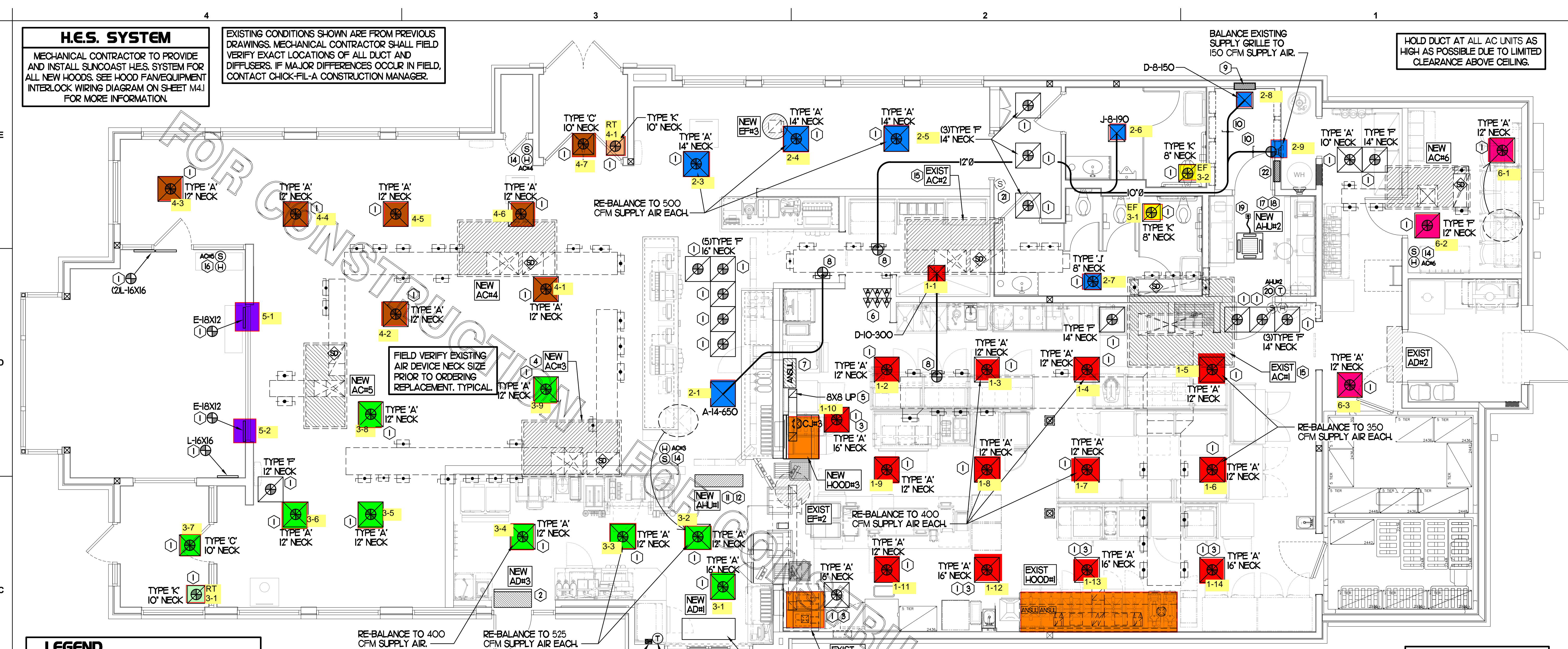


H.E.S. SYSTEM

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.

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.



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 ROUTINGS 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.
- GO 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.
- GREASE DUCT UP THRU ROOF FROM FULL SIZE OF HOOD COLLAR THRU EXISTING ROOF PENETRATION. OFFSETS THRU ROOF NOT TO BE GREATER THAN 45 DEGREES. SEE SHEET M1.2 FOR CONTINUATION.
- MOUNT NEW SMOKE DETECTOR TEST/RESET STATIONS FOR ALL A/C UNITS ON WALL. COORDINATE EXACT LOCATION WITH KITCHEN ELEVATIONS AND ELECTRICAL CONTACT SUNCOAST ENVIRONMENTAL CONTROLS AT 1-877-544-6679 TO PURCHASE A NEW SMOKE DETECTOR TEST/RESET STATION FOR EACH RTU.
- 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.
- CONTACT SUNCOAST ENVIRONMENTAL CONTROLS TO PURCHASE A NEW TSTAT FOR AC#3, AC#4, & AC#5. NEW TSTATS SHALL BE INSTALLED IN EXISTING CFA T500 PANEL. CONTROL WIRING TERMINATIONS BETWEEN NEW TSTATS, NEW SENSORS, AND NEW RTUS BY MECHANICAL CONTRACTOR. REFER TO WIRING DIAGRAM ON SHEET M4.1.
- RUSKIN MODEL MDRS25 OR EQUIVALENT MANUAL VOLUME DAMPER WITH LOCKING QUADRANT HANDLE.
- MOUNT AIR HANDLER ON OVER-HEAD WALL ABOVE CASSED OPENING. MOUNT UNIT AT 12" ABOVE CASSED OPENING. ROUTE REFRIGERANT PIPING ABOVE CEILING AND UP THRU ROOF TO CONDENSING UNIT. CUR#1. SEE SHEET M1.2 FOR CONDENSING UNIT LOCATION. REFRIGERANT PIPING BELOW ROOF SHALL BE HIDDEN WITHIN WALLS AND CEILINGS.

TOTAL AIR BALANCE SCHEDULE

EQUIPMENT MARK	AC#1 (EXIST)	AC#2 (EXIST)	AC#3 (NEW)	AC#4 (NEW)	AC#5 (NEW)	AC#6 (NEW)	EF#1 (EXIST)	EF#2 (EXIST)	EF#3 (NEW)	EF#4 (NEW)	TOTAL
SERVES	KITCHEN	SIDE DINING	DRIVE THRU	MAIN DINING	PLAY AREA	BOH	HOOD#1	HOOD#2	REST-ROOMS		
SUPPLY AIR CFM	8,000	2,830	4,000	2,765	1,800	1,080					20,475
RETURN AIR CFM	6,200	2,080	3,000	2,165	1,500	955					15,900
OUTSIDE AIR CFM	1,800	750	1,000	600	300	125					+4,575
EXHAUST CFM							1,700	701	400	701	-3,502
PRESSURIZATION											+1,073
REMARKS	ADJUST AND VERIFY BALANCE OF ALL HVAC EQUIPMENT IS AS SHOWN IN ORDER TO MAINTAIN BUILDING AIR BALANCE.										

MECHANICAL FLOOR PLAN

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

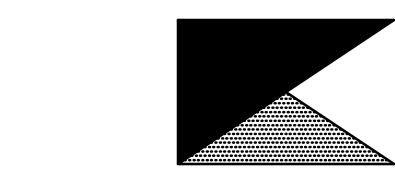
G.C. TO HIRE VENTILATION CLEANING CONTRACTOR CERTIFIED BY NATIONAL AIR DUCT CLEANERS ASSOCIATION (NADCA) TO CLEAN ALL EXISTING DUCTWORK THAT IS TO REMAIN.

- 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 AD#1 REMOTE WALL SWITCHES. SEE SCHEDULE ON SHEET M3.1 FOR INTERLOCK WITH T500 PANEL.
- MOUNT NEW REMOTE TEMP SENSOR ON WALL AT 5'-0" AFF (OR ABOVE WAINSCOTING IF APPLICABLE). ROUTE NEW WIRING TO TSTAT IN T500 PANEL. MOUNT NEW HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR AND ROUTE NEW WIRING TO UNIT ON ROOF.
- INSTALL NEW DUCT SMOKE DETECTOR IN THE SAME LOCATION AS DEMOLISHED DUCT SMOKE DETECTOR. ROUTE NEW WIRING TO NEW SMOKE DETECTOR TEST/RESET STATION ON KITCHEN WALL. REFER TO WIRING DIAGRAM ON SHEET M4.1.
- MOUNT NEW REMOTE TEMP SENSOR IN THE SAME LOCATION AS DEMOLISHED SENSOR. ROUTE NEW WIRING TO TSTAT IN T500 PANEL. MOUNT NEW HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR AND ROUTE NEW WIRING TO UNIT ON ROOF.
- LOCATE AHU IN LAY-IN CEILING. ROUTE REFRIGERANT PIPING ABOVE CEILING AND UP THRU ROOF TO CONDENSING UNIT. SEE DETAIL ON SHEET M3.1 FOR FURTHER INFORMATION. COORDINATE SIZE OF AHU FACEPLATE WITH CEILING FRAMER SO THAT FACEPLATE DOES NOT OVERLAP OFFICE LIGHT.
- ROUTE 3/4" MIN. CONDENSATE DRAIN LINE FROM AHU TO TERMINATE INDIRECTLY 0'-2" MIN. ABOVE MOP SINK DRAIN. CONDENSATE PIPING SHALL BE TYPE K COPPER WITH 1/2" ARMAFLEX INSULATION. CONDENSATE MUST SLOPE MIN 1/8" PER FOOT TO TERMINATION POINT.
- ROUTE REFRIGERANT LINE SET UP THRU ROOF USING PREFAB PIPE CURB.
- MOUNT WIRED REMOTE CONTROLLER FOR AHU ON WALL AT 4'-0" AFF. ROUTE WIRING PER MFR'S IOM.
- RELOCATE EXISTING REMOTE TEMP SENSOR AND HUMIDITY SENSOR ABOVE WAINSCOTING WHERE APPLICABLE. MECHANICAL CONTRACTOR SHALL PROVIDE ANY ADDITIONAL MATERIALS NECESSARY TO RELOCATE SENSORS.
- CONTACT SUNCOAST ENVIRONMENTAL CONTROLS TO PURCHASE A NEW TSTAT FOR AC#6. NEW TSTAT SHALL BE INSTALLED IN EXISTING CFA 'ADDER' PANEL. CONTROL WIRING TERMINATIONS BETWEEN NEW TSTAT, NEW SENSORS, AND NEW RTU BY MECHANICAL CONTRACTOR. REFER TO WIRING DIAGRAM ON SHEET M4.1.

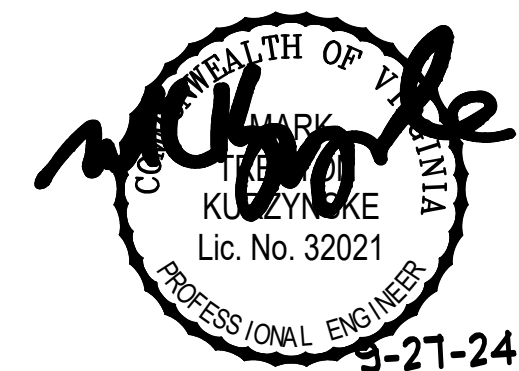


Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349



Kurzynske & Associates
CONSULTING ENGINEERS
2705 Lebanon Pike - Suite One
Nashville, Tennessee 37214
Telephone: (615) 255-5203



CHICK-FIL-A
MECHANICSVILLE

7285 BATTLE HILL DRIVE
MECHANICSVILLE, VA 23111

FSR#02175

BUILDING TYPE / SIZE: S06-R
RELEASE:

REVISION SCHEDULE
NO. DATE DESCRIPTION

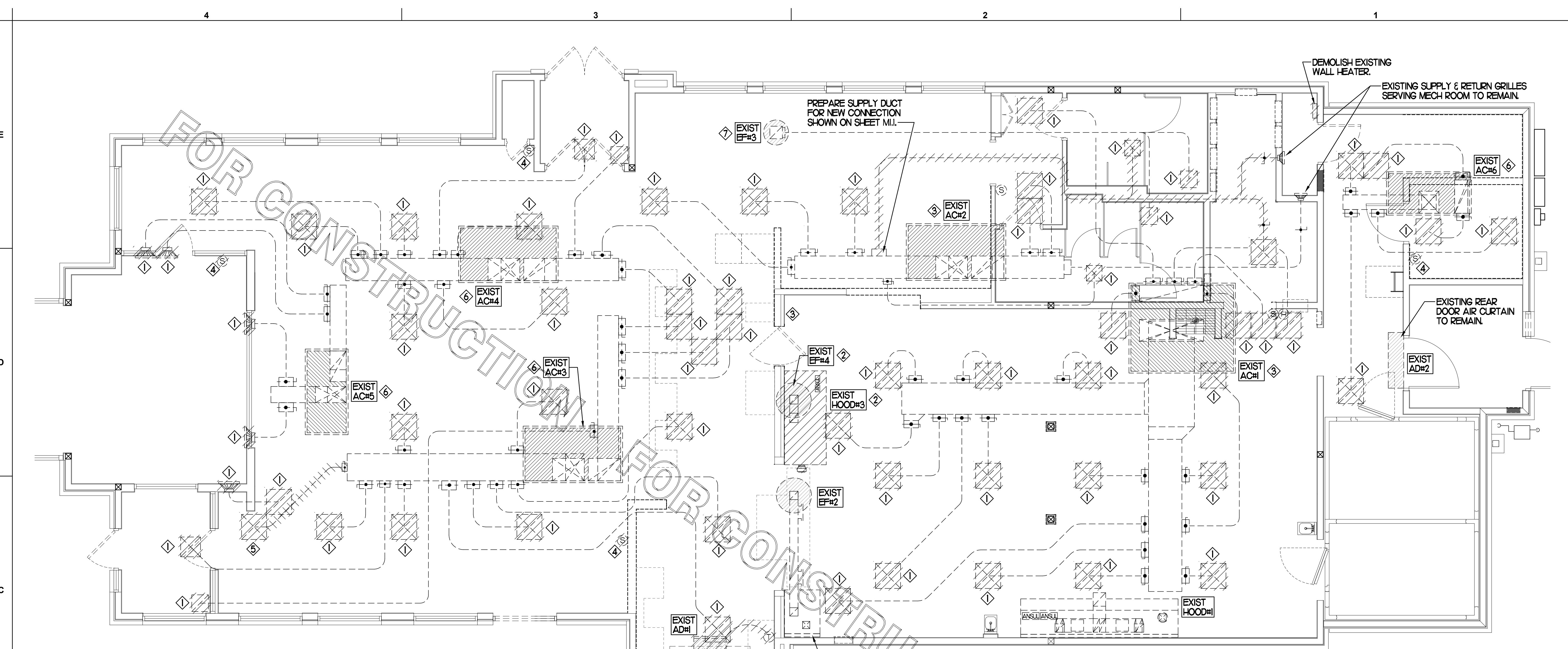
CONSULTANT PROJECT # 23122.HF.R
PRINTED FOR CONSTRUCTION
DATE 03/13/2024
DRAWN BY DSF

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET
MECHANICAL
FLOOR PLAN
SHEET NUMBER

M1.1

CONSTRUCTION



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

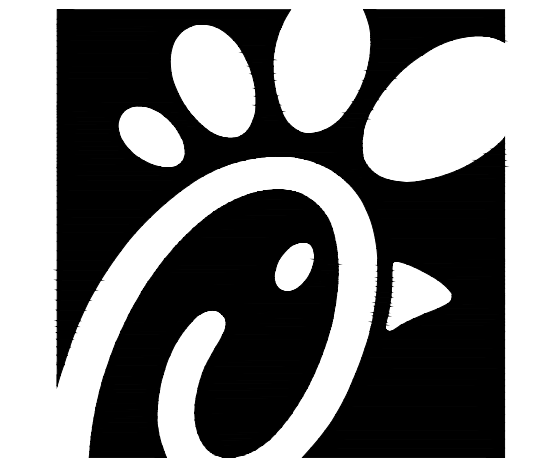
- ① CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND PAYING ALL APPLICABLE FEES.
- ② DISPOSAL OF EQUIPMENT AND MATERIALS REQUIRED TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING THE WORK.
- ③ DE-ENERGIZE ALL ELECTRICAL CIRCUITS RELATED TO EQUIPMENT THAT WILL BE 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 TAB CONTRACTOR.
- 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

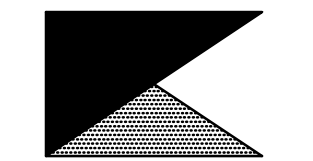
DEMOLITION KEY NOTES

- ① DETACH AND DEMOLISH EXISTING AIR DEVICE. SECURE DUCT ABOVE CEILING GRID FOR RE-CONNECTION. SEE SHEET M1.1 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.
- ③ DEMOLISH EXISTING DUCT (SMOKE DETECTOR(S) AND REMOTE TEST/RESET STATION(S)). SEE SHEET M1.1 FOR NEW.
- ④ EXISTING REMOTE TEMPERATURE AND/OR REMOTE HUMIDITY SENSORS TO BE REPLACED WITH NEW. DEMOLISH ALL ASSOCIATED CONTROL WIRING. SEE SHEET M1.1 FOR FURTHER INFORMATION.
- ⑤ DEMOLISH EXISTING AIR DEVICE AND ASSOCIATED BRANCH DUCT. SEAL PLENUM AIR-TIGHT.
- ⑥ EXISTING RTU TO BE REPLACED WITH NEW AS SCHEDULED ON SHEET M3.1. UNLESS NOTED OTHERWISE, DEMOLISH ALL EXISTING UNIT CONTROLS (REMOTE TEMP SENSOR, REMOTE HUMIDITY SENSOR, TSTAT, REMOTE SMOKE DETECTOR ANNUNCIATOR, ETC.). EXISTING ROOF CURB AND SUPPLY & RETURN DUCT TO REMAIN. COVER CURB WEATHER-TIGHT FOR RE-USE. GC BID ALTERNATE: MATERIALS AND LABOR TO BE BILLED UNDER SEPARATE CONTRACT AND COORDINATED VIA WORK ORDER WITH FEQ SPECIALIST.
- ⑦ EXISTING EXHAUST FAN TO BE REPLACED WITH NEW AS SCHEDULED ON SHEET M3.1. UNLESS NOTED OTHERWISE, EXISTING EXHAUST DUCT TO REMAIN. COVER CURB WEATHER-TIGHT FOR RE-USE. GC BID ALTERNATE: MATERIALS AND LABOR TO BE BILLED UNDER SEPARATE CONTRACT AND COORDINATED VIA WORK ORDER WITH FEQ SPECIALIST.

