

FOR QUESTIONS, CALL THE
Seattle Office
REGION 85
PHONE: (425) 212 – 5996
EMAIL: reg85@captiveaire.com

HOOD INFORMATION – JOB#7322372

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)							TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP			END TO END	ROW
1	ITEM 108 – L (01)	6024 ND-2-PSP-F	CAPTIVEAIRE	14' 1"	600 DEG	I	HEAVY	250	3521			4"	14"	1760	1646	–0.740"	3168	430 SS WHERE EXPOSED	LEFT	ALONE
2	ITEM 108 – R (02)	6024 ND-2-PSP-F	CAPTIVEAIRE	14' 11"	600 DEG	I	HEAVY	250	3729			4"	14"	1864	1744	–0.831"	3356	430 SS WHERE EXPOSED	RIGHT	ALONE
3	ITEM 309 (03)	5424 ND-2-PSP-F	CAPTIVEAIRE	15' 11"	600 DEG	I	HEAVY	250	3979			4"	14"	1989	1861	–0.945"	3581	430 SS WHERE EXPOSED	ALONE	ALONE
4	ITEM 366 (04)	5424 ND-2-PSP-F	CAPTIVEAIRE	9' 6"	600 DEG	I	HEAVY	225	2138			4"	16"	2138	1531	–0.711"	1924	430 SS WHERE EXPOSED	ALONE	ALONE
5	ITEM 401 (05)	5424 ND-2-PSP-F	CAPTIVEAIRE	13' 4"	600 DEG	I	HEAVY	250	3333			4"	14"	1666	1558	–0.732"	2999	430 SS WHERE EXPOSED	ALONE	ALONE
6	ITEM 503 (06)	5424 ND-2-PSP-F	CAPTIVEAIRE	12' 9"	600 DEG	I	HEAVY	250	3188			4"	18"	3188	1804	–1.074"	2869	430 SS WHERE EXPOSED	ALONE	FRONT
7	ITEM 481 (07)	5424 ND-2-PSP-F	CAPTIVEAIRE	15' 5"	600 DEG	I	HEAVY	250	3854			4"	14"	1927	1803	–0.888"	3468	430 SS WHERE EXPOSED	ALONE	BACK
8	ITEM 165 (08)	4824 VHB-G	CAPTIVEAIRE	6' 10"	700 DEG	II	N/A	150	1025			4"	12"	1025	1305	–0.136"	0	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	TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY		
1	ITEM 108 – L (01)	CAPTRATE SOLO FILTER	10	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO							YES	955 LBS
2	ITEM 108 – R (02)	CAPTRATE SOLO FILTER	11	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO							YES	1074 LBS
3	ITEM 309 (03)	CAPTRATE SOLO FILTER	12	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	1425 LBS
4	ITEM 366 (04)	CAPTRATE SOLO FILTER	7	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0	DCV-1011	1 LIGHT 1 FAN	YES	1027 LBS
5	ITEM 401 (05)	CAPTRATE SOLO FILTER	10	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	1391 LBS
6	ITEM 503 (06)	CAPTRATE SOLO FILTER	9	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0/4.0	DCV-2111	1 LIGHT 1 FAN	YES	1163 LBS
7	ITEM 481 (07)	CAPTRATE SOLO FILTER	11	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	LEFT	12"x54"x24"	TANK FS	4.0/4.0/4.0			YES	1352 LBS
8	ITEM 165 (08)						0									NO	203 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	ITEM 108 – L (01)	LEFT END STANDOFF (FINISHED) 1" WIDE 60" LONG INSULATED.
		BALANCE DAMPERS.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		SENSOR-CV.
2	ITEM 108 – R (02)	LEFT WALL AS END PANEL.
		BALANCE DAMPERS.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
3	ITEM 309 (03)	SENSOR-CV.
		LEFT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		SENSOR-CV.
4	ITEM 366 (04)	LEFT WALL AS END PANEL.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
5	ITEM 401 (05)	SENSOR-CV.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
6	ITEM 503 (06)	SENSOR-CV.
		LEFT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		SENSOR-CV.
7	ITEM 481 (07)	LEFT WALL AS END PANEL.
		RIGHT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		SENSOR-CV.
		RIGHT WALL AS END PANEL.

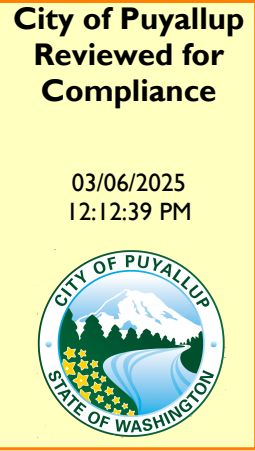
CLEARANCE TO COMBUSTIBLES

HOODS #	SURFACE	*CLEARANCE
1	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	0"
	RIGHT	18"
2	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	18"
	RIGHT	18"
3,6,7	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	0"
	RIGHT	0"
4,5	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	18"
	RIGHT	0"

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

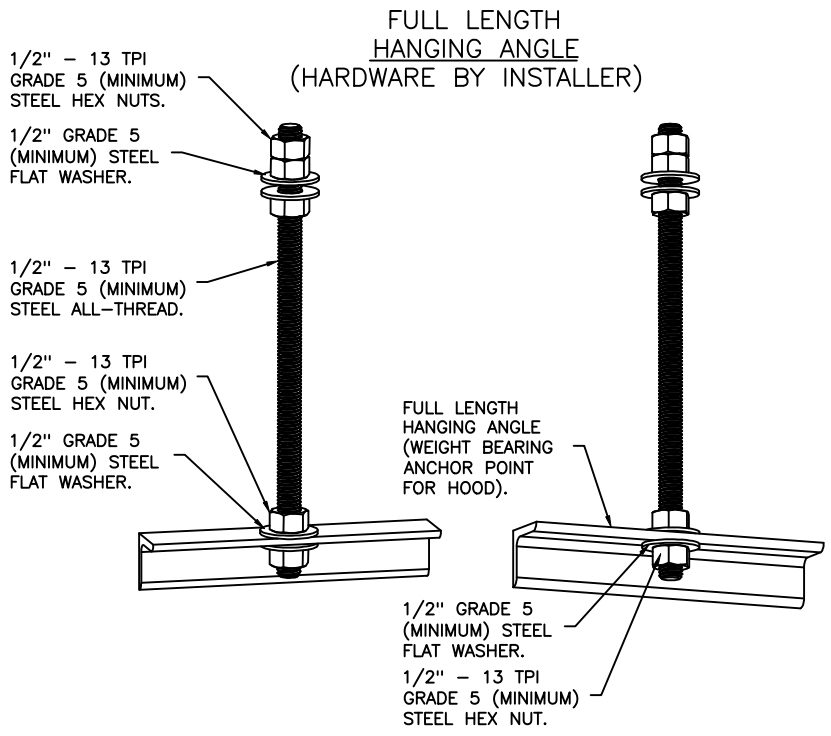
Separate permits are required for fire suppression systems at Hood/duct.

Must be reviewed and approved by the engineer of record.



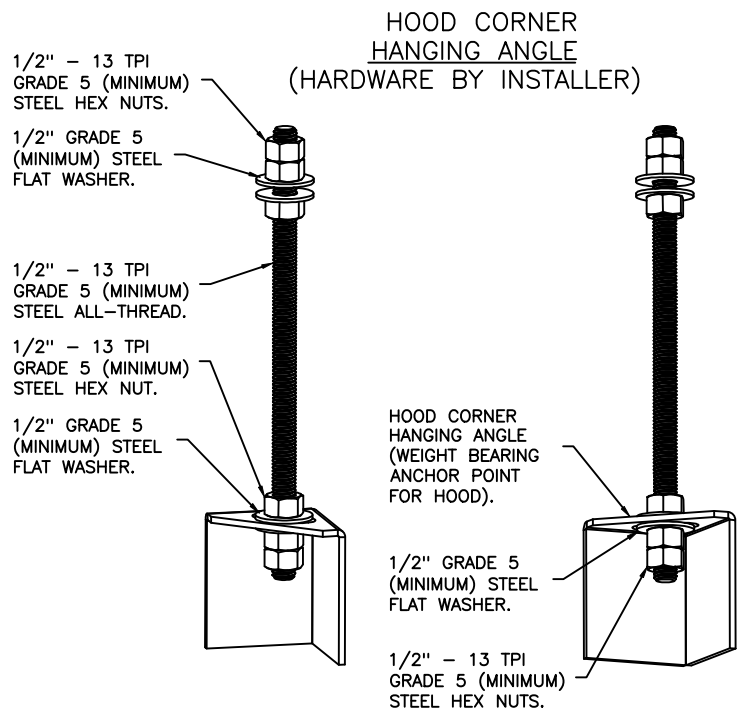
Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.
PRINT in COLOR and to SCALE.



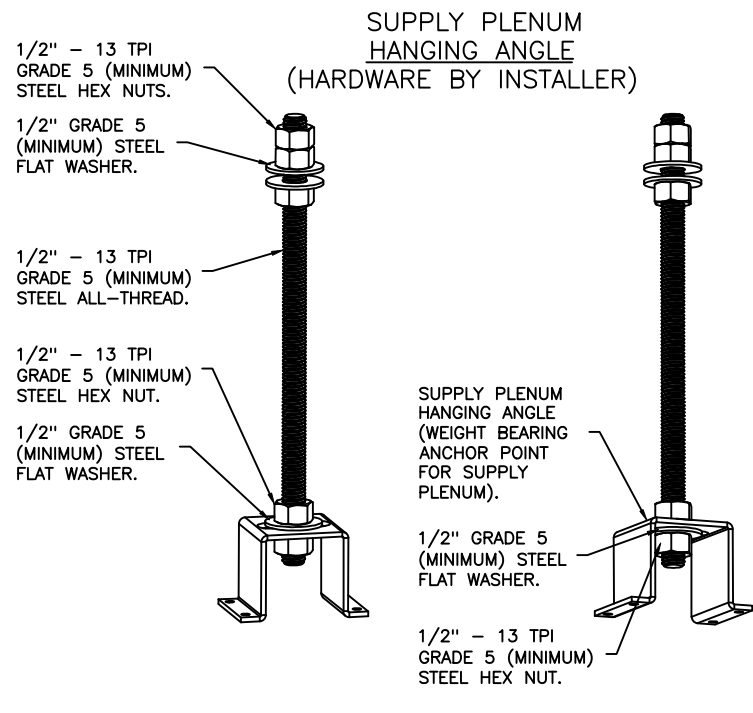
ASSEMBLY INSTRUCTIONS

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.



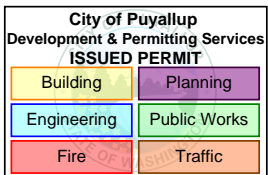
ASSEMBLY INSTRUCTIONS

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



REVISIONS

DESCRIPTION	DATE:
Δ	
Δ	
Δ	
Δ	

City of Puyallup
Developer & Permitting Services
ISSUED PERMIT

Building
Planning
Engineering
Public Works
Fire
Traffic

www.captiveaire.com
Seattle Office
114 NW Canal St, #300, Seattle, WA, 98107
PHONE: (425) 212 - 5996
FAX: 4252125998
EMAIL: reg85@captiveaire.com

International Village (Gas) – Puyallup – R4
110 9th Avenue Southwest,
Puyallup, WA, 98371

DATE: 2/5/2025
DWG.#:
7322372
DRAWN BY: JL – R85
SCALE:
3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
1

PERFORATED SUPPLY PLENUM(S)											
HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1	ITEM 108 – L (01)	Front	170"	20"	6"	MUA 12" 28"				792	0.234"
						MUA 12" 28"				792	0.234"
						MUA 12" 28"				792	0.234"
						MUA 12" 28"				792	0.234"
2	ITEM 108 – R (02)	Front	179"	20"	6"	MUA 12" 28"				671	0.171"
						MUA 12" 28"				671	0.171"
						MUA 12" 28"				671	0.171"
						MUA 12" 28"				671	0.171"
						MUA 12" 28"				671	0.171"
3	ITEM 309 (03)	Front	204"	20"	6"	MUA 12" 28"				893	0.292"
						MUA 12" 28"				893	0.292"
						MUA 12" 28"				893	0.292"
						MUA 12" 28"				893	0.292"
4	ITEM 366 (04)	Front	126"	16"	6"	MUA 12" 24"				641	0.183"
						MUA 12" 24"				641	0.183"
						MUA 12" 24"				641	0.183"
						MUA 12" 24"				641	0.183"
5	ITEM 401 (05)	Front	172"	18"	6"	MUA 12" 28"				749	0.210"
						MUA 12" 28"				749	0.210"
						MUA 12" 28"				749	0.210"
						MUA 12" 28"				749	0.210"
						MUA 12" 28"				717	0.194"
6	ITEM 503 (06)	Front	166"	18"	6"	MUA 12" 28"				717	0.194"
						MUA 12" 28"				717	0.194"
						MUA 12" 28"				717	0.194"
						MUA 12" 28"				866	0.276"
7	ITEM 481 (07)	Front	198"	18"	6"	MUA 12" 28"				866	0.276"
						MUA 12" 28"				866	0.276"
						MUA 12" 28"				866	0.276"
						MUA 12" 28"				866	0.276"

WALL–MOUNT UTILITY CABINET

HOOD NO	LOCATION	SIZE	UTILITY CABINET(S)				WEIGHT
			FIRE SYSTEM		ELECTRICAL	SWITCHES	
			TYPE	SIZE	MODEL #	QUANTITY	
1	WALL MNT	12"x60"x24"	TANK FS	4.0/4.0/4.0/4.0			500.00 LBS

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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

HVAC DISTRIBUTION NOTE

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

VERIFY CEILING HEIGHT

____' - ____"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED

APPROVED WITH NO EXCEPTION TAKEN

REVISE AND RESUBMIT

SIGNATURE _____

YOUR TITLE _____

☐

☐

☐

DATE _____

SPECIFICATION: CAPTRATE GREASE–STOP SOLO FILTER

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

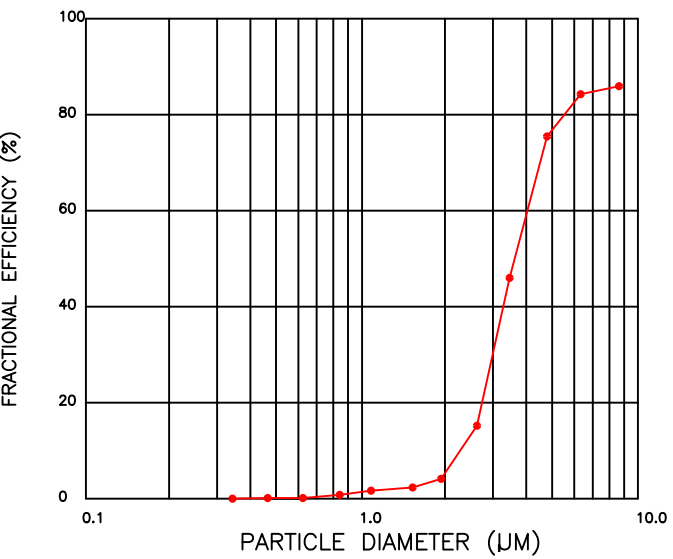
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2–INCH DEEP HOOD CHANNEL(S).

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

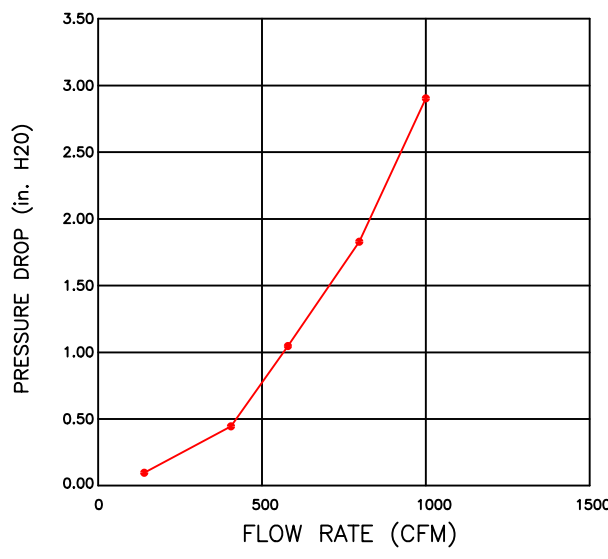
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

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

EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:.

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



PATENT NUMBERS

AC–PSP (UNITED STATES) – US PATENT 7963830 B2.
AC–PSP WALL (CANADA) – CA PATENT 2820509.
AC–PSP ISLAND (CANADA) – CA PATENT 2520330.

REVISIONS

DESCRIPTION	DATE:
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△	
△	
△	

www.captiveaire.com

Seattle Office

114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com

International Village (Gas) – Puyallup – R4

110 9th Avenue Southwest,

Puyallup, WA, 98371

DATE: 2/5/2025

DWG.#: 7322372

DRAWN BY: JL – R85

SCALE: 3/4" = 1'–0"

MASTER DRAWING

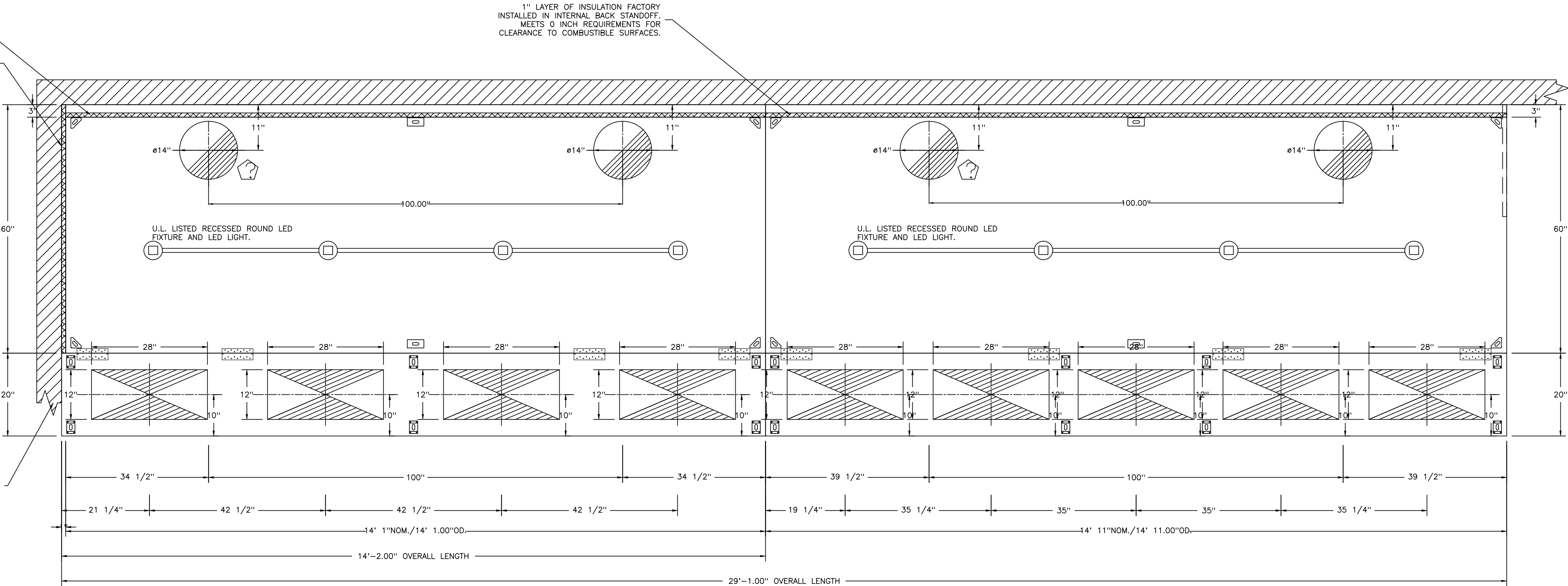
SHEET NO.

2

1" LAYER OF INSULATION FACTORY INSTALLED IN INTERNAL BACK STANDOFF. MEETS 0" INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.

1" LAYER OF INSULATION FACTORY INSTALLED IN 1.00" END STANDOFF MEETS 0" REQUIREMENTS CLEARANCE TO COMBUSTIBLE SURFACES.

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 #1 (ITEM 108 - L (01))
14' 1.00" LONG 6024ND-2-PSP-F

NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12" AND LONGER.

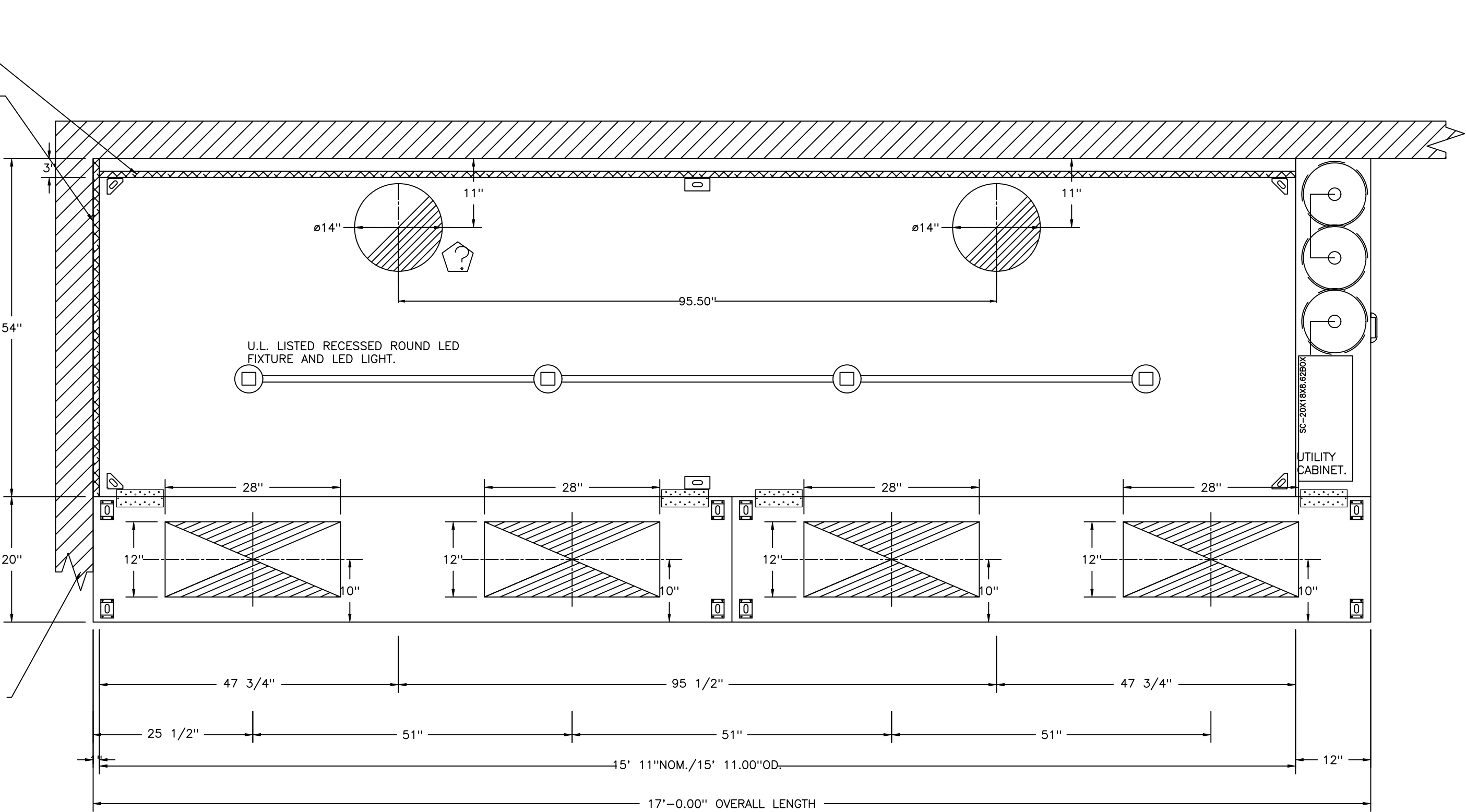
PLAN VIEW - HOOD #2 (ITEM 108 - R (02))
14' 11.00" LONG 6024ND-2-PSP-F

NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12" AND LONGER.

1" LAYER OF INSULATION FACTORY INSTALLED IN INTERNAL BACK STANDOFF. MEETS 0" INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.

1" LAYER OF INSULATION FACTORY INSTALLED IN 1.00" END STANDOFF MEETS 0" REQUIREMENTS CLEARANCE TO COMBUSTIBLE SURFACES.

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.



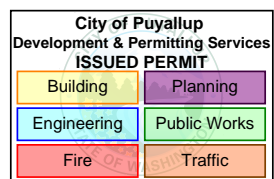
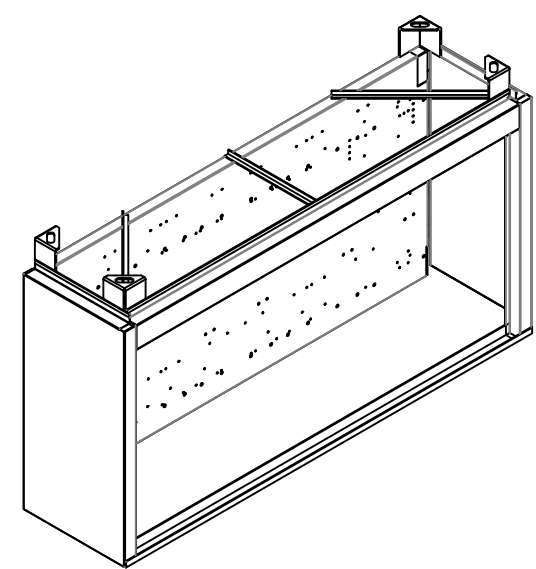
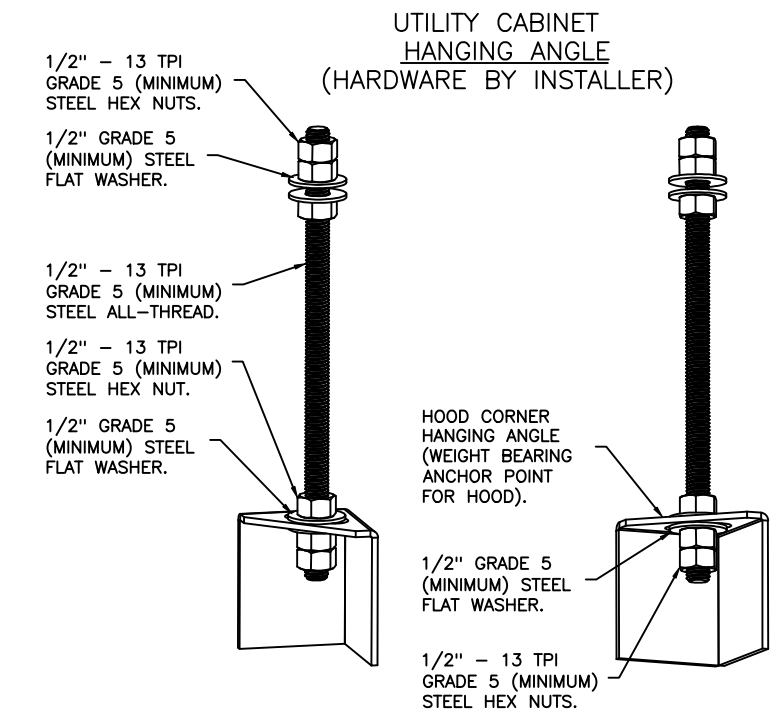
PLAN VIEW - HOOD #3 (ITEM 309 (03))
15' 11.00" LONG 5424ND-2-PSP-F

NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12" AND LONGER.

WALL-MOUNT UTILITY CABINET ASSEMBLY INSTRUCTIONS

CABINET TO BE HUNG BY OTHERS. SEE UTILITY CABINET SCHEDULE FOR CABINET SIZE.

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 UTILITY CABINET HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



REVISIONS

DESCRIPTION	DATE

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Seattle Office

114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998

International Village (Gas) - Puyallup - R4
110 9th Avenue Southwest,
Puyallup, WA, 98371

DATE: 2/5/2025

DWG.#:
7322372

DRAWN BY: JL - R85

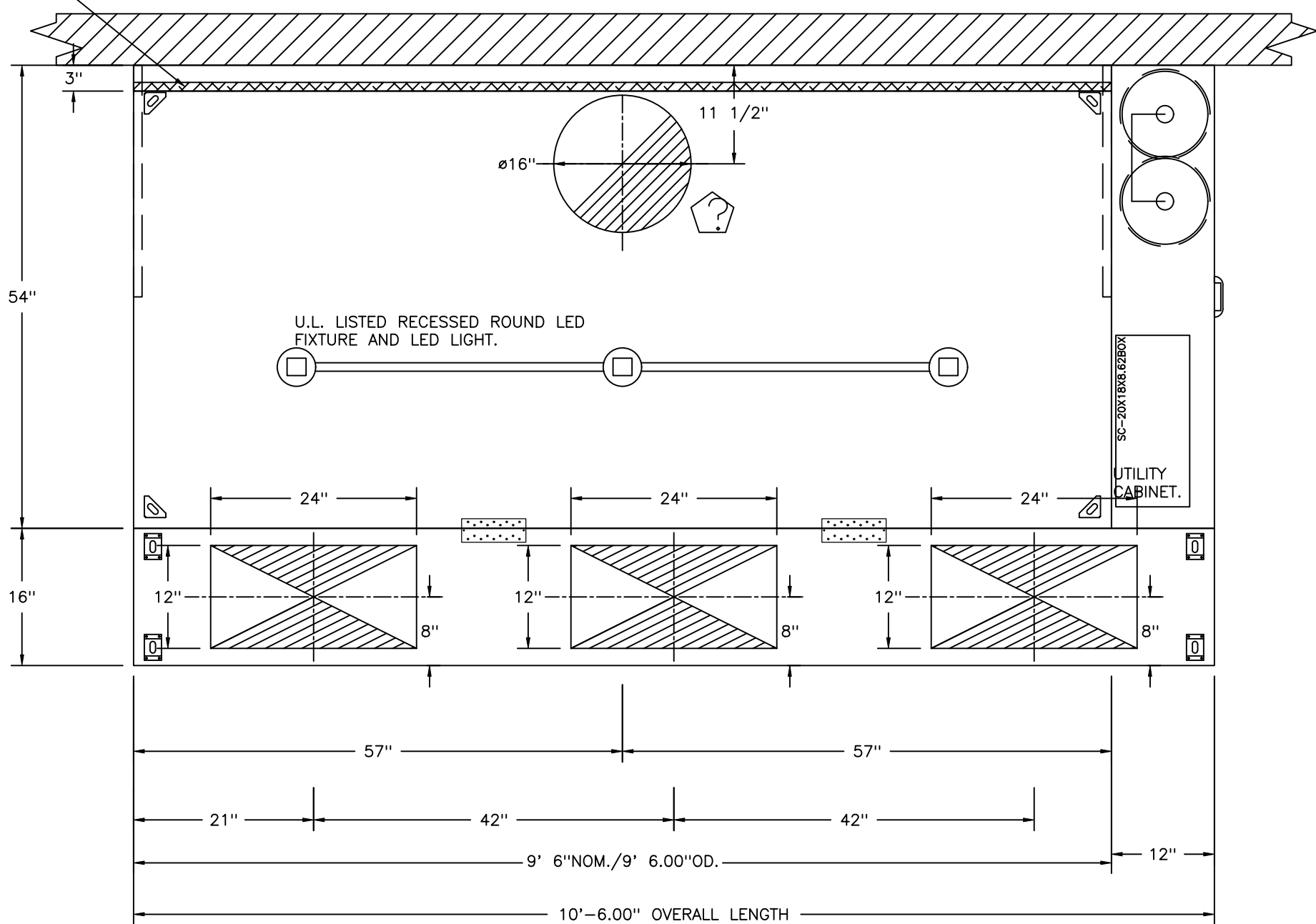
SCALE:
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.

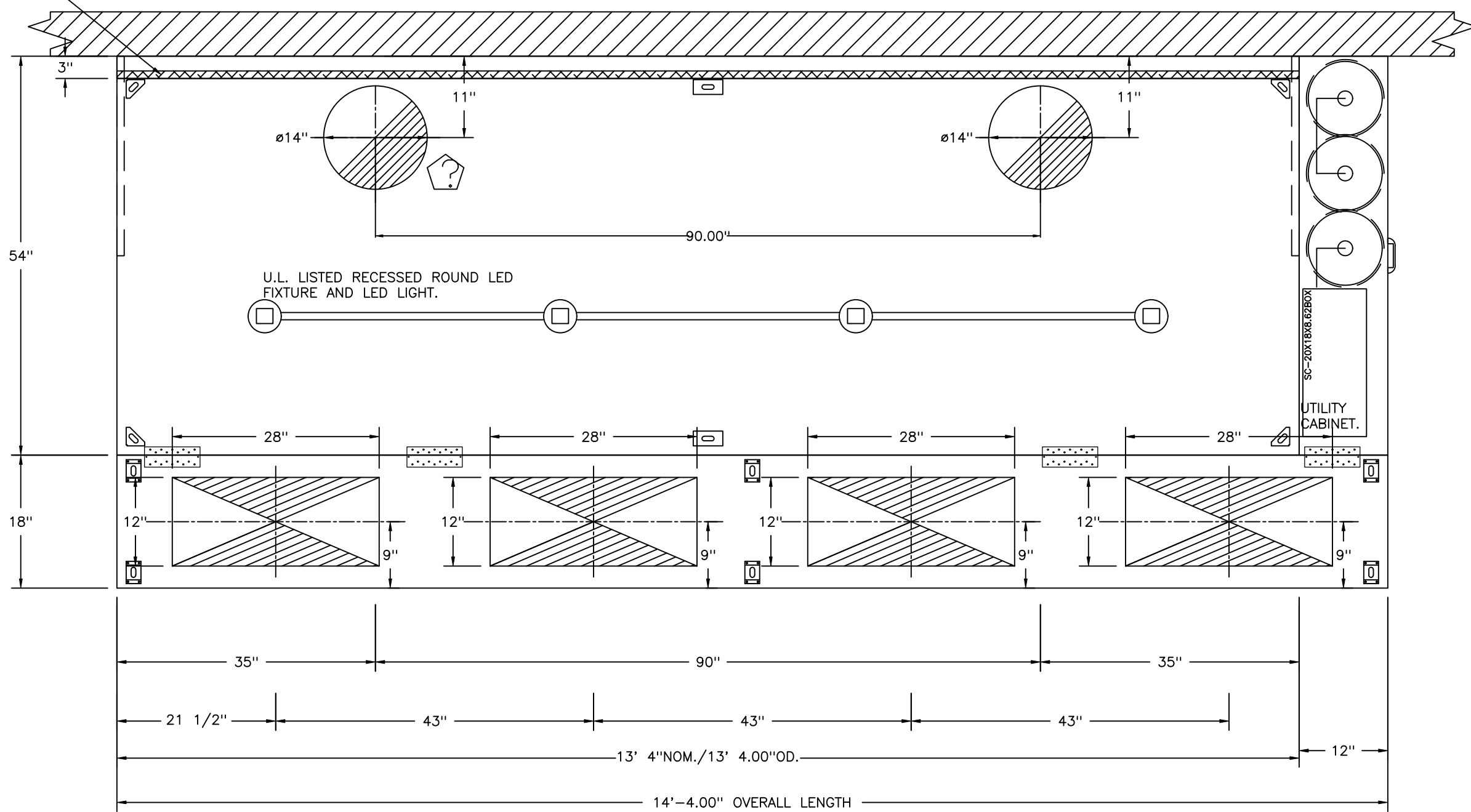
3

1" LAYER OF INSULATION FACTORY
INSTALLED IN INTERNAL BACK STANDOFF.
MEETS 0 INCH REQUIREMENTS FOR
CLEARANCE TO COMBUSTIBLE SURFACES.



PLAN VIEW - HOOD #4 (ITEM 366 (04))
9' 6.00" LONG 5424ND-2-PSP-F

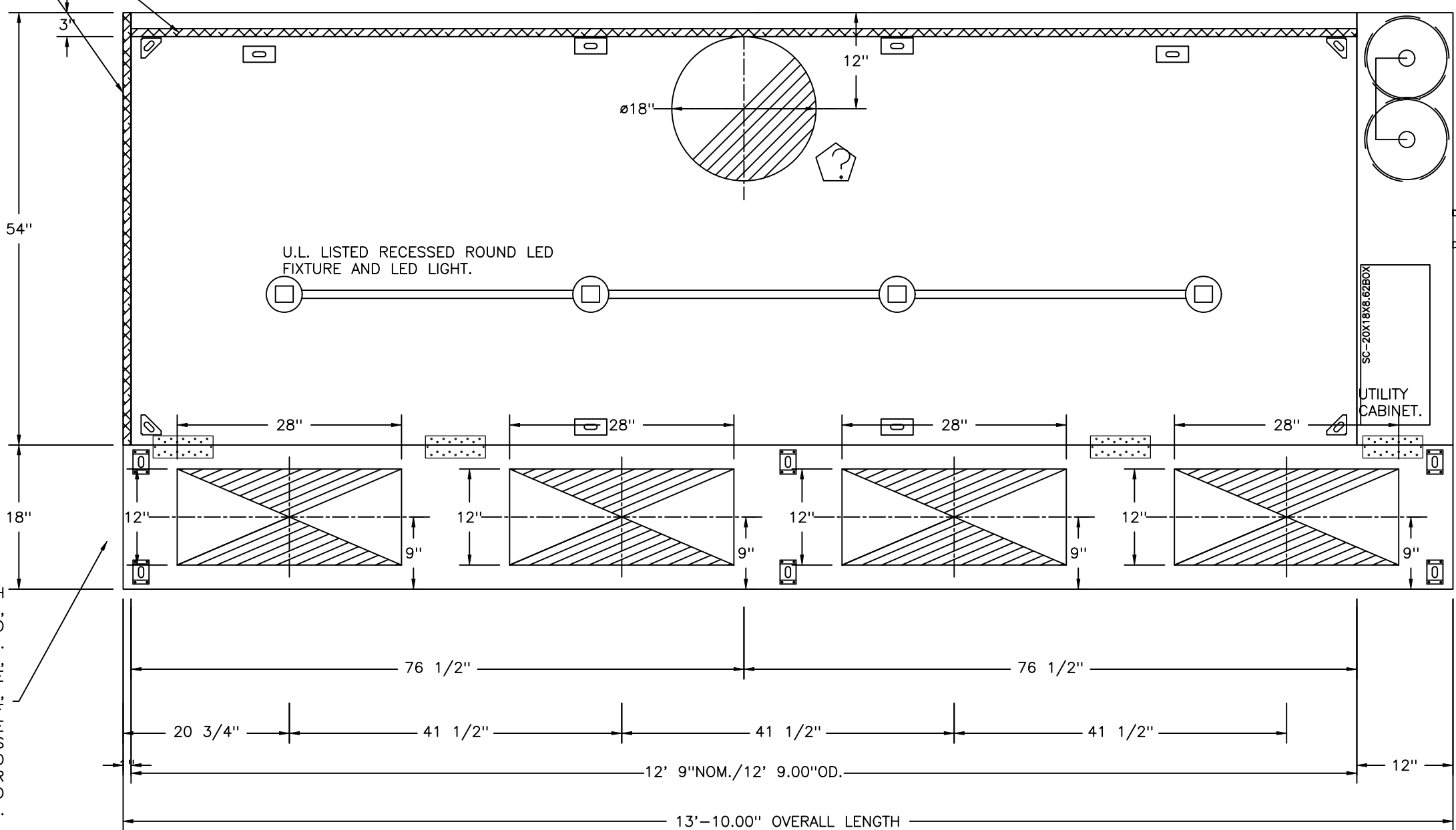
1" LAYER OF INSULATION FACTORY
INSTALLED IN INTERNAL BACK STANDOFF.
MEETS 0 INCH REQUIREMENTS FOR
CLEARANCE TO COMBUSTIBLE SURFACES.



