

HVAC PIPING DESIGNATIONS

Table with 2 columns: Symbol and Description. Includes items like STEAM SUPPLY PIPE, CHILLED WATER SUPPLY PIPE, CONDENSER WATER SUPPLY PIPE, etc.

PIPING SYMBOLS

Table with 2 columns: Symbol and Description. Includes items like BOTTOM CONNECTION, BRANCH TEE CONNECTION, DIRECTION OF PITCH, etc.

TEMPERATURE CONTROL

Table with 2 columns: Symbol and Description. Includes items like DIFFERENTIAL PRESSURE SENSOR, HUMIDITY SENSOR, THERMOSTAT, etc.

DUCTWORK SYMBOLS

Table with 3 columns: Rectangular, Round/Oval, and Description. Includes items like ROUND BRANCH DUCTWORK, RECTANGULAR BRANCH DUCTWORK, SQUARE TEE WITH TURNING VANES, etc.

DUCTWORK DEVICE SYMBOLS

Table with 2 columns: Symbol and Description. Includes items like AIR DEVICE, MANUAL BALANCING VALVE DAMPER, BACK DRAFT DAMPER, etc.

GENERAL FLOOR PLAN NOTES

Table with 2 columns: Symbol and Description. Includes items like APPROXIMATE DIMENSION ABOVE FINISHED FLOOR, RISER OR STACK NUMBER, SECTION, etc.

VALVES AND FITTINGS

Table with 3 columns: Detail View, Plan View, and Description. Includes items like CHECK VALVE, SHUTOFF VALVE, COMBINATION SHUTOFF AND BALANCING VALVE, etc.

NOTE: ALL SYMBOLS AND ABBREVIATIONS ARE SUBJECT TO MODIFICATIONS ON OTHER DRAWINGS. ALL SYMBOLS OR ABBREVIATIONS MIGHT NOT NECESSARILY BE USED ON THIS PROJECT.

ABBREVIATIONS

Table with 2 columns: Abbreviation and Description. Includes items like AAP - AREA ALARM PANEL, AC - AIR COMPRESSOR OR AIR CONDITIONER, etc.

GENERAL NOTES

- A. HVAC CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING COMPLETE SYSTEMS OF HVAC EQUIPMENT, PIPING, DUCTWORK, ETC. DRAWINGS ARE SCHEMATIC IN NATURE AND CONTRACTOR IS RESPONSIBLE FOR FIELD COORDINATING AND ROUTING OF ALL PIPING WITH RESPECT TO EXISTING CONDITIONS, NEW CONSTRUCTION, OTHER TRADES, ETC.
- B. CONTRACTOR SHALL INSTALL ALL EQUIPMENT, DUCTWORK, PIPING, ETC. PER ALL LOCAL, STATE, AND FEDERAL CODES PER THE RECOMMENDATIONS OF THE MANUFACTURER AND PER ALL APPLICABLE GUIDELINES OF SMACNA AND ASHRAE.
- C. PROVIDE COMPLETE START-UP AND TESTING OF EQUIPMENT AND INSTRUCT OWNER'S PERSONNEL IN OPERATION AND MAINTENANCE OF EQUIPMENT.
- D. HVAC CONTRACTOR RESPONSIBLE FOR CUTTING AND PATCHING OF ALL PENETRATIONS-CEILING, ROOFS, FLOORS, WALLS, ETC.
- E. HVAC CONTRACTOR SHALL OBTAIN A COMPLETE SET OF PLANS AND BE FAMILIAR WITH THE ENTIRE PROJECT IN ORDER TO UNDERSTAND THE COMPLETE SCOPE OF WORK.
- F. HVAC CONTRACTOR SHALL PROVIDE AND PAY FOR ALL INSPECTIONS, TESTS, ETC. REQUIRED FOR THE PERFORMANCE OF THIS WORK. OWNER TO PROVIDE THE PERMITS.
- G. OBTAIN HOT WORK PERMITS FROM THE OWNER FOR ALL ON SITE BRAZING, CUTTING, WELDING, ETC. OR THREADING OF PIPING.
- H. CONTRACTOR SHALL VERIFY EXACT HEIGHTS OF ALL CEILINGS PRIOR TO START OF WORK. SEE ARCHITECTURAL SHEETS FOR CEILING DETAILS AND CONSTRUCTION. COORDINATE EXACT DUCTWORK INSTALLATION WITH CEILING HEIGHTS AND STRUCTURE AS REQUIRED.
- I. SEE ELECTRICAL LIGHTING SHEETS FOR EXACT LOCATION OF ALL LIGHT FIXTURES. COORDINATE EXACT DIFFUSER AND GRILLE LOCATIONS WITH LIGHTING FIXTURES AS REQUIRED.
- J. INSTALL ALL DUCTWORK AS HIGH AS POSSIBLE WHILE COORDINATING WITH ALL OTHER TRADES. OFFSET AND TRANSITION DUCTWORK BETWEEN AND BENEATH STRUCTURAL MEMBERS WHERE REQUIRED.
- K. ALL DUCTWORK SHALL MEET SMACNA "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE", LATEST EDITION. DUCT GAUGES, REINFORCEMENTS, METHODS OF CONNECTION, TRANSITIONS AND CONSTRUCTION WILL BE FIELD VERIFIED. MEASUREMENT AND INSPECTED FOR COMPLIANCE. DUCTWORK NOT MEETING SMACNA STANDARDS WILL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE. UNLESS NOTED OTHERWISE, THE PRESSURE CLASSIFICATION FOR ALL DUCTWORK SHALL BE 2" WATER GAUGE POSITIVE OR NEGATIVE. CONTRACTOR SHALL VERIFY ALL REQUIREMENTS PRIOR TO DUCT FABRICATION.
- L. ALL DUCTWORK IN EXPOSED SALES AREAS SHALL BE SHEET METAL ONLY, NO FLEX DUCT ALLOWED. FINAL CONNECTIONS TO DIFFUSERS, GRILLES AND REGISTERS SHALL BE SHEET METAL DUCT ONLY. SUPPORT DUCTWORK PER SMACNA AND CODE. FINISH WITH PAINT-LOC FINISH OR PRIME FOR PAINTING.
- M. DO NOT CUT, DRILL HOLES OR REMOVE ANY PORTION OF STRUCTURAL MEMBERS, BEAMS OR PURLINS. ROUTE ALL DUCTWORK, PIPING AND CONDUIT AROUND AND BELOW STRUCTURAL MEMBERS AS REQUIRED. INSTALL DUCTWORK IN ACCORDANCE WITH LATEST SMACNA STANDARDS.
- N. DO NOT ATTACH SCREWS, NAILS, HANGERS OR FASTENERS OF ANY TYPE TO ROOF DECK. SUPPORT ALL MECHANICAL EQUIPMENT FROM STRUCTURE AND CONTRACTOR - INSTALLED KICKERS ONLY. PROVIDE AND INSTALL INTERMEDIATE KICKERS BETWEEN PURLINS AS REQUIRED TO HANG EQUIPMENT AND SHEET METAL DUCTWORK.
- O. ALL TEMPERATURE CONTROLS, EMS CONTROLS AND SMOKE DETECTOR SHUT-DOWN WORK SHALL BE COMPLETED BY EMS CONTROLS CONTRACTOR. REFER TO EM SHEETS FOR ALL ASSOCIATED WORK.
- P. HVAC CONTRACTOR SHALL FIELD ADJUST ALL DIFFUSERS, REGISTERS AND DRUM LOUVERS DISCHARGE AIRFLOW AWAY FROM ALL OPEN REFRIGERATED CASES, SWAYING SIGNAGE, CHECK STAND/PREP WEIGHT SCALES AND OTHER NOTICEABLE CONFLICTING LOCATIONS AT THE COMPLETION OF CONSTRUCTION (TYP).
- Q. HVAC CONTRACTOR SHALL PROVIDE BALANCING DAMPERS AT POINTS ON SUPPLY, RETURN, AND EXHAUST SYSTEMS WHERE BRANCHES LEAD FROM LARGER DUCTS AS REQUIRED FOR AIR BALANCING. INSTALL MINIMUM OF TWO DUCT WIDTHS FROM BRANCH TAKEOFF. PROVIDE ACCESS PANELS WHERE DAMPERS LIST BE INSTALLED ABOVE NON-ACCESSIBLE CEILINGS.
- R. HVAC CONTRACTOR SHALL PROVIDE TURNING VANES IN ALL RECTANGULAR DUCTWORK WITH 90 DEGREE MITERED ELBOWS.
- S. SUPPLY AND RETURN DUCTWORK FROM ROOF TOP UNITS TO BE INTERNALLY INSULATED A MINIMUM OF 10 FEET FOR SOUND ATTENUATION.
- T. LIGHT FIXTURE LOCATIONS TO TAKE PRECEDENCE OVER DIFFUSER AND GRILLE LOCATIONS. LOCATE DIFFUSERS AND GRILLES TO ACCOMMODATE LIGHTING LAYOUT.
- U. INSTALL HVAC ROOF EQUIPMENT A MINIMUM OF 10 FEET FROM ROOF EDGE OR PARAPET WALLS. INSTALL FLUES AND EXHAUST FANS A MINIMUM OF OUTSIDE AIR INTAKES. INSTALL EXHAUST FANS A MINIMUM OF 10 FEET FROM ROOF EDGE.
- V. DUCTWORK THERMAL INSULATION IS REQUIRED WHERE DUCTWORK IS INSTALLED ABOVE SPACES WITH CEILINGS.
- W. HVAC EQUIPMENT MUST BE ON LOCAL CONTROL ON DAY OF FINAL INSPECTION FOR THE FIELD INSPECTORS TO TEST THE EM SHUT DOWN SYSTEMS.

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Table with 2 columns: DATE and ISSUE. Includes entries for 06/24/2021 and 10/05/BID/PERMIT.

REVISION

Table with 3 columns: DATE, REVISION, and Description. Includes entries for 07/28/21 and 09/10/2021.

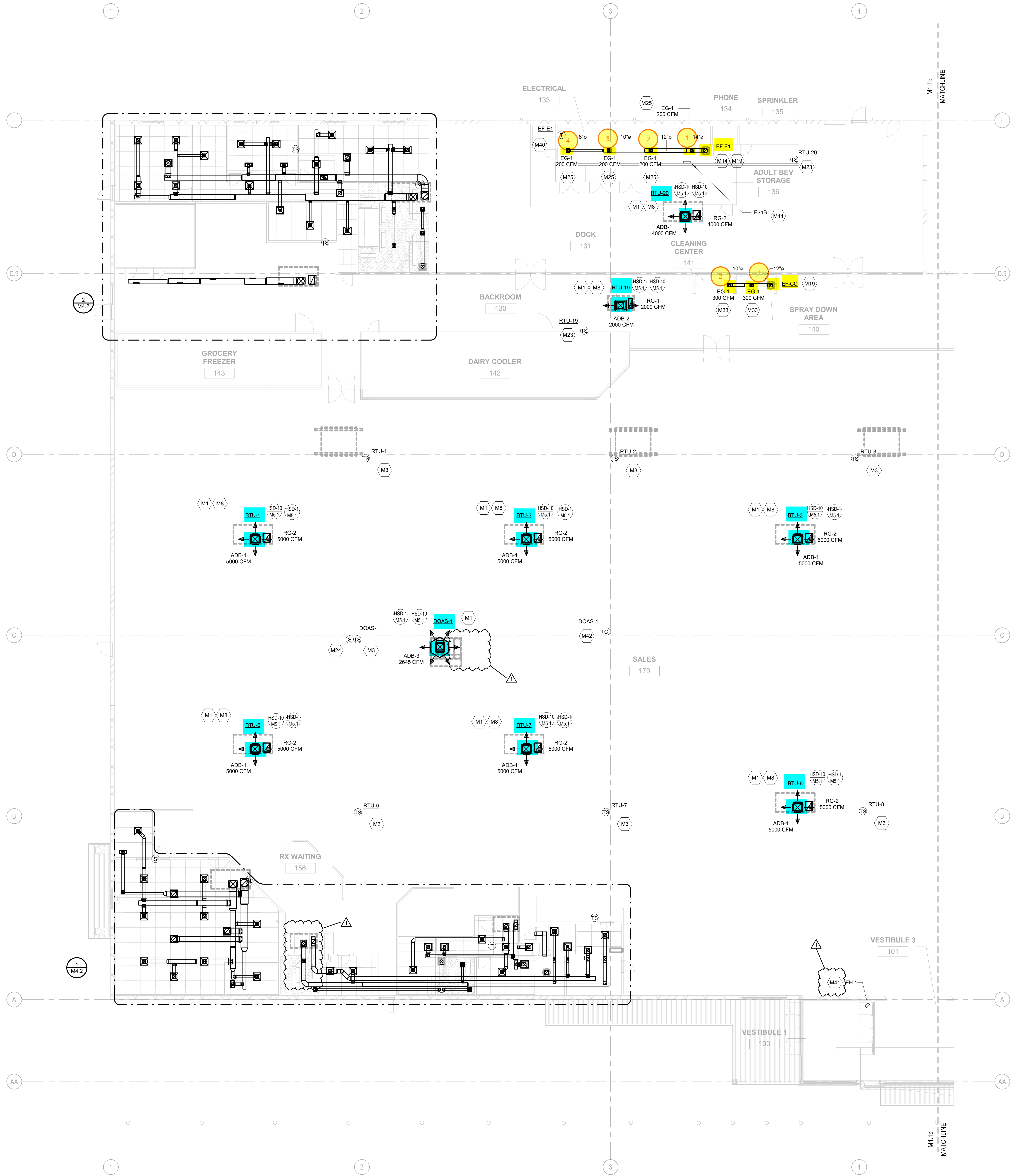
PROJECT TITLE

KROGER STORE U606

8655 US HIGHWAY 72 WEST
MADISON, AL 35758

Table with 2 columns: Commission No. and Issue Date. Includes entries for 521334 and 06/24/21.

ABBREVIATIONS SYMBOLS AND NOTES



KEYNOTE LEGEND

NUMBER	KEYNOTE
M1	DROP BOX DIFFUSER SYSTEM. REFER TO DIFFUSER SCHEDULE FOR AES MODEL NUMBERS AND QUANTITIES. REFER TO PLANS FOR THROW DIRECTIONS AND CFM.
M2	TEMPERATURE SENSOR FOR ROOF MOUNTED RTU FURNISHED BY CONTROL PROVIDER. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL. MOUNT SENSOR 7'-6" AFF ON COLUMN. COORDINATE LOCATION WITH KROGER EQUIPMENT AND FURNISHINGS. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE.
M8	REFER TO ARCHITECTURAL ROOF PLAN FOR HVAC ROOF TOP DIMENSIONAL INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR JOIST AND BEAM LOCATIONS AND DIMENSIONAL INFORMATION.
M14	DUCT UP TO OPENING THROUGH ROOF. H.C. TO PROVIDE REVERSE ACTING THERMOSTAT FOR FAN. FAN TO ENERGIZE WHEN SPACE TEMPERATURE EXCEEDS 80 DEG.F.
M19	EXTEND FULL SIZE DUCTWORK (CURB SIZE) UP THROUGH ROOF AND SEAL OPENING AIRTIGHT.
M23	TEMPERATURE SENSOR FOR ROOF MOUNTED RTU FURNISHED BY CONTROL PROVIDER. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL. MOUNT SENSOR 4" MINIMUM OR 4'-0" AFF ON WALL. COORDINATE LOCATION WITH KROGER EQUIPMENT AND FURNISHINGS. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE.
M24	COMBINATION RELATIVE HUMIDITY/TEMPERATURE SENSOR TO BE MOUNTED 7' AFF AND, IN THE CASE OF RTU-4, USED FOR CYCLING ANTI-SWEAT CASE HEATERS AND HVAC HUMIDITY CONTROL.
M25	DIFFUSER/GILLETTE REGISTER TO BE INSTALLED 10'-2" AFF.
M26	GILLETTE TO BE INSTALLED 7'-0" AFF.
M40	THERMOSTAT TO BE MOUNTED AT 5'-0" AFF. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE. REFER TO DEMO DRAWINGS FOR MORE INFORMATION.
M41	SUSPENDED ELECTRIC HEATER USING THREADED ROD TO UNISTRUT CHANNEL OR APPROVED EQUAL. MOUNT 18'-0" AFF TO BOTTOM OF UNIT. VERIFY LOCATION AND REQUIREMENTS WITH OWNER. REFER TO M6.1 FOR MORE INFORMATION.
M44	BUILDING CONTROL PANEL E248 SHOWN FOR REFERENCE ONLY. REFER TO ELECTRICAL POWER PLAN FOR MORE DETAILED INFORMATION.

GENERAL NOTES

A.	REFER TO ABBREVIATIONS, SYMBOLS AND NOTES DRAWING M0.1 FOR HVAC GENERAL NOTES.
B.	WHERE SMOKE DETECTORS ARE INSTALLED MORE THAN 10 FEET ABOVE THE FINISHED FLOOR OR IN ARRANGEMENT WHERE THE DETECTOR'S ALARM OR SUPERVISORY INDICATOR IS NOT VISIBLE TO RESPONDING PERSONNEL, THE DETECTOR SHALL BE PROVIDED WITH REMOTE ALARM OR SUPERVISORY INDICATOR IN A LOCATION ACCEPTABLE TO AUTHORITY HAVING JURISDICTION. PROVIDE AN LED INDICATOR LIGHT ON CEILING BENEATH EACH HVAC UNIT THAT IS EQUIPPED WITH A SMOKE DETECTOR WHEN ACTIVATION LIGHT IS NOT VISIBLE FROM BELOW.

1 HVAC PLAN
M1.1a SCALE: 3/32" = 1'-0"

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REVIEWED BY: JCL

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1 07/28/21	ADDENDUM NO. 2

PROJECT TITLE
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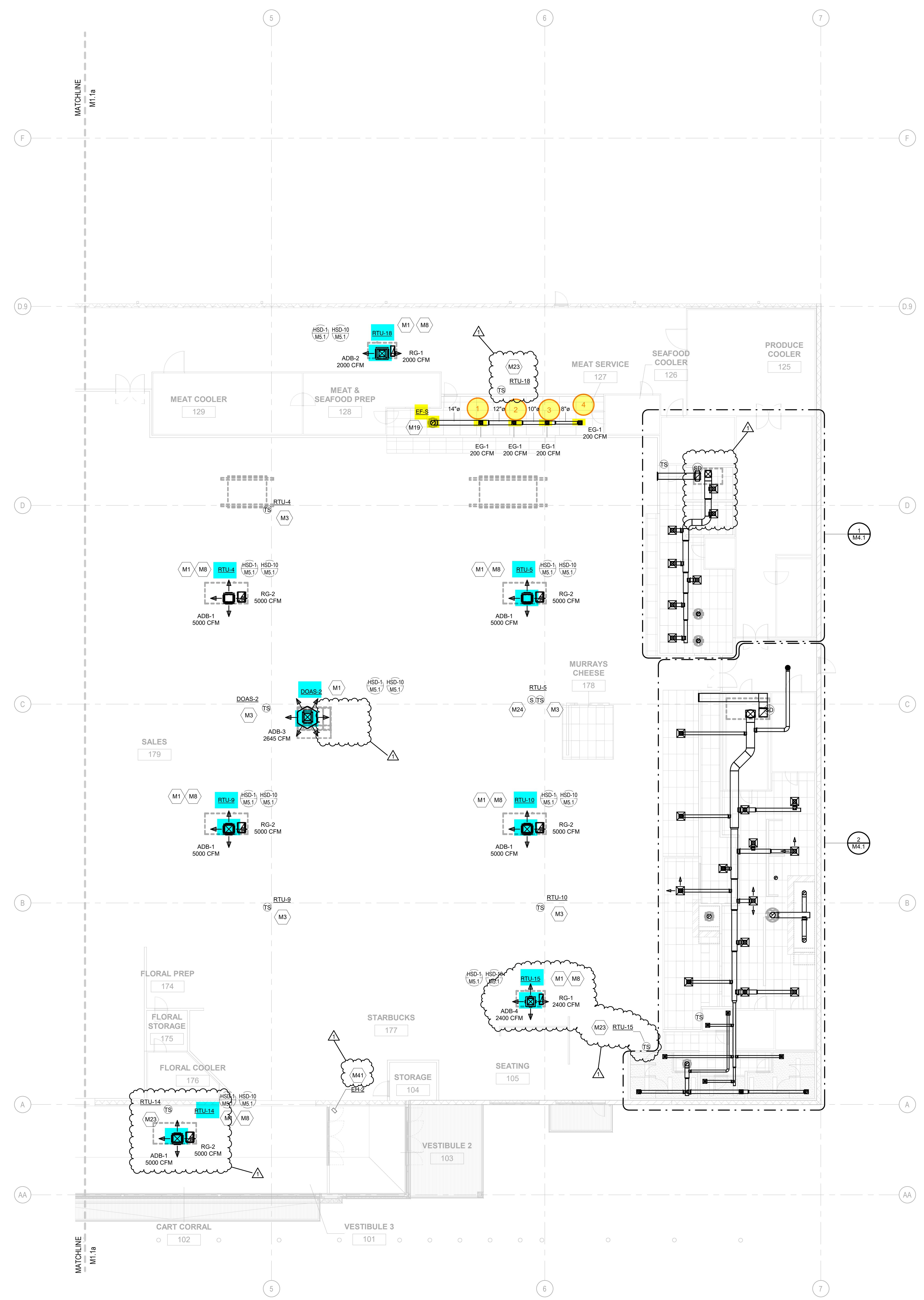
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HVAC PLAN

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M1.1a

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KEYNOTE LEGEND	
NUMBER	KEYNOTE
M1	DROP BOX DIFFUSER SYSTEM. REFER TO DIFFUSER SCHEDULE FOR AES MODEL NUMBERS AND QUANTITIES. REFER TO PLANS FOR THROW DIRECTIONS AND CFM.
M3	TEMPERATURE SENSOR FOR ROOF MOUNTED RTU FURNISHED BY CONTROL PROVIDER. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL. MOUNT SENSOR 7'-6" AFF ON COLUMN. COORDINATE LOCATION WITH KROGER EQUIPMENT AND FURNISHINGS. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE.
M8	REFER TO ARCHITECTURAL ROOF PLAN FOR HVAC ROOFTOP DIMENSIONAL INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR JOIST AND BEAM LOCATIONS AND DIMENSIONAL INFORMATION.
M19	EXTEND FULL SIZE DUCTWORK (CURB SIZE) UP THROUGH ROOF AND SEAL OPENING AIRTIGHT.
M23	TEMPERATURE SENSOR FOR ROOF MOUNTED RTU FURNISHED BY CONTROL PROVIDER. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL. MOUNT SENSOR A MINIMUM OF 4'-0" AFF ON WALL. COORDINATE LOCATION WITH KROGER EQUIPMENT AND FURNISHINGS. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE.
M41	CRANKDOWN HEATER AND HUMIDITY CONTROL SENSORS TO BE INSTALLED IN RAFTERS IN THE CASE OF UNIT USED FOR CYCLING ANTI-SWEAT CASE HEATERS AND HVAC HUMIDITY CONTROL.
M41	SUSPENDED ELECTRIC HEATER USING THREADED ROD TO UNISTRUT CHANNEL OR APPROVED EQUAL. MOUNT 16'-0" AFF TO BOTTOM OF UNIT. VERIFY LOCATION AND REQUIREMENTS WITH OWNER. REFER TO M6.1 FOR MORE INFORMATION.

GENERAL NOTES	
A.	REFER TO ABBREVIATIONS, SYMBOLS AND NOTES DRAWING M0.1 FOR HVAC GENERAL NOTES.
B.	WHERE SMOKE DETECTORS ARE INSTALLED MORE THAN 10 FEET ABOVE THE FINISHED FLOOR OR IN ARRANGEMENT WHERE THE DETECTORS ALARM OR SUPERVISORY INDICATOR IS NOT VISIBLE TO RESPONDING PERSONNEL, THE DETECTOR SHALL BE PROVIDED WITH REMOTE ALARM OR SUPERVISORY INDICATOR IN A LOCATION ACCEPTABLE TO AUTHORITY HAVING JURISDICTION. PROVIDE AN LED INDICATOR LIGHT ON CEILING BENEATH EACH HVAC UNIT THAT IS EQUIPPED WITH A SMOKE DETECTOR WHEN ACTIVATION LIGHT IS NOT VISIBLE FROM BELOW.

1 HVAC PLAN
M1.1b SCALE: 3/32" = 1'-0"

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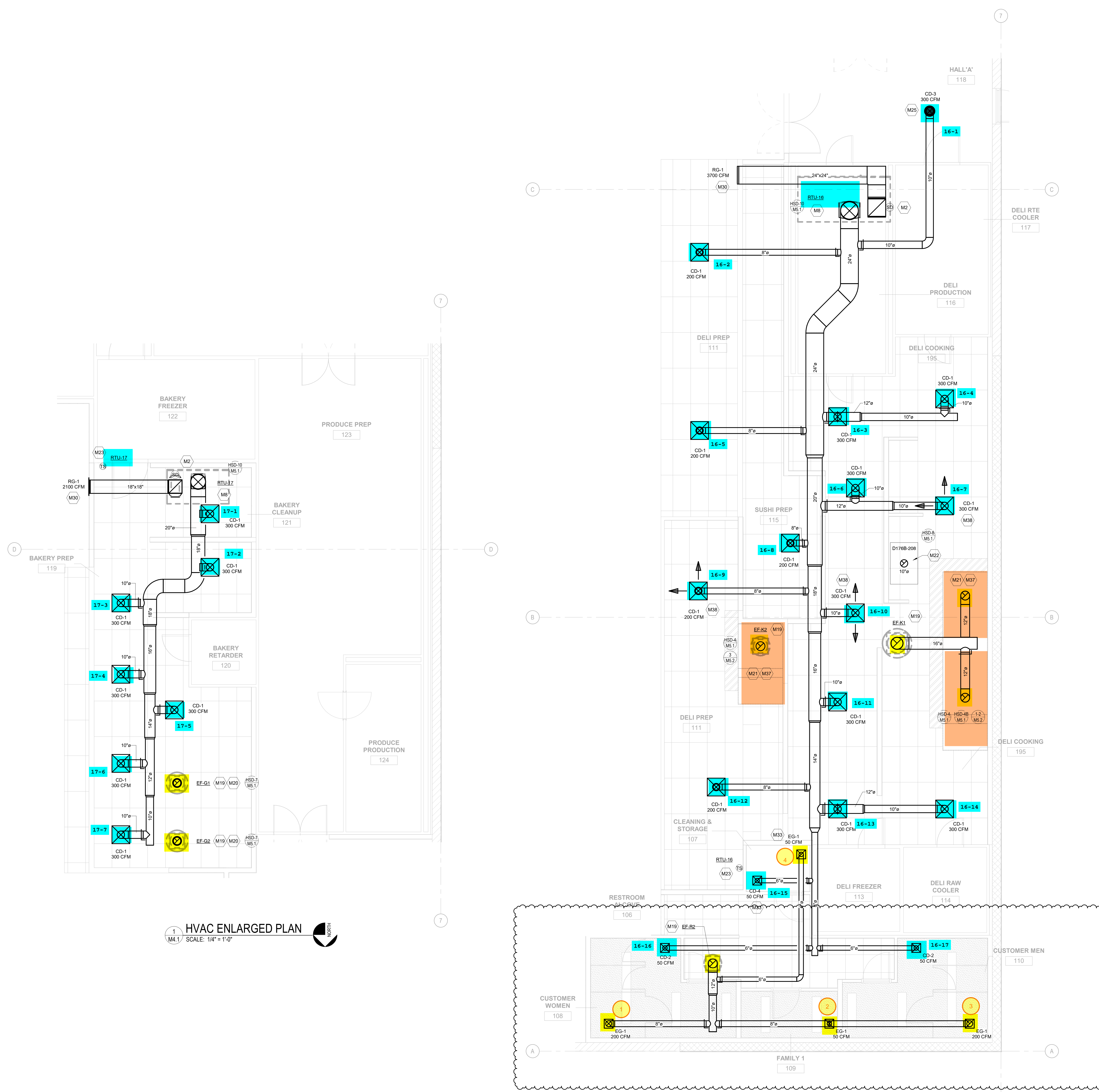
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HVAC PLAN

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

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

KEYNOTE LEGEND

NUMBER	KEYNOTE
M2	INSTALL SMOKE DETECTOR IN THE RETURN DUCTWORK DOWNSTREAM OF FILTERS AND UPSTREAM OF ANY BRANCH CONNECTIONS. INSTALL SAMPLING TUBES(S) AND DETECTOR HOUSING IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. DETECTOR FAN SHUTDOWN WIRING AND CONTROLS BY OTHERS.
M8	REFER TO ARCHITECTURAL ROOF PLAN FOR HVAC ROOFTOP DIMENSIONAL INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR JOIST AND BEAM LOCATIONS AND DIMENSIONAL INFORMATION.
M19	EXTEND FULL SIZE DUCTWORK (CURB SIZE) UP THROUGH ROOF AND SEAL OPENING AIRTIGHT.
M20	VENT DUCT UP FROM OVEN RACK VENT COLLAR THROUGH ROOF. DUCTS ARE ONLY TO BE OFFSET ABOVE CEILING. DUCTS ARE TO BE STRAIGHT AND VERTICAL WHEN VISIBLE TO SALES FLOOR.
M21	GREASE DUCT FROM EXHAUST HOOD TO OPENING THROUGH ROOF PER NFPA 96, H.C. TO INSTALL PROVIDED HOME KIT. DUCTWRAP TO BE INSTALLED THE ENTIRE LENGTH OF GREASE DUCT FROM CEILING PENETRATION TO FAN.
M22	INSTALL LOW-50 VENT KIT INCLUDED WITH UNIT AND SUPPLIED BY HOBART, H.C. TO CONNECT STAINLESS STEEL DUCT TO VENT KIT OPENING THROUGH ROOF.
M23	TEMPERATURE SENSOR FOR ROOF MOUNTED RTU FURNISHED BY CONTROL PROVIDER. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL. MOUNT SENSOR A MINIMUM OF 4'-0" AFF ON WALL. COORDINATE LOCATION WITH KROGER EQUIPMENT AND FURNISHINGS. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE.
M25	DIFFUSER/GRILLE REGISTER TO BE INSTALLED 10'-0" AFF.
M30	INSTALL TOP OF RETURN GRILLE 15'-0" AFF. COORDINATE LOCATION WITH ARCHITECT AND WITH DECOR. LOCATION OF DECOR TAKES PRECEDENCE OVER LOCATION OF RETURN GRILLE.
M33	GRILLE TO BE INSTALLED 8'-0" AFF.
M37	REMOTE MANUAL HOOD ANSUL PULL STATION TO BE LOCATED IN THE MAIN PATH OF EGRESS. A MINIMUM OF 10 FEET AND A MAXIMUM OF 20 FEET FROM THE HOOD. MOUNTING HEIGHT SHOULD BE 42"-48" AFF. COORDINATE FINAL LOCATION WITH OWNER AND ARCHITECT. PROVIDE NAMEPLATE AT STATION WITH HOOD NUMBER AND LOCATION. REFER TO DETAIL SHEETS M32, M33, AND M34 FOR ADDITIONAL INFORMATION.
M38	DIFFUSER AROUND HOOD TO BE 2-WAY DIFFUSER FACING AWAY FROM THE HOOD TO PREVENT INTERFERENCE WITH THE HOOD'S CONTAIN AND CAPTURE.

