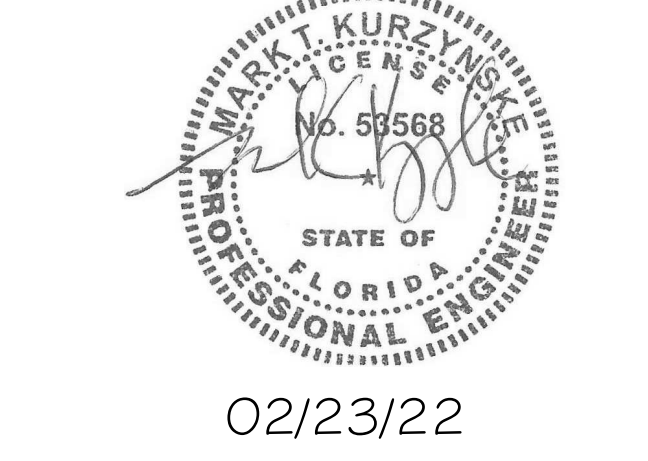




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02/23/22

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**FSR#04690**  
 BUILDING TYPE / SIZE: P13 SE LRG  
 RELEASE: v2.20.08

REVISION SCHEDULE		
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2	01/21/2022	Bid Set

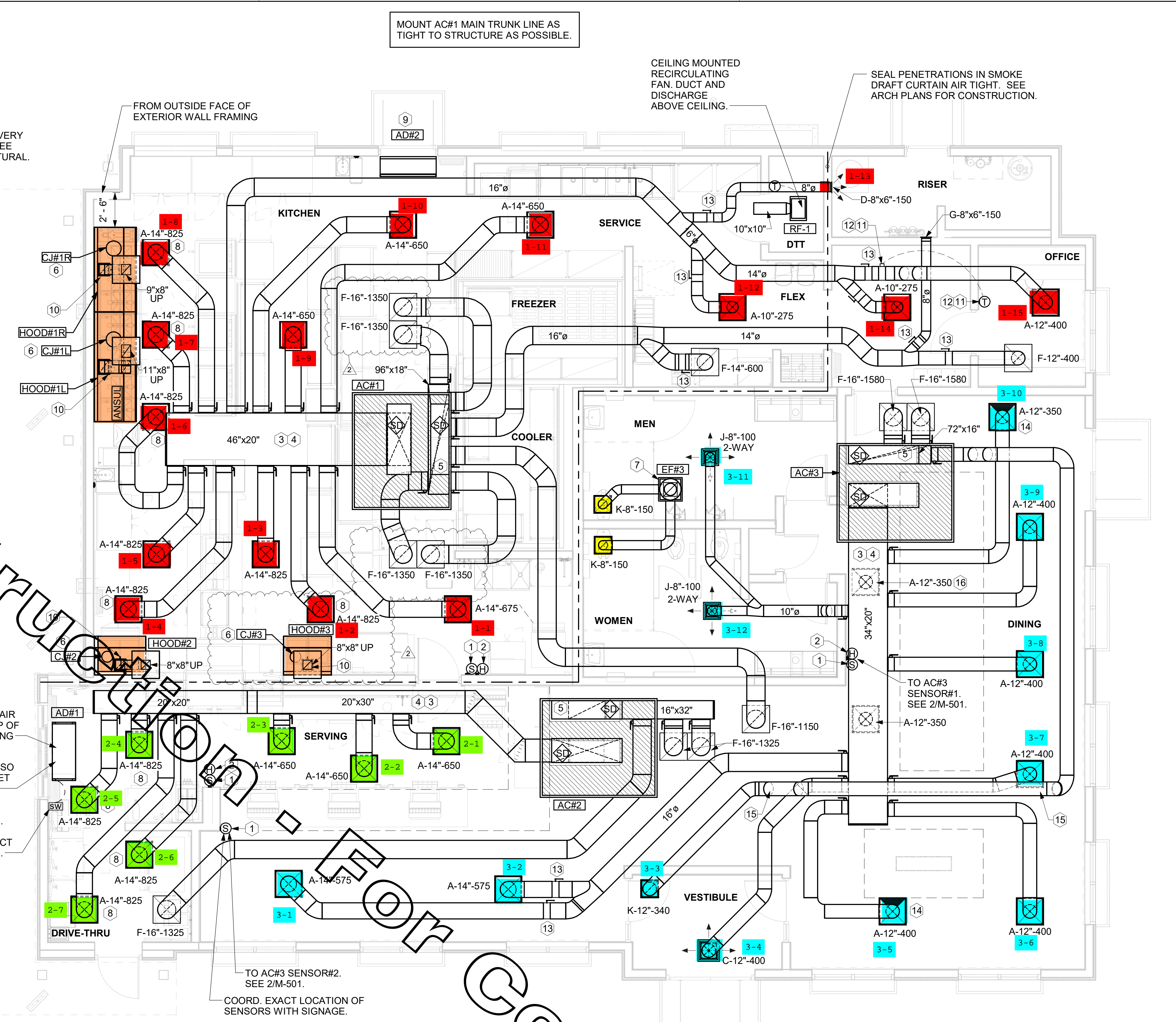
**CONSTRUCTION**

CONSULTANT PROJECT # 21011.CC.S  
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**MECHANICAL FLOOR PLAN**

SHEET NUMBER  
**M-201**



**LENNOX SMOKE DETECTOR INSTALLATION NOTES**

- MECHANICAL CONTRACTOR SHALL RELOCATE THE FACTORY INSTALLED SUPPLY SIDE SMOKE DETECTOR FROM THE BLOWER SECTION TO THE SUPPLY DUCT DROP ABOVE THE FIRST 90 DEGREE DUCT FITTING.
- THE MECHANICAL CONTRACTOR SHALL SPLICE NEW PLENUM RATED CABLE BETWEEN THE FACTORY SMOKE DETECTOR AND THE FACTORY JACK PLUG. THE NEW WIRING SHALL BE ROUTED THRU THE ROOFTOP UNIT BASEPAN RACEWAY. SPLICES SHALL BE JOINED WITH CRIMP ON FITTINGS AND HEAT SHRINK JACKETS.

**AIR BALANCE SCHEDULE - LARG...**

Mark	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	BUILDING POSITIVE PRESSURE
AC#1	9500	7700	1800		
AC#2	5250	3975	1275		
AC#3	4800	3500	1300		
EF#1				1912	
EF#2				1402	
EF#3				300	
	19550	15175	4375	3614	761

- 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.

**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.

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

**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.)
- SEE ELEVATIONS ON M-301 FOR C/J 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 BACKSIDE 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 T'STAT AT 4'-0" AFF. POWER OPEN/SPRING CLOSE. ADJUST MECHANICAL LIMIT FOR 50 CFM MINIMUM AIRFLOW. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010. FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARROW 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.
- MUSKIE MID-25 MVD W/LOCKING QUADRANT HANDLE.
- MECHANICAL CONTRACTOR TO CLOSE THE AIR PATTERN DEFLECTORS ON SHADED SIDE.
- ROUTE DUCT WITHIN STRUCTURE.
- MECHANICAL CONTRACTOR TO CLOSE AIR PATTERN DEFLECTOR ON SIDE FACING WALL.

**LEGEND**

Symbol	DESCRIPTION	Symbol	DESCRIPTION
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
[SW]	AIR DOOR SWITCH	[GH]	GAS INFRARED HEATER (TYP.)
EC	ELECTRICAL CONTRACTOR	B/G	BELOW GRADE
MC	MECHANICAL CONTRACTOR	T	THERMOSTAT

**CODE OF MIAMI-DADE COUNTY, FLORIDA CHAPTER 8 SEC. 8-10. PERMITS**

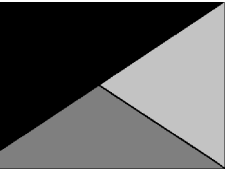
**HVAC DESIGN REQUIREMENTS**

HVAC DESIGN REQUIRES	YES	NO
DUCT SMOKE DETECTOR	X	
FIRE DAMPER (S)		X
SMOKE DAMPER (S)		X
FIRE RATED ENCLOSURE		X
FIRE RATED ROOF/ FLOOR CEILING ASSEMBLY		X
FIRE STOPPING		X
SMOKE CONTROL		X

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**FSR#04690**

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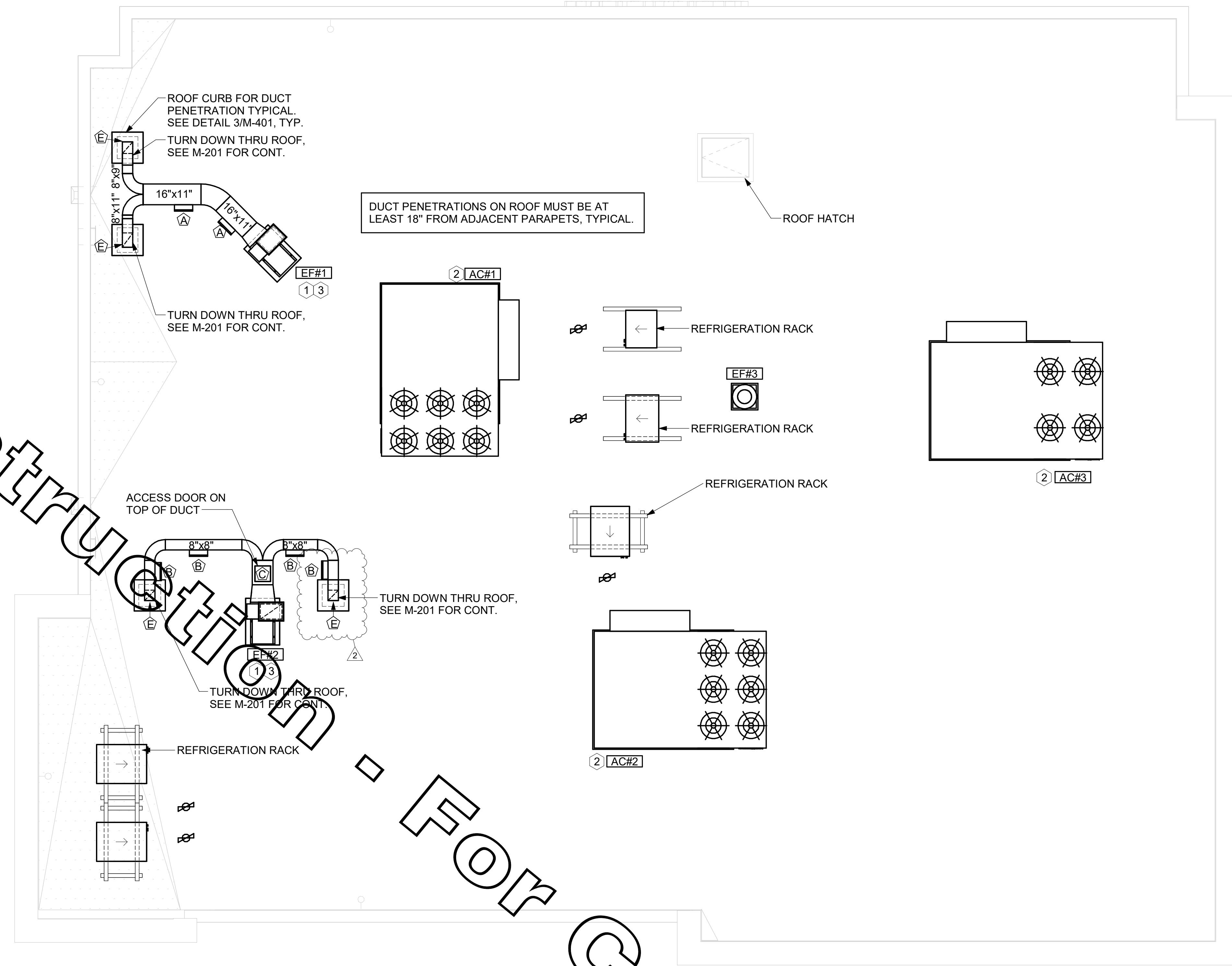
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SHEET MECHANICAL ROOF PLAN

SHEET NUMBER

**M-250**

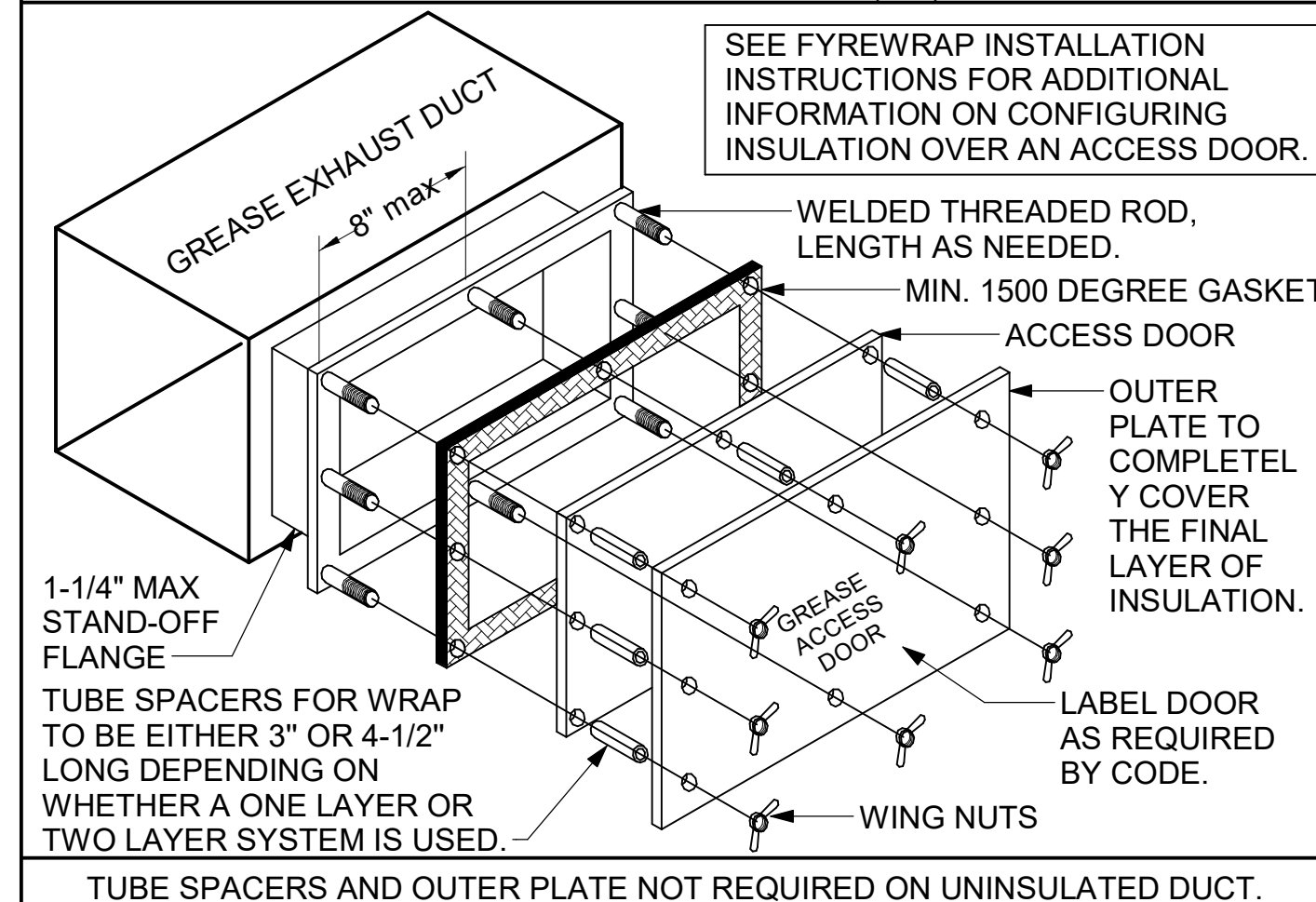


For Construction - For Construction

**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

- 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.



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

**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 NOZZLE. VERIFY EXHAUST TERMINATION IS A MINIMUM 10'-0" FROM PARAPETS AND OUTSIDE AIR INTAKES. SEE DETAIL 3/M-401.
- MECHANICAL CONTRACTOR TO SEE ARCHITECTURAL ROOF PLAN FOR NOTES REGARDING LEVELING FRAMES PARTUS. COORDINATE WITH GENERAL CONTRACTOR EXACT LOCATIONS AND SIZE NEEDED.
- 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 CONTRACTOR 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 EXHAUST DUCT CLEARANCE NOTE:**  
 CLEARANCES ABOVE CEILING ARE TIGHT. MECHANICAL CONTRACTOR TO FIELD VERIFY EXACT ROUTING AND CLEARANCES PRIOR TO FABRICATING GREASE EXHAUST DUCT.

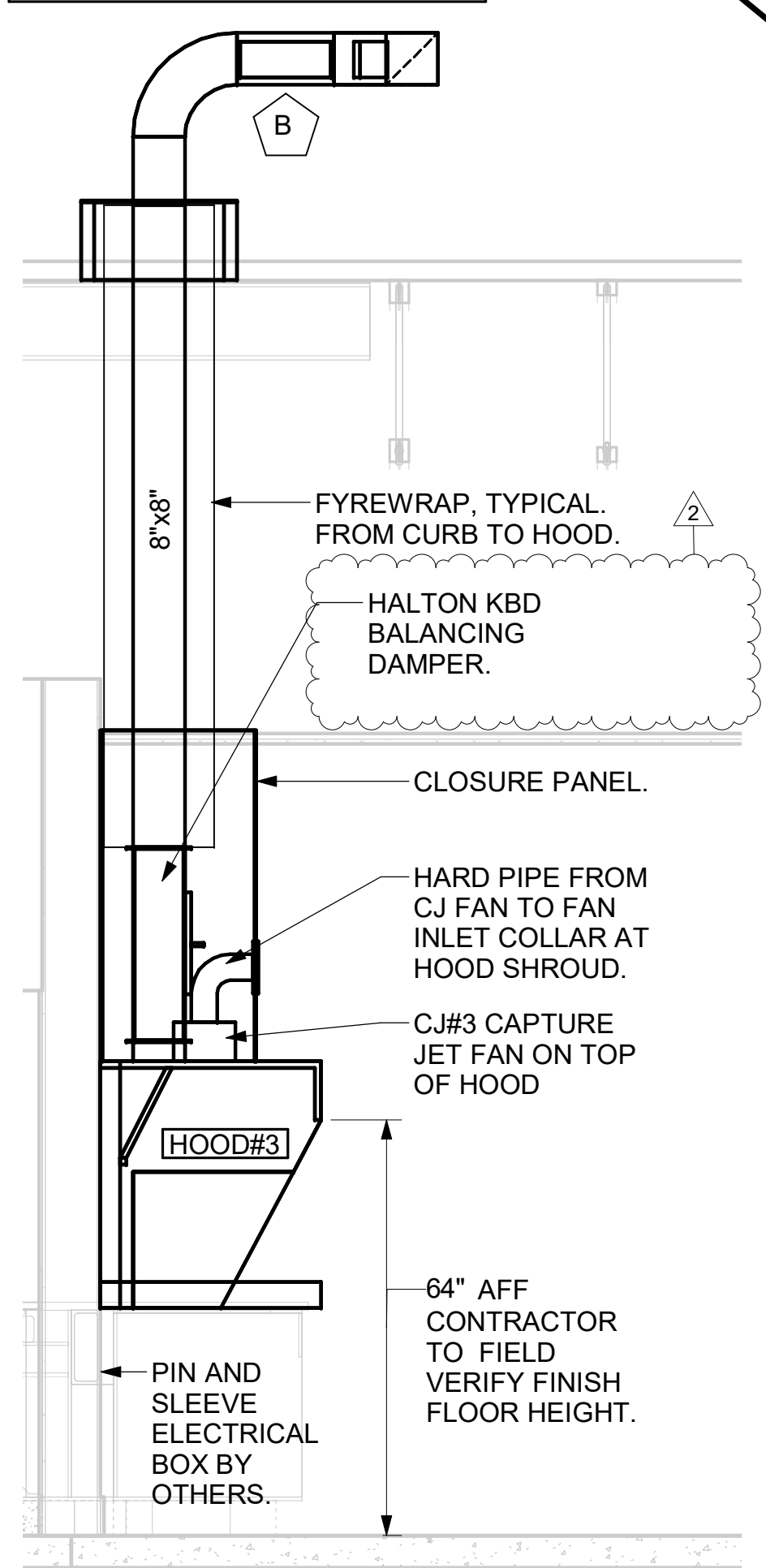
**CLEANOUT DOOR NOTE:**  
 DUCT WRAP SHALL BE APPLIED TO THE CLEANOUT DOOR PER THE WRAP MFR'S INSTALLATION INSTRUCTIONS. NO EXCEPTIONS. ALSO, THE CLEANOUT DOOR MUST BE REMOVABLE WITHOUT TOOLS AND MUST BE CLEARLY AND PERMANENTLY LABELED.

**HOOD LISTING INFORMATION**  
 ALL HOODS ARE FACTORY BUILT BY HALTON AND ETL LISTED PER LATEST 710 STANDARD. NSF LISTED, BUILT PER NFPA 96, CONFORM TO UL STANDARD 710, AND CERTIFIED TO ILC STANDARD S646. PLEASE REFER TO HOOD SHOP DRAWINGS ON SHEET MH-101 FOR REFERENCE.