PLAN VIEW - HOOD #5 (ITEM 401 (05))
13' 4.00" LONG 5424ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

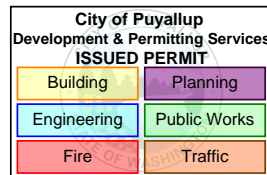
1" LAYER OF INSULATION FACTORY
INSTALLED IN INTERNAL BACK STANDOFF.
MEETS 0 INCH REQUIREMENTS FOR
CLEARANCE TO COMBUSTIBLE SURFACES.

1" LAYER OF INSULATION
FACTORY INSTALLED IN
1.00" END STANDOFF MEETS
0" REQUIREMENTS CLEARANCE
TO COMBUSTIBLE SURFACES.



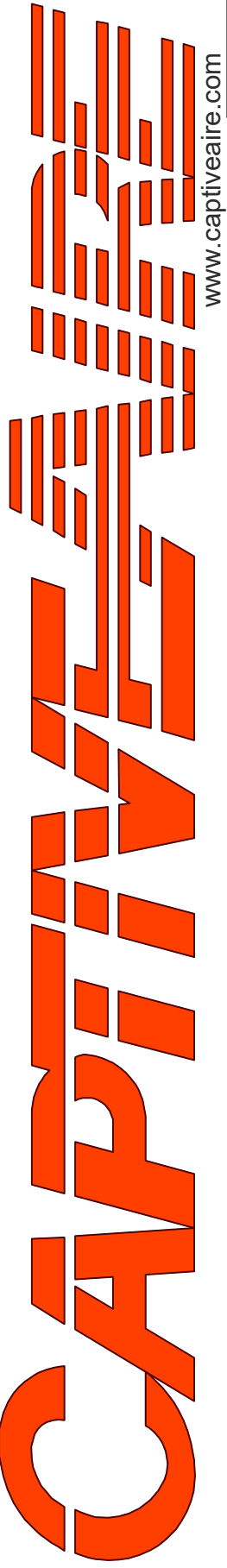
PLAN VIEW - HOOD #6 (ITEM 503 (06))
12' 9.00" LONG 5424ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

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.



REVISIONS

DESCRIPTION	DATE:
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Δ	
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Capitve

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Seattle Office

114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@capitveaire.com

International Village (Gas) - Puyallup - R4

110 9th Avenue Southwest,

Puyallup, WA, 98371

DATE: 2/5/2025

DWG.#:
7322372

DRAWN
BY: JL - R85

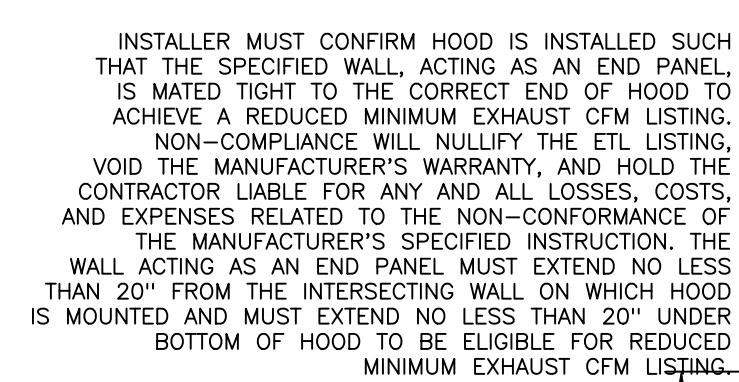
SCALE:
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.

4

PLAN VIEW - HOOD #7 (ITEM 481 (07))
15' 5.00" LONG 5424ND-2-PSP-F



1" LAYER OF INSULATION FACTORY
INSTALLED IN INTERNAL BACK STANDOFF.
MEETS 0 INCH REQUIREMENTS FOR
CLEARANCE TO COMBUSTIBLE SURFACES.



CAPTIVE

International Village (Gas) – Puyallup – R4
110 9th Avenue Southwest,
Puyallup, WA, 98371

DATE: 2/5/2025

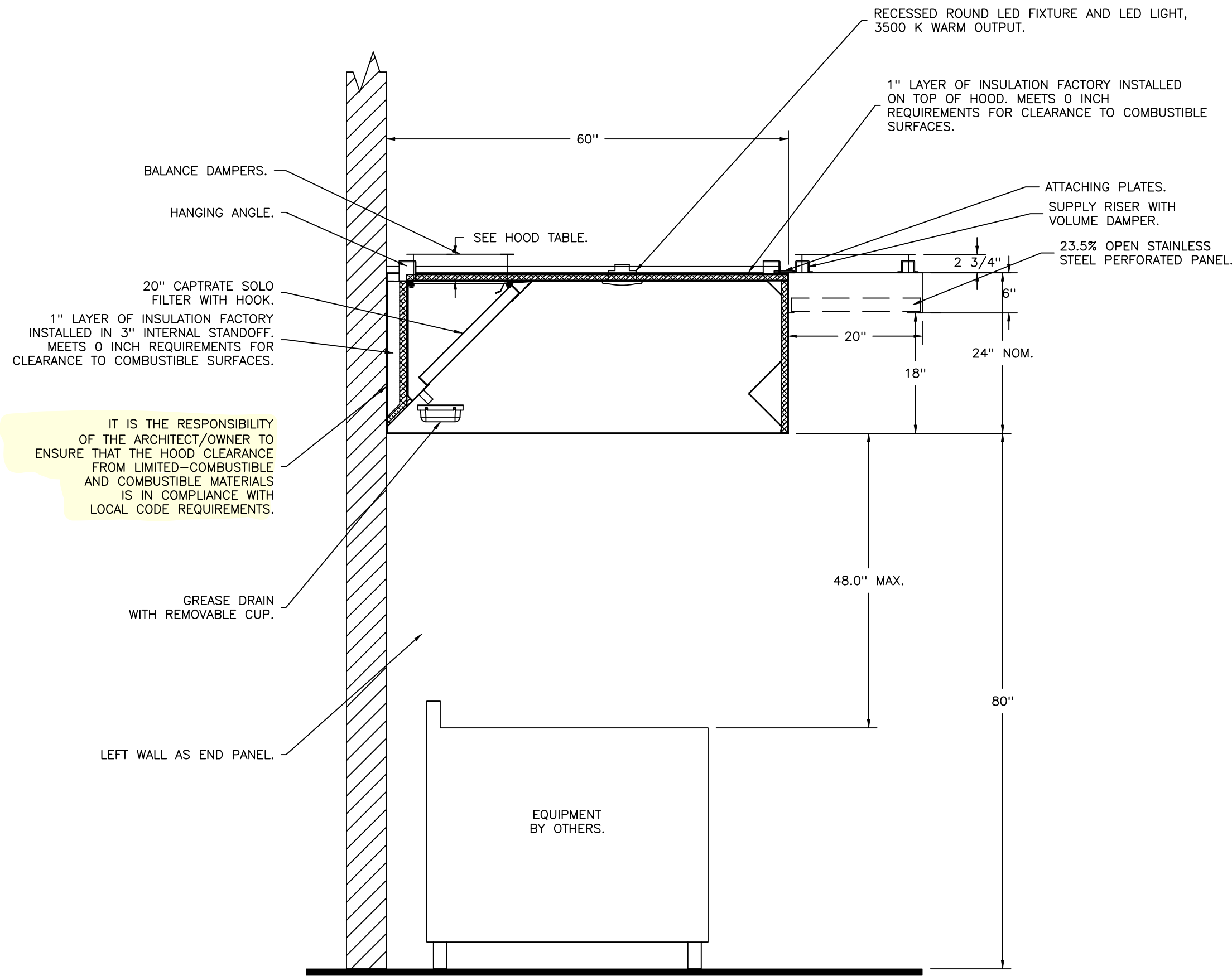
DWG.#:
7322372

DRAWN BY: JL - R85

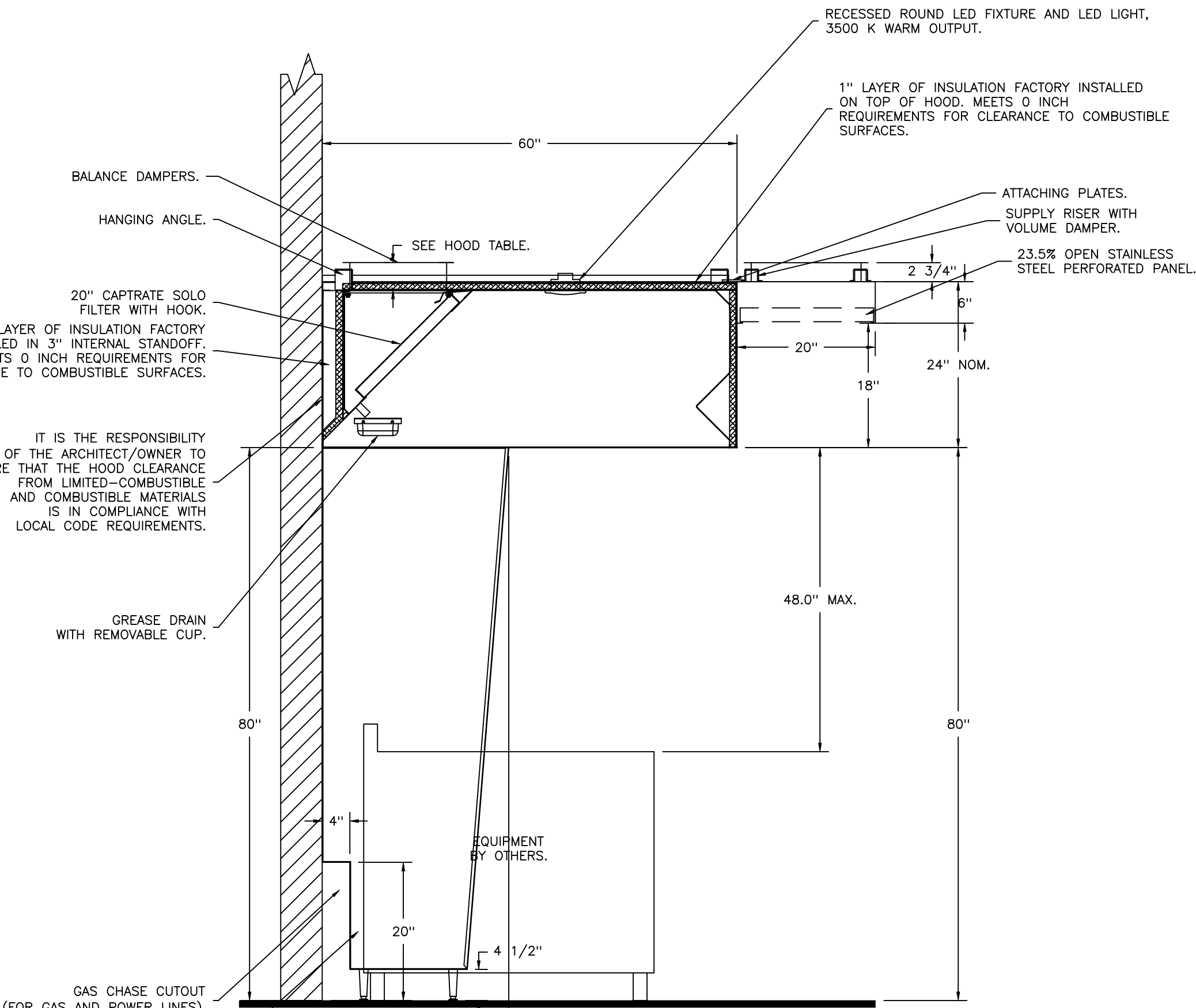
SCALE:
3/4" = 1'-0"

MASTER DRAWING

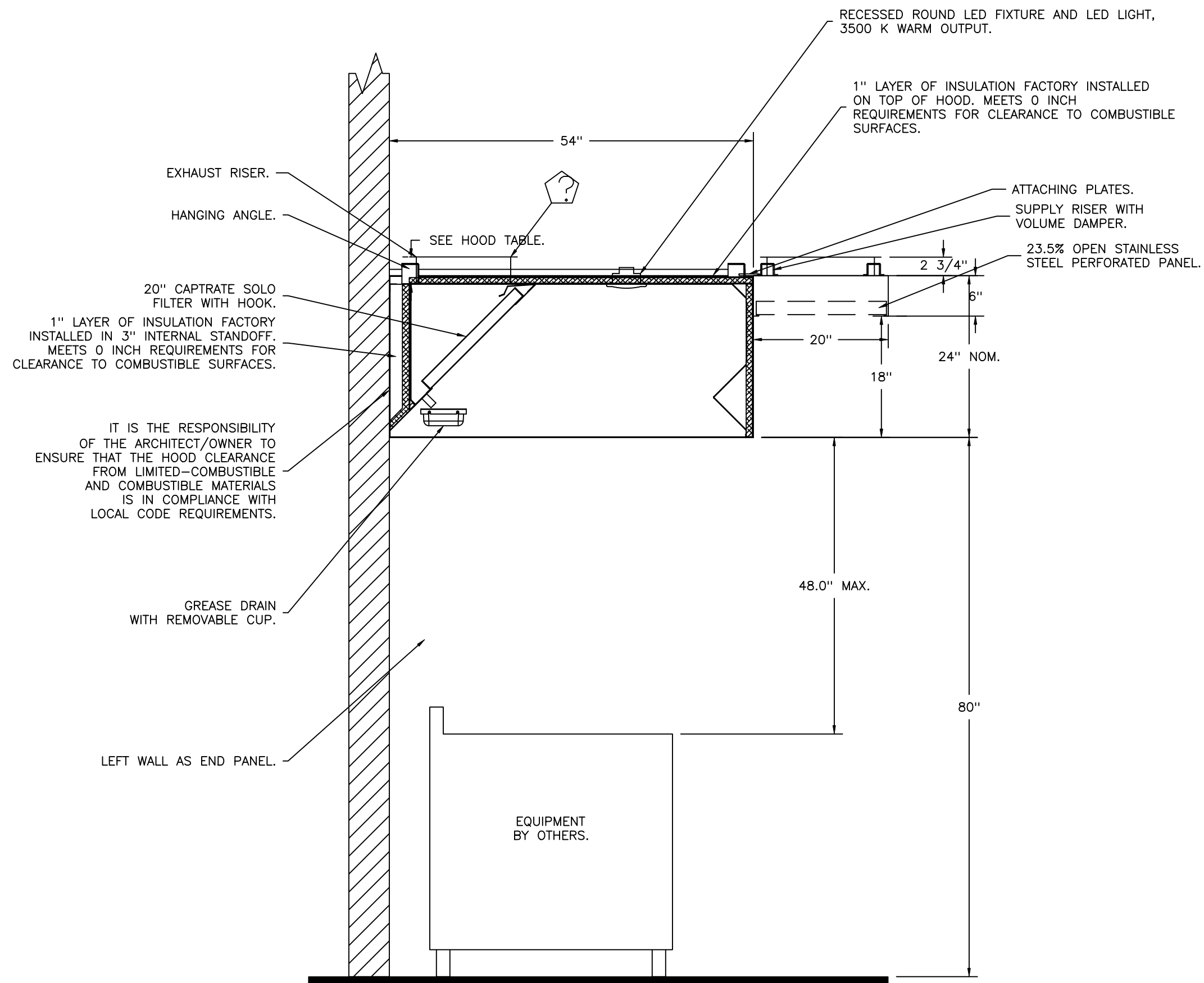
SHEET NO.



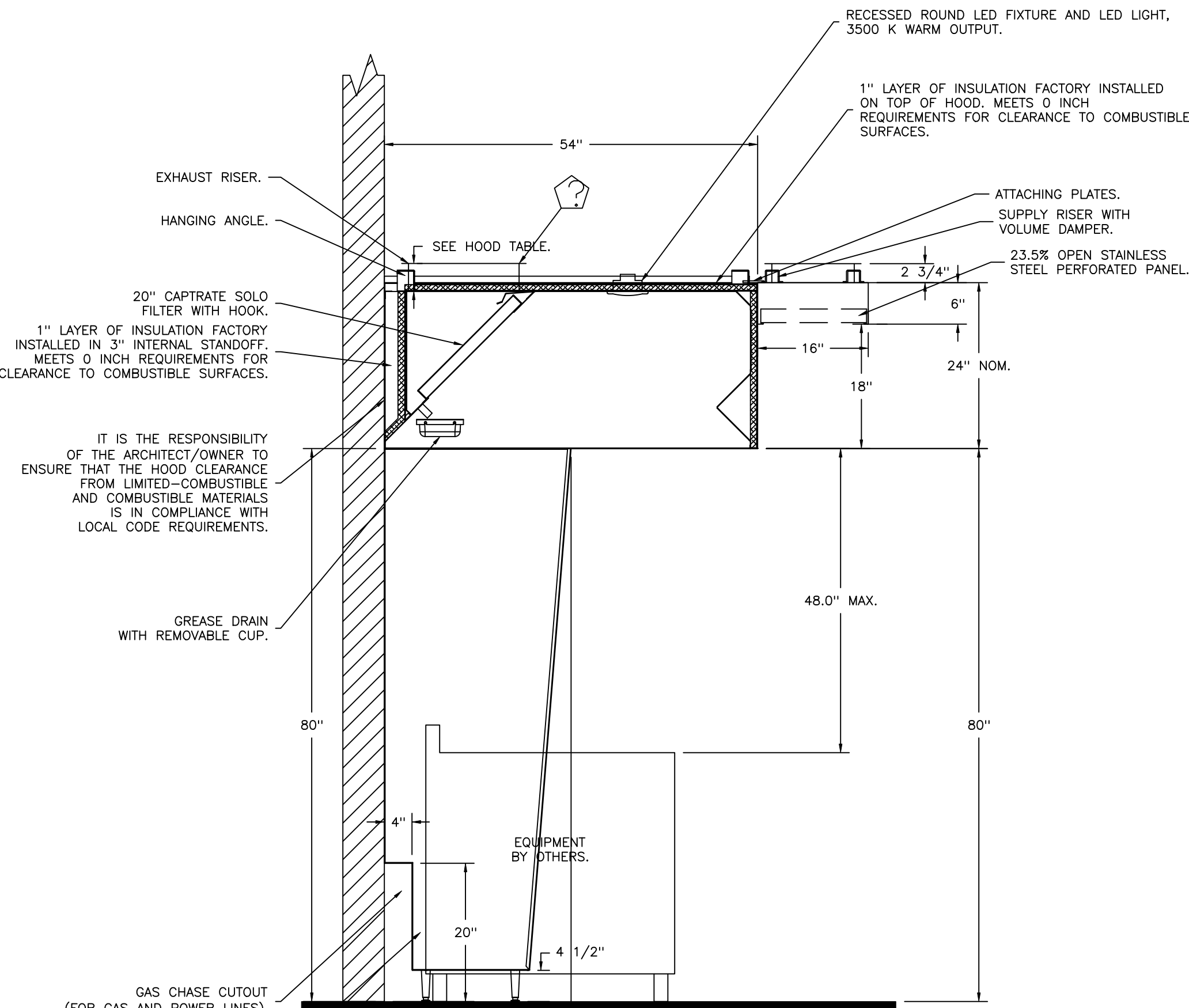
SECTION VIEW - MODEL 6024ND-2-PSP-F
HOOD - #1 (ITEM 108 - L (01))



SECTION VIEW - MODEL 6024ND-2-PSP-F
HOOD - #2 (ITEM 108 - R (02))



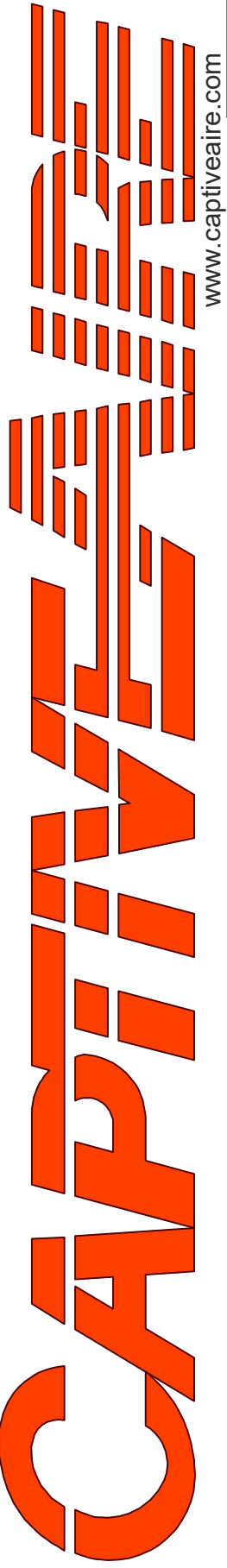
SECTION VIEW - MODEL 5424ND-2-PSP-F
HOOD - #3 (ITEM 309 (03))



SECTION VIEW - MODEL 5424ND-2-PSP-F
HOOD - #4 (ITEM 366 (04))

REVISIONS

DESCRIPTION	DATE:



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Seattle Office

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International Village (Gas) - Puyallup - R4

110 9th Avenue Southwest,

Puyallup, WA, 98371

DATE: 2/5/2025

DWG.#:
7322372

DRAWN
BY: JL - R85

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

MASTER DRAWING

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building

Planning

Engineering

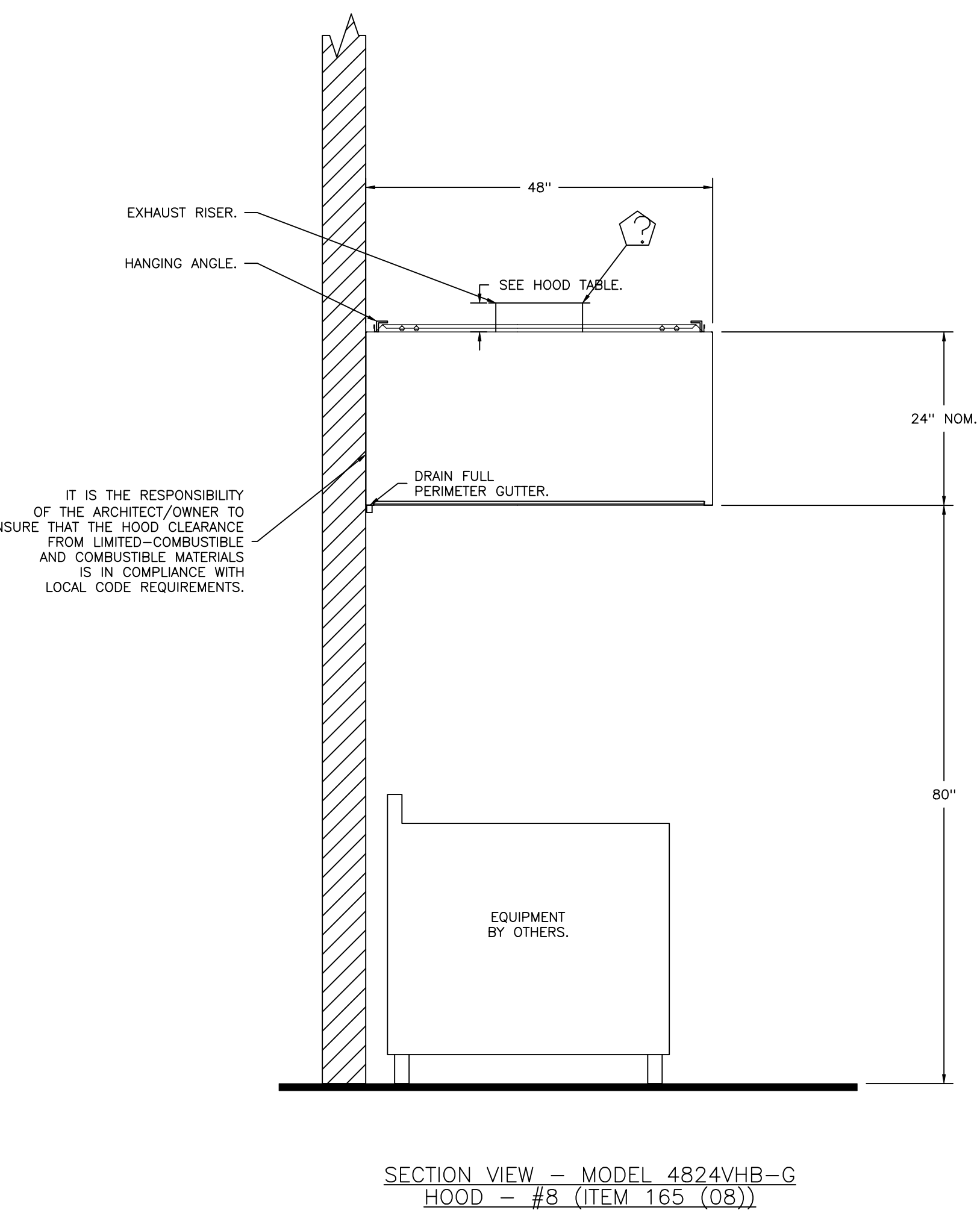
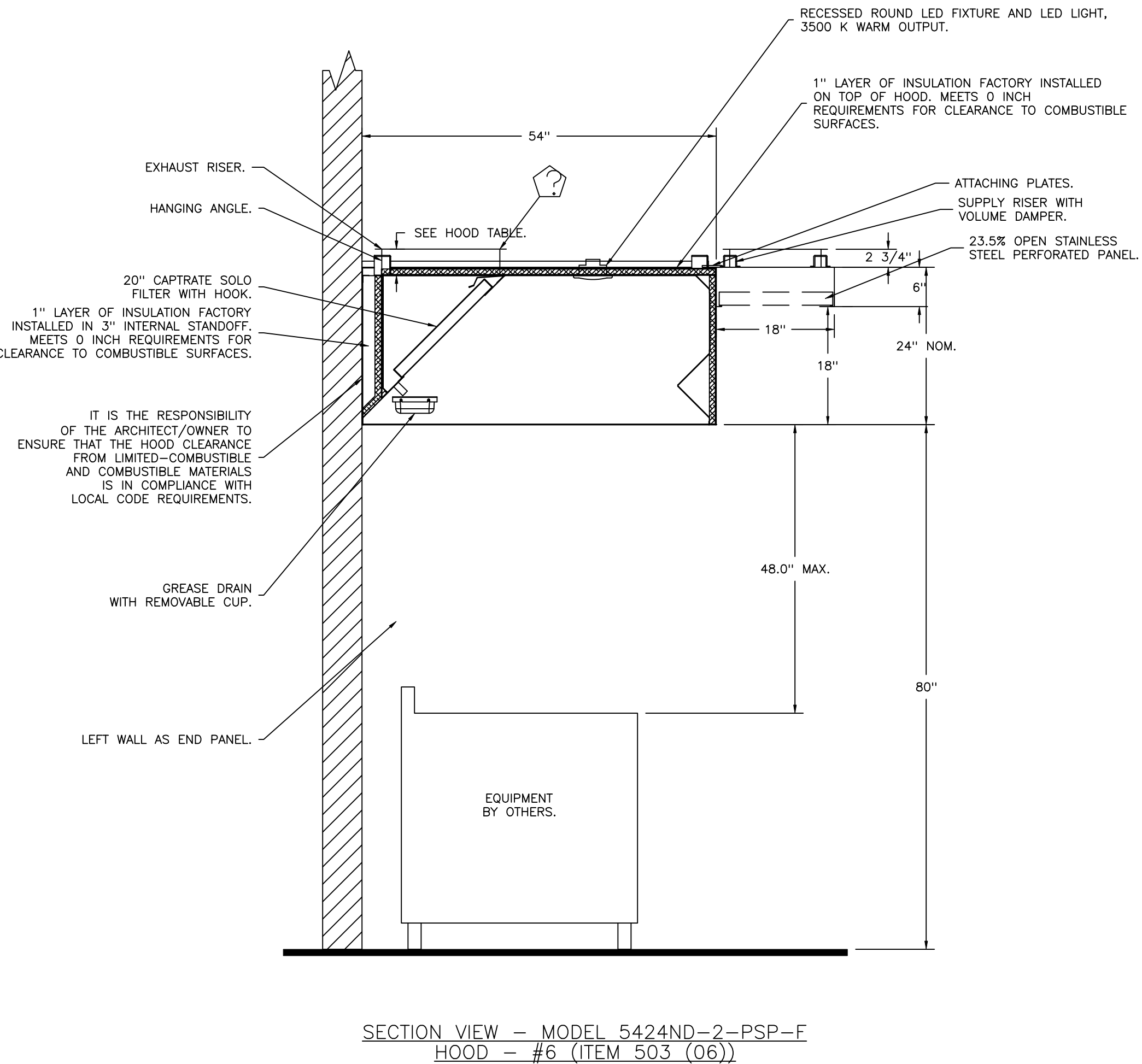
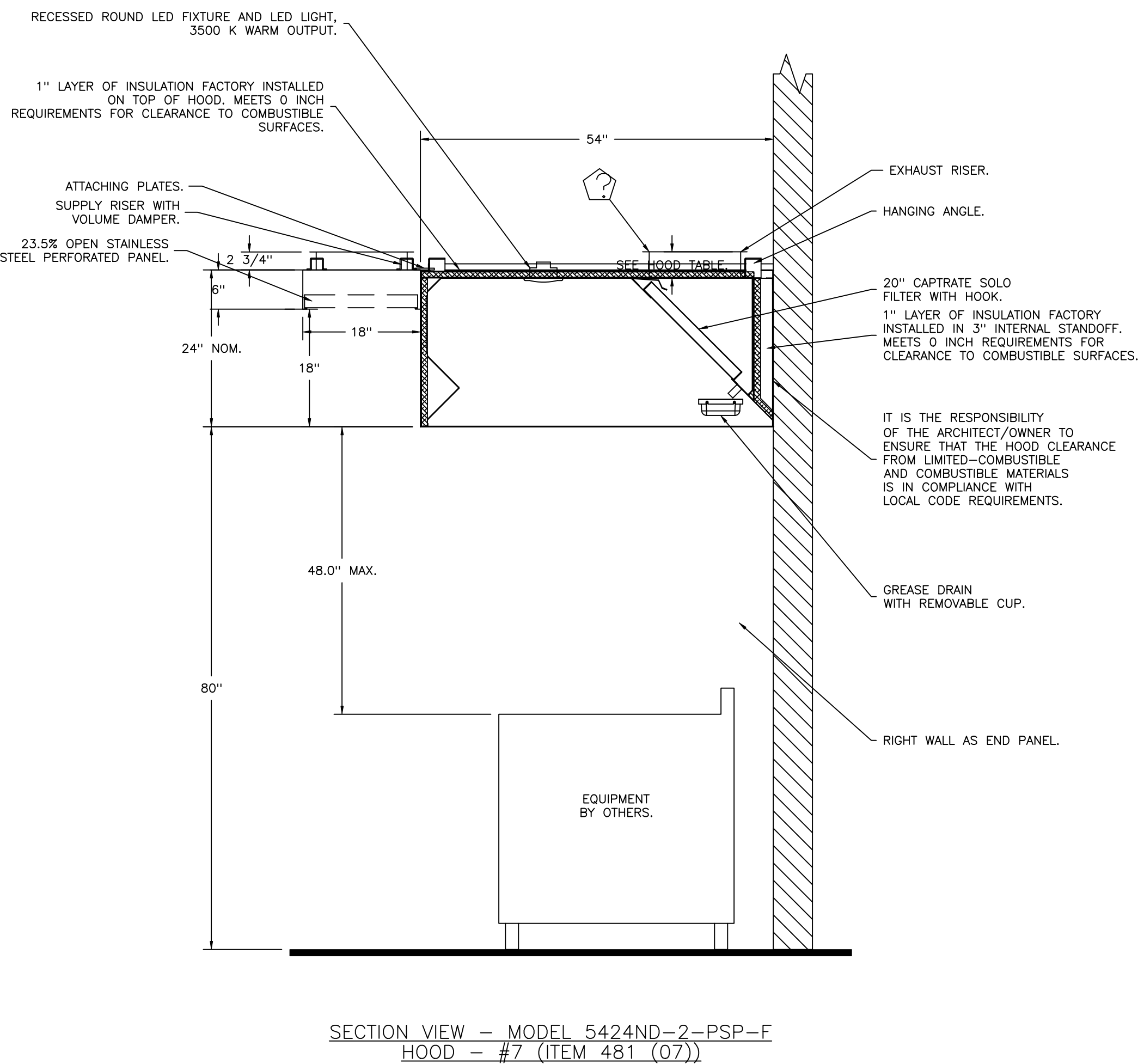
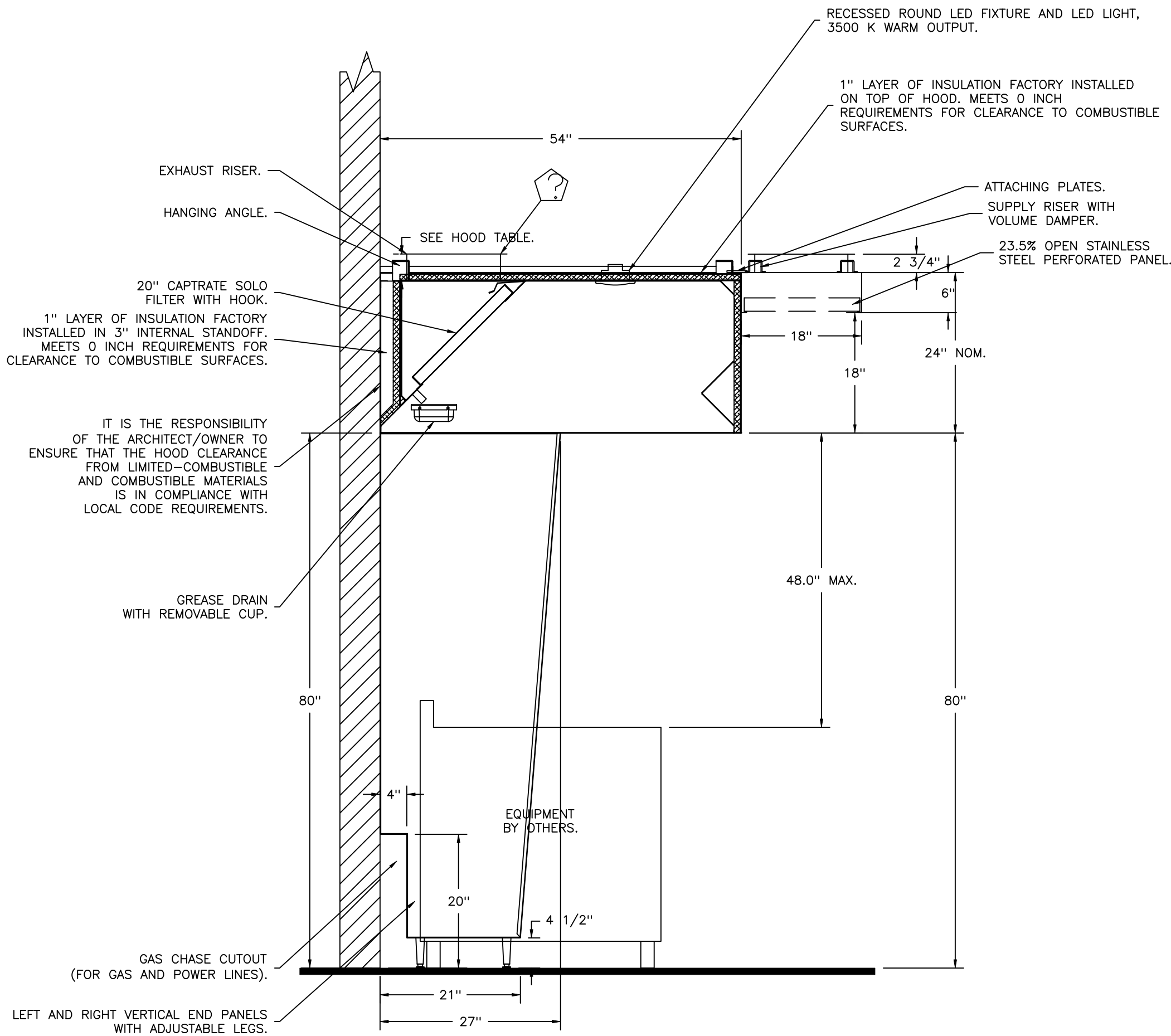
Public Works

Fire

Traffic

SHEET NO.

