

Letter of Transmittal

Date: 02/20/2024	
Project Name:	Liberty Collective
Project No:	#12439

To: Teddy Montee Kiesland Development Services 11651 Lebanon Road, Cincinnati, OH 45241
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From: - MQE – Justin Ruthen

Submittal Review General Information:

Review and corrections or comments made by Consultant on shop drawings, catalogs, cut sheets, charts, and other items during construction phase submittal review do not relieve Contractor from compliance with requirements of the Contract Documents, for providing a complete and functioning project, nor shall they relieve Contractor from responsibility for deviations or errors of any sort. The Contractor remains responsible for determining the accuracy and completeness of other details such as dimensions and quantities, for substantiating instructions for installations, verifying materials required, obtaining field measurements and related criteria, coordinating work with other disciplines and performing work in compliance with the Contract Documents.

Submittal Review Comments:

CaptiveAire - Submittal

No Exceptions were taken for all types without specific comment below; for all items noted below – treat as “implement exceptions noted” and no resubmission is required:

Submittal Review Stamp:

SUBMITTAL FOR REVIEW	
Project Name Liberty Collective - Liberty Township Project Number #12439	
<input checked="" type="checkbox"/> NO EXCEPTIONS TAKEN <input type="checkbox"/> REVISE AND RESUBMIT	<input type="checkbox"/> IMPLEMENT EXCEPTIONS NOTED <input type="checkbox"/> REVIEWED AS SUBSTITUTION
REVIEWED BY: Justin Ruthen	
REVIEW IS LIMITED TO CHECKING FOR CONFORMANCE WITH THE INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR AND/OR CONSTRUCTION MANAGER REMAINS TOTALLY RESPONSIBLE FOR ALL DIMENSIONS, QUANTITIES, CONSTRUCTION METHODS AND MEANS, TECHNIQUES, SEQUENCES IN THE WORK, AND PROCEDURES.	
02/20/2024	

FOR QUESTIONS, CALL THE
Western OH Mechanical
REGION 133
PHONE: (513) 275 - 4986
EMAIL: reg133@captiveaire.com

PATENT NUMBERS
EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) - CA PATENT 2520435 C.

HOOD INFORMATION - JOB#6294612

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)				HOOD CONSTRUCTION	HOOD CONFIG		SWITCHES				
										WIDTH	LENG	HEIGHT	DIA		CFM	VEL	SP	END TO END	ROW	QUANTITY	LOCATION
1	HD-1	5424 ND-2	CAPTIVEAIRE	6' 11"	600 DEG	I	HEAVY	195	1350			4'	12"	1350	1719	-0.638"	430 SS WHERE EXPOSED	ALONE	ALONE		
2	HD-2	5424 ND-2	CAPTIVEAIRE	6' 11"	600 DEG	I	HEAVY	195	1350			4'	12"	1350	1719	-0.638"	430 SS WHERE EXPOSED	ALONE	ALONE		
3	HD-3	5424 ND-2	CAPTIVEAIRE	6' 11"	600 DEG	I	HEAVY	195	1350			4'	12"	1350	1719	-0.638"	430 SS WHERE EXPOSED	ALONE	ALONE		
4	HD-4	5424 ND-2	CAPTIVEAIRE	6' 11"	600 DEG	I	HEAVY	195	1350			4'	12"	1350	1719	-0.638"	430 SS WHERE EXPOSED	ALONE	ALONE	1 FAN	
5	HD-DISH	4224 VHB-G	CAPTIVEAIRE	3' 6"	700 DEG	II	N/A	150	525			4'	10"	525	963	-0.069"	430 SS 100%	ALONE	ALONE		

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT		
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM	ELECTRICAL			SWITCHES	
1	HD-1	CAPTRATE SOLID FILTER	5	20"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO	LEFT	12"x54"x24"	TANK FS	4.0/4.0	SC-310110MA	1 LIGHT 1 FAN	YES	739 LBS
2	HD-2	CAPTRATE SOLID FILTER	5	20"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0	SC-310110MA	1 LIGHT 1 FAN	YES	739 LBS
3	HD-3	CAPTRATE SOLID FILTER	5	20"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO	LEFT	12"x54"x24"	TANK FS	4.0/4.0	SC-310110MA	1 LIGHT 1 FAN	YES	739 LBS
4	HD-4	CAPTRATE SOLID FILTER	5	20"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0	SC-310110MA	1 LIGHT 1 FAN	YES	739 LBS
5	HD-DISH						0									NO	152 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	HD-1	FIELD WRAPPER 18.00" HIGH FRONT, LEFT. BACKSPLASH 122.00" HIGH X 114.00" LONG 430 SS VERTICAL. RIGHT SIDESPLASH 122.00" HIGH X 72.00" LONG 430 SS VERTICAL. RIGHT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. INSULATION FOR TOP OF HOOD. INSULATION FOR BACK OF HOOD. RISER SENSOR INSTALL 6IN PLEN. RIGHT WALL AS END PANEL.
2	HD-2	FIELD WRAPPER 18.00" HIGH FRONT, RIGHT. BACKSPLASH 122.00" HIGH X 114.00" LONG 430 SS VERTICAL. LEFT SIDESPLASH 122.00" HIGH X 72.00" LONG 430 SS VERTICAL. LEFT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED. RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. INSULATION FOR TOP OF HOOD. INSULATION FOR BACK OF HOOD. RISER SENSOR INSTALL 6IN PLEN. LEFT WALL AS END PANEL.
3	HD-3	FIELD WRAPPER 18.00" HIGH FRONT, LEFT. BACKSPLASH 122.00" HIGH X 114.00" LONG 430 SS VERTICAL. RIGHT SIDESPLASH 122.00" HIGH X 72.00" LONG 430 SS VERTICAL. RIGHT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. INSULATION FOR TOP OF HOOD. INSULATION FOR BACK OF HOOD. RISER SENSOR INSTALL 6IN PLEN. RIGHT WALL AS END PANEL.
4	HD-4	FIELD WRAPPER 18.00" HIGH FRONT, RIGHT. BACKSPLASH 122.00" HIGH X 114.00" LONG 430 SS VERTICAL. LEFT SIDESPLASH 122.00" HIGH X 72.00" LONG 430 SS VERTICAL. LEFT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED. RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. INSULATION FOR TOP OF HOOD. INSULATION FOR BACK OF HOOD. RISER SENSOR INSTALL 6IN PLEN. LEFT WALL AS END PANEL.
5	HD-DISH	FIELD WRAPPER 18.00" HIGH FRONT, RIGHT.

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.
IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

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

VERIFY CEILING HEIGHT
____' - ____"
HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

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

CUSTOMER APPROVAL TO MANUFACTURE:

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

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLID FILTER

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

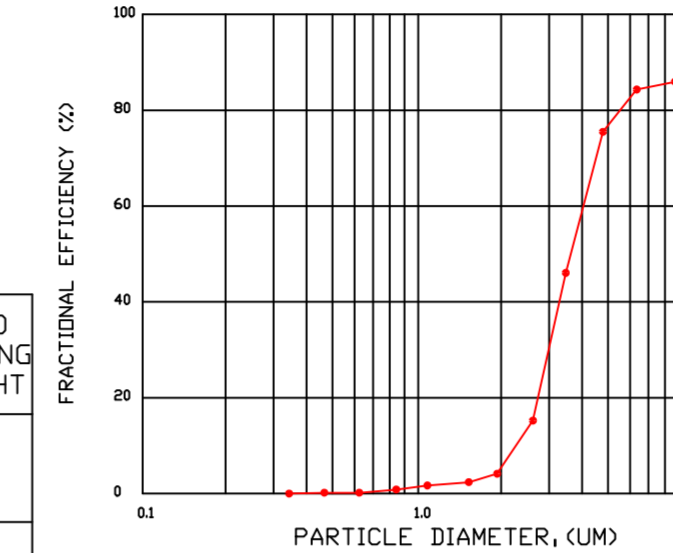
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

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

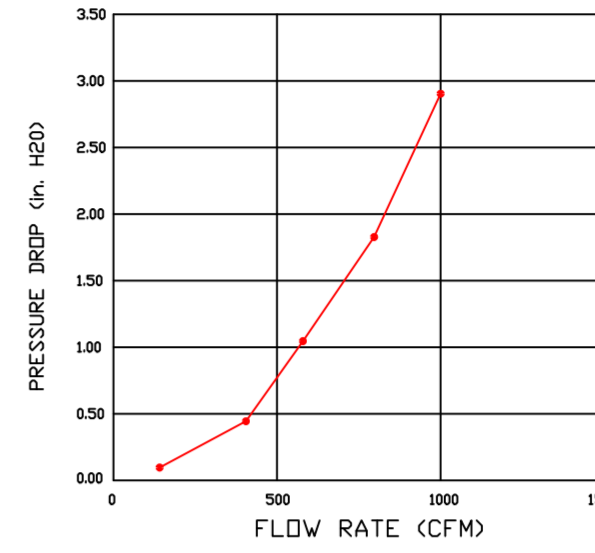
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

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

EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:

- NFPA #96.
- NSF STANDARD #2.
- UL STANDARD #1046.
- INT. MECH. CODE (IMC).
- ULC-S649.



REVISIONS

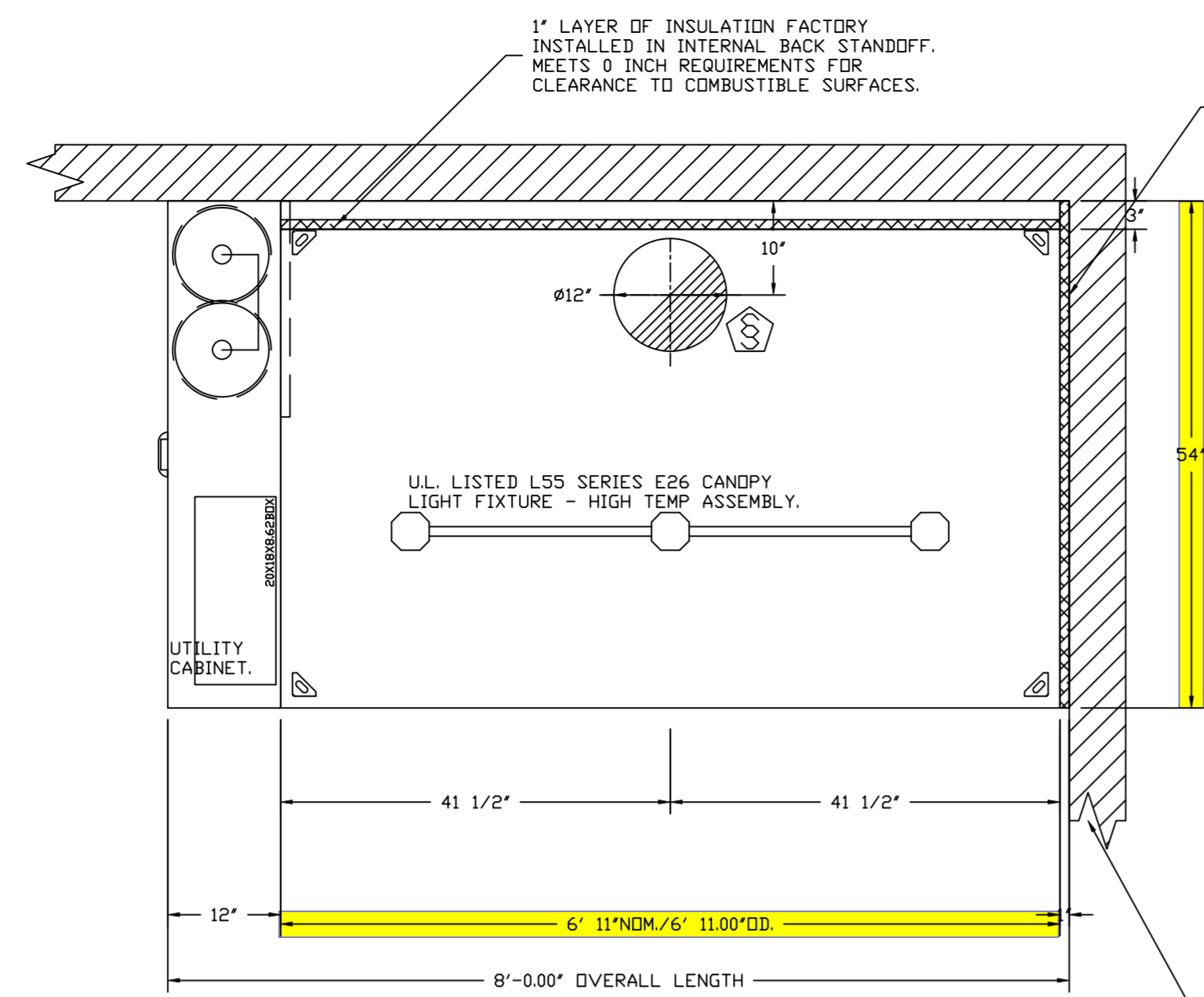
DESCRIPTION	DATE

CAPTIVEAIRE
Western OH Mechanical
www.captiveaire.com
Cincinnati, OH 45256 PHONE: (513) 275 - 4986 FAX: 9195168748 EMAIL: reg133@captiveaire.com

Liberty Collective - BID
Hamilton, OH, 45011

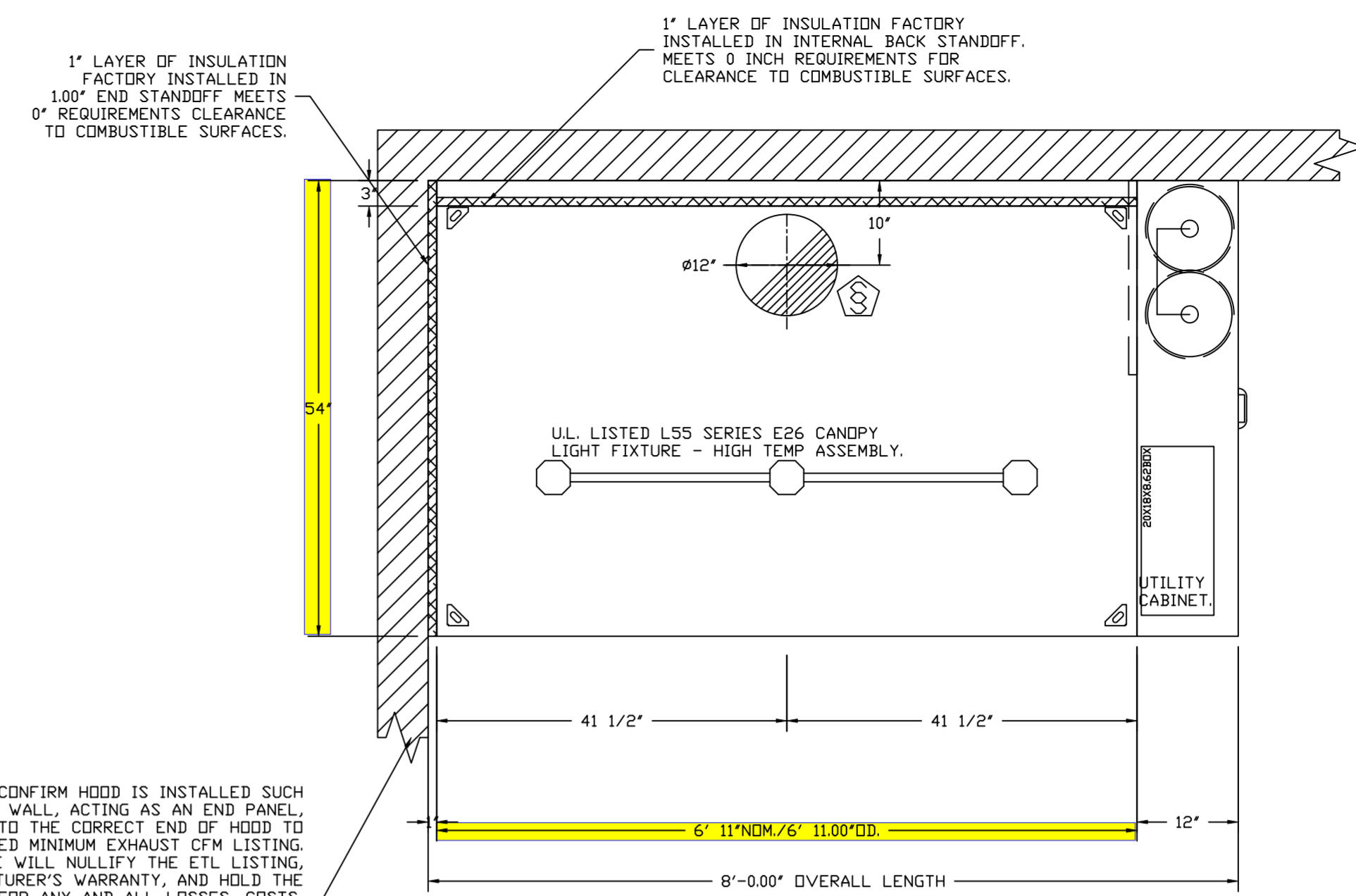
DATE: 10/25/2023
DWG.#: 6294612
DRAWN BY: grant.homan
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
1



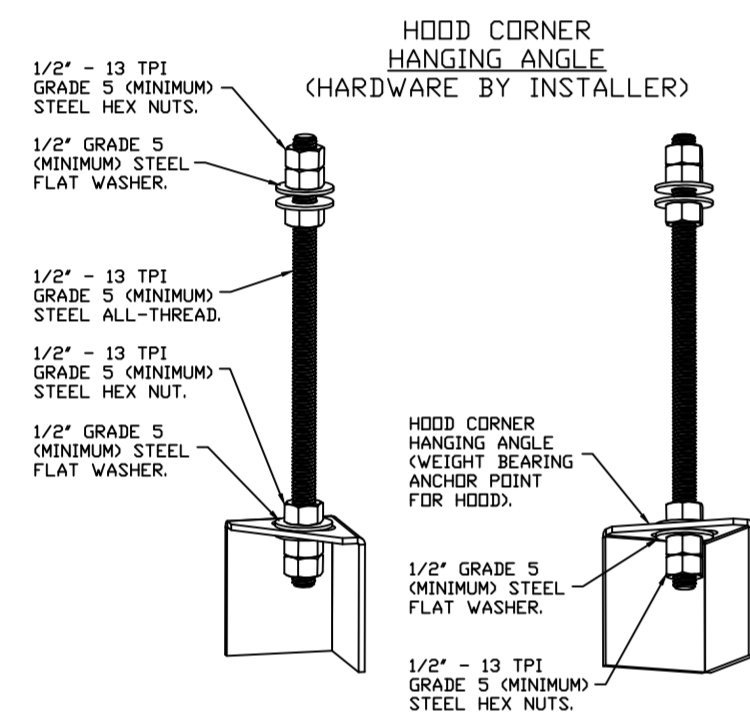
PLAN VIEW - HOOD #1 (HD-1), #3 (HD-3)
6' 11.00" LONG 5424ND-2

INSTALLER MUST CONFIRM HOOD IS INSTALLED SUCH THAT THE SPECIFIED WALL, ACTING AS AN END PANEL, IS MATED TIGHT TO THE CORRECT END OF HOOD TO ACHIEVE A REDUCED MINIMUM EXHAUST CFM LISTING. NON-COMPLIANCE WILL NULLIFY THE ETL LISTING, VOID THE MANUFACTURER'S WARRANTY, AND HOLD THE CONTRACTOR LIABLE FOR ANY AND ALL LOSSES, COSTS, AND EXPENSES RELATED TO THE NON-COMFORMANCE OF THE MANUFACTURER'S SPECIFIED INSTRUCTION. THE WALL ACTING AS AN END PANEL MUST EXTEND NO LESS THAN 20" FROM THE INTERSECTING WALL ON WHICH HOOD IS MOUNTED AND MUST EXTEND NO LESS THAN 20" UNDER BOTTOM OF HOOD TO BE ELIGIBLE FOR REDUCED MINIMUM EXHAUST CFM LISTING.



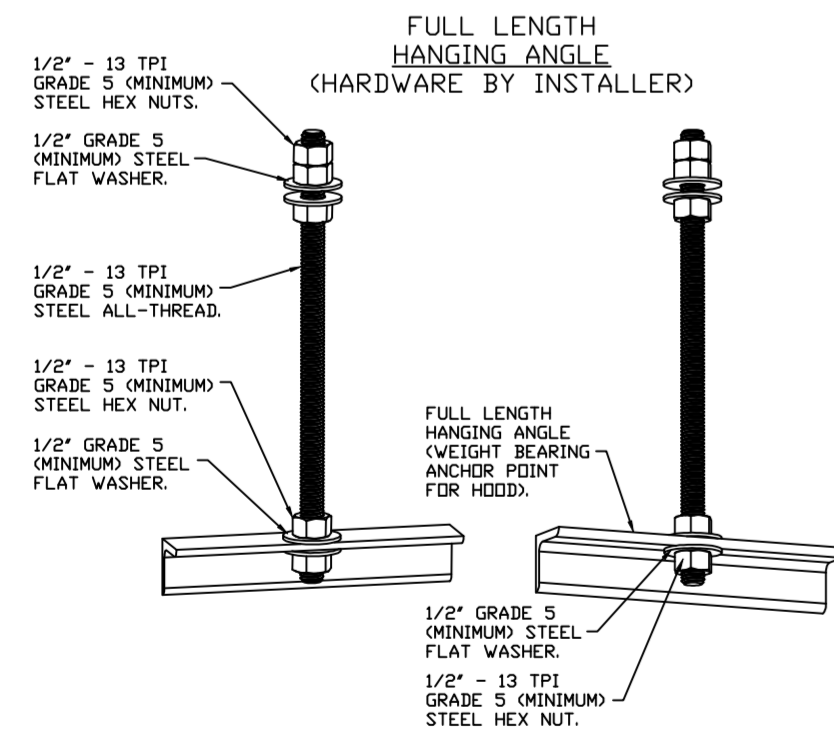
PLAN VIEW - HOOD #2 (HD-2), #4 (HD-4)
6' 11.00" LONG 5424ND-2

INSTALLER MUST CONFIRM HOOD IS INSTALLED SUCH THAT THE SPECIFIED WALL, ACTING AS AN END PANEL, IS MATED TIGHT TO THE CORRECT END OF HOOD TO ACHIEVE A REDUCED MINIMUM EXHAUST CFM LISTING. NON-COMPLIANCE WILL NULLIFY THE ETL LISTING, VOID THE MANUFACTURER'S WARRANTY, AND HOLD THE CONTRACTOR LIABLE FOR ANY AND ALL LOSSES, COSTS, AND EXPENSES RELATED TO THE NON-COMFORMANCE OF THE MANUFACTURER'S SPECIFIED INSTRUCTION. THE WALL ACTING AS AN END PANEL MUST EXTEND NO LESS THAN 20" FROM THE INTERSECTING WALL ON WHICH HOOD IS MOUNTED AND MUST EXTEND NO LESS THAN 20" UNDER BOTTOM OF HOOD TO BE ELIGIBLE FOR REDUCED MINIMUM EXHAUST CFM LISTING.



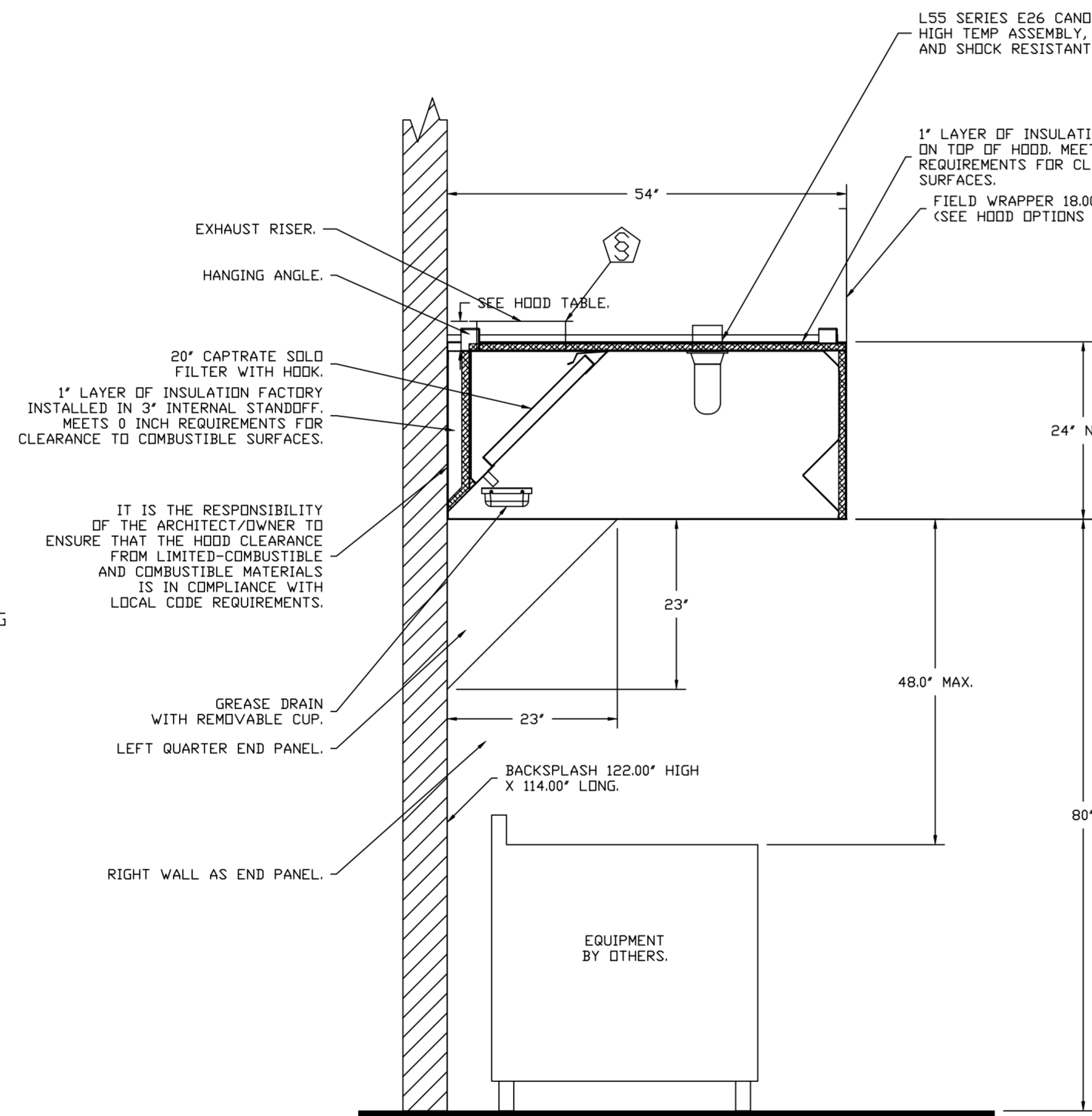
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

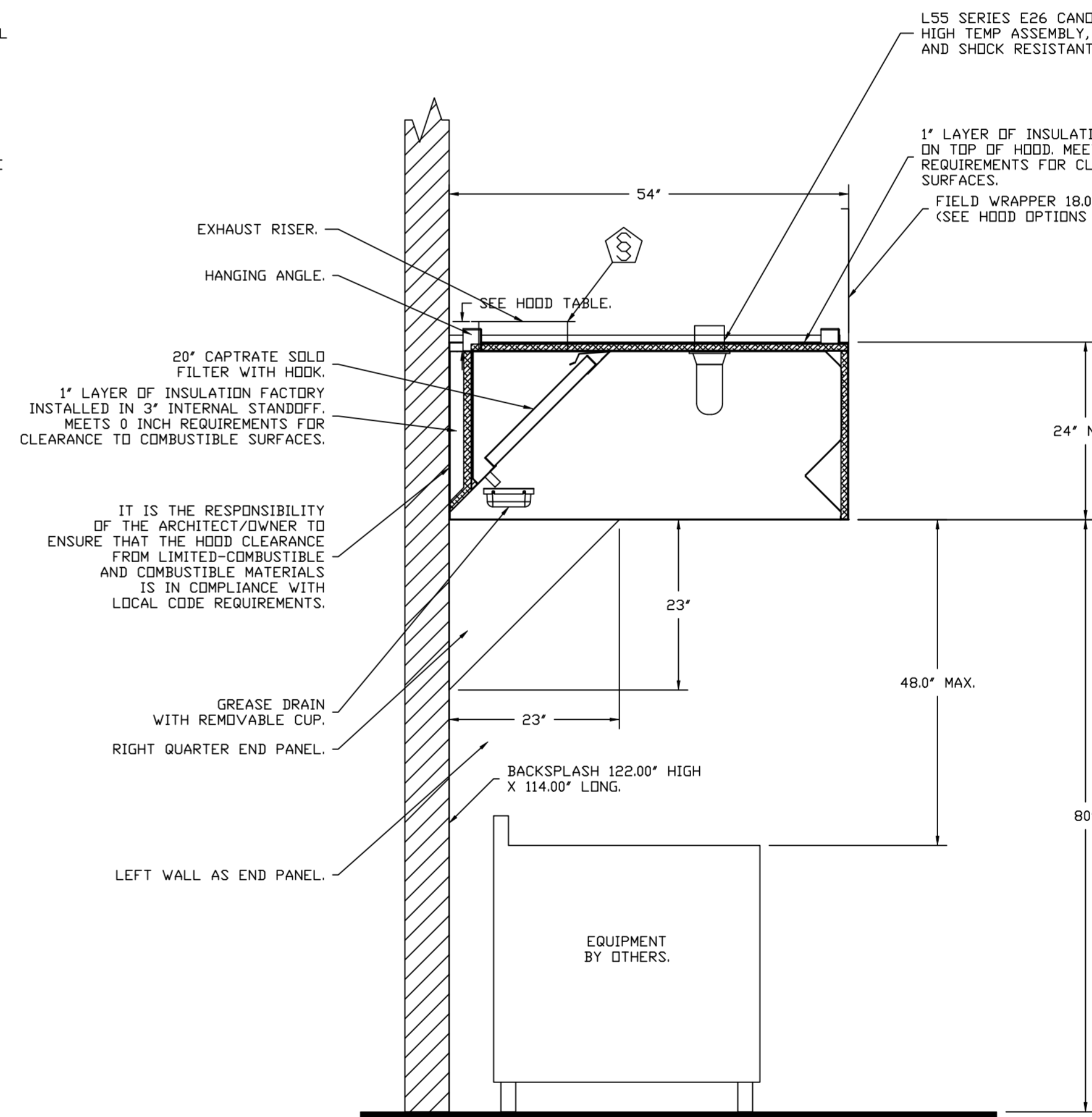


SECTION VIEW - MODEL 5424ND-2
HOOD - #1 (HD-1), #3 (HD-3)

L55 SERIES E26 CANDOPY LIGHT FIXTURE - HIGH TEMP ASSEMBLY, INCLUDES CLEAR THERMAL AND SHOCK RESISTANT GLOBE (L55 FIXTURE).

