

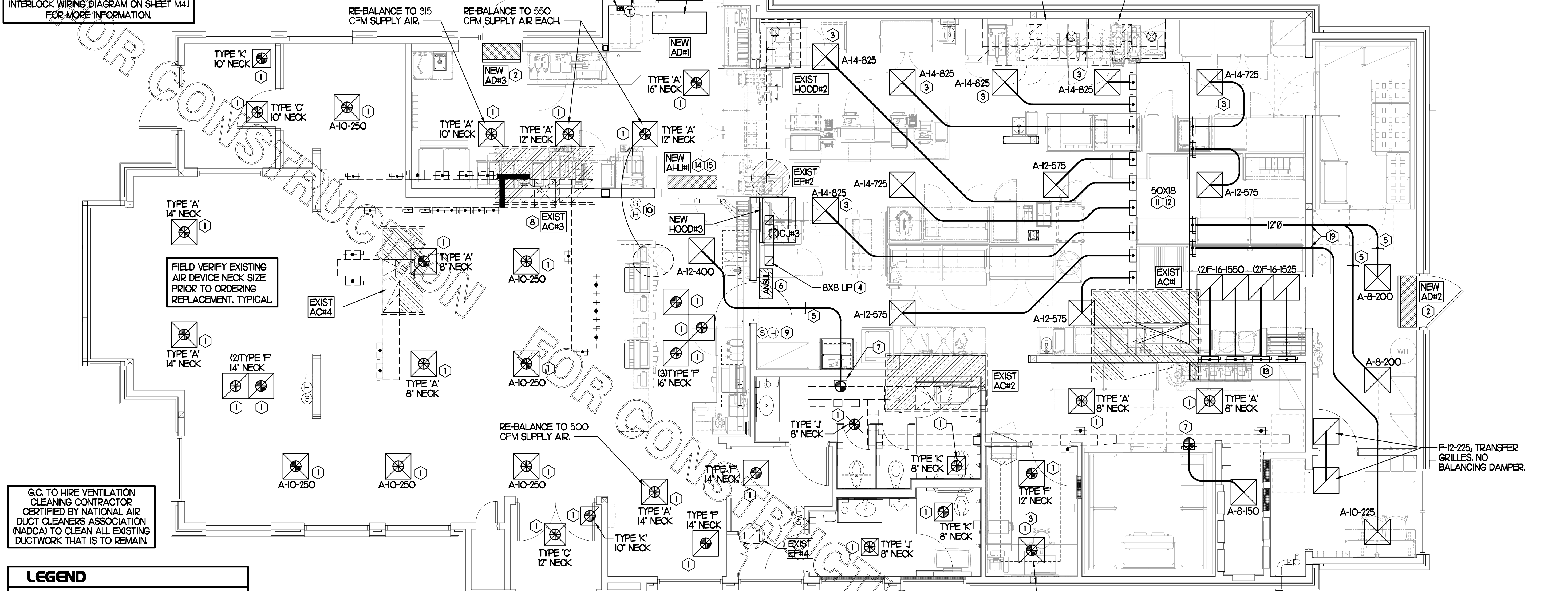
H.E.S. SYSTEM

MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SUNCOAST H.E.S. SYSTEM FOR ALL NEW HOODS. SEE HOOD FAN/EQUIPMENT INTERLOCK WIRING DIAGRAM ON SHEET M4.1 FOR MORE INFORMATION.

AIR CURTAIN REMOTE WALL SWITCHES BY MECHANICAL. REFER TO AIR DOOR SCHEDULE AND AIR CURTAIN WIRING DIAGRAM FOR FURTHER INFORMATION. COORDINATE EXACT LOCATION FOR SWITCHES WITH KITCHEN EQUIPMENT AND PLANS.

NEW AIR CURTAIN, ADH#1, MOUNTED IN CEILING GRID, CENTERED ON THE DOOR, AT 6" OFF THE INSIDE FACE OF WALL ADJACENT TO AIR CURTAIN. MECHANICAL CONTRACTOR SHALL ADJUST AIR DEFLECTORS TOWARD AIR DIVERTER BOX.

EXISTING CONDITIONS SHOWN ARE FROM PREVIOUS DRAWINGS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS OF ALL DUCT AND DIFFUSERS. IF MAJOR DIFFERENCES OCCUR IN FIELD, CONTACT CHICK-FIL-A CONSTRUCTION MANAGER.



MECHANICAL FLOOR PLAN

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

G.C. TO HIRE VENTILATION CLEANING CONTRACTOR CERTIFIED BY NATIONAL AIR DUCT CLEANERS ASSOCIATION (NADCA) TO CLEAN ALL EXISTING DUCTWORK THAT IS TO REMAIN.

FIELD VERIFY EXISTING AIR DEVICE NECK SIZE PRIOR TO ORDERING REPLACEMENT. TYPICAL.

LEGEND

A-12-400	TYPE - NECK SIZE - CFM
	SPIN-IN FITTING, MVD, NO SCOOP
	REMOTE TEMPERATURE SENSOR
	REMOTE HUMIDITY SENSOR
	SMOKE DETECTOR
	GREASE ACCESS DOOR TYPE
	DIRECTION OF THROW
	KEY NOTE REFERENCE
	EXISTING START COLLAR
	EXISTING RUNNOUT TO REMAIN
	EXISTING RETURN/EXHAUST (TYP)
	EXISTING SUPPLY DIFFUSER (TYP)
	NEW RETURN/EXHAUST, UNO. (TYP)
	NEW SUPPLY DIFFUSER, UNO. (TYP)
	NEW DUCT (TYP)
	SMOKE DETECTOR TEST/RESET STATION

SHEET NOTES

- DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
- REFER TO ELEVATIONS ON M2.1 AND HOOD DETAILS ON M4.1 FOR CAPTURE-JET FANS DUCTING REQUIREMENTS.
- HARDPIPE SHALL BE USED FOR ALL TAKE-OFFS EXCEPT WHERE ALLOWED BY DETAIL 1/M3.1. USE OF FLEXIBLE DUCT SHALL BE LIMITED TO THOSE SITUATIONS WHERE NO OTHER MEANS TO ACCOMPLISH ROUTING IS POSSIBLE.
- COORDINATE NEW WORK WITH EXISTING CONDUITS, STRUCTURE AND PIPING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR TO NOTIFY DESIGN TEAM WITHOUT DELAY IF ACTUAL LOCATION OF EXISTING MECHANICAL EQUIPMENT DOES NOT MATCH FLOOR PLAN.
- MECHANICAL CONTRACTOR SHALL BALANCE HVAC SYSTEM AS SHOWN ON THIS PLAN & IN SCHEDULES ON SHEET M3.1. IF AIRFLOWS DIFFER BY MORE THAN 5%, CONTACT CFA CONSTRUCTION MANAGER. TEST AND BALANCE REPORT SHALL BE DONE PRIOR TO STORE TURNOVER AND SUBMITTED TO CFA'S CONSTRUCTION MANAGER.

KEY NOTES (THIS SHEET ONLY)

- CONNECT NEW AIR DEVICE TO EXISTING TAKE-OFF. IF NECESSARY, MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW DUCT IN ORDER TO MAKE CONNECTION TO AIR DEVICE IN NEW LOCATION. ANY FLEX DUCT USED SHALL NOT BE LONGER THAN 4'-0". SEE DETAIL 1/M3.1. COORDINATE AIR DEVICE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN.
- AIR CURTAIN MOUNTED OVER DOOR HEADER AT 7'-2" AFF TO BOTTOM OF UNIT. PROVIDE BLOCKING IN WALL BEHIND AIR CURTAIN. USE FACTORY PRE-PUNCHED MOUNTING HOLES ON BACK SIDE OF AIR CURTAIN ONLY. ATTACH AIR CURTAIN TO WALL USING 3/8" LAG BOLTS, LENGTH AS REQUIRED TO FULLY PENETRATE BLOCKING. LOCATE MAGNETIC CONTACT TYPE MICROSWITCH IN DOOR FRAME ON STRIKE SIDE.
- MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
- GREASE DUCT UP THRU EXISTING ROOF PENETRATION FROM FULL SIZE OF HOOD COLLAR. OFFSETS THRU ROOF NOT TO BE GREATER THAN 45 DEGREES. SEE SHEET M1.2 FOR CONTINUATION.
- RUSKIN MODEL MDRS25 OR EQUIVALENT MANUAL VOLUME DAMPER WITH LOCKING QUADRANT HANDLE.
- ANSUL UTILITY CABINET. LOCATE TOP OF CABINET 0'-2" BELOW CEILING. COORDINATE FINAL MOUNTING LOCATION WITH KITCHEN EQUIPMENT.
- PROVIDE & INSTALL NEW SPIN-IN COLLAR AND ROUTE NEW DUCT TO NEW GRILLE AS SHOWN.
- G.C. TO CONFIRM EXACT LOCATION OF AC#3 MAIN DUCT RUNS RELATIVE TO PROPOSED NEW WALL PRIOR TO START OF CONSTRUCTION. CONTACT JLL PM OR AOR IF DETERMINED THERE IS A CONFLICT.
- MOUNT RELOCATED REMOTE TEMP SENSOR FOR AC#1 ON WALL AT 5'-8" AFF. COORDINATE FINAL MOUNTING LOCATION IN FIELD WITH KITCHEN EQUIPMENT, SHELVEING, AND ELECTRICAL. ROUTE NEW WIRING TO TSTAT IN T500 PANEL. MOUNT RELOCATED HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR AND ROUTE NEW WIRING TO UNIT ON ROOF.
- MOUNT RELOCATED REMOTE TEMP SENSOR ON WALL AT 5'-0" AFF (OR ABOVE WAINSCOTING IF APPLICABLE). ROUTE NEW WIRING TO TSTAT IN T500 PANEL. MOUNT RELOCATED HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR AND ROUTE NEW WIRING TO UNIT ON ROOF.
- BRANCH TAKE-OFFS SHALL NOT BE LOCATED CLOSER THAN 3'-0" FROM ANY ELBOW INCLUDING THE SUPPLY AIR DROP FROM CURB.
- TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. PROVIDE TURNING VANES IN ELBOWS, INCLUDING THE SUPPLY AIR DROP FROM UNIT.
- EXTEND 60X16 RETURN DUCT HORIZONTALLY BELOW STRUCTURE TO ACCOMMODATE START COLLARS.
- MOUNT AIR HANDLER ON OVERHEAD WALL ABOVE CASING OPENING. MOUNT UNIT AT 12" ABOVE CASING OPENING. ROUTE REFRIGERANT PIPING ABOVE CEILING AND UP THRU ROOF TO CONDENSING UNIT, CU#1. SEE SHEET M1.2 FOR CONDENSING UNIT LOCATION. REFRIGERANT PIPING BELOW ROOF SHALL BE HIDDEN WITHIN WALLS AND CEILINGS.
- ROUTE CONDENSATE ABOVE CEILING FROM AHU#1 AND DOWN IN WALL CAVITY TO EXIT POINT 12" ABOVE FLOOR DRAIN TO TERMINATE INTO FLOOR DRAIN LOCATED BEHIND ICE MAKER IN DRIVE THRU WITH CODE APPROVED AIR GAP. COORDINATE EXACT LOCATION OF DRAIN WITH PLUMBING PLANS. CONDENSATE PIPING SHALL BE TYPE K COPPER WITH 1/2" ARMAFLEX INSULATION. CONDENSATE MUST SLOPE MIN 1/8" PER FOOT TO TERMINATION POINT. CONTRACTOR SHALL INSTALL A CONDENSATE LIFT PUMP IN ORDER TO ROUTE CONDENSATE ABOVE CEILING.
- MOUNT AHU#1 THERMOSTAT ON WALL NEXT TO ADH#1 REMOTE WALL SWITCHES. SEE SCHEDULE ON SHEET M3.1 FOR INTERLOCK WITH T500 PANEL.
- YOUNG REGULATOR 1/2" MODEL 2010 ROUND ZONE DAMPER WITH MODEL T-312CE AUTOMATIC CHANGEOVER THERMOSTAT. MOUNT TSTAT AT 4'-0" AFF. POWER OPEN/SPRING CLOSE. ADJUST MECHANICAL LIMIT FOR 50 CFM MINIMUM AIRFLOW. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRROW COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.
- PROVIDE 120V/24V 50 VA TRANSFORMER TO SERVE YOUNG REGULATOR ZONE DAMPER ACTUATOR AND THERMOSTAT. POWER TRANSFORMER FROM 120V POWER CIRCUIT THAT REMAINS LIVE 24/7. PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM. SEE DETAIL ON SHEET M4.1 FOR MORE INFORMATION.
- ROUTE DUCT BETWEEN WALL STUDS ABOVE CEILING. COORDINATE WITH ARCH AND STRUCTURAL FOR EXACT LOCATION. USE 1" WRAP AT WALL PENETRATION.

TOTAL AIR BALANCE SCHEDULE

EQUIPMENT MARK	AC#1 (EXIST)	AC#2 (EXIST)	AC#3 (EXIST)	AC#4 (EXIST)	EF#1 (EXIST)	EF#2 (EXIST)	EF#3 (NEW)	EF#4 (EXIST)	TOTAL
SERVES	KITCHEN	SIDE DINING	MAIN DINING	PLAY AREA	HOOD#1	HOOD#2	HOOD#3	REST-ROOMS	
SUPPLY AIR CFM	8,500	1,980	5,000	1,800					17,280
RETURN AIR CFM	6,150	1,490	3,645	1,500					12,785
OUTSIDE AIR CFM	2,350	490	1,355	300					+4,495
EX-HAUST CFM					1,935	701	701	375	-3,712
PRESSURIZATION									+783
REMARKS	ADJUST AND VERIFY BALANCE OF ALL HVAC EQUIPMENT IS AS SHOWN IN ORDER TO MAINTAIN BUILDING AIR BALANCE.								