6



REVISIONS

DESCRIPTION	DATE:

Seattle Office

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International Village (Gas) - Puyallup - R4

110 9th Avenue Southwest,

Puyallup, WA, 98371

DATE: 2/5/2025

DWG.#: 7322372

DRAWN BY: JL - R85

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

MASTER DRAWING

City of Puyallup

Development & Permitting Services

ISSUED PERMIT

Building

Planning

Engineering

Public Works

Fire

Traffic

SHEET NO. 7

FIRE_SYSTEM_INFORMATION -- JOB#7322372

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1	ITEM 110 -- FS	TANK FS	4.0/4.0/4.0/4.0	80	77	WALL UTILITY CABINET LEFT	N/A
2	ITEM 314 -- FS	TANK FS	4.0/4.0/4.0	60	51	FIRE CABINET RIGHT	RIGHT, HOOD 3
3	ITEM 366 -- FS	TANK FS	4.0/4.0	40	28	FIRE CABINET RIGHT	RIGHT, HOOD 4
4	ITEM 403--FS	TANK FS	4.0/4.0/4.0	60	46	FIRE CABINET RIGHT	RIGHT, HOOD 5
5	ITEM 505/484 FS	TANK FS	4.0/4.0/4.0	60	83	FIRE CABINET LEFT	LEFT, HOOD 7
			4.0/4.0	40		FIRE CABINET RIGHT	RIGHT, HOOD 6

GAS_VALVE(S)

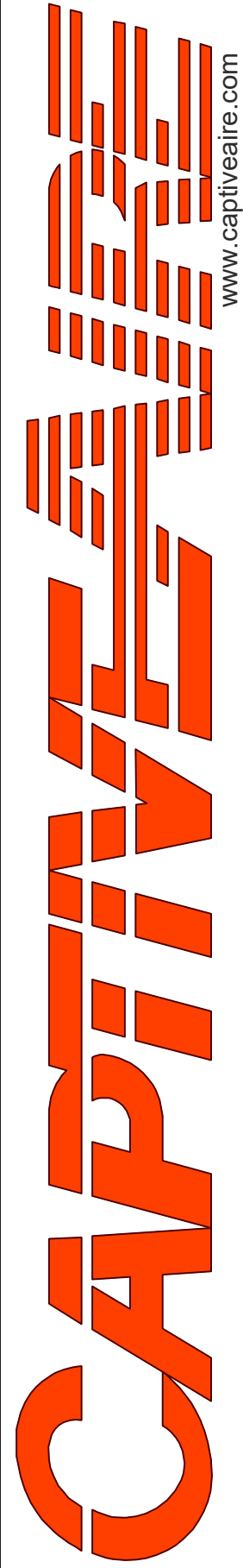
FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1	ITEM 110 -- FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
2	ITEM 314 -- FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
3	ITEM 366 -- FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
4	ITEM 403--FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
5	ITEM 505/484 FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
5	ITEM 505/484 FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS

FIRE_SYSTEM_PARTS_LIST_KEY 1

FIRE SYSTEM NO	TAG	KEY NUMBER -- PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST	FIRE SYSTEM NO	TAG	KEY NUMBER -- PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1	ITEM 110 -- FS	0 -- 0 -- TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0			0 -- 0 -- 32-00002 QUIK SEAL -- 1/2" (UL).	2	0
		0 -- 0 -- TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0			0 -- 0 -- 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	3	0
		0 -- 0 -- 12-F28021-32144--OT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	4	0			0 -- 0 -- 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0
		0 -- 0 -- 32-00002 QUIK SEAL -- 1/2" (UL).	4	0			0 -- 0 -- 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
		0 -- 0 -- 361091 3/8" BRASS PLUG.	7	0			0 -- 0 -- 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	3	0
		0 -- 0 -- 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	4	0			0 -- 0 -- 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) -- SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	2	0
		0 -- 0 -- 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0			0 -- 0 -- 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	2	0
		0 -- 0 -- 79425 3/8" NPT FEMALE TO 1/2" MALE PROPPRESS ADAPTER.	7	0			0 -- 0 -- 87-300001-001 TANK -- PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	3	0
		0 -- 0 -- 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0			0 -- 0 -- 87-300030-001 PRIMARY ACTUATOR KIT (PAK) -- ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 -- 0 -- 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	4	0			0 -- 0 -- 87-300033-001 DIN CONNECTOR, CANFIELD PART #5J560-201-EUOA, TANK FIRE SUPPRESSION, SUBMINATURE SOLENOID CONNECTION (CED VENDOR 30377).	1	0
		0 -- 0 -- 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) -- SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	3	0			0 -- 0 -- 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	12	0
		0 -- 0 -- 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	3	0			0 -- 0 -- 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	14	0
		0 -- 0 -- 87-300001-001 TANK -- PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	4	0			0 -- 0 -- 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	9	0
		0 -- 0 -- 87-300030-001 PRIMARY ACTUATOR KIT (PAK) -- ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0			0 -- 0 -- 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	6	0
		0 -- 0 -- 87-300033-001 DIN CONNECTOR, CANFIELD PART #5J560-201-EUOA, TANK FIRE SUPPRESSION, SUBMINATURE SOLENOID CONNECTION (CED VENDOR 30377).	1	0			0 -- 0 -- A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 -- 0 -- 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	16	0			0 -- 0 -- A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	2	0
		0 -- 0 -- 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	13	0			0 -- 0 -- B1145 3/8" BLACK IRON 90 ELL.	4	0
		0 -- 0 -- 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	16	0			0 -- 0 -- DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	3	0
		0 -- 0 -- 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	8	0			0 -- 0 -- TANK STRAP TANK STRAP -- USED FOR TANK FIRE SUPPRESSION.	9	0
		0 -- 0 -- A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0			0 -- 0 -- TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	3	0
		0 -- 0 -- A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	2	0			0 -- 0 -- WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	3	0
		0 -- 0 -- B1145 3/8" BLACK IRON 90 ELL.	8	0			16 -- 16 -- 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	11	0
		0 -- 0 -- DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0			16 -- 16 -- OL-F NOZZLE -- TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	11	0
		0 -- 0 -- SLPCON-05FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 4' GAP. KIT CONTAINS 7 FEET OF BLACK MG WIRE, 7 FEET OF TAN MG WIRE, 5 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0			26 -- 26 -- QSA-3/8 QUIK SEAL -- 3/8" (UL).	11	0
		0 -- 0 -- SLPCON-10FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 9' GAP OR BACK TO BACK HOODS. KIT CONTAINS 12 FEET OF BLACK MG WIRE, 12 FEET OF TAN MG WIRE, 10 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0			34 -- 34 -- A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0
		0 -- 0 -- SLPCON-30FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UPTO 29' GAP. KIT CONTAINS 32 FEET OF BLACK MG WIRE, 32 FEET OF TAN MG WIRE, 30 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0	3	ITEM 366 -- FS	0 -- 0 -- TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 -- 0 -- TANK STRAP TANK STRAP -- USED FOR TANK FIRE SUPPRESSION.	12	0			0 -- 0 -- TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 -- 0 -- TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0			0 -- 0 -- 12-F28021-32144--OT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	1	0
		0 -- 0 -- WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	4	0			0 -- 0 -- 32-00002 QUIK SEAL -- 1/2" (UL).	1	0
		16 -- 16 -- 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	17	0			0 -- 0 -- 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	2	0
		16 -- 16 -- OL-F NOZZLE -- TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	17	0			0 -- 0 -- 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	1	0
		26 -- 26 -- QSA-3/8 QUIK SEAL -- 3/8" (UL).	17	0			0 -- 0 -- 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	1	0
		34 -- 34 -- A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0			0 -- 0 -- 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
		0 -- 0 -- TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0			0 -- 0 -- 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) -- SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	1	0
		0 -- 0 -- TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0			0 -- 0 -- 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	1	0
		0 -- 0 -- 12-F28021-32144--OT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	2	0			0 -- 0 -- 87-300001-001 TANK -- PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	2	0
2	ITEM 314 -- FS	0 -- 0 -- TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0					
		0 -- 0 -- TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0					
		0 -- 0 -- 12-F28021-32144--OT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	2	0					

REVISIONS

DESCRIPTION	DATE:
Δ	
Δ	
Δ	
Δ	



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International Village (Gas) -- Puyallup -- R4

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

MASTER DRAWING

City of Puyallup
Development & Permitting Services
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Building

Planning

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Public Works

Fire

Traffic

SHEET NO.
8


FIRE SYSTEM NO	TAG	KEY NUMBER – PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST	FIRE SYSTEM NO	TAG	KEY NUMBER – PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
3 (CONTINUE)		0 – 0 – 87–300030–001 PRIMARY ACTUATOR KIT (PAK) – ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0			0 – 0 – TANK STRAP TANK STRAP – USED FOR TANK FIRE SUPPRESSION.	9	0
		0 – 0 – 87–300033–001 DIN CONNECTOR, CANFIELD PART #5J560–201–EU0A, TANK FIRE SUPPRESSION, SUBMINATURE SOLENOID CONNECTION (CED VENDOR 30377).	1	0			0 – 0 – TFS–UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	3	0
		0 – 0 – 87–300152–001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	8	0			0 – 0 – WK–283952–000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	3	0
		0 – 0 – 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	6	0			16 – 16 – 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	10	0
		0 – 0 – 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	5	0			16 – 16 – OL–F NOZZLE – TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME–PLATED PIPE).	10	0
		0 – 0 – 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	4	0			26 – 26 – QSA–3/8 QUIK SEAL – 3/8" (UL).	10	0
		0 – 0 – A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0			34 – 34 – A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0
		0 – 0 – A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	1	0			0 – 0 – TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 – 0 – B1145 3/8" BLACK IRON 90 ELL.	2	0			0 – 0 – TANK FIRE SUPPRESSION POST–DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 – 0 – DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0			0 – 0 – 12–F28021–32144–OT–360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	3	0
		0 – 0 – TANK STRAP TANK STRAP – USED FOR TANK FIRE SUPPRESSION.	6	0			0 – 0 – 32–00002 QUIK SEAL – 1/2" (UL).	3	0
		0 – 0 – TFS–UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0			0 – 0 – 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	5	0
		0 – 0 – WK–283952–000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	2	0			0 – 0 – 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	3	0
		16 – 16 – 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	6	0			0 – 0 – 79525 1/2" 90 PRO–PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	3	0
		16 – 16 – OL–F NOZZLE – TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME–PLATED PIPE).	6	0			0 – 0 – 79580 1/2" X 1/2" PRO–PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	5	0
		26 – 26 – QSA–3/8 QUIK SEAL – 3/8" (UL).	6	0			0 – 0 – 87–120042–001 SECONDARY ACTUATOR VALVE (SVA) – SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	3	0
	34 – 34 – A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0			0 – 0 – 87–120045–001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	3	0	
4		0 – 0 – TANK FIRE SUPPRESSION POST–DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0	5	ITEM 505/484 FS	0 – 0 – 87–300001–001 TANK – PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	5	0
		0 – 0 – TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0			0 – 0 – 87–300030–001 PRIMARY ACTUATOR KIT (PAK) – ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – 12–F28021–32144–OT–360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	2	0			0 – 0 – 87–300033–001 DIN CONNECTOR, CANFIELD PART #5J560–201–EU0A, TANK FIRE SUPPRESSION, SUBMINATURE SOLENOID CONNECTION (CED VENDOR 30377).	2	0
		0 – 0 – 32–00002 QUIK SEAL – 1/2" (UL).	2	0			0 – 0 – 87–300152–001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	20	0
		0 – 0 – 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	3	0			0 – 0 – 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	21	0
		0 – 0 – 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0			0 – 0 – 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	15	0
		0 – 0 – 79525 1/2" 90 PRO–PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0			0 – 0 – 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	10	0
		0 – 0 – 79580 1/2" X 1/2" PRO–PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	3	0			0 – 0 – A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	2	0
		0 – 0 – 87–120042–001 SECONDARY ACTUATOR VALVE (SVA) – SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	2	0			0 – 0 – A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	3	0
		0 – 0 – 87–120045–001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	2	0			0 – 0 – B1145 3/8" BLACK IRON 90 ELL.	7	0
		0 – 0 – 87–300001–001 TANK – PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	3	0			0 – 0 – DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	5	0
		0 – 0 – 87–300030–001 PRIMARY ACTUATOR KIT (PAK) – ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0			0 – 0 – SLPCON–03FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 2" GAP. KIT CONTAINS 5 FEET OF BLACK MG WIRE, 5 FEET OF TAN MG WIRE, 3 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
		0 – 0 – 87–300033–001 DIN CONNECTOR, CANFIELD PART #5J560–201–EU0A, TANK FIRE SUPPRESSION, SUBMINATURE SOLENOID CONNECTION (CED VENDOR 30377).	1	0			0 – 0 – SLPCON–15FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 14" GAP OR BACK TO BACK HOODS. KIT CONTAINS 17 FEET OF BLACK MG WIRE, 17 FEET OF TAN MG WIRE, 15 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
		0 – 0 – 87–300152–001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	12	0			0 – 0 – TANK STRAP TANK STRAP – USED FOR TANK FIRE SUPPRESSION.		

REVISIONS	
DESCRIPTION	DATE:
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International Village (Gas) – Puyallup – R4

110 9th Avenue Southwest,

Puyallup, WA, 98371



Seattle Office

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DATE: 2/5/2025

DWG.#: 7322372

DRAWN BY: JL – R85

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




MASTER DRAWING

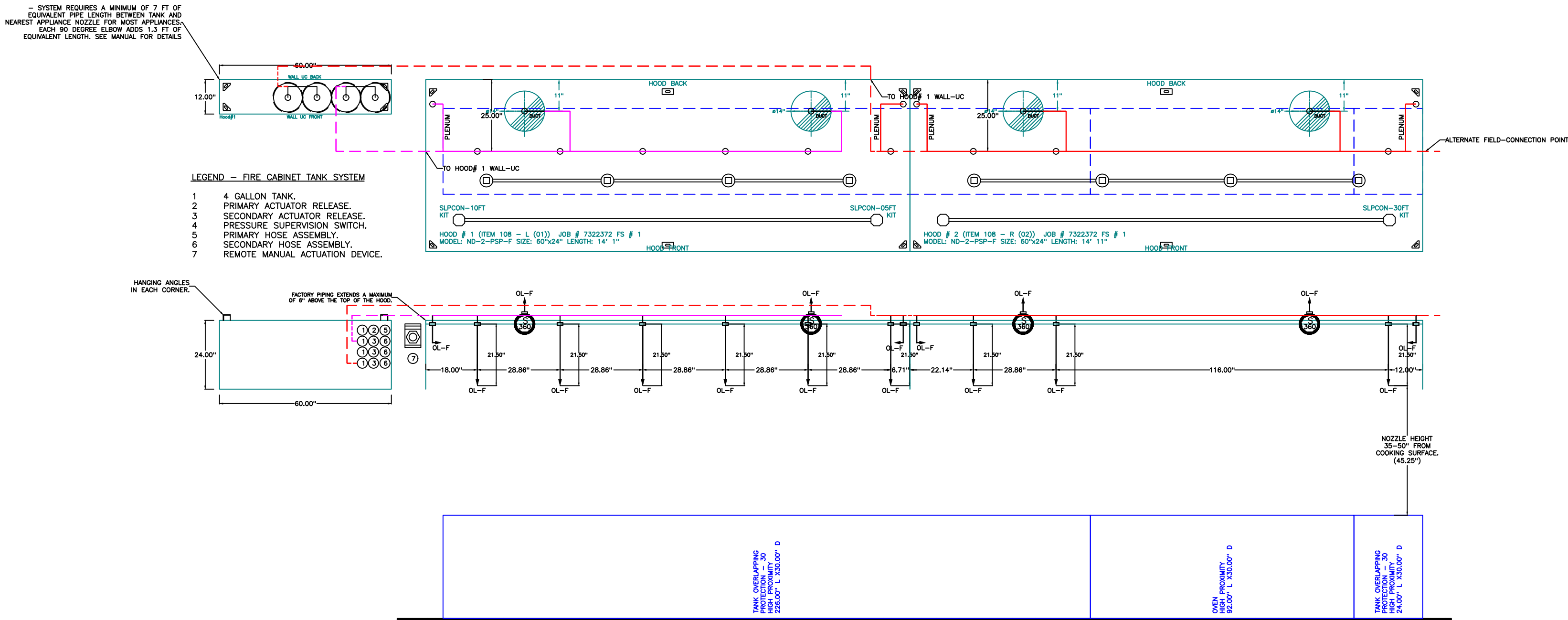




114 NW Canal St. #300, Seattle, WA, 98107 PHONE: (425) 212-5996 FAX: 425/2125998 EMAIL: reg85@captiveaire.com

SHEET NO.

9



NOTES

- FIELD PIPE DROPS AS SHOWN.
- PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY GAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVEING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.
- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
- THIS PRE-ENGINEERED FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

— OL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB # 7322372.

JOB NAME: INTERNATIONAL VILLAGE (GAS) — PUYALLUP — R4.

SYSTEM SIZE: TANK-SP-4-WC DESIGN FP: 77. MAXIMUM FP: 80.

HOOD # 1 14"x1.00" LONG x 60" WIDE x 24" HIGH.

RISER # 1 SIZE: 14" DIA.

RISER # 2 SIZE: 14" DIA.

HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

HOOD # 2 14"x11.00" LONG x 60" WIDE x 24" HIGH.

RISER # 1 SIZE: 14" DIA.

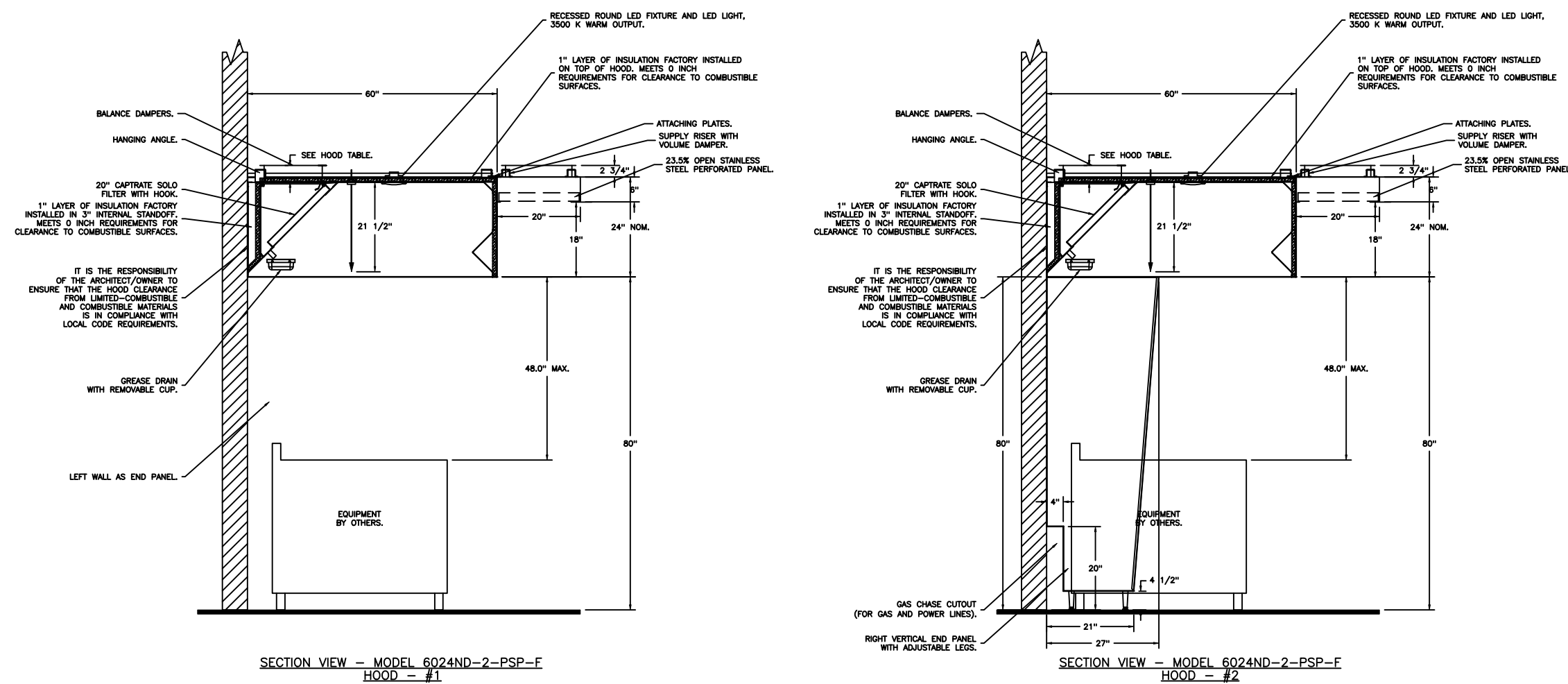
RISER # 2 SIZE: 14" DIA.

HOOD # 2 METAL BLOW-OFF CAPS INCLUDED.

— HEAVY-DUTY APPLIANCES (RATED 600FT) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.

— MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450FT) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10



REVISIONS

DESCRIPTION	DATE:

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Seattle Office

114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captivair.com

International Village (Gas) — Puyallup — R4
110 9th Avenue Southwest,
Puyallup, WA, 98371

DATE: 2/5/2025

DWG.#:
7322372

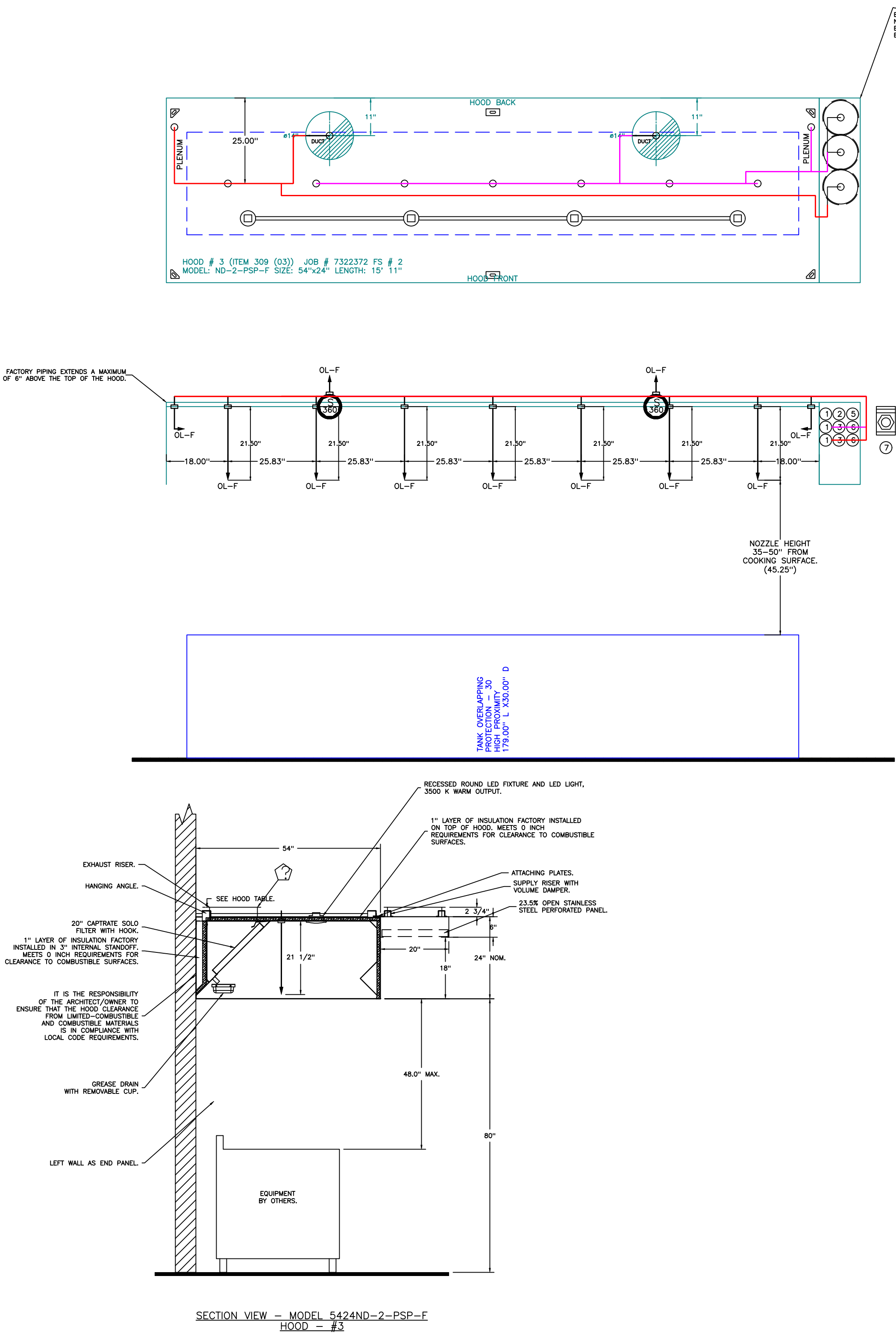
DRAWN BY: JL — R85

SCALE:
3/8" = 1'-0"

MASTER DRAWING

SHEET NO.

10



- NOTES
- FIELD PIPE DROPS AS SHOWN
 - PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
 - FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
 - SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
 - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVEING, SALAMANDERS, ETC.
 - OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
 - IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
 - FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.
 - APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
 - THIS PRE-ENGINEERED FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.
 - OL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 7322372.
JOB NAME: INTERNATIONAL VILLAGE (GAS) - PUYALLUP - R4.

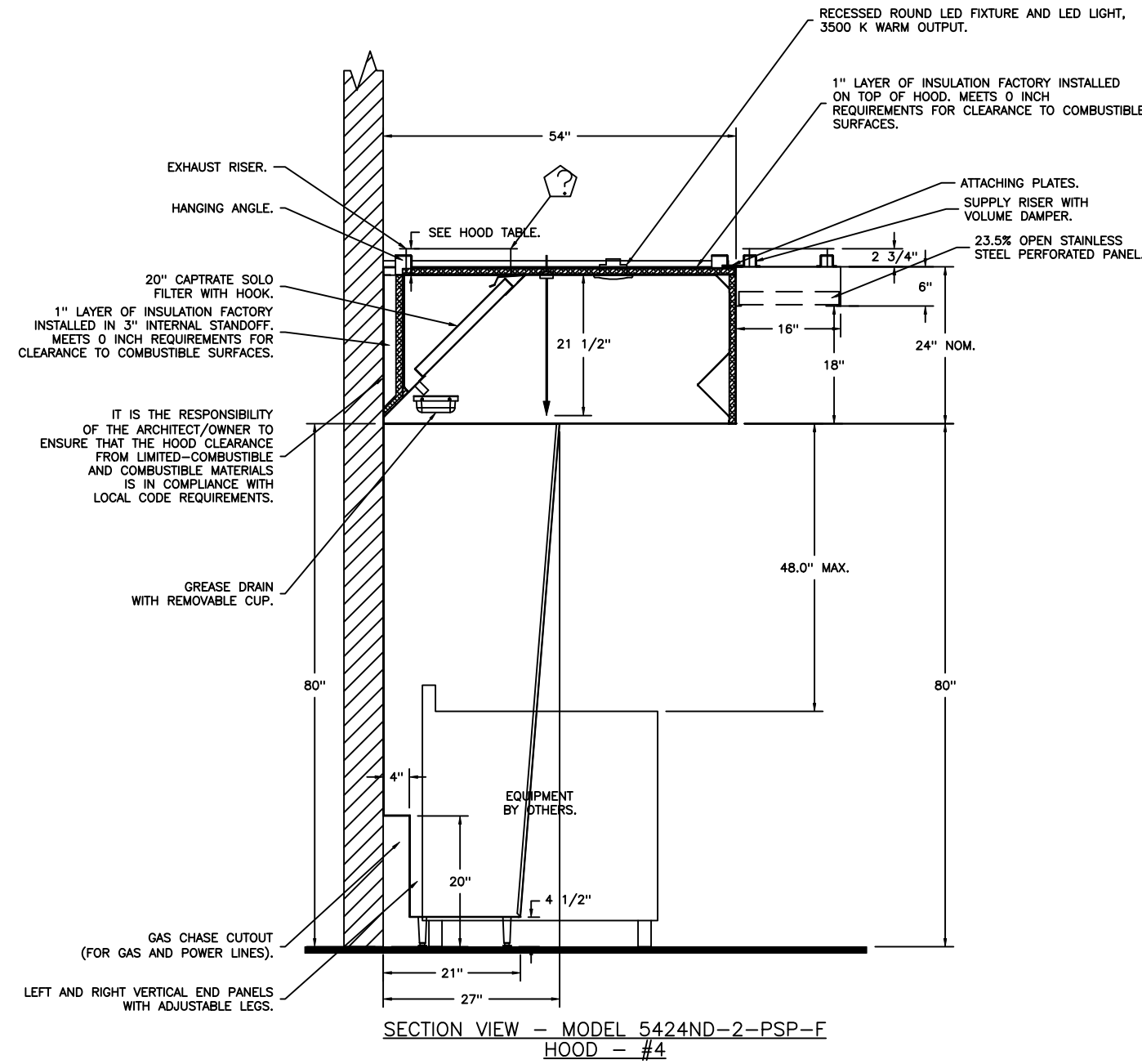
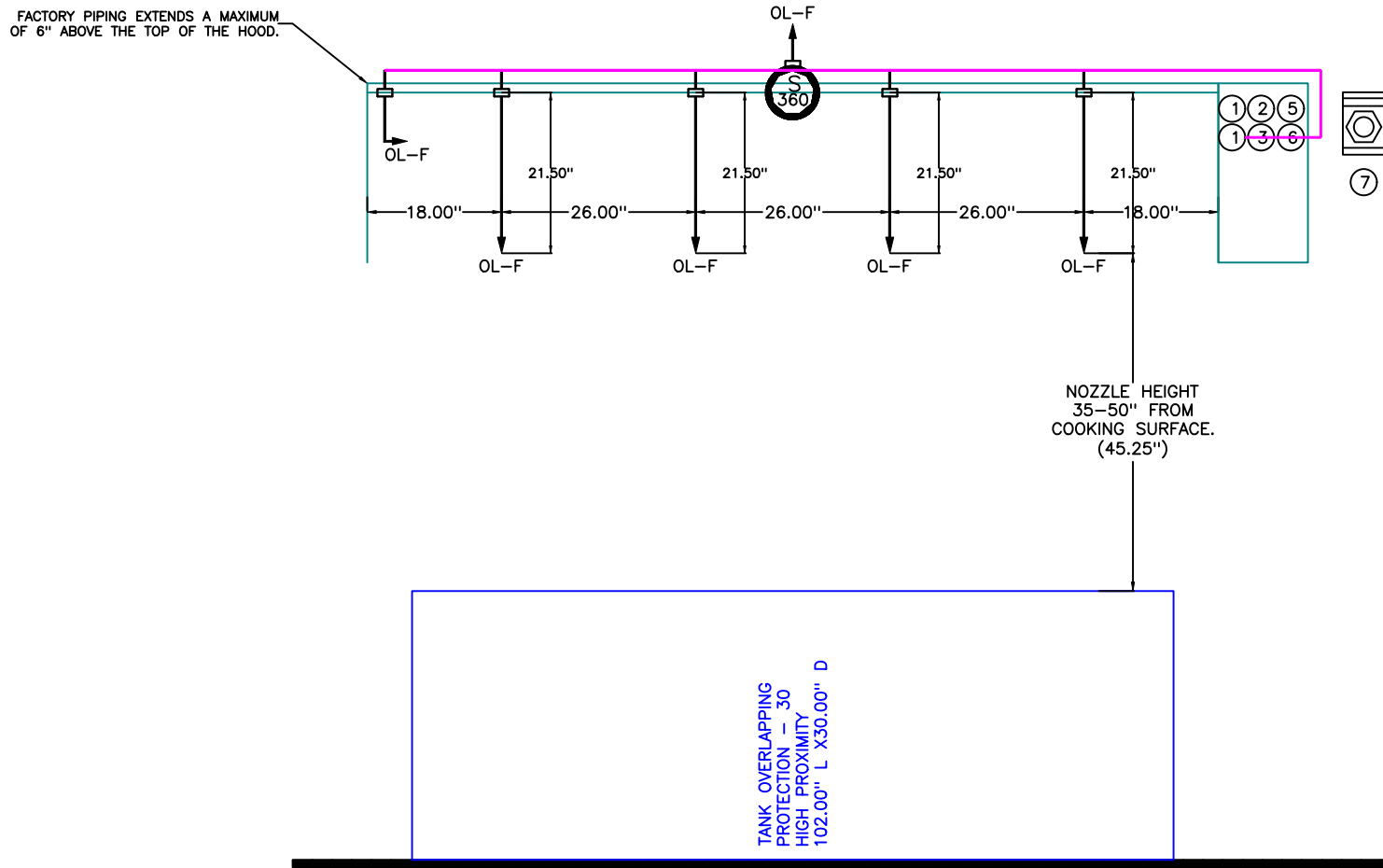
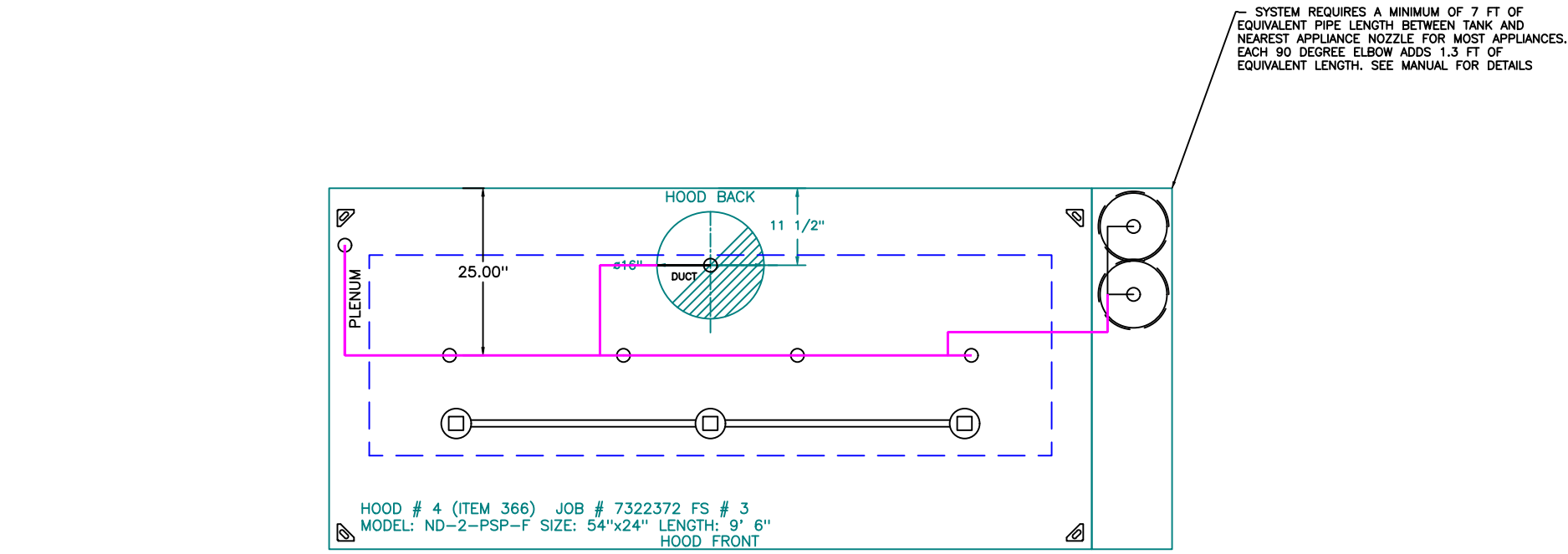
SYSTEM SIZE: TANK-SP-3 DESIGN FP: 51. MAXIMUM FP: 60.
HOOD # 3 15' 11.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 14" DIA.
RISER # 2 SIZE: 14" DIA.
HOOD # 3 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

LEGEND -- FIRE CABINET TANK SYSTEM

- 1 4 GALLON TANK.
- 2 PRIMARY ACTUATOR RELEASE.
- 3 SECONDARY ACTUATOR RELEASE.
- 4 PRESSURE SUPERVISION SWITCH.
- 5 PRIMARY HOSE ASSEMBLY.
- 6 SECONDARY HOSE ASSEMBLY.
- 7 REMOTE MANUAL ACTUATION DEVICE.



- NOTES
- FIELD PIPE DROPS AS SHOWN.
 - PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
 - FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
 - SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
 - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVEING, SALAMANDERS, ETC.
 - OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
 - IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
 - FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.
 - APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
 - THIS PRE-ENGINEERED FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

- OL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 7322372.
JOB NAME: INTERNATIONAL VILLAGE (GAS) - PUYALLUP - R4.

SYSTEM SIZE: TANK-SP-2 DESIGN FP: 28, MAXIMUM FP: 40.

HOOD # 4 9' 6.00" LONG x 54" WIDE x 24" HIGH.

RISER # 1 SIZE: 16" DIA.

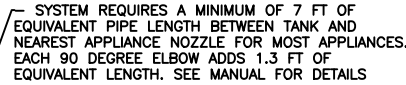
HOOD # 4 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

LEGEND - FIRE CABINET TANK SYSTEM

- 4 GALLON TANK.
- PRIMARY ACTUATOR RELEASE.
- SECONDARY ACTUATOR RELEASE.
- PRESSURE SUPERVISION SWITCH.
- PRIMARY HOSE ASSEMBLY.
- SECONDARY HOSE ASSEMBLY.
- REMOTE MANUAL ACTUATION DEVICE.



NOTES

- FIELD PIPE DROPS AS SHOWN
- PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROPS TO FACTORY W/ PROVIDED QTY 6" GOIN LONG PIECES OF CHROME
- PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROPS: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED
- FIELD INSTALLED DROPS TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVEING, SALAMANDERS, ETC.
- OVERLAP COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION IF APPLICABLE.
- FACTORY PIPING EXTENDS A PRE-MUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS PRE-ENGINEERED FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

— OL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 7322372.

JOB NAME: INTERNATIONAL VILLAGE (GAS) - PUYALLUP - R4.

SYSTEM SIZE: TANK-SP-3 DESIGN FP: 46. MAXIMUM FP: 60.

HOOD # 5 13' 4.00" LONG x 54" WIDE x 24" HIGH.

RISER # 1 SIZE: 14" DIA.
RISER # 2 SIZE: 14" DIA.

