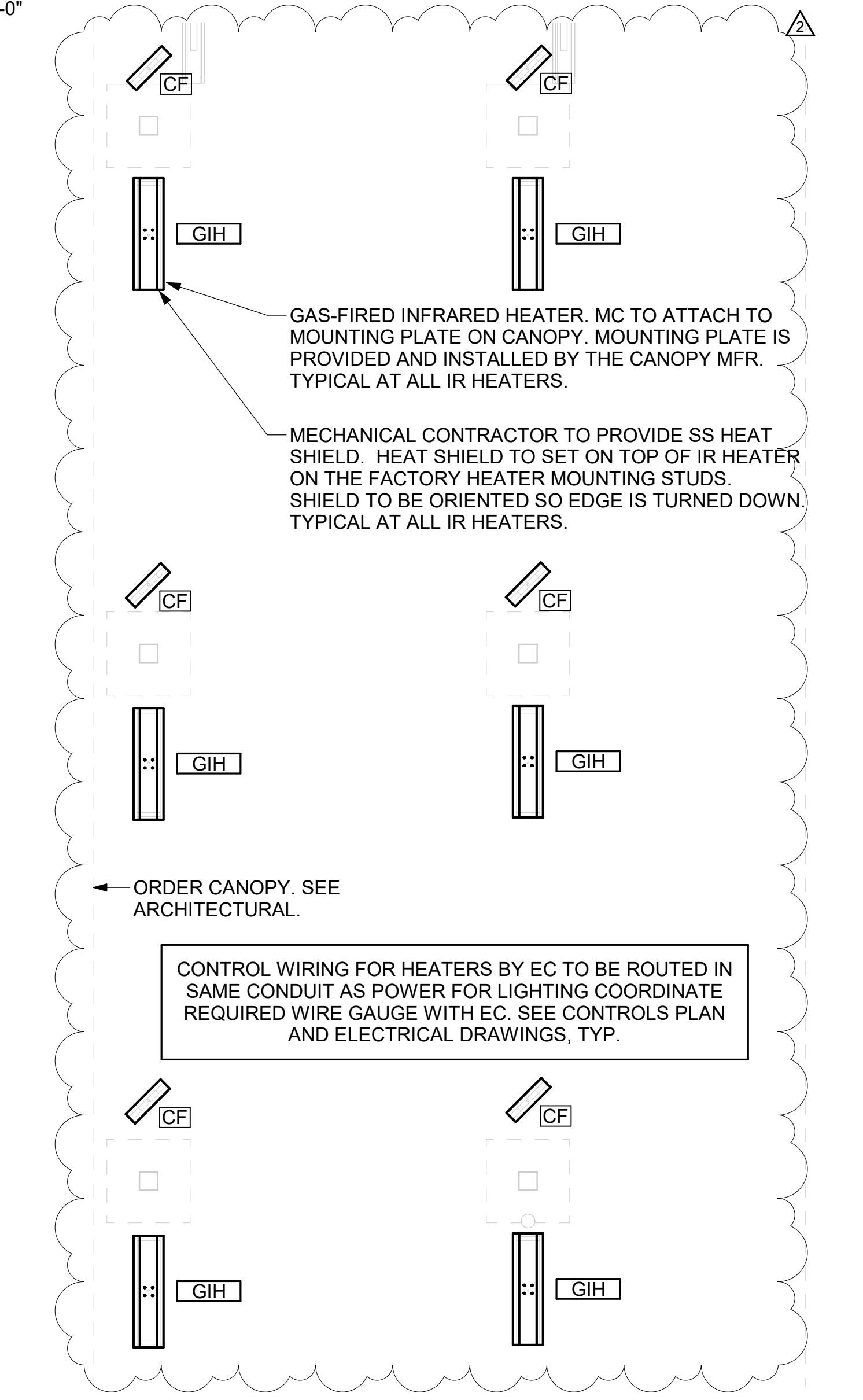


**1 MECHANICAL FLOOR PLAN**  
1/4" = 1'-0"



**2 MECHANICAL FLOOR PLAN - ORDER CANOPY**  
1/4" = 1'-0"

**SHEET NOTES**

- DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
- FLEXIBLE DUCT NOT SHOWN FOR CLARITY. ALL TAKE-OFFS SHALL INCLUDE FLEXIBLE DUCT. SEE DETAIL 1/M-401 FOR FLEXIBLE DUCT INSTALLATION REQUIREMENTS.
- FOR SUPPLY AND RETURN OPENINGS, CUT OPENING AROUND DUCT DROPS 4" TO 8" MINIMUM (EXCEPT WHERE STRUCTURE PREVENTS THIS). SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- 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.
- UNLESS NOTED OTHERWISE, MC TO ADJUST ALL DIFFUSER AIR PATTERN DEFLECTORS TO THROW HORIZONTALLY ALONG THE CEILING.
- SUPPORT ALL DUCT DROPS AT BASE OF DROP FROM STRUCTURE.

**CANOPY 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 WILL BE DETERMINED BY SITE-SPECIFIC CANOPY LAYOUT AND EQUIPMENT LOCATIONS, AS INDICATED ON ARCHITECTURAL PLANS.
- CONTROL WIRING FOR HEATERS BY EC. COORDINATE REQUIRED WIRE GAUGE WITH EC. SEE CONTROLS PLAN AND ELECTRICAL DRAWINGS, TYP.

**KEY NOTES**

- MOUNT REMOTE SENSOR ON WALL AT 5'-0" AFF U.N.O. AND ROUTE WIRING BACK TO SUNCOAST TEMP CONTROL PANEL. FOR SENSOR SERVING AC#1, COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT.
- MOUNT LENNOX HUMIDITY SENSOR ON WALL ABOVE SPACE TEMP SENSOR AND ROUTE WIRING TO UNIT ON ROOF.
- BRANCH TAKE-OFFS ARE NOT TO BE LOCATED CLOSER THAN 3'-0" FROM ANY OFFSET OR 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. WHERE THE DUCT IS SHOWN OFFSET HORIZONTALLY, PROVIDE ELBOW WITH TURNING VANES. FOR DROPS WITH NO HORIZONTAL OFFSET, EXTEND DROP BELOW STRUCTURE TO ACCOMMODATE START COLLARS. TERMINATE DROP A MINIMUM 0'-10" ABOVE CEILING (0'-4" ABOVE CEILING IF REQUIRED TO ACCOMMODATE TAKE-OFF AND DROP IS NOT LOCATED DIRECTLY ABOVE A LIGHT).
- TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. SEE DETAIL 6/M-401 FOR REQUIRED TRANSITION GEOMETRY. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. WHERE THE DUCT IS SHOWN OFFSET HORIZONTALLY, PROVIDE ELBOW WITHOUT TURNING VANES. FOR DROPS WITH NO HORIZONTAL OFFSET, EXTEND DROP BELOW STRUCTURE TO ACCOMMODATE START COLLARS. TERMINATE DROP A MINIMUM 0'-10" ABOVE CEILING (0'-4" ABOVE CEILING IF REQUIRED TO ACCOMMODATE TAKE-OFF AND DROP IS NOT LOCATED DIRECTLY ABOVE A LIGHT).
- CJ#3 MOUNTED INSIDE CABINERY SERVING SCJ PLENUM. SEE DETAIL 2/M-301.
- SEE ELEVATIONS ON M-301 FOR CJ FAN DUCTING REQUIREMENTS.
- 10X10 EXHAUST DUCT DOWN.
- MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
- 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.
- HALTON KBD DAMPER AT HOOD COLLAR BY MECHANICAL CONTRACTOR. SEE HOOD ELEVATIONS ON M-301 FOR LOCATION.
- YOUNG REGULATOR 12" MODEL 2010 ROUND ZONE DAMPER WITH MODEL T-312CE AUTOMATIC CHANGE-OVER THERMOSTAT. MOUNT TSTAT AT 4'-0" AFF. POWER OPEN/CLOSE/MODULATING. ADJUST MECHANICAL LIMIT FOR 50 CFM MINIMUM AIRFLOW. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRAW COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARRAW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARRAW 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. THERE IS NO INTERLOCKING OR MONITORING BY WAY OF THE S.E.C. CFA-500 PANEL. SEE WIRING DIAGRAMS ON M-501.
- RUSKIN MDRS25 MVD W/LOCKING QUADRANT HANDLE.
- ROUTE DUCT WITHIN STRUCTURE.
- MECHANICAL CONTRACTOR TO CLOSE THE AIR PATTERN DEFLECTORS ON SHADED SIDE.
- DAMPER HANDLES SHOULD BE INSTALLED SUCH THAT THE DAMPERS ROTATION AXIS IS PERPENDICULAR TO THE FLOOR WITH THE HANDLE FULLY ACCESSIBLE UNDERNEATH THE DUCT IT CONTROLS. (TYPICAL OF ALL DAMPERS AT THE SAME PLENUM.)
- YOUNG REGULATOR 16" MODEL 4075/LM24 ROUND ZONE DAMPER WITH MODEL T-720A AUTOMATIC CHANGE-OVER THERMOSTAT. MOUNT TSTAT AT 4'-0" AFF. POWER OPEN/CLOSE/MODULATING. ADJUST MECHANICAL LIMIT FOR 300 CFM MINIMUM AIRFLOW. ADJUST MAXIMUM LIMIT TO FULLY OPEN POSITION. INITIAL BALANCE TO BE DONE WITH VAV AT THE FULL OPEN POSITION. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRAW COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARRAW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARRAW COMPANY WILL NOT BE ACCEPTED.

LEGEND			
A-12-400	TYPE - NECK SIZE - CFM	EF#1	EXHAUST FAN #1 (TYP.)
[Symbol]	SPIN-IN FITTING WITH MANUAL BALANCING DAMPER, WITHOUT SCOOP	AC#1	AIR CONDITIONING UNIT #1 (TYP.)
[Symbol]	SPIN-IN HARD Ø FLEXIBLE Ø DIFFUSER	[Symbol]	RETURN/EXHAUST (TYP.)
[Symbol]	REMOTE TEMPERATURE SENSOR	[Symbol]	SUPPLY DIFFUSER, SQ FACE (TYP.)
[Symbol]	HUMIDITY SENSOR	[Symbol]	PLAN NOTE REFERENCE
[Symbol]	SMOKE DETECTOR	[Symbol]	MANUAL VOLUME DAMPER
[Symbol]	DUCT SIZE (reverse for elevation views) 1ST NUMBER - HORIZONTAL DIMENSION 2ND NUMBER - VERTICAL DIMENSION	[Symbol]	DIRECTION OF THROW ON DIFFUSER
[Symbol]	AIR DOOR SWITCH	[Symbol]	CLOSED AIR PATTERN DEFLECTOR
[Symbol]	ELECTRICAL CONTRACTOR	[Symbol]	GAS INFRARED HEATER (TYP.)
[Symbol]	MECHANICAL CONTRACTOR	[Symbol]	BELOW GRADE
		[Symbol]	THERMOSTAT

**H.E.S. SYSTEM**  
MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SUNCOAST H.E.S. SYSTEM FOR ALL HOODS. SEE HOOD FAN/EQUIPMENT INTERLOCK WIRING DIAGRAM ON M-501 FOR MORE INFORMATION.

**LENNOX FRESH AIR TEMPERING SETUP**

- INSTALL FRESH AIR TEMPERING KIT WIRING HARNESS AS RECOMMENDED BY LENNOX.
- LOCATE SUPPLY AIR TEMPERATURE SENSOR IN SUPPLY DUCT DOWNSTREAM OF FIRST ELBOW. SECURE WIRING TO DUCT OR STRUCTURE WITH RUBBER COATED CLAMPS. DO NOT RUN WIRING INSIDE DUCT WORK. PROTECT ALL WIRING PENETRATIONS WITH RUBBER GROMMETS.
- CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #156 TO A VALUE OF 66 (OLDER M1-8 IMC BOARD ECTO PARAMETER 6.20 SET TO A VALUE OF 145). THIS WILL PREVENT THE SUPPLY AIR TEMPERATURE FROM DROPPING BELOW 66F DEG DURING HEATING MODE WHEN THERMOSTAT IS NOT ACTIVELY CALLING FOR HEAT. NOTICE - THIS PARAMETER #156 (6.20) MUST BE CHANGED TO ACTIVATE THE FRESH AIR TEMPERING FEATURE.
- CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #157 TO A VALUE OF 14 (OLDER M1-8 IMC BOARD ECTO PARAMETER 6.21 SET TO A VALUE OF 21). THIS WILL MAKE THE DEADBAND VALUE EQUAL 14F.
- CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #158 TO A VALUE OF 300 (OLDER M1-8 IMC BOARD ECTO PARAMETER 6.22 SET TO A VALUE OF 37). THIS WILL MAKE THE CYCLE TIME VALUE EQUAL 5 MINUTES.

AIR BALANCE SCHEDULE					
Mark	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	BUILDING POSITIVE PRESSURE
AC#1	9500	8320	1180		
AC#2	5250	3975	1275		
AC#3	6000	3975	2025		
EF#1				1912	
EF#2				1091	
EF#3				300	
	20750	16270	4480	3303	1177



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5200 Buffington Road  
Atlanta, Georgia  
30349-2998

**CHIPMAN DESIGN INC**  
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TEL: 847.298.6900

**CHICK-FIL-A**  
Sioux Falls (Empire Place)  
4101 W. 41st Street  
Sioux Falls, SD 57106

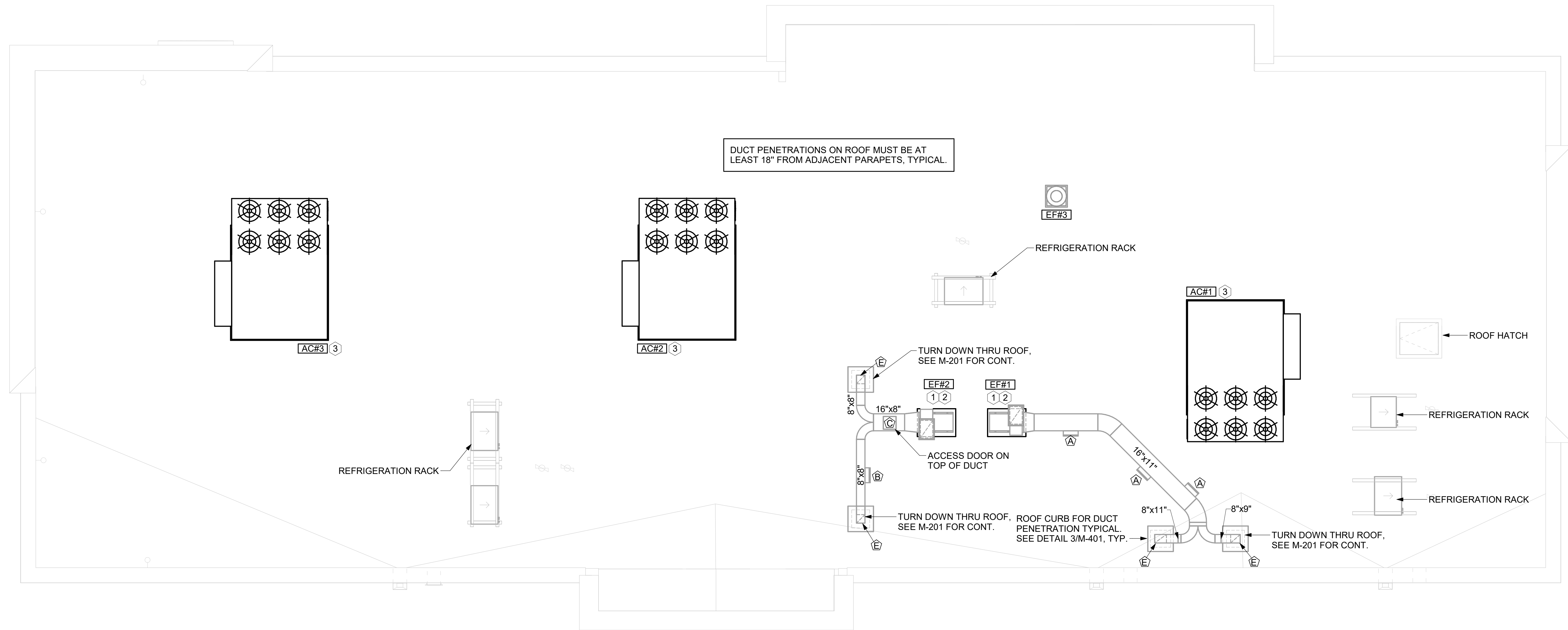
**FSR#04566**  
BUILDING TYPE / SIZE: P13 LSR ALL  
RELEASE: v2\_20\_08

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
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2	03/09/21	ISSUE FOR CONSTRUCTION

