

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

**DEMOLITION NOTES**

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

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

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

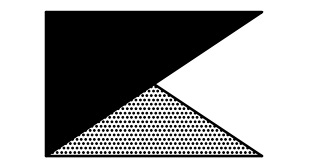
**DEMOLITION KEY NOTES**

- ① DETACH AND DEMOLISH EXISTING AIR DEVICE. SECURE DUCT ABOVE CEILING GRID FOR RE-CONNECTION. SEE SHEET M.I.I FOR NEW CONNECTION.
- ② DEMOLISH EXISTING HOOD, ALL ASSOCIATED GREASE DUCT, CAPTURE JET FAN AND DIFFUSER (IF EXISTING), EXHAUST FAN, AND ITS ASSOCIATED ROOF CURB. PATCH AND REPAIR ROOF TO MATCH SURROUNDING CONSTRUCTION.
- ③ DEMOLISH EXISTING KITCHEN A/C UNIT, UNIT CONTROLS (REMOTE TEMP SENSOR, REMOTE HUMIDITY SENSOR, TSTAT, REMOTE SMOKE DETECTOR TEST/RESET STATION, ETC.), SUPPLY/RETURN AIR DROPS, ALL ASSOCIATED SUPPLY/RETURN DUCT & AIR DEVICES (UNLESS NOTED OTHERWISE). COVER ROOF CURB WEATHER-TIGHT FOR RE-USE. SEE SHEET M.I.I.
- ④ EXISTING REMOTE TEMPERATURE AND/OR REMOTE HUMIDITY SENSORS TO BE REPLACED WITH NEW. DEMOLISH ALL ASSOCIATED CONTROL WIRING. SEE SHEET M.I.I FOR FURTHER INFORMATION.
- ⑤ EXISTING RTU TO BE REPLACED WITH NEW AS SCHEDULED ON SHEET M3.I. UNLESS NOTED OTHERWISE, DEMOLISH ALL EXISTING UNIT CONTROLS (REMOTE TEMP SENSOR, REMOTE HUMIDITY SENSOR, TSTAT, REMOTE SMOKE DETECTOR ANNUNCIATOR, ETC.). EXISTING ROOF CURB AND SUPPLY & RETURN DUCT TO REMAIN. COVER CURB WEATHER-TIGHT FOR RE-USE. GC BID ALTERNATE MATERIALS AND LABOR TO BE BILLED UNDER SEPARATE CONTRACT AND COORDINATED VIA WORK ORDER WITH FEQ SPECIALIST.
- ⑥ DEMOLISH EXISTING DUCT SMOKE DETECTOR(S) AND REMOTE TEST/RESET STATION(S). SEE SHEET M.I.I FOR NEW.
- ⑦ EXISTING REMOTE TEMPERATURE AND/OR REMOTE HUMIDITY SENSORS TO BE RELOCATED AS SHOWN ON SHEET M.I.I. DEMOLISH ALL ASSOCIATED CONTROL WIRING. SEE SHEET M.I.I FOR FURTHER INFORMATION.



**Chick-fil-A**

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



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Kurzynske & Associates License  
No. F-0823, Expires 12/31/23



**CHICK-FIL-A**  
**MOREHEAD CITY**  
5156 Highway 70 West  
Morehead City, NC 28557

**FSR#02134**

BUILDING TYPE / SIZE: S06E-R  
RELEASE: v12.20

| REVISION SCHEDULE |          |                    |
|-------------------|----------|--------------------|
| NO.               | DATE     | DESCRIPTION        |
| 1                 | 02/14/23 | Playground Removal |

CONSULTANT PROJECT # 22180.HF.R  
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SHEET  
MECHANICAL  
DEMO PLAN  
SHEET NUMBER

**M0.1**

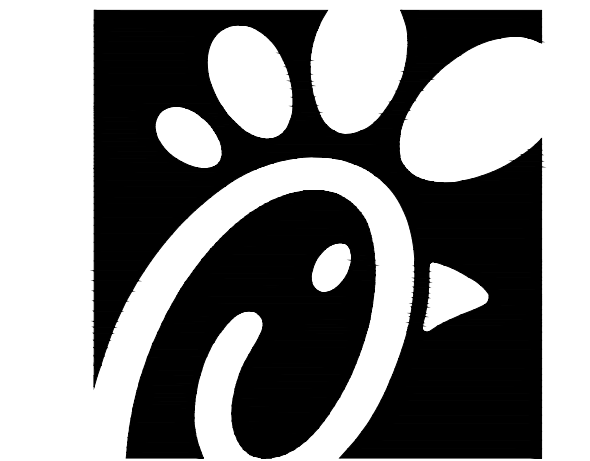
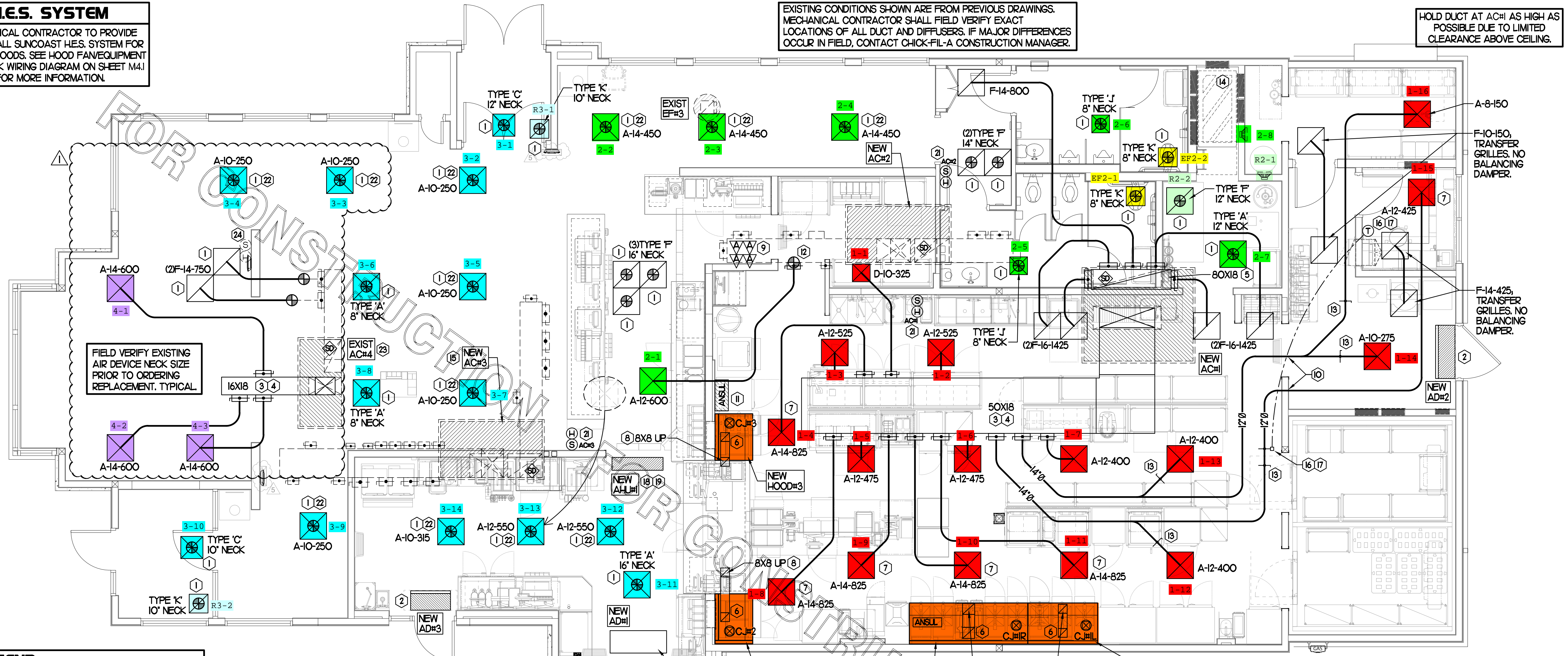
CONSTRUCTION

**H.E.S. SYSTEM**

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

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

HOLD DUCT AT ACH#1 AS HIGH AS POSSIBLE DUE TO LIMITED CLEARANCE ABOVE CEILING.



Chick-fil-A

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**LEGEND**

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

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

**SHEET NOTES**

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

**KEY NOTES (THIS SHEET ONLY)**

- CONNECT NEW AIR DEVICE TO EXISTING TAKE-OFF. IF NECESSARY, MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW DUCT IN ORDER TO MAKE CONNECTION TO AIR DEVICE IN NEW LOCATION. ANY FLEX DUCT USED SHALL NOT BE LONGER THAN 4'-0". SEE DETAIL 1/M3.I. COORDINATE AIR DEVICE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN.
- AIR CURTAIN MOUNTED OVER DOOR HEADER AT 7'-2" AFF TO BOTTOM OF UNIT. PROVIDE BLOCKING IN WALL BEHIND AIR CURTAIN. USE FACTORY PRE-PUNCHED MOUNTING HOLES ON BACK SIDE OF AIR CURTAIN ONLY. ATTACH AIR CURTAIN TO WALL USING 3/8" LAG BOLTS, LENGTH AS REQUIRED TO FULLY PENETRATE BLOCKING. LOCATE MAGNETIC CONTACT TYPE MICROSWITCH IN DOOR FRAME ON STRIKE SIDE.
- BRANCH TAKE-OFFS SHALL NOT BE LOCATED CLOSER THAN 3'-0" FROM ANY ELBOW INCLUDING THE SUPPLY AIR DROP FROM CURB.
- TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. PROVIDE TURNING VANES IN ELBOWS, INCLUDING THE SUPPLY AIR DROP FROM UNIT.
- TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. NO TURNING VANES IN ELBOW.
- HALTON MBD DAMPER AT HOOD COLLAR BY MECHANICAL CONTRACTOR. REFER TO SHEET M2.I AND M.I.I FOR FURTHER INFORMATION.
- MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
- GREASE DUCT UP THRU ROOF FROM FULL SIZE OF MBD COLLAR. OFFSETS THRU ROOF NOT TO BE GREATER THAN 45 DEGREES. SEE SHEET M.I.2 FOR CONTINUATION.
- MOUNT NEW SMOKE DETECTOR TEST/RESET STATIONS FOR ALL A/C UNITS ON WALL. COORDINATE EXACT LOCATION WITH KITCHEN ELEVATIONS AND ELECTRICAL. CONTACT SUNCOAST ENVIRONMENTAL CONTROLS AT 1-877-544-6679 TO PURCHASE A NEW SMOKE DETECTOR TEST/RESET STATION FOR EACH RTU.
- ROUTE DUCT BETWEEN WALL STUDS ABOVE CEILING. COORDINATE WITH ARCH AND STRUCTURAL FOR EXACT LOCATION. USE P WRAP AT WALL PENETRATION.
- ANSUL UTILITY CABINET. LOCATE TOP OF CABINET 0'-2" BELOW CEILING. COORDINATE FINAL MOUNTING LOCATION WITH KITCHEN EQUIPMENT.
- PROVIDE & INSTALL NEW SPIN-IN COLLAR AND ROUTE NEW DUCT TO NEW GRILLE AS SHOWN.
- RUSKIN MODEL MDRS25 OR EQUIVALENT MANUAL VOLUME DAMPER WITH LOCKING QUADRANT HANDLE.
- CONTACT SUNCOAST ENVIRONMENTAL CONTROLS TO PURCHASE A NEW TSTAT FOR EACH NEW RTU. NEW TSTATS SHALL BE INSTALLED IN EXISTING CFA T500 PANEL. CONTROL WIRING TERMINATIONS BETWEEN NEW TSTATS, NEW SENSORS, AND NEW RTUS BY MECHANICAL CONTRACTOR. REFER TO WIRING DIAGRAM ON SHEET M4.I.
- GC TO CONFIRM EXACT LOCATION OF ACH#3 MAIN DUCT RUNS RELATIVE TO PROPOSED NEW WALL PRIOR TO START OF CONSTRUCTION. CONTACT J.L. PM OR AOR IF DETERMINED THERE IS A CONFLICT.

**MECHANICAL FLOOR PLAN**

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

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

**TOTAL AIR BALANCE SCHEDULE**

| EQUIPMENT MARK  | ACH#1 (NEW)  | ACH#2 (NEW) | ACH#3 (NEW) | ACH#4 (EXIST) | EF#1 (NEW)         | EF#2 (NEW)       | EF#3 (EXIST) | TOTAL  |
|-----------------|--|-------------|-------------|---------------|--------------------|------------------|--------------|--------|
| SERVES          | KITCHEN  | SIDE DINING | MAIN DINING | PLAY AREA     | HOOD#1L<br>HOOD#1R | HOOD#2<br>HOOD#3 | REST-ROOMS   |        |
| SUPPLY AIR CFM  | 8,500  | 2,830       | 5,000       | 1,800         |                    |                  |              | 18,130 |
| RETURN AIR CFM  | 6,500  | 2,080       | 3,645       | 1,500         |                    |                  |              | 13,725 |
| OUTSIDE AIR CFM | 2,000  | 750         | 1,355       | 300           |                    |                  |              | +4,405 |
| EXHAUST CFM     |  |             |             |               | 1,913              | 1,402            | 400          | -3,715 |
| PRESSURIZATION  |  |             |             |               |                    |                  |              | +690   |
| REMARKS         | ADJUST AND VERIFY BALANCE OF ALL HVAC EQUIPMENT IS AS SHOWN IN ORDER TO MAINTAIN BUILDING AIR BALANCE. |             |             |               |                    |                  |              |        |