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CHICK-FIL-A
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LAUREL, MD 20723

FSR#01999

BUILDING TYPE / SIZE: S06E
RELEASE: v04.23

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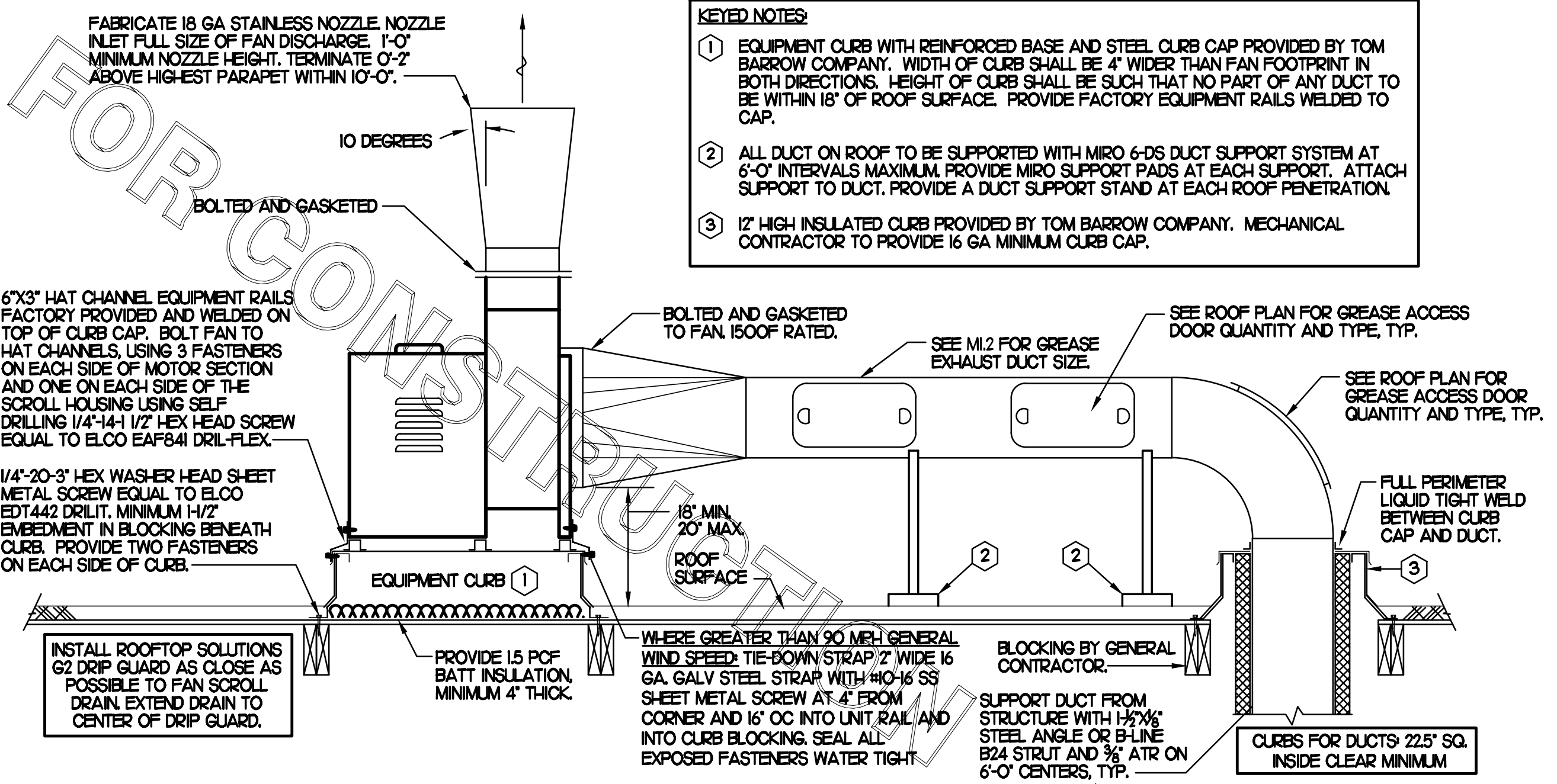
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SHEET
MECHANICAL
FLOOR PLAN
SHEET NUMBER

M1.1

CONSTRUCTION



- KEYED NOTES**
- EQUIPMENT CURB WITH REINFORCED BASE AND STEEL CURB CAP PROVIDED BY TOM BARROW COMPANY. WIDTH OF CURB SHALL BE 4" WIDER THAN FAN FOOTPRINT IN BOTH DIRECTIONS. HEIGHT OF CURB SHALL BE SUCH THAT NO PART OF ANY DUCT TO BE WITHIN 18" OF ROOF SURFACE. PROVIDE FACTORY EQUIPMENT RAILS WELDED TO CAP.
 - ALL DUCT ON ROOF TO BE SUPPORTED WITH MIRO 6-DS DUCT SUPPORT SYSTEM AT 6'-0" INTERVALS MAXIMUM. PROVIDE MIRO SUPPORT PADS AT EACH SUPPORT. ATTACH SUPPORT TO DUCT. PROVIDE A DUCT SUPPORT STAND AT EACH ROOF PENETRATION.
 - 12" HIGH INSULATED CURB PROVIDED BY TOM BARROW COMPANY. MECHANICAL CONTRACTOR TO PROVIDE 16 GA MINIMUM CURB CAP.

2 KITCHEN HOOD EXHAUST FAN - UTILITY SET FAN
NO SCALE

SHEET NOTES

- ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS B66-200 SERIES DTM WHITE ACRYLIC SEMI-GLOSS INDUSTRIAL MAINTENANCE COATING. DEGREASE AND PRIME BARE METAL SURFACE WITH ONE COAT OF SHERWIN WILLIAMS DTM PRIMER PRIOR TO PAINTING.
- AT EACH PIECE OF ROOF EQUIPMENT, PROVIDE A PLASTIC ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. THE LABEL IS TO HAVE A SELF-ADHESIVE BACKING.
- MAINTAIN 18" CLEARANCE FROM GREASE EXHAUST DUCTWORK ABOVE ROOF TO ANY COMBUSTIBLE CONSTRUCTION INCLUDING PARAPET WALLS.

KEY NOTES

- FABRICATE DISCHARGE AIR NOZZLE. LOCATE EXHAUST TERMINATION A MINIMUM 10'-0" FROM OUTSIDE AIR INTAKES. SEE DETAIL 2 THIS SHEET.
- GREASE EXHAUST DUCT LOCATED ON ROOF SHALL SLOPE 1/4" PER FOOT TOWARDS THE HOOD, THE FAN, OR A COMBINATION OF THE TWO SUCH THAT NO PORTION OF THE RADIUS ELBOW AT THE CURB IS BELOW THE CURB CAP AND SUCH THAT THE FAN BASE SETS DIRECTLY ON THE CURB RAILS. THE BOTTOM OF THE RADIUS ELBOW MAY BE EVEN FLUSH WITH THE CURB CAP, BUT NOT BELOW THE CAP. THE DUCT AT THE FAN MUST BE CENTERED ON THE FAN INLET. THE MC MAY ADD A VERTICAL RISER AT THE RADIUS ELBOW LOCATED AT THE DUCT CURB AS NEEDED IN ORDER TO CENTER THE DUCT ON THE FAN INLET.

GREASE ACCESS DOOR SCHEDULE

MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	5.5H X 14W	7.5H X 16W	1

I. ACCESS DOORS SHALL BE U.L. 1978 LISTED OR FIELD FABRICATED, REQUIRE NO TOOLS FOR REMOVAL AND MEET THE REQUIREMENTS OF THE CURRENT EDITION OF THE IMC. ACCESS DOOR ASSEMBLY SHALL BE WELDED IN PLACE TO THE GREASE EXHAUST DUCT AND THE ACCESS DOOR SHALL BE SECURED WITH T-LUMB SCREWS. ACCESS DOORS SHALL BE SEALED WITH A MINIMUM 1500 DEGREE GASKET MATERIAL. EQUIVALENT TO THAT MANUFACTURED BY BRETON INDUSTRIES, INC (800) 382-2491.

SEE FLYER WRAP INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION ON CONFIGURING INSULATION OVER AN ACCESS DOOR.

WELDED THREADED ROD, LENGTH AS NEEDED.

MIN. 1500 DEGREE GASKET ACCESS DOOR

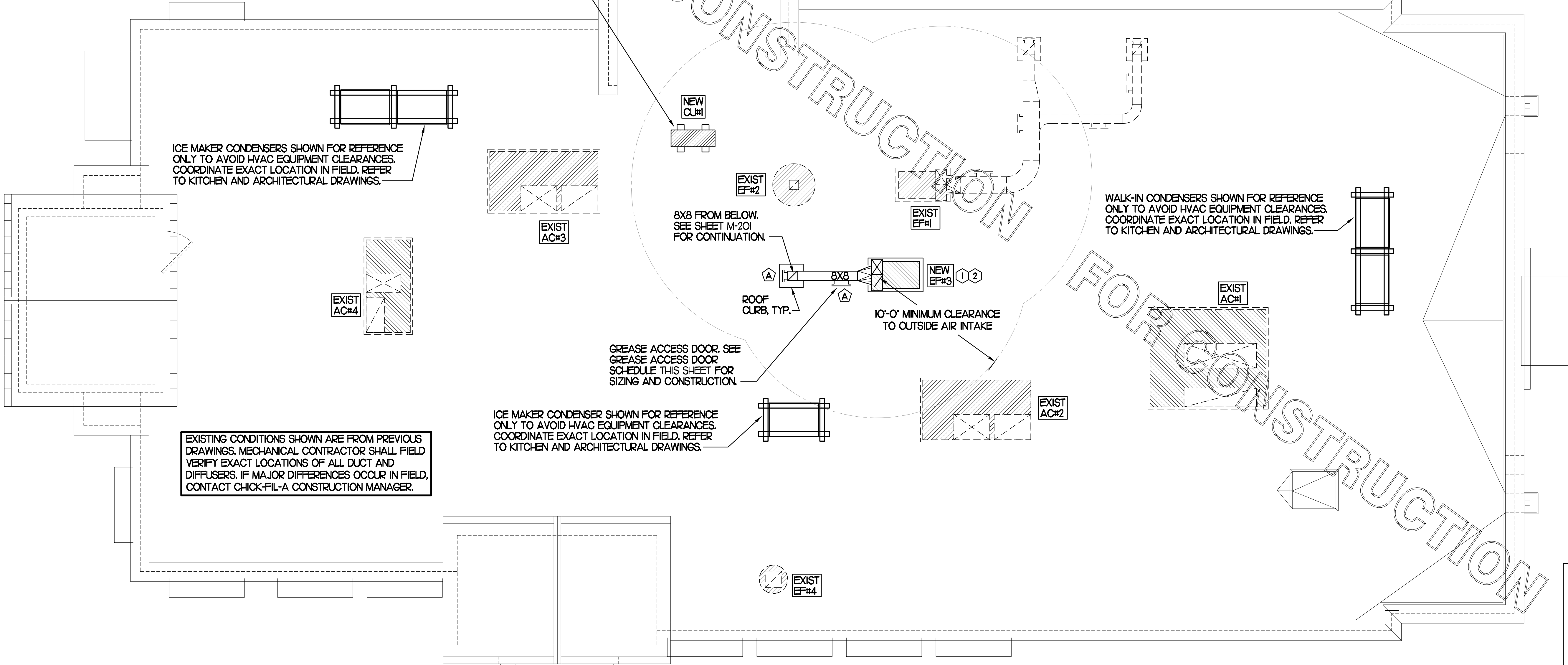
OUTER PLATE TO COMPLETELY COVER THE FINAL LAYER OF INSULATION.

WING NUTS

TUBE SPACERS FOR WRAP TO BE EITHER 3" OR 4-1/2" LONG DEPENDING ON WHETHER A ONE LAYER OR TWO LAYER SYSTEM IS USED.

TUBE SPACERS AND OUTER PLATE NOT REQUIRED ON UNINSULATED DUCT.

SET CONDENSING UNIT ON ROOF USING TWO CURBS PLUS CPES-1 EQUIPMENT CURBS. SECURE CONDENSING UNIT TO CURBS ARRANGED IN PARALLEL. SET LONG SIDE OF CURB PARALLEL TO ROOF SLOPE. FLASH INTO ROOF BY GC. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. ALL MAINTENANCE CLEARANCES OF NEW AND EXISTING EQUIPMENT SHALL BE MAINTAINED.



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



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FSR#01999
BUILDING TYPE / SIZE: S06E
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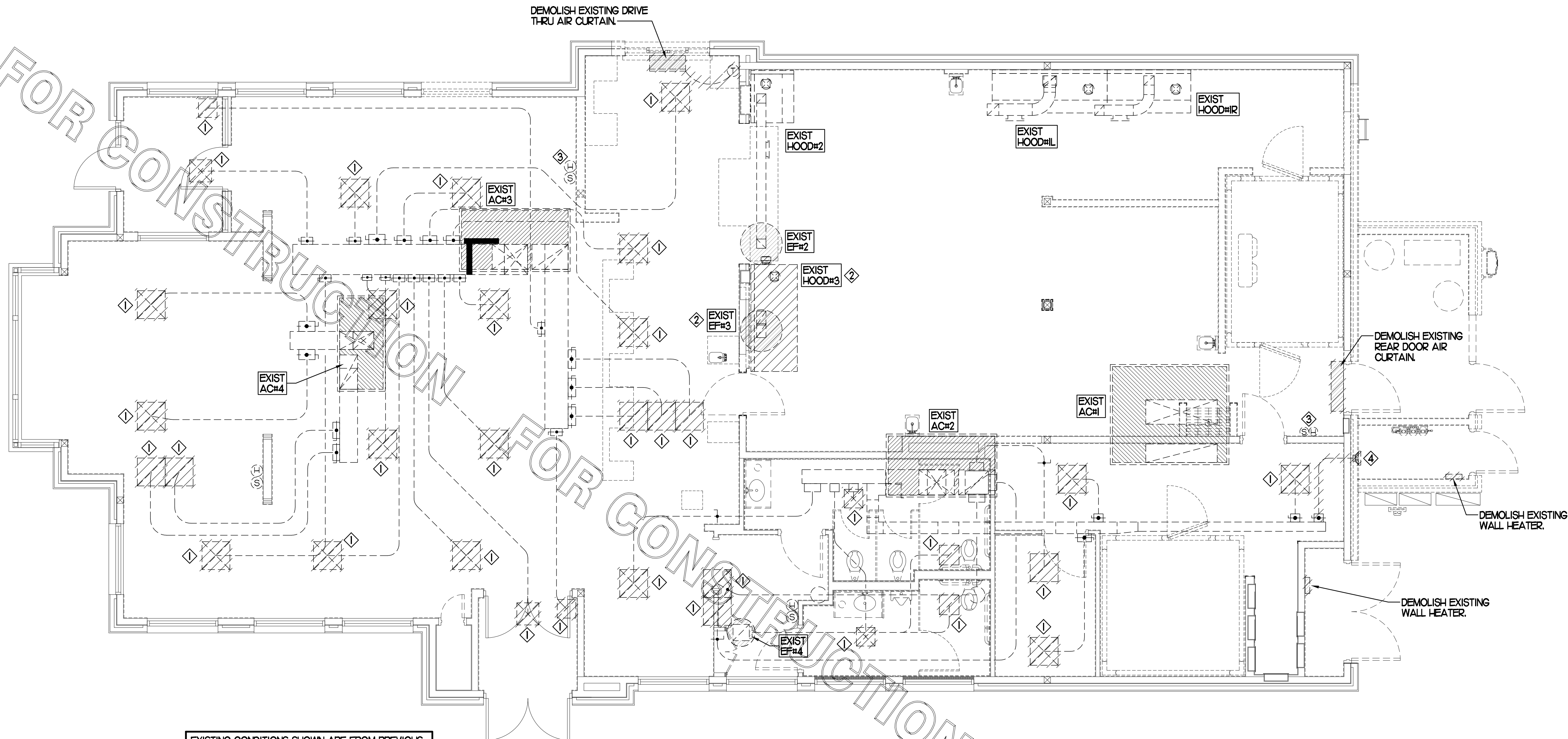
SHEET
MECHANICAL
ROOF PLAN
SHEET NUMBER

M1.2

CONSTRUCTION

FOR CONSTRUCTION

DEMOLISH EXISTING DRIVE THRU AIR CURTAIN.



EXISTING CONDITIONS SHOWN ARE FROM PREVIOUS DRAWINGS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS OF ALL DUCT AND DIFFUSERS. IF MAJOR DIFFERENCES OCCUR IN FIELD, CONTACT CHICK-FIL-A CONSTRUCTION MANAGER.

DEMOLITION NOTES

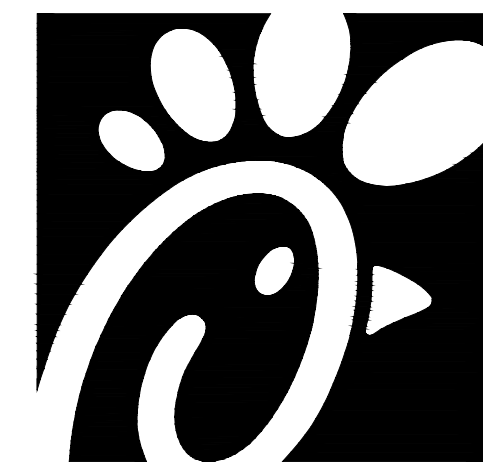
- ① CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND PAYING ALL APPLICABLE FEES.
- ② DISPOSAL OF EQUIPMENT AND MATERIALS REQUIRED TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING THE WORK.
- ③ DE-ENERGIZE ALL ELECTRICAL CIRCUITS RELATED TO EQUIPMENT THAT WILL BE MOVED OR REMOVED PRIOR TO STARTING WORK. DE-ENERGIZED CIRCUITS SHALL BE PROTECTED WITH LOCKING DEVICES USING APPROPRIATE WARNING LABELS.
- ④ MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ROOF AFTER REMOVAL OF EXISTING MECHANICAL EQUIPMENT. SEE ARCHITECTURAL DRAWINGS FOR ROOF PATCHING REQUIREMENTS.
- ⑤ EXCEPT WHERE NOTED, EXISTING REMOTE TEMPERATURE &/OR HUMIDITY SENSORS TO REMAIN. IF DURING RENOVATION PURPOSES CONTROLS SHALL BE TAKEN DOWN, MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLING AND TO PROVIDE ANY ADDITIONAL WIRING NEEDED. VERIFY EXISTING UNIT CONTROLS ARE IN GOOD WORKING ORDER. IF NOT, CONTACT CHICK-FIL-A CONSTRUCTION MANAGER.
- ⑥ MECHANICAL CONTRACTOR SHALL REPLACE FILTERS FOR ALL RTUS AT END OF PROJECT AND PRIOR TO REOPENING. MC TO PROVIDE PROPOSAL TO FACILITIES MANAGER, CONSTRUCTION MANAGER, AND OPERATOR TO CORRECT EXISTING RTU PUNCH ITEMS IDENTIFIED BY HALTON.
- ⑦ CONTRACTOR SHALL INDICATE SALVAGE VALUE IN BID FOR ROOFTOP UNITS BEING REPLACED.