HOOD SCHEDULE - LARGE BLDG											
MARK	EXHAUST CFM	SP @ TAB PORT	CAPTURE JET CFM & S.P.	TYPE	COLLAR SIZE	WIDTH	DEPTH	HEIGHT	MANUFACTURER	MODEL	REMARKS
HOOD#1L	1080	0.13"	72 @ 0.30	BACKSHELF	11"x8"	96"	37"	38"	HALTON	KVL-2	1
HOOD#1R	832	0.12"	55 @ 0.30	BACKSHELF	9"x8"	74"	37"	38"	HALTON	KVL-2	1
HOOD#2	701	0.30"	30 @ 0.29"	BACKSHELF	8"x8"	45"	34"	38"	HALTON	KVL-C	1
HOOD#3	701	0.30"	30 @ 0.29"	BACKSHELF	8"x8"	42"	34"	38"	HALTON	KVL-C	1
NOTES	DIMENSIONS OF HOODS INCLUDE BACK AND SIDE SPACERS (HEIGHT DOES NOT INCLUDE CLOSURE PANELS).										
REMARKS	1. REFER TO HOOD SHOP DRAWINGS FOR HOOD CONSTRUCTION AND OPTIONS. HOOD SHOP DRAWINGS ARE INCLUDED FOR REFERENCE ON SHEET MH-101.										

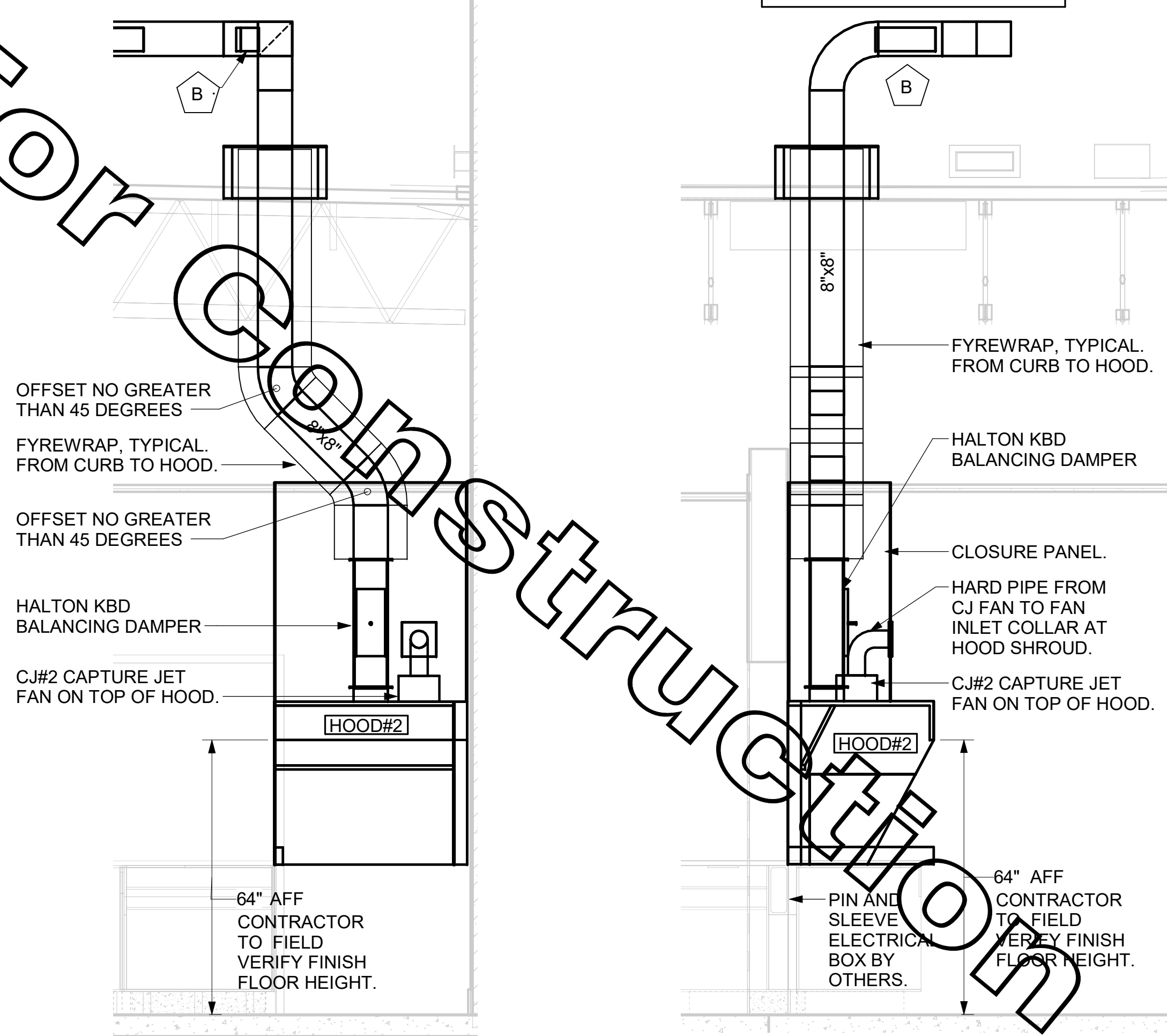
- KITCHEN HOOD SYSTEMS NOTES**
- CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT WITH HALTON CO. FOR THE HOODS. CHICK-FIL-A WILL PURCHASE AND PROVIDE THE HOODS FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING THE HOODS. CONTACT HALTON CO. AT 270-237-5600 FOR MORE INFO.
  - THE FIRE SUPPRESSION SYSTEM SHALL CONSIST OF A COMPLETE WET ANSUL SYSTEM FURNISHED BY HALTON. THE HOOD SHALL BE FURNISHED PRE-PIPED BY HALTON.
  - 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.
  - HOOD EXHAUST DUCTWORK SHALL BE 16 GA. BLACK STEEL WITH CONTINUOUS LIQUID TIGHT WELD OF JOINTS & SEAMS.
  - TURNS IN GREASE EXHAUST DUCTWORK SHALL BE LONG RADIUS TYPE, WITH A CENTERLINE RADIUS R=3W/2, UNLESS OTHERWISE NOTED. NO MITERED FITTINGS ALLOWED.
  - ALL STAINLESS STEEL CLOSURE PANELS SHALL BE SUPPLIED BY HOOD MANUFACTURER AND INSTALLED BY THE MECHANICAL CONTRACTOR ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  - SLOPE ALL GREASE EXHAUST DUCT BACK TO HOOD AT 1/4" PER FOOT OF RUN.
  - 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.
  - 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 TEXTRON SDS EDT265, LENGTH AS REQUIRED TO FULLY PENETRATE THE STUD.
  - 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.

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



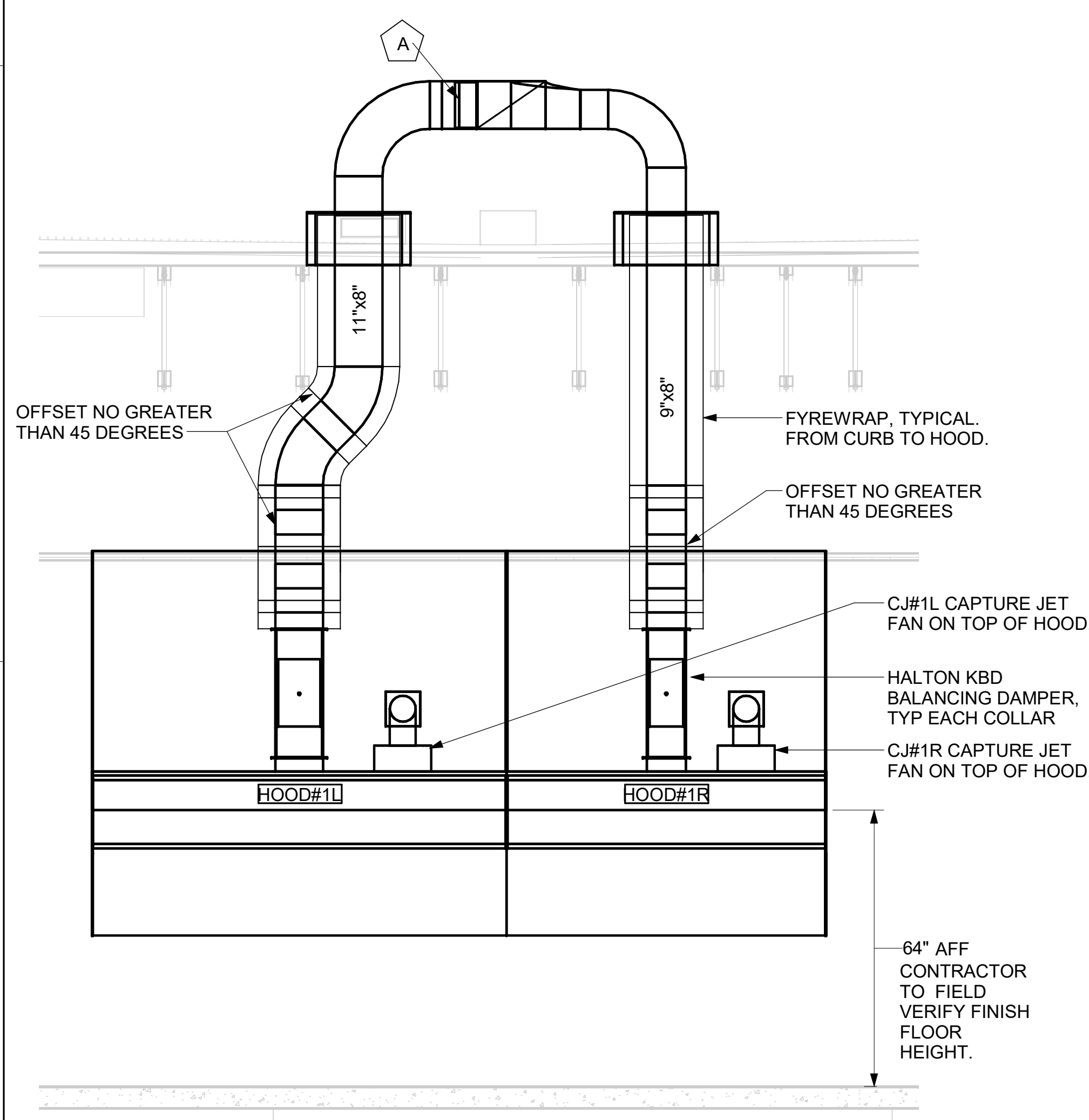
7 HOOD ELEVATION - HOOD#3 NOT TO SCALE

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

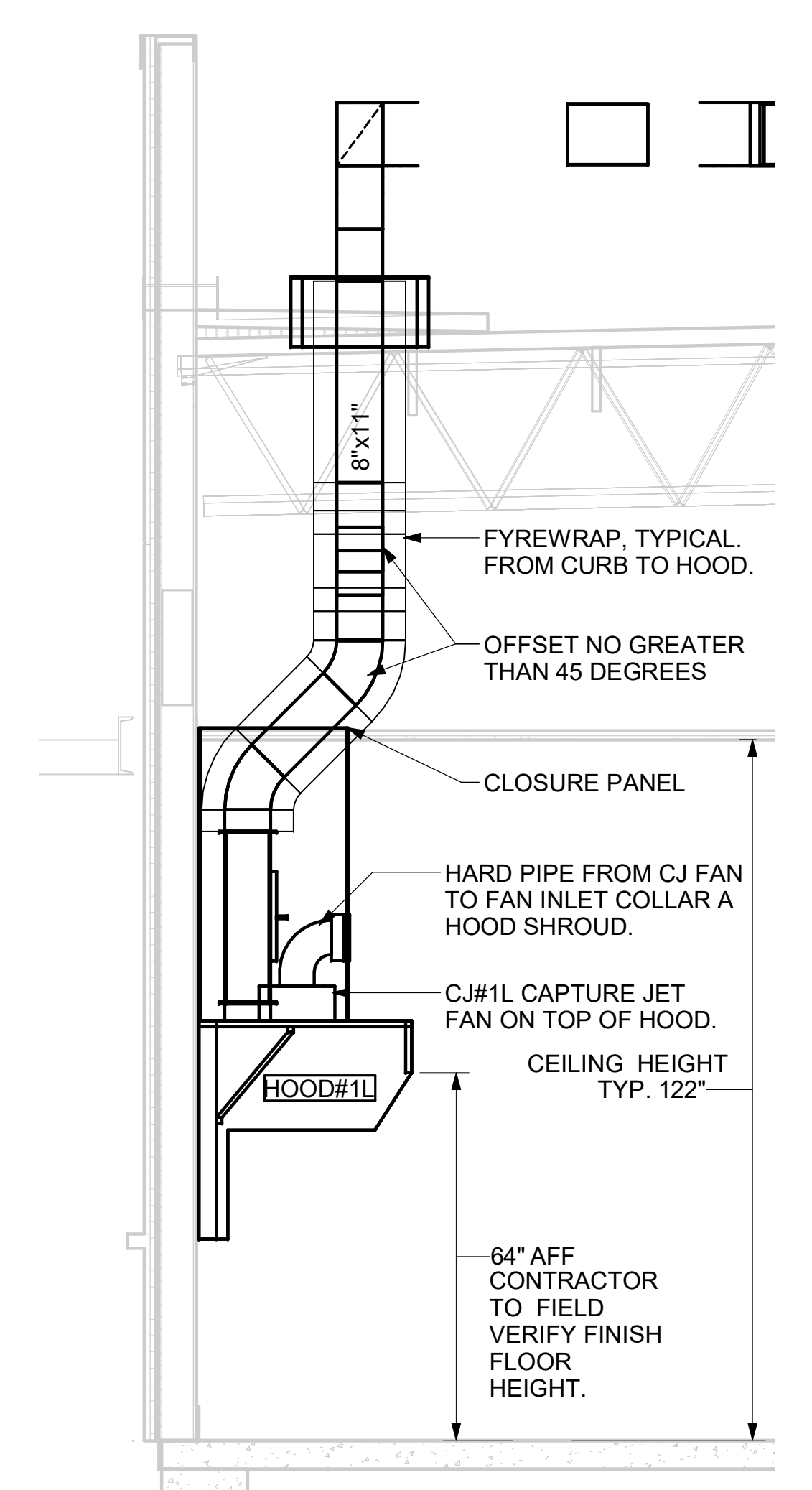


6 HOOD ELEVATION - HOOD#2 - FRONT NOT TO SCALE

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



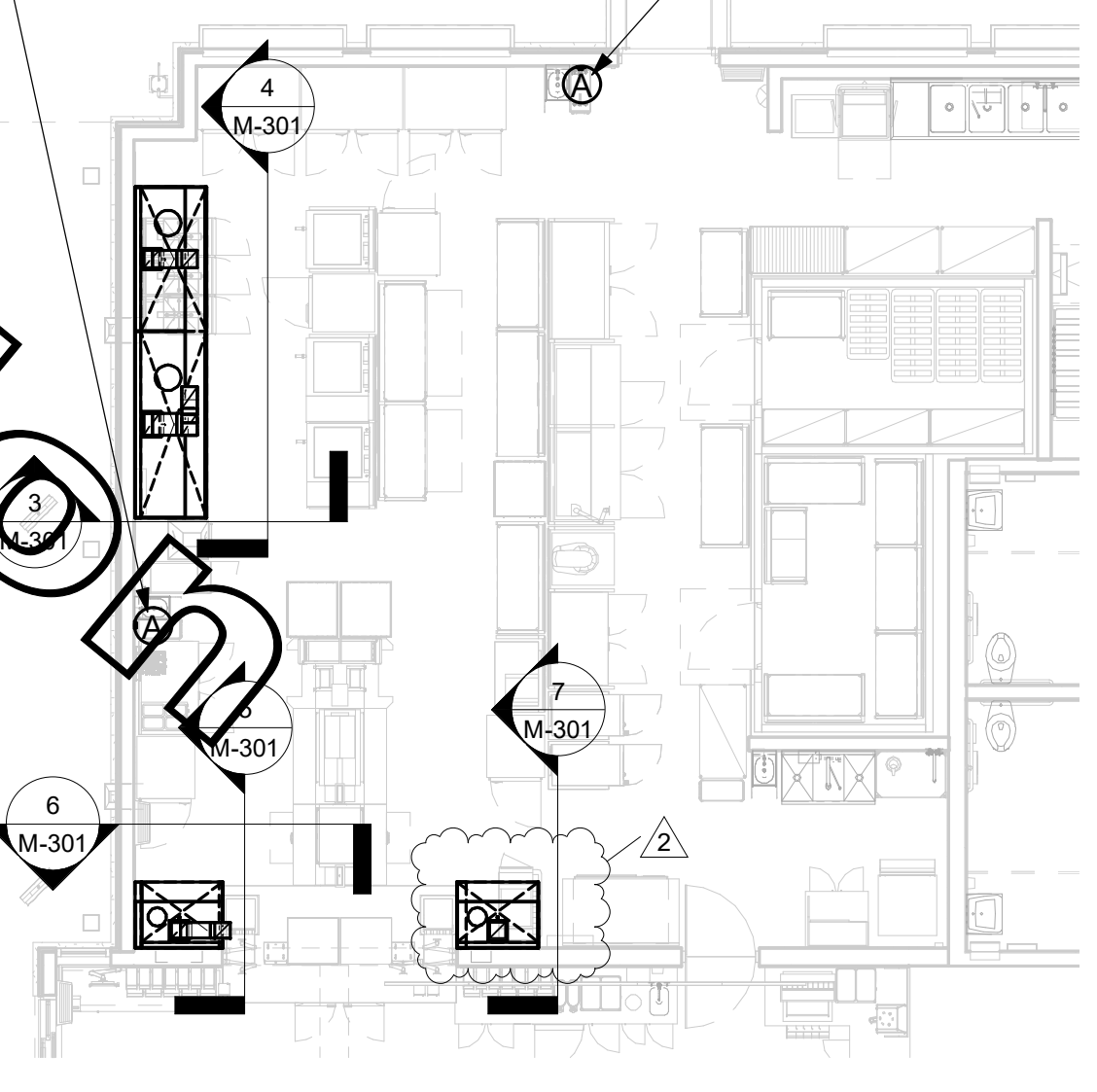
4 HOOD ELEVATION - HOOD#1 - FRONT NONE



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

NOTE: SEE ARCHITECTURAL PLANS FOR HOOD LOCATIONS.

ANSUL PULL STATION SERVING BOTH HOOD#2 AND HOOD#3 ADJACENT TO HANDSINK. LOCATE ANSUL PULL STATION BETWEEN 42" AND 48" AFF. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT ELEVATIONS. J-BOX AND CONDUIT ARE BY ELECTRICAL. PROVIDE RED BAKELITE LABEL WITH 1/4" HIGH WHITE LETTERS INDICATING THE HOODS SERVED, I.E.: "PASS THRU HOODS".



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



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 FLORIDA LICENSE # 53568



02/23/22

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 Miami Gardens  
 5870 NW 183rd Street  
 Hialeah, FL 33015

**FSR#04690**  
 BUILDING TYPE / SIZE: P13 SE LRG  
 RELEASE: v2.20.08

REVISION SCHEDULE		
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SHEET HOOD DETAILS AND SCHEDULES

SHEET NUMBER **M-301**

**ELECTRIC PACKAGED ROOFTOP UNIT SCHEDULE**

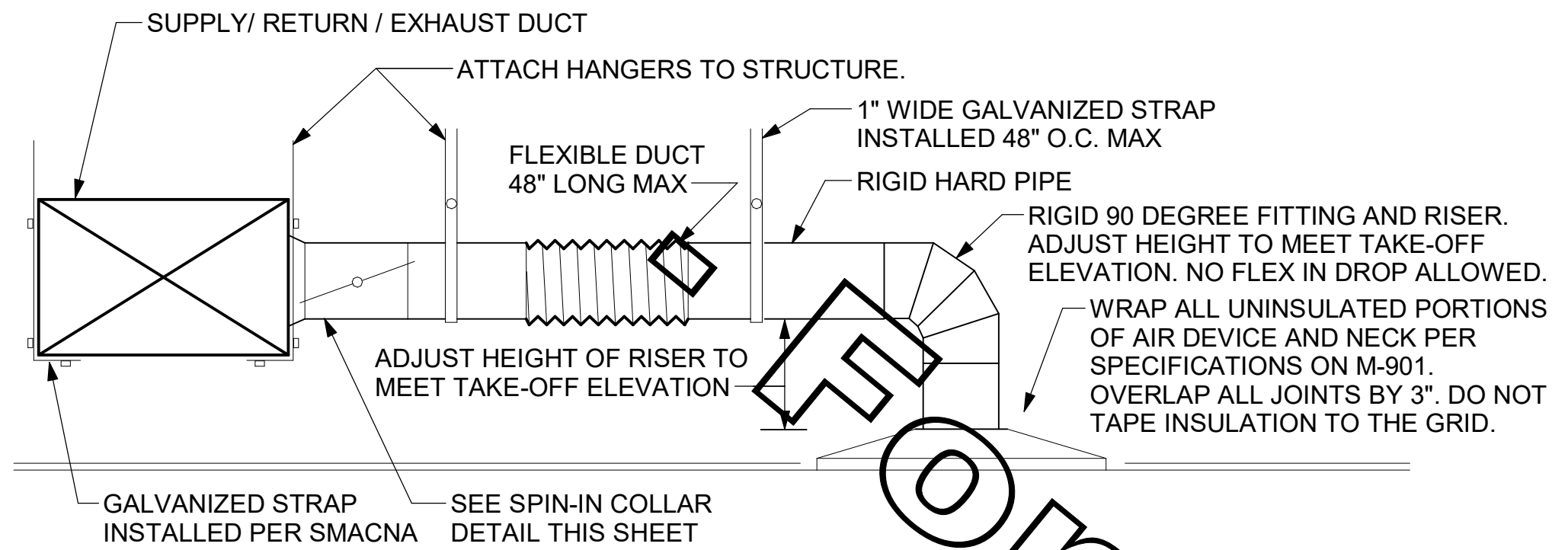
MARK	TOTAL COOLING MBH	SENSIBLE COOLING MBH	SEER/EER	HEATING CAPACITY (KW)	SUPPLY O.A.	HP	ESP	MODEL R-410A	MFR	REMARKS
AC#1	288.4	219.2	10.5	60	9500	1800	10	0.80	LCH300S4M	LENNOX 1,2,3,4,6,7,8,9,10,11,12,13,14,15
AC#2	208.9	160.9	12.0	45	5250	1275	5	0.65	LCH210H4M	LENNOX 1,2,3,5,6,7,8,9,10,11,12,13,14,15
AC#3	182.1	138.4	12.0	45	4800	1300	3	0.65	LCH180H4M	LENNOX 1,2,3,4,6,7,8,9,10,11,12,13,14,15