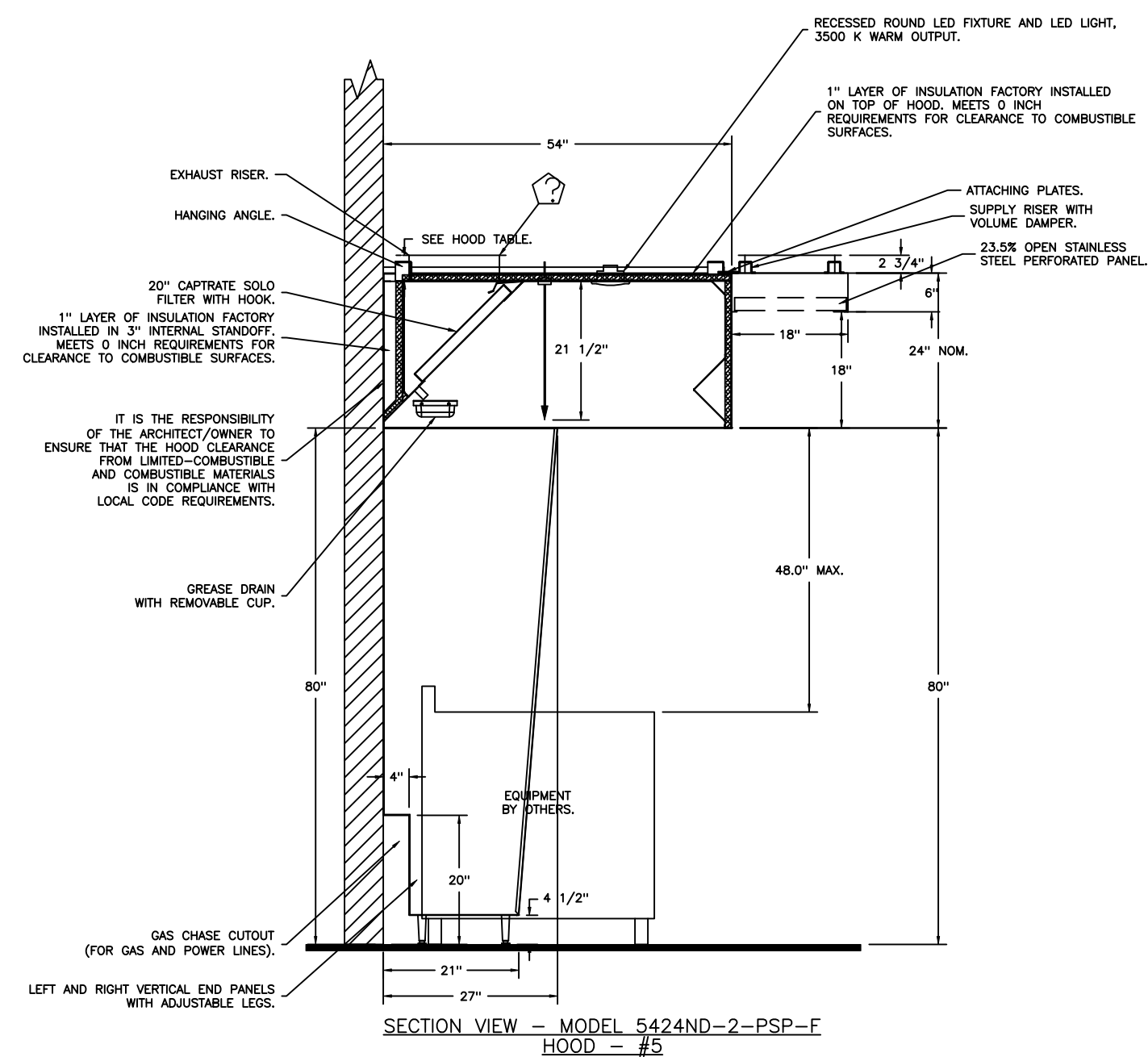
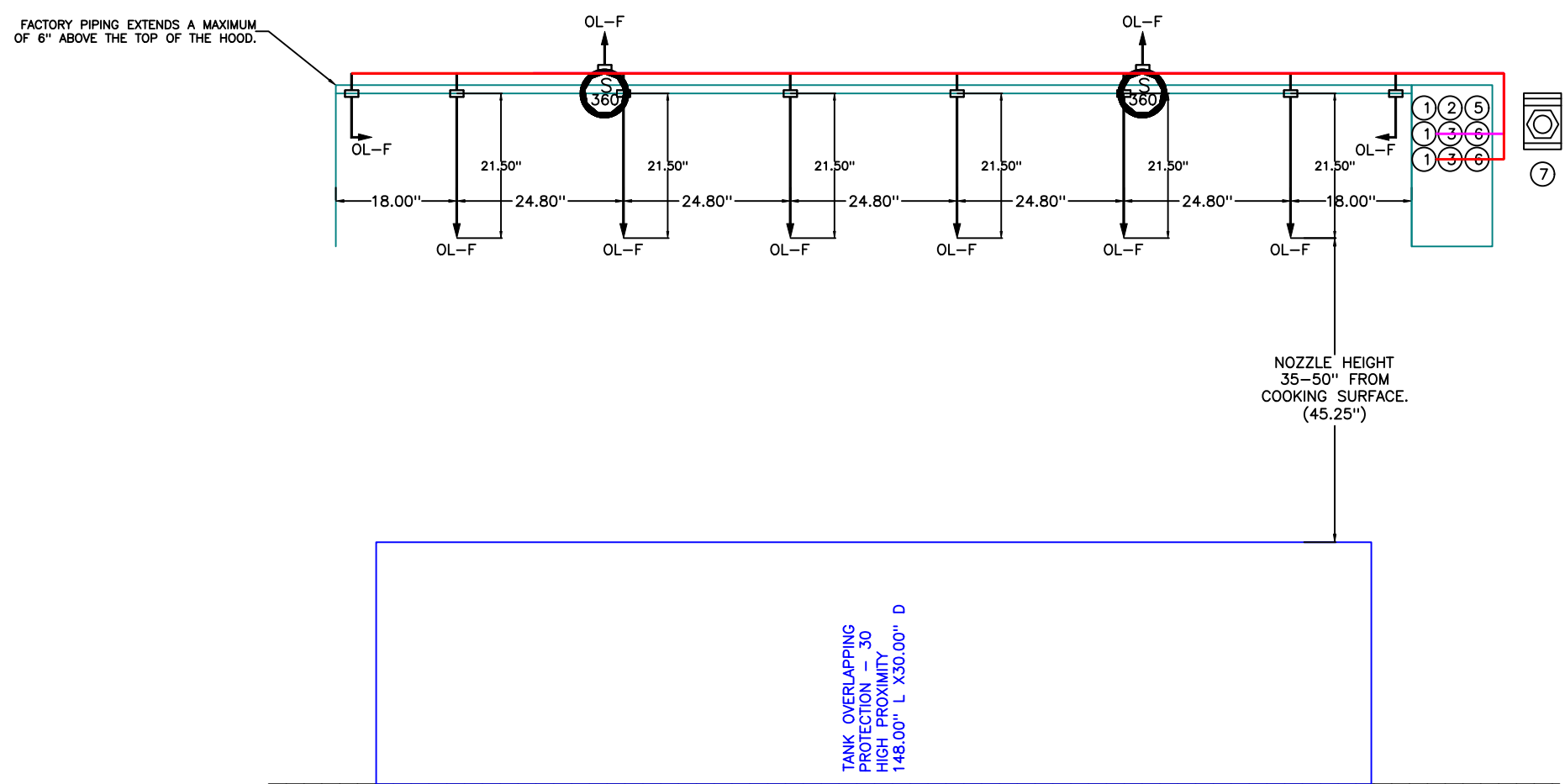
HOOD # 5 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

LEGEND - FIRE CABINET TANK SYSTEM

- 1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.



EXHAUST FAN INFORMATION -- JOB#7322372

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF-111 (01)	1	DU180HFA	CAPTIVEAIRE	3521	1.780	1467	ODP,PREMIUM	3.000	2.2660	3	208	9.5	813 FPM	185	24.6
2	KEF-111.1 (02)	1	DU200HFA	CAPTIVEAIRE	3729	1.740	1328	ODP,PREMIUM	5.000	2.4170	3	208	15.0	907 FPM	215	28.3
3	KEF-310 (03)	1	DU240HFA	CAPTIVEAIRE	3979	2.100	1015	TEFC,PREMIUM	5.000	2.8840	3	208	15.6	904 FPM	363	21
4	KEF-382 (04)	1	DU85HFA	CAPTIVEAIRE	2138	1.360	1608	TEAO-ECM	1.000	0.7510	1	115	11.6	677 FPM	94	16.9
5	KEF-398 (05)	1	DU180HFA	CAPTIVEAIRE	3333	1.220	1295	TEFC,PREMIUM	2.000	1.5610	3	208	7.3	770 FPM	213	20.4
6	KEF-501 (06)	1	DU180HFA	CAPTIVEAIRE	3188	1.600	1364	ODP,PREMIUM	3.000	1.8160	3	208	9.5	736 FPM	185	21.3
7	KEF-481 (07)	1	DU200HFA	CAPTIVEAIRE	3854	1.800	1358	ODP,PREMIUM	5.000	2.5910	3	208	15.0	938 FPM	215	30.5
8	KEF-165 (08)	1	DU50HFA	CAPTIVEAIRE	1025	0.560	1475	TEAO-ECM	0.500	0.3310	1	115	6.3	390 FPM	76	15.1

MUA FAN INFORMATION -- JOB#7322372

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
9	MAU-113	1	A3-D.500-24D	24MF-3-MOD	A3-D.500	3500	6524	0.500	1403	ODP,PREMIUM	10.000	5.5120	3	208	27.0	33.8A	60A	934	13.4

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
9	MAU-113	378208	347951	50°F	7 IN. W.C. -- 14 IN. W.C.	NATURAL	92

FAN OPTIONS

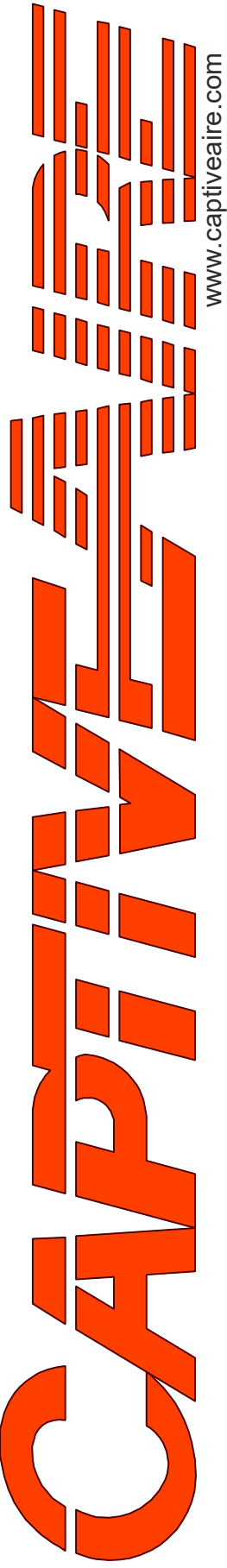
FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF-111 (01)	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL -- DU/DR180HFA -- INSTALLED AT PLANT -- FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
2	KEF-111.1 (02)	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL -- DU/DR200HFA -- INSTALLED AT PLANT -- FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
3	KEF-310 (03)	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL -- DU/DR240HFA -- INSTALLED AT PLANT -- FOR GREASE DUCTS
		1	EXHAUST FAN HEAT BAFFLE
		1	UNIT MOUNTED VFD FOR USE WITH ECPM03
		1	VFD MOUNTING BRACKET FOR DU/DR 240
		1	2 YEAR PARTS WARRANTY
4	KEF-382 (04)	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL -- DU/DR85HFA -- INSTALLED AT PLANT -- FOR GREASE DUCTS
		1	ECM WIRING PACKAGE -- PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
		1	GREASE BOX
5	KEF-398 (05)	1	FAN BASE CERAMIC SEAL -- DU/DR180HFA -- INSTALLED AT PLANT -- FOR GREASE DUCTS
		1	EXHAUST FAN HEAT BAFFLE
		1	UNIT MOUNTED VFD FOR USE WITH ECPM03
		1	VFD MOUNTING BRACKET FOR DU/DR 180 -- 200
		1	2 YEAR PARTS WARRANTY
6	KEF-501 (06)	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL -- DU/DR180HFA -- INSTALLED AT PLANT -- FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
7	KEF-481 (07)	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL -- DU/DR200HFA -- INSTALLED AT PLANT -- FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
8	KEF-165 (08)	1	ECM WIRING PACKAGE -- EXHAUST -- MANUAL OR 0-10VDC REFERENCE SPEED CONTROL --MSC-- (TELCO), CCW ROTATION
		1	SCR-13 BIRD SCREEN
		1	I 15-BDD DAMPER
9	MAU-113	1	2 YEAR PARTS WARRANTY
		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 3 (1" MOD VALVE)
		1	SHIP LOOSE GAS STRAINER 1"
		1	MOTORIZED BACKDRAFT DAMPER FOR A3-D HOUSING -- MEETS AMCA CLASS 1A RATING
		1	DF3 INDOOR HANGING OPTION -- INCLUDES 2 HSA200 HANGING SPRING ISOLATORS PER UNI-STRUT
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) -- THREE PHASE ONLY
		1	2 YEAR PARTS WARRANTY
		1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET
		1	

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF-111 (01)	YES						
2	KEF-111.1 (02)	YES						
3	KEF-310 (03)	YES						
4	KEF-382 (04)	YES						
5	KEF-398 (05)	YES						
6	KEF-501 (06)	YES						
7	KEF-481 (07)	YES						
8	KEF-165 (08)		YES					
9	MAU-113				YES		YES	

REVISIONS

DESCRIPTION	DATE:
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DATE: 2/5/2025

DWG.#: 7322372

DRAWN BY: JL -- R85

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

MASTER DRAWING

City of Puyallup
Developer & Permitting Services
ISSUED PERMIT

Building

Planning

Engineering

Public Works

Fire

Traffic

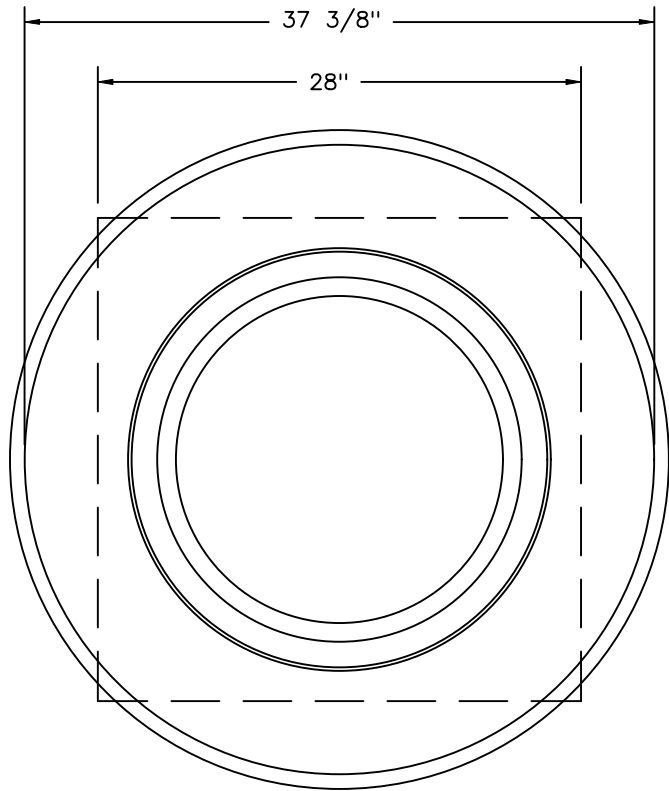
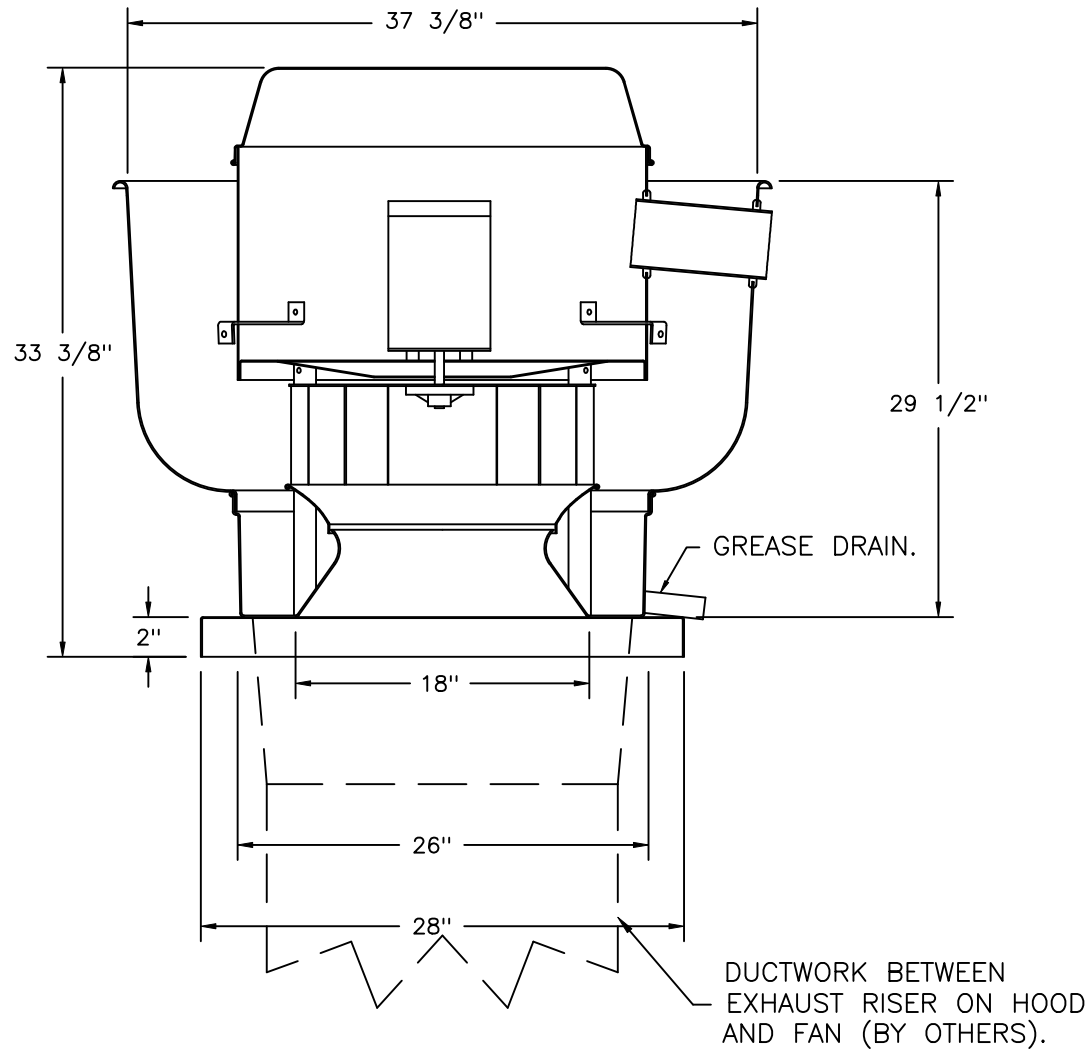
SHEET NO. 15

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1		KEF-1	29 LBS	CURB	31.500"W X 31.500"L X 16.000"H.
2		KEF-1	29 LBS	EXHAUST ADAPTER	FROM 32.500"SQ TO 26.500"SQ X 9.000"H.
3	# 3	KEF-310 (03)	43 LBS	CURB	31.500"W X 31.500"L X 24.000"H VENTED HINGED.
4	# 4	KEF-382 (04)	41 LBS	CURB	23.000"W X 23.000"L X 24.000"H VENTED HINGED.
5		KEF-2	29 LBS	CURB	31.500"W X 31.500"L X 16.000"H.
6		KEF-2	45 LBS	EXHAUST ADAPTER	FROM 32.500"SQ TO 26.500"SQ X 9.000"H.
7		KEF-5	29 LBS	CURB	31.500"W X 31.500"L X 16.000"H.
8	# 8	KEF-165 (08)	18 LBS	CURB	19.500"W X 19.500"L X 14.000"H.
9		KEF-5	45 LBS	EXHAUST ADAPTER	FROM 32.500"SQ TO 26.500"SQ X 9.000"H.
10		KEF-6	29 LBS	CURB	31.500"W X 31.500"L X 16.000"H.
11		KEF-6	45 LBS	EXHAUST ADAPTER	FROM 32.500"SQ TO 26.500"SQ X 9.000"H.
12		KEF-7	29 LBS	CURB	31.500"W X 31.500"L X 16.000"H.
13		KEF-7	45 LBS	EXHAUST ADAPTER	FROM 32.500"SQ TO 26.500"SQ X 9.000"H.

HMI SCHEDULE				
UNIT NUMBER	HMI #	HMI LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN #9	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55

FANS #2 (KEF-111.1 (02)), #7 (KEF-481 (07)) - DU200HFA EXHAUST FAN



TOP VIEW

FEATURES:

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

NORMAL TEMPERATURE TEST

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

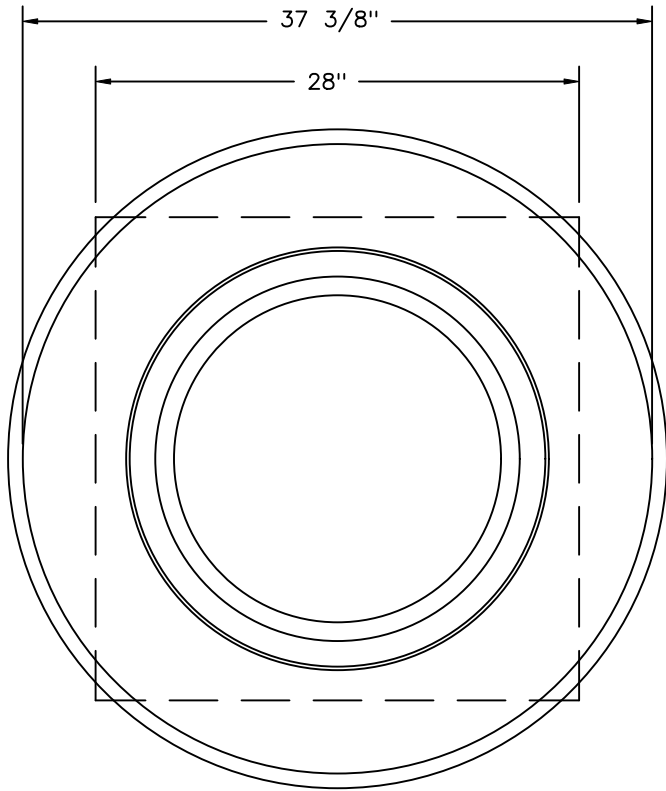
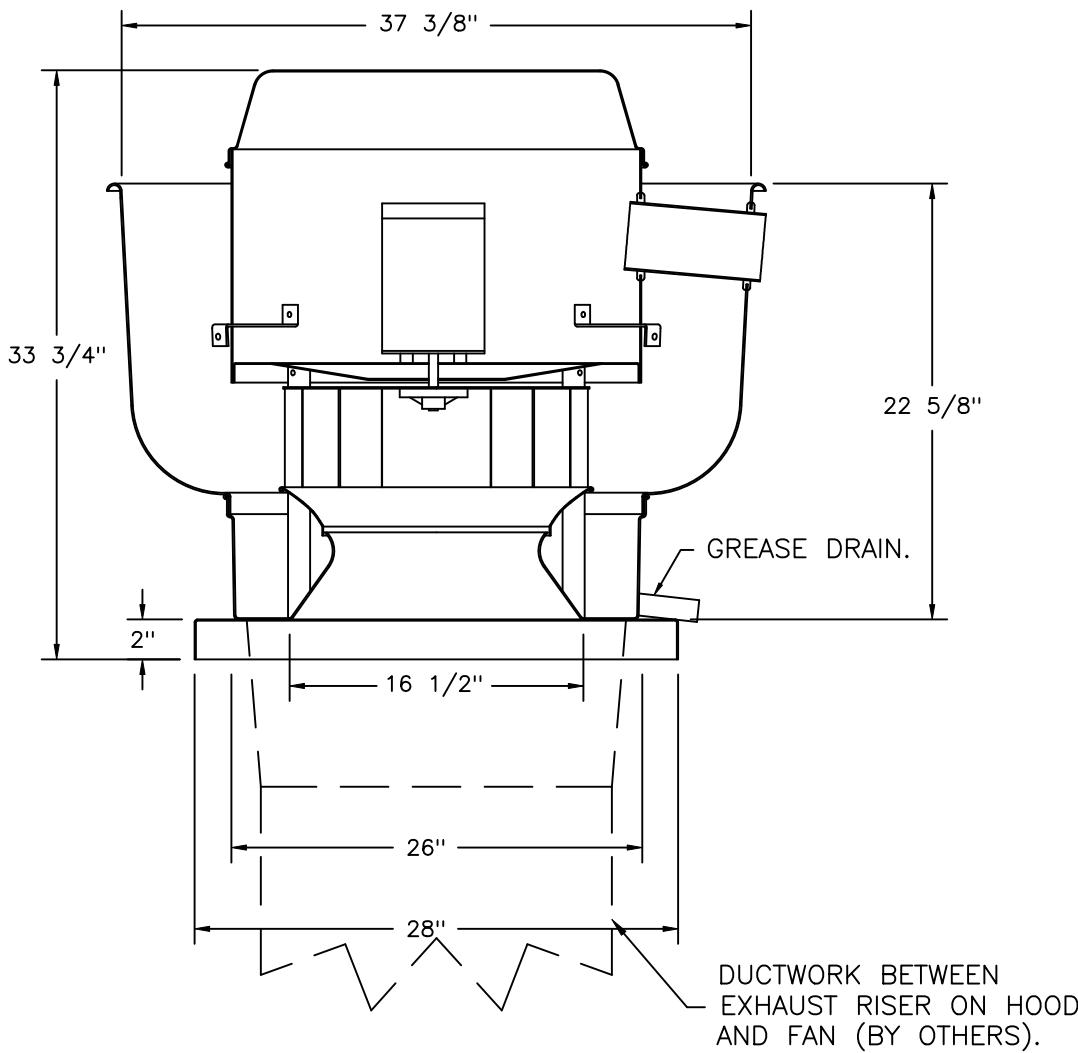
ABNORMAL FLARE-UP TEST

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

OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR200HFA - INSTALLED AT PLANT - FOR GREASE DUCTS.
- 2 YEAR PARTS WARRANTY.

FANS #1 (KEF-111 (01)), #6 (KEF-501 (06)) - DU180HFA EXHAUST FAN



TOP VIEW

FEATURES:

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

NORMAL TEMPERATURE TEST

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

ABNORMAL FLARE-UP TEST

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

OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS.
- 2 YEAR PARTS WARRANTY.

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DATE: 2/5/2025

DWG.#:
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DRAWN
BY: JL - R85

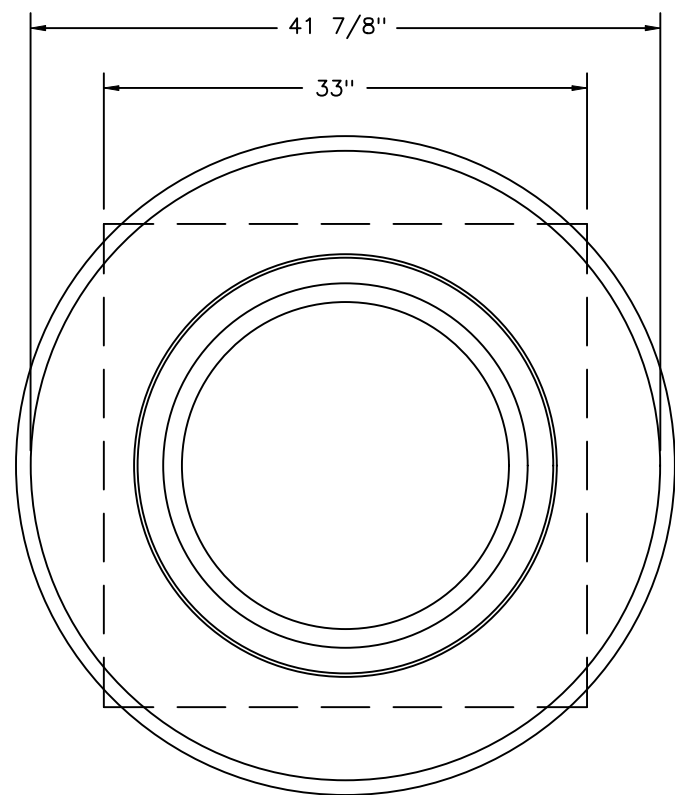
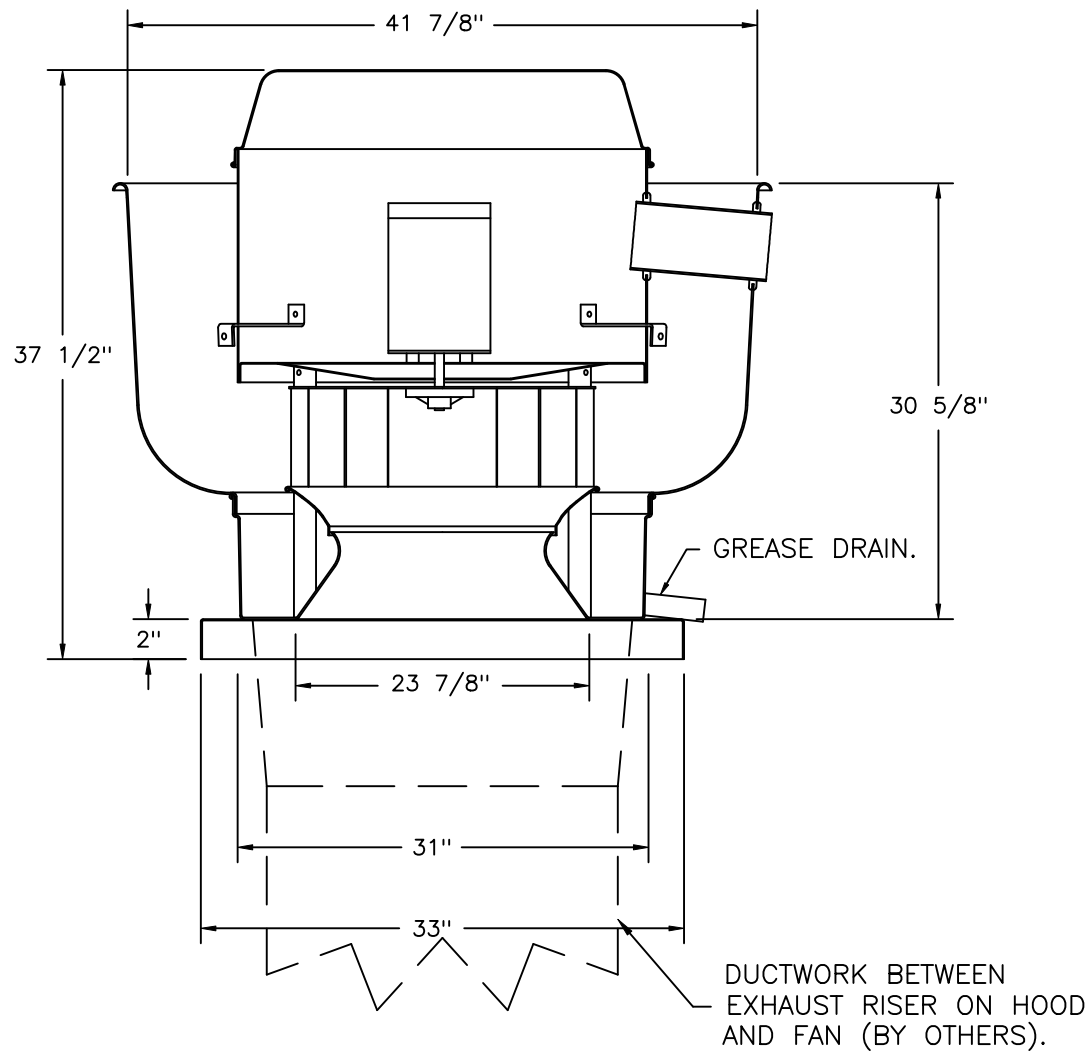
SCALE:
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.

16

FAN #3 DU240HFA – EXHAUST FAN (KEF-310 (03))



TOP VIEW

FEATURES:

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

NORMAL TEMPERATURE TEST

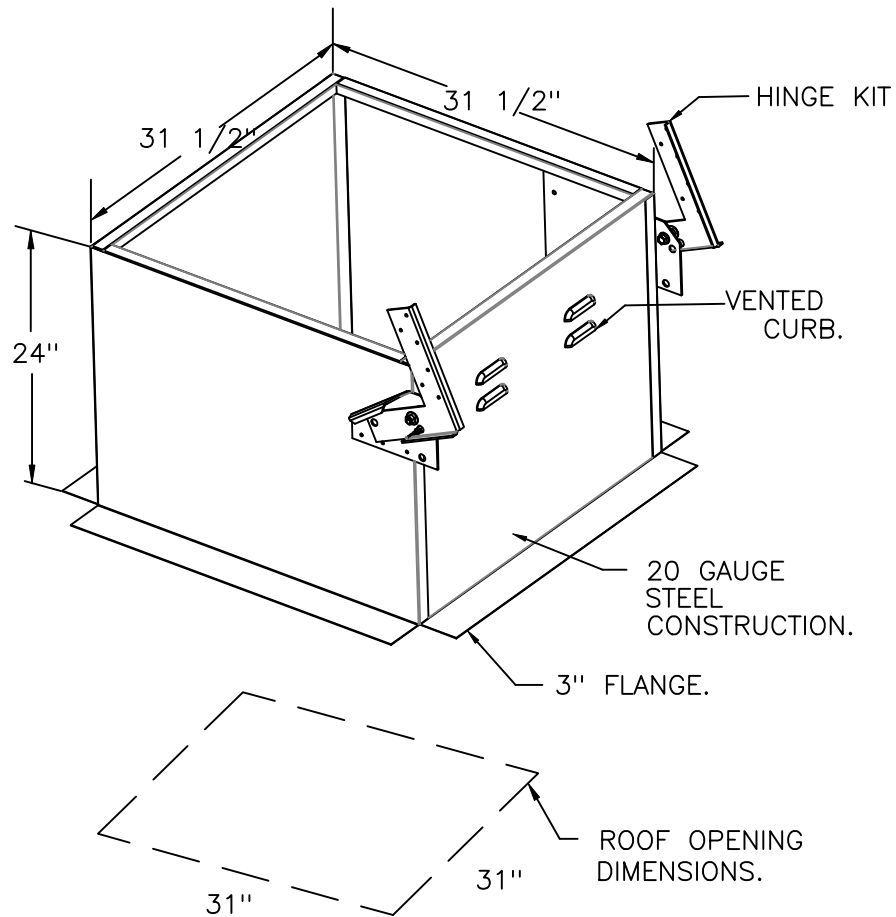
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST

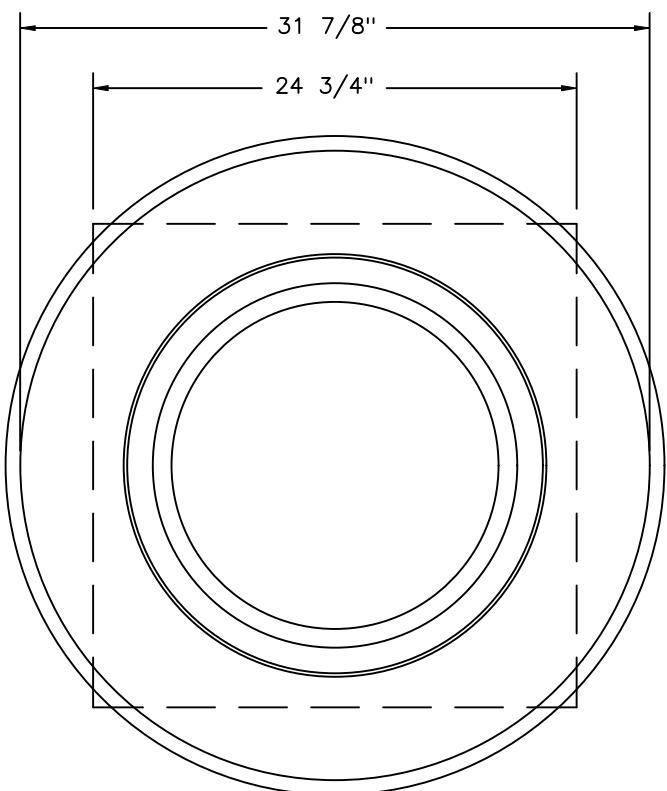
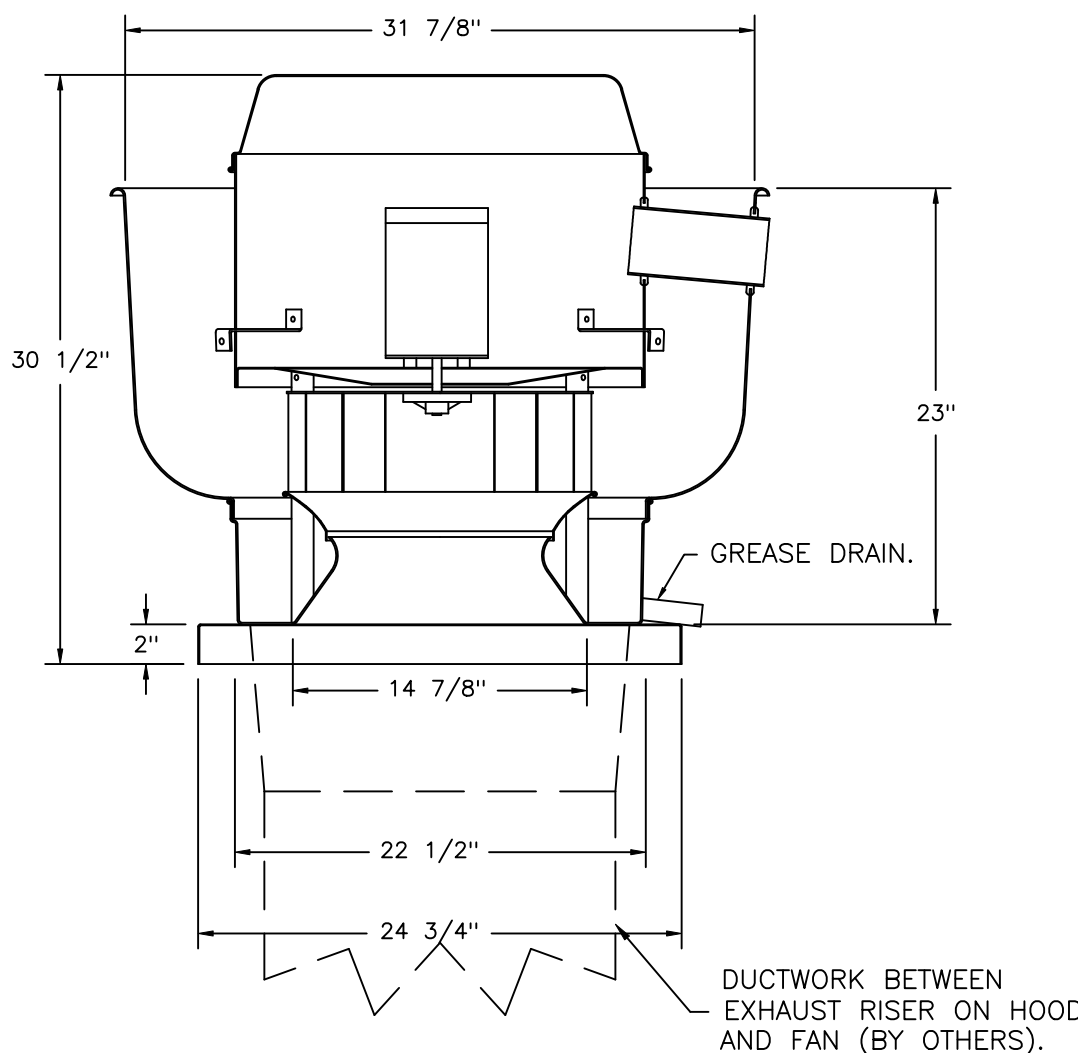
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL – DU/DR240HFA – INSTALLED AT PLANT – FOR GREASE DUCTS.
- EXHAUST FAN HEAT BAFFLE.
- UNIT MOUNTED VFD FOR USE WITH ECPM03.
- VFD MOUNTING BRACKET FOR DU/DR 240.
- 2 YEAR PARTS WARRANTY.