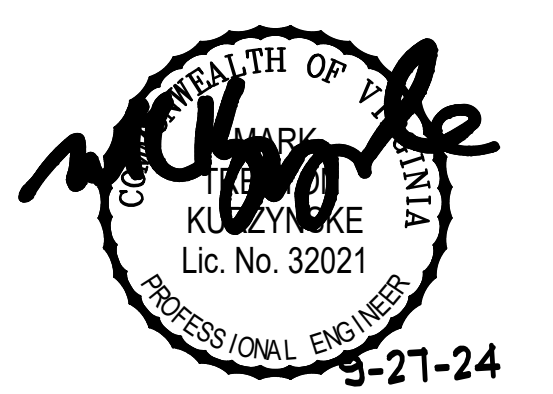


Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349



Kurzynske & Associates
CONSULTING ENGINEERS
2705 Lebanon Pike - Suite One
Nashville, Tennessee 37214
Telephone: (615) 255-8203



CHICK-FIL-A
MECHANICSVILLE
7285 BATTLE HILL DRIVE
MECHANICSVILLE, VA 23111

FSR#02175

BUILDING TYPE / SIZE: S06-R
RELEASE:

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

CONSULTANT PROJECT #	23122.HF.R
PRINTED FOR	CONSTRUCTION
DATE	03/13/2024
DRAWN BY	DSF

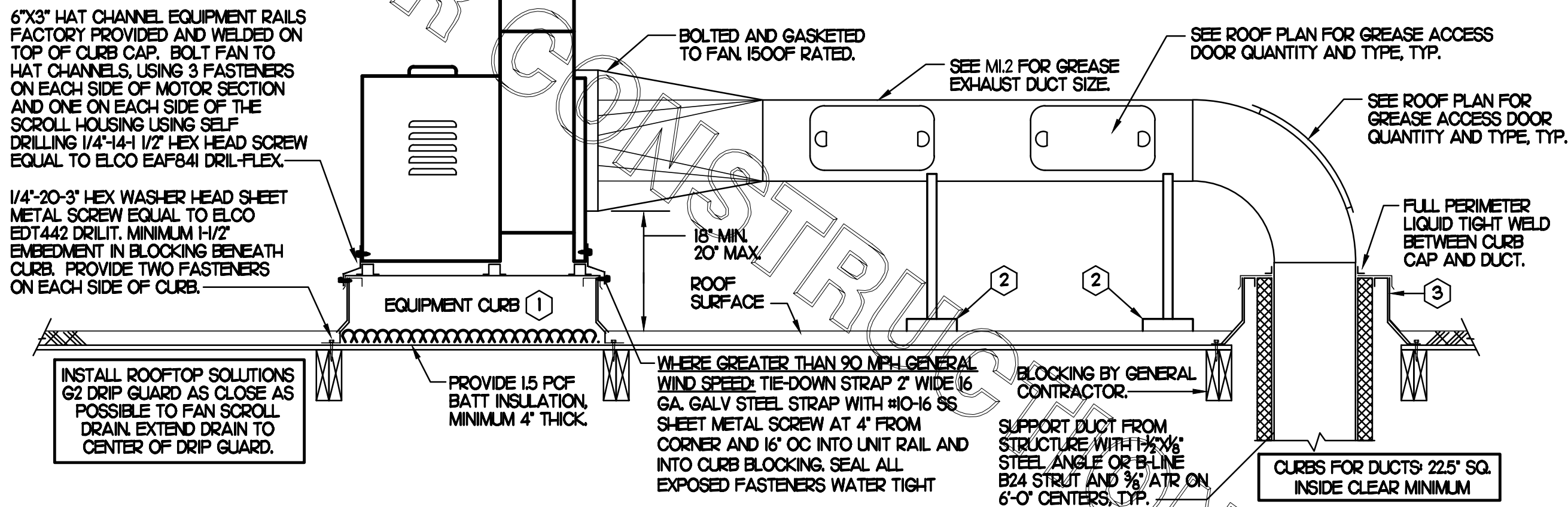
Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.
SHEET
MECHANICAL
DEMO PLAN
SHEET NUMBER

M0.1

CONSTRUCTION

FABRICATE 18 GA STAINLESS NOZZLE NOZZLE INLET FULL SIZE OF FAN DISCHARGE. 1'-0" MINIMUM NOZZLE HEIGHT. TERMINATE 0'-2" ABOVE HIGHEST PARAPET WITHIN 10'-0".

- KEYED NOTES**
- EQUIPMENT CURB WITH REINFORCED BASE AND STEEL CURB CAP PROVIDED BY TOM BARRON 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 BARRON COMPANY. MECHANICAL CONTRACTOR TO PROVIDE 16 GA MINIMUM CURB CAP.



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

1. ACCESS DOORS SHALL BE UL 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.

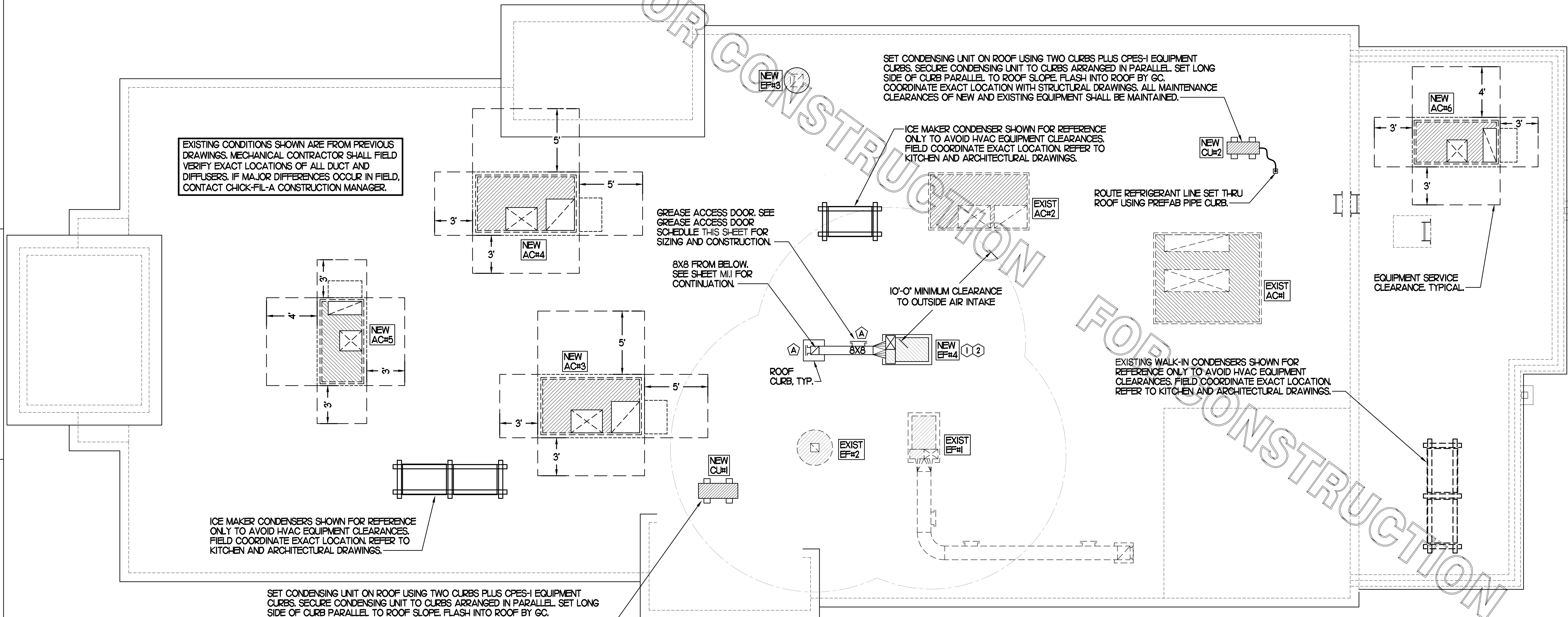
SEE FIREWRAP INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION ON CONFIGURING INSULATION OVER AN ACCESS DOOR.

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.

2 KITCHEN HOOD EXHAUST FAN - UTILITY SET FAN

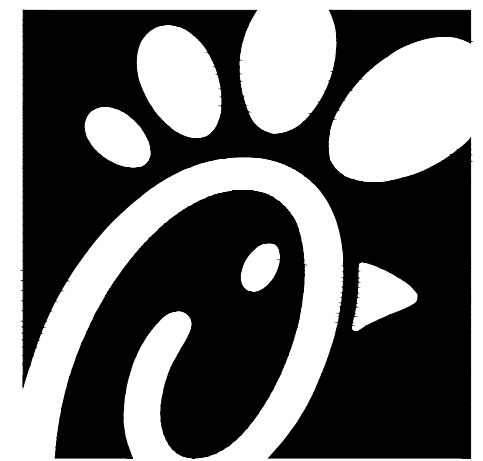
NO SCALE

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.



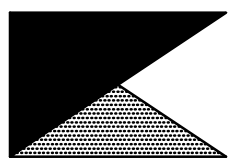
1 MECHANICAL ROOF PLAN

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

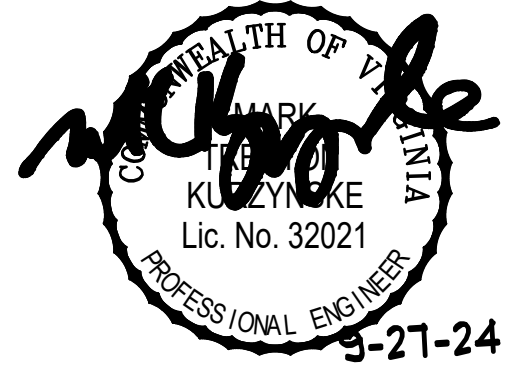


Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349



Kurzynske & Associates
CONSULTING ENGINEERS
2705 Lebanon Pike - Suite One
Nashville, Tennessee 37214
Telephone: (615) 255-5203



CHICK-FIL-A
MECHANICSVILLE
7285 BATTLE HILL DRIVE
MECHANICSVILLE, VA 23111

FSR#02175

BUILDING TYPE / SIZE: S06-R
RELEASE:

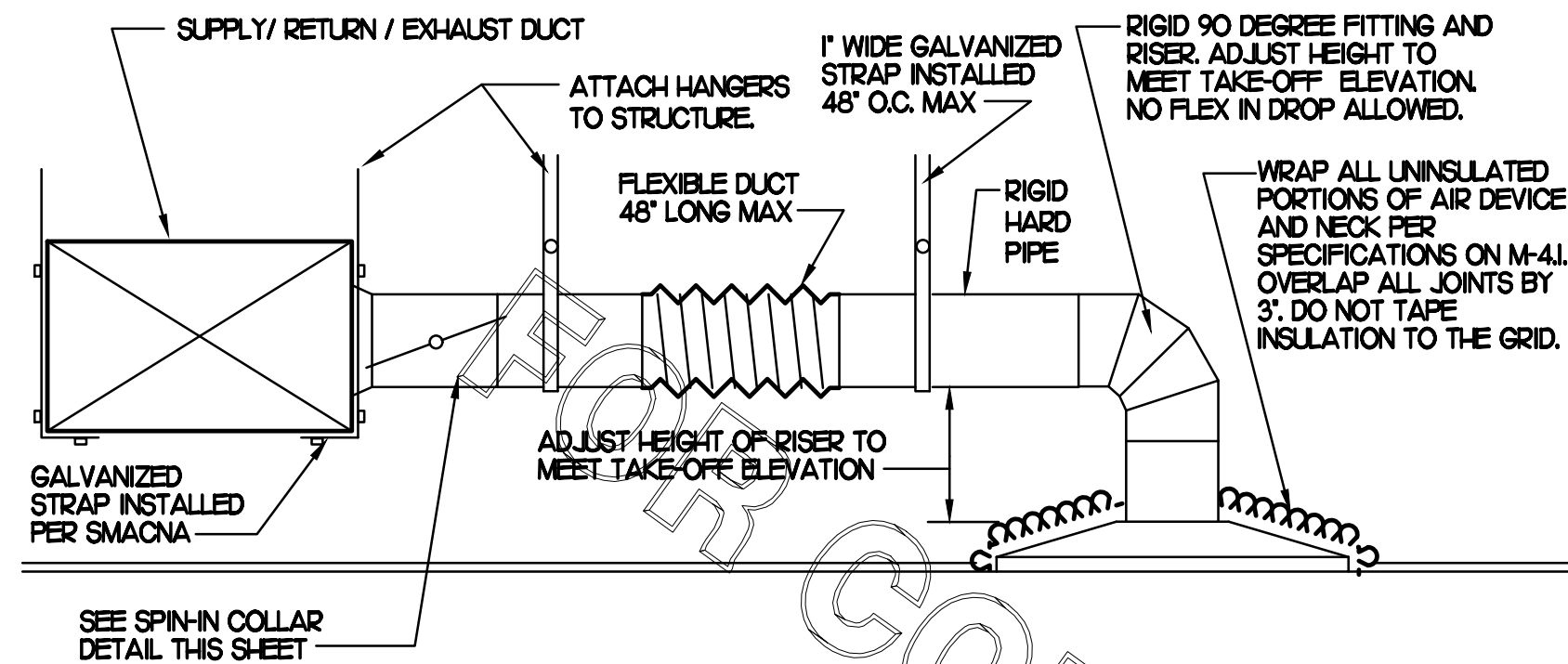
REVISION SCHEDULE

NO.	DATE	DESCRIPTION

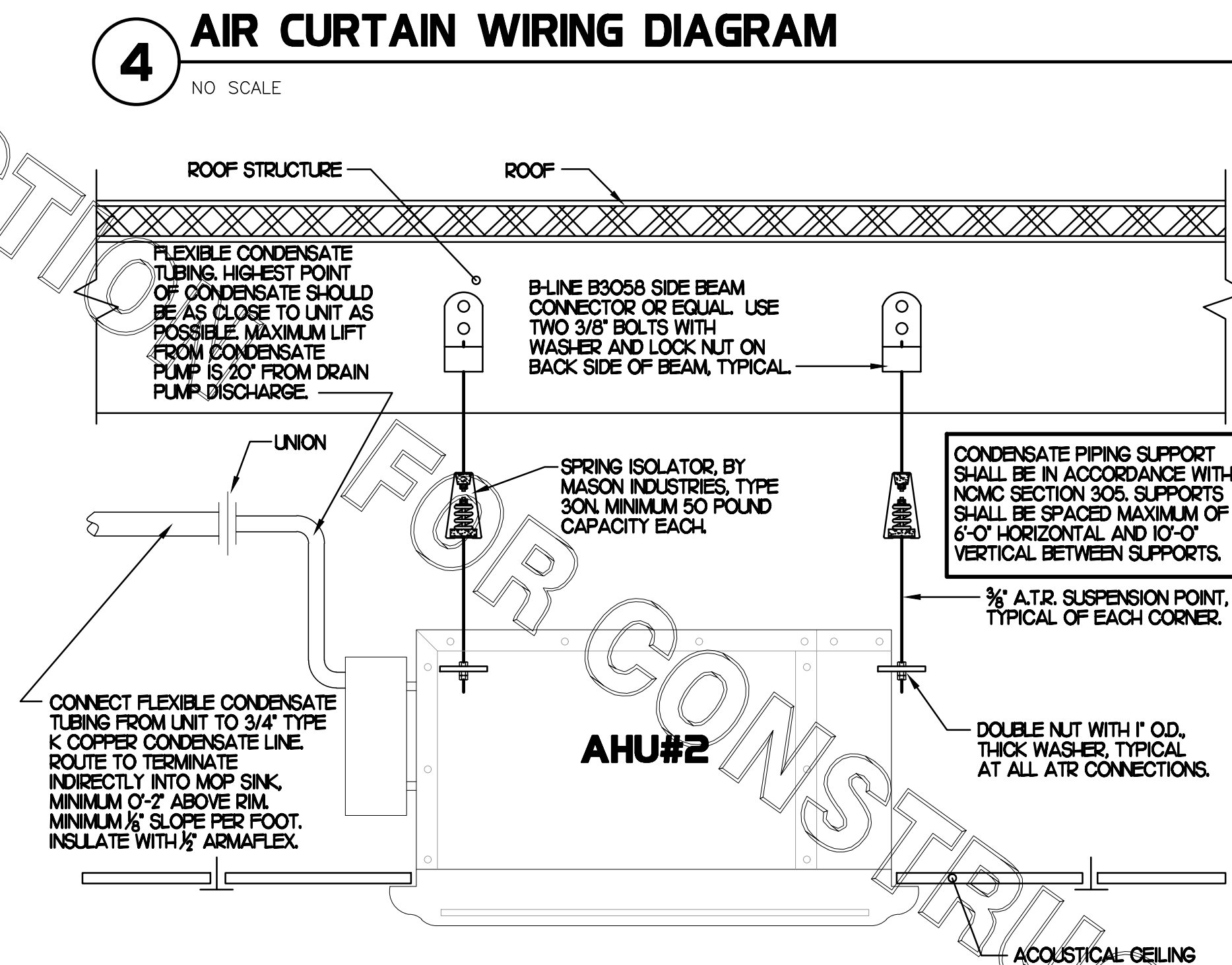
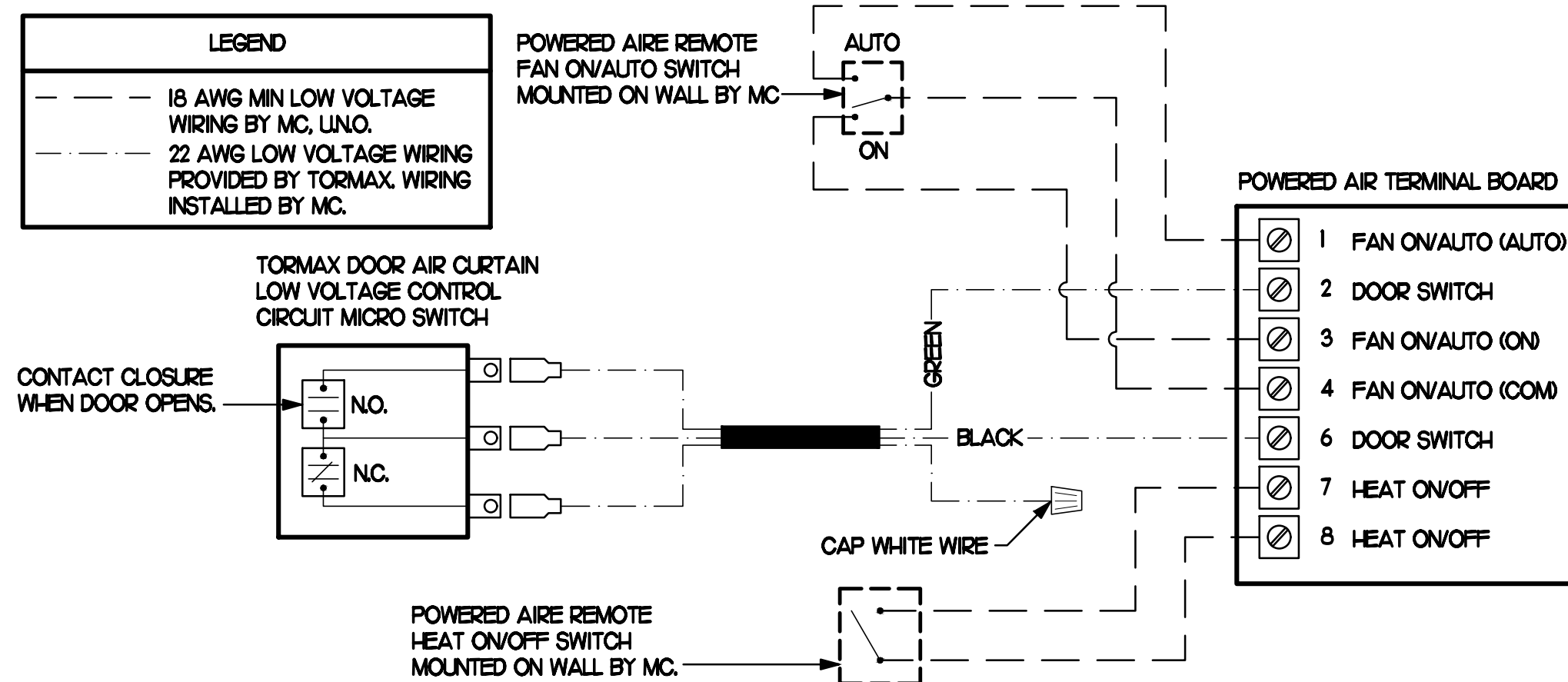
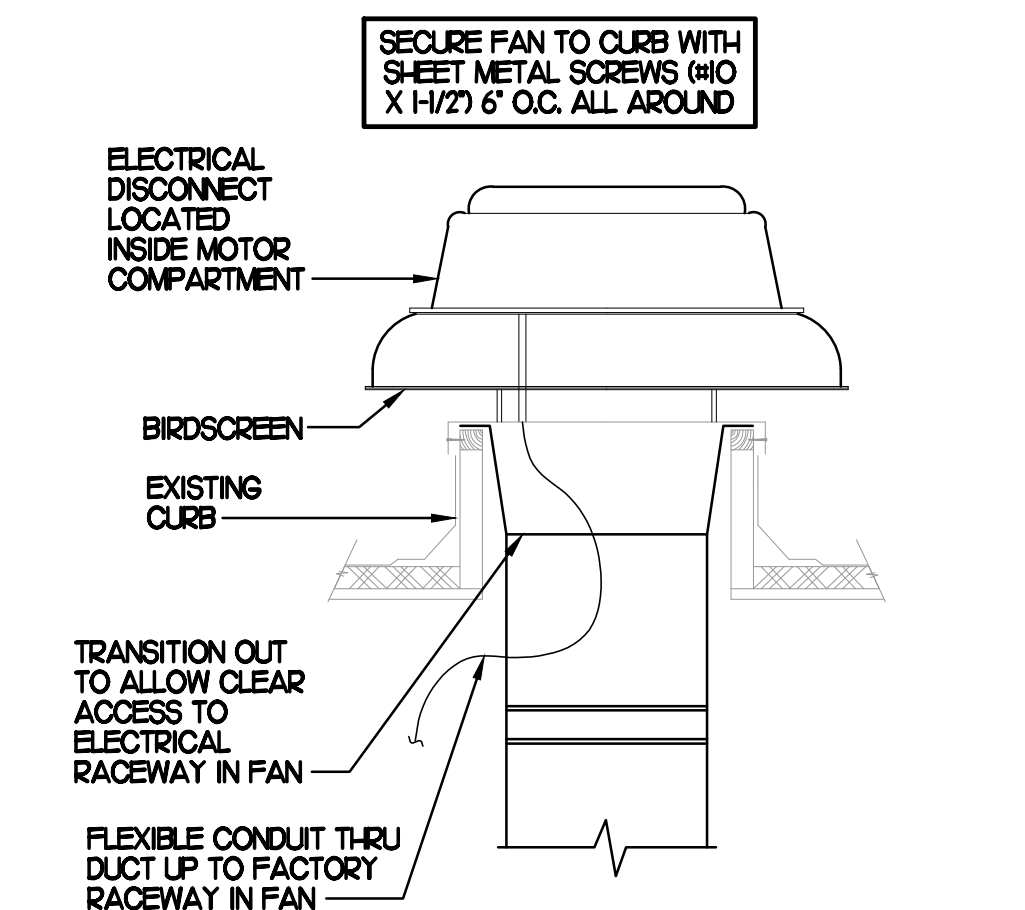
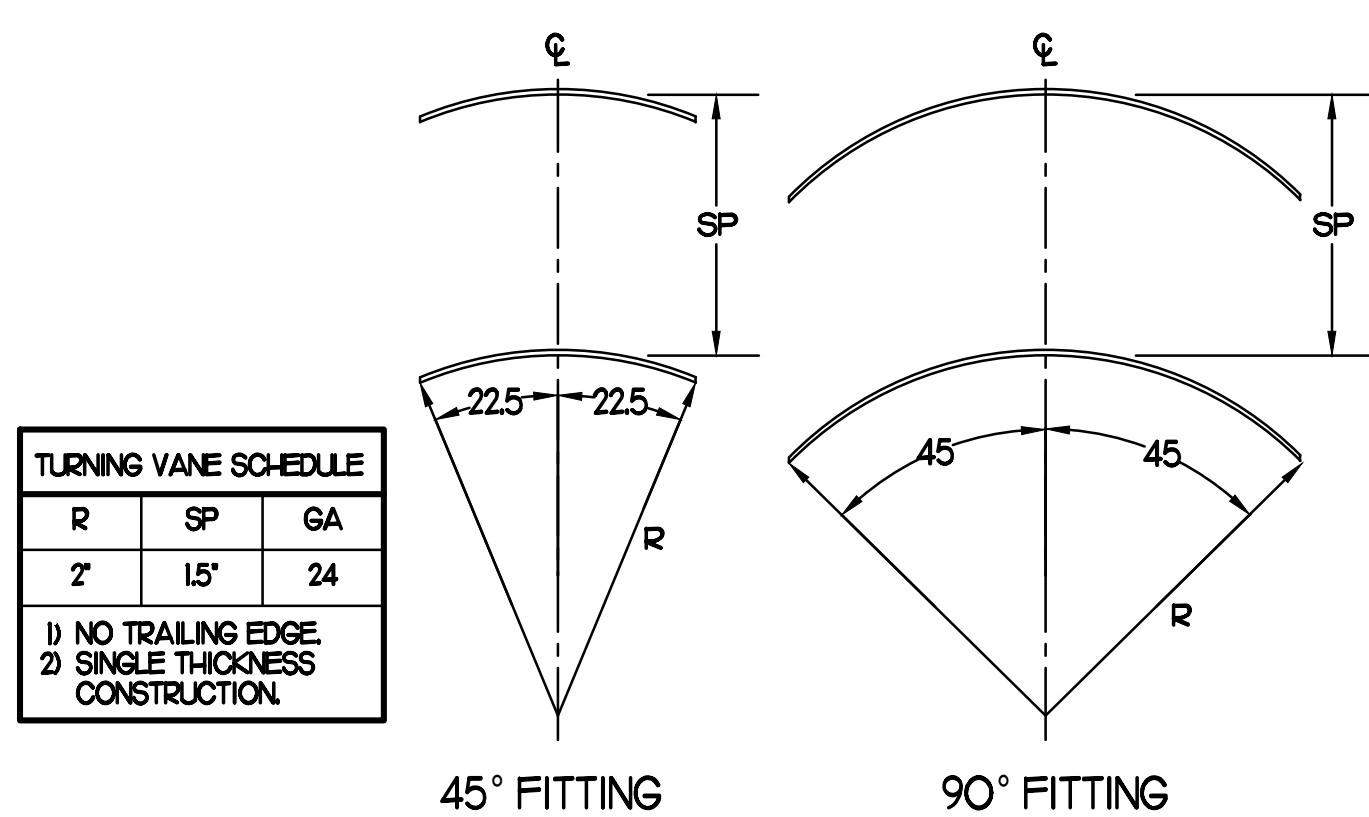
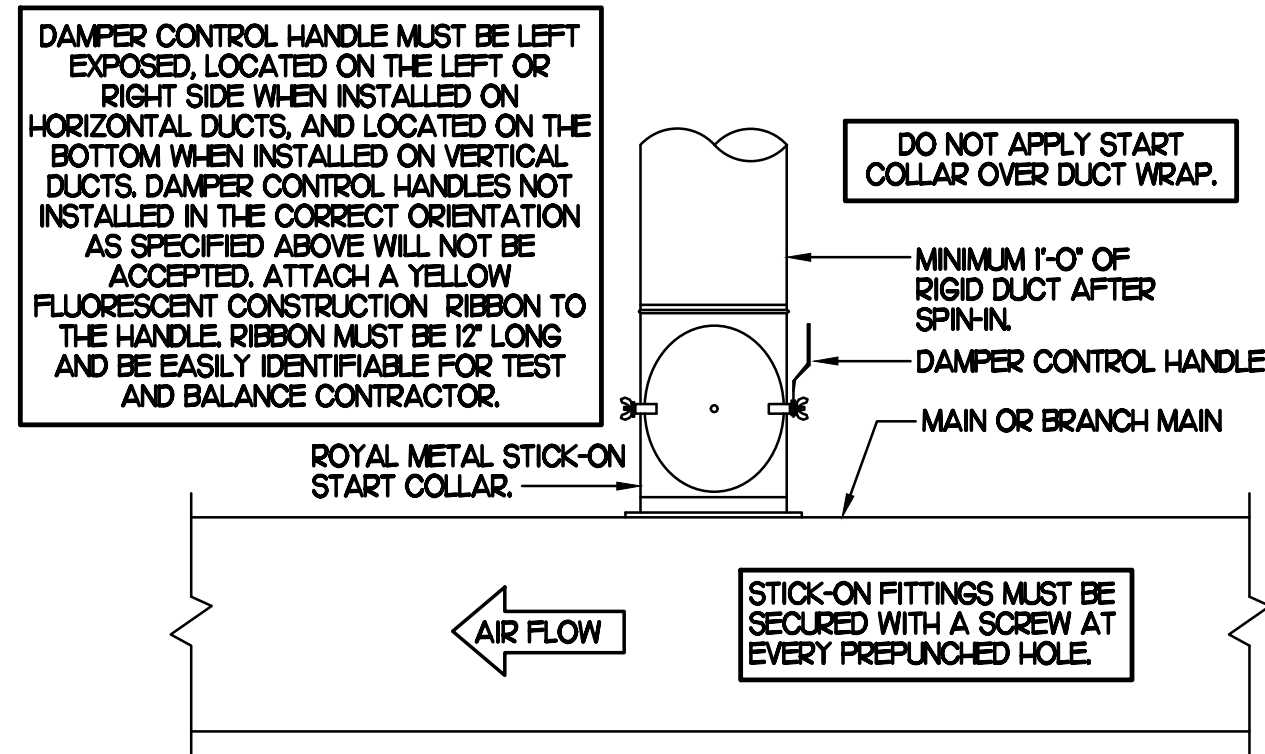
CONSULTANT PROJECT # 23122.HF.R
PRINTED FOR CONSTRUCTION
DATE 03/13/2024
DRAWN BY DSF

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.
SHEET
MECHANICAL
ROOF PLAN
SHEET NUMBER

M1.2



CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRROW COMPANY FOR THE ROYAL METAL START COLLARS. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE ROYAL METAL START COLLARS DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-010 FOR PRICING AND AVAILABILITY. ROYAL METAL START COLLARS NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.