**CHICK-FIL-A**  
**MOREHEAD CITY**  
5156 Highway 70 West  
Morehead City, NC 28557

**FSR#02134**

BUILDING TYPE / SIZE: S06E-R  
RELEASE: v12.20

**REVISION SCHEDULE**

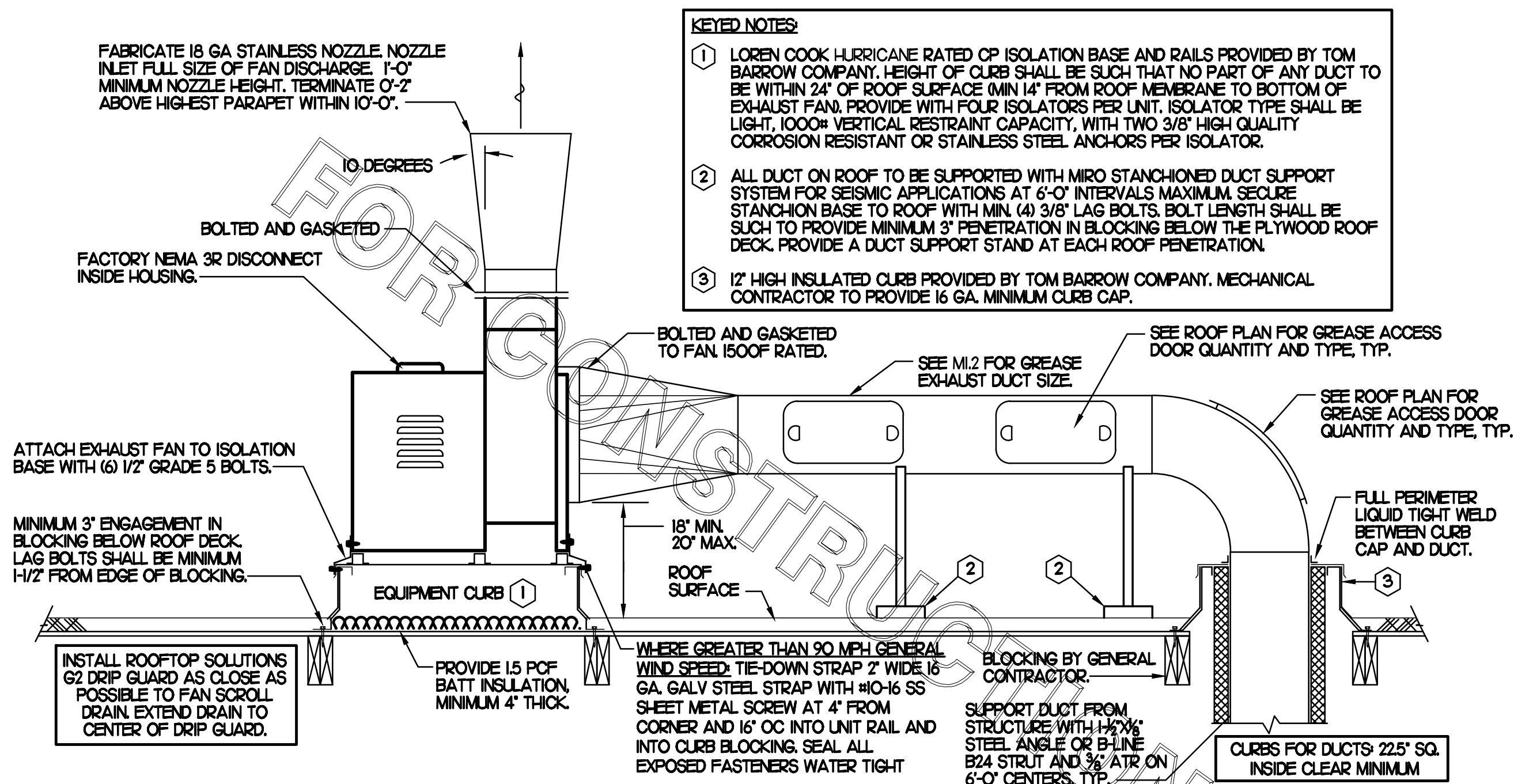
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SHEET MECHANICAL FLOOR PLAN  
SHEET NUMBER

**M1.1**

CONSTRUCTION



- 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. ISOLATOR TYPE 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 1/2" GA. MINIMUM CURB CAP.

**2 KITCHEN HOOD EXHAUST FAN - UTILITY SET FAN**  
NO SCALE

**SHEET NOTES**

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

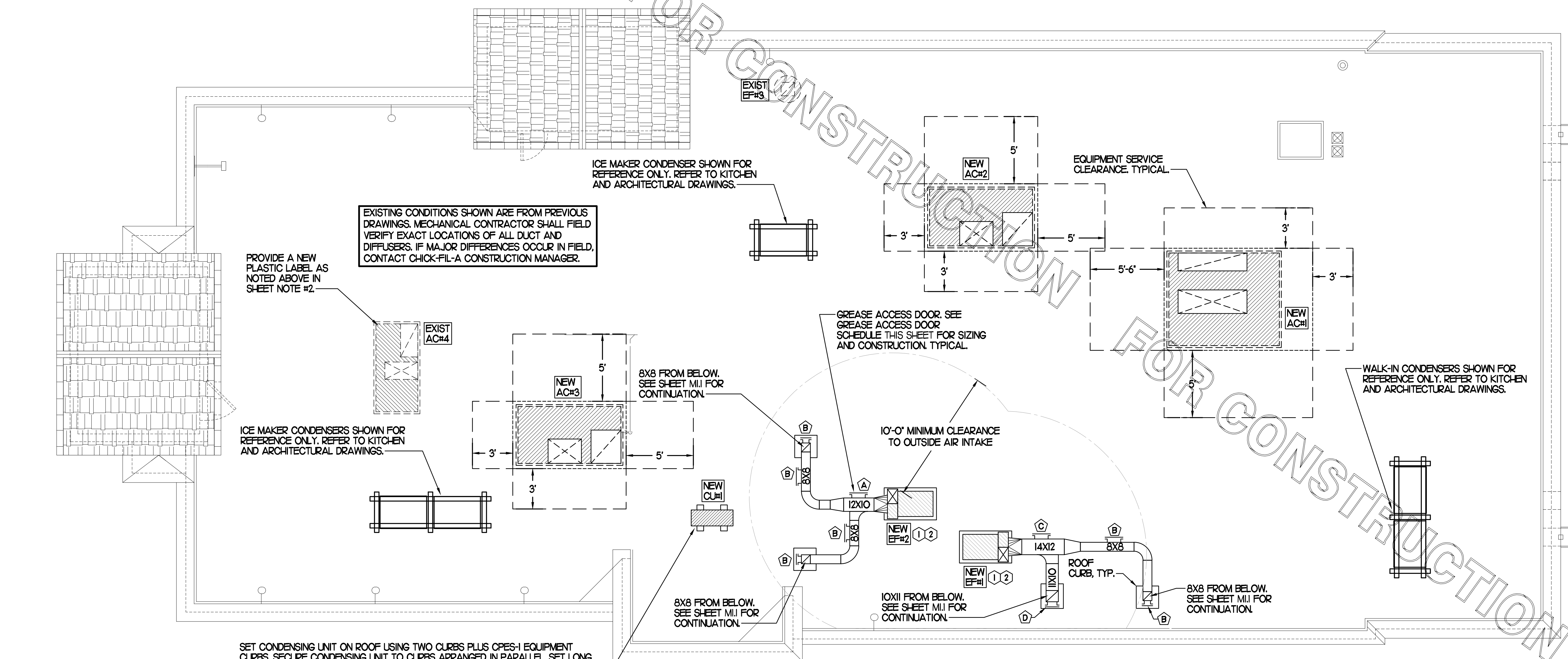
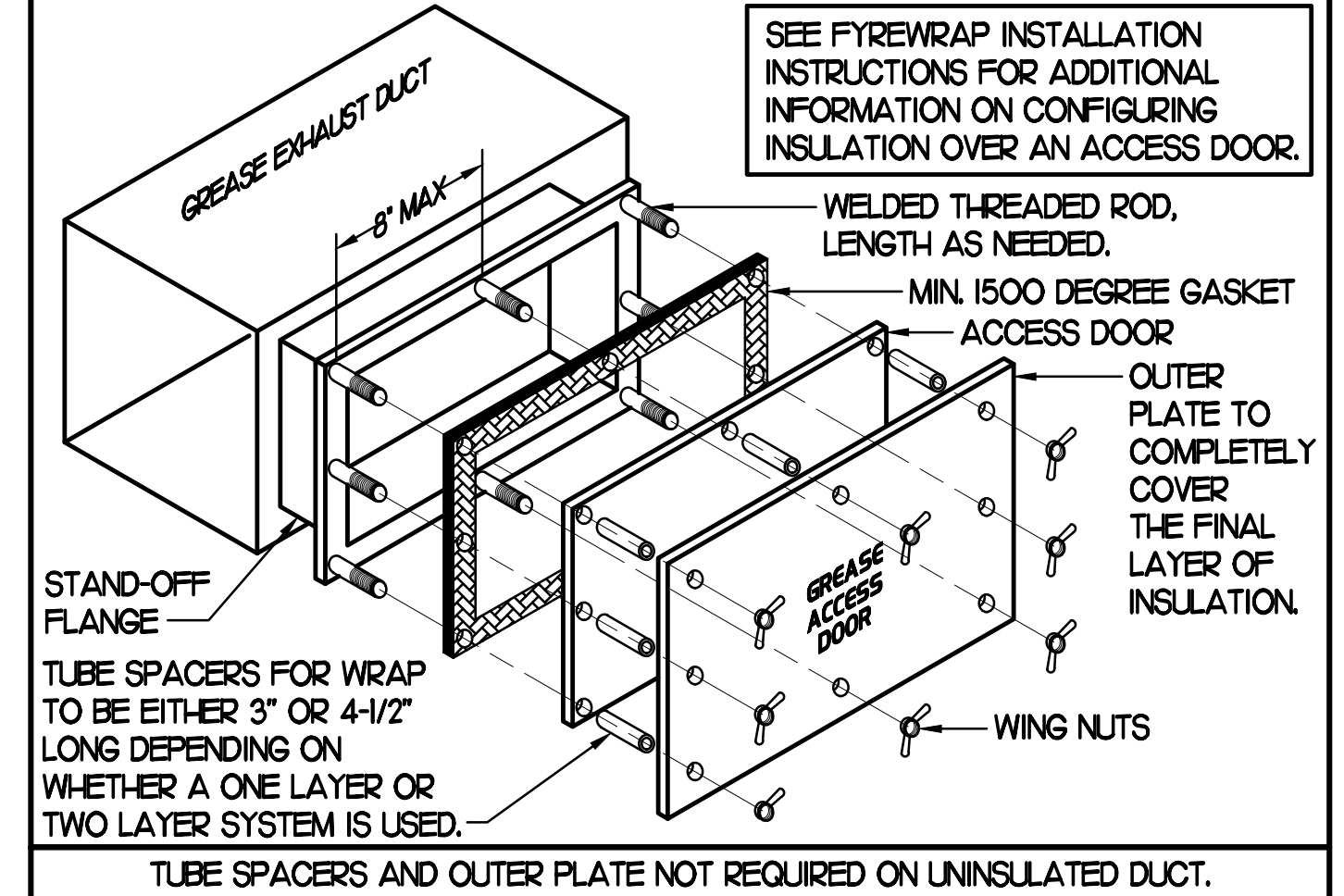
**KEY NOTES**

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

**GREASE ACCESS DOOR SCHEDULE**

| MARK | OPENING SIZE | DOOR SIZE   | REMARKS |
|------|--------------|-------------|---------|
| A    | 7.5H X 14W   | 9.5H X 16W  | 1       |
| B    | 5.5H X 14W   | 7.5H X 16W  | 1       |
| C    | 9.5H X 14W   | 11.5H X 16W | 1       |
| D    | 8.5H X 14W   | 10.5H 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 TUMB SCREWS. ACCESS DOORS SHALL BE SEALED WITH A MINIMUM 1500 DEGREE GASKET MATERIAL EQUIVALENT TO THAT MANUFACTURED BY BRETON INDUSTRIES, INC (800) 382-2491.



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



**Chick-fil-A**

**Chick-fil-A**  
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**CHICK-FIL-A**  
**MOREHEAD CITY**  
5156 Highway 70 West  
Morehead City, NC 28557

**FSR#02134**

BUILDING TYPE / SIZE: S06E-R  
RELEASE: v12.20

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
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SHEET  
**MECHANICAL ROOF PLAN**  
SHEET NUMBER

**M1.2**

**CONSTRUCTION**



CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRON COMPANY FOR THE ROYAL METAL START COLLARS. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE ROYAL METAL START COLLARS DIRECTLY FROM TOM BARRON COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. ROYAL METAL START COLLARS NOT PURCHASED THRU TOM BARRON COMPANY WILL NOT BE ACCEPTED.

DAMPER CONTROL HANDLE MUST BE LEFT EXPOSED, LOCATED ON THE LEFT OR RIGHT SIDE WHEN INSTALLED ON HORIZONTAL DUCTS, AND LOCATED ON THE BOTTOM WHEN INSTALLED ON VERTICAL DUCTS. DAMPER CONTROL HANDLES NOT INSTALLED IN THE CORRECT ORIENTATION AS SPECIFIED ABOVE WILL NOT BE ACCEPTED. ATTACH A YELLOW FLUORESCENT CONSTRUCTION RIBBON TO THE HANDLE. RIBBON MUST BE 12" LONG AND BE EASILY IDENTIFIABLE FOR TEST AND BALANCE CONTRACTOR.

DO NOT APPLY START COLLAR OVER DUCT WRAP.

MINIMUM 1'-0" OF RIGID DUCT AFTER SPIN-IN.

DAMPER CONTROL HANDLE

ROYAL METAL STICK-ON START COLLAR.