**ISSUE FOR CONSTRUCTION**

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MECHANICAL FLOOR PLAN  
SHEET NUMBER  
**M-201**

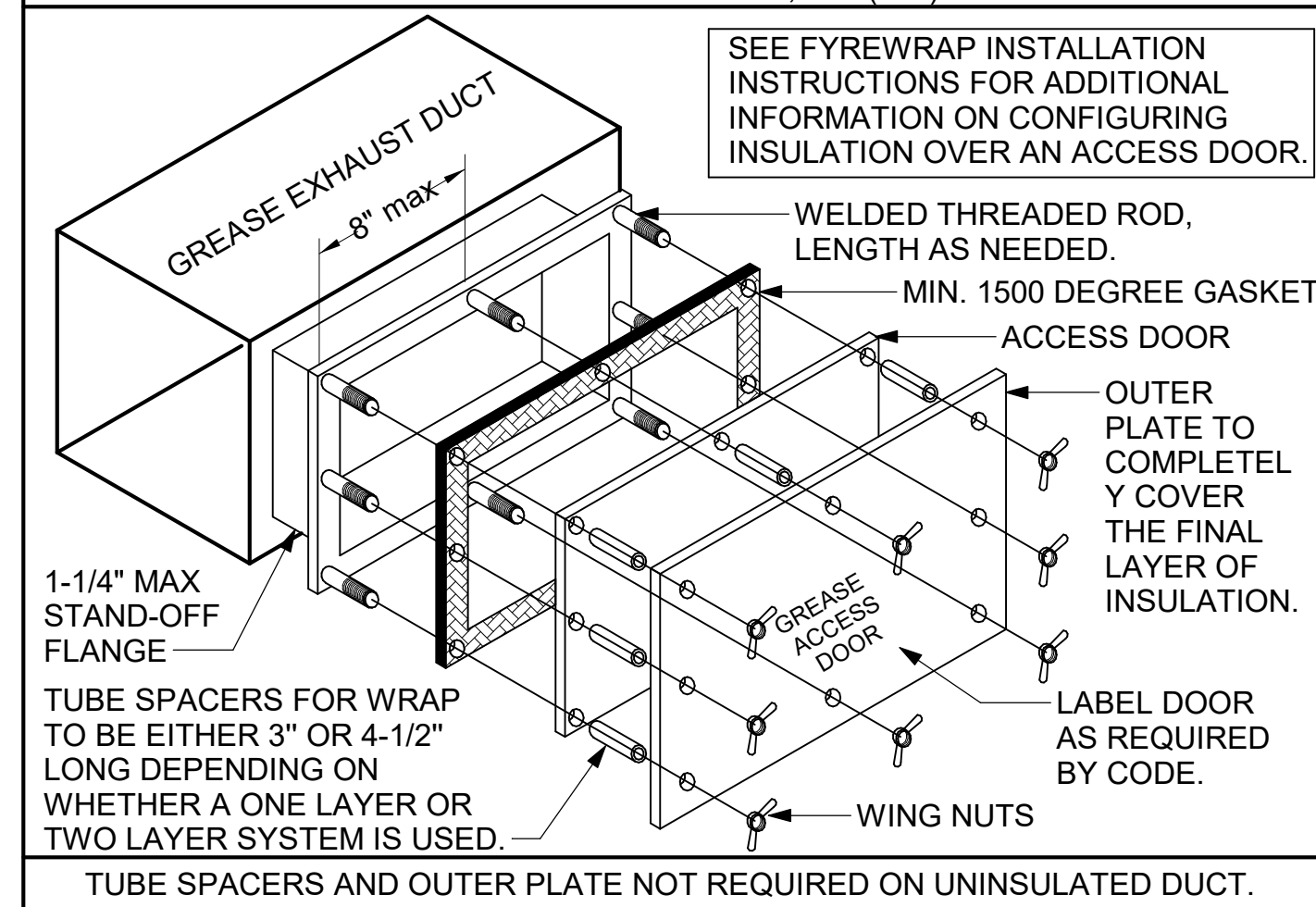
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30-LSR-04566-M-201-MECHANICAL FLOOR PLAN



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

GREASE ACCESS DOOR SCHEDULE			
MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	9H X 14W	11H X 16W	1
B	5.5H X 14W	7.5H X 16W	1
C	12H X 12W	14H X 14W	1
D	10H X 14W	12H X 16W	1
E	6H X 14W	8H X 16W	1

1. 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 THUMB SCREWS. ACCESS DOORS SHALL BE SEALED WITH A MINIMUM 1500 DEGREE GASKET MATERIAL EQUIVALENT TO THAT MANUFACTURED BY BRENTON INDUSTRIES, INC (800) 382-2491.



**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 ACRYLIC 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. VERIFY EXHAUST TERMINATION IS A MINIMUM 10'-0" FROM PARAPETS AND OUTSIDE AIR INTAKES. SEE DETAIL 3/M-401.
- 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 OR 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.
- MECHANICAL CONTRACTOR TO SEE ARCHITECTURAL ROOF PLAN FOR NOTES REGARDING LEVELING FRAMES FOR RTUS. COORDINATE WITH GENERAL CONTRACTOR EXACT LOCATIONS AND SIZE NEEDED.



**Chick-fil-A**

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HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED UNDER MY SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, THEY COMPLY WITH ALL RULES, REGULATIONS AND ORDINANCES OF Sioux Falls, SD RELATING TO STRUCTURES AND BUILDINGS.

**CHICK-FIL-A**  
Sioux Falls (Empire Place)  
4101 W. 41st Street  
Sioux Falls, SD 57106

**FSR#04566**

BUILDING TYPE / SIZE: P13 LSR ALL  
RELEASE: v2\_20\_08

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SHEET MECHANICAL ROOF PLAN

SHEET NUMBER  
**M-250**

**GREASE EXHAUST DUCT CLEARANCE NOTE:**  
 CLEARANCES ABOVE CEILING ARE TIGHT. MECHANICAL CONTRACTOR TO FIELD VERIFY EXACT ROUTING AND CLEARANCES PRIOR TO FABRICATING GREASE EXHAUST DUCT.

**CLEANOUT DOOR NOTE:**  
 DUCT WRAP SHALL BE APPLIED TO THE CLEANOUT DOOR PER THE WRAP MFR'S INSTALLATION INSTRUCTIONS, NO EXCEPTIONS. ALSO, THE CLEANOUT DOOR MUST BE REMOVABLE WITHOUT TOOLS AND MUST BE CLEARLY AND PERMANENTLY LABELED.

SET LEFT SIDE OF HOOD#3 FLUSH WITH FINISHED EDGE OF PASS THRU OPENING.

SET RIGHT SIDE OF HOOD#2 FLUSH WITH FINISHED EDGE OF PASS THRU OPENING.

HOOD SCHEDULE											
MARK	EXHAUST CFM	SP @ TAB PORT	CAPTURE JET CFM & S.P.	TYPE	COLLAR SIZE	WIDTH	DEPTH	HEIGHT	MANUFACTURER	MODEL	REMARKS
HOOD#1L	832	0.12"	55 @ 0.30"	BACKSHELF	9"X8"	74"	37"	38"	HALTON	KVL-2	1,2,3,5,7,8,9,12,20,21,22
HOOD#1R	1080	0.13"	72 @ 0.30"	BACKSHELF	11"X8"	96"	37"	38"	HALTON	KVL-2	1,2,3,4,5,7,8,9,12,16,21,23
HOOD#2	701	0.30"	30 @ 0.29"	BACKSHELF	8"X8"	45"	34"	38"	HALTON	KVL-C	1,2,3,6,7,8,9,12,13,15,16,18,21
HOOD#3	390	0.37"	18 @ 0.30"	BACKSHELF	8"X8"	24"	34"	38"	HALTON	KVL-D	1,2,3,4,6,7,8,10,12,14,17,21

NOTES: DIMENSIONS OF HOODS INCLUDE BACK AND SIDE SPACERS (HEIGHT DOES NOT INCLUDE CLOSURE PANELS).

REMARKS:

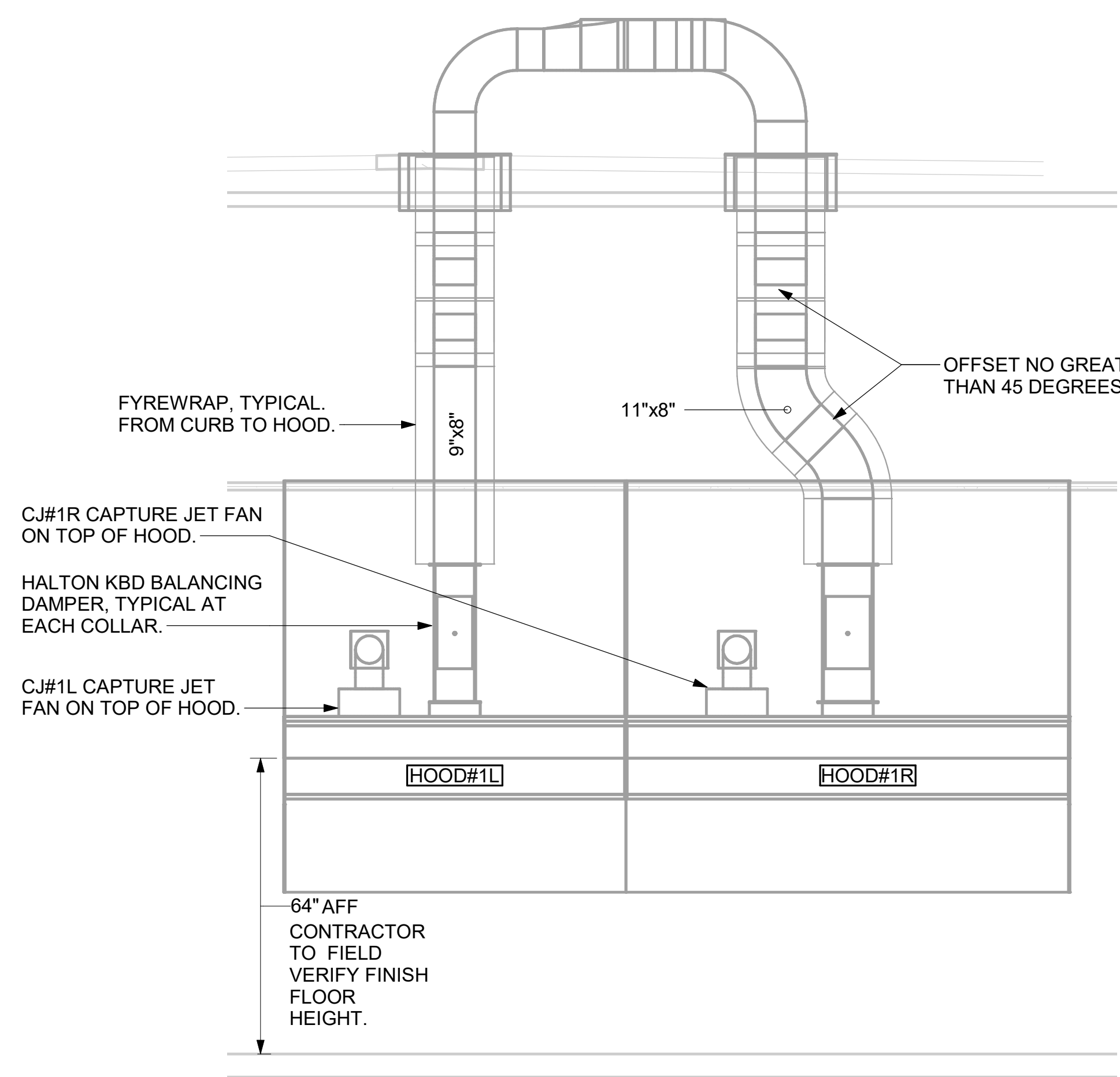
1. STAINLESS STEEL CONSTRUCTION.
2. PROVIDE FULL HEIGHT SS CLOSURE PANEL WITH ACCESS PANEL IN FRONT LARGE ENOUGH TO REMOVE CAPTURE JET FAN, SERVICE ANSUL COMPONENTS, AND/OR TO ACCESS KBD EQUALIZER JACK SCREW.
3. PROVIDE PRE-PIPED ANSUL R-102 WET FIRE EXTINGUISHING SYSTEM.
4. ANSUL CABINET AND COMPONENTS ABOVE HOOD ON RIGHT SIDE.
5. PROVIDE 3" ZERO CLEARANCE TO COMBUSTIBLE BACK SPACER.
6. PROVIDE 3" ZERO CLEARANCE TO COMBUSTIBLE CUSTOM BACK SPACER TO ACCOMMODATE PIN AND SLEEVE ELECTRICAL BOX.
7. PROVIDE EQUIPMENT I.D. LABELS LOCATED ON FRONT LEADING EDGE OF HOOD.
8. PROVIDE FACTORY WALL MOUNTING ANGLE AT TOP OF HOOD.
9. PROVIDE TOP PLENUM CAPTURE, JET FAN, SPEED CONTROLLER AND COLLAR.
10. PROVIDE COUNTER MOUNTED SIDE CAPTURE JET PLENUM ASSEMBLY AND FAN ON LEFT SIDE OF HOOD.
11. PROVIDE FACTORY INSTALLED CAPTURE JET FAN IN PLENUM.
12. PROVIDE CAPTURE JET AIR INLET AND COLLAR AT FRONT OF CLOSURE PANEL.
13. PROVIDE PIN AND SLEEVE ELECTRICAL BOX (DOUBLE CONNECTION). SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
14. PROVIDE PIN AND SLEEVE ELECTRICAL BOX (SINGLE CONNECTION). SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
15. PROVIDE 3" ZERO CLEARANCE TO COMBUSTIBLE LEFT SIDE SPACER.
16. PROVIDE NOTCHED RIGHT END SIDE PANEL.
17. PROVIDE NOTCHED LEFT END SIDE PANEL.
18. PROVIDE 3"X3" HORIZONTAL AND VERTICAL TRIM ANGLE FOR LEFT SIDE OF HOOD TO FINISH OFF GAP AT WALL.
19. PROVIDE FULL RIGHT END SIDE PANEL.
20. PROVIDE FULL LEFT END SIDE PANEL.
21. PROVIDE HALTON KBD EQUALIZER.
22. CONTINUOUS CAPTURE INTERNAL RIGHT END CUTOUT.
23. CONTINUOUS CAPTURE INTERNAL LEFT END CUTOUT.

- KITCHEN HOOD SYSTEMS NOTES**
1. CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT WITH HALTON CO. FOR THE 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.
  2. THE FIRE SUPPRESSION SYSTEM SHALL CONSIST OF A COMPLETE WET ANSUL SYSTEM FURNISHED BY HALTON. THE HOOD SHALL BE FURNISHED PRE-PIPED BY HALTON.
  3. THE R-102 ANSUL FIRE SUPPRESSION SYSTEM EXTERNAL TO THE HOODS SHALL BE INSTALLED IN ACCORDANCE WITH HOOD MANUFACTURER'S SHOP DRAWINGS BY AN AUTHORIZED ANSUL SYSTEM INSTALLER SELECTED AND HIRED BY HALTON. COST FOR ANSUL INSTALLATION INCLUDED IN PRICE OF HOODS TO CFA.
  4. HOOD EXHAUST DUCTWORK SHALL BE 16 GA. BLACK STEEL WITH CONTINUOUS LIQUID TIGHT WELD OF JOINTS & SEAMS.
  5. TURNS IN GREASE EXHAUST DUCTWORK SHALL BE LONG RADIUS TYPE, WITH A CENTERLINE RADIUS R=3W/2, UNLESS OTHERWISE NOTED. NO MITERED FITTINGS ALLOWED.
  6. ALL STAINLESS STEEL CLOSURE PANELS SHALL BE SUPPLIED BY HOOD MANUFACTURER AND INSTALLED BY THE MECHANICAL CONTRACTOR ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  7. SLOPE ALL GREASE EXHAUST DUCT BACK TO HOOD AT 1/4" PER FOOT OF RUN.
  8. WRAP NEW GREASE DUCT WITH UNIFRAX FYREWAP. INSULATION ON ACCESS DOORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION RECOMMENDATIONS. UNIFRAX FYREWAP PRODUCT USED SHALL MEET LOCAL CODE REQUIREMENTS.
  9. SUPPORT ALL HOODS WITH THREADED ROD AT EACH FACTORY SUPPORT POINT. EACH SUPPORT POINT MUST SUPPORT THE HOOD WEIGHT EQUALLY. ATTACH TO STRUCTURE AS DETAILED ON STRUCTURAL DRAWINGS. ATTACH HOOD TO WALL AT 16" INTERVALS ALONG FULL LENGTH OF HOOD ON TOP AND BOTTOM. ATTACHMENT TO WALL REQUIRES FIELD DRILLING OF SUPPORT ANGLE AT BACK OF HOODS. EACH WALL ATTACHMENT POINT MUST OCCUR AT A WALL STUD. ATTACHMENT HARDWARE TO BE #12-24 HEX HEAD SHEET METAL SCREW EQUAL TO TETRON SDS EDT265, LENGTH AS REQUIRED TO FULLY PENETRATE THE STUD.
  10. MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SUNCOAST H.E.S. SYSTEM FOR ALL HOODS. SEE HOOD FAN/EQUIPMENT INTERLOCK WIRING DIAGRAM ON M-501 FOR MORE INFORMATION.