NOTES:

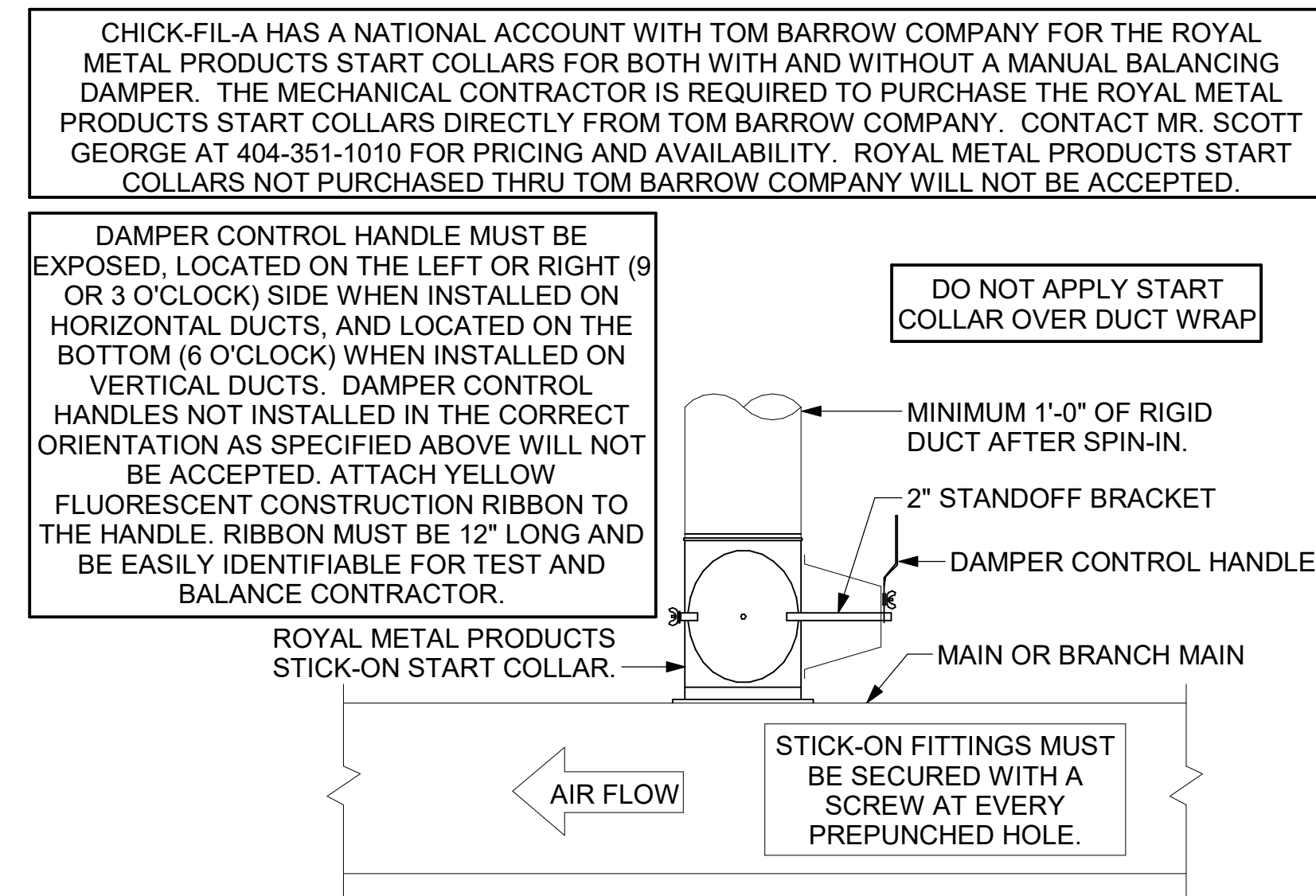
- COOLING CAPACITIES ARE GROSS, BASED ON ENTERING: 80FDB/67FWB, OUTDOOR: 95FDB, AND 400 CFM PER TON.
- CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR EQUIPMENT WITH LENNOX CORPORATION. CONTACT LENNOX NATIONAL ACCOUNTS AT 800-367-6285 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY.
- MECHANICAL CONTRACTOR TO VERIFY LENNOX SUBMITTAL WITH CONSTRUCTION DOCUMENTS.

REMARKS:

- PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST.
- PROVIDE 14" HIGH ROOF CURB. PROVIDE CURBS PLUS RESTRAINT CLIP KIT.
- SEE DETAIL 2/M-501 FOR SETTING OF PRODIGY M3 BOARD CONTROL PARAMETERS BY MC.
- PROVIDE FACTORY INSTALLED AND UNIT POWERED 115V GFI SERVICE OUTLET.
- PROVIDE FACTORY INSTALLED 115V GFI SERVICE OUTLET.
- PROVIDE FACTORY INSTALLED SUPPLY AND RETURN SIDE SMOKE DETECTORS.
- ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL DISCONNECT. COORDINATE WITH EC.
- PROVIDE 2" MERV 8 THROW AWAY FILTERS.
- PROVIDE HINGE PANELS FOR FILTER ACCESS, FAN MOTOR ACCESS, COMPRESSOR ACCESS AND CONTROL COMPARTMENT ACCESS.
- PROVIDE FACTORY INSTALLED ELECTRIC HEAT. CAPACITY SHOWN IS FOR NOMINAL 208V.
- PROVIDE FACTORY COIL HAIL GUARD, FIELD INSTALLED.
- PROVIDE FACTORY INSTALLED CONDENSATE PAN DRAIN OVERFLOW SWITCH.
- PROVIDE HUMIDITROL OPTION WITH FACTORY WALL MOUNTED HUMIDITY SENSOR.
- PROVIDE FACTORY CONFIGURED PHASE LOSS PROTECTION.
- PROVIDE UNIT WITH MSAV BLOWER.



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



**2 START COLLAR**  
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	1402	0.85	1199	4712	3/4	HOOD#2 & HOOD#3	150 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:

- GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL.
- GREASE EXHAUST FANS TO BE U.L. 762 LISTED.
- 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.

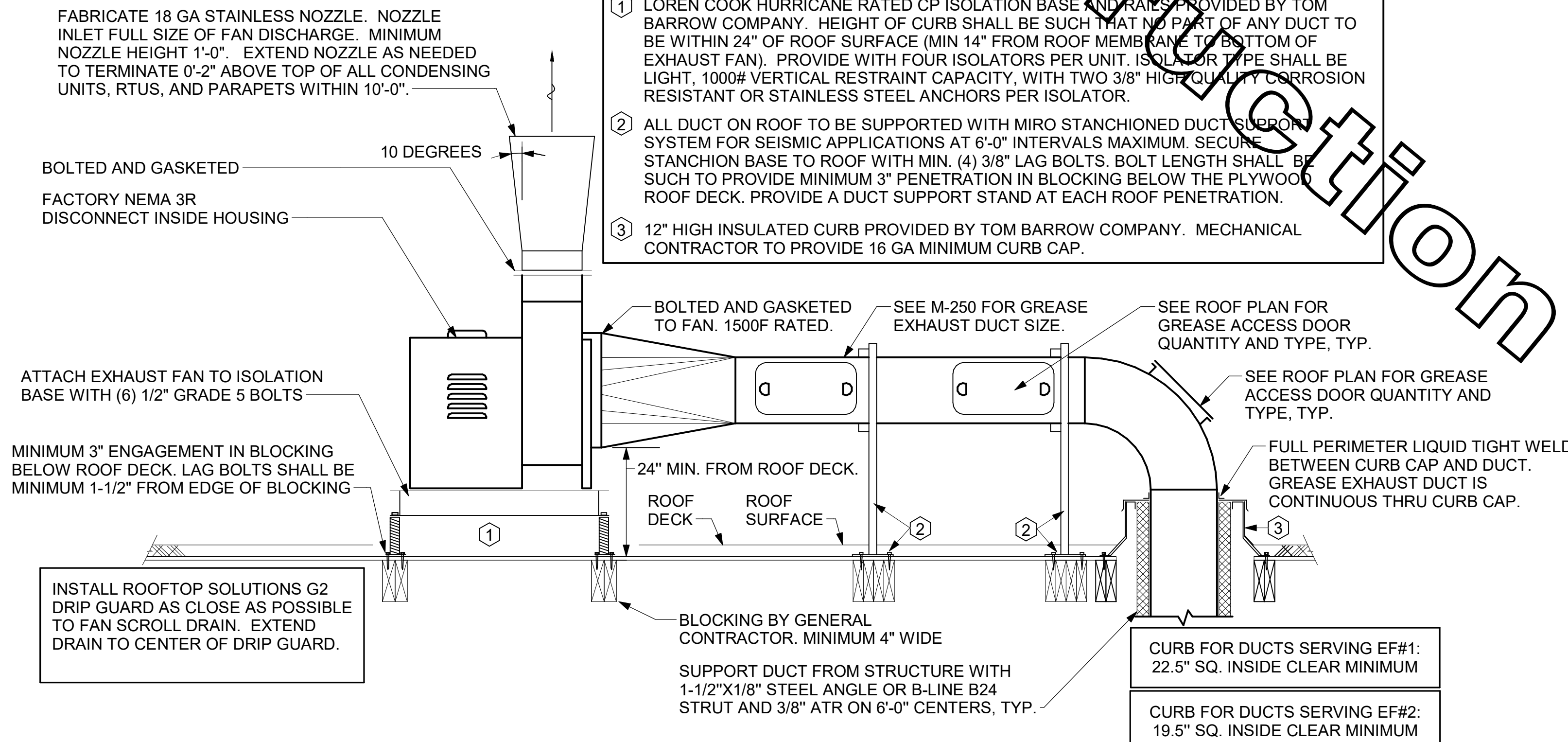
REMARKS:

- UPBLAST, ARRANGEMENT 10, CW ROTATION. SEE PLANS TO CONFIRM CONFIGURATION.
- PROVIDE FACTORY STEEL FAN WHEEL.
- PROVIDE FACTORY INSTALLED, PRE-WIRED, NEMA 3 NON-FUSED DISCONNECT.
- PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE.
- PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MECHANICAL CONTRACTOR TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034.
- PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.
- PROVIDE FACTORY DRAIN CONNECTION.
- PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL.
- PROVIDE FACTORY INSTALLED BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT.
- PROVIDE FACTORY STEEL OUTLET COMPANION FLANGE.
- INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET.
- PROVIDE BIRDSCREEN.
- BACKDRAFT DAMPER IN DUCT BY MECHANICAL CONTRACTOR AS SHOWN ON 4/M401.
- STARTER BY ELECTRICAL CONTRACTOR. INTERLOCK WITH LIGHTS BY ELECTRICAL CONTRACTOR.
- PROVIDE 12" HIGH CURB.
- PROVIDE FACTORY INSTALLED AND WIRED SPEED CONTROLLER.
- UTILITY SET FAN ISOLATION CURB AND ASSOCIATED EXHAUST DUCT CURB PROVIDED BY TOM BARROW COMPANY.

ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS PRIMERIES 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:

- LOREN COOK HURRICANE RATED CP ISOLATION BASE AND RAILS PROVIDED BY TOM BARROW COMPANY. HEIGHT OF CURB SHALL BE SUCH THAT NO PART OF ANY DUCT TO BE WITHIN 24" OF ROOF SURFACE (MIN 14" FROM ROOF MEMBRANE TO BOTTOM OF EXHAUST FAN). PROVIDE WITH FOUR ISOLATORS PER UNIT. ISOLATORS SHALL BE LIGHT, 1000# VERTICAL RESTRAINT CAPACITY, WITH TWO 3/8" HIGH QUALITY CORROSION RESISTANT OR STAINLESS STEEL ANCHORS PER ISOLATOR.
- ALL DUCT ON ROOF TO BE SUPPORTED WITH MIRO STANCHIONED DUCT SUPPORT SYSTEM FOR SEISMIC APPLICATIONS AT 6'-0" INTERVALS MAXIMUM. SECURE STANCHION BASE TO ROOF WITH MIN. (4) 3/8" LAG BOLTS. BOLT LENGTH SHALL BE SUCH TO PROVIDE MINIMUM 3" PENETRATION IN BLOCKING BELOW THE PLYWOOD ROOF DECK. 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.



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

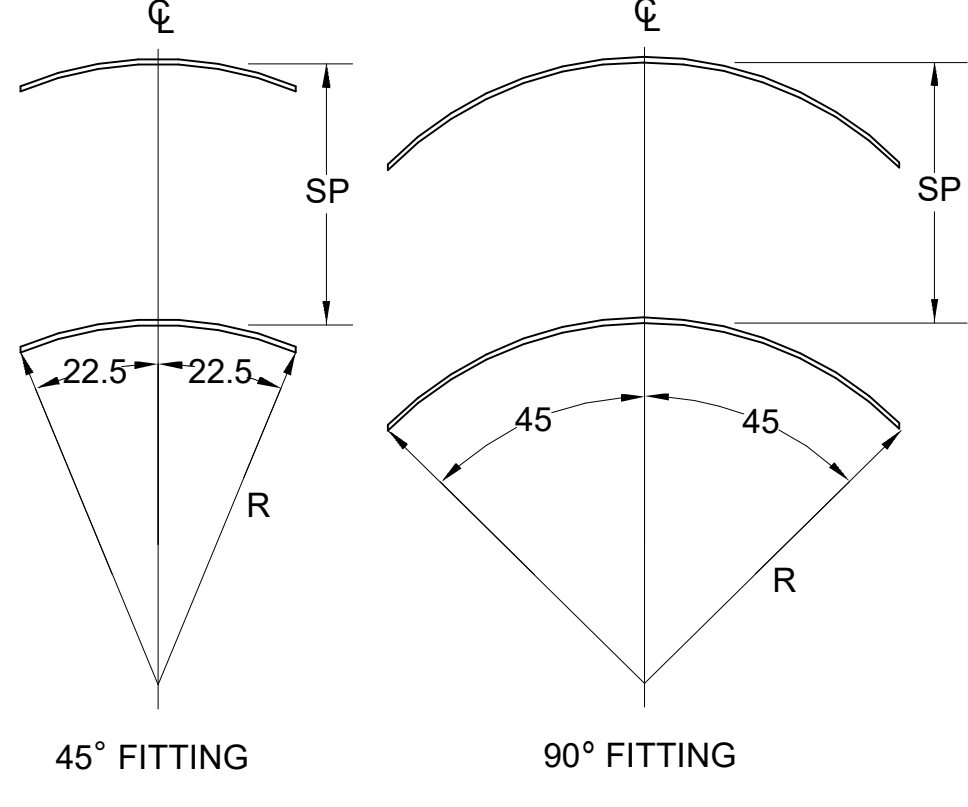
SECURE FAN TO CURB WITH HEX WASHER HEAD SELF-DRILLING SCREW (#12 x 2"). THE FASTENERS SHALL BE 2" FROM EACH CORNER OF THE FAN BASE AND THE DISTANCE BETWEEN FASTENERS SHALL BE 4" OR LESS. MINIMUM 5 FASTENERS PER SIDE OF CURB. ALL FASTENERS ARE TO BE HIGH QUALITY CORROSION RESISTANT STEEL OR STAINLESS STEEL.

SECURE CURB TO WOOD ROOF STRUCTURE WITH STEEL LAG BOLTS NOMINAL SIZE OF 5/16" DIA. OR LARGER. WOOD IS TO BE 4" NOMINAL SIZE OR GREATER. THE BOLT SHALL HAVE A MINIMUM OF 3" THREAD ENGAGEMENT AND SHALL BE AT LEAST 1-1/2" FROM MATERIAL EDGE. MINIMUM 5 FASTENERS EACH SIDE OF CURB.

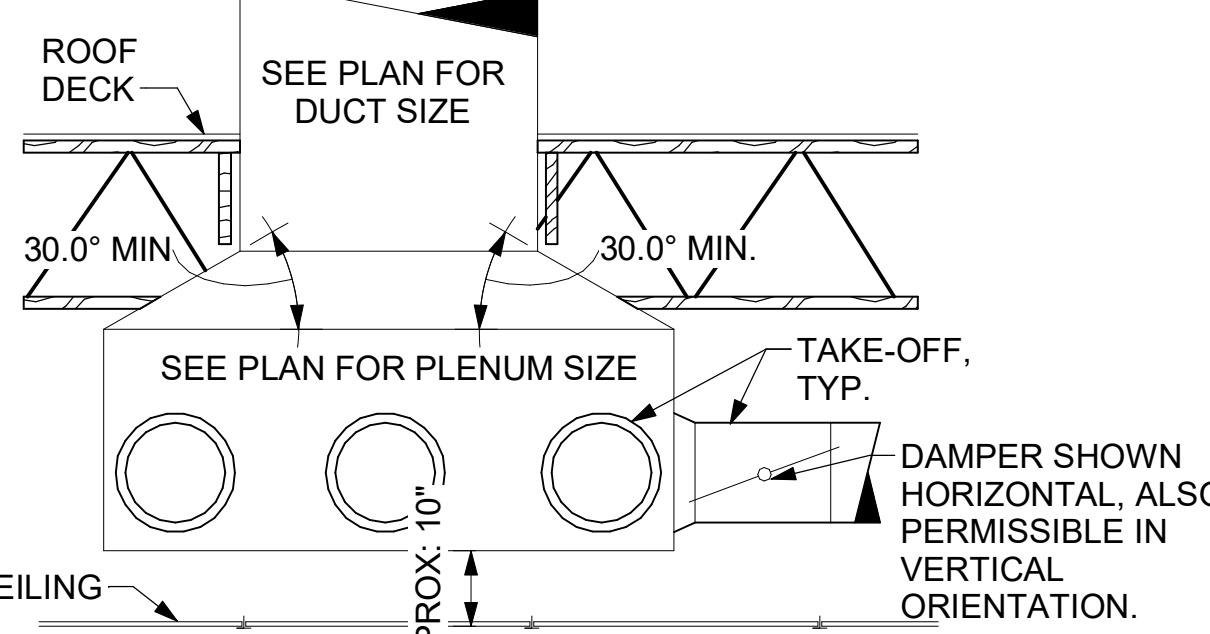
TURNING VANE SCHEDULE

R	SP	GA
2"	1.5"	24

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



**5 TURNING VANES**  
1/4" = 1'-0"



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

**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	1,2,3,5
AD#2	3867	4220 FPM	N/A	3/4 HP	REAR DOOR	RBT-1-48	Powered Aire	4

NOTES:

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

REMARKS:

- FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER ABOVE CEILING.
- FACTORY WIRED DISCONNECT.
- FACTORY PROVIDED, FIELD INSTALLED BY MC. REMOTE WALL SWITCHES FOR HEATING ON/OFF AND FAN ON/AUTO SWITCH. SEE DETAIL, AIR CURTAIN WIRING DIAGRAM, SHEET M-501.
- FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.
- PROVIDE WITH CFA ACCESSORY DIVERTER BOX.

**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	VARIES	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
D	PRICE MODEL 22 DOUBLE DEFLECTION ALUMINUM SIDEWALL SUPPLY GRILLE, FRONT BLADE PARALLEL TO SHORT SIDE.	MECH ROOM	8"x6"	10"x8"	SURFACE	1
F	PRICE MODEL 80 EGGRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CORE, FACTORY FLAT BLACK BACKPAN AND ROUND NECK.	DINING/ KITCHEN	VARIES	24"x24"	LAY-IN	1,7
G	PRICE MODEL 21 ALUMINUM SIDEWALL RETURN GRILLE, FRONT BLADE PARALLEL TO LONG SIDE.	MECH ROOM	8"x6"	10"x8"	SURFACE	1
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 ADRR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS/ ENTRY	14"x14"	16"x16"	SURFACE	1,4,5,6

NOTES:

- 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.

REMARKS:

- STANDARD OFF WHITE FINISH.
- PROVIDE MODEL VCS3 NECK DAMPER.
- SEE DRAWING M-201 FOR THROW.
- PROVIDE MODEL VORT NECK DAMPER ON GRILLES IN RESTROOMS SERVING EXHAUST FAN.
- PROVIDE BACKPAN, MC TO SEAL CURB WITH MASTIC AND INSULATE EXTERNALLY.
- FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1/M-401.
- FACTORY INSULATED R-6 BACKPAN.

**RECIRCULATING FAN SCHEDULE**

Mark	Fan CFM	Fan ESP	Fan RPM	Fan HP	Area Served	Model	Manufacturer	Fan Remarks
RF-1	450	0.30	1144	58 W	DTT CLOSET	GCVF-500	LOREN COOK	1,2,3,4

REMARKS:

- PROVIDE NEMA 1 PREWIRED DISCONNECT.
- INTEGRAL POTENTIOMETER ON FAN MOTOR. SET TO FULL SPEED.
- PROVIDE AIR BALANCE KIT AND SECURE TO FAN.
- PROVIDE THERMOSTAT / TEMPERATURE CONTROLLER. SET TO 76°F.

