

































Arby's Restaurant Group Responsibilities Schedule						
Key notes:						
O/F: OWNER FURNISH (also includes work by owner's vendors)						
O/I: OWNER INSTALL (also includes work by owner's vendors)						
C/F: CONTRACTOR FURNISHED (includes contractor or subcontractors under his direction)						
C/I: CONTRACTOR INSTALLED (includes contractor or subcontractors under his direction)						
S: REQUIRES SUBMITTAL or SHOP DWG'S						
CATEGORY / TASK	O/F	O/I	C/F	C/I	S	COMMENTS/REMARKS
15000 MECHANICAL						
Roof top air conditioning units	x			x		Mechanical Sub- receive & install (Typical)
Roof top air conditioning curbs	x			x		Mechanical Sub- receive & install (Typical)
Roof top make up air units	x			x		Mechanical Sub- receive & install (Typical)
Roof top make up air curbs	x			x		Mechanical Sub- receive & install (Typical)
Roof top exhaust fans	x			x		Mechanical Sub- receive & install (Typical)
Roof top exhaust fan curbs	x			x		Mechanical Sub- receive & install (Typical)
Roof top condensers for cooler	x	x				Mechanical Sub- receive & install (Typical)
Roof top condensers for beverage dispensers	x			x		
Kitchen exhaust hoods	x			x		Mechanical Sub- receive & install (Typical)
Kitchen exhaust duct & insulation & fire wrap				x	x	
Restroom exhaust fan	x			x		
Air distribution ductwork				x	x	
Filter replacement prior to turnover				x	x	
Thermostats and Remote Sensors	x				x	
Control wiring				x	x	
Conduit for control wiring				x	x	
HVAC system start up				x	x	
Certified air balance/report	x	x				Coordinate with Owner

MECHANICAL LEGEND	
 SUPPLY DUCT UP	 PIPING DOWN
 SUPPLY DUCT DOWN	 PIPING UP
 RETURN DUCT UP	 TURNING VANES
 RETURN DUCT DOWN	 VOLUME DAMPER
 FIRE DAMPER	 CONDENSATE DRAIN
 SMOKE DAMPER	 MOTORIZED DAMPER
 COMB. FIRE/SMOKE DAMPER	 BACKDRAFT DAMPER
 BACKDRAFT DAMPER	 REMOTE ANNUNCIATOR
 SMOKE DETECTOR	 REMOTE TEMP. SENSOR
 SPIN-IN WITH VOLUME DAMPER	 THERMOSTAT
 45° RETURN DUCT TAP WITH VOL. DAMPER	 FLEX DUCT
 DIFFUSER	 LINEAR DIFFUSER WITH FLEX CONNECTION
 DIFFUSER WITH FLEX CONNECTION	 ROUND DUCT UP
 GRILLE/REGISTER	 ROUND DUCT DOWN
 SIDEWALL GRILLE/ REGISTER/ DIFFUSER	 REDUCER
 CONNECT TO EXISTING	 EXTENT OF DEMOLITION

SEQUENCE OF OPERATION

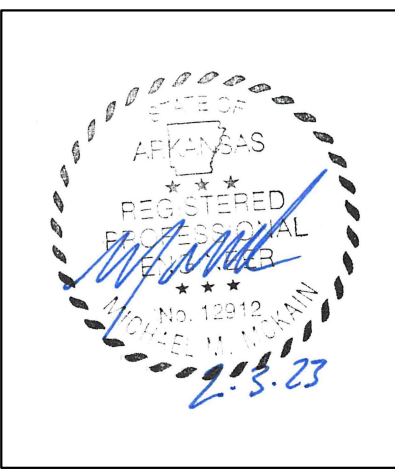
- A. PROVIDE STAND ALONE OR APPLICATION SPECIFIC CONTROLLERS AS REQUIRED TO PERFORM THE FOLLOWING SEQUENCES OF OPERATIONS.
- B. PACKAGED ROOFTOP UNITS
1. UNIT SHALL CONSIST OF SUPPLY AIR FAN, FILTERS, DX COOLING COIL, GAS-FIRED HEAT SECTION, AND A 7-DAY PROGRAMMABLE THERMOSTAT.
2. PROVIDE AN OVERRIDE SWITCH TO OPERATE THE UNIT DURING UNOCCUPIED HOURS. THIS SWITCH SHALL BE PART OF THE PROGRAMMABLE THERMOSTAT. OVERRIDE SWITCH ALLOWS THE UNIT TO OPERATE FOR TWO HOURS (ADJUSTABLE).
3. OCCUPIED MODE: BASED ON THE ROOFTOP UNITS HOURS OF OCCUPANCY, START THE UNIT AT THE BEGINNING OF OCCUPANCY AND SHUT DOWN THE UNIT AT THE END OF OCCUPANCY (NOTE: OUTSIDE AIR DAMPER WITHIN THE RTU SHALL OPEN AND THEN THE RTU SHALL START). THE UNIT SHALL START EARLIER AS DETERMINED BY THE PROGRAM FOR EARLY WARM-UP OR COOL DOWN. ON A SYSTEM STARTUP, THE RTU FAN SHALL START AND RUN CONTINUOUSLY AND THE INTERNAL FACTORY CONTROLS SHALL BE ENABLED. BASED ON THE SPACE TEMPERATURE SENSOR, THE UNIT SHALL CYCLE THE HEATING/COOLING TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.
- 3.1. ECONOMIZER MODE: WHEN ENTHALPY OF OA IS BELOW 28 BTU/LB, ECONOMIZER MODE SHALL BE ENABLED. ECONOMIZER MODE SHALL LINEARLY MODULATE OUTDOOR AIR CFM FROM MINIMUM OA CFM TO 100% BASED ON ENTHALPY READINGS.
4. UNOCCUPIED MODE: THE RTU INTERNAL OA DAMPERS SHALL REMAINED CLOSED WHEN THE BUILDING IS NOT OCCUPIED, THE RTU SHALL STOP HEATING/COOLING AND THE FAN SHALL STOP. IF THE SPACE TEMPERATURE FALLS BELOW 60 DEGREE F (ADJUSTABLE), THE UNIT SHALL START AND HEAT UNTIL THE SPACE TEMPERATURE IS 64 DEGREE F (ADJUSTABLE) AND THEN SHUTDOWN. IF THE SPACE TEMPERATURE RISES ABOVE 85 DEGREE F (ADJUSTABLE), THE UNIT SHALL START AND COOL UNTIL THE SPACE TEMPERATURE IS 80 DEGREE F (ADJUSTABLE) AND THEN SHUTDOWN.
5. UPON DETECTION OF SMOKE BY UNIT SMOKE DETECTOR THE RTU SHALL SHUT DOWN AND AN ALARM SHALL BE SENT TO THE RESPECTIVE LOCAL REMOTE ANNUNCIATORS.
- C. KITCHEN HOOD EXHAUST FAN (EF-1)
1. THE KITCHEN HOOD EXHAUST FAN SHALL BE ENABLED WHEN ANY COOKING APPLIANCE LOCATED UNDER THE HOOD IS IN USE.
- D. EF-2
1. EXHAUST FAN SHALL RUN WHEN THE BUILDING IS OCCUPIED. EC TO WIRE THROUGH KITCHEN LIGHT SWITCH.
- E. ANSUL SYSTEM ACTIVATION
1. UPON ACTIVATION OF ANSUL SYSTEM, SHUT DOWN RTU-1 AND RTU-2. PROVIDE RELAYS CONTACTS, INTERLOCKS, TRANSFORMERS AND ALL ASSOCIATED WIRING TO ACCOMPLISH SEQUENCE. MECHANICAL CONTRACTOR SHALL INTERLOCK RTU-1 AND RTU-2 TO ALSO SHUT DOWN.

GENERAL NOTES:

- A. ALL WORK TO BE PERFORMED TO MEET ALL STATE, CITY & LOCAL CODE REQUIREMENTS.
- B. ALL DUCTWORK TO BE CONSTRUCTED OF GALVANIZED METAL ACCORDING TO SMACMNA STANDARDS.
- C. ALL WALL PATCHING TO BE BY THE GENERAL CONTRACTOR.
- D. **HVAC CONTRACTOR IS TO COORDINATE WITH OTHER TRADES BEFORE INSTALLING DUCTWORK. IF THE HVAC CONTRACTOR FAILS TO COORDINATE WITH OTHER TRADES AND THE WORK MUST BE ALTERED THE HVAC CONTRACTOR WILL CHANGE IT AT HIS OWN EXPENSE.**
- E. ONCE THE SYSTEM IS COMPLETE AND ALL CEILING TILES ARE INSTALLED THE SYSTEM FILTER SHALL BE CHANGED AND THE AIR SIDE SHALL BE BALANCED. SUBMIT ELECTRONIC COPY OF BALANCE REPORT TO ENGINEER FOR REVIEW.
- F. COORDINATE THE EXACT LOCATION OF ALL GRILLES, REGISTERS & DIFFUSER WITH ARCHITECTURAL REFLECTED CEILING PLAN, ALSO COORDINATE MOUNTING HEIGHTS OF FIXTURES.
- G. HVAC CONTRACTOR IS TO VISIT THE SITE PRIOR TO SUBMITTING A BID & INCLUDE IN THE BID ANY ITEMS NECESSARY FOR A COMPLETE & OPERATIONAL SYSTEM.
- H. PROVIDE TURNING VANES AT ALL 90° CHANGE IN DIRECTION.
- I. DRAWINGS ARE SCHEMATIC IN NATURE & HVAC CONTRACTOR IS TO INCLUDE ANY ITEMS REQUIRED FOR A COMPLETE & OPERATIONAL SYSTEM WHETHER SHOWN OR NOT SHOWN ON THE DRAWINGS.
- J. HVAC CONTRACTOR TO FURNISH ALL PERMITS REQUIRED FOR HIS PORTION OF THE WORK.
- K. HVAC CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR CONCERNING ELECTRICAL REQUIREMENTS BEFORE ORDERING ANY EQUIPMENT.
- L. FLEXIBLE DUCTS SHALL BE WIREMOLD TYPE WGC, 1-1/2" INSULATION & RATED AT 10" W.C WITH A MAXIMUM LENGTH OF 5'-0".

ABBREVIATIONS

[D]	DEMOLITION	FPI	FINS PER INCH
[E]	EXISTING	GTC	GENERAL TRADES CONTRACTOR
[F]	FUTURE	ID	INNER DIAMETER
[R]	(RELOCATE)	LAT	LEAVING AIR TEMPERATURE
AAV	AUTOMATIC AIR VENT	LWT	LEAVING WATER TEMPERATURE
AFF	ABOVE FINISHED FLOOR	MFR	MANUFACTURER
AMB	AMBIENT	N/A	NOT APPLICABLE
APD	AIR PRESSURE DROP	NC	NORMALLY CLOSED
BAS	BUILDING AUTOMATIC SYSTEM	NO	NORMALLY OPEN
BDD	BACKDRAFT DAMPER	NTS	NOT TO SCALE
BFP	BACKFLOW PREVENTER	OA	OUTSIDE AIR
BLDG	BUILDING	OD	OUTSIDE DIAMETER
BOB	BOTTOM OF BEAM	PD	PRESSURE DROP
BOD	BOTTOM OF DUCT	PRV	PRESSURE REDUCING VALVE
BOP	BOTTOM OF PIPE	RA	RETURN AIR
BOS	BOTTOM OF STRUCTURE	REL	RELIEF AIR
CL	CENTER LINE	SA	SUPPLY AIR
CO	CLEAN OUT	SCC	SENSIBLE COOLING CAPACITY
DB	DRY BULB	SP	STATIC PRESSURE
DIA	DIAMETER	TCP	TEMPERATURE CONTROL PANEL
DN	DOWN	TSP	TOTAL STATIC PRESSURE
EA	EXHAUST AIR	TYP	TYPICAL
EAT	ENTERING AIR TEMPERATURE	UNO	UNLESS NOTED OTHERWISE
EFF	EFFICIENCY	VFD	VARIABLE FREQUENCY DRIVE
EG	ETHYLENE GLYCOL	WB	WET BULB
ESP	EXTERNAL STATIC PRESSURE	WG	WATER GAUGE
EWT	ENTERING WATER TEMPERATURE	WPD	WATER PRESSURE DROP
EXH	EXHAUST		



NEW RESTAURANT FOR:
ARBY'S – INSPIRE DUAL REG 40 - STD
PINE STREET AND SOUTH 29th STREET
ARKADELPHIA, AR 71923
FOR
RE AMERICAN GROUP
6200 OAK TREE BLVD, INDEPENDENCE, OH 44131

PROJECT NUMBER:

ISSUE	DATE
PERMIT	02-03-2023
REVISION	

GENERAL INFORMATION
MECHANICAL

SHEET:

M0.0

DRAWING INDEX

M0.0	GENERAL INFORMATION MECHANICAL
M1.1	FLOOR PLAN MECHANICAL
M3.1	ROOF PLAN MECHANICAL
M5.1	SCHEDULES MECHANICAL
M7.1	SPECIFICATIONS MECHANICAL
M7.2	SPECIFICATIONS MECHANICAL
H1.1	CAPTIVEAIRE DRAWINGS
H1.2	CAPTIVEAIRE DRAWINGS
H1.3	CAPTIVEAIRE DRAWINGS
H1.4	CAPTIVEAIRE DRAWINGS
H1.5	CAPTIVEAIRE DRAWINGS



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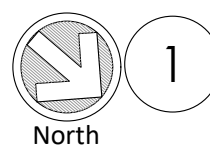
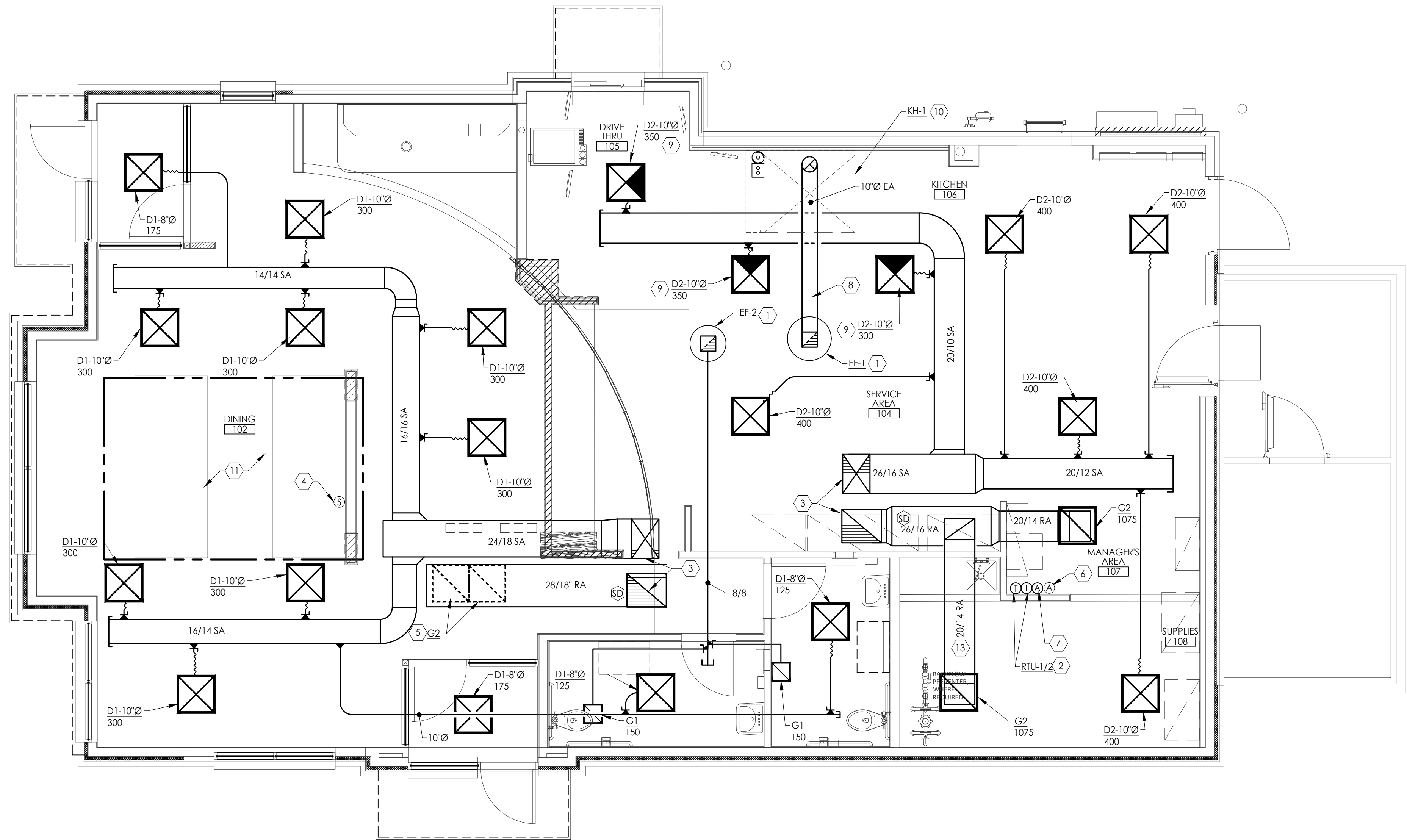
NEW RESTAURANT LOCATION.
ARBY'S - INSPIRE DUAL REG 40 - STD
PINE STREET AND SOUTH 29th STREET
ARKADELPHIA, AR 71923
 FOR
 RB AMERICAN GROUP