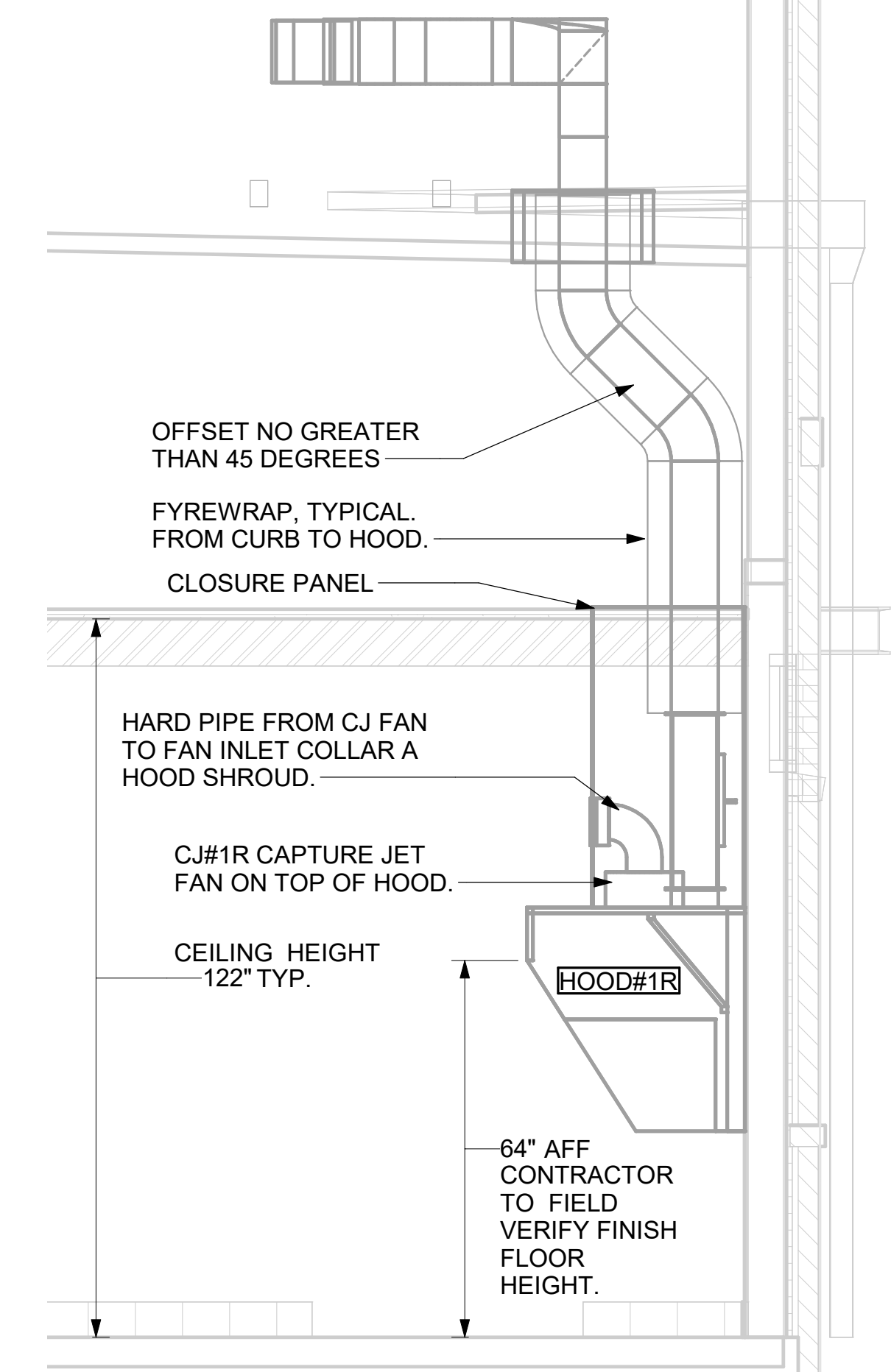
7 HOOD ELEVATION - HOOD#3  
 NOT TO SCALE

6 HOOD ELEVATION - HOOD#2 - FRONT  
 NOT TO SCALE

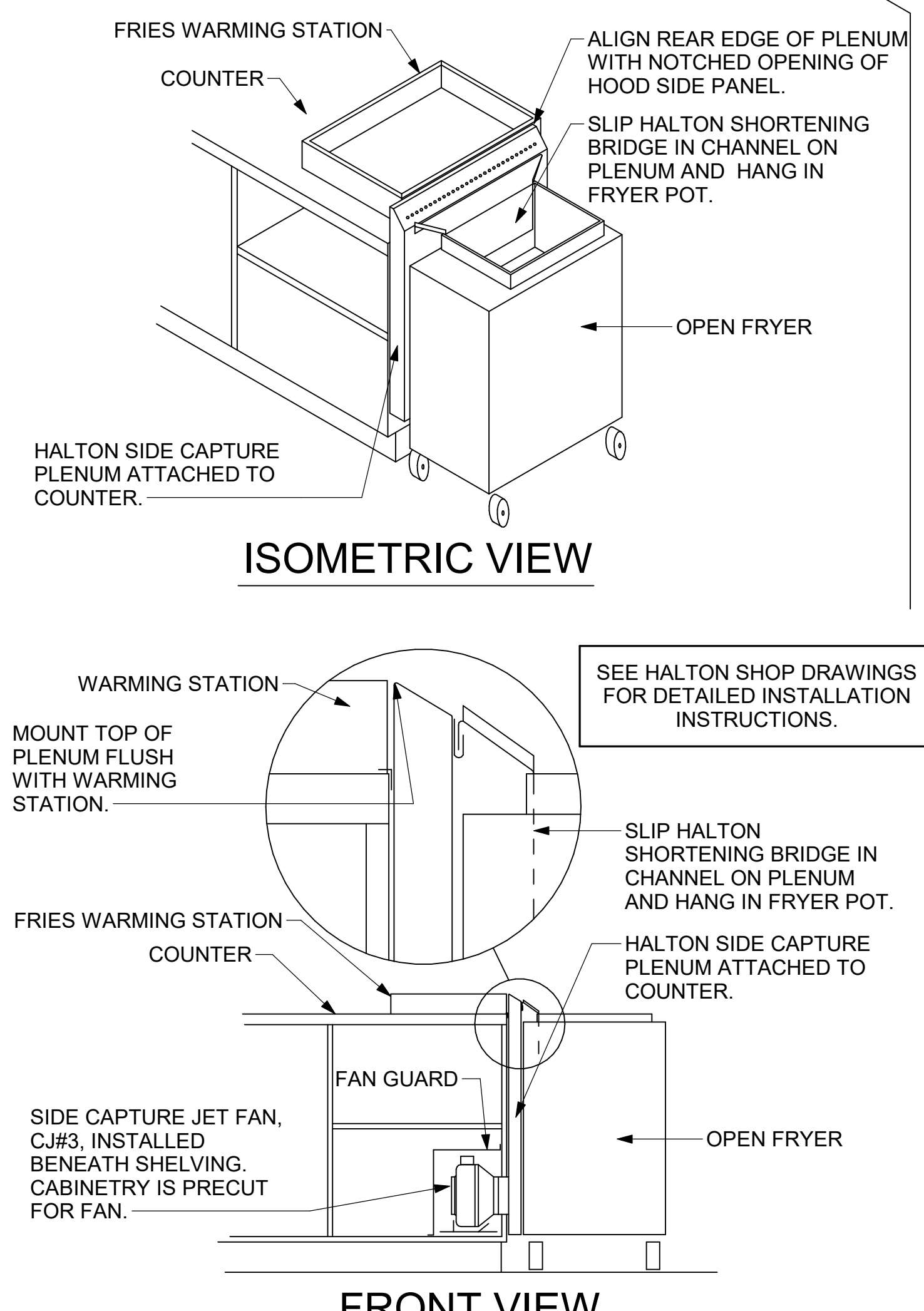
5 HOOD ELEVATION - HOOD#2 - SIDE  
 NOT TO SCALE



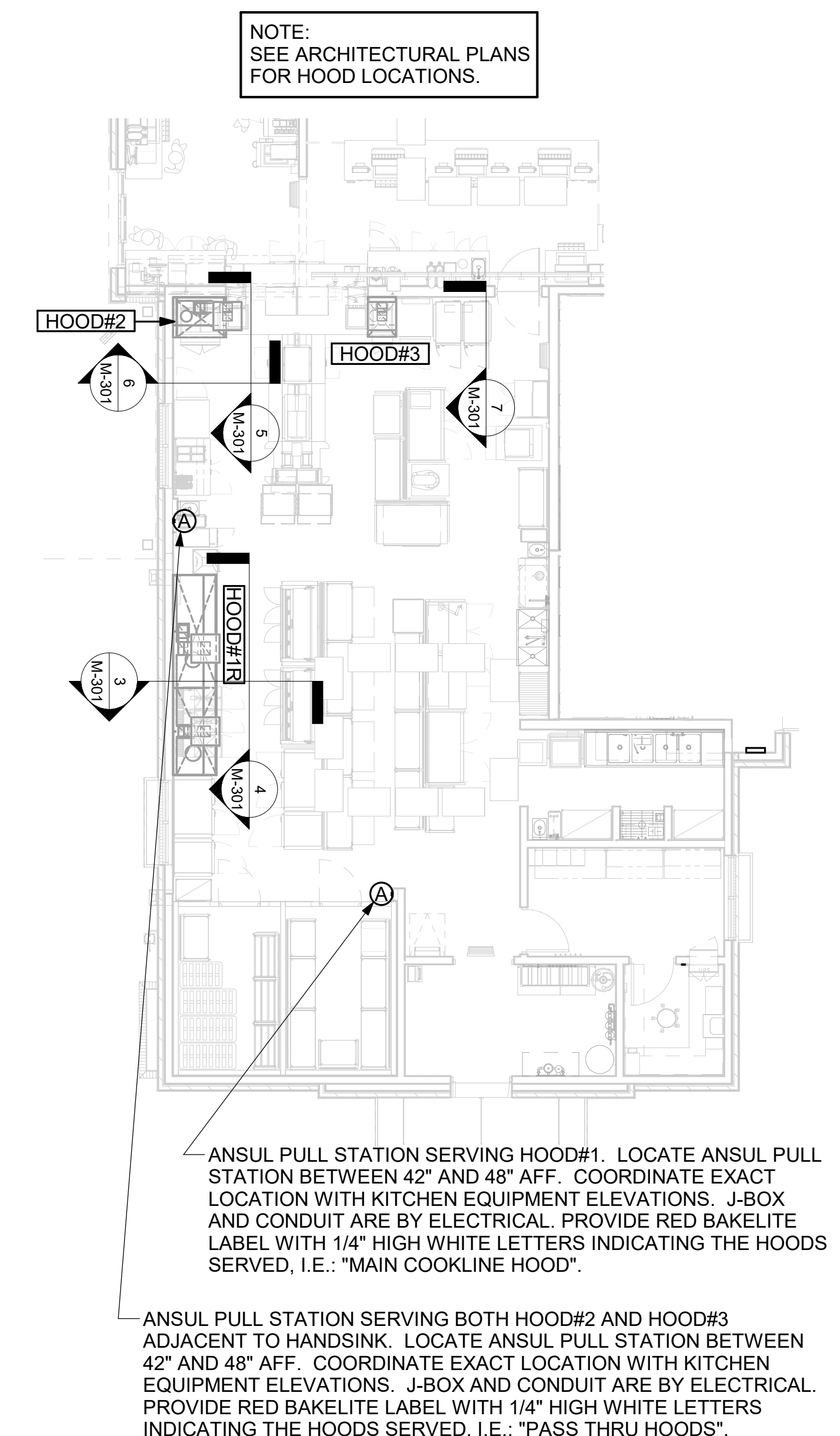
4 HOOD ELEVATION - HOOD#1 - FRONT  
 NONE



3 HOOD ELEVATION - HOOD#1 - SIDE  
 NOT TO SCALE



2 HALTON SIDE CAPTURE JET PLENUM  
 NOT TO SCALE



1 HOOD LAYOUT  
 1/8" = 1'-0"



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 Chick-fil-A  
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 30349-2998



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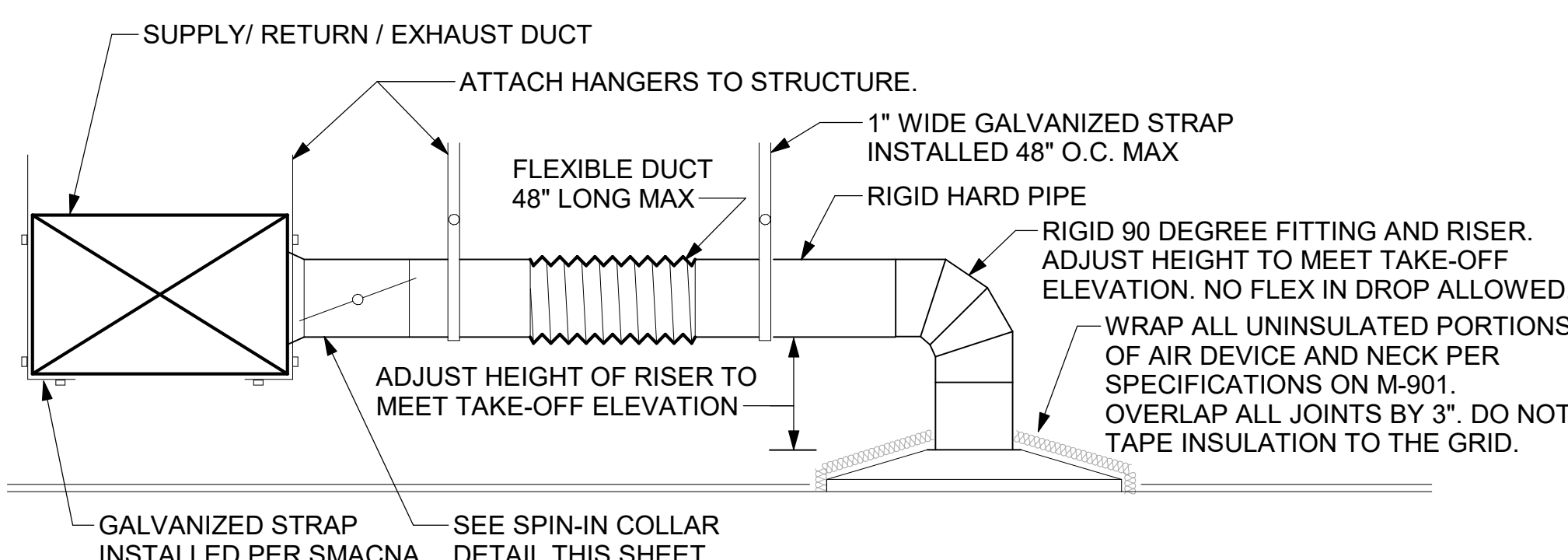
**CHICK-FIL-A**  
 Sioux Falls (Empire Place)  
 4101 W. 41st Street  
 Sioux Falls, SD 57106