AIR DOOR SCHEDULE

MARK	CFM	VELOCITY	HEATING CAP	HP	AREA SERVED	MODEL	MANUFACTURER	REMARKS
AD1 (NEW)	1543	2338	10 KW	3/4	DRIVE THRU	CHA-148E	POWERED-AIRE	2-5
AD2 (EXIST)	-	-	-	-	REAR DOOR	-	EXISTING	-
AD3 (NEW)	2899	4220	NA	3/4	DRIVE THRU DOOR	RBT-136	POWERED-AIRE	1

NOTES: CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRROW COMPANY FOR THE AIR DOORS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-010, FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.

REMARKS: 1. FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.
2. FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER LOCATED ABOVE CEILING.
3. FACTORY WIRED DISCONNECT.
4. FACTORY PROVIDED, FIELD INSTALLED REMOTE WALL SWITCHES FOR HEATING ON/OFF AND FAN ON/AUTO SWITCH. SEE AIR CURTAIN WIRING DIAGRAM DETAIL THIS SHEET.
5. PROVIDE WITH DIVERTER BOX FROM TOM BARRROW COMPANY. PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL PER MANUFACTURER'S MOUNTING INSTRUCTIONS.

DUCTLESS SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

MARK	COOLING CAPACITY (MBH)		HEATING CAPACITY (MBH)		EFFICIENCIES	FAN SECTION (CFM)	ELECTRICAL DATA		R-410A MODEL		MFR	REMARKS		
	MIN	MAX	MIN	MAX			MCA	MOCP	VOLTAGE	AHU			CJ	
AH1/CH1 (NEW)	18.0	33.5	18.0	40.0	16.2	10.0	635-730-830	28	40	208/1/60	PKA-A36KA7	FLZ-HA36NHAS	MITSUBISHI	I-7
AH2/CH2 (NEW)	4.1	13.3	4.1	16.3	18.0	9.0	240-410	15	15	208/1/60	CS-E12B24UW	CU-E12B24U	PANASONIC	I-4.8

NOTES: MECHANICAL CONTRACTOR SHALL PURCHASE AH1/CH1 DIRECTLY FROM TRANE/MITSUBISHI. CONTACT MR. SCOTT ROWLEY AT 630-200-7155, FOR PRICING AND AVAILABILITY. EMAIL AT CFA@TRANE.COM.
MECHANICAL CONTRACTOR SHALL PURCHASE AH2/CH2 DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-010, FOR PRICING AND AVAILABILITY.

REMARKS: 1. ELECTRICIAN TO PROVIDE NON-FUSED DISCONNECT.
2. MECHANICAL TO PROVIDE AND INSTALL REFRIGERANT PIPING AS PER MFR RECOMMENDATIONS.
3. PROVIDE ENGRAVED PLASTIC LABEL AT AHU AND CU WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND RIVETED TO UNIT CABINET.
4. PROVIDE WITH ADEQUATE REFRIGERANT LINE SET. FIELD VERIFY DISTANCE FROM WHERE CONDENSER IS TO BE SET TO AIR HANDLER LOCATION PRIOR TO ORDERING.
5. PROVIDE WITH FACTORY HAIL GUARDS.
6. PROVIDE WITH WALL MOUNTED THERMOSTAT (TAR-CTO1MAU-5B). USE TWO-WIRE, STANDARD, NON-POLAR CONTROL WIRE TO CONNECTOR TB5 ON INDOOR UNIT CONTROLLER. PROGRAM THERMOSTAT CONTROLS TO MATCH DRIVE-THRU RTU SETTINGS.
7. PROVIDE PAC-5655RA-E CONNECTOR AT INDOOR UNIT (CONNECTOR ON 2), WIRE ORANGE AND RED WIRES TO SPARE POLE ON RELAY R-1 IN SLUICAST T-500 PANEL. (TERMINALS 11 AND 7 RESPECTIVELY) AND CAP THE BROWN WIRE.
8. PROVIDE WITH CONDENSATE PUMP (ELLE DIAMOND MAXI ELLE MODEL# X87-721).
9. PROVIDE WITH FACTORY WIRED 7-DAY PROGRAMMABLE WALL THERMOSTAT.

EXHAUST FAN SCHEDULE

MARK	CFM	ESP	RPM	TIP SPEED (FPM)	HP (WATTS)	AREA SERVED	MODEL	MANUFACTURER	REMARKS
EF#1 (EXIST)	1700	-	-	-	-	HOOD#1	-	LOREN COOK	-
EF#2 (EXIST)	701	-	-	-	-	HOOD#2	-	LOREN COOK	-
EF#3 (NEW)	400	0.375	1,433	3,423	1/8	RESTROOMS	ACED 90C15H	LOREN COOK	2,3,13-17
EF#4 (NEW)	701	0.75	1,269	3,986	1/2	HOOD#3	120 OPS	LOREN COOK	H-2

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 BARRROW COMPANY FOR FAN/CURB PACKAGE. MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.

REMARKS: 1. PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MC TO CONTACT ROOFTOP SOLUTIONS AT 800-919-7034
2. PROVIDE FACTORY INSTALLED, PRE-WIRED, NEMA 3 NON-FUSED DISCONNECT. COORDINATE WITH E.C.
3. INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET.
4. LABEL LAST, ARRANGEMENT TO, COW ROTATION. SEE PLANS TO CONFIRM CONFIGURATION.
5. PROVIDE FACTORY STEEL FAN WHEEL.
6. PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE.
7. PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.
8. PROVIDE FACTORY DRAIN CONNECTION.
9. PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL.
10. PROVIDE FACTORY STEEL OUTLET COMPANION FLANGE.
11. UTILITY SET FAN CURB AND ASSOCIATED EXHAUST DUCT CURB PROVIDED BY TOM BARRROW COMPANY.
12. PROVIDE FACTORY BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT.
13. PROVIDE BIRDSCREEN.
14. STARTER BY ELECTRICAL CONTRACTOR. INTERLOCK WITH LIGHTS BY ELECTRICAL CONTRACTOR.
15. PROVIDE FACTORY INSTALLED AND WIRED SPEED CONTROLLER.
16. EXISTING BACKDRAFT DAMPER IN DUCT TO BE RE-USED.
17. EXISTING ROOF CURB IS BEING RE-USED FOR NEW FAN.

AIR DEVICE SCHEDULE

MARK	PRICE	MODEL	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	I,7
C	PRICE	MODEL	SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	ENTRYS	14X14	20X20	BEVELLED	I,3,5,6
D	PRICE	MODEL	APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.	DINING AREA KITCHEN	SEE PLAN	16X16	LAY-IN	I,7
E	PRICE	MODEL	22 DOUBLE DEFLECTION ALUMINUM SIDEWALL SUPPLY GRILLE, FRONT BLADE PARALLEL TO LONG SIDE.	PLAY AREA	18X12	20X14	SURFACE	I
F	PRICE	MODEL	80 EGGRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CONE, FACTORY FLAT BLACK BACKPAN AND ROUND NECK.	DINING KITCHEN	SEE PLAN	24X24	LAY-IN	I,7
J	PRICE	MODEL	SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	RESTROOMS	10X10	16X16	BEVELLED	I,2,3,5,6
K	PRICE	MODEL	APDDR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS ENTRYS	14X14	17X17	SURFACE	I,4,5,6
L	PRICE	MODEL	21 ALUMINUM SIDEWALL RETURN GRILLE, FRONT BLADE PARALLEL TO LONG SIDE.	PLAY AREA	16X16	18X18	SURFACE	I

NOTES: MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-010, FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.

REMARKS: 1. STANDARD OFF WHITE FINISH.
2. PROVIDE MODEL VCS3 NECK DAMPER.
3. SEE DRAWING M1 FOR THROW.
4. PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS.
5. PROVIDE BACKPAN MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY.
6. FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1M3.I.
7. FACTORY INSULATED R-6 BACKPAN.

GAS FIRED ROOFTOP UNIT SCHEDULE

MARK	COOLING CAPACITY (MBH)		HEATING CAPACITY (MBH)		FAN SECTION (CFM)		MODEL	MANUFACTURER	REMARKS			
	TOTAL	SENS	INPUT	OUTPUT	SUPPLY	O.A.						
AC1 (EXIST)	-	-	-	-	8,000	1,800	-	-	EXISTING			
AC2 (EXIST)	-	-	-	-	2,890	750	-	-	EXISTING			
AC3 (NEW)	12.9	85.0	24.0	19.0	2	4,000	1,000	3.75	0.8	LGT1204HE	LENNOX	H214-16
AC4 (NEW)	9.31	64.8	24.0	19.0	2	2,765	600	3.75	0.8	LGT0924HE	LENNOX	H214-16
AC5 (NEW)	6.6	44.4	15.0	12.0	2	1,800	300	1.0	0.8	LGT0634HE	LENNOX	HJ13-16
AC6 (NEW)	36.2	24.9	108.0	87.0	2	1,080	125	0.5	0.8	LGT0364HE	LENNOX	HJ14-16

NOTES: COOLING CAPACITIES ARE GROSS, BASED ON INDOOR EDB 80F, INDOOR EWB 67F, OUTDOOR EDB 95F.
FOR PROPER BUILDING AIR BALANCE, VERIFY AMOUNT OF OUTSIDE AIR PROVIDED BY ALL EXISTING UNITS. ADJUST AS PER SCHEDULE IF NECESSARY.
VERIFY MIN. 10' DISTANCE OF O.A. INTAKE OPENINGS OF A/C UNITS FROM ANY EXISTING SOURCE OF AIR POLLUTION (EXHAUST FAN, COMBUSTION FLUE, VENT ETC). IF SUCH CONDITIONS EXIST, CONTRACTOR IS REQUIRED TO DUCT OUTSIDE AIR INTAKE ON ROOF AWAY FROM ANY SUCH SOURCE.

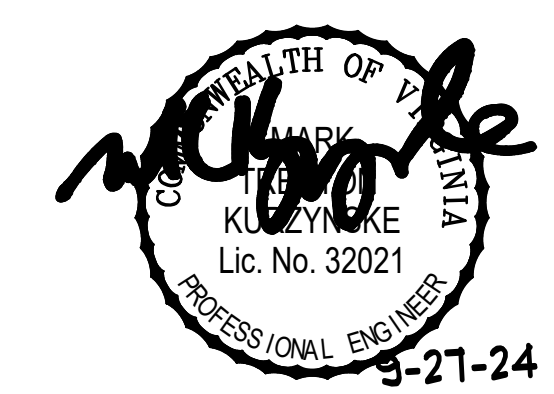
REMARKS: 1. PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST. ECONOMIZER TO BE LOW LEAKAGE/HIGH PERFORMANCE.
2. SEE DETAIL 2/M41 FOR SETTING OF PRODIGY M3 BOARD CONTROL. PARAMETERS BY MC.
3. PROVIDE FACTORY INSTALLED AND UNIT POWERED 115V GFI SERVICE OUTLET.
4. PROVIDE FACTORY INSTALLED RETURN SIDE SMOKE DETECTOR.
5. PROVIDE FACTORY INSTALLED NON-FUSED DISCONNECT.
6. PROVIDE 2" MERV 8 THROW AWAY FILTERS.
7. PROVIDE HINGED PANELS FOR FILTER ACCESS, FAN MOTOR ACCESS, COMPRESSOR ACCESS AND CONTROL COMPARTMENT ACCESS.
8. ADJUST GAS MANIFOLD PRESSURE AT LOCATIONS WHERE ELEVATION EXCEEDS 2000' ABOVE SEA LEVEL AS RECOMMENDED BY MANUFACTURER.
9. PROVIDE FACTORY INSTALLED COIL HAIL GUARD.
10. PROVIDE HUMIDITROL OPTION WITH FACTORY WALL MOUNTED HUMIDITY SENSOR.
11. PROVIDE WITH FACTORY CONDENSATE DRAIN FAN OVERFLOW SWITCH.
12. PROVIDE WITH FACTORY RETURN AIR ADAPTER PLATE.
13. PROVIDE WITH ADAPTER CURB. UNIT BEING REPLACED IS LENNOX MODEL L6A0604. ADAPTER CURB IS PROVIDED BY LENNOX AS PART OF THE TOTAL EQUIPMENT PACKAGE.
14. PROVIDE WITH MSAV BLOWER.
15. PROVIDE FACTORY CONFIGURED PHASE LOSS PROTECTION.
16. PROVIDE HIGH FAULT SCORE (100).



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349

Kurzynske & Associates
CONSULTING ENGINEERS
2705 Lebanon Pike - Suite One
Nashville, Tennessee 37214
Telephone: (615) 255-5203



CHICK-FIL-A
MECHANICSVILLE
7285 BATTLE HILL DRIVE
MECHANICSVILLE, VA 23111

FSR#02175

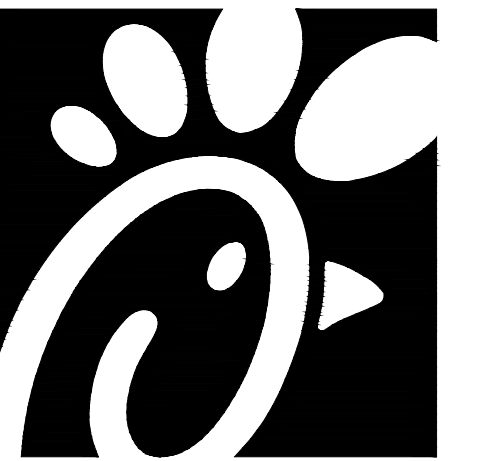
BUILDING TYPE / SIZE: S06-R
RELEASE:

REVISION SCHEDULE
NO. DATE DESCRIPTION

8 09/25/24 Kitchen Coordination
CONSULTANT PROJECT # 23122.HF.R
PRINTED FOR CONSTRUCTION
DATE 03/13/2024
DRAWN BY DSF

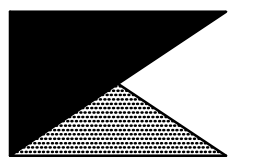
MECH DETAILS & SCHEDULES
SHEET NUMBER

M3.1

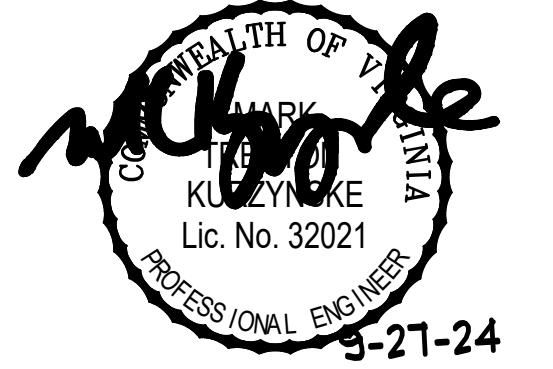


Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349



Kurzynske
& Associates
CONSULTING ENGINEERS
2705 Lebanon Pike - Suite One
Nashville, Tennessee 37214
Telephone: (615) 255-5203



CHICK-FIL-A
MECHANICSVILLE
7285 BATTLE HILL DRIVE
MECHANICSVILLE, VA 23111

FSR#02175

BUILDING TYPE / SIZE: S06-R
RELEASE:

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

CONSULTANT PROJECT #	23122.HF.R
PRINTED FOR	CONSTRUCTION
DATE	03/13/2024
DRAWN BY	DSF

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET
MECH & ENVELOPE
COMCHECK

SHEET NUMBER

M6.1

FOR CONSTRUCTION

COMcheck Software Version 4.1.5.1
Mechanical Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Chick-fil-A #2175
Location: Mechanicsville (Hanover), Virginia
Climate Zone: 4a
Project Type: Addition

Construction Site: 7285 Battle Hill Drive, Mechanicsville, VA 23111
Owner/Agent: Chick-fil-A, 5200 Buffington Road, Atlanta, GA 30349
Designer/Contractor: Kurzynske & Associates, 2705 Lebanon Pike - Suite One, Nashville, TN 37214, #15-255-5203