I MECHANICAL DEMOLITION FLOOR PLAN
SCALE: 1/4"=1'-0"

DEMOLITION LEGEND	
	EXISTING EQUIPMENT, DUCT, AIR DEVICE ETC. TO REMAIN INTACT
	EQUIPMENT, DUCT, AIR DEVICE ETC. TO BE DEMOLISHED

DEMOLITION KEY NOTES

- ① DETACH AND DEMOLISH EXISTING AIR DEVICE. SECURE DUCT ABOVE CEILING GRID FOR RE-CONNECTION. SEE SHEET M.II FOR NEW CONNECTION.
- ② DEMOLISH EXISTING HOOD, ALL ASSOCIATED GREASE DUCT, CAPTURE JET FAN AND DIFFUSER (IF EXISTING), EXHAUST FAN, AND ITS ASSOCIATED ROOF CURB. COVER ROOF PENETRATION WEATHER-TIGHT FOR RE-USE. SEE SHEET M-201 FOR FURTHER INFORMATION.
- ③ EXISTING REMOTE TEMPERATURE AND/OR REMOTE HUMIDITY SENSORS TO BE RELOCATED AS SHOWN ON SHEET M.II. DEMOLISH ALL EXISTING ASSOCIATED CONTROL WIRING. SEE SHEET M.II FOR FURTHER INFORMATION.
- ④ DEMOLISH EXISTING AIR DEVICE AND ASSOCIATED BRANCH DUCT. SEAL PLENUM AIR-TIGHT.



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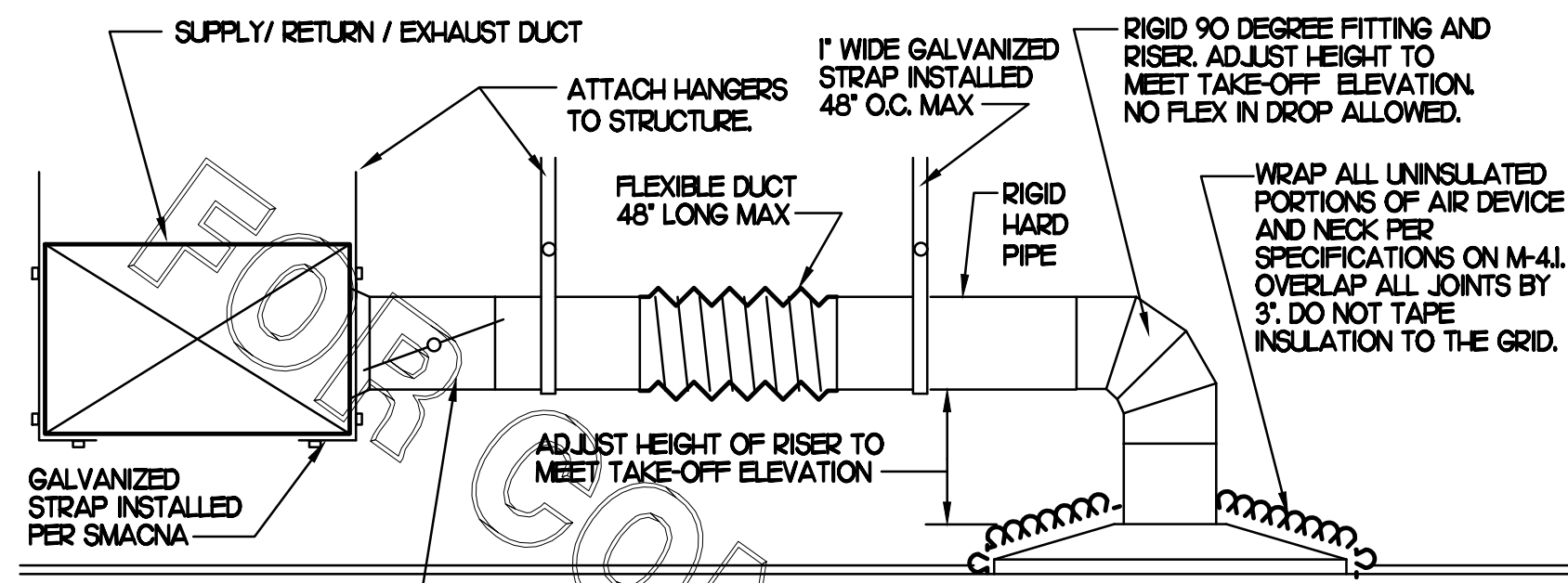
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SHEET
MECHANICAL
DEMO PLAN
SHEET NUMBER

M0.1

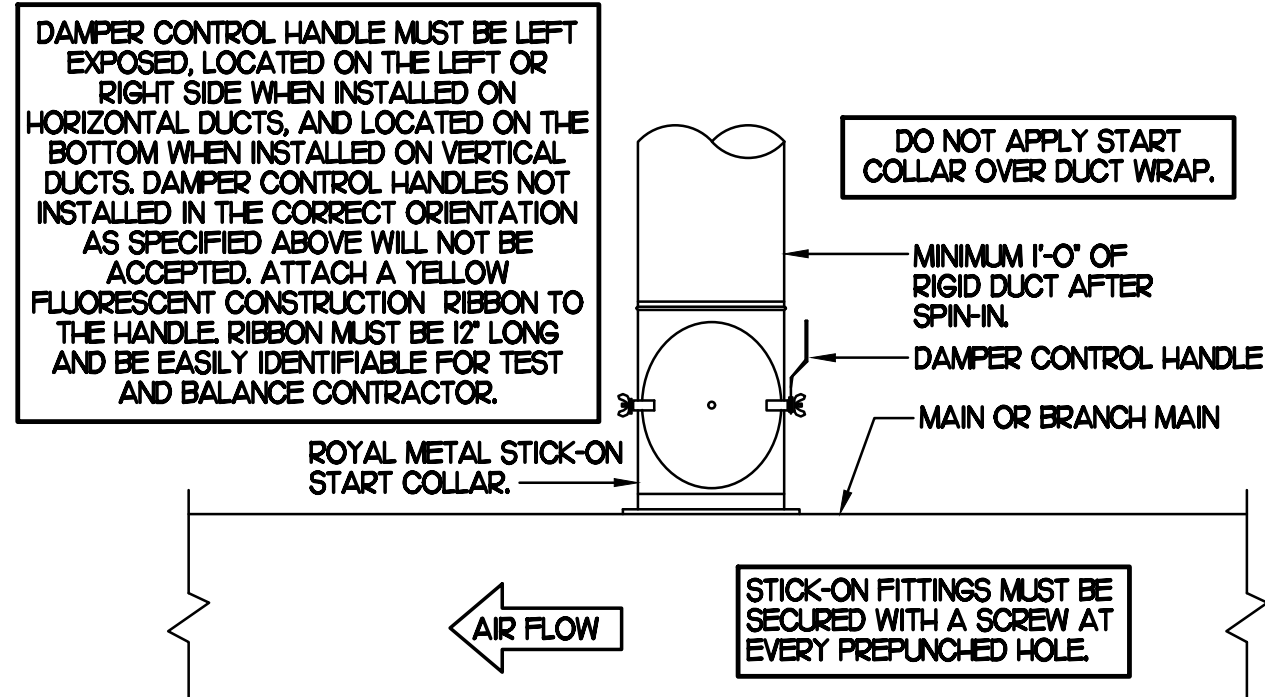
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1 SAG/RAG/GRILLE TAKE-OFF

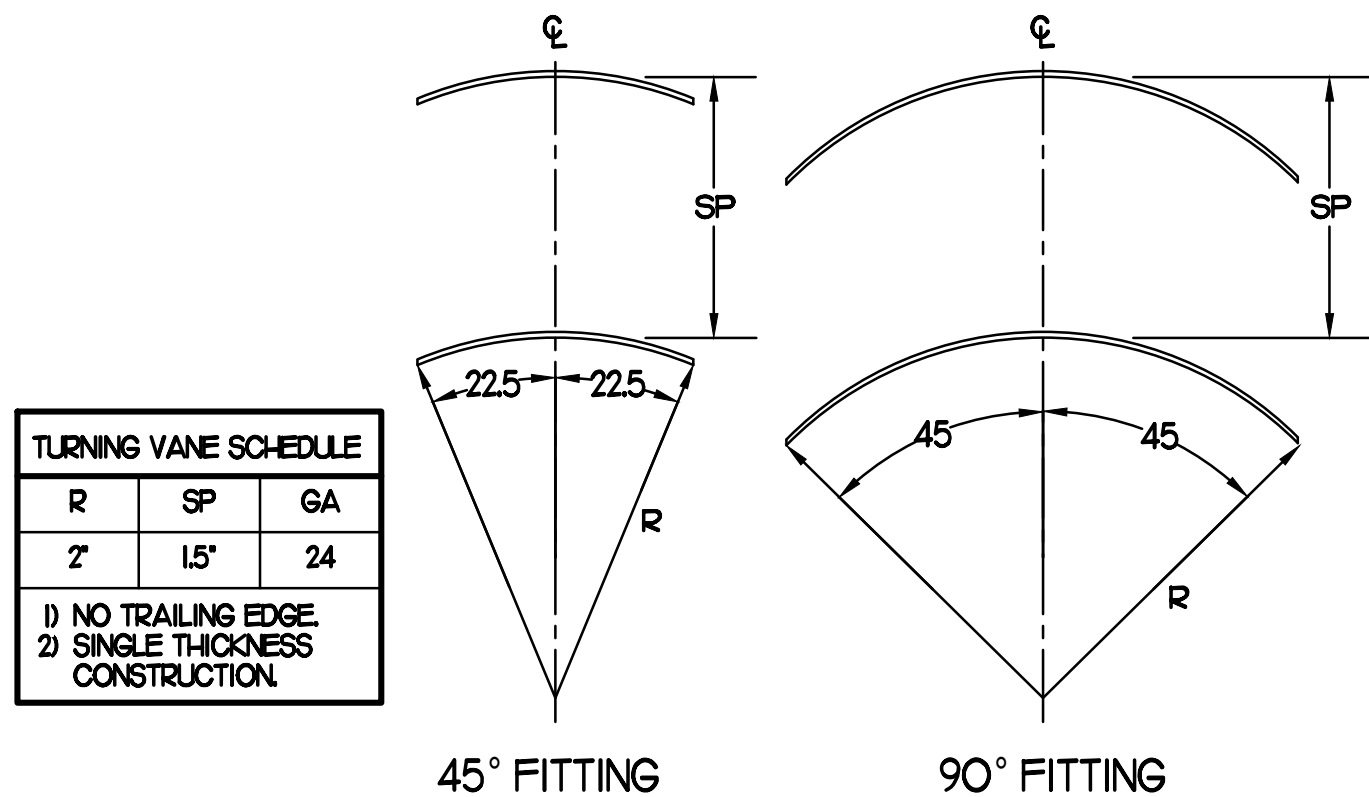
NO SCALE

CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ROYAL METAL START COLLARS. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE ROYAL METAL START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. ROYAL METAL START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.



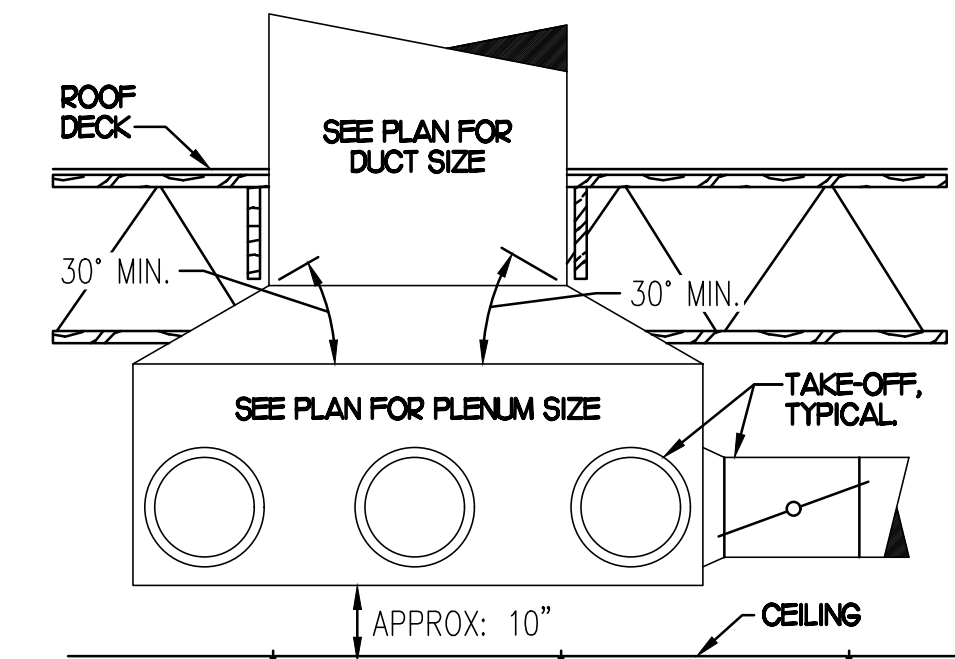
2 START COLLAR

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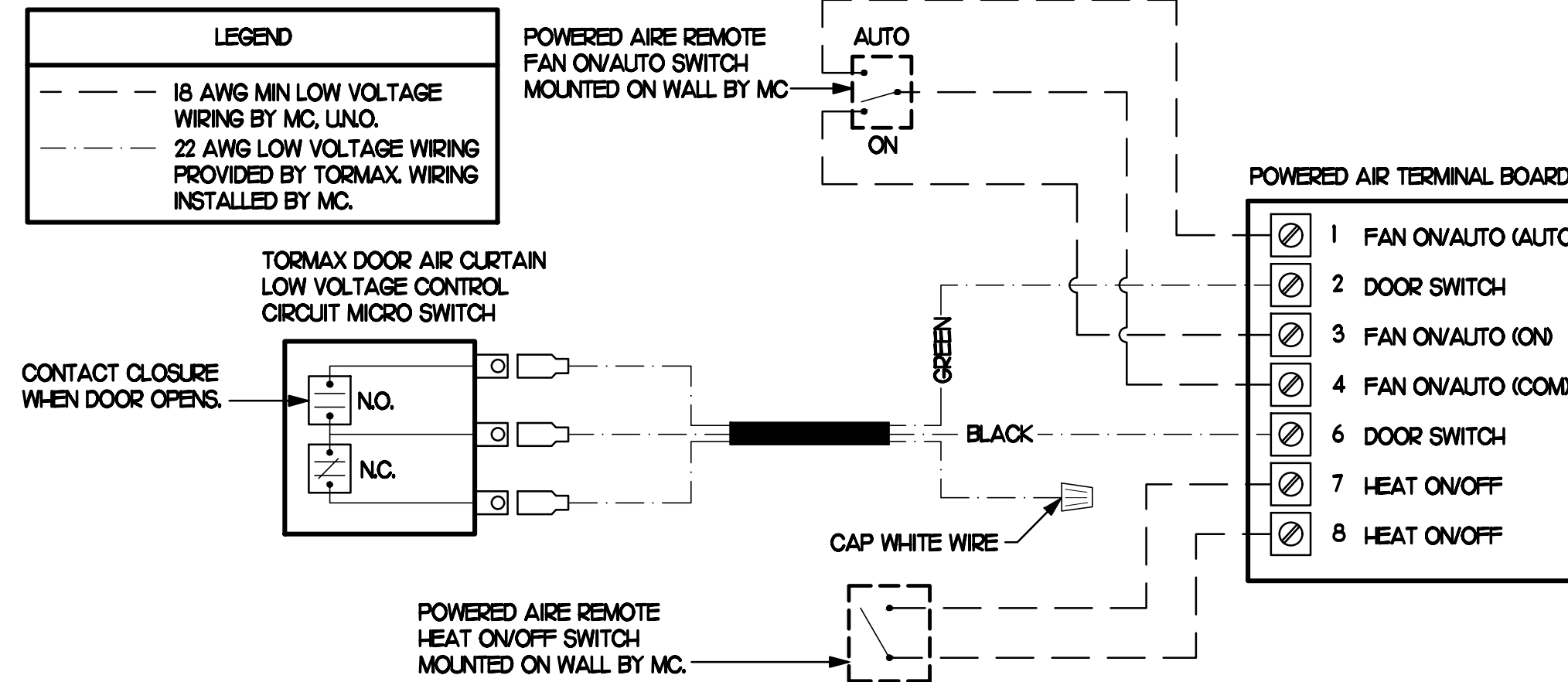
3 TURNING VANES

NO SCALE



5 RETURN DROP GEOMETRY

NO SCALE



4 AIR CURTAIN WIRING DIAGRAM

NO SCALE

AIR DOOR SCHEDULE

MARK	CFM	VELOCITY	HEATING CAP	HP	AREA SERVED	MODEL	MANUFACTURER	REMARKS
AD#1 (NEW)	1,543	2,338	10 KW	3/4	DRIVE THRU	CHA-1-48E	POWERED-AIRE	2-5
AD#2 (NEW)	3,867	4,220	NA	3/4	REAR DOOR	RBT-1-48	POWERED-AIRE	1
AD#3 (NEW)	2,899	4,220	NA	3/4	DRIVE THRU DOOR	RBT-1-36	POWERED-AIRE	1

NOTES

- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE AIR DOORS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS

- FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.
- FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER LOCATED ABOVE CEILING.
- FACTORY WIRED DISCONNECT.
- FACTORY PROVIDED, FIELD INSTALLED REMOTE WALL SWITCHES FOR HEATING ON/OFF AND FAN ON/AUTO SWITCH. SEE AIR CURTAIN WIRING DIAGRAM DETAIL THIS SHEET.
- PROVIDE WITH DIVERTER BOX FROM TOM BARROW COMPANY. PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL PER MANUFACTURER'S MOUNTING INSTRUCTIONS.