**FSR#04566**  
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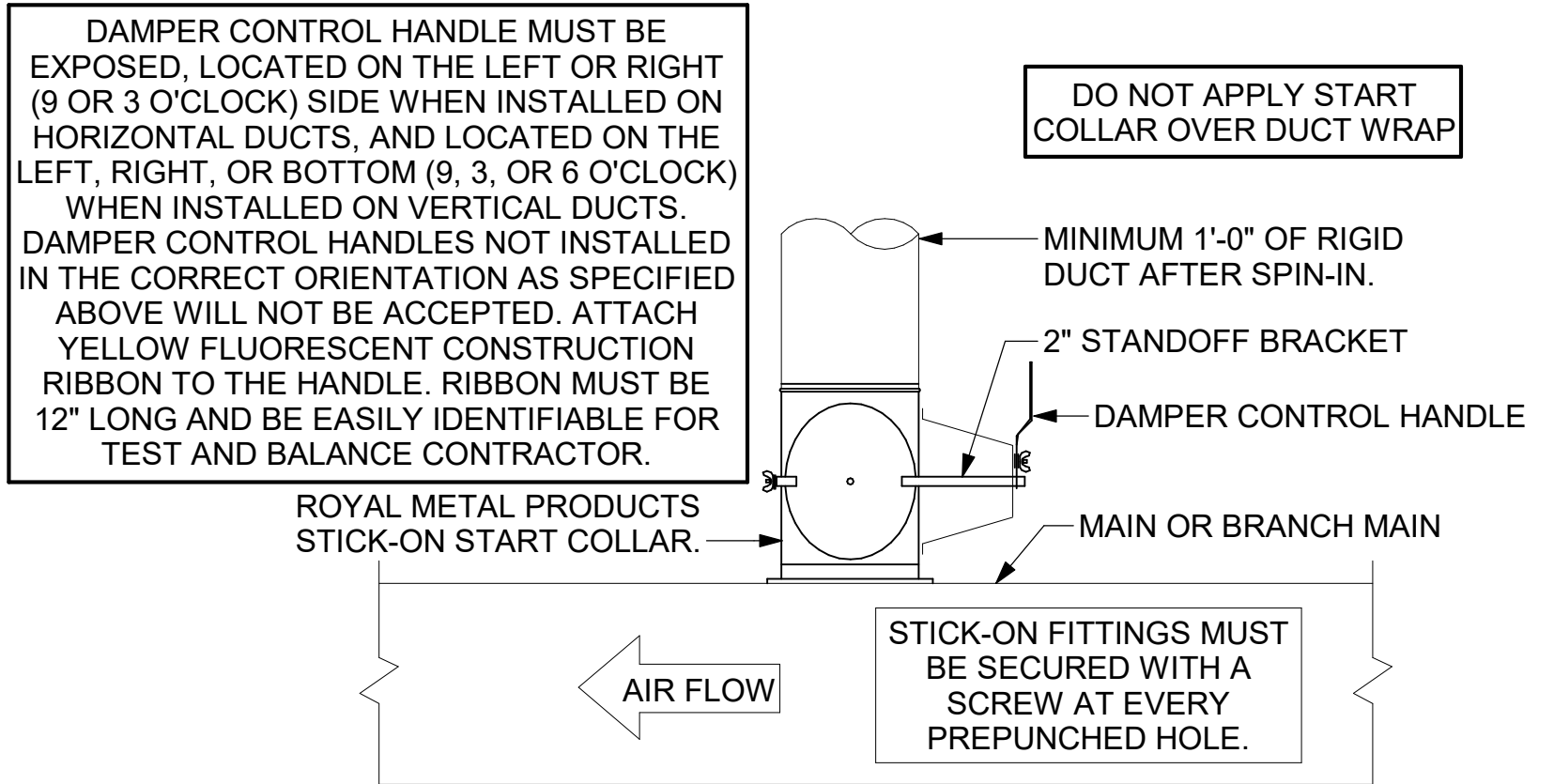
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 SHEET HOOD DETAILS AND SCHEDULES

**M-301**



**1 SAG/RAG/GRILLE TAKE-OFF**  
NOT TO SCALE

CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ROYAL METAL PRODUCTS START COLLARS FOR BOTH WITH AND WITHOUT A MANUAL BALANCING DAMPER. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE ROYAL METAL PRODUCTS START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. ROYAL METAL PRODUCTS START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.



**2 START COLLAR**  
NOT TO SCALE

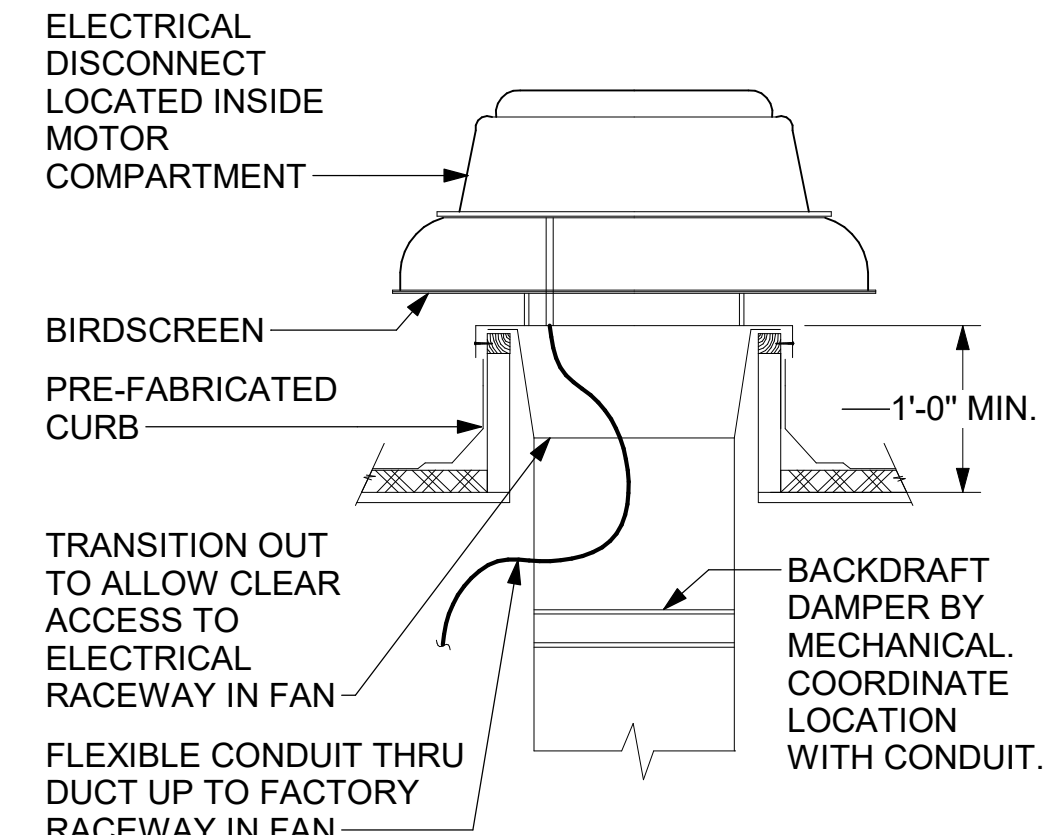
**CIRCULATION FAN SCHEDULE**

MARK	CFM	RPM	HP	MODEL	MANUFACTURER
CF	5,750	1,625	1/8	U18TE-HD	TPI
REMARK	<ol style="list-style-type: none"> <li>ALUMINUM PADDLE WITH STEEL HUB PROPELLER.</li> <li>360 DEGREE ROTATING HED HORIZONTALLY AND VERTICALLY</li> <li>OSHA COMPLIANT DOUBLE LOCKING, COATED STEEL WIRE GUARD</li> <li>3-SPEED TOTALLY ENCLOSED, PERMANENTLY LUBRICATED BALL BEARING MOTOR</li> <li>FACTORY PRE-WIRED POWER CORD</li> <li>PROVIDE FACTORY WALL MOUNTING BRACKET. SEE FAN MOUNTING DETAIL ON CANOPY SHOP DRAWINGS FOR TYPICAL INSTALLATION INSTRUCTIONS</li> <li>PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON BLACK BACKGROUND. MOUNT TO UNDERSIDE OF CANOPY OR EXISTING OVERHANG, FACING DOWNWARD, 12" LATERALLY FROM THE FAN LOCATION</li> <li>REMOVE PULL CHAIN EXTENSION AT ON/OFF SWITCH IN FIELD</li> <li>FACTORY CERTIFIED FOR OUTDOOR INSTALLATION</li> <li>CONFIRM FAN QUANTITY WITH CANOPY SHOP DRAWINGS</li> <li>CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE FANS. THE MECHANICAL CONTRACTOR SHALL 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</li> </ol>				

**GAS FIRED ROOFTOP UNIT SCHEDULE**

MARK	TOTAL COOLING MBH	SENSIBLE COOLING MBH	HEATING INPUT MBH	HEATING OUTPUT MBH	STAGES	SUPPLY	O.A.	HP	ESP	MODEL	MANUFACTURER	REMARKS
AC#1	288.4	219.2	480	384	2	9500	1180	10	0.80	LGH300S4B	LENNOX	1,3,4,5,7,8,9,10,11,12,13,14,15,16
AC#2	208.9	160.9	360	288	2	5250	1275	5	0.65	LGH210H4B	LENNOX	2,3,4,6,7,8,9,10,11,12,13,14,15,16
AC#3	247.3	192.9	480	384	2	6000	2025	5	0.65	LGH240H4B	LENNOX	1,3,4,7,8,9,10,11,12,13,14,15,16
NOTES	<ul style="list-style-type: none"> <li>COOLING CAPACITIES ARE GROSS, BASED ON ENTERING: 80FDB/67FWB, OUTDOOR: 95FDB, AND 400 CFM PER TON.</li> <li>CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE EQUIPMENT WITH LENNOX CORPORATION. CONTACT LENNOX NATIONAL ACCOUNTS AT 800-367-6285 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY.</li> <li>MECHANICAL CONTRACTOR TO VERIFY LENNOX SUBMITTAL WITH CONSTRUCTION DOCUMENTS.</li> </ul>											
REMARKS	<ol style="list-style-type: none"> <li>PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST</li> <li>PROVIDE DIFFERENTIAL OPTION WITH BAROMETRIC EXHAUST.</li> <li>PROVIDE 14" HIGH ROOF CURB. PROVIDE CURBS PLUS RESTRAINT CLIP KIT</li> <li>SEE DETAIL 2/M-501 FOR SETTING OF PRODIGY M3 BOARD CONTROL PARAMETERS BY MC.</li> <li>PROVIDE FACTORY INSTALLED AND UNIT POWERED 115V GFI SERVICE OUTLET.</li> <li>PROVIDE FACTORY INSTALLED 115V GFI SERVICE OUTLET.</li> <li>PROVIDE FACTORY INSTALLED RETURN SIDE SMOKE DETECTOR.</li> <li>PROVIDE FACTORY INSTALLED NON-FUSED DISCONNECT.</li> <li>PROVIDE 2" MERV 8 THROW AWAY FILTERS.</li> <li>PROVIDE 2" HINGED PANELS FOR FILTER ACCESS, FAN MOTOR ACCESS, COMPRESSOR ACCESS AND CONTROL COMPARTMENT ACCESS.</li> <li>ADJUST GAS MANIFOLD PRESSURE AT LOCATIONS WHERE ELEVATION EXCEEDS 2000' ABOVE SEA LEVEL AS RECOMMENDED BY MANUFACTURER.</li> <li>PROVIDE FACTORY COIL HAIL GUARD, FIELD INSTALLED.</li> <li>PROVIDE FRESH AIR TEMPERING KIT</li> <li>PROVIDE HUMIDITY CONTROL OPTION WITH FACTORY WALL MOUNTED HUMIDITY SENSOR.</li> <li>PROVIDE FACTORY INSTALLED BELT TENSIONER.</li> <li>PROVIDE FACTORY CONFIGURED PHASE LOSS PROTECTION.</li> <li>PROVIDE FACTORY INSTALLED CONDENSATE PAN DRAIN OVERFLOW SWITCH.</li> <li>PROVIDE UNIT WITH MSAV BLOWER.</li> <li>PROVIDE FACTORY STAINLESS STEEL HEAT EXCHANGER.</li> </ol>											

SECURE FAN TO CURB WITH SHEET METAL SCREWS (#10 x 1-1/2") 6" O.C. ALL AROUND



**4 RESTROOM EXHAUST FAN**  
NOT TO SCALE

**EXHAUST FAN SCHEDULE**

MARK	CFM	ESP	RPM	Tip Speed	HP	Area Served	MODEL	MANUFACTURER	REMARKS
EF#1	1912	0.75	1326	5207	3/4	HOOD#1	150 CPS	LOREN COOK	1,2,3,4,5,6,7,8,9,10,11,17
EF#2	1091	0.85	1,268	4481	3/4	HOOD#2 & HOOD#3	135 CPS	LOREN COOK	1,2,3,4,5,6,7,8,9,10,11,17
EF#3	300	0.375	1,294	3,091	1/8	RESTROOMS	ACED-90C15DH	LOREN COOK	3,11,12,13,14,15,16
NOTES	<ul style="list-style-type: none"> <li>GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL.</li> <li>GREASE EXHAUST FANS TO BE UL L762 LISTED</li> <li>CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE FAN/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.</li> </ul>								
REMARKS	<ol style="list-style-type: none"> <li>UPBLAST, ARRANGEMENT 10, CW ROTATION. SEE PLANS TO CONFIRM CONFIGURATION.</li> <li>PROVIDE FACTORY STEEL FAN WHEEL.</li> <li>PROVIDE FACTORY INSTALLED, PRE-WIRED, NEMA 3 NON-FUSED DISCONNECT.</li> <li>PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE.</li> <li>PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MECHANICAL CONTRACTOR TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034.</li> <li>PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.</li> <li>PROVIDE FACTORY DRAIN CONNECTION.</li> <li>PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL.</li> <li>PROVIDE FACTORY INSTALLED BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT.</li> <li>PROVIDE FACTORY STEEL OUTLET COMPANION FLANGE.</li> <li>INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET.</li> <li>PROVIDE BIRDSCREEN.</li> <li>BACKDRAFT DAMPER IN DUCT BY MECHANICAL CONTRACTOR AS SHOWN ON 4/M-401.</li> <li>STARTER BY ELECTRICAL CONTRACTOR. INTERLOCK WITH LIGHTS BY ELECTRICAL CONTRACTOR.</li> <li>PROVIDE 12" HIGH CURB.</li> <li>PROVIDE FACTORY INSTALLED AND WIRED SPEED CONTROLLER.</li> <li>UTILITY SET FAN CURB AND ASSOCIATED EXHAUST DUCT CURB PROVIDED BY TOM BARROW COMPANY.</li> </ol>								

**EXHAUST FAN SCHEDULE**

**AIR DOOR SCHEDULE**

MARK	CFM	VELOCITY	HEATING CAP	HP	AREA SERVED	MODEL	MANUFACTURER	REMARKS
AD#1	1765	2670 FPM	10 kW	3/4 HP	DRIVE THRU	CHA-1-48E	Powered Aire	1,2,3
AD#2	3867	4220 FPM	N/A	3/4 HP	REAR DOOR	RBT-1-48	Powered Aire	4
NOTES	<ul style="list-style-type: none"> <li>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.</li> </ul>							
REMARKS	<ol style="list-style-type: none"> <li>FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER LOCATED ABOVE CEILING.</li> <li>FACTORY WIRED DISCONNECT.</li> <li>FACTORY PROVIDED, FIELD INSTALLED BY MC, REMOTE WALL SWITCHES FOR EHATING ON/OFF AND FAN ON/AUTO SWITCH. SEE DETAIL, AIR CURTAIN WIRING DIAGRAM.</li> <li>FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.</li> </ol>							

**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/ KITCHEN	VARIABLES	24"x24"	LAY-IN	1,7
C	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	ENTRY	14"x14"	19"x19"	BEVELLED	1,3,5,6
F	PRICE MODEL 80 EGGCRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CORE. FACTORY FLAT BLACK BACKPAN AND ROUND NECK.	DINING/ OFFICE/ KITCHEN	VARIABLES	24"x24"	LAY-IN	1,7
J	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	RESTROOMS	10"x10"	15"x15"	BEVELLED	1,2,3,5,6
K	PRICE MODEL APDDR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS/ ENTRY	14"x14"	16"x16"	SURFACE	1,4,5,6
NOTES	<ul style="list-style-type: none"> <li>CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE AIR DEVICES. THE 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.</li> </ul>					
REMARKS	<ol style="list-style-type: none"> <li>STANDARD OFF WHITE FINISH.</li> <li>PROVIDE MODEL VCS3 NECK DAMPER.</li> <li>SEE DRAWING M-201 FOR THROW.</li> <li>PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS SERVING EXHAUST FAN.</li> <li>PROVIDE BACKPAN. MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY.</li> <li>FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1/M-401.</li> <li>FACTORY INSULATED R-6 BACKPAN.</li> </ol>					

**GAS FIRED INFRARED HEATER SCHEDULE**

MARK	INPUT (MBH)	FRAME LENGTH	FRAME WIDTH	FRAME DEPTH	MOUNTING TYPE	MODEL	MANUFACTURER
GIH	50	48-1/4"	13"	10"	Bracket	2352-NG	Schwank
NOTES	<ul style="list-style-type: none"> <li>CONFIRM HEATER QUANTITY WITH CANOPY SHOP DRAWINGS.</li> <li>CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE GAS FIRED INFRARED HEATERS. THE MECHANICAL CONTRACTOR SHALL 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.</li> </ul>						
REMARKS	<ol style="list-style-type: none"> <li>STEEL BURNER WITH CERAMIC BURNER TILES.</li> <li>STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING.</li> <li>PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO CANOPY DECK, FACING FORWARD, 12" LATERALLY FROM THE LONG SIDE OF THE HEATER</li> <li>STAINLESS STEEL HEAT SHIELDS PROVIDED BY TOM BARROW COMPANY.</li> </ol>						