MAIN OR BRANCH MAIN

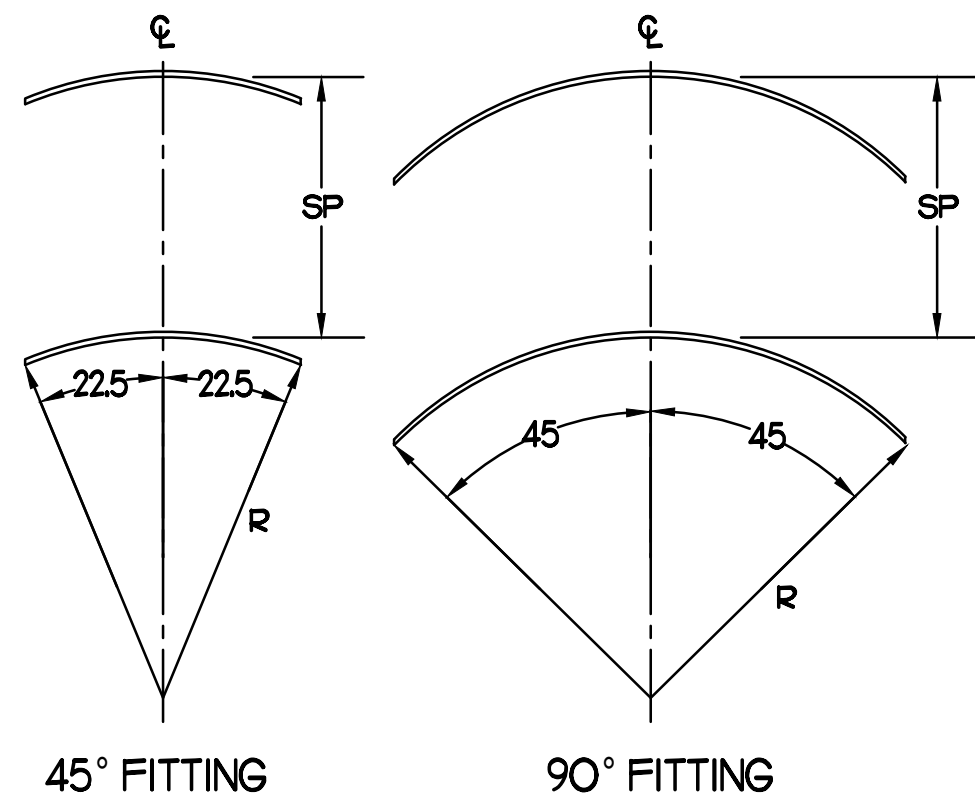
AIR FLOW

STICK-ON FITTINGS MUST BE SECURED WITH A SCREW AT EVERY PREPUNCHED HOLE.

**TURNING VANE SCHEDULE**

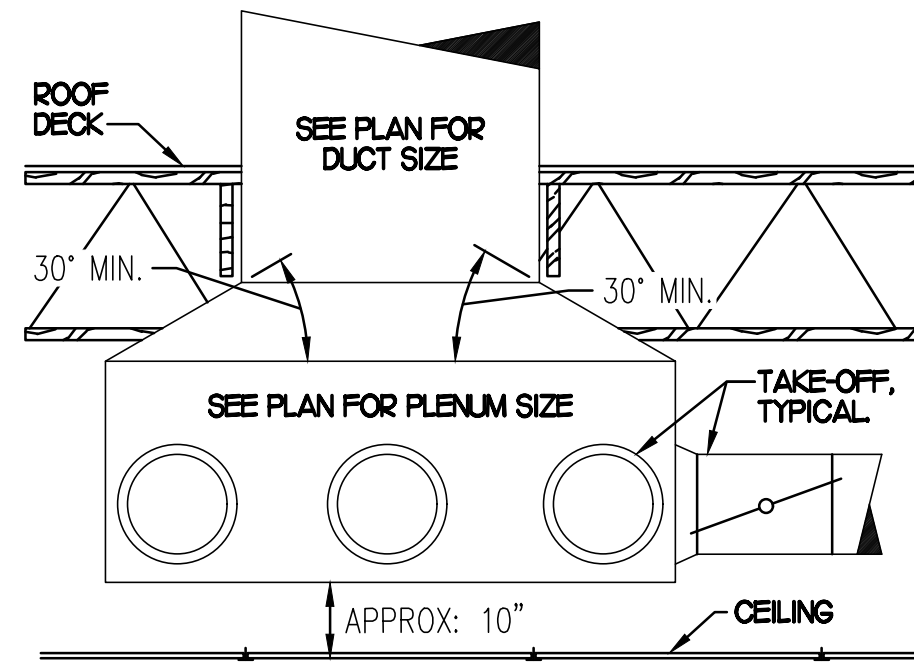
| R  | SP  | GA |
|----|-----|----|
| 2" | 15" | 24 |

1) NO TRAILING EDGE  
2) SINGLE THICKNESS CONSTRUCTION



**3 TURNING VANES**

NO SCALE

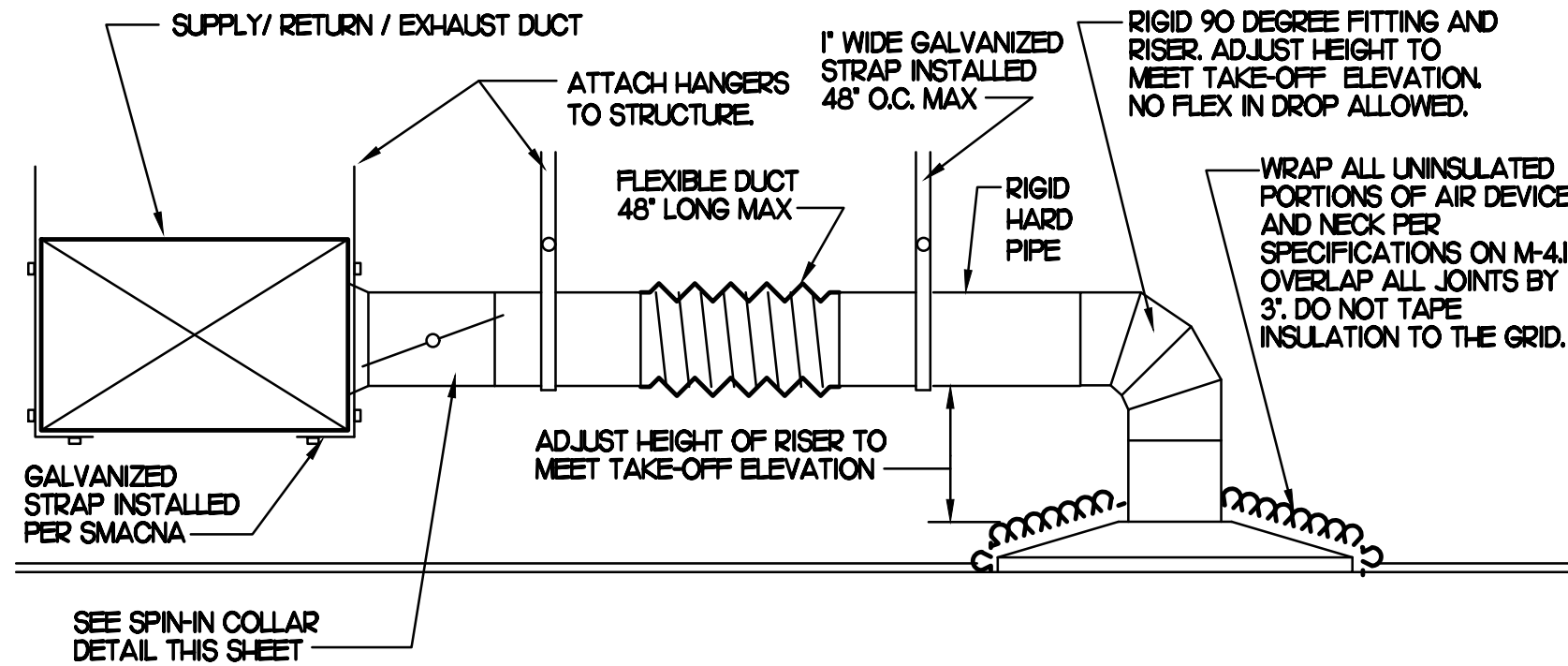


**5 RETURN DROP GEOMETRY**

NO SCALE

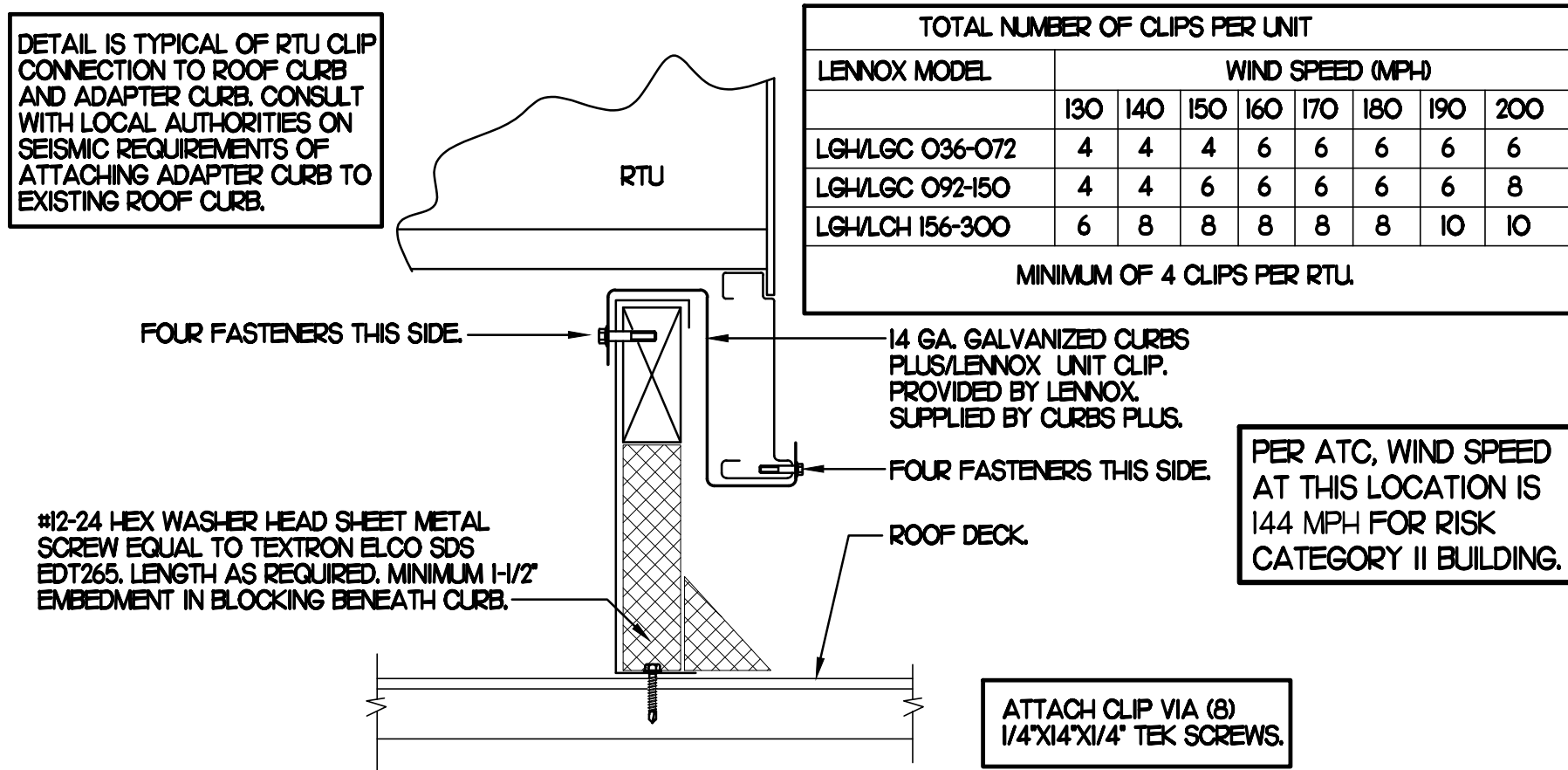
**2 START COLLAR**

NO SCALE



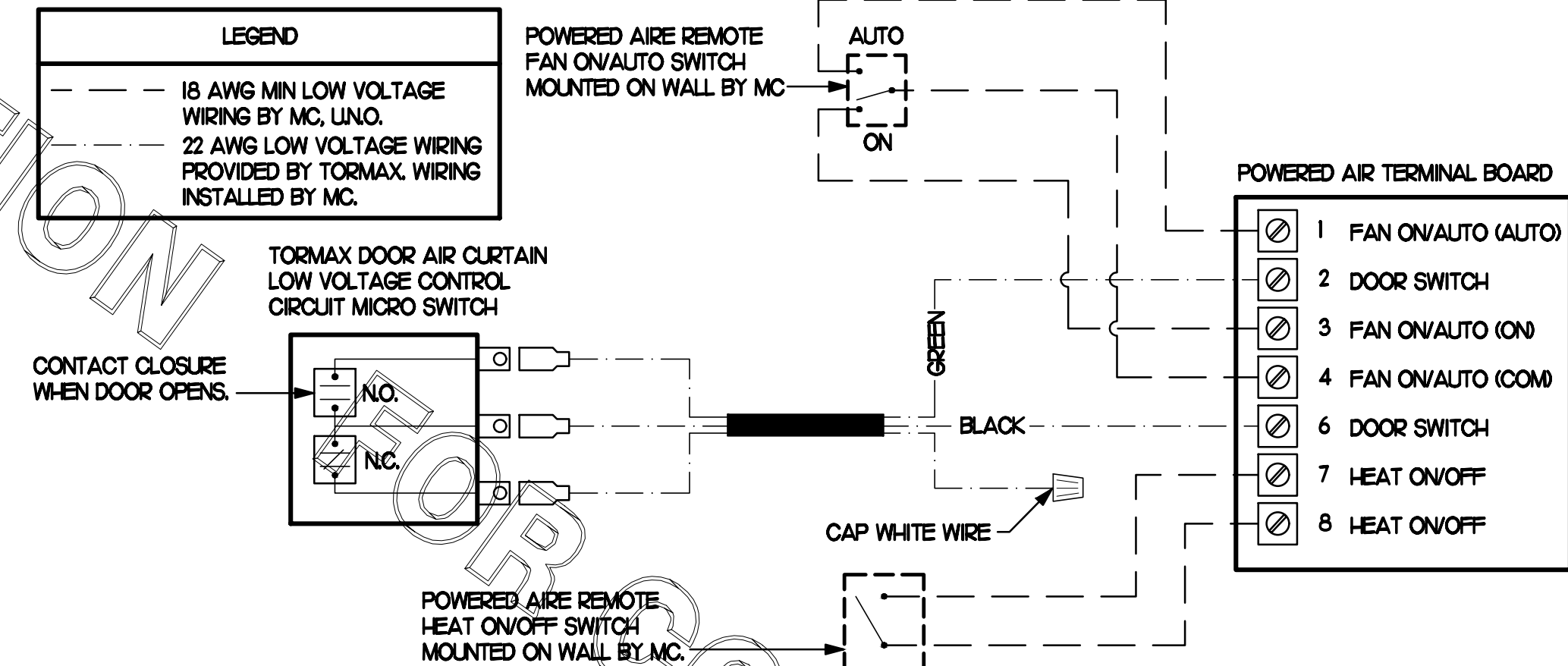
**1 SAG/RAG/GRILLE TAKE-OFF**

NO SCALE



**6 RTU UNIT CLIPS**

NO SCALE



**4 AIR CURTAIN WIRING DIAGRAM**

NO SCALE

**AIR DEVICE SCHEDULE**

| MARK    | DESCRIPTION   | LOCATION            | NECK SIZE | FACE SIZE | FRAME TYPE | REMARKS |
|---------|---|---------------------|-----------|-----------|------------|---------|
| A       | PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.  | DINING AREA KITCHEN | SEE PLAN  | 24X24     | LAY-IN     | 17      |
| C       | PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.  | ENTRYS              | 14X14     | 20X20     | BEVELLED   | 13,5.6  |
| D       | PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.  | DINING AREA KITCHEN | SEE PLAN  | 16X16     | LAY-IN     | 17      |
| F       | PRICE MODEL 80 EGGRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CORE. FACTORY FLAT BLACK BACKPAN AND ROUND NECK.  | DINING KITCHEN      | SEE PLAN  | 24X24     | LAY-IN     | 17      |
| J       | PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.  | RESTROOMS           | 10X10     | 16X16     | BEVELLED   | 12,3.6  |
| K       | PRICE MODEL APDOR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.   | RESTROOMS ENTRYS    | 14X14     | 17X17     | SURFACE    | 14,5.6  |
| NOTES   | MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARRON COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARRON COMPANY WILL NOT BE ACCEPTED.   |                     |           |           |            |         |
| REMARKS | 1. STANDARD OFF WHITE FINISH.<br>2. PROVIDE MODEL VCS3 NECK DAMPER.<br>3. SEE DRAWING M11 FOR THROW.<br>4. PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS.<br>5. PROVIDE BACKPAN MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY.<br>6. FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1/M31.<br>7. FACTORY INSULATED R-6 BACKPAN. |                     |           |           |            |         |