Mechanical Systems List

Quantity	System Type & Description
1	AC#3 (10 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 194 kBtu/h Proposed Efficiency = 81.00% EI, Required Efficiency: 80.00 % EI or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 122 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.10 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: AC#3 (10 ton) Dining - Compliance (Motor nameplate HP method) : Passes
1	AC#4 (7.5 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 194 kBtu/h Proposed Efficiency = 81.00% EI, Required Efficiency: 80.00 % EI or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 83 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.30 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: AC#4 (7.5 ton) Dining - Compliance (Motor nameplate HP method) : Passes
1	AC#5 (5 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 121 kBtu/h Proposed Efficiency = 81.00% EI, Required Efficiency: 80.00 % EI or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 62 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 17.10 SEER, Required Efficiency: 14.00 SEER Fan System: AC#5 (5 ton) Play Area - Compliance (Motor nameplate HP method) : Passes
1	AC#6 (3 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 87 kBtu/h Proposed Efficiency = 81.00% EI, Required Efficiency: 80.00 % EI or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 36 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 17.80 SEER, Required Efficiency: 14.00 SEER Fan System: AC#6 (3 ton) BOH - Compliance (Motor nameplate HP method) : Passes

Quantity System Type & Description

Fans:
Supply Supply, Constant Volume, 1080 CFM, 0.5 motor nameplate hp, 0.0 fan efficiency grade
Exhaust Exhaust, Constant Volume, 125 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade

1 AHU#1/CU#1 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 40 kBtu/h, Proposed Efficiency = 10.00 HSPF, Required Efficiency = 8.20 HSPF
Cooling Mode: Capacity = 34 kBtu/h, Proposed Efficiency = 16.20 SEER, Required Efficiency: 14.00 SEER
Fan System: None

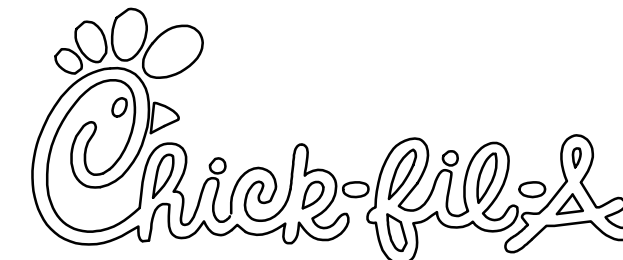
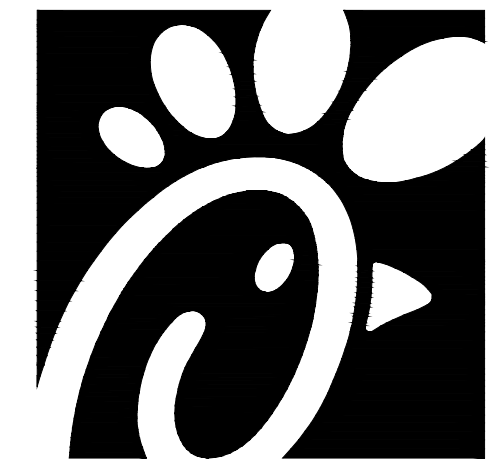
1 AHU#2/CU#2 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 16 kBtu/h, Proposed Efficiency = 9.00 HSPF, Required Efficiency = 8.20 HSPF
Cooling Mode: Capacity = 13 kBtu/h, Proposed Efficiency = 18.00 SEER, Required Efficiency: 14.00 SEER
Fan System: None

6 GH (Infrared Heater) (Single Zone):
Heating: 1 each - Radiant Heater, Gas, Capacity = 50 kBtu/h
No minimum efficiency requirement applies
Fan System: None

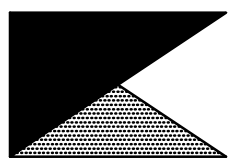
1 EH (Infrared Heater) (Single Zone):
Heating: 1 each - Radiant Heater, Electric, Capacity = 20 kBtu/h
No minimum efficiency requirement applies
Fan System: None

Mechanical Compliance Statement
Compliance Statement: The proposed mechanical design 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 2018 IECC requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

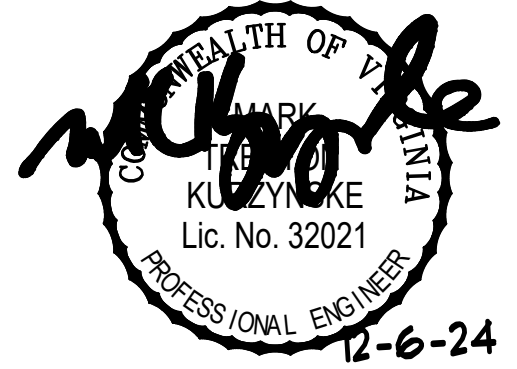
Mark Kurzynske, P.E.
Name: Title Signature Date
9/6/23



Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349



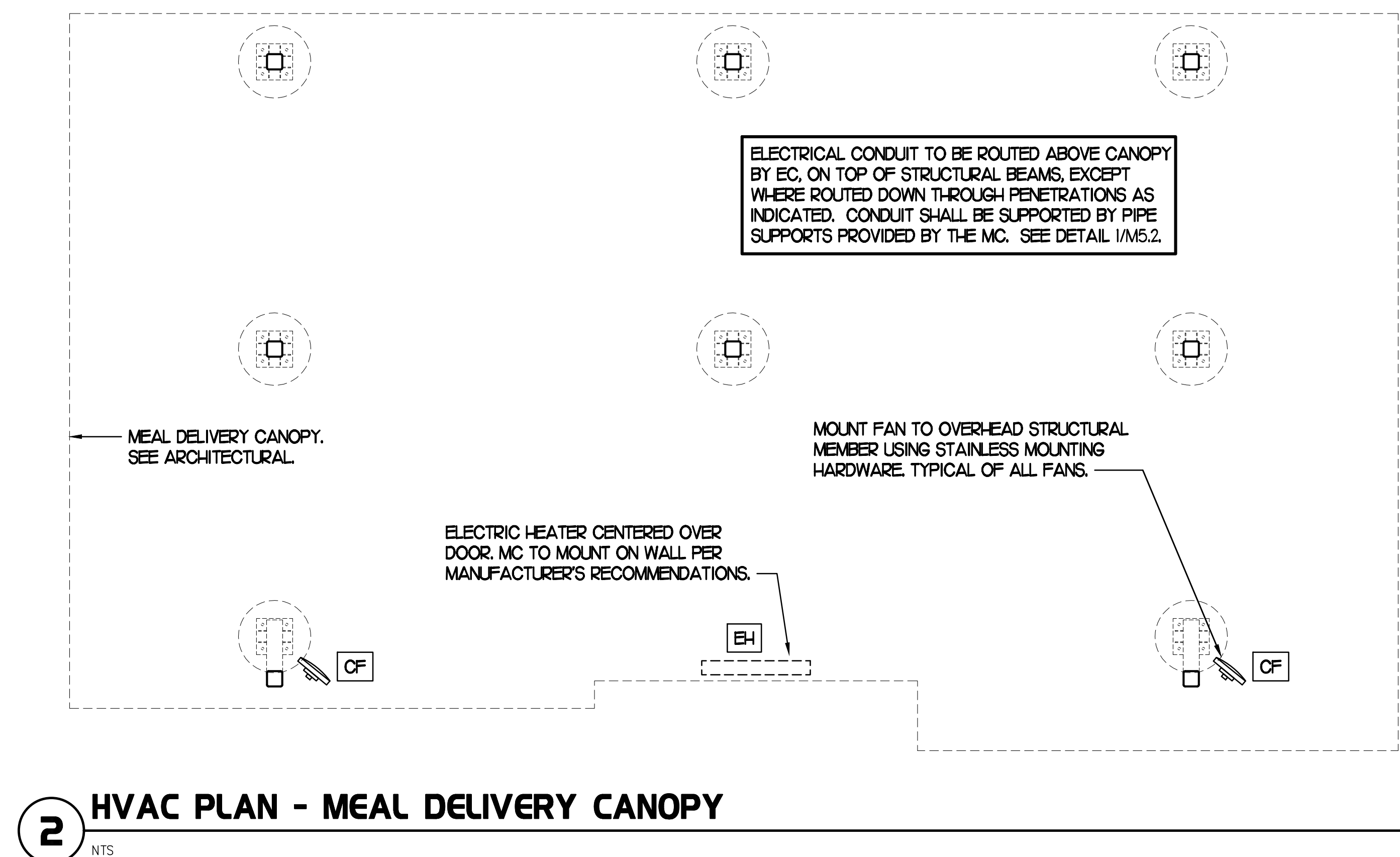
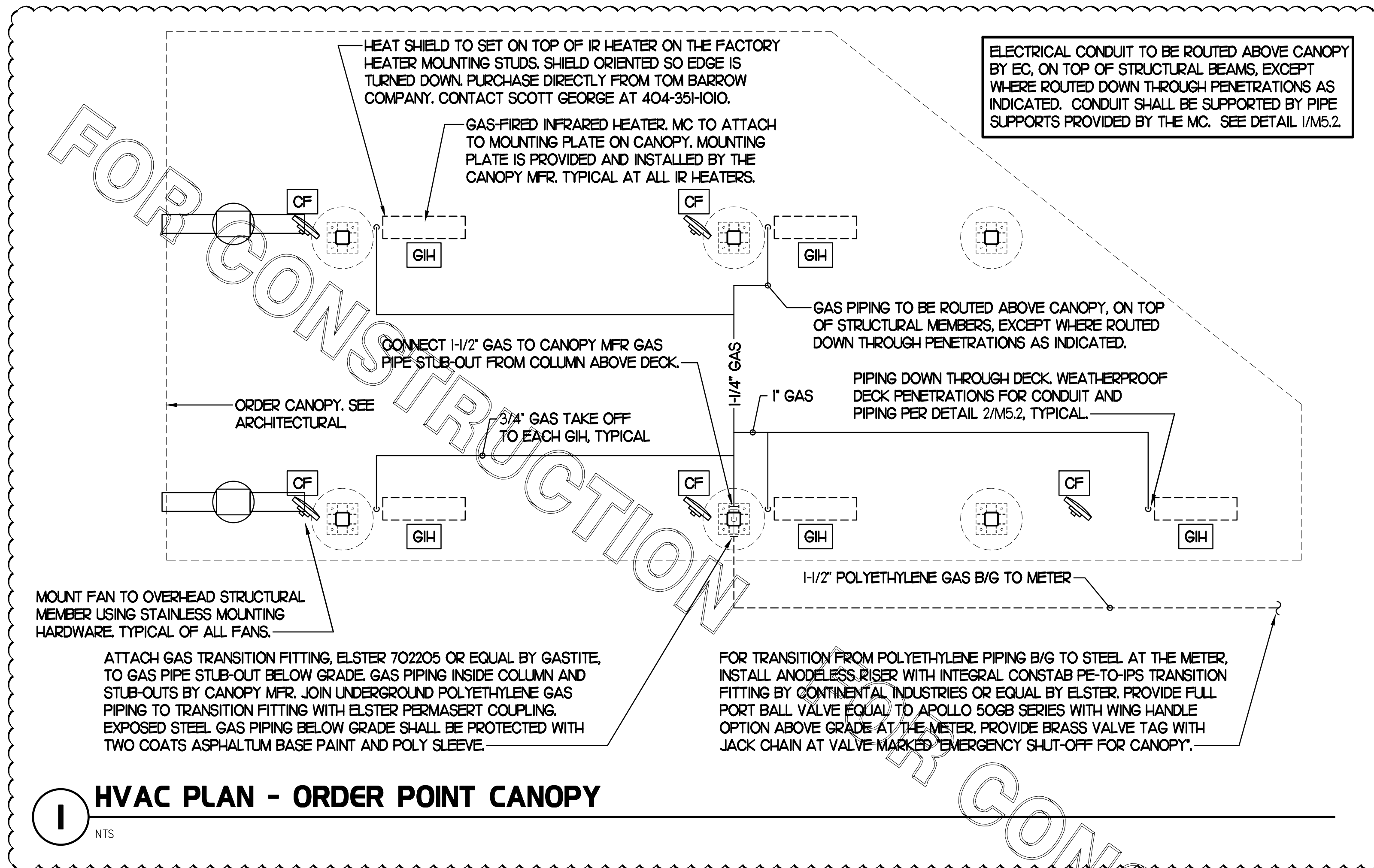
Kurzynske & Associates
CONSULTING ENGINEERS
2705 Lebanon Pike - Suite One
Nashville, Tennessee 37214
Telephone: (615) 255-5203



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.



CONSTRUCTION

CHICK-FIL-A
MECHANICSVILLE
7285 BATTLE HILL DRIVE
MECHANICSVILLE, VA 23111

FSR#02175
BUILDING TYPE / SIZE: S06-R
RELEASE:

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

12	12/4/24	Canopy Coordination
CONSULTANT PROJECT #		23122.HF.R
PRINTED FOR		CONSTRUCTION
DATE		03/13/2024
DRAWN BY		DSF

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET
CANOPY HVAC
PLANS
SHEET NUMBER

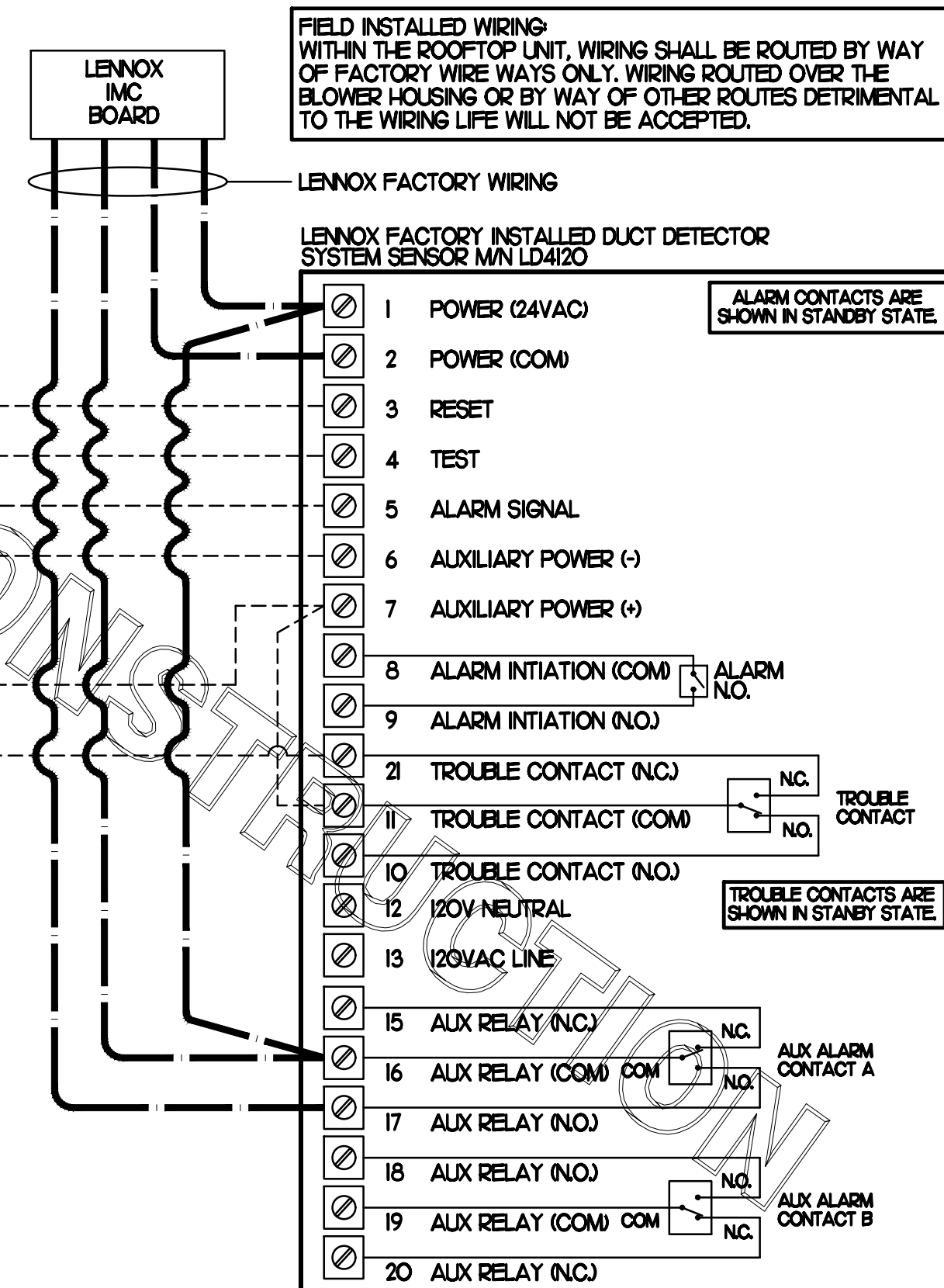
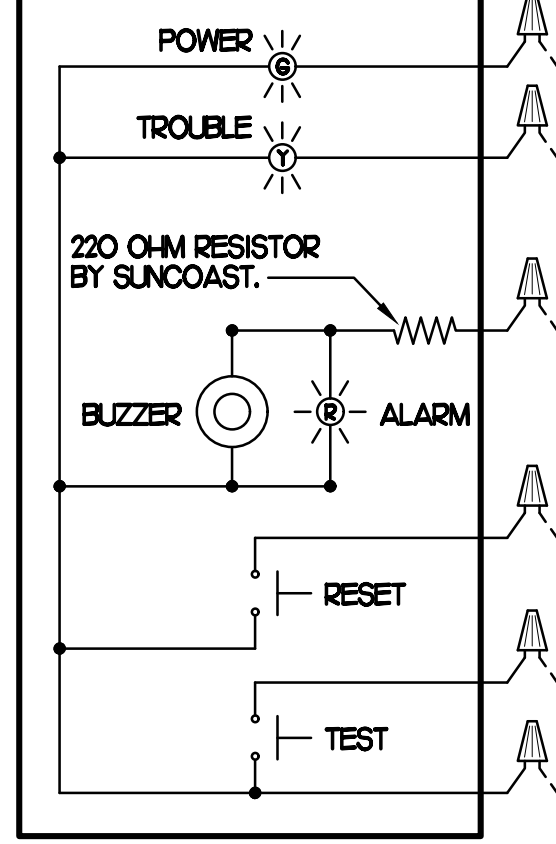
M5.1