1" LAYER OF INSULATION FACTORY INSTALLED ON TOP OF HOOD. MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.

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



SECTION VIEW - MODEL 5424ND-2
HOOD - #2 (HD-2), #4 (HD-4)

L55 SERIES E26 CANDOPY LIGHT FIXTURE - HIGH TEMP ASSEMBLY, INCLUDES CLEAR THERMAL AND SHOCK RESISTANT GLOBE (L55 FIXTURE).

1" LAYER OF INSULATION FACTORY INSTALLED ON TOP OF HOOD. MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.

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

REVISIONS	
DESCRIPTION	DATE

www.captiveair.com

CAPTIVE AIR

Western OH Mechanical

Cincinnati, OH, 45256 PHONE: (513) 275 - 4986 FAX: 9195168748 EMAIL: reg133@captiveair.com

Liberty Collective - BID
Hamilton, OH, 45011

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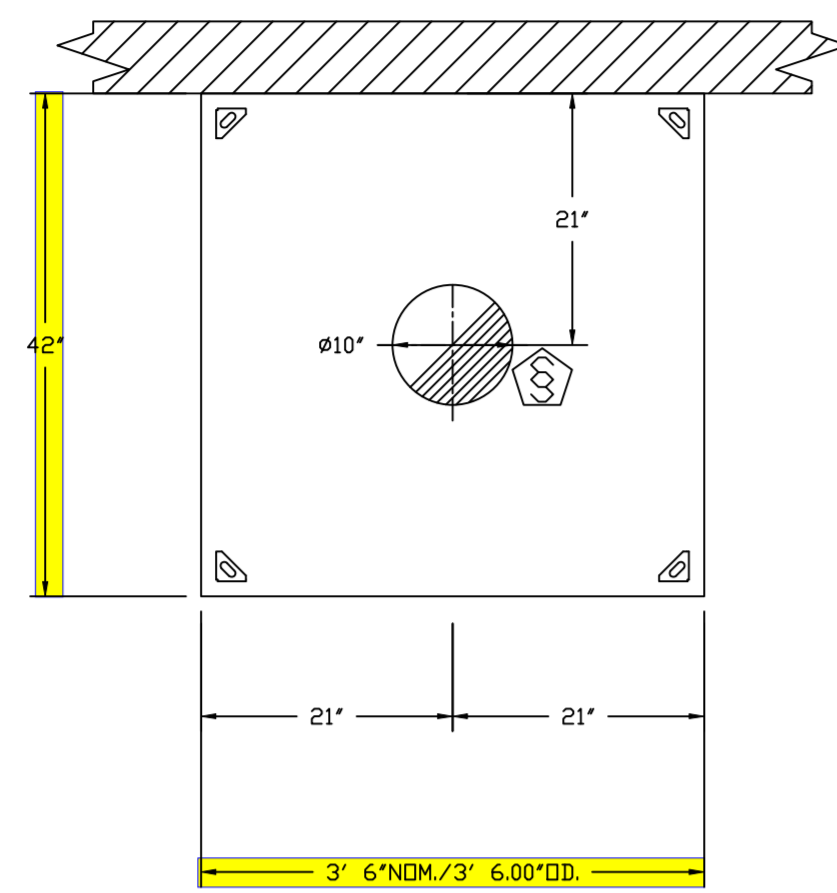
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DRAWN BY: grant.homan

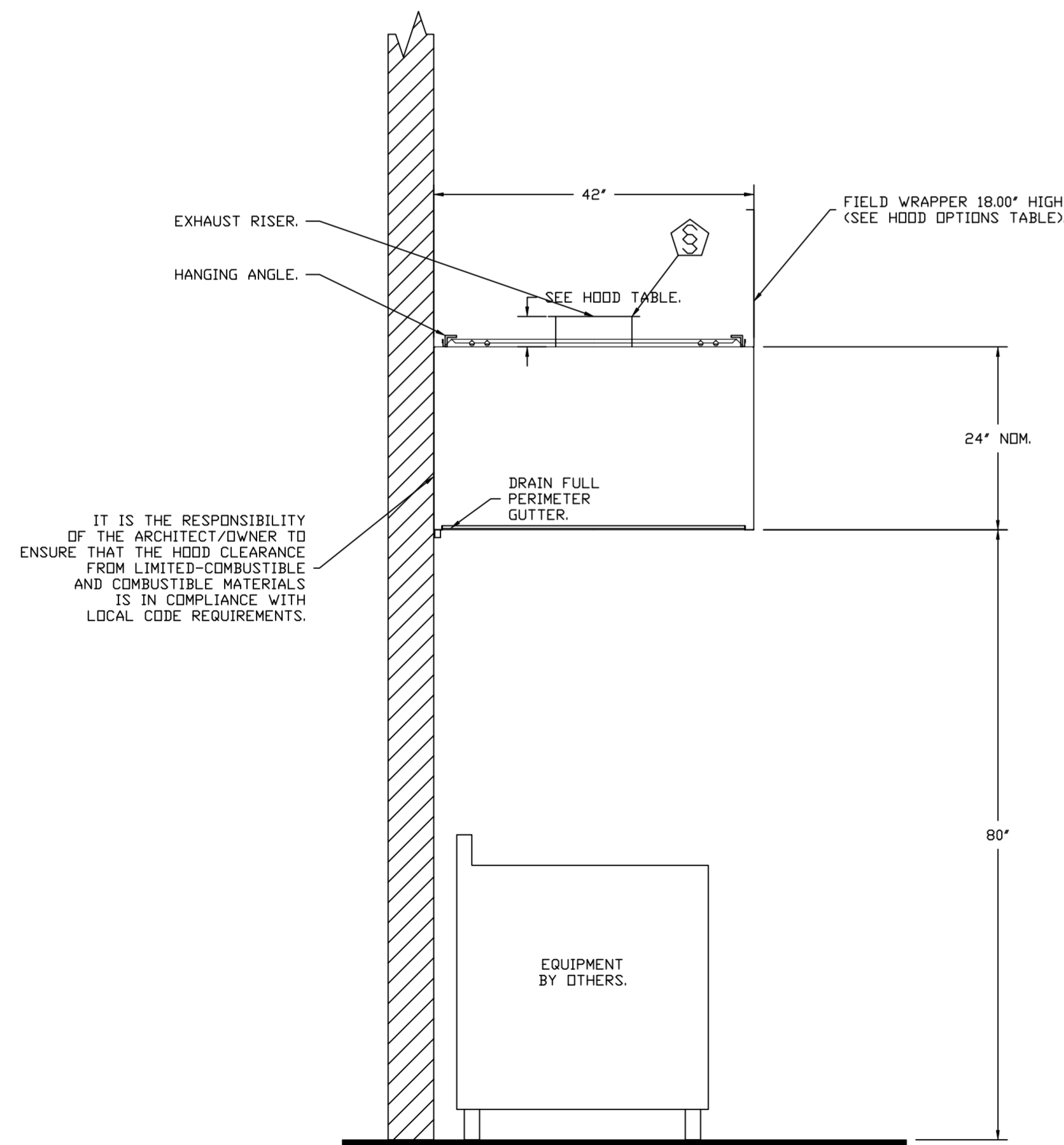
SCALE:
3/4" = 1'-0"

MASTER DRAWING

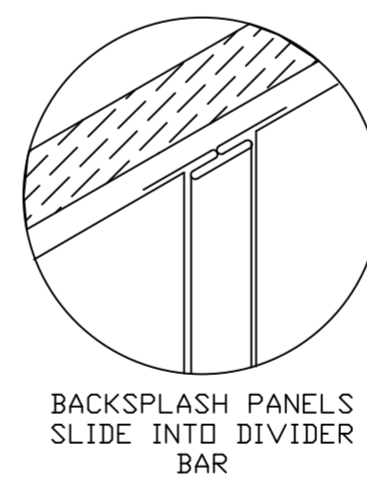
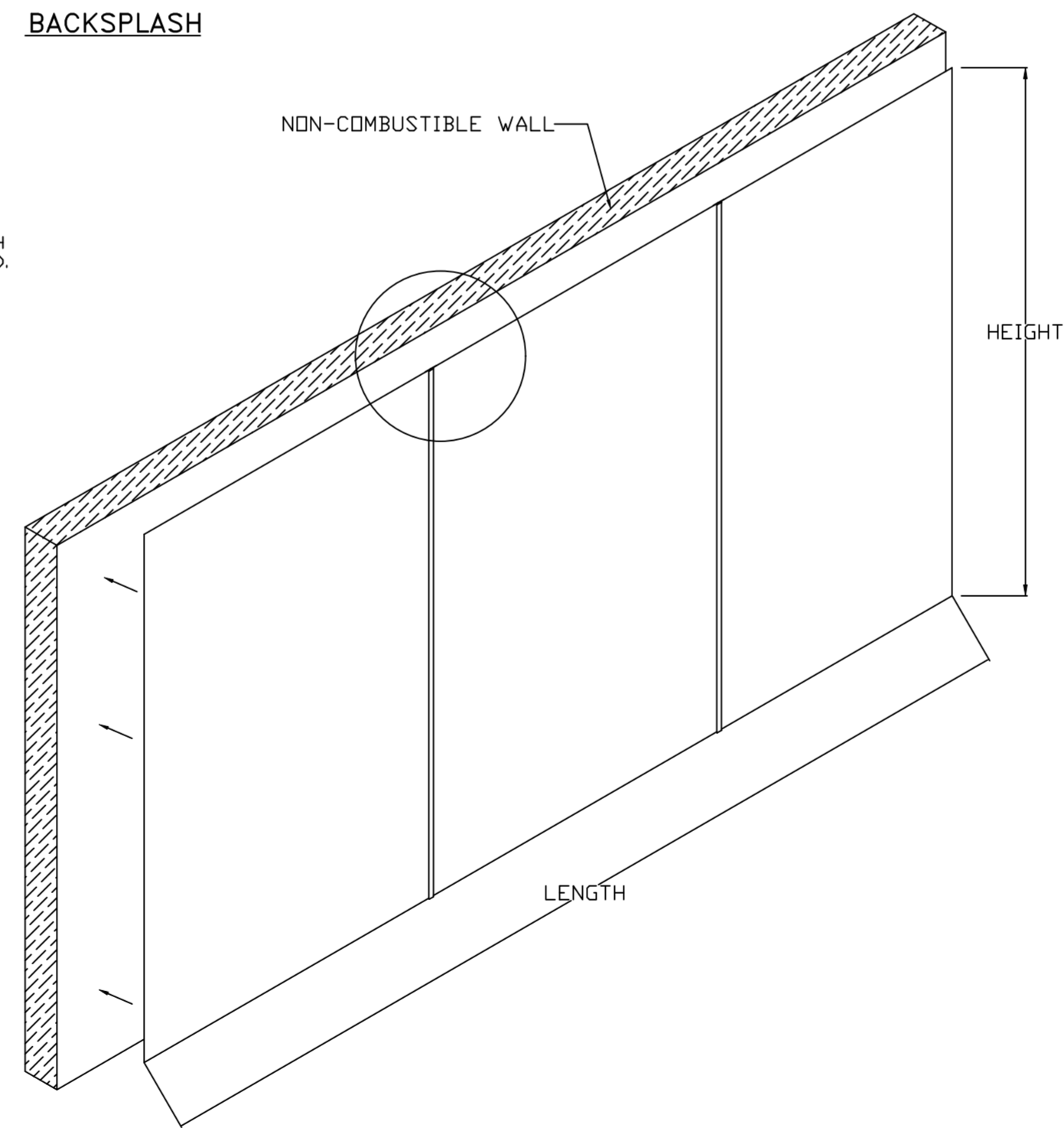
SHEET NO.
2



PLAN VIEW - HOOD #5 (HD-DISH)
3' 6.00" LONG 4224VHB-G



SECTION VIEW - MODEL 4224VHB-G
HOOD - #5 (HD-DISH)



- BACKSPLASH IS NOT INSULATED AND IS UNSUITABLE FOR INSTALL AGAINST COMBUSTIBLE WALLS

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SHEET NO.
3

FIRE SYSTEM INFORMATION – JOB#6294612

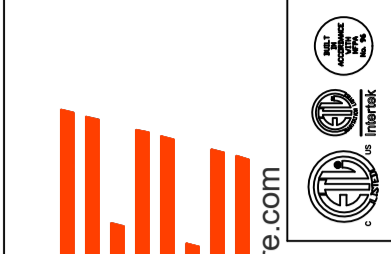
FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1	HD-1 FS	TANK FS	4.0/4.0	40	23	FIRE CABINET LEFT	LEFT, HOOD 1
2	HD-2 FS	TANK FS	4.0/4.0	40	23	FIRE CABINET RIGHT	RIGHT, HOOD 2
3	HD-3 FS	TANK FS	4.0/4.0	40	23	FIRE CABINET LEFT	LEFT, HOOD 3
4	HD-4 FS	TANK FS	4.0/4.0	40	23	FIRE CABINET RIGHT	RIGHT, HOOD 4

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1	HD-1 FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
2	HD-2 FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
3	HD-3 FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
4	HD-4 FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS

REVISIONS

DESCRIPTION	DATE:



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DATE: 10/25/2023

DWG.#:
6294612

DRAWN BY: grant.homan

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

MASTER DRAWING

SHEET NO.
4

EXHAUST FAN INFORMATION – JOB#6294612

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
1	EF-1	1	DUBSHFA	CAPTIVEAIRE	1350	1.750	1482	TEAD-ECM	0.750	0.6290	1	115	8.9	427 FPM	129	13.8
2	EF-2	1	DUBSHFA	CAPTIVEAIRE	1350	1.750	1482	TEAD-ECM	0.750	0.6290	1	115	8.9	427 FPM	129	13.8
3	EF-3	1	DUBSHFA	CAPTIVEAIRE	1350	1.750	1482	TEAD-ECM	0.750	0.6290	1	115	8.9	427 FPM	129	13.8
4	EF-4	1	DUBSHFA	CAPTIVEAIRE	1350	1.750	1482	TEAD-ECM	0.750	0.6290	1	115	8.9	427 FPM	129	13.8
5	EF-DISH	1	DR33HFA	CAPTIVEAIRE	525	1.000	1567	TEAD-ECM	0.333	0.2580	1	115	4.3	260 FPM	102	12.8

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-1	1	GREASE BOX
		1	FULL CRATING FOR EXHAUST FANS
		1	FAN BASE CERAMIC SEAL – SHIP LOOSE – FOR GREASE DUCTS
		1	ECM WIRING PACKAGE – PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
2	EF-2	1	GREASE BOX
		1	FULL CRATING FOR EXHAUST FANS
		1	FAN BASE CERAMIC SEAL – SHIP LOOSE – FOR GREASE DUCTS
		1	ECM WIRING PACKAGE – PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
3	EF-3	1	GREASE BOX
		1	FULL CRATING FOR EXHAUST FANS
		1	FAN BASE CERAMIC SEAL – SHIP LOOSE – FOR GREASE DUCTS
		1	ECM WIRING PACKAGE – PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
4	EF-4	1	GREASE BOX
		1	FULL CRATING FOR EXHAUST FANS
		1	FAN BASE CERAMIC SEAL – SHIP LOOSE – FOR GREASE DUCTS
		1	ECM WIRING PACKAGE – PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
5	EF-DISH	1	FULL CRATING FOR EXHAUST FANS
		1	ECM WIRING PACKAGE – MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCW ROTATION
		1	1 15-BDD DAMPER
		1	WALLMOUNT 20.5" SQ. X 5"
		1	WALL MOUNT CONSTRUCTION FOR FAN
1	2 YEAR PARTS WARRANTY		

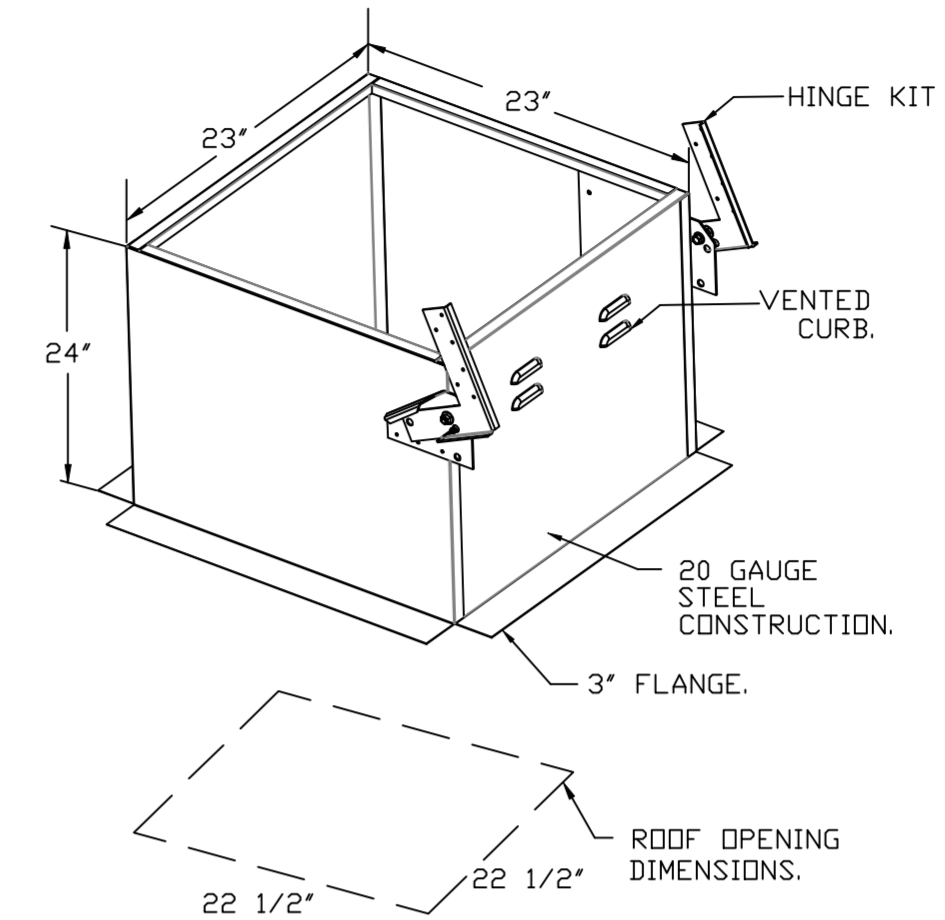
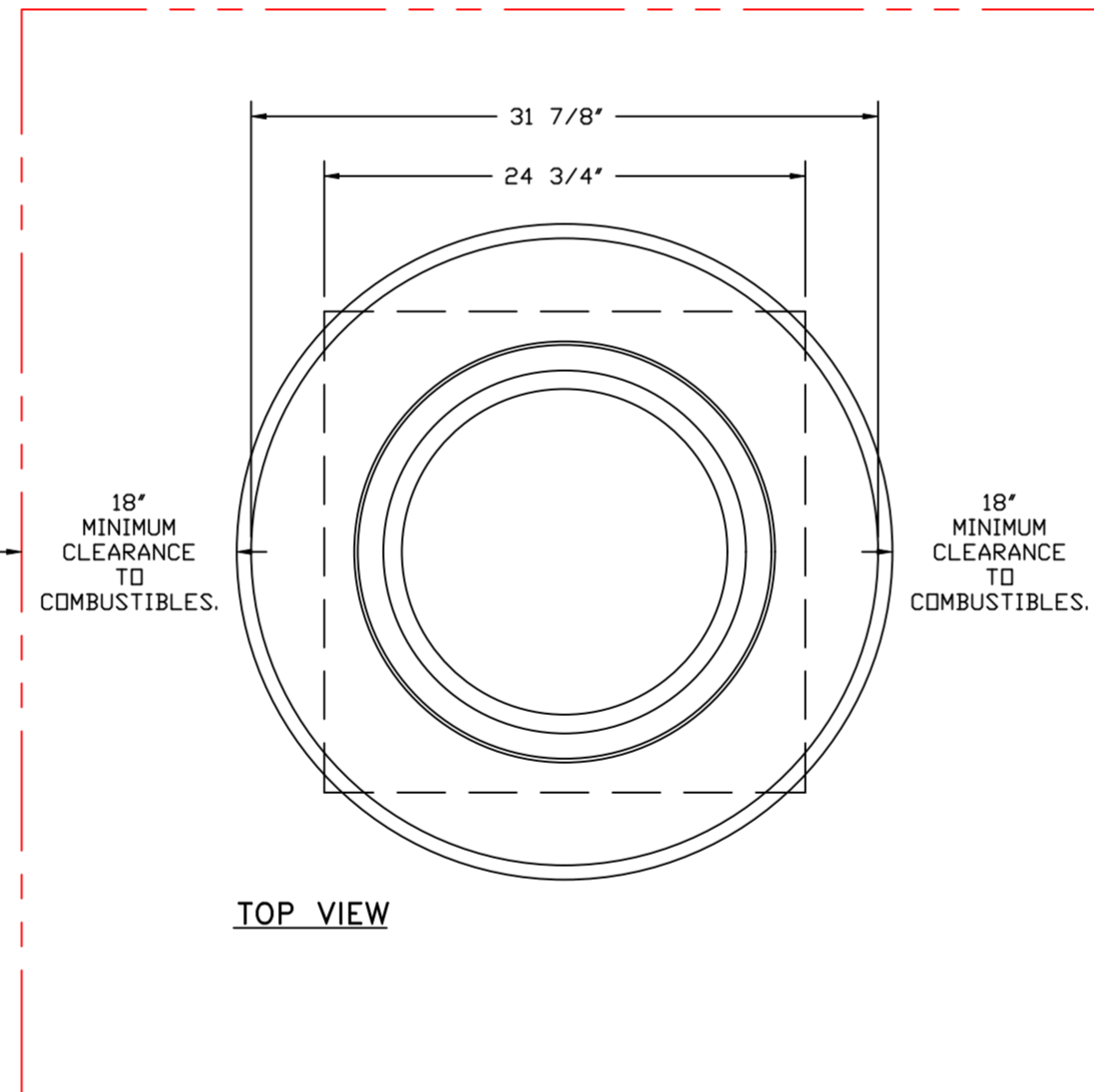
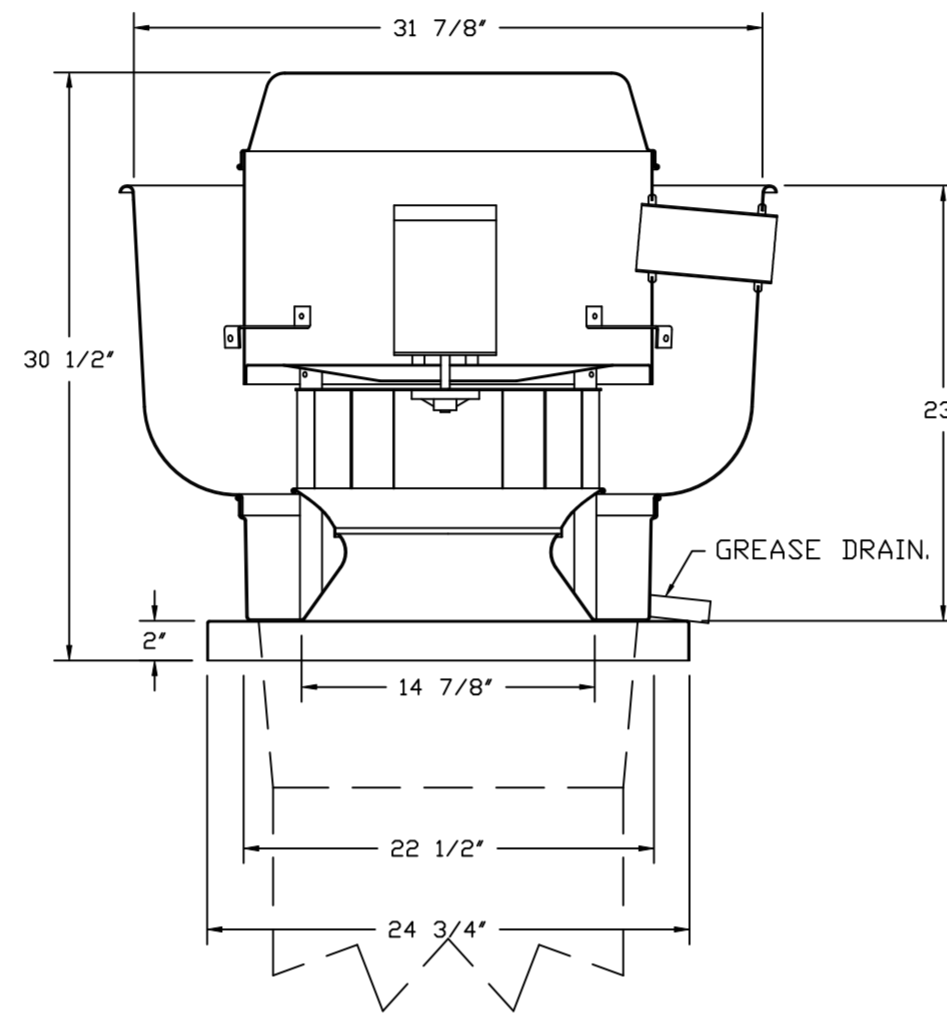
FAN ACCESSORIES

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

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	EF-1	41 LBS	CURB	23.000"W X 23.000"L X 24.000"H VENTED HINGED.
2	# 2	EF-1	41 LBS	CURB	23.000"W X 23.000"L X 24.000"H VENTED HINGED.
3	# 3	EF-1	41 LBS	CURB	23.000"W X 23.000"L X 24.000"H VENTED HINGED.
4	# 4	EF-1	41 LBS	CURB	23.000"W X 23.000"L X 24.000"H VENTED HINGED.
5		DUCT-PIZZA	22 LBS	CURB	24.500"W X 24.500"L X 20.000"H VENTED.

FANS #1 (EF-1), #2 (EF-2), #3 (EF-3), #4 (EF-4) – DUBSHFA EXHAUST FAN



FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL752 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

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

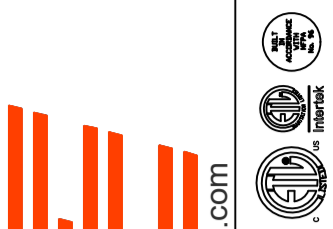
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- FULL CRATING FOR EXHAUST FANS.
- FAN BASE CERAMIC SEAL – SHIP LOOSE – FOR GREASE DUCTS.
- ECM WIRING PACKAGE – PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.

REVISIONS

DESCRIPTION	DATE



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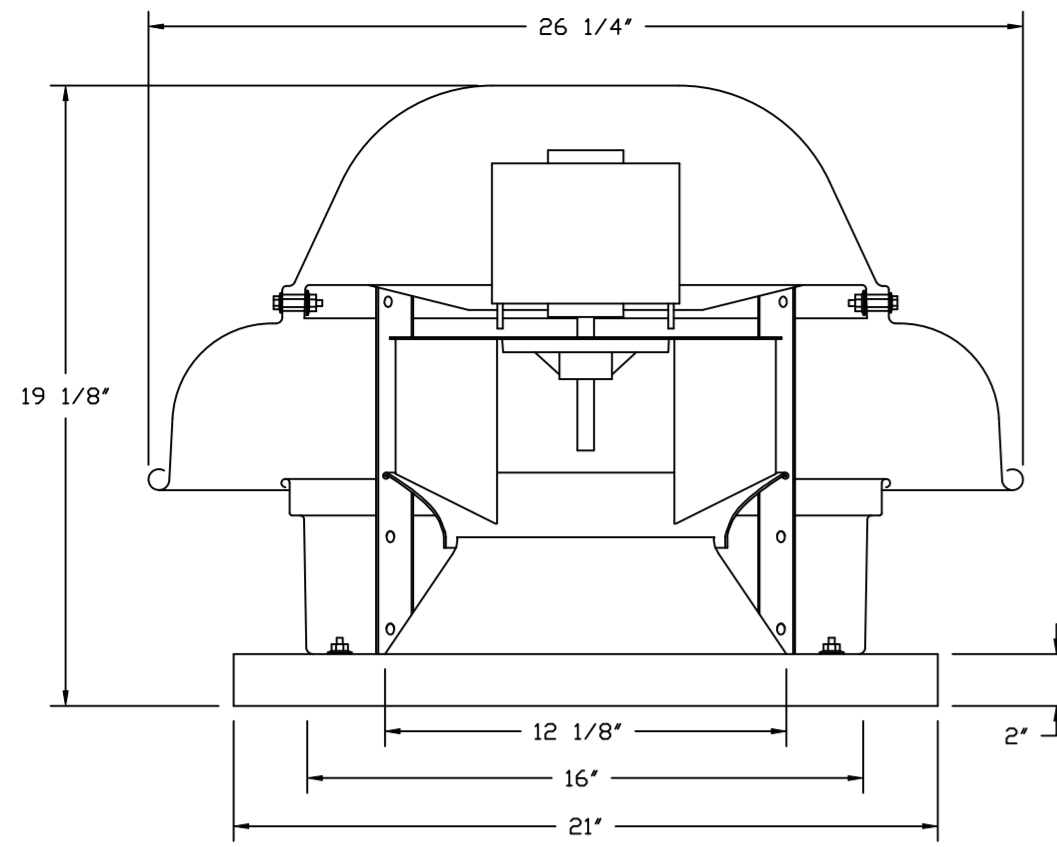
DWG.#: 6294612

DRAWN BY: grant.homan

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

MASTER DRAWING

SHEET NO.