EXHAUST FAN SCHEDULE

MARK	CFM	ESP	RPM	TIP SPEED (FPM)	HP (WATTS)	AREA SERVED	MODEL	MANUFACTURER	REMARKS
EF#1 (EXIST)	1,935	-	-	-	-	HOOD#1 & HOOD#R	-	EXISTING	-
EF#2 (EXIST)	701	-	-	-	-	HOOD#2	-	EXISTING	-
EF#3 (NEW)	701	0.75	1,269	3,986	1/2	HOOD#3	120 CPS	LOREN COOK	H-2
EF#4 (EXIST)	375	-	-	-	-	RESTROOMS	-	EXISTING	-

NOTES

- GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL.
- GREASE EXHAUST FANS TO BE UL 762 LISTED.
- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR FAN/CLRB PACKAGE. MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CLRB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS

- PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MC. TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034
- PROVIDE FACTORY INSTALLED, PRE-WIRED, NEMA 3 NON-FUSED DISCONNECT. COORDINATE WITH E.C.
- INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET.
- UPBLAST, ARRANGEMENT 10, CCW ROTATION. SEE PLANS TO CONFIRM CONFIGURATION.
- PROVIDE FACTORY STEEL FAN WHEEL.
- PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE.
- PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.
- PROVIDE FACTORY DRAIN CONNECTION.
- PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL.
- PROVIDE FACTORY STEEL OUTLET COMPANION FLANGE.
- UTILITY SET FAN CURB AND ASSOCIATED EXHAUST DUCT CURB PROVIDED BY TOM BARROW COMPANY.
- PROVIDE FACTORY BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT.

AIR DEVICE SCHEDULE

MARK	DESCRIPTION	LOCATION	NECK SIZE	FACE SIZE	FRAME TYPE	REMARKS
A	PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.	DINING AREA KITCHEN	SEE PLAN	24X24	LAY-IN	1,7
C	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	ENTRYS	14X14	20X20	BEVELLED	1,3,5,6
F	PRICE MODEL 80 EGGRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CORE, FACTORY FLAT BLACK BACKPAN AND ROUND NECK.	DINING KITCHEN	SEE PLAN	24X24	LAY-IN	1,7
H	PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.	OFFICE	12	24X24	LAY-IN	1,7,8
J	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	RESTROOMS	10X10	16X16	BEVELLED	1,2,3,5,6
K	PRICE MODEL APDCR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS ENTRYS	14X14	17X7	SURFACE	1,4,5,6

NOTES

- MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS

- STANDARD OFF WHITE FINISH.
- PROVIDE MODEL VCS3 NECK DAMPER.
- SEE DRAWING M.1 FOR THROW.
- PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS.
- PROVIDE BACKPAN MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY.
- FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1/M3.1.
- FACTORY INSULATED R-6 BACKPAN.
- PROVIDE VCR7 NECK DAMPER, ADJUSTABLE THRU DIFFUSER FACE.

DUCTLESS SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

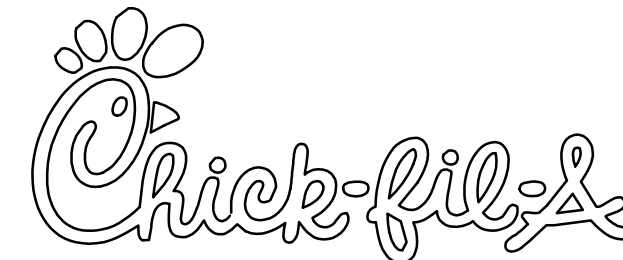
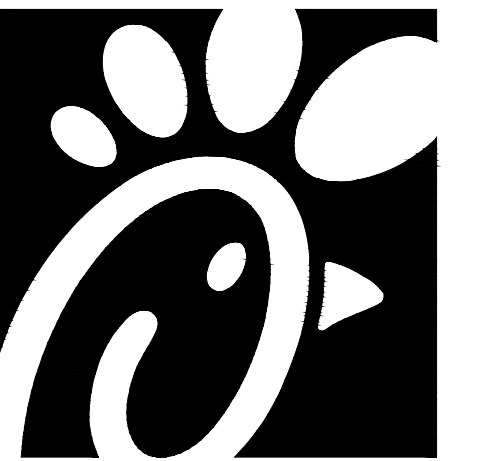
MARK	COOLING CAPACITY (MBH)		HEATING CAPACITY (MBH)		EFFICIENCIES	FAN SECTION (CFM)	ELECTRICAL DATA			R-410A MODEL	MFR	
	MIN	MAX	MIN	MAX			SEER	HSPF	AHU			CU
AHJ#1/CU#1 (NEW)	18.0	33.5	18.0	40.0	16.2	10.0	635-730-830	28	40	208/160	PKA-A36KA7 FUZ-H436N445	DAIKIN

NOTES

- MECHANICAL CONTRACTOR SHALL PURCHASE THE SPLIT SYSTEM HEAT PUMP DIRECTLY FROM TRANE/MITSUBISHI. CONTACT MR. SCOTT ROWLEY AT 630-200-7155, FOR PRICING AND AVAILABILITY. EMAIL AT CFA@TRANE.COM.

REMARKS

- ELECTRICIAN TO PROVIDE NON-FUSED DISCONNECT.
- MECHANICAL TO PROVIDE AND INSTALL REFRIGERANT PIPING AS PER MFR RECOMMENDATIONS.
- PROVIDE ENGRAVED PLASTIC LABEL AT AHJ AND CU WITH HIGH WHITE LETTERS ON A BLACK BACKGROUND RIVETED TO UNIT CABINET.
- PROVIDE WITH ADEQUATE REFRIGERANT LINE SET. FIELD VERIFY DISTANCE FROM WHERE CONDENSER IS TO BE SET TO AIR HANDLER LOCATION PRIOR TO ORDERING.
- PROVIDE WITH WALL MOUNTED THERMOSTAT (TAR-CTO1MAL-58). USE TWO-WIRE, STANDARD, NON-POLAR CONTROL WIRE TO CONNECTOR TB3 ON INDOOR UNIT CONTROLLER. PROGRAM THERMOSTAT CONTROLS TO MATCH DRIVE-THRU RTU SETPOINTS.
- PROVIDE PAC-585RA-E CONNECTOR AT INDOOR UNIT (CONNECTOR CN32). WIRE ORANGE AND RED WIRES TO SPARE POLE ON RELAY R4 IN SUNCOAST T-500 PANEL. (TERMINALS 11 AND 7 RESPECTIVELY) AND CAP THE BROWN WIRE.
- PROVIDE WITH CONDENSATE PUMP (BLUE DIAMOND MAXI BLUE MODEL# X87-72).



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LAUREL, MD 20723

FSR#01999

BUILDING TYPE / SIZE: S06E
RELEASE: v04.23

REVISION SCHEDULE
NO. DATE DESCRIPTION

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SHEET
MECH DETAILS
& SCHEDULES
SHEET NUMBER

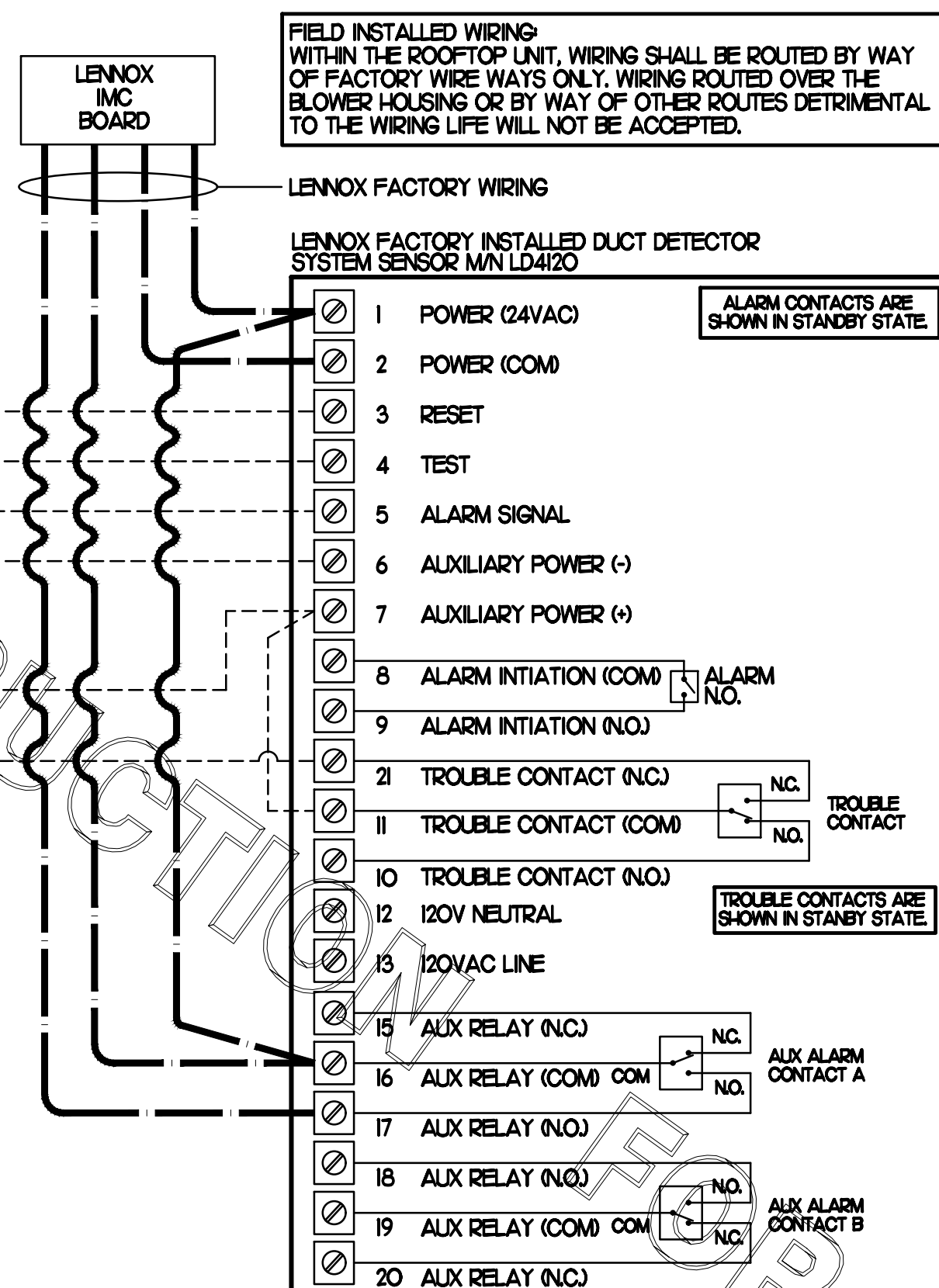
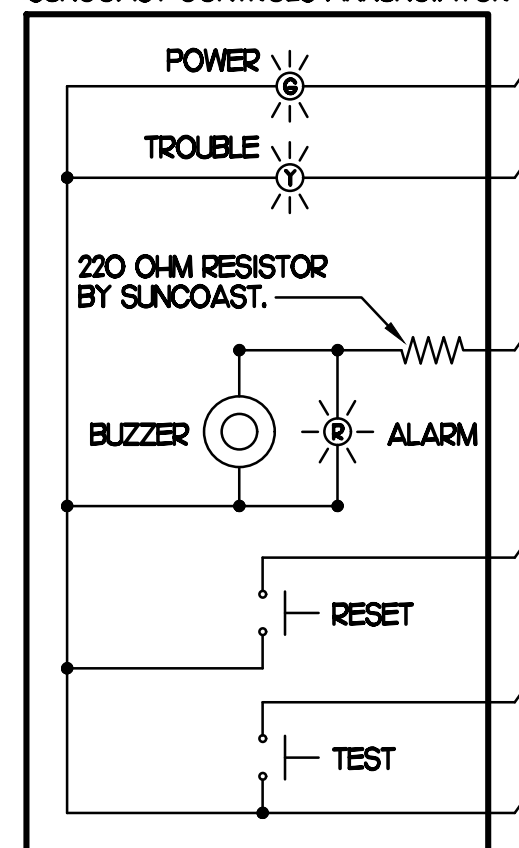
M3.1

SUPPLY SIDE DUCT DETECTORS
WHERE SUPPLY SIDE DUCT DETECTORS ARE SHOWN ON THE FLOOR PLAN AND/OR CALLED FOR ON THE RTU SCHEDULE, THE CONTRACTOR IS TO RELOCATE THE FACTORY INSTALLED SUPPLY SIDE DUCT DETECTOR FROM THE BLOWER SECTION TO THE SUPPLY DUCT DROP ABOVE THE FIRST 90 DEGREE DUCT FITTING. CONTRACTOR SHALL SPlice NEW PLENUM RATED CABLE BETWEEN THE FACTORY DUCT DETECTOR AND THE FACTORY JACK PLUG. SPLICES SHALL BE JOINED WITH CRIMP ON FITTINGS AND HEAT SHRINK JACKETS.