BIM 360://FL\_04690\_Miami Gardens\_2021.1\_FSR04690\_Miami Gardens\_MEC.rvt  
2/22/2022 10:01:14 AM  
30-SE-04690-M-401-HVAC DETAILS AND SCHEDULES



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02/23/22

**CHICK-FIL-A**  
Miami Gardens  
5870 NW 183rd Street  
Hialeah, FL 33015

**FSR#04690**  
BUILDING TYPE / SIZE: P13 SE LRG  
RELEASE: v2.20.08

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10/15/2021	Plan Review Comments
2	01/21/2022	Bid Set

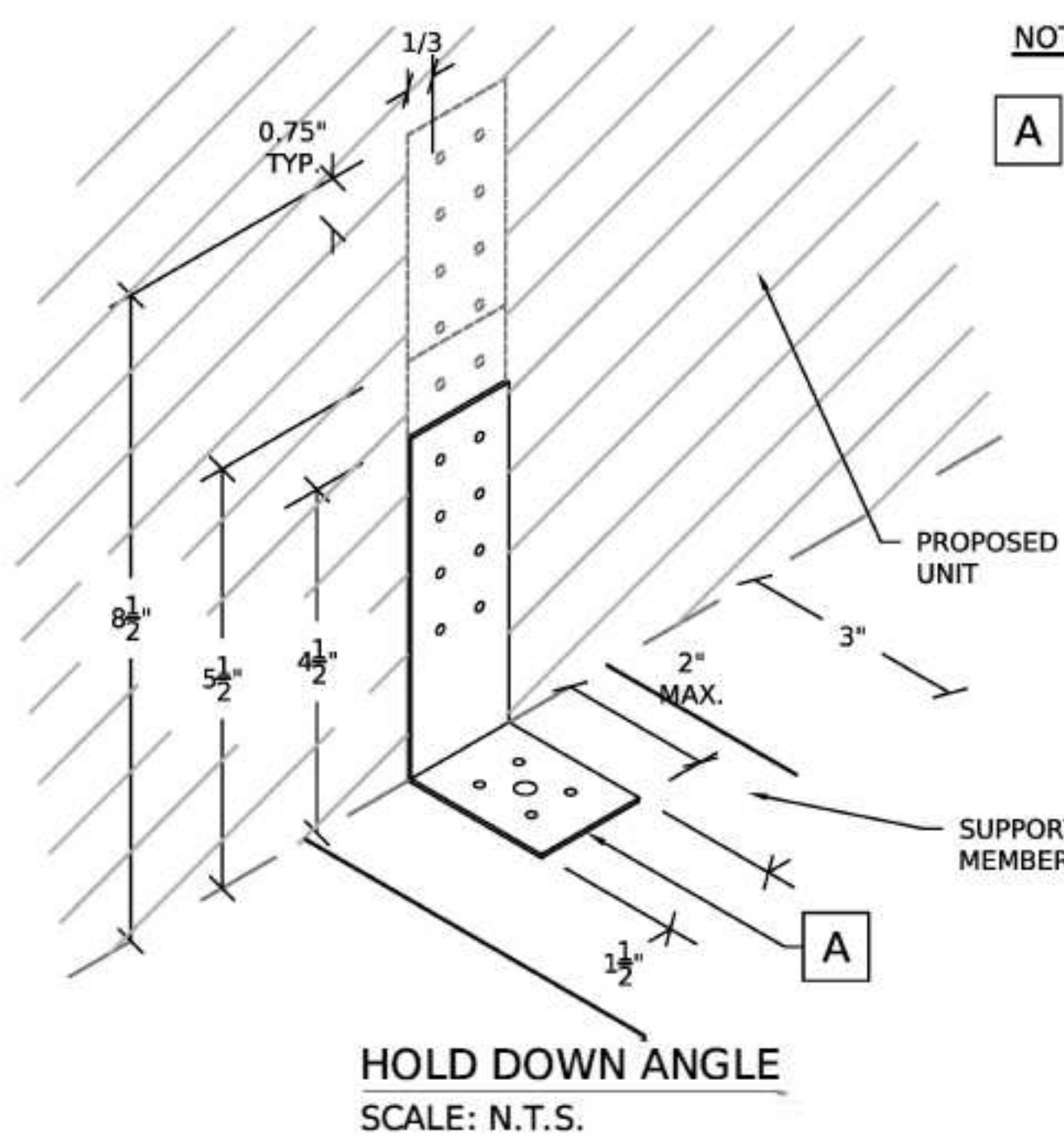
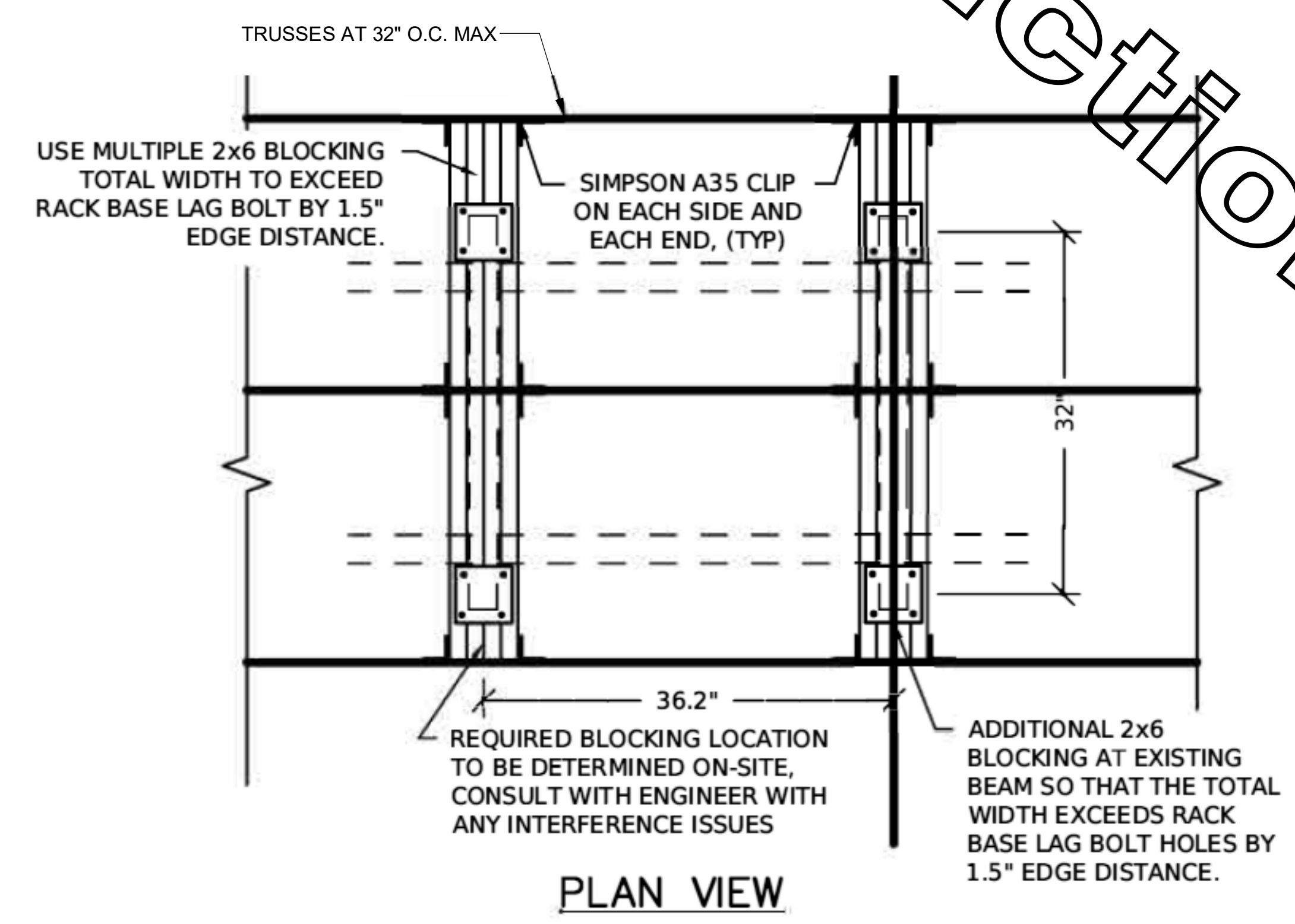
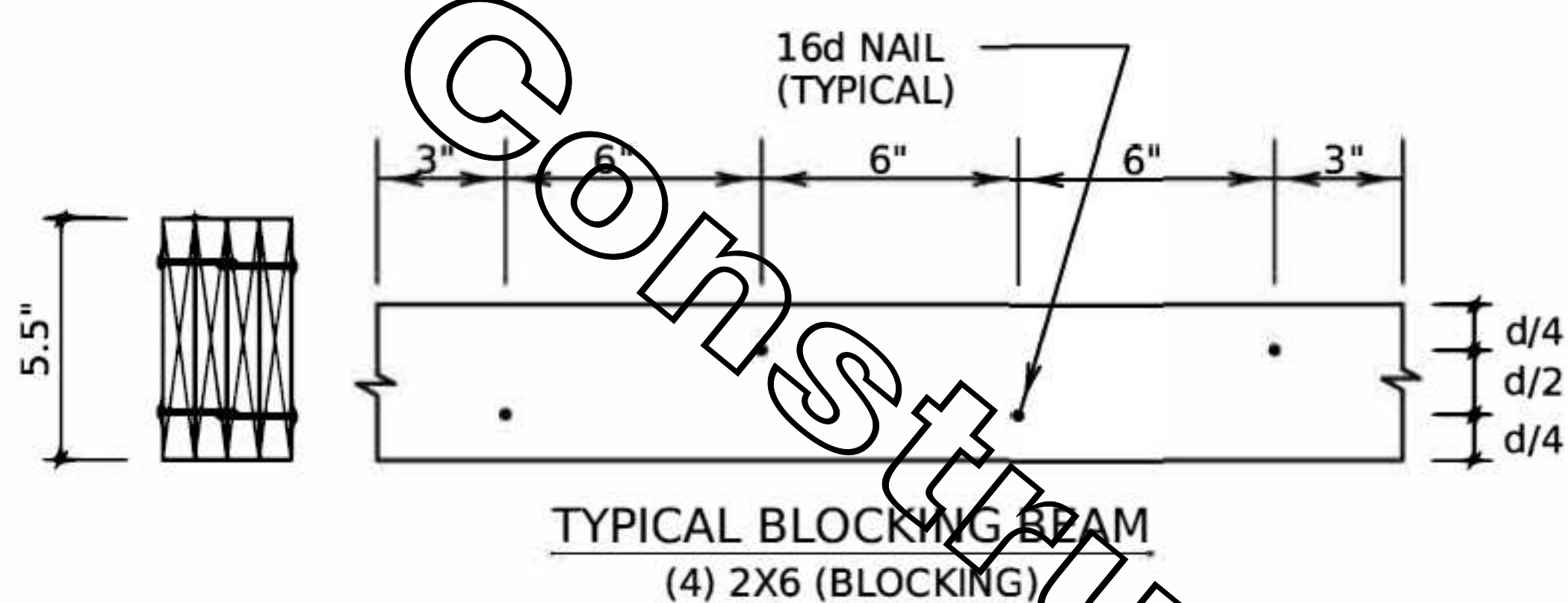
CONSTRUCTION

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DATE 08/24/2021  
DRAWN BY BLM  
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SHEET HVAC DETAILS AND SCHEDULES  
SHEET NUMBER

**M-401**

FOR CONSTRUCTION

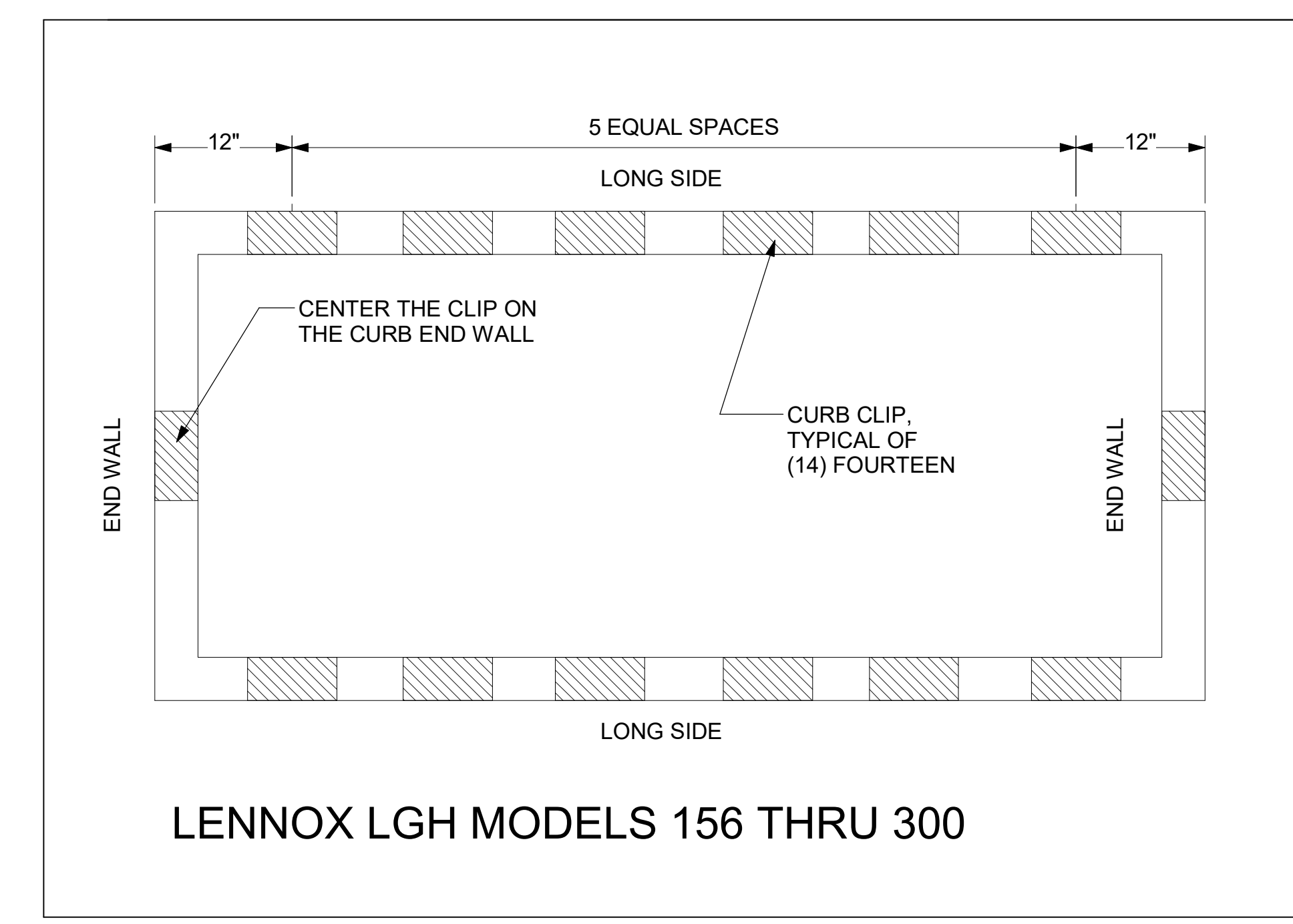
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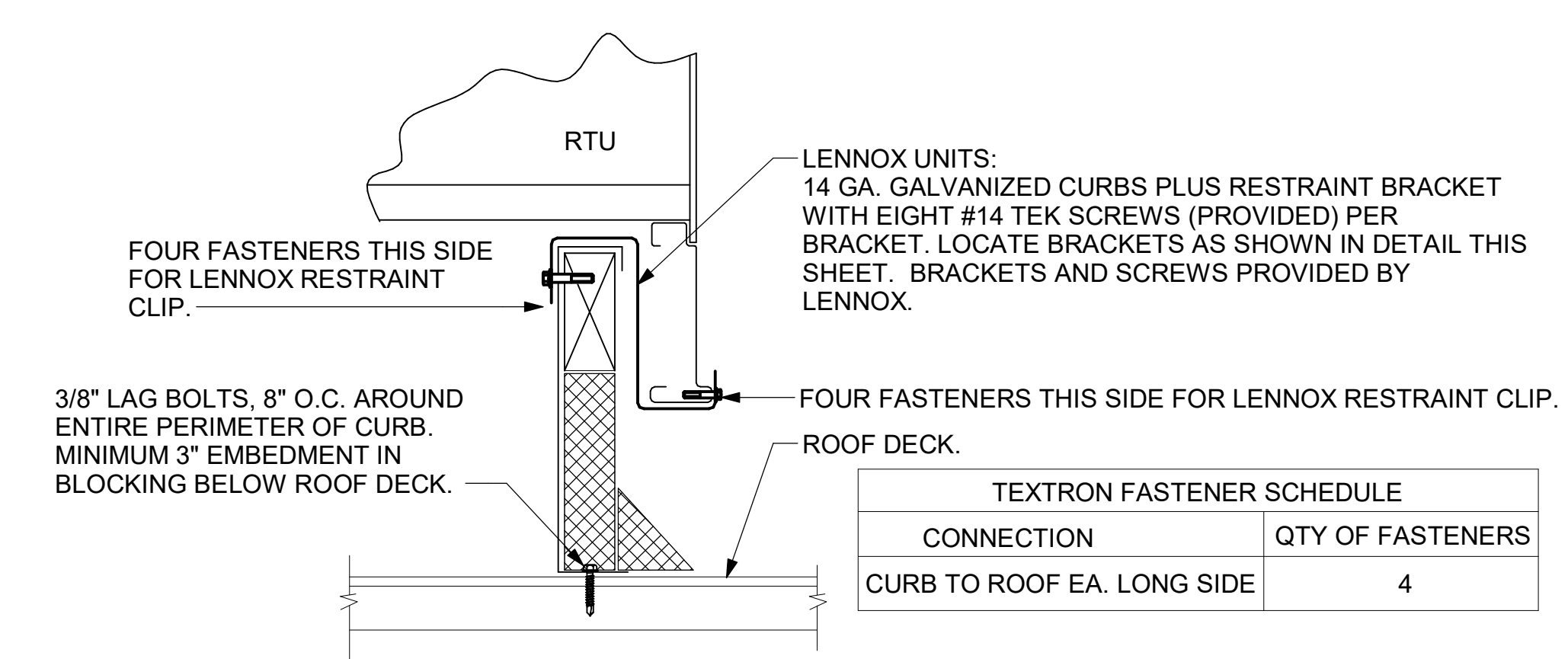
**NOTE:**

**A** 1", 1.5" or 2" WIDE x 4.5", 5.5", 8" or 10" x 14 GA. OR 16 GA. GALVANIZED OR (16 OR 18 GA.) STAINLESS STEEL HOLD DOWN CLIP. USE (4)-#10 SMS INTO A/C UNIT FOR 4.5" AND 5.5" CLIP AND (2)-#10 SMS INTO 8", 8.5" OR 10" CLIP. IT IS RECOMMENDED TO USE 1/4" CARBON STEEL SIMPSON STRONG BOLT, OR POWERS WEDGE BOLT WITH 1 3/4" EMBEDMENT OR EQUAL TAPCON, WITH 2.5" EDGE DISTANCE FROM EDGE OF PAD. BASE PROVIDER TO VERIFY BASE AND CONNECTION. UNIT SHALL HAVE A MINIMUM OF 20 GA. ENCLOSURE FOR HOLD DOWN ANGLE.