GENERAL NOTES

A.	REFER TO ABBREVIATIONS, SYMBOLS AND NOTES DRAWING M0.1 FOR HVAC GENERAL NOTES.
B.	WHERE SMOKE DETECTORS ARE INSTALLED MORE THAN 10 FEET ABOVE THE FINISHED FLOOR OR IN ARRANGEMENT WHERE THE DETECTOR'S ALARM OR SUPERVISORY INDICATOR IS NOT VISIBLE TO RESPONDING PERSONNEL, THE DETECTOR SHALL BE PROVIDED WITH REMOTE ALARM OR SUPERVISORY INDICATOR IN A LOCATION ACCEPTABLE TO AUTHORITY HAVING JURISDICTION. PROVIDE AN LED INDICATOR LIGHT ON CEILING BENEATH EACH HVAC UNIT THAT IS EQUIPPED WITH A SMOKE DETECTOR WHEN ACTIVATION LIGHT IS NOT VISIBLE FROM BELOW.

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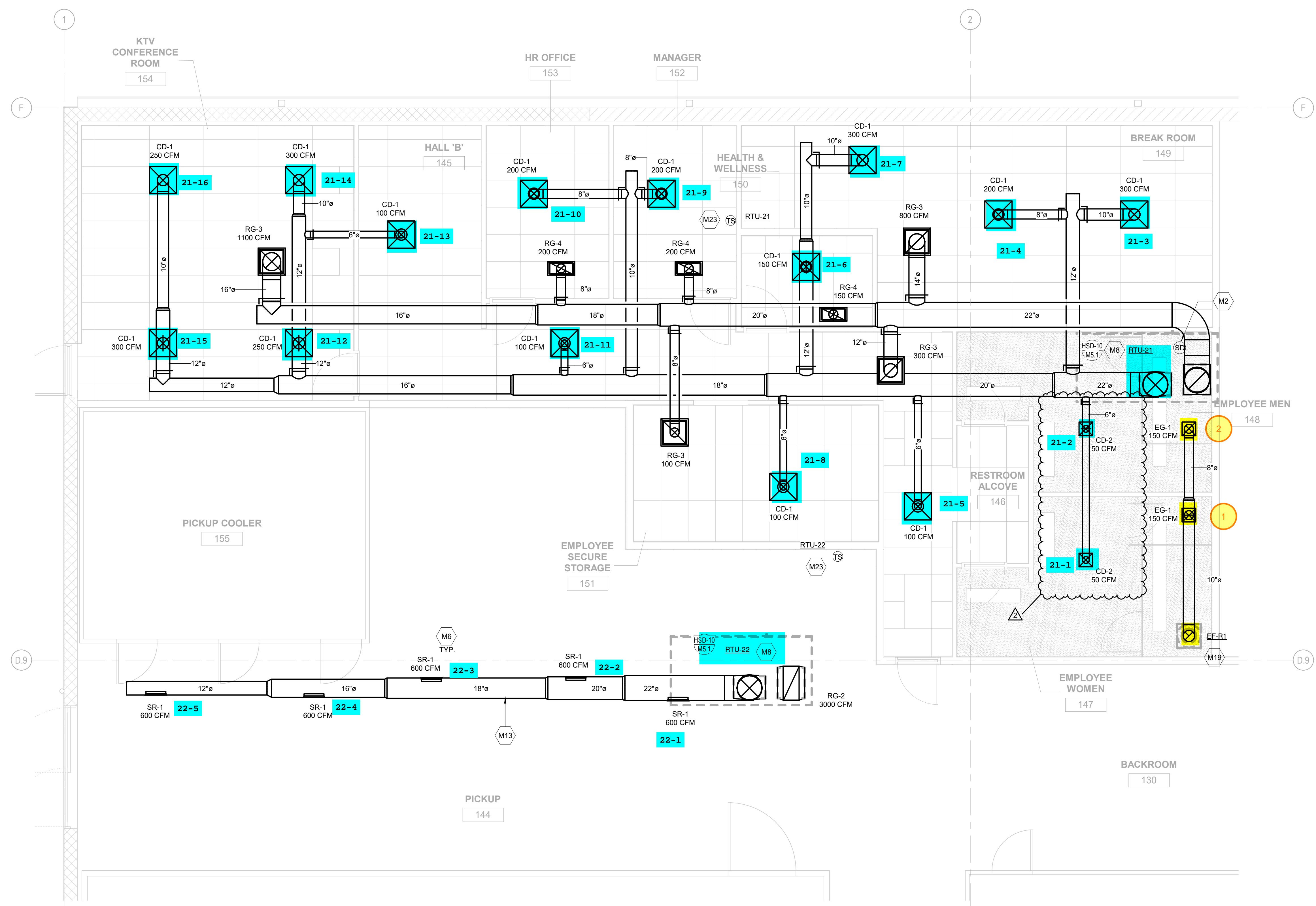
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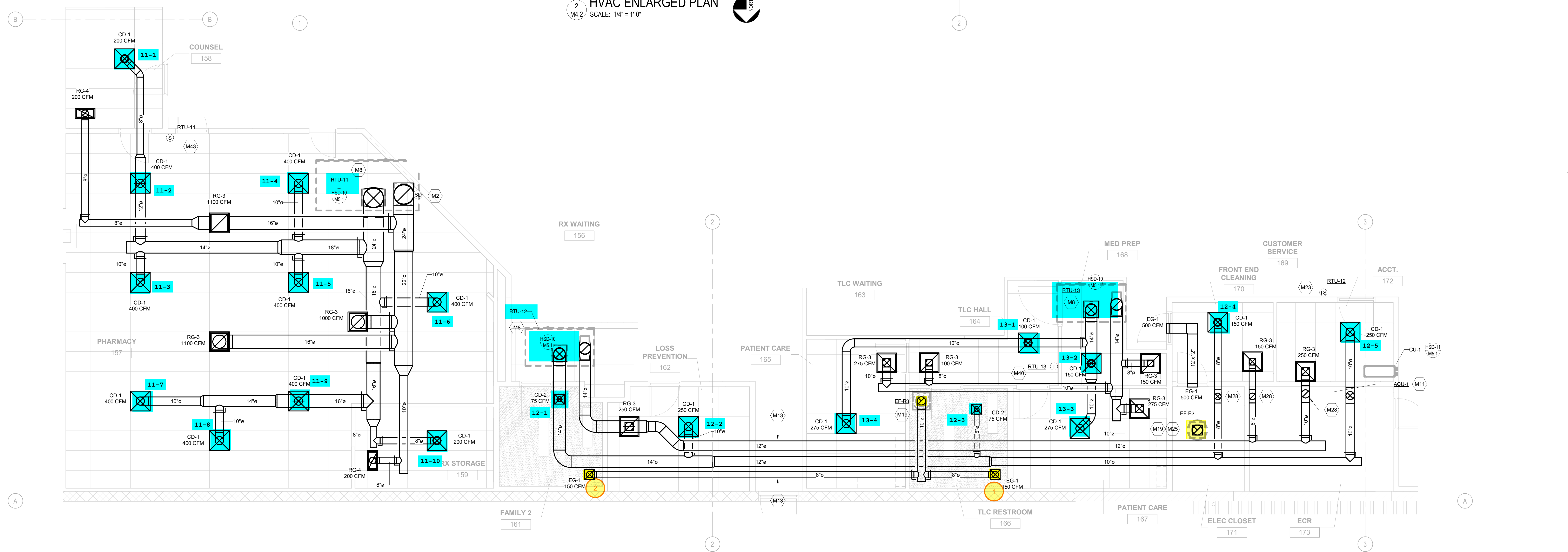
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HVAC ENLARGED PLANS

SHEET NO.
M4.1

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2 HVAC ENLARGED PLAN
M4.2 SCALE: 1/4" = 1'-0"



1 HVAC ENLARGED PLAN
M4.2 SCALE: 1/4" = 1'-0"

KEYNOTE LEGEND

NUMBER	KEYNOTE
M2	INSTALL SMOKE DETECTOR IN THE RETURN DUCTWORK DOWNSTREAM OF FILTERS AND UPSTREAM OF ANY BRANCH CONNECTIONS. INSTALL SAMPLING TUBES AND DETECTOR HOUSING IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. DETECTOR FAN SHUTDOWN WIRING, AND CONTROLS BY OTHERS.
M6	REFER TO ARCHITECTURAL ROOF PLAN FOR HVAC ROOFTOP DIMENSIONAL INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR JOIST AND BEAM LOCATIONS AND DIMENSIONAL INFORMATION.
M8	REFER TO ARCHITECTURAL ROOF PLAN FOR HVAC ROOFTOP DIMENSIONAL INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR JOIST AND BEAM LOCATIONS AND DIMENSIONAL INFORMATION.
M11	INSTALL WALL-MOUNTED AIR CONDITIONING UNIT AT 7'-0" (BOTTOM OF UNIT) PER MANUFACTURER'S INSTALLATION PROCEDURES. EXTEND CONDENSATE PIPE AND DRAIN TO NEAREST DRAIN HUB. REFER TO PLUMBING DRAWINGS FOR LOCATION. COORDINATE POWER REQUIREMENTS WITH HC.
M13	DUCTWORK TO BE HELD TIGHT TO STRUCTURE.
M19	EXTEND FULL SIZE DUCTWORK (CURB SIZE) UP THROUGH ROOF AND SEAL OPENING AIRTIGHT.
M23	TEMPERATURE SENSOR FOR ROOF MOUNTED RTU FURNISHED BY CONTROL PROVIDER. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL. MOUNT SENSOR A MINIMUM OF 4'-0" AFF ON WALL. COORDINATE LOCATION WITH KROGER EQUIPMENT AND FURNISHINGS. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE.
M25	DIFFUSER/GRILLE/REGISTER TO BE INSTALLED 10'-2" AFF.
M28	DROP DUCT DOWN TO 11'-0" TO MINIMIZE VISIBILITY FROM THE SALES FLOOR.
M40	THERMOSTAT TO BE MOUNTED AT 5'-0" AFF. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE. REFER TO EM DRAWINGS FOR MORE INFORMATION.
M43	PHARMACY TO RECEIVE COMBINATION RELATIVE HUMIDITY/TEMPERATURE SENSOR. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL. MOUNT SENSOR A MINIMUM OF 4'-0" AFF ON WALL. COORDINATE LOCATION WITH KROGER EQUIPMENT AND FURNISHINGS. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE.

GENERAL NOTES

A.	REFER TO ABBREVIATIONS, SYMBOLS AND NOTES DRAWING M0.1 FOR HVAC GENERAL NOTES.
B.	WHERE SMOKE DETECTORS ARE INSTALLED MORE THAN 10 FEET ABOVE THE FINISHED FLOOR OR IN ARRANGEMENT WHERE THE DETECTOR'S ALARM OR SUPERVISORY INDICATOR IS NOT VISIBLE TO RESPONDING PERSONNEL, THE DETECTOR SHALL BE PROVIDED WITH REMOTE ALARM OR SUPERVISORY INDICATOR IN A LOCATION ACCEPTABLE TO AUTHORITY HAVING JURISDICTION. PROVIDE AN LED INDICATOR LIGHT ON CEILING BENEATH EACH HVAC UNIT THAT IS EQUIPPED WITH A SMOKE DETECTOR WHEN ACTIVATION LIGHT IS NOT VISIBLE FROM BELOW.

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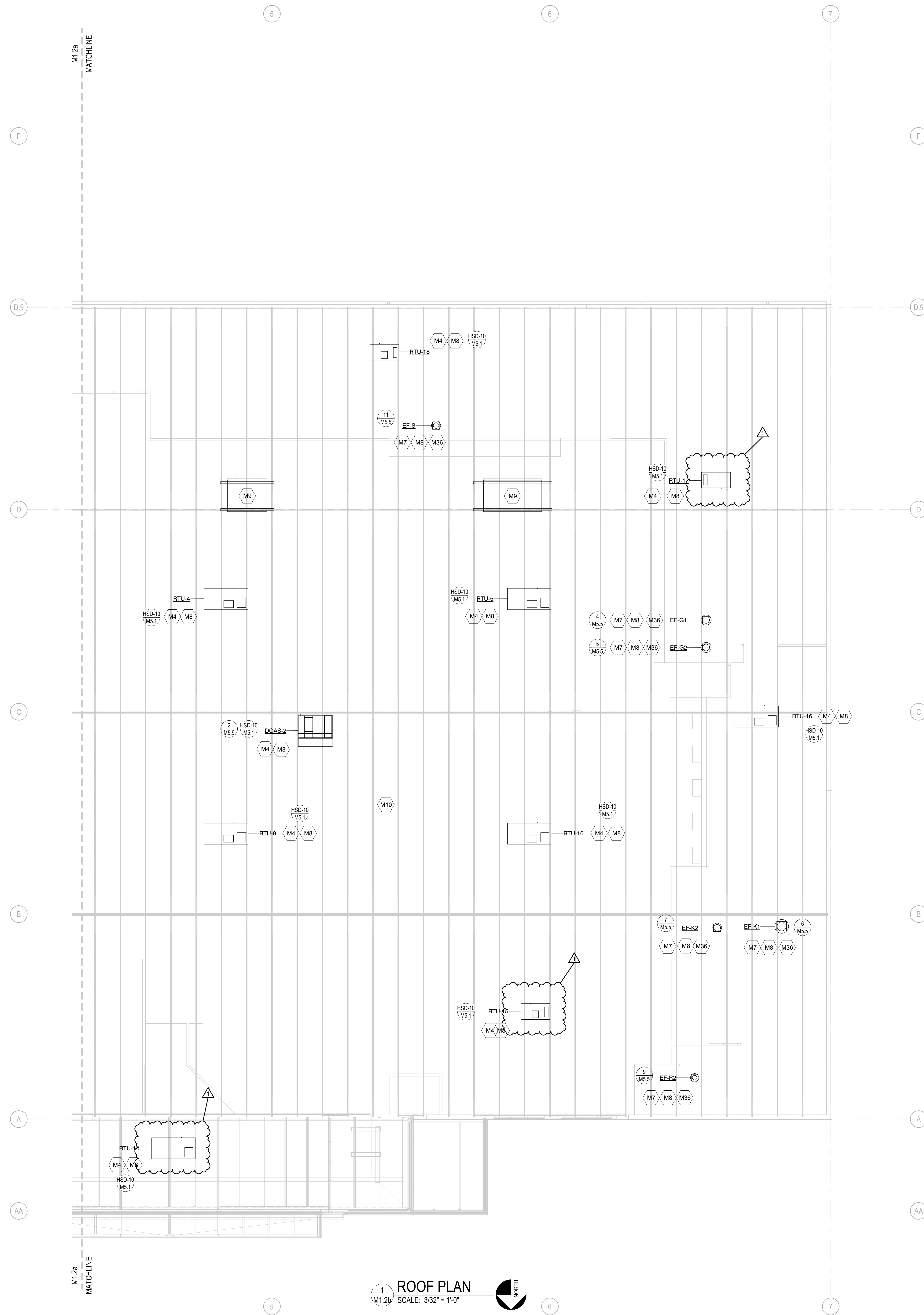
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SHEET NO.
M4.2

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1 ROOF PLAN
M1.2b SCALE: 3/32" = 1'-0"

KEYNOTE LEGEND	
NUMBER	KEYNOTE
M4	NEW PACKAGED ROOFTOP UNIT FURNISHED BY KROGER AND INSTALLED BY HC. REFER TO DRAWING M6.1 FOR UNIT REQUIREMENTS INCLUDING ROOF CURB INFORMATION. ROOF DUCTWORK PENETRATIONS TO BE FULL SIZE. SEAL AROUND OPENING AIR TIGHT. REFER TO UMBING DRAWINGS FOR NATURAL GAS REQUIREMENTS. REFER TO ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
M7	NEW ROOFTOP EXHAUST FAN FURNISHED BY KROGER AND INSTALLED BY HC. REFER TO HVAC DETAIL DRAWINGS AND DRAWING M6.1 FOR UNIT REQUIREMENTS INCLUDING ROOF CURB INFORMATION. ROOF PENETRATION TO BE FULL SIZE. SEAL AROUND OPENING AIR TIGHT. REFER TO ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
M8	REFER TO ARCHITECTURAL ROOF PLAN FOR HVAC ROOFTOP DIMENSIONAL INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR JOIST AND SEAL LOCATIONS AND DIMENSIONAL INFORMATION.
M9	NEW ROOFTOP REFRIGERATION EQUIPMENT. REFER TO REFRIGERATION DRAWINGS FOR UNIT LOCATIONS AND PIPE ROUTINGS PRIOR TO ANY WORK.
M10	STRUCTURAL STEEL SHOWN FOR REFERENCE ONLY. REFER TO STRUCTURAL DRAWINGS FOR DETAILED INFORMATION.
M36	INSTALL FLUES AND EXHAUST FANS A MINIMUM OF 10 FEET FROM OUTSIDE AIR INTAKE OF ROOFTOP UNITS.

REMOVED GAS PIPING FROM PLAN. REFER TO P1.3a and P1.3b

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REVIEWED BY: JCL

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PROJECT TITLE
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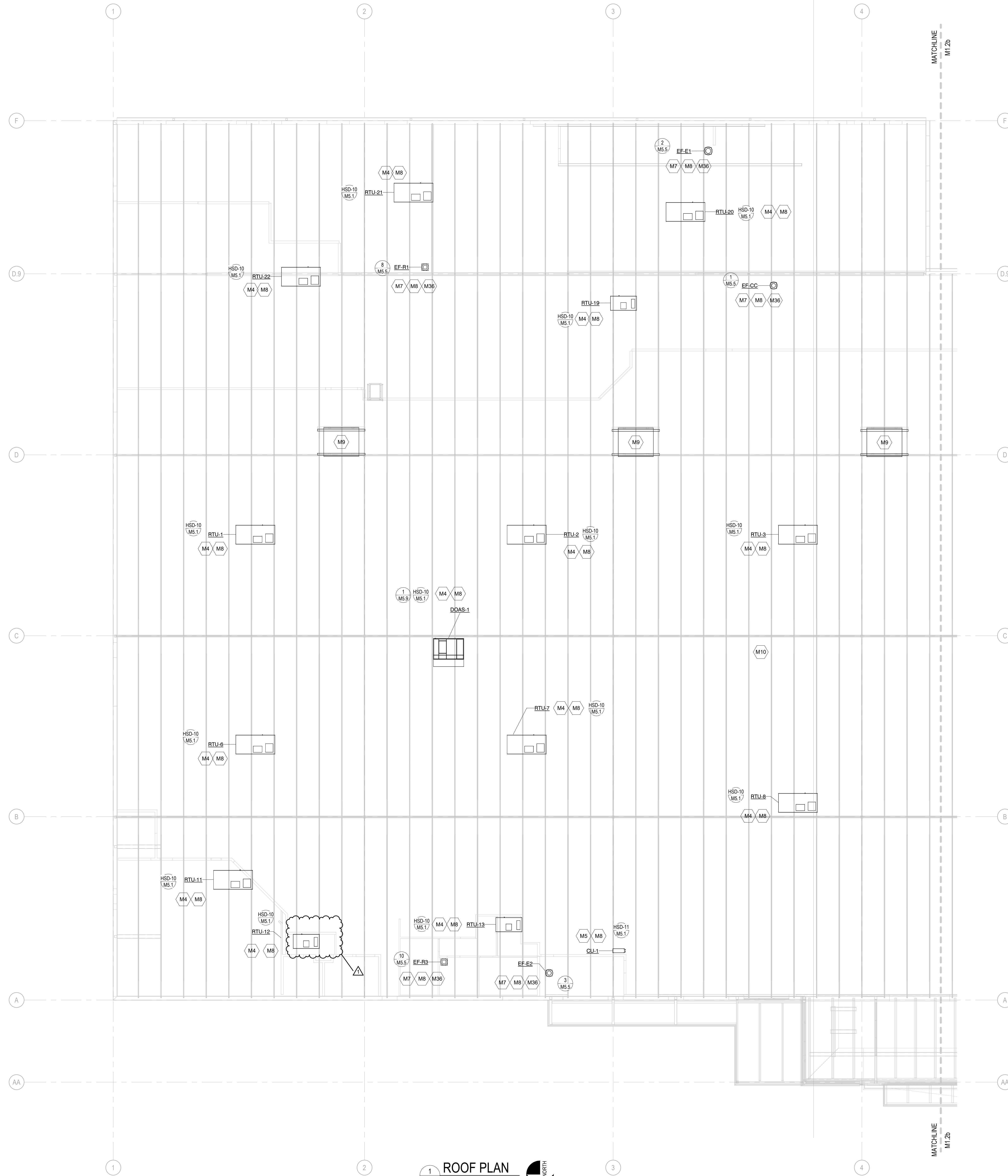
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COMMISSION NO. 521334
ISSUE DATE 06/24/21
SHEET TITLE
ROOF PLAN

SHEET NO.
M1.2b

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1 ROOF PLAN
M1.2a SCALE: 3/32" = 1'-0"

KEYNOTE LEGEND	
NUMBER	KEYNOTE
M4	NEW PACKAGED ROOFTOP UNIT FURNISHED BY KROGER AND INSTALLED BY HC. REFER TO DRAWING M6.1 FOR UNIT REQUIREMENTS INCLUDING ROOF CURB INFORMATION. ROOF DUCTWORK PENETRATIONS TO BE FULL SIZE. SEAL AROUND OPENING AIR TIGHT. REFER TO PLUMBING DRAWINGS FOR NATURAL GAS REQUIREMENTS. REFER TO ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
M5	NEW ROOFTOP OUTDOOR CONDENSING UNIT. PROVIDE SUPPORTS PER MANUFACTURER'S INSTALLATION PROCEDURES. COORDINATE LOCATION WITH OTHER ROOFTOP EQUIPMENT. FIELD VERIFY REFRIGERANT PIPE ROUTINGS PRIOR TO INSTALLATION.
M7	NEW ROOFTOP EXHAUST FAN FURNISHED BY KROGER AND INSTALLED BY HC. REFER TO HVAC DETAIL DRAWINGS AND DRAWING M6.1 FOR UNIT REQUIREMENTS. INCLUDING ROOF CURB INFORMATION. ROOF PENETRATION TO BE FULL SIZE. SEAL AROUND OPENING AIR TIGHT. REFER TO ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
M8	REFER TO ARCHITECTURAL ROOF PLAN FOR HVAC ROOFTOP DIMENSIONAL INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR JOIST AND BEAM LOCATIONS AND DIMENSIONAL INFORMATION.
M9	NEW ROOFTOP REFRIGERATION EQUIPMENT. REFER TO REFRIGERATION DRAWINGS FOR UNIT LOCATIONS AND PIPE INFORMATION.
M10	STRUCTURAL STEEL SHOWN FOR REFERENCE ONLY. REFER TO STRUCTURAL DRAWINGS FOR DETAILED INFORMATION.
M36	INSTALL FLUES AND EXHAUST FANS A MINIMUM OF 10 FEET FROM OUTSIDE AIR INTAKE OF ROOFTOP UNITS.