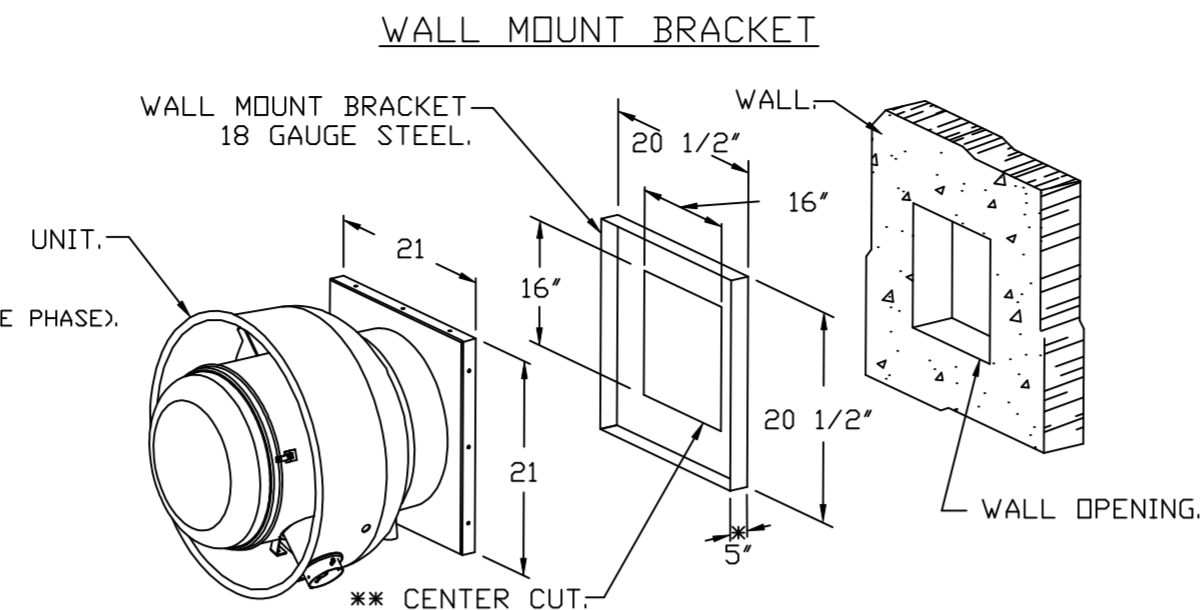


FEATURES:

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

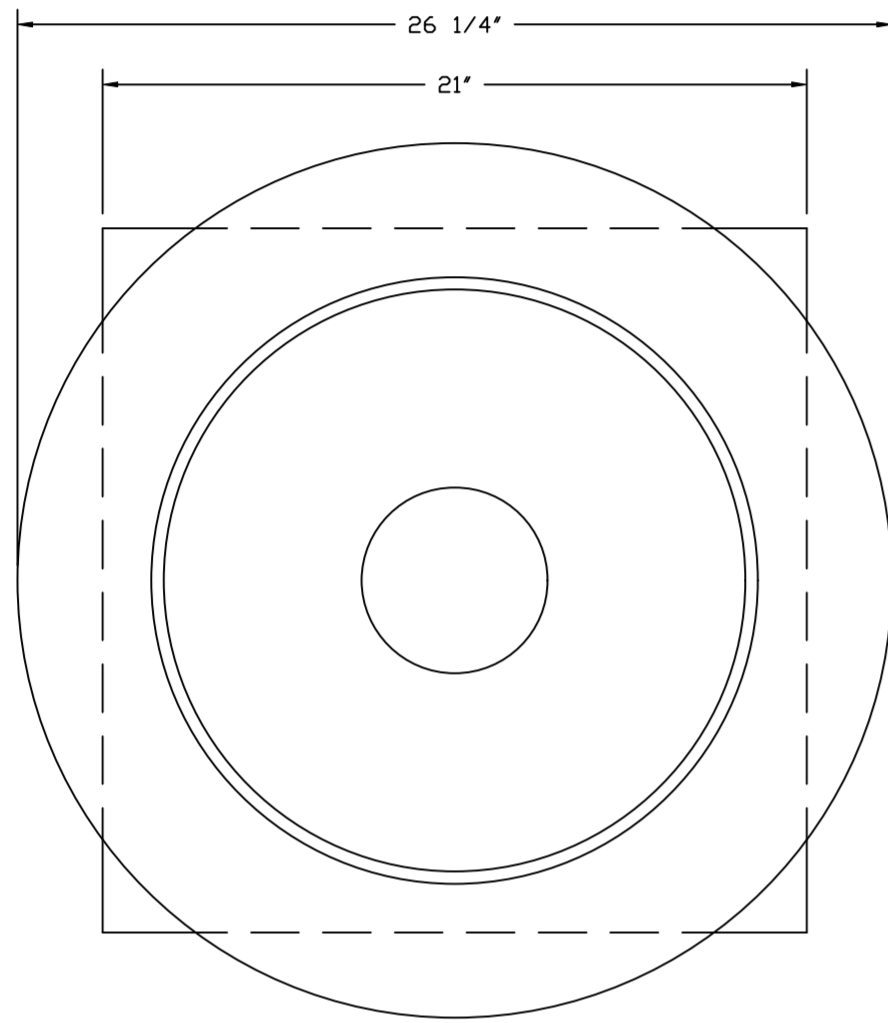
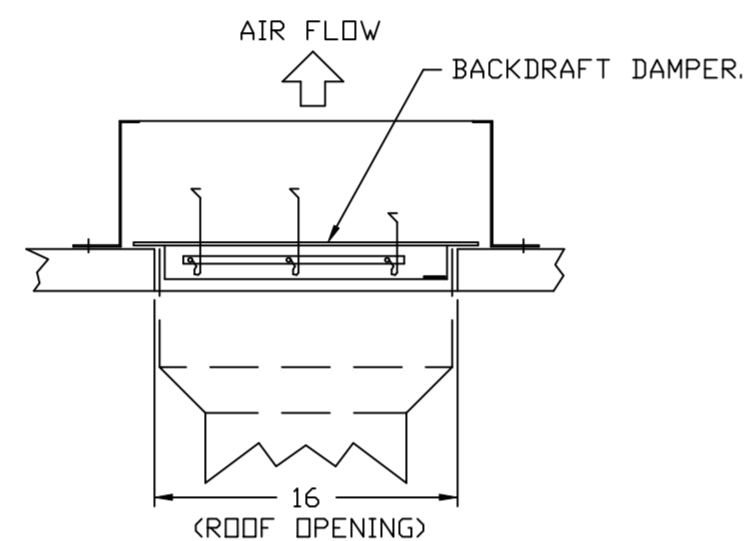
OPTIONS:

- FULL CRATING FOR EXHAUST FANS.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL.
- RTC - (TELCD MOTOR), CCW ROTATION.
- 1 1/2" BDD DAMPER.
- WALLMOUNT 20.5" SQ. X 5".
- WALL MOUNT CONSTRUCTION FOR FAN.
- 2 YEAR PARTS WARRANTY.



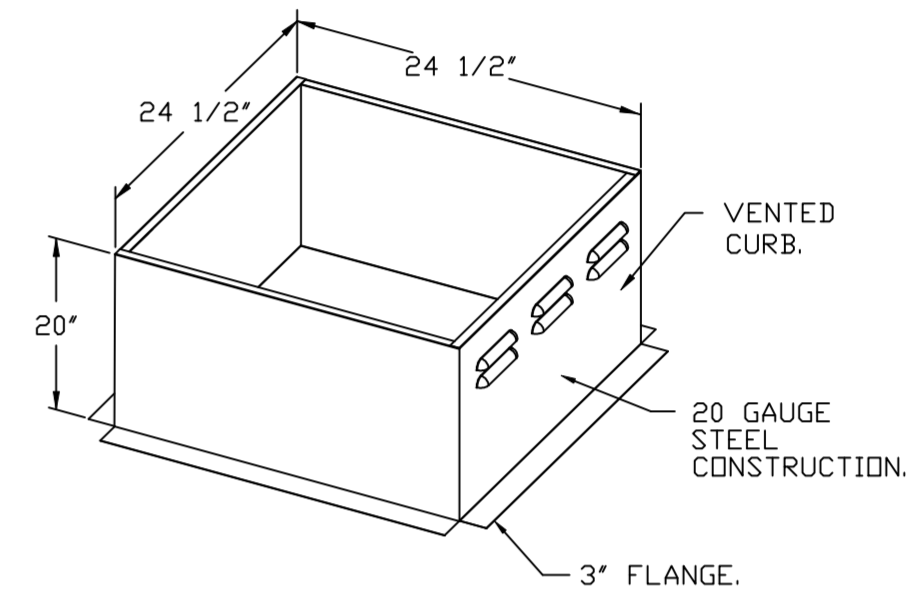
- WALL BRACKET FITS INTO BASE OF FAN.
- SELF DRILLING SCREWS SHOULD BE USED FOR UNIT ATTACHMENT TO WALL MOUNT BRACKET.
- * DIMENSION = 5" WHEN USED WITH DAMPER.
- ** CENTERED IN WALL MOUNT.

BACKDRAFT DAMPER INSTALLATION

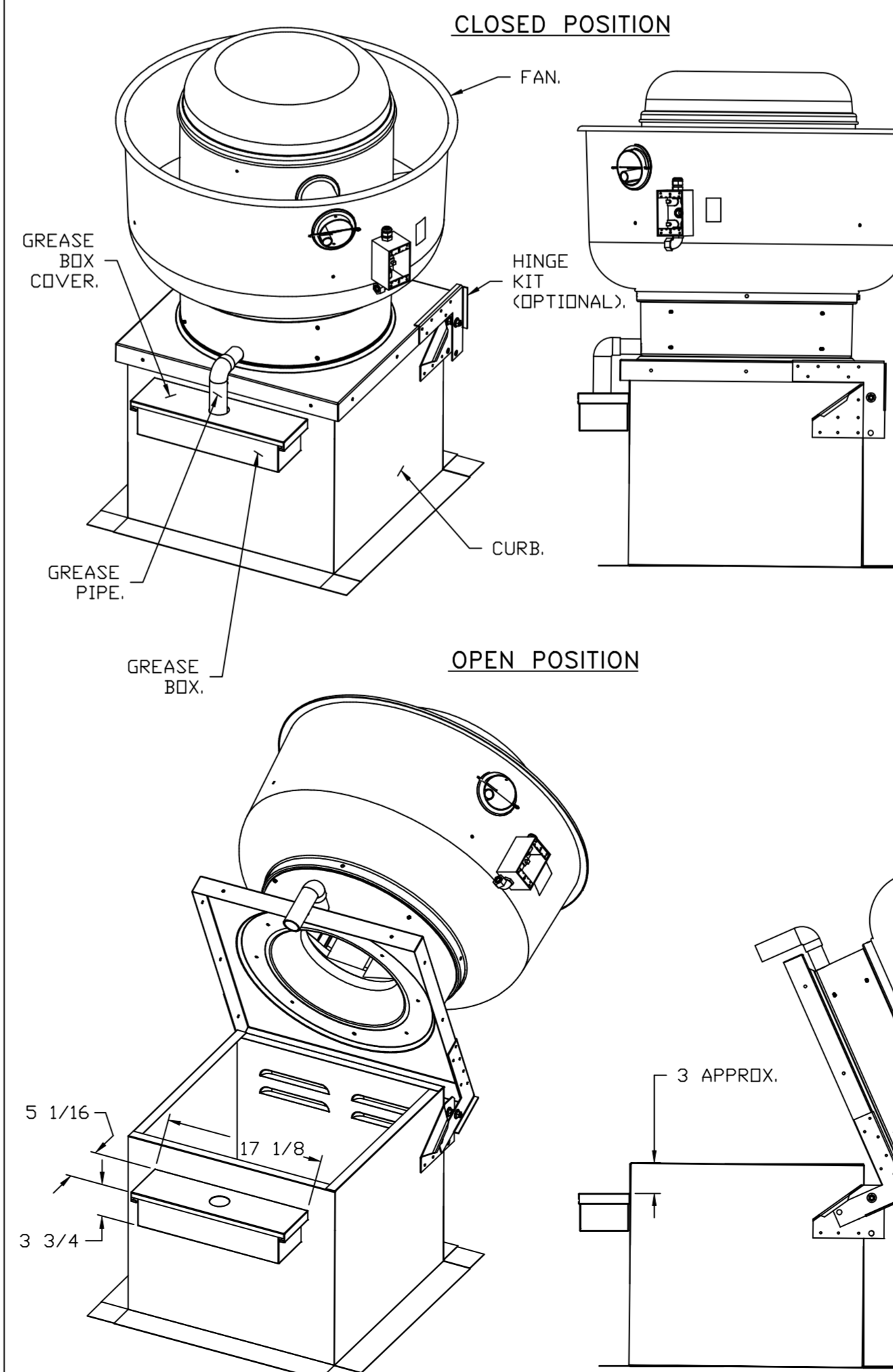


TOP VIEW

CURB #5 (DUCT-PIZZA) CRB24.5X20E



GREASE BOX INSTALLATION



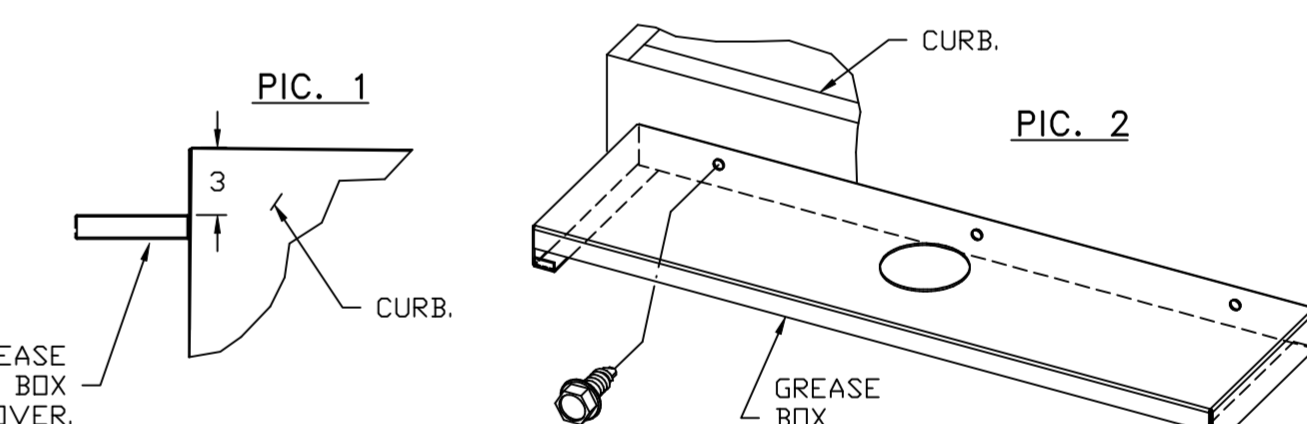
PARTS INCLUDED

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

GREASE BOX FIELD INSTALLATION

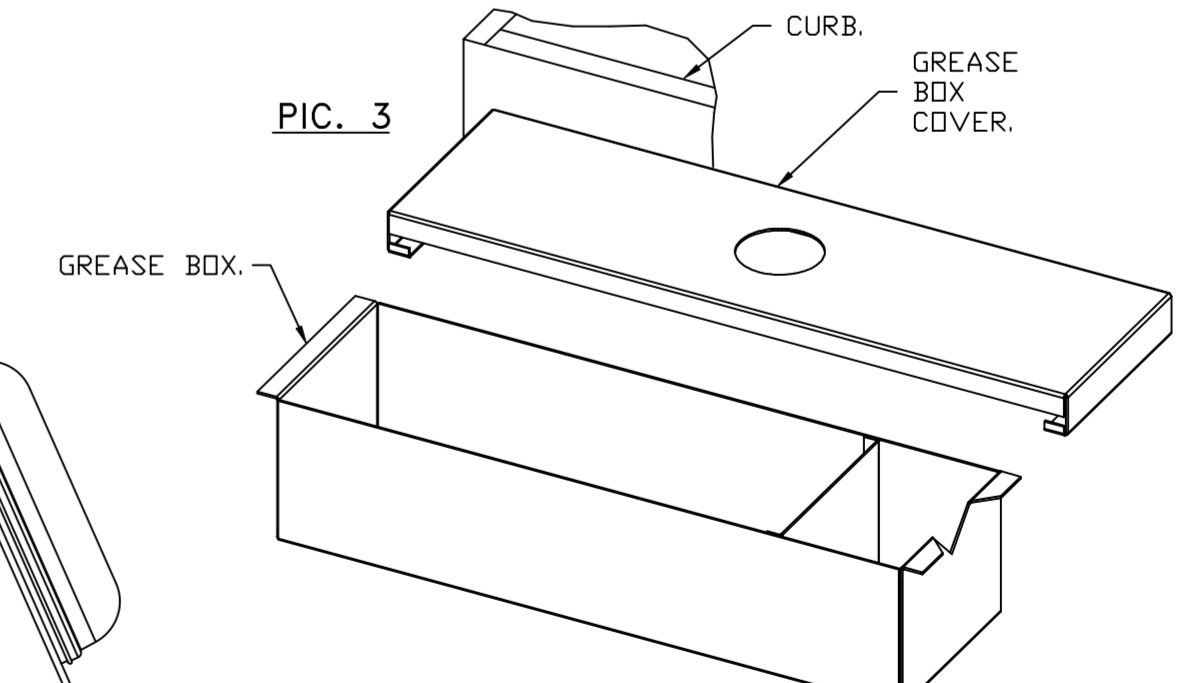
STEP 1)

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



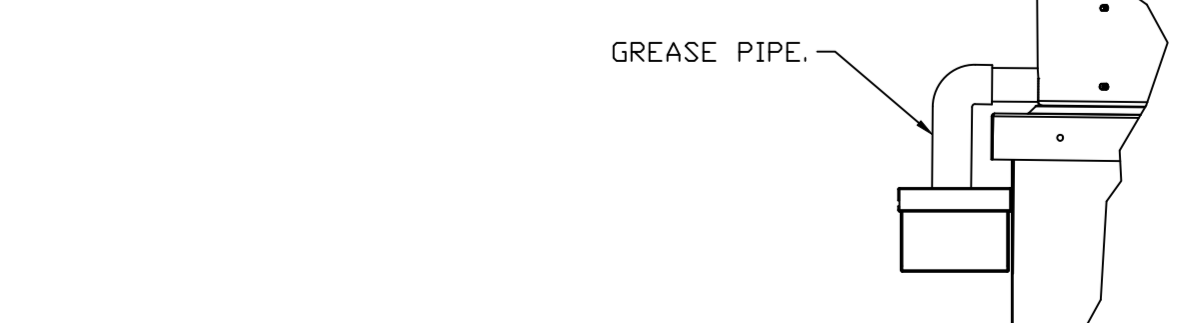
STEP 2)

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



STEP 3)

INSTALL GREASE PIPE AS SHOWN ON PIC. 4.



*NOTE: UL 705 INSTALL.

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DESCRIPTION	DATE:

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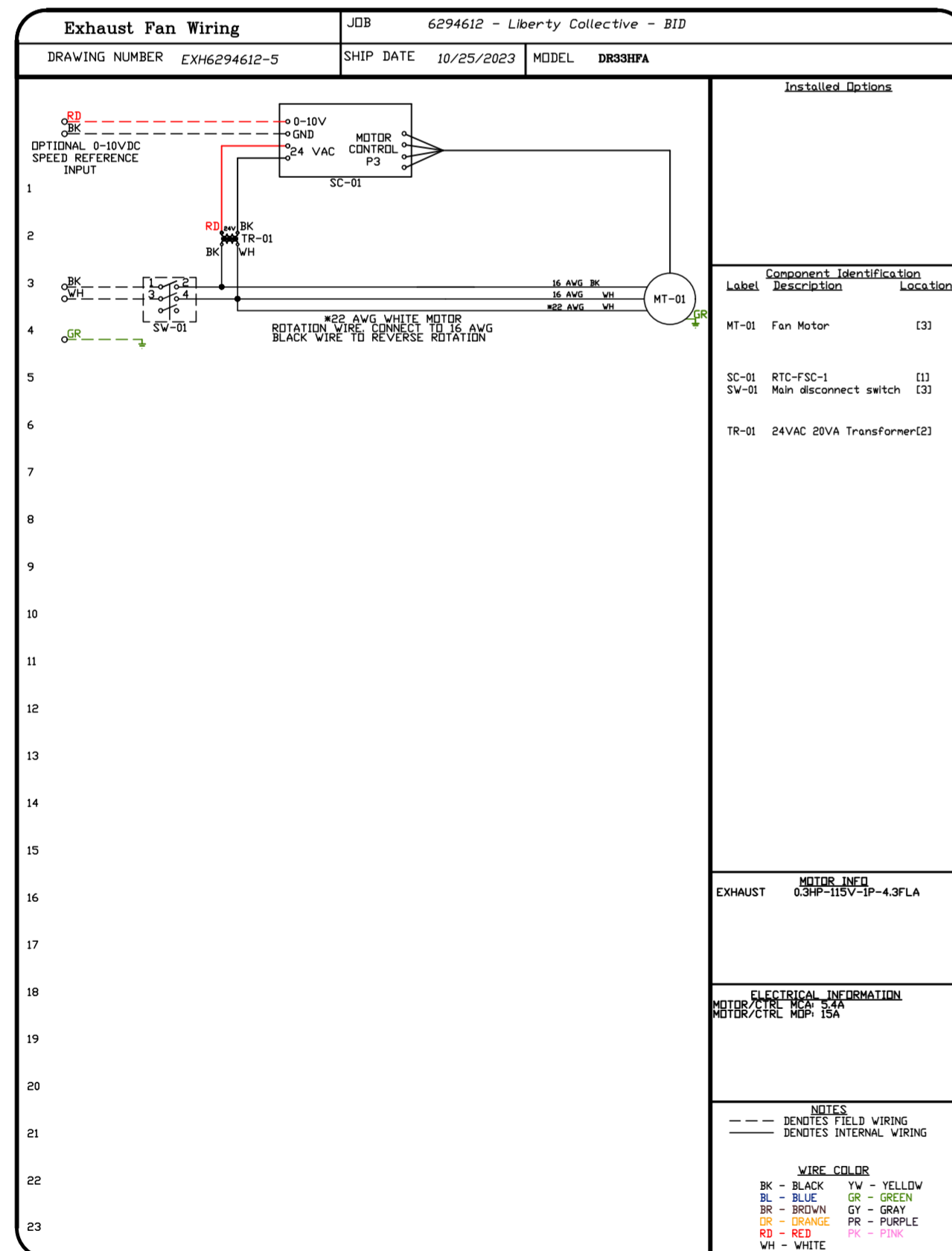
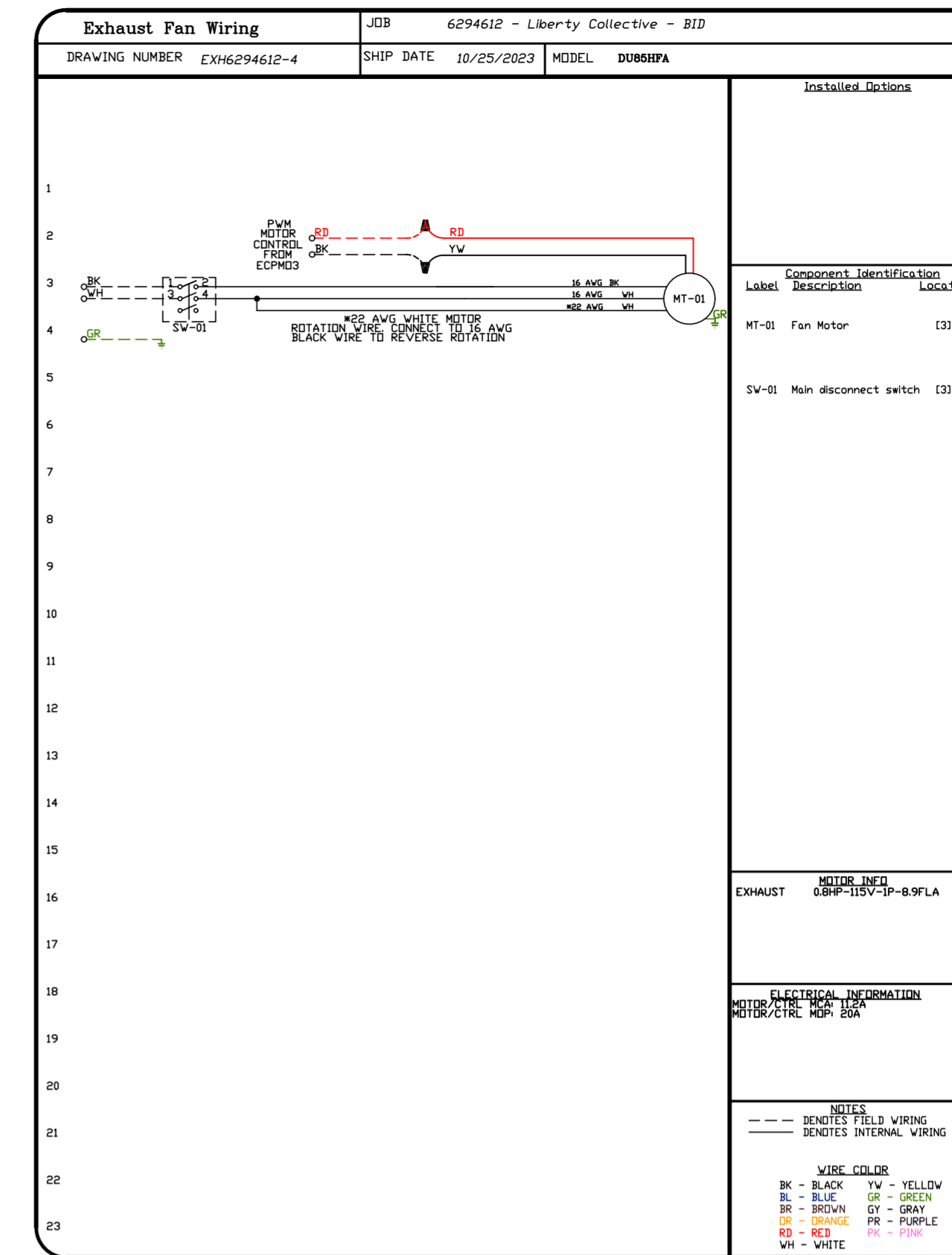
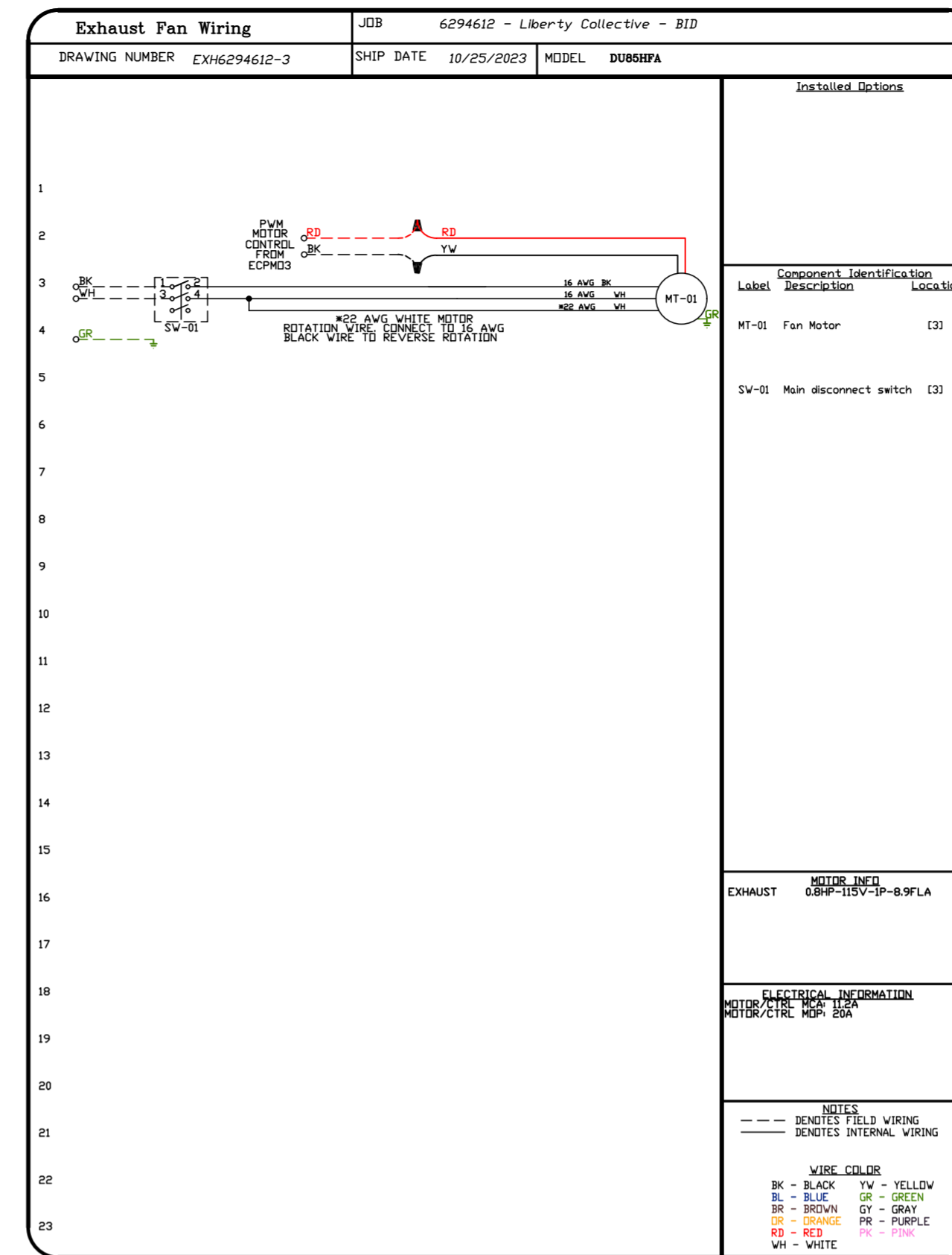
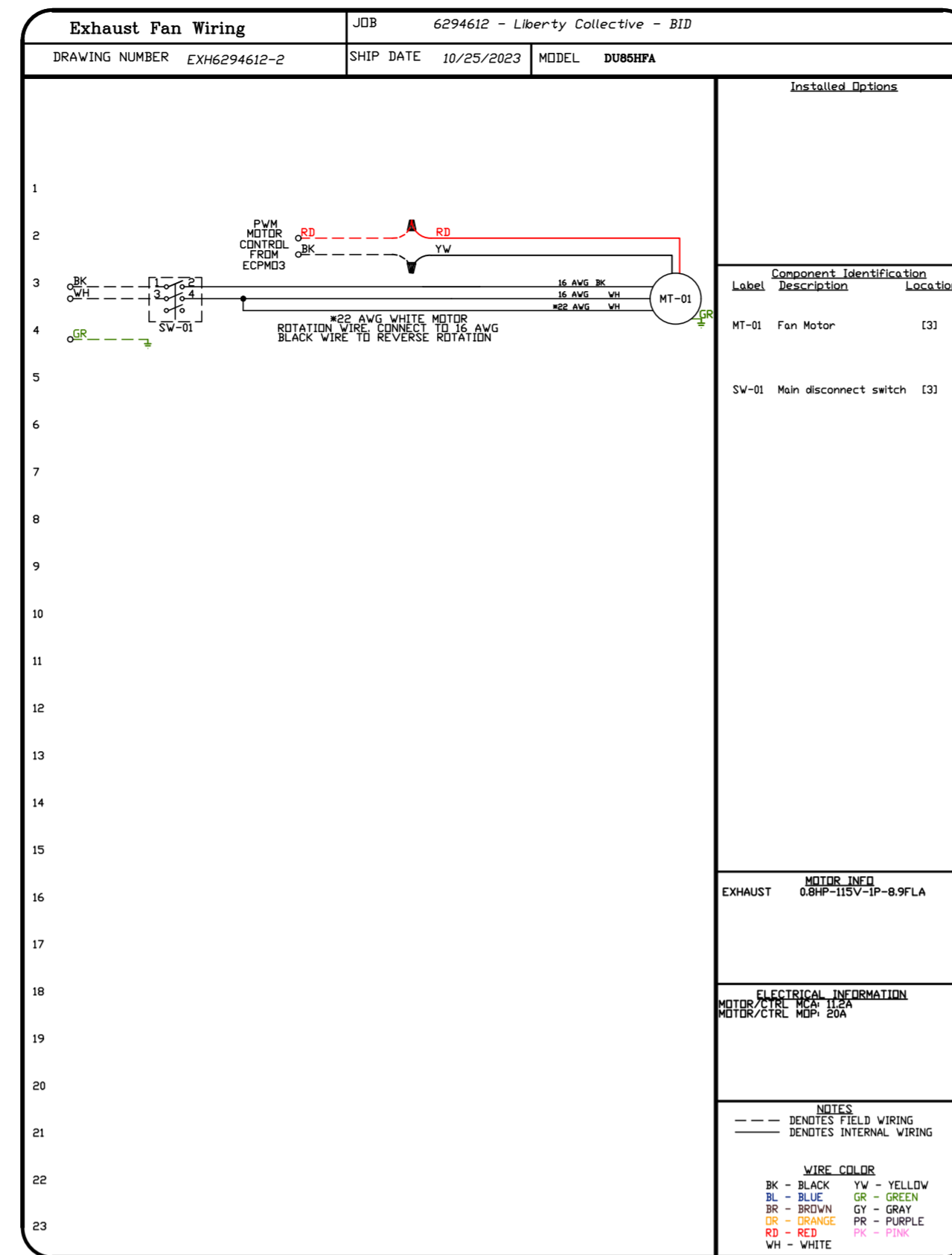
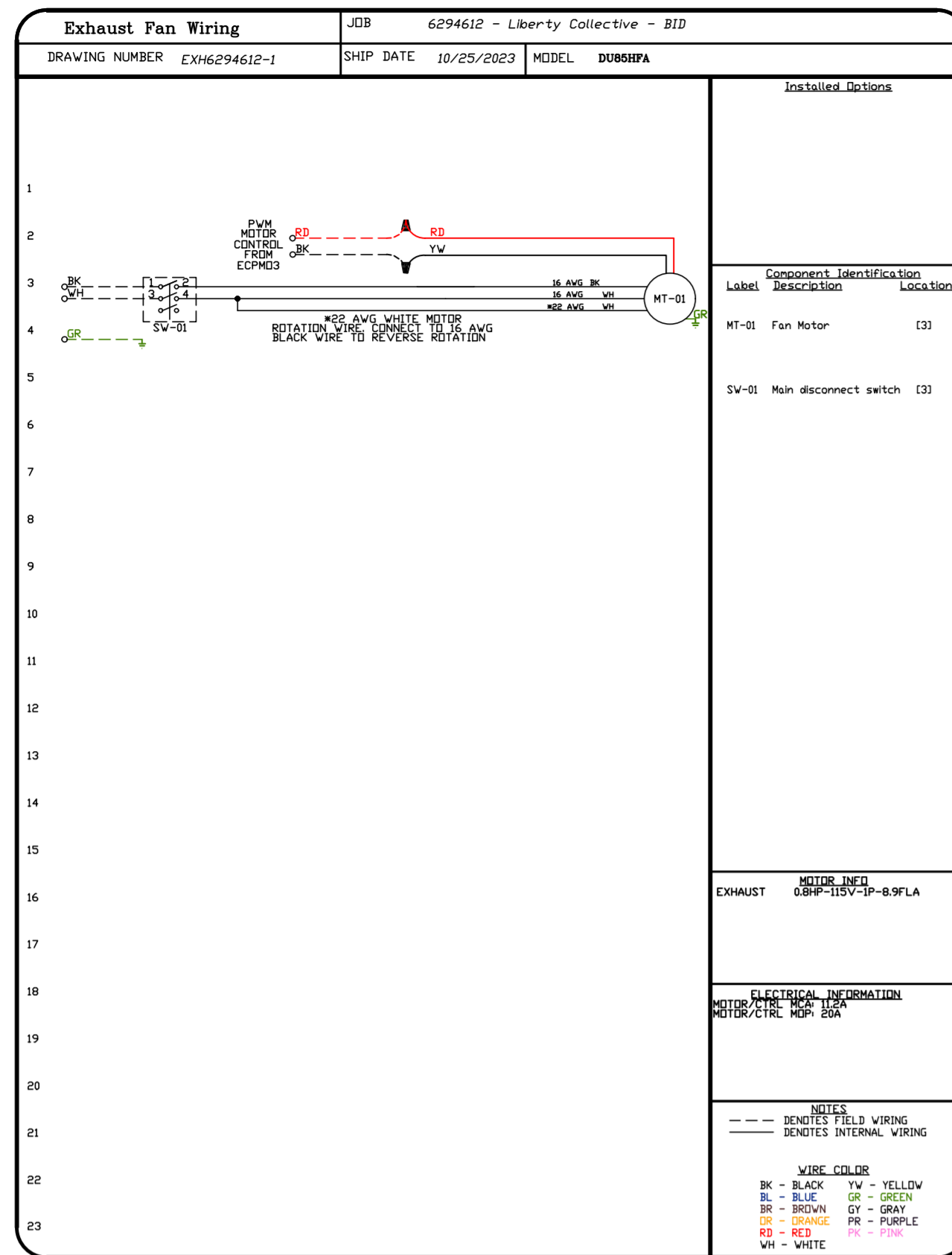
DRAWN BY: grant.homan