**ELECTRIC WALL HEATER SCHEDULE**

MARK	KW	FRAME SIZE	MOUNTING TYPE	MODEL	MANUFACTURER	
WIDTH	HEIGHT	CFM				
WH#1	1.5	16" x 21"	175	SURFACE	HF3324TD-RP	MARKEL
WH#2	1.5	16" x 21"	175	SURFACE	HF3324TD-RP	MARKEL
WH#3	1.5	16" x 21"	175	SURFACE	HF3324TD-RP	MARKEL
REMARKS	<ol style="list-style-type: none"> <li>AUTOMATIC FAN DELAY SWITCH AND INTEGRAL DISCONNECT.</li> <li>INTEGRAL TAMPERPROOF THERMOSTAT SET AT 65 DEG. F.</li> <li>CAPACITY SHOWN IS BASED ON 208V SERVICE.</li> <li>CONFIRM ELECTRICAL CHARACTERISTICS WITH E-SHEETS PRIOR TO ORDERING EQUIPMENT.</li> <li>POWDER COATED 18 GA. STEEL GRILLE WITH ALUMINUM FRAME.</li> <li>AUTOMATIC RESET THERMAL LIMIT SWITCH.</li> <li>TUBULAR STEEL ELEMENT WITH STEEL FINS.</li> </ol>					

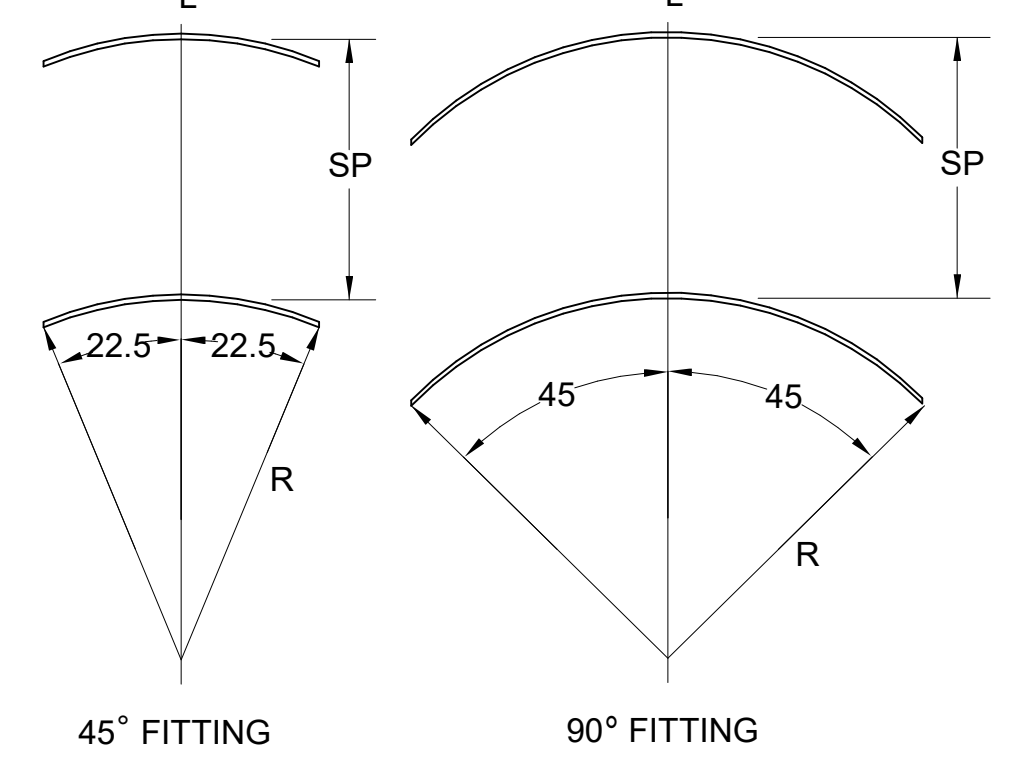
ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS 866-200 SERIES DTM WHITE ACRYLIC SEMI-GLOSS INDUSTRIAL MAINTENANCE COATING. DEGREASE AND PRIME BARE METAL SURFACE WITH ONE COAT OF SHERWIN WILLIAMS DTM ACRYLIC PRIMER PRIOR TO PAINTING.

- 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.

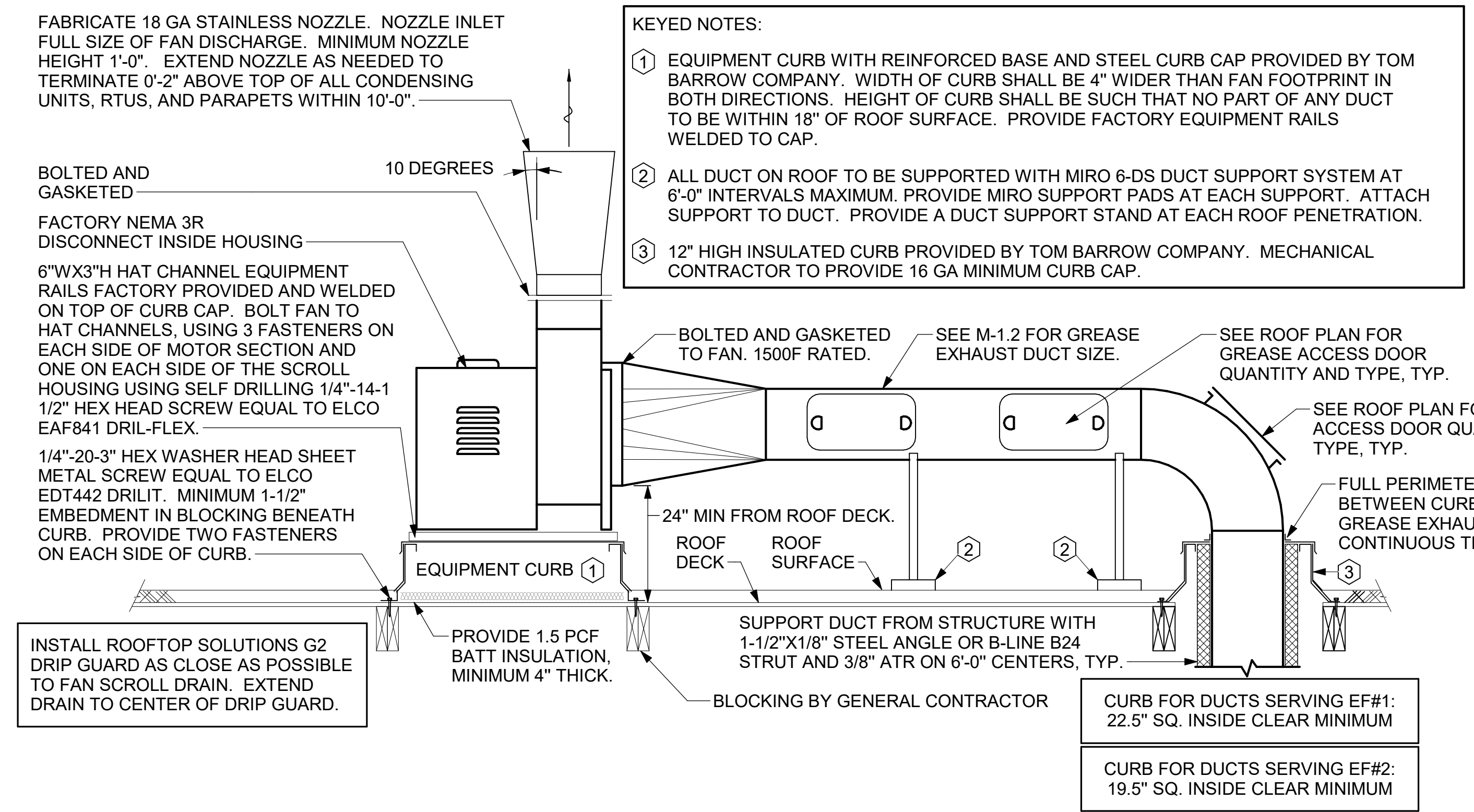
**TURNING VANE SCHEDULE**

R	SP	GA
2"	1.5"	24

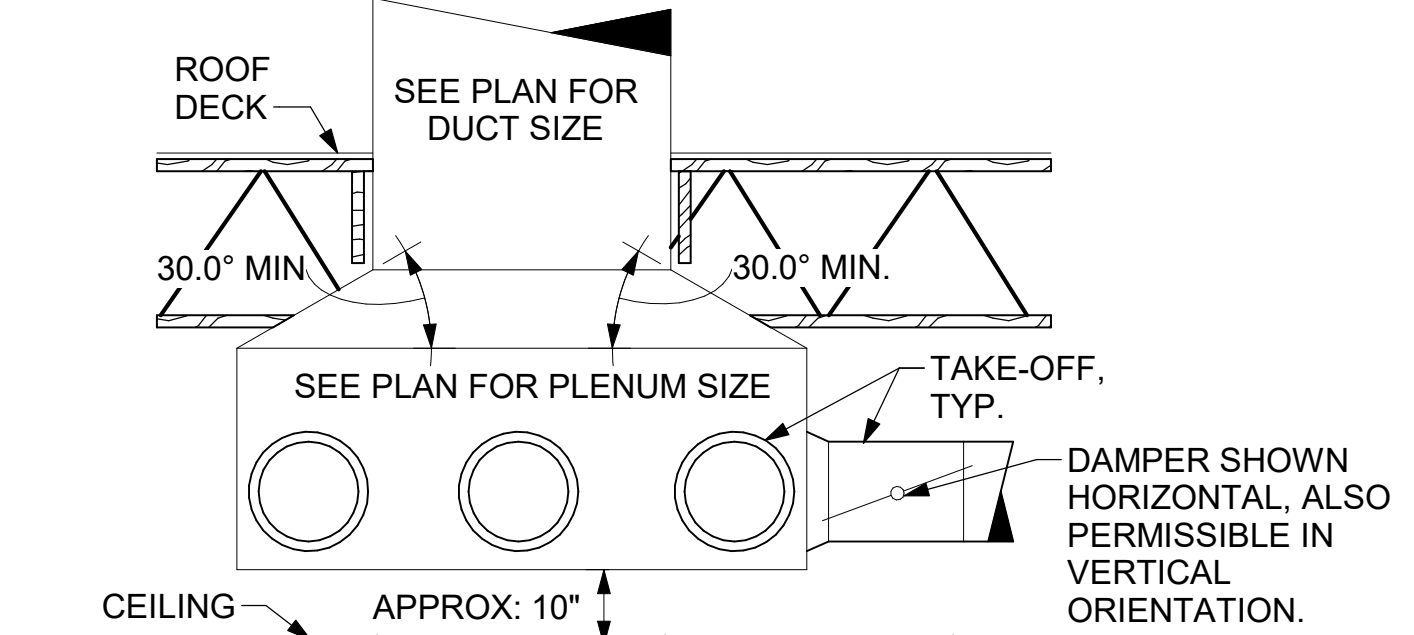
1. NO TRAILING EDGE.  
2. SINGLE THICKNESS CONSTRUCTION.



**5 TURNING VANES**  
NOT TO SCALE



**3 KITCHEN HOOD EXHAUST FANS**  
NOT TO SCALE



**6 RETURN DROP GEOMETRY**  
NOT TO SCALE



**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998



**CHIPMAN DESIGN INC**  
ARCHITECTURE  
1350 E TOUHY AVE  
FIRST FLOOR EAST  
DES PLAINES, IL 60018  
TEL : 847.298.6900

I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED UNDER MY SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, THE SAME COMPLY WITH ALL RULES, REGULATIONS AND ORDINANCES OF Sioux Falls, SD RELATING TO STRUCTURES AND BUILDINGS.

**CHICK-FIL-A**  
Sioux Falls (Empire Place)  
4101 W. 41st Street  
Sioux Falls, SD 57106

**FSR#04566**  
BUILDING TYPE / SIZE: P13 LSR ALL  
RELEASE: v2\_20\_08

**REVISION SCHEDULE**

NO.	DATE	DESCRIPTION
1	10/16/20	ISSUE FOR PERMIT
2	03/09/21	ISSUE FOR CONSTRUCTION

**ISSUE FOR CONSTRUCTION**

CONSULTANT PROJECT # 19-2135  
PRINTED / ISSUE FOR CONSTRUCTION  
DATE 03/09/2021  
DRAWN BY JAL  
CHECKED BY RDB  
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SHEET HVAC DETAILS AND SCHEDULES  
SHEET NUMBER

**M-401**



Chick-fil-A

Chick-fil-A  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998



CHIPMAN DESIGN  
ARCHITECTURE INC  
1350 E TOUHY AVE  
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**CHICK-FIL-A**  
Sioux Falls (Empire Place)  
4101 W. 41st Street  
Sioux Falls, SD 57106

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BUILDING TYPE / SIZE: P13 LSR ALL  
RELEASE: v2\_20\_08

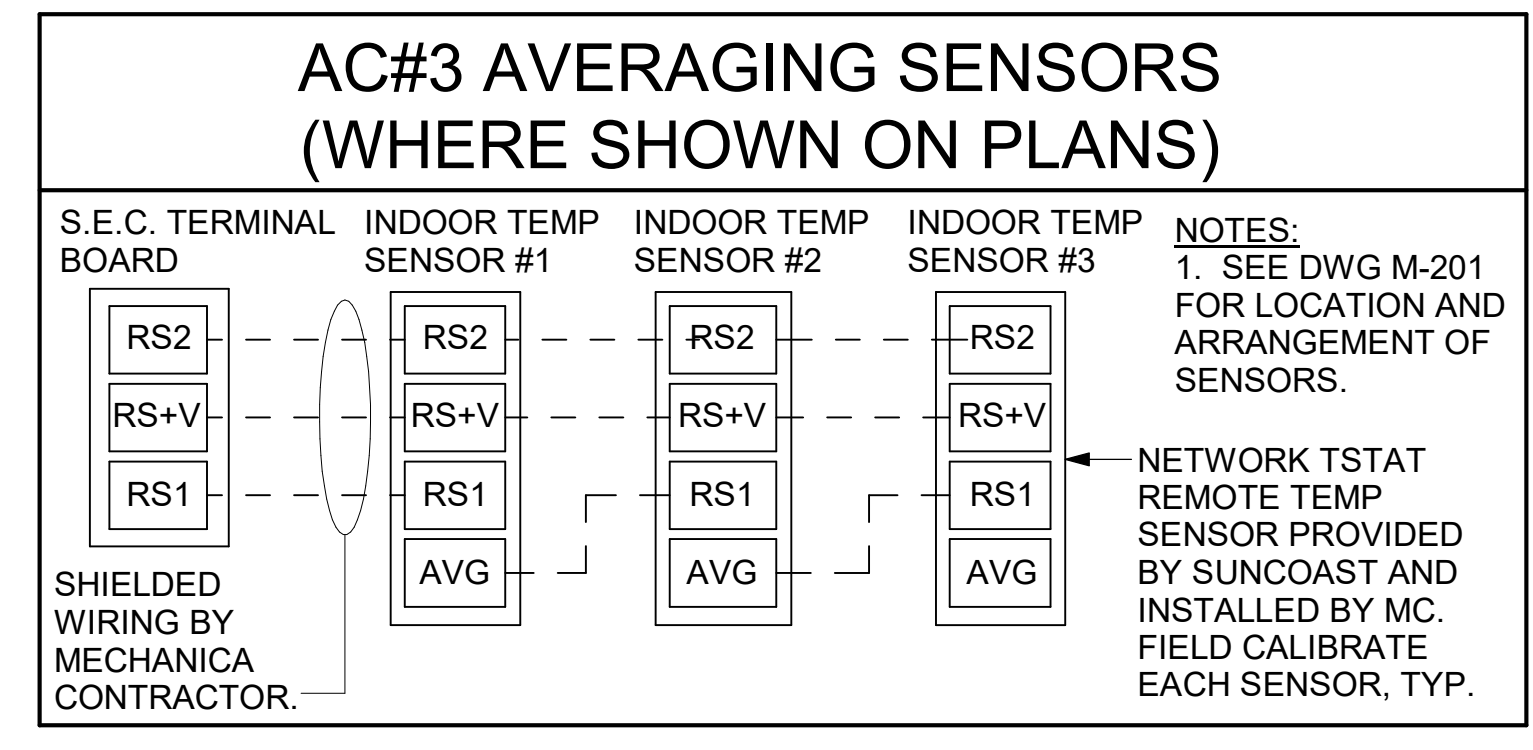
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2	03/09/21	ISSUE FOR CONSTRUCTION