PROJECT NUMBER:

[illegible]FLOOR PLAN
MECHANICAL

EET:

M1.1



1 FLOOR PLAN MECHANICAL

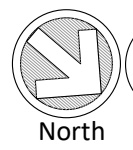
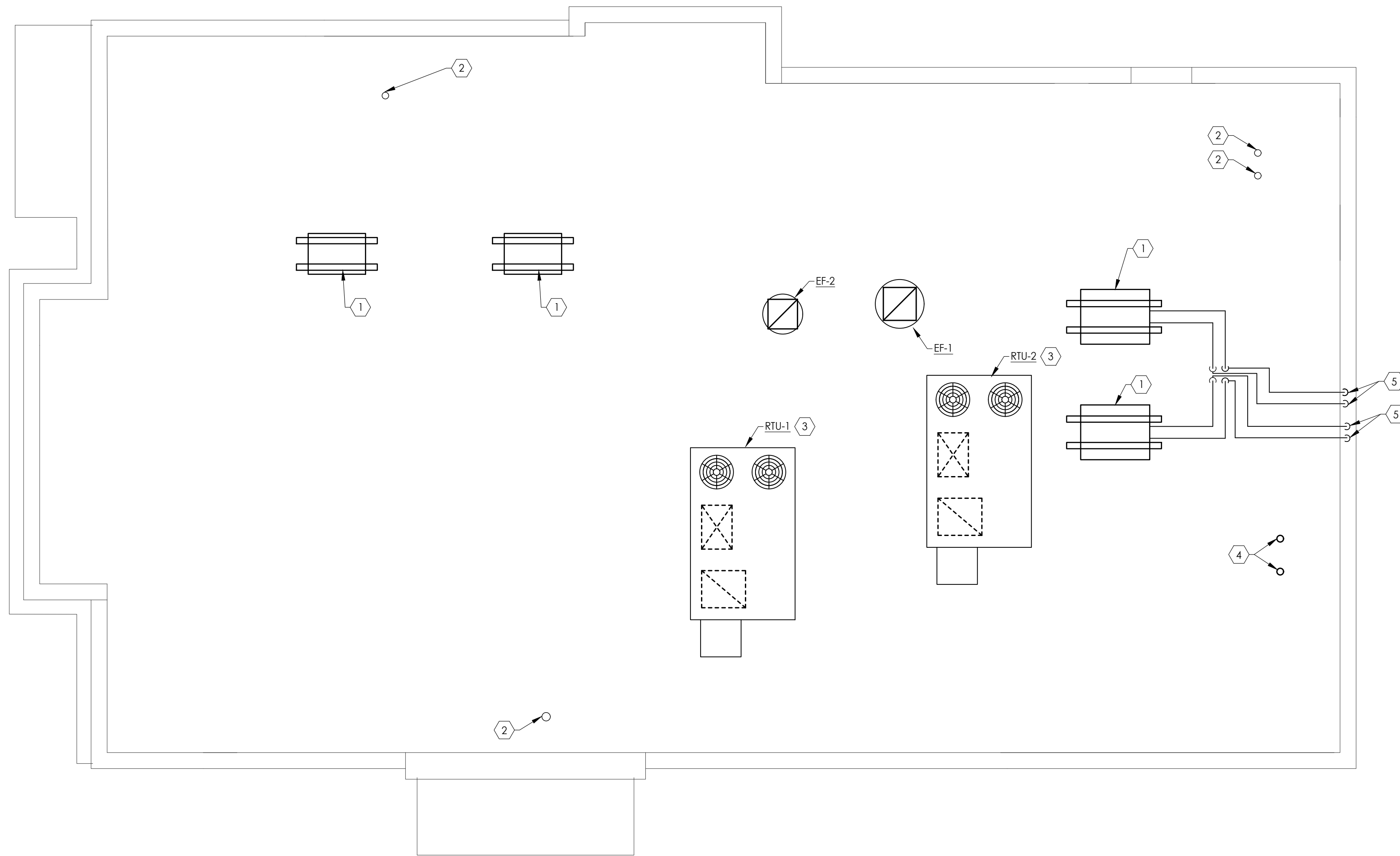
1/4" = 1'-0"

GENERAL NOTES:

- A. MOUNT ALL DUCTWORK TIGHT TO STRUCTURE EXCEPT WHERE NOTED.
- B. DO NOT PENETRATE KITCHEN EXHAUST HOODS OR DUCTWORK WITH ANY TYPE OF FASTENING ASSEMBLY (I.E. SCREWS, RIVETS).
- C. REFER TO SCHEDULES ON SHEET MS.1 FOR FURTHER INFORMATION ON MECHANICAL EQUIPMENT AND AIR DEVICES.
- D. ALL PROVIDED DUCT DIMENSIONS ARE METAL-TO-METAL LENGTHS. CONTRACTOR TO PROVIDE INSULATION WRAP ON DUCT EXTERIOR FOR ALL CONCEALED DUCT.
- E. **THE AIR BALANCE WILL BE PERFORMED BY THE OWNER. COORDINATE EXACT TIME WITH THE CONSTRUCTION MANAGER.**

CODED NOTES:

1. UP TO EF ON ROOF. SEE SHEET M3.1 FOR CONTINUATION.
2. INSTALL LED TOUCHSCREEN (WITH CONTROLS LOCKED BY CODE) 24/7 PROGRAMMABLE THERMOSTAT MOUNTED AT 48" AFF. COORDINATE EXACT LOCATION WITH OWNER.
3. UP TO EF ON ROOF. SEE SHEET M3.1 FOR CONTINUATION.
4. PROVIDE REMOTE TEMPERATURE SENSOR MOUNTED AT 72" A.F.F. FOR RTU-1. WIRE BACK TO THERMOSTAT IN OFFICE.
5. PROVIDE RETURN GRILLS CONNECTED THROUGH BOTTOM OF DUCT.
6. PROVIDE AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET FOR RTU-1 SMOKE DETECTOR MOUNTED AT 48" AFF.
7. PROVIDE AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET FOR RTU-2 SMOKE DETECTOR MOUNTED AT 48" AFF.
8. PROVIDE TYPE I KITCHEN EXHAUST DUCTWORK FROM KITCHEN EXHAUST HOOD TO EF-1 ON ROOF. DUCTWORK TO BE A MINIMUM 1/6 GAGE CARBON STEEL WITH CONTINUOUSLY WELDED LIQUID TIGHT JOINTS PROVIDE 1/2" FLARE RESERVOIR AS REQUIRED BY IMC 506.3.7 AND DUCT CLEANOUTS AS REQUIRED BY IMC 506.3.8. DUCTWORK SHALL BE INSTALLED WITH 2-HOUR FLEXIBLE BLANKET TYPE FIRE WRAP WITH A FLAME SPREAD INDEX AT NOT MORE THAN 5 AND A SMOKE DEVELOPED INDEX NOT EXCEEDING 5. WHEN TESTED PER ASTM E-84 METHOD, WRAP SHALL COMPLY WITH ALL 5 FIRE TESTS OF STANDARD ASTM E-2236, GREASE DUCT ENCLOSURE SYSTEM, AND DUCT FIRESTOP SYSTEM BE ASTM E-814 CLASSIFIED. FABRICATE DUCT WRAP ENCLOSURE WITH 2 LAYERS OF WRAP TO PROVIDE 2-HOUR FIRE RATING. ALL DUCT ELBOWS ARE TO BE RADIUS ELBOWS, COORDINATE ROUTING WITH P.C. AND STORM DRAINAGE.
9. PROVIDE CLEAR PLASTIC INSERT TO BLANK OFF DIFFUSER THROW AT THE EXHAUST HOOD AS SHOWN. INSTALL HOOD AT LOCATION SHOWN. PROVIDE ALL REQUIRED SUPPORTS AND ACCESSORIES FOR A COMPLETE INSTALLATION.
11. AVOID ROUTING DUCTWORK ABOVE MARKED DINING ROOM SOFFIT AREA.
12. NOT USED.
13. PROVIDE SUPPLY AND RETURN AIR DUCTWORK TO AIR DEVICE IN THE TRUSS SPACE.



1 ROOF PLAN MECHANICAL
1/4" = 1'-0"

GENERAL NOTES:

- A. MOUNT ALL HVAC EQUIPMENT ON ROOF PER DETAILS ON SHEET M5.1.
- B. CONTRACTOR TO MAINTAIN MINIMUM MANUFACTURER RECOMMENDED SERVICE CLEARANCE AROUND EACH PIECE OF EQUIPMENT.
- C. CONTRACTOR TO ENSURE A MINIMUM OF 10' CLEARANCE BETWEEN ALL OA INTAKES AND ANY EXHAUST FANS, VENTS, FLUES, ETC.
- D. CONTRACTOR TO ENSURE ALL MECHANICAL EQUIPMENT IS INSTALLED A MINIMUM OF 10' FROM THE ROOF EDGE.
- E. COORDINATE EXHAUST LOCATION OF RTUS WITH STRUCTURE TO ENSURE DUCT DROPS ARE LOCATED WITHIN TRUSS.

CODED NOTES: #

1. CONDENSING UNIT SHOWN FOR REFERENCE ONLY. EQUIPMENT AND ASSOCIATED REFRIGERANT PIPING TO BE INSTALLED BY KITCHEN EQUIPMENT SUPPLIER.
2. PLUMBING VENT/ FLUE PIPING SHOWN FOR REFERENCE. MAINTAIN A MINIMUM OF 10'-0" CLEARANCE TO ANY OA INTAKE.
3. RTU'S MOUNTED ON CURB ON ROOF. REFER TO DETAIL ON SHEET M5.1 FOR FURTHER INFORMATION.
4. WATER HEATER FLUE PENETRATIONS SHOWN FOR REFERENCE.
5. WALK-IN COOLER VENDOR TO PROVIDE REFRIGERANT LINES FROM ROOF MOUNTED CONDENSING UNITS TO EVAPORATORS IN WALK-IN COOLERS. WALK-IN COOLER VENDOR TO ROUTE THRU PREFABRICATED ROOF CURB TO ABOVE THE CEILING AND DOWN THRU FURRED OUT WALL INTO THE WIC BOX. COORDINATE EXACT LOCATIONS WITH G.C. PRIOR TO INSTALLATION. G.C. TO PROVIDE SLEEVE IN WALL FROM WALK-IN COOLER ROOF UP TO CEILING SPACE ABOVE KITCHEN. REFER TO ARCHITECTURAL WALL SECTIONS.



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REVISION

ROOF PLAN
MECHANICAL

SHEET:

M3.1

PACKAGED ROOFTOP UNIT SCHEDULE																							
BASED ON LENNOX U.N.O																							
UNIT DATA			PERFORMANCE DATA							COOLING DATA				HEATING DATA				ELECTRCIAL DATA					
TAG	MODEL	FUNCTION	NOMINAL TONS	EFFICIENCY (EER)	TOTAL CFM	MIN. OA CFM	ESP (IN. WC)	TSP (IN. WC)	SUPPLY FAN (HP)	TOTAL MBH	SENSIBLE MBH	E.A.T (°F) DB/WB	REFRIG.	INPUT (MBH)	OUTPUT (MBH)	ΔT (°F)	FUEL TYPE	VOLT	PH	MCA	MOCP	RTU WEIGHT	COMMENTS
RTU-1	LGH092H48	DINING AREA	7.5	12.5	3000	850	1.0"	1.44"	3.0	90	70	80° / 67°	R410-A	130	104	32.1°	GAS	208	3	45	60	1500	1-4
RTU-2	LGH092H48	KITCHEN AREA	7.5	12.5	3000	850	1.0"	1.44"	3.0	90	70	80° / 67°	R410-A	130	104	32.1°	GAS	208	3	45	60	1500	1-4

COMMENTS: 1. HAIL GUARD
2. 14" ROOF CURB
3. FACTORY PROVIDED DISCONNECT
4. FACTORY PROVIDED ENTHALPY ECONOMIZER WITH POWERED EXHAUST

TAG-NECK SIZE CFM				GRILLES, REGISTERS, AND DIFFUSERS SCHEDULE					D = DIFFUSER G=GRILLE R=REGISTER	
BASED ON TITUS U.N.O.										
UNIT DATA				PERFORMANCE DATA						
TAG	FUNCTION	MODEL	FACE SIZE	FRAME TYPE	MATERIAL	FINISH	BALANCE DAMPER	MAX N.C.	COMMENTS	
D1	SUPPLY	TMS	24" x 24"	LAY-IN	STEEL	WHITE	-	25	3-WAY THROW	
D2	SUPPLY	TMS	24" x 24"	LAY-IN	STEEL	WHITE	-	25		
G1	EXHAUST	50F	12" x 12"	LAY-IN	ALUMINUM	WHITE	-	25		
G2	RETURN	350RL	24" x 24"	LAY-IN	STEEL	WHITE	-	25		

NOTES: 1. ALL SUPPLY DIFFUSERS TO BE INSULATED VIA FACTORY SYSTEM.