FAN #4 DUB5HFA – EXHAUST FAN (KEF-382 (04))



TOP VIEW

FEATURES:

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

NORMAL TEMPERATURE TEST

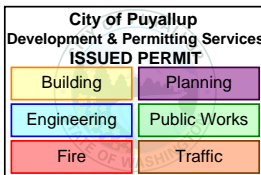
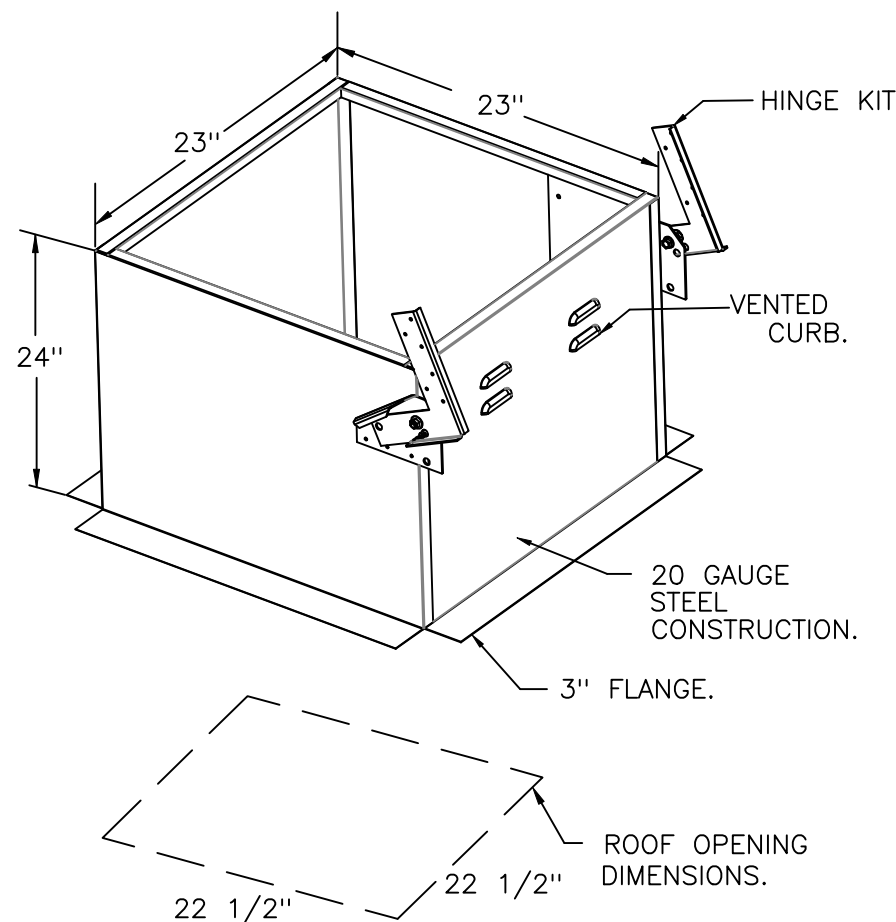
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST

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

OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL – DU/DRB5HFA
- INSTALLED AT PLANT – FOR GREASE DUCTS.
- ECM WIRING PACKAGE – PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.



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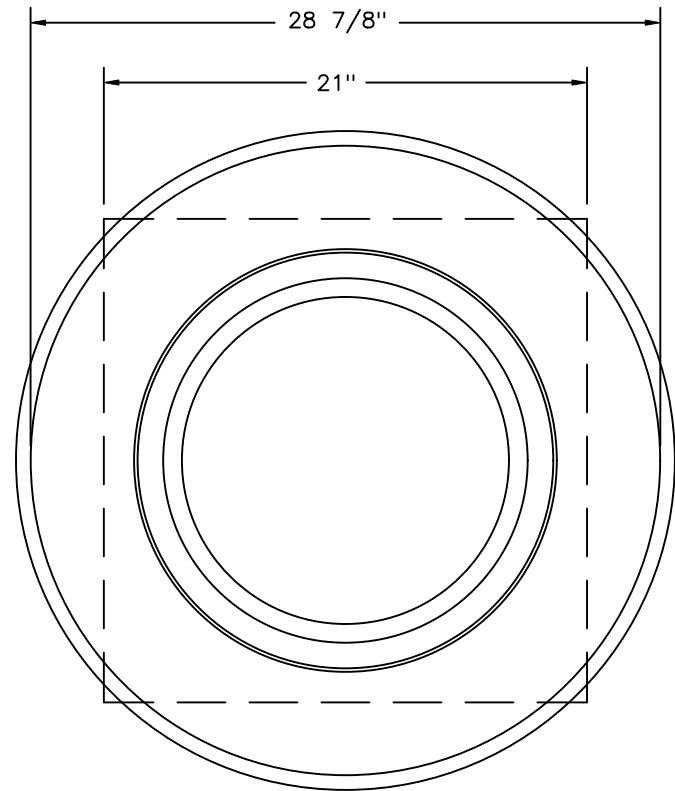
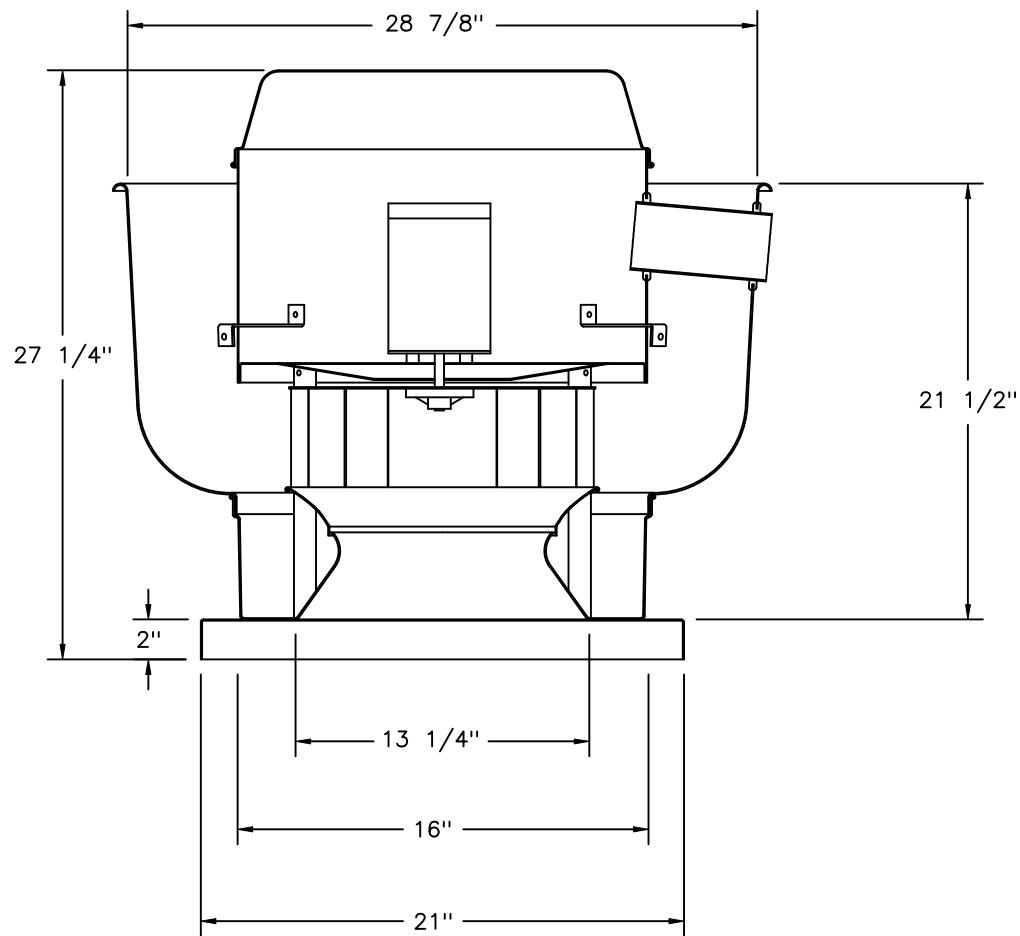
SCALE:
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.

17

FAN #8 DU50HFA – EXHAUST FAN (KEF-165 (08))



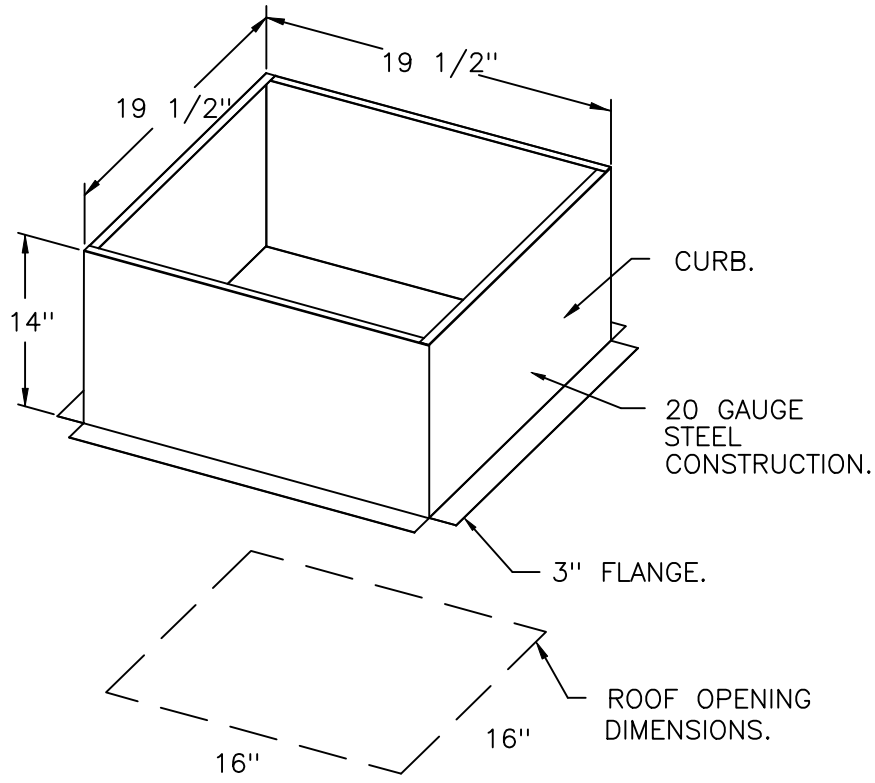
TOP VIEW

FEATURES:

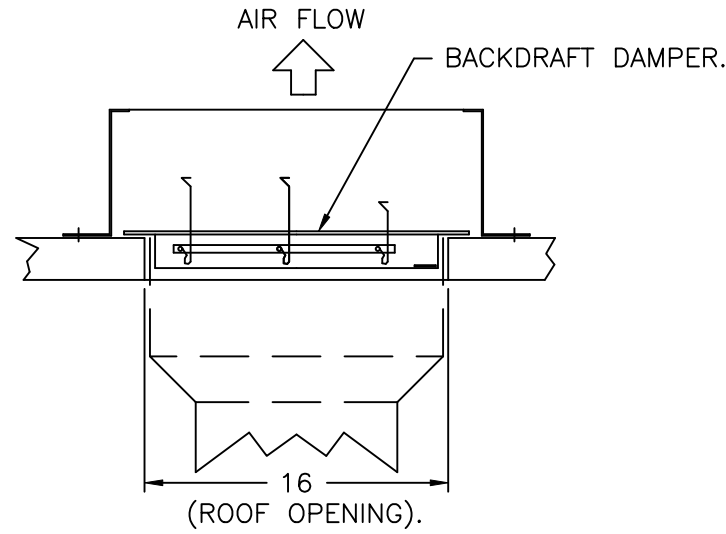
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- NEMA 3R SAFETY DISCONNECT SWITCH.

OPTIONS

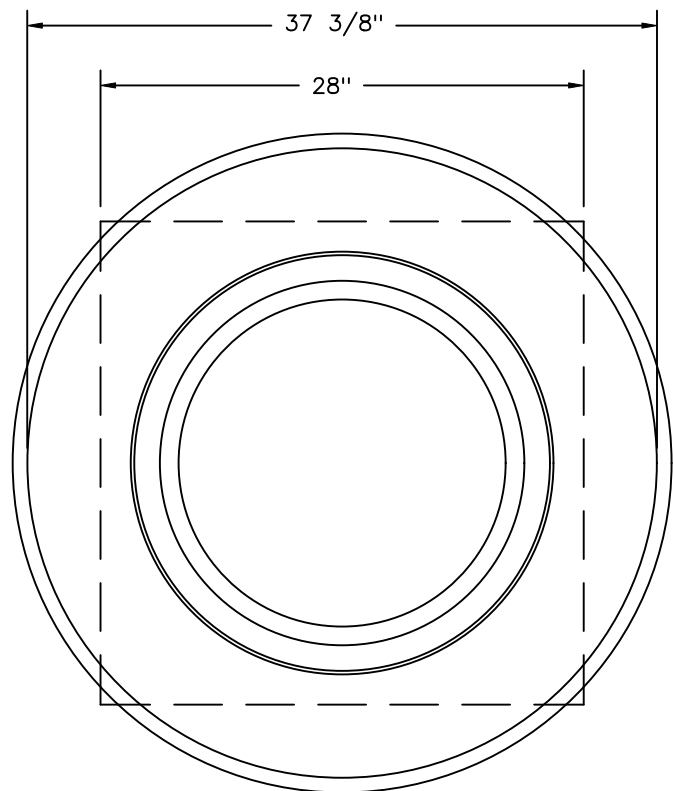
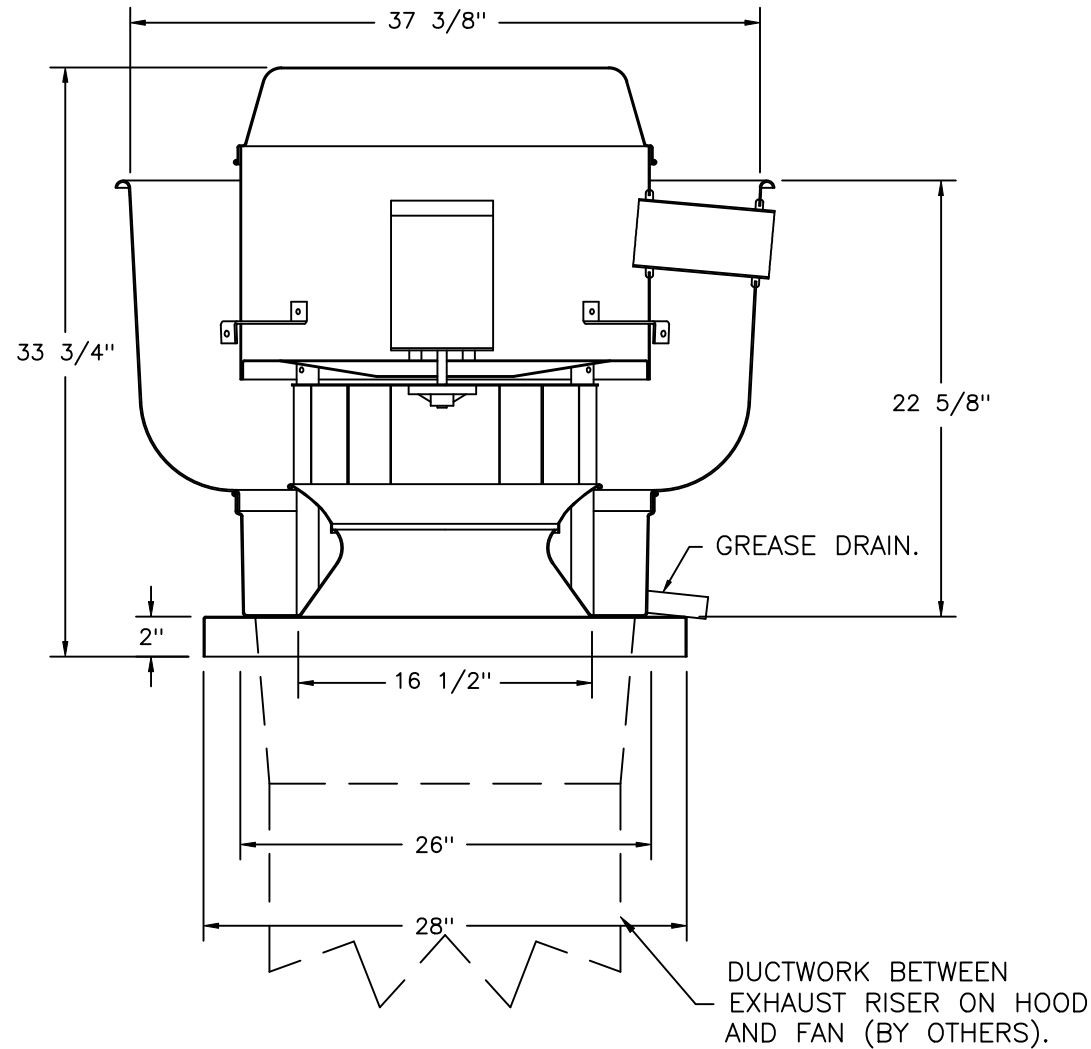
- ECM WIRING PACKAGE – EXHAUST – MANUAL OR 0-10VDC REFERENCE SPEED CONTROL –MSC– (TELCO), CCW ROTATION.
- SCR-13 BIRD SCREEN.
- 1 15-BDD DAMPER.
- 2 YEAR PARTS WARRANTY.



BACKDRAFT DAMPER INSTALLATION



FAN #5 DU180HFA – EXHAUST FAN (KEF-398 (05))



TOP VIEW

FEATURES:

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

NORMAL TEMPERATURE TEST

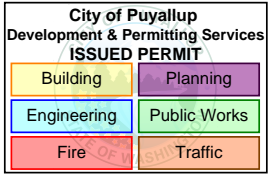
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST

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

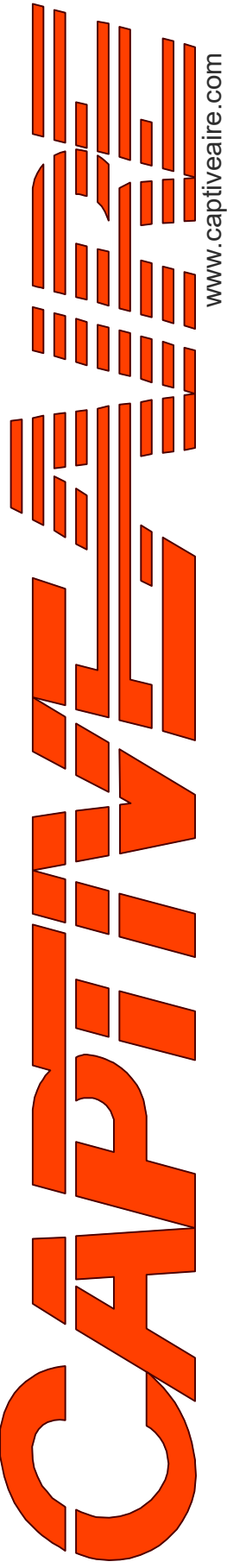
OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL – DU/DR180HFA
- INSTALLED AT PLANT – FOR GREASE DUCTS.
- EXHAUST FAN HEAT BAFFLE.
- UNIT MOUNTED VFD FOR USE WITH ECPM03.
- VFD MOUNTING BRACKET FOR DU/DR 180
- 200.
- 2 YEAR PARTS WARRANTY.



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

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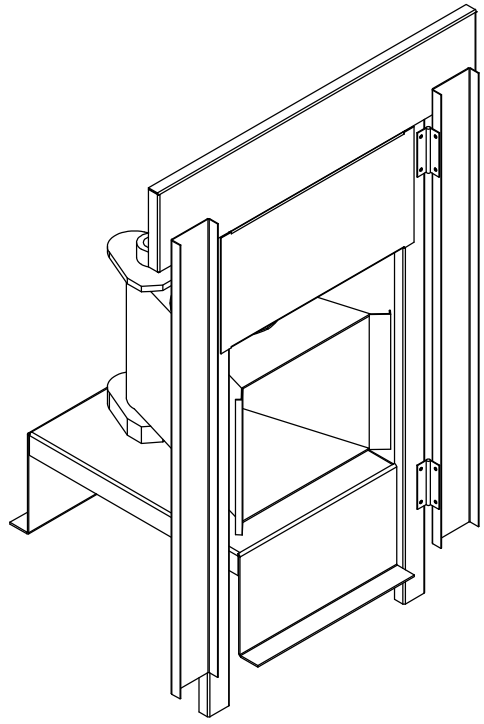
18

- FAN #9 A3-D.500-24D - HEATER (MAU-113)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 24" MIXED FLOW DIRECT DRIVE FAN AND 12" BURNER.
 2. INTAKE HOOD WITH EZ FILTERS.
 3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
 4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
 5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
 6. BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 3 (1" MOD VALVE).
 7. SHIP LOOSE GAS STRAINER. TO BE INSTALLED UPSTREAM OF UNIT CONNECTION. 1" CONNECTION.
 8. MOTORIZED BACK DRAFT DAMPER 30" X 30" FOR SIZE 3 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, NFBUP-S ACTUATOR INCLUDED.
 9. INDOOR HANGING CRADLE FOR THE SIZE 3 DIRECT FIRED UNIT. 2 HSA200 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
 10. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
 11. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
 12. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.
 13. 2 YEAR PARTS WARRANTY.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 30" x 30".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 25°F. TEMP. RISE = 50°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 348493.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 378796.
OUTPUT BTUs AT ALTITUDE OF 43 FT. = 347951.
INPUT BTUs AT ALTITUDE OF 43 FT. = 378208.



DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

DIRECT FIRED PROFILE PLATE SPECIFICATIONS:

DESCRIPTION:

DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO.: US6629523B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 5PPM OF CARBON MONOXIDE (CO), AND 0.5PPM OF NITROGEN DIOXIDE (NO2).DIRECT FIRED UNITS SHALL BE CONFIGURED WITH THE BLOWER MOUNTED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

APPLICATION:

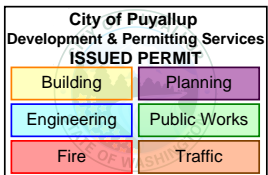
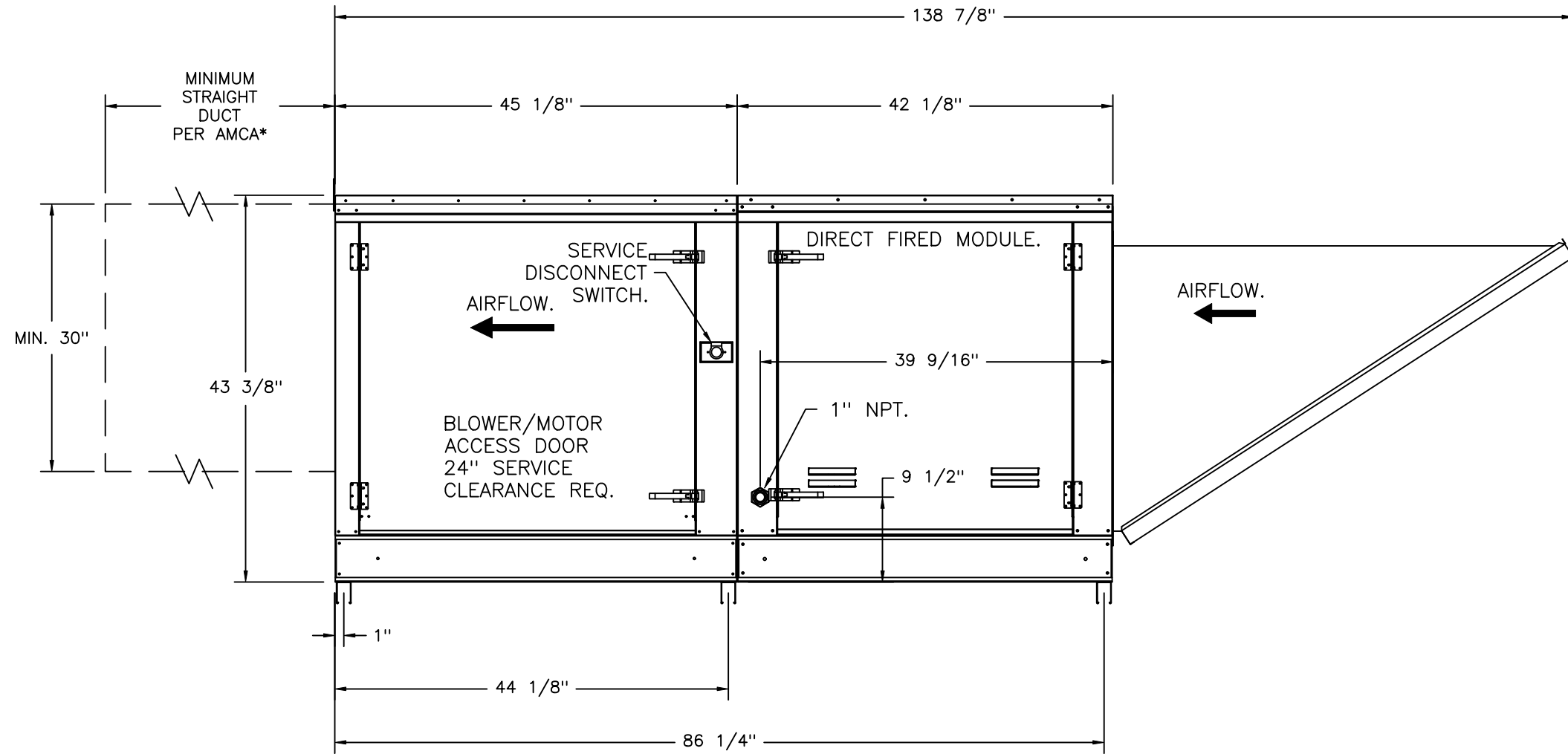
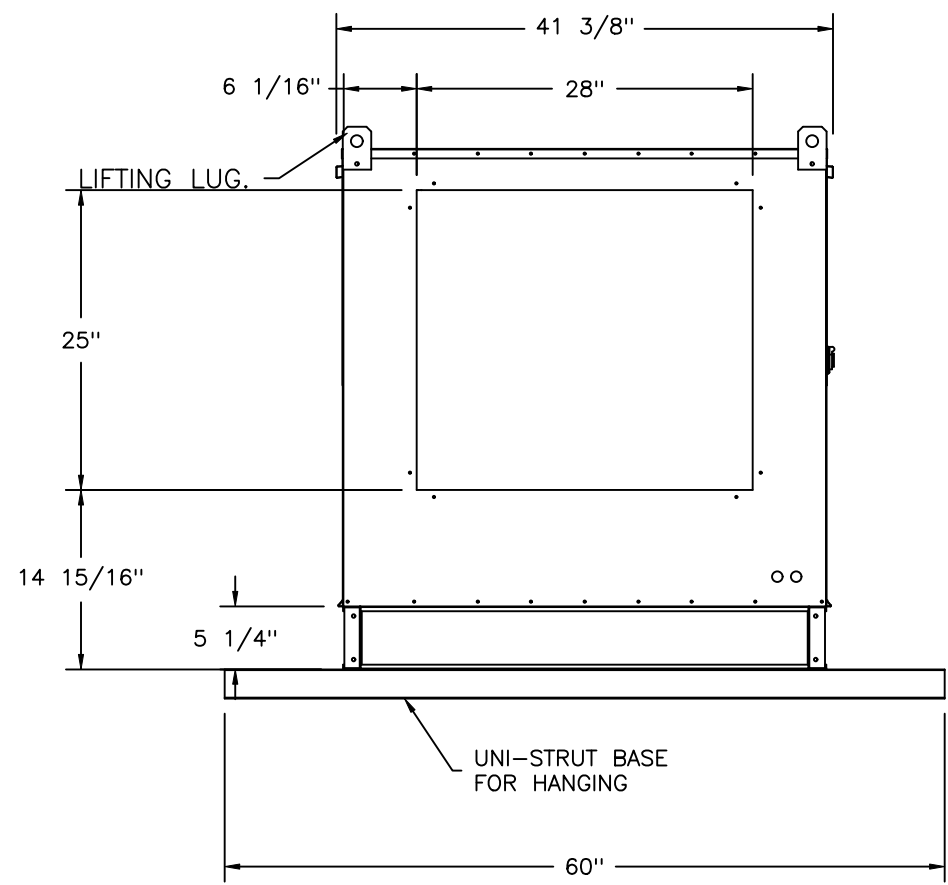
SPRING-LOADED BURNER PROFILE PLATES ARE ENGINEERED TO AUTOMATICALLY REACT TO THE MOMENTUM OF A FRESH AIR STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM. WITH THIS FEATURE, ALL DF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

CERTIFICATIONS:

ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.18 (RECIRCULATING DF HEATERS).

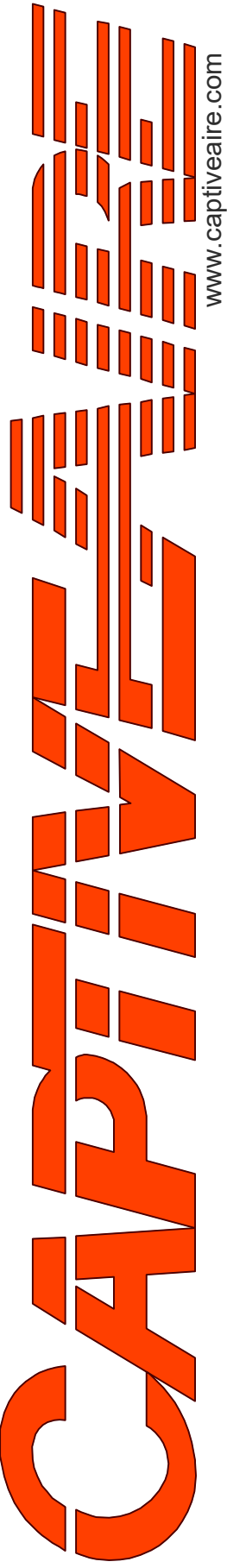
GENERAL CONSTRUCTION:

- PROFILE PLATES SHALL BE FORMED FROM G90 GALVANIZED STEEL.
- PROFILE PLATES SHALL VARY IN SIZE PER UNIT.
- PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
- DESIGN SHALL INCORPORATE PROPERLY TORQUED, PERMANENTLY MOUNTED SPRING HINGES.
- SPRING HINGES SHALL BE MADE FROM PLATED STEEL.



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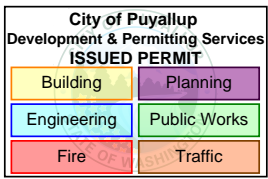
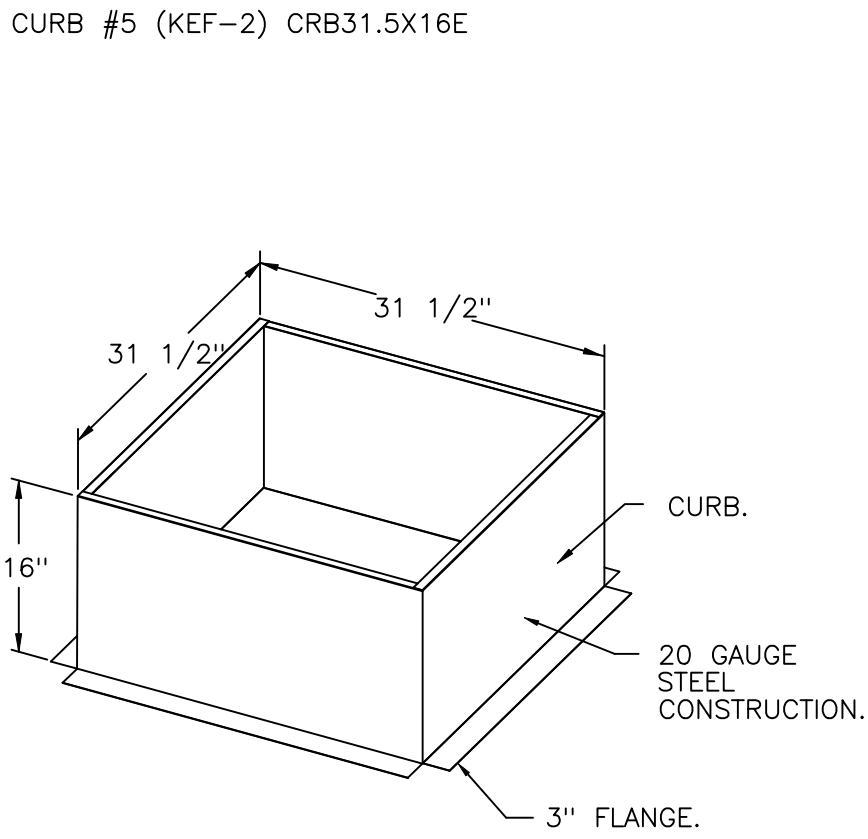
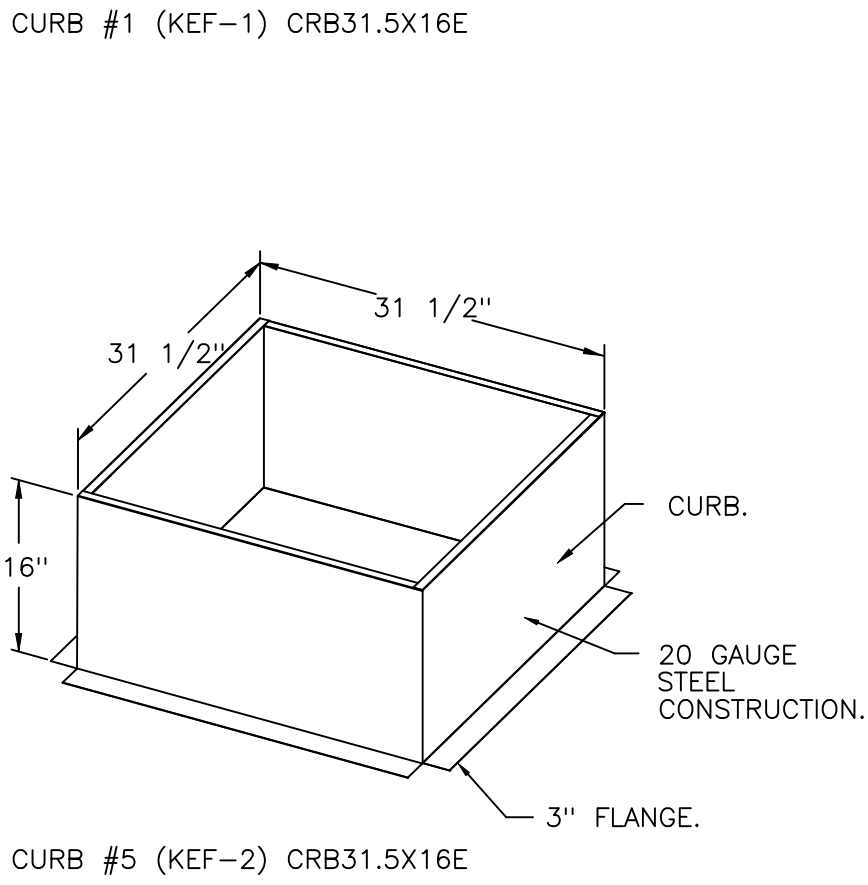
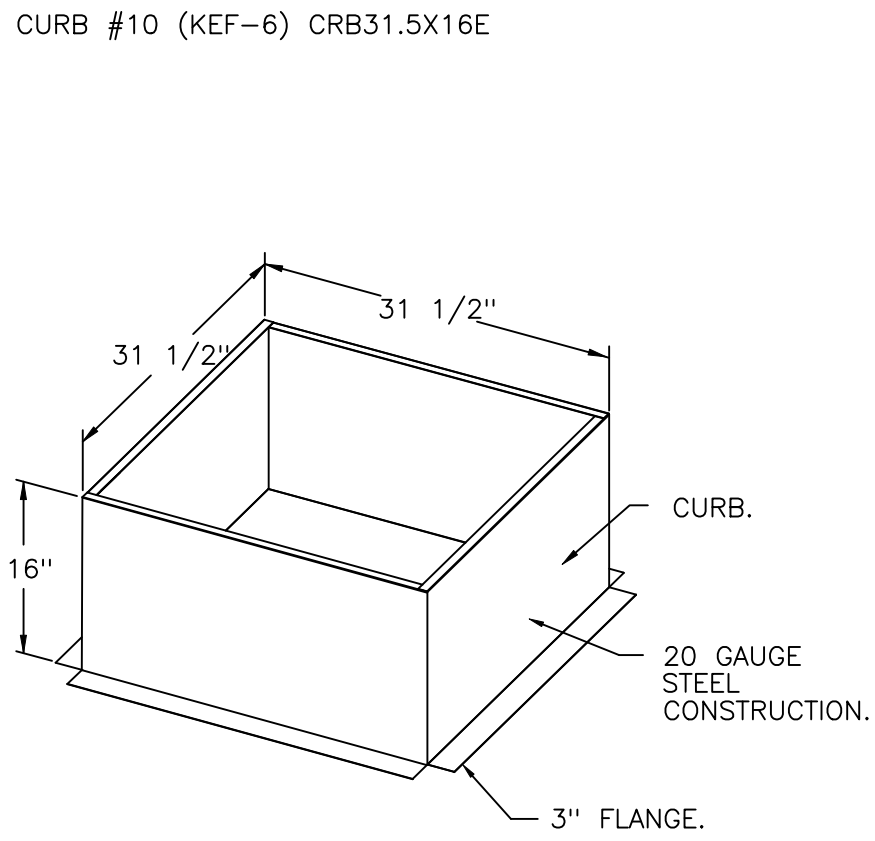
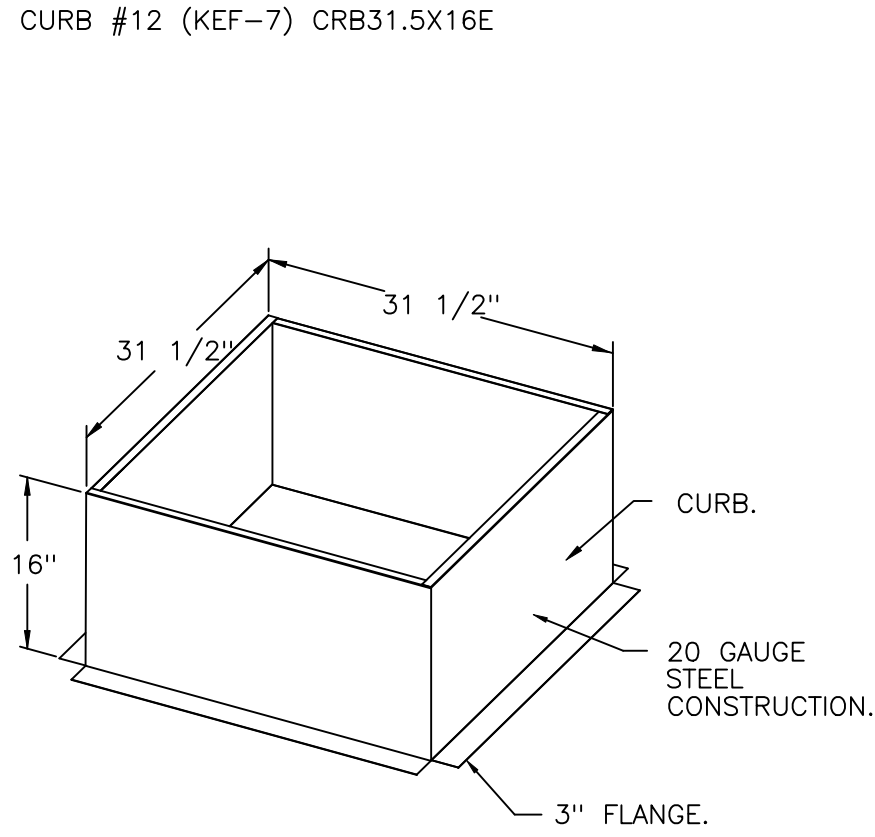
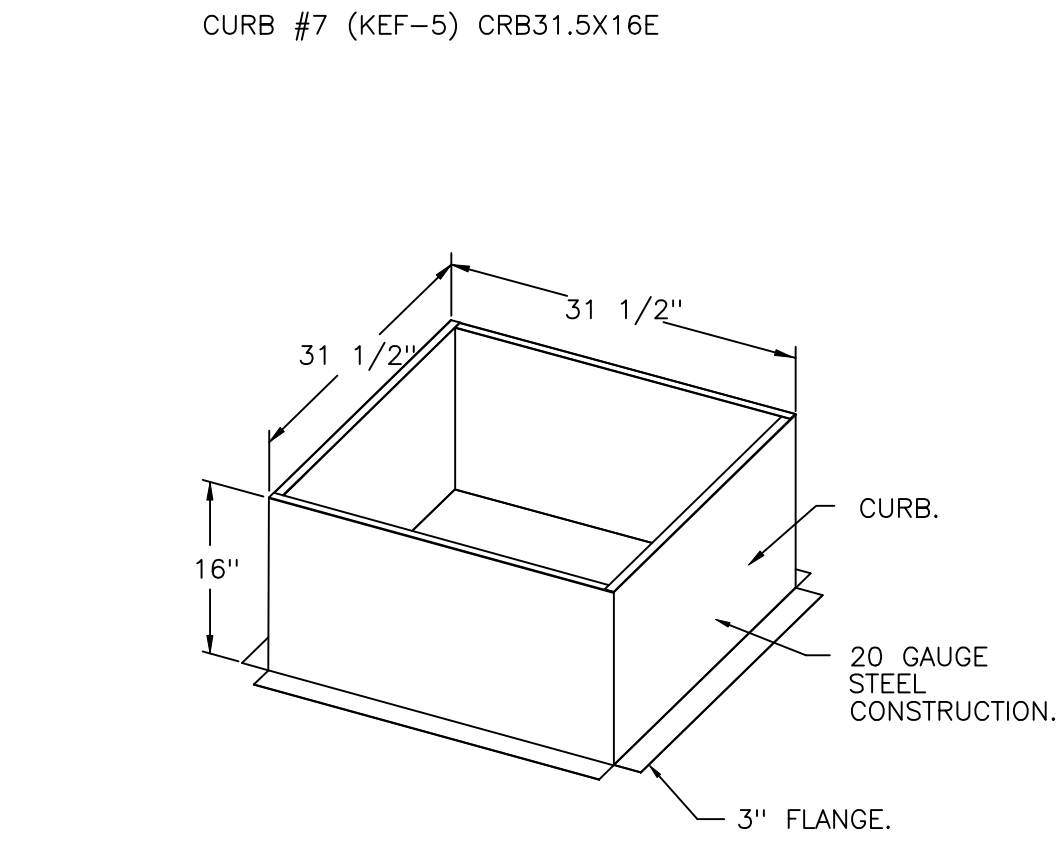
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SCALE:
3/4" = 1'-0"