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

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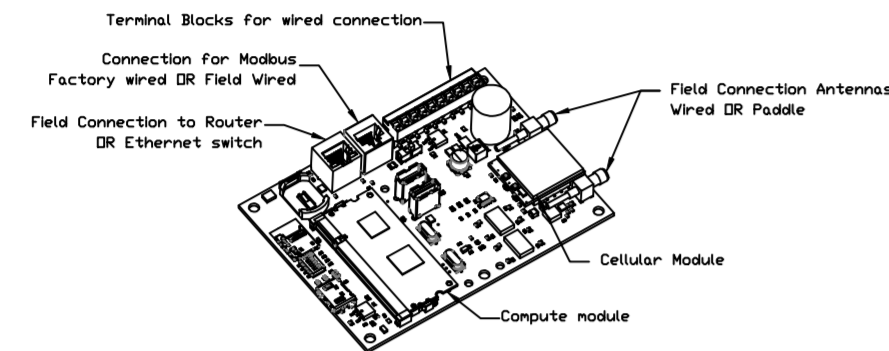
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DATE: 10/25/2023
DWG.#: 6294612
DRAWN BY: grant.homan
SCALE: 3/4" = 1'-0"
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 8

ELECTRICAL PACKAGE - JOB#6294612

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	#	HP	VOLT	FLA
1	Control-1	SC-310110MA	UTILITY CABINET LEFT	UTILITY CABINET LEFT	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	EF-1	EXHAUST	1	0.750	115	8.9
				HOOD # 1	1 FAN							
2	Control-2	SC-310110MA	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	EF-2	EXHAUST	1	0.750	115	8.9
				HOOD # 2	1 FAN							
3	Control-3	SC-310110MA	UTILITY CABINET LEFT	UTILITY CABINET LEFT	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	EF-3	EXHAUST	1	0.750	115	8.9
				HOOD # 3	1 FAN							
4	Control-4	SC-310110MA	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	EF-4	EXHAUST	1	0.750	115	8.9
				HOOD # 4	1 FAN							
5	Switch-Dish	Switches	SHIP LOOSE W/ HOOD	HOOD # 4	1 FAN							

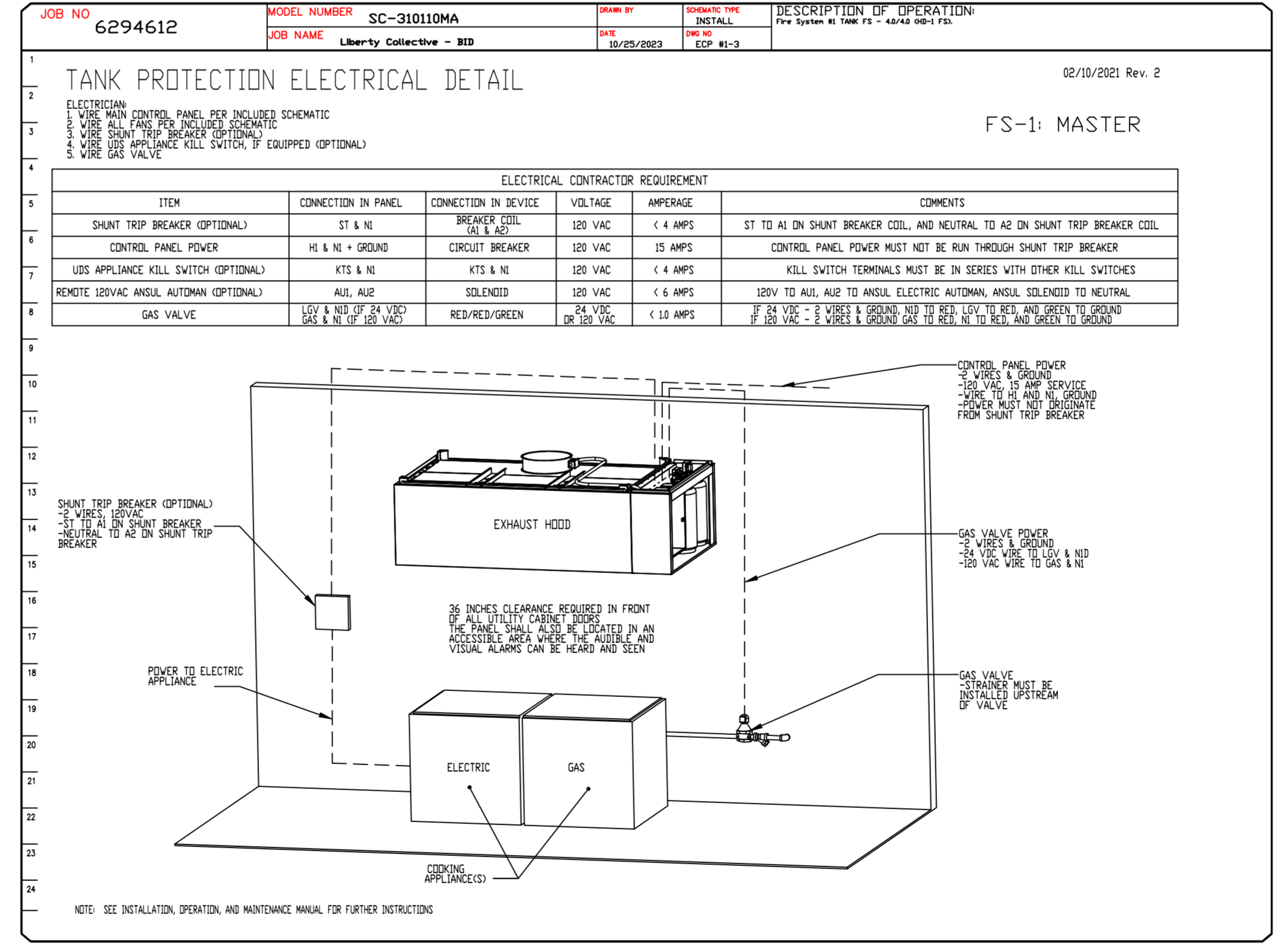
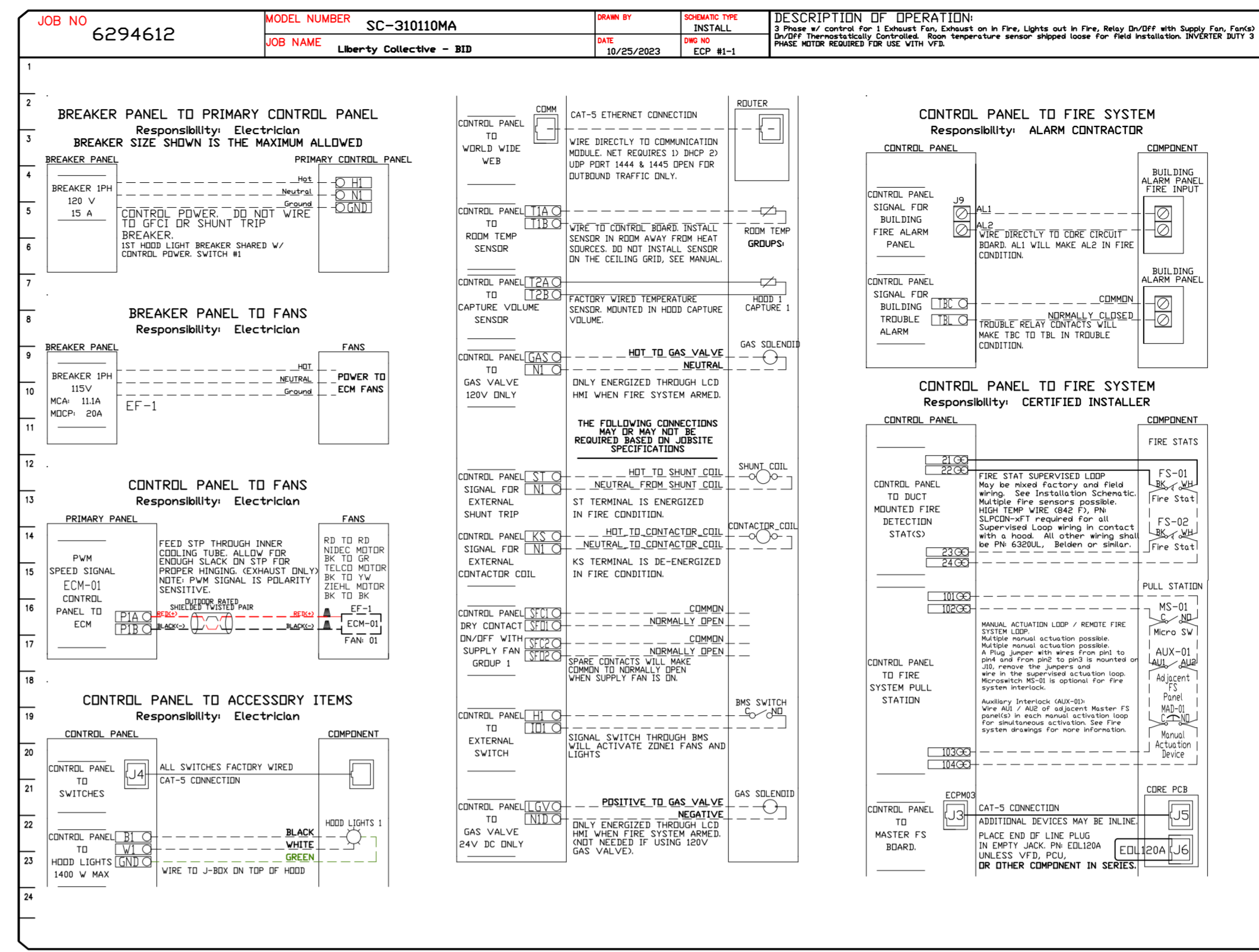
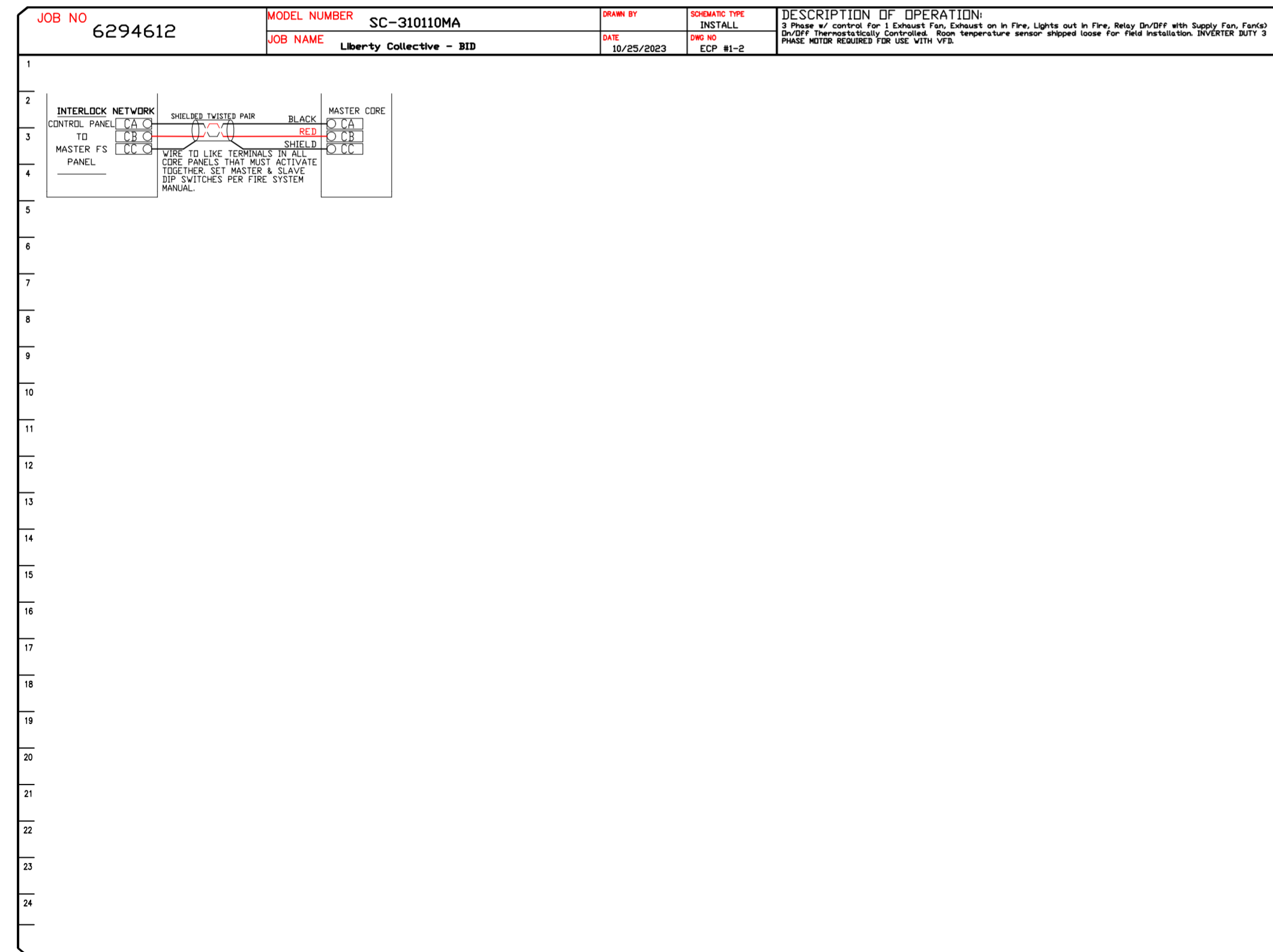


CASlink Monitor and Control

- Hood control panel to support communications to cloud-based Building Management Systems.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
- Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

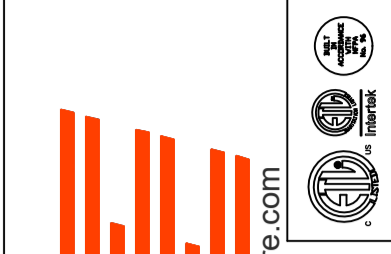
MONITORING AND CONTROL POINTS LIST

DCV Packages	Function	SC Packages	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR	Duct Temperature(s)	MONITOR
MHA Discharge Temperature	MONITOR	MHA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR	Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR	Controller Faults	MONITOR
Fan Amperage	MONITOR	Fan Faults	MONITOR
Fan Power	MONITOR	Fan Status	MONITOR
VFD Faults	MONITOR	PCU Faults	MONITOR
Controller Faults	MONITOR	PCU Filter Clog Percentages	MONITOR
Fan Faults	MONITOR	Fire Condition	MONITOR
Fan Status	MONITOR	CORE Piv System	MONITOR
PCU Faults	MONITOR	Building Pressures	MONITOR
PCU Filter Clog Percentages	MONITOR	Flare Status(s)	MONITOR & CONTROL
Fire Condition	MONITOR	Light(s) Button(s)	MONITOR & CONTROL
CORE Fire System	MONITOR	Wash Button	MONITOR & CONTROL
Building Pressures	MONITOR		
Prep Time Button	MONITOR & CONTROL		
Fans Button	MONITOR & CONTROL		
Light(s) Button	MONITOR & CONTROL		
Wash Button	MONITOR & CONTROL		



REVISIONS

NO.	DESCRIPTION	DATE



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Hamilton, OH, 45011

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DWG.#:
6294612

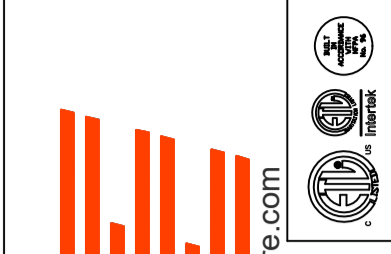
DRAWN BY: grant.homan

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

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9

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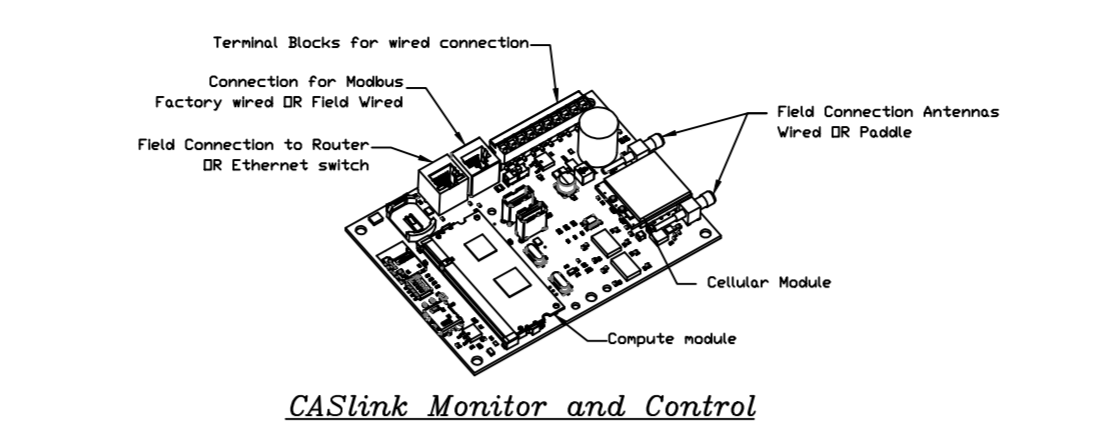
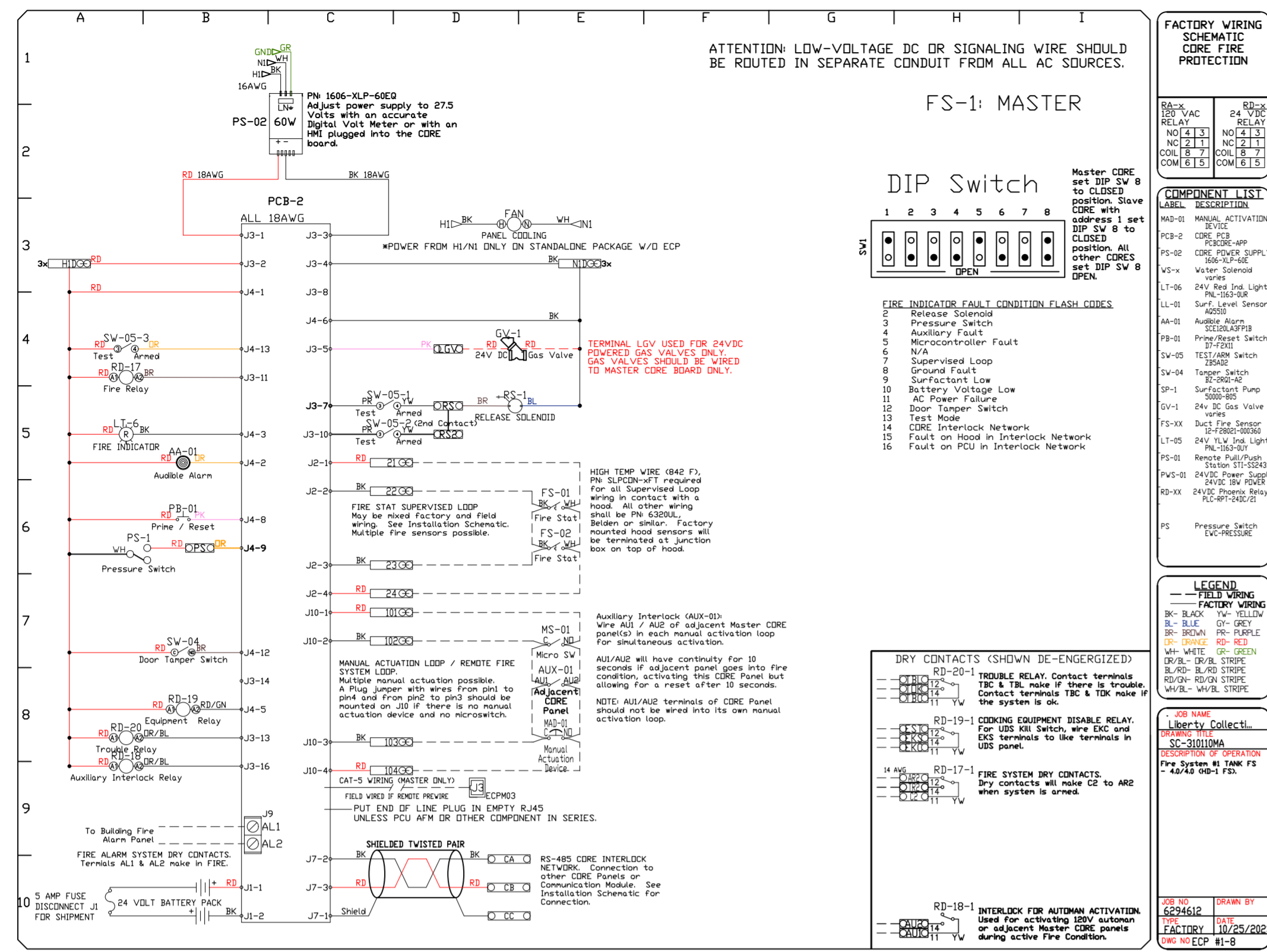
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DRAWN BY: grant.homan