**ISSUE FOR CONSTRUCTION**

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 SHEET HVAC CONTROLS

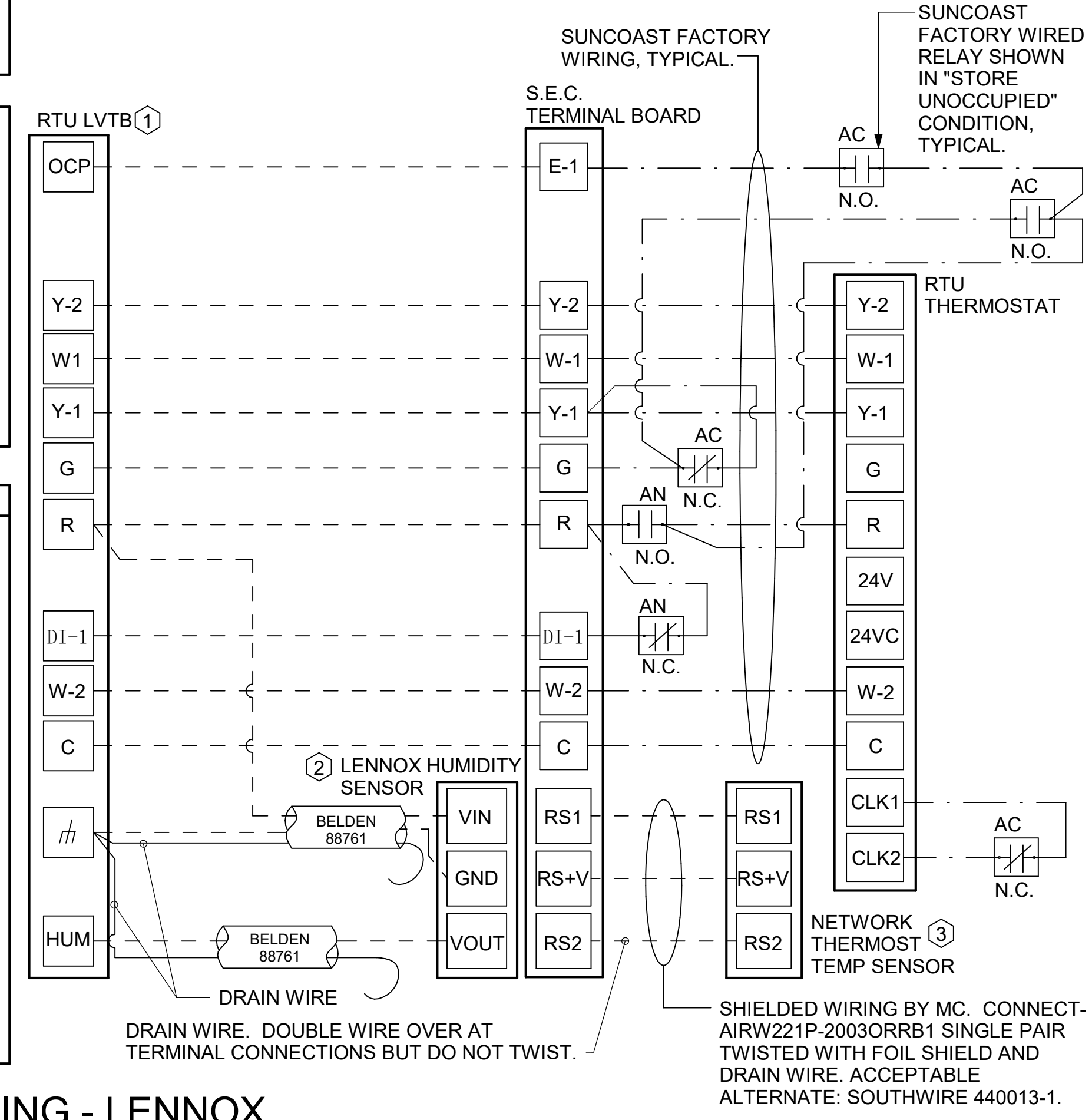
SHEET NUMBER  
**M-501**

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.



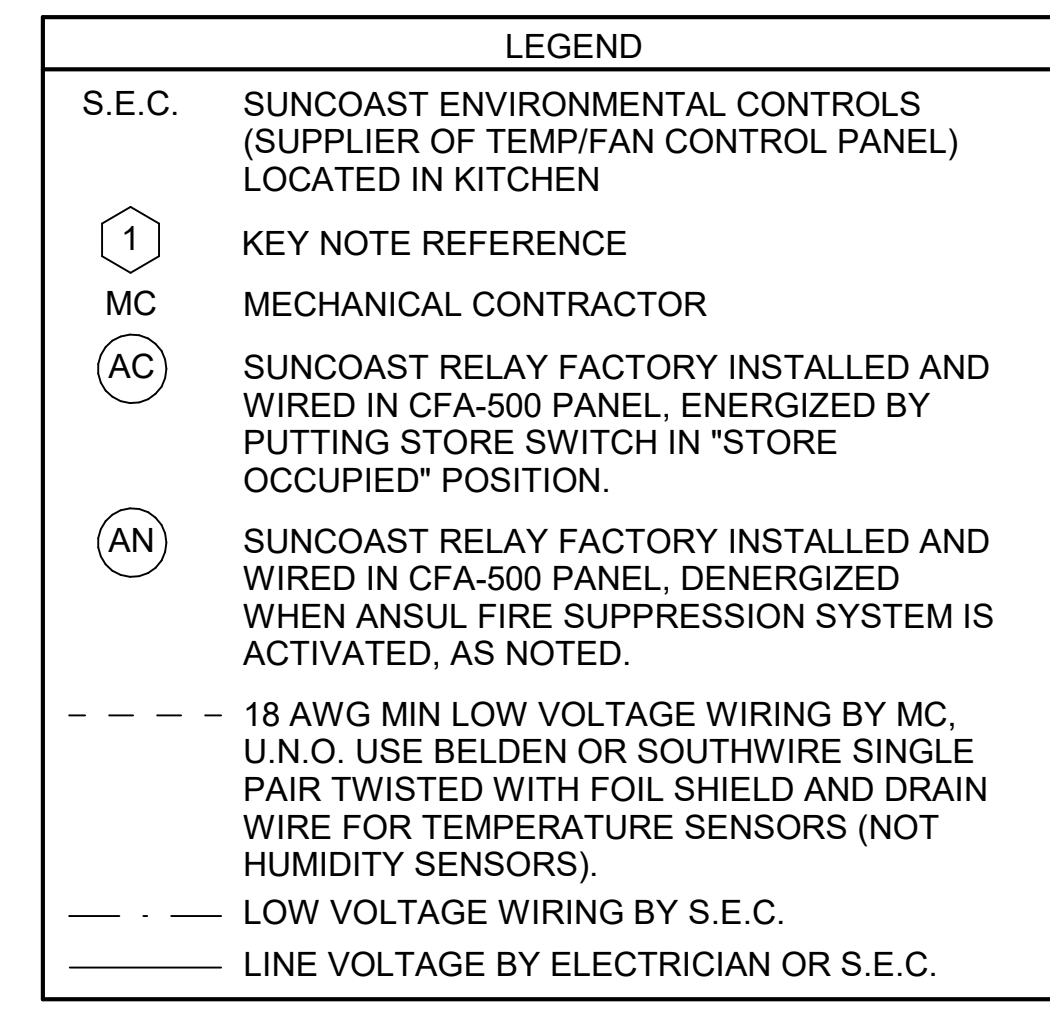
- LENNOX PRODIGY CONTROLLER SETTINGS:**
- FOR ALL RTU'S EXCEPT AT AC#1, CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #65 TO ZERO (#68 ON LCH UNITS). THIS WILL CAUSE THE O.A. DAMPER TO OPEN ON "OCCUPIED" START. AT AC#1 (LGH TYPE) LEAVE THE SETTING AT THE DEFAULT VALUE SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 60 MINUTES AFTER "OCCUPIED" START. AT AC#1 (LCH TYPE) CHANGE THE VALUE TO 5400 SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 90 MINUTES AFTER "OCCUPIED" START.
  - AT HUMIDITROL RTU'S, SET PRODIGY-M3 BOARD CONTROL PARAMETER #105 FOR DEHUMIDIFICATION OPERATION TO A VALUE OF 7 (60% RH).
  - AT MSAV UNITS, SET THE MSAV LOW SPEED SETTING TO THE SAME VALUE AS THE HIGH SPEED SETTING AFTER TAB IS COMPLETE.

- LENNOX FRESH AIR HEATING SETUP WHEN SPECIFIED:**
- INSTALL FRESH AIR TEMPERING KIT WIRING HARNESS AS RECOMMENDED BY LENNOX.
  - LOCATE SUPPLY AIR TEMPERATURE SENSOR IN SUPPLY DUCT DOWNSTREAM OF FIRST ELBOW. SECURE WIRING TO DUCT OR STRUCTURE WITH RUBBER COATED CLAMPS. DO NOT RUN WIRING INSIDE DUCT WORK. PROTECT ALL WIRING PENETRATIONS WITH RUBBER GROMMETS.
  - FOR PRODIGY 2.0: FIRST SET FRESH AIR HEATING ENABLE TO "YES" THRU THE TAB/DAMPER MENU (LEAVE FRESH AIR COOLING AS "NO"). NEXT, CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #156 TO A VALUE OF 66. THIS WILL PREVENT THE SUPPLY AIR TEMPERATURE FROM DROPPING BELOW 66F DEG DURING HEATING MODE WHEN THERMOSTAT IS NOT ACTIVELY CALLING FOR HEAT.
  - CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #157 TO A VALUE OF 14. THIS WILL MAKE THE DEADBAND VALUE EQUAL 14F.
  - CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #158 TO A VALUE OF 300. THIS WILL MAKE THE CYCLE TIME VALUE EQUAL 5 MINUTES.



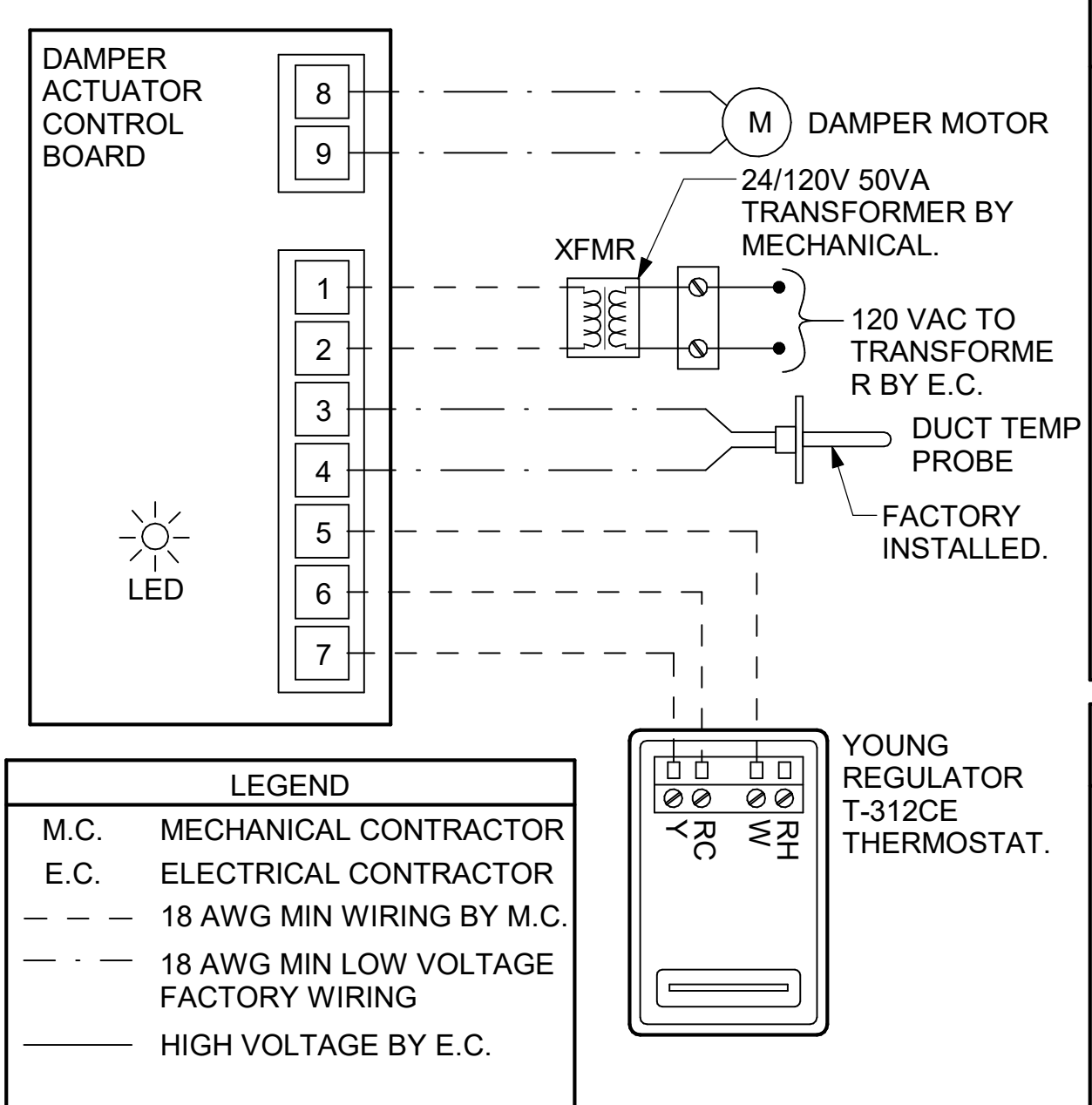
- NOTES:**
- MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INSIDE DOOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
  - SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNCIATOR WIRING.
  - SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
  - PROVIDE PLASTIC ENGRAVED LABEL AT ALL NEW SENSORS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "AC#2 HUMIDITY SENSOR" OR "AC#2 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. SENSOR IS INTENDED TO BE SURFACE MOUNTED AND DOES NOT REQUIRE A SINGLE GANG BOX OF CONDUIT. FIELD CALIBRATE EACH SENSOR.