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19



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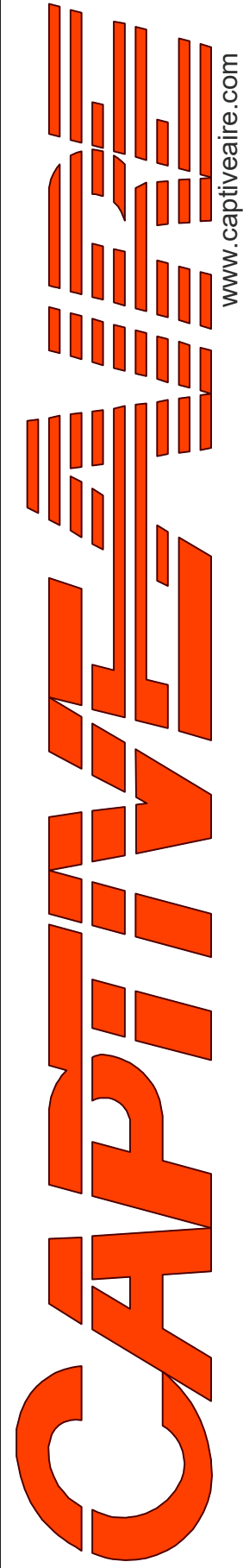
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MASTER DRAWING

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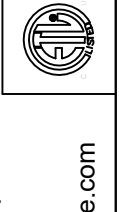
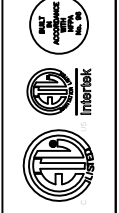


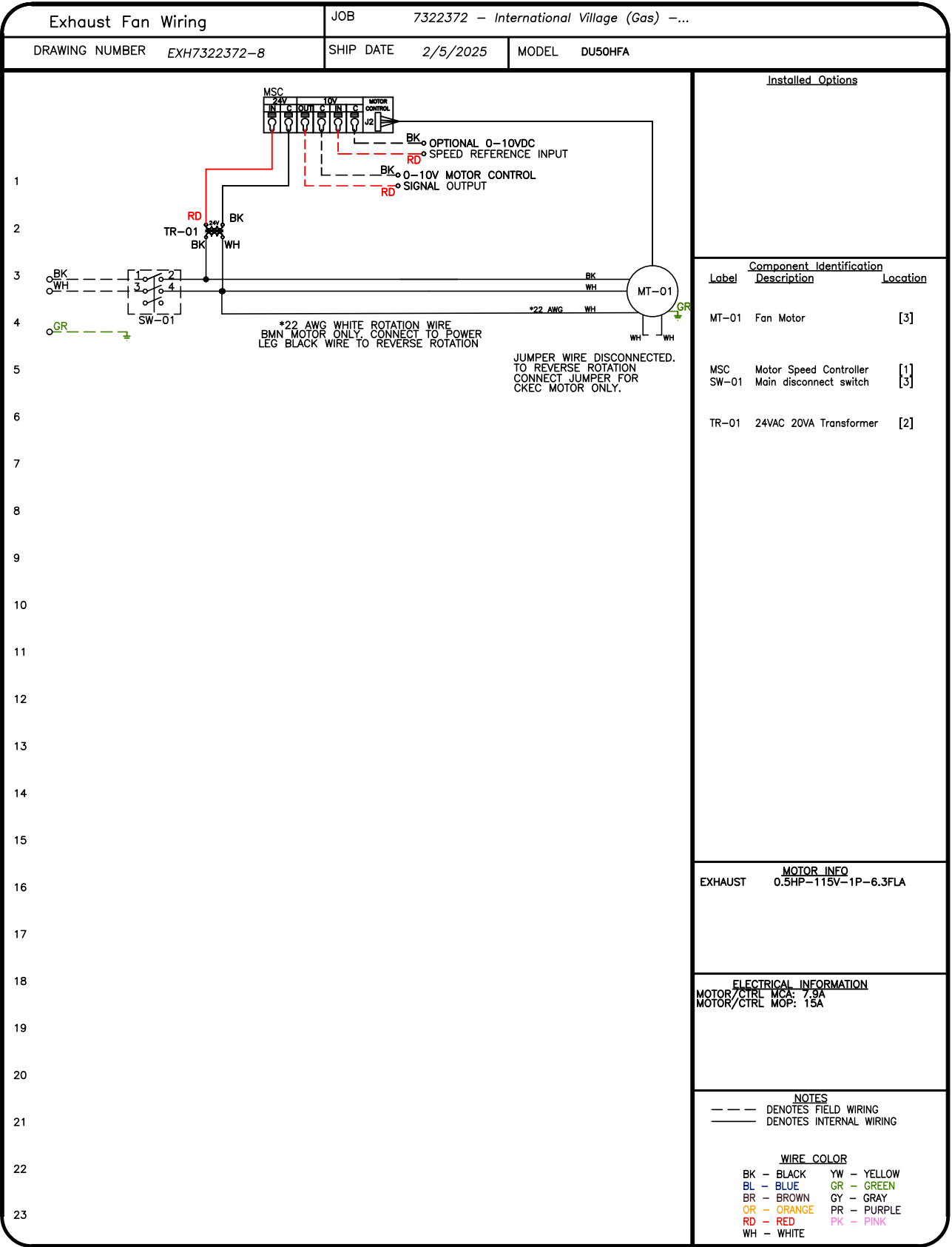
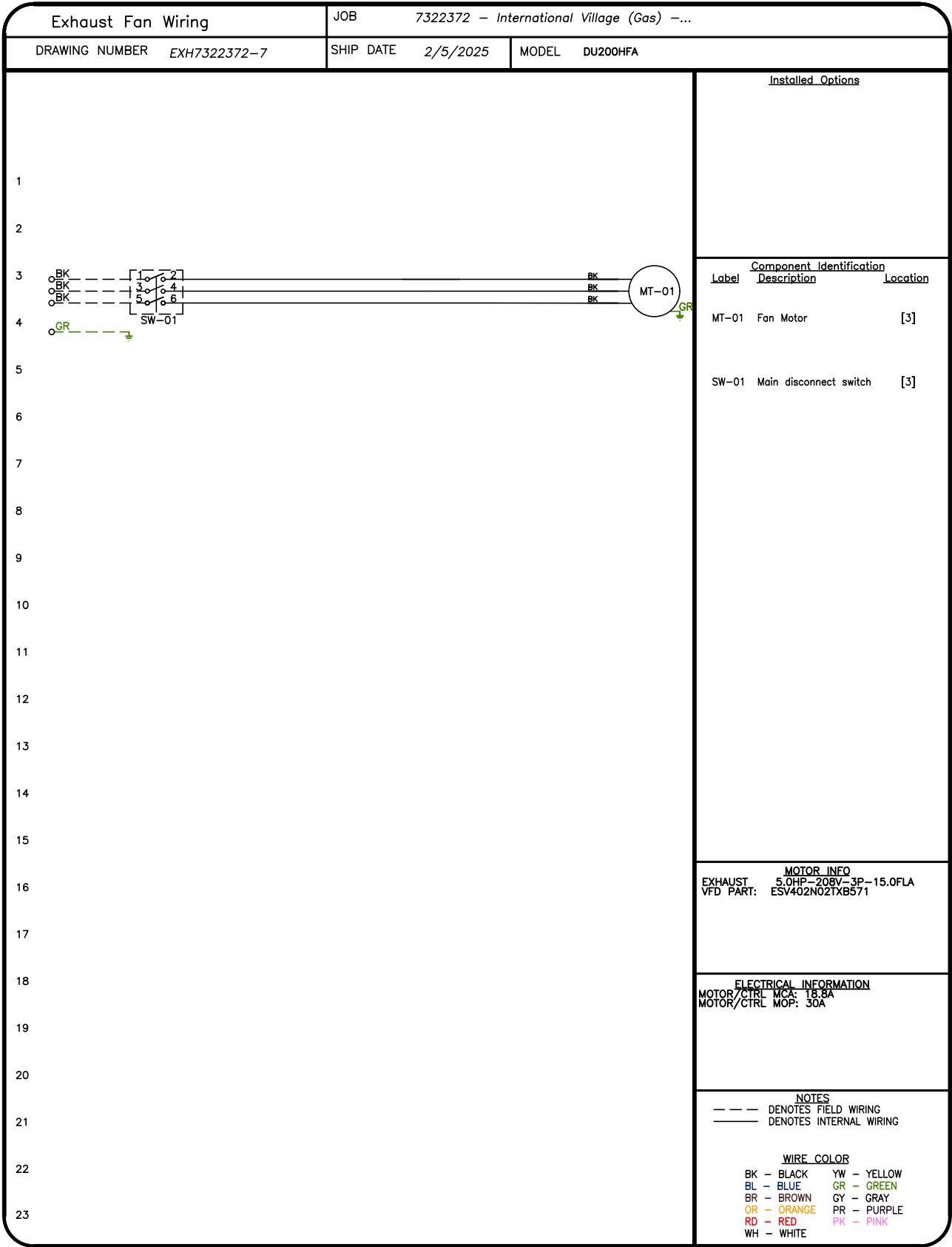
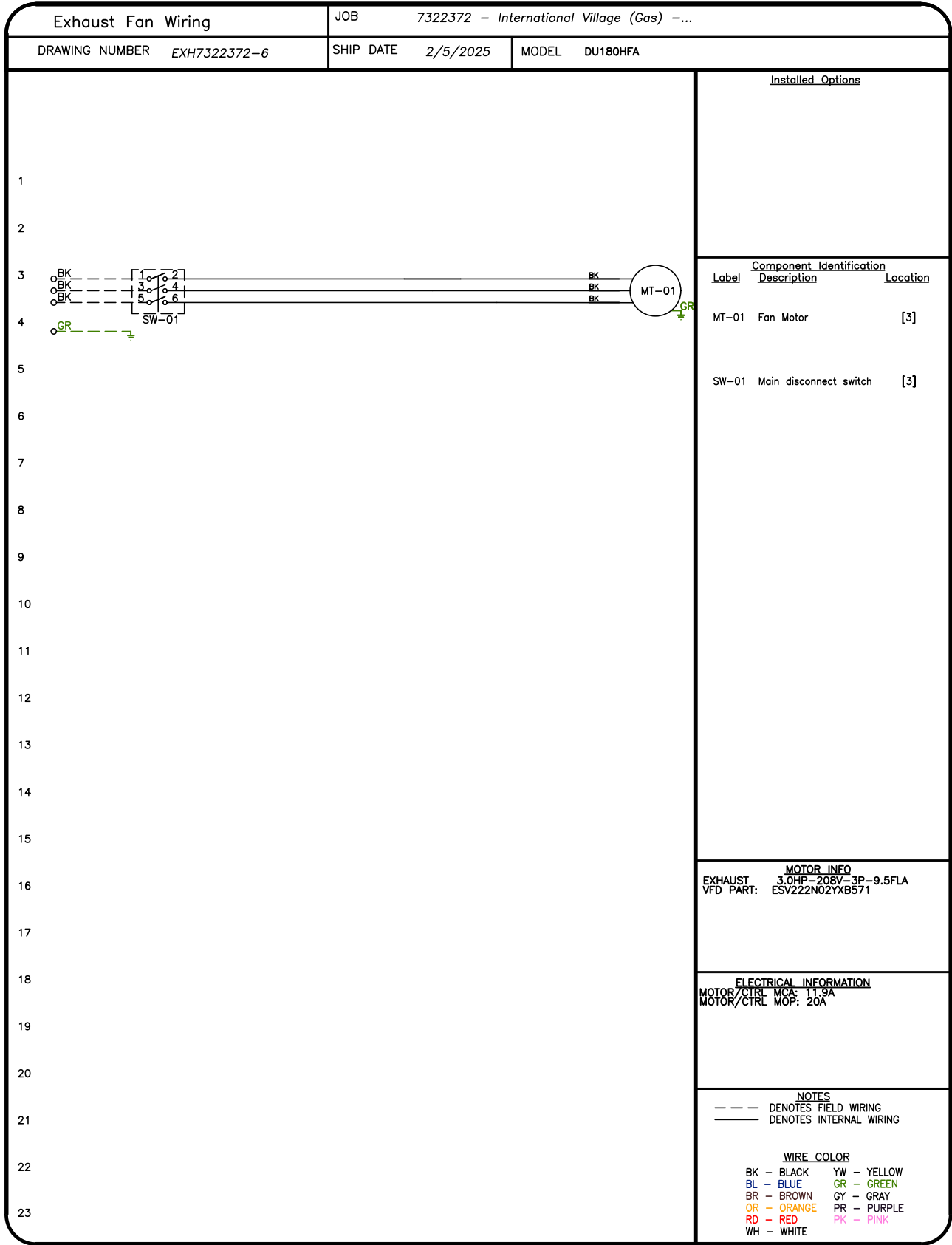
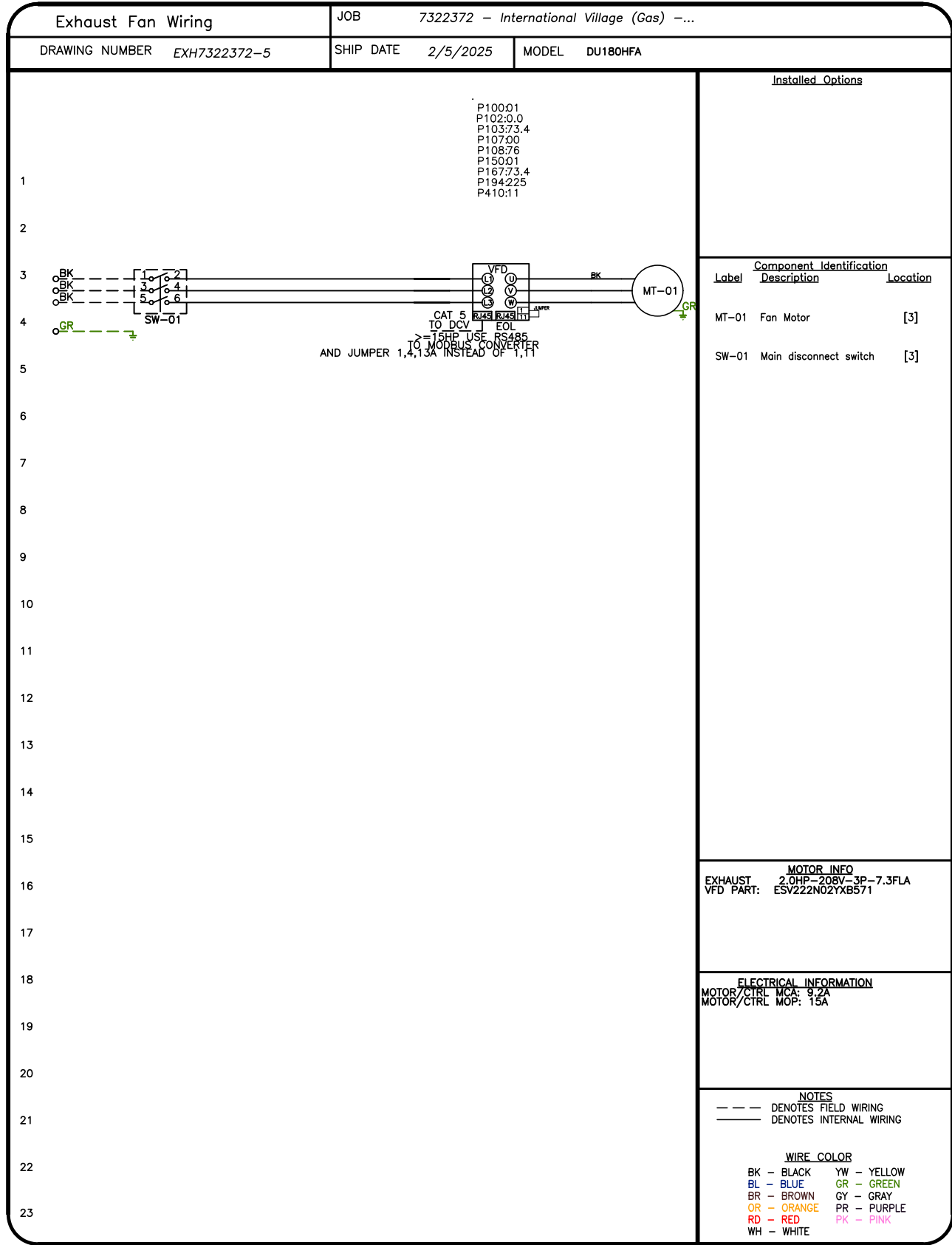
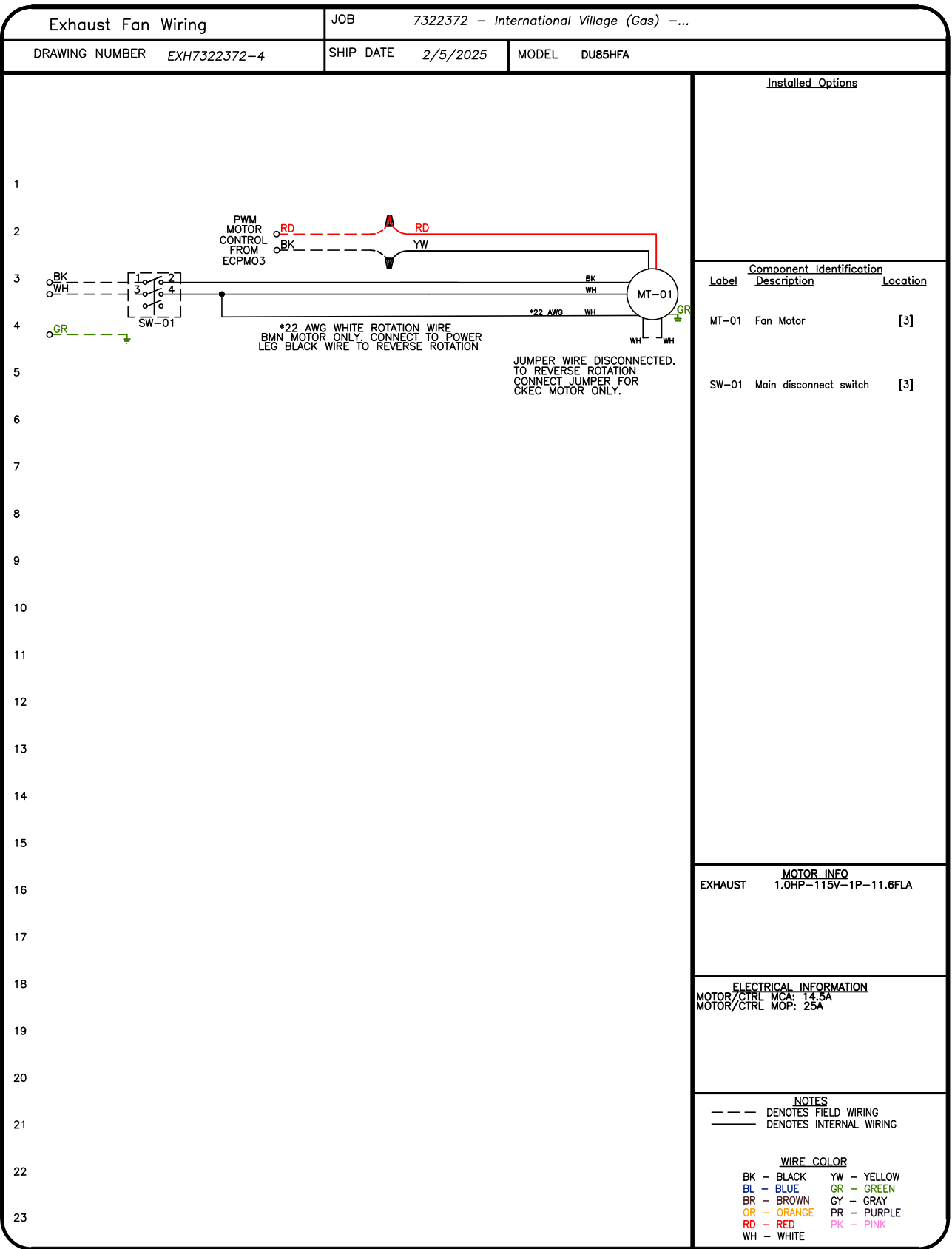
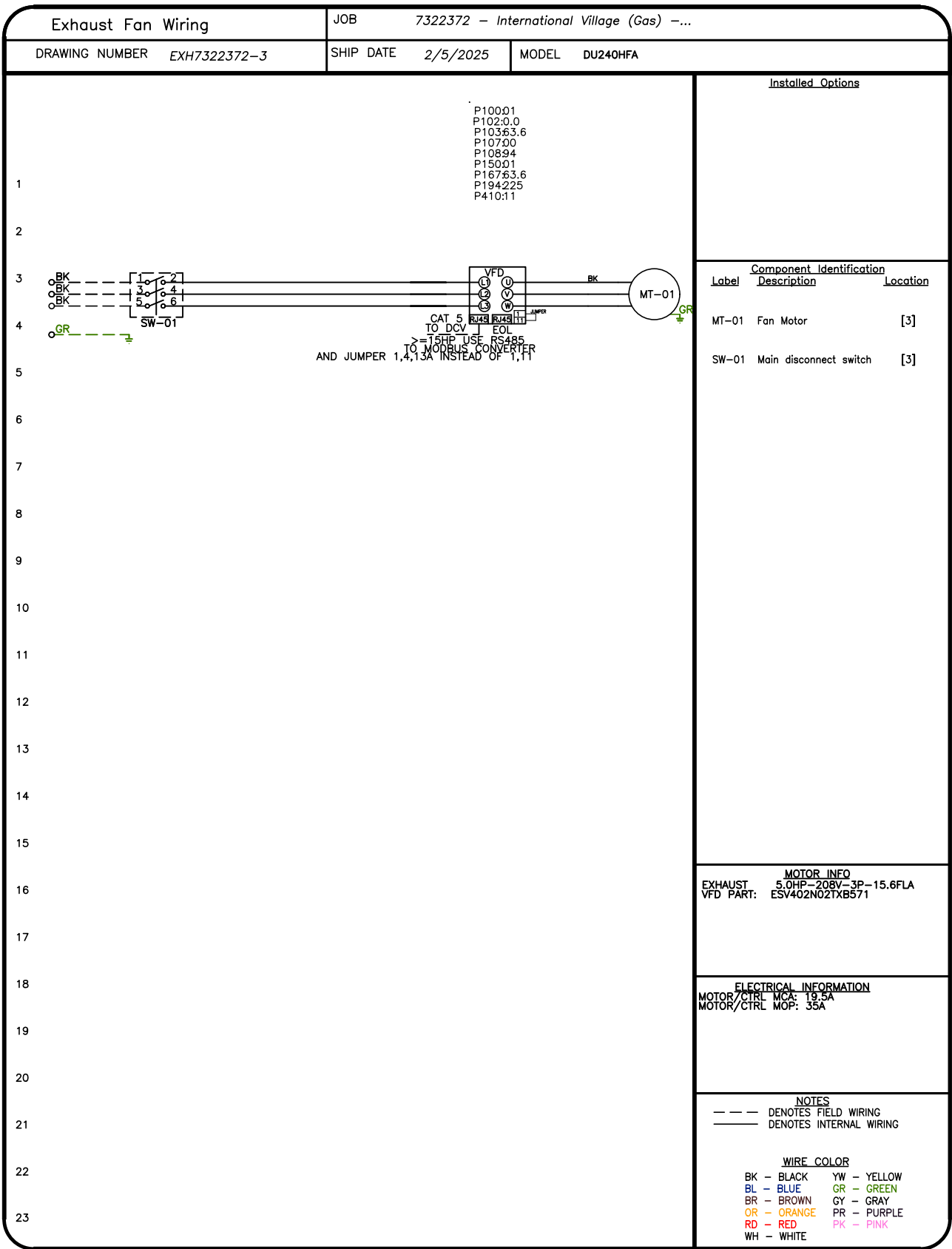
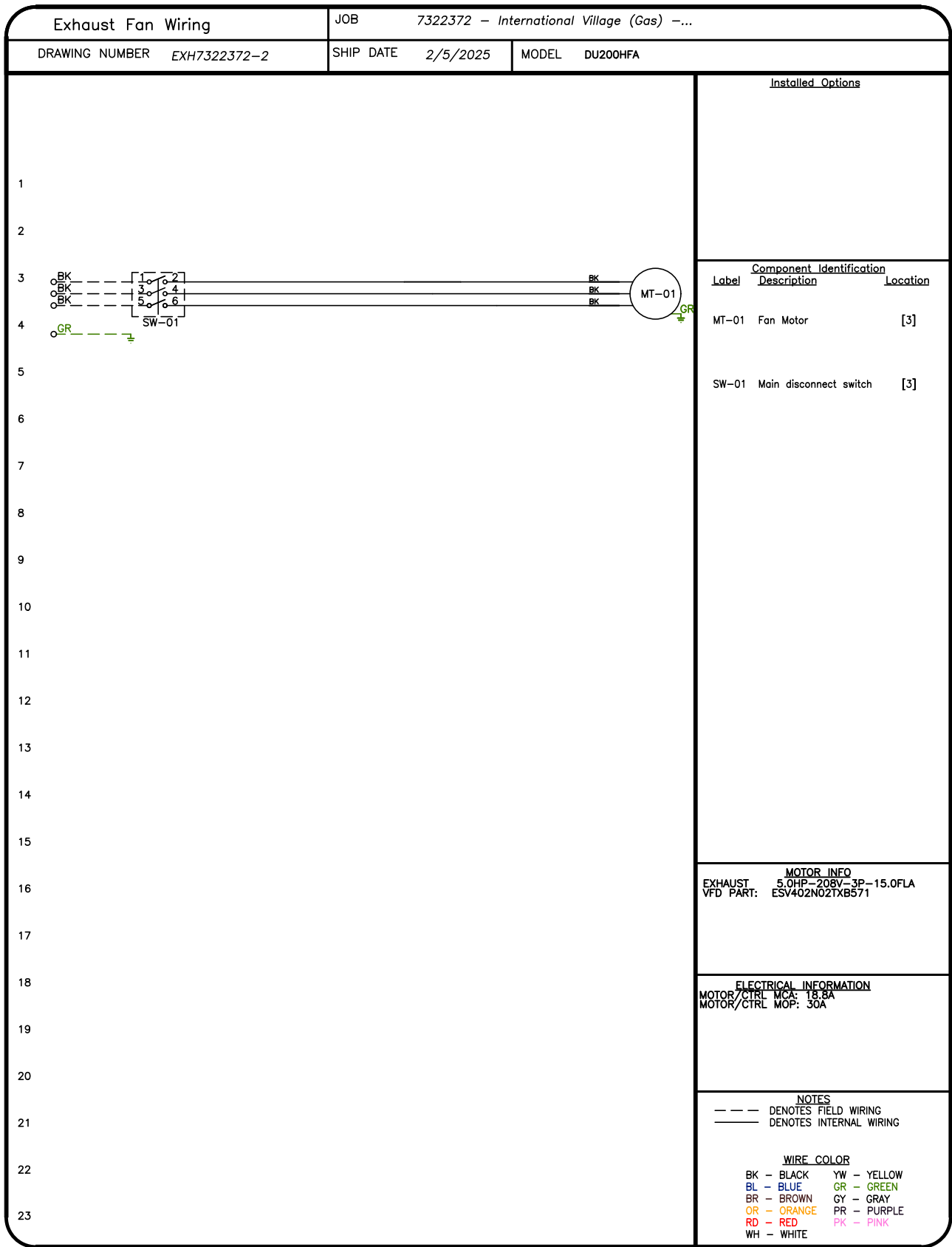
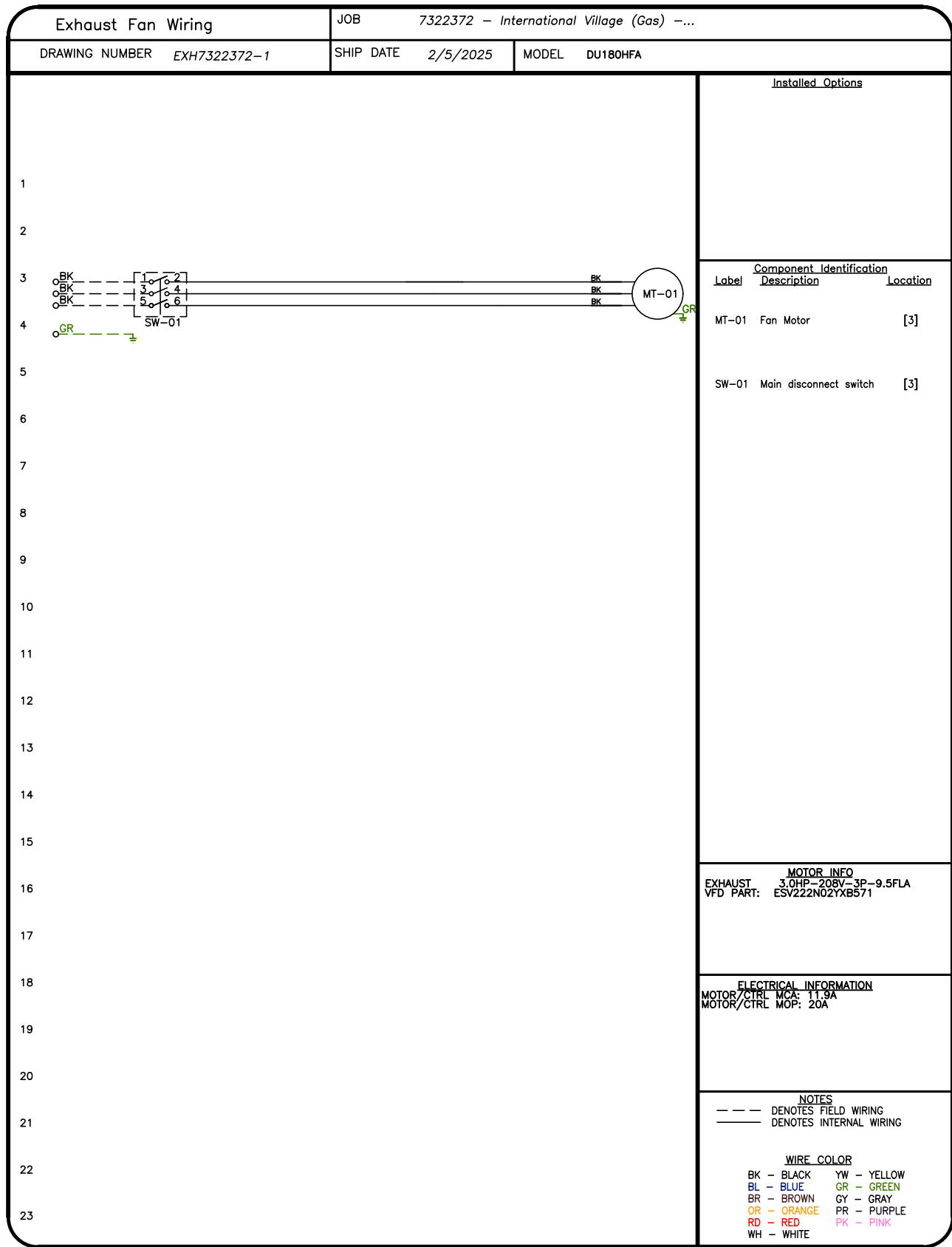
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City of Puyallup
Development & Permitting Services
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BuildingPlanning
EngineeringPublic Works
FireTraffic

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

DATE: 2/5/2025

DWG.#:
7322372

DRAWN
BY: JL - R85

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

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21

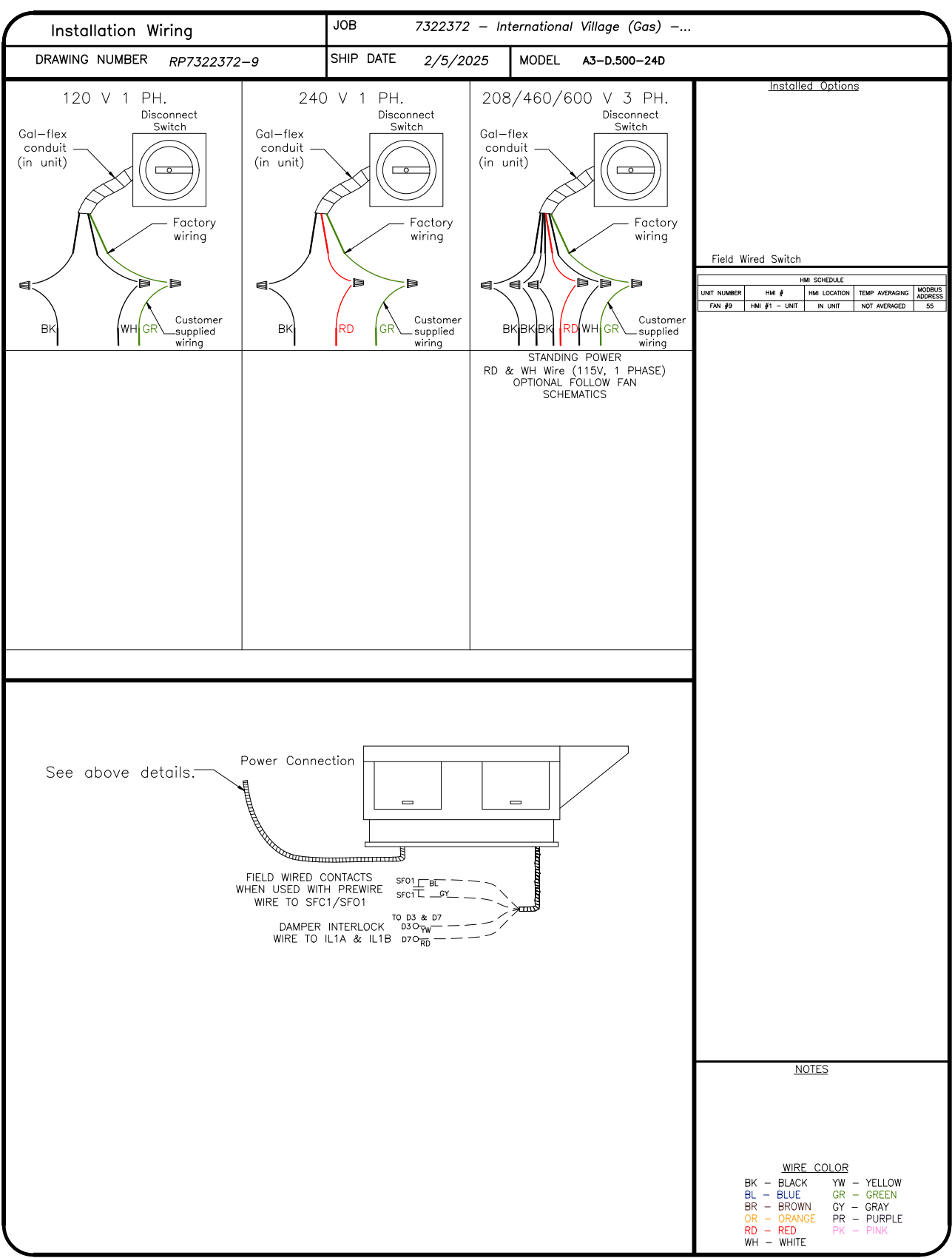
International Village (Gas) - Puyallup - R4