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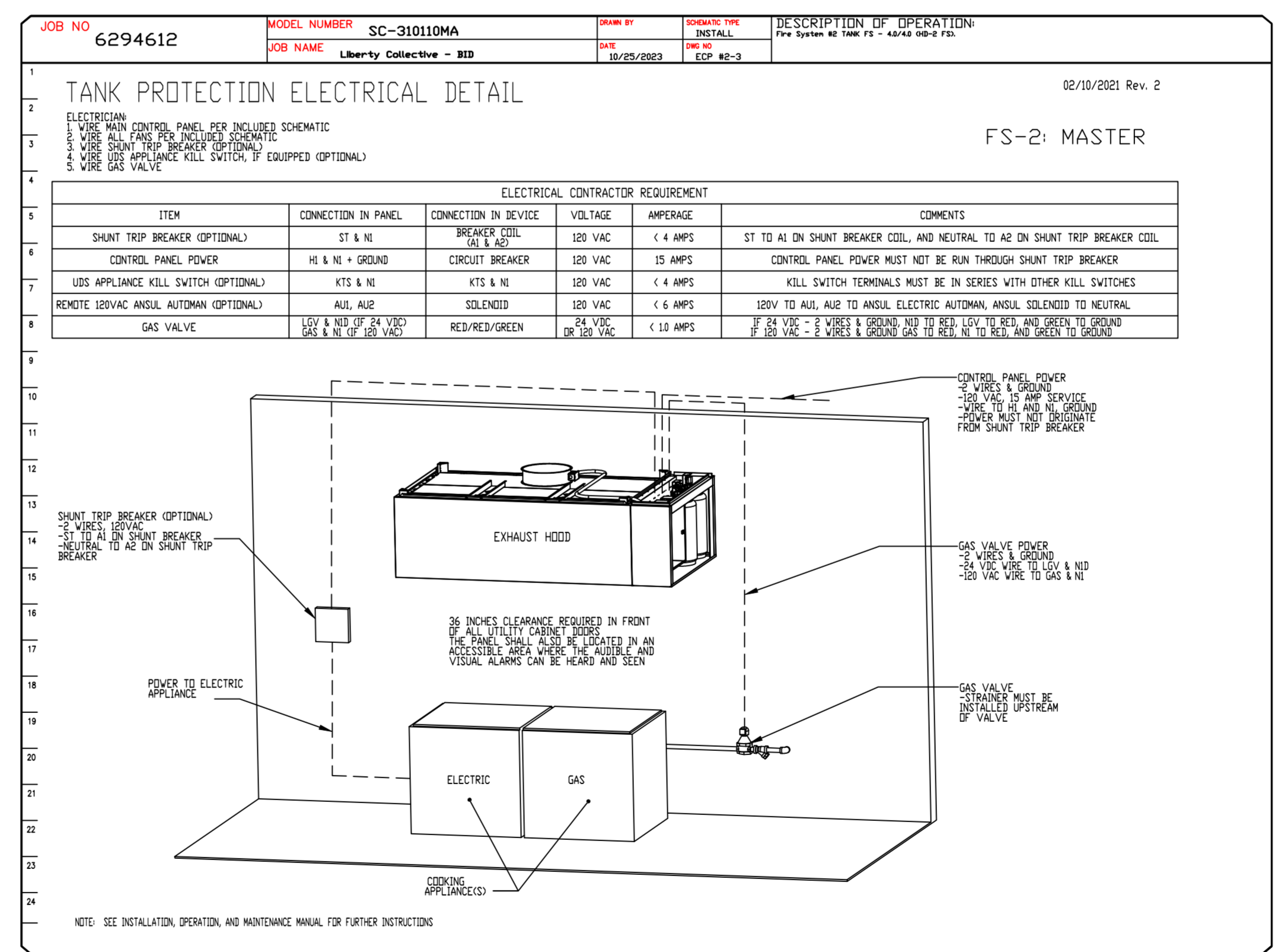
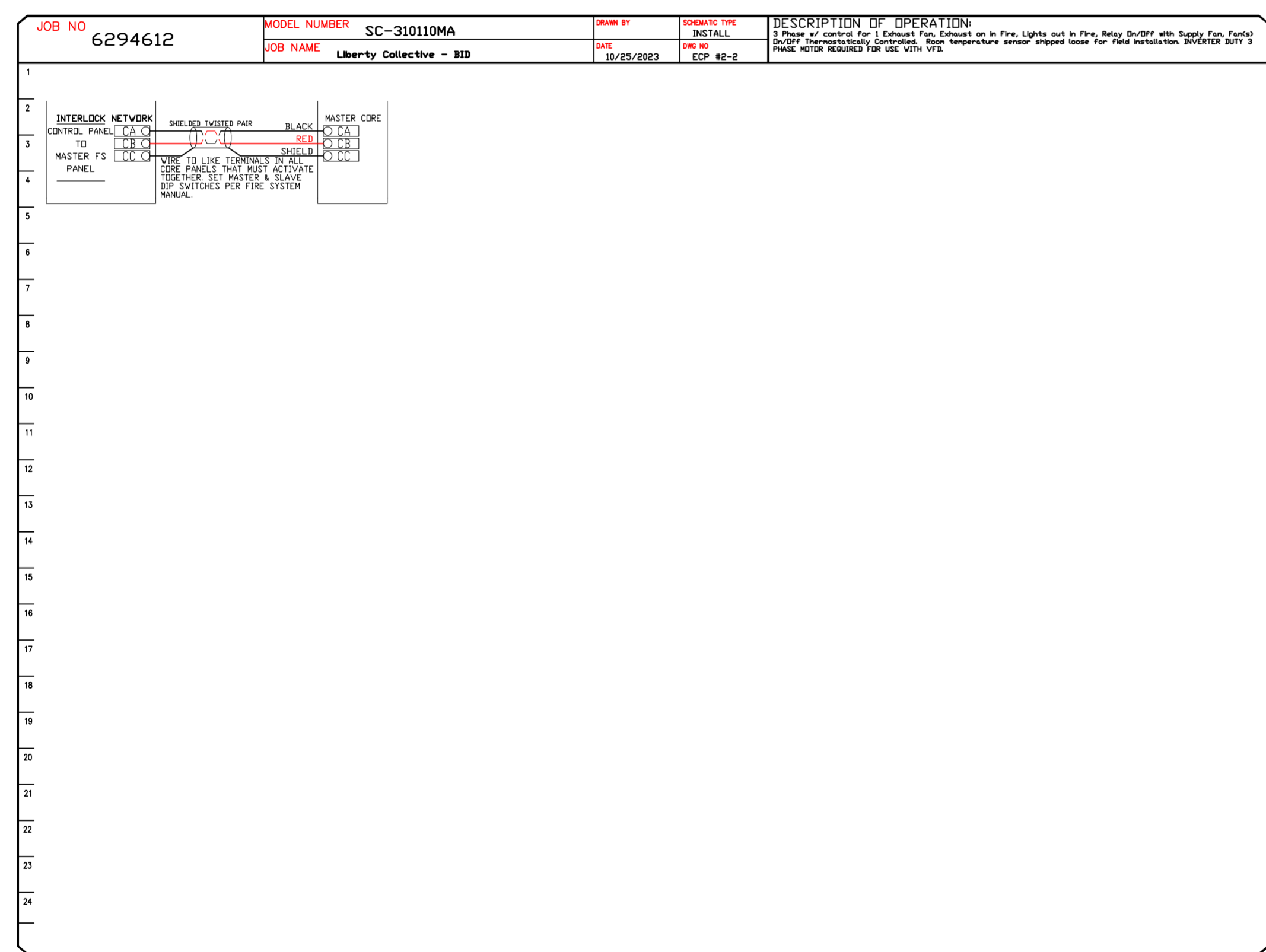
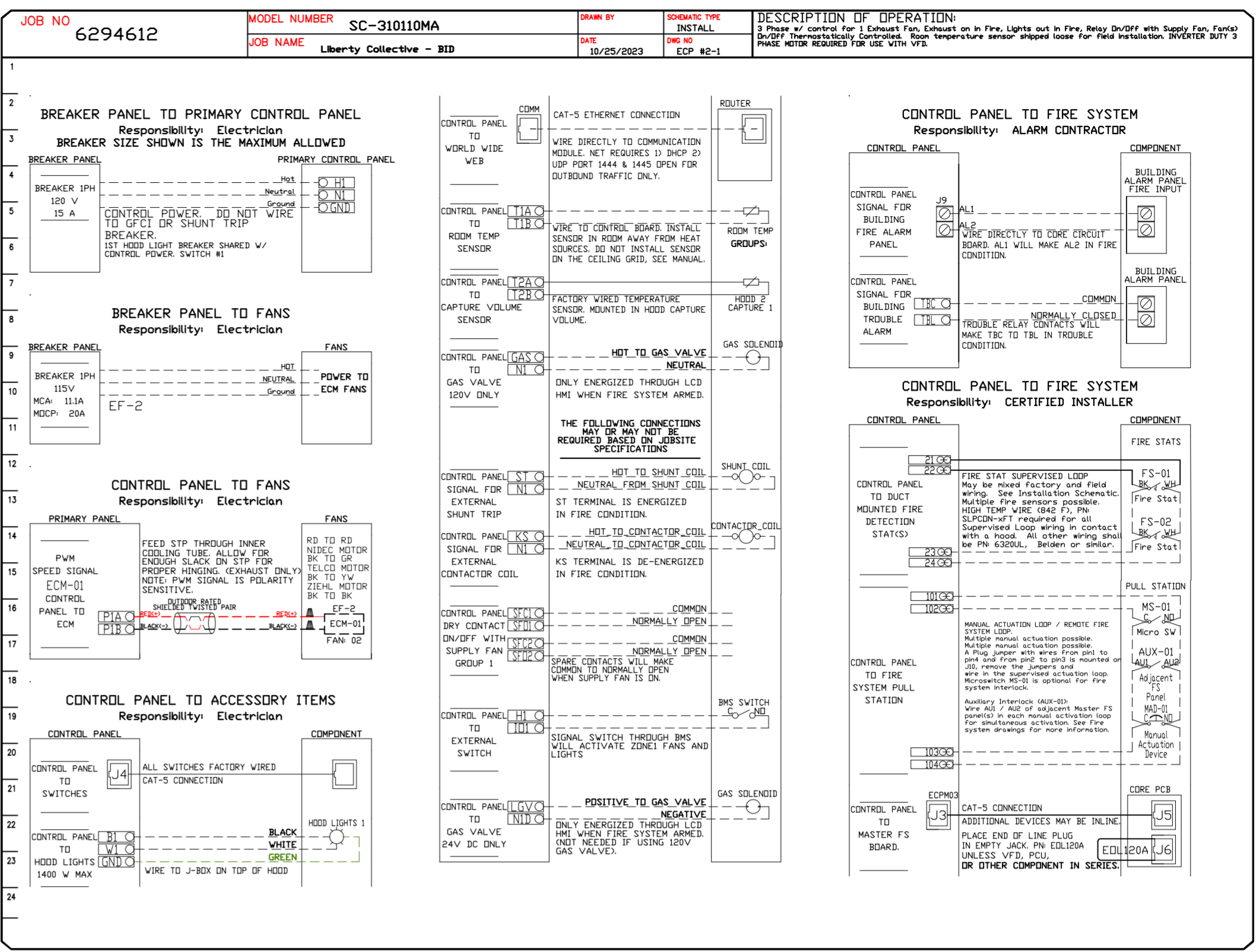
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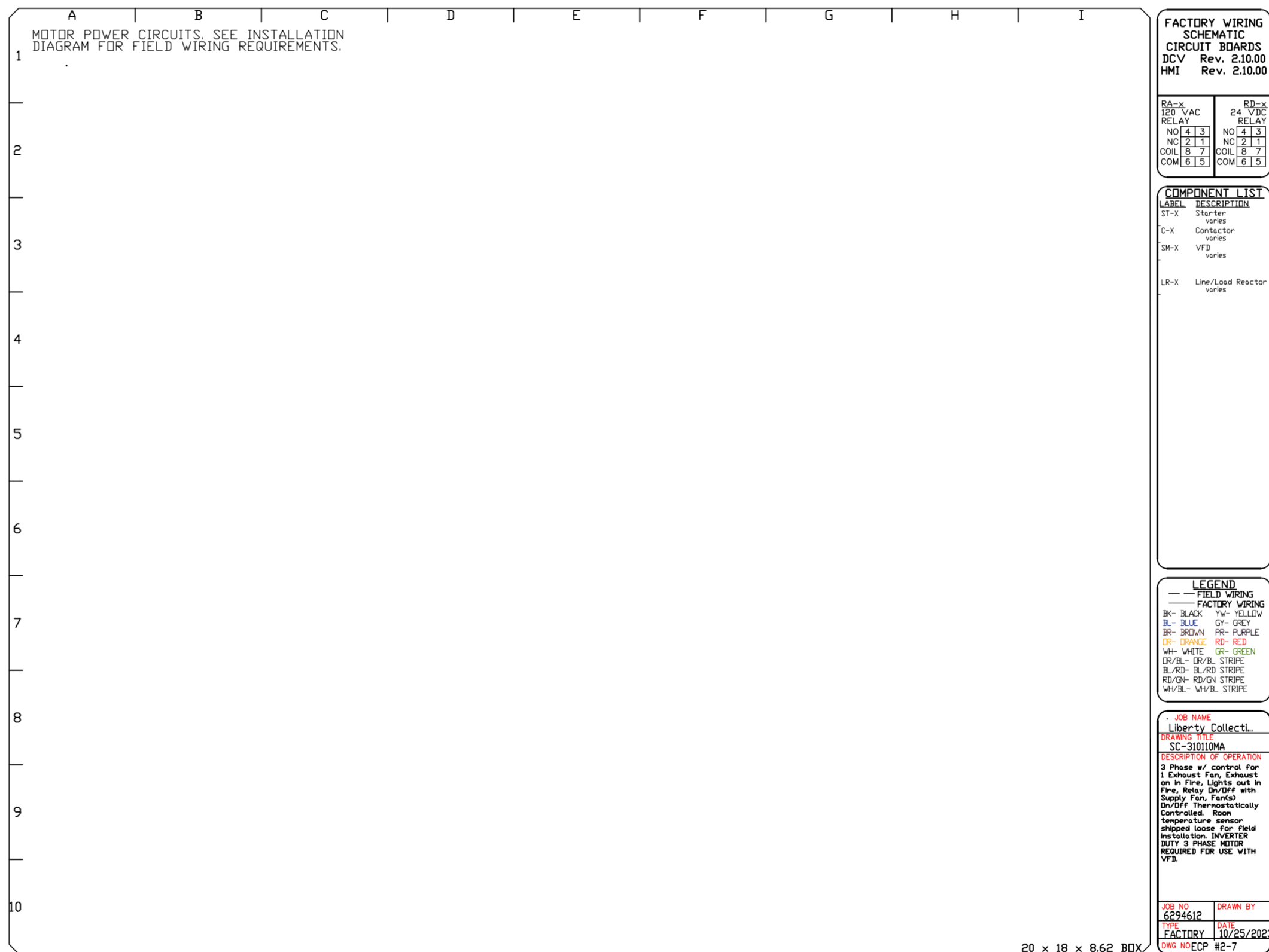
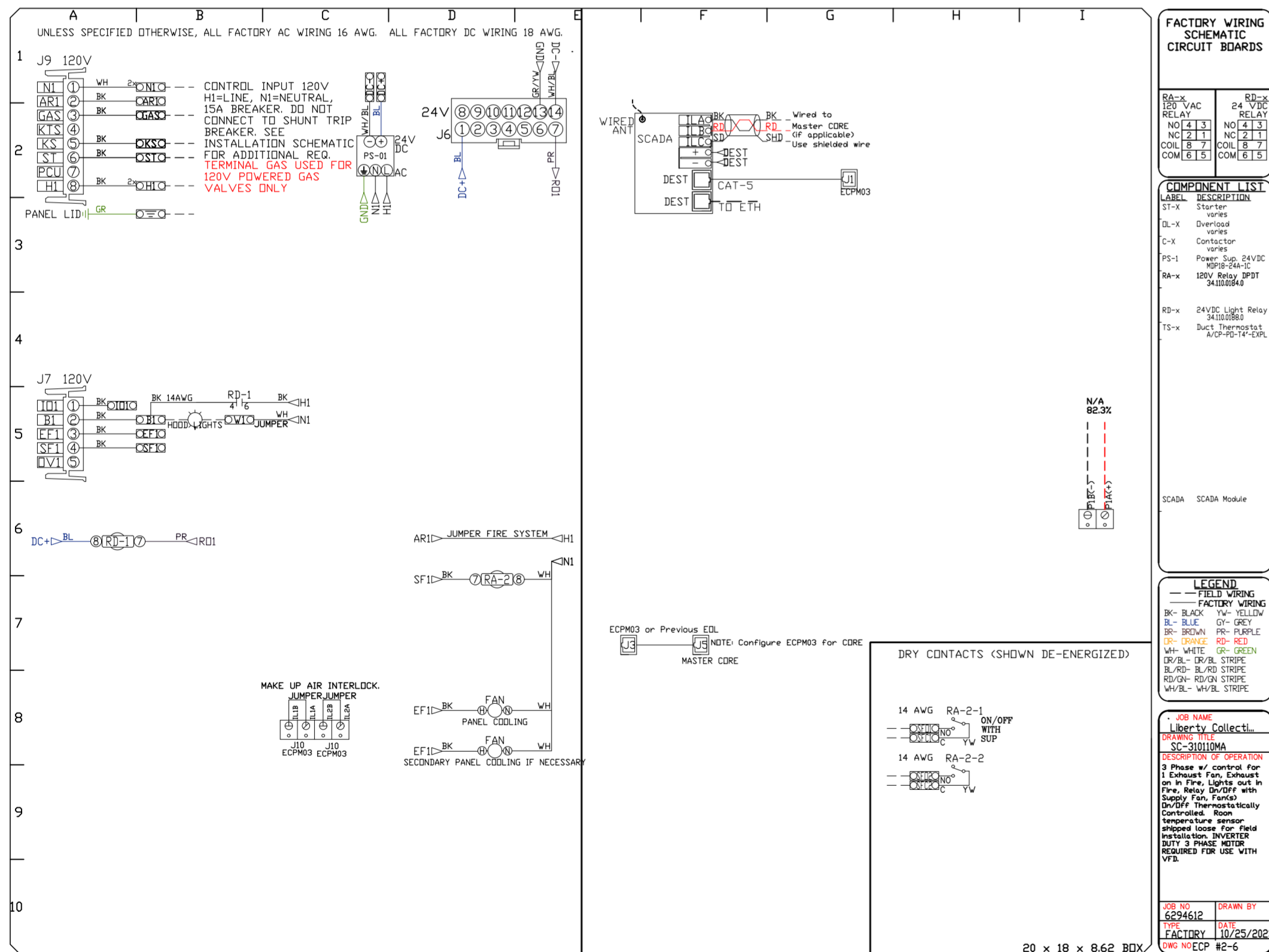
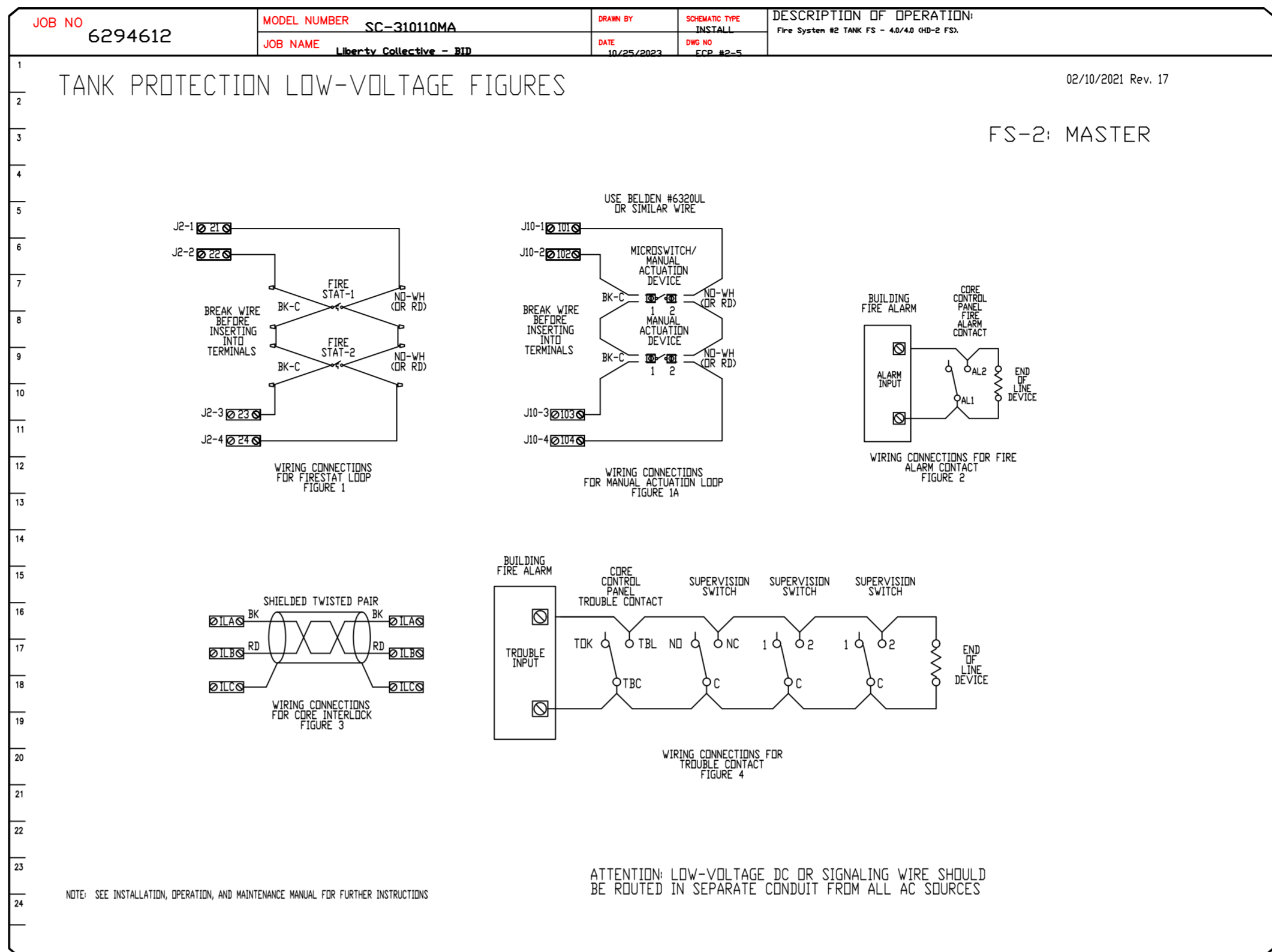
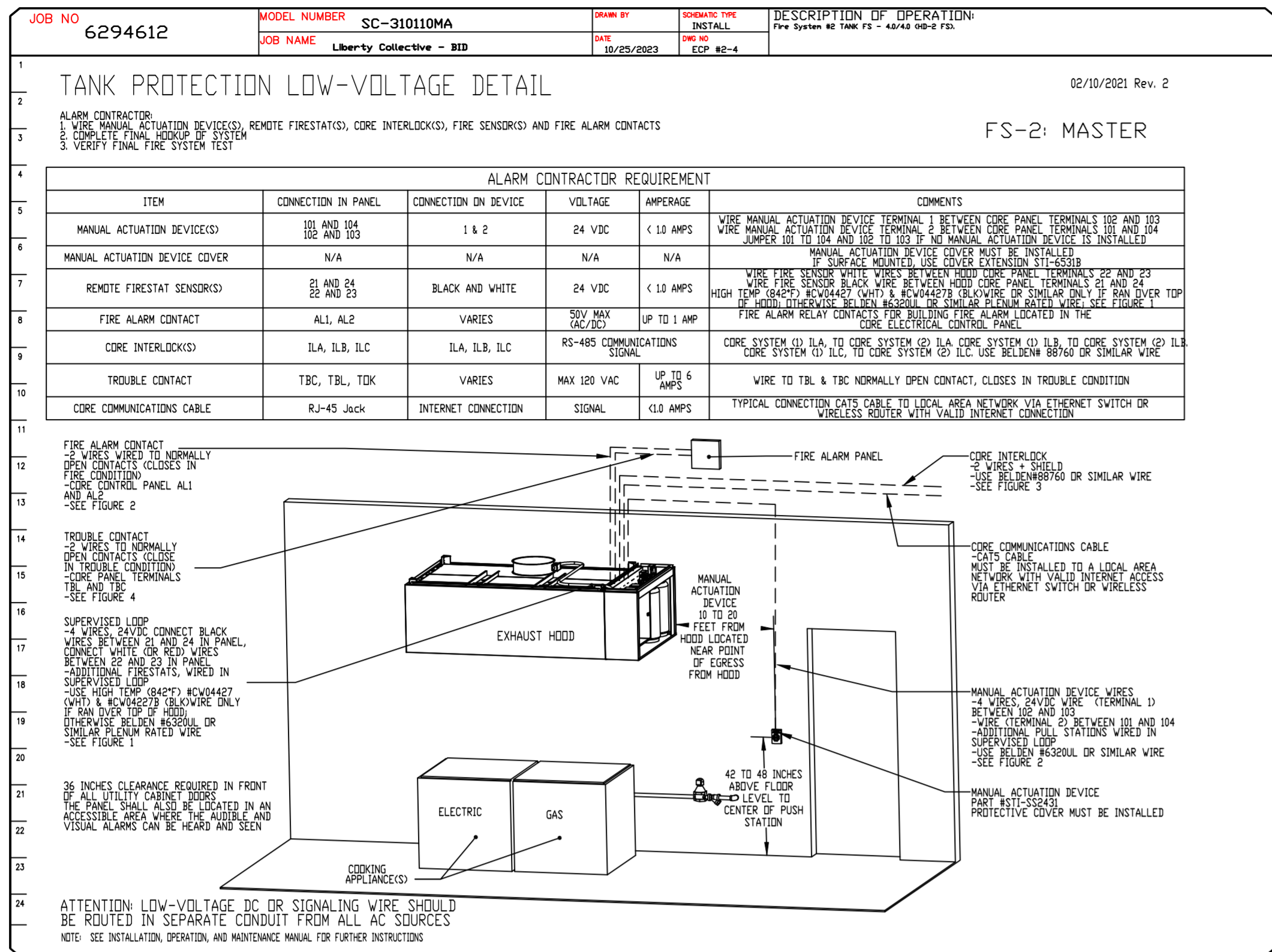
SHEET NO.
11



MONITORING AND CONTROL POINTS LIST

DCV Packages	Function	SC Packages	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR	Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR	MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR	Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR	Compressor Fan(s)	MONITOR
Fan Amperage	MONITOR	Fan Fan(s)	MONITOR
Fan Power	MONITOR	Fan Status	MONITOR
VFD Faults	MONITOR	PCU Fan(s)	MONITOR
Compressor Faults	MONITOR	PCU Filter Clap Percentages	MONITOR
Fan Faults	MONITOR	Fire Condition	MONITOR
PCU Filter Clap Percentages	MONITOR	CORE Fire System	MONITOR
Fire Condition	MONITOR	Building Pressure	MONITOR
CORE Fire System	MONITOR	Fans Building(s)	MONITOR & CONTROL
Building Pressure	MONITOR	Lights Button(s)	MONITOR & CONTROL
Fans Building(s)	MONITOR & CONTROL	Wash Button	MONITOR & CONTROL