KITCHEN HOOD SCHEDULE											
BASED ON CAPTIVEAIRE U.N.O											
UNIT DATA			PERFORMANCE DATA						LIGHTS		
TAG	MODEL	HOOD LENGTH	MAX. COOKING TEMP.	TOTAL EXHAUST CFM	RISER (W" x L")	S.P. (IN" W.G.)	QTY.	TYPE	FIRE SUPP. SYSTEM	MISC.	COMMENTS
KH-1	5424-ND-2	5'-0"	450°F	1000	-	-0.36	3	RECESSED ROUND	YES		

EXHAUST FAN SCHEDULE											
BASED ON CAPTIVEAIRE U.N.O											
UNIT DATA			PERFORMANCE DATA						MOTOR DATA		
TAG	MODEL	FUNCTION	FAN TYPE	CFM	ESP	RPM	DAMPER	BELT OR DIRECT	HP	VOLT	PH
EF-1	DU50HFA	KH-1 HOOD EXHAUST	ROOF MOUNTED UP BLAST	1000	0.75	1370	-	DIRECT	1/2	115	1
EF-2	DR12HFA	RESTROOM EXHAUST	ROOF MOUNTED DOWN BLAST	300	0.25	1003	YES	DIRECT	1/4	115	1

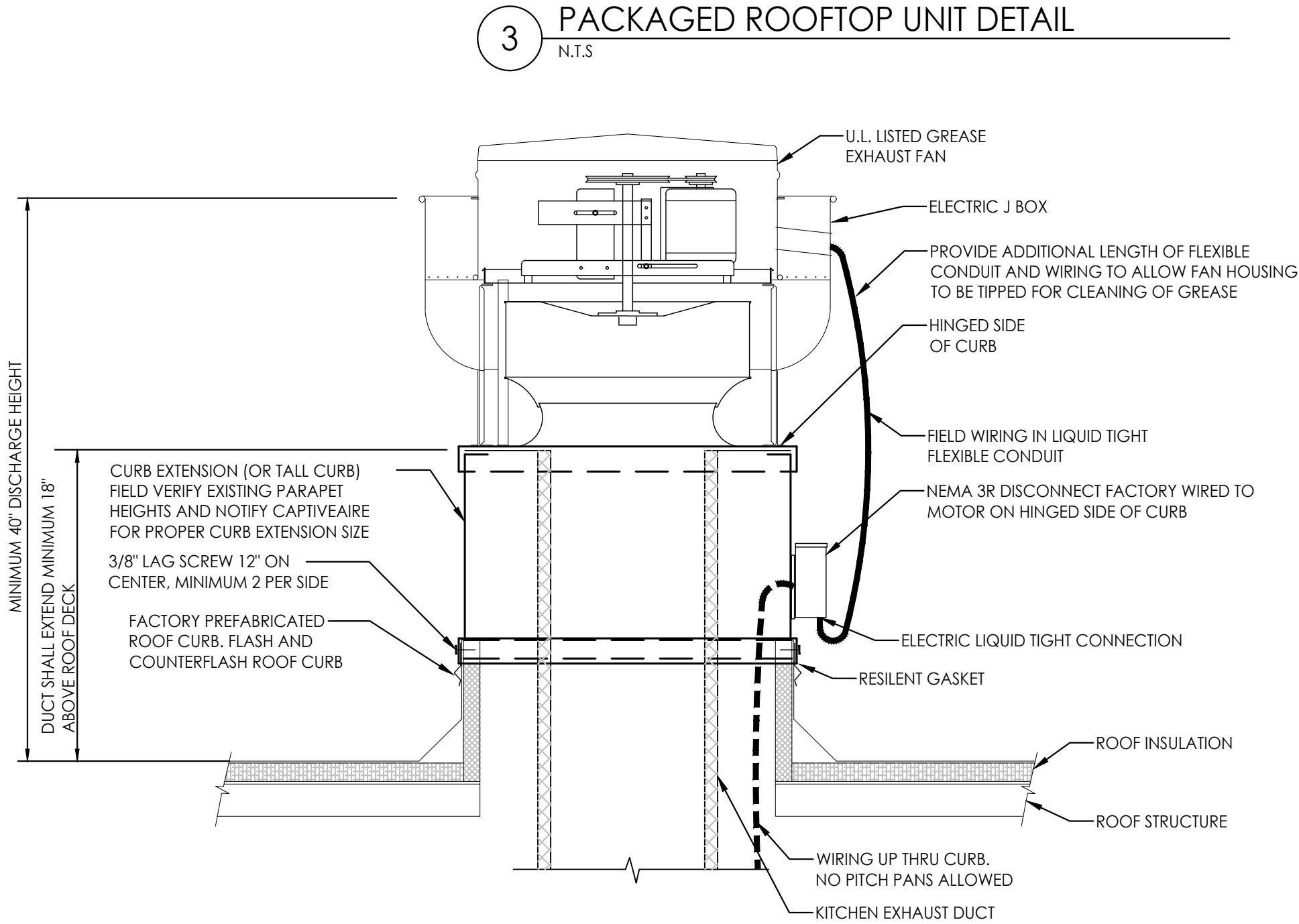
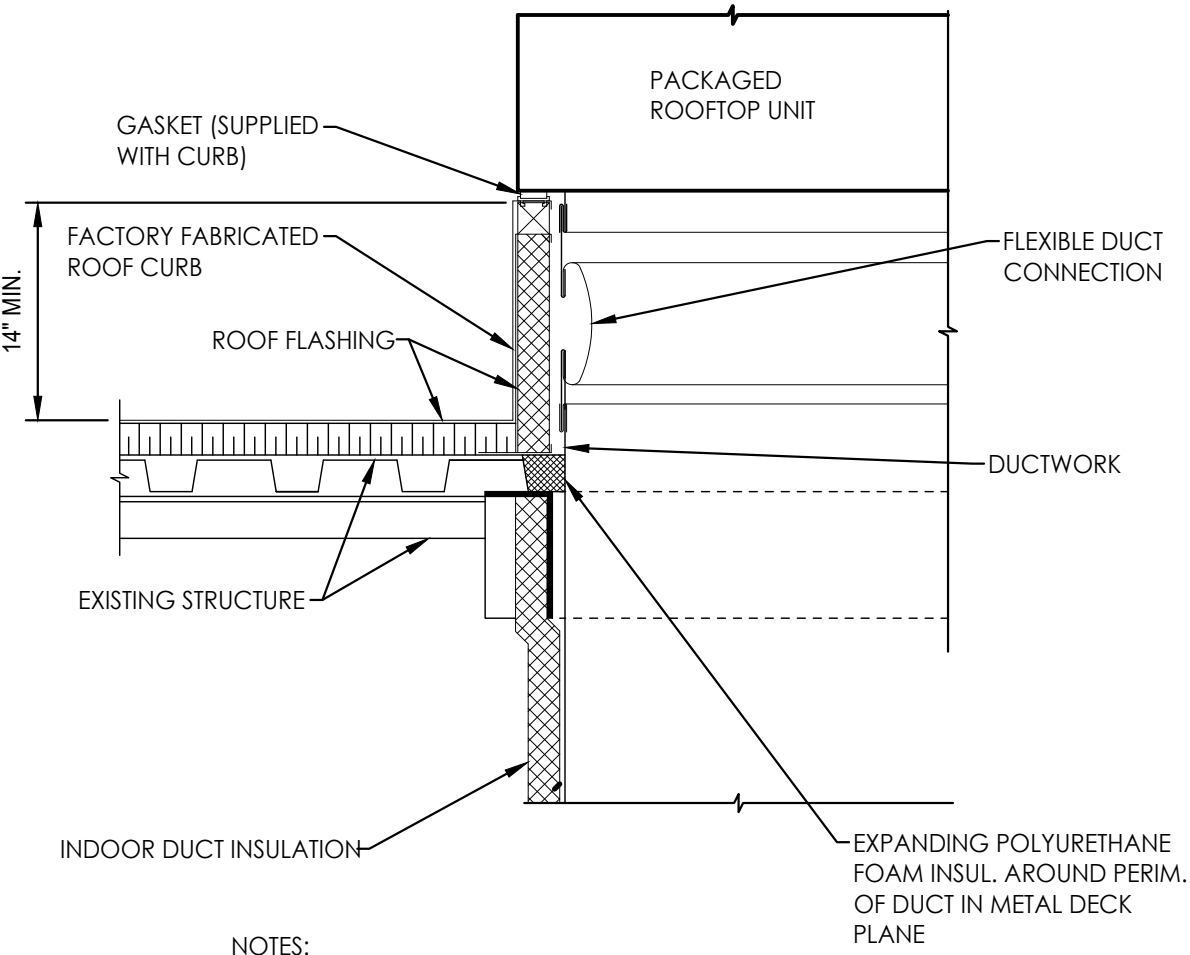
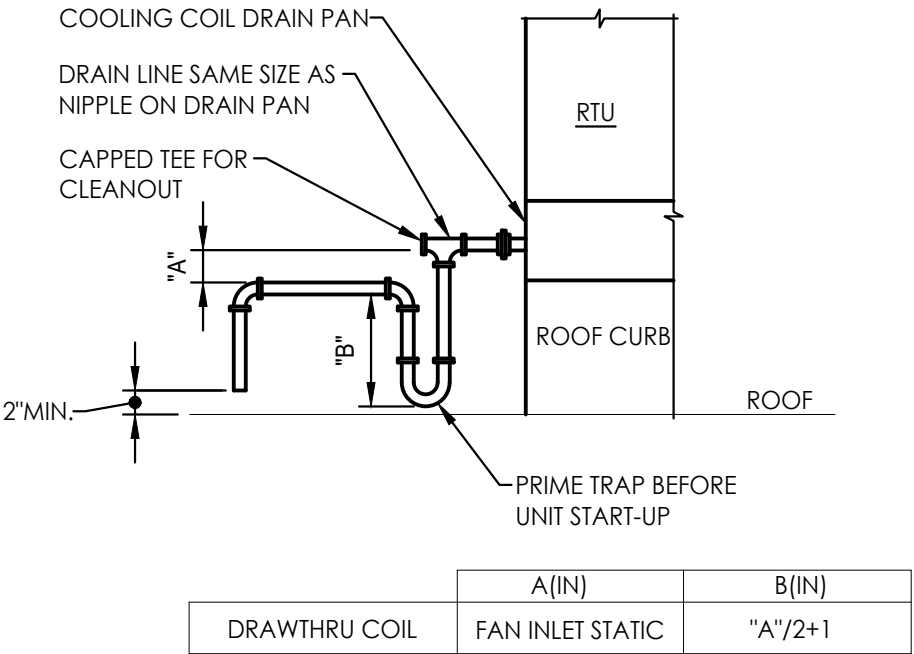
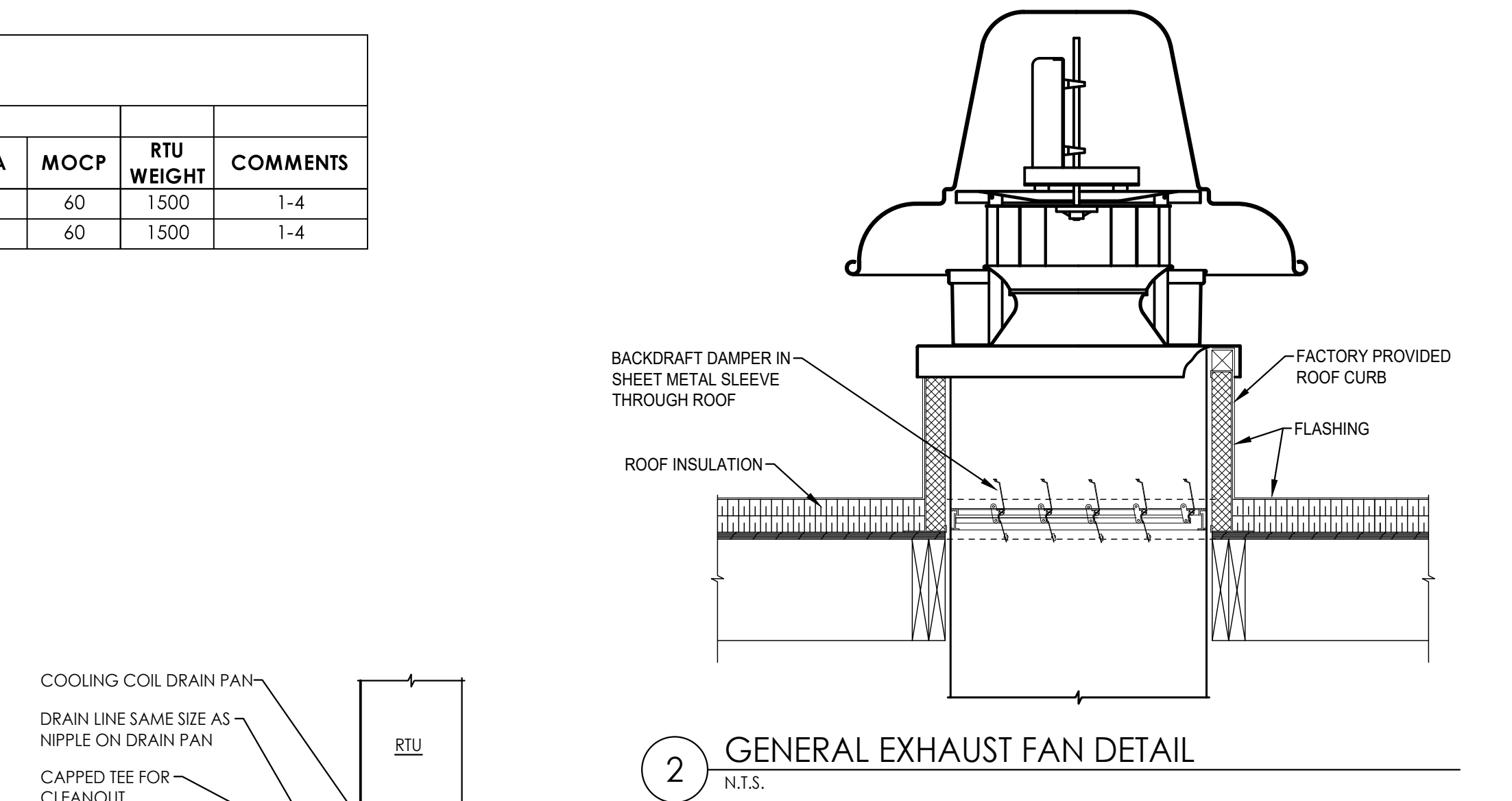
NOTES: 1. FACTORY PROVIDED DISCONNECT SWITCH
2. REFER TO CAPTIVEAIRE DRAWINGS FOR ROOF CURB

VENTILATION SCHEDULE											
BASED ON IMC 2011											
SPACE DATA			PEOPLE VENTILATION			AREA VENTILATION			TOTAL		
SPACE NAME	ROOM NUMBER	CATEGORY	RTU SERVED BY	OCC.	CFM PER PERSON	CFM TOTAL (PEOPLE)	AREA (SF)	CFM REQUIRED PER SF	CFM TOTAL (AREA)	TOTAL VENTILATION	ROOFTOP UNIT VENTILATION SUMMATION
DINING	102	FOOD & BEVERAGE/DINING	RTU-1	40	7.5	300	1000	0.18	180	480	
VESTIBULE (S)	100	CORRIDORS	RTU-1	-	-	0	38	0.18	7	7	
VESTIBULE (N)	101	CORRIDORS	RTU-1	-	-	0	50	0.18	9	9	
W OMENS	103	RESTROOMS	RTU-1	-	-	-	-	-	-	-	
MENS	104	RESTROOMS	RTU-1	-	-	-	-	-	-	-	
UNLISTED ROOMS ARE LUMPED INTO LISTED ROOMS										496	
										0.8	
										620	
										850	

VENTILATION SCHEDULE											
BASED ON IMC 2011											
SPACE DATA			PEOPLE VENTILATION			AREA VENTILATION			TOTAL		
SPACE NAME	ROOM NUMBER	CATEGORY	RTU SERVED BY	OCC.	CFM PER PERSON	CFM TOTAL (PEOPLE)	AREA (SF)	CFM REQUIRED PER SF	CFM TOTAL (AREA)	TOTAL VENTILATION	ROOFTOP UNIT VENTILATION SUMMATION
SERVICE AREA	104	FOOD & BEVERAGE/KITCHEN	RTU-2	10	7.5	75	350	0.18	63	138	
KITCHEN	106	FOOD & BEVERAGE/KITCHEN	RTU-2	2	7.5	15	500	0.18	90	90	
UNLISTED ROOMS ARE LUMPED INTO LISTED ROOMS										228	
										0.8	
										285	
										850	

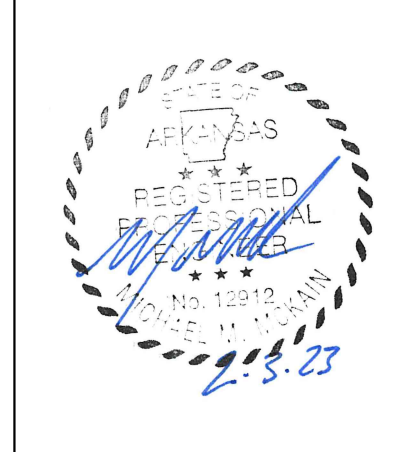
AIR BALANCE SCHEDULE					
COMPONENT	SUPPLY CFM	RETURN CFM	SUPPLY AIR CFM TO HOOD	OUTDOOR AIR CFM	EXHAUST CFM
RTU-1	3000	2150	-	850	-
RTU-2	3000	2150	-	850	-
EF-1	-	-	-	-	1000
EF-2	-	-	-	-	300
TOTAL	6000	4300	0	1700	1300

BUILDING PRESSURE
+ 400 CFM



NOTES:
1. INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 96 REQUIREMENTS.
2. CUT AND PATCH EXISTING ROOFING AS REQUIRED FOR NEW CURB INSTALLATION.
3. CURB SHALL BE TAPERED TYPE AND MATCH THE PITCH OF THE ROOF.
4. CONTRACTOR TO PROVIDE TREATED WOOD BLOCKINGS AND SHIM FLAT ROOF CURB TILL LEVEL FOR ALL EXHAUST FANS AND TO ACHIEVE ROOF CURB HEIGHTS. PROVIDE ROOF CURB EXTENSION IF REQUIRED.