110 9th Avenue Southwest,
Puyallup, WA, 98371

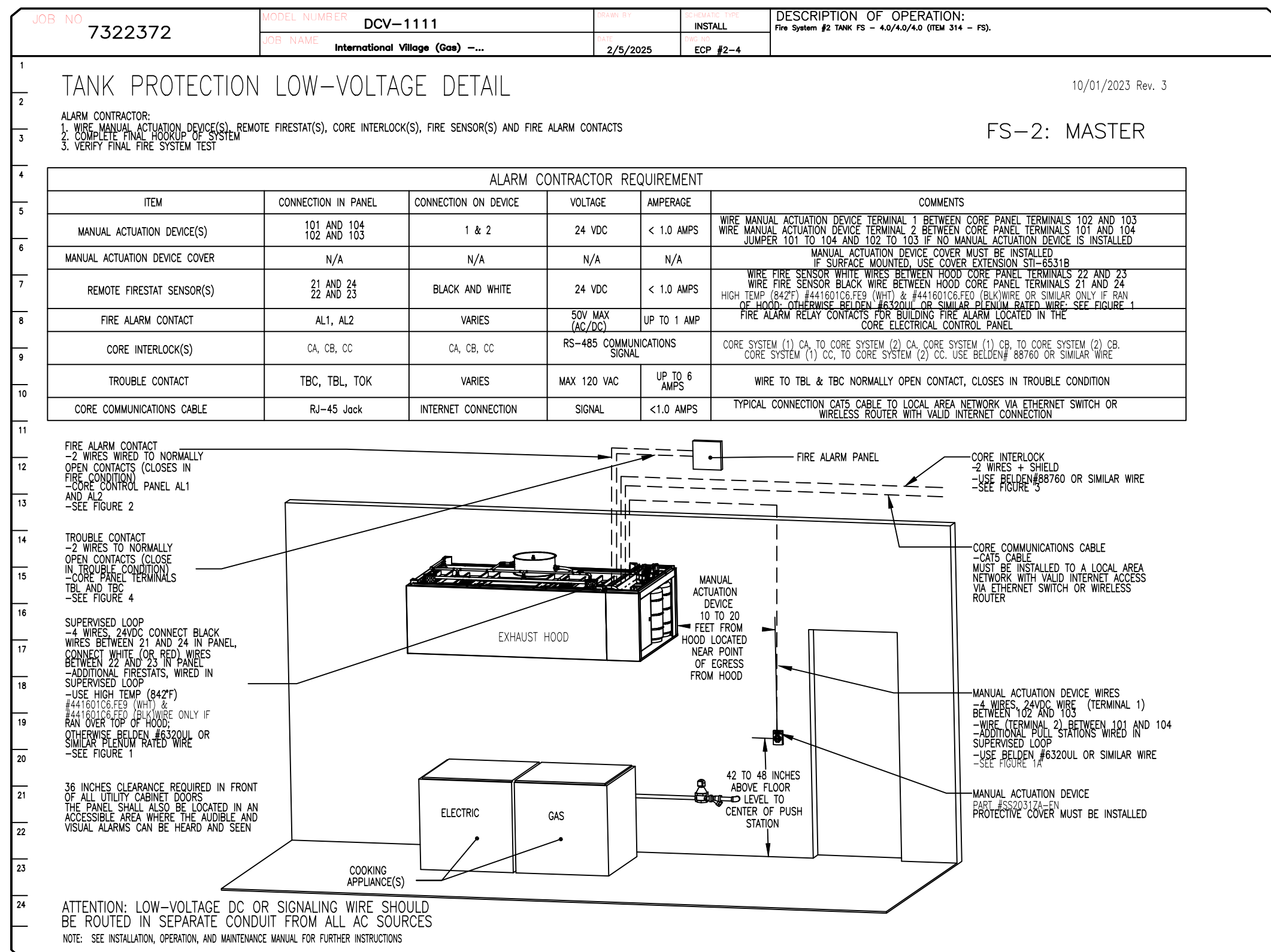
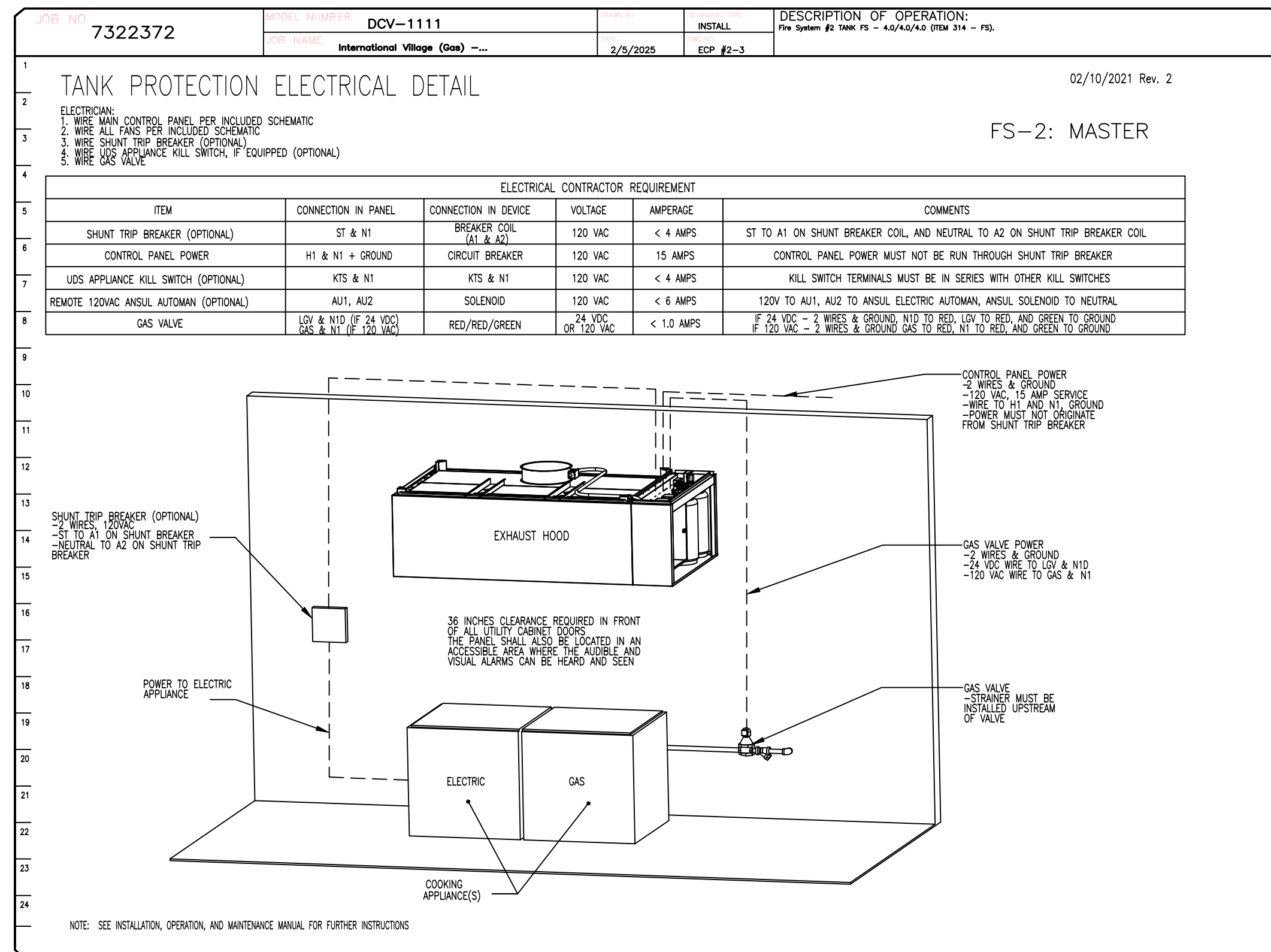
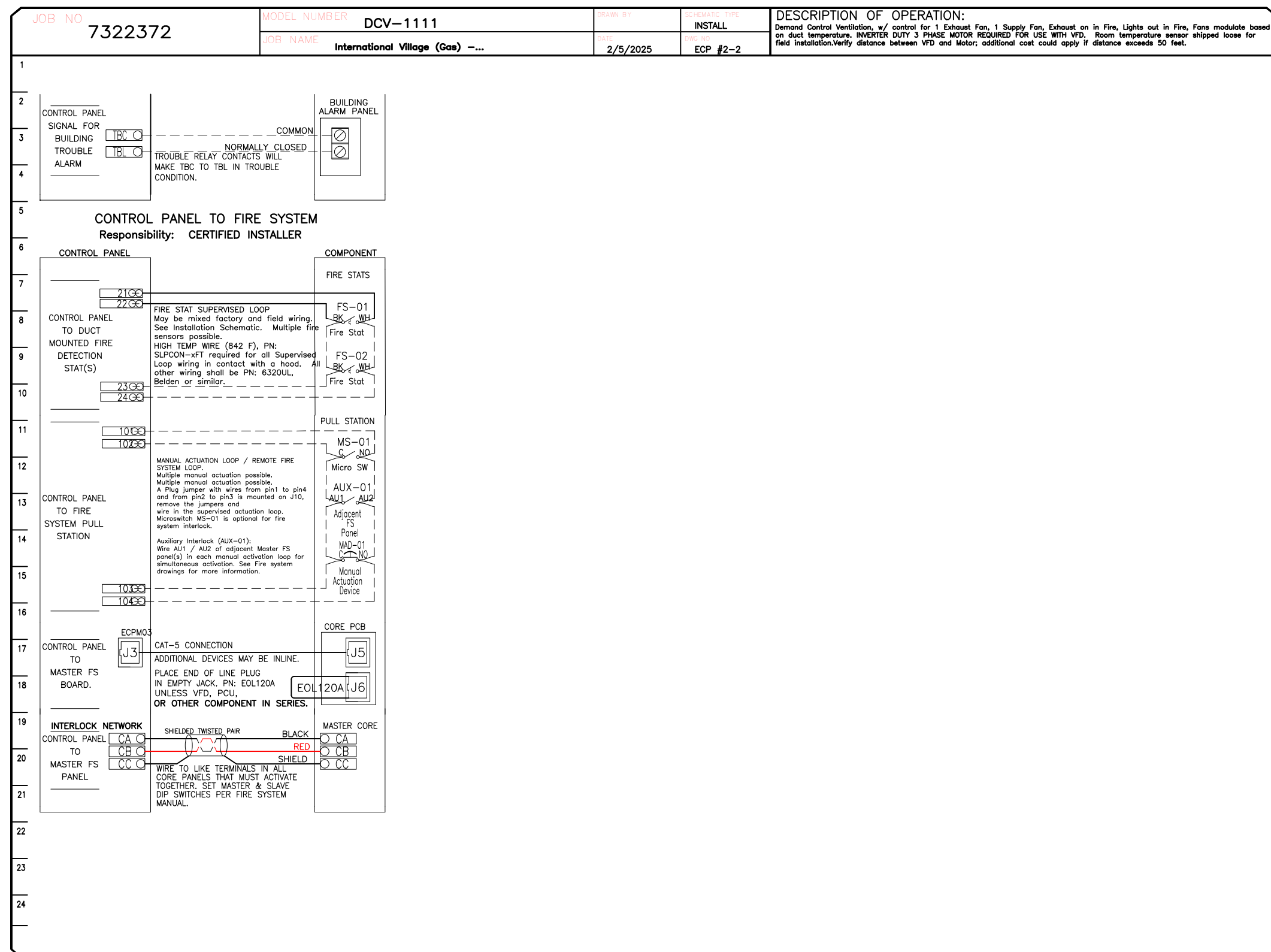
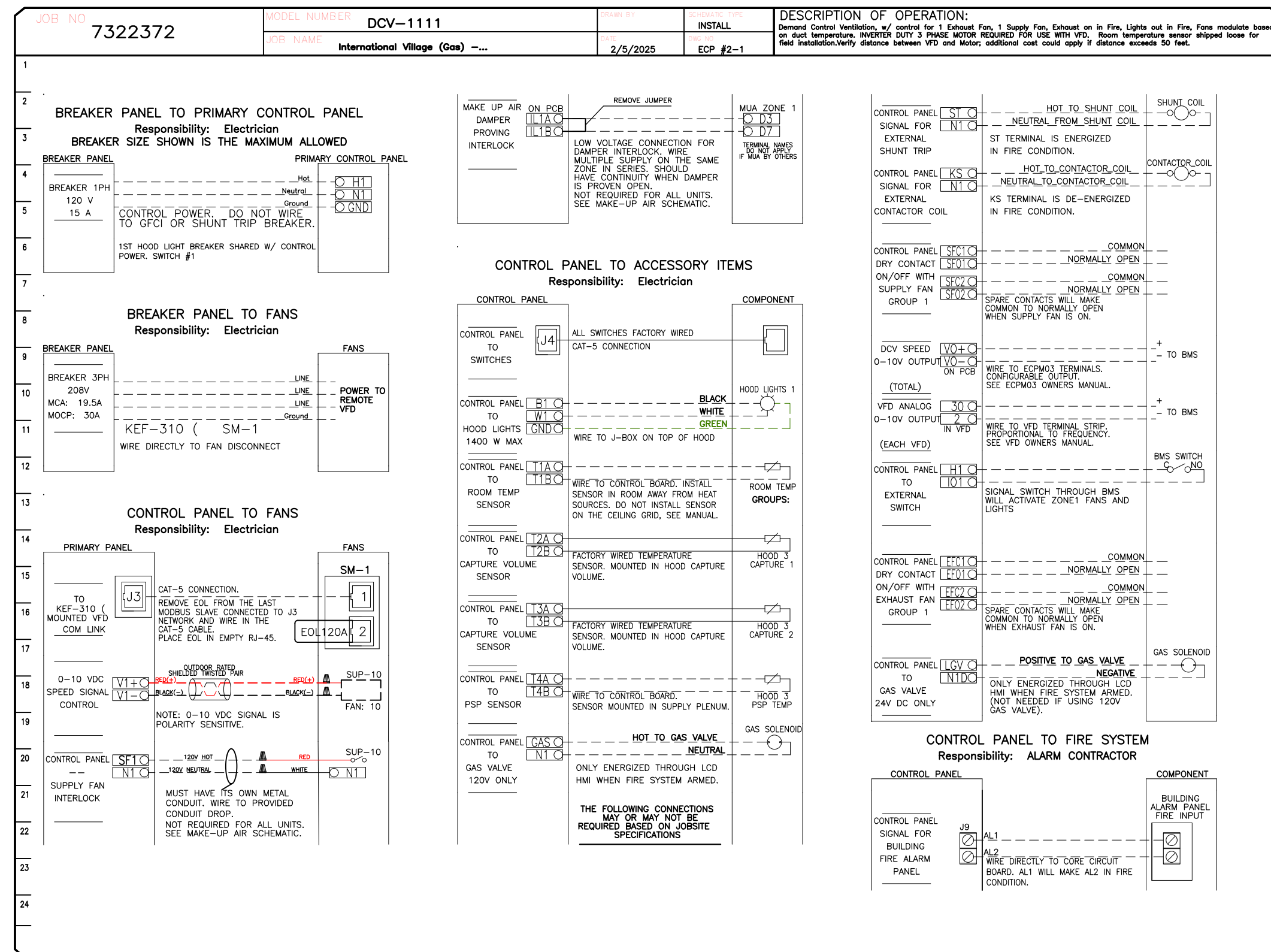
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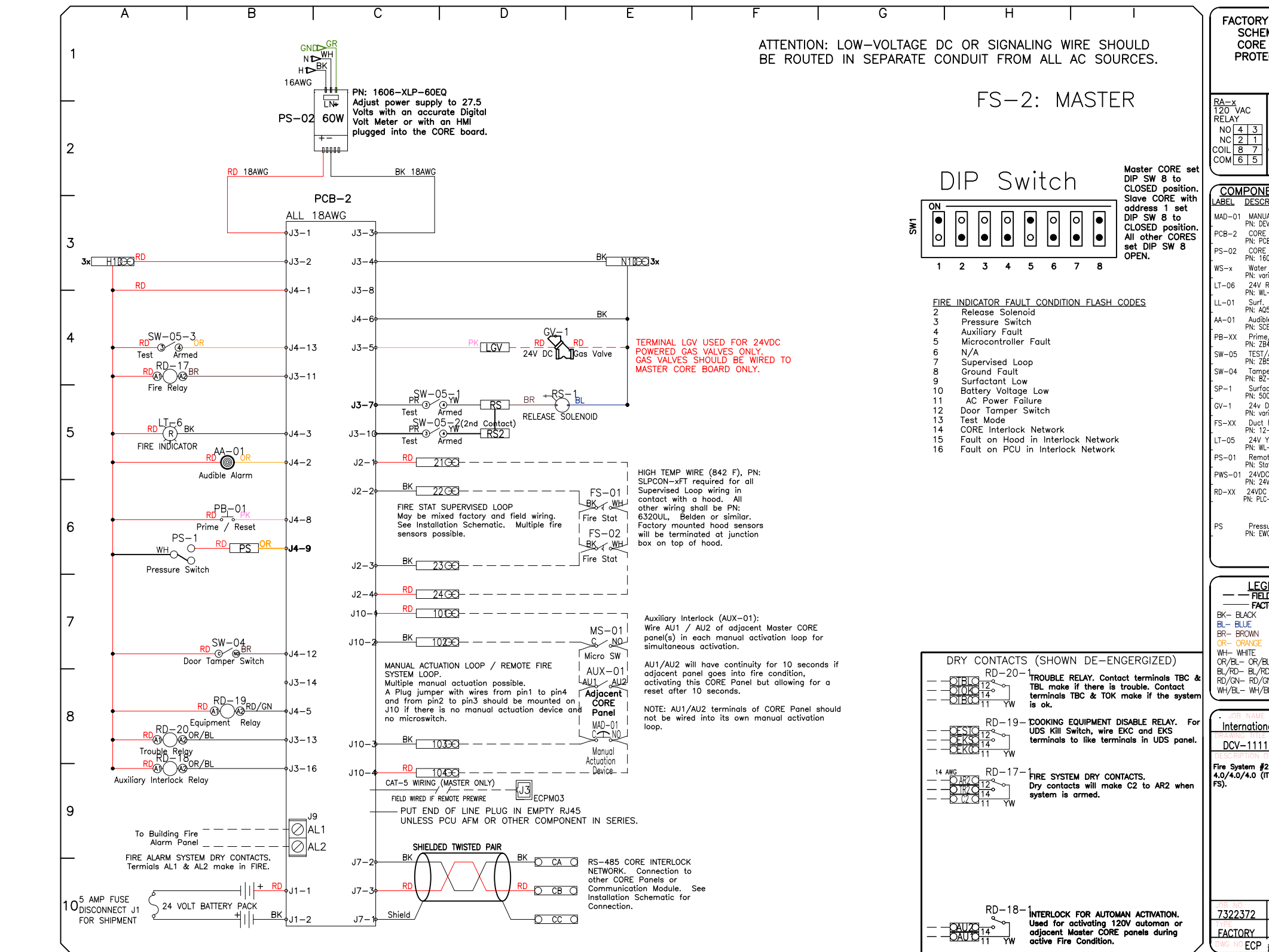
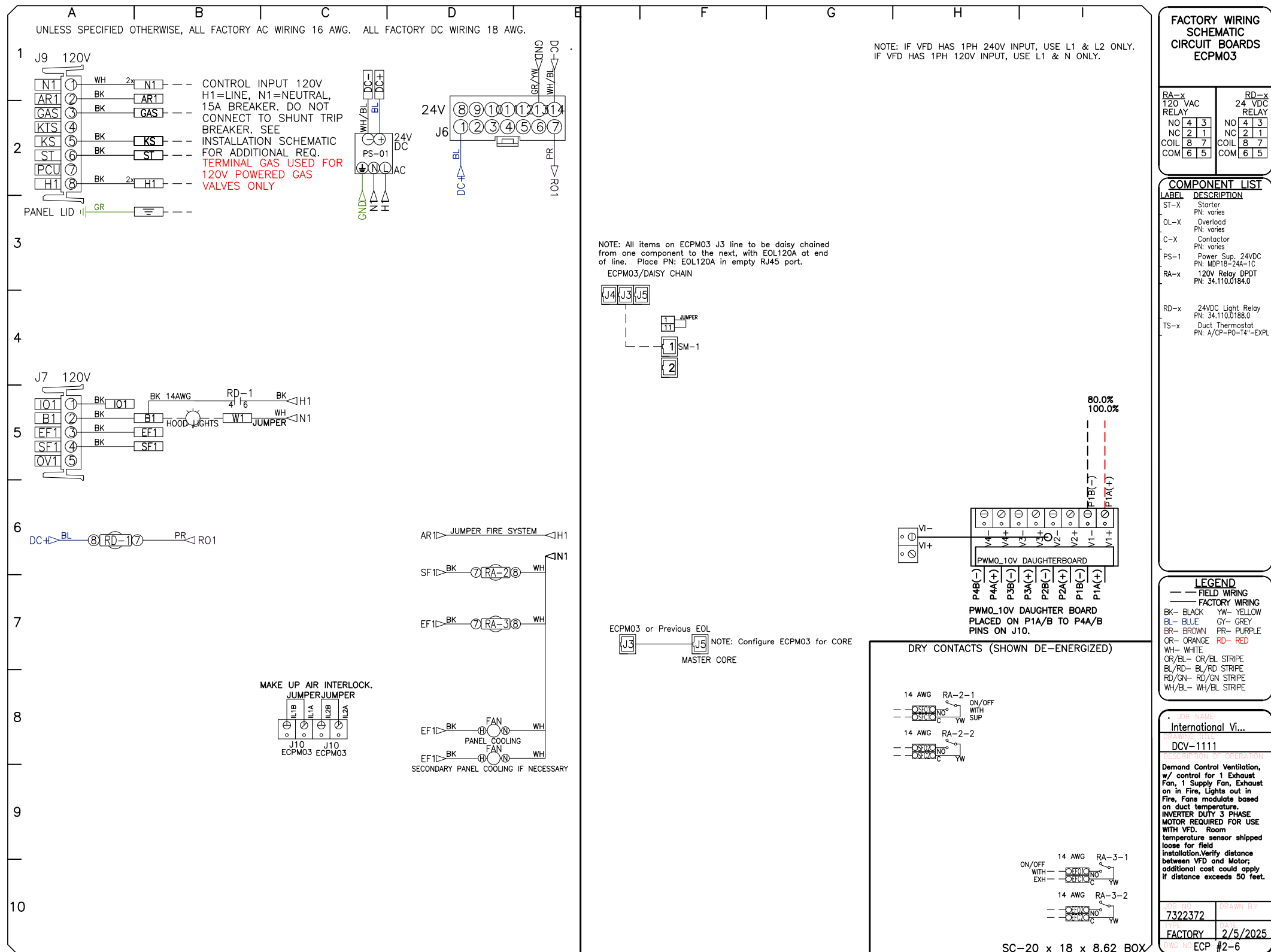
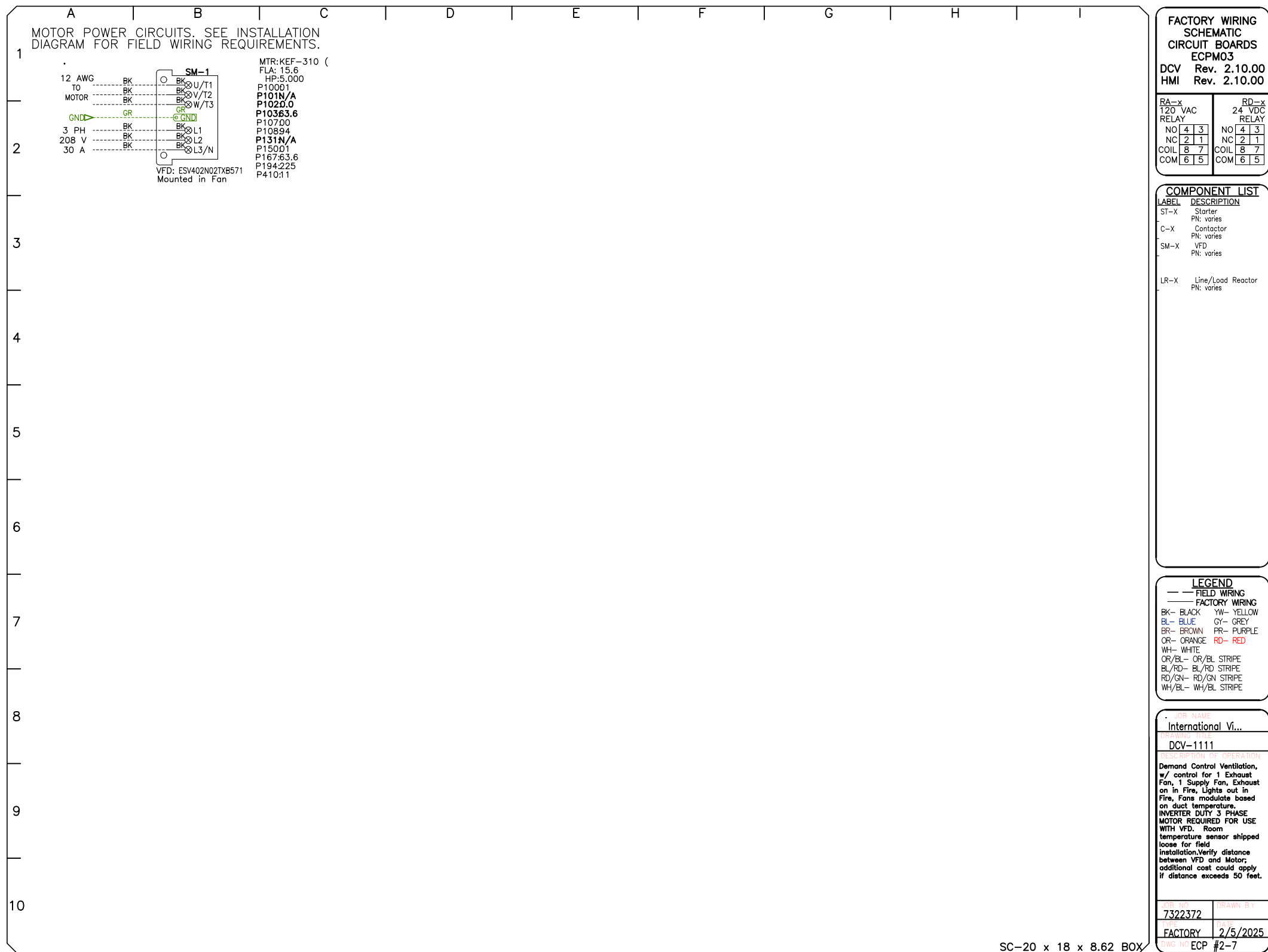
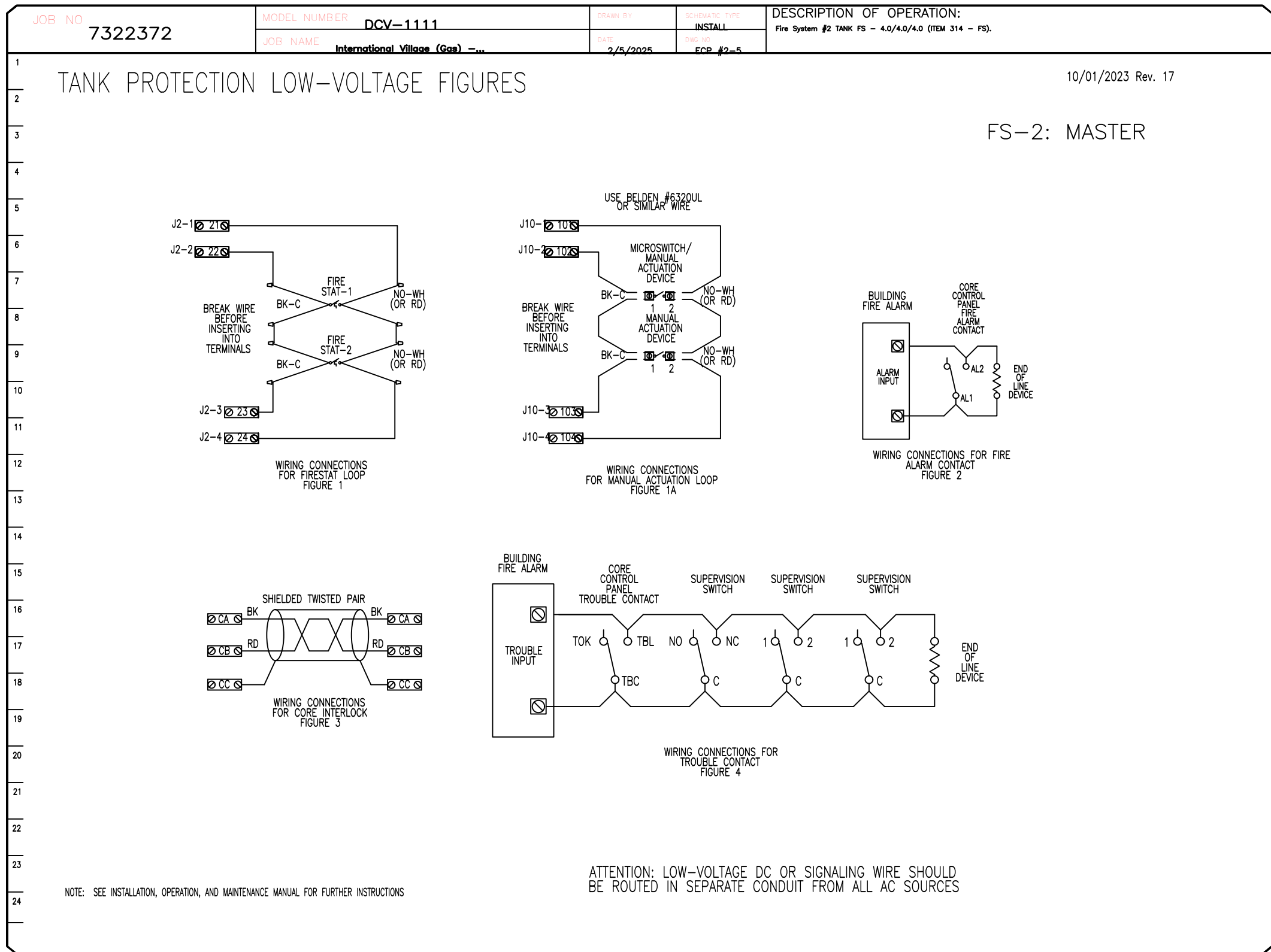
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3/4" = 1'-0"

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City of Puyallup
Development & Permitting Services
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Building

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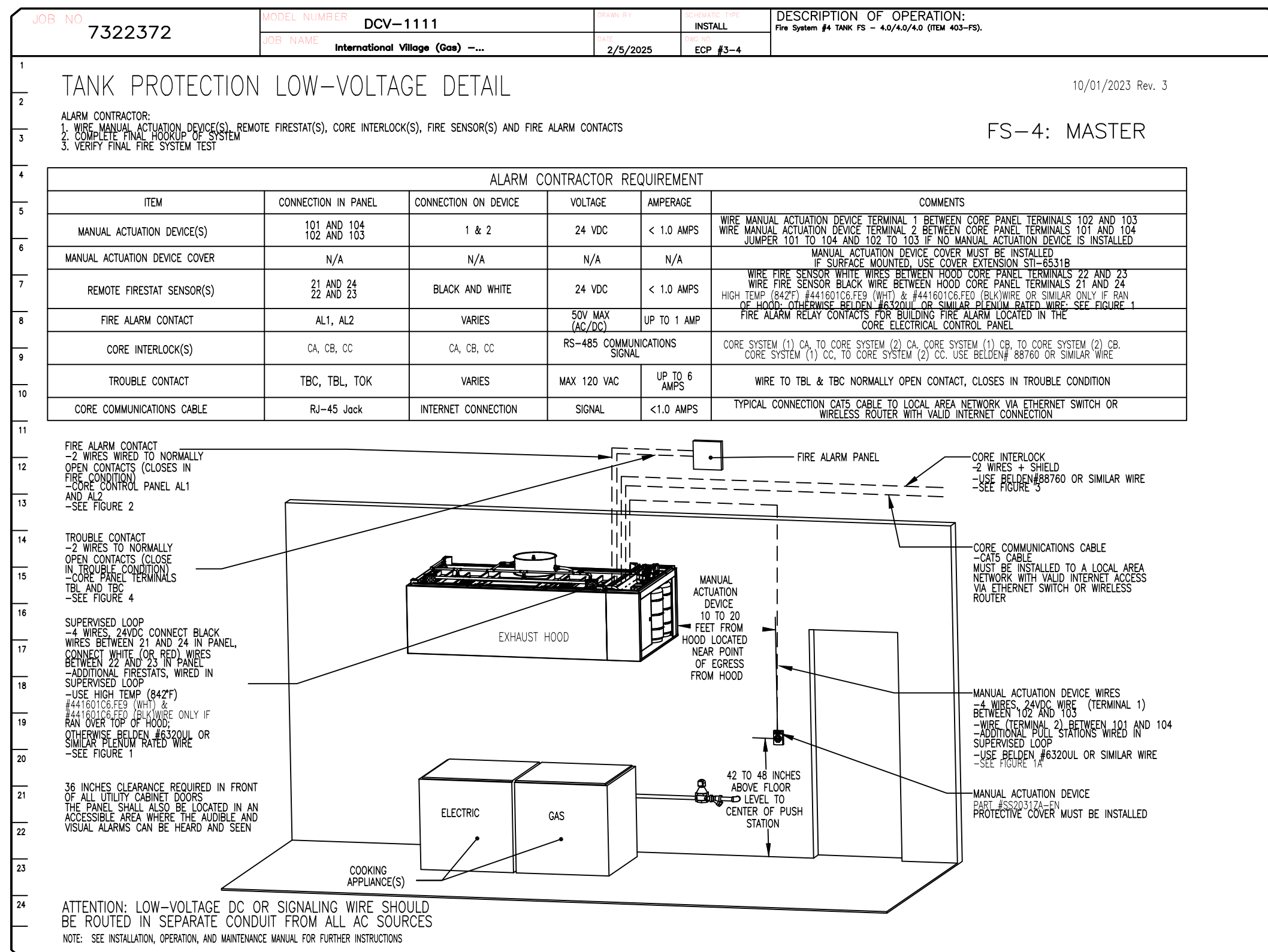
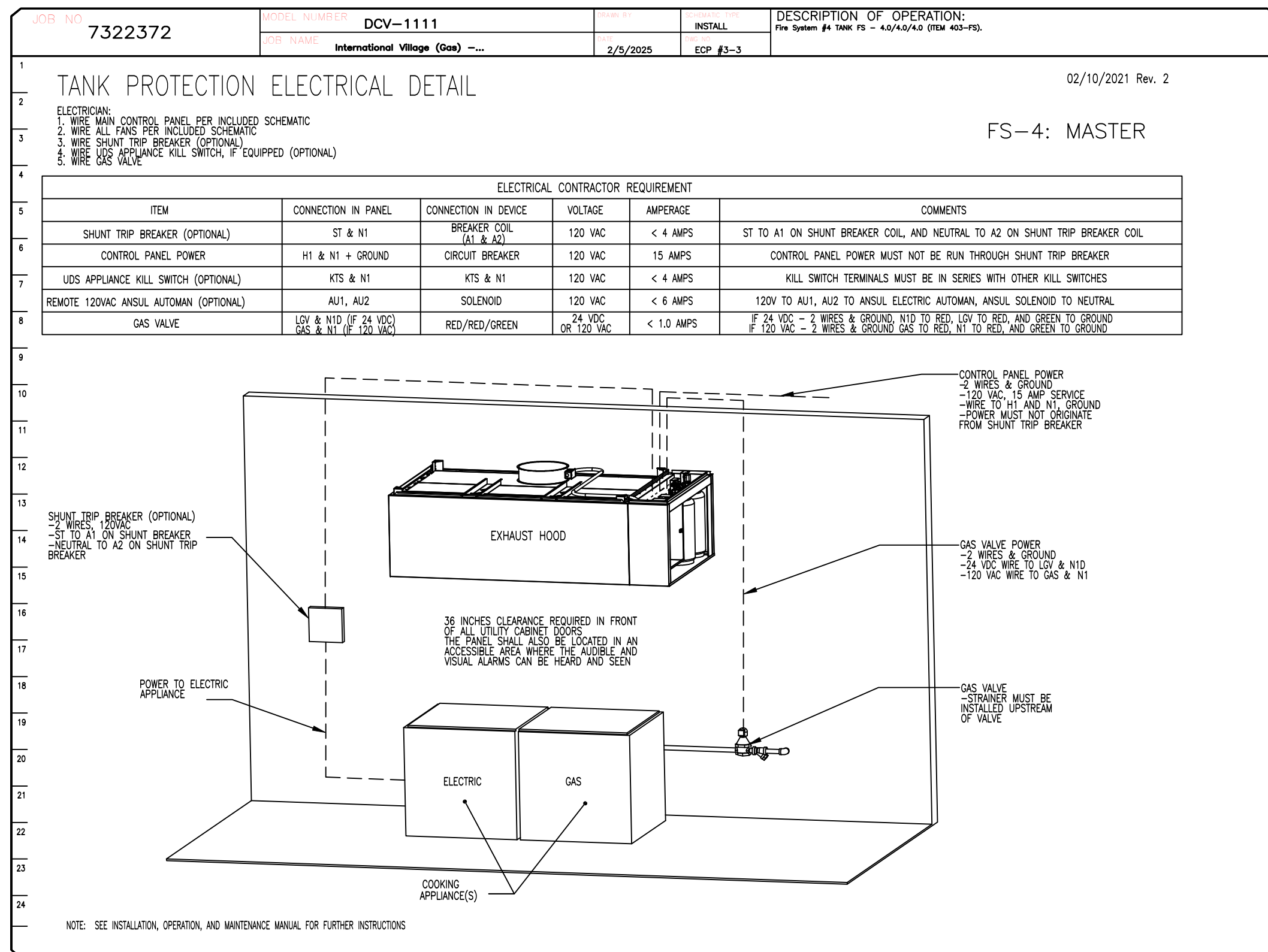
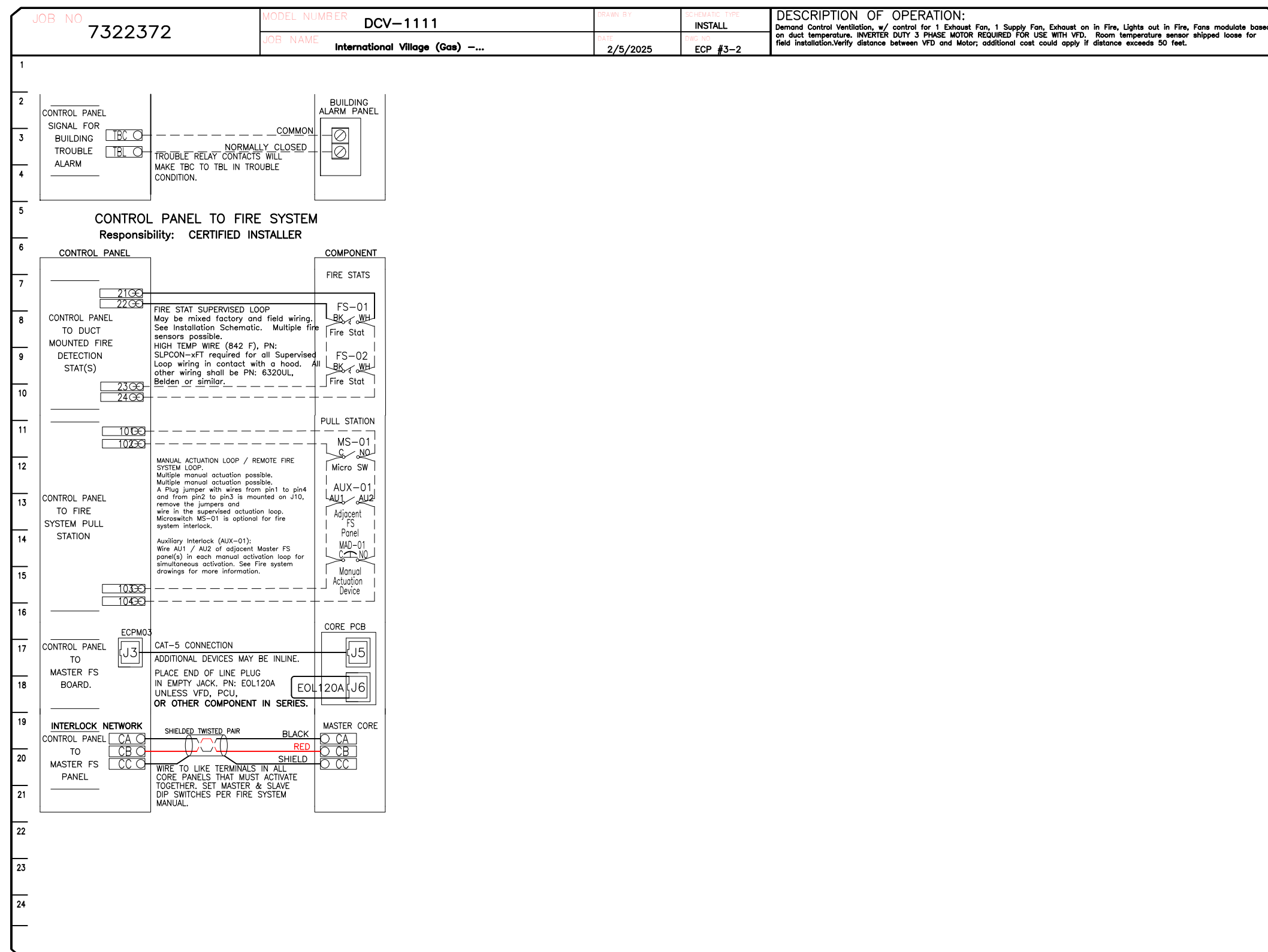
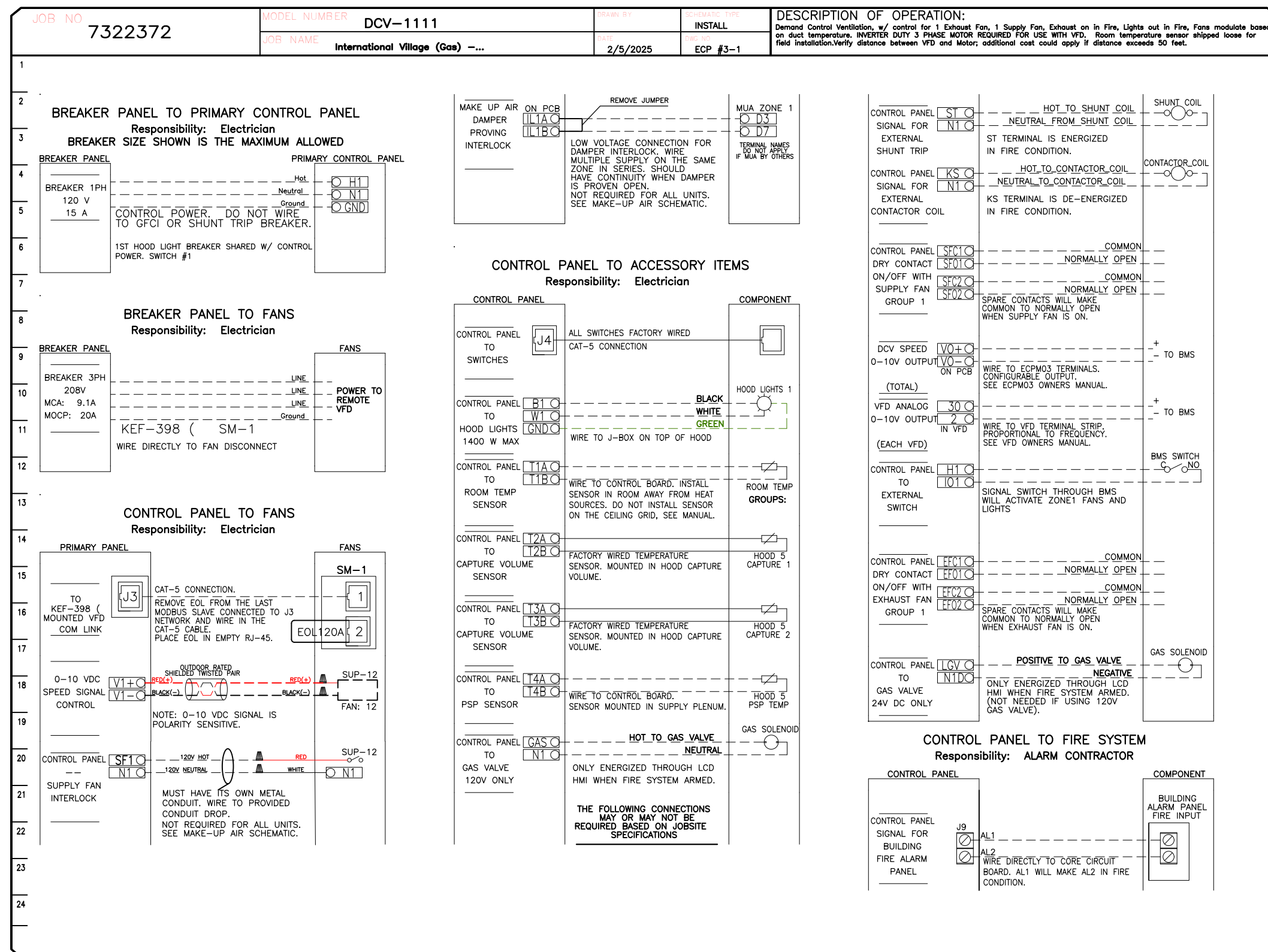
Public Works