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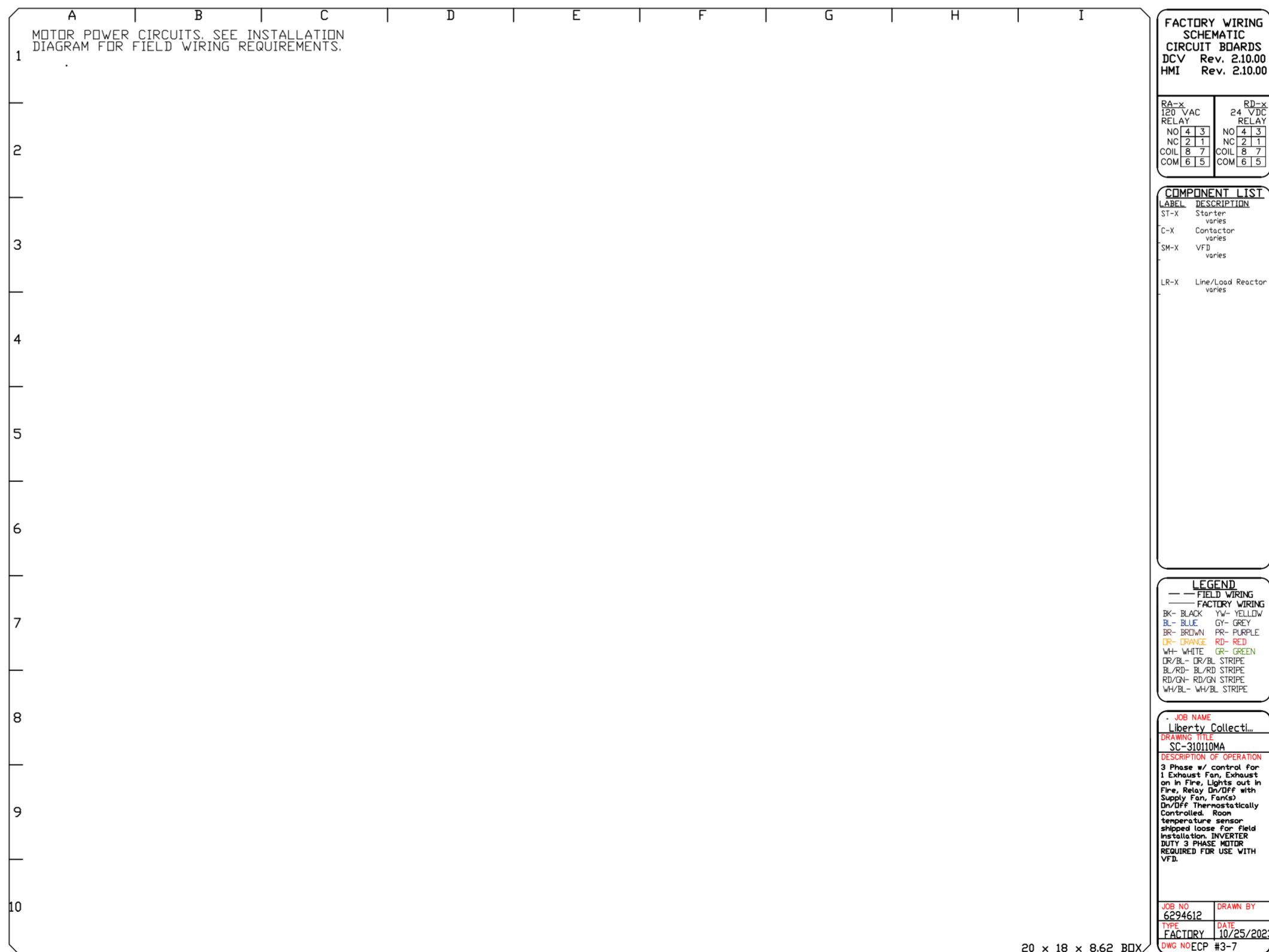
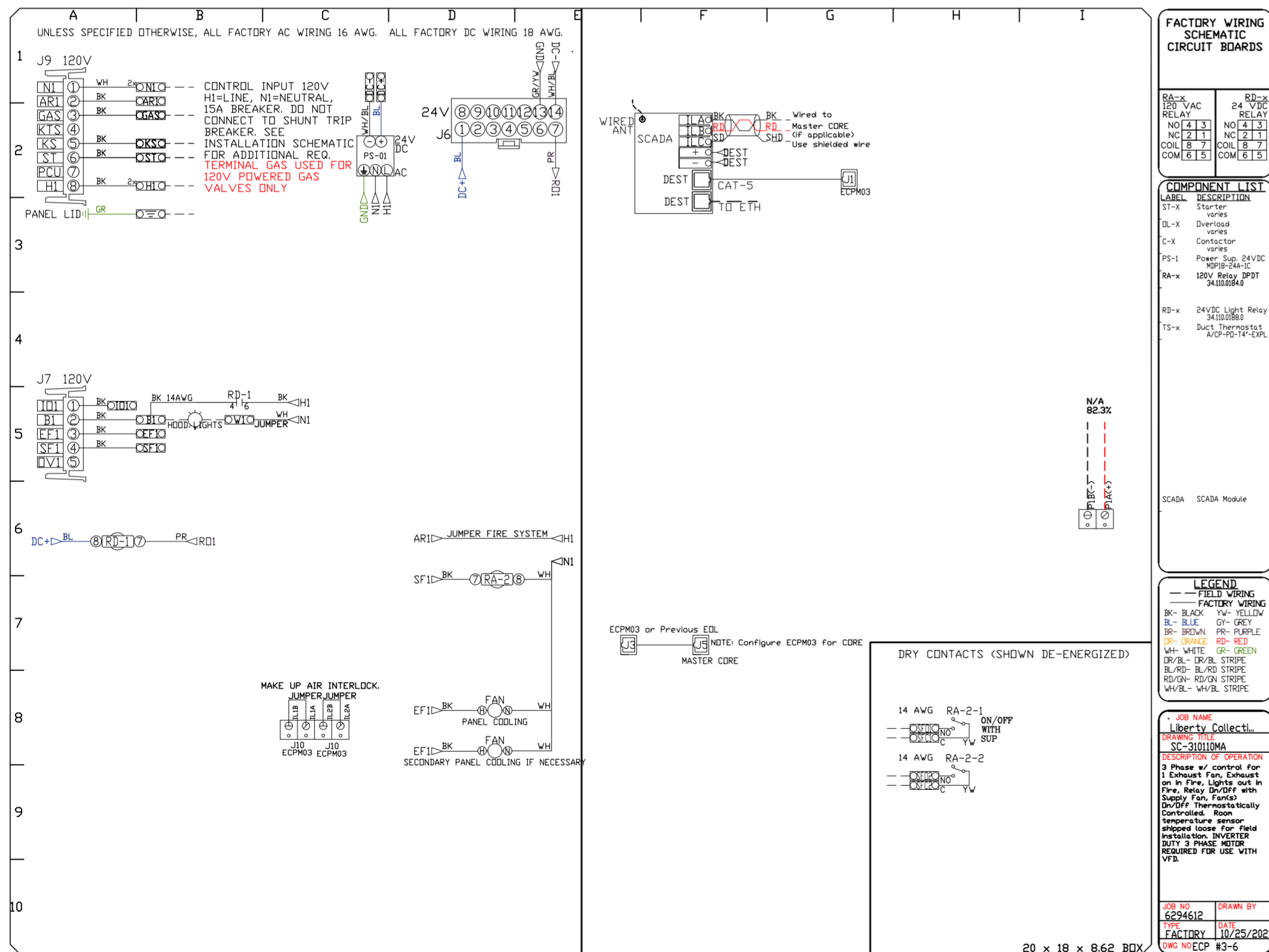
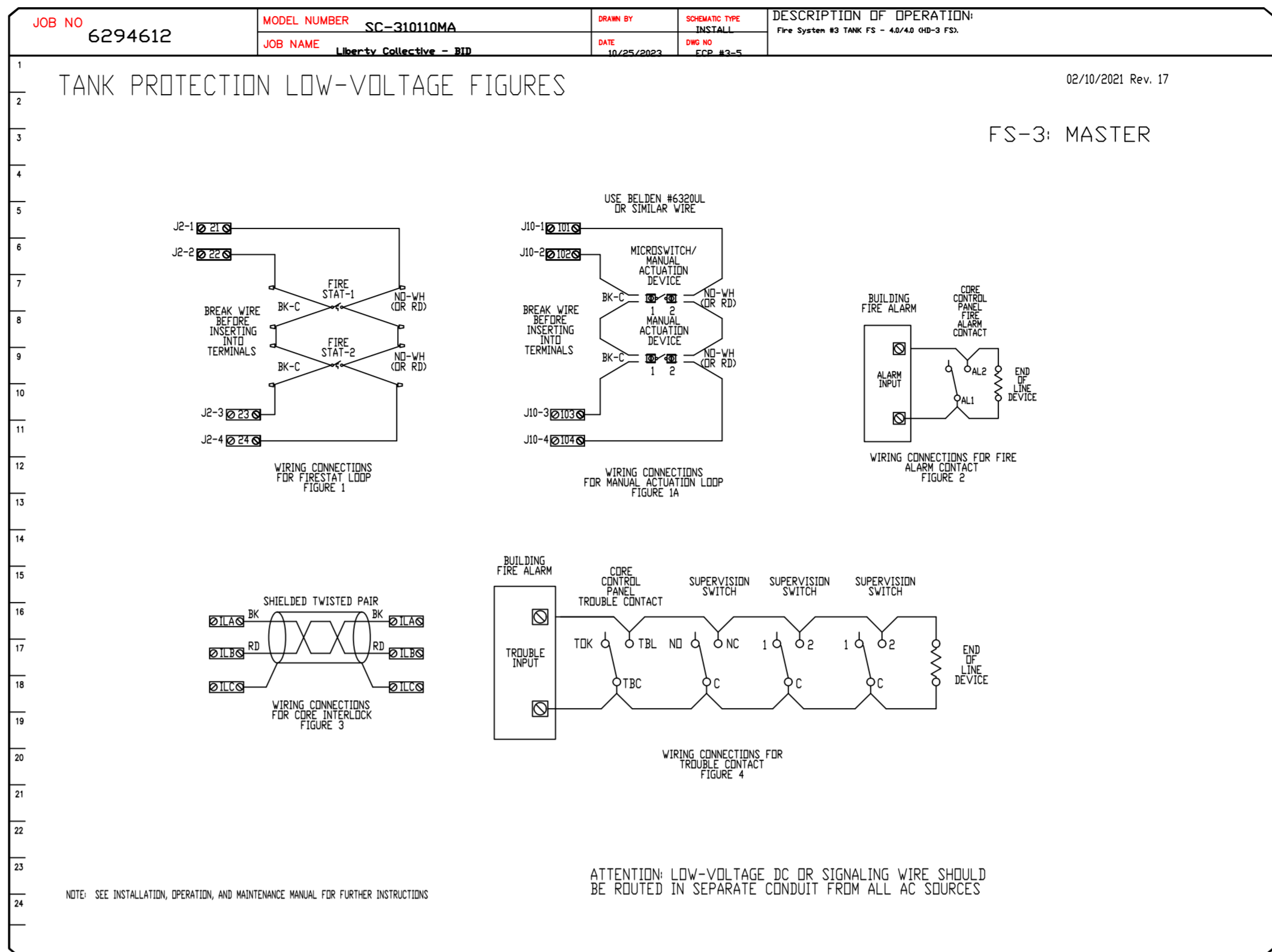
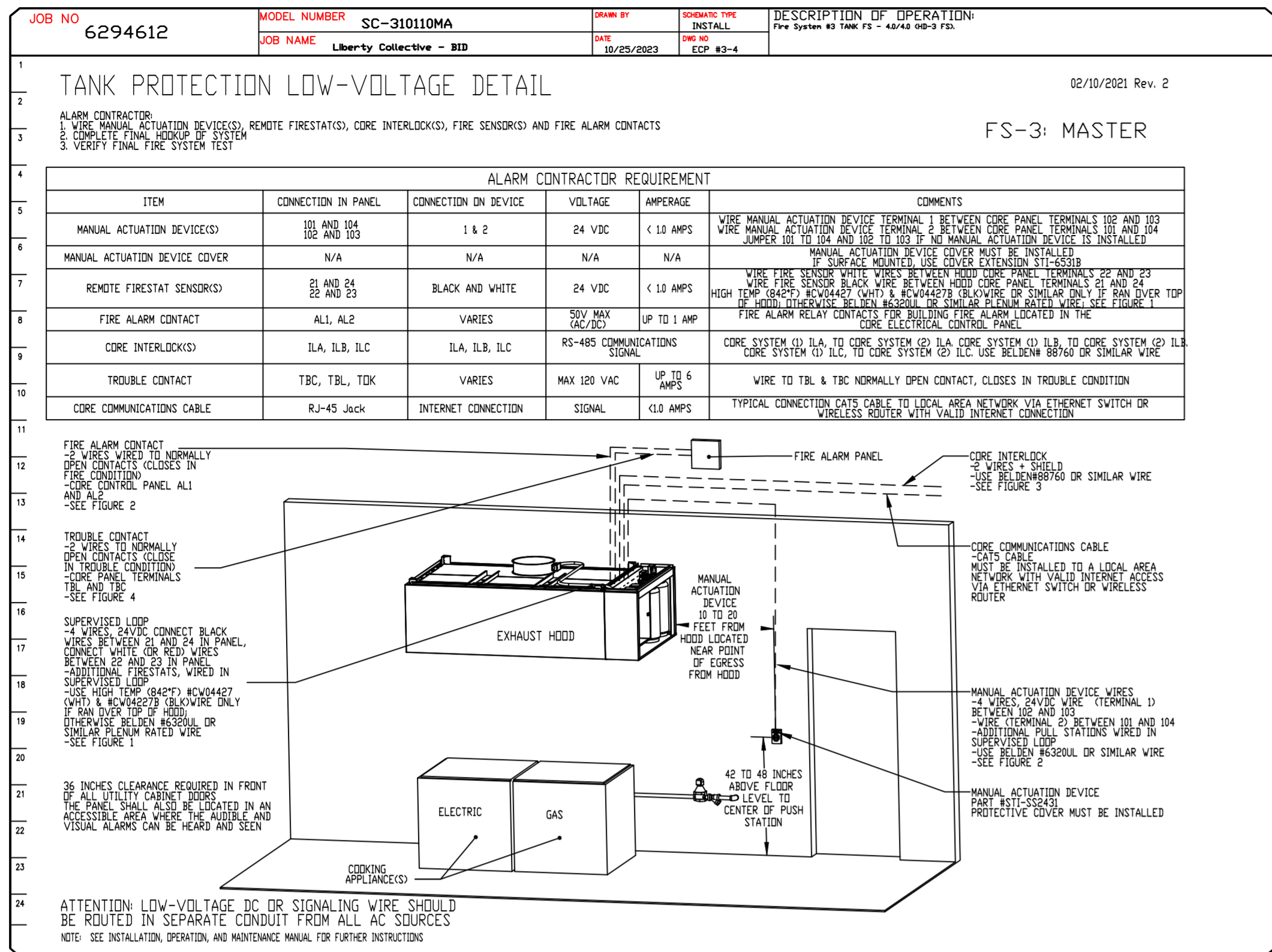
DWG.#: 6294612

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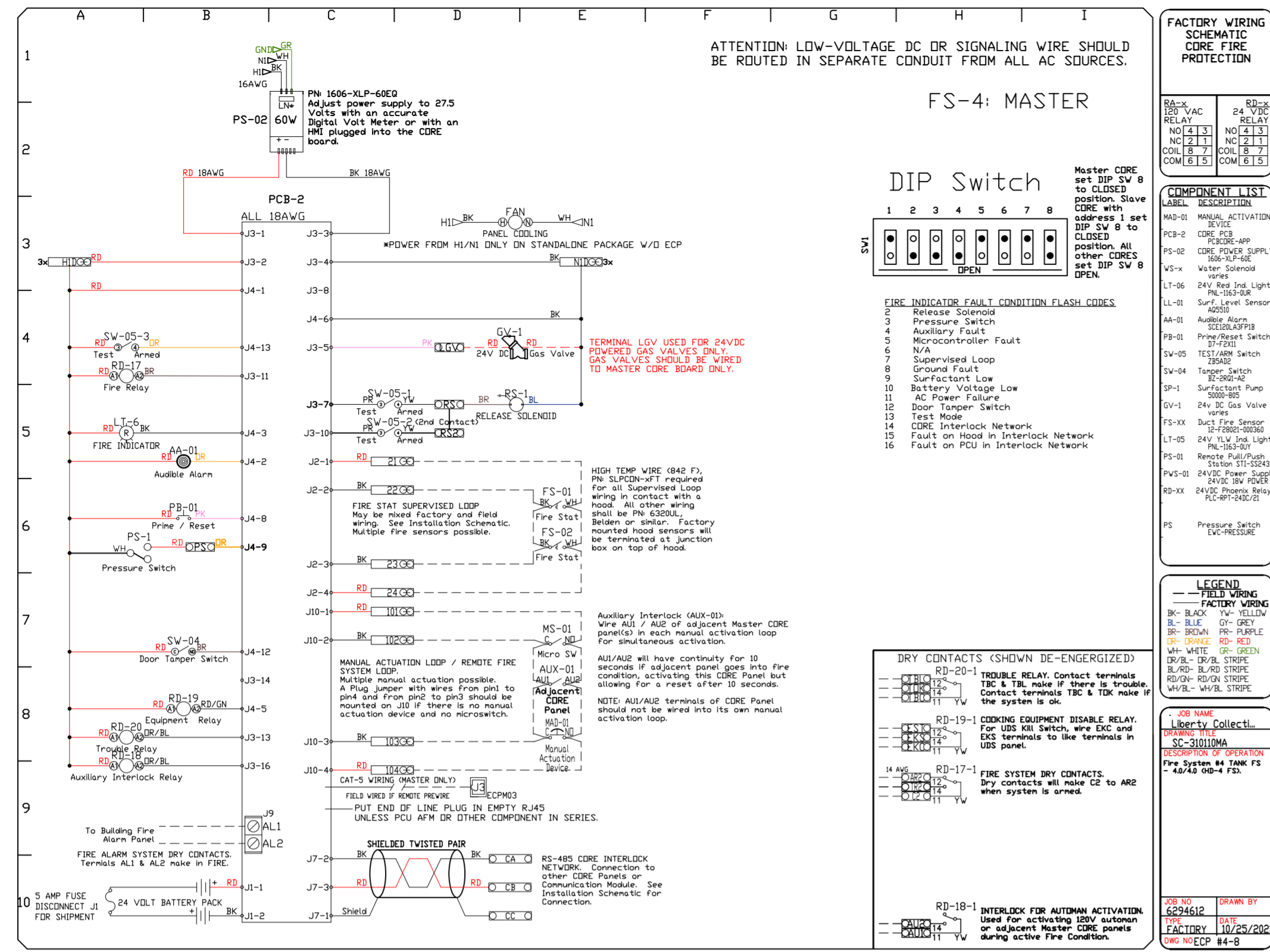
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SCALE: 3/4" = 1'-0"

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DWG.#: 6294612

DRAWN BY: grant.homan

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

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17

DUCTWORK #1 PARTS - JOB#6294612 DOUBLE WALL DUCT-1

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1211DWLT-2R-S	1350				-0.006	13.08	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 11' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P2 ASSEMBLED W/P3	DW12DWTEASY-2R-S	1350		1		-0.1418	34.13	1718.87	1	DOUBLE WALL DUCT - 12" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P3 ASSEMBLED W/P2 0=S	DW12DWACCD00RCOV-2R-S						18.57		1	DOUBLE WALL DUCT - 12" INNER ACCESS DOOR & 16" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P4	DW1201DWOFFSETASY-2R-S	1350				-0.004	11.20	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT RISER & 1 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P5	DW1247DWLT-2R-S	1350				-0.024	54.71	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P6	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P7	DW1247DWLT-2R-S	1350				-0.024	54.71	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P8	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P9	DW1247DWLT-2R-S	1350				-0.024	54.71	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P10	DW1247DWAJD-2R-S	1350				-0.015	83.19	1718.87	1	DOUBLE WALL ADJUSTABLE DUCT - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL 'V' CLAMPS.
P11	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P12 ASSEMBLED W/P13	DW12DWTEASY-2R-S	1350		1		-0.081	34.13	1718.87	1	DOUBLE WALL DUCT - 12" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P13 ASSEMBLED W/P12 0=S	DW12DWACCD00RCOV-2R-S						18.57		1	DOUBLE WALL DUCT - 12" INNER ACCESS DOOR & 16" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P14	DW1201DWOFFSETASY-2R-S	1350				-0.004	11.20	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT RISER & 1 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P15	DW1227DWAJD-2R-S	1350				-0.01	45.95	1718.87	1	DOUBLE WALL ADJUSTABLE DUCT - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 24.5' / ADJUSTMENT = 13.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL 'V' CLAMPS.
P16 ASSEMBLED W/P17	DW122150DWLTP-2R-S	1350				-0.011	25.78	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 21.5' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATE.
P17 ASSEMBLED W/P16 0=B	DW2312TPDBEX	1350					8.00	1718.87	1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 12" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE DD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
SYSTEM AT P17						-0.9828	0.00			
	3M-2000PLUS						0.80		3	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW12DWCLASY-2R-S						6.44		6	DUCT - 12" DUCT - 16" DOUBLE 'V' CLAMP - 2R INSULATION & SINGLE 'V' CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							528.56			

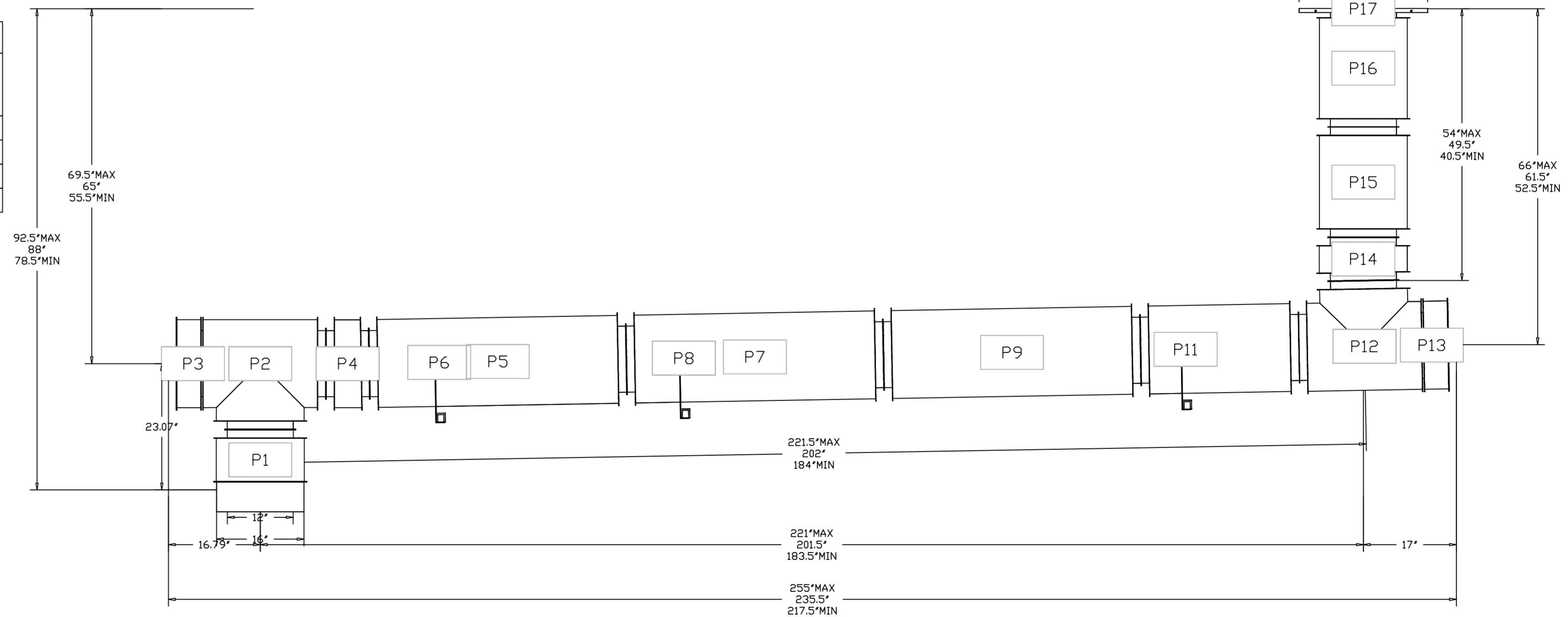
DOUBLE WALL FACTORY BUILT DUCTWORK

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

DUCTWORK #1 FRONT VIEW
DUCT-1

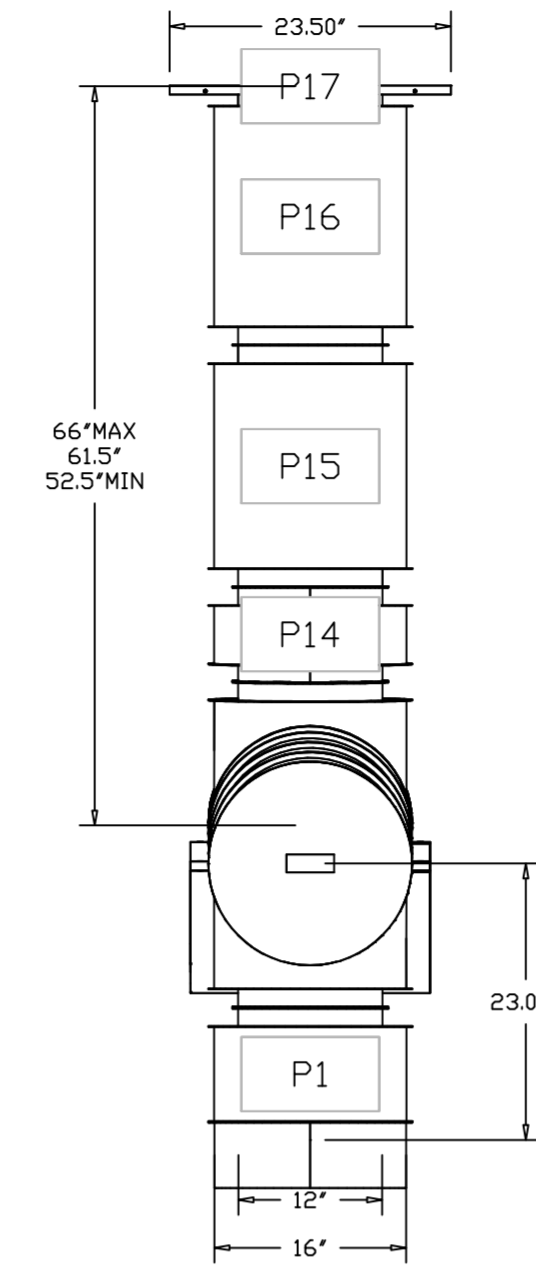
HORIZONTAL	
DUCT DIAMETER	SUPPORT SPACING (FT)
5'	7'
6'	7'
7'	7'
8'	7'
10'	7'
12'	7'
14'	7'
16'	7'
18'	5'
20'	5'
22'	5'
24'	5'
26'	5'
28'	5'
30'	5'
32'	5'
34'	5'
36'	5'

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



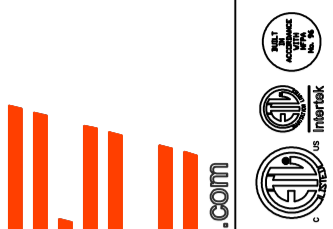
DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

DUCTWORK #1 SIDE VIEW
DUCT-1



REVISIONS

DESCRIPTION	DATE



CAPTIVE AIR
www.captiveaire.com
Westem OH Mechanical
Cincinnati, OH, 45258 PHONE: (619) 275 - 4988 FAX: 9195188748 EMAIL: reg133@captiveaire.com

Liberty Collective - BID
Hamilton, OH, 45011

DATE: 10/25/2023

DWG.# 6294612

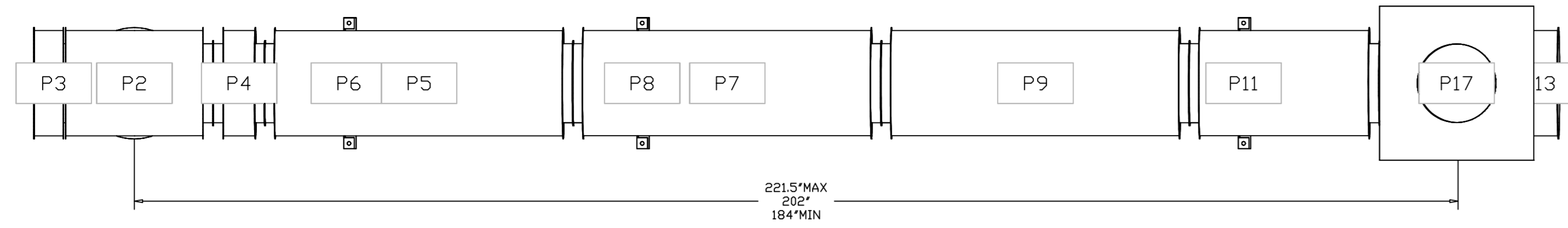
DRAWN BY: grant.homan

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

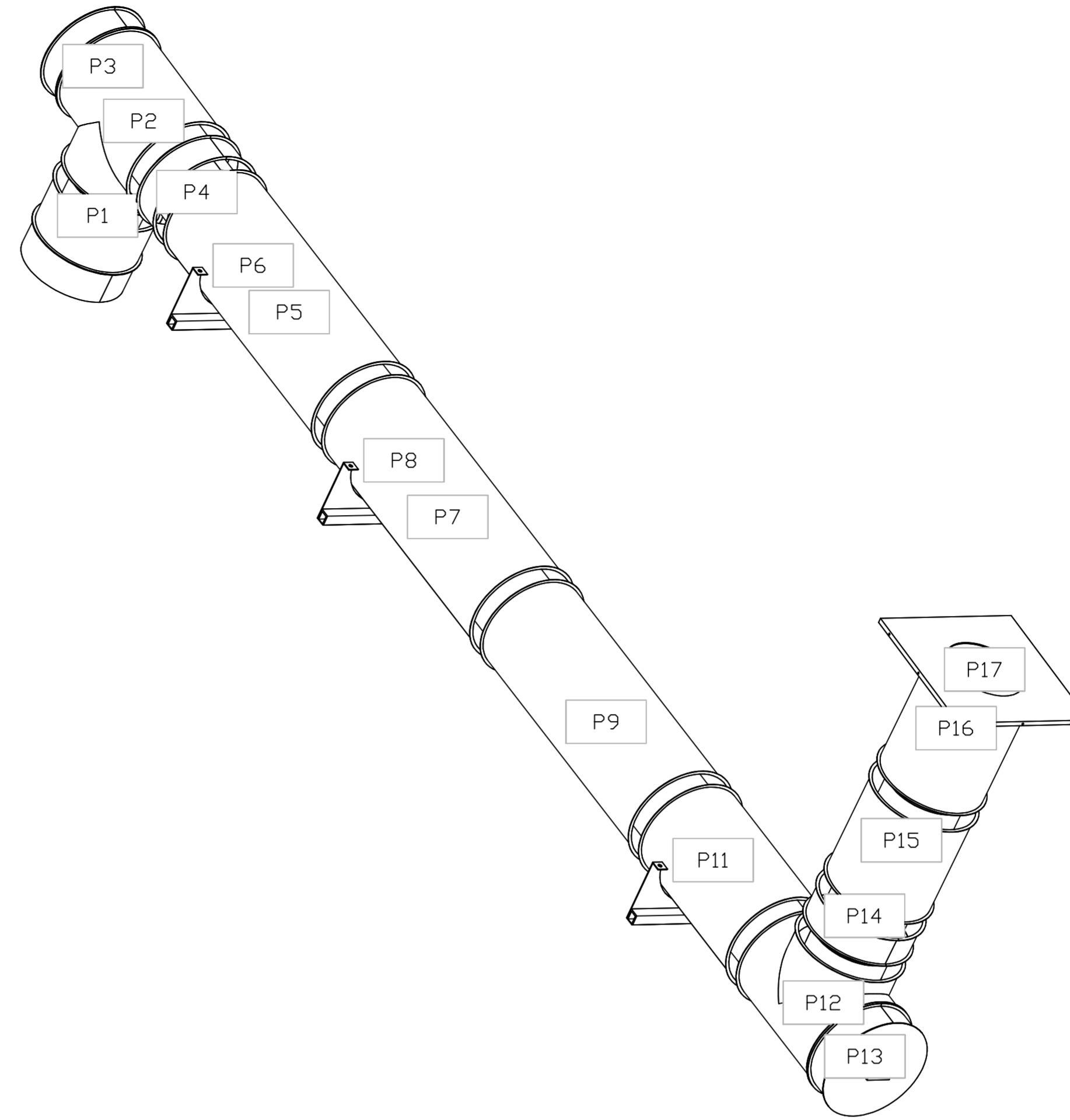
MASTER DRAWING

SHEET NO. 18

DUCTWORK #1 TOP VIEW
DUCT-1

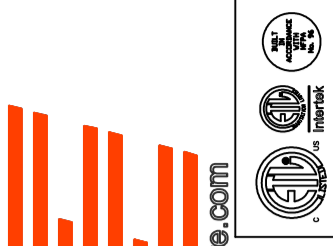


DUCTWORK #1 SE VIEW
DUCT-1



REVISIONS

DESCRIPTION	DATE



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CAPTIVE AIR

Liberty Collective - BID
Hamilton, OH, 45011

DATE: 10/25/2023

DWG.#
6294612

DRAWN BY: grant.homan

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

MASTER DRAWING

SHEET NO.