**AIR DOOR SCHEDULE**

| MARK       | CFM  | VELOCITY | HEATING CAP | HP  | AREA SERVED     | MODEL    | MANUFACTURER | REMARKS |
|------------|--|----------|-------------|-----|-----------------|----------|--------------|---------|
| AD#1 (NEW) | 1,543  | 2,338    | 10 KW       | 3/4 | DRIVE THRU      | CHA-148E | POWERED-AIRE | 2-5     |
| AD#2 (NEW) | 3,867  | 4,220    | NA          | 3/4 | REAR DOOR       | RBT-148  | POWERED-AIRE | 1       |
| AD#3 (NEW) | 2,899  | 4,220    | NA          | 3/4 | DRIVE THRU DOOR | RBT-136  | POWERED-AIRE | 1       |
| NOTES      | CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRON COMPANY FOR THE AIR DOORS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARRON COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARRON COMPANY WILL NOT BE ACCEPTED.  |          |             |     |                 |          |              |         |
| REMARKS    | 1. FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.<br>2. FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER LOCATED ABOVE CEILING.<br>3. FACTORY WIRED DISCONNECT.<br>4. FACTORY PROVIDED, FIELD INSTALLED REMOTE WALL SWITCHES FOR HEATING ON/OFF AND FAN ON/AUTO SWITCH. SEE AIR CURTAIN WIRING DIAGRAM DETAIL THIS SHEET.<br>5. PROVIDE WITH DIVERTER BOX FROM TOM BARRON COMPANY. PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL PER MANUFACTURER'S MOUNTING INSTRUCTIONS. |          |             |     |                 |          |              |         |

**EXHAUST FAN SCHEDULE**

| MARK         | CFM  | ESP  | RPM   | TIP SPEED (FPM) | HP (WATTS) | AREA SERVED     | MODEL   | MANUFACTURER | REMARKS |
|--------------|--|------|-------|-----------------|------------|-----------------|---------|--------------|---------|
| EF#1 (NEW)   | 1,913  | 0.75 | 1,331 | 5,226           | 3/4        | HOOD#1 & HOOD#R | 150 CPS | LOREN COOK   | H-3     |
| EF#2 (NEW)   | 1,402  | 0.95 | 1,199 | 4,708           | 3/4        | HOOD#2 & HOOD#B | 150 CPS | LOREN COOK   | H-3     |
| EF#3 (EXIST) | 400  | -    | -     | -               | -          | RESTROOMS       | -       | EXISTING     | -       |
| NOTES        | GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL.<br>GREASE EXHAUST FANS TO BE UL 762 LISTED.<br>CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRON COMPANY FOR FAN/CLUB PACKAGE. MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CLUB PACKAGE DIRECTLY FROM TOM BARRON COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARRON COMPANY WILL NOT BE ACCEPTED.   |      |       |                 |            |                 |         |              |         |
| REMARKS      | 1. PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MC. TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034<br>2. PROVIDE FACTORY INSTALLED, PRE-WIRED, NEMA 3 NON-FUSED DISCONNECT. COORDINATE WITH E.C.<br>3. INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET.<br>4. UP/BLAST, ARRANGEMENT 10, CCW ROTATION. SEE PLANS TO CONFIRM CONFIGURATION.<br>5. PROVIDE FACTORY STEEL FAN WHEEL.<br>6. PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE.<br>7. PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.<br>8. PROVIDE FACTORY DRAIN CONNECTION.<br>9. PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL.<br>10. PROVIDE FACTORY STEEL OUTLET COMPANION FLANGE.<br>11. UTILITY SET FAN CURB AND ASSOCIATED EXHAUST DUCT CURB PROVIDED BY TOM BARRON COMPANY.<br>12. PROVIDE FACTORY BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT.<br>13. EXHAUST FAN SHALL BE HURRICANE RATED. |      |       |                 |            |                 |         |              |         |

**GAS FIRED ROOFTOP UNIT SCHEDULE**

| MARK         | COOLING CAPACITY (MBH)  |       | HEATING CAPACITY (MBH) |        | FAN SECTION (CFM) |        |       | MODEL | MANUFACTURER | REMARKS   |          |         |
|--------------|---|-------|------------------------|--------|-------------------|--------|-------|-------|--------------|-----------|----------|---------|
|              | TOTAL   | SENS  | INPUT                  | OUTPUT | STAGES            | SUPPLY | O.A.  |       |              |           | HP       | ESP     |
| ACH (NEW)    | 286J  | 208.9 | 480.0                  | 389.0  | 2                 | 8,500  | 2,000 | 7.5   | 0.8          | LGT300S4M | LENNOX   | H214-17 |
| ACH2 (NEW)   | 96.6  | 67.6  | 240.0                  | 194.0  | 2                 | 2,830  | 750   | 3.75  | 0.8          | LGT1024E  | LENNOX   | HU13-17 |
| ACH3 (NEW)   | 146J  | 108J  | 240.0                  | 194.0  | 2                 | 5,000  | 1,355 | 3.75  | 0.8          | LGT1504E  | LENNOX   | HU13-17 |
| ACH4 (EXIST) | -   | -     | -                      | -      | -                 | 1,800  | 300   | -     | -            | EXISTING  | EXISTING | -       |
| NOTES        | COOLING CAPACITIES ARE GROSS, BASED ON INDOOR EDB 80F, INDOOR EWB 67F, OUTDOOR EDB 95F. FOR PROPER BUILDING AIR BALANCE, VERIFY AMOUNT OF OUTSIDE AIR PROVIDED BY ALL EXISTING UNITS. ADJUST AS PER SCHEDULE IF NECESSARY.<br>VERIFY MIN. 10' DISTANCE OF O.A. INTAKE OPENINGS OF A/C UNITS FROM ANY EXISTING SOURCE OF AIR POLLUTION (EXHAUST FAN, COMBUSTION FLUE, VENT ETC). IF SUCH CONDITIONS EXIST, CONTRACTOR IS REQUIRED TO DUCT OUTSIDE AIR INTAKE ON ROOF AWAY FROM ANY SUCH SOURCE.  |       |                        |        |                   |        |       |       |              |           |          |         |
| REMARKS      | 1. PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST. ECONOMIZER TO BE LOW LEAKAGE/HIGH PERFORMANCE.<br>2. SEE DETAIL 2/M41 FOR SETTING OF PRODIGY M3 BOARD CONTROL PARAMETERS BY MC.<br>3. PROVIDE FACTORY INSTALLED AND UNIT POWERED 15V GFI SERVICE OUTLET.<br>4. PROVIDE FACTORY INSTALLED RETURN SIDE SMOKE DETECTOR.<br>5. PROVIDE FACTORY INSTALLED NON-FUSED DISCONNECT.<br>6. PROVIDE 2" MERV 8 THROW AWAY FILTERS.<br>7. PROVIDE HINGED PANELS FOR FILTER ACCESS, FAN MOTOR ACCESS, COMPRESSOR ACCESS AND CONTROL COMPARTMENT ACCESS.<br>8. ADJUST GAS MAINFOLD PRESSURE AT LOCATIONS WHERE ELEVATION EXCEEDS 2000' ABOVE SEA LEVEL AS RECOMMENDED BY MANUFACTURER.<br>9. PROVIDE FACTORY INSTALLED COIL HAIL GUARD.<br>10. PROVIDE HUMIDITROL OPTION WITH FACTORY WALL MOUNTED HUMIDITY SENSOR.<br>11. PROVIDE WITH FACTORY CONDENSATE DRAIN PAN OVERFLOW SWITCH.<br>12. PROVIDE FIELD INSTALLED BELT TENSIONER.<br>13. PROVIDE WITH FACTORY RETURN AIR ADAPTER PLATE.<br>14. PROVIDE WITH MSAV BLOWER.<br>15. PROVIDE FACTORY CONFIGURED PHASE LOGS PROTECTION.<br>16. PROVIDE HIGH FALLT SCOR (100K).<br>17. PROVIDE FACTORY RTU CURB RESTRAINT CLIPS. EXISTING CURB IS BEING RE-USED FOR NEW RTU. |       |                        |        |                   |        |       |       |              |           |          |         |

**DUCTLESS SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE**

| MARK          | COOLING CAPACITY (MBH)   |      | HEATING CAPACITY (MBH) |      | EFFICIENCIES | FAN SECTION (CFM) | ELECTRICAL DATA |      | R-410A MODEL | MFR      |                |             |          |
|---------------|--|------|------------------------|------|--------------|-------------------|-----------------|------|--------------|----------|----------------|-------------|----------|
|               | MIN  | MAX  | MIN                    | MAX  |              |                   | SEER            | HSPF |              |          | AIR FLOW (MET) | NCA (MCCP)  | VOLTAJE  |
| AHUMICM (NEW) | 18.0   | 33.5 | 18.0                   | 40.0 | 16.2         | 10.0              | 635-730-830     | 28   | 140          | 208V/160 | PKA-A36KA7     | PLZ-HA36HA5 | MTSLBISH |
| NOTES         | MECHANICAL CONTRACTOR SHALL PURCHASE THE SPLIT SYSTEM HEAT PUMP DIRECTLY FROM TRANE/MTSLBISH. CONTACT MS. LALRI FRANKOWSKI AT 630-400-4285, FOR PRICING AND AVAILABILITY.  |      |                        |      |              |                   |                 |      |              |          |                |             |          |
| REMARKS       | 1. ELECTRICIAN TO PROVIDE NON-FUSED DISCONNECT.<br>2. MECHANICAL TO PROVIDE AND INSTALL REFRIGERANT PIPING AS PER MFR RECOMMENDATIONS.<br>3. PROVIDE ENGRAVED PLASTIC LABEL AT AHU AND CU WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND RIVETED TO UNIT CABINET.<br>4. PROVIDE WITH ADEQUATE REFRIGERANT LINE SET. FIELD VERIFY DISTANCE FROM WHERE CONDENSER IS TO BE SET TO AIR HANDLER LOCATION PRIOR TO ORDERING.<br>5. PROVIDE WITH WALL MOUNTED THERMOSTAT (TAR-CT01MAU-SBL) USE TWO-WIRE, STANDARD, NON-POLAR CONTROL WIRE TO CONNECTOR TB5 ON INDOOR UNIT CONTROLLER. PROGRAM THERMOSTAT CONTROLS TO MATCH DRIVE-THRU RTU SETPOINTS.<br>6. PROVIDE PAC-SE56RA-E CONNECTOR AT INDOOR UNIT (CONNECTOR CH3), WIRE ORANGE AND RED WIRES TO SPARE POLE ON RELAY R-1 IN SLMCOAST T-500 PANEL (TERMINALS 11 AND 7 RESPECTIVELY) AND CAP THE BROWN WIRE.<br>7. PROVIDE WITH CONDENSATE PUMP (BLUE DIAMOND MAX) BLUE MODEL# X67-721. |      |                        |      |              |                   |                 |      |              |          |                |             |          |



Chick-fil-A

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No. F-0823, Expires 12/31/23