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. SPICES 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

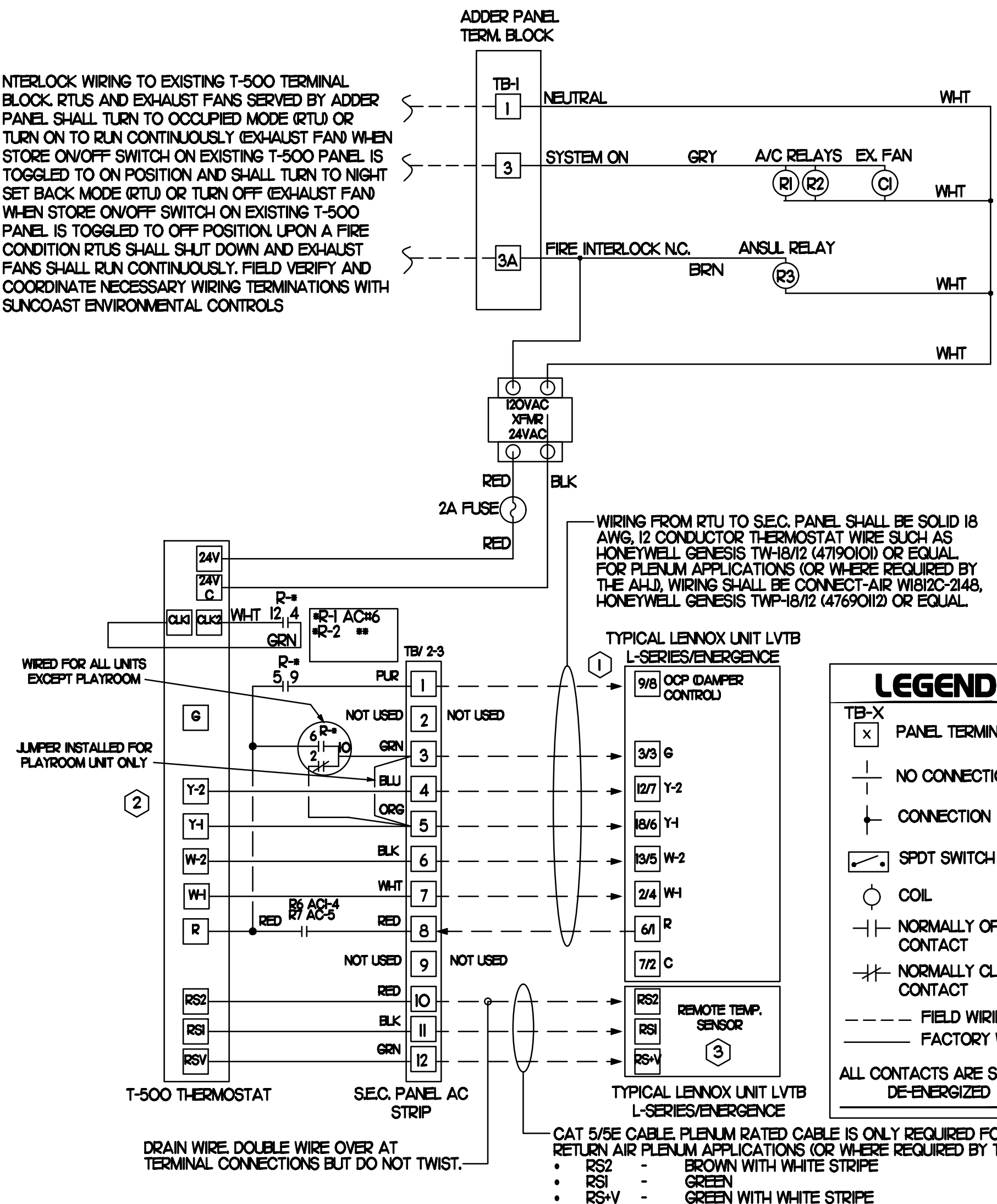
LABELING
PROVIDE ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON BLACK BACKGROUND IDENTIFYING UNIT SERVED.

SUNCOAST CONTROLS ANNUNCIATOR



1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - LENNOX

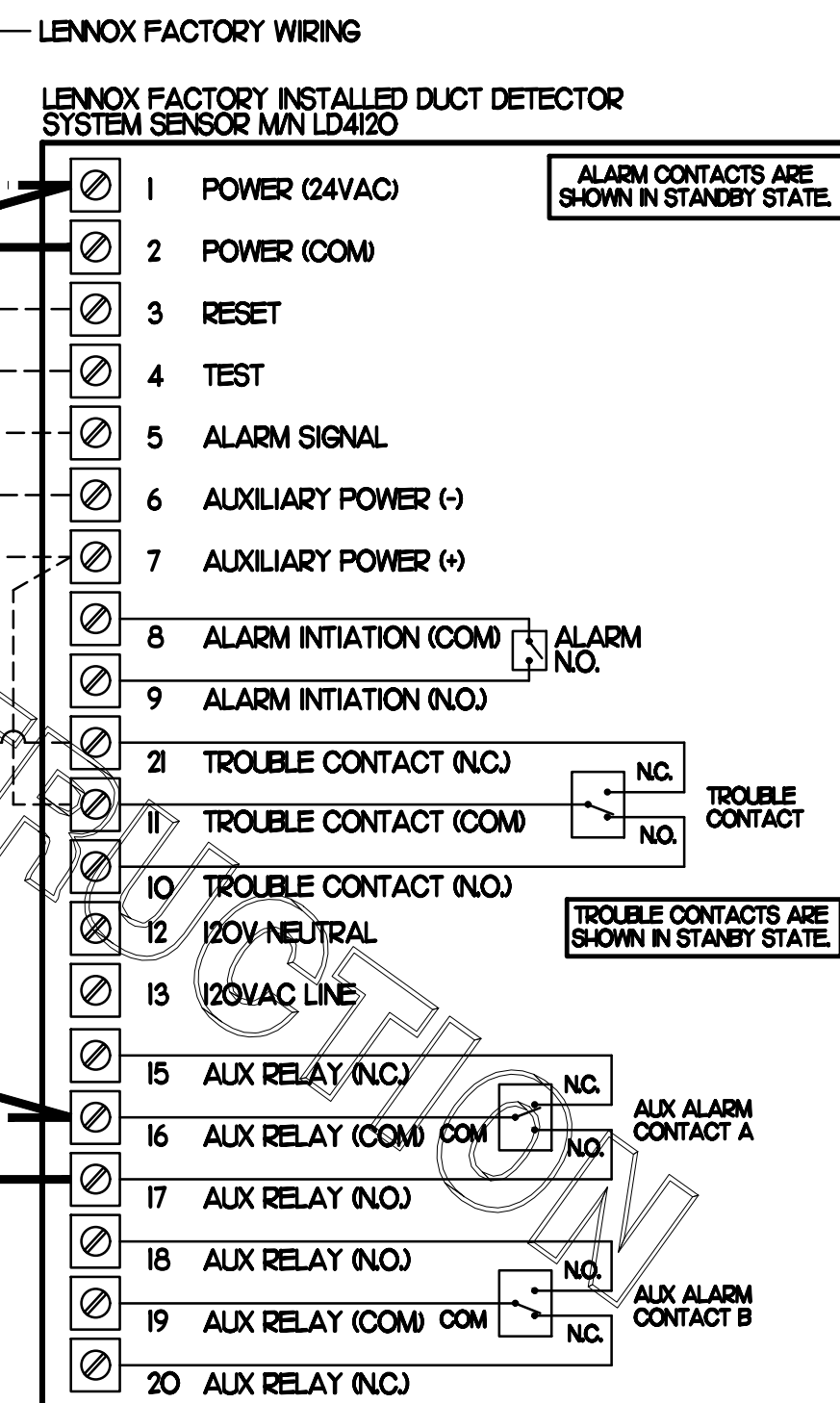
NO SCALE



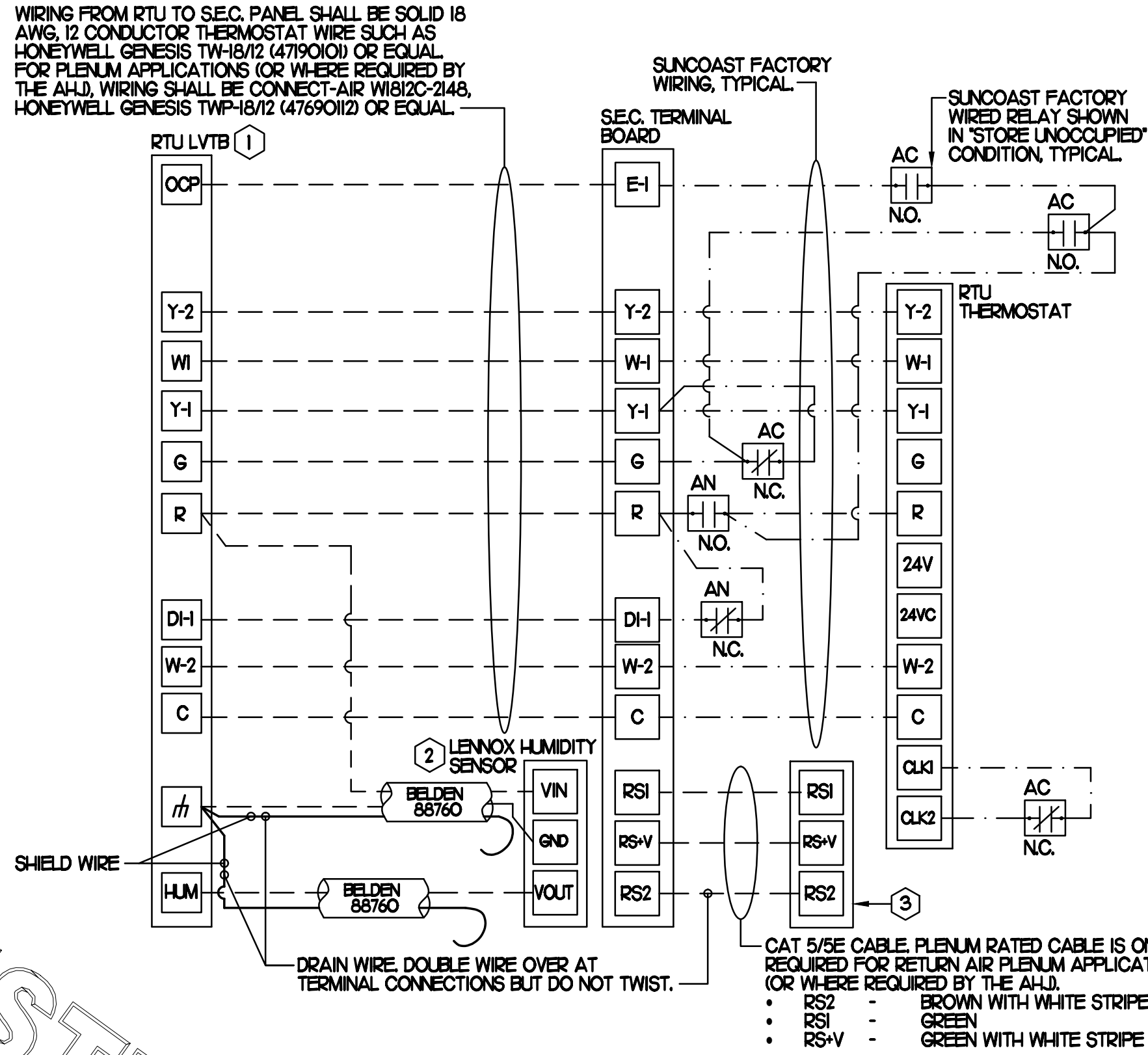
3 S.E.C. ADDER PANEL WIRING DIAGRAM - LENNOX

NO SCALE

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.



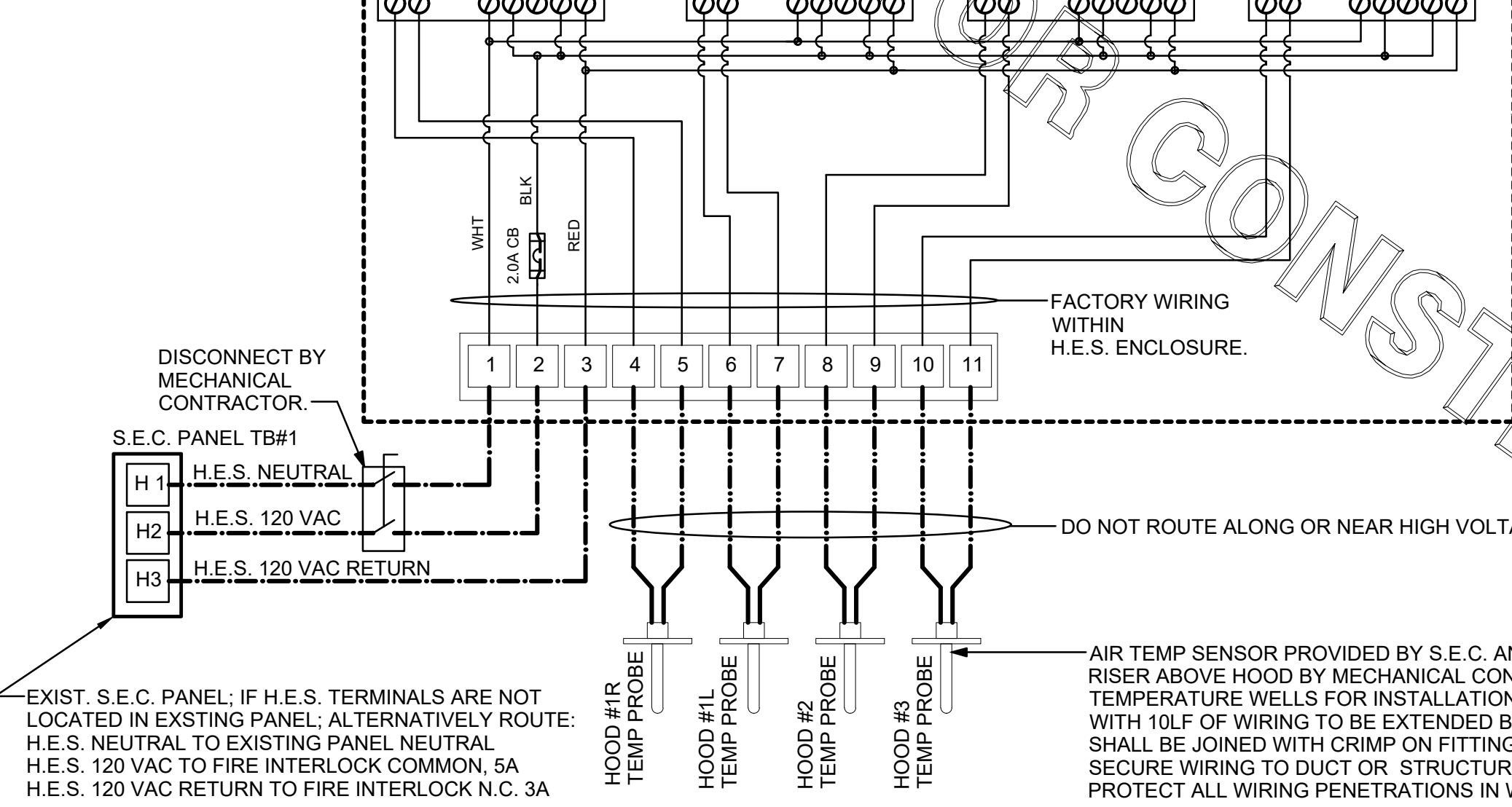
LEGEND
SEC. SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF TEMP/FAN CONTROL PANEL) LOCATED IN KITCHEN
KEY NOTE REFERENCE
MC MECHANICAL CONTRACTOR
AC SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, ENERGIZED BY PUTTING STORE SWITCH IN 'STORE OCCUPIED' POSITION
AN SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, DE-ENERGIZED WHEN ANSUL 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.