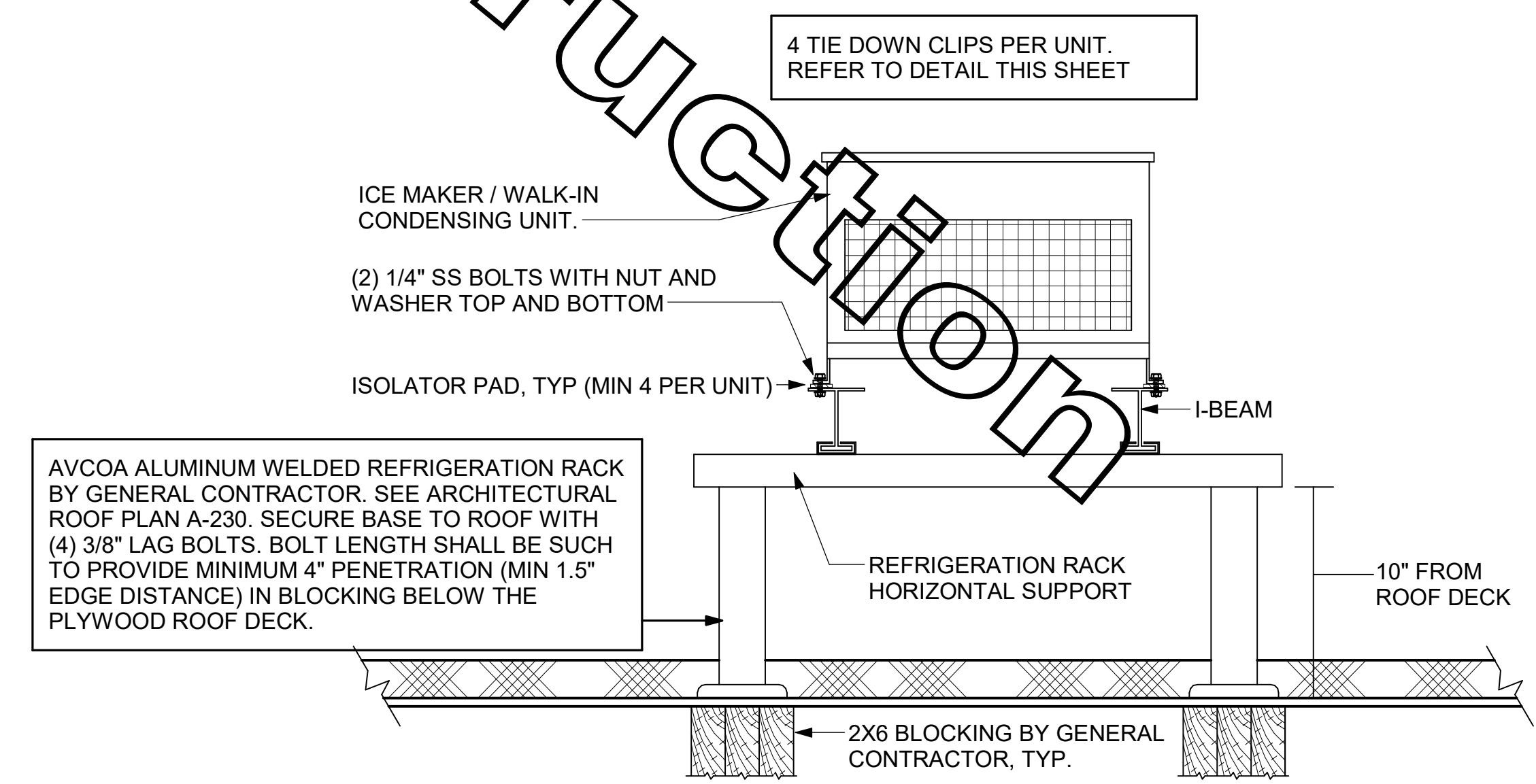
**5 CONDENSER STAND DETAILS**  
NOT TO SCALE



**4 RTU CURB CLIP INSTALLATION**  
NOT TO SCALE



**1 CONDENSING UNIT TIE DOWN DETAIL**  
NTS



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02/23/22

**CHICK-FIL-A**  
Miami Gardens  
5870 NW 183rd Street  
Hialeah, FL 33015

**FSR#04690**  
BUILDING TYPE / SIZE: P13 SE LRG  
RELEASE: v2.20.08

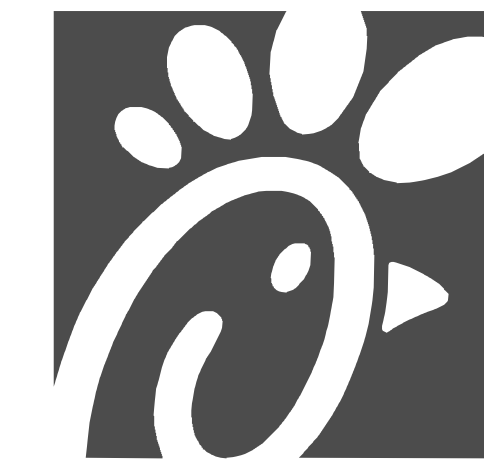
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NO.	DATE	DESCRIPTION
2	01/21/2022	Bid Set

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DATE 08/24/2021  
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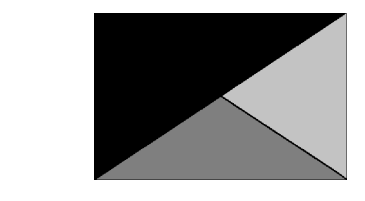
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**SEISMIC DETAILS**  
SHEET NUMBER

**M-402**



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02/23/22

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Miami Gardens  
5870 NW 183rd Street  
Hialeah, FL 33015

**FSR#04690**  
BUILDING TYPE / SIZE: P13 SE LRG  
RELEASE: v2.20.08

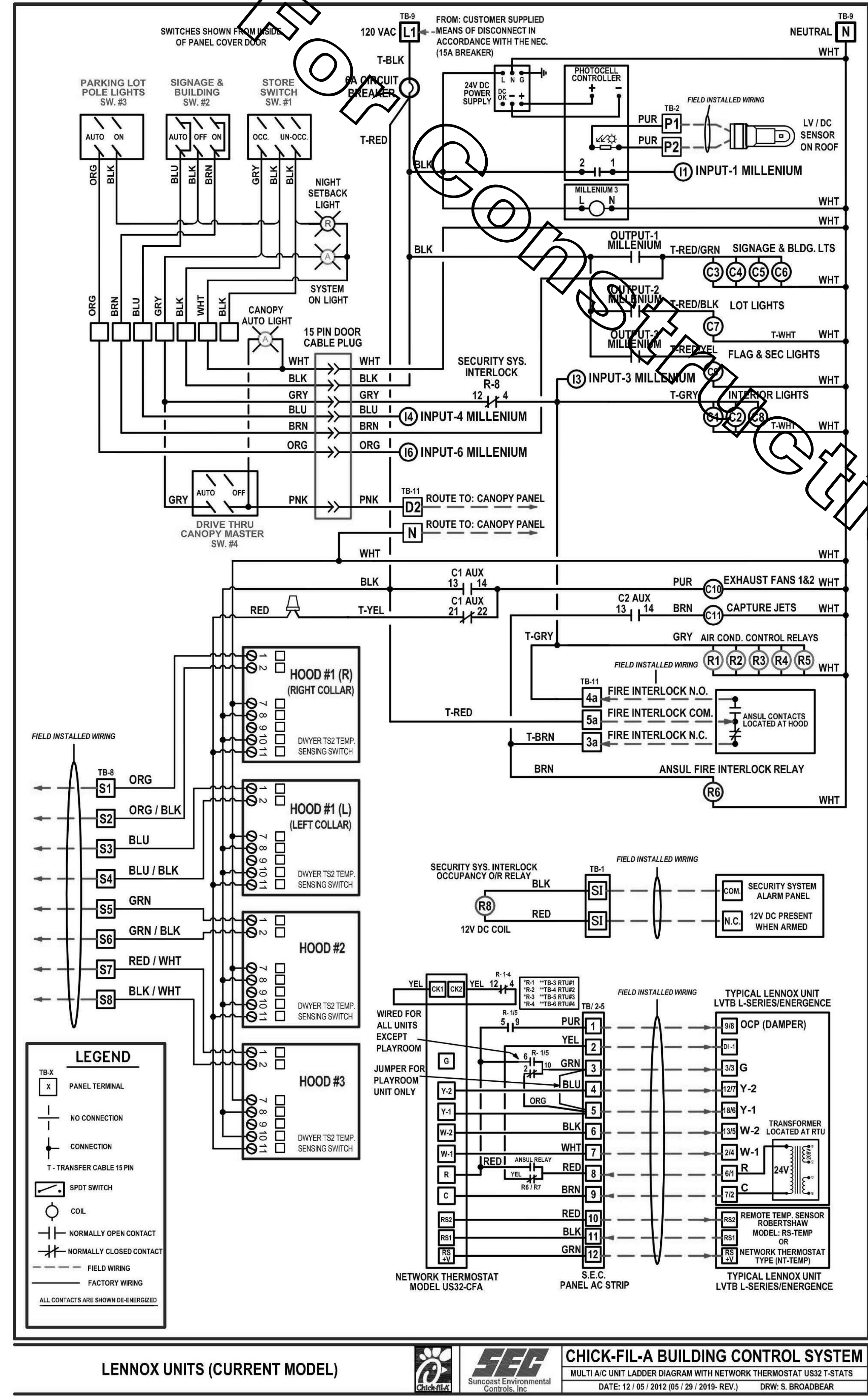
REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

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PRINTED FOR	CONSTRUCTION
DATE	08/24/2021
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SHEET STORE CONTROL PANEL DETAILS

**M-502**



1 T500 CONTROL PANEL WIRING DIAGRAM  
NTS

### MORNING OPENING SEQUENCE OF OPERATION

- WHEN THE STORE OCCUPANCY SWITCH (SW-1) IS PLACED IN THE OCCUPIED POSITION:
  - THE AIR CONDITIONING STATUS "SYSTEM ON" LIGHT WILL COME ON INDICATING THE STORE HAS BEEN PLACED IN THE OCCUPIED MODE.
  - THE THERMOSTATS WILL CHANGE TO THE PRESET "OCCUPIED" TEMPERATURE SETPOINTS.
  - THE EVAPORATOR FANS FOR ALL A/C UNITS EXCEPT THE PLAYROOM UNIT SHALL RUN CONTINUOUS ON OCCUPIED MODE (THE PLAYROOMS EVAPORATOR FAN WILL ONLY RUN WHEN THE THERMOSTAT CALLS FOR HEAT OR COOL).
  - THE A/C UNITS DAMPERS WILL OPEN TO THE PRE-SET POSITIONS.
  - THE COOKING EXHAUST HOODS WILL ENERGIZE.
  - ALL INTERIOR LIGHTS THAT ARE CONTROLLED BY THIS PANEL WILL COME ON.
- SIGNAGE AND BUILDING LIGHT OPERATION:
  - PLACE THE SIGNAGE AND BUILDING LIGHTS SWITCH (SW-2) IN AUTO MODE AT OPENING. THIS ALLOWS THE PHOTOCELL CONTROLLER TO TURN ON THE LIGHTS WHEN IT IS DARK OUTSIDE BUT ONLY WHILE THE STORE OCCUPANCY (SW-1) SWITCH IS IN THE OCCUPIED MODE.
  - PLACING THE BUILDING LIGHTS SWITCH (SW-2) IN THE OVERRIDE (ON) OR (OFF) POSITION WILL OVERRIDE THE EXTERIOR SIGNAGE AND BUILDING LIGHTS ON OR OFF.
- PARKING LOT LIGHT SWITCH OPERATION:
  - LEAVING THE PARKING LOT LIGHT SWITCH (SW-3) IN AUTO MODE ALLOWS THE PHOTOCELL CONTROLLER TO TURN ON THE LIGHTS WHEN IT IS DARK OUTSIDE IF THE STORE IS IN THE "SYSTEM ON" MODE. LOT LIGHTS WILL ENERGIZE APPROXIMATELY 2 MINUTES AFTER THE BUILDING LIGHTS.
  - FOR EMPLOYEE SAFETY THE FACTORY PROGRAMMED MILLENIUM PLC CONTROLLER SHALL OVERRIDE THE PARKING LOT LIGHTS ON FROM 5AM UNTIL SUNRISE MONDAY THROUGH SATURDAY.
  - PLACING THE PARKING LOT SWITCH (SW-3) IN THE OVERRIDE (ON) POSITION WILL OVERRIDE THE PARKING LOT LIGHTS. THIS SHOULD ONLY BE NECESSARY DURING MAINTENANCE (CHECKING BULBS).

### EVENING CLOSING SEQUENCE OF OPERATION

- SIGNAGE AND BUILDING LIGHT OPERATION:
  - AT CLOSE OF BUSINESS, PLACE THE SIGNAGE AND BUILDING LIGHTS SWITCH (SW-2) INTO THE OFF POSITION. THIS TURNS OFF THE BUILDING AND SIGN LIGHTS INDICATING TO CUSTOMERS THAT THE STORE IS NOW CLOSED.
- WHEN THE STORE OCCUPANCY SWITCH (SW-1) IS PLACED IN THE UN-OCCUPIED POSITION:
  - THE AIR CONDITIONING STATUS "NIGHT SETBACK" LIGHT SHALL COME ON INDICATING THE STORE HAS BEEN PLACED INTO THE UN-OCCUPIED MODE.
  - THE THERMOSTATS SHALL CHANGE TO THE PRESET "NIGHT SETBACK" SETPOINTS.
  - THE EVAPORATOR FANS FOR ALL THE A/C UNITS WILL RUN ONLY WHEN CALLED FOR IN HEAT OR COOL.
  - THE A/C UNITS DAMPERS WILL MOVE TO THE CLOSED POSITION.
  - THE COOKING EXHAUST HOODS SHALL BECOME DE-ENERGIZED.
  - ALL INTERIOR LIGHTS THAT ARE CONTROLLED BY THIS PANEL WILL TURN OFF.
  - THE PARKING LOT LIGHTS SHALL REMAIN ON FOR 15 MINUTES BEFORE SHUTTING OFF ALLOWING THE EMPLOYEES TO SAFELY EXIT THE BUILDING AND LEAVE THE PREMISES.

### FIRE INTERLOCK FUNCTION

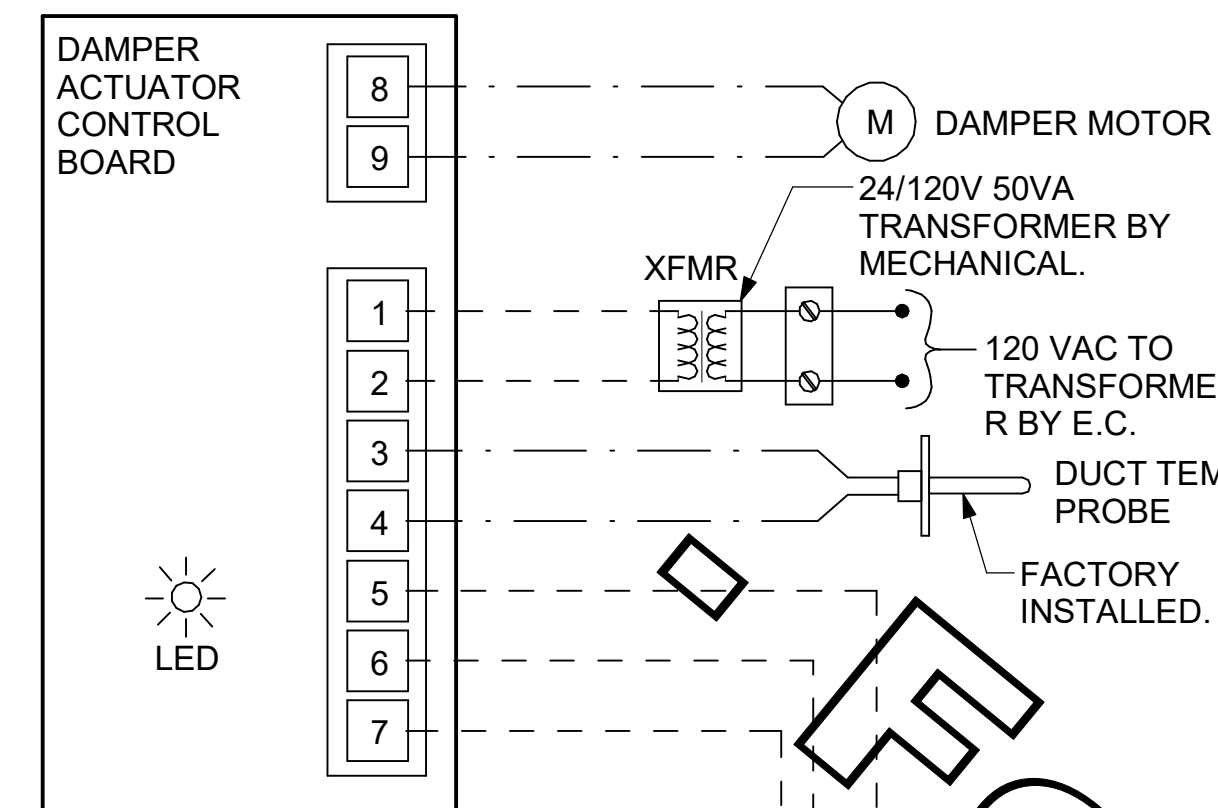
- IN THE EVENT OF FIRE UNDER THE COOKING HOOD:
  - EXHAUST FANS WILL RUN TO DRAW SMOKE OUT OF THE BUILDING.
  - THE INTERIOR LIGHTS THAT ARE CONTROLLED BY THIS PANEL WILL TURN ON.
  - ALL INCOMING AIR WILL SHUT OFF INCLUDING ROOFTOP AIR UNIT FANS AND MAKE UP AIR.
  - ALL EQUIPMENT UNDER THE COOKING EXHAUST HOOD WILL SHUT DOWN WITH A SHUNT TRIP BREAKER.

### ORDER CANOPY SEQUENCE OF OPERATION

- SET CANOPY SW. TO "AUTO" POSITION WHEN CANOPY OPERATION IS DESIRED. WHEN SET TO "AUTO":
  - INFRARED HEATERS ARE ENABLED.
  - COOLING FANS ARE ENABLED.
- SET CANOPY SW. TO "OFF" POSITION WHEN CANOPY OPERATION IS NOT DESIRED. WHEN SET TO "OFF":
  - INFRARED HEATERS ARE DISABLED.
  - COOLING FANS ARE DISABLED.

2 T500 CONTROL PANEL SEQUENCE OF OPERATIONS  
NTS

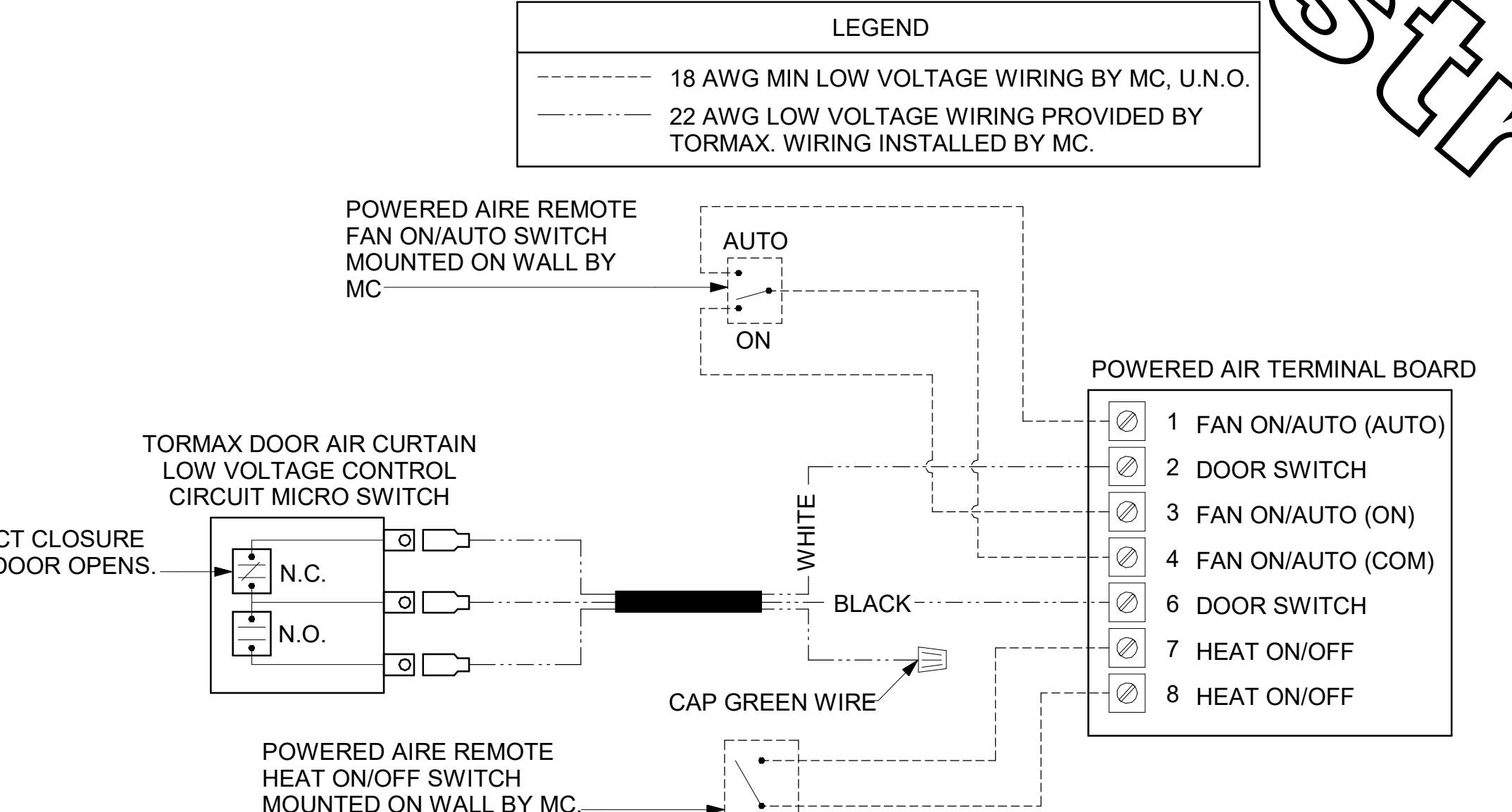
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30-SE-04690-M-502-STORE CONTROL PANEL DETAILS



- NOTES**
- SEE DWG M-201 FOR COMPONENT MODEL NUMBERS AND ORDERING INFORMATION.
  - 120V POWER FOR TRANSFORMER TO BE NON-SWITCHED AND LIVE 24 HOURS EACH DAY.
  - PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM.
  - PROVIDE MYLAR LABEL AT ALL NEW THERMOSTATS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "OFFICE THERMOSTAT". PLACE LABELS ON WALL ADJACENT TO DEVICE. DO NOT APPLY DIRECTLY ON DEVICE.

- SEQUENCE OF OPERATION**
- WHEN THE SUPPLY AIR TEMPERATURE IS LESS THAN 72F THE DAMPER WILL OPEN FULLY ON A RISE IN SPACE TEMPERATURE ABOVE THE SETPOINT.
  - WHEN THE SUPPLY AIR TEMPERATURE IS GREATER THAN 71F THE DAMPER WILL OPEN FULLY ON A FALL IN SPACE TEMPERATURE BELOW THE SETPOINT.