CHICK-FIL-A  
MOREHEAD CITY  
5156 Highway 70 West  
Morehead City, NC 28557

FSR#02134

BUILDING TYPE / SIZE: S06E-R  
RELEASE: v12.20

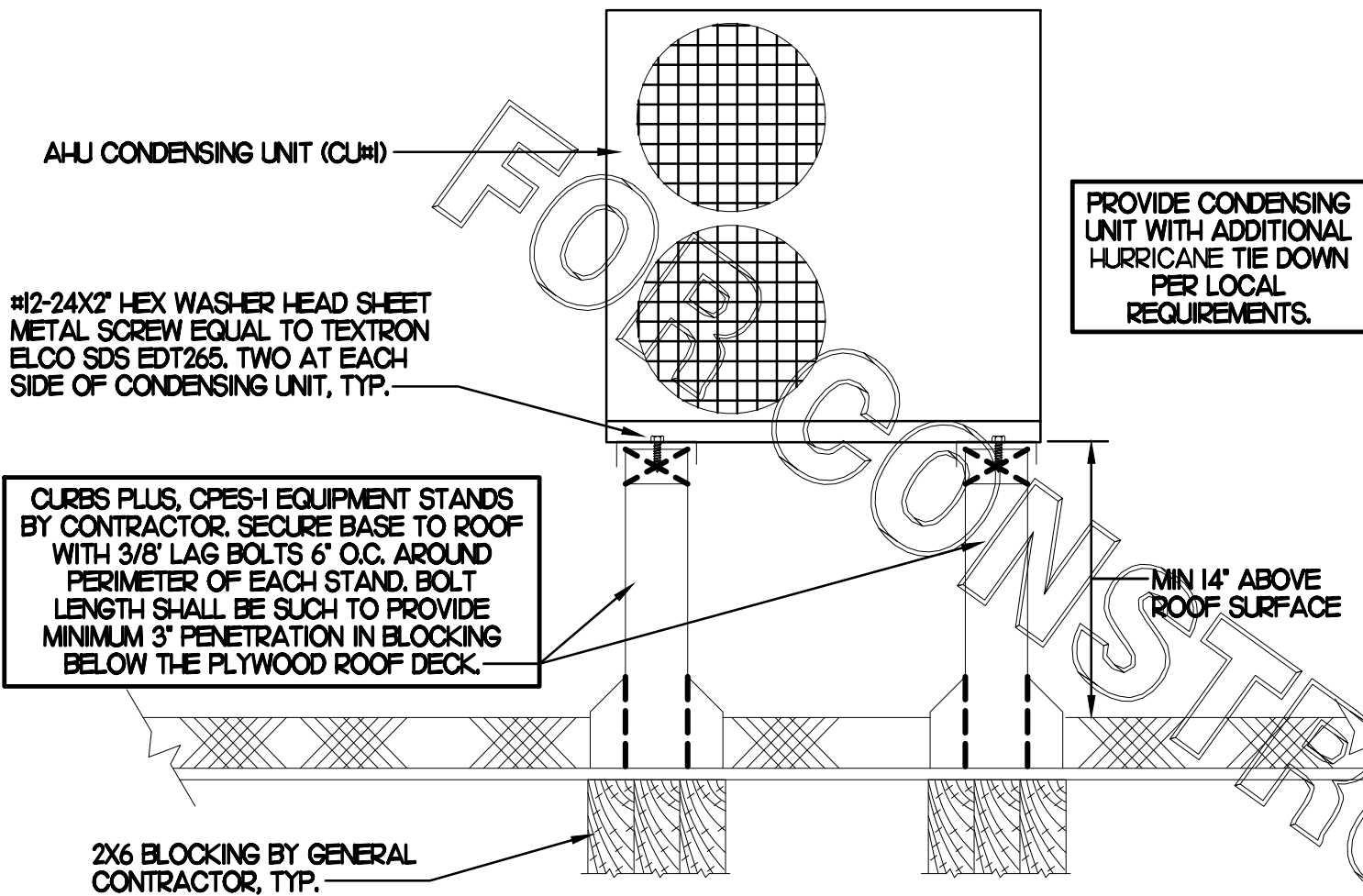
REVISION SCHEDULE  
NO. DATE DESCRIPTION

CONSULTANT PROJECT # 22180.HF.R  
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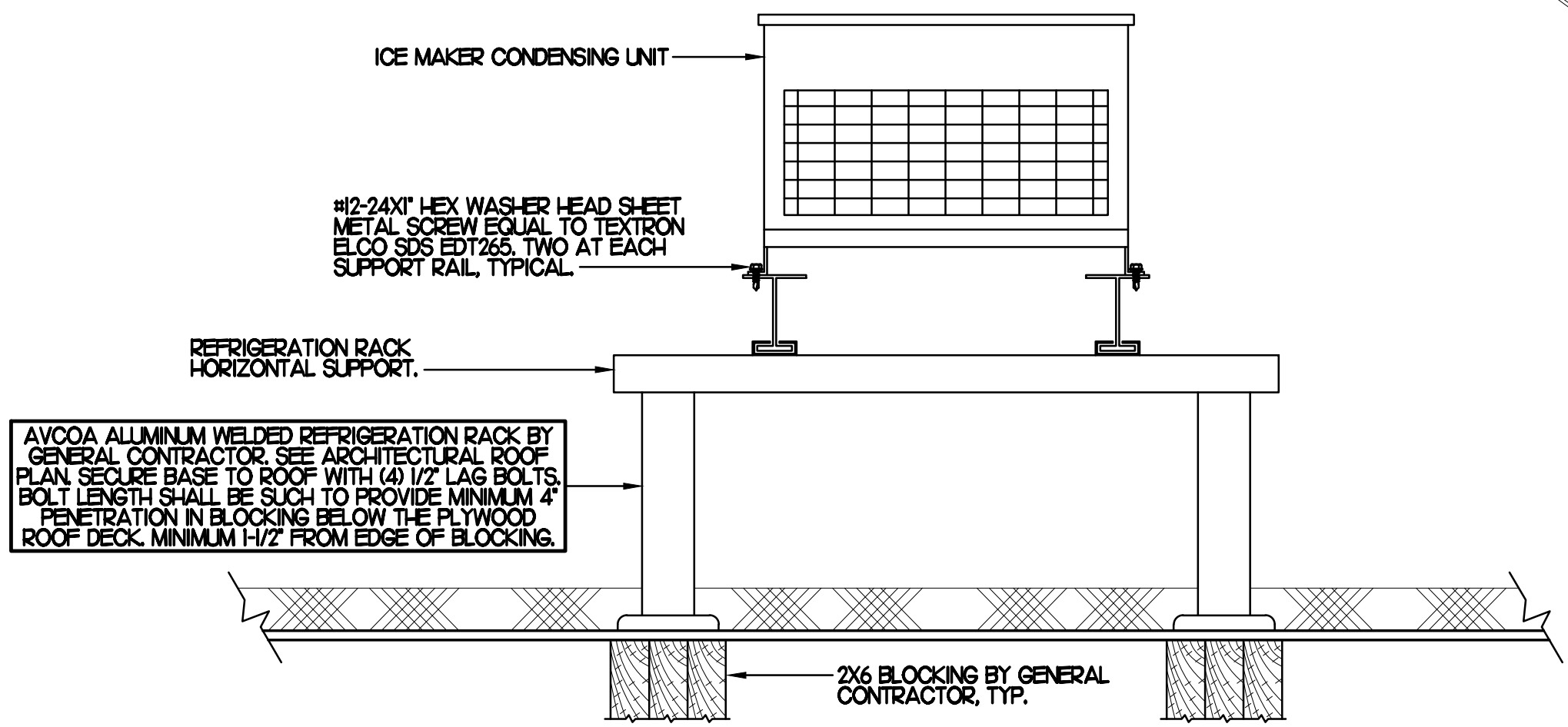
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SHEET  
MECH DETAILS & SCHEDULES  
SHEET NUMBER

M3.1

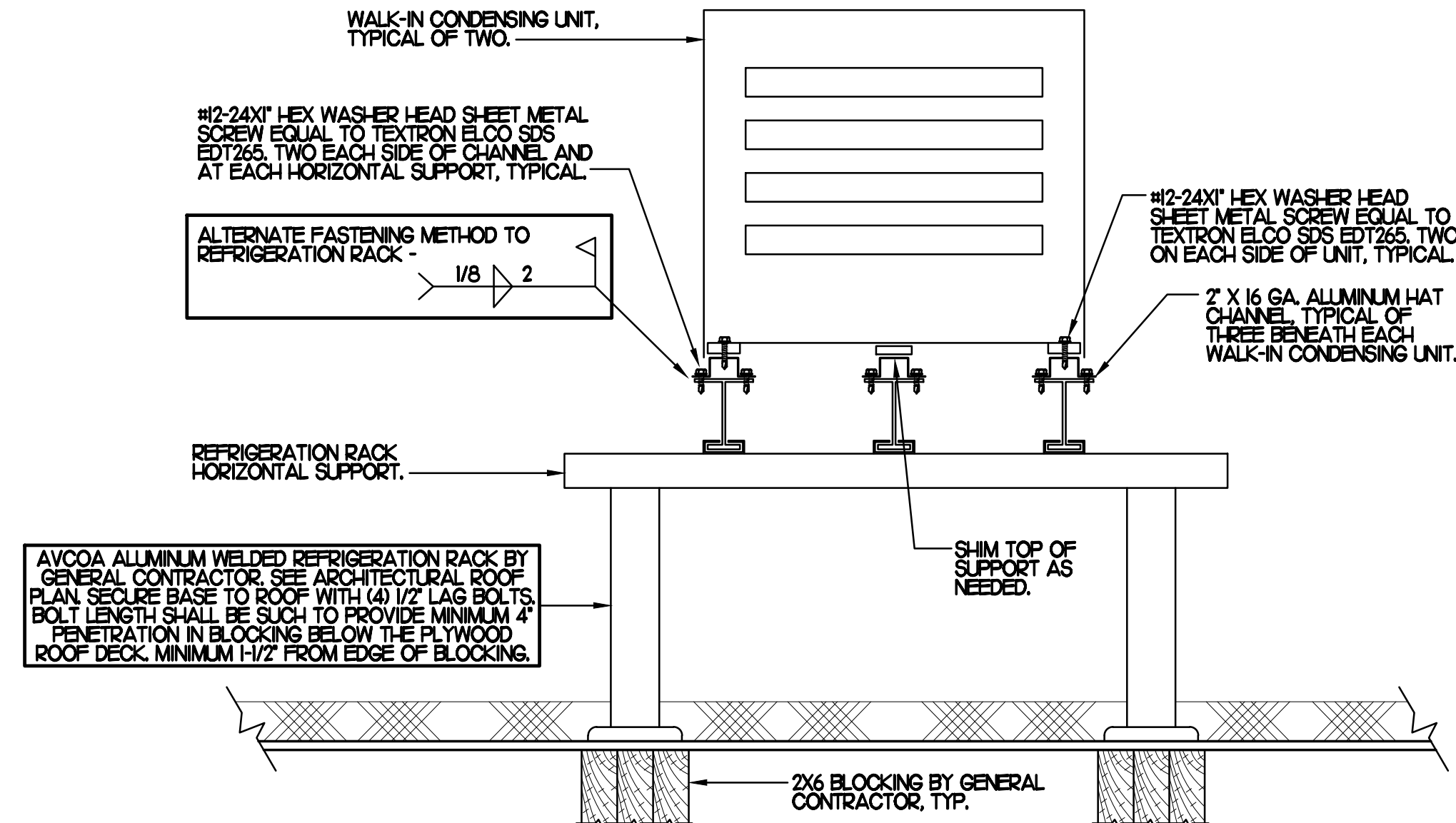
CONSTRUCTION



**1 AHU CONDENSING UNIT TIE DOWN**  
NO SCALE



**2 ICE MAKER CONDENSING UNIT TIE DOWN DETAIL**  
NO SCALE



**3 WALK-IN CONDENSING UNIT TIE DOWN DETAIL**  
NO SCALE



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MECH DETAILS  
& SCHEDULES  
SHEET NUMBER

**M3.2**

CONSTRUCTION

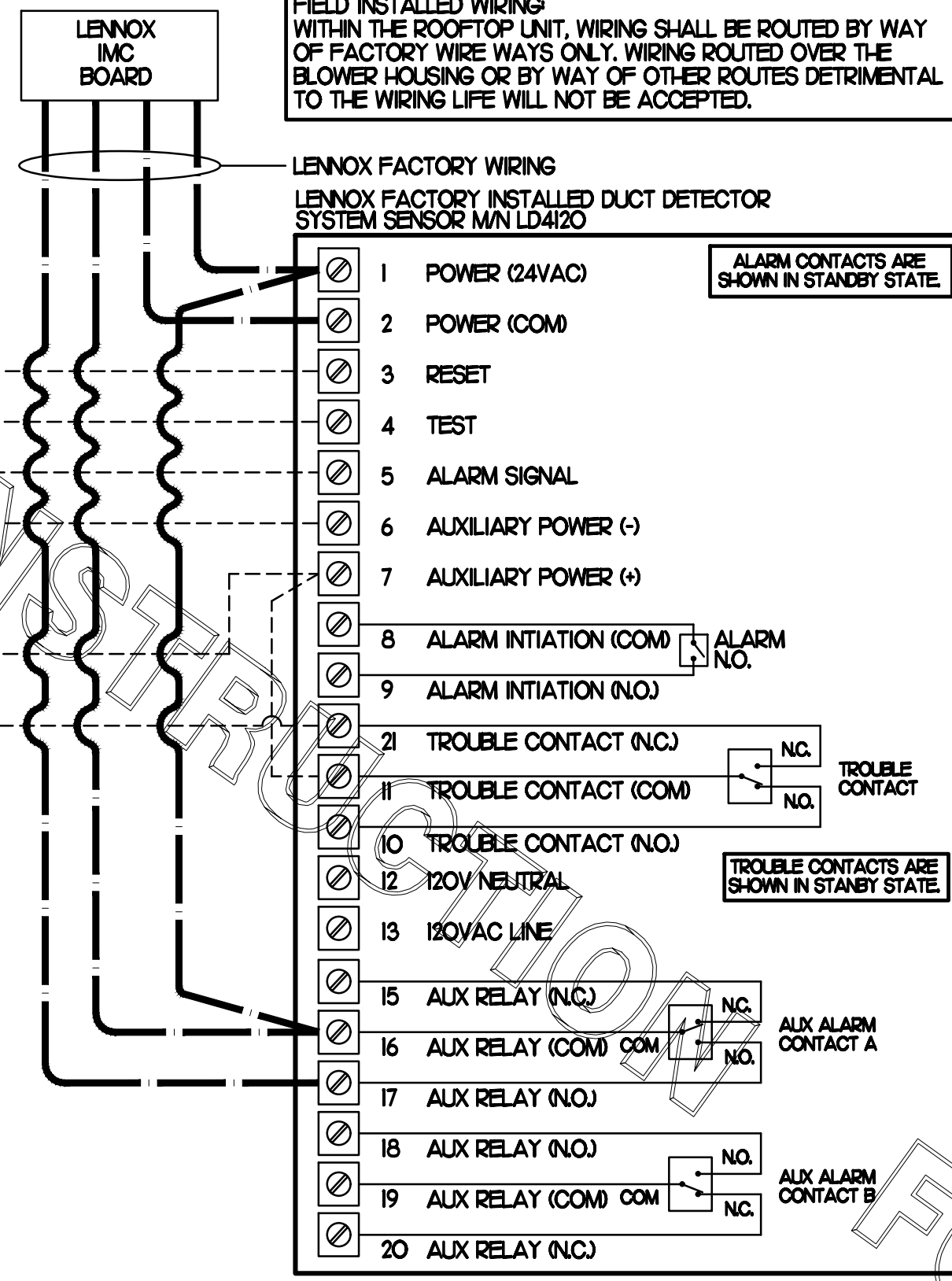
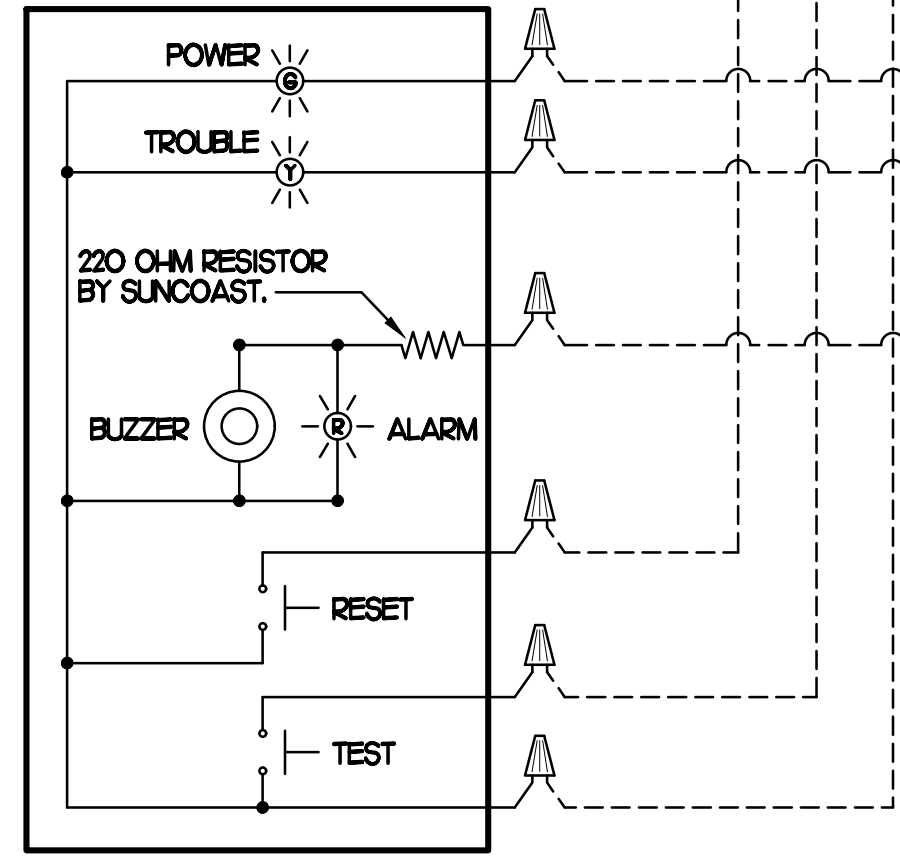
FOR CONSTRUCTION