REMOVED GAS PIPING FROM PLAN. REFER TO P1.3a and P1.3b

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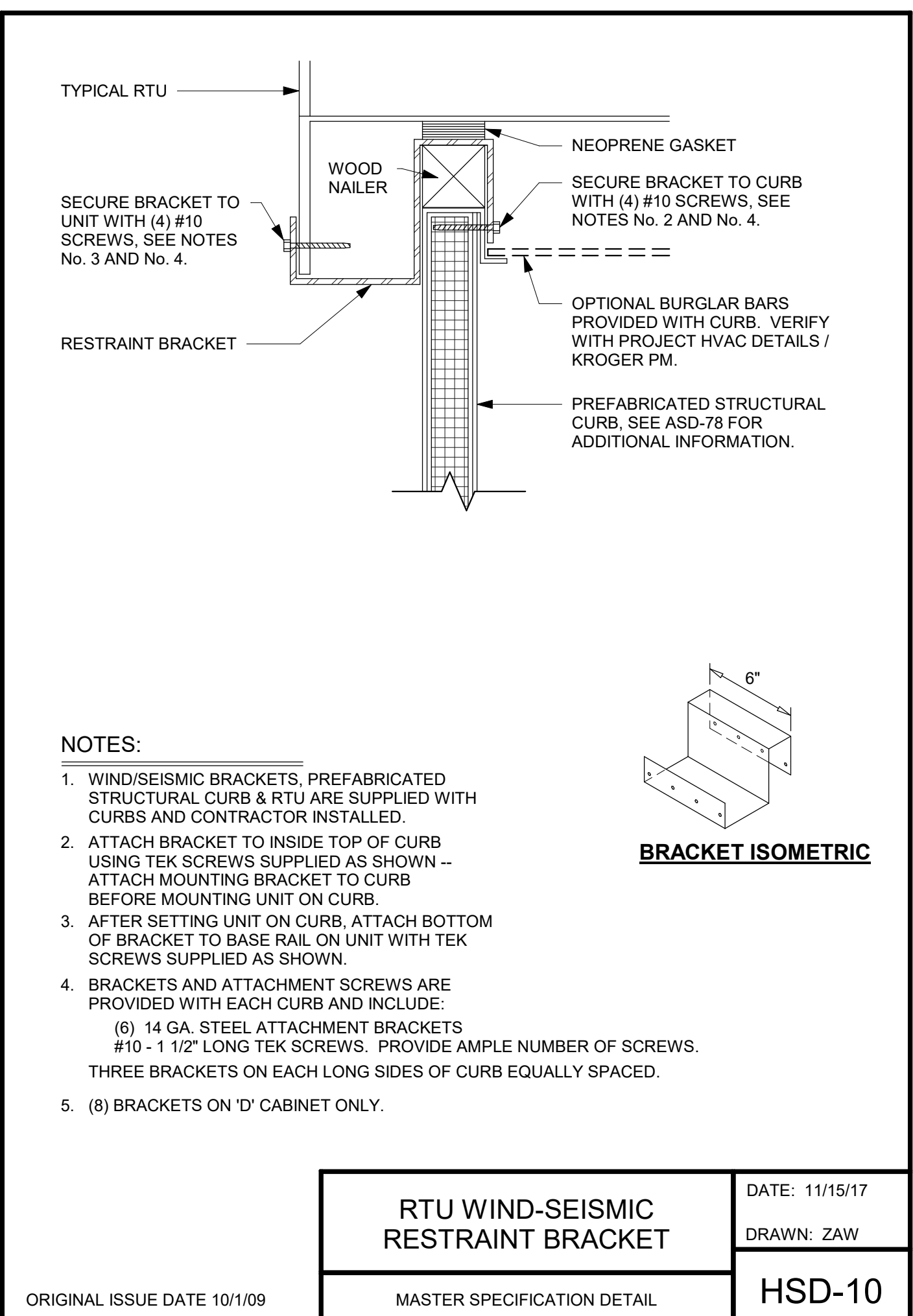
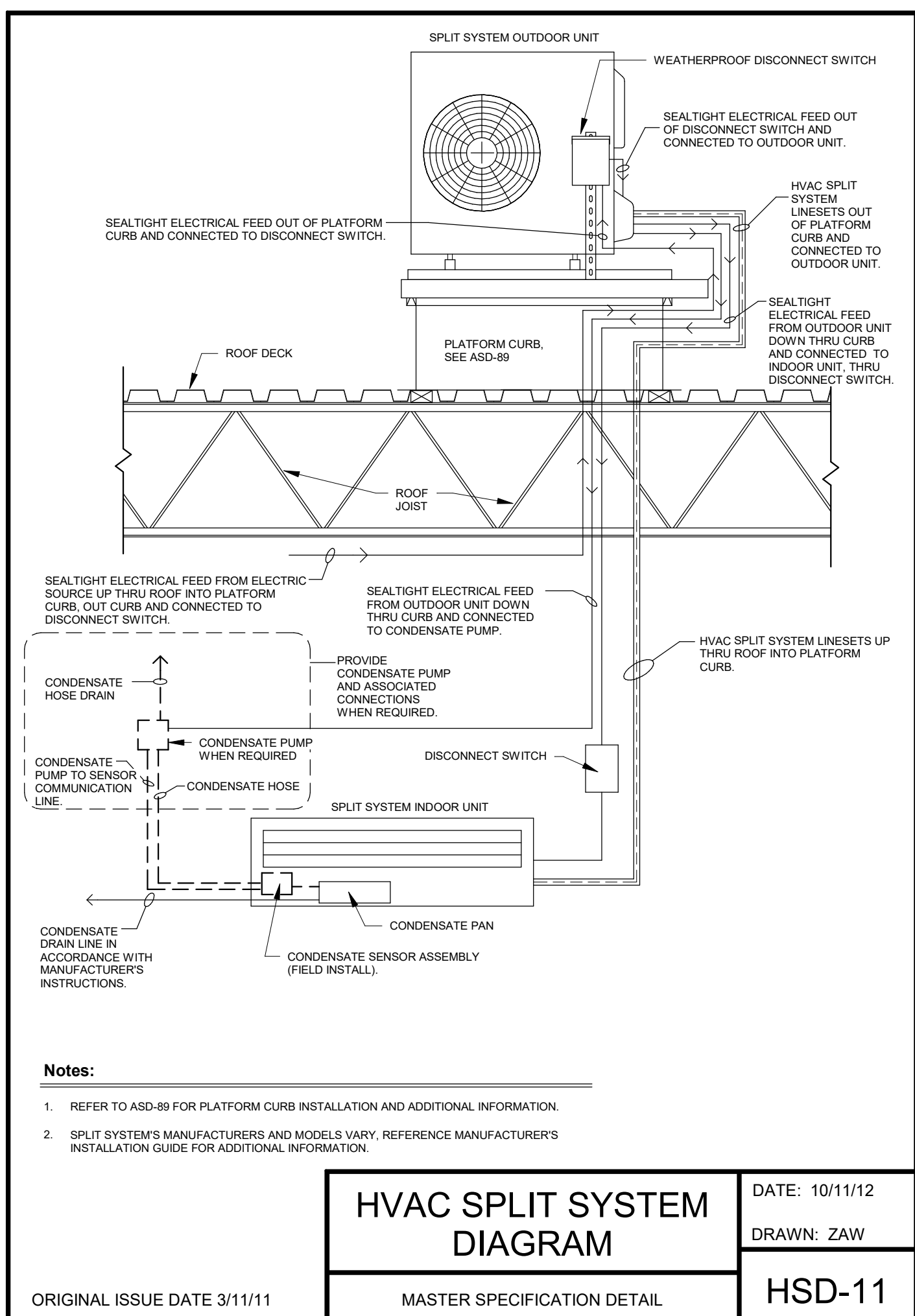
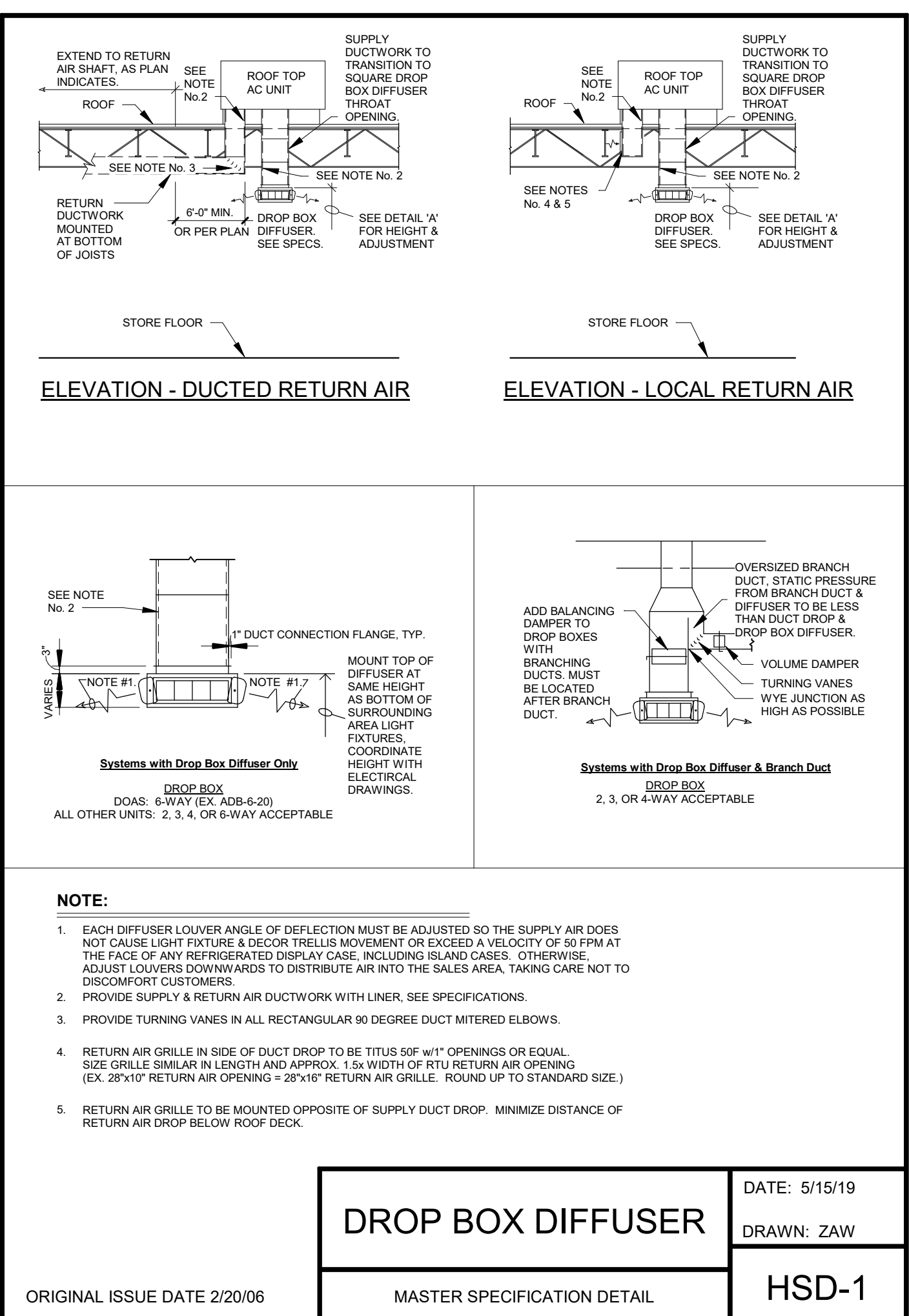
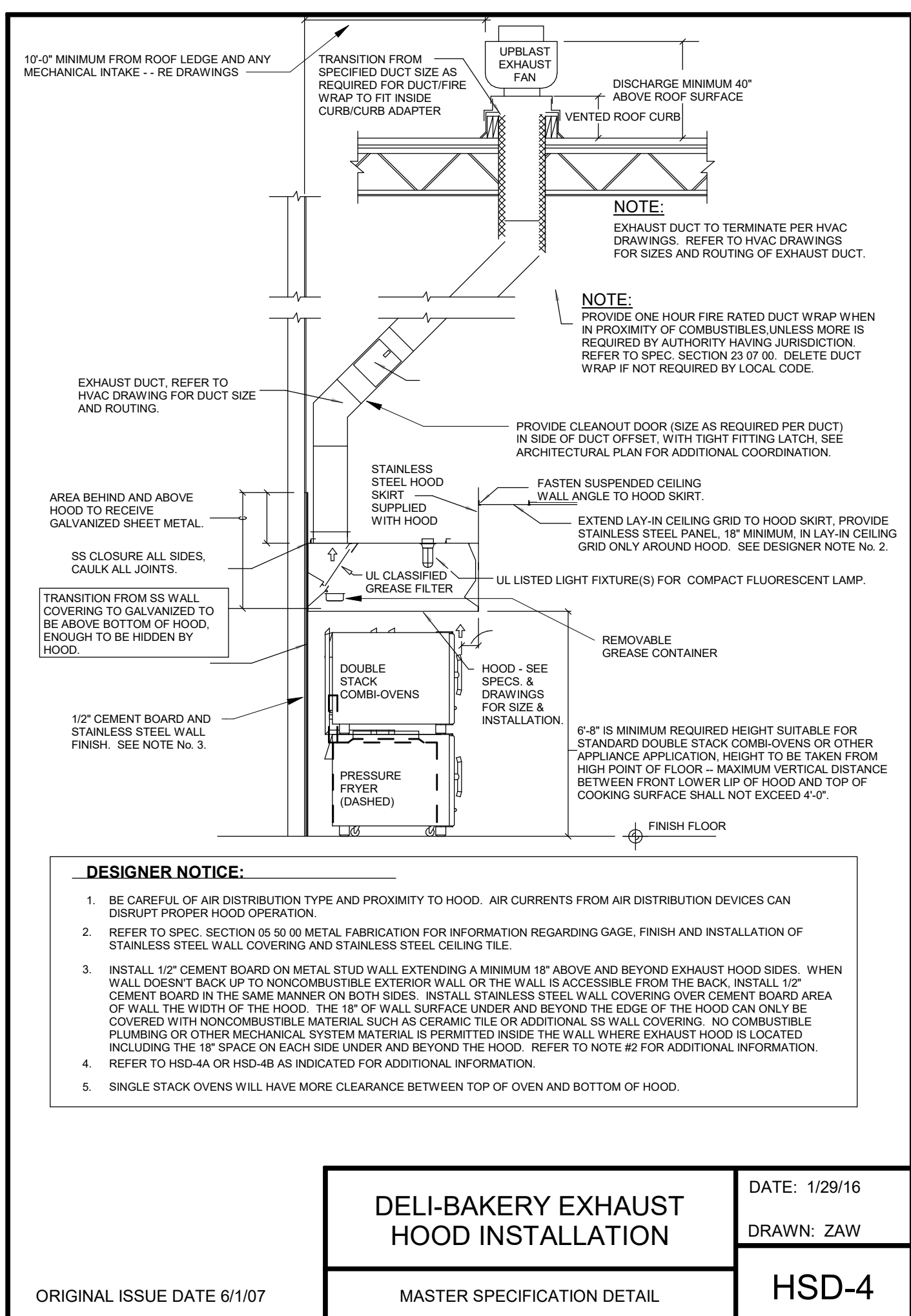
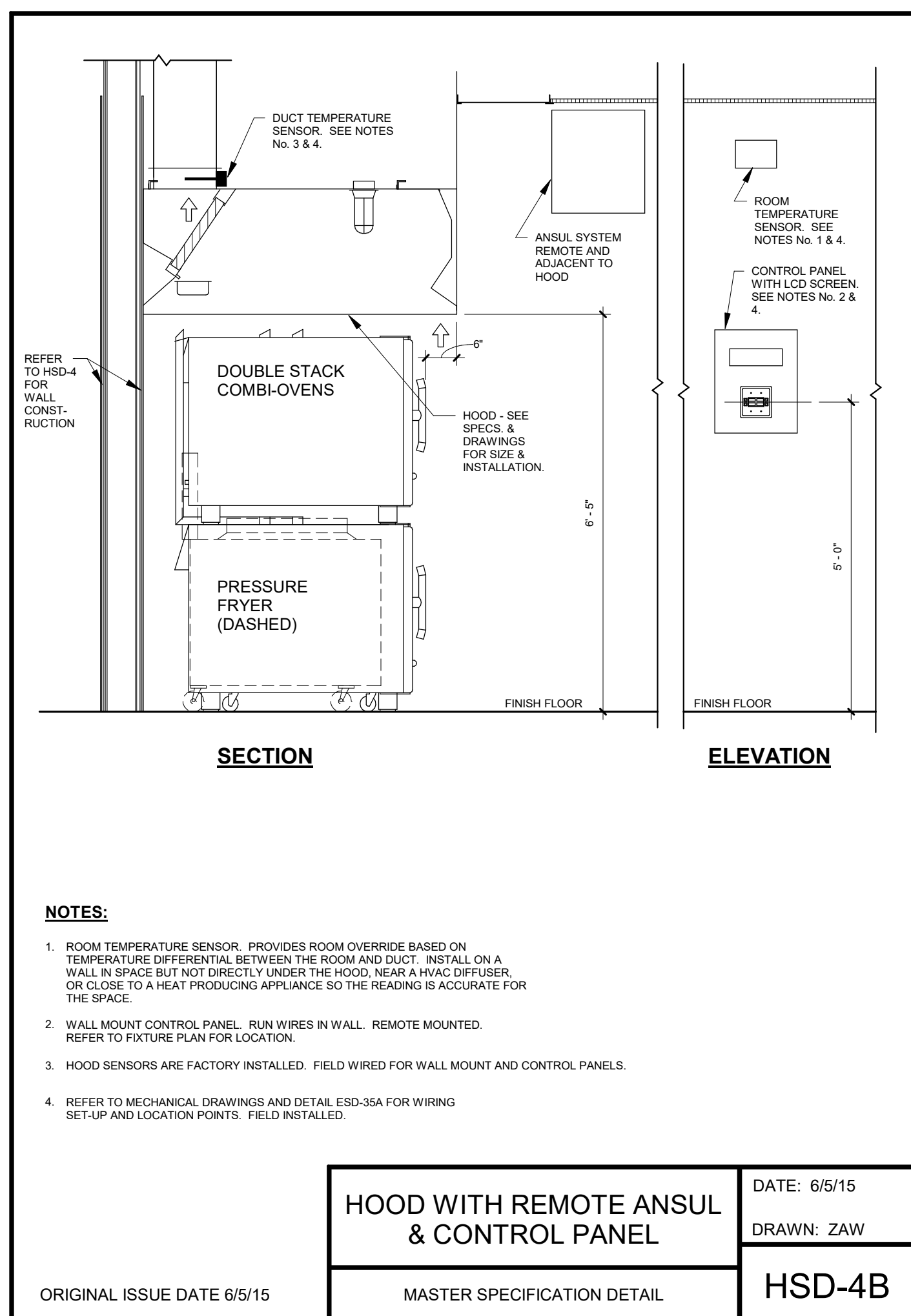
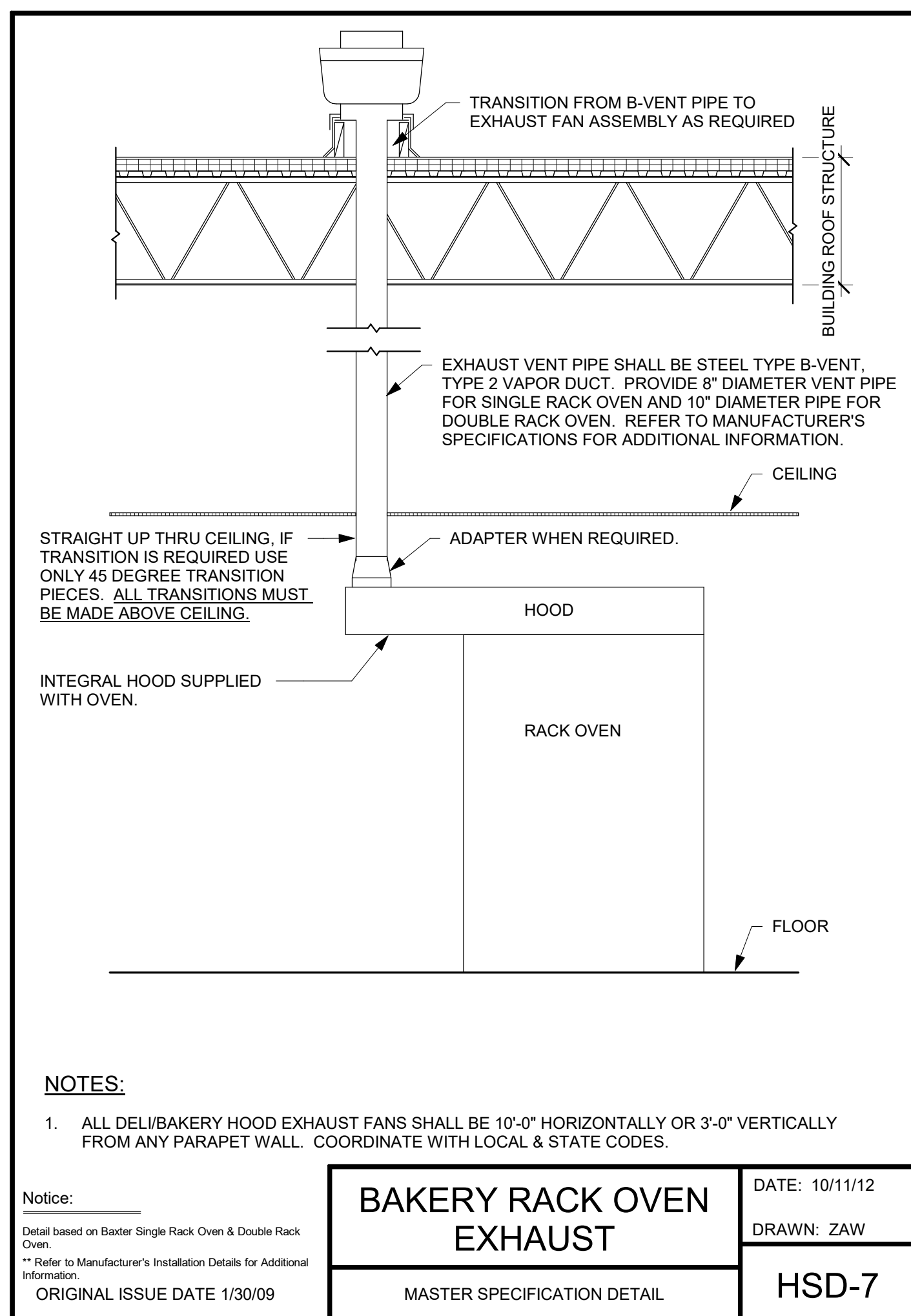
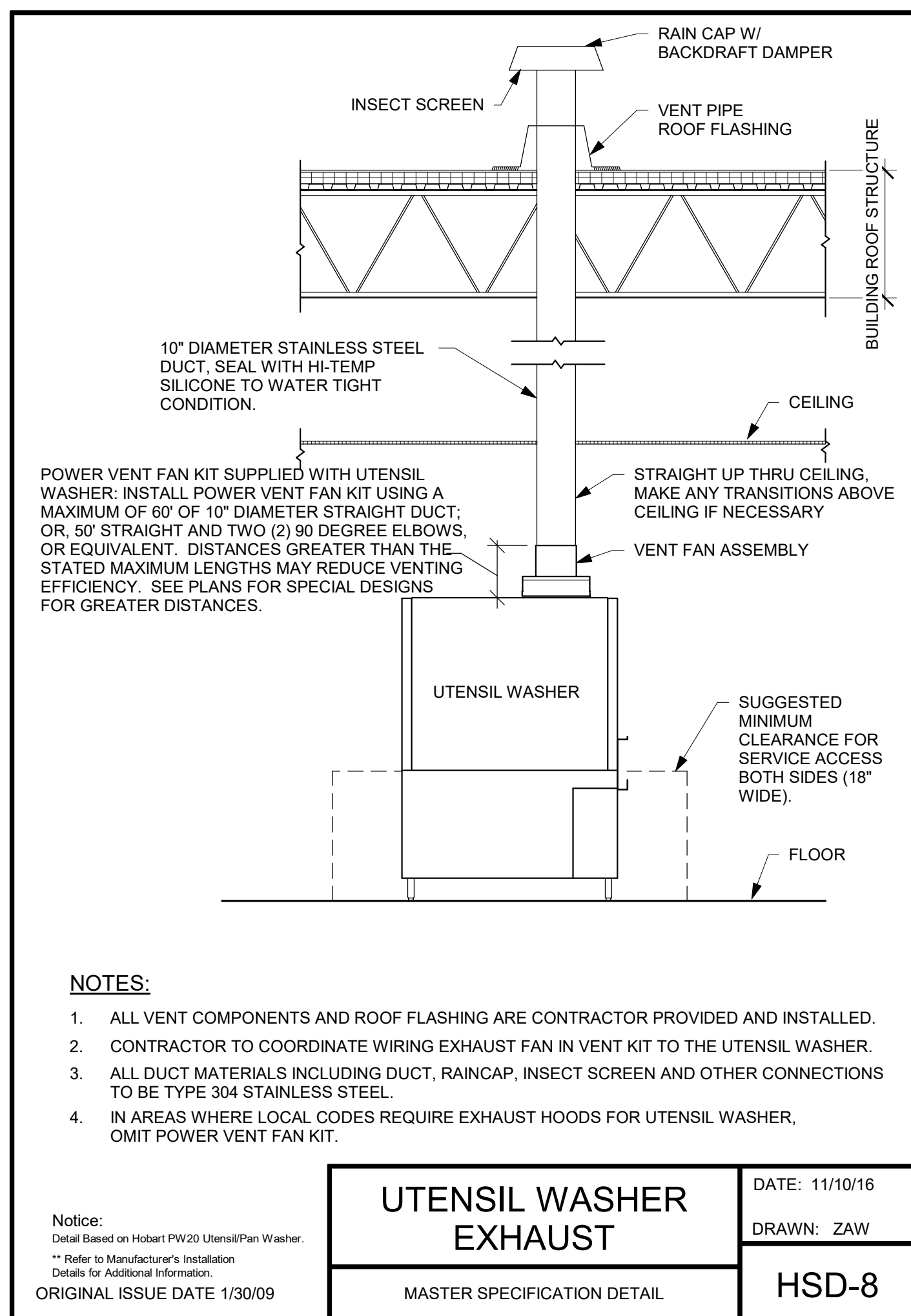
PROJECT TITLE
KROGER STORE U606

8655 US HIGHWAY 72 WEST
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COMMISSION NO. 521334
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SHEET TITLE
ROOF PLAN

SHEET NO.
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DETAILS

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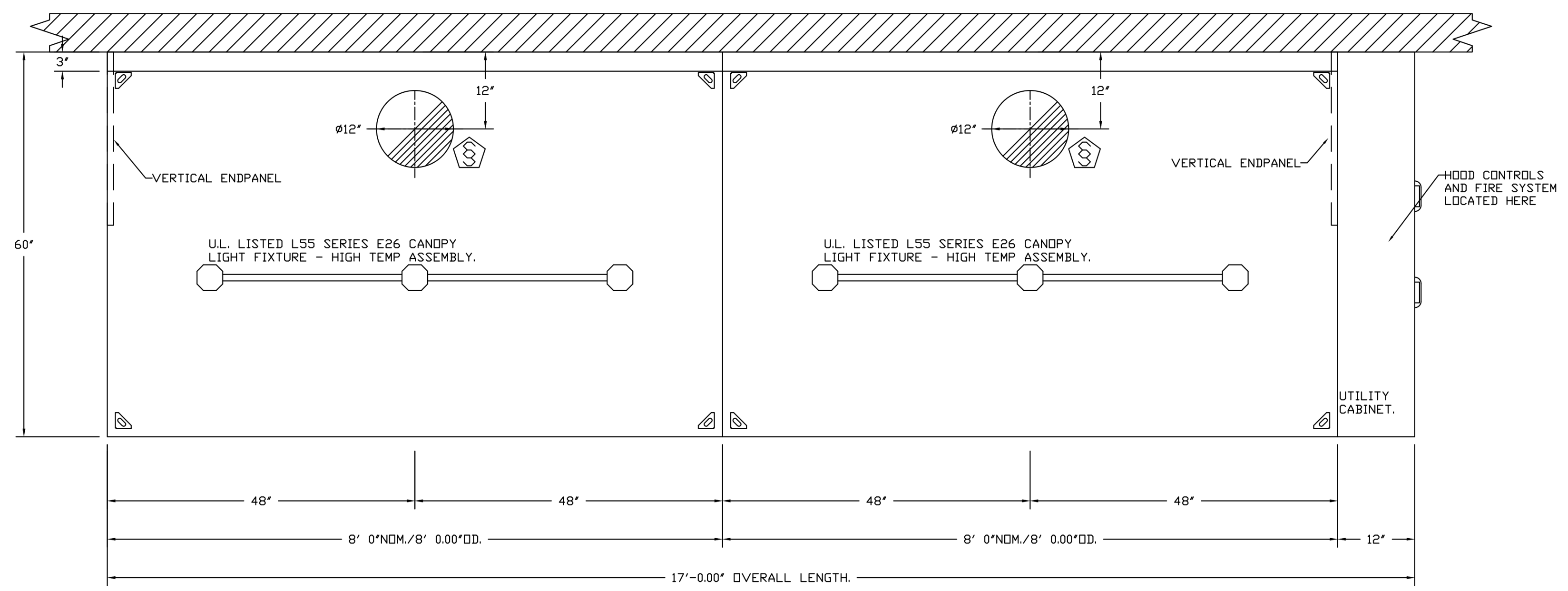
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HOOD INFORMATION - JOB#4905895											EXHAUST PLENUM				HOOD CONFIG			
HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	RISERS				HOOD CONSTRUCTION	END TO END	ROW		
										WIDTH	LENG	HEIGHT	DIA				CFM	VEL
1	K1L - K-0002317	6024 ND-2	CAPTIVEAIRE	8' 0"	450 DEG	I	MEDIUM	150	1200		4'	12'	1200	1528	-0.294'	304 SS WHERE EXPOSED	LEFT	ALONE
2	K1R - K-0002317	6024 ND-2	CAPTIVEAIRE	8' 0"	450 DEG	I	MEDIUM	150	1200		4'	12'	1200	1528	-0.294'	304 SS WHERE EXPOSED	RIGHT	ALONE
3	K2 - K-0002299	6024 ND-2	CAPTIVEAIRE	5' 0"	450 DEG	I	MEDIUM	150	750		4'	10'	750	1375	-0.204'	304 SS WHERE EXPOSED	ALONE	ALONE

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	K1L - K-0002317	SS BAFFLE WITH HANDLES	5	16"	16"	30%	3	L55 SERIES E26	NO						YES	430 LBS	
2	K1R - K-0002317	SS BAFFLE WITH HANDLES	5	16"	16"	30%	3	L55 SERIES E26	NO	RIGHT	12"x60"x24"	TANK FIRE SUPPRESSION	4.0/4.0	SC-310110FP	1 LIGHT 1 FAN	YES	753 LBS
3	K2 - K-0002299	SS BAFFLE WITH HANDLES	3	16"	16"	30%	2	L55 SERIES E26	NO	RIGHT	12"x60"x24"	TANK FIRE SUPPRESSION	4.0	SC-110110FP	1 LIGHT 1 FAN	YES	554 LBS

HOOD NO	TAG	OPTION	
		FIELD WRAPPER	OPTION
1	K1L - K-0002317	20.00" HIGH FRONT, LEFT.	RISER SENSOR INSTALL 3IN DBL.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.	SENSOR-CV.
2	K1R - K-0002317	20.00" HIGH FRONT, LEFT.	RISER SENSOR INSTALL 3IN DBL.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.	SENSOR-CV.
3	K2 - K-0002299	20.00" HIGH FRONT, RIGHT.	RISER SENSOR INSTALL 3IN DBL.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.	SENSOR-CV.

HVAC DISTRIBUTION NOTE
IT IS RECOMMENDED NOT TO INSTALL HIGH VELOCITY DIFFUSERS OR HVAC RETURNS WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.



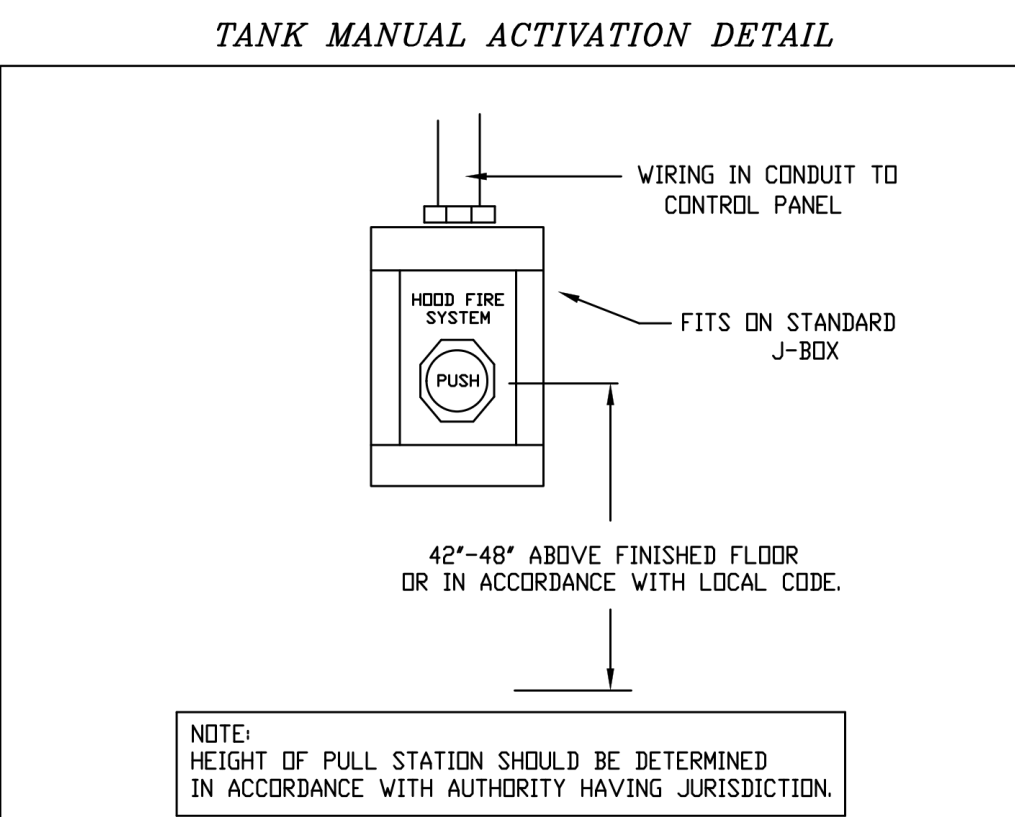
UL 300 HOOD FIRE SUPPRESSION SYSTEM

THE TANK WET CHEMICAL FIRE SUPPRESSION SYSTEM IS UL & ULC LISTED IN ACCORDANCE WITH UL300, UL1254, ULCORD-C1254.6 UNDER FILE# EX27953.

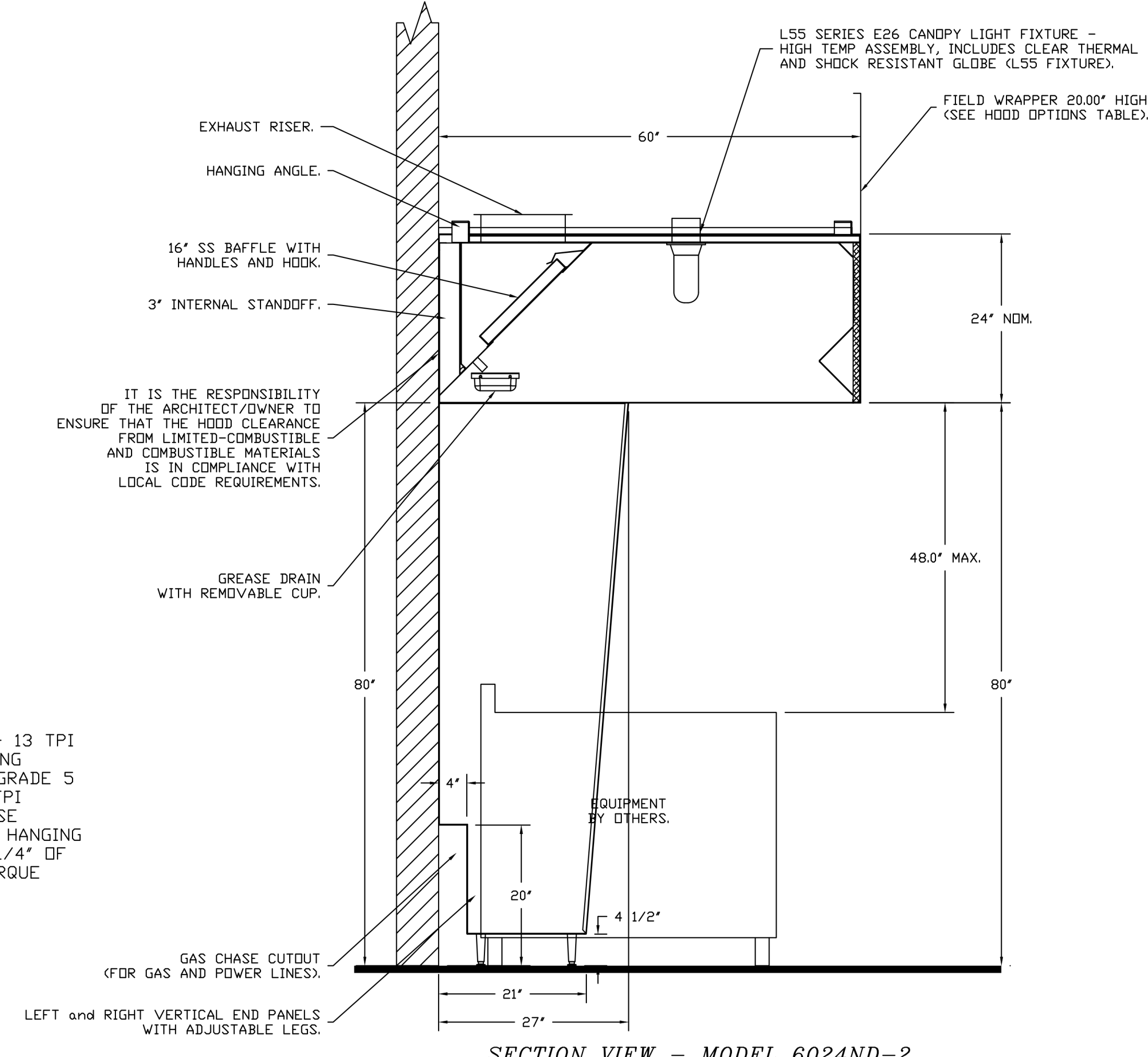
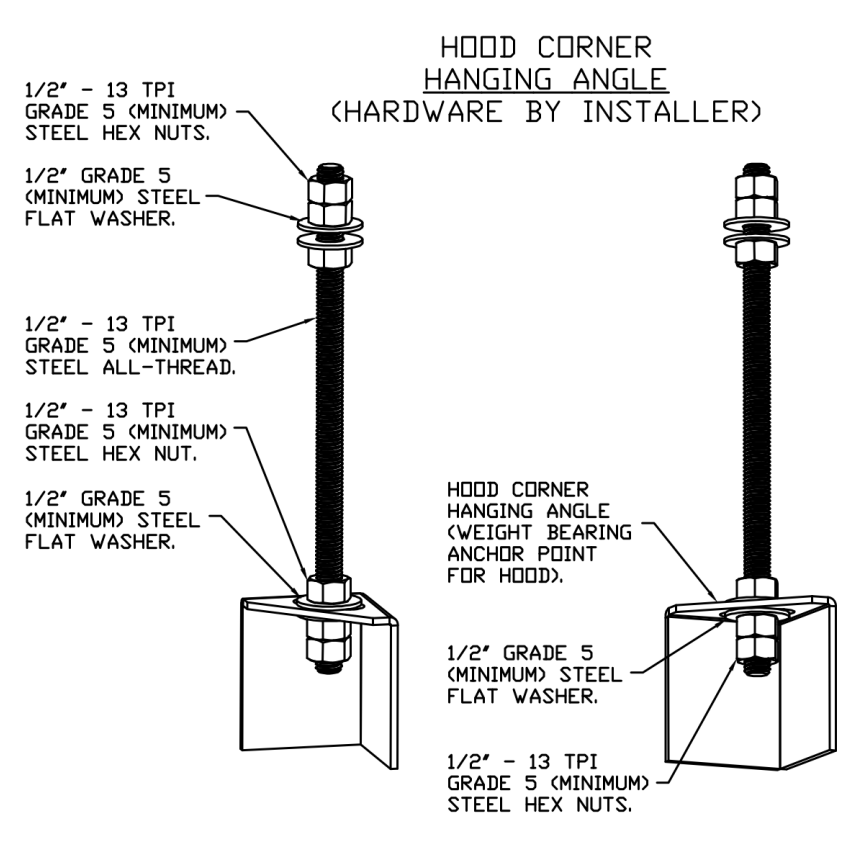
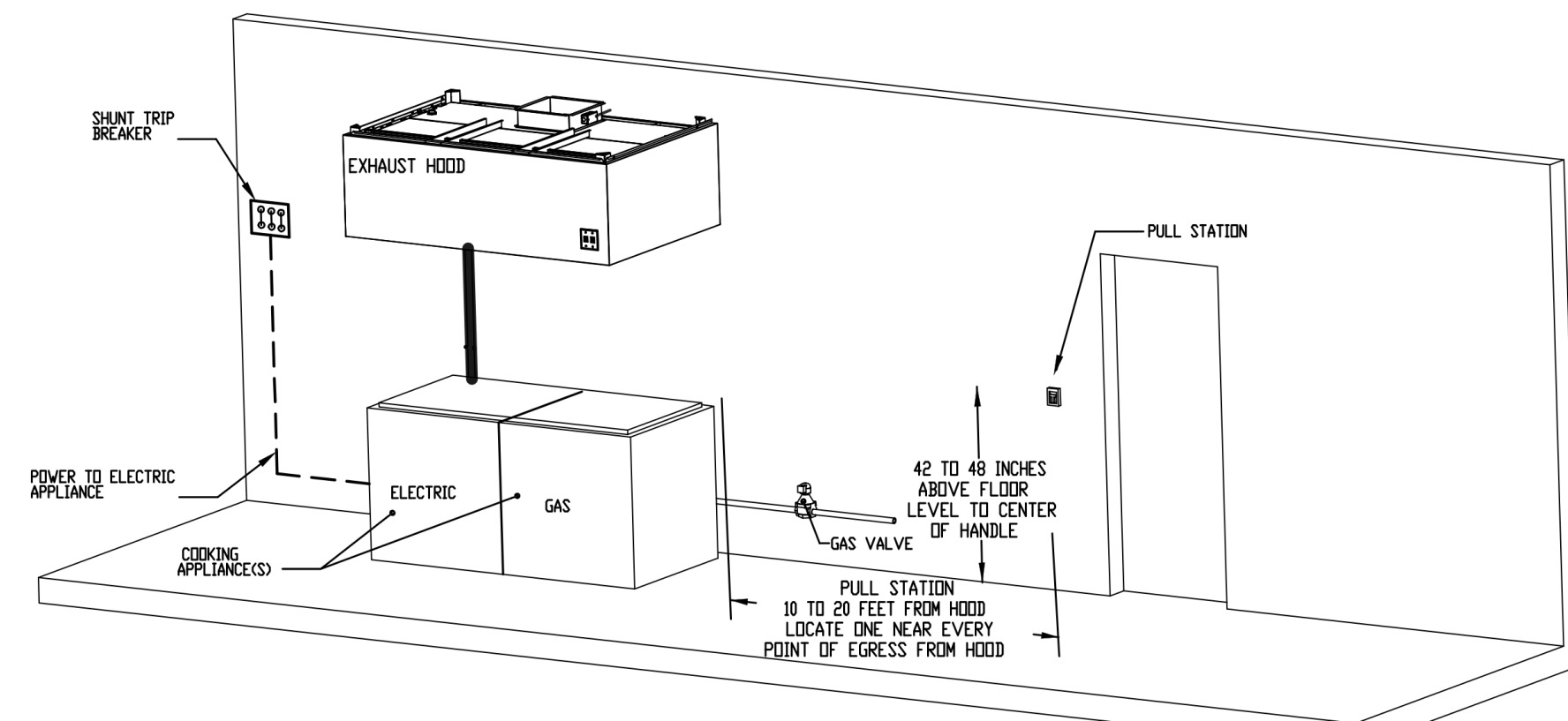
THE MICROPROCESSOR-BASED CONTROL BOARD IS ETL LISTED TO UL864 AND CAN/ULC-S527-11.