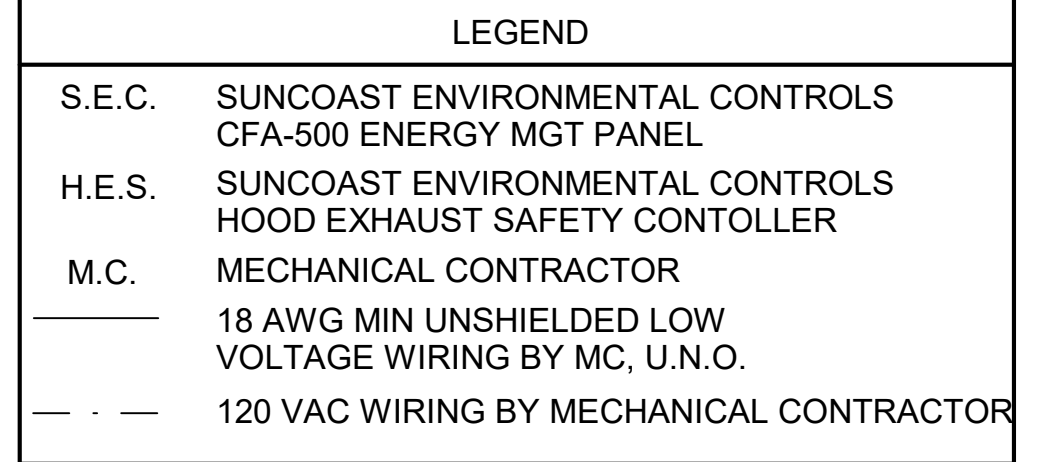
### 2 ROOFTOP UNIT CONTROL WIRING - LENNOX

NOT TO SCALE



### 1 VAV DAMPER AND TSTAT - MGRS OFFICE

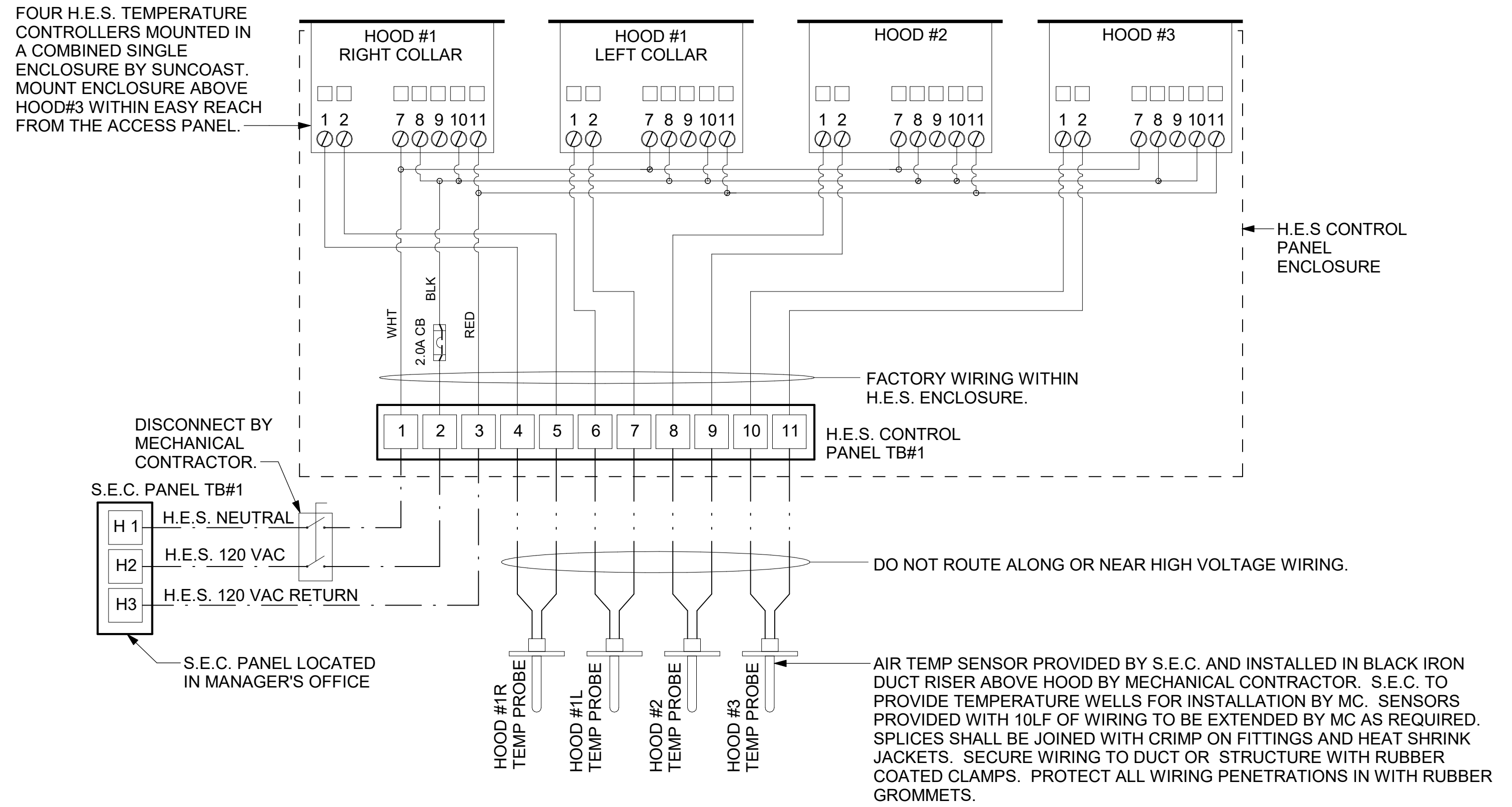
NOT TO SCALE



- 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.

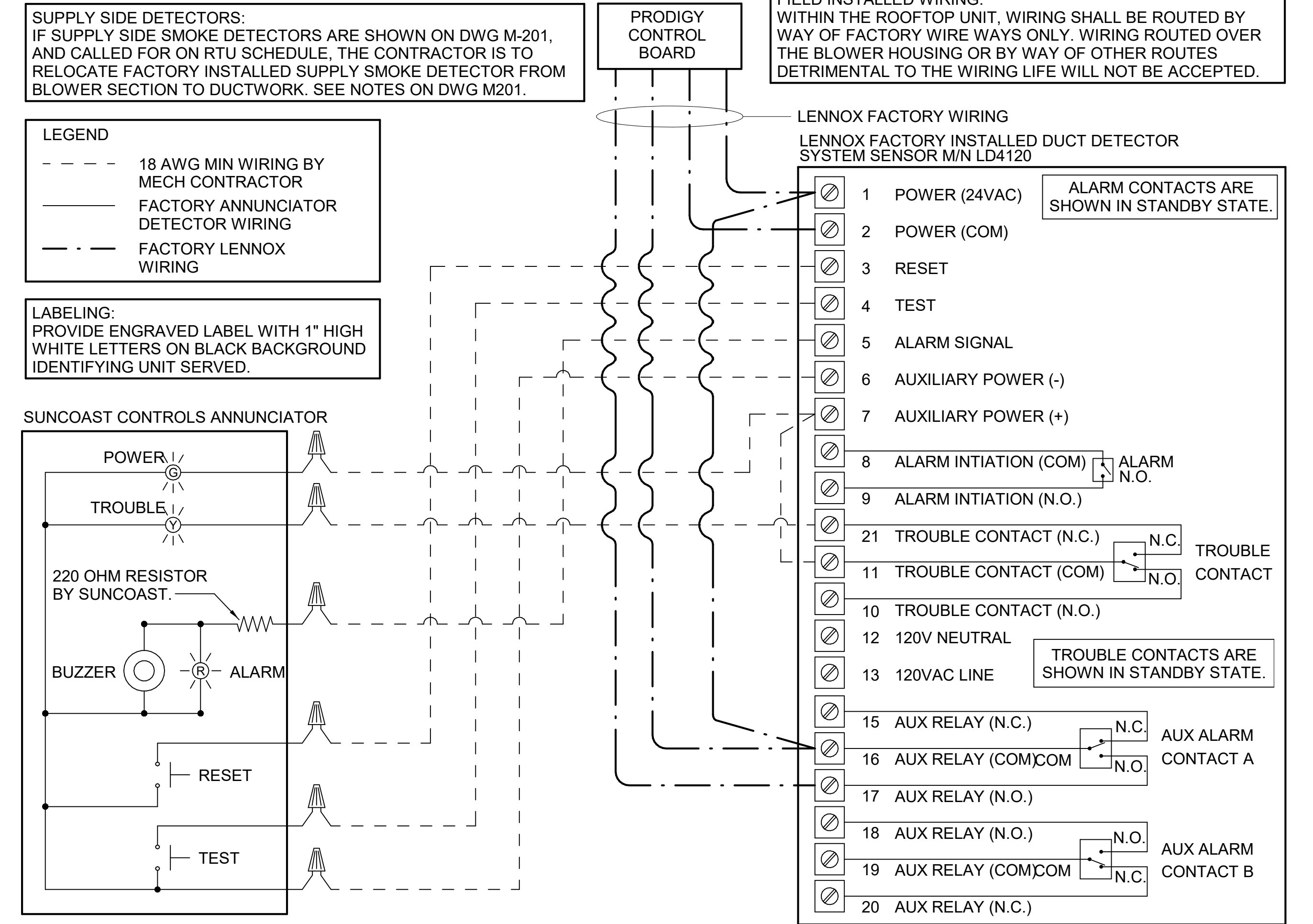
**S.E.C. H.E.S. OPERATION**

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.



### 3 HOOD FAN/EQUIPMENT INTERLOCK

NOT TO SCALE



### 4 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM

NOT TO SCALE

BIM 360/ISO\_04566\_Empire Place FSU\_Sioux Falls\_FSR\_P13\_LSR\_LRG04566\_Empire Place FSU\_MEC.rvt  
3/10/2021 4:25:23 PM  
30-LSR-04566-M-501-HVAC CONTROLS

4

3

2

1

E

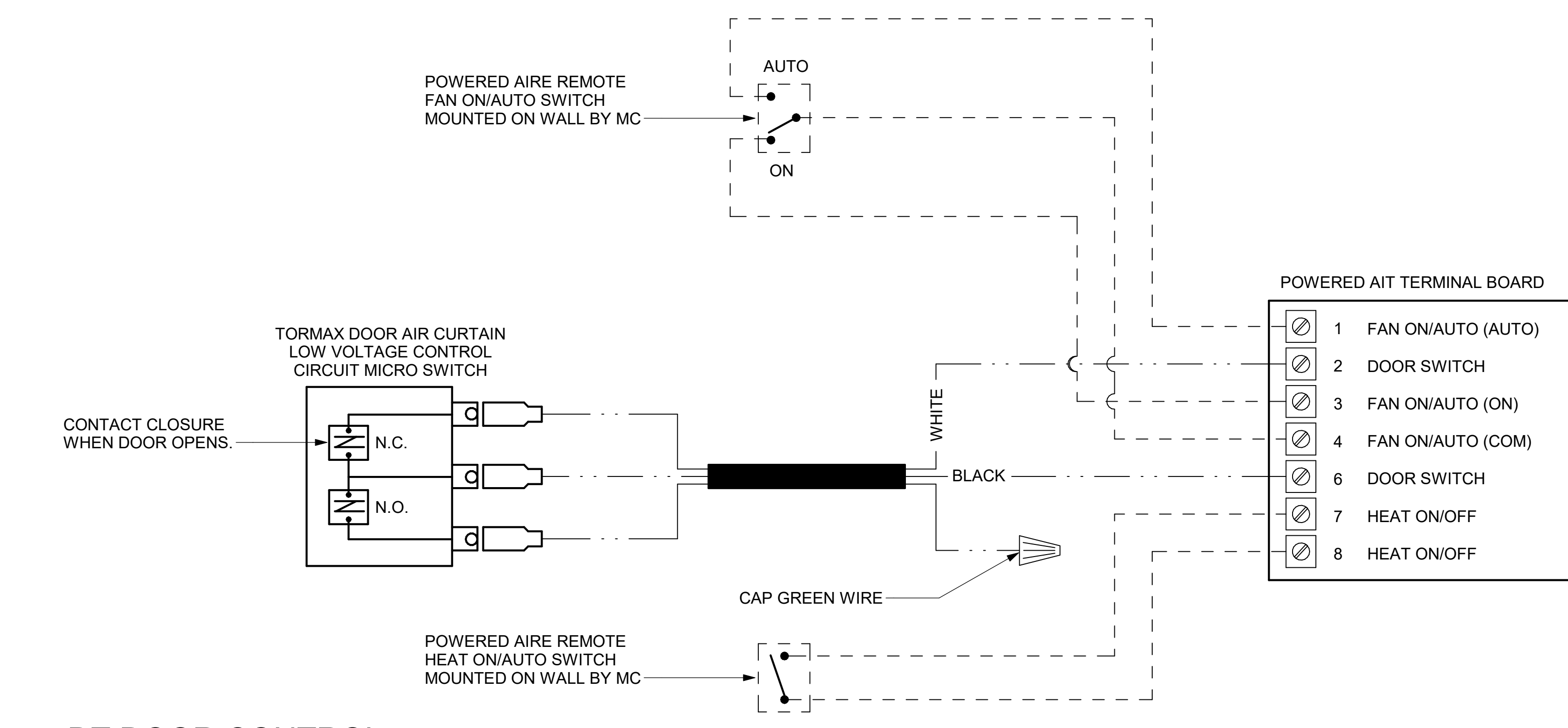
D

C

B

A

LEGEND	
	18 AWG MIN LOW VOLTAGE WIRING BY MC, U.N.O.
	22 AWG LOW VOLTAGE WIRING PROVIDED BY TORMAX. WIRING INSTALLED BY MC.



**1 DT DOOR CONTROL**  
NOT TO SCALE



**Chick-fil-A**

**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998



**CHIPMAN DESIGN ARCHITECTURE INC**  
1350 E TOUHY AVE  
FIRST FLOOR EAST  
DES PLAINES, IL 60018  
TEL: 847.298.6900  
I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED UNDER MY SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, THEY COMPLY WITH ALL RULES, REGULATIONS AND ORDINANCES OF Sioux Falls, SD RELATING TO STRUCTURES AND BUILDINGS.

**CHICK-FIL-A**  
Sioux Falls (Empire Place)  
4101 W. 41st Street  
Sioux Falls, SD 57106

**FSR#04566**  
BUILDING TYPE / SIZE: P13 LSR ALL  
RELEASE: v2\_20\_08

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
1	10/16/20	ISSUE FOR PERMIT
2	03/09/21	ISSUE FOR CONSTRUCTION

CONSULTANT PROJECT #	19-2135
PRINTED DATE	03/09/2021
DATE	03/09/2021
DRAWN BY	Author
CHECKED BY	Checker
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SHEET	HVAC CONTROLS

ISSUE FOR CONSTRUCTION  
SHEET NUMBER  
**M-502**

1. 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, DUCTWORK AND AIR DEVICES SHALL BE INSPECTED AND THOROUGHLY CLEANED, CLEARED OF DEBRIS, AND 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 NATURAL GAS FIRED HEATING UNITS BY LENNOX AS SHOWN ON DRAWINGS. EQUIPMENT SHALL BE ARI CERTIFIED AND A.G.A. 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 HEAT EXCHANGERS SHALL BE STEEL WITH ALUMINIZED STEEL COATING. HEATING CONTROLS SHALL CONSIST OF REDUNDANT GAS VALVES, INTERMITTENT PILOT WITH ELECTRONIC SPARK OR HOT PLATE IGNITION SYSTEM, COMBUSTION/EXHAUST FAN PROTECTED BY CENTRIFUGAL SWITCHES, HEAT LIMIT SWITCHES, TIME-DELAY RELAY, FLAME, AND PILOT SENSORS. ALL UNITS SHALL BE CAPABLE OF TWO STAGES OF HEAT. HEAT EXCHANGES SHALL HAVE A TEN (10) YEAR WARRANTY. BURNERS SHALL BE ALUMINIZED IN-SHOT TYPE. THE DRAFT MOTOR SHALL BE MONITORED BY THE CONTROL SYSTEM.
- 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 M-301 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 INCLUDING DUCT CONNECTION TO AIR DEVICE COLLAR 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. DUCT SHALL BE SUPPORTED AT BASE OF DUCT DROPS. CURB DUCT RAILS ARE NOT INTENDED TO AND SHALL NOT SUPPORT THE WEIGHT OF THE DUCT.
- F. 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 6 R-VALUE INSTALLED WITH EITHER A VAPOR BARRIER WITH MAXIMUM PERMEANCE 0.05 OR A MINIMUM 2 MIL ALUMINUM REINFORCED FOIL/KRAFT FACING.
- G. ALL DUCT DROPS FROM THE ROOFTOP UNITS SHALL BE EXTERNALLY INSULATED.
- H. SUPPLY AND RETURN AIR DUCTWORK SERVING ALL AREAS SHALL BE EXTERNALLY INSULATED.
- I. 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.
- J. RESTROOM RECTANGULAR EXHAUST AIR DUCTWORK SHALL BE LINED WITH 1" THICK, 1-1/2 PCF INSULATION. RESTROOM ROUND EXHAUST DUCT SHALL BE EXTERNALLY INSULATED PER SECTION 2.02F.
- K. 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.
- L. 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 M-401.
- M. 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.
- N. 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.
- O. DUCT TAPE SHALL BE EQUAL TO FASSON 181-B FX, 2-1/2" WIDE.
- P. SINGLE THICKNESS TURNING VANES SHALL BE INSTALLED AT 90 DEGREE TURNS IN SUPPLY DUCTWORK WHERE ANY ONE DIMENSION IS GREATER THAN 12".
- Q. RADIUS OF ELBOWS MAY BE SUBSTITUTED FOR 90 DEGREE ELBOWS AT THE DISCRETION OF THE CONTRACTOR. CENTERLINE RADIUS EQUAL TO; R-W PER FIGURE NO. 4-2 IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- R. 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 CFA-500 TEMPERATURE CONTROL PANEL AS MANUFACTURED BY SUNCOAST ENVIRONMENTAL CONTROLS (S.E.C.) (PH: 877-544-6679). THE PANEL IS PROVIDED AND MOUNTED BY THE ELECTRICAL CONTRACTOR. 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 BY THE ELECTRICAL CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE AND TURNED OVER TO THE MECHANICAL CONTRACTOR FOR INSTALLATION.
- E. THE REMOTE TEST/RESET ANNUNCIATORS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR. INSTALLATION BY MECHANICAL SHALL INCLUDE MOUNTING OF THE ANNUNCIATORS AND ALL WIRING FROM EACH DEVICE TO THE RTU. ELECTRICAL WILL PROVIDE A JUNCTION BOX IN THE WALL WITH 1/2" CONDUIT STUBBED UP ABOVE THE CEILING FOR EACH REMOTE TEST STATION AS SHOWN ON THE ELECTRICAL PLANS. 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 THERMOSTAT PRE-WIRED IN THE TEMPERATURE CONTROL PANEL. A REMOTE TEMPERATURE SENSOR FOR EACH THERMOSTAT IS ALSO PROVIDED. MECHANICAL CONTRACTOR SHALL INSTALL ALL WIRING BETWEEN THE THERMOSTAT, THE REMOTE SENSOR AND THE ROOFTOP UNIT.
- 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. 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.
- C. 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.
- D. CONTRACTOR SHALL COMPLETE A/C EQUIPMENT STARTUP DOCUMENTATION PROVIDED BY OWNER AND/OR MANUFACTURER. THIS SHALL INCLUDE RE-TORQUE OF ALL FIELD AND FACTORY HIGH VOLTAGE CONNECTIONS.