4 GREASE EXHAUST FAN DETAIL
N.T.S.



NEW RESTAURANT FOR:
ARBY'S – INSPIRE DUAL REG 40 - STD
PINE STREET AND SOUTH 29th STREET
ARKADELPHIA, AR 71923
FOR
RE AMERICAN GROUP
6200 OAK TREE BLVD, INDEPENDENCE, OH 44131

PROJECT NUMBER:	
ISSUE	DATE
PERMIT	02-03-2023
REVISION	

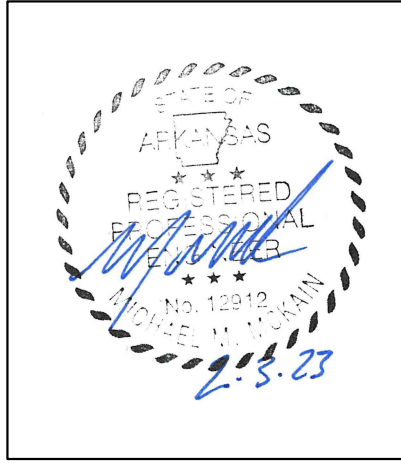
SCHEDULES
MECHANICAL

SHEET:

M5.1

SPECIFICATIONS - DIVISION 23 - HVAC (CONTINUED)

SECTION 233713 - DIFFUSERS, REGISTERS, AND GRILLES	
PART 1 - GENERAL	
1.1 SECTION REQUIREMENTS	
A. SUBMITTALS:	
1. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED, INCLUDING COLOR CHARTS FOR FACTORY FINISHES.	
PART 2 - PRODUCTS	
2.1 DIFFUSERS, REGISTERS, AND GRILLES:	
A. REFER TO SCHEDULES FOR FINISH TYPE, COLOR, MATERIAL, AND MOUNTING.	
PART 3 - EXECUTION	
3.1 INSTALLATION	
A. INSTALL DIFFUSERS, REGISTERS, AND GRILLES LEVEL AND PLUMB.	
B. CEILING-MOUNTED OUTLETS AND INLETS: DRAWINGS INDICATE GENERAL ARRANGEMENT OF DUCTS, FITTINGS, AND ACCESSORIES. MAKE FINAL LOCATIONS WHERE INDICATED, AS MUCH AS PRACTICAL. FOR UNITS INSTALLED IN LAY-IN CEILING PANELS, LOCATE UNITS IN THE CENTER OF PANEL UNLESS OTHERWISE INDICATED. WHERE ARCHITECTURAL FEATURES OR OTHER ITEMS CONFLICT WITH INSTALLATION, NOTIFY ARCHITECT FOR A DETERMINATION OF FINAL LOCATION.	
C. AFTER INSTALLATION, ADJUST DIFFUSERS, REGISTERS, AND GRILLES TO AIR PATTERNS INDICATED, OR AS DIRECTED, BEFORE STARTING AIR BALANCING.	
END OF SECTION 233713	
SECTION 237413 - PACKAGED ROOFTOP UNITS	
1.1 SUMMARY	
A. THIS SECTION INCLUDES PACKAGED, ROOFTOP UNITS WITH THE FOLLOWING COMPONENTS AND ACCESSORIES:	
1. DIRECT-EXPANSION COOLING.	
2. GAS FURNACE.	
3. ECONOMIZER OUTDOOR-AND RETURN-AIR DAMPER SECTION.	
4. INTEGRAL SPACE TEMPERATURE CONTROLS.	
5. ROOF CURBS.	
1.2 SECTION REQUIREMENTS	
A. SUBMITTALS:	
1. PRODUCT DATA: INCLUDE MANUFACTURER'S TECHNICAL DATA FOR EACH RTU, INCLUDING RATED CAPACITIES, DIMENSIONS, REQUIRED CLEARANCES, CHARACTERISTICS, FURNISHED SPECIALTIES, AND ACCESSORIES.	
PART 2 - PRODUCTS	
2.1 CASING	
A. GENERAL FABRICATION REQUIREMENTS FOR CASINGS: FORMED AND REINFORCED INSULATED PANELS, FABRICATED TO ALLOW REMOVAL FOR ACCESS TO INTERNAL PARTS AND COMPONENTS, WITH JOINTS BETWEEN SECTIONS SEALED.	
B. EXTERIOR CASING MATERIAL: GALVANIZED STEEL WITH FACTORY-PAINTED FINISH, WITH PITCHED ROOF PANELS AND KNOCKOUTS WITH GROMMET SEALS FOR ELECTRICAL AND PIPING CONNECTIONS AND LIFTING LUGS.	
1. CASING THICKNESS: 16 GAUGE THICK.	
C. CASING INSULATION AND ADHESIVE: COMPLY WITH NFPA 90A.	
1. MATERIALS: ASTM C 1071, TYPE I.	
2. THICKNESS: 1/2 INCH	
3. LINER MATERIALS SHALL HAVE AIR-STREAM SURFACE INSULATED WITH A MINIMUM 1/2-IN. THICK, MINIMUM 1 1/2 LB DENSITY, FLEXIBLE FIBERGLASS INSULATION BONDED WITH A PHENOLIC BINDER, NEOPRENE COATED ON THE AIR SIDE.	
4. LINER ADHESIVE: COMPLY WITH ASTM C 916, TYPE I.	
D. UNIT SHALL HAVE A THRU-THE-BASE GAS AND ELECTRICAL CONNECTIONS.	
2.2 FANS	
OPTION A OR B:	
A. DIRECT-DRIVEN SUPPLY-AIR FANS: DOUBLE WIDTH, BACKWARD INCLINED, CENTRIFUGAL; WITH PERMANENTLY LUBRICATED, MOTOR RESILIENTLY MOUNTED IN THE FAN INLET. ALUMINUM OR PAINTED-STEEL WHEELS, AND GALVANIZED-OR PAINTED-STEEL FAN SCROLLS.	
B. BELT-DRIVEN SUPPLY-AIR FANS: DOUBLE WIDTH, FORWARD CURVED, CENTRIFUGAL; WITH PERMANENTLY LUBRICATED, SINGLE-SPEED MOTOR INSTALLED ON AN ADJUSTABLE FAN BASE RESILIENTLY MOUNTED IN THE CASING. ALUMINUM OR PAINTED-STEEL WHEELS, AND GALVANIZED- OR PAINTED-STEEL FAN SCROLLS.	
C. CONDENSER-COIL FAN: DIRECT DRIVE, PROPELLER, MOUNTED ON SHAFT OF PERMANENTLY LUBRICATED MOTOR WITH THERMAL OVERLOAD PROTECTION.	
D. POWER EXHAUST: FORWARD CURVED, SHAFT MOUNTED ON PERMANENTLY LUBRICATED MOTOR.	
2.3 COILS	
A. SUPPLY-AIR REFRIGERANT COIL:	
1. ALUMINUM-PLATE FIN AND SEAMLESS INTERNALLY GROOVED COPPER TUBE IN STEEL CASING WITH EQUALIZING-TYPE VERTICAL DISTRIBUTOR.	
2. POLYMER STRIP SHALL PREVENT ALL COPPER COIL FROM CONTACTING STEEL COIL FRAME OR CONDENSATE PAN.	
3. CATHODIC EPOXY COATING.	
4. CONDENSATE DRAIN PAN: GALVANIZED STEEL WITH CORROSION-RESISTANT COATING FORMED WITH PITCH AND DRAIN CONNECTIONS.	
B. OUTDOOR-AIR REFRIGERANT COIL:	
1. ALUMINUM-PLATE FIN AND SEAMLESS INTERNALLY GROOVED COPPER TUBE IN STEEL CASING WITH EQUALIZING-TYPE VERTICAL DISTRIBUTOR.	
2. POLYMER STRIP SHALL PREVENT ALL COPPER COIL FROM CONTACTING STEEL COIL FRAME OR CONDENSATE PAN.	
3. CATHODIC EPOXY COATING.	
C. HOT-GAS REHEAT REFRIGERANT COIL (OPTIONAL):	
1. ALUMINUM-PLATE FIN AND SEAMLESS INTERNALLY GROOVED COPPER TUBE IN STEEL CASING WITH EQUALIZING-TYPE VERTICAL DISTRIBUTOR.	
2. POLYMER STRIP SHALL PREVENT ALL COPPER COIL FROM CONTACTING STEEL COIL FRAME OR CONDENSATE PAN.	
3. CATHODIC EPOXY COATING.	
2.4 REFRIGERANT CIRCUIT COMPONENTS	
A. NUMBER OF REFRIGERANT CIRCUITS: TWO	
B. COMPRESSOR: HERMETIC, SCROLL, MOUNTED ON VIBRATION ISOLATORS; WITH INTERNAL OVERCURRENT AND HIGH-TEMPERATURE PROTECTION, INTERNAL PRESSURE RELIEF AND CRANKCASE HEATER.	
C. REFRIGERATION SPECIALTIES:	
1. REFRIGERANT: R-410A	
2. EXPANSION VALVE WITH REPLACEABLE THERMOSTATIC ELEMENT.	
3. REFRIGERANT FILTER/DRYER.	
4. MANUAL-RESET HIGH-PRESSURE SAFETY SWITCH.	
5. AUTOMATIC-RESET LOW-PRESSURE SAFETY SWITCH.	
6. MINIMUM OFF-TIME RELAY.	
7. AUTOMATIC-RESET COMPRESSOR MOTOR THERMAL OVERLOAD.	
8. BRASS SERVICE VALVES INSTALLED IN COMPRESSOR SUCTION AND LIQUID LINES.	
9. LOW-AMBIENT KIT HIGH-PRESSURE SENSOR.	
10. HOT-GAS REHEAT SOLENOID VALVE WITH A REPLACEABLE MAGNETIC COIL.	
2.5 AIR FILTRATION	
A. PROVIDE 2" THROW-AWAY FIBERGLASS FILTERS.	
2.6 GAS FURNACE	
A. BURNERS: IN-SHOT TYPE CONSTRUCTED OF ALUMINUM-COATED STEEL.	
1. FUEL: NATURAL GAS.	
2. IGNITION: DIRECT SPARK IGNITION (DSI).	
VERIFY AVAILABILITY OF HIGH-ALTITUDE FEATURE WITH MANUFACTURERS.	
3. HIGH-ALTITUDE KIT: FOR PROJECT ELEVATIONS MORE THAN 2,000 FEET ABOVE SEA LEVEL.	
B. HEAT-EXCHANGER AND DRAIN PAN: STAINLESS STEEL.	
C. INDUCED DRAFT COMBUSTION BLOWER.	
D. SAFETY CONTROLS:	
1. GAS CONTROL VALVE: TWO STAGE.	
2. GAS TRAIN: SINGLE-BODY, REGULATED, REDUNDANT, 24-V AC GAS VALVE ASSEMBLY CONTAINING PILOT SOLENOID VALVE, PILOT FILTER, PRESSURE REGULATOR, PILOT SHUTOFF, AND MANUAL SHUTOFF.	
2.7 DAMPERS	
A. OUTDOOR AND RETURN AIR MIXING DAMPERS: PARALLEL OR OPPOSED-BLADE GALVANIZED-STEEL DAMPERS MECHANICALLY FASTENED TO CADMIUM PLATED FOR GALVANIZED-STEEL OPERATING ROD IN REINFORCED CABINET. CONNECT OPERATING RODS WITH COMMON LINKAGE AND INTERCONNECT LINKAGES SO DAMPERS OPERATE SIMULTANEOUSLY.	
1. DAMPER MOTOR: MODULATING WITH ADJUSTABLE MINIMUM POSITION.	
2. RELIEF AIR DAMPER: GRAVITY ACTUATED, WITH BIRD SCREEN AND HOOD.	
2.8 ELECTRICAL POWER CONNECTION	
A. PROVIDE FOR SINGLE CONNECTION OF POWER TO UNIT WITH UNIT-MOUNTED DISCONNECT SWITCH ACCESSIBLE FROM OUTSIDE UNIT AND CONTROL CIRCUIT TRANSFORMER WITH BUILT-IN OVERCURRENT PROTECTION.	
2.9 CONTROLS	
A. BASIC UNIT CONTROLS:	
1. CONTROL-VOLTAGE TRANSFORMER.	
2. WALL-MOUNTED THERMOSTAT OR SENSOR WITH THE FOLLOWING FEATURES:	
a. HEAT-COOL-OFF SWITCH.	
b. FAN ON-AUTO SWITCH.	
c. FAN-SPEED SWITCH.	
d. AUTOMATIC CHANGEOVER.	
e. ADJUSTABLE DEADBAND.	
f. EXPOSED SET POINT.	
g. EXPOSED INDICATION.	
h. DEGREE F INDICATION.	
i. UNOCCUPIED-PERIOD-OVERRIDE PUSH BUTTON.	
j. DATA ENTRY AND ACCESS PORT TO INPUT TEMPERATURE AND HUMIDITY SET POINTS, OCCUPIED AND UNOCCUPIED PERIODS, AND OUTPUT ROOM TEMPERATURE AND HUMIDITY, SUPPLY-AIR TEMPERATURE, OPERATING MODE, AND STATUS.	
3. WALL-MOUNTED HUMIDISTAT OR SENSOR WITH THE FOLLOWING FEATURES:	
a. EXPOSED SET POINT.	
b. EXPOSED INDICATION.	
4. REMOTE WALL-MOUNTED ANNUNCIATOR PANEL WITH KEYED ACCESS FOR EACH UNIT:	
a. LIGHTS TO INDICATE POWER ON, UNIT ALARM OR FAILURE, SMOKE DETECTION.	
B. DDC CONTROLLER:	
1. CONTROLLER SHALL HAVE VOLATILE-MEMORY BACKUP.	
2. SAFETY CONTROL OPERATION:	
a. SMOKE DETECTORS: STOP FAN AND CLOSE OUTDOOR-AIR DAMPER IF SMOKE IS DETECTED. PROVIDE ADDITIONAL CONTACTS FOR ALARM INTERFACE TO FIRE ALARM CONTROL PANEL.	
b. FIRE ALARM CONTROL PANEL INTERFACE WHERE APPLICABLE.	
c. LOW-DISCHARGE TEMPERATURE: STOP FAN AND CLOSE OUTDOOR-AIR DAMPER IF SUPPLY AIR TEMPERATURE IS LESS THAN 40°F.	
RETAIN FIRST SUBPARAGRAPH BELOW FOR AIR-TO-AIR HEAT-PUMP FEATURE.	
d. DEFROST CONTROL FOR CONDENSER COIL: PRESSURE DIFFERENTIAL SWITCH TO INITIATE DEFROST SEQUENCE.	
3. UNIT SHALL BE CAPABLE OF DIRECT COMMUNICATION WITH GENERIC OPEN PROTOCOL SUCH AS BACNET MS/TP, LONTALK, OR MODBUS. THIS WILL ALLOW THE UNIT TO INTEGRATE WITH A FACILITY ENERGY MANAGEMENT SYSTEM.	
4. SCHEDULED OPERATION: OCCUPIED AND UNOCCUPIED PERIODS ON SEVEN-DAY CLOCK WITH A MINIMUM OF FOUR PROGRAMMABLE PERIODS PER DAY.	
5. UNOCCUPIED PERIOD:	
a. HEATING SETBACK: 10°F.	
b. COOLING SETBACK: SYSTEM OFF.	
c. OVERRIDE OPERATION: TWO HOURS.	
6. SUPPLY FAN OPERATION:	
a. OCCUPIED PERIODS: RUN FAN CONTINUOUSLY.	
b. UNOCCUPIED PERIODS: CYCLE FAN TO MAINTAIN SETBACK TEMPERATURE.	
7. REFRIGERANT CIRCUIT OPERATION:	
a. OCCUPIED PERIODS: CYCLE OR STAGE COMPRESSORS, AND OPERATE HOT-GAS BYPASS TO MATCH COMPRESSOR OUTPUT TO COOLING LOAD TO MAINTAIN ROOM TEMPERATURE AND HUMIDITY. CYCLE CONDENSER FANS TO MAINTAIN MAXIMUM HOT-GAS PRESSURE. OPERATE LOW-AMBIENT CONTROL KIT TO MAINTAIN MINIMUM HOT-GAS PRESSURE.	
b. UNOCCUPIED PERIODS: CYCLE COMPRESSORS AND CONDENSER FANS FOR HEATING TO MAINTAIN SETBACK TEMPERATURE.	
8. HOT-GAS REHEAT-COIL OPERATION (OPTIONAL):	
a. OCCUPIED PERIODS: HUMIDISTAT OPENS HOT-GAS VALVE TO PROVIDE HOT-GAS REHEAT, AND CYCLES COMPRESSOR.	
b. UNOCCUPIED PERIODS: REHEAT NOT REQUIRED.	
9. GAS FURNACE OPERATION:	
a. OCCUPIED PERIODS: STAGE BURNER TO MAINTAIN ROOM TEMPERATURE.	
b. UNOCCUPIED PERIODS: CYCLE BURNER TO MAINTAIN SETBACK TEMPERATURE.	
10. FIXED MINIMUM OUTDOOR-AIR DAMPER OPERATION:	
a. OCCUPIED PERIODS: OPEN TO 25 PERCENT.	
b. UNOCCUPIED PERIODS: CLOSE THE OUTDOOR-AIR DAMPER.	
11. ECONOMIZER OUTDOOR-AIR DAMPER OPERATION:	
a. OCCUPIED PERIODS: OPEN TO 25 PERCENT FIXED MINIMUM INTAKE, AND MAXIMUM 100 PERCENT OF THE FAN CAPACITY TO COMPLY WITH ASHRAE CYCLE II. CONTROLLER SHALL PERMIT AIR-SIDE ECONOMIZER OPERATION WHEN OUTDOOR AIR IS LESS THAN 60 ° F. USE MIXED-AIR TEMPERATURE AND SELECT BETWEEN OUTDOOR-AIR AND RETURN-AIR ENTHALPY TO ADJUST MIXING DAMPERS DURING ECONOMIZER CYCLE OPERATION, LOCK OUT COOLING.	
b. UNOCCUPIED PERIODS: CLOSE OUTDOOR-AIR DAMPER AND OPEN RETURN-AIR DAMPER.	
2.10 ACCESSORIES	
A. DUPLEX, 115-V, GROUND-FAULT-INTERRUPTER OUTLET WITH 15-A OVERCURRENT PROTECTION. INCLUDE TRANSFORMER IF REQUIRED.	
B. LOW-AMBIENT KIT STAGED DOWN TO 0°F.	
C. FILTER DIFFERENTIAL PRESSURE SWITCH WITH SENSOR TUBING ON EITHER SIDE OF FILTER. SET FOR FINAL FILTER PRESSURE LOSS.	
D. HAIL GUARDS OF GALVANIZED STEEL, PAINTED TO MATCH CASING.	
E. DUCT MOUNTED SMOKE DETECTOR IN RETURN AIR STREAM CAPABLE OF SHUTTING DOWN THE UNIT IN THE PRESENCE OF SMOKE DETECTION.	
2.11 ROOF CURBS	
A. MATERIALS: GALVANIZED STEEL WITH CORROSION-PROTECTION COATING, WATERTIGHT GASKETS, AND FACTORY-INSTALLED WOOD NAILER; COMPLYING WITH NRCA STANDARDS.	
1. CURB INSULATION AND ADHESIVE: COMPLY WITH NFPA 90A OR NFPA 90B.	
a. MATERIALS: ASTM C 1071, TYPE I OR II.	
b. THICKNESS: 1-1/2 INCHES.	
2. APPLICATION: FACTORY APPLIED WITH ADHESIVE AND MECHANICAL FASTENERS TO THE INTERNAL SURFACE OF CURB.	
a. LINER ADHESIVE: COMPLY WITH ASTM C 916, TYPE I.	
b. MECHANICAL FASTENERS: GALVANIZED STEEL, SUITABLE FOR ADHESIVE ATTACHMENT, MECHANICAL ATTACHMENT, OR WELDING ATTACHMENT TO DUCT WITHOUT DAMAGING LINER WHEN APPLIED AS RECOMMENDED BY MANUFACTURER AND WITHOUT CAUSING LEAKAGE IN CABINET.	
c. LINER MATERIALS SHALL HAVE AIR-STREAM SURFACE INSULATED WITH A MINIMUM 1/2-IN. THICK, MINIMUM 1 1/2 LB DENSITY, FLEXIBLE FIBERGLASS INSULATION BONDED WITH A PHENOLIC BINDER, NEOPRENE COATED ON THE AIR SIDE.	
d. LINER ADHESIVE: COMPLY WITH ASTM C 916, TYPE I.	
B. CURB HEIGHT: 14 INCHES TYPICAL. PROVIDE 24 INCH CURB IN AREAS WITH EXPECTED HEAVY SNOWFALL.	
PART 3 - EXECUTION	
3.1 EXAMINATION	
A. EXAMINE SUBSTRATES, AREAS, AND CONDITIONS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF RTUS.	
B. EXAMINE ROUGHING-IN FOR RTUS TO VERIFY ACTUAL LOCATIONS OF PIPING AND DUCT CONNECTIONS BEFORE EQUIPMENT INSTALLATION.	
C. EXAMINE ROOFS FOR SUITABLE CONDITIONS WHERE RTUS WILL BE INSTALLED.	
D. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.	
3.2 INSTALLATION	
A. ROOF CURB: INSTALL ON ROOF STRUCTURE, LEVEL AND SECURE. INSTALL RTUS ON CURBS AND COORDINATE ROOF PENETRATIONS AND FLASHING WITH ROOF CONSTRUCTION. RTUS TO UPPER CURB RAIL, AND SECURE CURB BASE TO ROOF FRAMING OR CONCRETE BASE WITH ANCHOR BOLTS.	
3.3 CONNECTIONS	
A. THE FOLLOWING ARE SPECIFIC CONNECTION REQUIREMENTS:	
1. INSTALL DUCTS TO TERMINATION AT TOP OF ROOF CURB.	
2. REMOVE ROOF DECKING ONLY AS REQUIRED FOR PASSAGE OF DUCTS. DO NOT CUT OUT DECKING UNDER ENTIRE ROOF CURB.	
3.4 COORDINATION	
A. CONTRACTOR TO COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER TO ENSURE THAT THE RTUS ARE COORDINATED WITH THE KITCHEN EQUIPMENT, PARTICULARLY THE EXHAUST HOODS AND THE MAKE-UP AIR UNIT, TO PROPERLY PRESSURIZE THE BUILDING/SPACE.	
B. CONTRACTOR TO ENSURE THAT ALL THERMOSTATS AND SENSORS ARE COMPATIBLE WITH THE RTU CONTROLS.	
3.5 FIELD QUALITY CONTROL	
A. MANUFACTURER'S FIELD SERVICE: ENGAGE A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO INSPECT, TEST, AND ADJUST COMPONENTS, ASSEMBLIES, AND EQUIPMENT INSTALLATIONS, INCLUDING CONNECTIONS. REPORT RESULTS IN WRITING.	
B. PERFORM TESTS AND INSPECTIONS AND PREPARE TEST REPORTS.	
1. MANUFACTURER'S FIELD SERVICE: ENGAGE A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO INSPECT COMPONENTS, ASSEMBLIES, AND EQUIPMENT INSTALLATIONS, INCLUDING CONNECTIONS, AND TO ASSIST IN TESTING. REPORT RESULTS IN WRITING.	
C. TESTS AND INSPECTIONS:	
1. AFTER INSTALLING RTUS AND AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, TEST UNITS FOR COMPLIANCE WITH REQUIREMENTS.	
2. OPERATIONAL TEST: AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, START UNITS TO CONFIRM PROPER MOTOR ROTATION AND UNIT OPERATION.	
3. TEST AND ADJUST CONTROLS AND SAFETIES. REPLACE DAMAGED AND MALFUNCTIONING CONTROLS AND EQUIPMENT.	
D. REMOVE AND REPLACE MALFUNCTIONING UNITS AND RETEST AS SPECIFIED ABOVE.	
3.6 STARTUP SERVICE	
A. ENGAGE A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO PERFORM STARTUP SERVICE.	
B. COMPLETE INSTALLATION AND STARTUP CHECKS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND DO THE FOLLOWING:	
1. INSPECT FOR VISIBLE DAMAGE TO UNIT CASING, FURNACE COMBUSTION CHAMBER, COMPRESSOR, COILS, AND FANS.	
2. VERIFY THAT LABELS ARE CLEARLY VISIBLE, CLEARANCES HAVE BEEN PROVIDED FOR SERVICING, CONTROLS ARE CONNECTED AND OPERABLE, AND FILTERS ARE INSTALLED.	
3. CLEAN CONDENSER COIL AND FURNACE AND INSPECT FOR CONSTRUCTION DEBRIS.	
4. REMOVE PACKING FROM VIBRATION ISOLATORS.	
5. VERIFY LUBRICATION ON FAN AND MOTOR BEARINGS.	
6. INSPECT FAN-WHEEL ROTATION FOR MOVEMENT IN CORRECT DIRECTION WITHOUT VIBRATION AND BINDING.	
7. ADJUST FAN BELTS TO PROPER ALIGNMENT AND TENSION.	
8. START UNIT ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.	
a. INSPECT AND RECORD PERFORMANCE OF INTERLOCKS AND PROTECTIVE DEVICES; VERIFY SEQUENCES.	
10. OPERATE UNIT FOR AN INITIAL PERIOD AS RECOMMENDED OR REQUIRED BY MANUFACTURER.	
11. PERFORM THE FOLLOWING OPERATIONS FOR BOTH MINIMUM AND MAXIMUM FIRING. ADJUST BURNER FOR PEAK EFFICIENCY.	
a. MEASURE GAS PRESSURE ON MANIFOLD.	
b. INSPECT OPERATION OF POWER VENTS.	
c. MEASURE SUPPLY-AIR TEMPERATURE AND VOLUME WHEN BURNER IS AT MAXIMUM FIRING RATE AND WHEN BURNER IS OFF. CALCULATE USEFUL HEAT TO SUPPLY AIR.	
20. ADJUST AND INSPECT HIGH-TEMPERATURE LIMITS.	
21. INSPECT OUTDOOR-AIR DAMPERS FOR PROPER STROKE AND INTERLOCK WITH RETURN-AIR DAMPERS.	
22. INSPECT CONTROLS FOR CORRECT SEQUENCING OF HEATING, MIXING DAMPERS, REFRIGERATION, AND NORMAL AND EMERGENCY SHUTDOWN.	
23. SIMULATE MAXIMUM COOLING DEMAND AND INSPECT THE FOLLOWING:	
a. COMPRESSOR REFRIGERANT SUCTION AND HOT-GAS PRESSURES.	
b. SHORT CIRCUITING OF AIR THROUGH CONDENSER COIL OR FROM CONDENSER FANS TO OUTDOOR-AIR INTAKE.	
27. VERIFY OPERATION OF REMOTE PANEL INCLUDING PILOT-LIGHT OPERATION AND FAILURE MODES. INSPECT THE FOLLOWING:	
a. HIGH-TEMPERATURE LIMIT ON GAS-FIRED HEAT EXCHANGER.	
b. LOW-TEMPERATURE SAFETY OPERATION.	
c. FILTER HIGH-PRESSURE DIFFERENTIAL ALARM.	
d. ECONOMIZER TO MINIMUM OUTDOOR-AIR CHANGEOVER.	
e. RELIEF-AIR FAN OPERATION.	
f. SMOKE ALARMS.	
28. AFTER STARTUP AND PERFORMANCE TESTING AND PRIOR TO SUBSTANTIAL COMPLETION, REPLACE EXISTING FILTERS WITH NEW FILTERS.	
3.7 CLEANING AND ADJUSTING	
A. OCCUPANCY ADJUSTMENTS: WHEN REQUESTED WITHIN 12 MONTHS OF DATE OF SUBSTANTIAL COMPLETION, PROVIDE ON-SITE ASSISTANCE IN ADJUSTING SYSTEM TO SUIT ACTUAL OCCUPIED CONDITIONS. PROVIDE UP TO TWO VISITS TO SITE DURING OTHER-THAN-NORMAL OCCUPANCY HOURS FOR THIS PURPOSE.	
B. AFTER COMPLETING SYSTEM INSTALLATION AND TESTING, ADJUSTING, AND BALANCING RTU AND AIR-DISTRIBUTION SYSTEMS, CLEAN FILTER HOUSINGS AND INSTALL NEW FILTERS.	