THE TANK WET CHEMICAL FIRE SUPPRESSION SYSTEM IS ACCEPTABLE FOR USE IN NEW YORK CITY, IS APPROVED PER FDNY COA #5870.

MEETS THE REQUIREMENTS OF NFPA 96 AND NFPA 17A.



NFPA96 REQUIREMENTS FOR FUEL SHUTOFF IN THE EVENT OF A FIRE:
UPON ACTIVATION OF ANY FIRE-EXTINGUISHING SYSTEM FOR A COOKING OPERATION, ALL SOURCES OF FUEL AND ELECTRICAL POWER THAT PRODUCE HEAT TO ALL EQUIPMENT REQUIRING PROTECTION BY THAT SYSTEM SHALL AUTOMATICALLY SHUT OFF.
SHUTOFF DEVICES SHALL REQUIRE MANUAL RESET.



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KROGER #606 - MADISON, AL
MADISON, AL, 35758

DATE: 6/1/2021
DWG.#: 4905895
DRAWN BY: JAC
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1

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FIRE SYSTEM INFORMATION - JOB#4905895

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		GAS ELECTRIC WET CHEMICAL	4.0/4.0	8	FIRE CABINET RIGHT	RIGHT, HOOD 2
2		GAS ELECTRIC WET CHEMICAL	4.0	2	FIRE CABINET RIGHT	RIGHT, HOOD 3

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
2		SC ELECTRICAL	0.750	CAPTIVEAIRE SYSTEMS

GAS VALVES AND STRAINERS																
TYPE	SIZE	VOLTAGE	GAS VALVE SIZING		FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	GAS VALVE DIMENSIONS					INSTALLATION	PART NUMBERS			
			MIN. INLET PRESSURE	MAX. INLET PRESSURE			DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"		DIM "G"	MOUNTING ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER
ELECTRICAL	3/4"	24 VDC	0 PSI (0 IN.W.C.)	5 PSI (138 IN.W.C.)	593,200 BTU/HR	384,919 BTU/HR	6-15/16"	5-15/16"	4"	4-1/2"	11-15/16"	9-7/8"	HORIZONTAL	8214235-24VDC	4417664	(SC)EGVC3/4-24

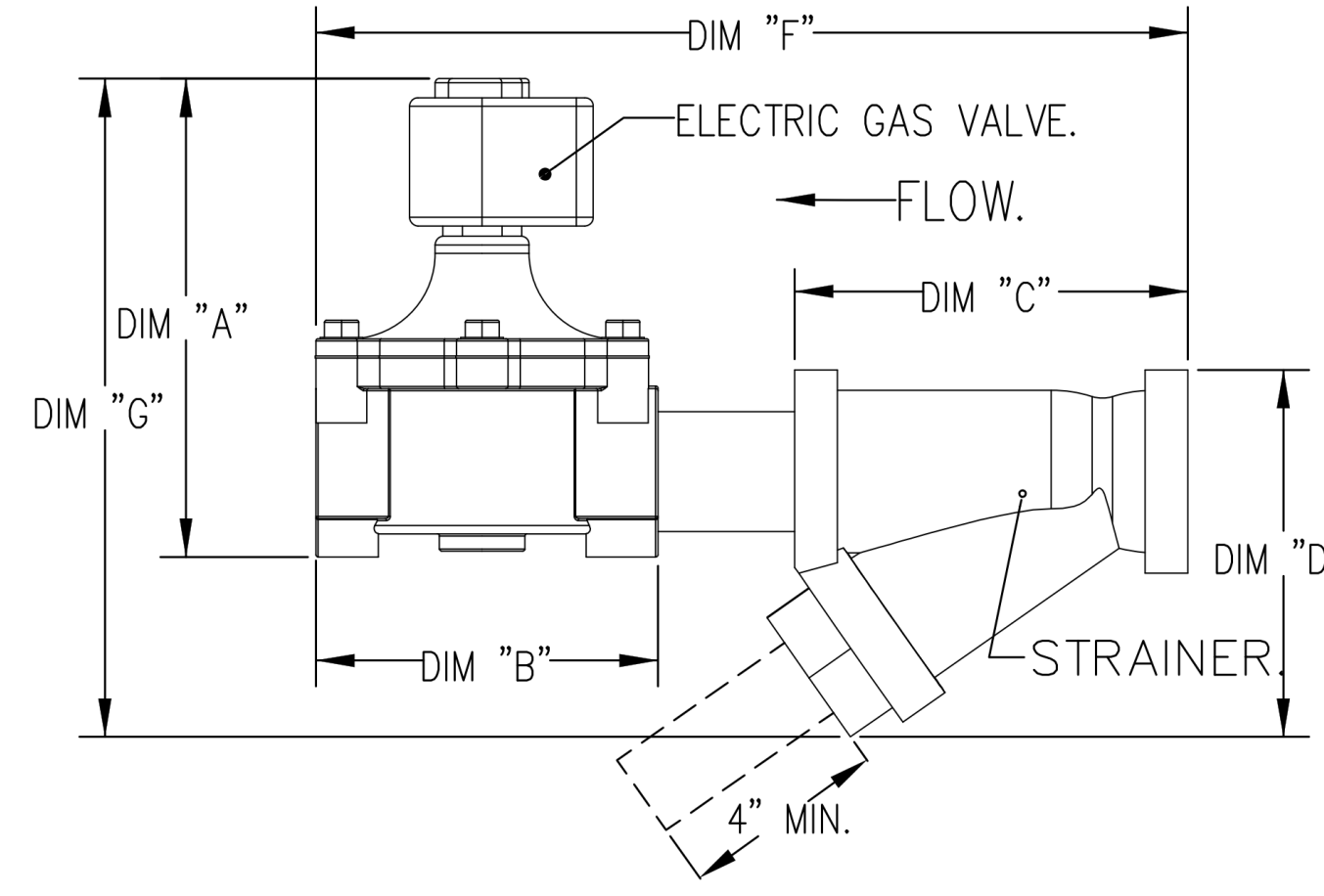
GAS VALVE FOR FS#2

ALL GAS VALVES/STRAINERS

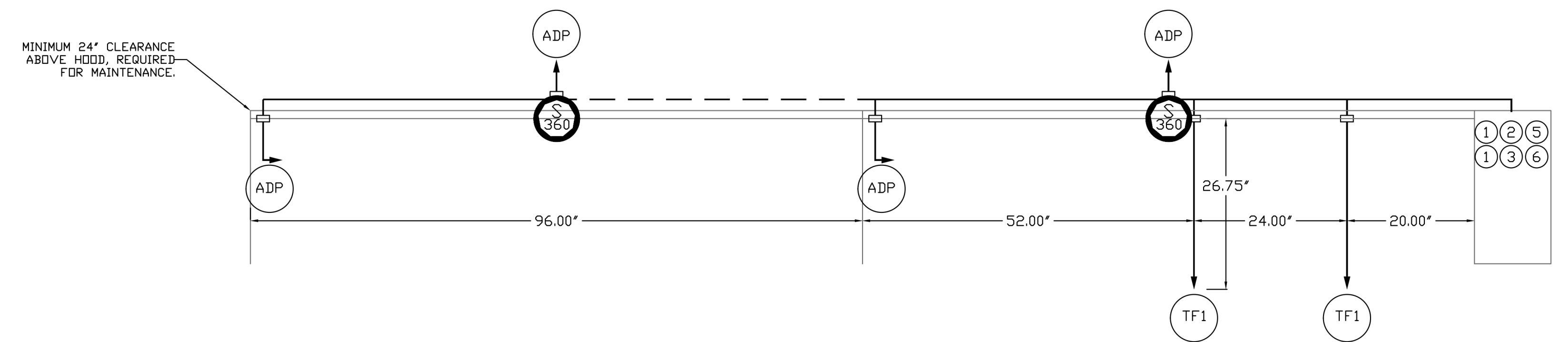
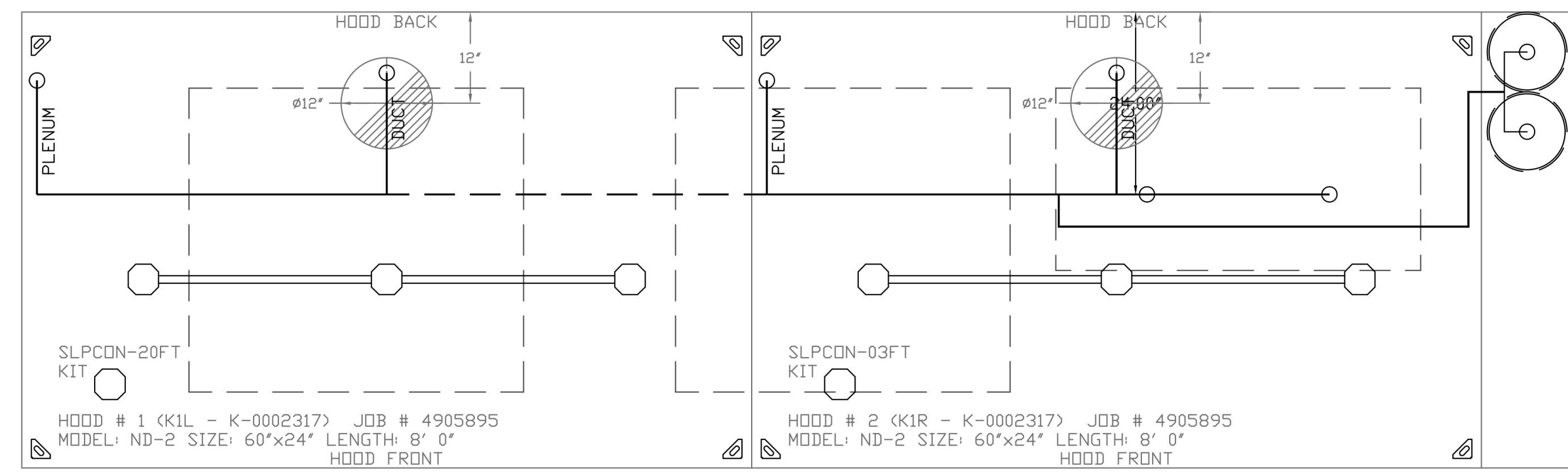
PROPER CLEARANCE MUST BE PROVIDED IN ORDER TO SERVICE THE STRAINERS A MINIMUM OF 4" CLEARANCE DISTANCE MUST BE PROVIDED AT THE BASE OF THE STRAINER CUSTOMER MUST VERIFY BTU CONSUMPTION AS WELL AS PRESSURE RATING SPECIFIC GRAVITY OF NATURAL GAS = 0.64, SPECIFIC GRAVITY OF LP = 1.52.

CALCULATIONS

TO CALCULATE GAS FLOW FOR OTHER THAN 1 IN.W.C. PRESSURE DROP:
 NEW BTU/HR = (BTU/HR AT 1 IN.W.C. PRESSURE DROP) X NEW PRESSURE DROP^{0.5}
 TO CALCULATE GAS FLOW FOR OTHER THAN 0.64 SPECIFIC GRAVITY:
 NEW BTU/HR = (BTU/HR AT 0.64) X (0.64 / NEW SPECIFIC GRAVITY)^{0.5}.



SYSTEM REQUIRES A MINIMUM OF 7 FT OF PIPING BETWEEN TANK AND NEAREST APPLIANCE NOZZLE FOR HOOD APPLIANCES. SEE MANUAL FOR DETAILS.



NOTES

- FIELD PIPE DROPS AS SHOWN
- PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, 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 FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.
- MINIMUM 24" CLEARANCE ABOVE HOOD, REQUIRED FOR MAINTENANCE.
- FOR THE FIRST SET OF NOZZLES NEAREST THE TANK, PIPE TO THE END OF THE NOZZLE RUN THEN RETURN THE PIPE TO THE NEAREST NOZZLES TO TANK.

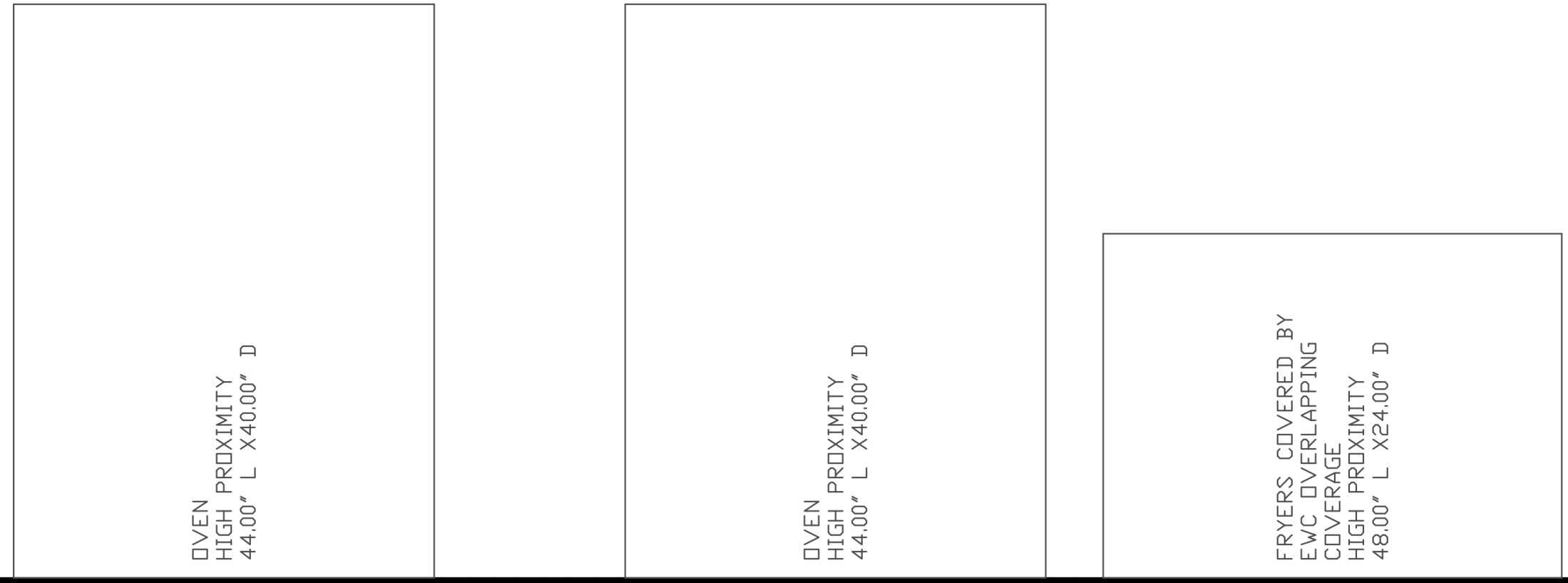
JOB #: 4905895
 JOB NAME: KROGER #606 - MADISON, AL.

SYSTEM SIZE: TANK-SP-2 TOTAL FP REQUIRED: 8.
 HOOD # 1 8' 0.00" LONG x 60" WIDE x 24" HIGH.
 RISER # 1 SIZE: 12" DIA.
 HOOD # 2 8' 0.00" LONG x 60" WIDE x 24" HIGH.
 RISER # 1 SIZE: 12" DIA.

- 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.

LEGEND - FIRE CABINET CAS-EWC 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.
- TF1 NOZZLE ASSEMBLY (TF1).
- ADP NOZZLE ASSEMBLY (ADP).
- FS NOZZLE ASSEMBLY (R).
- SA SWIVEL ADAPTER.



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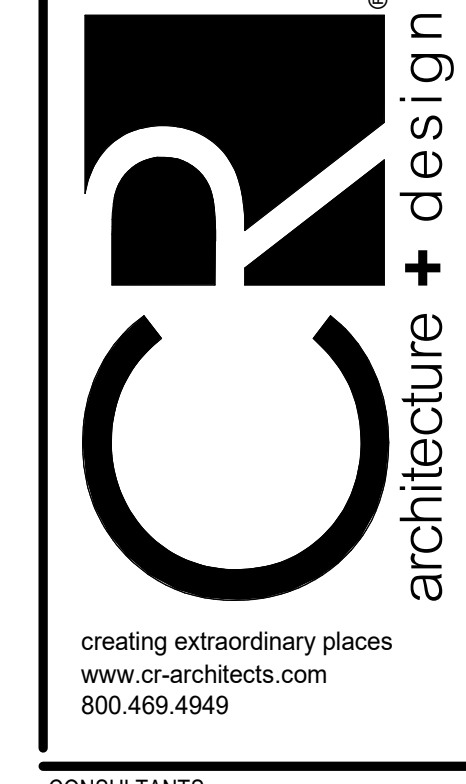
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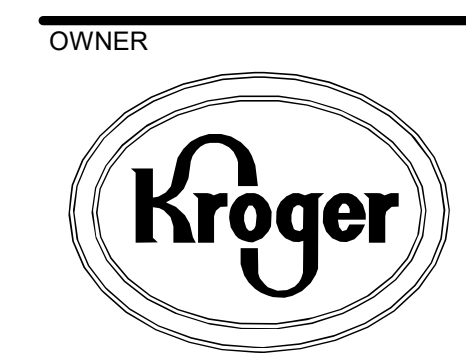
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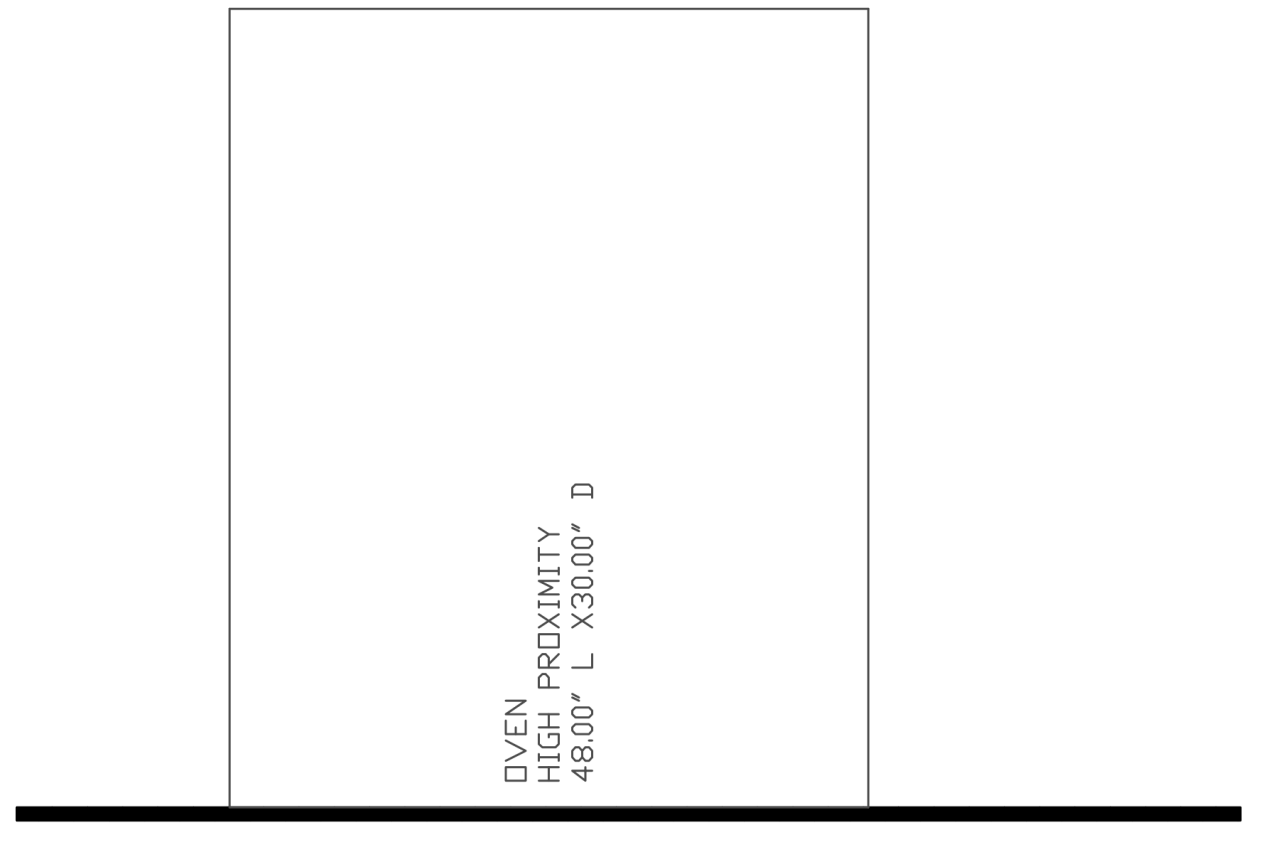
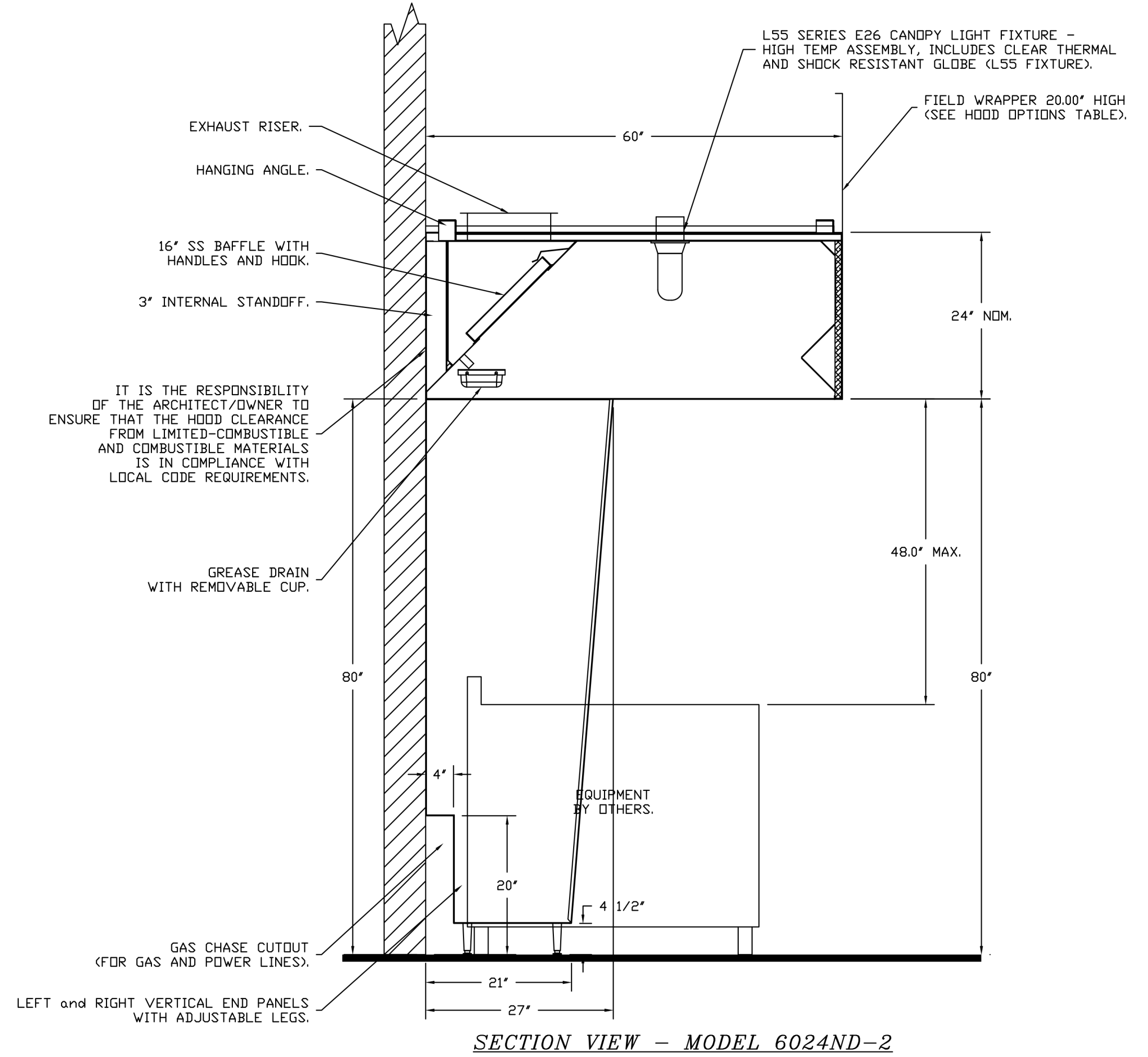
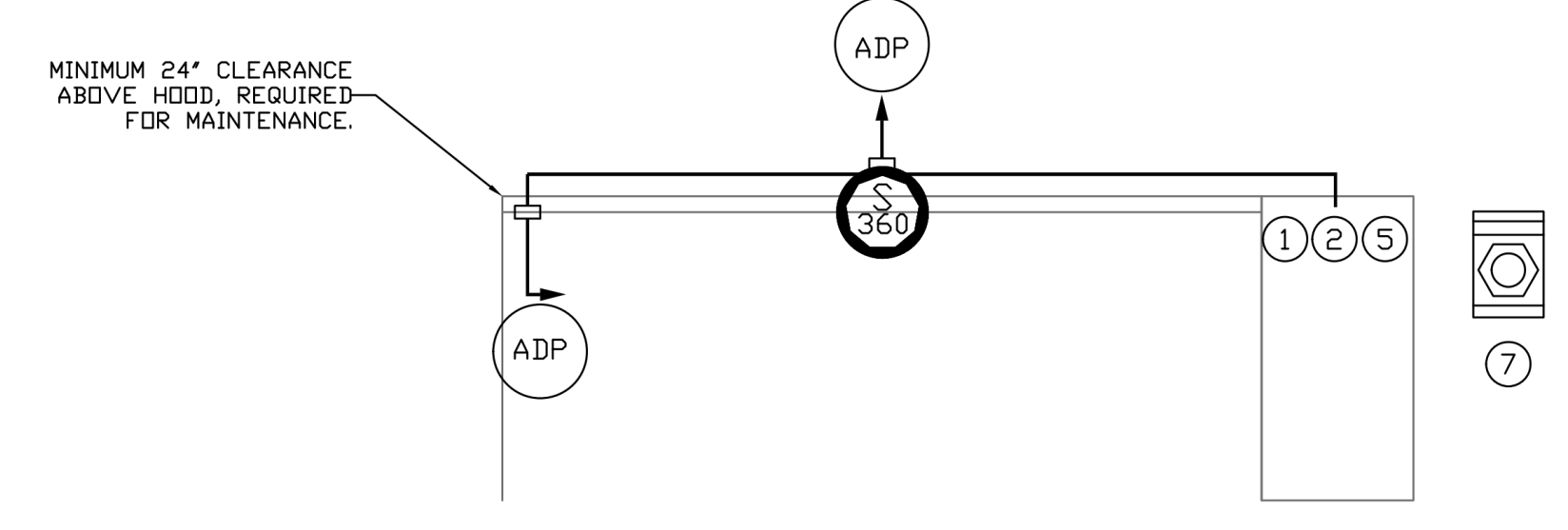
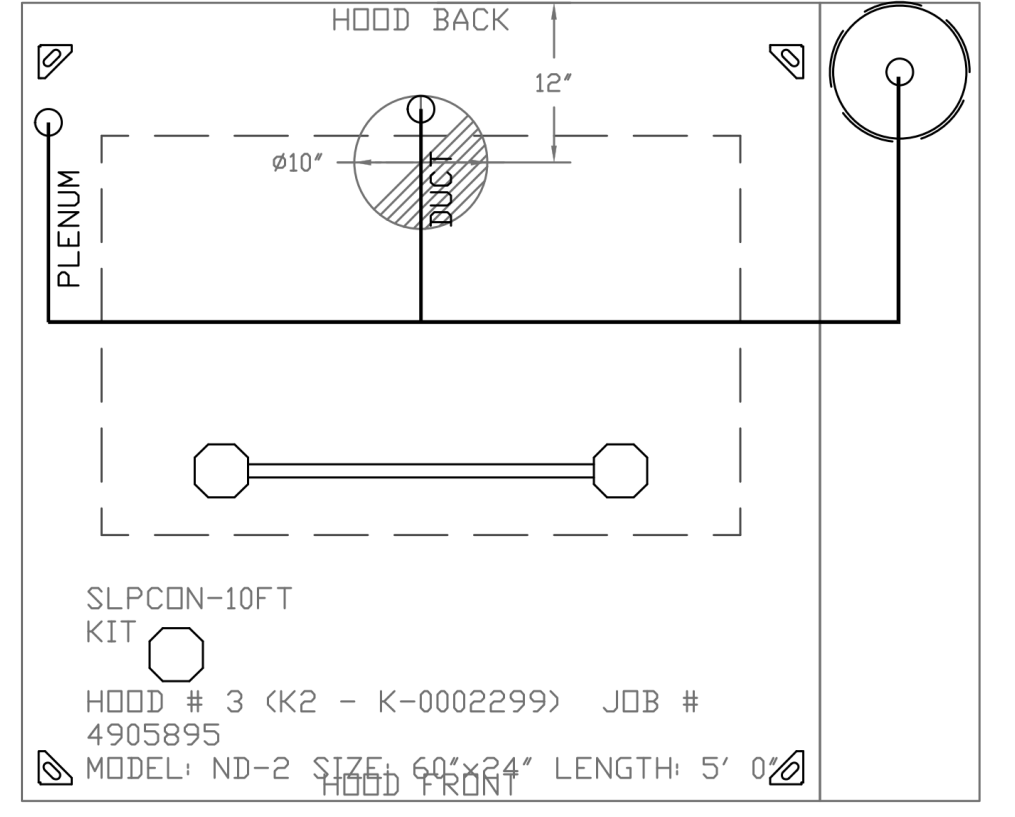
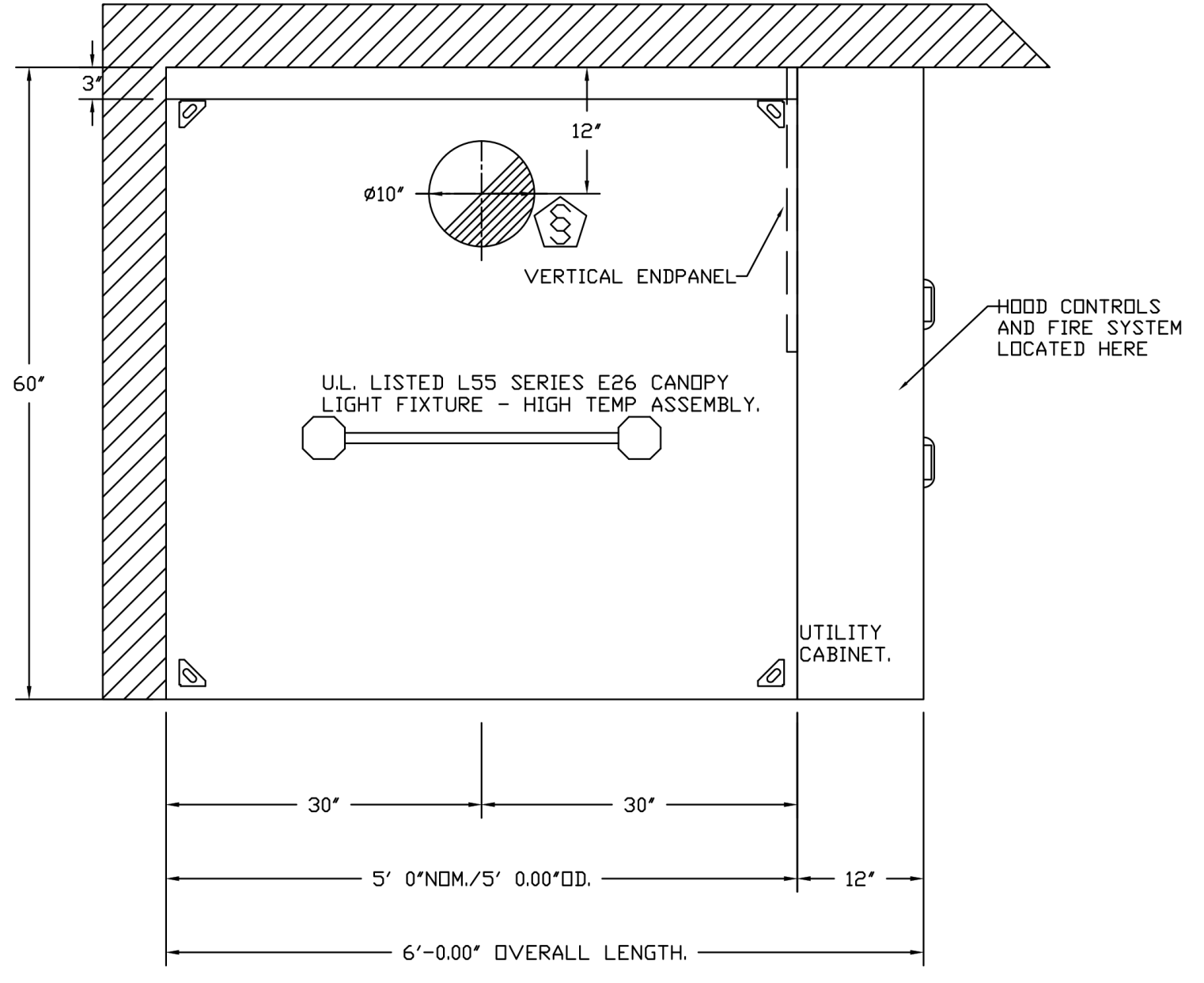
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NOTES