3.02 LEED PROJECTS

- A. CONTRACTOR SHALL COMPLETE RECEIPT INSPECTION CHECKLISTS PROVIDED IN THE COMMISSIONING PLAN WITHIN 5 DAYS OF RECEIVING EQUIPMENT ON SITE.
- B. CONTRACTOR SHALL COMPLETE PRE-FUNCTIONAL CHECKLISTS PROVIDED IN THE COMMISSIONING PLAN. CHECKLISTS SHALL BE RETURNED AT LEAST 5 DAYS PRIOR TO SCHEDULING FUNCTIONAL PERFORMANCE TESTING.
- C. CONTRACTOR SHALL PROVIDE A TECHNICIAN TO ASSIST THE THIRD PARTY COMMISSIONING AUTHORITY WITH FUNCTIONAL TESTING. FUNCTIONAL TESTING SHALL OCCUR AFTER ALL CONTROLS HAVE BEEN INSTALLED AND VERIFIED AND AFTER TEST AND BALANCE IS COMPLETE. THE FUNCTIONAL PERFORMANCE TEST PROCEDURES CAN BE FOUND IN THE COMMISSIONING PLAN.
- D. IF THE TOTAL TIME REQUIRED TO CORRECT PROBLEMS DURING TESTING IS GREATER THAN FORTY-FIVE (45) MINUTES (UNLESS EXTENUATING CIRCUMSTANCES EXIST), THE TEST SHALL BE CONSIDERED FAILED AND MUST BE REPEATED IN ITS ENTIRETY.
- E. RE-TESTING: DURING THE COURSE OF THE RETEST, IF AT ANY POINT A MAJOR DEFICIENCY IS DISCOVERED, THE TEST WILL BE STOPPED. REPEAT TESTS UNTIL ACCEPTABLE RESULTS ARE ACHIEVED. IF MORE THAN TWO FUNCTIONAL PERFORMANCE TESTS (ONE INITIAL TEST AND ONE RETEST) FOR ANY TYPE OF EQUIPMENT DUE TO ISSUES THAT THE CONTRACTOR HAD DIRECT OR INDIRECT CONTROL OVER ARE REQUIRED, THE COSTS FOR THE CMA TO WITNESS RETESTING OF SIMILAR TYPES OF EQUIPMENT UNTIL SATISFACTORY RESULTS ARE OBTAINED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3.03 TEST & BALANCE

- A. OWNER SHALL TEST AND BALANCE MECHANICAL SYSTEM IN ACCORDANCE WITH NEBB, NBC 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.
- B. ALL EQUIPMENT TO BE BALANCED MUST HAVE GONE THRU SUCCESSFUL START-UP PROCEDURE BY THE MECHANICAL CONTRACTOR (MC) PRIOR TO TAB VISIT.
- C. THE FLOOR OF THE RESTAURANT SHALL BE CLEARED OF DEBRIS, STAGED CONSTRUCTION MATERIALS, EQUIPMENT, ETC. WHICH MAY, IN THE OPINION OF THE TAB TECHNICIAN, OBSTRUCT ACCESS TO AIR DISTRIBUTION COMPONENTS IN AND ABOVE THE CEILING.
- D. EQUIPMENT ACCESS PANELS, DUCT AIR DEVICES SUCH AS BALANCING DAMPERS AND ACTUATORS SHALL BE ACCESSIBLE AND CLEAR OF PIPING, CONDUIT, FRAMING, SUPPORTS ETC..
- E. PROVIDE AN 8 FT PORTABLE A-FRAME STYLE LADDER DEDICATED FOR THE TAB TECHNICIAN'S USE DURING THE ENTIRE TAB EFFORT DURATION.
- F. THE MC SHALL BE AVAILABLE DURING THE ENTIRE DURATION OF THE TAB EFFORT AND HAVE ON-SITE THE RESOURCES AND TOOLS TO MAKE CORRECTIONS AS NEEDED UNDER THE DIRECTION OF THE TAB TECHNICIAN.

NATIONAL ACCOUNTS		
1.	LENNOX EQUIPMENT - CONTACT LENNOX NATIONAL ACCOUNTS AT 972-497-6260 (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.	SUNCOAST ENVIRONMENTAL CONTROLS - THE CFA 500 PANEL AND THE TEST/RESET STATIONS WILL BE PURCHASED AND PROVIDED BY THE electrical CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE. SEE PART II PARAGRAPH 3A, 3D, AND 3E OF THE MECHANICAL SPECIFICATIONS FOR MORE INFORMATION.	
6.	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.	
7.	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.	
8.	SCHWANK 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.	



**Chick-fil-A**  
 5200 Buffington Road  
 Atlanta, Georgia  
 30349-2998

**CDI**  
 CHIP MACH DESIGN  
 ARCHITECTURE INC  
 1350 E TOUHY AVE  
 FIRST FLOOR EAST  
 DES PLAINES, IL 60018  
 TEL : 847.298.6900  
I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED UNDER MY SUPERVISION AND THAT TO THE BEST OF MY KNOWLEDGE, THE SAME COMPLY WITH ALL RULES, REGULATIONS AND ORDINANCES OF Sioux Falls, SD RELATING TO STRUCTURES AND BUILDINGS.

**CHICK-FIL-A**  
 Sioux Falls (Empire Place)  
 4101 W. 41st Street  
 Sioux Falls, SD 57106

**FSR#04566**  
 BUILDING TYPE / SIZE: P13 LSR ALL  
 RELEASE: v2\_20\_08

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
1	10/16/20	ISSUE FOR PERMIT
2	03/09/21	ISSUE FOR CONSTRUCTION

CONSULTANT PROJECT # 19-2135  
 PRINTED ISSUE FOR CONSTRUCTION  
 DATE 03/09/2021  
 DRAWN BY JAL  
 CHECKED BY RDB  
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 SHEET MECHANICAL SPECIFICATIONS  
 SHEET NUMBER **M-901**

BIM:360/ISO\_04566\_Empire Place FSU\_Sioux Falls\_FSR\_P13\_LSR\_LR04566\_Empire Place FSU\_MECH.rvt  
 3/10/2021 4:25:24 PM  
 30-LSR-04566-M-901-MECHANICAL SPECIFICATIONS

ISSUE FOR CONSTRUCTION

**MODEL: KVL-2**

**STANDARD FEATURES**

- 3 S.S. FILTERS (KVA)
- 12 S.S. FILTERS (KVA)
- CAPTURE-JET FAN DAMPER
- STAND-OFF
- 1 L.E.D. LIGHTS

**OPTIONS**

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED W/O EXHAUST DAMPER
- CAPTURE-JET FAN DAMPER
- STD. BACKFLASH
- INSULATED BACKFLASH
- HEAT DAMPER

**MATERIAL**

- ALL 18 GA. S.S.

**COMMENTS**

- CLOSURE HEIGHT = 9" (TWO SIDES)
- CEILING HEIGHT = 102"
- CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF
- W/KEY ACCESS DOOR LEFT SIDE FOR ACCESS TO CAPTURE-JET FAN FRONT CONTROL PANEL & KBD
- CONTINUOUS CAPTURE INTERNAL RIGHT END CLOSURE
- REAR STAND-OFF TO HAVE 1" THICK INSULATION
- GREASE CUP ON LEFT END FULL LEFT END PANEL

**EQUIPMENT COVERED**

- 1) FRYERS
- HOOD HEIGHT = 102" (S.S.)

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-1L **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **832 13' 23"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **55 30"**

**MODEL: KVL-2**

**STANDARD FEATURES**

- 4 S.S. FILTERS (KVA)
- 12 S.S. FILTERS (KVA)
- CAPTURE-JET FAN DAMPER
- STAND-OFF
- 1 L.E.D. LIGHTS

**OPTIONS**

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED W/O EXHAUST DAMPER
- CAPTURE-JET FAN DAMPER
- STD. BACKFLASH
- INSULATED BACKFLASH
- KBD DAMPER

**MATERIAL**

- ALL 18 GA. S.S.

**COMMENTS**

- CLOSURE HEIGHT = 9" (TWO SIDES)
- CEILING HEIGHT = 102"
- CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF
- W/KEY ACCESS DOOR LEFT SIDE FOR ACCESS TO CAPTURE-JET FAN FRONT CONTROL PANEL & KBD
- CONTINUOUS CAPTURE INTERNAL LEFT END CLOSURE
- REAR STAND-OFF TO HAVE 1" THICK INSULATION
- GREASE CUP ON LEFT END FULL LEFT END PANEL

**EQUIPMENT COVERED**

- 1) FRYERS
- HOOD HEIGHT = 102" (S.S.)

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-1R **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **1080 13' 34"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **72 30"**

**MODEL: KVL-C**

**STANDARD FEATURES**

- 4 S.S. FILTERS (KVA)
- 12 S.S. FILTERS (KVA)
- CAPTURE-JET FAN DAMPER
- STAND-OFF
- 1 L.E.D. LIGHTS

**OPTIONS**

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED W/O EXHAUST DAMPER
- CAPTURE-JET FAN DAMPER
- STD. BACKFLASH
- INSULATED BACKFLASH
- KBD DAMPER

**MATERIAL**

- ALL 18 GA. S.S.

**COMMENTS**

- CLOSURE HEIGHT = 9" (TWO SIDES)
- CEILING HEIGHT = 102"
- CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF
- W/KEY ACCESS DOOR LEFT SIDE FOR ACCESS TO CAPTURE-JET FAN FRONT CONTROL PANEL & KBD
- CONTINUOUS CAPTURE INTERNAL LEFT END CLOSURE
- REAR STAND-OFF TO HAVE 1" THICK INSULATION
- GREASE CUP ON LEFT END FULL LEFT END PANEL

**EQUIPMENT COVERED**

- 1) FRYERS
- HOOD HEIGHT = 102" (S.S.)

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-2 **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **701 30' 30"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **30 30"**

**MODEL: KVL-D**

**STANDARD FEATURES**

- 1 S.S. FILTERS (KVA)
- 12 S.S. FILTERS (KVA)
- CAPTURE-JET FAN DAMPER
- STAND-OFF
- 1 L.E.D. LIGHTS

**OPTIONS**

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED W/O EXHAUST DAMPER
- CAPTURE-JET FAN DAMPER
- STD. BACKFLASH
- INSULATED BACKFLASH
- KBD DAMPER

**MATERIAL**

- ALL 18 GA. S.S.

**COMMENTS**

- CLOSURE HEIGHT = 9" (TWO SIDES)
- CEILING HEIGHT = 102"
- CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF
- W/KEY ACCESS DOOR LEFT SIDE FOR ACCESS TO CAPTURE-JET FAN FRONT CONTROL PANEL & KBD
- CONTINUOUS CAPTURE INTERNAL LEFT END CLOSURE
- REAR STAND-OFF TO HAVE 1" THICK INSULATION
- GREASE CUP ON LEFT END FULL LEFT END PANEL

**EQUIPMENT COVERED**

- 1) FRYERS
- HOOD HEIGHT = 102" (S.S.)

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-3 **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **390 37' 42"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **18 30"**

**HANGER BRACKET DETAIL**

**DETAIL**

SEE DETAIL FOR INSTALLATION OF THE DOUBLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-2. INSTALLATION OF SINGLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-3 IS SIMILAR.

**Capture-Jet Fan Installation and Dimensional Data**

MODEL	AIR FLOW @ 1" SP	FL	FLA	HP	VOLTAGE	LBS.
KKVL	30 CFM	9.50"	4.0"	6.0"	11	120/160
KH-R	30 CFM	1.70 CFM	13.20"	8.0"	20	1.31 120/160
KH-L	100 CFM	240 CFM	13.20"	8.0"	20	1.32 120/160

**TAG MODEL QTY AIRFLOW**

TAG	MODEL	QTY	AIRFLOW
H-1L	KVL	1	35
H-1R	KVL	1	72
H-2	KVL	1	38
H-3	KVL	1	18

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **DATE:** 10.07.20

**LOCATION:** SIOUX FALLS, SD **DWG. NO.:** L20-779-01

**MODEL: KBD**  
KITCHEN BALANCING DAMPER  
EXHAUST VOLUME DAMPER

**EXHAUST DUCT**

**EXHAUST COLLAR**

**HOOD**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-1L **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **832 13' 23"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **55 30"**

**MODEL: KBD**  
KITCHEN BALANCING DAMPER  
EXHAUST VOLUME DAMPER

**EXHAUST DUCT**

**EXHAUST COLLAR**

**HOOD**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-1R **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **1080 13' 34"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **72 30"**

**MODEL: KVL-C**

**TYPICAL INSTALLATION**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-2 **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **701 30' 30"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **30 30"**

**MODEL: KVL-D**

**TYPICAL INSTALLATION**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-3 **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **390 37' 42"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **18 30"**

**DETAIL**

SEE DETAIL FOR INSTALLATION OF THE DOUBLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-2. INSTALLATION OF SINGLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-3 IS SIMILAR.

**Integral Side Jet Arm**

**DETAIL**

SEE DETAIL FOR INSTALLATION OF THE DOUBLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-2. INSTALLATION OF SINGLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-3 IS SIMILAR.

**HOODS H-1L/R, H-2 & H-3**

**Typical wiring of Capture-Jet fan**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-1L **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **832 13' 23"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **55 30"**

**MODEL: KBD**  
KITCHEN BALANCING DAMPER  
EXHAUST VOLUME DAMPER

**EXHAUST DUCT**

**EXHAUST COLLAR**

**HOOD**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-1R **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **1080 13' 34"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **72 30"**

**MODEL: KVL-C**

**TYPICAL INSTALLATION**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-2 **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **701 30' 30"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **30 30"**

**MODEL: KVL-D**

**TYPICAL INSTALLATION**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-3 **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **390 37' 42"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **18 30"**

**DETAIL**

SEE DETAIL FOR INSTALLATION OF THE DOUBLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-2. INSTALLATION OF SINGLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-3 IS SIMILAR.

**Integral Side Jet Arm**

**DETAIL**

SEE DETAIL FOR INSTALLATION OF THE DOUBLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-2. INSTALLATION OF SINGLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-3 IS SIMILAR.

**ANSUL R-102 FIRE SYSTEM LAYOUT**

**ANSUL R-102 FIRE SYSTEM**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-1L **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **832 13' 23"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **55 30"**

**ANSUL R-102 FIRE SYSTEM LAYOUT**

**ANSUL R-102 FIRE SYSTEM**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-1R **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **1080 13' 34"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **72 30"**

**ANSUL R-102 FIRE SYSTEM LAYOUT**

**ANSUL R-102 FIRE SYSTEM**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-2 **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **701 30' 30"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **30 30"**

**ANSUL R-102 FIRE SYSTEM LAYOUT**

**ANSUL R-102 FIRE SYSTEM**

**DATE:** 10.07.20 **DWG. NO.:** L20-779-01 **ITEM NO.:** H-3 **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU **390 37' 42"**

**LOCATION:** SIOUX FALLS, SD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **18 30"**

**DETAIL**

SEE DETAIL FOR INSTALLATION OF THE DOUBLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-2. INSTALLATION OF SINGLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-3 IS SIMILAR.

**Integral Side Jet Arm**

**DETAIL**

SEE DETAIL FOR INSTALLATION OF THE DOUBLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-2. INSTALLATION OF SINGLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-3 IS SIMILAR.

**CHICK-FLA**

**HALTON CO. (CANADA)**  
1021 BREVIK PLACE  
MISSISSAUGA, ON L4W 3R7  
1-905-624-0301

**HALTON CO. (USA)**  
101 INDUSTRIAL DRIVE  
SCOTTSDALE, AZ 85264  
1-270-237-5600

**PROJECT:** CHICK-FLA #4566 EMPIRE PLACE FSU

**LOCATION:** SIOUX FALLS, SD

**DRAWN BY:** NTS **DATE:** 03/09/2021

**SCALE:** NTS

**REVISION:** DESCRIPTION

REV.	DATE	BY
1		
2		
3		
4		
5		
6		
7		

**Sheet MH-101**