LEGEND
--- 18 AWG MIN WIRING BY MECH CONTRACTOR
--- FACTORY ANNUNCIATOR DETECTOR WIRING
--- FACTORY LENNOX WIRING

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

SUNCOAST CONTROLS ANNUNCIATOR



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

LENNOX FACTORY WIRING

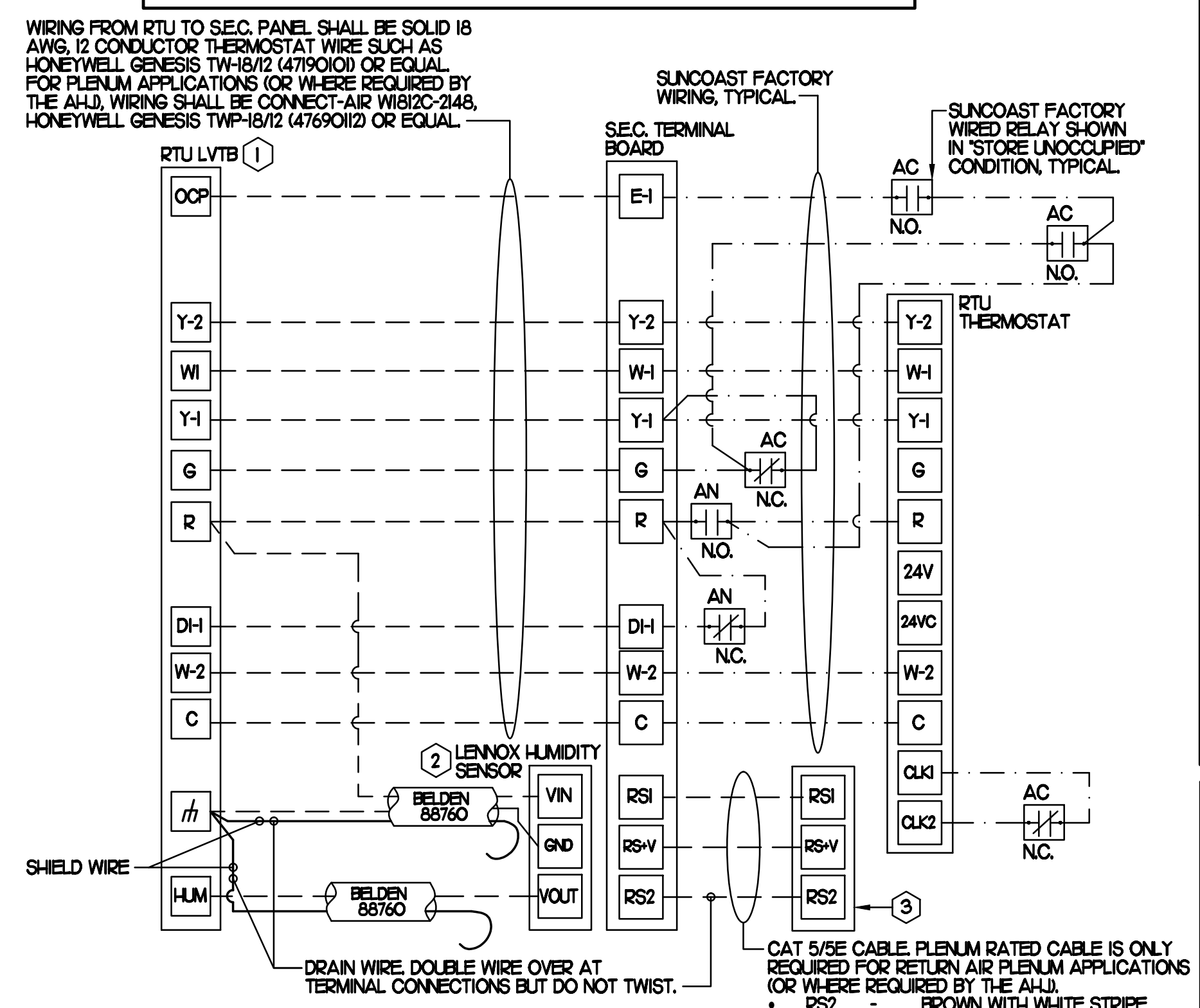
LENNOX FACTORY INSTALLED DUCT DETECTOR SYSTEM SENSOR M/N LD4120

ALARM CONTACTS ARE SHOWN IN STANDBY STATE

TROUBLE CONTACTS ARE SHOWN IN STANDBY STATE

ALX ALARM CONTACT B

LEGEND
SEC. SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF TEMP/FAN CONTROL PANEL) LOCATED IN KITCHEN
MC MECHANICAL CONTRACTOR
AC SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, ENERGIZED BY PUTTING STORE SWITCH IN 'STORE OCCUPIED' POSITION.
AN SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, DE-ENERGIZED WHEN ANSL FIRE SUPPRESSION SYSTEM IS ACTIVATED, AS NOTED.
--- LOW VOLTAGE WIRING BY MC. ONLY USE CABLE SPECIFIED. NO SUBSTITUTIONS.
--- LOW VOLTAGE WIRING BY SEC.
--- LINE VOLTAGE BY ELECTRICIAN OR SEC.



WIRING FROM RTU TO SEC. PANEL SHALL BE SOLID 18 AWG, 12 CONDUCTOR THERMOSTAT WIRE SUCH AS HONEYWELL GENESIS TWP-18/12 (4719010) OR EQUAL FOR PLENUM APPLICATIONS (OR WHERE REQUIRED BY THE AHU), WIRING SHALL BE CONNECT-AIR W1812C-2148, HONEYWELL GENESIS TWP-18/12 (4769012) OR EQUAL.

SUNCOAST FACTORY WIRING, TYPICAL

SUNCOAST FACTORY WIRED RELAY SHOWN IN 'STORE UNOCCUPIED' CONDITION, TYPICAL

RTU THERMOSTAT

CAT 5/FE CABLE PLENUM RATED CABLE IS ONLY REQUIRED FOR RETURN AIR PLENUM APPLICATIONS (OR WHERE REQUIRED BY THE AHU).
RS2 - BROWN WITH WHITE STRIPE
RS1 - GREEN
RS-V - GREEN WITH WHITE STRIPE

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

- NOTES:**
- FOR ALL RTUS EXCEPT AT KITCHEN RTUS, CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #65 TO ZERO (#58 ON LCH UNITS). ON OLDER BOARDS THIS IS ECTO PARAMETER #01 FOR LCH UNITS OR ECTO 201 FOR LCH UNITS. THIS WILL CAUSE THE O.A. DAMPER TO OPEN ON 'OCCUPIED' START. AT KITCHEN RTUS (LCH TYPE) LEAVE THE SETTING AT THE DEFAULT VALUE SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 60 MINUTES AFTER 'OCCUPIED' START. AT KITCHEN RTUS (LCH TYPE) CHANGE THE VALUE TO 5400 SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 90 MINUTES AFTER 'OCCUPIED' START.
 - MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INSIDE DOOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
 - SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNCIATOR WIRING.
 - AT HUMIDITROL RTUS SET PRODIGY-M3 BOARD CONTROL PARAMETER #106 FOR DEHUMIDIFICATION OPERATION TO A VALUE OF 7. OLDER M-8 IMC BOARD ECTO PARAMETER 424 VALUE TO BE SET TO A VALUE OF 7.
 - AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #106 FOR DEHUMIDIFICATION SET POINT TO A VALUE OF 60 (60% RH).
 - AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #107 FOR DEHUMIDIFICATION MODE DEAD BAND TO A VALUE OF 2 (2% RH).
 - SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
 - FOR MSAV UNITS, SET THE MSAV LOW SPEED SETTING TO THE SAME VALUE AS THE HIGH SPEED SETTING AFTER TAB IS COMPLETE.
 - PROVIDE PLASTIC ENGRAVED LABEL AT ALL NEW SENSORS WITH 1" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. 'ACH2 HUMIDITY SENSOR' OR 'ACH2 TEMP SENSOR'. PLACE LABELS ON WALL ADJACENT TO DEVICE. DO NOT APPLY DIRECTLY TO DEVICE.

- KEYED NOTES:**
- LOW VOLTAGE WIRING TO RTU TO BE ROUTED TO UNIT THRU FACTORY WIREWAY.
 - HUMIDITROL UNITS ONLY: WIRING TO HUMIDITY SENSOR TO BE MADE WITH TWO SEPARATE RUNS OF SHIELDED TWISTED PAIR. TERMINATE SHIELD WIRES AT TB-1 LEAVE OPEN AT SENSOR.
 - NETWORK TSTAT REMOTE TEMP SENSOR PROVIDED BY SUNCOAST AND INSTALLED BY MC. FIELD CALIBRATE EACH SENSOR.

1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - LENNOX

NO SCALE

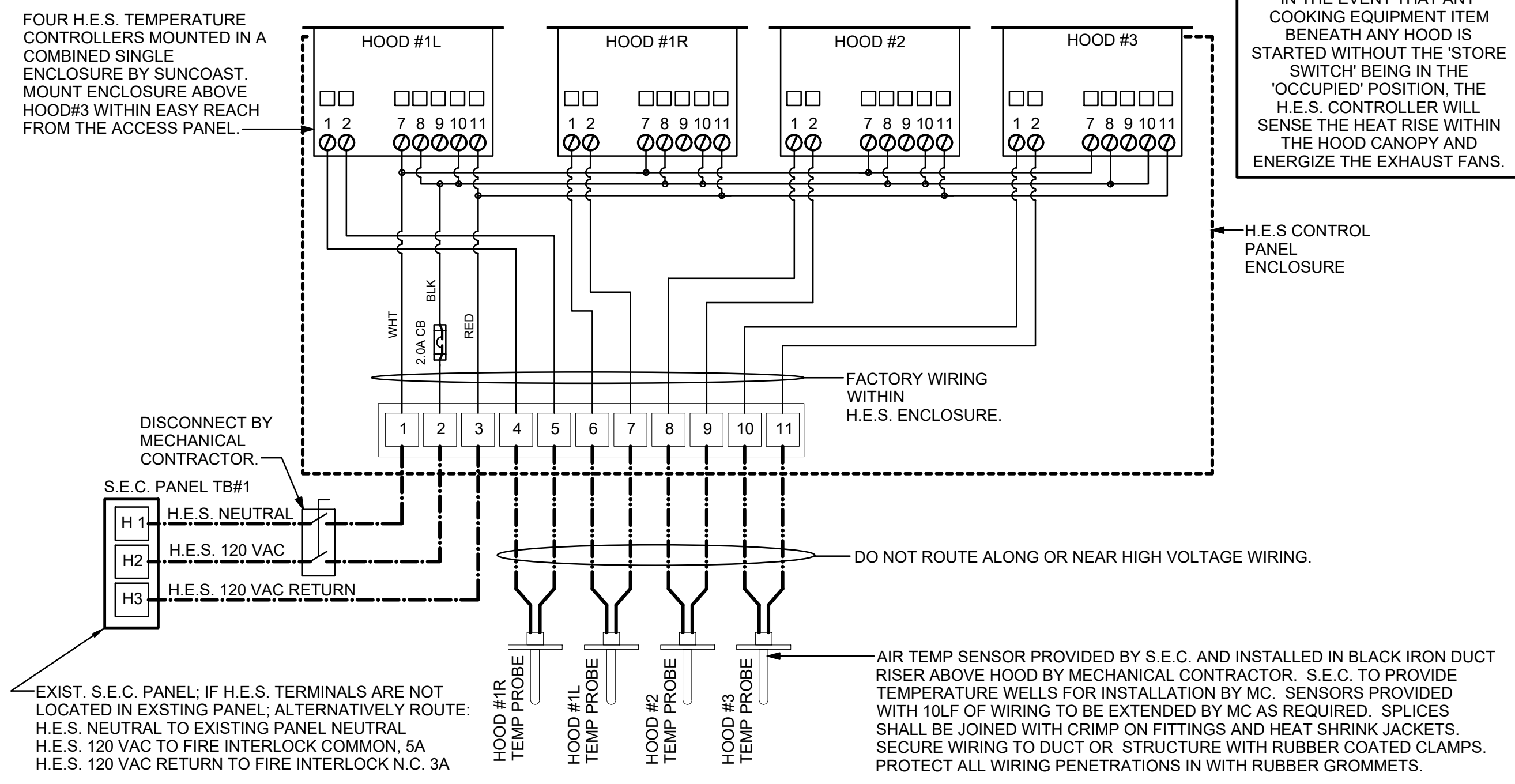
2 ROOFTOP UNIT CONTROL WIRING - LENNOX

NONE

LEGEND
S.E.C. SUNCOAST ENVIRONMENTAL CONTROLS CFA-500 ENERGY MGT PANEL
H.E.S. SUNCOAST ENVIRONMENTAL CONTROLS HOOD EXHAUST SAFETY CONTROLLER
M.C. MECHANICAL CONTRACTOR
--- 18 AWG MIN UNSHIELDED LOW VOLTAGE WIRING BY MC, U.N.O.
--- 120 VAC WIRING BY MECHANICAL CONTRACTOR

- GENERAL NOTES**
- MECHANICAL CONTRACTOR TO PURCHASE THE H.E.S. CONTROL PANEL AND COMPONENTS FROM SUNCOAST ENVIRONMENTAL CONTROLS. TELEPHONE 877-544-6679. CONTROLS COMPONENTS TO BE FACTORY MOUNTED IN LABELED NEMA-1 ENCLOSURES.
 - MECHANICAL CONTRACTOR TO PROVIDE A PROFESSIONALLY LAMINATED COPY OF THIS DETAIL ATTACHED TO THE ENCLOSURE. CONTACT ENGINEER OF RECORD FOR A REPRODUCIBLE COPY OF THE DETAIL.

S.E.C. H.E.S. OPERATION
IN THE EVENT THAT ANY COOKING EQUIPMENT ITEM BENEATH ANY HOOD IS STARTED WITHOUT THE 'STORE SWITCH' BEING IN THE 'OCCUPIED' POSITION, THE H.E.S. CONTROLLER WILL SENSE THE HEAT RISE WITHIN THE HOOD CANOPY AND ENERGIZE THE EXHAUST FANS.



FOUR H.E.S. TEMPERATURE CONTROLLERS MOUNTED IN A COMBINED SINGLE ENCLOSURE BY SUNCOAST. MOUNT ENCLOSURE ABOVE HOOD#3 WITHIN EASY REACH FROM THE ACCESS PANEL.

DISCONNECT BY MECHANICAL CONTRACTOR.
S.E.C. PANEL TB#1
H1 H.E.S. NEUTRAL
H2 H.E.S. 120 VAC
H3 H.E.S. 120 VAC RETURN

AIR TEMP SENSOR PROVIDED BY S.E.C. AND INSTALLED IN BLACK IRON DUCT RISER ABOVE HOOD BY MECHANICAL CONTRACTOR. S.E.C. TO PROVIDE TEMPERATURE WELLS FOR INSTALLATION BY MC. SENSORS PROVIDED WITH 10LF OF WIRING TO BE EXTENDED BY MC AS REQUIRED. SPLICES SHALL BE JOINED WITH CRIMP ON FITTINGS AND HEAT SHRINK JACKETS. SECURE WIRING TO DUCT OR STRUCTURE WITH RUBBER COATED CLAMPS. PROTECT ALL WIRING PENETRATIONS IN WITH RUBBER GROMMETS.