**3 VAV DAMPER AND TSTAT - MGRS OFFICE**  
NOT TO SCALE



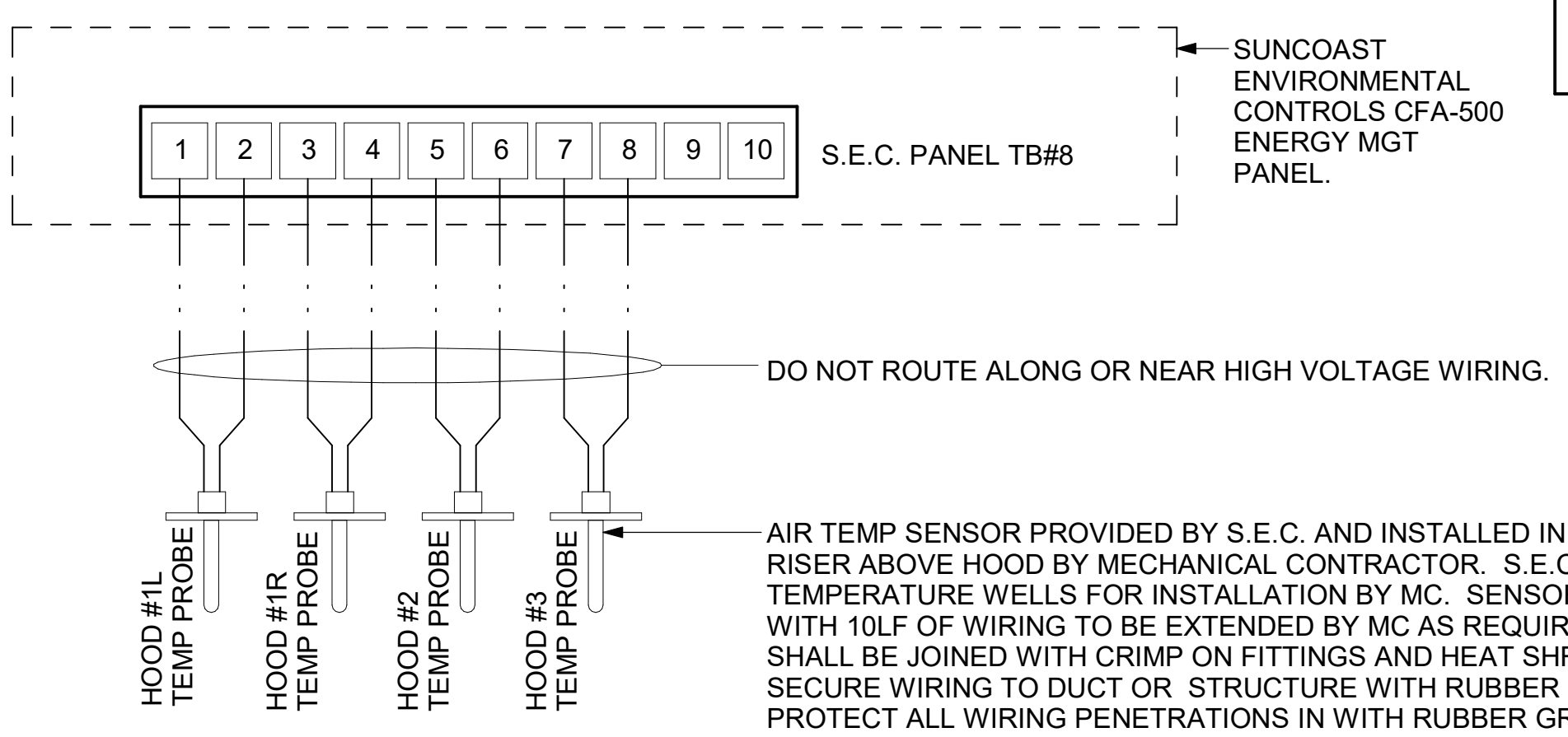
**4 AIR CURTAIN WIRING DIAGRAM**  
NOT TO SCALE

- LEGEND**
- S.E.C. SUNCOAST ENVIRONMENTAL CONTROLS CFA-500 ENERGY MGT PANEL
  - M.C. MECHANICAL CONTRACTOR
  - 18 AWG MIN UNSHIELDED LOW VOLTAGE WIRING BY MC, U.N.O.

- GENERAL NOTES**
- THE SUNCOAST H.E.S. SYSTEM HAS BEEN INTEGRATED INTO THE SUNCOAST ENVIRONMENTAL CONTROLS CFA-500 ENERGY MGT PANEL.

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

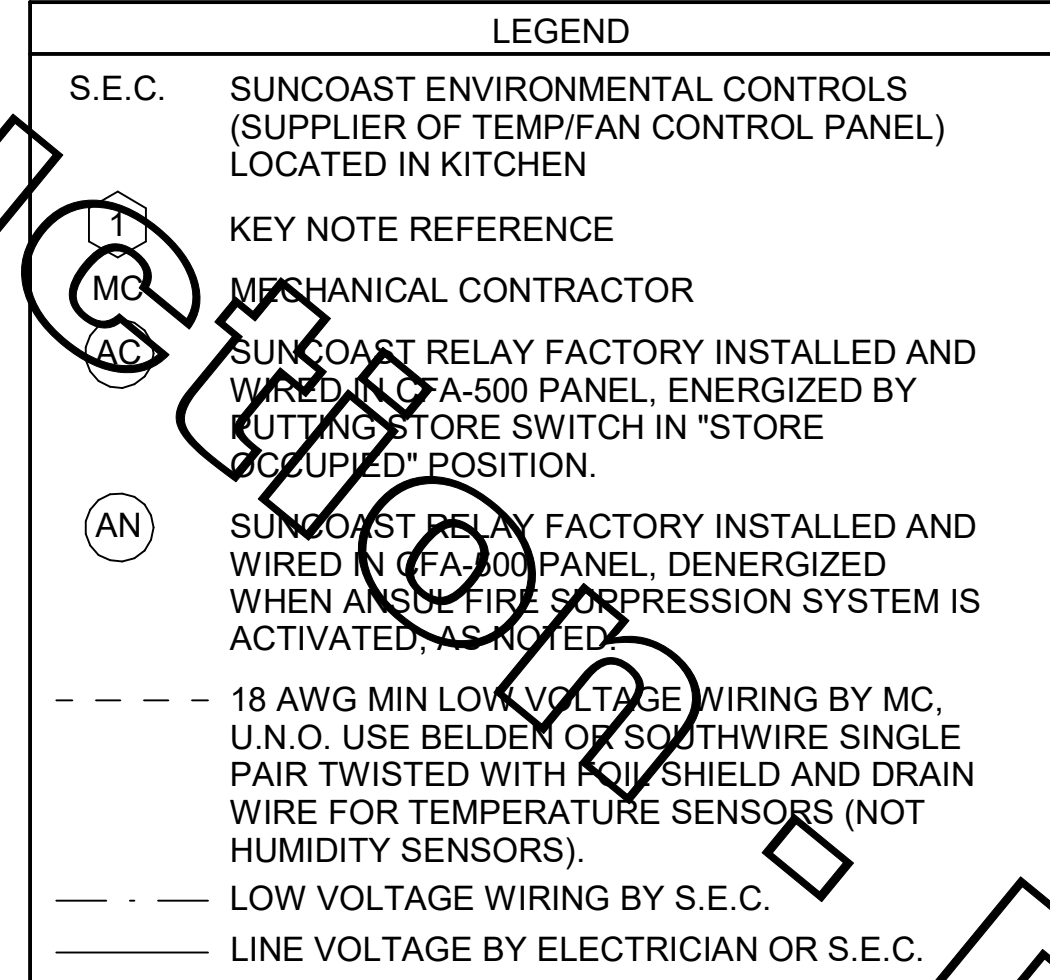
IN THE EVENT THAT ANY COOKING EQUIPMENT ITEM BENEATH ANY HOOD IS STARTED WITHOUT THE 'STORE SWITCH' BEING IN THE 'OCCUPIED' POSITION, THE H.E.S. CONTROLLER WILL SENSE THE HEAT RISE WITHIN THE HOOD CANOPY AND ENERGIZE THE EXHAUST FANS.



**5 HOOD FAN/EQUIPMENT INTERLOCK**  
NOT TO SCALE

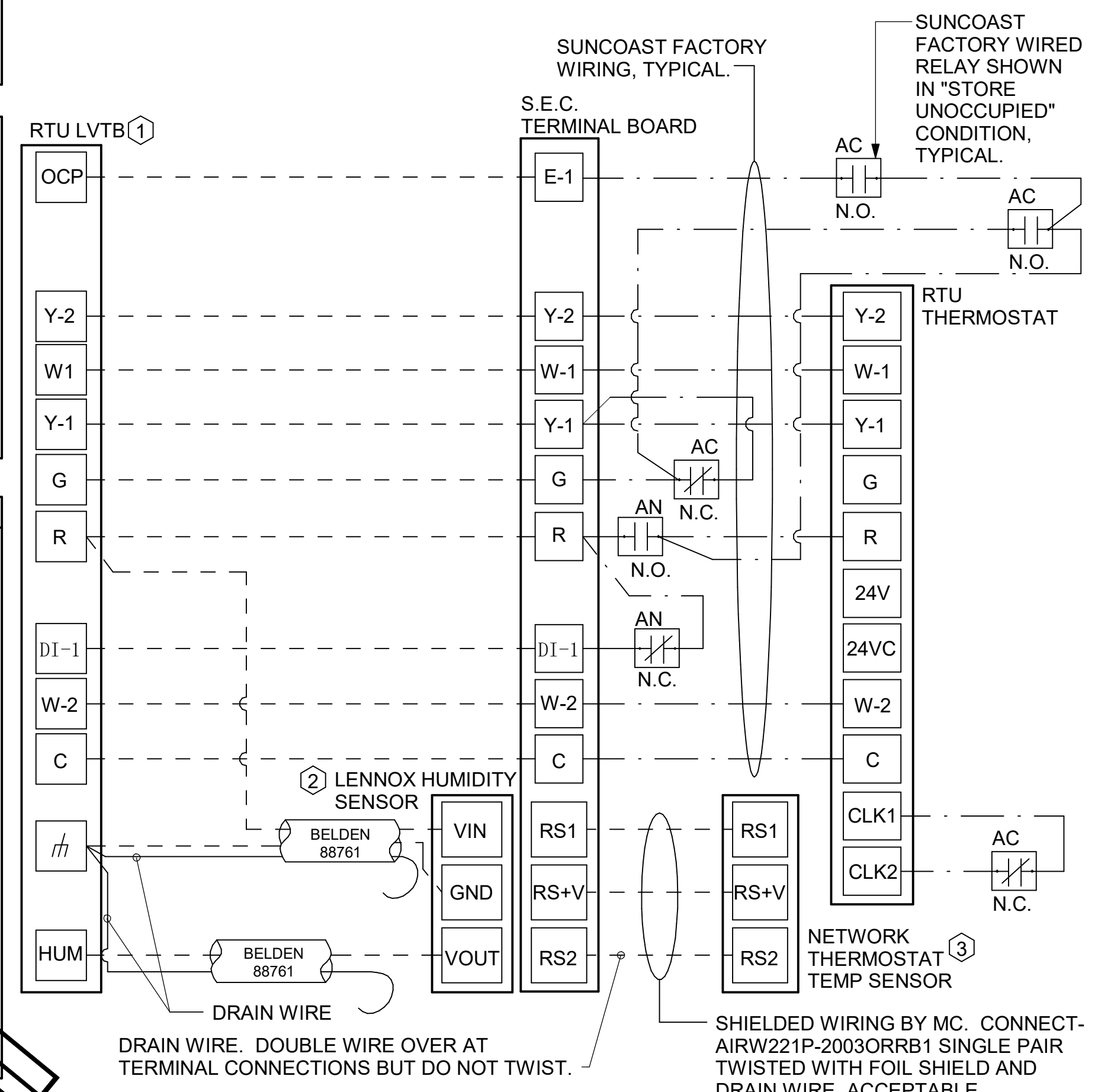
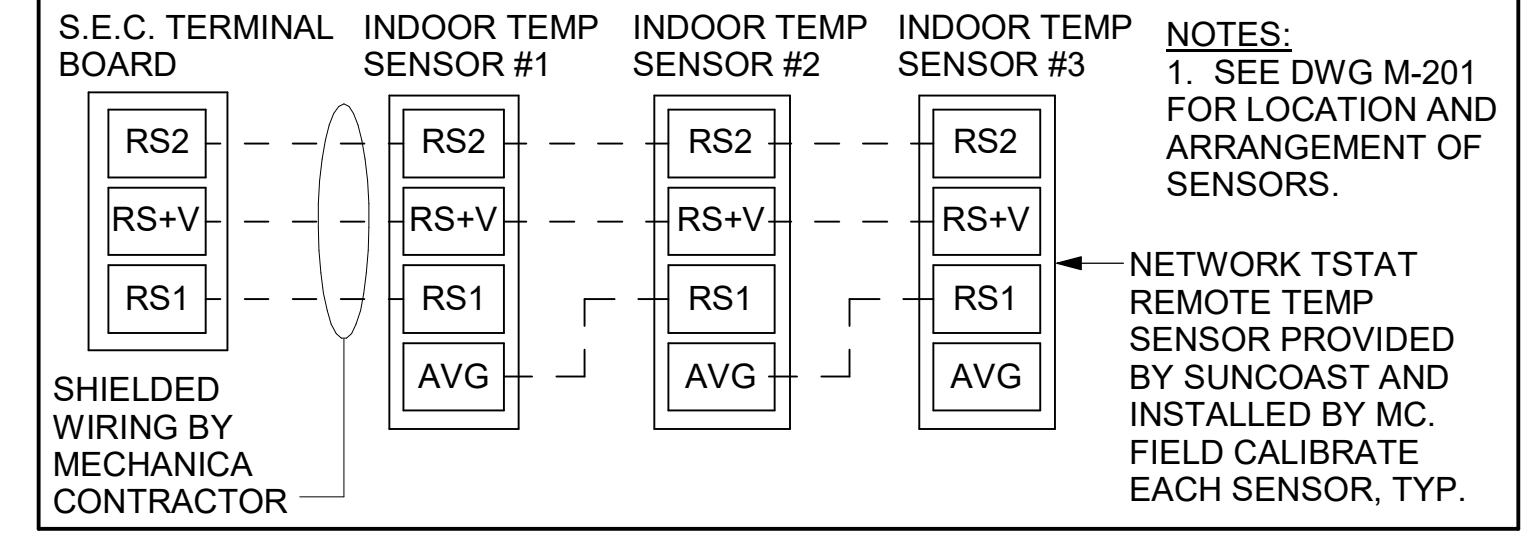
- NOTES:**
- MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INSIDE DOOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
  - SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNCIATOR WIRING.
  - SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
  - PROVIDE PLASTIC ENGRAVED LABEL 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 S1 INTENDED TO BE SURFACE MOUNTED AND DOES NOT REQUIRE A SINGLE GANG BOX OR CONDUIT. FIELD CALIBRATE EACH SENSOR.



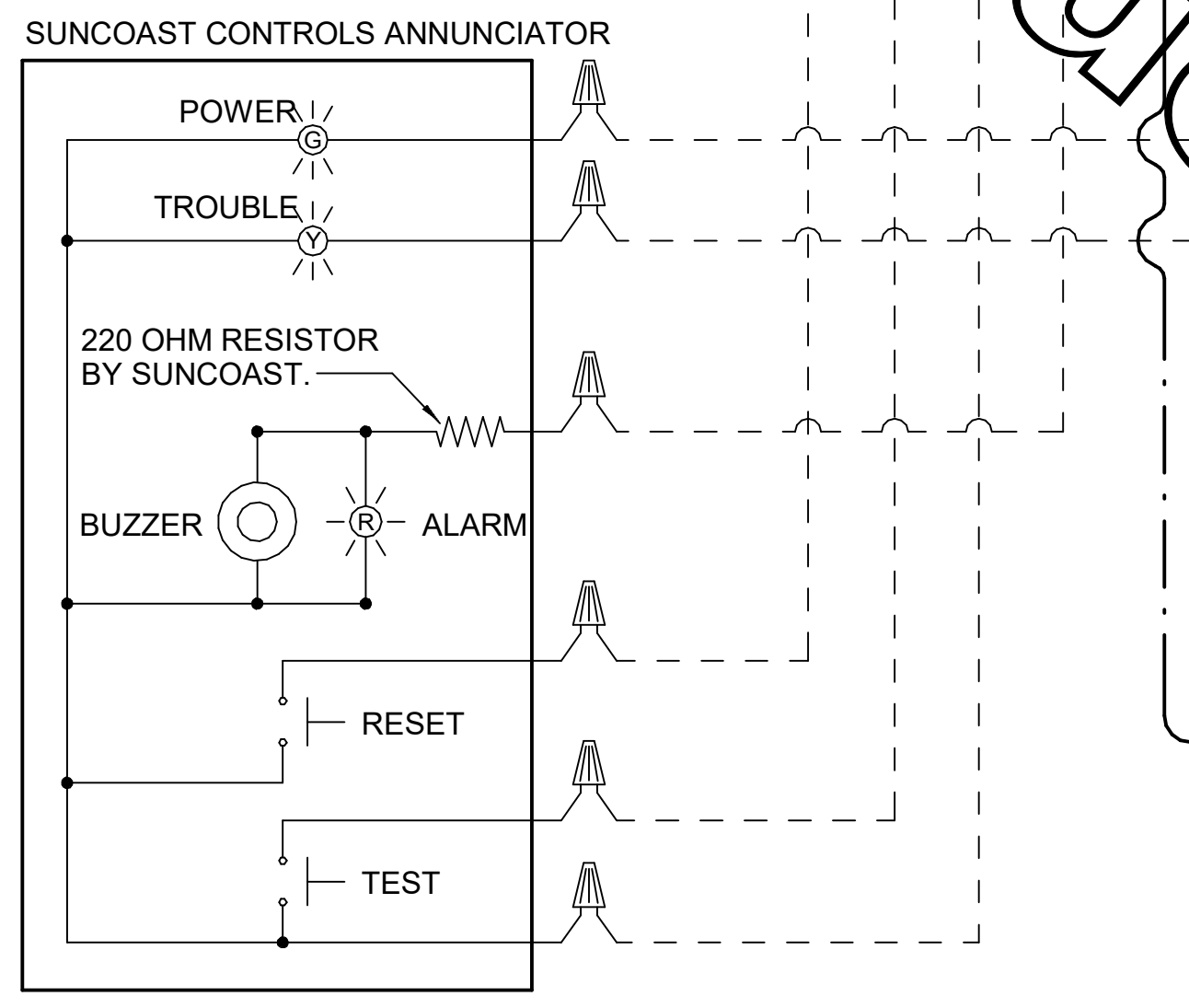
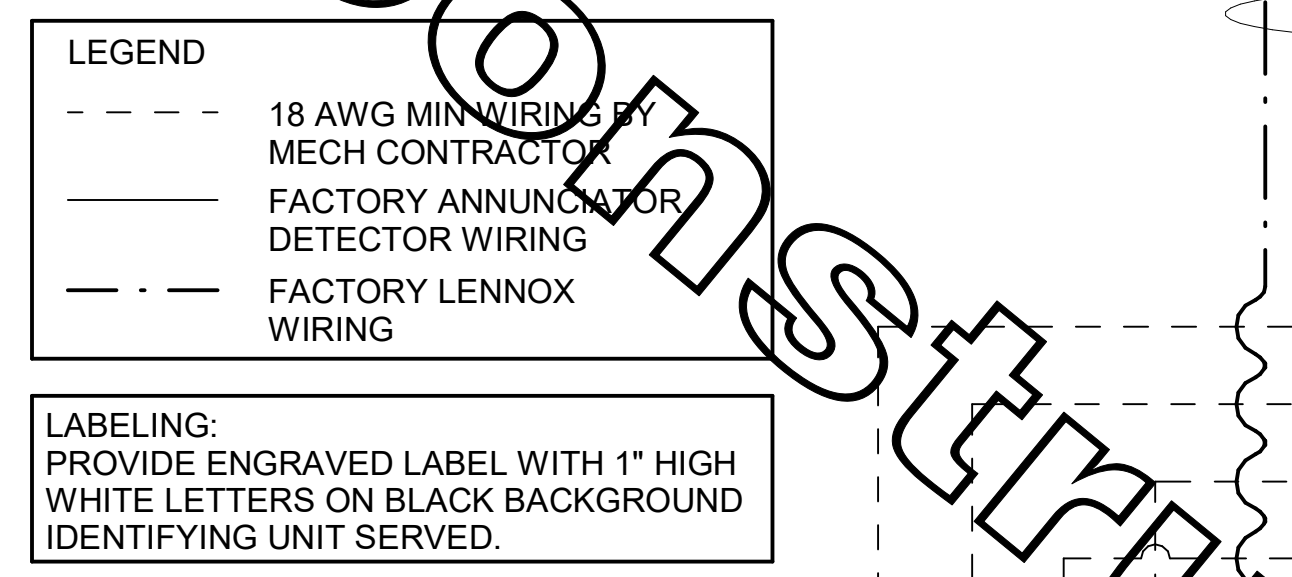
**2 ROOFTOP UNIT CONTROL WIRING - LENNOX - NETWORK THERMOSTAT**  
NOT TO SCALE

**AC#3 AVERAGING SENSORS (WHERE SHOWN ON PLANS)**



**2 ROOFTOP UNIT CONTROL WIRING - LENNOX - NETWORK THERMOSTAT**  
NOT TO SCALE

**SUPPLY SIDE DETECTORS:**  
IF SUPPLY SIDE SMOKE DETECTORS ARE SHOWN ON DWG M-201, AND CALLED FOR ON RTU SCHEDULE, THE CONTRACTOR IS TO RELOCATE FACTORY INSTALLED SUPPLY SMOKE DETECTOR FROM BLOWER SECTION TO DUCTWORK. SEE NOTES ON DWG M-201.