- FIELD PIPE DROPS AS SHOWN
- PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- 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 FIRE SYSTEM COMPLIES WITH UL 300 REQUIREMENTS.
- MINIMUM 24" CLEARANCE ABOVE HOOD, REQUIRED FOR MAINTENANCE.

JOB #: 4905895
JOB NAME: KROGER #606 - MADISON, AL.

SYSTEM SIZE: TANK-SP-1 TOTAL FP REQUIRED: 2.
HOOD # 3 5' 0.00" LONG x 60" WIDE x 24" HIGH.
RISER # 1 SIZE: 10" DIA.

- 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.

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- 1 4 GALLON TANK.
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 - 6 SECONDARY HOSE ASSEMBLY.
 - 7 REMOTE MANUAL ACTUATION DEVICE.
 - TF1 NOZZLE ASSEMBLY (TF1).
 - ADP NOZZLE ASSEMBLY (ADP).
 - R NOZZLE ASSEMBLY (R).
 - S SWIVEL ADAPTER.

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KROGER #606 - MADISON, AL
MADISON, AL, 35758

DATE: 6/1/2021
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DRAWN BY: JAC
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 3

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KROGER STORE U606

8656 US HIGHWAY 72 WEST
MADISON, AL 35758

COMMISSION NO. 521334
ISSUE DATE 06/24/21
SHEET TITLE
DETAILS

SHEET NO.
M5.4

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EXHAUST FAN INFORMATION - JOB#4905895

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-CC K-0002356	1	DR12HFA	CAPTIVEAIRE	600	0.125	1389	ODP	0.180	0.1130	1	115	1.9		52	8.4
2	EF-E1 K-0002355	1	DR30HFA	CAPTIVEAIRE	800	0.250	1340	ODP	0.250	0.1330	1	115	3.8		63	9.3
3	EF-E2 K-0002356	1	DR12HFA	CAPTIVEAIRE	600	0.125	1389	ODP	0.180	0.1130	1	115	1.9		52	8.4
4	EF-G1 K-0048398	1	DUS0HFA	CAPTIVEAIRE	900	1.100	1562	ODP	0.500	0.3750	1	115	8.4	342 FPM	88	17.1
5	EF-G2 K-0048398	1	DUS0HFA	CAPTIVEAIRE	900	1.100	1562	ODP	0.500	0.3750	1	115	8.4	342 FPM	88	17.1
6	EF-K1 K-0069365	1	DU180HFA	CAPTIVEAIRE	2400	1.250	1157	ODP PREMIUM	1.500	1.0370	3	208	6.6	554 FPM	179	14.3
7	EF-K2 K-0002371	1	DU33HFA	CAPTIVEAIRE	750	0.350	1265	ODP	0.333	0.1200	1	115	5.6	371 FPM	78	11
8	EF-R1 K-0002358	1	DR10HFA	CAPTIVEAIRE	300	0.125	1240	ODP	0.060	0.0360	1	115	1.1		46	4.4
9	EF-R2 K-0002356	1	DR12HFA	CAPTIVEAIRE	500	0.250	1323	ODP	0.180	0.0980	1	115	1.9		52	7.6
10	EF-R3 K-0002358	1	DR10HFA	CAPTIVEAIRE	200	0.125	966	ODP	0.060	0.0170	1	115	1.1		46	1.9
11	EF-S K-0002355	1	DR30HFA	CAPTIVEAIRE	800	0.250	1340	ODP	0.250	0.1330	1	115	3.8		63	9.3

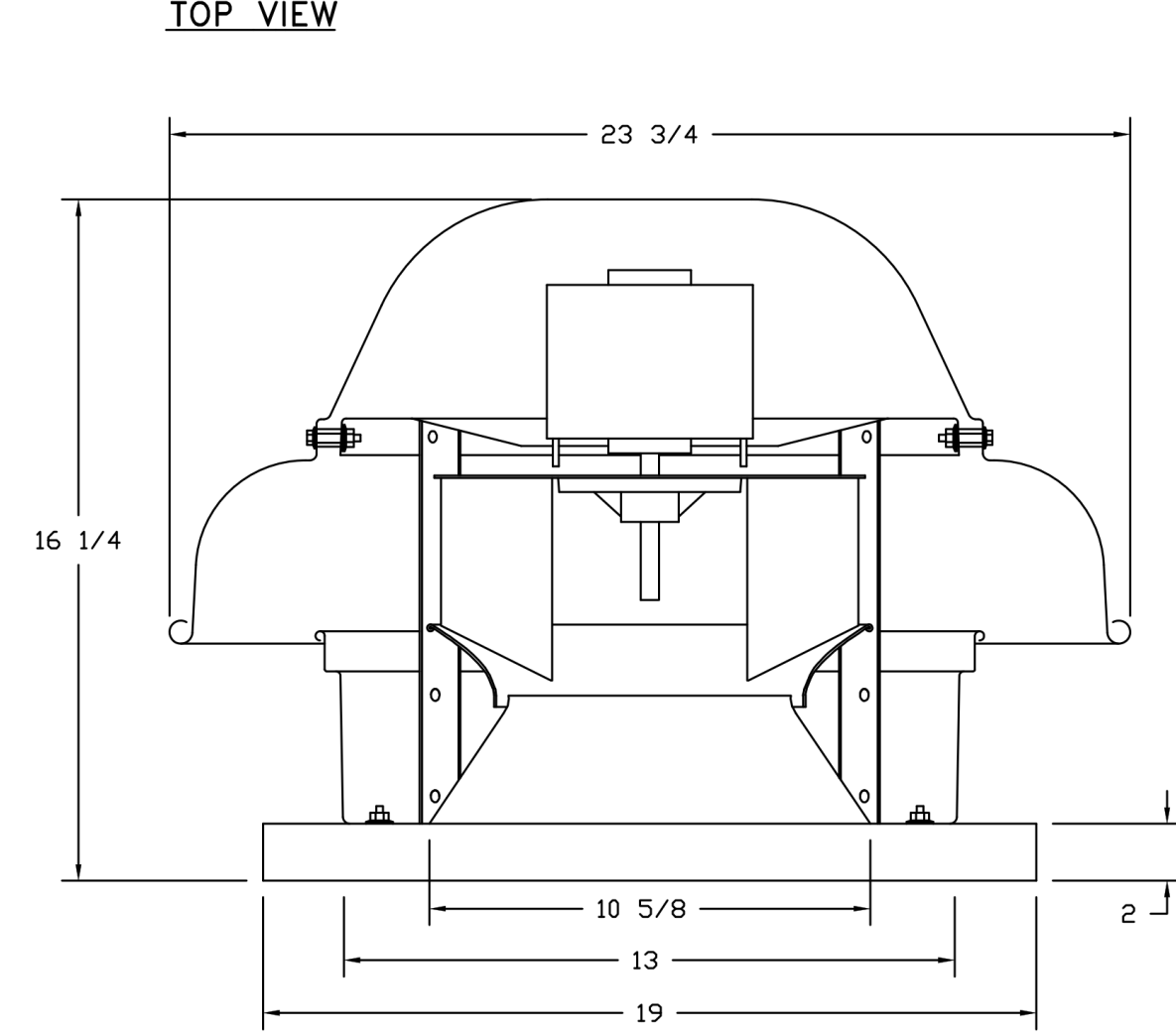
FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-CC K-0002356	1	1 12-BDD DAMPER.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	2 YEAR PARTS WARRANTY.
2	EF-E1 K-0002355	1	1 15-BDD DAMPER.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	2 YEAR PARTS WARRANTY.
3	EF-E2 K-0002356	1	1 12-BDD DAMPER.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	2 YEAR PARTS WARRANTY.
4	EF-G1 K-0048398	1	1 GREASE BDX.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	2 YEAR PARTS WARRANTY.
5	EF-G2 K-0048398	1	1 GREASE BDX.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	2 YEAR PARTS WARRANTY.
6	EF-K1 K-0069365	1	1 GREASE BDX.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	2 YEAR PARTS WARRANTY.
7	EF-K2 K-0002371	1	1 GREASE BDX.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	2 YEAR PARTS WARRANTY.
8	EF-R1 K-0002358	1	1 12-BDD DAMPER.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	2 YEAR PARTS WARRANTY.
9	EF-R2 K-0002356	1	1 12-BDD DAMPER.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	2 YEAR PARTS WARRANTY.
10	EF-R3 K-0002358	1	1 12-BDD DAMPER.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	2 YEAR PARTS WARRANTY.
11	EF-S K-0002355	1	1 15-BDD DAMPER.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		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-CC K-0002356		YES					
2	EF-E1 K-0002355		YES					
3	EF-E2 K-0002356		YES					
4	EF-G1 K-0048398	YES						
5	EF-G2 K-0048398	YES						
6	EF-K1 K-0069365	YES						
7	EF-K2 K-0002371	YES						
8	EF-R1 K-0002358		YES					
9	EF-R2 K-0002356		YES					
10	EF-R3 K-0002358		YES					
11	EF-S K-0002355		YES					

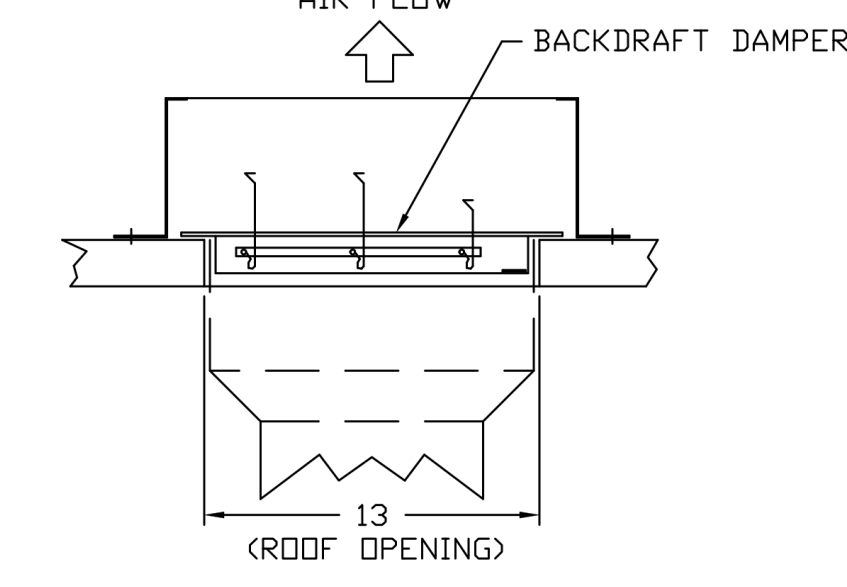
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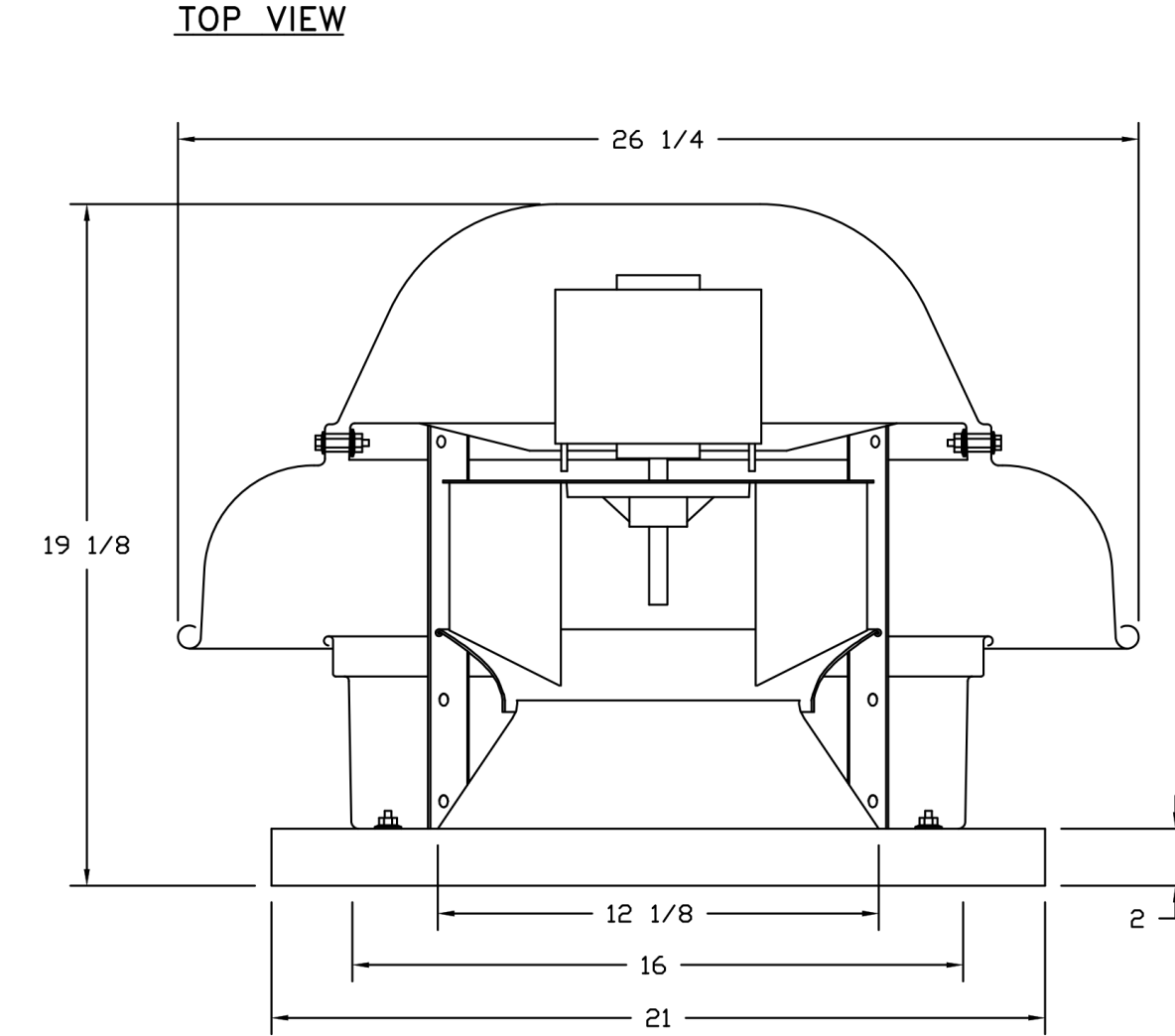
- FEATURES:**
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
 - ROOF MOUNTED FANS.
 - UL705.
 - SAFETY DISCONNECT.
 - STANDARD BIRD SCREEN.
 - SPEED CONTROL.

- OPTIONS**
- 1 12-BDD DAMPER.
 - HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
 - 2 YEAR PARTS WARRANTY.

BACKDRAFT DAMPER INSTALLATION



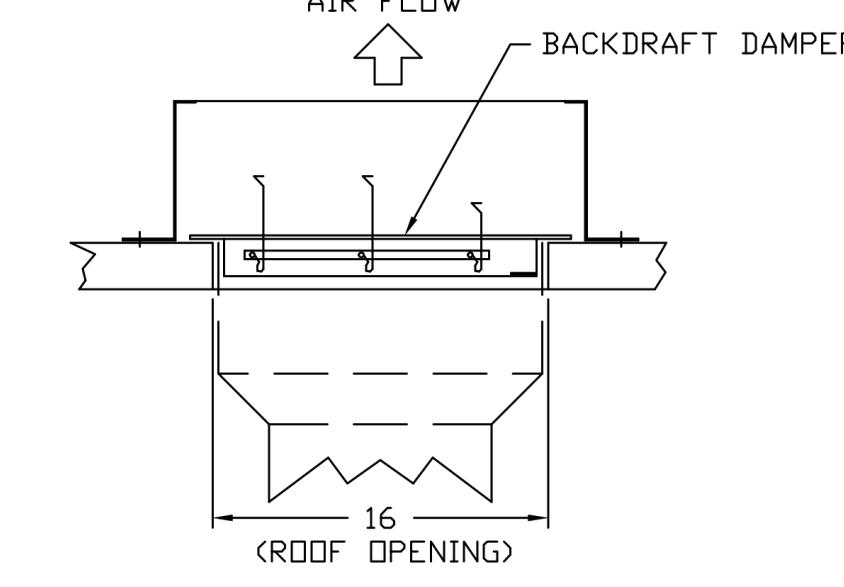
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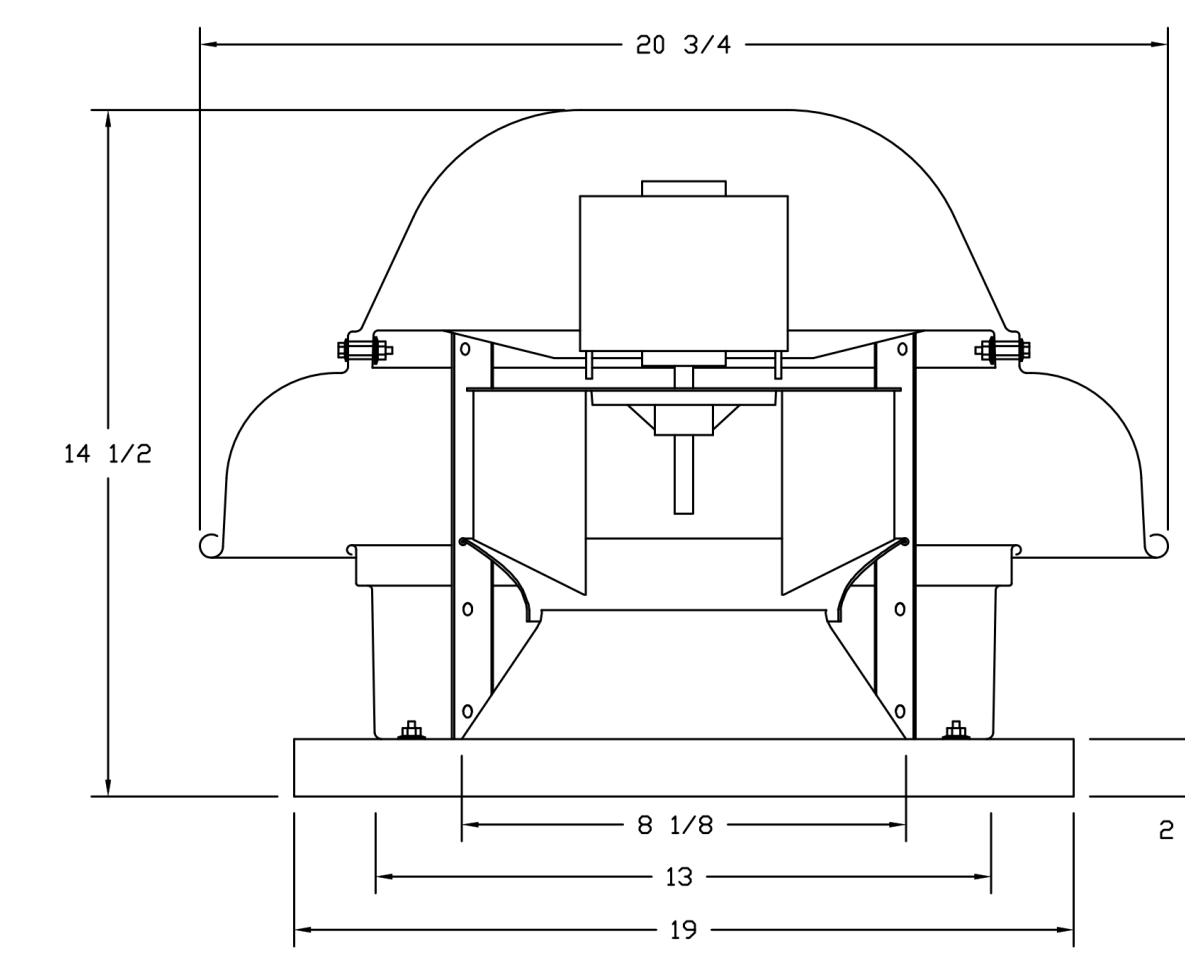
- FEATURES:**
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
 - ROOF MOUNTED FANS.
 - UL705.
 - SAFETY DISCONNECT.
 - STANDARD BIRD SCREEN.
 - SPEED CONTROL.

- OPTIONS**
- 1 15-BDD DAMPER.
 - HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
 - 2 YEAR PARTS WARRANTY.

BACKDRAFT DAMPER INSTALLATION



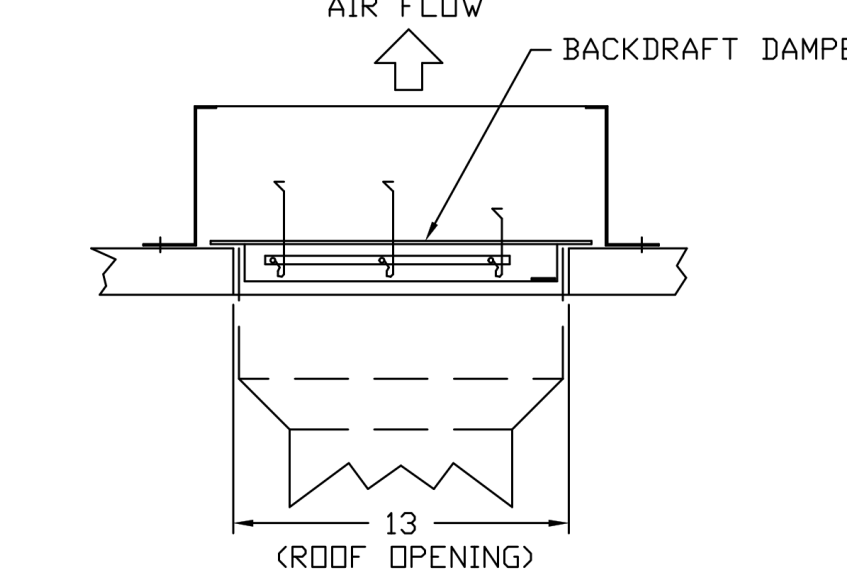
FANS #8 (EF-R1 K-0002358), #10 (EF-R3 K-0002358) - DR10HFA - EXHAUST FAN



- FEATURES:**
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
 - ROOF MOUNTED FANS.
 - UL705.
 - SAFETY DISCONNECT.
 - STANDARD BIRD SCREEN.
 - SPEED CONTROL.

- OPTIONS**
- 1 12-BDD DAMPER.
 - HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
 - 2 YEAR PARTS WARRANTY.

BACKDRAFT DAMPER INSTALLATION



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DESCRIPTION	DATE

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CAPTIVEAIRE
National Accounts

KROGER #606 - MADISON, AL
MADISON, AL, 35758

DATE: 6/1/2021
DWG.#: 4905895
DRAWN BY: JAC
SCALE: 3/4" = 1'-0"
MASTER DRAWING

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REVIEWED BY: JCL

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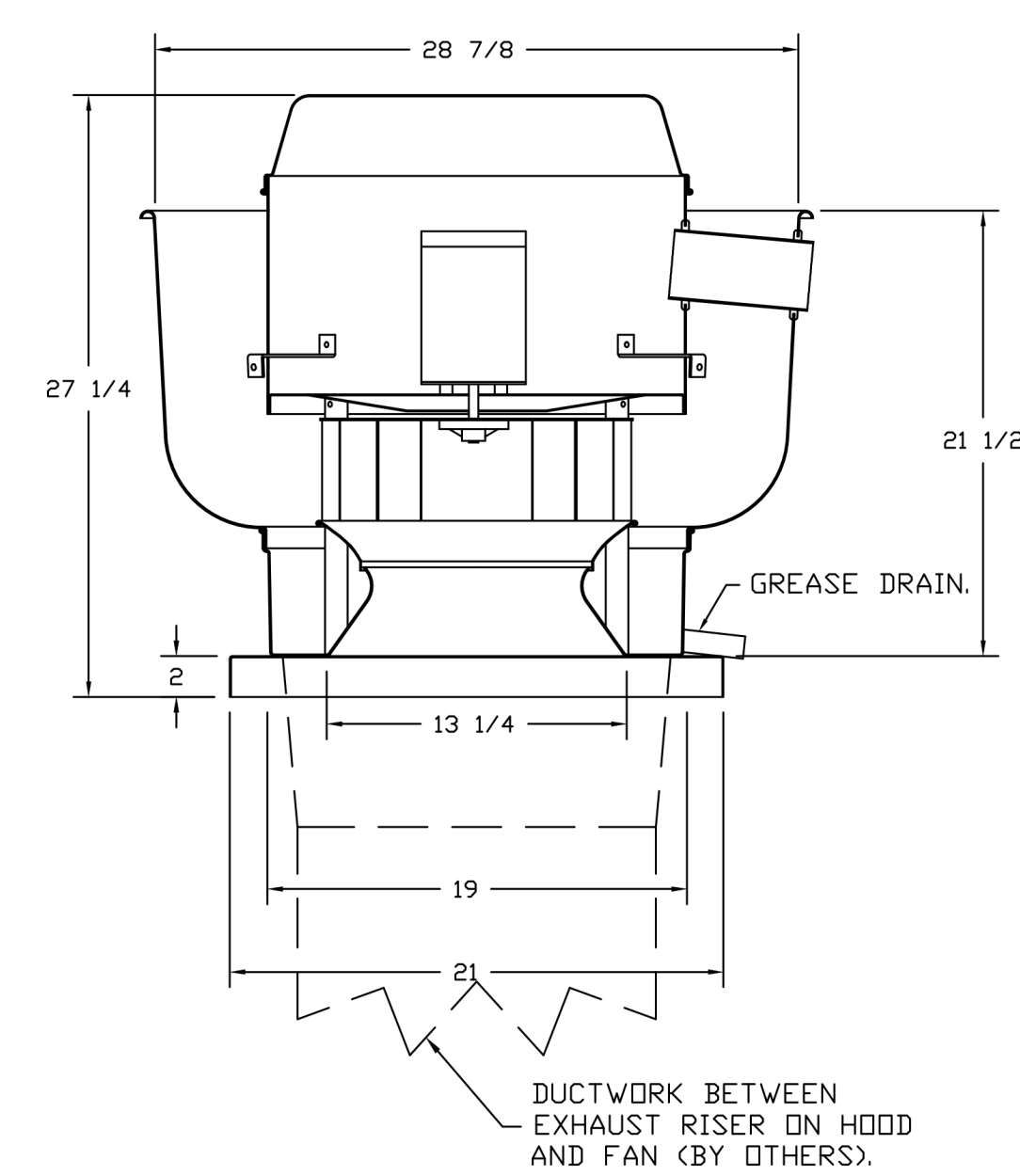
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FAN #4 (CF-G1 K-0048239B), #5 (CF-G2 K-0048239B) - DUSHFIA EXHAUST FAN



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.