MPW

MPW ENGINEERING, LLC

110 W. 7TH STREET • SUITE 400 • TULSA, OK 74119

(918) 582-4088 • (918) 582-4087 FAX

NEW RESTAURANT FOR:

ARBY'S – INSPIRE DUAL REG 40 - STD

PINE STREET AND SOUTH 29th STREET

ARKADELPHIA, AR 71923

FOR

RE AMERICAN GROUP

6200 OAK TREE BLVD, INDEPENDENCE, OH 44131

PROJECT NUMBER:	
ISSUE	DATE
PERMIT	02-03-2023
REVISION	

SPECIFICATIONS

MECHANICAL

SHEET:

M7.2

FOR QUESTIONS, CALL THE
Tulsa Office
REGION 80
PHONE: (918) 258-0291
EMAIL: reg80@captiveaire.com

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

HOOD INFORMATION – JOB#5725176

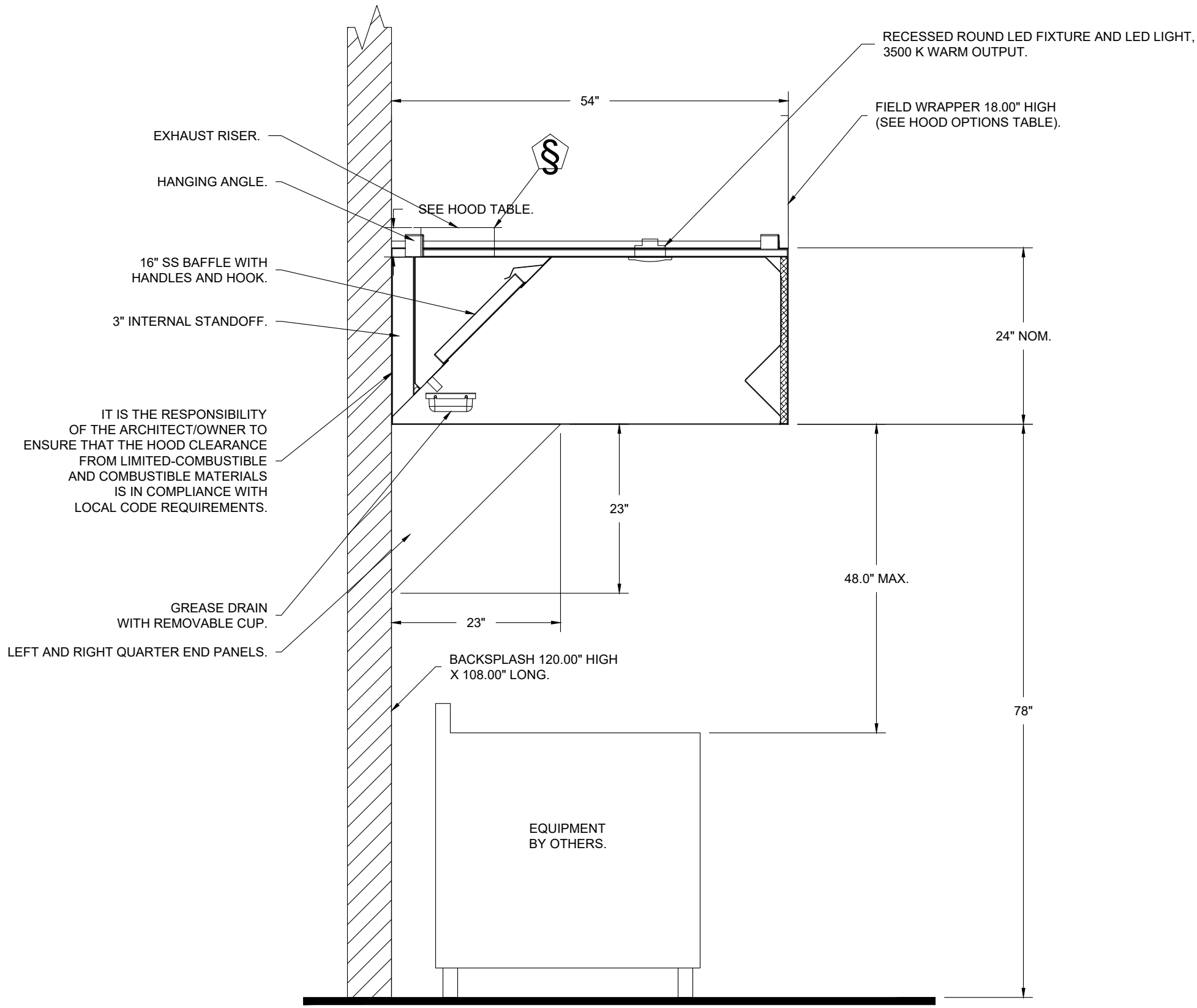
HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)							HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP		END TO END	ROW
1	KH-1	5424 ND-2	CAPTIVEAIRE	5' 0"	450 DEG	I	MEDIUM	200	1000			4"	10"	1000	1833	-0.363"	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