2 ROOFTOP UNIT CONTROL WIRING - LENNOX

GENERAL NOTES:
1. MECHANICAL CONTRACTOR TO PURCHASE THE H.E.S. CONTROL PANEL AND COMPONENTS FROM SUNCOAST ENVIRONMENTAL CONTROLS. TELEPHONE 877-544-6679.
2. CONTROL COMPONENTS TO BE FACTORY MOUNTED IN LABELED NEMA-1 ENCLOSURES.
3. 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.

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.



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

NO SCALE

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 (#68 ON LCH UNITS). ON OLDER BOARDS THIS IS ECTO PARAMETER 3.01 FOR LCH UNITS OR ECTO 2.01 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 #05 FOR DEHUMIDIFICATION OPERATION TO A VALUE OF 7. OLDER M-8 IMC BOARD ECTO PARAMETER 4.24 VALUE TO BE SET TO A VALUE OF 7.
 - AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #04 FOR DEHUMIDIFICATION SET POINT TO A VALUE OF 60 (60% RH).
 - AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #07 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, IE "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 TB1, LEAVE OPEN AT SENSOR.
 - NETWORK TSTAT REMOTE TEMP SENSOR PROVIDED BY SUNCOAST AND INSTALLED BY MC. FIELD CALIBRATE EACH SENSOR.

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

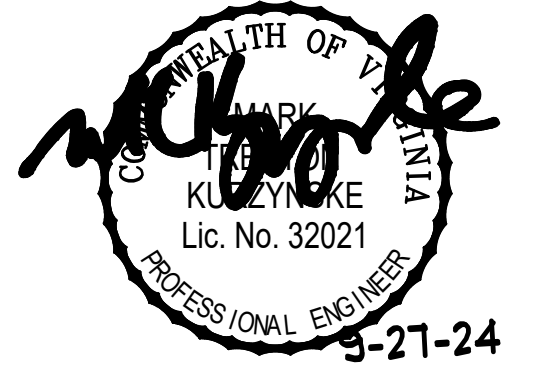
S.E.C. H.E.S. OPERATION
IN THE EVENT THAT ANY COOKING EQUIPMENT ITEM BENEATH ANY HOOD IS STARTED WITHOUT THE 'STORE SWITCH' BEING IN THE 'OCCUPIED' POSITION, THE H.E.S. CONTROLLER WILL SENSE THE HEAT RISE WITHIN THE HOOD CANOPY AND ENERGIZE THE EXHAUST FANS.



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349

Kurzynske & Associates
CONSULTING ENGINEERS
2705 Lebanon Pike - Suite One
Nashville, Tennessee 37214
Telephone: (615) 255-5203



CHICK-FIL-A
MECHANICSVILLE
7285 BATTLE HILL DRIVE
MECHANICSVILLE, VA 23111

FSR#02175

BUILDING TYPE / SIZE: S06-R
RELEASE:

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 23122.HF.R
PRINTED FOR CONSTRUCTION
DATE 03/13/2024
DRAWN BY DSF

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET HVAC CONTROLS

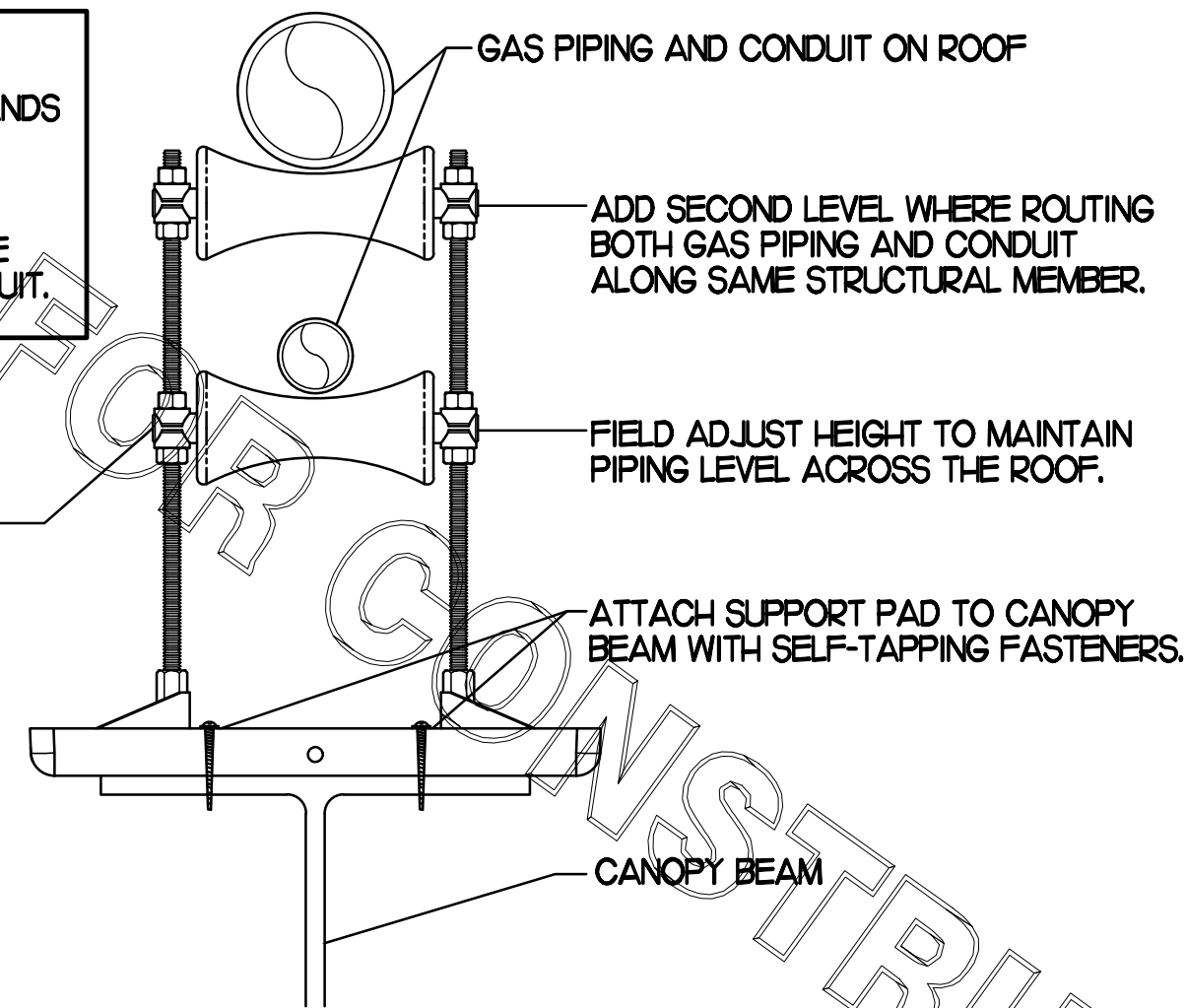
SHEET NUMBER

M4.1

CONSTRUCTION

NOTES

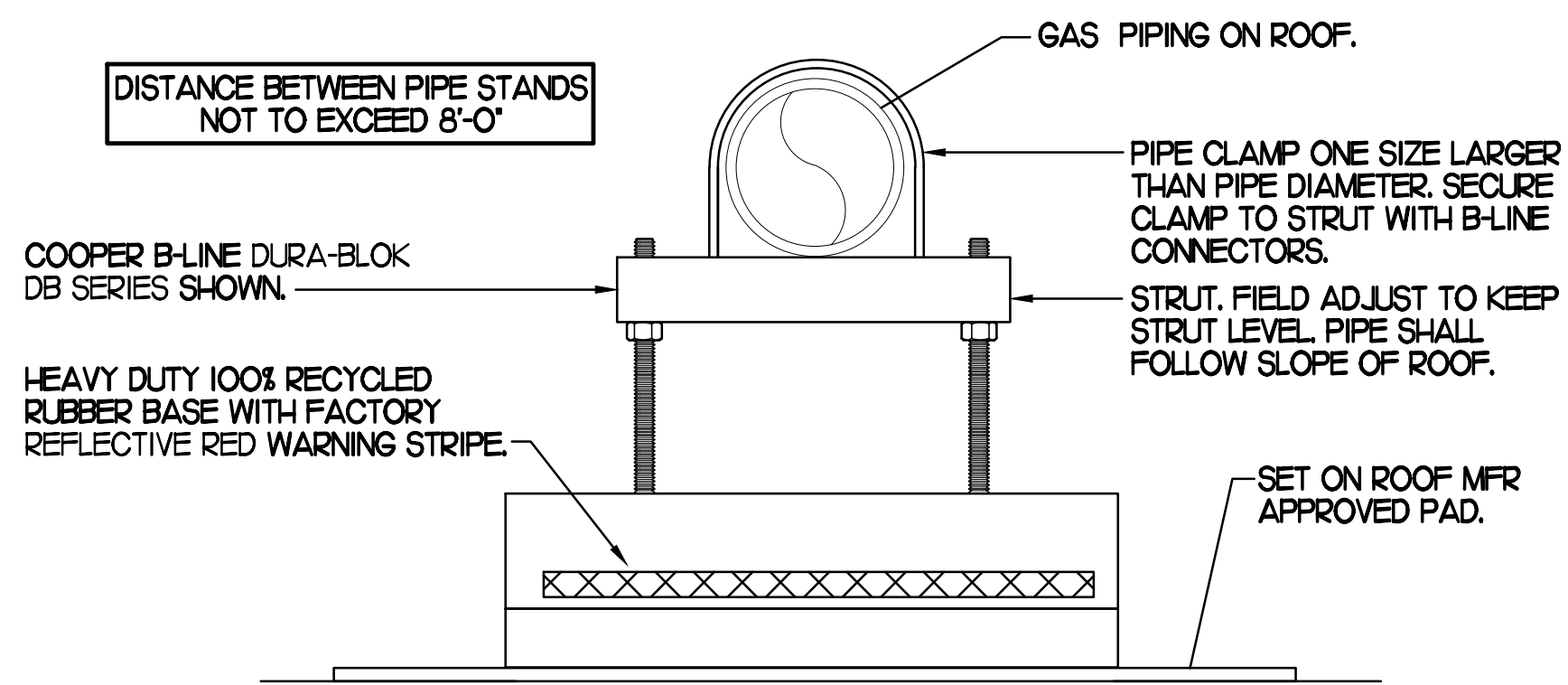
- DISTANCE BETWEEN PIPESTANDS NOT TO EXCEED 8'-0".
- MC TO PROVIDE DUAL LEVEL SUPPORT TO ACCOMMODATE BOTH GAS PIPING AND CONDUIT.