SUPPLY SIDE DUCT DETECTORS WHERE SUPPLY SIDE DUCT DETECTORS ARE SHOWN ON DWG MLI AND/OR CALLED FOR ON THE RTU SCHEDULE, THE CONTRACTOR IS TO RELOCATE THE FACTORY INSTALLED SUPPLY SIDE DUCT DETECTOR FROM THE BLOWER SECTION TO THE DUCTWORK. SEE NOTES ON DWG MLI.

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

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

SUNCOAST CONTROLS ANNUNCIATOR



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

LENNOX FACTORY WIRING  
 LENNOX FACTORY INSTALLED DUCT DETECTOR SYSTEM SENSOR M/N LD4120

ALARM CONTACTS ARE SHOWN IN STANDBY STATE.

TROUBLE CONTACTS ARE SHOWN IN STANDBY STATE.

ALX ALARM CONTACT A

ALX ALARM CONTACT B

**1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - LENNOX**

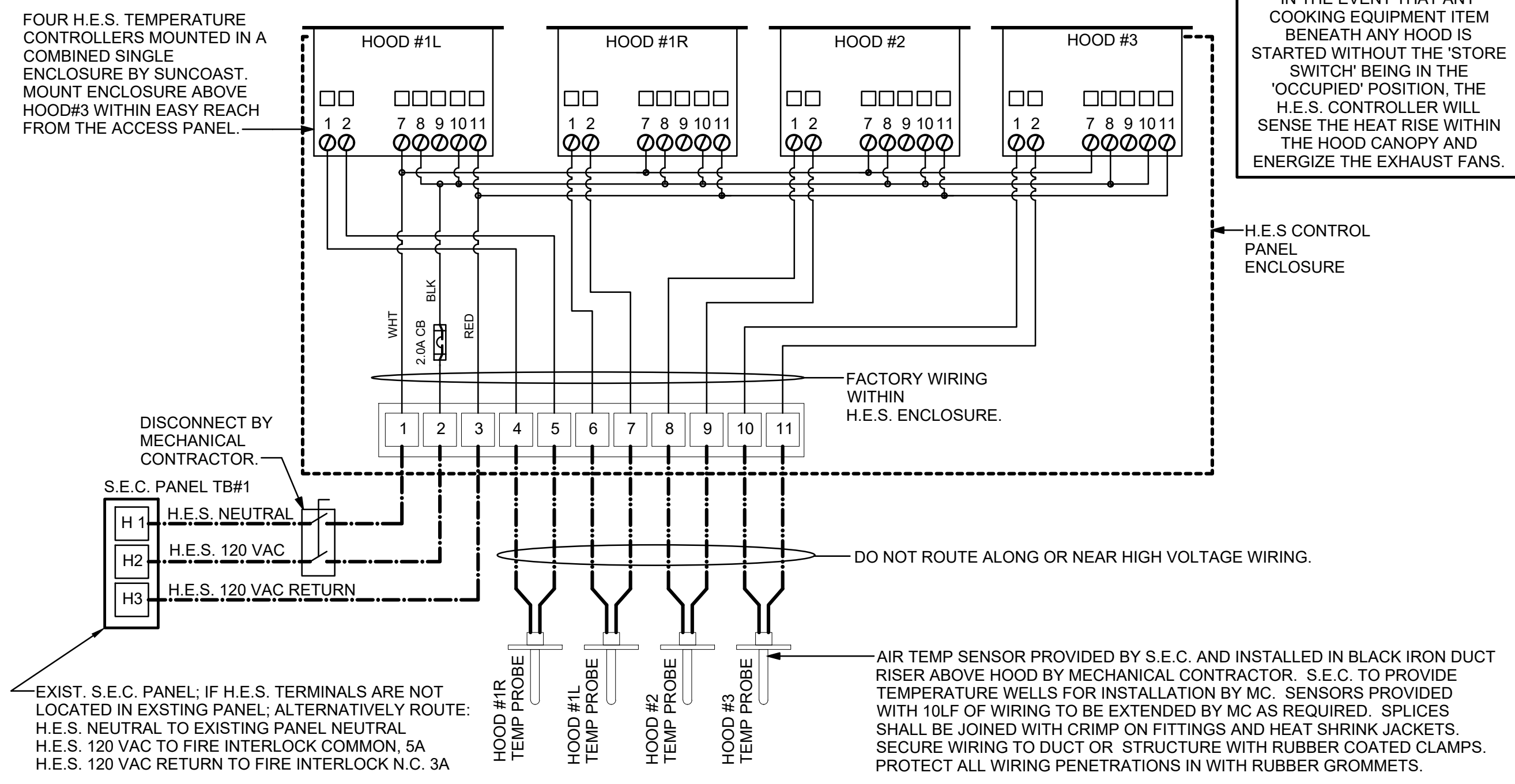
NO SCALE

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

**GENERAL NOTES**

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

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



**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.

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

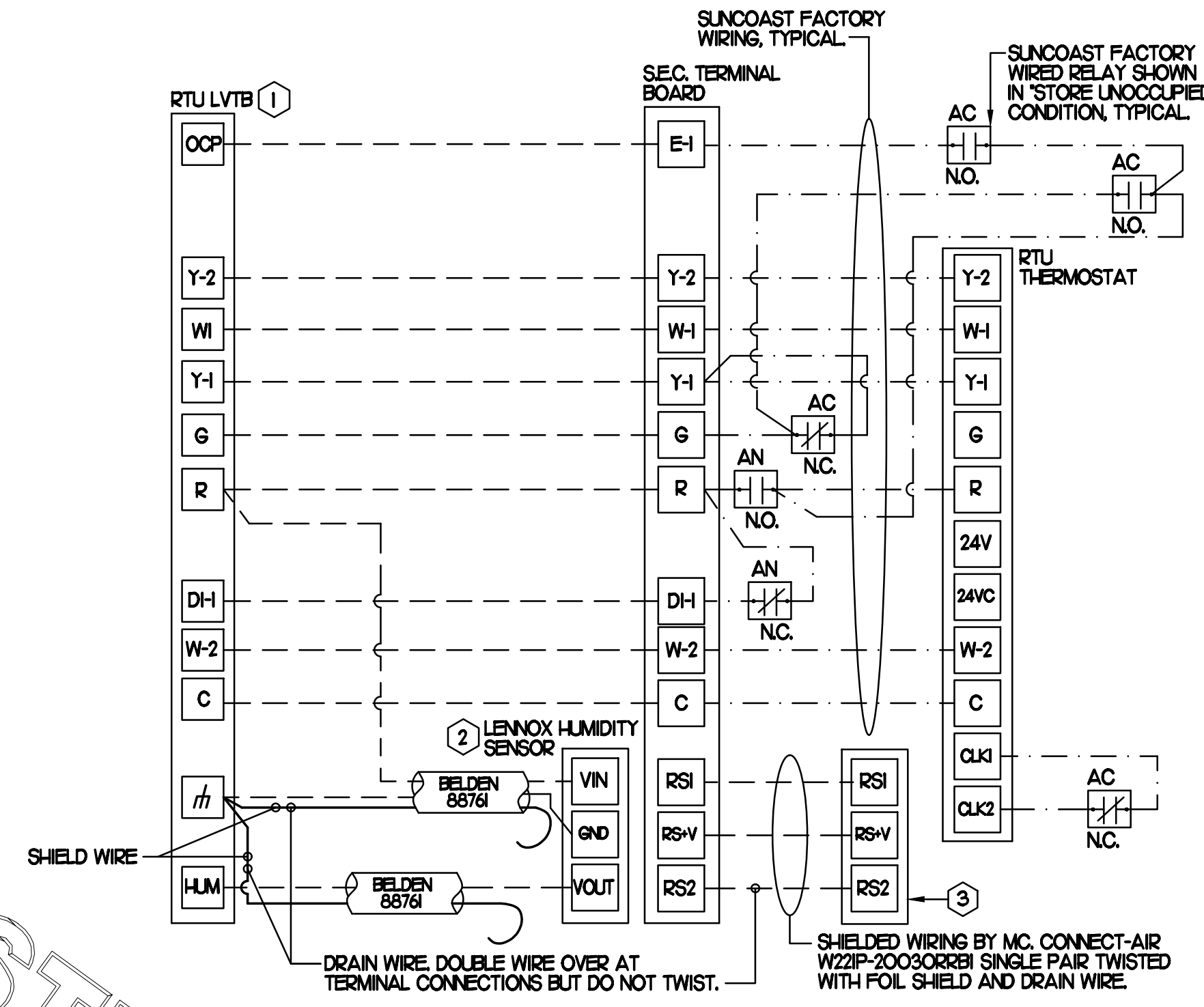
DO NOT ROUTE ALONG OR NEAR HIGH VOLTAGE WIRING.

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

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

NO SCALE

**LEGEND**  
 S.E.C. SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF TEMP/FAN CONTROL PANEL) LOCATED IN KITCHEN  
 KEY NOTE REFERENCE  
 (I) MC MECHANICAL CONTRACTOR  
 (AC) SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, ENERGIZED BY PUTTING STORE SWITCH IN 'STORE OCCUPIED' POSITION.  
 (AN) SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, DE-ENERGIZED WHEN ANSL FIRE SUPPRESSION SYSTEM IS ACTIVATED, AS NOTED.  
 - - - 22 AWG MIN LOW VOLTAGE WIRING BY MC, U.N.O. USE CONNECT-AIR SINGLE PAIR TWISTED WITH FOIL SHIELD AND DRAIN WIRE FOR TEMPERATURE SENSORS. (NOT FOR HUMIDITY SENSORS)  
 - - - LOW VOLTAGE WIRING BY S.E.C.  
 - - - LINE VOLTAGE BY ELECTRICIAN OR S.E.C.



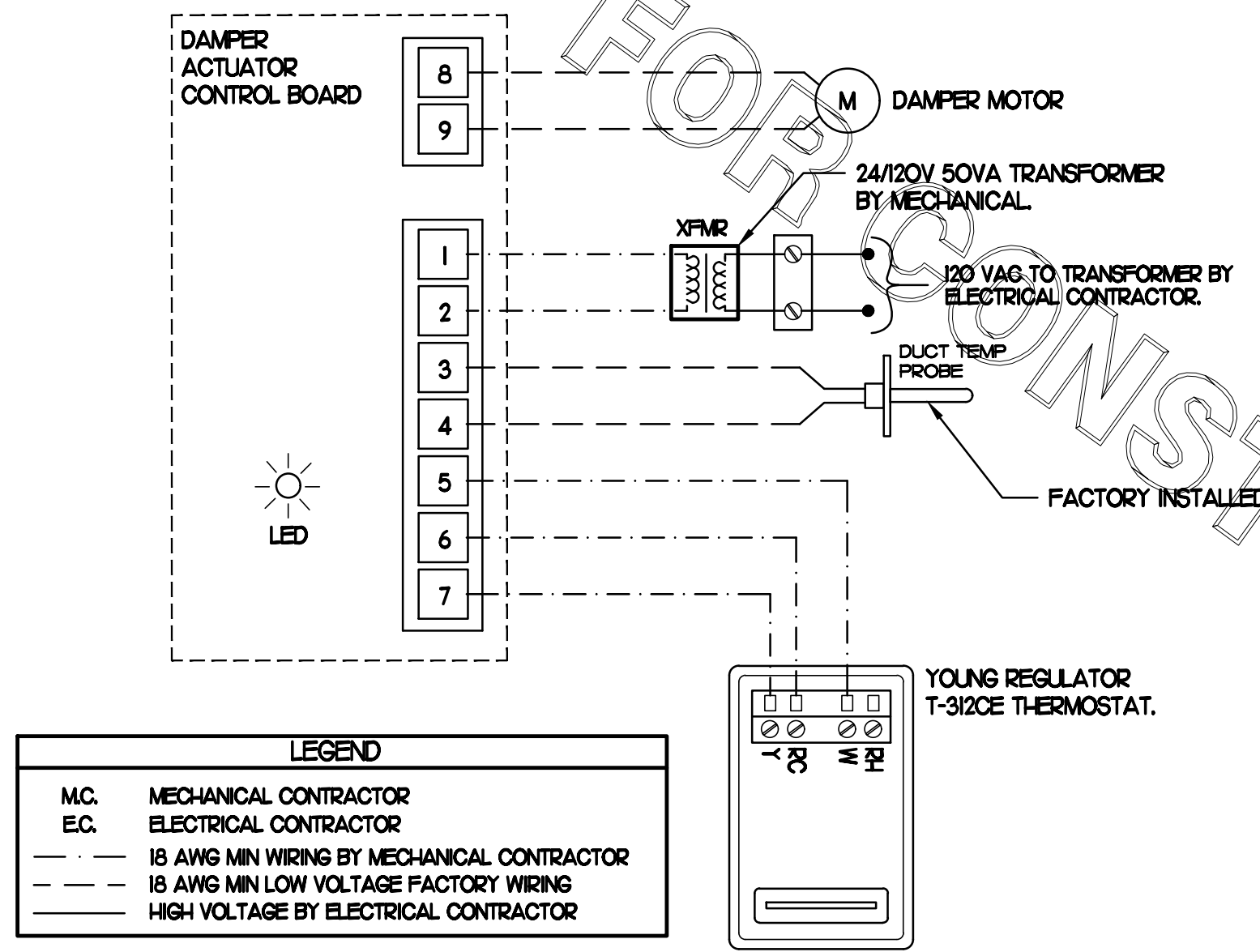
**2 ROOFTOP UNIT CONTROL WIRING - LENNOX**