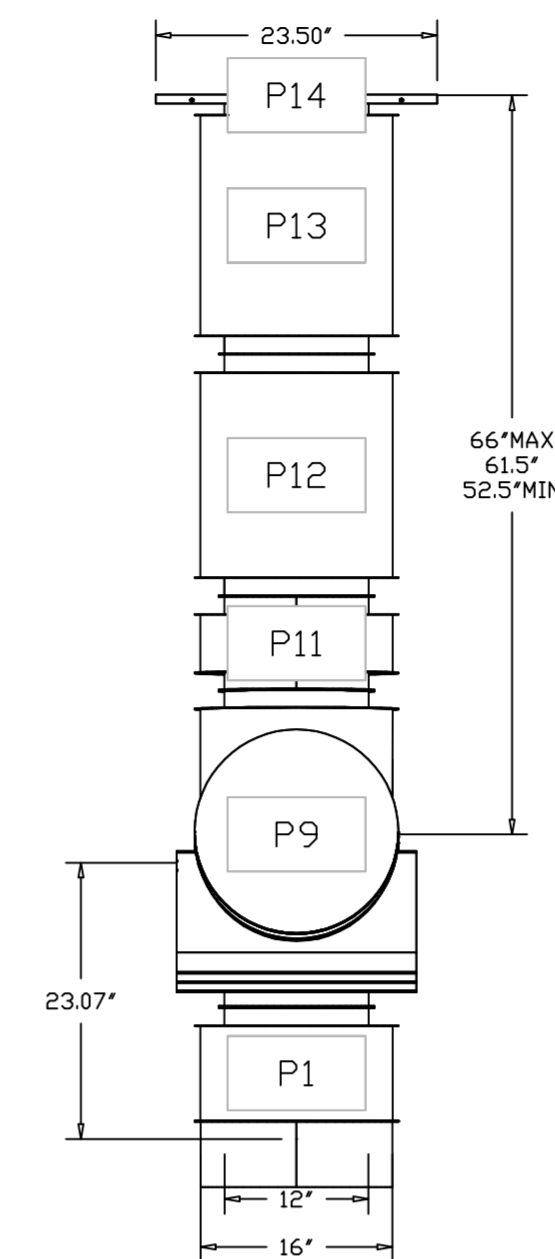
19

, Cincinnati, OH, 45258 PHONE: (619) 275 - 4988 FAX: (619) 275 - 4988 EMAIL: reg133@captiveair.com

DUCTWORK #2 PARTS - JOB#6294612 DOUBLE WALL DUCT-2

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1211DWLT-2R-S	1350				-0.006	13.08	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 11' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P2 ASSEMBLED W/P16	DW12DWTEASY-2R-S	1350		1		-0.1418	34.13	1718.87	1	DOUBLE WALL DUCT - 12" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P3	DW1201DWOFFSETASY-2R-S	1350				-0.004	11.20	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT RISER & 1 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P4	DW1247DWLT-2R-S	1350				-0.024	54.71	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P5	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P6	DW1247DWLT-2R-S	1350				-0.024	54.71	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P7	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P8	DW1247DWAJD-2R-S	1350				-0.015	83.19	1718.87	1	DOUBLE WALL ADJUSTABLE DUCT - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL 'V' CLAMPS.
P9 ASSEMBLED W/P10	DW12DWTEASY-2R-S	1350		1		-0.081	34.13	1718.87	1	DOUBLE WALL DUCT - 12" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P10 ASSEMBLED W/P9 D=S	DW12DWACCDORCOV-2R-S						18.57		1	DOUBLE WALL DUCT - 12" INNER ACCESS DOOR & 16" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P11	DW1201DWOFFSETASY-2R-S	1350				-0.004	11.20	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT RISER & 1 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P12	DW1227DWAJD-2R-S	1350				-0.01	45.95	1718.87	1	DOUBLE WALL ADJUSTABLE DUCT - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 24.5' / ADJUSTMENT = 13.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL 'V' CLAMPS.
P13 ASSEMBLED W/P14	DW122150DWLTP-2R-S	1350				-0.011	25.78	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 21.5' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATE.
P14 ASSEMBLED W/P13 D=B	DW2312TPDBEX	1350					8.00	1718.87	1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 12" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE DD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
SYSTEM AT P14						-0.9588	0.00			
P15	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P16 ASSEMBLED W/P2 D=S	DW12DWACCDORCOV-2R-S						18.57		1	DOUBLE WALL DUCT - 12" INNER ACCESS DOOR & 16" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
	3M-2000PLUS						0.80		3	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW12DWCLASY-2R-S						6.44		5	DUCT - 12" DUCT - 16" DOUBLE 'V' CLAMP - 2R INSULATION & SINGLE 'V' CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							467.41			

DUCTWORK #2 SIDE VIEW DUCT-2



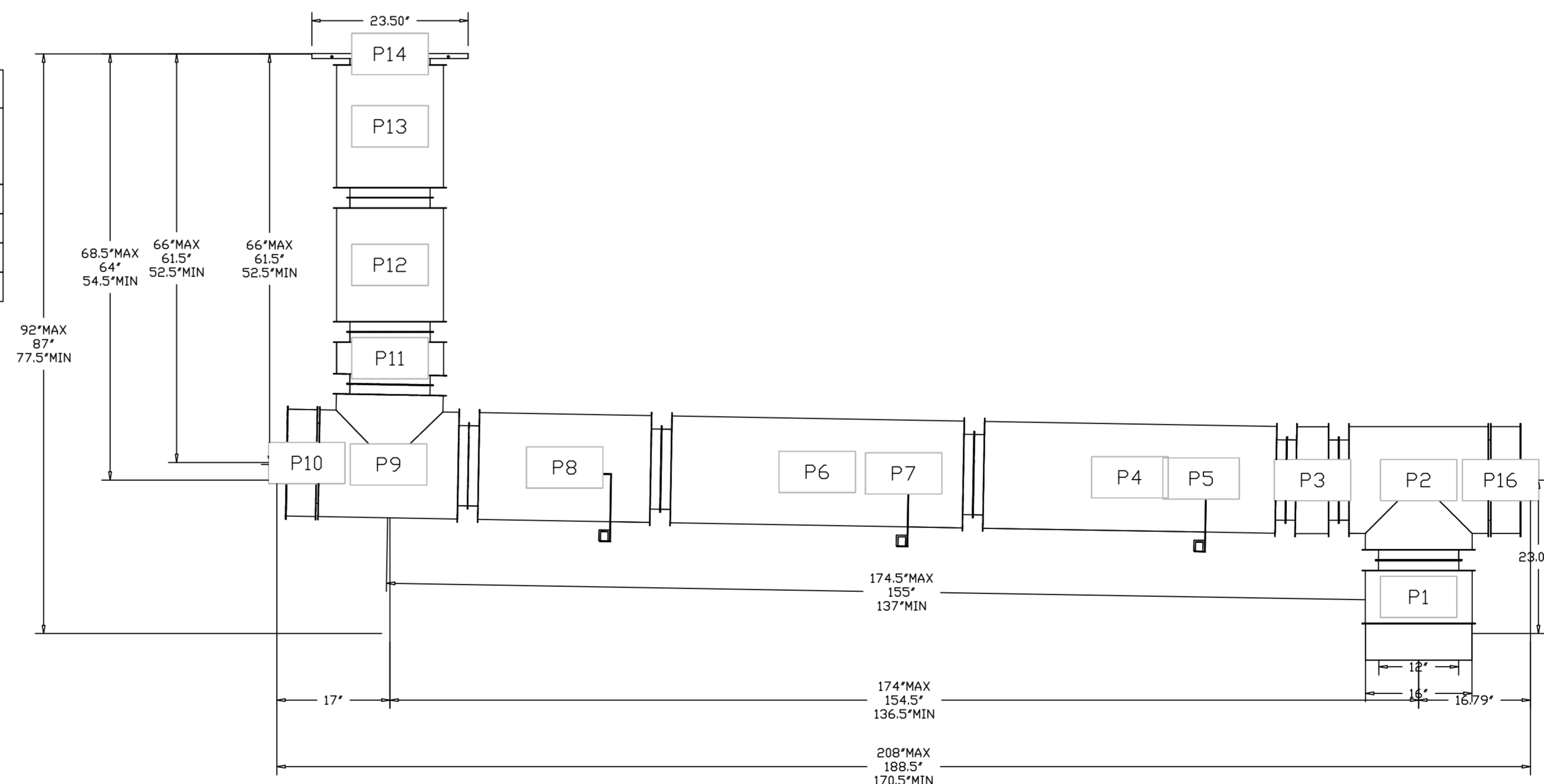
DOUBLE WALL FACTORY BUILT DUCTWORK

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

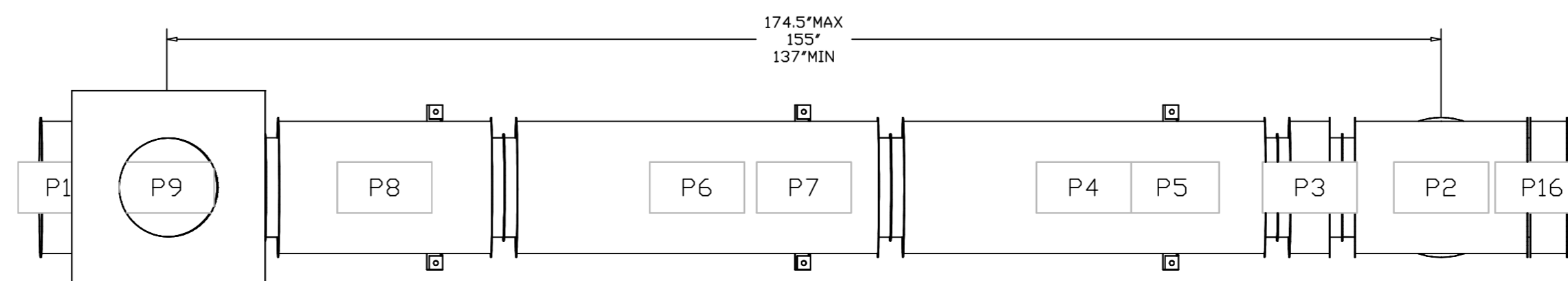
DUCTWORK #2 FRONT VIEW DUCT-2

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

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



DUCTWORK #2 TOP VIEW DUCT-2



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

REVISIONS	
DESCRIPTION	DATE

www.captiveaire.com
Western OH Mechanical
Cincinnati, OH, 45258 PHONE: (619) 275 - 4988 FAX: 9195188748 EMAIL: reg133@captiveaire.com

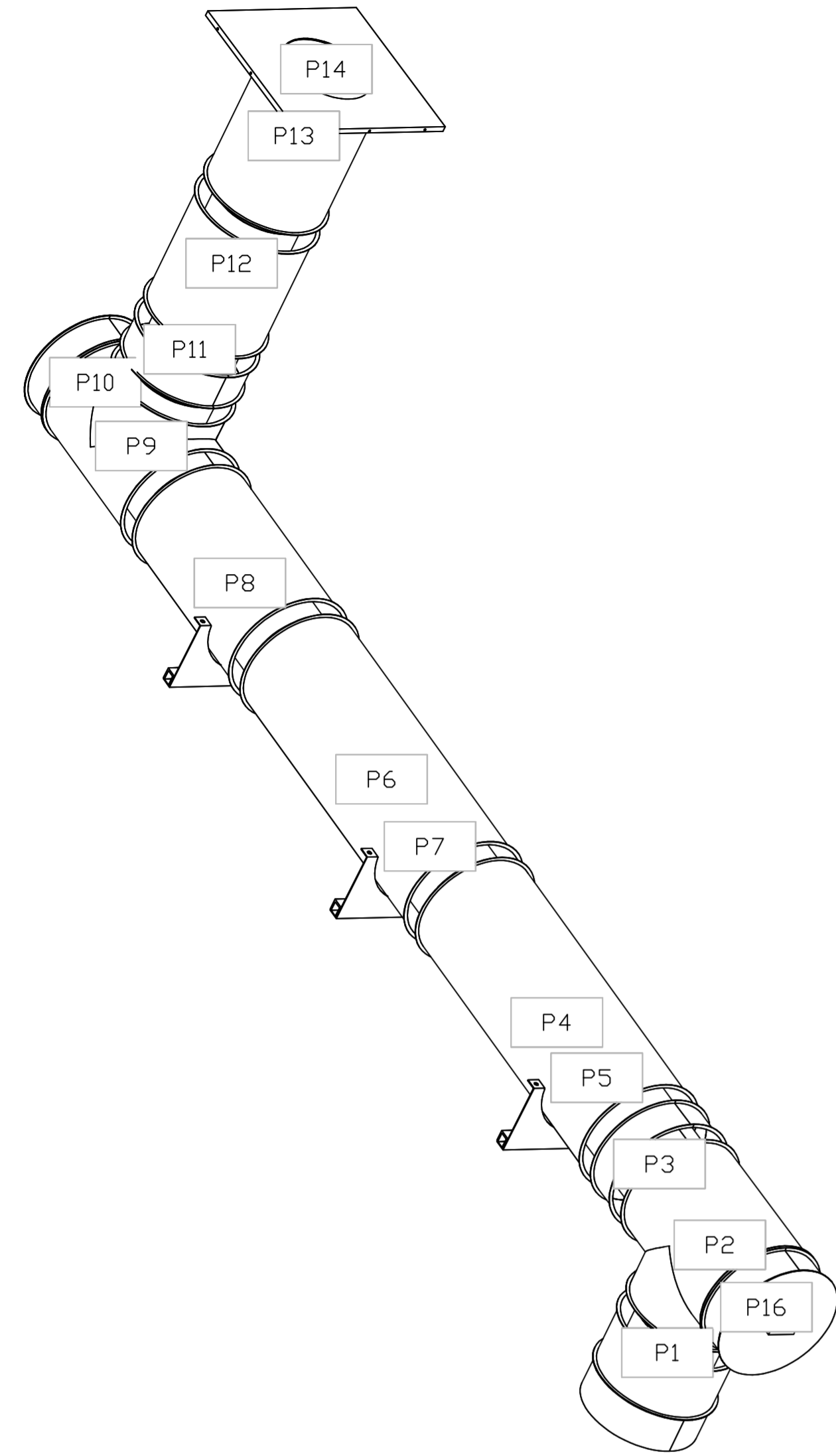
CAPTIVEAIRE

Liberty Collective - BID
Hamilton, OH, 45011

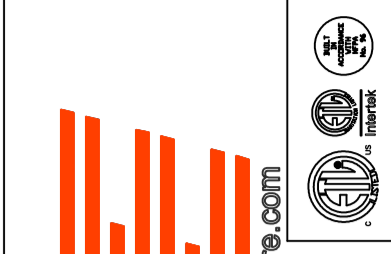
DATE: 10/25/2023
DWG.#: 6294612
DRAWN BY: grant.homan
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
20

DUCTWORK #2 SE VIEW
 DUCT-2



REVISIONS	
DESCRIPTION	DATE



CAPTIVE

Western OH Mechanical
 www.captive.com
 Cincinnati, OH 45228 PHONE: (619) 275-4988 FAX: (619) 275-4988 EMAIL: reg133@captive.com

Liberty Collective - BID
 Hamilton, OH, 45011

DATE: 10/25/2023

DWG.#
 6294612

DRAWN BY: grant.homan

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

MASTER DRAWING

SHEET NO.
 21

DUCTWORK #3 PARTS - JOB#6294612 DOUBLE WALL DUCT-3

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1211DWLT-2R-S	1350				-0.006	13.08	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 11' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P2	DW12DWTEASY-2R-S	1350		1		-0.1418	34.13	1718.87	1	DOUBLE WALL DUCT - 12" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P3	DW12DWACCDORCOV-2R-S						18.57		1	DOUBLE WALL DUCT - 12" INNER ACCESS DOOR & 16" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P4	DW1201DWOFFSETASY-2R-S	1350				-0.004	11.20	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT RISER & 1 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P5	DW1247DWLT-2R-S	1350				-0.024	54.71	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P6	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P7	DW1247DWLT-2R-S	1350				-0.024	54.71	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P8	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P9	DW1247DWLT-2R-S	1350				-0.024	54.71	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P10	DW1247DWAJD-2R-S	1350				-0.015	83.19	1718.87	1	DOUBLE WALL ADJUSTABLE DUCT - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL 'V' CLAMPS.
P11	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P12	DW12DWTEASY-2R-S	1350		1		-0.081	34.13	1718.87	1	DOUBLE WALL DUCT - 12" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P13	DW12DWACCDORCOV-2R-S						18.57		1	DOUBLE WALL DUCT - 12" INNER ACCESS DOOR & 16" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P14	DW1201DWOFFSETASY-2R-S	1350				-0.004	11.20	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT RISER & 1 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P15	DW1227DWAJD-2R-S	1350				-0.01	45.95	1718.87	1	DOUBLE WALL ADJUSTABLE DUCT - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 24.5' / ADJUSTMENT = 13.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL 'V' CLAMPS.
P16	DW122150DWLTP-2R-S	1350				-0.011	25.78	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 21.5' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATE.
P17	DW2312TPDBEX	1350					8.00	1718.87	1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 12" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE DD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
SYSTEM AT P17						-0.9828	0.00			
	3M-2000PLUS						0.80		3	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW12DWCLASY-2R-S						6.44		6	DUCT - 12" DUCT - 16" DOUBLE 'V' CLAMP - 2R INSULATION & SINGLE 'V' CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							528.56			

DOUBLE WALL FACTORY BUILT DUCTWORK

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

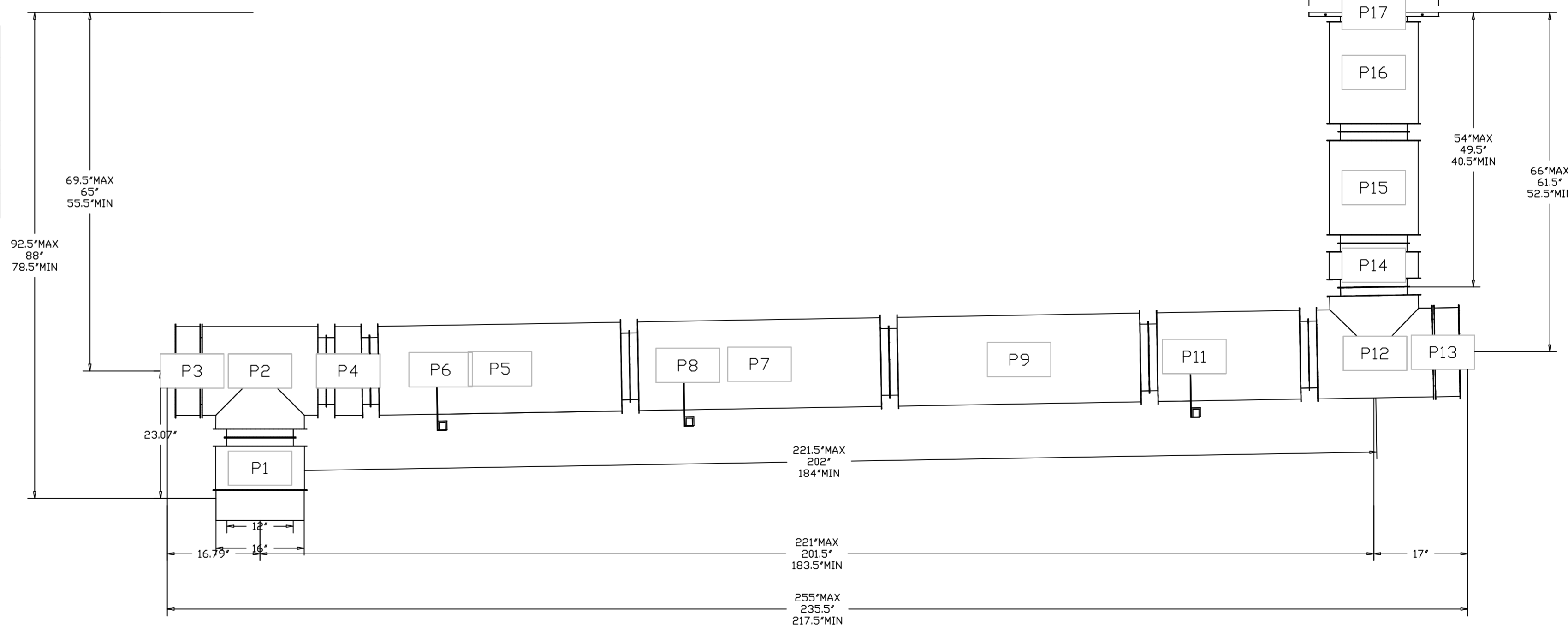
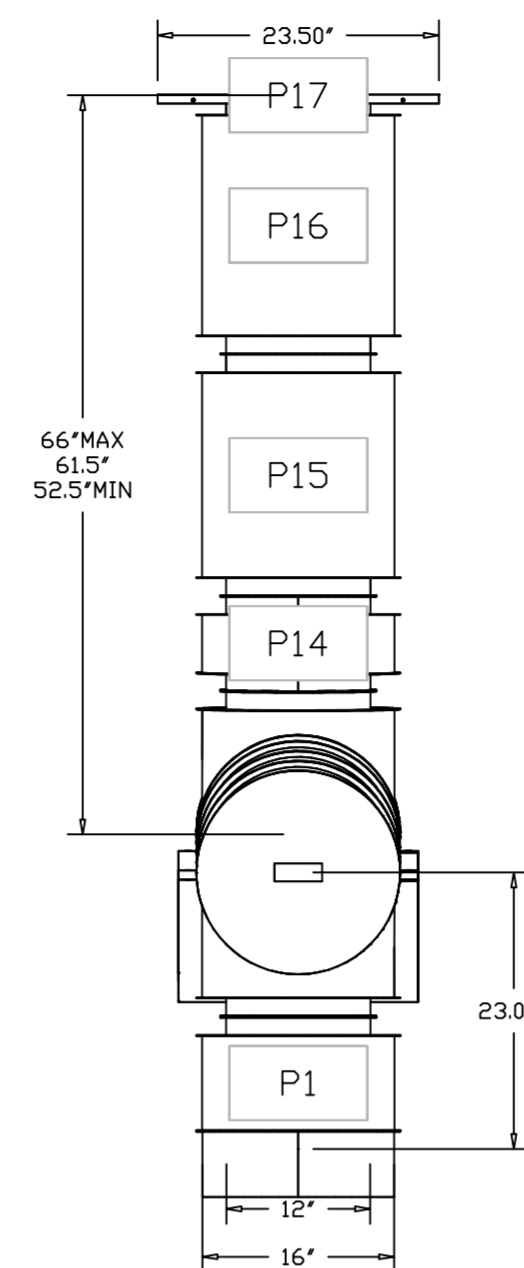
DUCTWORK #3 FRONT VIEW DUCT-3

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

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

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

DUCTWORK #3 SIDE VIEW DUCT-3



REVISIONS

DESCRIPTION	DATE

CAPTIVEAIRE

Western OH Mechanical
www.captiveaire.com
www.captiveaire.com

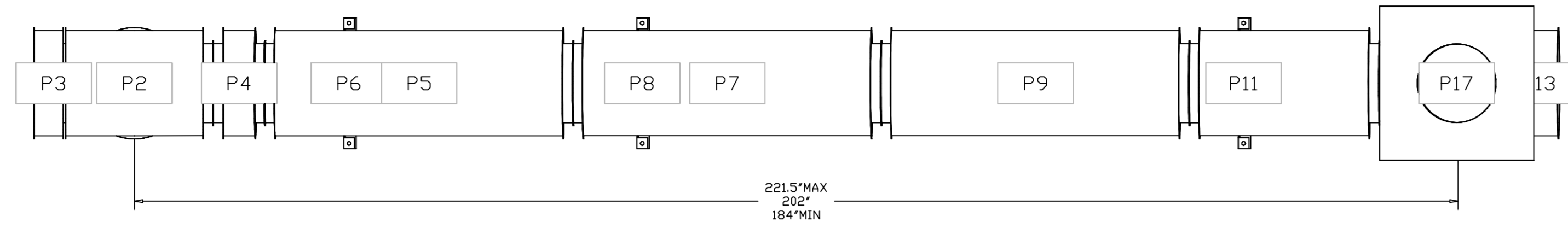
Cincinnati, OH, 45228 PHONE: (619) 275 - 4988 FAX: 9195188748 EMAIL: reg133@captiveaire.com

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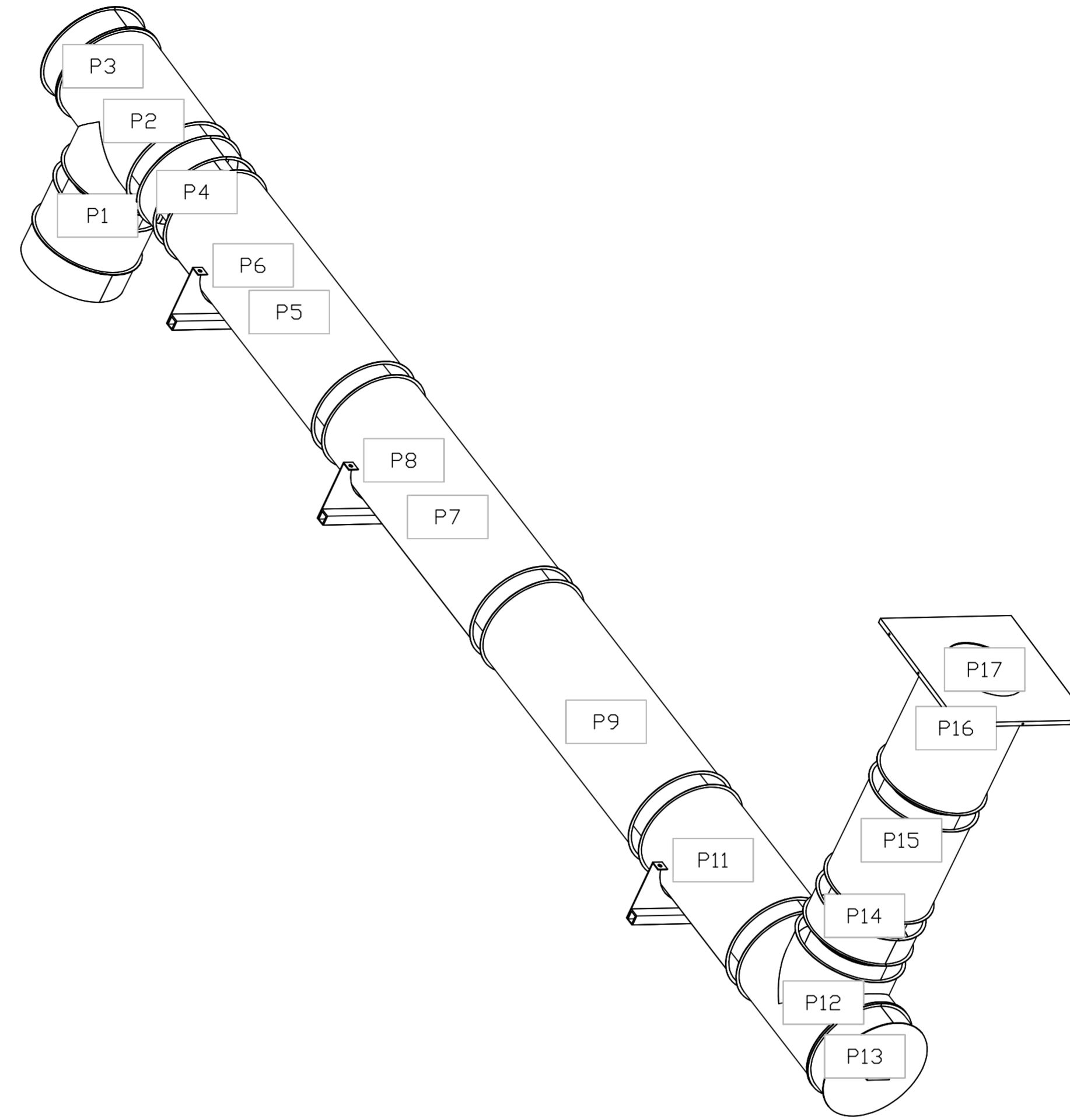
DATE: 10/25/2023
DWG.#: 6294612
DRAWN BY: grant.homan
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 22