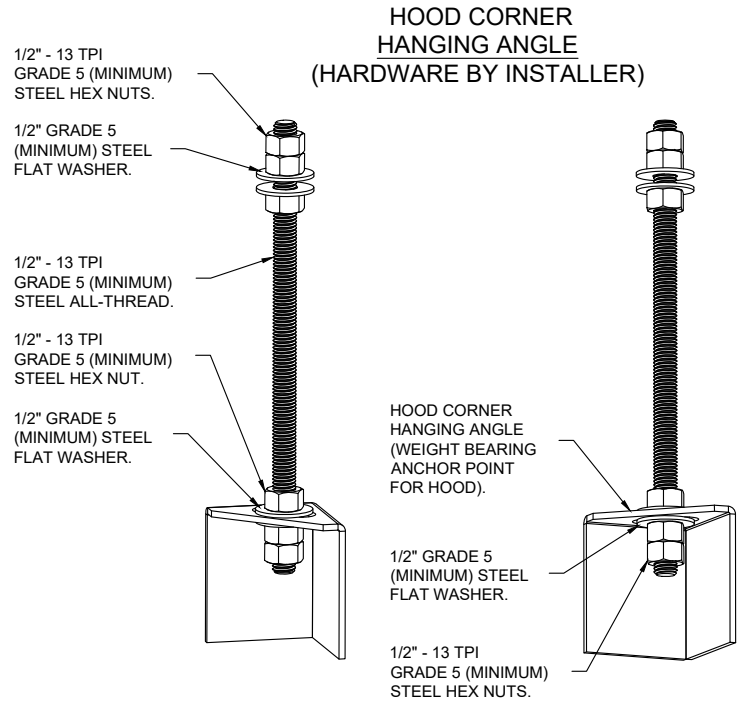
HOOD NO	TAG	FILTER(S)					LIGHT(S)				UTILITY CABINET(S)					FIRE SYSTEM PIPING	HOOD HANGING WEIGHT	
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	AVERAGE FOOT CANDLES @ 36" AFF	LOCATION	SIZE	FIRE SYSTEM		ELECTRICAL			SWITCHES
													TYPE	SIZE	MODEL #			QUANTITY
1	KH-1	SS BAFFLE WITH HANDLES	3	16"	16"	30%	3	RECESSED ROUND	NO	54	LEFT	12"x54"x24"	TANK FS	4.0	DCV-1011	1 LIGHT 1 FAN	YES	514 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	KH-1	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPASH 120.00" HIGH X 108.00" LONG 430 SS VERTICAL.
		RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		SENSOR-CV.

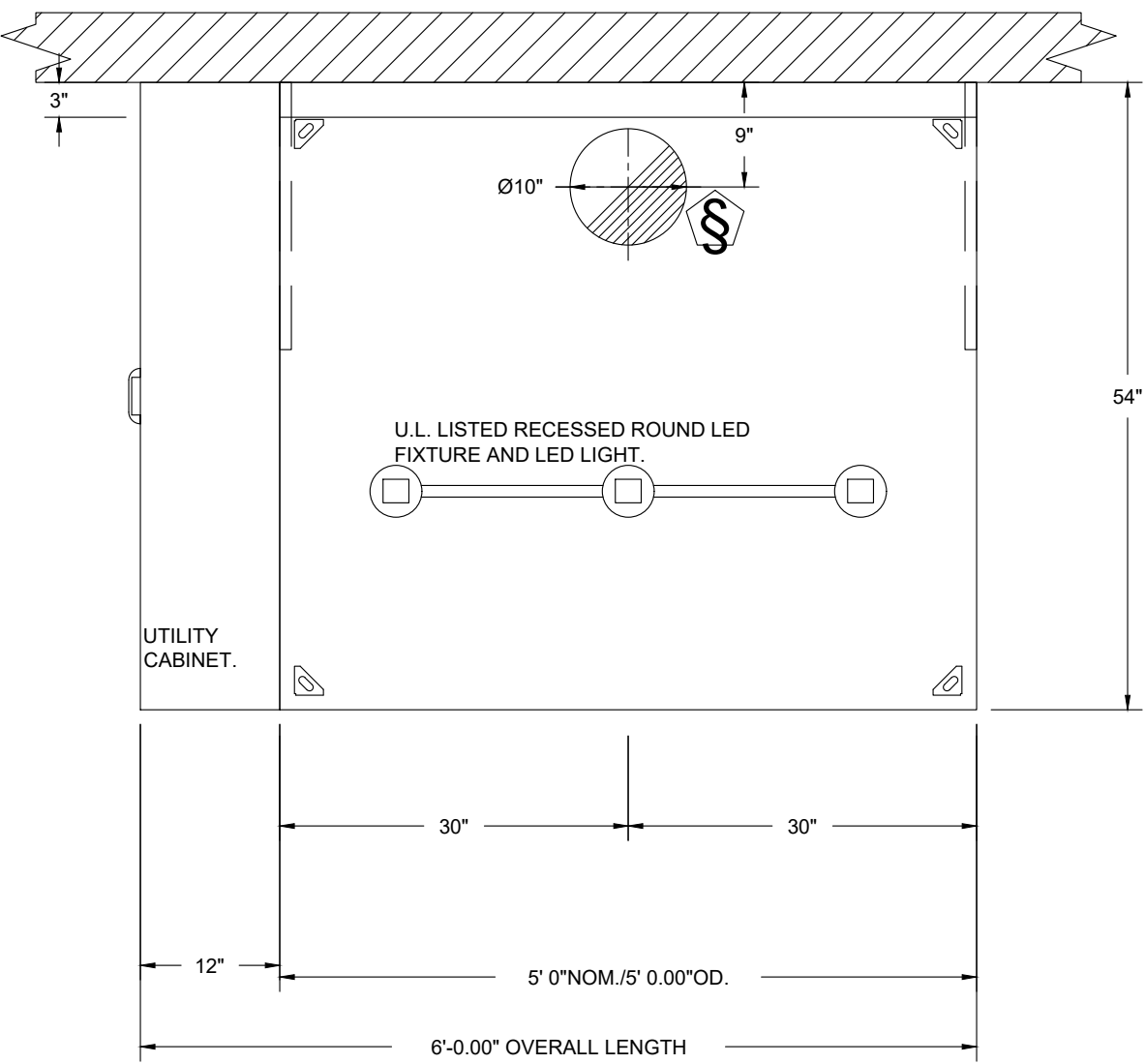


SECTION VIEW – MODEL 5424ND-2
HOOD – #1 (KH-1)



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.



PLAN VIEW – HOOD #1 (KH-1)
5' 0.00" LONG 5424ND-2



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

REVISIONS

DESCRIPTION	DATE:

CAPTIVEAIRE

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Arby's - Arkadelphia, AR
Arkadelphia, AR, 71923

DATE: 11/9/2022
DWG.#: 5725176
DRAWN BY: RJH-80
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
1



NEW RESTAURANT FOR:
ARBY'S – INSPIRE DUAL REG 40 - STD
PINE STREET AND SOUTH 29th STREET
ARKADELPHIA, AR 71923
FOR
RE AMERICAN GROUP
6200 OAK TREE BLVD, INDEPENDENCE, OH 44131

PROJECT NUMBER:

ISSUE	DATE
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CAPTIVEAIRE DRAWINGS

SHEET:

H1.1

FIRE SYSTEM INFORMATION – JOB#5725176

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1	KH1	TANK FS	4.0	18	FIRE CABINET LEFT	LEFT, HOOD 1

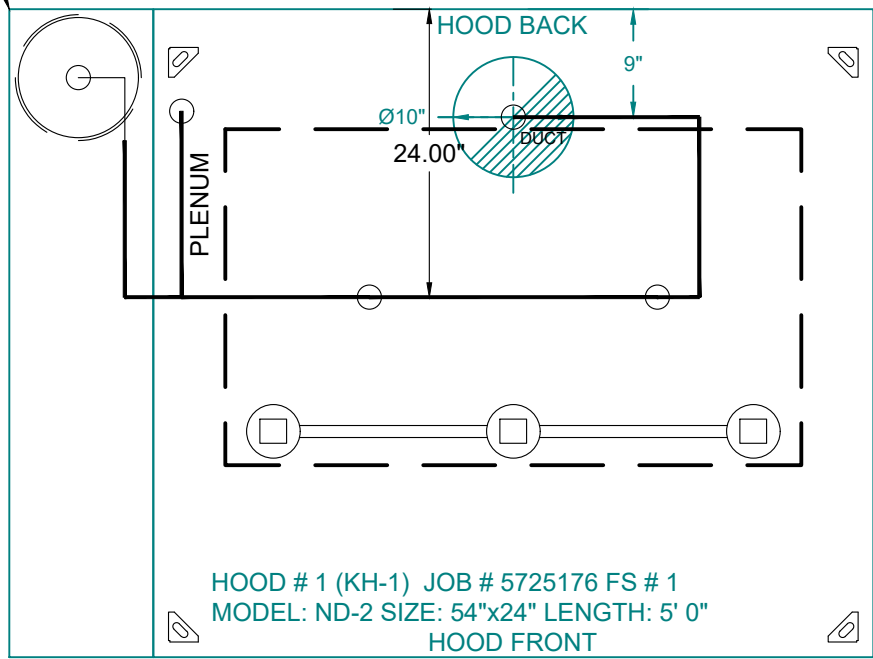
GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1	KH1	SC ELECTRICAL	1.500	CAPTIVEAIRE SYSTEMS

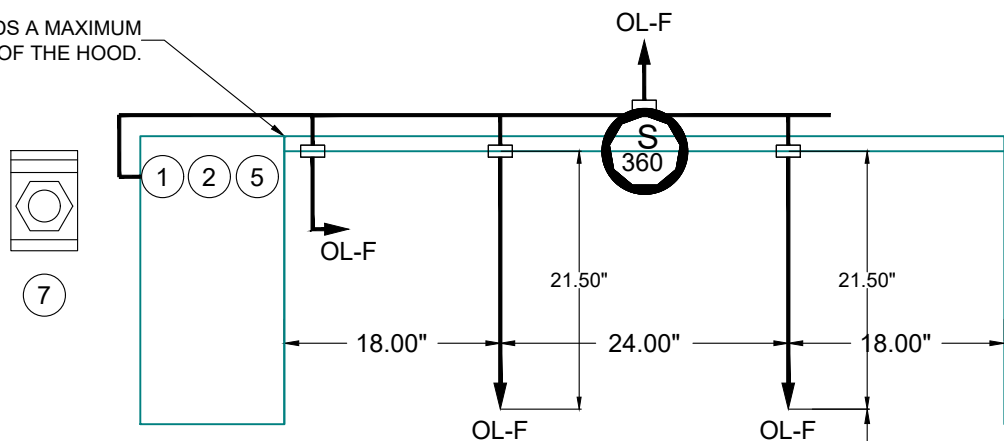
FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1	KH1	0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE 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.	1	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	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.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	4	0
		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	3	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - B1145 3/8" BLACK IRON 90 ELL.	2	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	3	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	1	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	4	0
		16 - 16 - OL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE)- 4 FLOW POINTS.	4	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL)	4	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

SYSTEM REQUIRES A MINIMUM OF 7 FT OF EQUIVALENT PIPE LENGTH BETWEEN TANK AND NEAREST APPLIANCE NOZZLE FOR MOST APPLIANCES. EACH 90 DEGREE ELBOW ADDS 1.3 FT OF EQUIVALENT LENGTH. SEE MANUAL FOR DETAILS



FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.



NOZZLE HEIGHT
35-50" FROM
COOKING SURFACE.
(43.25")

TANK OVERLAPPING PROTECTION
- 30
HIGH PROXIMITY
48.00" L X 28.00" D

GAS VALVES AND STRAINERS

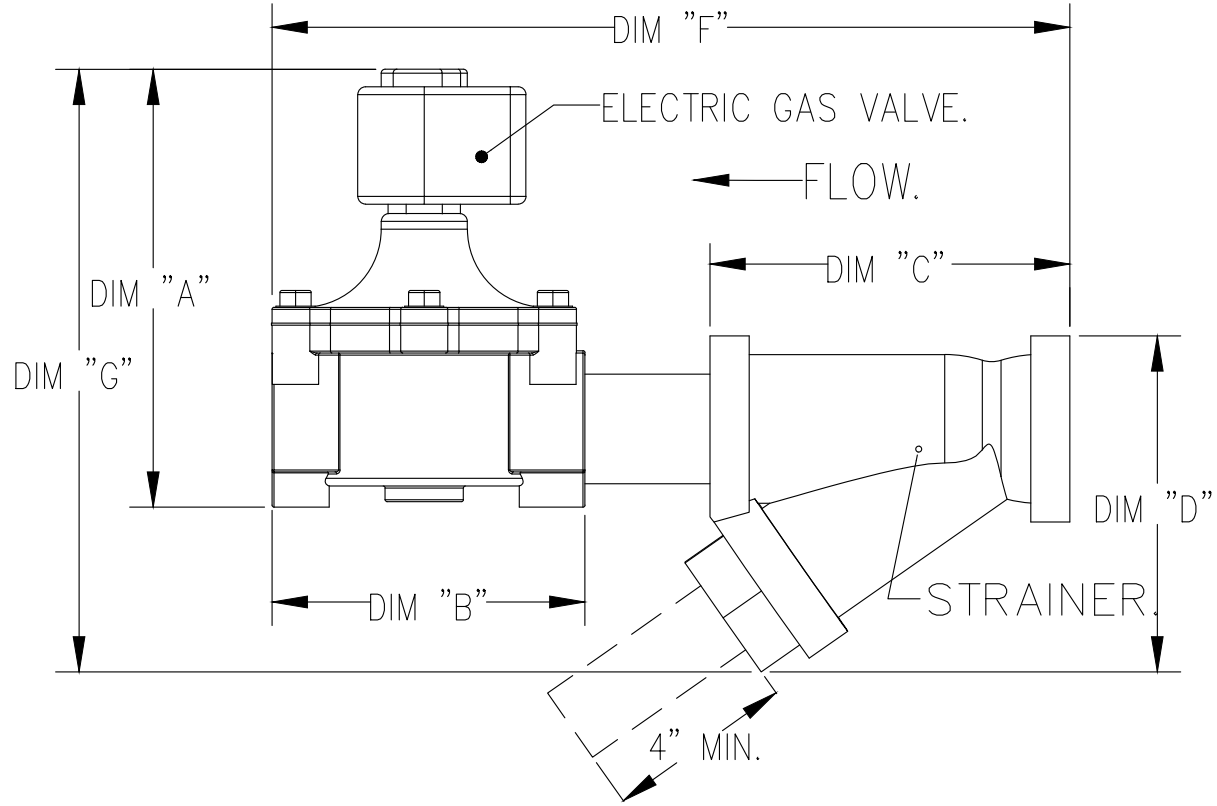
GAS VALVE SIZING							GAS VALVE DIMENSIONS						INSTALLATION	PART NUMBERS		
TYPE	SIZE	VOLTAGE	MIN. INLET PRESSURE	MAX. INLET PRESSURE	FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "F"	DIM "G"	MOUNTING ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER	GAS VALVE/STRAINER KIT
ELECTRICAL	1-1/2"	120 VAC	0 PSI (0 IN.W.C.)	5 PSI (138 IN.W.C.)	2,406,000 BTU/HR	1,561,219 BTU/HR	7-5/8"	6-3/8"	5-3/4"	6-3/16"	14-1/8"	12-5/16"	HORIZONTAL/ VERTICAL	8214275	4417K67	(SC)ECVA1-1/2

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}.



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 SHELIVING, 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.

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

JOB #: 5725176.

JOB NAME: ARBY'S - ARKADELPHIA, AR.