NO SCALE

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

- NOTES**
- FOR ALL RTUS EXCEPT AT KITCHEN RTUS, CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #65 TO ZERO (#58 ON LCH UNITS). ON OLDER BOARDS THIS IS ECTO PARAMETER 3.01 FOR LCH UNITS OR ECTO 2.01 FOR LCH UNITS. THIS WILL CAUSE THE O.A. DAMPER TO OPEN ON 'OCCUPIED' START. AT KITCHEN RTUS (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 KITCHEN RTUS (LCH TYPE) CHANGE THE VALUE TO 5400 SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 90 MINUTES AFTER 'OCCUPIED' START.
  - MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INSIDE DOOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
  - SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNCIATOR WIRING.
  - AT HUMIDITROL RTUS SET PRODIGY-M3 BOARD CONTROL PARAMETER #105 FOR DEHUMIDIFICATION OPERATION TO A VALUE OF 7. OLDER M-8 IMC BOARD ECTO PARAMETER 4.24 VALUE TO BE SET TO A VALUE OF 7.
  - AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #107 FOR DEHUMIDIFICATION MODE DEAD BAND TO A VALUE OF 2 (2% RH).
  - SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
  - FOR MSAV UNITS, SET THE MSAV LOW SPEED SETTING TO THE SAME VALUE AS THE HIGH SPEED SETTING AFTER TAB IS COMPLETE.
  - PROVIDE PLASTIC ENGRAVED LABEL AT ALL NEW SENSORS WITH 1/2" HIGH WHITE LETTERING ON BLACK BACKGROUND, IE 'ACH2 HUMIDITY SENSOR' OR 'ACH2 TEMP SENSOR'. PLACE LABELS ON WALL ADJACENT TO DEVICE. DO NOT APPLY DIRECTLY TO DEVICE.

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



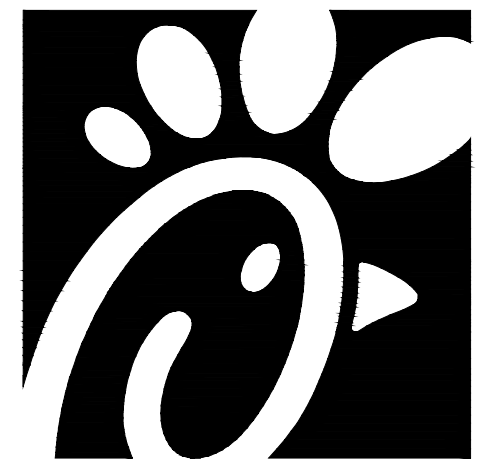
**LEGEND**  
 M.C. MECHANICAL CONTRACTOR  
 E.C. ELECTRICAL CONTRACTOR  
 - - - 18 AWG MIN WIRING BY MECHANICAL CONTRACTOR  
 - - - 18 AWG MIN LOW VOLTAGE FACTORY WIRING  
 - - - HIGH VOLTAGE BY ELECTRICAL CONTRACTOR

- NOTES**
- SEE DWG MLI FOR COMPONENT MODEL NUMBERS AND ORDERING INFORMATION.
  - 120V POWER FOR TRANSFORMER TO BE NON-SWITCHED AND HOT 24/7.
  - PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM

- 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.

**4 OFFICE VAV DAMPER AND TSTAT**

NO SCALE



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**CHICK-FIL-A**  
**MOREHEAD CITY**  
 5156 Highway 70 West  
 Morehead City, NC 28557

**FSR#02134**

BUILDING TYPE / SIZE: S06E-R  
 RELEASE: v12.20

**REVISION SCHEDULE**

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |

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 SHEET  
 HVAC CONTROLS  
 SHEET NUMBER

**M4.1**

CONSTRUCTION

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

**GENERAL NOTES**

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



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**FSR#02134**  
BUILDING TYPE / SIZE: S06E-R  
RELEASE: v12.20

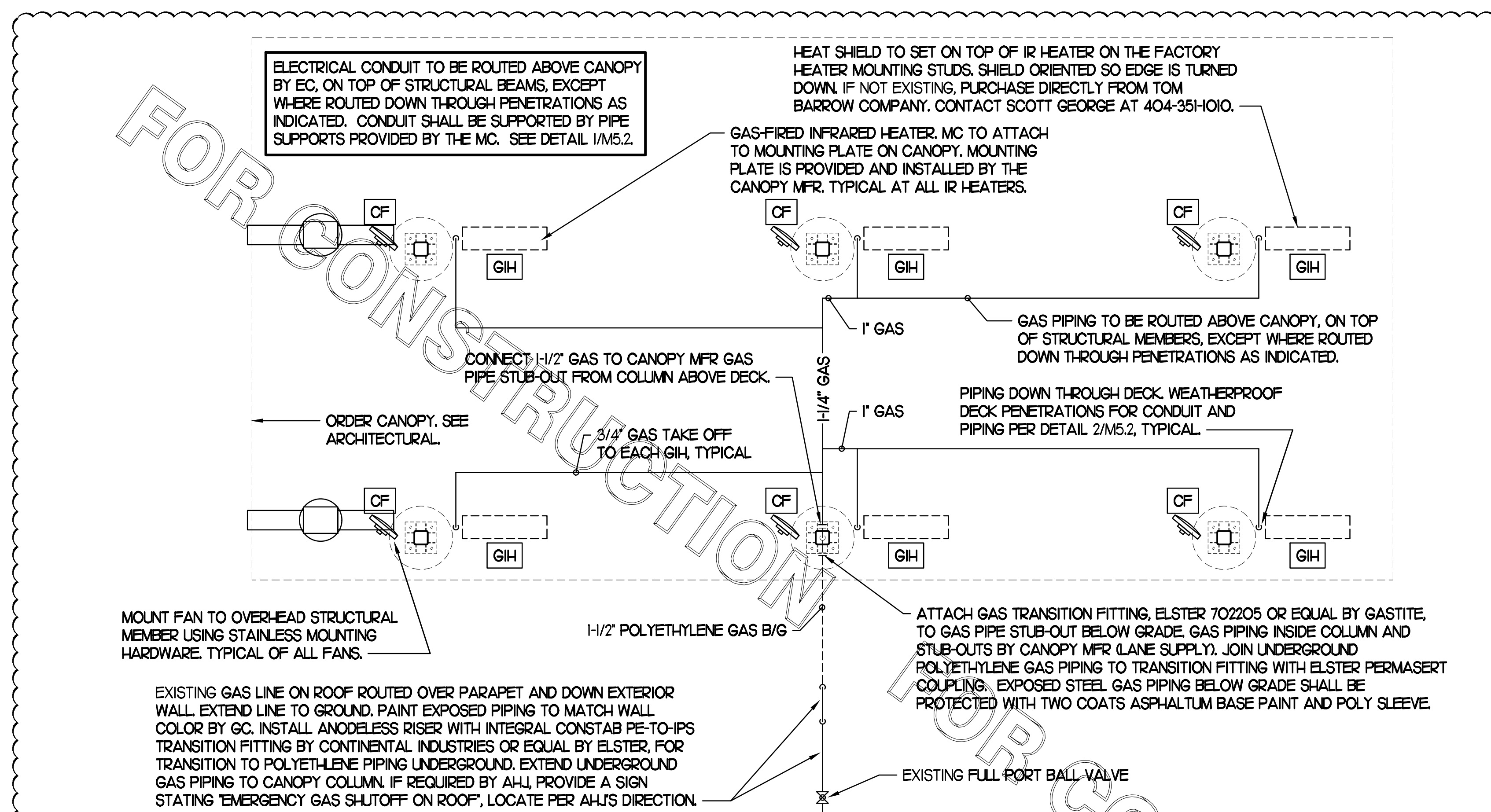
| REVISION SCHEDULE |          |                    |
|-------------------|----------|--------------------|
| NO.               | DATE     | DESCRIPTION        |
| 1                 | 02/14/23 | Playground Removal |
| 2                 | 03/02/23 | Pre-Bid Notes      |

CONSULTANT PROJECT # 22180.HF.R  
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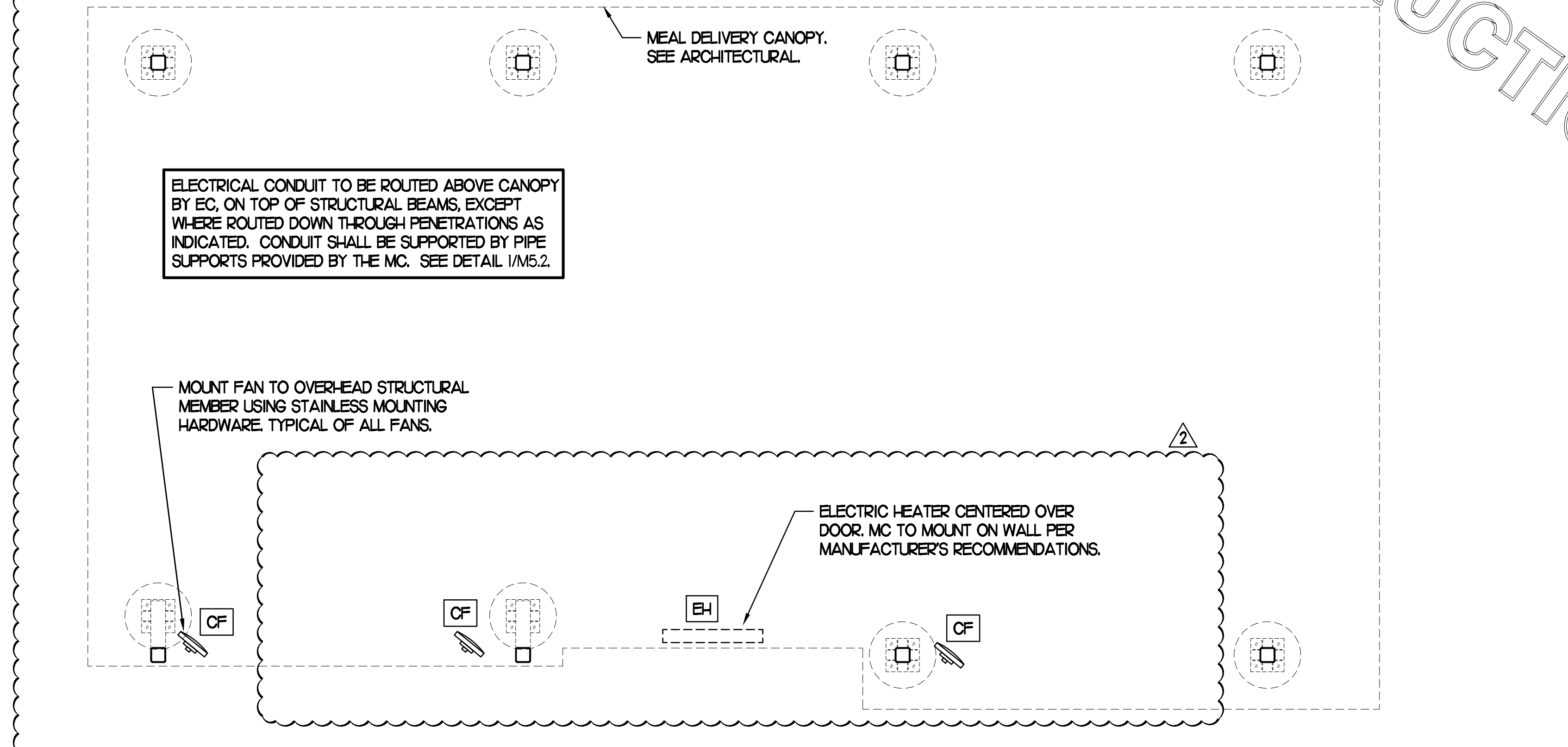
SHEET  
CANOPY HVAC  
PLANS  
SHEET NUMBER