3 HOOD EXHAUST SAFETY SWITCH (H.E.S.) WIRING DIAGRAM

NONE



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BUILDING TYPE / SIZE: S06E
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SHEET HVAC CONTROLS

SHEET NUMBER

M4.1

CONSTRUCTION

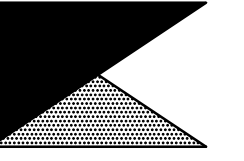
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4 05/22/24 Pre-Bid Notes

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SHEET MECHANICAL

COMCHECK

SHEET NUMBER

M6.1

COMcheck Software Version COMcheckWeb
Mechanical Compliance Certificate

Project Information
 Energy Code: 2021 IECC
 Project Title: CFA #1999 - Laurel, MD
 Location: Laurel, Maryland
 Climate Zone: 4a
 Project Type: Alteration

Construction Site: 10975 Johns Hopkins Rd. Laurel, MD 20723
 Owner/Agent: Chick-fil-A 5200 Buffington Road Atlanta, GA 30349
 Designer/Contractor: Kurzynske & Associates 2705 Lebanon Pike - Suite One Nashville, TN 37214 615-255-5203

Mechanical Systems List
Quantity System Type & Description

1 AHU#1/CU#1 (Single Zone):
 Split System Heat Pump
 Heating Mode: Capacity = 40 kBtu/h, Proposed Efficiency = 10.00 HSPF2, Required Efficiency = 7.50 HSPF2
 Cooling Mode: Capacity = 34 kBtu/h, Proposed Efficiency = 16.20 SEER2, Required Efficiency = 14.30 SEER2
 Proposed Part Load Efficiency = 0.00, Required Part Load Efficiency = 0.00
 Fan System: AHU#1 | Drive-Thru -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
 Supply Supply, Constant Volume, 830 CFM, 0.1 motor nameplate hp, 0.00 fan energy index, fan exception: Part of code listed equipment

6 GH (Infrared Heater) (Single Zone w/ PerimeterSystem):
 Heating: 1 each - Radiant Heater, Gas, Capacity = 50 kBtu/h
 No minimum efficiency requirement applies

1 EH (Infrared Heater) (Single Zone w/ PerimeterSystem):
 Heating: 1 each - Radiant Heater, Electric, Capacity = 20 kBtu/h
 No minimum efficiency requirement applies

Mechanical Compliance Statement
 Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Mark Kurzynske, P.E. 6/5/24
 Name - Title Signature Date

I. SECTION C15000 - MECHANICAL SPECIFICATIONS

PART I - GENERAL

- 1.01 SCOPE
 - A. IT IS THE RESPONSIBILITY OF CONTRACTOR TO READ ALL SPECIFICATIONS AND CONSULT ALL DRAWINGS WHICH MAY AFFECT THE INSTALLATION AND COORDINATION OF HIS WORK WITH OTHER TRADES. CONTRACTOR SHALL COORDINATE AND MAKE MINOR ADJUSTMENTS IN LOCATION OF EQUIPMENT AND MATERIALS AS NECESSARY TO SECURE COORDINATION.
 - B. COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES, INCLUDING BUT NOT LIMITED TO THE LATEST APPROVED EDITIONS OF NFPA-96, NFPA-90A, NFPA-94, SMACNA, ASHRAE 90.1 AND ASHRAE 62.
 - C. SYSTEM LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY STRUCTURAL CONDITIONS, COORDINATION WITH OTHER TRADES, COORDINATION WITH FINISHES AND OTHER CONDITIONS. STRUCTURAL SUPPORTS SHALL NOT BE CUT OR ALTERED TO ASSURE FIT OF HVAC SYSTEM. TEN FOOT CLEARANCE SHALL BE MAINTAINED BETWEEN OUTSIDE AIR INTAKES AND EXHAUST FANS AND PLUMBING VENT TERMINALS.
 - D. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER FINAL PAYMENT IS APPROVED. CONTRACTOR SHALL HONOR FACTORY WARRANTIES ON ALL EQUIPMENT PROVIDED AS PART OF THIS SYSTEM.
 - E. UPON COMPLETION OF PROJECT, ALL SYSTEM EQUIPMENT AND MATERIALS SHALL BE IN NEW, CLEAN CONDITION WITH ALL DAMAGE RESTORED TO CONDITION ACCEPTABLE TO THE OWNERS REPRESENTATIVE. ALL EQUIPMENT, COMPONENTS AND DUCTWORK SHALL BE INSPECTED AND THOROUGHLY CLEANED, READY FOR USE. AT COMPLETION OF JOB, ALL MISCELLANEOUS TOOLS, SCAFFOLDING, SURPLUS MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED BY CONTRACTOR.
 - F. CONTRACTOR SHALL PROVIDE TWO SETS OF 2" MERV 8 OR HIGHER THROW AWAY TYPE FILTERS. A CLEAN SET SHALL BE PROVIDED PRIOR TO TEST AND BALANCE AND AGAIN PRIOR TO OPENING.

PART II - PRODUCTS

- 2.01 HEATING AND COOLING EQUIPMENT (C15730)
 - A. FURNISH AND INSTALL R-410A ROOFTOP SINGLE PACKAGE COMBINATION ELECTRIC COOLING AND ELECTRIC HEATING UNITS BY LENNOX AS SHOWN ON DRAWINGS. EQUIPMENT SHALL BE ARI CERTIFIED AND U.L. LISTED.
 - B. ACCESSORIES SHALL INCLUDE LOW AND HIGH PRESSURE SAFETIES, CRANK CASE HEATER, OVERCURRENT AND OVERTEMPERATURE SAFETY, COMPRESSOR VIBRATION ISOLATORS, FILTER DRIERS, REFRIGERANT SERVICE VALVES, COIL HAIL GUARDS WHERE SCHEDULED, CONVENIENCE OUTLETS FACTORY INSTALLED ON SCHEDULED UNITS, UNIT MOUNTED NON-FUSED DISCONNECTS, LOW AMBIENT OPERATION DOWN TO 30 DEGREES F AND EVAPORATOR FREEZE STAT.
 - C. COMPRESSORS SHALL BE FULLY HERMETIC SCROLL TYPE WITH INTERNAL VIBRATION ISOLATORS. COMPRESSORS SHALL BE PROVIDED WITH A MINIMUM FIVE (5) YEAR FULL WARRANTY.
 - D. THE UNIT HEATING ELEMENTS SHALL BE BARE NICHROME WIRE EXPOSED TO THE AIR STREAM. HEATING CONTROLS SHALL INCLUDE TIME DELAY THAT SHALL BRING ELEMENTS ON AND OFF IN SEQUENCE WITH TIME DELAY BETWEEN EACH ELEMENT. HEATING SHALL BE PROVIDED IN TWO STAGES. LIMIT CONTROL SHALL PROVIDE OVERLOAD AND SHORT CIRCUIT PROTECTION. HEATER SHALL HAVE A ONE (1) YEAR WARRANTY.
 - E. CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR EQUIPMENT WITH LENNOX CORPORATION. PRICING FOR THE EQUIPMENT HAS BEEN ESTABLISHED IN ADVANCE. CONTACT LENNOX NATIONAL ACCOUNTS AT 972-497-6260 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY.

- 2.02 DUCTWORK (C15735) (SEE DWG M2.1 FOR ADDITIONAL GREASE DUCT SYSTEM REQ.)
 - A. ACCEPTABLE MANUFACTURERS OF INSULATION ARE MANVILLE, OWENS CORNING OR KNAUF.
 - B. ALL DUCTWORK SHALL BE SHEET METAL, UNLESS NOTED OTHERWISE (U.N.O.).
 - C. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS, U.N.O.
 - D. CONSTRUCTION OF DUCTWORK SHALL MEET SMACNA 1" W.C. PRESSURE CLASS STANDARD AND RECOMMENDATIONS. SMACNA SHALL BE FOLLOWED WITH RESPECT TO GAGE THICKNESS, JOINTS, REINFORCING, CONSTRUCTION, INSTALLATION AND SUPPORT FOR PRESSURE CLASS STATED. ALL TRANSVERSE JOINTS IN RECTANGULAR AND ROUND DUCT SHALL BE SEALED PER SMACNA SEAL CLASS C WITH U.L. DUCT MASTIC SEALANT APPROVED FOR INTENDED USE. DUCT TAPE IS NOT AN ACCEPTABLE SUBSTITUTE FOR MASTIC UNLESS EQUAL TO HARDCAST FOIL-GRIP 1402 BUTYL RUBBER ADHESIVE TAPE.
 - E. ALL DUCT INSULATION SHALL MEET MINIMUM R-VALUE REQUIRED BY ASHRAE 90.1 LATEST EDITION. ALL DUCT WRAP SHALL BE MINIMUM 2" THICK, 3/4 PCF AND 5.6 R-VALUE INSTALLED WITH EITHER A VAPOR BARRIER WITH MAXIMUM PERMEANCE 0.05 OR A MINIMUM 2 MIL ALUMINUM REINFORCED FOIL/KRAFT FACING.
 - F. ALL DUCT DROPS FROM THE ROOFTOP UNITS SHALL BE EXTERNALLY INSULATED.
 - G. SUPPLY AND RETURN AIR DUCTWORK SERVING ALL AREAS SHALL BE EXTERNALLY INSULATED.
 - H. ALL AIR CONVEYANCE COMPONENTS SUCH AS, BUT NOT LIMITED TO DUCT, DUCT PLENUMS, GRILLES/DIFFUSERS, BACK PANS, AND BOOTS SHALL BE INSULATED. INSULATION TYPE IS COVERED ELSEWHERE IN THIS SPECIFICATION.
 - I. RESTROOM RECTANGULAR EXHAUST AIR DUCTWORK SHALL BE LINED WITH 1" THICK, 1-1/2 PCF INSULATION.
 - J. TRUNK DUCTS SHALL BE ISOLATED FROM UNIT VIBRATION WITH THE USE OF NFPA AND U.L. APPROVED FLEXIBLE CONNECTORS INSTALLED AT THE TOP OF BOTH SUPPLY AND RETURN DROPS.
 - K. INSULATED FLEXIBLE DUCT MAY BE UTILIZED FOR RUNOUTS TO GRILLES AND DIFFUSERS ONLY IN THE HORIZONTAL POSITION AND IN MAXIMUM LENGTHS OF 4'-0", NO EXCEPTIONS. SEE TAKE-OFF DETAIL ON DRAWING M3.1.
 - L. CONSTRUCTION OF FLEXIBLE DUCTWORK SHALL INCLUDE SPIRAL METAL HELIX BONDED TO A POLYESTER CORE, FIBERGLASS INSULATION WITH POLYETHYLENE OR MYLAR VAPOR BARRIER. ALL COMPONENTS SHALL HAVE APPROPRIATE U.L. APPROVAL AND SHALL BE EQUIVALENT TO THERMAFLEX MKE.
 - M. FLEXIBLE DUCT SHALL BE INSTALLED PER THE "ADC FLEXIBLE DUCT PERFORMANCE AND INSTALLATION STANDARDS, 4TH ED" USING FOIL TAPE AND DRAWBAND ON THE INNER CORE AND TAPE OR DRAWBAND ON THE OUTER JACKET.
 - N. DUCT TAPE SHALL BE EQUAL TO FASSON 181-B FX, 2-1/2" WIDE.
 - O. SINGLE THICKNESS TURNING VANES SHALL BE INSTALLED AT 90 DEGREE TURNS IN SUPPLY DUCTWORK WHERE ANY ONE DIMENSION IS GREATER THAN 12".
 - P. RADIUS ELBOWS MAY BE SUBSTITUTED FOR 90 DEGREE ELBOWS AT THE DISCRETION OF THE CONTRACTOR. CENTERLINE RADIUS EQUAL TO: R=W PER FIGURE NO. 2-2 IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
 - Q. EXTERNAL INSULATION ON BOTTOM OF DUCTS 24" OR WIDER SHALL BE SUPPORTED WITH STICK PINS ON 18" CENTERS. STICK PIN WASHERS SHALL BE COVERED WITH DUCT TAPE OR MASTIC.

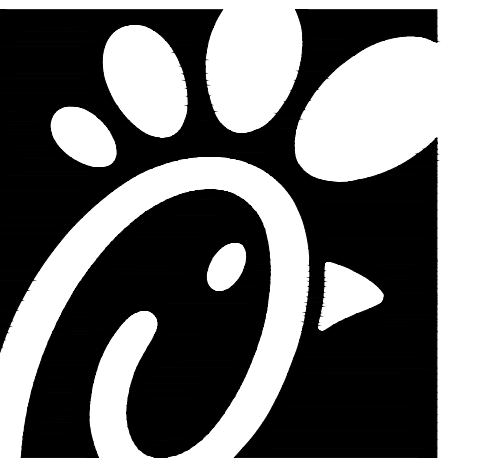
2.03 CONTROLS (C15735)

- A. SYSTEMS SHALL BE COMPLETE WITH CONNECTIONS TO EXISTING CFA-500 TEMPERATURE CONTROL PANEL AS MANUFACTURED BY SUNCOAST ENVIRONMENTAL CONTROLS (S.E.C.) (PH: 877-544-6679). CONTROL WIRING TERMINATIONS ARE BY THE MECHANICAL CONTRACTOR.
- B. THE SMOKE DETECTORS SHALL BE FACTORY INSTALLED AND WIRED BY THE ROOFTOP UNIT MANUFACTURER.
- C. A FACTORY INSTALLED SMOKE DETECTOR IN THE RETURN AIR SECTION OF EACH AIR CONDITIONING UNIT SHALL STOP THE INDOOR FAN AND CLOSE THE OUTSIDE AIR DAMPER IN THE EVENT OF EXCESSIVE TEMPERATURE OR SMOKE. SMOKE DETECTOR SHALL BE LOCATED PRIOR TO ANY EXHAUST FROM THE BUILDING OR MIXING WITH FRESH AIR MAKE-UP. UPON DETECTION, THE SYSTEM SHALL NOT RESTART UNTIL THE DEVICE IS MANUALLY RESET. DEVICES SHALL BE LOCATED WHERE THEY CAN BE EASILY ACCESSED AND WHERE CLEAR OF FILTERS.
- D. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH SUNCOAST ENVIRONMENTAL CONTROLS FOR THE SMOKE DETECTOR TEST/RESET ANNUNCIATOR STATIONS. THE TEST/RESET STATIONS WILL BE PURCHASED AND INSTALLED BY THE MECHANICAL CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE.
- E. THE REMOTE TEST/RESET ANNUNCIATORS SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR. INSTALLATION BY MECHANICAL SHALL INCLUDE MOUNTING OF THE ANNUNCIATORS AND ALL WIRING FROM EACH DEVICE TO THE RTU OR AHU. PROVIDE A JUNCTION BOX IN THE WALL WITH 1/2" CONDUIT STUBBED UP ABOVE THE CEILING FOR EACH REMOTE TEST STATION. ANNUNCIATOR SHALL BE SUNCOAST CONTROLS REMOTE TEST/RESET STATION WITH POWER LED, TROUBLE LED, ALARM LED, 90DB HORN AND TEST/RESET BUTTON.
- F. THE RESTROOM FAN SHALL BE INTERLOCKED TO THE LIGHTS SERVING THE MEN AND WOMEN'S RESTROOMS. THE HOOD FANS SHALL BE CONTROLLED VIA THE SUNCOAST CFA-500 CONTROL PANEL. WIRING, RELAYS AND SWITCHES FOR CONTROL OF ALL FANS ARE BY ELECTRICAL CONTRACTOR.
- G. LENNOX UNITS - THERMOSTATS ARE PROVIDED AND INTEGRATED INTO THE TEMPERATURE CONTROL PANEL BY SUNCOAST ENVIRONMENT CONTROLS. SUNCOAST WILL PROVIDE A NETWORK THERMOSTAT US32-CFA TSTAT PRE-WIRED IN THE TEMPERATURE CONTROL PANEL. A REMOTE TEMPERATURE SENSOR FOR EACH THERMOSTAT IS ALSO PROVIDED. SOME UNITS MAY HAVE MORE THAN ONE SENSOR. MECHANICAL CONTRACTOR SHALL INSTALL ALL WIRING BETWEEN THE THERMOSTAT, THE REMOTE SENSOR AND THE ROOFTOP UNIT OR AHU.
- H. MECHANICAL CONTRACTOR SHALL INSTALL CONTROL WIRING IN 1/2" CONDUIT WHERE REQUIRED BY CODE. WHERE NOT REQUIRED TO BE IN CONDUIT, ALL WIRING SHALL BE RUN PARALLEL TO STRUCTURAL MEMBERS OR PERPENDICULAR WITH NO DIAGONAL ROUTING. ALL WIRING SHALL BE SECURED TO THE FRAMING TO PREVENT SAGGING IN RUNS. WIRING TO ROOFTOP UNITS SHALL BE ROUTED THROUGH THE FACTORY THRU-BASE FITTING IN THE UNIT BASE. NO SPLICING OF WIRING WILL BE ACCEPTED. ALL WIRING ABOVE THE ROOF SHALL BE INSTALLED IN EXTERIOR GRADE FLEXIBLE CONDUIT. ALL CONTROL WIRING AND CONTROL WIRING CONDUIT SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. WIRING SHALL BE INSTALLED IN ACCORDANCE WITH LATEST EDITION OF NEC. ALL LOW VOLTAGE CONTROL WIRING SHALL BE NO LESS THAN 18 AWG MIN. CONTROL WIRING CONDUCTORS SHALL BE SIZED TO ACCOUNT FOR LOAD AND LENGTH OF RUN TO ALLOW SUFFICIENT VOLTAGE AVAILABLE AT CONTROLLED DEVICE TO OPERATE THE SYSTEM RELIABLY.