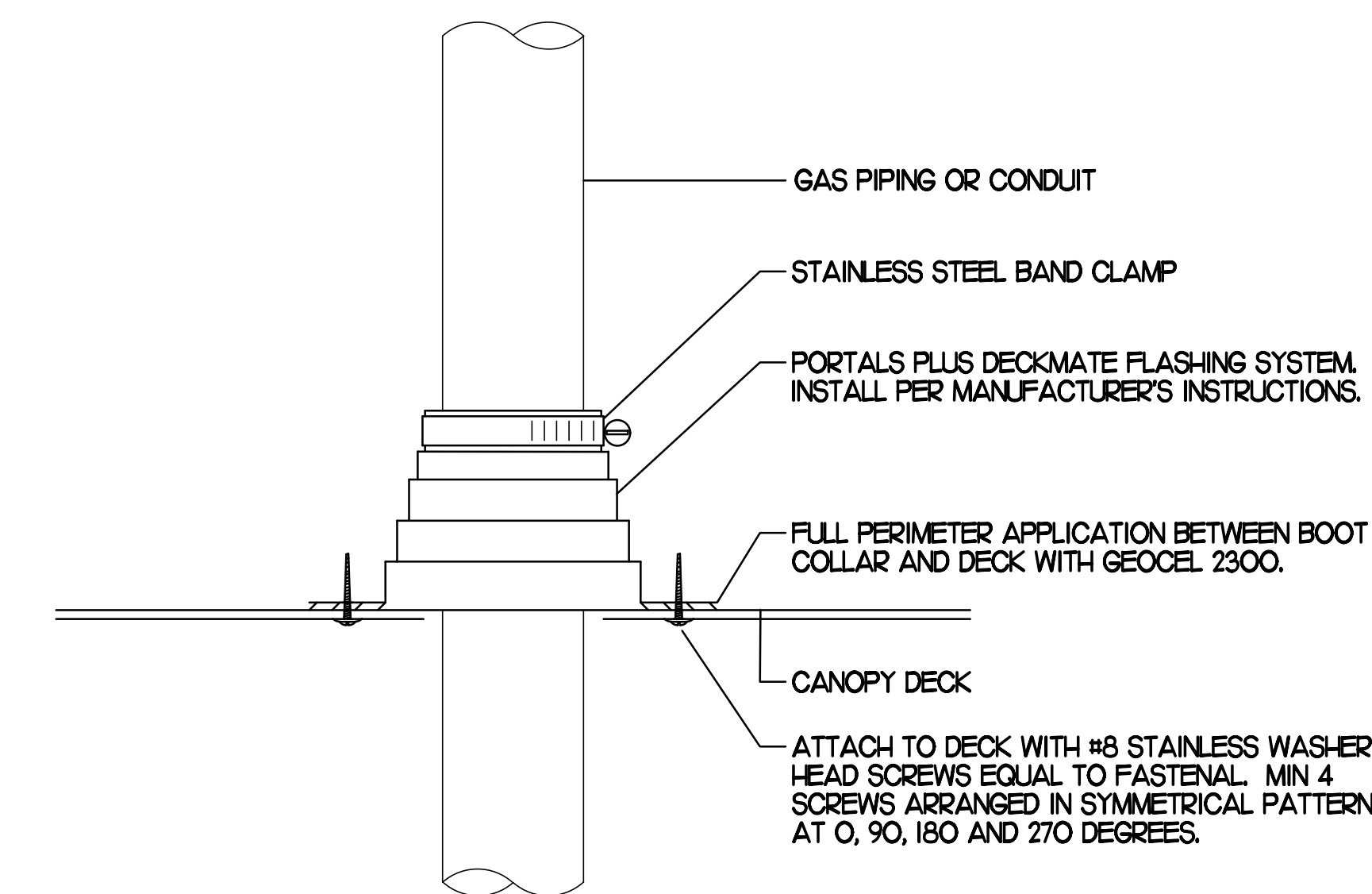
1 PIPING SUPPORT ON CANOPY
NO SCALE

NOTES

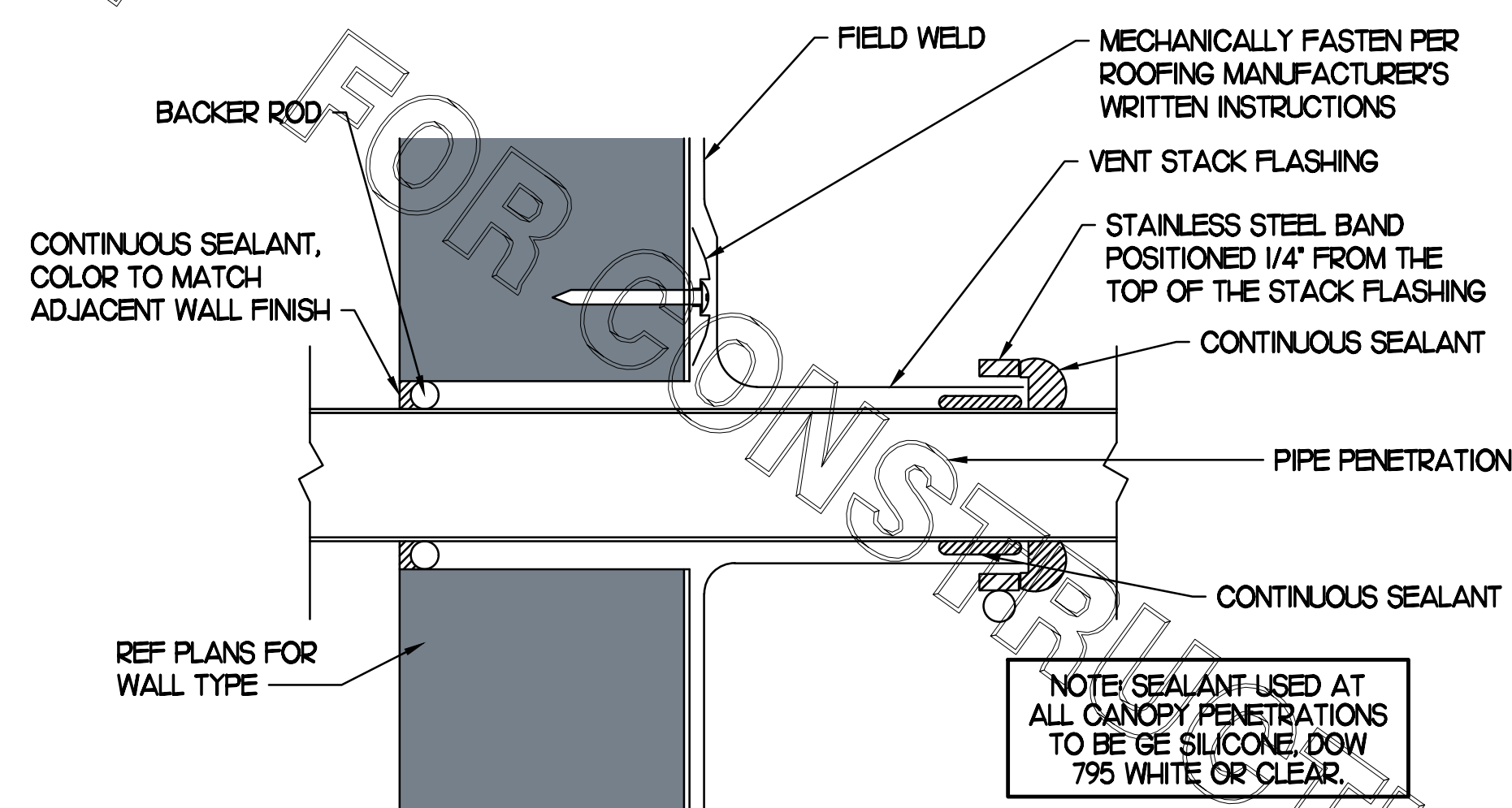
- NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
- PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING PIPING FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
- ENSURE GAS PIPING DOES NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS OPENINGS.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



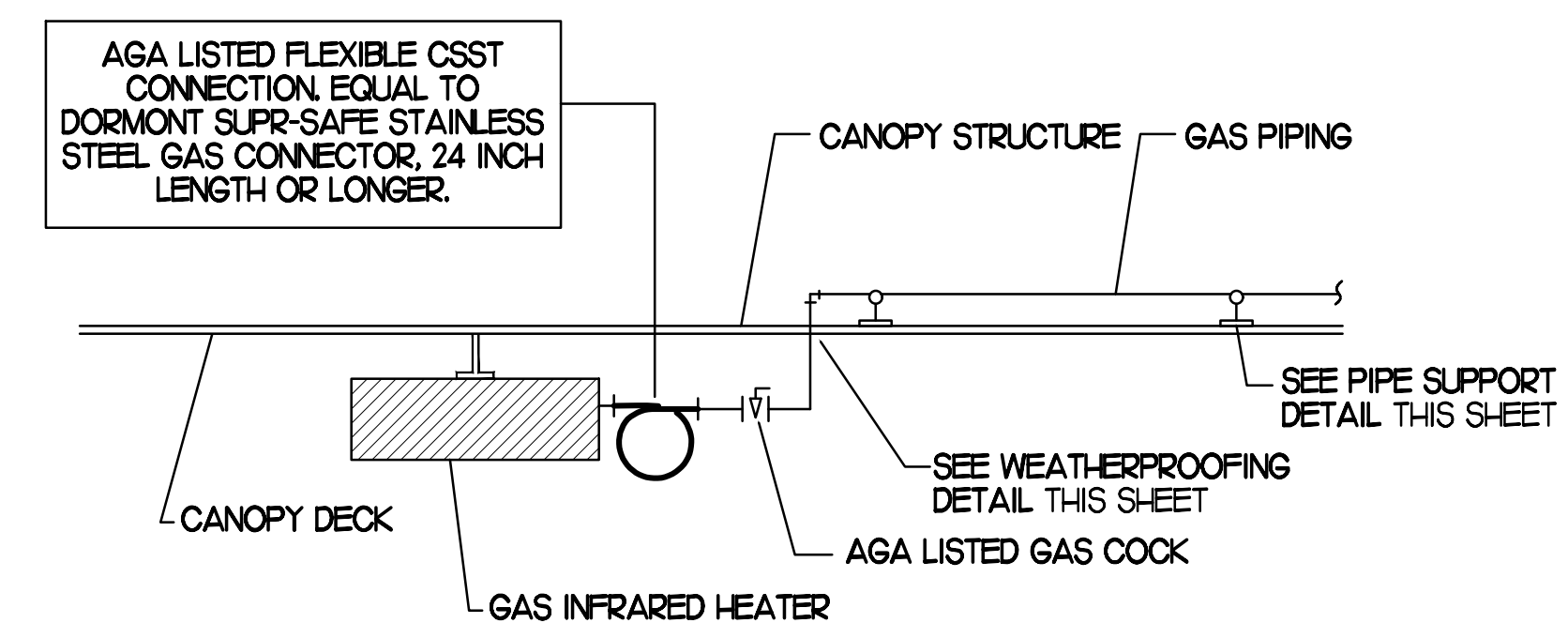
4 PIPING SUPPORT ON MAIN BLDG ROOF
NO SCALE



2 WEATHERPROOFING AT CANOPY PENETRATION
NO SCALE



5 PARAPET PENETRATION DETAIL
NO SCALE



3 GAS CONNECTION AT APPLIANCE
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 (MBH)	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
ALL CF	5,750	1,625	1/8	UBTE-HD	TP1
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. 				



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349



Kurzynske & Associates
CONSULTING ENGINEERS
2705 Lebanon Pike - Suite One
Nashville, Tennessee 37214
Telephone: (615) 255-5203



CHICK-FIL-A
MECHANICSVILLE
7285 BATTLE HILL DRIVE
MECHANICSVILLE, VA 23111

FSR#02175
BUILDING TYPE / SIZE: S06-R
RELEASE:

REVISION SCHEDULE
NO. DATE DESCRIPTION

CONSULTANT PROJECT # 23122.HF.R
PRINTED FOR CONSTRUCTION
DATE 03/13/2024
DRAWN BY DSF

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.
SHEET CANOPY DETAILS & SCHEDULES
SHEET NUMBER

M5.2

CONSTRUCTION

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-54, 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. RADIUSSED 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.

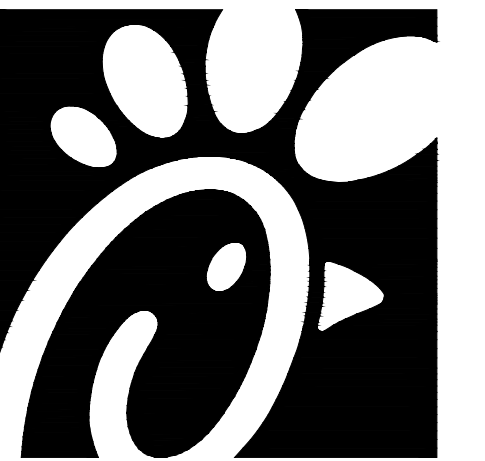
2.03 CONTROLS (C15735)

- 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 ENVIRONMENTAL 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.

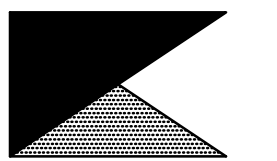
PART III - EXECUTION

- 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.

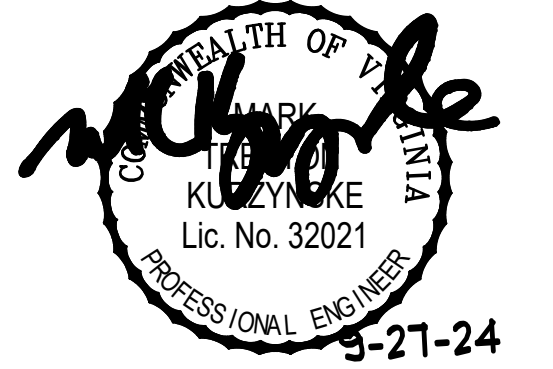
NATIONAL ACCOUNTS		
1.	LENNOX EQUIPMENT - CONTACT LENNOX NATIONAL ACCOUNTS AT 800-367-6285 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY. LENNOX EQUIPMENT NOT PURCHASED THRU LENNOX NATIONAL ACCOUNTS WILL NOT BE ACCEPTED.	6.
2.	LOREN COOK FAN AND CURB PACKAGE - THE MECHANICAL CONTRACTOR 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.	7.
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.	8.
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.	9.
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.	
		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.
		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.
		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.
		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.



Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349



Kurzynske & Associates
CONSULTING ENGINEERS
2705 Lebanon Pike - Suite One
Nashville, Tennessee 37214
Telephone: (615) 255-5203



CHICK-FIL-A
MECHANICSVILLE
7285 BATTLE HILL DRIVE
MECHANICSVILLE, VA 23111

FSR#02175

BUILDING TYPE / SIZE: S06-R
RELEASE:

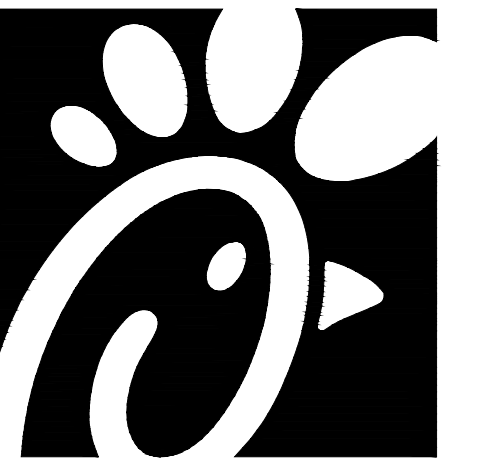
REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 23122.HF.R
PRINTED FOR CONSTRUCTION
DATE 03/13/2024
DRAWN BY DSF

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.
SHEET
MECHANICAL
SPECIFICATIONS
SHEET NUMBER

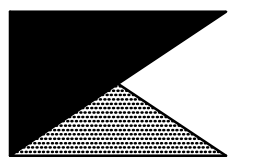
CONSTRUCTION

M7.1

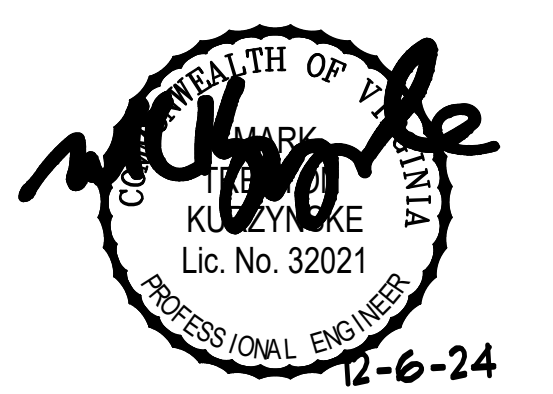


Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349



Kurzynske
& Associates
CONSULTING ENGINEERS
2705 Lebanon Pike - Suite One
Nashville, Tennessee 37214
Telephone: (615) 255-5203



CHICK-FIL-A
MECHANICSVILLE
7285 BATTLE HILL DRIVE
MECHANICSVILLE, VA 23111

FSR#02175

BUILDING TYPE / SIZE: S06-R
RELEASE:

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

12	12/4/24	Canopy Coordination
CONSULTANT PROJECT #		23122.HF.R
PRINTED FOR		CONSTRUCTION
DATE		03/13/2024
DRAWN BY		DSF

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET
MECHANICAL
COMCHECK
SHEET NUMBER

M6.1

COMcheck Software Version 4.1.5.5
Mechanical Compliance Certificate

Project Information
Energy Code: 2018 IECC
Project Title: Chick-fil-A #2175
Location: Mechanicsville (Hanover), Virginia
Climate Zone: 4a
Project Type: Addition

Construction Site: 7285 Battle Hill Drive, Mechanicsville, VA 23111
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	AC#3 (10 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 194 kBtu/h Proposed Efficiency = 81.00% EI, Required Efficiency: 80.00% EI or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 122 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.10 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: AC#3 (10 ton) Dining - Compliance (Motor nameplate HP method): Passes Fans: Supply Supply, Constant Volume, 4000 CFM, 3.8 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 1000 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade
1	AC#4 (7.5 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 194 kBtu/h Proposed Efficiency = 81.00% EI, Required Efficiency: 80.00% EI or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 83 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.30 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: AC#4 (7.5 ton) Dining - Compliance (Motor nameplate HP method): Passes Fans: Supply Supply, Constant Volume, 2765 CFM, 3.8 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 600 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade
1	AC#5 (5 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 121 kBtu/h Proposed Efficiency = 81.00% EI, Required Efficiency: 80.00% EI or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 62 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 17.10 SEER, Required Efficiency: 14.00 SEER Fan System: AC#5 (5 ton) Play Area - Compliance (Motor nameplate HP method): Passes Fans: Supply Supply, Constant Volume, 1800 CFM, 1.0 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 300 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade
1	AC#6 (3 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 87 kBtu/h Proposed Efficiency = 81.00% EI, Required Efficiency: 80.00% EI or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 36 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 17.80 SEER, Required Efficiency: 14.00 SEER Fan System: AC#6 (3 ton) BOH - Compliance (Motor nameplate HP method): Passes

Quantity	System Type & Description
	Fans: Supply Supply, Constant Volume, 1080 CFM, 0.5 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 125 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade
1	AHU#1/CU#1 (Single Zone): Split System Heat Pump Heating Mode: Capacity = 40 kBtu/h, Proposed Efficiency = 10.00 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 34 kBtu/h, Proposed Efficiency = 16.20 SEER, Required Efficiency: 14.00 SEER Fan System: None
1	AHU#2/CU#2 (Single Zone): Split System Heat Pump Heating Mode: Capacity = 16 kBtu/h, Proposed Efficiency = 9.00 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 13 kBtu/h, Proposed Efficiency = 18.00 SEER, Required Efficiency: 14.00 SEER Fan System: None
5	GH (Infrared Heater) (Single Zone): Heating: 1 each - Radiant Heater, Gas, Capacity = 50 kBtu/h No minimum efficiency requirement applies Fan System: None
1	EH (Infrared Heater) (Single Zone): Heating: 1 each - Radiant Heater, Electric, Capacity = 20 kBtu/h No minimum efficiency requirement applies Fan System: None

Mechanical Compliance Statement
Compliance Statement: The proposed mechanical design 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 2018 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.
Mark Kurzynske, P.E. Signature: [Signature] Date: 12/5/24

FOR CONSTRUCTION