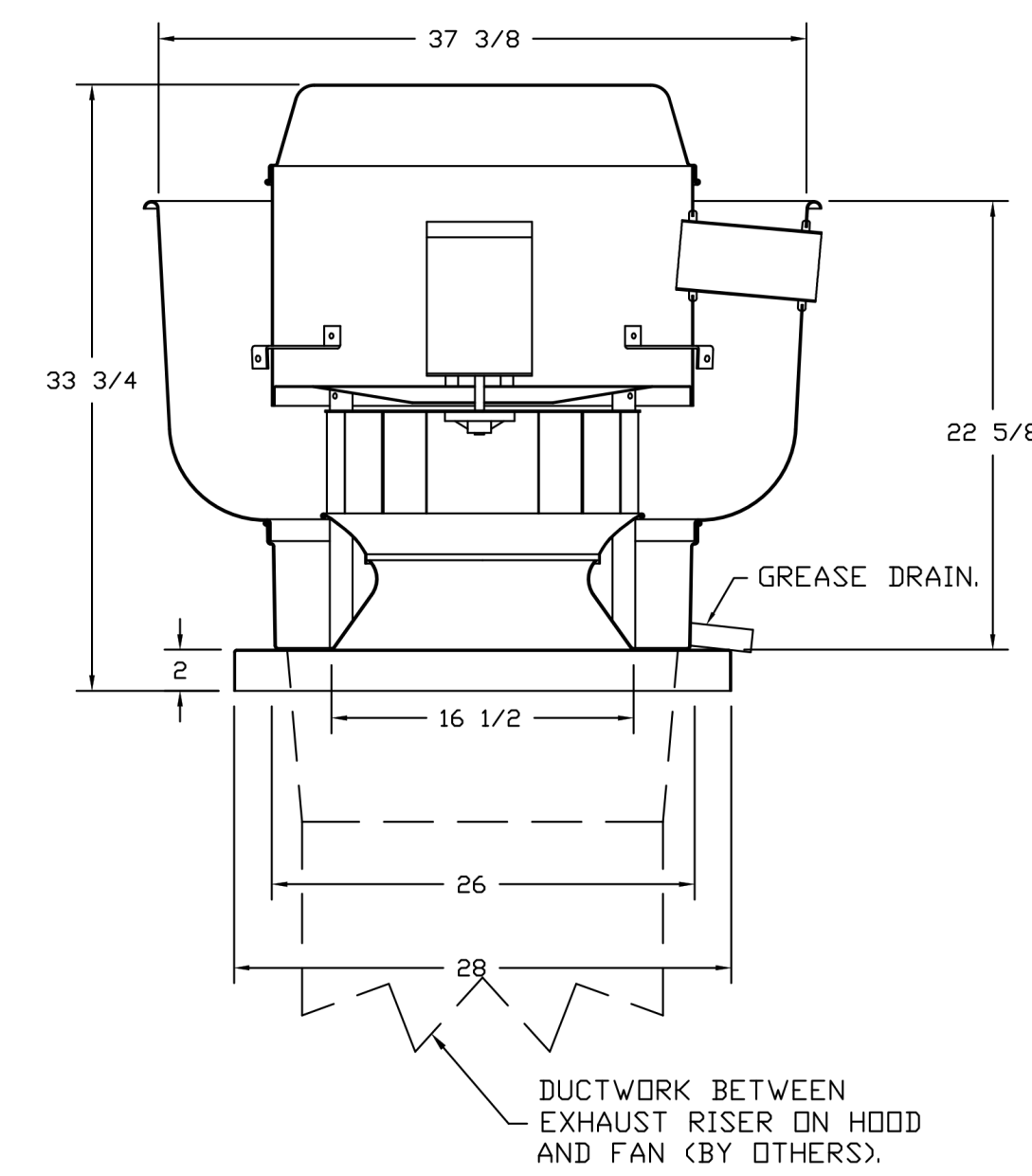
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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.
- HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
- 2 YEAR PARTS WARRANTY.

FAN #6 DUSHFIA - EXHAUST FAN (CF-K1 K-0065235D)



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.

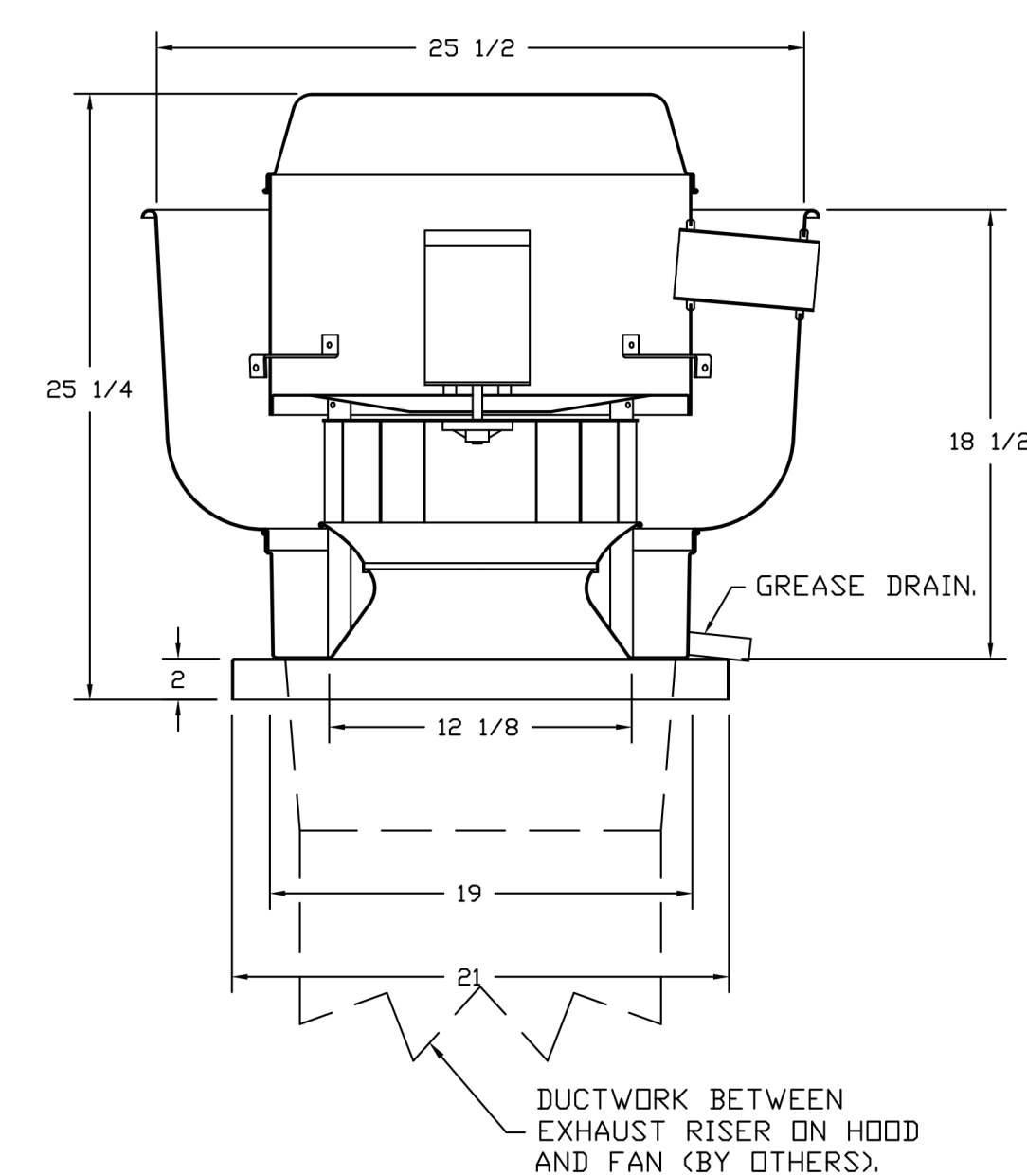
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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.
- HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
- 2 YEAR PARTS WARRANTY.

FAN #7 DUSHFIA - EXHAUST FAN (CF-K2 K-0002371)



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.

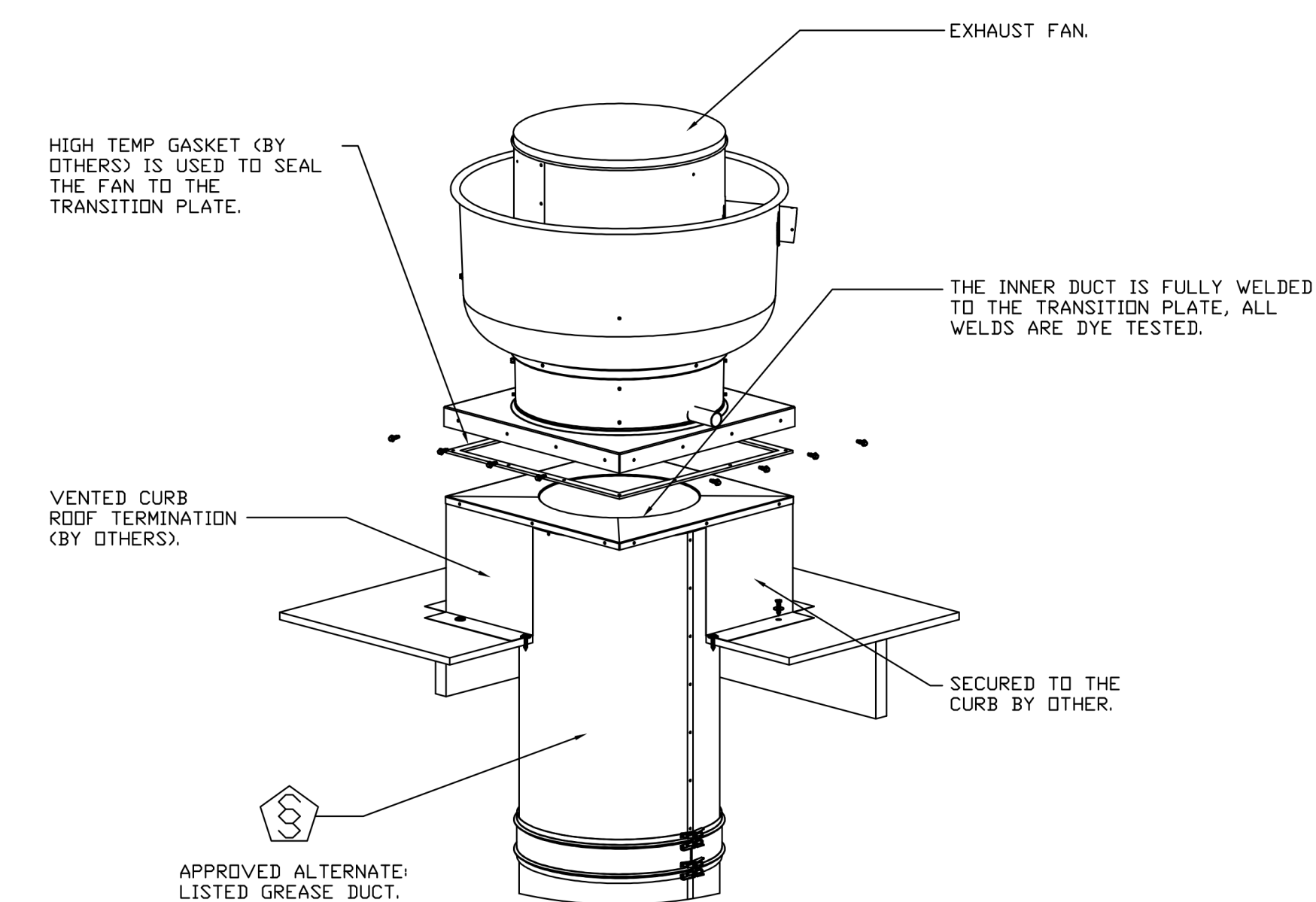
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS:

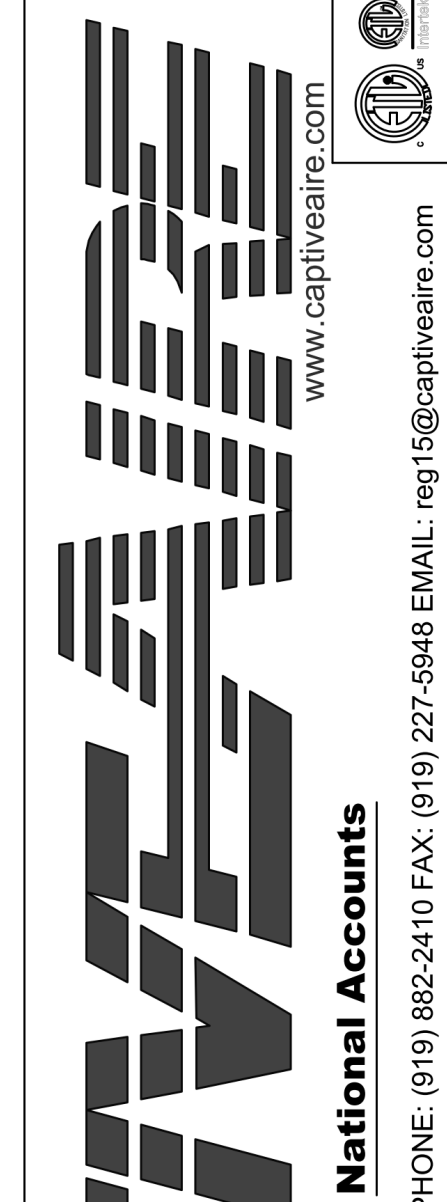
- GREASE BOX.
- HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
- 2 YEAR PARTS WARRANTY.

CAPTIVE AIRE UL LISTED DUCT IS APPROVED AS AN ALTERNATE - SPEC BELOW

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 1/4" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURERS INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURERS 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.



REVISIONS		DATE
DESCRIPTION		



KROGER #606 - MADISON, AL
MADISON, AL, 35758

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SCALE: 3/4" = 1'-0"
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REVIEWED BY: JCL

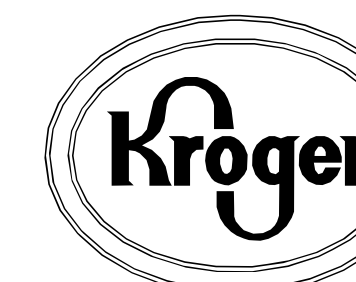
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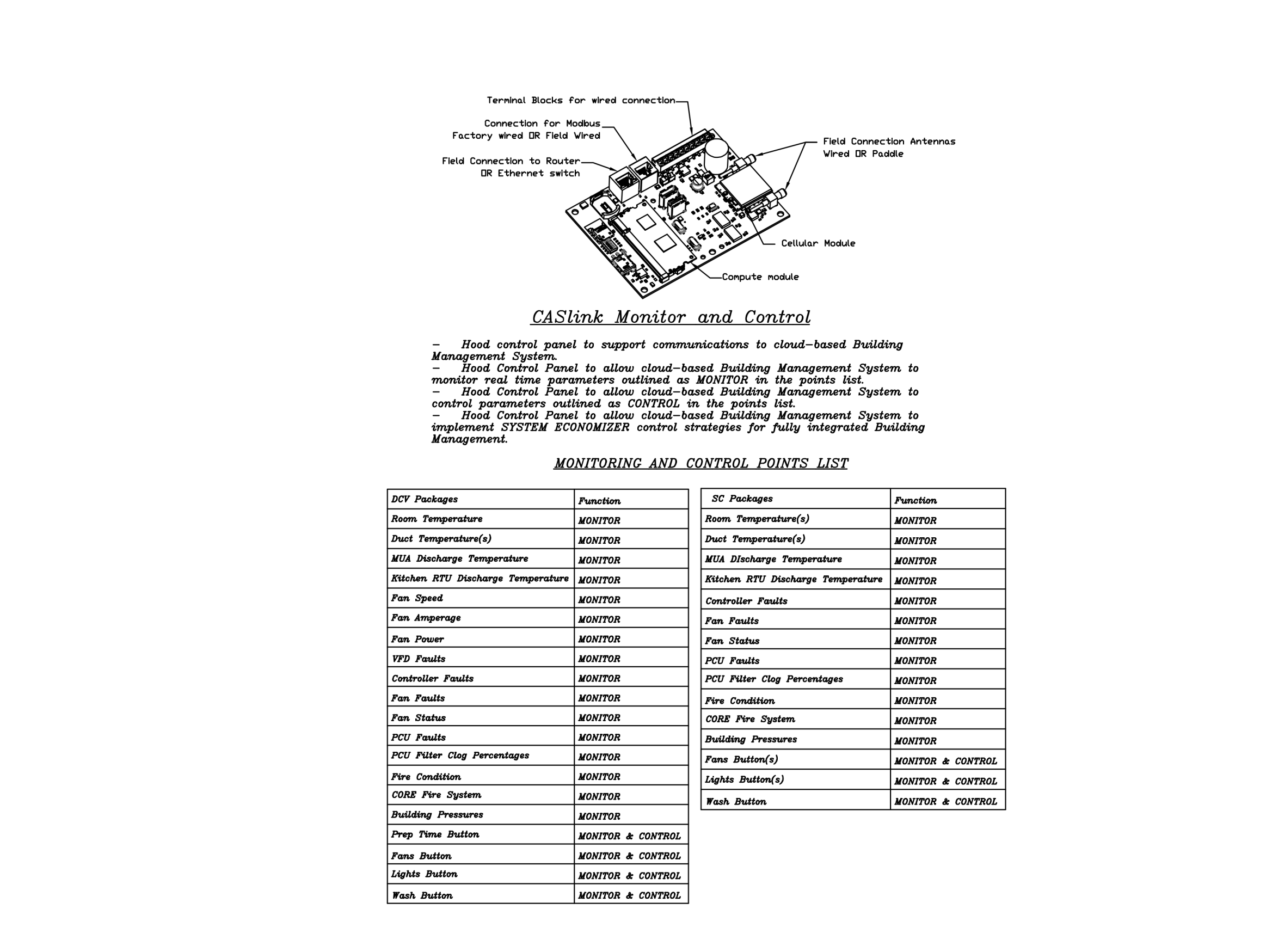
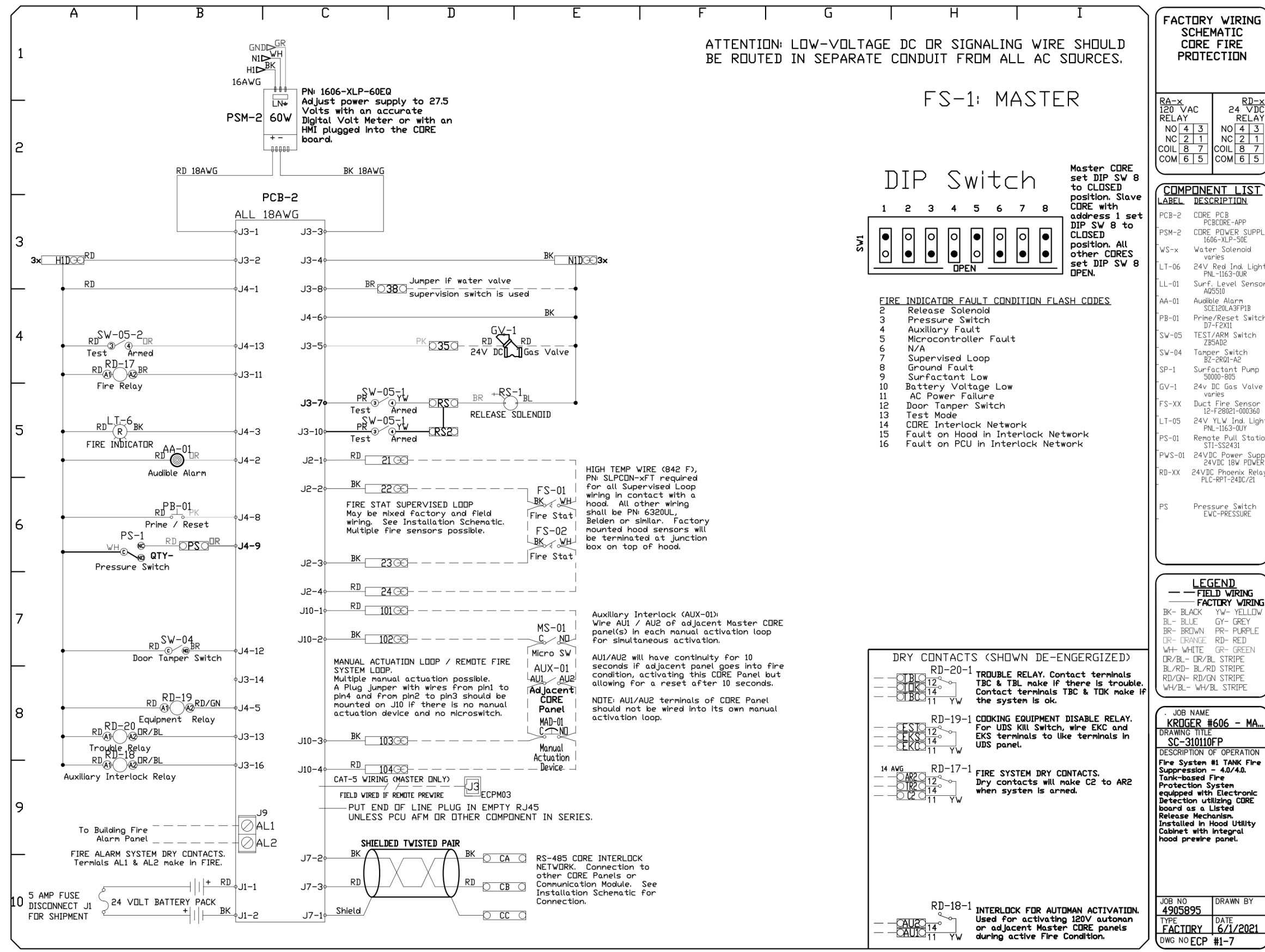
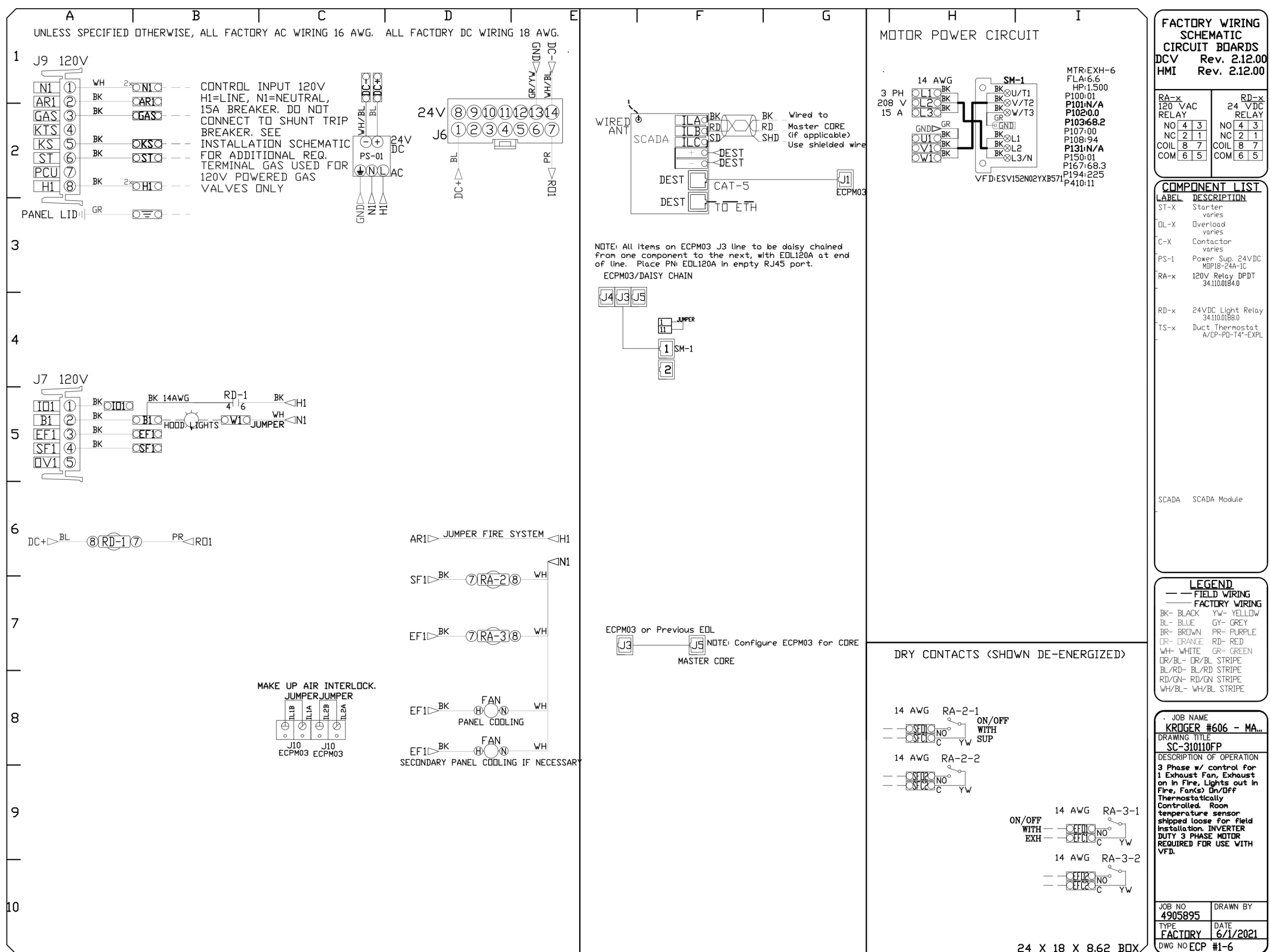
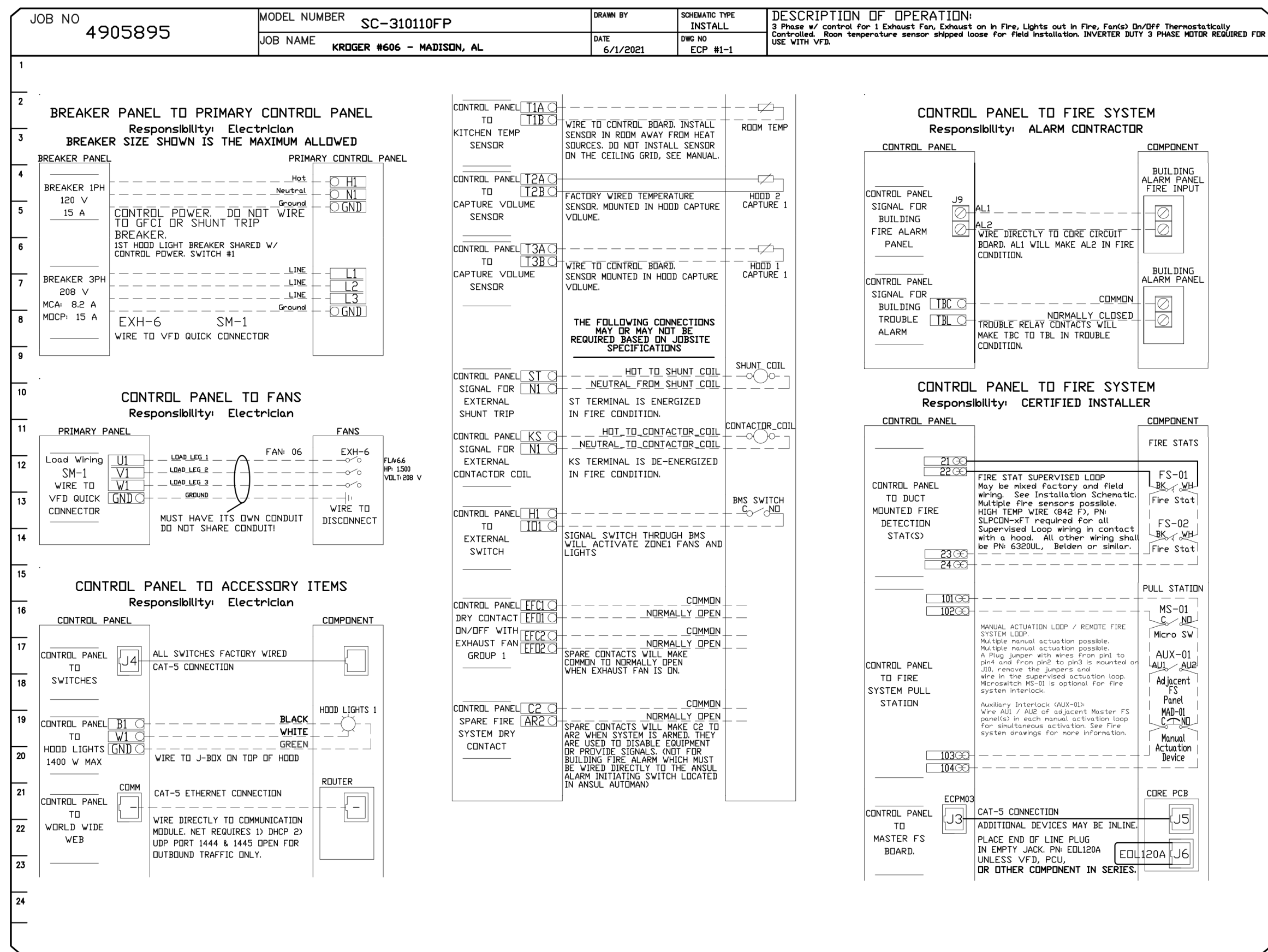
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ELECTRICAL PACKAGE - JOB#4905895

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED						
				LOCATION	QUANTITY		FAN TAG	TYPE	#	HP	VOLTS	FLA	
1		SC-31010FP	UTILITY CABINET RIGHT	04 - UTILITY CABINET RIGHT HOOD # 2	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL	EF-K1	K-0069365	EXHAUST	3	1.500	208	6.6
2		SC-11010FP	UTILITY CABINET RIGHT	04 - UTILITY CABINET RIGHT HOOD # 3	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL	EF-K2	K-0002371	EXHAUST	1	0.333	115	5.6

K1 HOOD CONTROL SCHEMATICS



REVISIONS

NO	DESCRIPTION	DATE
1		
2		
3		
4		

CAPTIVE

National Accounts

4841 Penagon Park Rd., Raleigh, NC 27616 PHONE: (919) 982-2410 FAX: (919) 727-5948 EMAIL: reg.15@captivewire.com www.captivewire.com