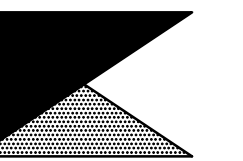
PART III - EXECUTION

- 3.01 SCOPE
 - A. FURNISH AND INSTALL SYSTEM IN ACCORDANCE WITH REFERENCED STANDARDS, APPLICABLE CODES, MANUFACTURER'S RECOMMENDATIONS AND AS INDICATED ON DRAWINGS.
 - B. OWNER SHALL TEST AND BALANCE MECHANICAL SYSTEM IN ACCORDANCE WITH NCI OR AABC STANDARDS TO ASSURE CONFORMANCE WITH DESIGN. G.C. WILL MAKE MECHANICAL CONTRACTOR AVAILABLE DURING TEST AND BALANCE TO ASSIST TESTING AGENCY AND TO MAKE CORRECTIONS IMMEDIATELY NECESSARY. CONTRACTOR SHALL CORRECT ITEMS ON WRITTEN TEST AND BALANCE REPORT.
 - C. CONTRACTOR SHALL INSTRUCT THE OWNER'S REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE PROPER MAINTENANCE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT THROUGH DEMONSTRATION AND EXPLANATION OF OPERATING & MAINTENANCE MANUALS.
 - D. CONTRACTOR SHALL PROVIDE A "SAMPLE MAINTENANCE PROPOSAL" TO THE OWNER'S REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE PROPER MAINTENANCE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT.
 - E. CONTRACTOR SHALL COMPLETE A/C EQUIPMENT STARTUP DOCUMENTATION PROVIDED BY OWNER.

NATIONAL ACCOUNTS	
1.	LENNOX EQUIPMENT - CONTACT LENNOX NATIONAL ACCOUNTS AT 800-367-6285 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY. LENNOX EQUIPMENT NOT PURCHASED THRU LENNOX NATIONAL ACCOUNTS WILL NOT BE ACCEPTED.
2.	LOREN COOK FAN AND CURB PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
3.	PRICE AIR DEVICES - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
4.	AIR DOORS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
5.	HALTON HOODS - CHICK-FIL-A WILL PURCHASE AND PROVIDE THE HOODS FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING THE HOODS. CONTACT HALTON CO. AT 270-237-5600 FOR MORE INFO.
6.	ROYAL METAL PRODUCTS START COLLARS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
7.	SPACE-RAY INFRARED HEATER PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE HEATER PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
8.	CIRCULATING FAN PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
9.	BROMIC ELECTRIC HEATER PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE HEATER DIRECTLY FROM BROMIC COMPANY. CONTACT BLAKE RUSSIE AT 858-381-4850 FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU BROMIC COMPANY WILL NOT BE ACCEPTED.



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LAUREL, MD 20723

FSR#01999

BUILDING TYPE / SIZE: S06E
RELEASE: v04.23

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

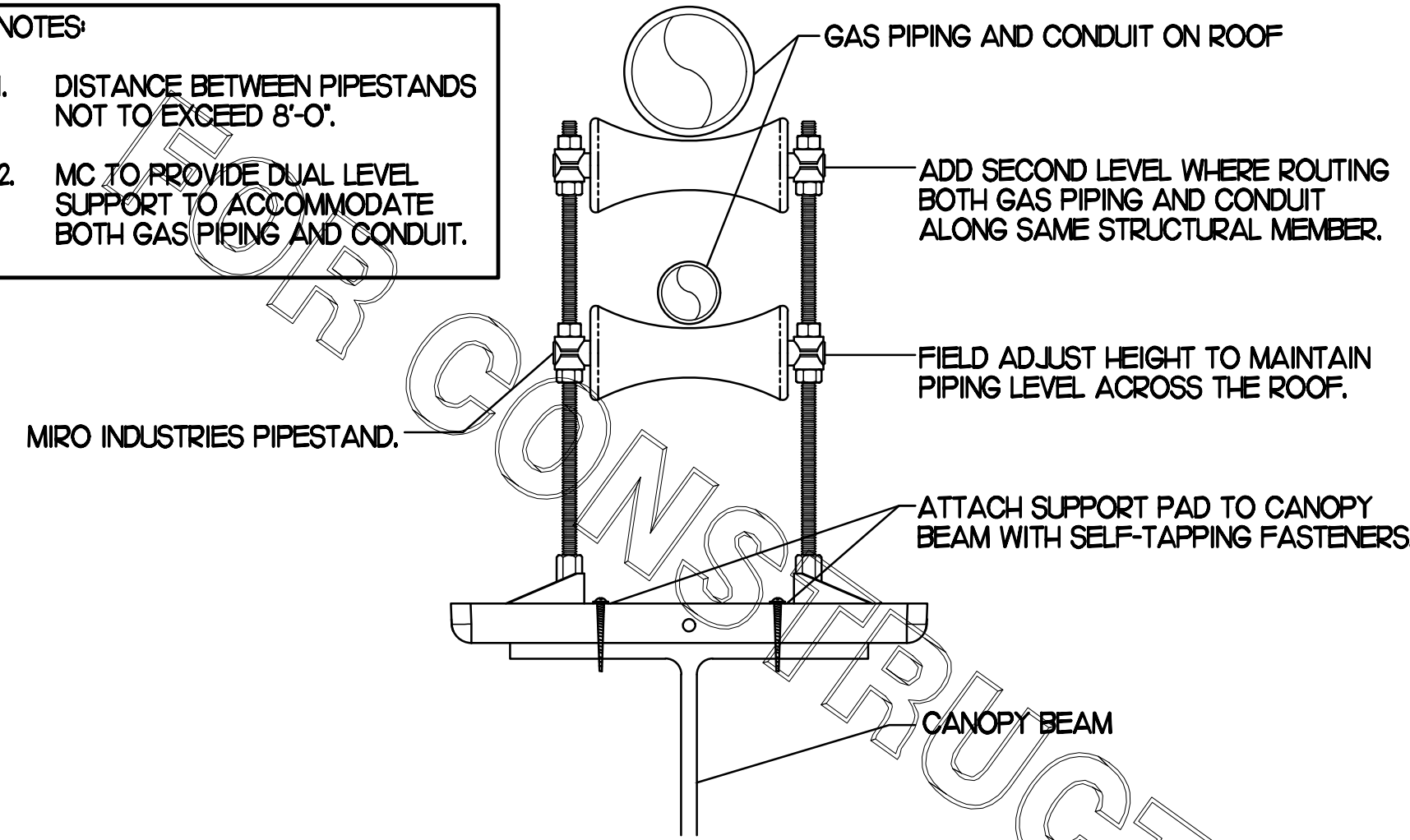
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SHEET
MECHANICAL
SPECIFICATIONS
SHEET NUMBER

M7.1

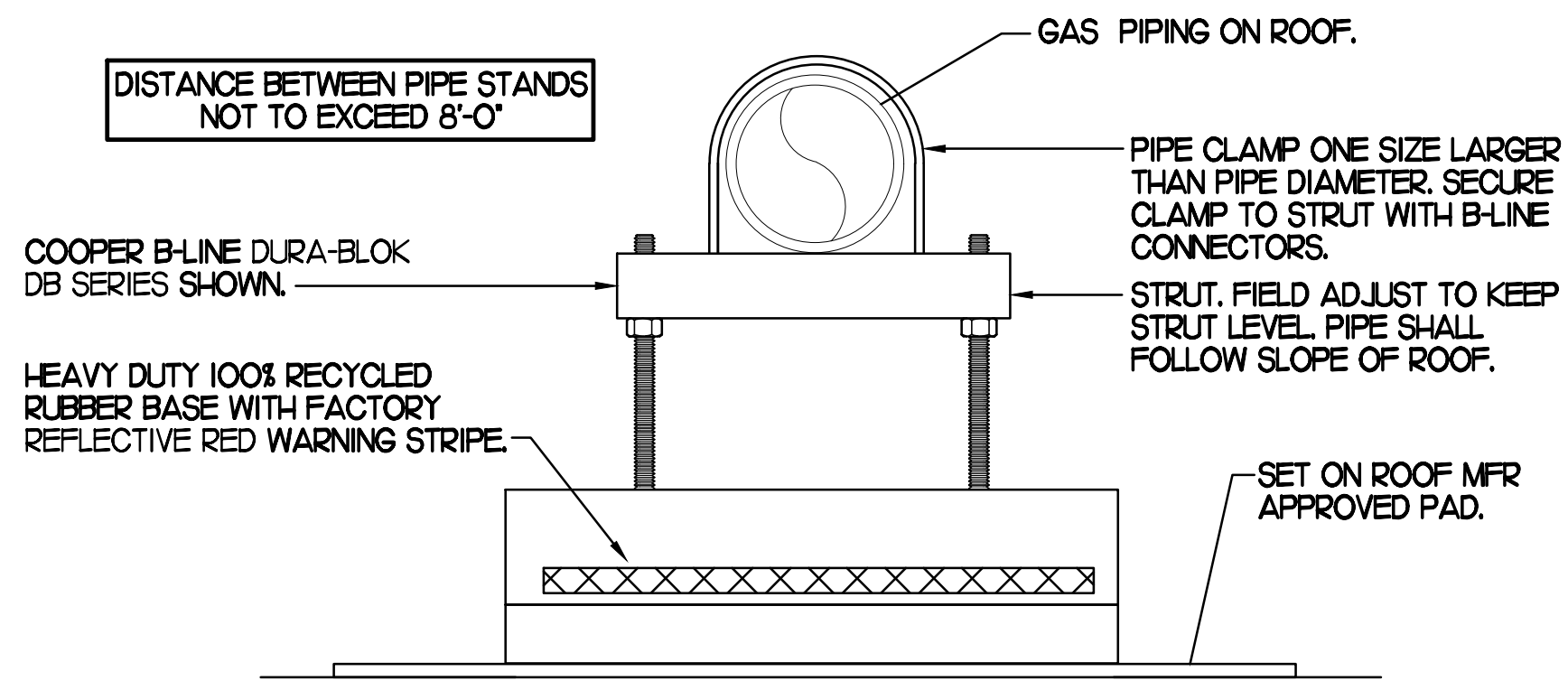
CONSTRUCTION

- NOTES**
- DISTANCE BETWEEN PIPESTANDS NOT TO EXCEED 8'-0".
 - MC TO PROVIDE DUAL LEVEL SUPPORT TO ACCOMMODATE BOTH GAS PIPING AND CONDUIT.

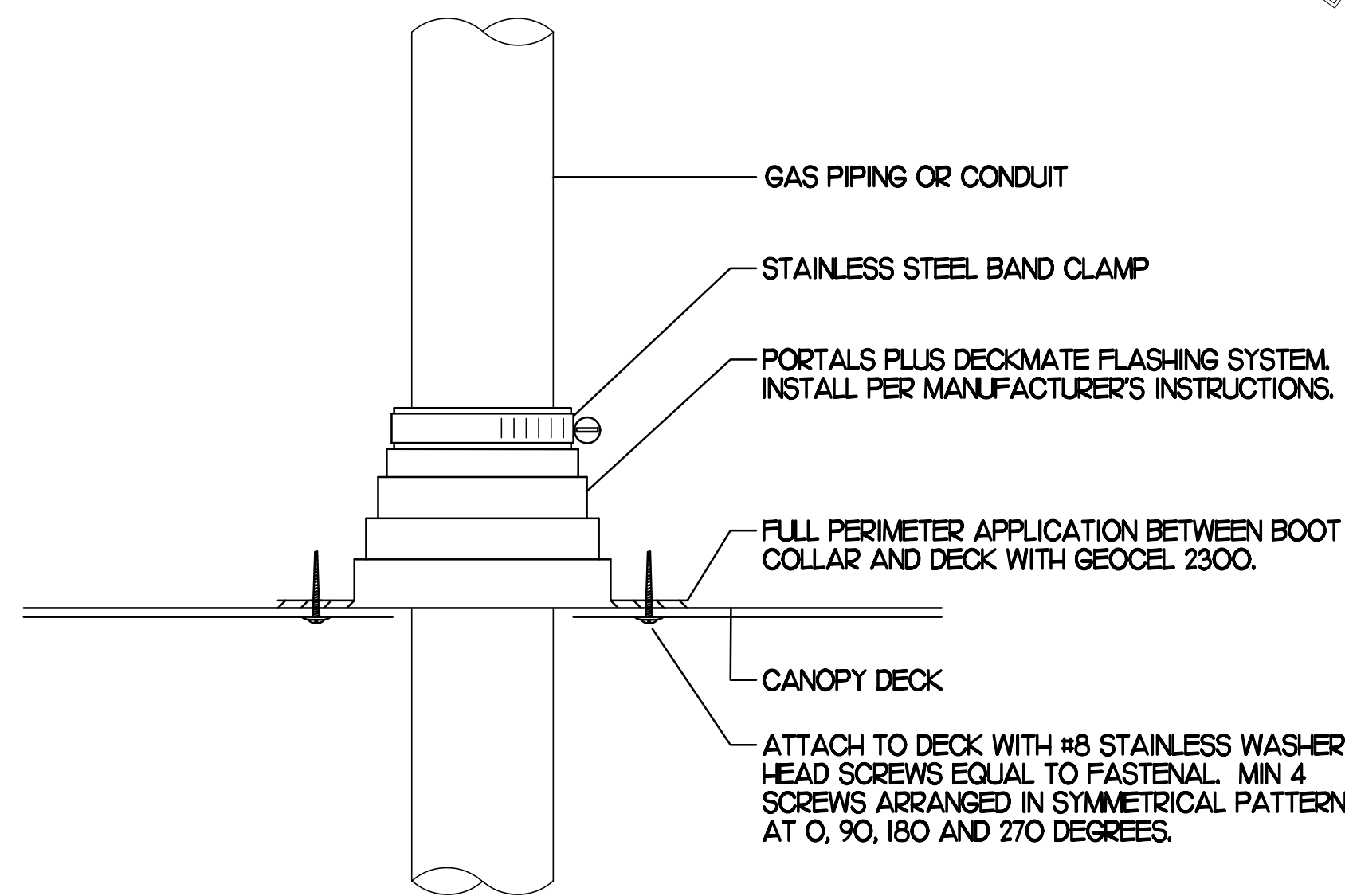


1 PIPING SUPPORT ON CANOPY
NO SCALE

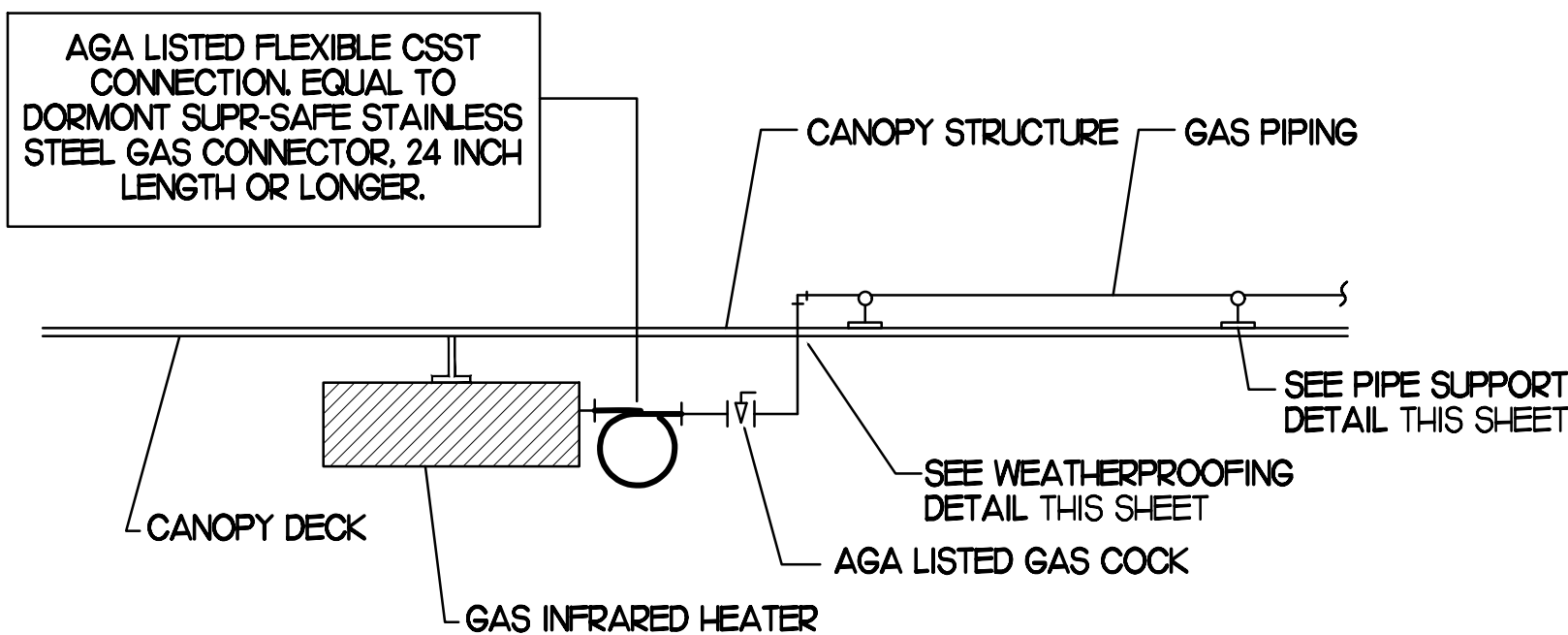
- NOTES**
- NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
 - PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING PIPING FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
 - ENSURE GAS PIPING DOES NOT OBSTRUCT ROOFTOP EQUIPMENT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