SYSTEM SIZE: TANK-SP-1 TOTAL FP REQUIRED: 18.

HOOD # 1 5' 0.00" LONG x 54" WIDE x 24" HIGH.

RISER # 1 SIZE: 10" DIA.

HOOD # 1 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.

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.

REVISIONS

DESCRIPTION	DATE:



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Arby's - Arkadelphia, AR

Arkadelphia, AR, 71923

DATE: 11/9/2022

DWG.#:
5725176

DRAWN BY: RJH-80

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

MASTER DRAWING

SHEET NO.

2



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110 W. 7TH STREET • SUITE 600 • TULSA, OK 74119
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NEW RESTAURANT FOR:

ARBY'S – INSPIRE DUAL REG 40 - STD
PINE STREET AND SOUTH 29th STREET
ARKADELPHIA, AR 71923

FOR
RE AMERICAN GROUP
6200 OAK TREE BLVD, INDEPENDENCE, OH 44131

PROJECT NUMBER:

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02-03-2023

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H1.2

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	EF-1	1	DU50HFA	CAPTIVEAIRE	1000	0.750	1385	TEAO-ECM	0.500	0.2630	1	115	6.3	380 FPM	77	13.1
2	EF-2 (RESTROOM)	1	DR12HFA	CAPTIVEAIRE	300	0.250	1017	TEAO-ECM	0.250	0.0450	1	115	2.9		49	3.7

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-1	1	GREASE BOX
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPMO3 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
2	EF-2 (RESTROOM)	1	1 I2-BDD DAMPER
		1	ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY

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

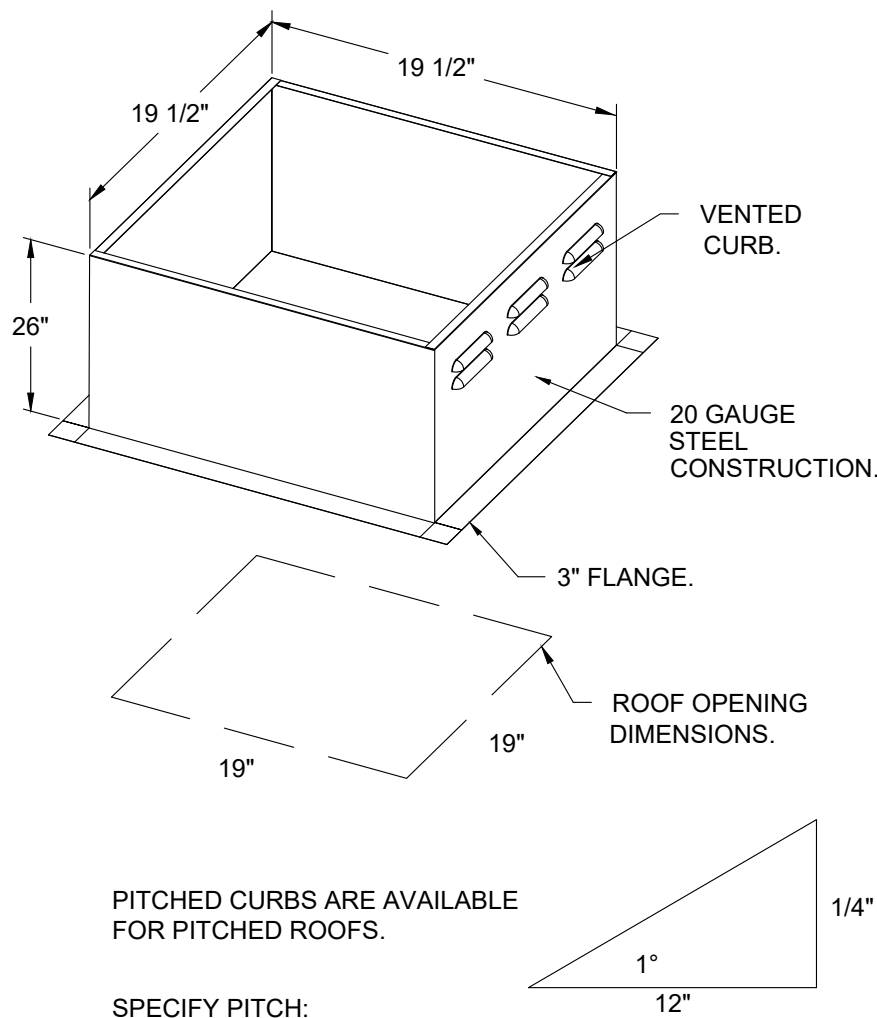
NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	EF-1	38 LBS	CURB	19.500"W X 19.500"L X 26.000"H 0.250:12.000 PITCH ALONG LENGTH, RIGHT VENTED HINGED.
2	# 2	EF-2 (RESTROOM)	22 LBS	CURB	17.500"W X 17.500"L X 18.000"H 0.250:12.000 PITCH ALONG LENGTH, RIGHT.

- 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.

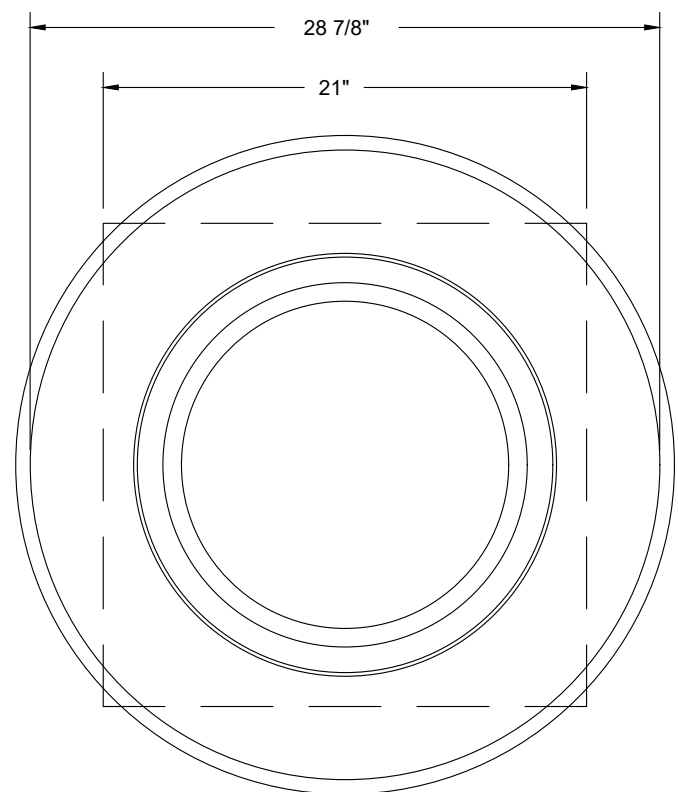
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

- GREASE BOX.
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.

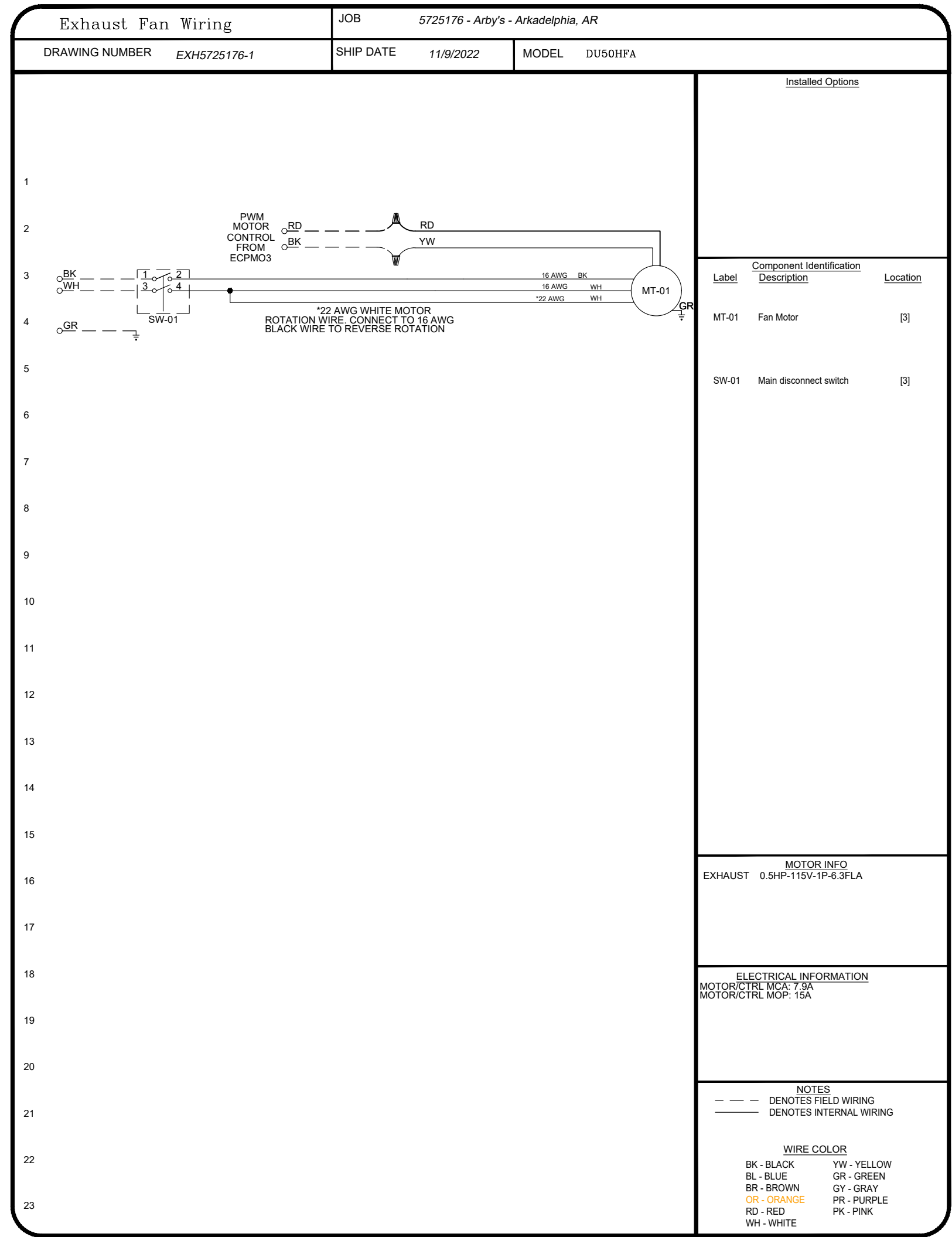


PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE



TOP VIEW



Arby's - Arkadelphia, AR
Arkadelphia, AR, 71923

DWG.#:

SCALE:

ER DRAWING

SHEET NO.
3

REVISIONS	
DESCRIPTION	DATE:
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△	
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ARKADELPHIA, AR 71923
 FOR
 RB AMERICAN GROUP
 6700 OAK TREE BLVD, INDEPENDENCE OH 44131

PROJECT NUMBER:

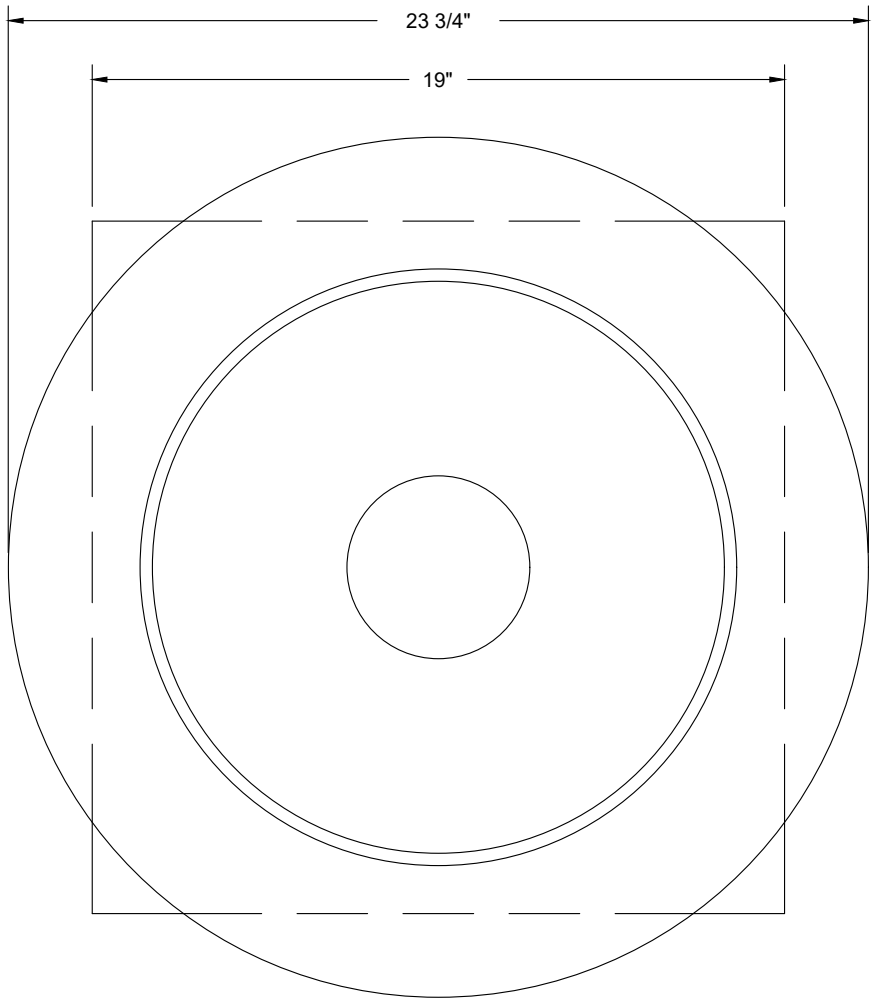
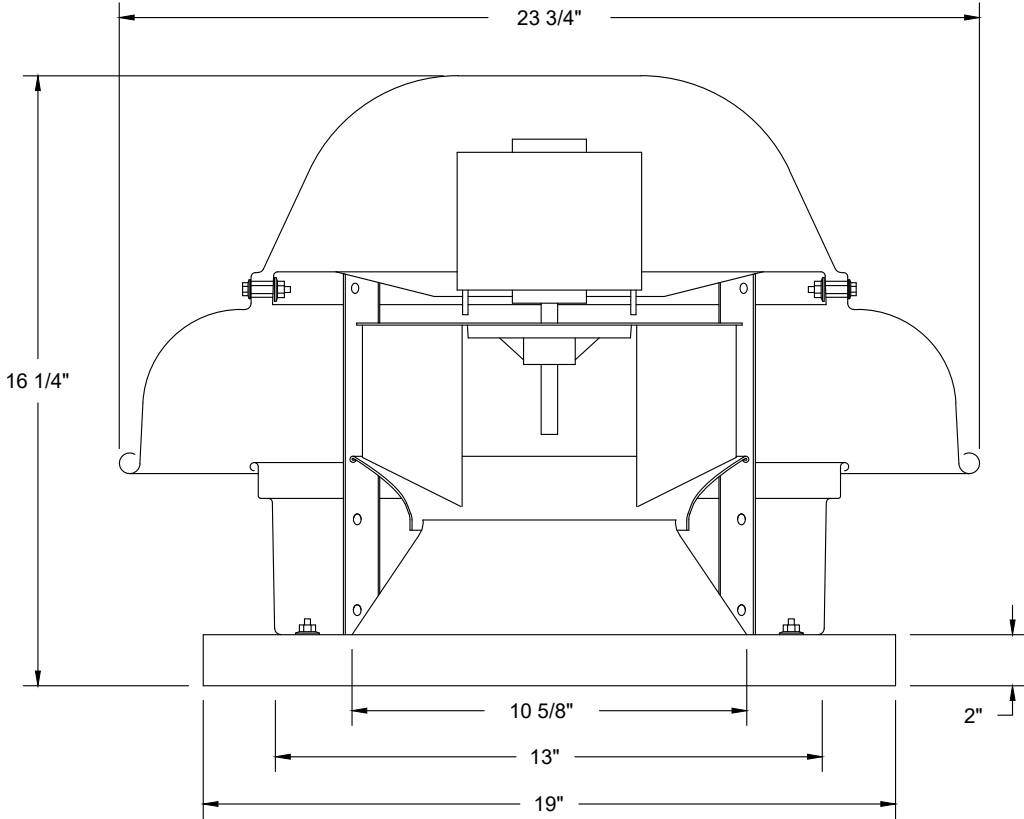
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SHEET:

H1.3

FAN #2 DR12HFA - EXHAUST FAN (EF-2 (RESTROOM))



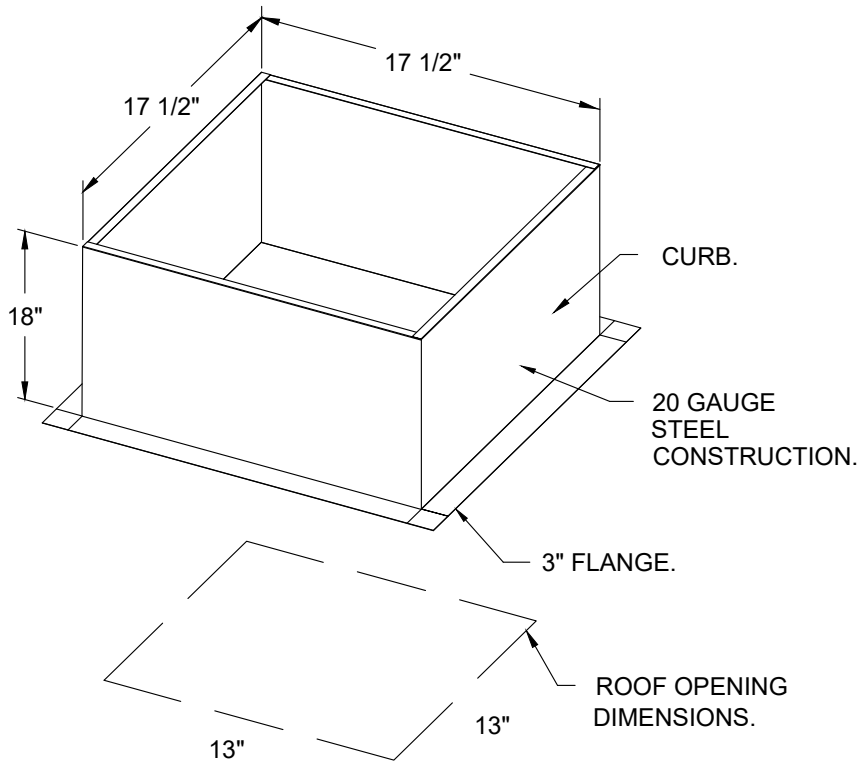
TOP VIEW

FEATURES:

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

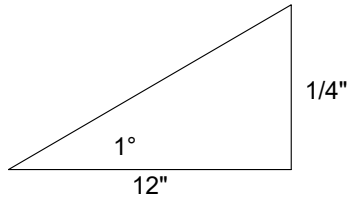
OPTIONS

- 1 12-BDD DAMPER.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL.
- RTC (TELCO MOTOR), COW ROTATION.
- 2 YEAR PARTS WARRANTY.

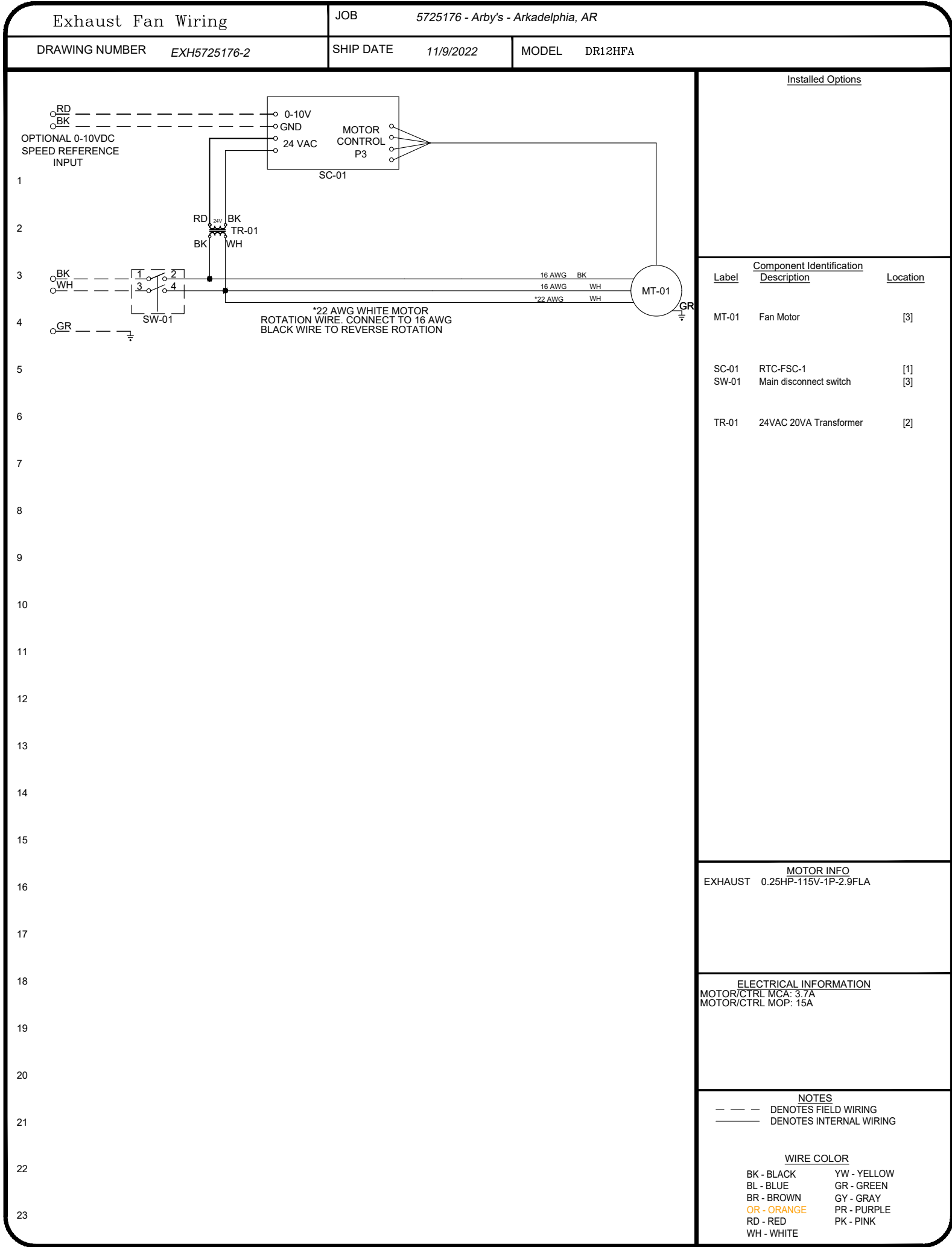
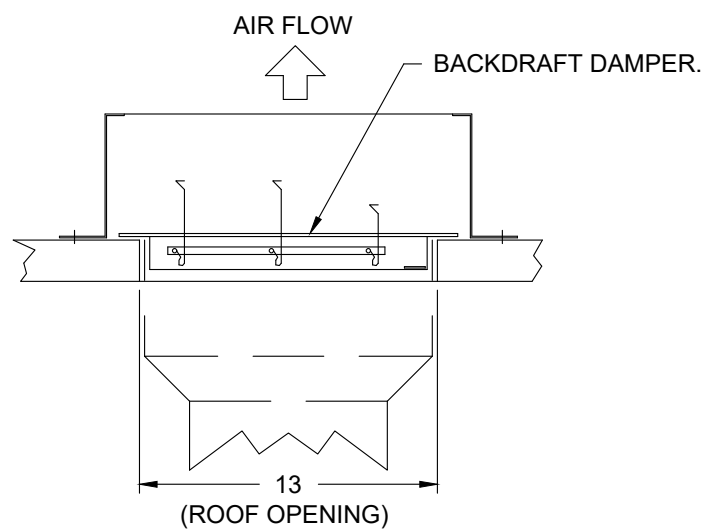


PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.



BACKDRAFT DAMPER INSTALLATION



REVISIONS	
DESCRIPTION	DATE
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Arby's - Arkadelphia, AR

Arkadelphia, AR, 71923

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DRAWN BY: RJH-80

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

MASTER DRAWING

SHEET NO. 4



NEW RESTAURANT FOR:
ARBY'S - INSPIRE DUAL REG 40 - STD
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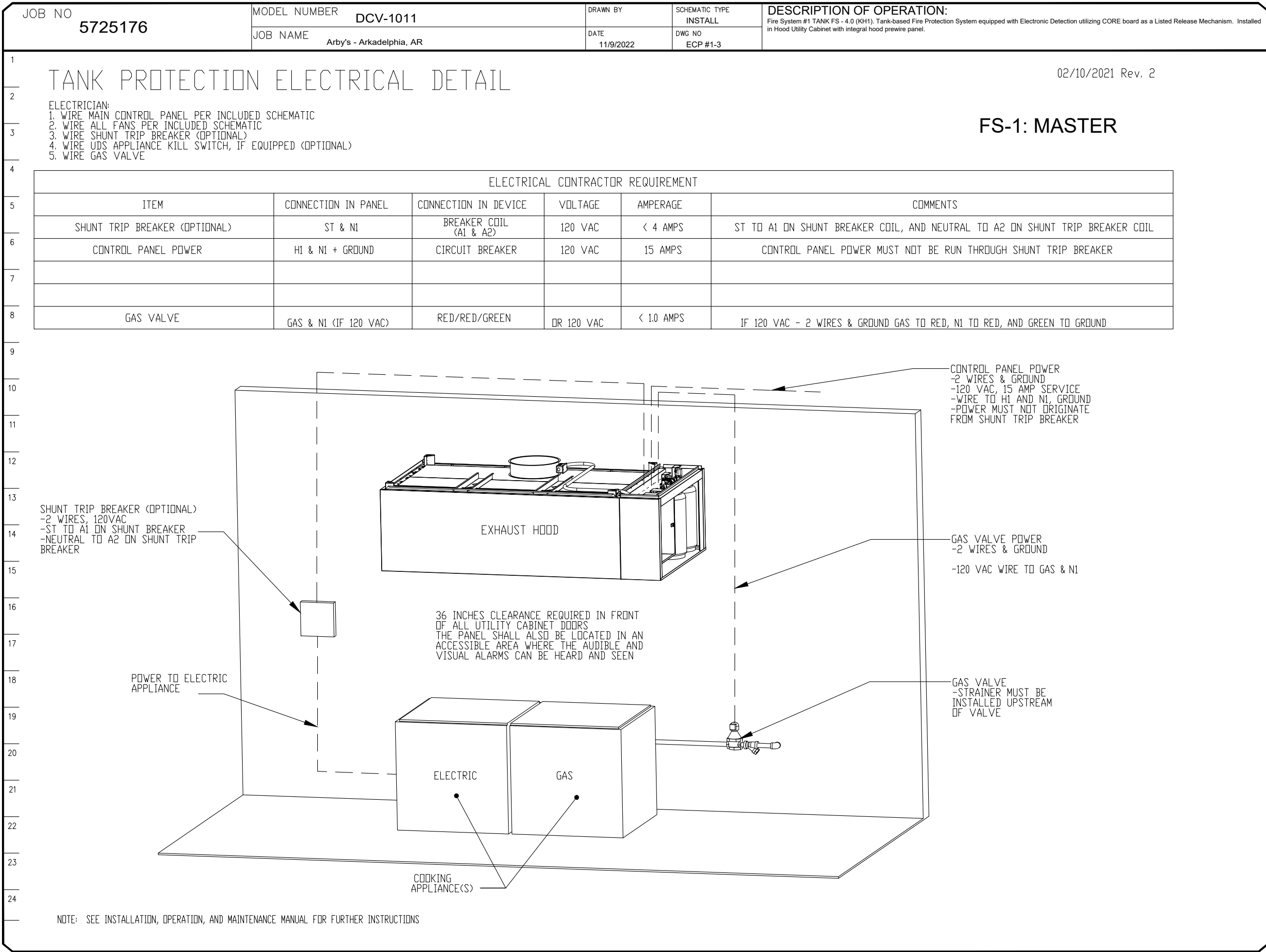
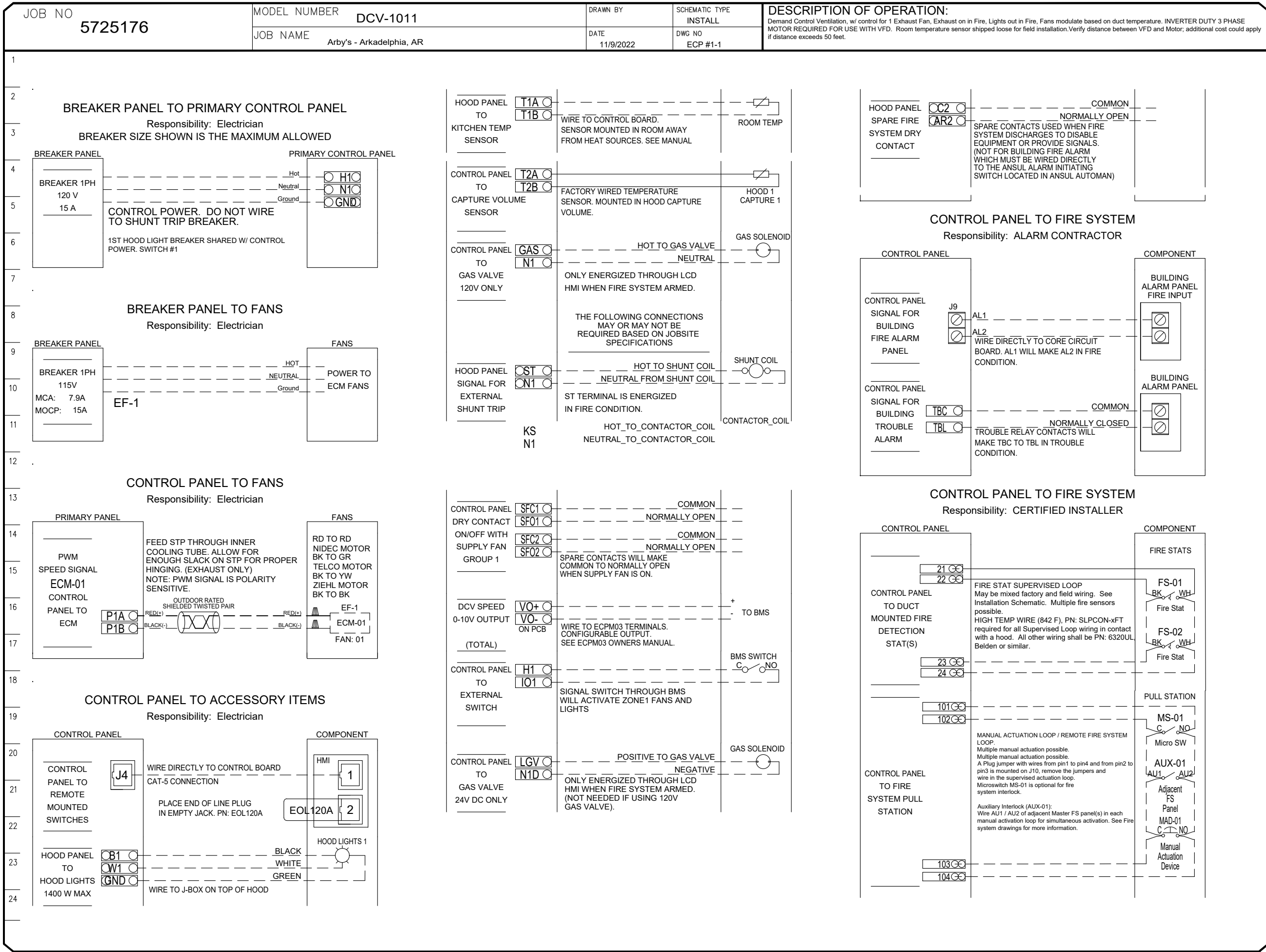
CAPTIVEAIRE DRAWINGS

SHEET:

H1.4

ELECTRICAL PACKAGE – JOB#5725176

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG		TYPE	φ	HP	VOLT
1	KH1	DCV-1011	UTILITY CABINET LEFT	08 - SHIP LOOSE W/ PREWIRE	1 LIGHT 1 FAN	SMART CONTROLS DCV	EF-1	EXHAUST	1	0.500	115	6.3



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.

Arby's - Arkadelphia, AR
Arkadelphia, AR, 71923

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CAPTIVEAIRE DRAWINGS

SHEET:

H1.5