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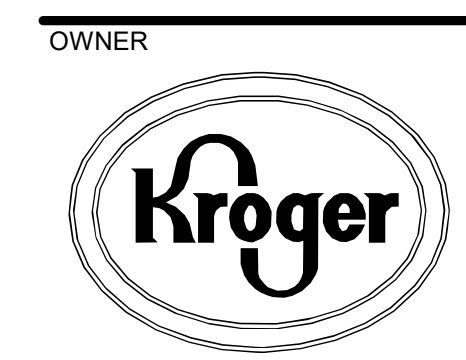
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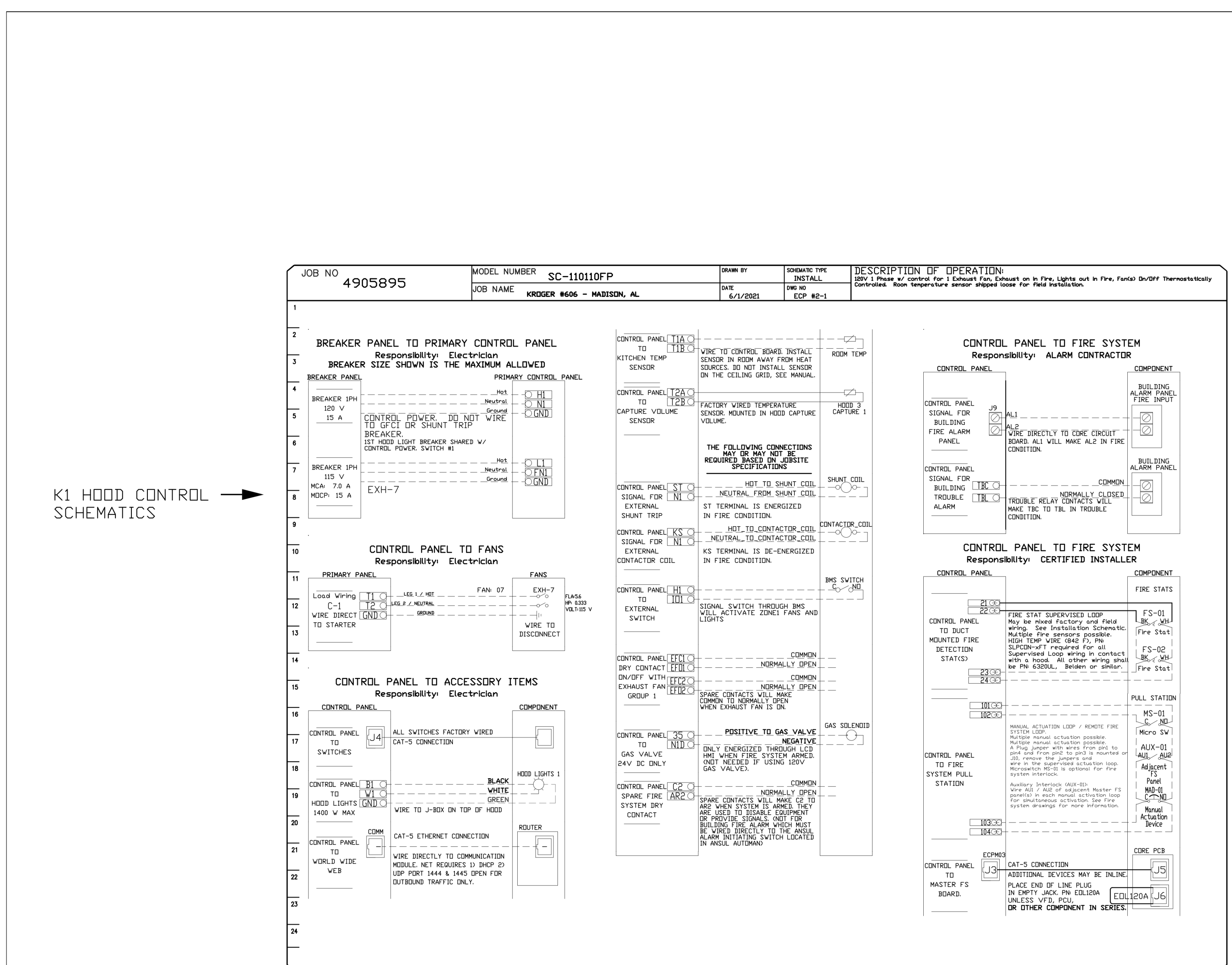
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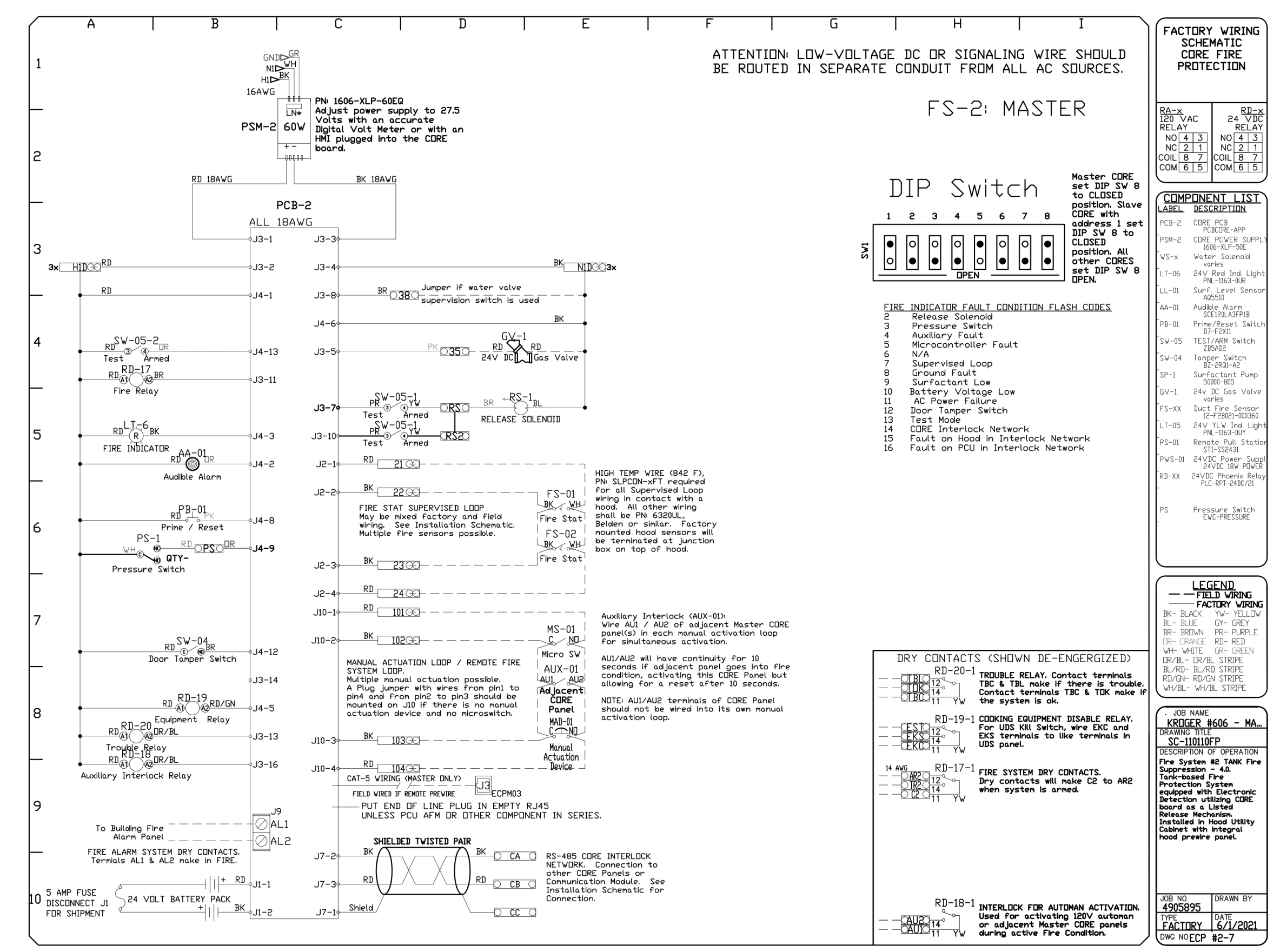
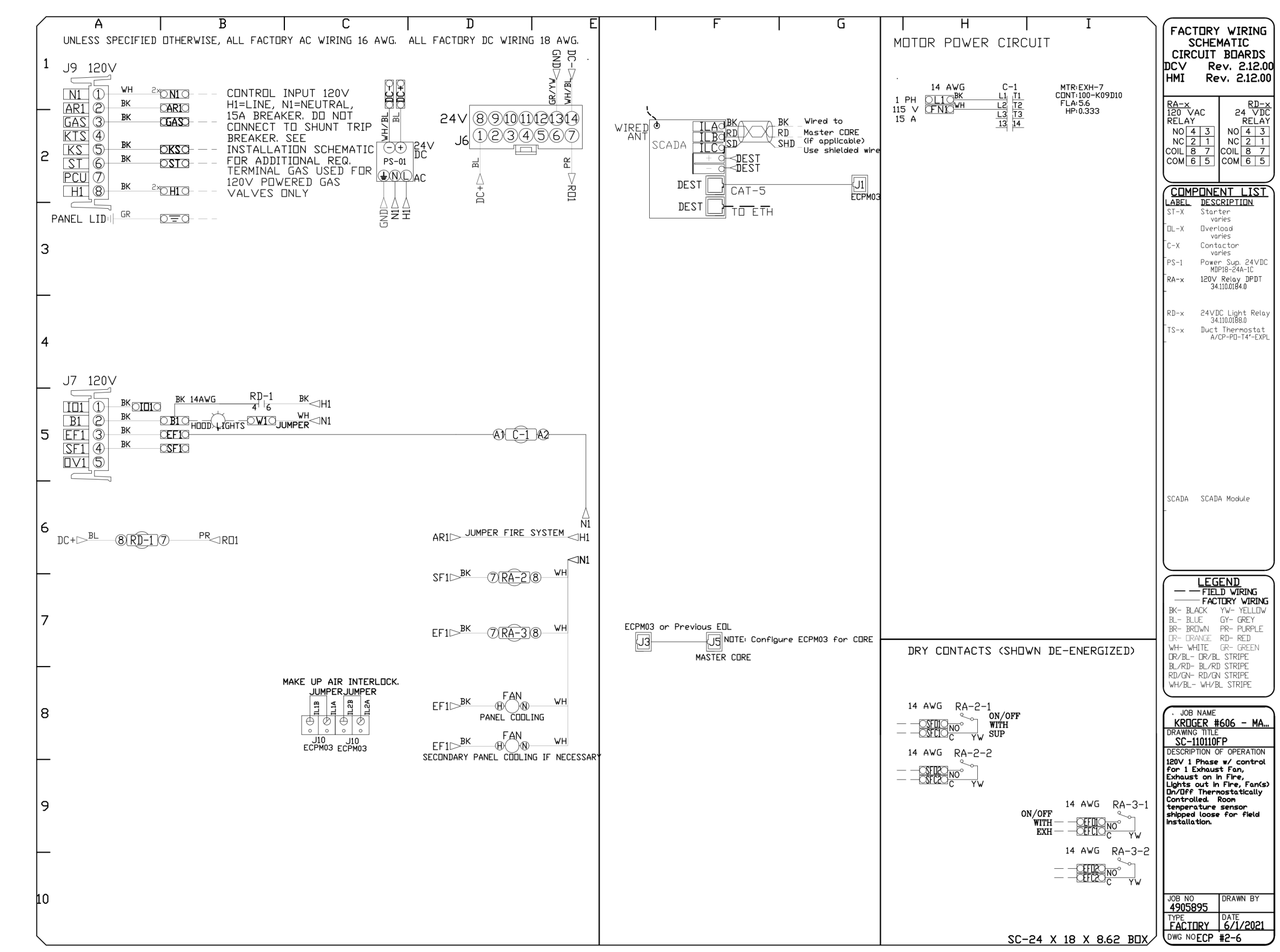
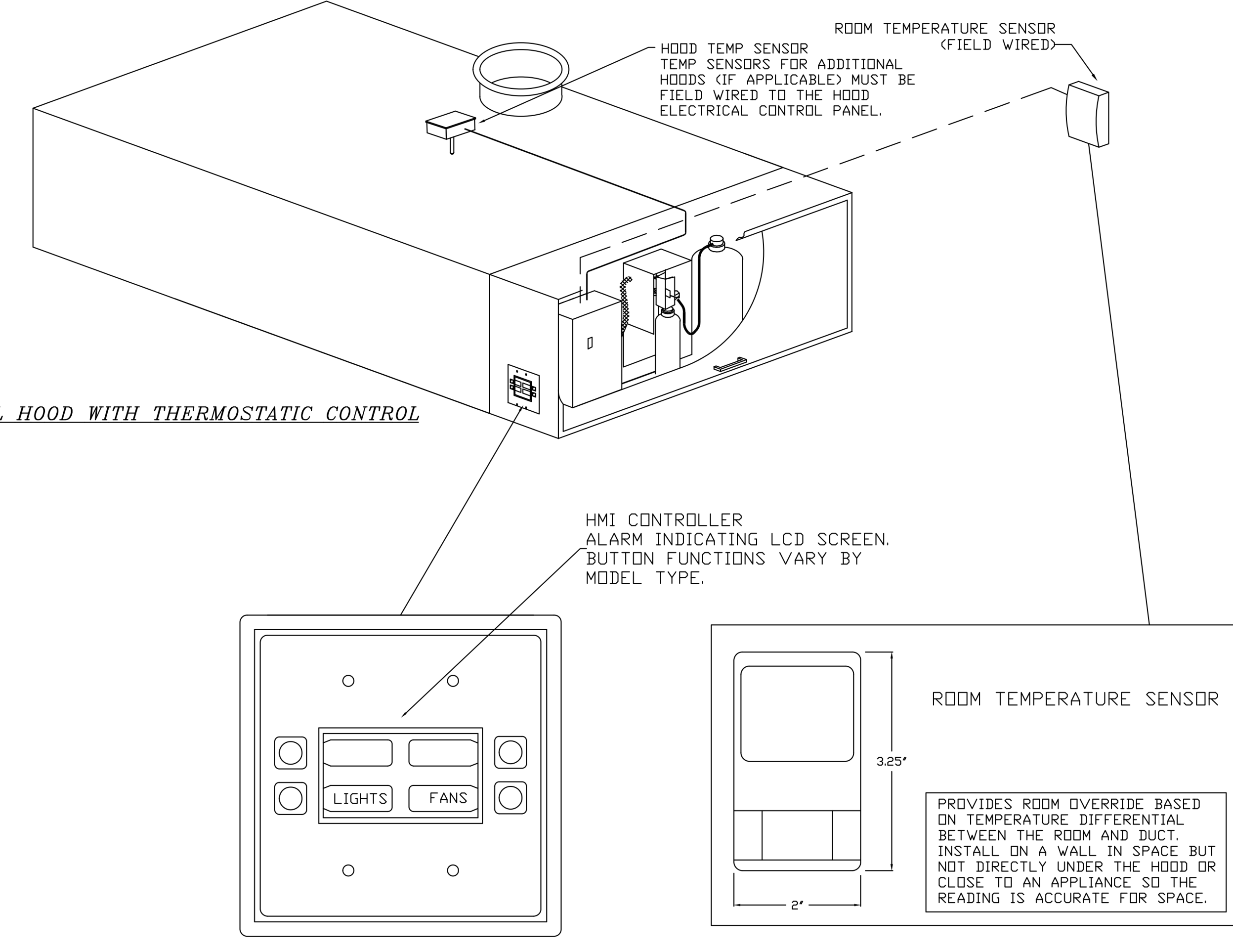
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TEMPERATURE SENSOR INTERLOCK

THE TEMPERATURE SENSOR INTERLOCK OPTION COMPLIES WITH IMC 507.1.1.1 AND NFPA 96 11.1.1 BY INTERLOCKING WITH COOKING APPLIANCES THROUGH MEANS OF A HEAT SENSOR TO AUTOMATICALLY ACTIVATE EXHAUST FANS DURING COOKING OPERATIONS.



REVISIONS	
DESCRIPTION	DATE

CAPTIVE
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National Accounts
4641 Paragon Park Rd., Raleigh, NC 27616 PHONE: (919) 882-2410 FAX: (919) 227-5948 EMAIL: neg15@captiveare.com

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DOAS/RTU FAN SCHEDULE -- JOB#4912491

FAN UNIT NO	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	ESP	HP	BHP	PHASE	VOLT	MCA	MCCP	WEIGHT (LBS)
1	DDAS-1	1	CASRTU3-1250-22-20T-DDAS	CAPTIVEAIRE	22Z-3	0	2645	2645	0.500	5.000	0.7090	3	460	40.8A	45A	2472
2	DDAS-2	1	CASRTU3-1250-22-20T-DDAS	CAPTIVEAIRE	22Z-3	0	2645	2645	0.500	5.000	0.7090	3	460	40.8A	45A	2472

DOAS/RTU COOLING SCHEDULE

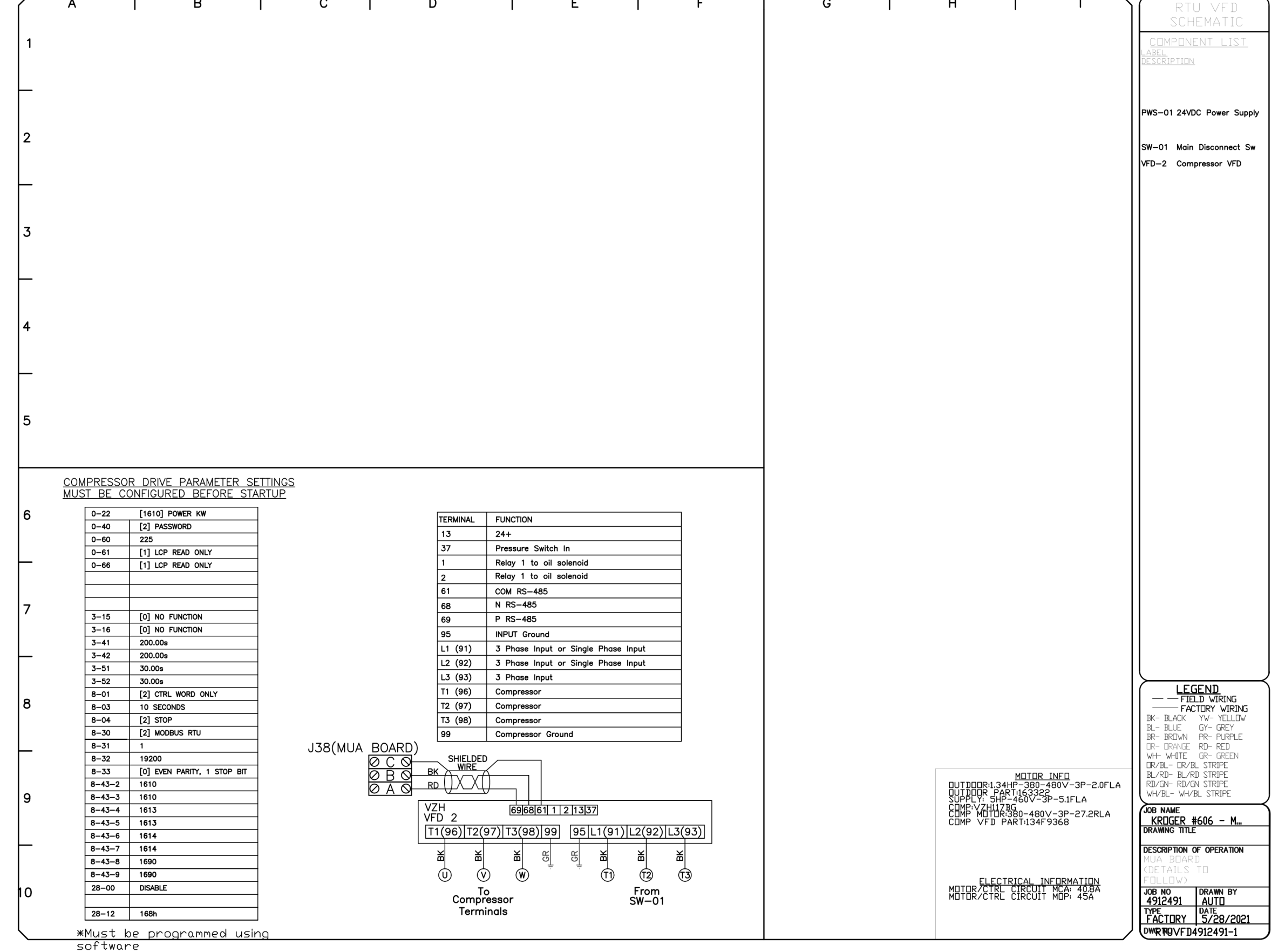
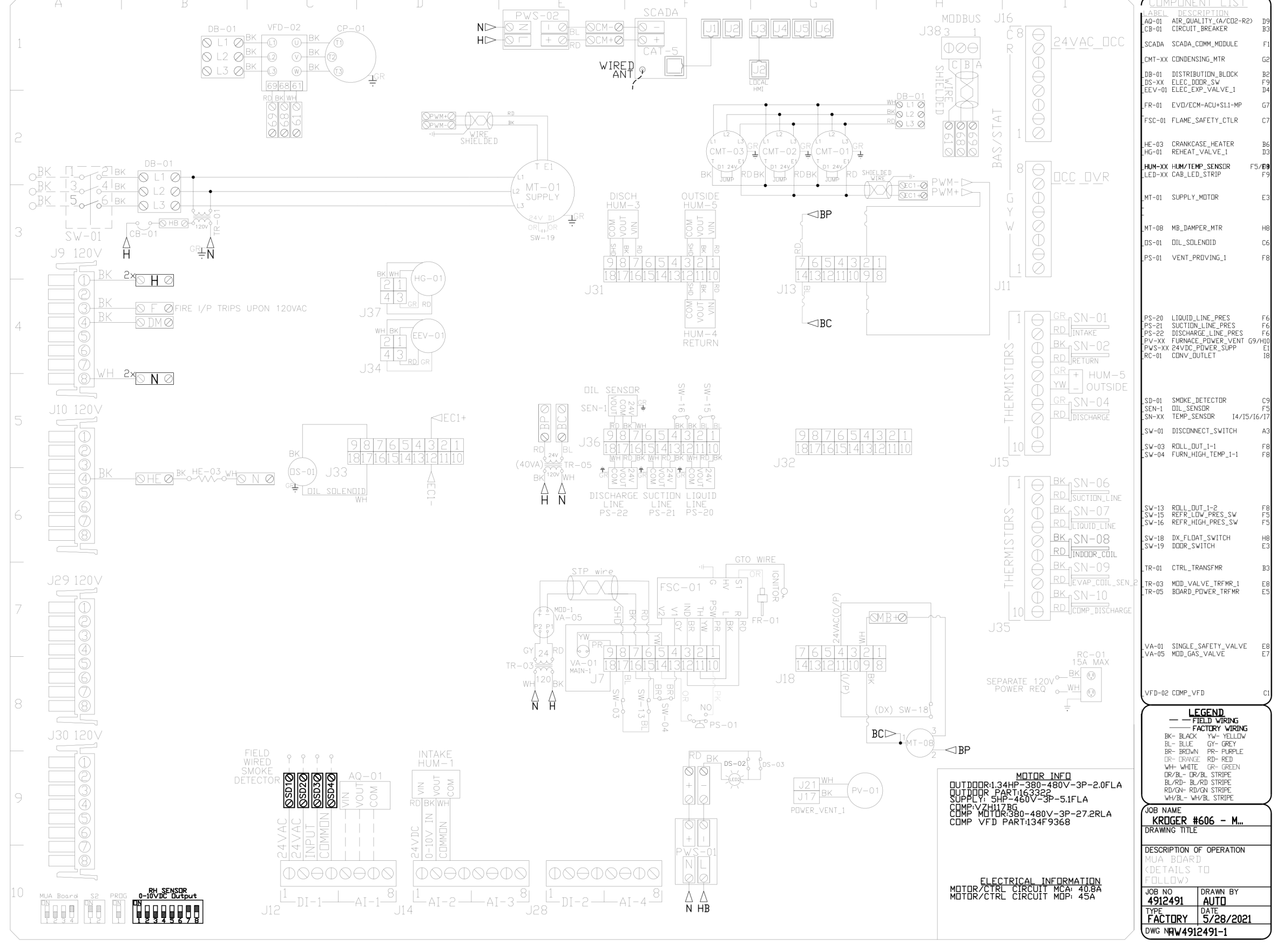
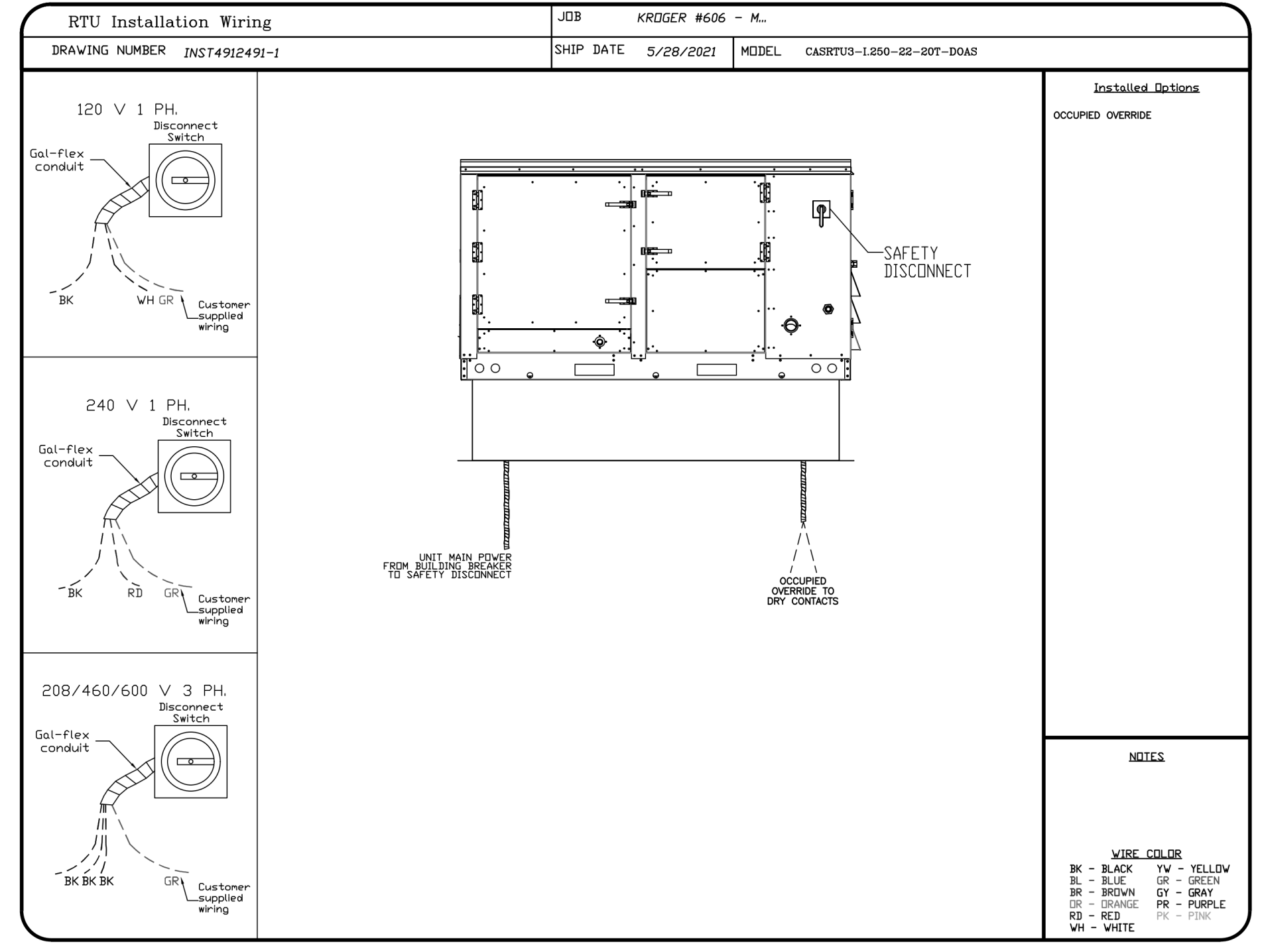
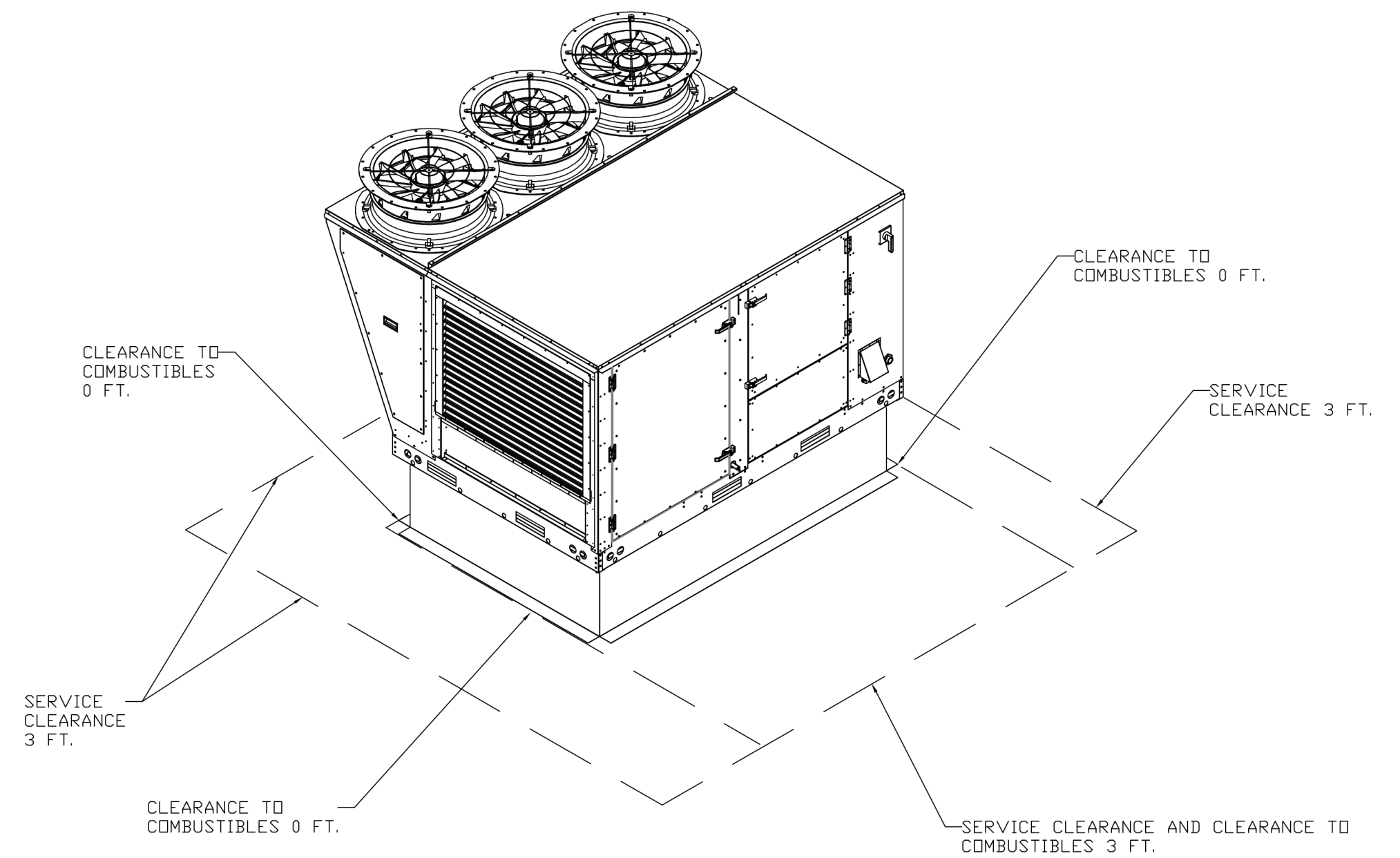
FAN UNIT NO	TAG	COMPRESSOR			OUTDOOR FAN			INDOOR COIL		OUTSIDE AIR DB TEMP	OUTSIDE AIR WB TEMP	MIXED AIR DB TEMP	MIXED AIR WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	LEAVING DP TEMP	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY	REHEAT LEAVING DB TEMP	REHEAT LEAVING WB TEMP	DESIRED REHEAT CAPACITY	MAX REHEAT CAPACITY	REHEAT LEAVING RELATIVE HUMIDITY	MOISTURE REMOVAL RATE	IEER			
		TONNAGE	VOLTAGE	PHASE	MOTOR VOLTAGE	MOTOR Ø	MOTOR FREQUENCY	MOTOR QTY	R0WS																		FACE AREA		
1	DDAS-1	20	380-480	3	380-480	3	60	3	7	11.9	SOFT	82.6°F	77.5°F	82.6°F	77.5°F	49.4°F	45.5°F	41.8°F	264.0	92.5	171.5	70.0°F	54.5°F	60.1	129.6	36	154.5	LBS/HR	18.2
2	DDAS-2	20	380-480	3	380-480	3	60	3	7	11.9	SOFT	82.6°F	77.5°F	82.6°F	77.5°F	49.4°F	45.5°F	41.8°F	264.0	92.5	171.5	70.0°F	54.5°F	60.1	129.6	36	154.5	LBS/HR	18.2

DOAS/RTU HEATING SCHEDULE

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
1	DDAS-1	222014	177611	58°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	80
2	DDAS-2	222014	177611	58°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	80

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1 & 2	DDAS-1 & DDAS-2	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE.
		1	TOTAL CFM MONITORING FOR DOAS.
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. QNTY 1 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #2B, #47, #A, OR #E2 OPTION PREWIRE MUST BE SELECTED. DO NOT PROVIDE SUPPLY STARTER IN PREWIRE.
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED.
		1	RTU SIZE 3 DOWN DISCHARGE.
		1	2" MERV 8 FILTERS FOR SIZE 3 RTU. QTY 4.
		1	OVERHEAT STAT.
		1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK (SUPPLIED BY OTHERS).
		1	ECM SUPPLY FAN CONTROL RTU MUA BOARD.
		1	AUXILIARY REHEAT.
		1	OCCUPIED SCHEDULING.
		1	SIZE 3 RTU CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J BOX.
		1	RTU MANUAL INTAKE/RETURN DAMPER CONTROL VIA HMI.
		1	RTU 3 HAIL GUARD.
		1	RTU SIZE 3 DOWN RETURN.
		1	FREEZE STAT.
		1	RTU ECONOMIZER WITH DIFFERENTIAL ENTHALPY CONTROL.
		1	RTU SIZE 3 ECONOMIZER BAROMETRIC RELIEF.
		1	DAMPER CONTROLLED CO2 OVERRIDE OPTION.
1	20 TON MODULATING COOLING OPTION, 460/480V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS(S).		
1	ECM FAN DDAS - 3 PHASE.		
1	20 TON MODULATING REHEAT OPTION. DISCHARGE DEWPOINT CONTROL.		
1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS).		



