INTENDED TO BE SURFACE MOUNTED AND DOES NOT REQUIRE A SINGLE GANG BOX OR CONDUIT. FIELD CALIBRATE EACH SENSOR. SEAL CABLE PENETRATION AT ALL WALL LOCATIONS.

**NOTES:**

- MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INSIDE DOOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
- SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNCIATOR WIRING.
- SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
- PROVIDE PLAIN ENGRAVING LABEL AT ALL NEW SENSORS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "AC#2 HUMIDITY SENSOR" OR "AC#2 TEMP SENSOR". PLACE LABELS ON WALL ADJACENT TO DEVICE. DO NOT APPLY DIRECTLY TO DEVICE.

**LEGEND**

S.E.C. SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF TEMP/FAM CONTROL PANEL) LOCATED IN THE KITCHEN

1 KEY NOTE REFERENCE

MC MECHANICAL CONTRACTOR

AC SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, ENERGIZED BY PUTTING STORE SWITCH IN "STORE OCCUPIED" POSITION

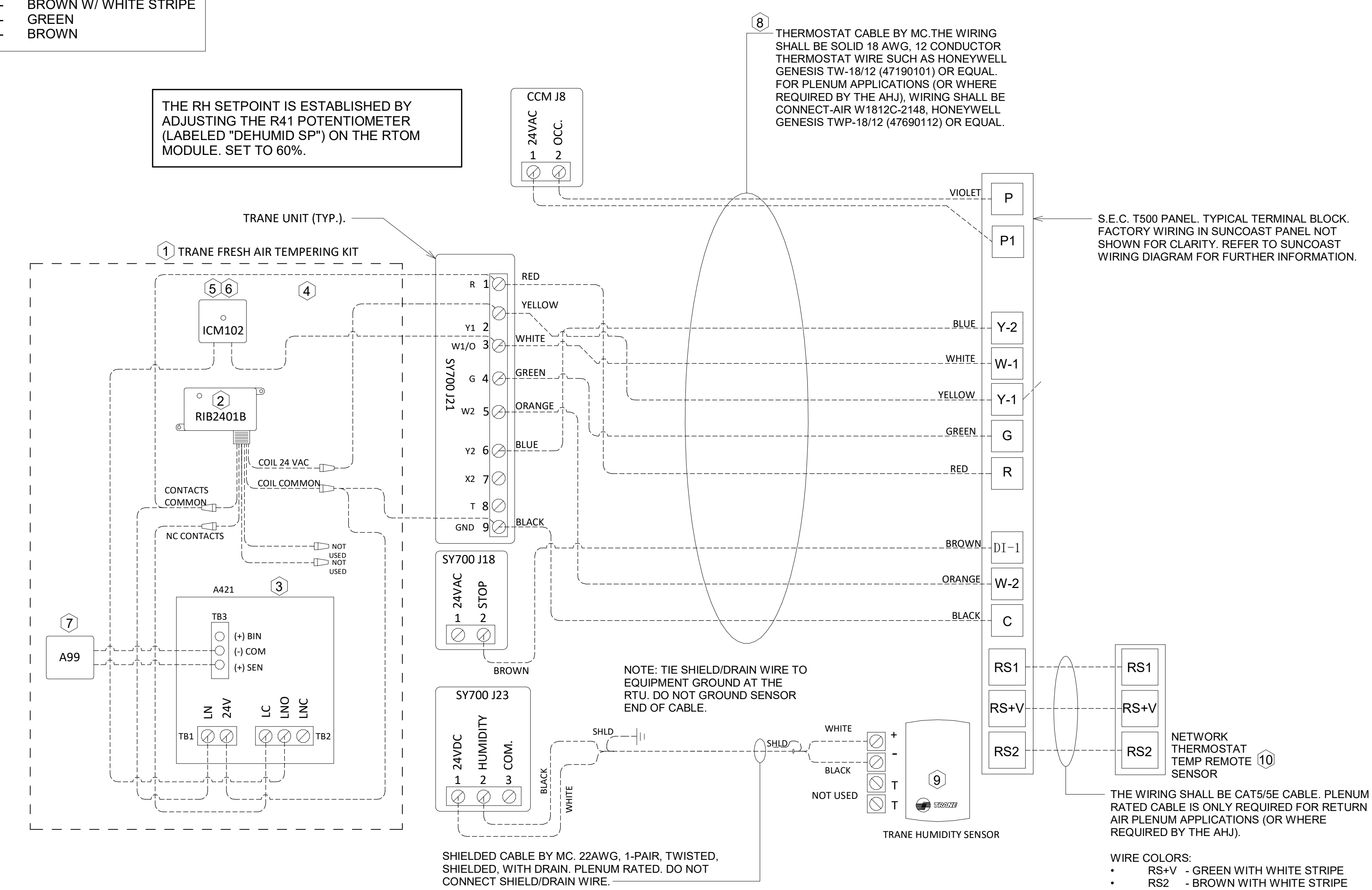
AN SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, DENERGIZED WHEN ANSUL FIRE SUPPRESSION SYSTEM IS ACTIVATED, AS NOTED.

ALL LOW VOLTAGE CABLING BY MC. ONLY USE CABLE SPECIFIED. NO SUBSTITUTIONS.

LOW VOLTAGE WIRING BY S.E.C.

LINE VOLTAGE BY ELECTRICIAN OR S.E.C.

THE RH SETPOINT IS ESTABLISHED BY ADJUSTING THE R41 POTENTIOMETER (LABELED "DEHUMID SP") ON THE RTOM MODULE. SET TO 60%.



**FRESH AIR TEMPERING KEYED NOTES:**

- INSTALL FRESH AIR TEMPERING KIT AS RECOMMENDED BY TRANE.
- RIB2401B SPDT RELAY PROVIDED BY TRANE AND INSTALLED BY CONTRACTOR IN CONTROL CABINET OF TRANE UNIT.
- JCI A421 TEMPERATURE CONTROLLER PROVIDED BY TRANE AND INSTALLED BY CONTRACTOR. DIN-MOUNTED IN THE RTU CONTROL CABINET. SET TO 98F. LOCATE TRANE PROVIDED JCI A99 SENSOR IN THE SUPPLY DUCT DOWNSTREAM OF FIRST ELBOW. SECURE WIRING TO DUCT WITH T6001-1 SENSOR DUCT MOUNTING PLATE PROVIDED BY TRANE. DO NOT RUN WIRING INSIDE DUCTWORK.
- 18 AWG MIN. LOW VOLTAGE WIRING BY MC.
- ICM102 TIME DELAY RELAY FURNISHED BY TRANE AND INSTALLED BY CONTRACTOR IN CONTROL CABINET OF TRANE UNIT.
- SET TIME DELAY RELAY (ICM102) TO 2 MINUTES.
- PROVIDE JCI T6001-1 TEMPERATURE ELEMENT HOLDER FOR SUPPLY AIR TEMPERATURE SENSOR (A99).

**2 ROOFTOP UNIT CONTROL WIRING - TRANE**  
 NOT TO SCALE