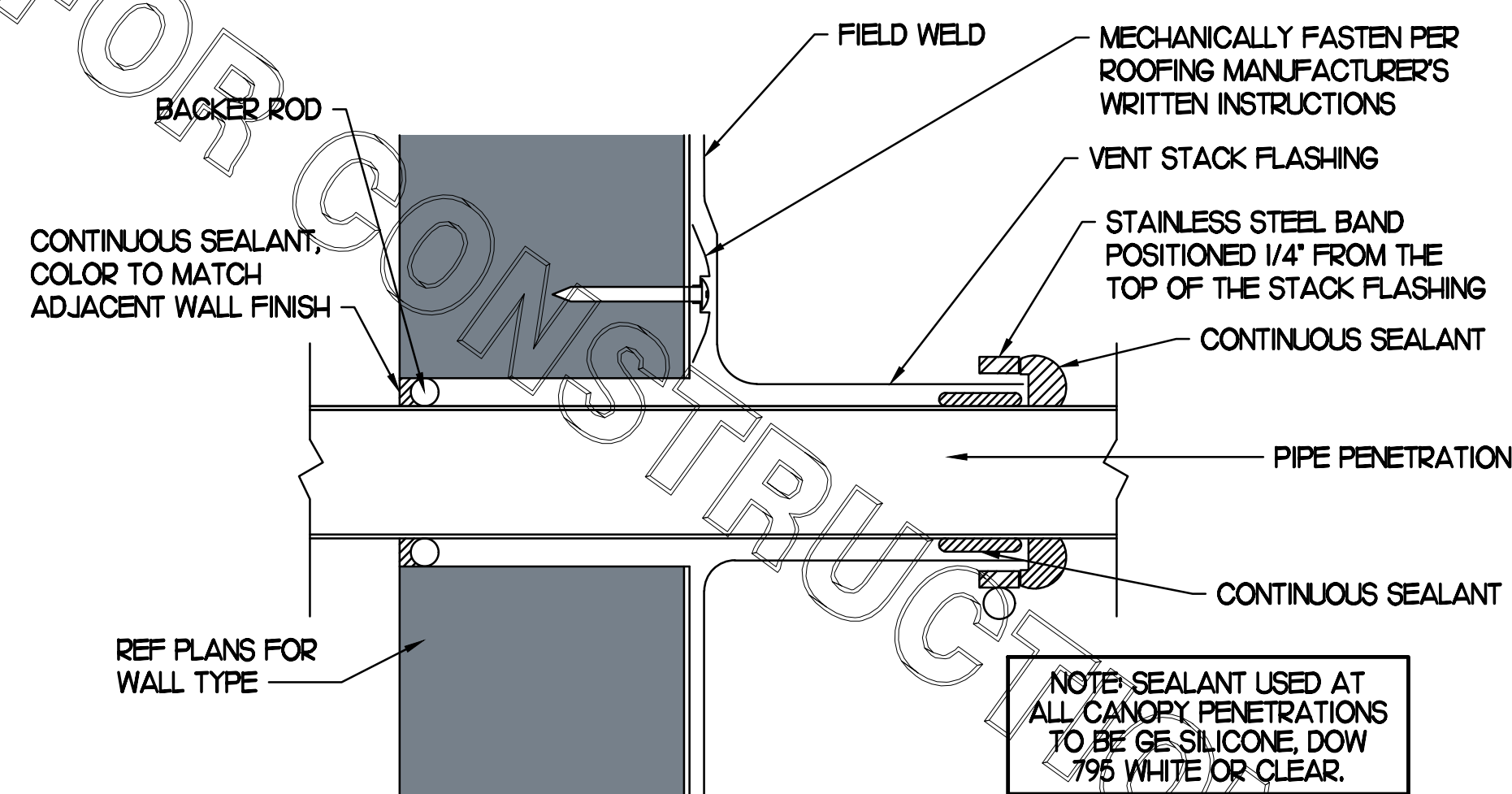
4 PIPING SUPPORT ON MAIN BLDG ROOF
NO SCALE



2 WEATHERPROOFING AT CANOPY PENETRATION
NO SCALE



3 GAS CONNECTION AT APPLIANCE
NO SCALE

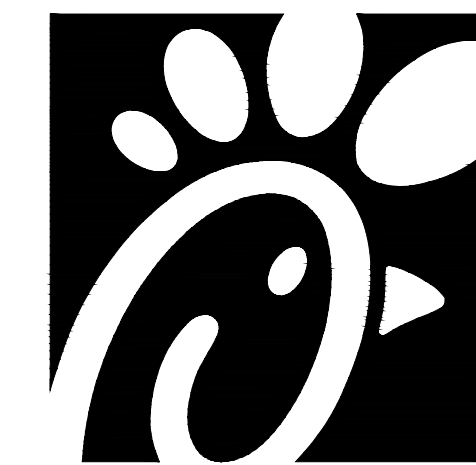


5 PARAPET PENETRATION DETAIL
NO SCALE

BROMIC ELECTRIC HEATER SCHEDULE							
MARK	INPUT (KW)	FRAME SIZE			MOUNTING TYPE	MODEL	MANUFACTURER
		LENGTH	WIDTH	DEPTH			
ALL EH	6.0	56"	8.5"	3.5"	BRACKET	BH0420035	BROMIC
NOTES	<ul style="list-style-type: none"> CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH BROMIC COMPANY FOR THE ELECTRIC HEATER PACKAGE. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ELECTRIC HEATERS DIRECTLY FROM BROMIC COMPANY. CONTACT BLAKE RUSSIE AT 858-381-4850, FOR PRICING AND AVAILABILITY. BROMIC HEATERS NOT PURCHASED THRU BROMIC COMPANY WILL NOT BE ACCEPTED. 						
REMARKS	<ol style="list-style-type: none"> STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. PROVIDE BLACK HEATER WITH HIGH TEMPERATURE COATING, AND WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS. 						

GAS FIRED INFRARED HEATER SCHEDULE							
MARK	INPUT (MHP)	FRAME SIZE			MOUNTING TYPE	MODEL	MANUFACTURER
		LENGTH	WIDTH	DEPTH			
ALL GIH	50.0	48"	13"	10"	BRACKET	WB50-N7-CM	SPACE-RAY
REMARKS	<ol style="list-style-type: none"> STEEL BURNER WITH CERAMIC BURNER TILES. STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO CANOPY DECK, FACING DOWNWARD, 12" LATERALLY FROM THE SIDE OF THE HEATER. MOUNTING BRACKET PROVIDED AND INSTALLED BY CANOPY MFR. PROVIDE HEAT SHIELD ABOVE EACH HEATER AT THE BOTTOM OF THE BRACKET. 						

CIRCULATING FAN SCHEDULE					
MARK	CFM	RPM	HP	MODEL	MANUFACTURER
REMARKS	<ol style="list-style-type: none"> ALUMINUM PADDLE WITH STEEL HUB/SPIDER PROPELLER. 360 DEG. ROTATING HEAD HORIZONTALLY AND VERTICALLY. OSHA COMPLIANT DOUBLE LOCKING, COATED STEEL WIRE GUARD. 3-SPEED, TOTALLY ENCLOSED, PERMANENTLY LUBRICATED BALL BEARING MOTOR. FACTORY PRE-WIRED POWER CORD. PROVIDE FACTORY WALL MOUNTING BRACKET. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO UNDERSIDE OF CANOPY OR EXISTING OVERHANG, FACING DOWNWARD, 12" LATERALLY FROM THE FAN LOCATION. REMOVE PULL CHAIN EXTENSION AT ON/OFF SWITCH IN FIELD. FACTORY CERTIFIED FOR OUTDOOR INSTALLATION. 				



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SHEET
CANOPY DETAILS
& SCHEDULES
SHEET NUMBER

M5.2

ELECTRICAL CONDUIT TO BE ROUTED ABOVE CANOPY BY EC, ON TOP OF STRUCTURAL BEAMS, EXCEPT WHERE ROUTED DOWN THROUGH PENETRATIONS AS INDICATED. CONDUIT SHALL BE SUPPORTED BY PIPE SUPPORTS PROVIDED BY THE MC. SEE DETAIL 1/M5.2.

HEAT SHIELD TO SET ON TOP OF IR HEATER ON THE FACTORY HEATER MOUNTING STUDS. SHIELD ORIENTED SO EDGE IS TURNED DOWN. PURCHASE DIRECTLY FROM TOM BARROW COMPANY. CONTACT SCOTT GEORGE AT 404-351-0100.

GAS-FIRED INFRARED HEATER. MC TO ATTACH TO MOUNTING PLATE ON CANOPY. MOUNTING PLATE IS PROVIDED AND INSTALLED BY THE CANOPY MFR. TYPICAL AT ALL IR HEATERS.

CONNECT 1/2" GAS TO CANOPY MFR GAS PIPE STUB-OUT FROM COLUMN ABOVE DECK.

ORDER CANOPY. SEE ARCHITECTURAL.

3/4" GAS TAKE OFF TO EACH GIH, TYPICAL

1" GAS
GAS PIPING TO BE ROUTED ABOVE CANOPY, ON TOP OF STRUCTURAL MEMBERS, EXCEPT WHERE ROUTED DOWN THROUGH PENETRATIONS AS INDICATED.

1" GAS
PIPING DOWN THROUGH DECK. WEATHERPROOF DECK PENETRATIONS FOR CONDUIT AND PIPING PER DETAIL 2/M5.2, TYPICAL.

1/2" POLYETHYLENE GAS B/G TO METER

MOUNT FAN TO OVER-HEAD STRUCTURAL MEMBER USING STAINLESS MOUNTING HARDWARE. TYPICAL OF ALL FANS.

ATTACH GAS TRANSITION FITTING, ELSTER 702205 OR EQUAL BY GASTITE, TO GAS PIPE STUB-OUT BELOW GRADE. GAS PIPING INSIDE COLUMN AND STUB-OUTS BY CANOPY MFR. JOIN UNDERGROUND POLYETHYLENE GAS PIPING TO TRANSITION FITTING WITH ELSTER PERMASERT COUPLING. EXPOSED STEEL GAS PIPING BELOW GRADE SHALL BE PROTECTED WITH TWO COATS ASPHALTUM BASE PAINT AND POLY SLEEVE.

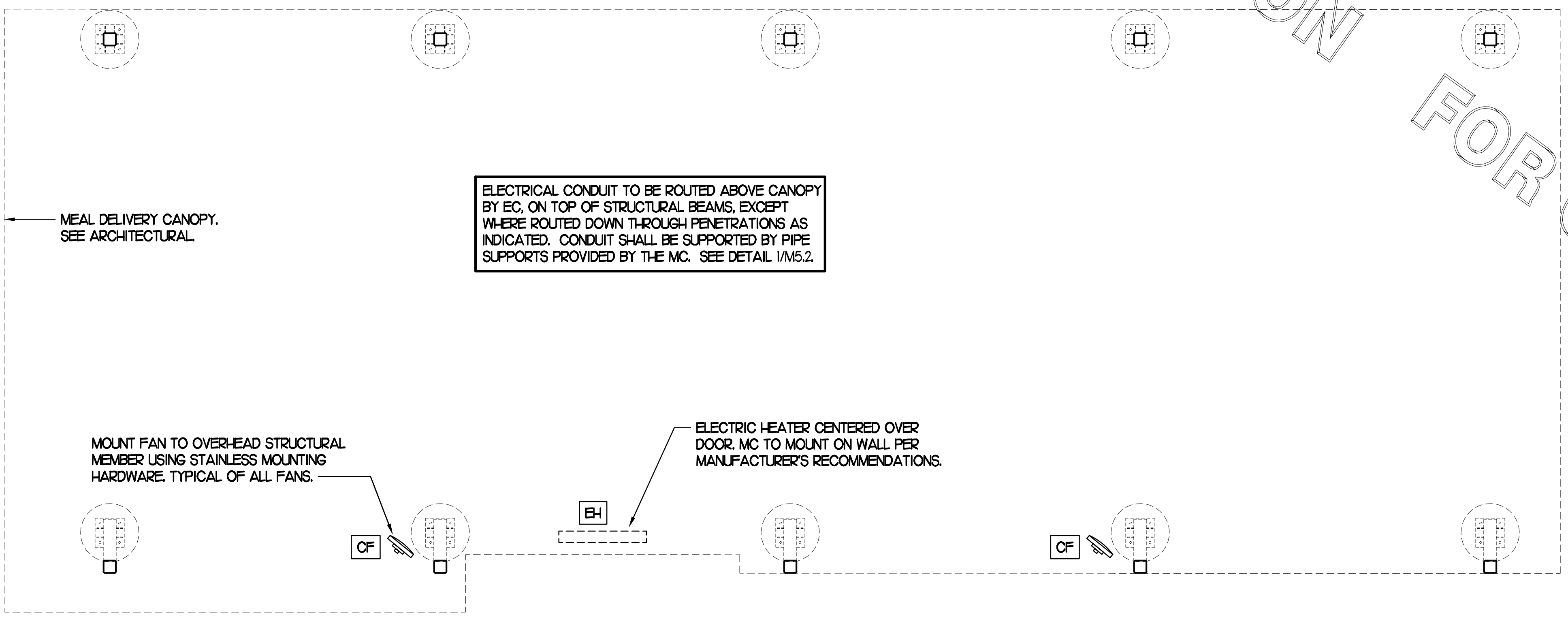
FOR TRANSITION FROM POLYETHYLENE PIPING B/G TO STEEL AT THE METER, INSTALL ANODELESS RISER WITH INTEGRAL CONSTAB PE-TO-IPS TRANSITION FITTING BY CONTINENTAL INDUSTRIES OR EQUAL BY ELSTER. PROVIDE FULL PORT BALL VALVE EQUAL TO APOLLO 50GB SERIES WITH WING HANDLE OPTION ABOVE GRADE AT THE METER. PROVIDE BRASS VALVE TAG WITH JACK CHAIN AT VALVE MARKED "EMERGENCY SHUT-OFF FOR CANOPY".

LEGEND			
CF#	CIRCULATING FAN # (TYP)	B/G	BELOW GRADE
GIH#	GAS INFRARED HEATER # (TYP)	EC	ELECTRICAL CONTRACTOR
	NEW GAS PIPING ABOVE GRADE	MC	MECHANICAL CONTRACTOR
	NEW GAS PIPING BELOW GRADE		CONDUIT ABOVE CANOPY DECK

GENERAL NOTES

- COORDINATE NEW WORK WITH EXISTING CONDUIT, STRUCTURE, AND PIPING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.
- COORDINATE LOCATION AND RESPONSIBILITIES FOR UNDERGROUND PIPING AND ASSOCIATED TRENCHING WITH GENERAL CONTRACTOR PRIOR TO START OF WORK.
- EXPOSED GAS PIPING SHALL BE PAINTED BY GENERAL CONTRACTOR.
- ACTUAL NUMBER OF GAS INFRARED HEATERS & COOLING FANS WILL BE DETERMINED BY SITE-SPECIFIC CANOPY LAYOUT AND EQUIPMENT LOCATIONS, AS INDICATED ON ARCHITECTURAL PLANS.
- CONTROL WIRING FOR HEATERS BY EC. COORDINATE WIRE GAUGE WITH EC. SEE ELECTRICAL AND CONTROLS DRAWINGS, TYP.

1 HVAC PLAN - ORDER POINT CANOPY



2 HVAC PLAN - MEAL DELIVERY CANOPY



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SHEET
CANOPY HVAC
PLANS
SHEET NUMBER

M5.1

CONSTRUCTION