DUCTWORK #3 TOP VIEW
DUCT-3



DUCTWORK #3 SE VIEW
DUCT-3



REVISIONS	
DESCRIPTION	DATE

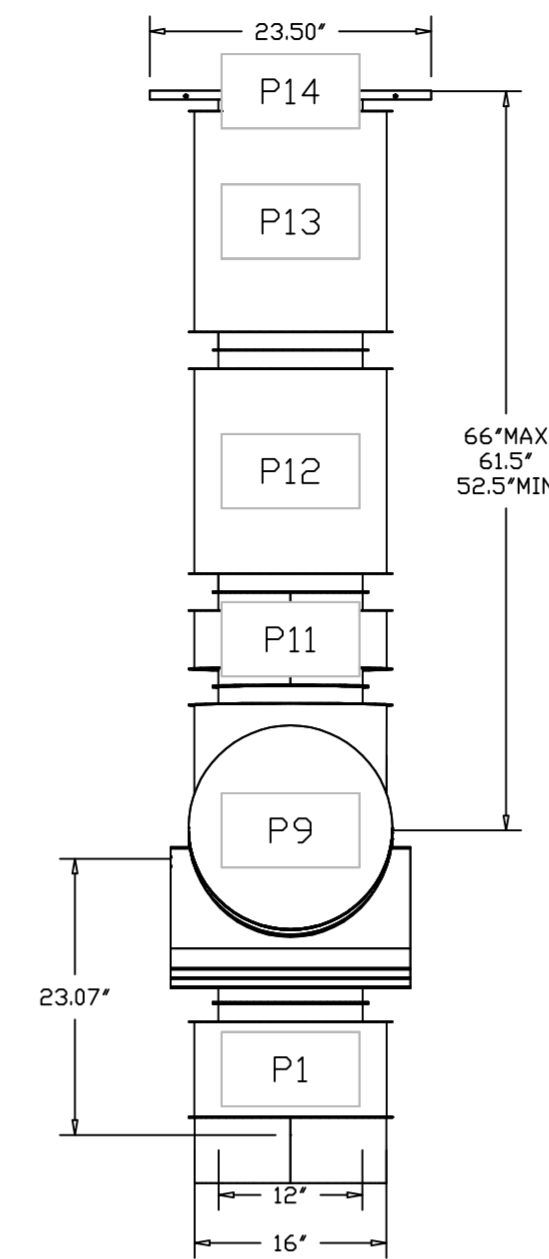
Western OH Mechanical
www.captive.com
Cincinnati, OH, 45258 PHONE: (619) 275 - 4988 FAX: (619) 275 - 4988 EMAIL: reg133@captive.com

Liberty Collective - BID Hamilton, OH, 45011
DATE: 10/25/2023
DWG.#: 6294612
DRAWN BY: grant.homan
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 23

DUCTWORK #4 PARTS - JOB#6294612 DOUBLE WALL DUCT-4

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1211DWLT-2R-S	1350				-0.006	13.08	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 11' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P2 ASSEMBLED W/P16	DW12DWTEASY-2R-S	1350		1		-0.1418	34.13	1718.87	1	DOUBLE WALL DUCT - 12" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P3	DW1201DWOFFSETASY-2R-S	1350				-0.004	11.20	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT RISER & 1 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P4	DW1247DWLT-2R-S	1350				-0.024	54.71	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P5	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P6	DW1247DWLT-2R-S	1350				-0.024	54.71	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P7	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P8	DW1247DWAJD-2R-S	1350				-0.015	83.19	1718.87	1	DOUBLE WALL ADJUSTABLE DUCT - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL 'V' CLAMPS.
P9 ASSEMBLED W/P10	DW12DWTEASY-2R-S	1350		1		-0.081	34.13	1718.87	1	DOUBLE WALL DUCT - 12" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P10 ASSEMBLED W/P9 D=S	DW12DWACCDORCOV-2R-S						18.57		1	DOUBLE WALL DUCT - 12" INNER ACCESS DOOR & 16" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P11	DW1201DWOFFSETASY-2R-S	1350				-0.004	11.20	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT RISER & 1 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P12	DW1227DWAJD-2R-S	1350				-0.01	45.95	1718.87	1	DOUBLE WALL ADJUSTABLE DUCT - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 24.5' / ADJUSTMENT = 13.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL 'V' CLAMPS.
P13 ASSEMBLED W/P14	DW122150DWLTP-2R-S	1350				-0.011	25.78	1718.87	1	DOUBLE WALL DUCT - 12" INNER DUCT, 21.5' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATE.
P14 ASSEMBLED W/P13 D=B	DW2312TPDBEX	1350					8.00	1718.87	1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 12" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE DD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
SYSTEM AT P14						-0.9588	0.00			
P15	DW1620SADKIT						6.53		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 16" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1620SAD, & HARDWARE BAG 4.
P16 ASSEMBLED W/P2 D=S	DW12DWACCDORCOV-2R-S						18.57		1	DOUBLE WALL DUCT - 12" INNER ACCESS DOOR & 16" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
	3M-2000PLUS						0.80		3	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW12DWCLASY-2R-S						6.44		5	DUCT - 12" DUCT - 16" DOUBLE 'V' CLAMP - 2R INSULATION & SINGLE 'V' CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							467.41			

DUCTWORK #4 SIDE VIEW DUCT-4



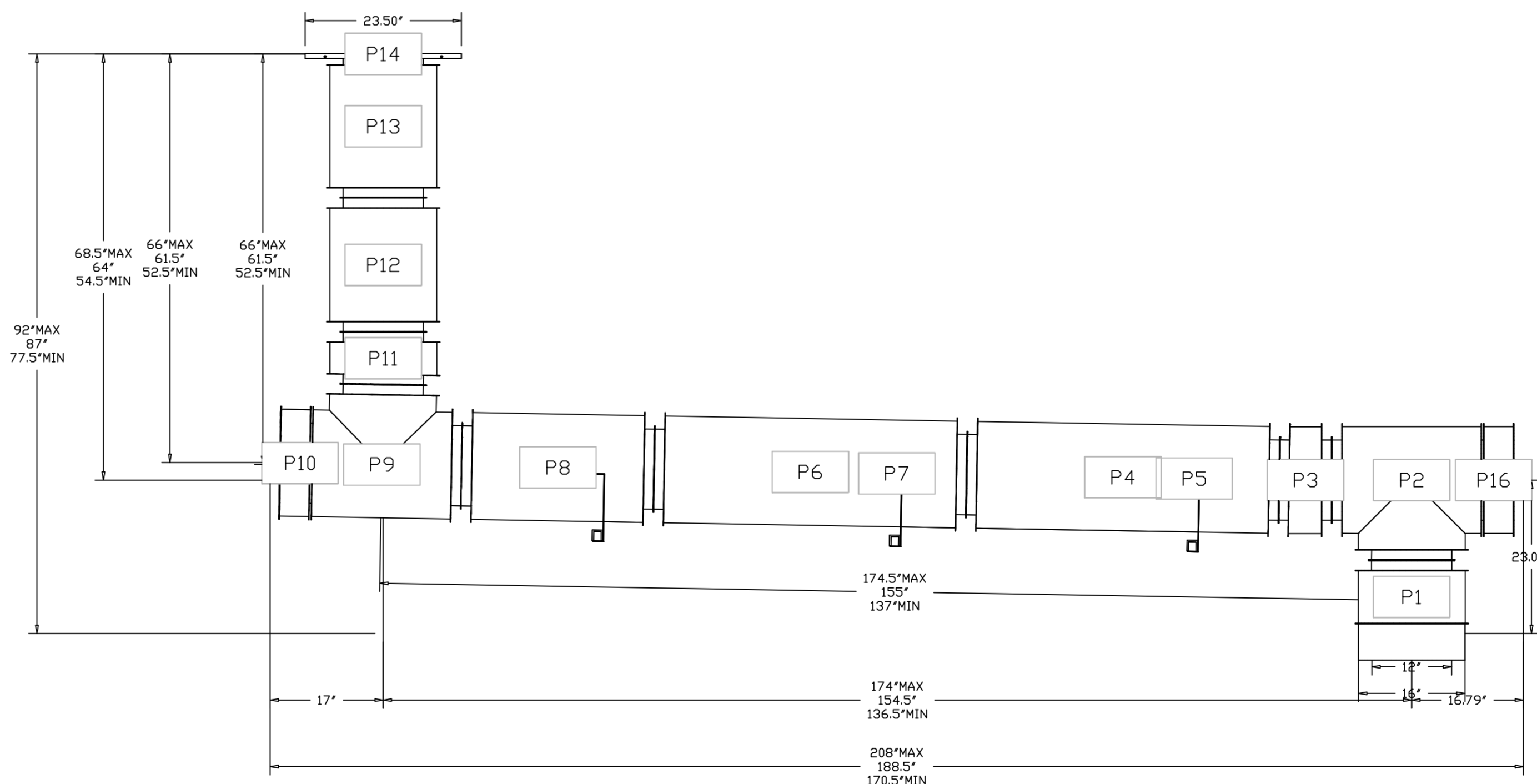
DOUBLE WALL FACTORY BUILT DUCTWORK

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

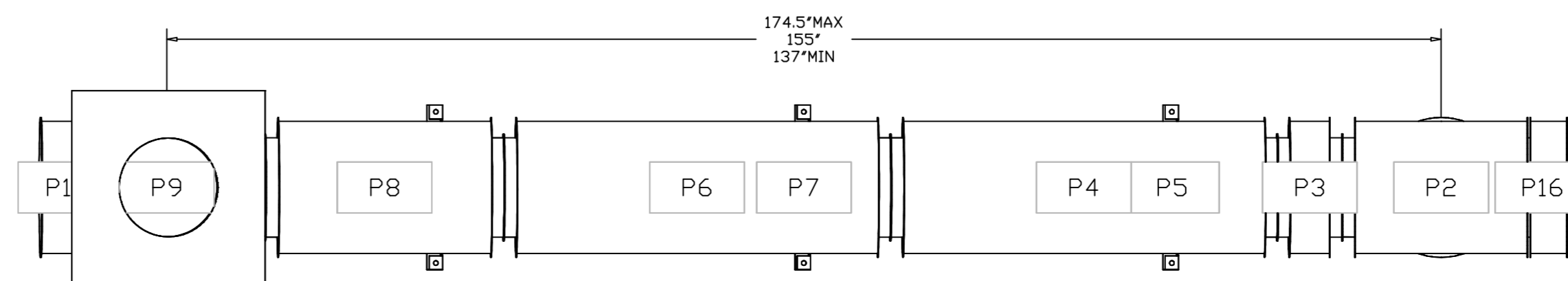
DUCTWORK #4 FRONT VIEW DUCT-4

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

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



DUCTWORK #4 TOP VIEW DUCT-4



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

REVISIONS	
DESCRIPTION	DATE

www.captiveaire.com
Western OH Mechanical
Cincinnati, OH, 45258 PHONE: (619) 275 - 4988 FAX: 9195188748 EMAIL: reg133@captiveaire.com

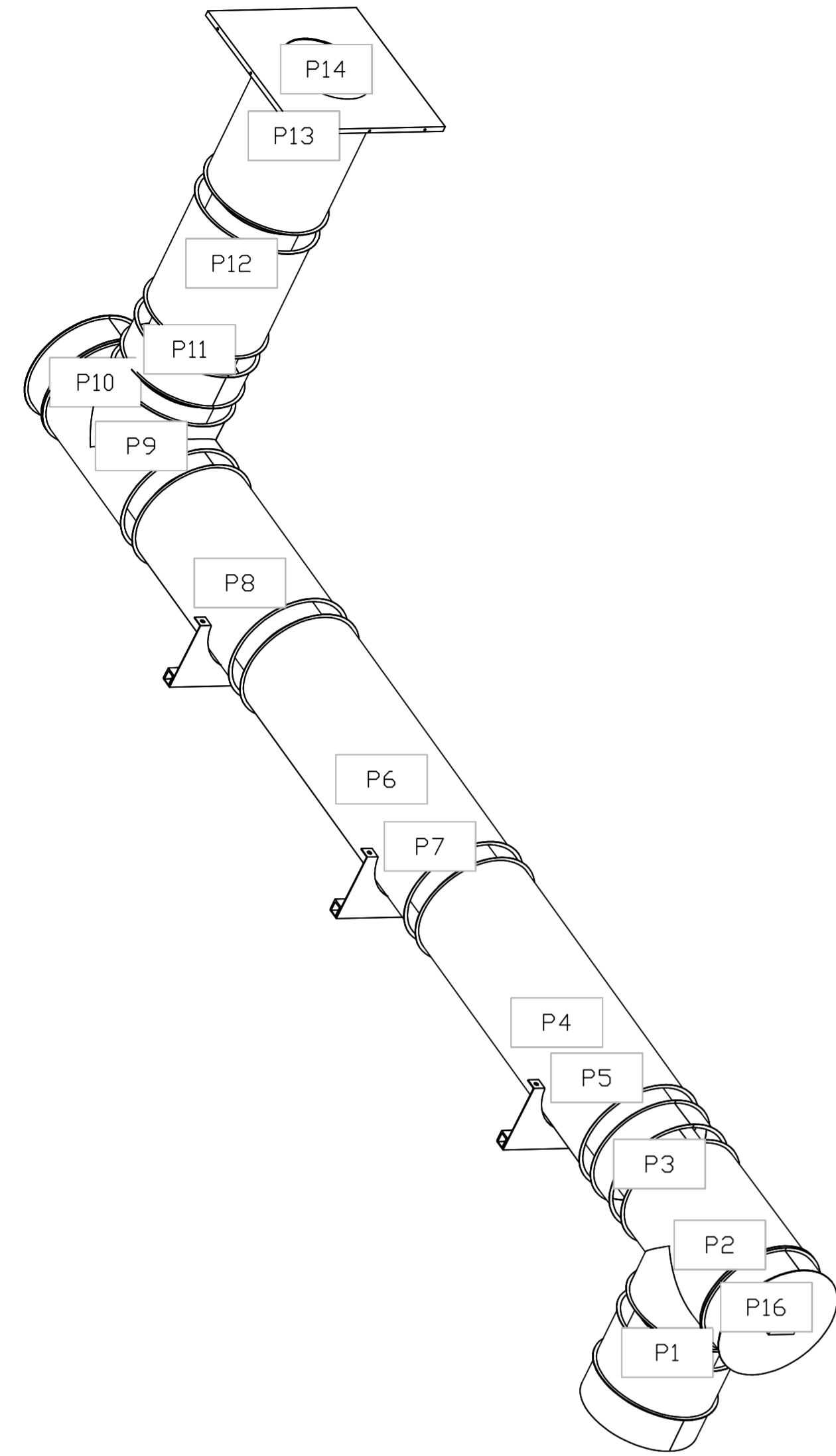
CAPTIVEAIRE

Liberty Collective - BID
Hamilton, OH, 45011

DATE: 10/25/2023
DWG.#: 6294612
DRAWN BY: grant.homan
SCALE: 3/4" = 1'-0"
MASTER DRAWING

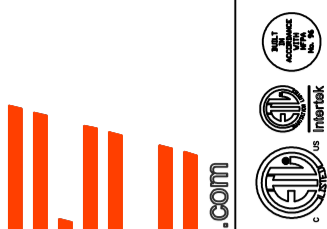
SHEET NO. 24

DUCTWORK #4 SE VIEW
DUCT-4



REVISIONS

DESCRIPTION	DATE



Liberty Collective - BID
Hamilton, OH, 45011

DATE: 10/25/2023

DWG.#
6294612

DRAWN BY: grant.homan

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

MASTER DRAWING

SHEET NO.
25

DUCTWORK #5 PARTS - JOB#6294612 DOUBLE WALL DUCT-PIZZA

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1447DWAJD-2R-S						93.18		1	DOUBLE WALL ADJUSTABLE DUCT - 14" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL *V* CLAMPS.
P2 ASSEMBLED W/P3	DW14DWTEASY-2R-S			1			41.37		1	DOUBLE WALL DUCT - 14" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P3 ASSEMBLED W/P2 D=S	DW14DWACCDORCOV-2R-S						22.25		1	DOUBLE WALL DUCT - 14" INNER ACCESS DOOR & 18" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P4	DW1401DWOFFSETASY-2R-S						12.97		1	DOUBLE WALL DUCT - 14" INNER DUCT RISER & 1 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P5	DW1447DWLT-2R-S						62.39		1	DOUBLE WALL DUCT - 14" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P6	DW1447DWLT-2R-S						62.39		1	DOUBLE WALL DUCT - 14" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P7	DW1822SADKIT						7.25		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 18" DD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1822SAD, & HARDWARE BAG 4.
P8	DW1447DWAJD-2R-S						93.18		1	DOUBLE WALL ADJUSTABLE DUCT - 14" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL *V* CLAMPS.
P9 ASSEMBLED W/P10	DW14DWTEASY-2R-S			1			41.37		1	DOUBLE WALL DUCT - 14" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P10 ASSEMBLED W/P9 D=S	DW14DWACCDORCOV-2R-S						22.25		1	DOUBLE WALL DUCT - 14" INNER ACCESS DOOR & 18" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P11	DW1401DWOFFSETASY-2R-S						12.97		1	DOUBLE WALL DUCT - 14" INNER DUCT RISER & 1 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P12	DW1427DWAJD-2R-S						52.12		1	DOUBLE WALL ADJUSTABLE DUCT - 14" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 24.5' / ADJUSTMENT = 13.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL *V* CLAMPS.
P13	10314THIMBLECAPASY-2R						98.27		1	CHIMNEY - 14" DOUBLE WALL CHIMNEY - 18" SHELL - CAP THIMBLE ASSEMBLY - USED ON 22.250" THROUGH PENETRATIONS - 2" CLEARANCE TO COMBUSTIBLES - INCLUDES DW144550DWLTP-2R-S, 10318FIRESTOPASY, DW24514TPDBEX, & 103CAPASYB14-2R. USED WITH 24 1/2" SQUARE CURBS.
	3M-2000PLUS						0.80		3	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW14DWCLASY-2R-S						7.21		4	DUCT - 14" DUCT - 18" DOUBLE *V* CLAMP - 2R INSULATION & SINGLE *V* CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							653.20			

DOUBLE WALL FACTORY BUILT DUCTWORK

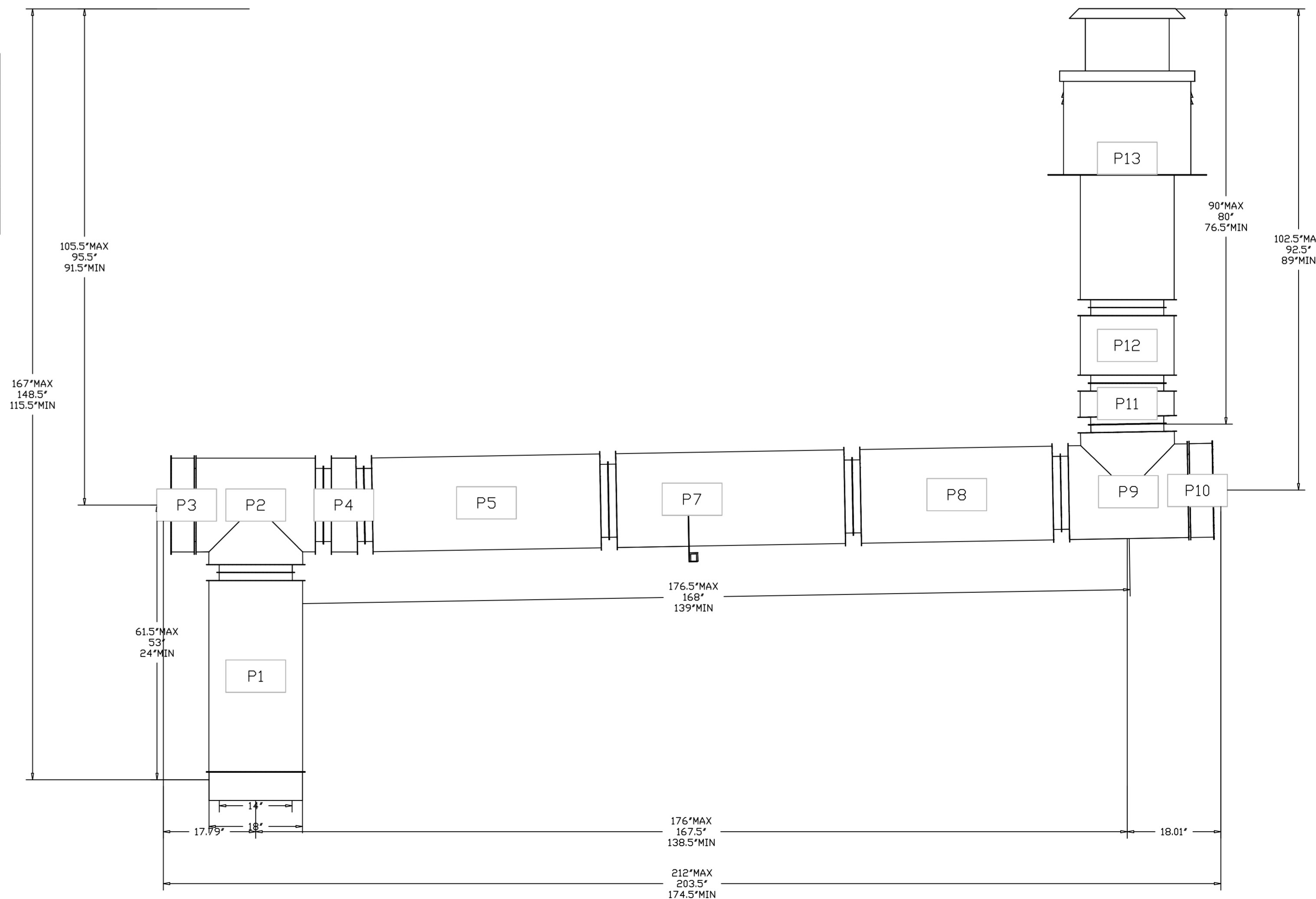
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- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

DUCTWORK #5 FRONT VIEW
DUCT-PIZZA

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

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

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



REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE

Western OH Mechanical
www.captiveaire.com

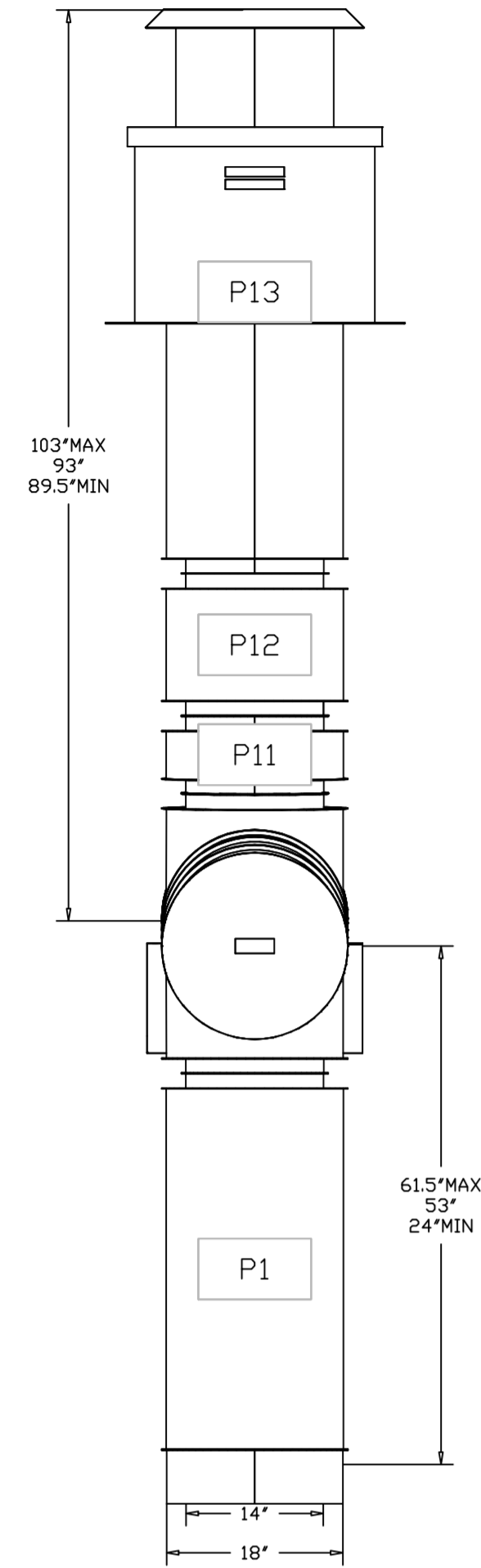
Cincinnati, OH, 45258 PHONE: (619) 275-4988 FAX: 9195188748 EMAIL: reg133@captiveaire.com

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Hamilton, OH, 45011

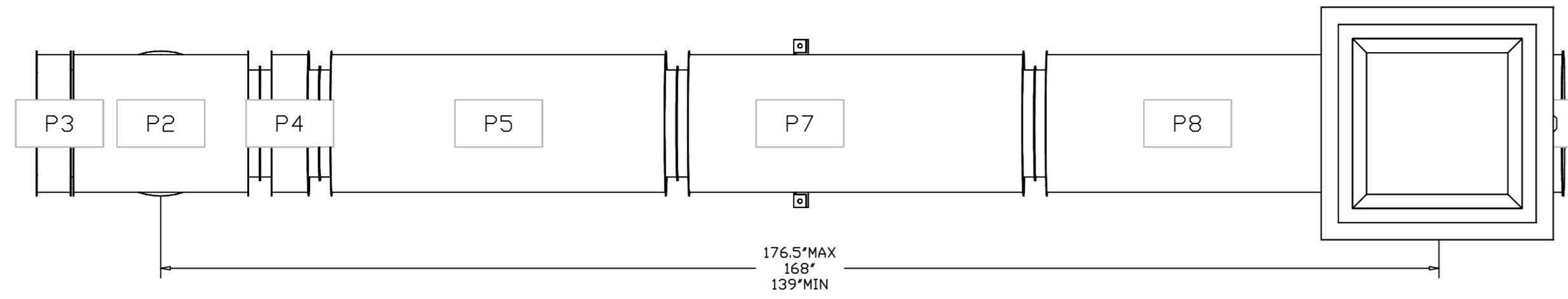
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SCALE: 3/4" = 1'-0"
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SHEET NO. 26

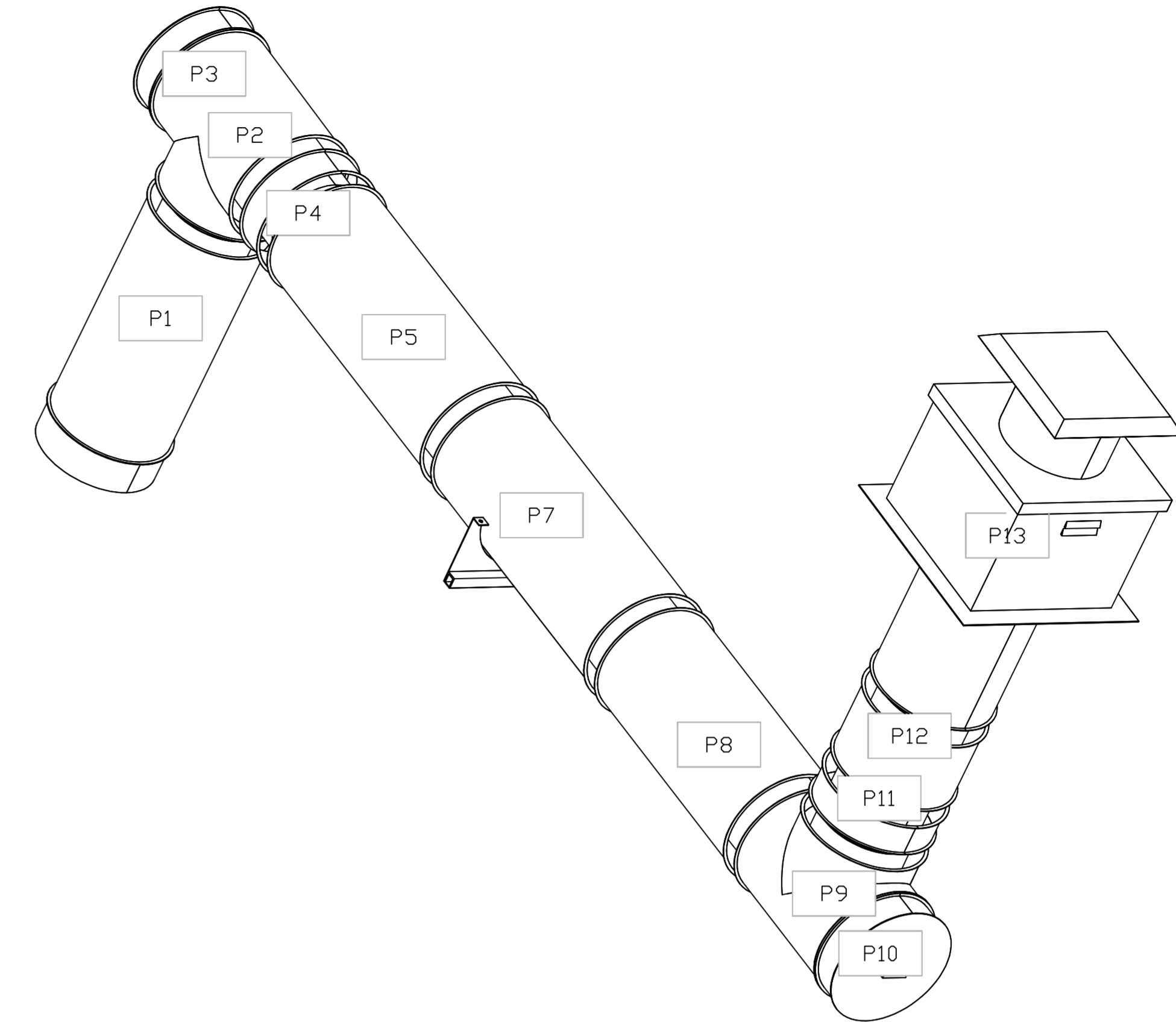
DUCTWORK #5 SIDE VIEW
DUCT-PIZZA



DUCTWORK #5 TOP VIEW
DUCT-PIZZA



DUCTWORK #5 SE VIEW
DUCT-PIZZA



SYSTEM DESIGN VERIFICATION (SDV)

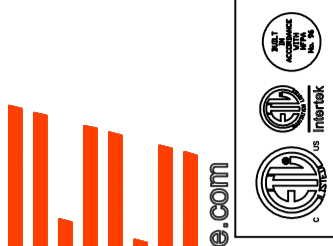
IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

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

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

REVISIONS

DESCRIPTION	DATE



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Hamilton, OH, 45011

DATE: 10/25/2023

DWG.#
6294612

DRAWN BY: grant.homan

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

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