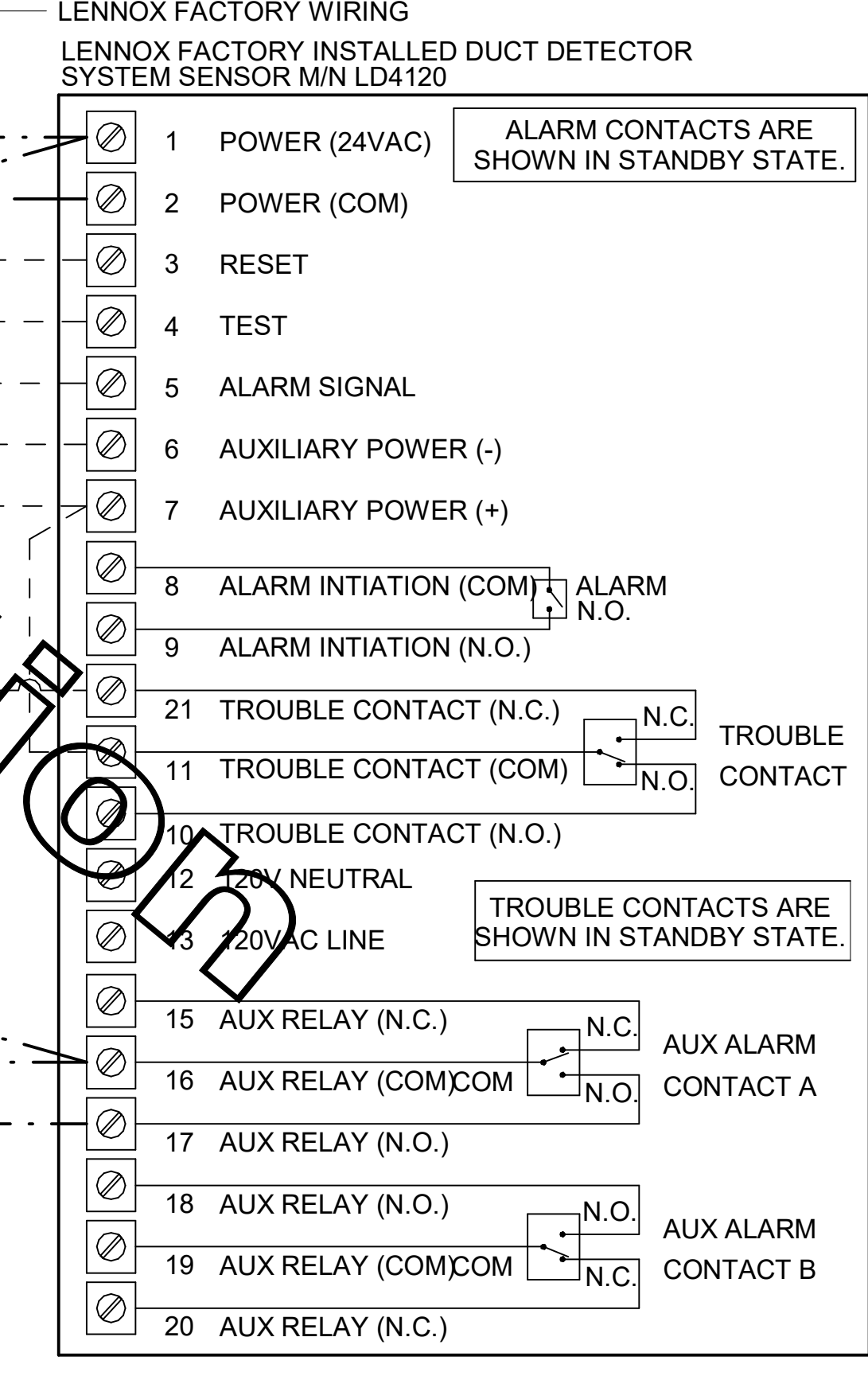
**5 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM**  
NOT TO SCALE

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.

- LENNOX PRODIGY CONTROLLER SETTINGS:**
- FOR ALL RTU'S EXCEPT AT AC#1, CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #65 TO ZERO (#58 ON LCH UNITS). THIS WILL CAUSE THE O.A. DAMPER TO OPEN ON 'OCCUPIED' START. AT AC#1 (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 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.
  - AT HUMIDITROL RTU'S, SET PRODIGY-M3 BOARD CONTROL PARAMETER #108 FOR DEHUMIDIFICATION MODE SET POINT TO A VALUE OF 60 (60% RH).
  - AT HUMIDITROL RTU'S, SET PRODIGY-M3 BOARD CONTROL PARAMETER #107 FOR DEHUMIDIFICATION MODE DEAD BAND TO A VALUE OF 2 (2% 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 65F 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.

**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.

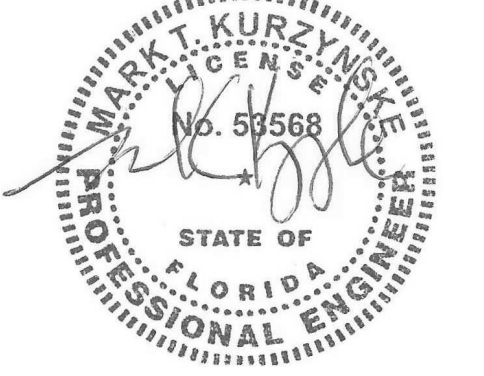


**5 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM**  
NOT TO SCALE



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

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Telephone: (615) 255-5203  
MARK T. KURZYNSKE  
FLORIDA LICENSE # 53568



02/23/22

**CHICK-FIL-A**  
Miami Gardens  
5870 NW 183rd Street  
Hialeah, FL 33015

**FSR#04690**  
BUILDING TYPE / SIZE: P13 SE LRG  
RELEASE: v2.20.08

**REVISION SCHEDULE**

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 21011.CC.S  
PRINTED FOR CONSTRUCTION  
DATE 08/24/2021  
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SHEET HVAC CONTROLS

SHEET NUMBER **M-501**

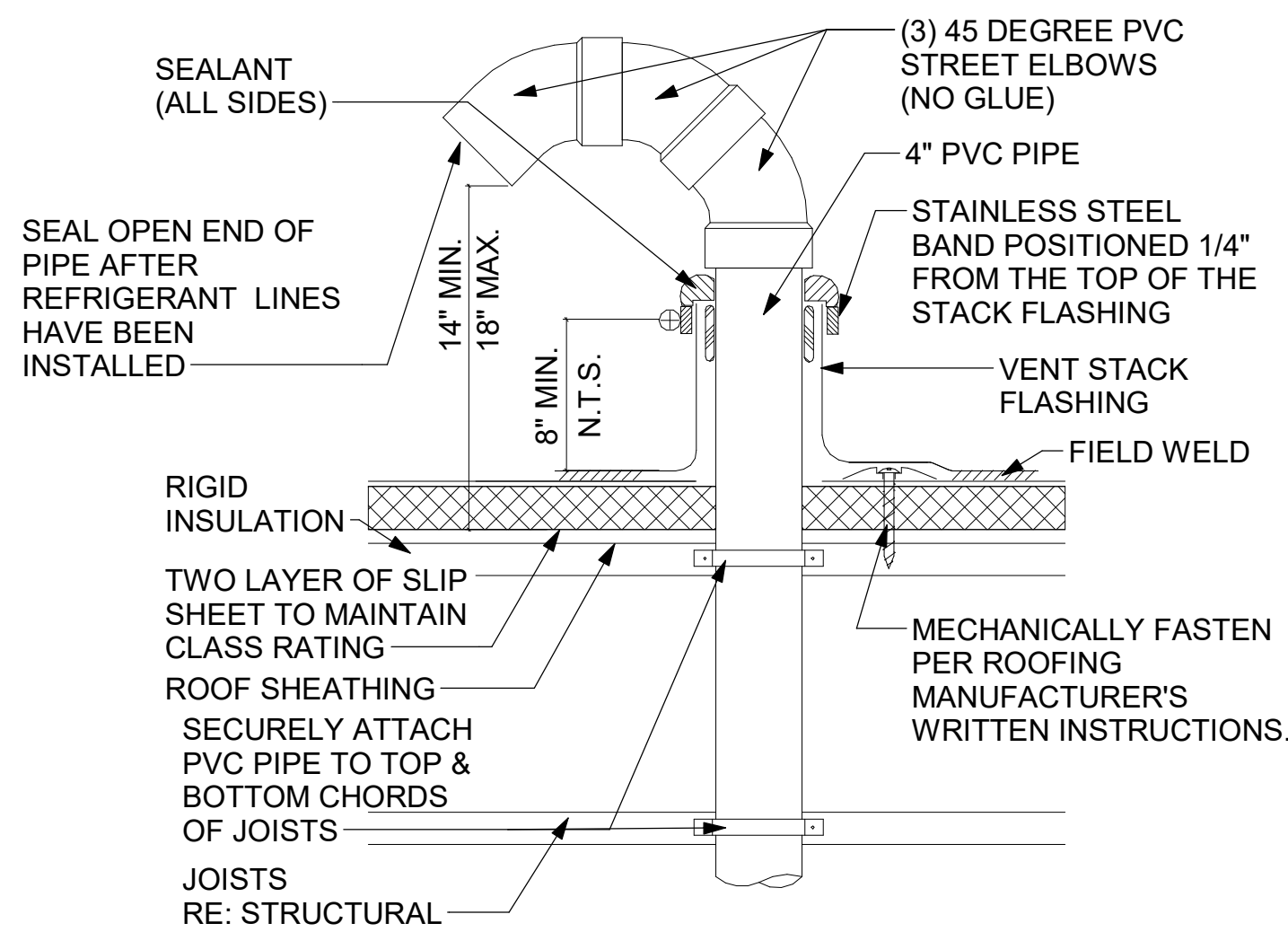
BIM 360://FL\_04690\_Miami Gardens\_2021.1\_FSR04690\_Miami Gardens\_MEC.rvt  
2/22/2022 10:01:16 AM  
30-SE-04690-M-501-HVAC CONTROLS

REFRIGERATION CALCULATIONS AND OTHER INFORMATION REQUIRED PER CHAPTER 11 FBC - MECHANICAL.

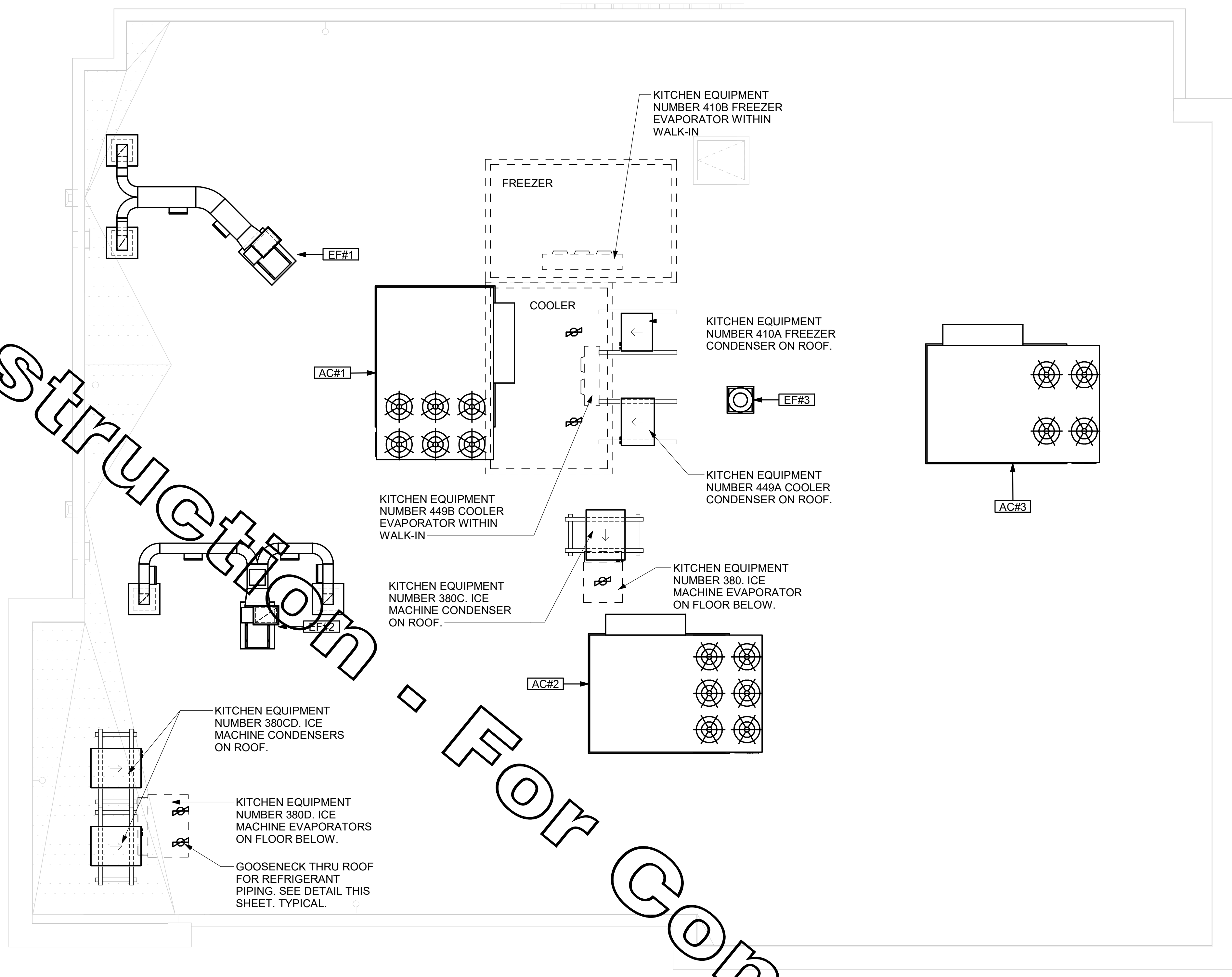
WALK-IN COOLER/FREEZER  
 1. REFRIGERANT TYPE: R-404A  
 2. REFRIGERATION CLASSIFICATION: 1  
 3. REFRIGERANT SYSTEM CLASSIFICATION: LOW PROBABILITY  
 4. MAXIMUM REFRIGERANT QUANTITY: 41 LBS / 1000FT<sup>3</sup>  
 5. SYSTEM APPLICATION VOLUME CALCULATION:  
 A - COOLER VOLUME: 11'-7" L X 7'-6" W X 9'-6" H = 825 FT<sup>3</sup>  
 B - FREEZER VOLUME: 11'-7" L X 7'-3" W X 9'-6" H = 798 FT<sup>3</sup>  
 6. MAXIMUM ALLOWABLE REFRIGERANT IN SYSTEM:  
 A - COOLER: 825 \* (31LB./1000FT<sup>3</sup>) = 25.6 LB MAX  
 B - FREEZER: 798 \* (31LB./1000FT<sup>3</sup>) = 24.7 LB MAX

FREEZER AND COOLER SHALL HAVE NO MORE THAN THE MAXIMUM ALLOWABLE REFRIGERANT SHOWN ABOVE.

OTHER ITEMS REQUIRED FOR REVIEW:  
 1) PIPING MATERIAL SHALL COMPLY WITH 1107.5 FBC - MECHANICAL. COPPER REFRIGERANT PIPING IS TO BE USED FOR INSTALLATION.  
 2) ROOF REFRIGERANT PIPE PENETRATION SHOWN ON THIS SHEET, "GOOSENECK PENETRATION DETAIL"  
 3) WALK-IN COOLER/FREEZER CONDENSING AND EVAPORATOR CUT SHEETS ARE LOCATED ON SHEET M-602.  
 4) EVAPORATOR AND CONDENSING UNIT LOCATIONS ARE SHOWN ON THIS SHEET AND ON THE ROOF PLAN.  
 5) EVAPORATOR CONDENSATE PIPING IS SHOWN ON SHEETS P-101 AND P-201.



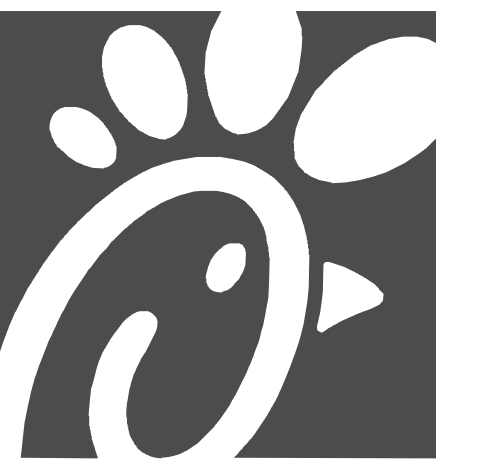
2 GOOSENECK PENETRATION DETAIL  
 NTS



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

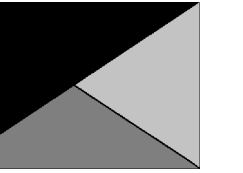
EQUIPMENT	PLAN MARK	MANUFACTURER	MODEL	WIDTH (IN.)	DEPTH (IN.)	HEIGHT (IN.)	REFRIGERANT					PRE-CHARGE LINES (FT)	MATERIAL	WEIGHT (LBS)		
							TYPE	CLASSIFICATION	SYSTEM CLASSIFICATION	MAX. ALLOWED (LB / 1000QFT)	SPACE VOLUME (QFT)				MAX. ALLOWED TOTAL (LB)	AMOUNT OF CHARGE (LB)
ICE MAKER CONDENSER	380C	FOLLET	HCD1410	22.7	24.5	21.25	R 404A	AI	LOW	31	--	--	13.1	35	COPPER	270
ICE MAKER CONDENSER	380CD	FOLLET	HCD1810	30.0	38.5	25.75	R 404A	AI	LOW	31	--	--	14.5	35	COPPER	295
ICE MAKER CONDENSER	380CD	FOLLET	HCD1810	30.0	38.5	25.75	R 404A	AI	LOW	31	--	--	14.5	35	COPPER	295
FREEZER CONDENSER	410A	THERMO-KOOL	M0H031L63	37.75	28.25	19.75	R 404A	AI	LOW	31	777	24	14.0	40	COPPER	223
COOLER CONDENSER	449A	THERMO-KOOL	M0H010X63	23.75	28.25	17.25	R 404A	AI	LOW	31	793	24	5.5	40	COPPER	138

SHEET ADDED TO SET



Chick-fil-A

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



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 FLORIDA LICENSE # 53568



02/23/22

CHICK-FIL-A  
 Miami Gardens  
 5870 NW 183rd Street  
 Hialeah, FL 33015

FSR#04690  
 BUILDING TYPE / SIZE: P13 SE LRG  
 RELEASE: v2.20.08

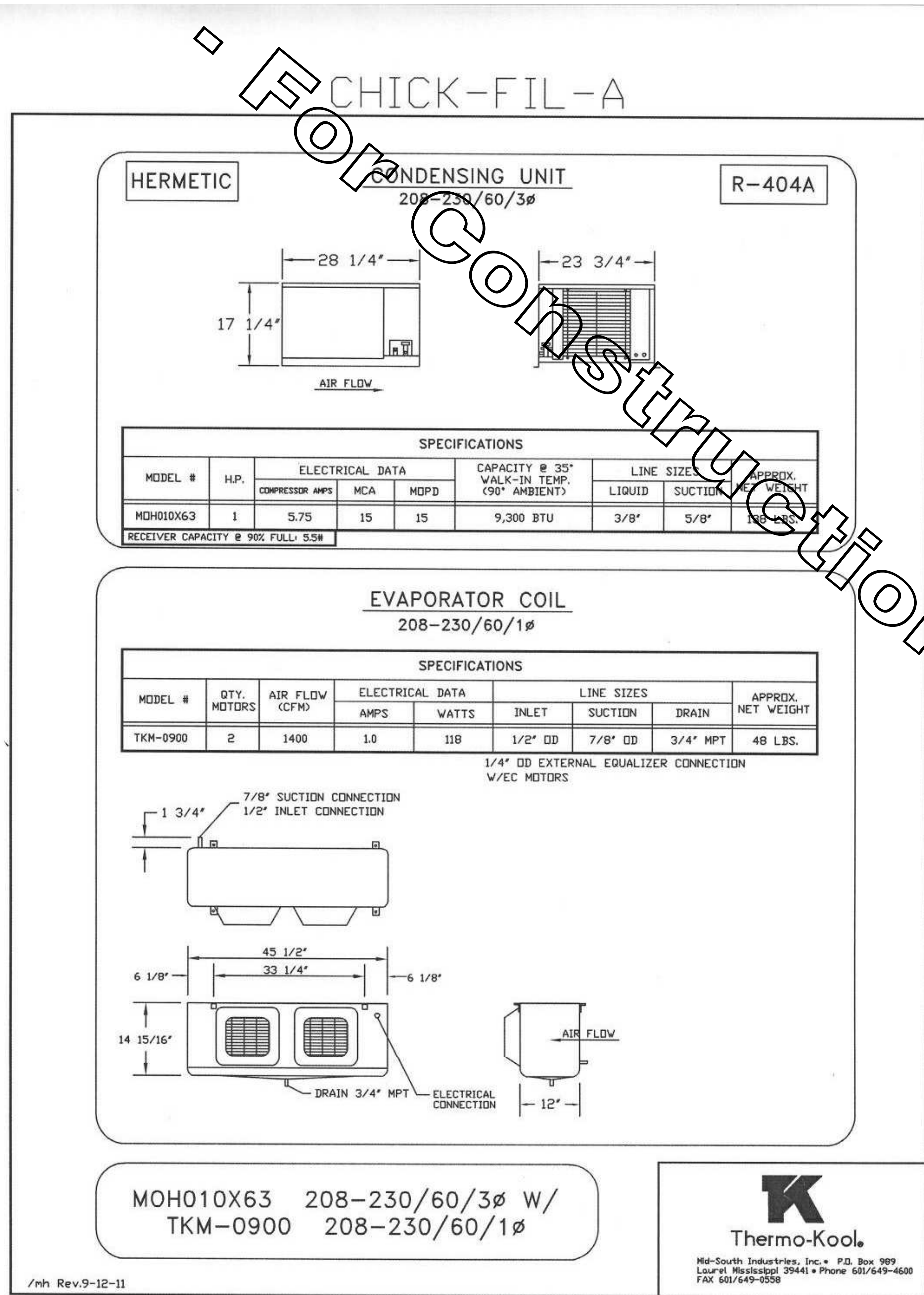
REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
1	10/15/2021	Plan Review Comments