REVISIONS

NO.	DESCRIPTION	DATE

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KROGER #606 - MADISON, AL - DDAS
MADISON, AL, 35758

DATE: 5/28/2021
DWG.#: 4912491
DRAWN BY: JAC
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 1

EXECUTED BY: TDS
REVIEWED BY: JOL

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CONSULTANTS

OWNER: Kroger

DATE: 06/24/2021
ISSUE: 100% BID/PERMIT

PROJECT TITLE: KROGER STORE U606
8655 LIS HIGHWAY 72 WEST
MADISON, AL 35758

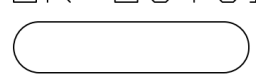
COMMISSION NO: 521334
ISSUE DATE: 06/24/21
SHEET TITLE: DETAILS

SHEET NO. M5.9

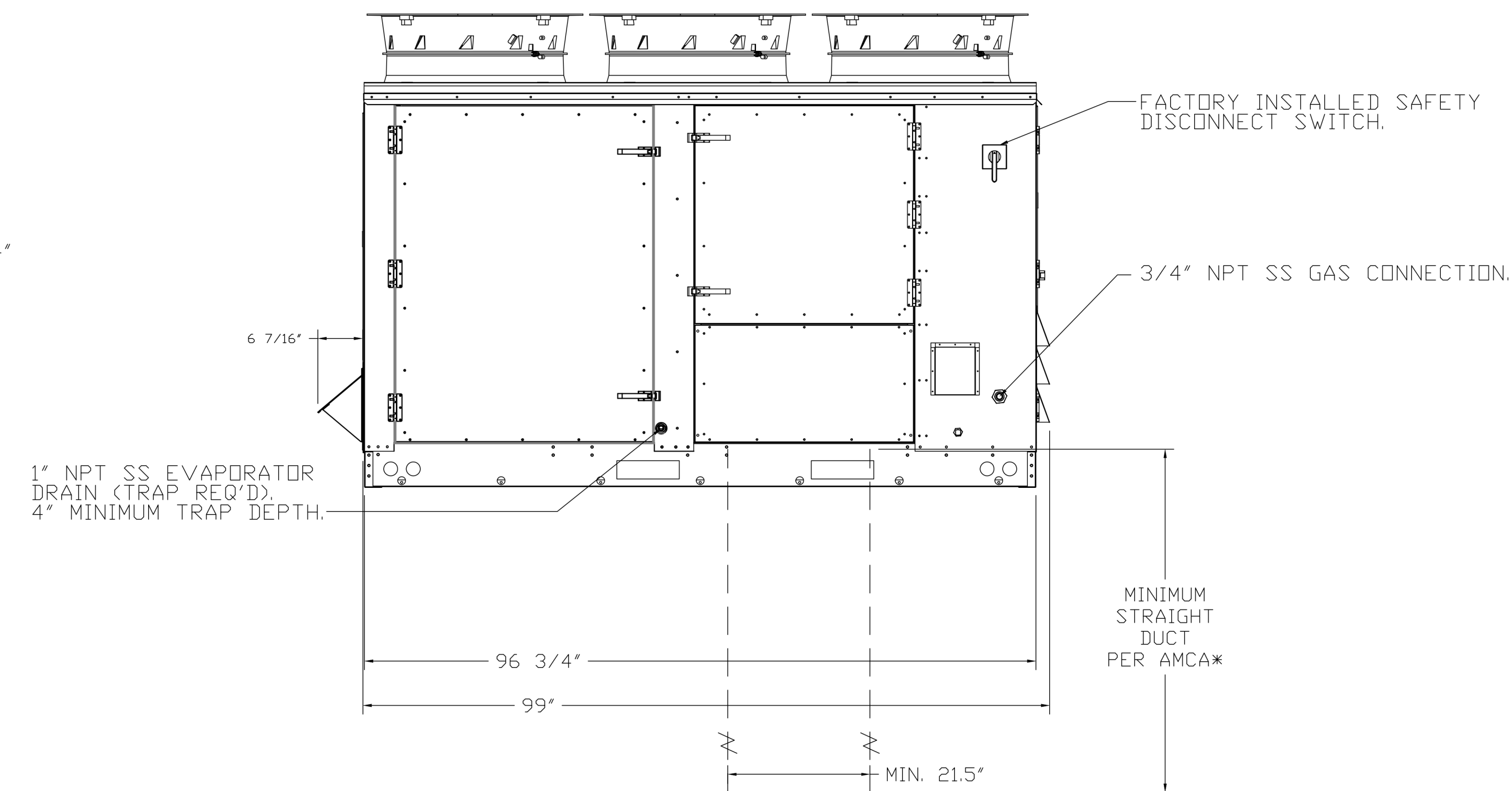
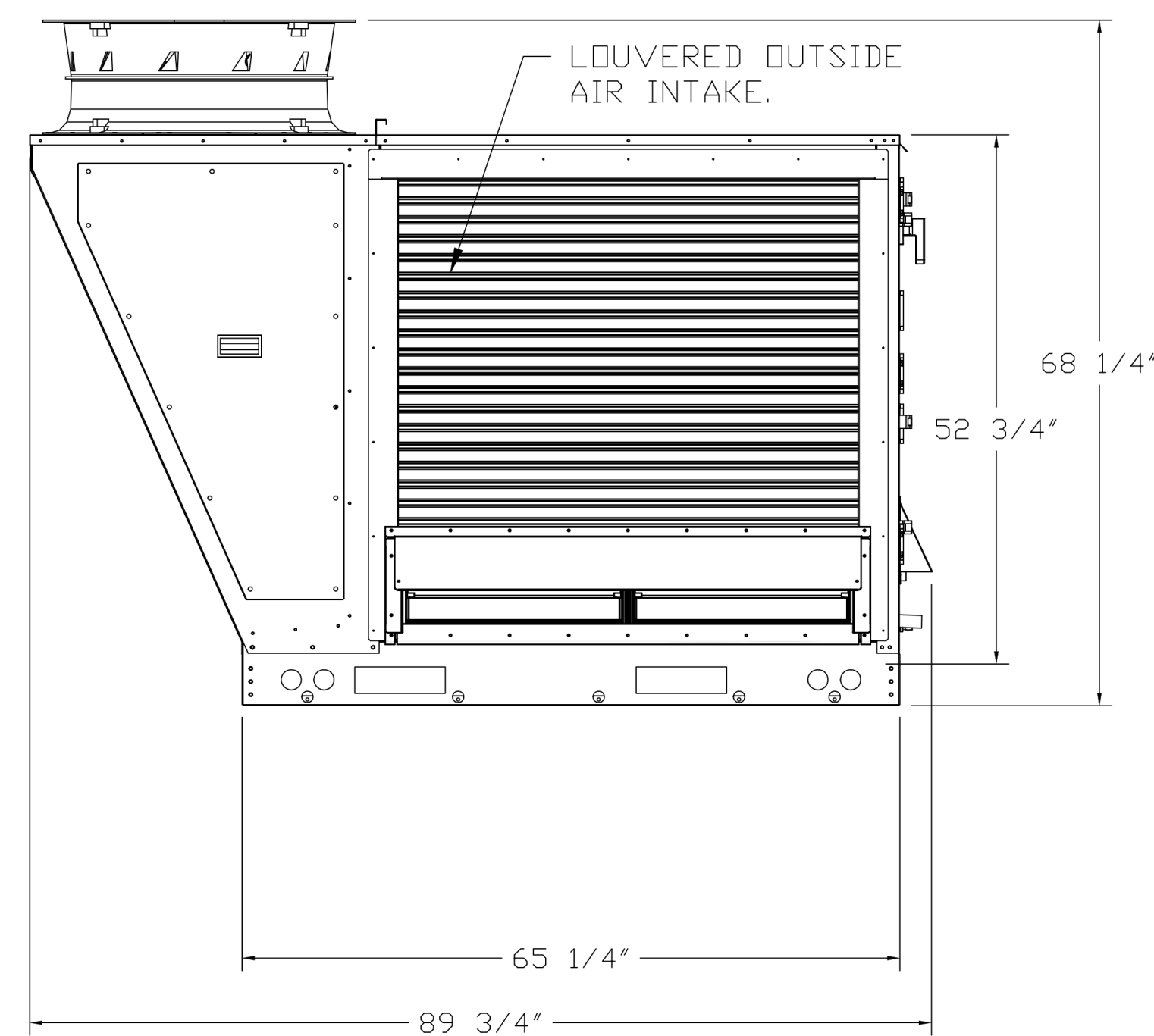
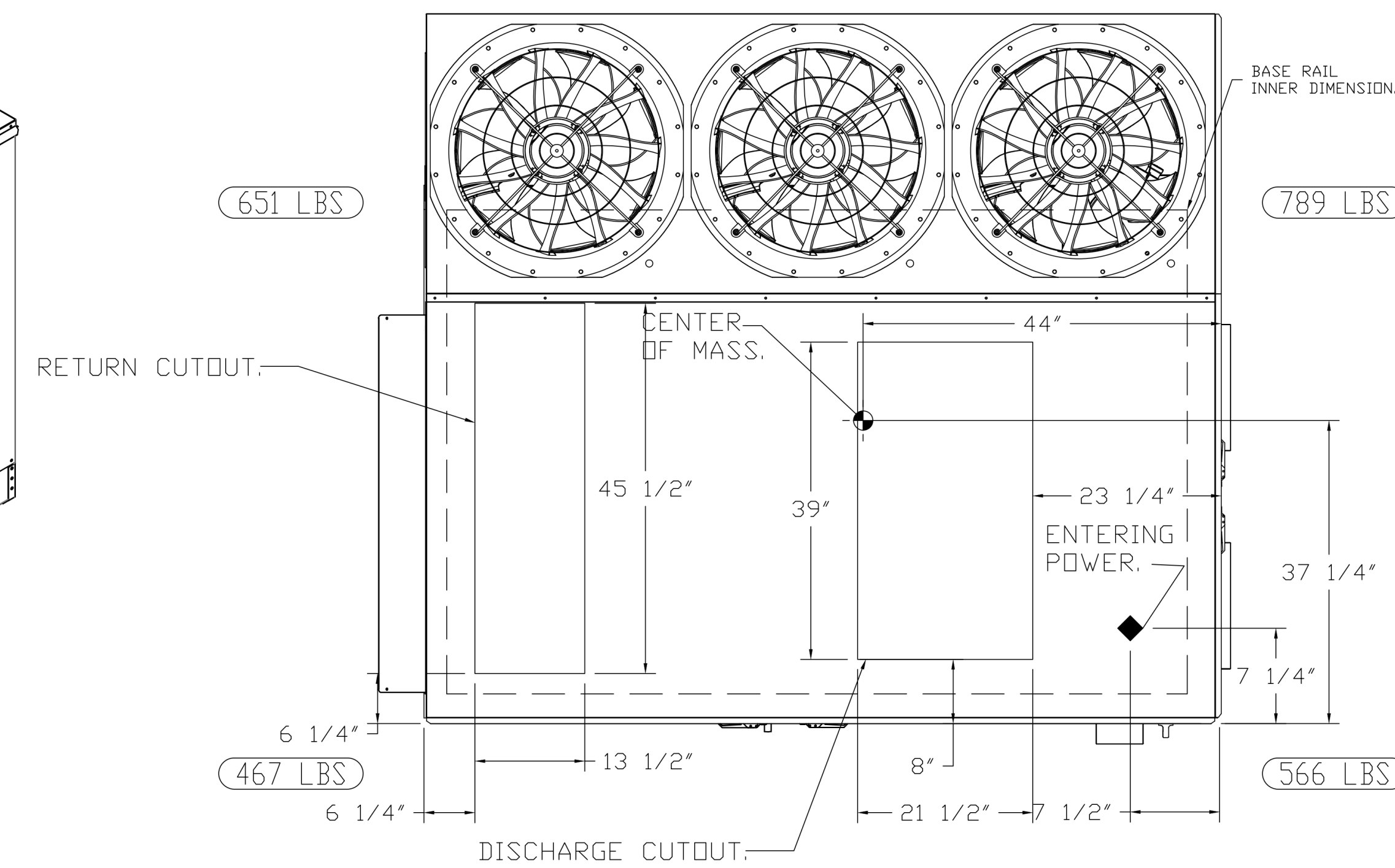
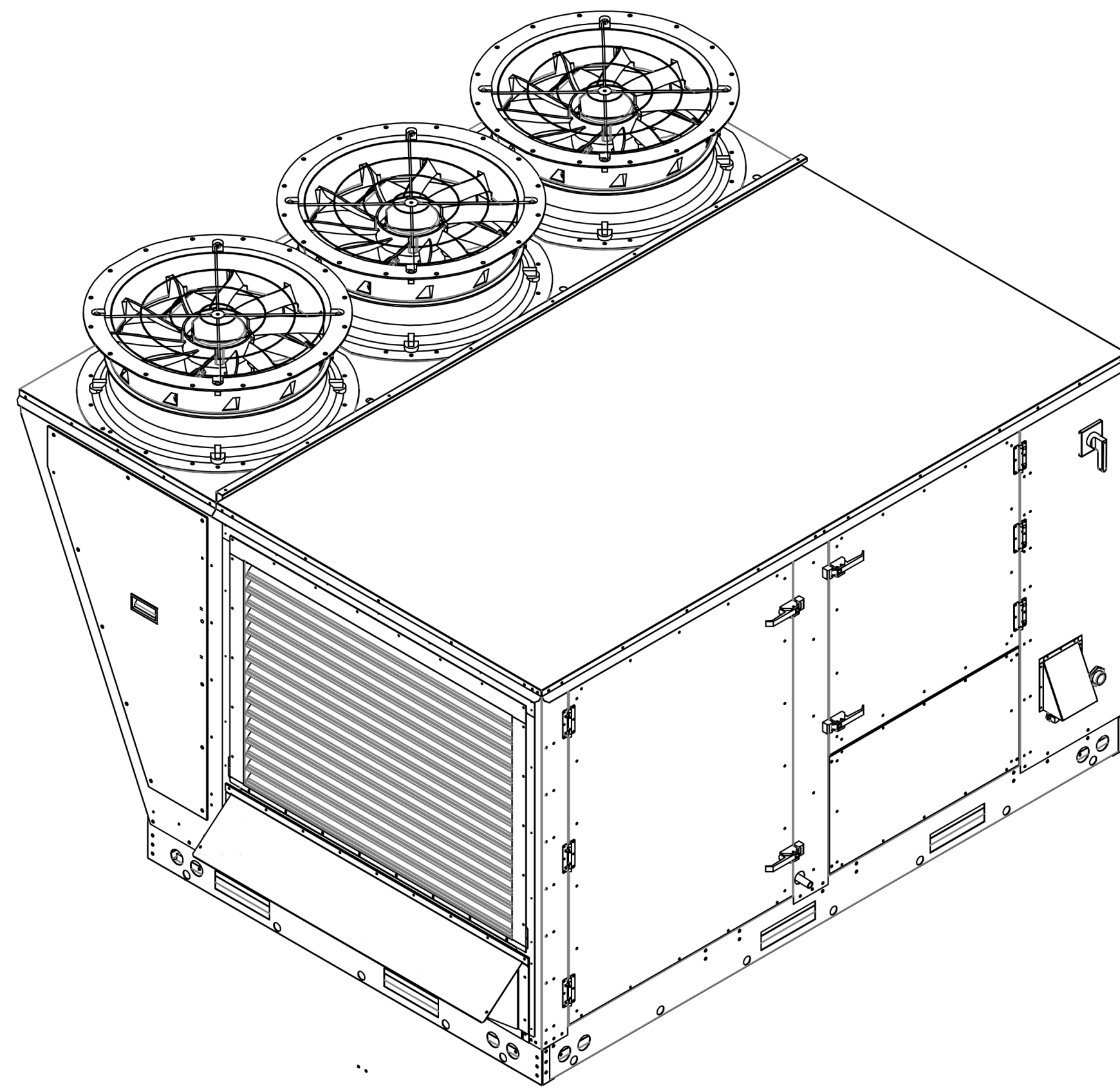
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FAN #1 CASRTU3-1.250-22Z-20T-DOAS - HEATER (DOAS-1)

NOTES:

- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
-  DENOTES CORNER WEIGHT.

*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 21.5" x 39".



OPTIONS

- INLET PRESSURE GAUGE, 0-35".
- MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE.
- TOTAL CFM MONITORING FOR DOAS.
- SINGLE POINT ELECTRICAL CONNECTION FOR RTU. QNTY 1 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" OPTION PREWIRE MUST BE SELECTED. DO NOT PROVIDE SUPPLY STARTER IN PREWIRE.
- CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED.
- RTU SIZE 3 DOWN DISCHARGE.
- 2" MERV 8 FILTERS FOR SIZE 3 RTU. QTY 4.
- OVERHEAT STAT.
- COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK (SUPPLIED BY OTHERS).
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- RTU SIZE 3 ECONOMIZER BAROMETRIC RELIEF.
- DAMPER CONTROLLED CO2 OVERRIDE OPTION.
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- ECM FAN DOAS - 3 PHASE.
- 20 TON MODULATING REHEAT OPTION. DISCHARGE DEWPOINT CONTROL.
- 5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS).

REVISIONS	DESCRIPTION	DATE
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△		
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National Accounts

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KROGER #606 - MADISON, AL - DOAS
MADISON, AL, 35758

DATE: 5/28/2021

DWG.#: 4912491

DRAWN BY: JAC

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

MASTER DRAWING

SHEET NO. 2

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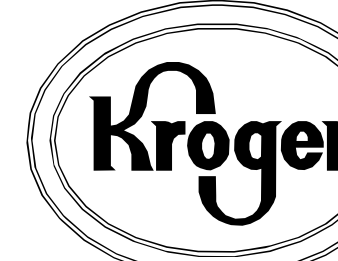
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CONSULTANTS

OWNER



DATE: 06/24/2021
ISSUE: 100% BID PERMIT

DATE: REVISION

PROJECT TITLE
KROGER STORE
U606

8655 LIS HIGHWAY 72 WEST
MADISON, AL 35758

COMMISSION NO. 521334
ISSUE DATE 06/24/21

SHEET TITLE
DETAILS

SHEET NO.
M5.10

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MARK	MANUFACTURER	MODEL	SERVES	EXHAUST CFM	STATIC PRESSURE	CONTROL METHOD	MOTOR HP	VOLTAGE	PHASE	FLA	MOCP
EF-CC	CAPTIVEAIRE	DR12HFA	CLEANING CENTER	600 CFM	0.125	CONTINUOUS	0.18	120 V	1	1.9 A	20 A
EF-E1	CAPTIVEAIRE	DR30HFA	ELECTRICAL	800 CFM	0.25	THERMOSTAT	0.25	120 V	1	3.8 A	20 A
EF-E2	CAPTIVEAIRE	DR12HFA	ELEC CLOSET	600 CFM	0.125	THERMOSTAT	0.18	120 V	1	1.9 A	20 A
EF-G1	CAPTIVEAIRE	DU50HFA	BAKERY OVEN	900 CFM	1.10	INTERLOCK	0.57	120 V	1	8.4 A	20 A
EF-G2	CAPTIVEAIRE	DU50HFA	BAKERY OVEN	900 CFM	1.10	INTERLOCK	0.57	120 V	1	8.4 A	20 A
EF-K1	CAPTIVEAIRE	DU180HFA	HOOD	2400 CFM	1.50	INTERLOCK	1.57	208 V	3	6.1 A	20 A
EF-K2	CAPTIVEAIRE	DU33HFA	HOOD	750 CFM	0.30	INTERLOCK	0.36	120 V	1	5.6 A	20 A
EF-R1	CAPTIVEAIRE	DR10HFA	ASSOCIATE RESTROOMS	300 CFM	0.125	CONTINUOUS	0.06	120 V	1	1.1 A	20 A
EF-R2	CAPTIVEAIRE	DR12HFA	CUSTOMER RESTROOMS	500 CFM	0.25	CONTINUOUS	0.16	120 V	1	1.9 A	20 A
EF-R3	CAPTIVEAIRE	DR10HFA	RX AND TLC RESTROOMS	300 CFM	0.125	CONTINUOUS	0.06	120 V	1	1.1 A	20 A
EF-S	CAPTIVEAIRE	DR30HFA	SEAFOOD	800 CFM	0.25	CONTINUOUS	0.28	120 V	1	3.8 A	20 A

SYSTEM	ROOM	SPACE CLASSIFICATION	AREA	OA PER AREA	NO. OF PEOPLE	OA PER PERSON	REQUIRED OA	SYSTEM PERCENTAGE	SUPPLIED OA (FROM DOAS)
DOAS-1	CUSTOMER SERVICE	Supermarket Sales Area	210 SF	0.06 CFM/SF	2	7.5 CFM	28 CFM	100%	28 CFM
DOAS-1	TLC WAITING	Lobby	333 SF	0.06 CFM/SF	4	5.0 CFM	40 CFM	100%	40 CFM
DOAS-1	RX WAITING	Lobby	733 SF	0.06 CFM/SF	8	5.0 CFM	84 CFM	100%	84 CFM
DOAS-1	SALES	Supermarket Sales Area	2557 SF	0.06 CFM/SF	128	7.5 CFM	2493 CFM	100%	2493 CFM
DOAS-2	MURRAY'S CHEESE	Supermarket Sales Area	120 SF	0.06 CFM/SF	1	7.5 CFM	15 CFM	100%	15 CFM
DOAS-2	FLORAL PREP	Supermarket Sales Area	154 SF	0.06 CFM/SF	1	7.5 CFM	17 CFM	100%	18 CFM
DOAS-2	FLORAL STORAGE	Storage	96 SF	0.12 CFM/SF	0	5.0 CFM	12 CFM	100%	12 CFM
DOAS-2	RESTROOM ALCOVE	Corridor/Transition	195 SF	0.06 CFM/SF	2	0.0 CFM	12 CFM	100%	12 CFM
DOAS-2	SALES	Supermarket Sales Area	26494 SF	0.06 CFM/SF	133	7.5 CFM	2587 CFM	100%	2588 CFM
			27059 SF				2642 CFM		2645 CFM

NAME	MANUFACTURER	MODEL	AES CURB	NOMINAL TONS	SUPPLY CFM	EXTERNAL STATIC PRESSURE	MOTOR HP	COOLING MBH	SENSIBLE COOLING	COOLING EAT	COOLIN LAT	HEATING EAT	HEATING LAT	HEATING MBH IN	HEATING MBH OUT	MIN. GAS PRESSURE (IN E.C.)	MCA	MOCP	VOLTAGE	PHASE	NO OF POLES	ACCESSORIES
DOAS-1	CAPTIVEAIRE	CASRTUJ31300-22-20T DOAS	TBD	20	2645 CFM	5	5	264	92.5	90.9	55.5	0	0	222	178	14	41 A	45 A	480 V	3	3	16
DOAS-2	CAPTIVEAIRE	CASRTUJ31300-22-20T DOAS	TBD	20	2645 CFM	5	5	264	92.5	90.9	55.5	0	0	222	178	14	41 A	45 A	480 V	3	3	16
RTU-1	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-2	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-3	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-4	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-5	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-6	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-7	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-8	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-9	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-10	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-11	LENNOX	LGM150J4E	K060-50025	10	4000 CFM	.15	3.75	122	114	73	60	69	106	180	144	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-12	LENNOX	LGM036J4E	K060-50024	3	1200 CFM	.15	0.5	34.6	34	73	62	52	100	65	52	7	11 A	15 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-13	LENNOX	LGM036J4E	K060-50024	3	1200 CFM	.15	0.5	34.6	34	73	62	52	100	65	52	7	11 A	15 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-14	LENNOX	LGM150J4E	K060-50025	12.5	5000 CFM	.15	3.75	144	138	73	59	73	101	240	192	7	27 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-15	LENNOX	LGM074J4E	K060-50024	6	2400 CFM	.15	1	71	66	73	62	52	100	108	87	7	15 A	20 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-16	LENNOX	LGM074J4E	K060-50024	6	2400 CFM	.15	1	71	66	73	62	52	100	108	87	7	15 A	20 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-17	LENNOX	LGM074J4E	K060-50024	6	2050 CFM	.15	1	71	69	73	62	52	100	108	87	7	15 A	20 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-18	LENNOX	LGM090J4E	K060-50024	5	2000 CFM	.15	1	58.5	57	73	62	52	100	108	86	7	15 A	20 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-19	LENNOX	LGM090J4E	K060-50024	5	2000 CFM	.15	1	58.5	57	73	62	52	100	108	86	7	15 A	20 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-20	LENNOX	LGM120J4E	K060-50025	10	4000 CFM	.15	3.75	122	114	73	60	69	106	180	144	7	24 A	30 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-21	LENNOX	LGM062J4E	K060-50025	7.5	3000 CFM	.15	3.75	91	86	73	63	71	105	130	104	7	19 A	20 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14
RTU-22	LENNOX	LGM062J4E	K060-50025	7.5	3000 CFM	.15	3.75	91	86	73	63	71	105	130	104	7	19 A	20 A	480 V	3	3	13.5,5.6,7.8,9,10,12,14

MARK	MANUFACTURER	MODEL	NOMINAL TONS	SUPPLY CFM	VOLTAGE	PHASE	MCA	MOCP	COOLING MBH	WEIGHT	ACCESSORIES
ACU-1	TRANE	PKA-A36KA7		1000 CFM	120 V	1	2 A	15 A	36	40	
ACU-1	TRANE	PUY-A36KA7	3		208 V	1	25 A	35 A	0	126	1.6

MARK	MANUFACTURER	DESCRIPTION	MODEL	OPTIONS/ACCESSORIES
ADB-1	AES INDUSTRIES	DROP BOX 4-WAY	ADB-1-104	3,4
ADB-2	AES INDUSTRIES	DROP BOX 2-WAY	ADB-1-5-2	3,4
ADB-3	AES INDUSTRIES	DROP BOX 6-WAY	ADB-6-20	3,4
ADB-4	AES INDUSTRIES	DROP BOX 4-WAY	ADB-1-7-4	3,4
CD-1	TITUS	24" x 24" CEILING DIFFUSER	TDC	1,5
CD-2	TITUS	12" x 12" CEILING DIFFUSER	TDC	1,5
CD-3	TITUS	12" ROUND CEILING DIFFUSER	TDC	3,5
CD-4	TITUS	12" x 12" SUSPENDED CEILING DIFFUSER	TDC	3,5
EG-1	TITUS	12" x 12" EXHAUST GRILLE	350FL	1,2,5
RG-1	TITUS	24" x 24" SURFACE MOUNTED RETURN GRILLE	23RL	2,5
RG-2	TITUS	30" x 30" SURFACE MOUNTED RETURN GRILLE	23RL	2,5
RG-3	TITUS	24" x 24" RETURN GRILLE	23RL	1,5
RG-4	TITUS	12" x 24" RETURN GRILLE	23RL	1,5
SR-1	TITUS	18"x12" CURVED SIDEWALL DIFFUSER	S300FS	2,5

- AIR DEVICE OPTIONS/ACCESSORIES
- LAY-IN MOUNTING
 - SURFACE MOUNTING
 - SUSPENDED MOUNTING
 - NO SUBSTITUTIONS ALLOWED
 - PROVIDE WITH BALANCE DAMPER
 - FINISH TO MATCH ARCH AND DECOR IN AREA

SERVICE	LOCATION	SERVES	MATERIAL	PRESSURE CLASS	1	2	3	4	5	6	COMMENTS
SUPPLY	INSIDE	ROOF TOP UNITS	GALVANIZED	2" WC				X		X	
RETURN	INSIDE	ROOF TOP UNITS	GALVANIZED	2" WC			X			X	
EXHAUST	INSIDE	EXHAUST	GALVANIZED	2" WC					X		
HOOD	INSIDE	EXH HOOD SYSTEMS	16 GA BLACK IRON	WELDED			X				
OVEN	INSIDE	BAKERY OVENS	B-VENT	N/A							
TRANSFER	INSIDE	INTERIOR SPACES	GALVANIZED	2" WC			X			X	
FLUE	INSIDE	UNIT HEATERS	PVC	N/A							
COMBUSTION AIR	INSIDE	UNIT HEATERS	GALVANIZED	2" WC					X		
VENT	INSIDE	UTENSIL WASHER	STAINLESS STEEL	N/A							
VENT	INSIDE	WATER HEATER (GAS)	B-VENT	N/A							

- DUCTWORK INSULATION
- 1" INTERNAL LINER
 - 1.5" EXTERNALLY WRAPPED
 - FIRE WRAP
 - 1" INTERNAL LINER FIRST 10 FEET FROM CONNECTION TO UNIT UNLESS OTHERWISE NOTED
 - 1.5" EXTERNALLY WRAPPED FIRST 5 FEET FROM ROOF/EXTERIOR PENETRATION
 - ALL EXPOSED DUCTWORK TO BE PAINTGRIP - READY FOR PAINT BY OTHERS - WITH 1" INSULATION

MARK	MANUFACTURER	MODEL NO.	KW	VOLTAGE	PHASE	MCA	MOCP	ACCESSORIES
EH-1	QMARK	MUH05-81	5	208 V	1	24 A	30 A	1
EH-2	QMARK	MUH05-81	5	208 V	1	24 A	30 A	1

- WALL HEATER ACCESSORIES
- UHMT1 - SINGLE POLE INTERNAL THERMOSTAT

SYSTEM	ROOM	SPACE CLASSIFICATION	AREA	OA PER AREA	NO. OF PEOPLE	OA PER PERSON	SUPPLY AIRFLOW	RETURN AIRFLOW	EXHAUST AIRFLOW	REQUIRED OA	SYSTEM PERCENTAGE	SUPPLIED OA (FROM DOAS)
RTU-11	COUNSEL	Office - Enclosed	118.91 SF	0.06 CFM/SF	1	5.0 CFM	200 CFM	200 CFM	0 CFM	12 CFM	9%	18 CFM
RTU-11	PHARMACY	Pharmacy - Hospital/Healthcare	1337.26 SF	0.18 CFM/SF	13	5.0 CFM	3400 CFM	3400 CFM	0 CFM	306 CFM	9%	306 CFM
RTU-11	RX STORAGE	Storage	114.11 SF	0.12 CFM/SF	0	5.0 CFM	200 CFM	200 CFM	0 CFM	14 CFM	9%	18 CFM
							3800 CFM	3800 CFM	0 CFM	33		