Fire

Traffic

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26




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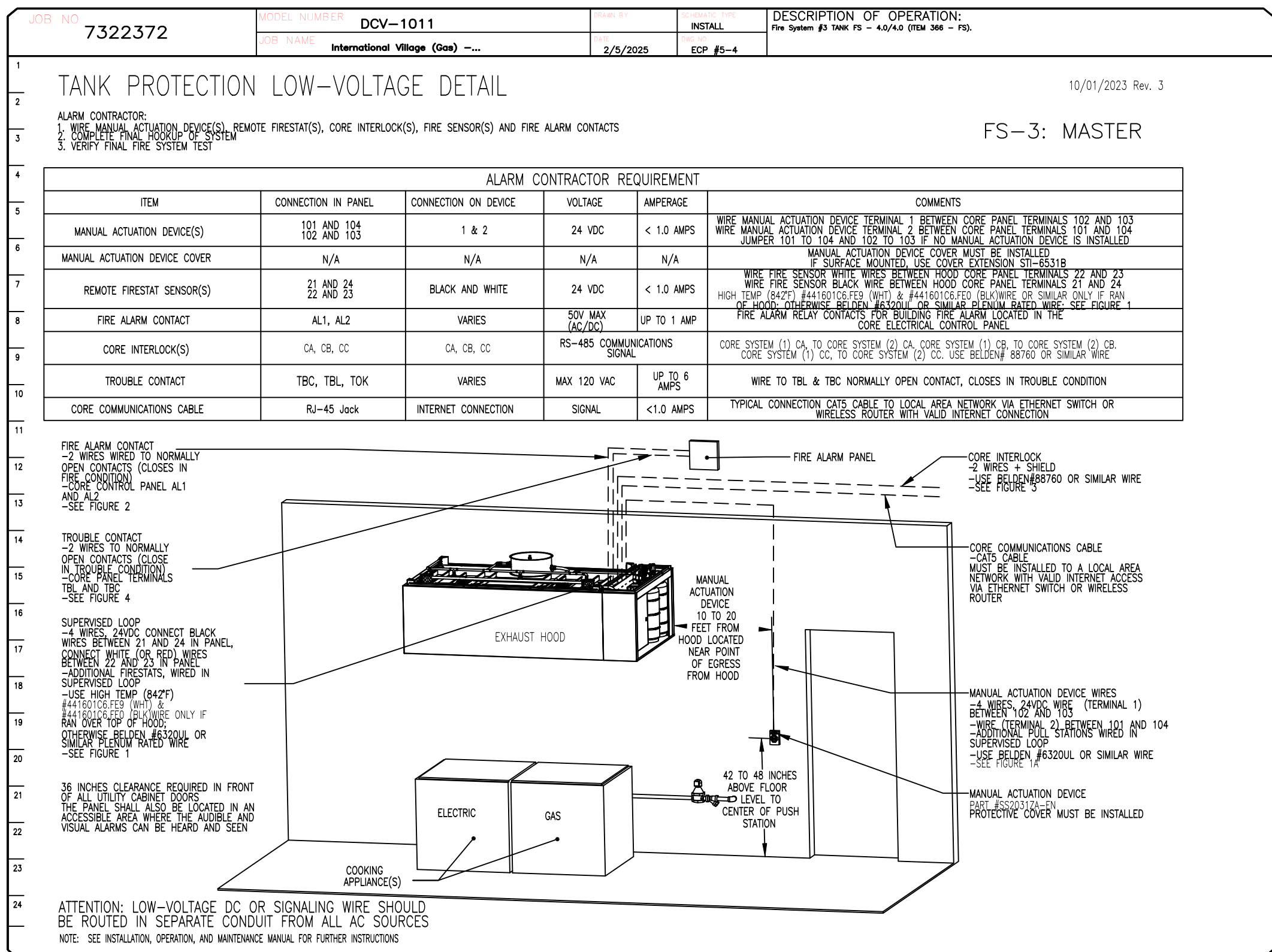
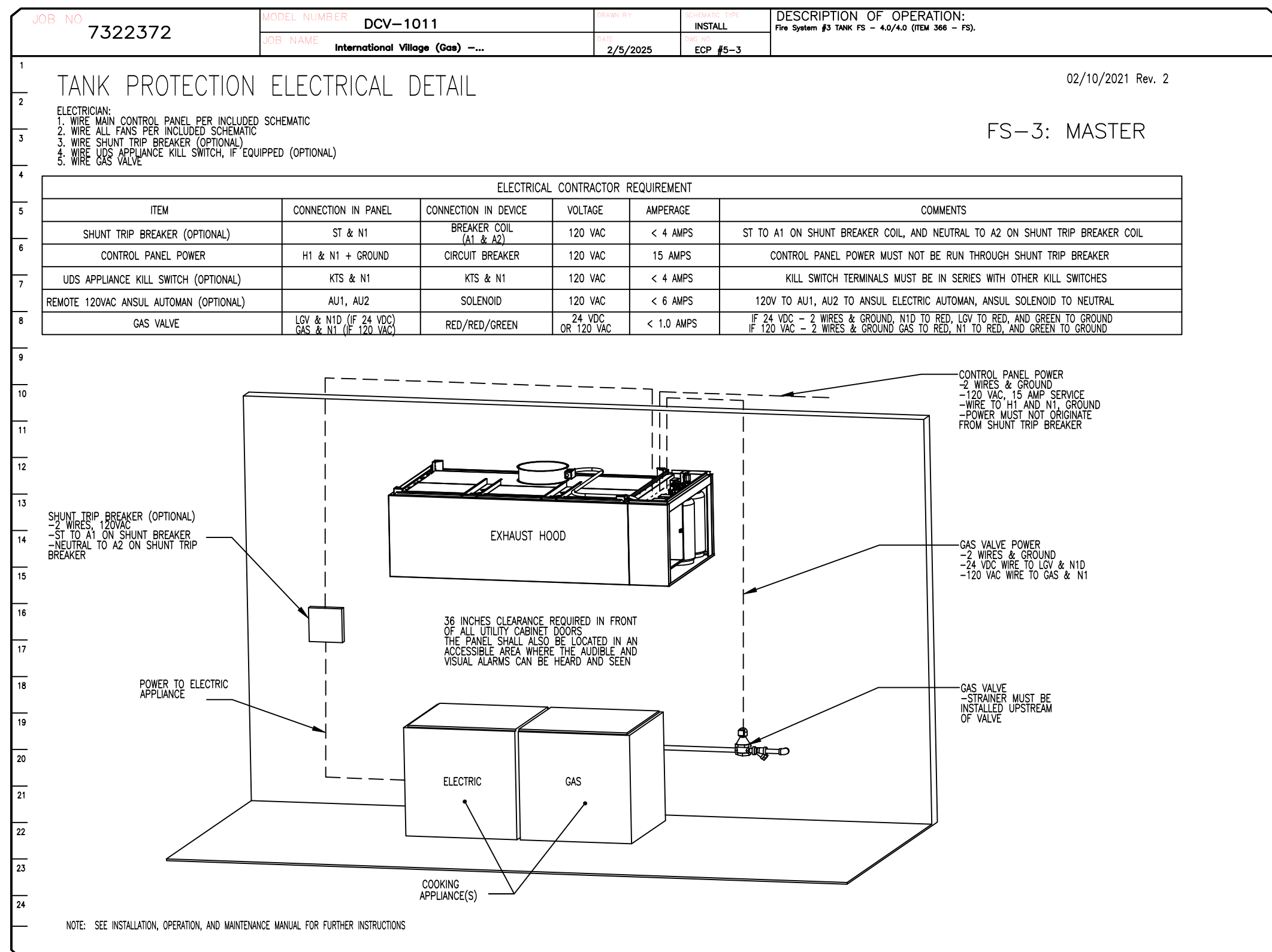
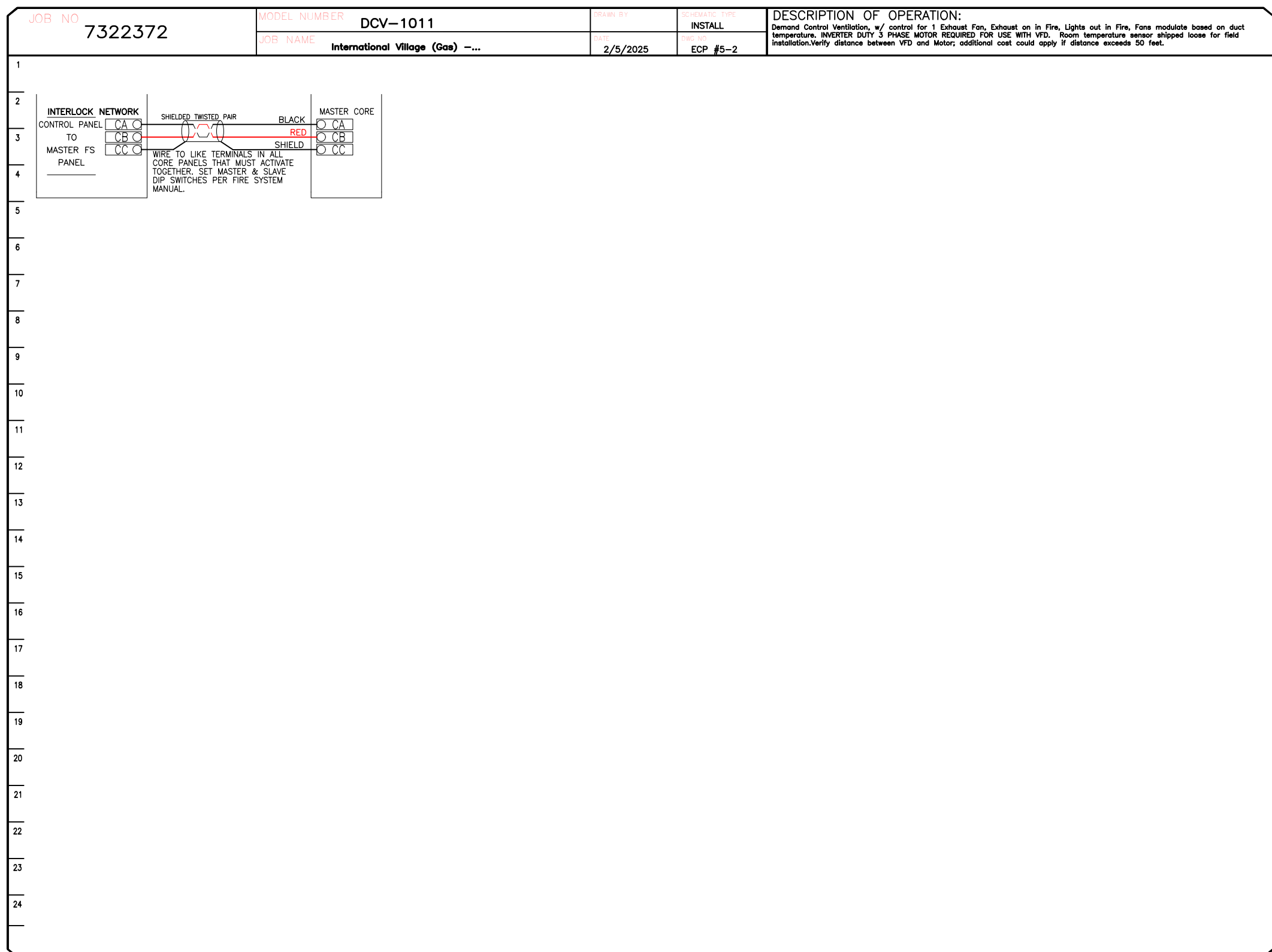
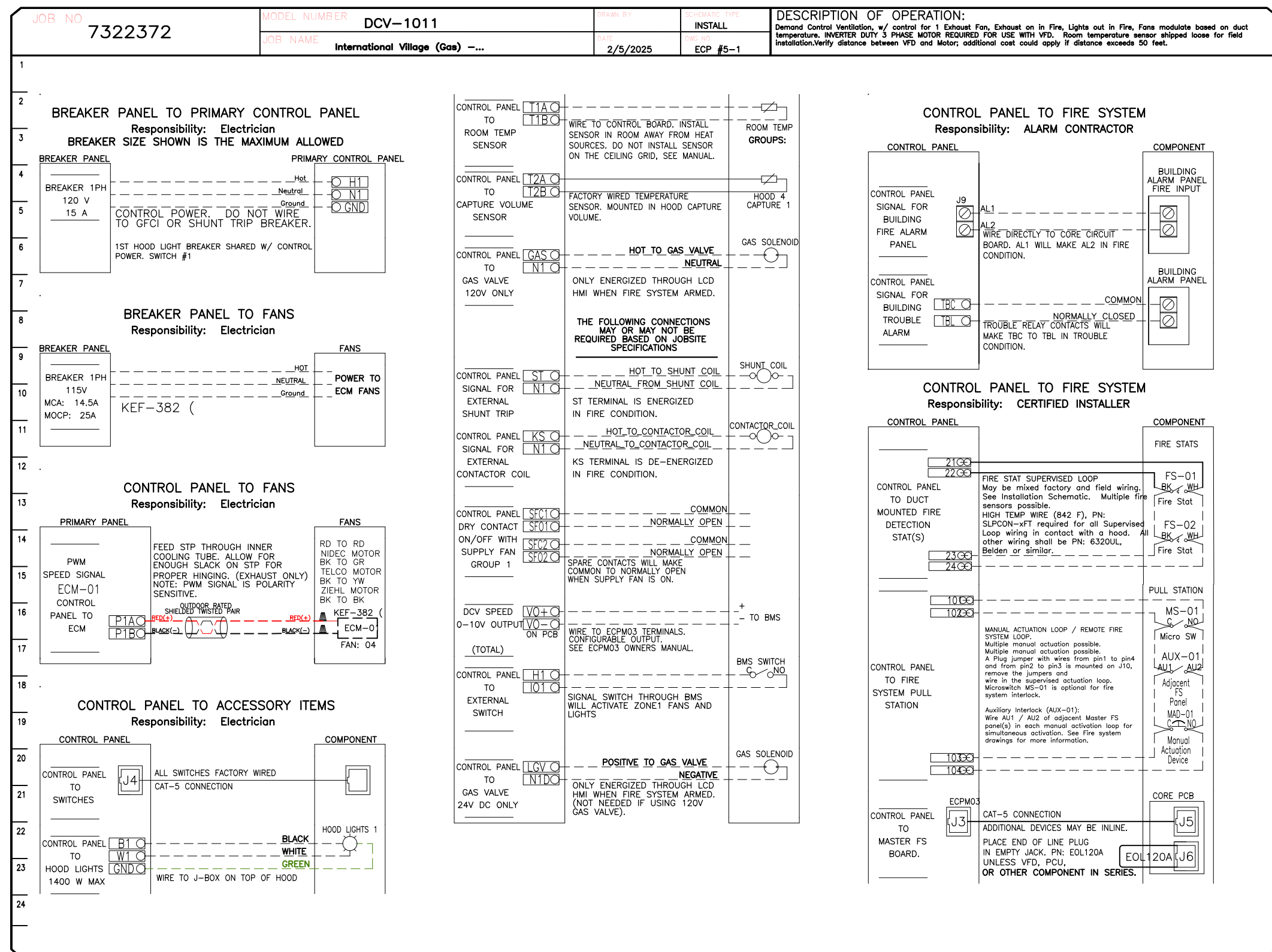
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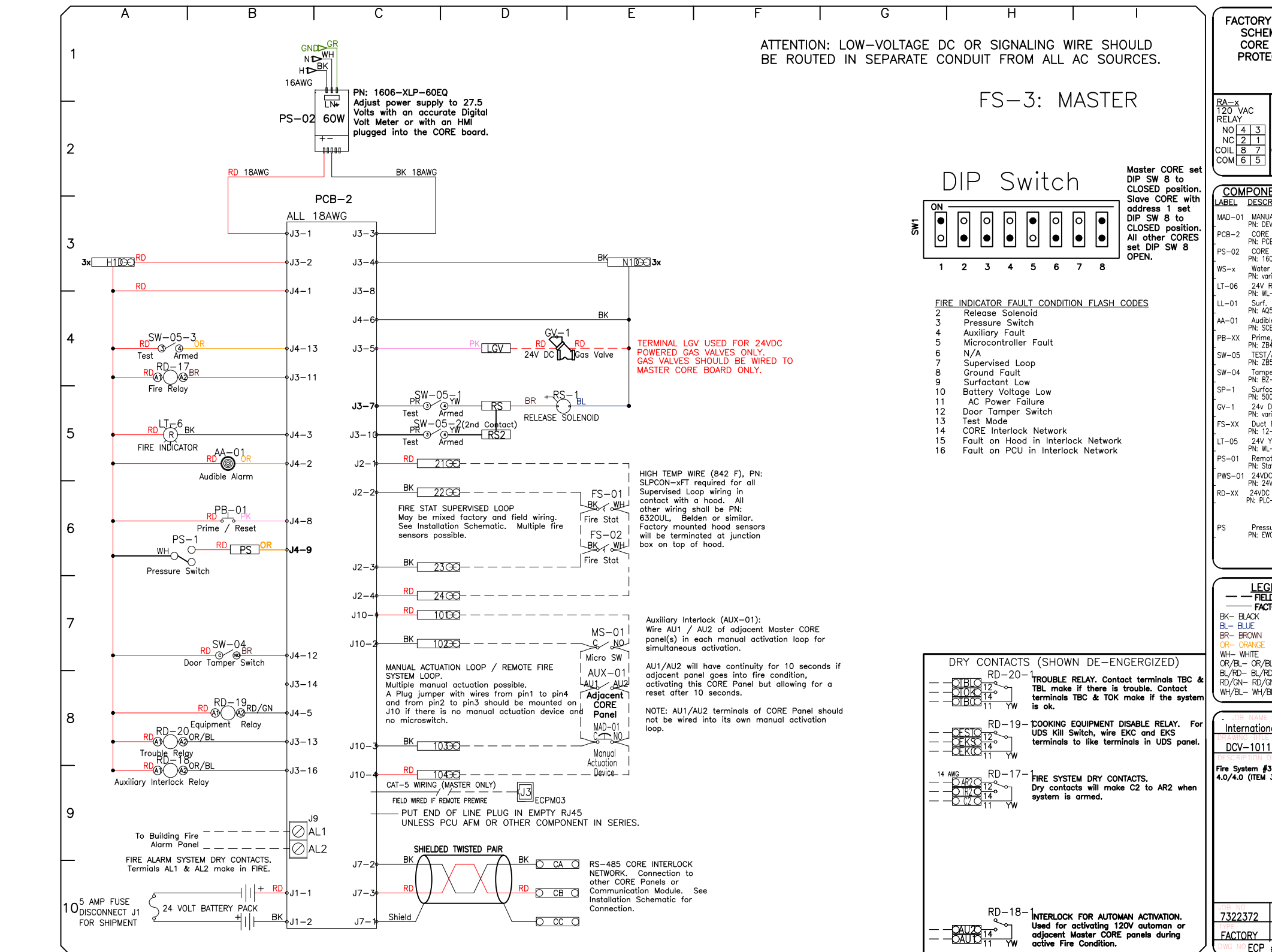
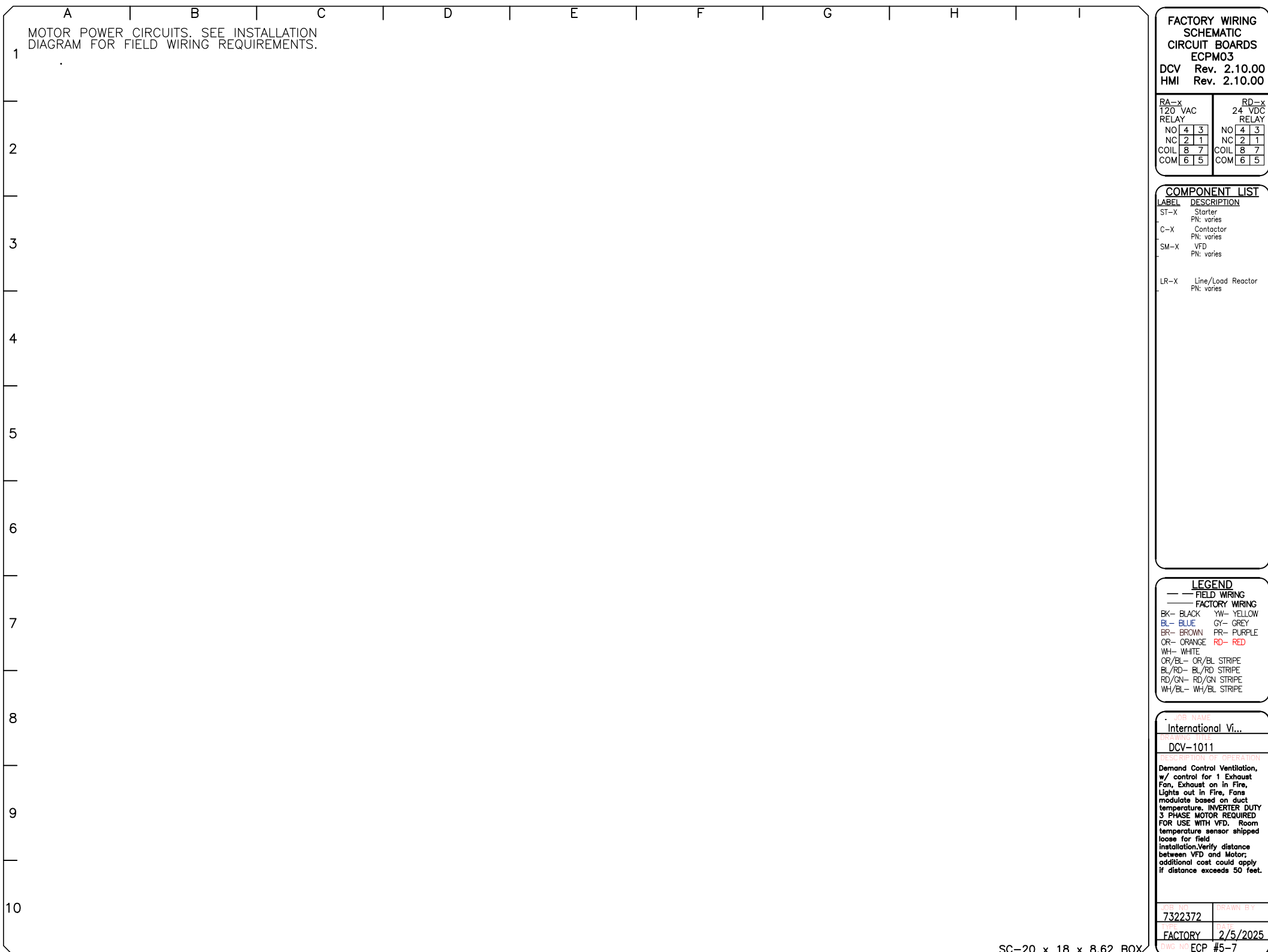
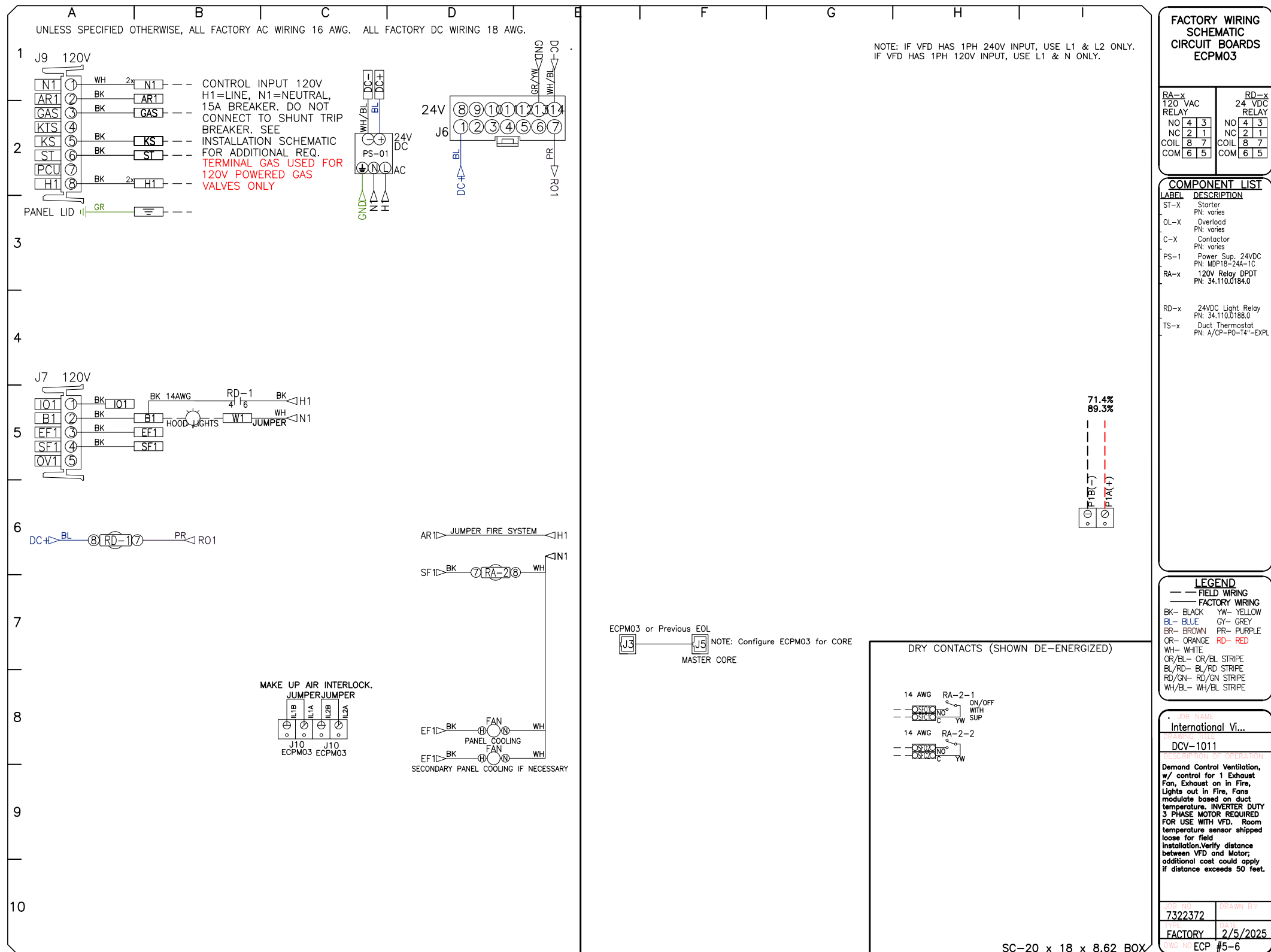
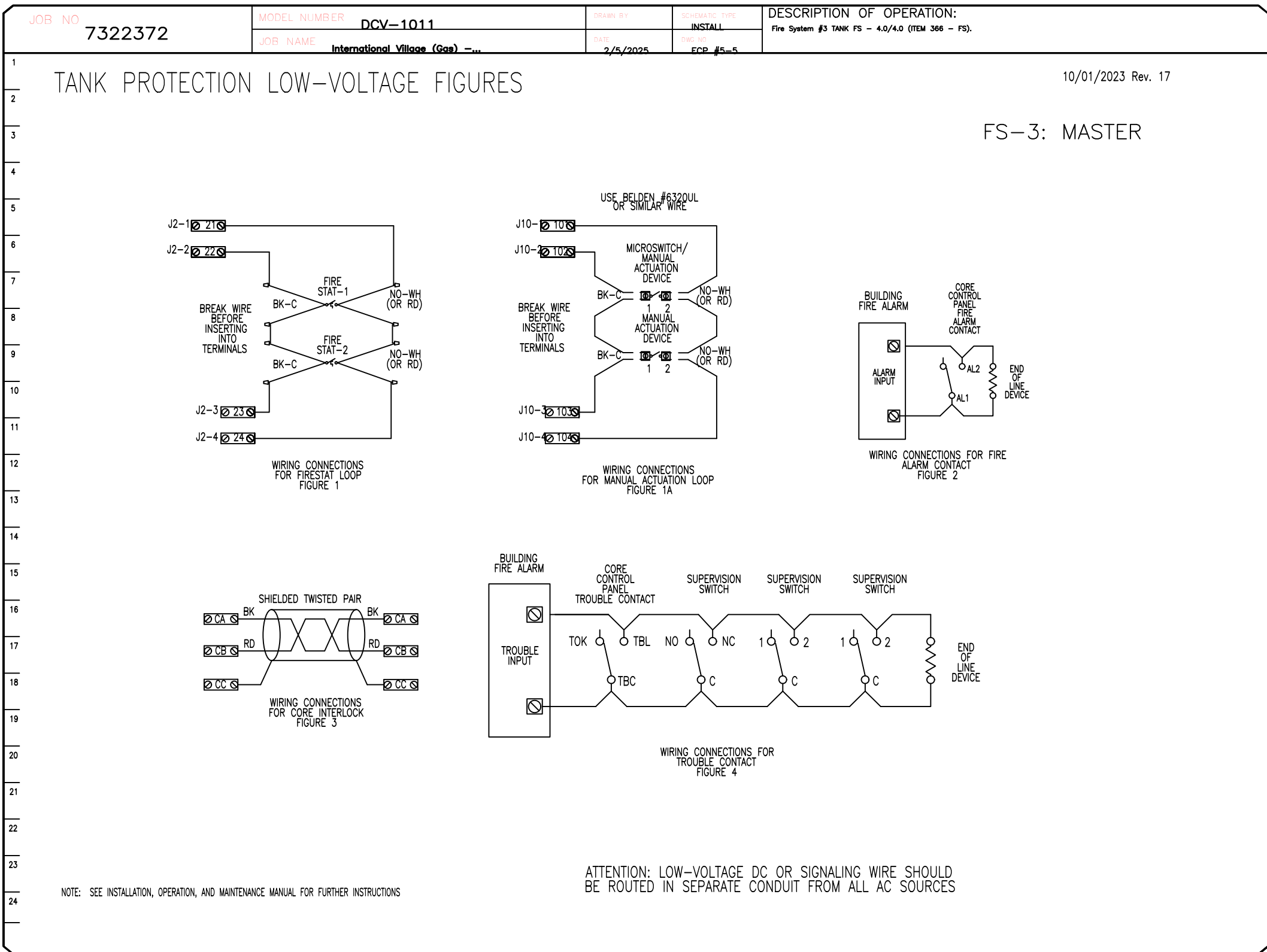


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International Village (Gas) – Puyallup – R4

110 9th Avenue Southwest,

Puyallup, WA, 98371

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32

DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

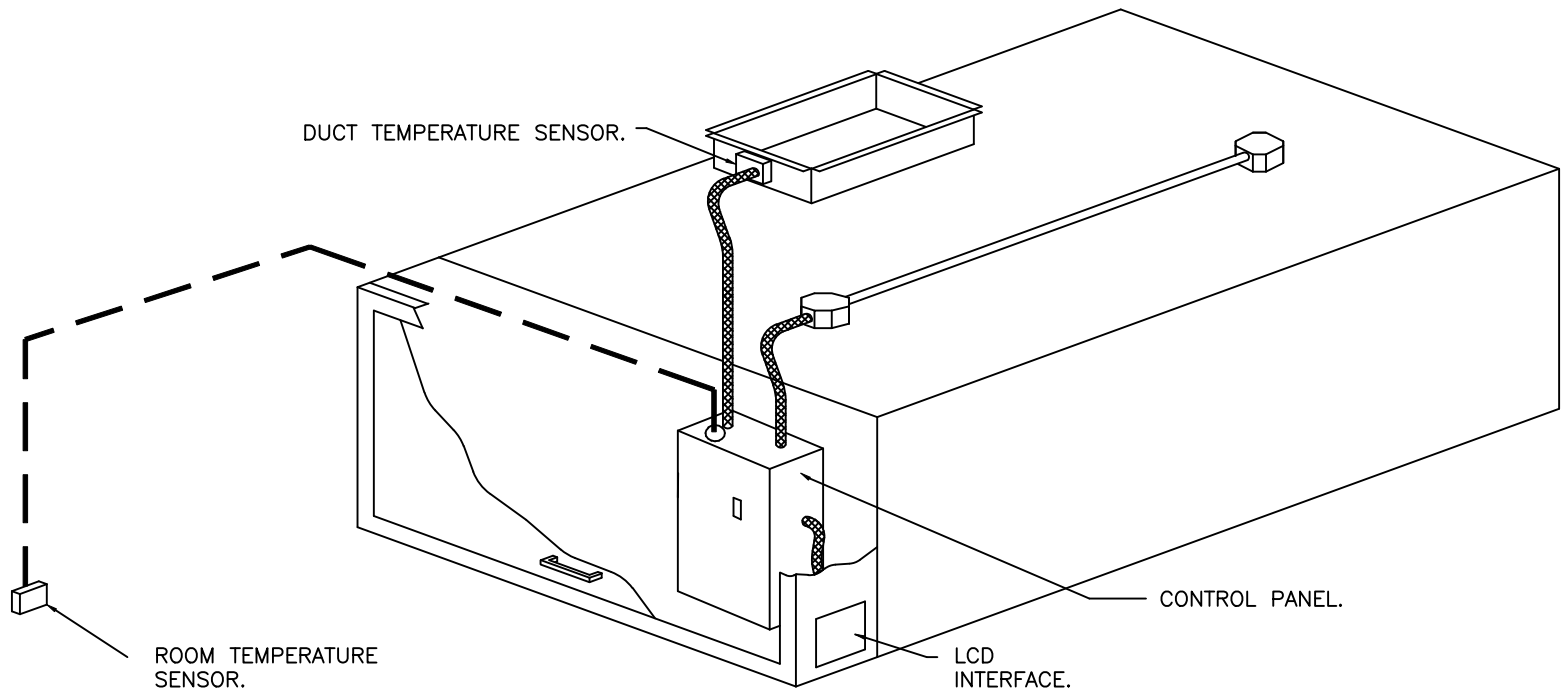
- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
 - ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
 - INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
 - VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
 - AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.

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.



TYPICAL HOOD CONTROL PANEL INSTALLATION

SEQUENCE OF OPERATIONS:

- THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:
- AUTOMATIC:** THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
 - MANUAL:** THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
 - SCHEDULE:** A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
 - OTHER:** THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
 - FIRE:** UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

REVISIONS

DESCRIPTION	DATE:
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