CONSULTANT PROJECT # 21011.CC.S  
 PRINTED FOR CONSTRUCTION  
 DATE 08/24/2021  
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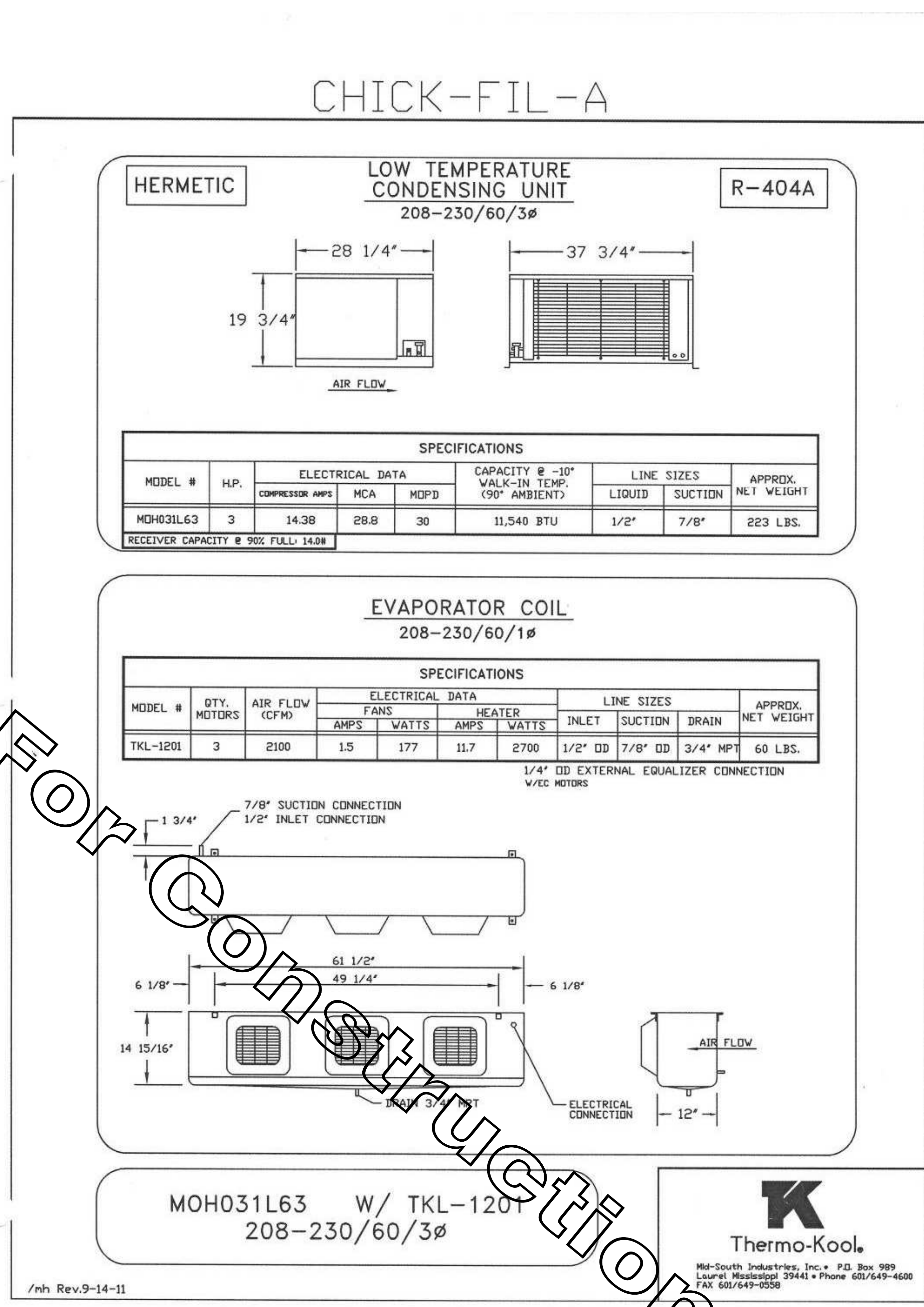
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SHEET REFRIGERATION PLANS  
 SHEET NUMBER M-601

CONSTRUCTION



1 WALK-IN COOLER MECHANICAL EQUIPMENT DETAIL  
 NTS



2 WALK-IN FREEZER MECHANICAL EQUIPMENT DETAIL  
 NTS

SHEET ADDED TO SET



**Chick-fil-A**  
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02/23/22

**CHICK-FIL-A**  
 Miami Gardens  
 5870 NW 183rd Street  
 Hialeah, FL 33015

**FSR#04690**  
 BUILDING TYPE / SIZE: P13 SE LRG  
 RELEASE: v2.20.08

NO.	DATE	DESCRIPTION
1	10/15/2021	Plan Review Comments

CONSULTANT PROJECT # 21011.CC.S  
 PRINTED FOR CONSTRUCTION  
 DATE 08/24/2021  
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 SHEET MECHANICAL REFRIGERATION DETAILS  
 SHEET NUMBER

**M-602**

CONSTRUCTION

Project Name: miami gardens  
Prepared by: Kurzynske & Associates

10/12/2021  
03:28PM

**Air System Sizing Summary for KITCHEN**

Number of zones: 1  
Floor Area: 1859.0 ft<sup>2</sup>  
Location: Miami IAP, Florida

**Central Cooling Coil Sizing Data**

Calculation Months: Jan to Dec  
Sizing Date: Calculated

Zone CFM Sizing: Sum of space airflow rates  
Space CFM Sizing: Individual peak space loads

**Central Heating Coil Sizing Data**

Calculation Months: Jan to Dec  
Sizing Date: Calculated

Zone CFM Sizing: Sum of space airflow rates  
Space CFM Sizing: Individual peak space loads

**Supply Fan Sizing Data**

Actual max CFM: 7411 CFM  
Standard CFM: 7411 CFM  
Actual max CFM/HP: 3.99 CFM/HP

**Outdoor Ventilation Air Data**

Design airflow CFM: 1500 CFM/HP  
CFM/Person: 0.81 CFM/HP

Project Name: miami gardens  
Prepared by: Kurzynske & Associates

10/12/2021  
03:28PM

**Zone Sizing Summary for KITCHEN**

Number of zones: 1  
Floor Area: 1859.0 ft<sup>2</sup>  
Location: Miami IAP, Florida

**Zone Peak Sensible Loads**

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (ft <sup>2</sup> )
Zone 1	160.0	Jul 1600	18.8	1859.0

**Space Loads and Airflows**

Zone Name / Space Name	Mult.	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (ft <sup>2</sup> )	Space CFM/ft <sup>2</sup>
Zone 1 kitchen	1	160.0	Jul 1600	7411	18.8	1859.0	3.99

Project Name: miami gardens  
Prepared by: Kurzynske & Associates

10/12/2021  
03:28PM

**Air System Design Load Summary for KITCHEN**

ZONE LOADS	DESIGN COOLING			DESIGN HEATING		
	Details	Sensible (BTU/hr)	Latent (BTU/hr)	Details	Sensible (BTU/hr)	Latent (BTU/hr)
Window & Skylight Solar Loads	88 ft <sup>2</sup>	1980	-	88 ft <sup>2</sup>	-	-
Wall Transmission	1809 ft <sup>2</sup>	3721	-	1809 ft <sup>2</sup>	5393	-
Roof Transmission	1859 ft <sup>2</sup>	2921	-	1859 ft <sup>2</sup>	1600	-
Window Transmission	88 ft <sup>2</sup>	625	-	88 ft <sup>2</sup>	1036	-
Skylight Transmission	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	0	-
Door Loads	59 ft <sup>2</sup>	438	-	59 ft <sup>2</sup>	793	-
Floor Transmission	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	793	-
Partitions	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	0	-
Ceiling	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	0	-
Overhead Lighting	1115 W	3808	-	0 ft <sup>2</sup>	0	-
Task Lighting	0 W	0	-	0 ft <sup>2</sup>	0	-
Electric Equipment	1394 W	4714	-	0 ft <sup>2</sup>	0	-
People	28	6546	12740	0	0	0
Infiltration	0	0	0	0	0	0
Miscellaneous	0	12067	10000	0	0	0
Safety Factor	10% / 10%	14546	2274	10% / 10%	978	0
>> Total Zone Loads		16651	2514		16783	0
Zone Conditioning		16529	2504		11507	0
Plenum Wall Load	0%	0	0	0	0	0
Plenum Roof Load	0%	0	0	0	0	0
Plenum Lighting Load	0%	0	0	0	0	0
Return Fan Load	7411 CFM	0	0	7411 CFM	0	0
Ventilation Load	1500 CFM	2393	5762	1500 CFM	3928	0
Supply Fan Load	7411 CFM	19813	0	7411 CFM	-19813	0
Space Fan Coil Fans	0%	0	0	0%	0	0
Duct Heat Gain / Loss	0%	0	0	0%	0	0
>> Total System Loads		20940	8238		26292	0
Central Cooling Coil		20940	8238		0	0
Central Heating Coil		0	0		30523	0
>> Total Conditioning		20940	8238		30523	0

**Key:**  
Positive values are ckg loads  
Negative values are hkg loads

Hourly Analysis Program 5.11 Page 1 of 3

Project Name: miami gardens  
Prepared by: Kurzynske & Associates

10/12/2021  
03:32PM

**Air System Sizing Summary for SERVING**

Number of zones: 1  
Floor Area: 832.0 ft<sup>2</sup>  
Location: Miami IAP, Florida

**Central Cooling Coil Sizing Data**

Calculation Months: Jan to Dec  
Sizing Date: Calculated

Zone CFM Sizing: Sum of space airflow rates  
Space CFM Sizing: Individual peak space loads

**Central Heating Coil Sizing Data**

Calculation Months: Jan to Dec  
Sizing Date: Calculated

Zone CFM Sizing: Sum of space airflow rates  
Space CFM Sizing: Individual peak space loads

**Supply Fan Sizing Data**

Actual max CFM: 4252 CFM  
Standard CFM: 4252 CFM  
Actual max CFM/HP: 6.15 CFM/HP

**Outdoor Ventilation Air Data**

Design airflow CFM: 1275 CFM/HP  
CFM/Person: 2.44 CFM/HP

Hourly Analysis Program 5.11 Page 2 of 3

Project Name: miami gardens  
Prepared by: Kurzynske & Associates

10/12/2021  
03:32PM

**Zone Sizing Summary for SERVING**

Number of zones: 1  
Floor Area: 832.0 ft<sup>2</sup>  
Location: Miami IAP, Florida

**Zone Peak Sensible Loads**

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (ft <sup>2</sup> )
Zone 1	425.2	Aug 1800	38.0	832.0

**Space Loads and Airflows**

Zone Name / Space Name	Mult.	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (ft <sup>2</sup> )	Space CFM/ft <sup>2</sup>
Zone 1 serving	1	425.2	Aug 1800	1859	38.0	832.0	6.15

Hourly Analysis Program 5.11 Page 3 of 3

Project Name: miami gardens  
Prepared by: Kurzynske & Associates

10/12/2021  
03:32PM

**Air System Design Load Summary for SERVING**

ZONE LOADS	DESIGN COOLING			DESIGN HEATING		
	Details	Sensible (BTU/hr)	Latent (BTU/hr)	Details	Sensible (BTU/hr)	Latent (BTU/hr)
Window & Skylight Solar Loads	18 ft <sup>2</sup>	687	-	18 ft <sup>2</sup>	-	-
Wall Transmission	437 ft <sup>2</sup>	761	-	437 ft <sup>2</sup>	1369	-
Roof Transmission	522 ft <sup>2</sup>	820	-	522 ft <sup>2</sup>	506	-
Window Transmission	18 ft <sup>2</sup>	123	-	18 ft <sup>2</sup>	212	-
Skylight Transmission	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	0	-
Door Loads	79 ft <sup>2</sup>	1815	-	79 ft <sup>2</sup>	2124	-
Floor Transmission	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	239	-
Partitions	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	0	-
Ceiling	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	0	-
Overhead Lighting	313 W	1068	-	0 ft <sup>2</sup>	0	-
Task Lighting	0 W	0	-	0 ft <sup>2</sup>	0	-
Electric Equipment	392 W	1306	5460	0	0	0
People	12	2808	5460	0	0	0
Infiltration	0	20729	35374	0	31089	0
Miscellaneous	0	12316	2000	0	0	0
Safety Factor	10% / 10%	4344	4333	10% / 10%	3547	0
>> Total Zone Loads		91784	47687		38919	0
Zone Conditioning		9047	47687		37465	0
Plenum Wall Load	0%	0	0	0	0	0
Plenum Roof Load	0%	0	0	0	0	0
Plenum Lighting Load	0%	0	0	0	0	0
Return Fan Load	4252 CFM	0	0	4252 CFM	0	0
Ventilation Load	1275 CFM	20703	37585	1275 CFM	31947	0
Supply Fan Load	4252 CFM	11628	0	4252 CFM	-11628	0
Space Fan Coil Fans	0%	0	0	0%	0	0
Duct Heat Gain / Loss	0%	0	0	0%	0	0
>> Total System Loads		124379	85292		57863	0
Central Cooling Coil		124379	85292		0	0
Central Heating Coil		0	0		57863	0
>> Total Conditioning		124379	85292		57863	0

**Key:**  
Positive values are ckg loads  
Negative values are hkg loads

Hourly Analysis Program 5.11 Page 1 of 3

Project Name: miami gardens  
Prepared by: Kurzynske & Associates

10/12/2021  
03:28PM

**Air System Sizing Summary for DINING**

Number of zones: 1  
Floor Area: 1678.0 ft<sup>2</sup>  
Location: Miami IAP, Florida

**Central Cooling Coil Sizing Data**

Calculation Months: Jan to Dec  
Sizing Date: Calculated

Zone CFM Sizing: Sum of space airflow rates  
Space CFM Sizing: Individual peak space loads

**Central Heating Coil Sizing Data**

Calculation Months: Jan to Dec  
Sizing Date: Calculated

Zone CFM Sizing: Sum of space airflow rates  
Space CFM Sizing: Individual peak space loads

**Supply Fan Sizing Data**

Actual max CFM: 3346 CFM  
Standard CFM: 3346 CFM  
Actual max CFM/HP: 1.99 CFM/HP

**Outdoor Ventilation Air Data**

Design airflow CFM: 1900 CFM/HP  
CFM/Person: 0.87 CFM/HP

Hourly Analysis Program 5.11 Page 2 of 3

Project Name: miami gardens  
Prepared by: Kurzynske & Associates

10/12/2021  
03:28PM

**Zone Sizing Summary for DINING**

Number of zones: 1  
Floor Area: 1678.0 ft<sup>2</sup>  
Location: Miami IAP, Florida

**Zone Peak Sensible Loads**

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (ft <sup>2</sup> )
Zone 1	3346	Oct 1900	14.4	1678.0

**Space Loads and Airflows**

Zone Name / Space Name	Mult.	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (ft <sup>2</sup> )	Space CFM/ft <sup>2</sup>
Zone 1 dining	1	3346	Oct 1900	3346	14.4	1678.0	1.99

Hourly Analysis Program 5.11 Page 3 of 3

Project Name: miami gardens  
Prepared by: Kurzynske & Associates

10/12/2021  
03:28PM

**Air System Design Load Summary for DINING**

ZONE LOADS	DESIGN COOLING			DESIGN HEATING		
	Details	Sensible (BTU/hr)	Latent (BTU/hr)	Details	Sensible (BTU/hr)	Latent (BTU/hr)
Window & Skylight Solar Loads	440 ft <sup>2</sup>	11355	-	440 ft <sup>2</sup>	-	-
Wall Transmission	1115 ft <sup>2</sup>	2087	-	1115 ft <sup>2</sup>	3284	-
Roof Transmission	1678 ft <sup>2</sup>	2708	-	1678 ft <sup>2</sup>	1625	-
Window Transmission	440 ft <sup>2</sup>	2988	-	440 ft <sup>2</sup>	5174	-
Skylight Transmission	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	0	-
Door Loads	72 ft <sup>2</sup>	2693	-	72 ft <sup>2</sup>	2023	-
Floor Transmission	1678 ft <sup>2</sup>	0	-	1678 ft <sup>2</sup>	920	-
Partitions	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	0	-
Ceiling	0 ft <sup>2</sup>	0	-	0 ft <sup>2</sup>	0	-
Overhead Lighting	1007 W	3425	-	0 ft <sup>2</sup>	0	-
Task Lighting	0 W	0	-	0 ft <sup>2</sup>	0	-
Electric Equipment	1290 W	4294	23210	0	0	0
People	12	2763	53210	0	0	0
Infiltration	0	6123	0	0	0	0
Miscellaneous	0	6341	3321	0	0	0
Safety Factor	10% / 10%	69748	36331	10% / 10%	14373	0
>> Total Zone Loads		69748	36331		14373	0
Zone Conditioning		69748	36331		13268	0
Plenum Wall Load	0%	0	0	0	0	0
Plenum Roof Load	0%	0	0	0	0	0
Plenum Lighting Load	0%	0	0	0	0	0
Return Fan Load	3346 CFM	0	0	3346 CFM	0	0
Ventilation Load	1900 CFM	3100	36806	1900 CFM	32961	0
Supply Fan Load	3346 CFM	10701	0	3346 CFM	-10701	0
Space Fan Coil Fans	0%	0	0	0%	0	0
Duct Heat Gain / Loss	0%	0	0	0%	0	0
>> Total System Loads		109687	73339		37070	0
Central Cooling Coil		109687	73339		0	0
Central Heating Coil		0	0		37070	0
>> Total Conditioning		109687	73339		37070	0

**Key:**  
Positive values are ckg loads  
Negative values are hkg loads

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30-SE-04690-M-701-HVAC HEATING & COOLING LOADS

SHEET ADDED TO SET



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02/23/22

CHICK-FIL-A  
Miami Gardens  
5870 NW 183rd Street  
Hialeah, FL 33015

FSR#04690  
BUILDING TYPE / SIZE: P13 SE LRG  
RELEASE: v2.20.08

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
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SHEET HVAC HEATING & COOLING LOADS  
SHEET NUMBER  
M-701

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 AND 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 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, 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 ELECTRIC 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. NOT USED.
- 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, 1/2 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 SHALL 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. FLEXIBLE INSULATION WITH POLYETHYLENE OR MYLAR VAPOR BARRIER. ALL COMPONENTS SHALL HAVE APPROPRIATE U.L. APPROVAL AND SHALL BE EQUIVALENT TO THE RMK-FLEX MKE.
- N. FLEXIBLE DUCT SHALL BE INSTALLED PER THE ADO FLEXIBLE DUCT PERFORMANCE AND INSTALLATION STANDARDS, 4TH ED\* USING FOIL TAPE AND DRAWBAND ON THE INNER CORE AND TAPE OR DRAWBAND ON THE OUTER FACED.
- 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 CORNERS IN SUPPLY DUCTWORK WHERE ANY ONE DIMENSION IS GREATER THAN 12".
- Q. RADIUS ELBOWS MAY BE SUBSTITUTED FOR 90 DEGREE ELBOWS AT THE DISCRETION OF THE CONTRACTOR. CENTERLINE RADIUS EQUAL TO, R=V 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: 877-544-8879). 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 SUPPLY AND 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 DETECTORS 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 CXA 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.

**VENTILATION CALCULATIONS**

ZONE	PEOPLE OUTDOOR AIR RATE (Rp)	ZONE POPULATION (Pz)	AREA OUTDOOR AIR RATE (Ra)	ZONE FLOOR AREA (Az)	OUTDOOR AIRFLOW RATE REQ'D (Vbz)
SALES (SERVING AREA)	7.5	12	0.12	784	184
DINING (CAFETERIA, FAST FOOD)	7.5	97	0.18	972	902
STORAGE	--	--	0.12	299	36
OFFICE	5	1	0.06	82	10
KITCHEN	7.5	27	0.12	1352	365
CORRIDOR	--	--	0.06	98	6

ZONE 1 - DINING + CORRIDOR = 908 CFM.  
908 CFM (Vbz) / 0.8 = 1135 CFM (Voz)  
AC#3 PROVIDES 1,300 CFM OUTSIDE AIR TO ZONE 1.

ZONE 2 - KITCHEN + STORAGE + OFFICE = 411 CFM.  
411 CFM (Vbz) / 0.8 = 514 CFM (Voz)  
AC#1 PROVIDES 1,500 CFM OUTSIDE AIR TO ZONE 2.

ZONE 3 - SALES (SERVING AREA) = 184 CFM.  
184 CFM (Vbz) / 0.8 = 230 CFM (Voz)  
AC#2 PROVIDES 1,275 CFM OUTSIDE AIR TO ZONE 3.

KITCHEN IS 1,352 SQUARE FEET. AT 0.70 CFM EXHAUST REQUIRED PER SQ. FT. KITCHEN IS REQUIRED TO EXHAUST 946 CFM. KITCHEN EXHAUSTS 3,003 CFM.

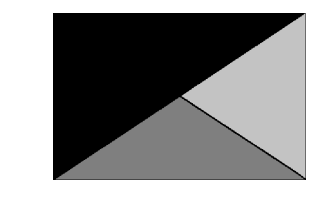
CALCULATIONS ARE BASED ON TABLE 403.3.3.1, 2020 FLORIDA BUILDING CODE - MECHANICAL.  
(FOR OA RATE: Vbz = RpPz + RaAz || FOR ZONE OA RATE: Voz = Vbz/0.8)

**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 BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.
3. PRICE AIR DEVICES - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.
4. AIR DOORS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARRROW 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 BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. START COLLARS NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.
8. SCHWANK INFRARED HEATER PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE HEATER PACKAGE DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.



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02/23/22

**CHICK-FIL-A**  
Miami Gardens  
5870 NW 183rd Street  
Hialeah, FL 33015

**FSR#04690**  
BUILDING TYPE / SIZE: P13 SE LRG  
RELEASE: v2.20.08

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