**M5.1**



**1 HVAC PLAN - DOUBLE LANE ORDER CANOPY**

NTS



**2 HVAC PLAN - MEAL DELIVERY CANOPY**

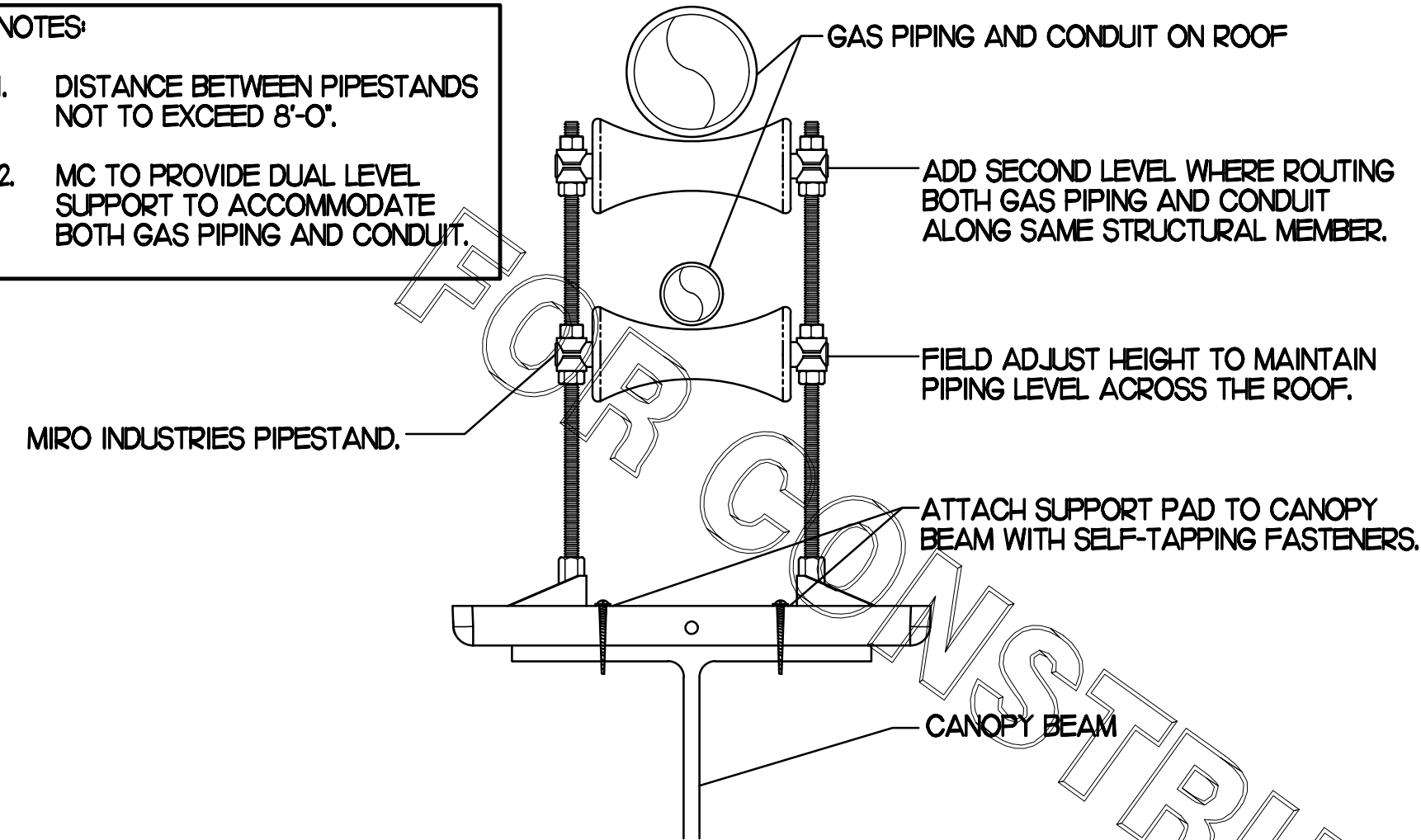
NTS

FOR CONSTRUCTION

ALL CIRCULATING FANS AND GAS INFRARED HEATERS ARE EXISTING TO BE RELOCATED TO NEW CANOPIES. FIELD VERIFY ALL EXISTING CONDITIONS.

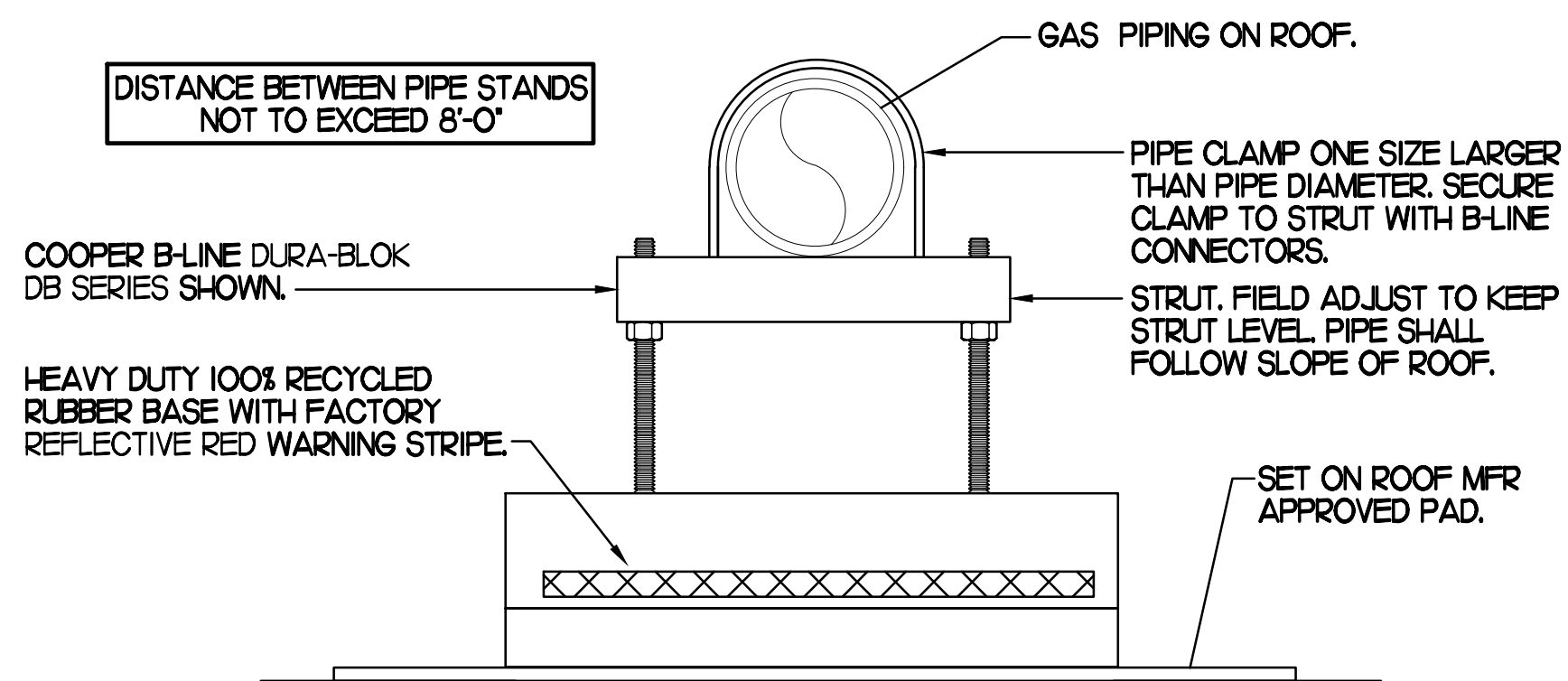
**CONSTRUCTION**

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

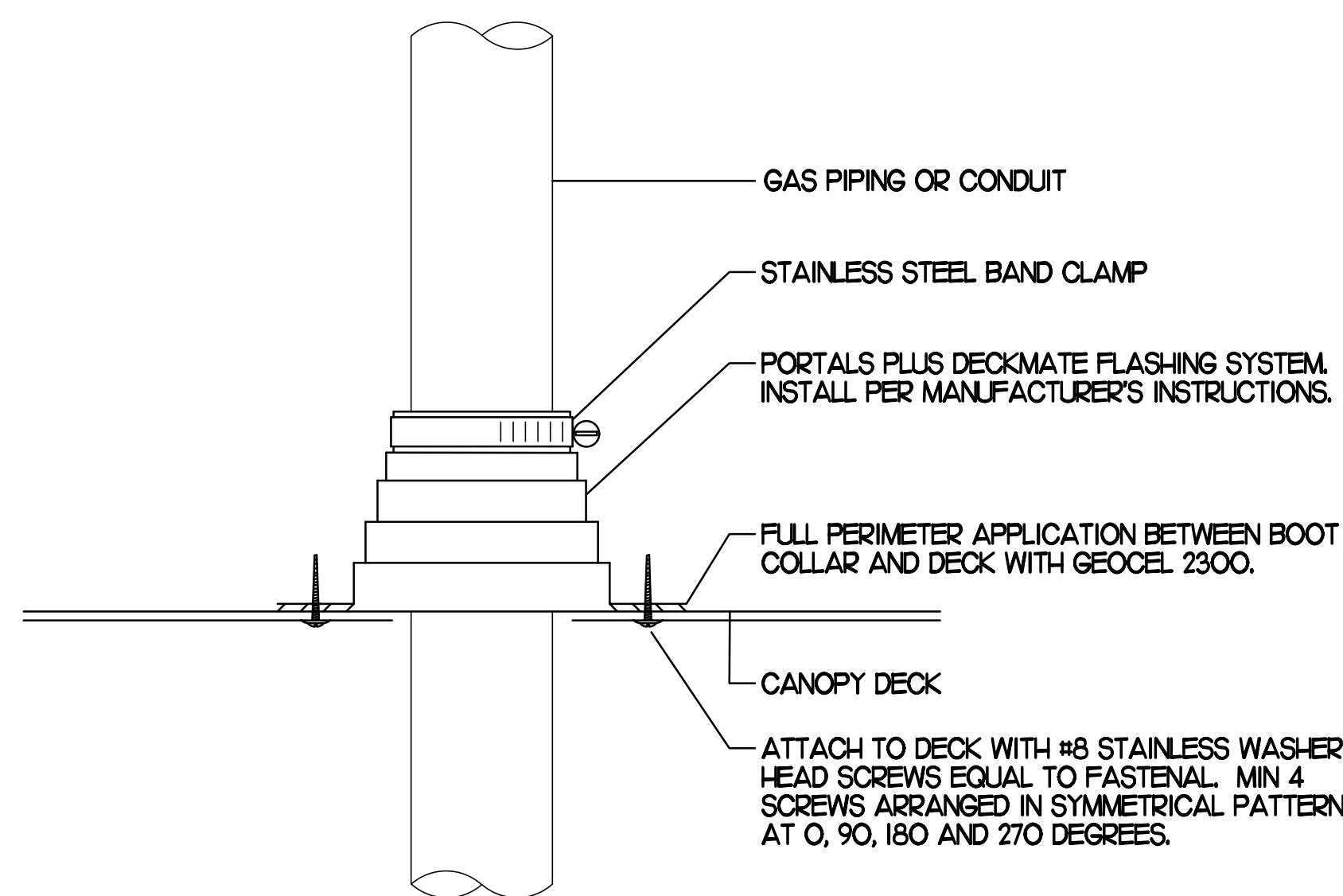


**1 PIPING SUPPORT ON CANOPY**  
NO SCALE

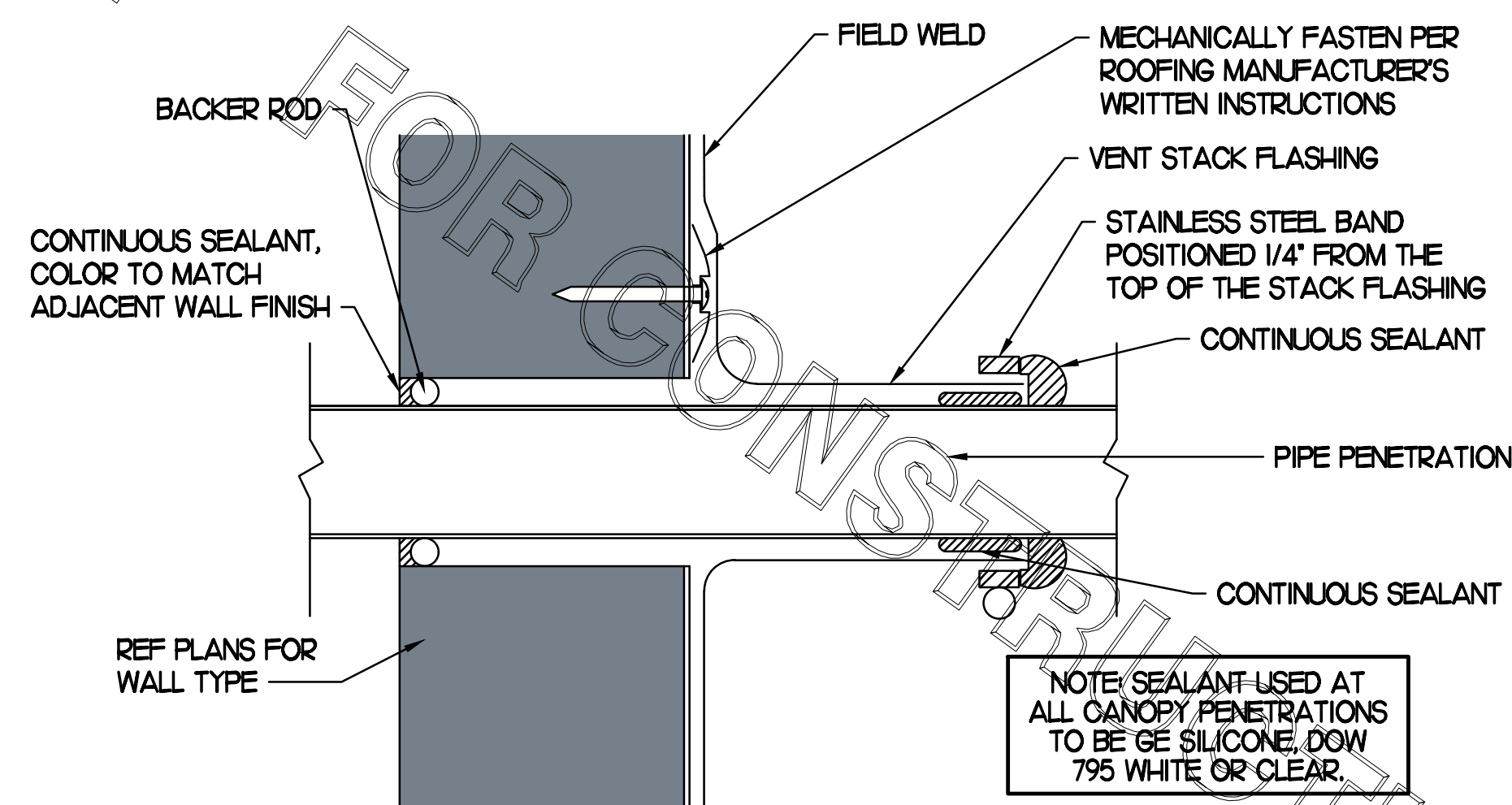
- NOTES**
- NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
  - PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING PIPING FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
  - ENSURE GAS PIPING DOES NOT OBSTRUCT ROOFTOP EQUIPMENT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



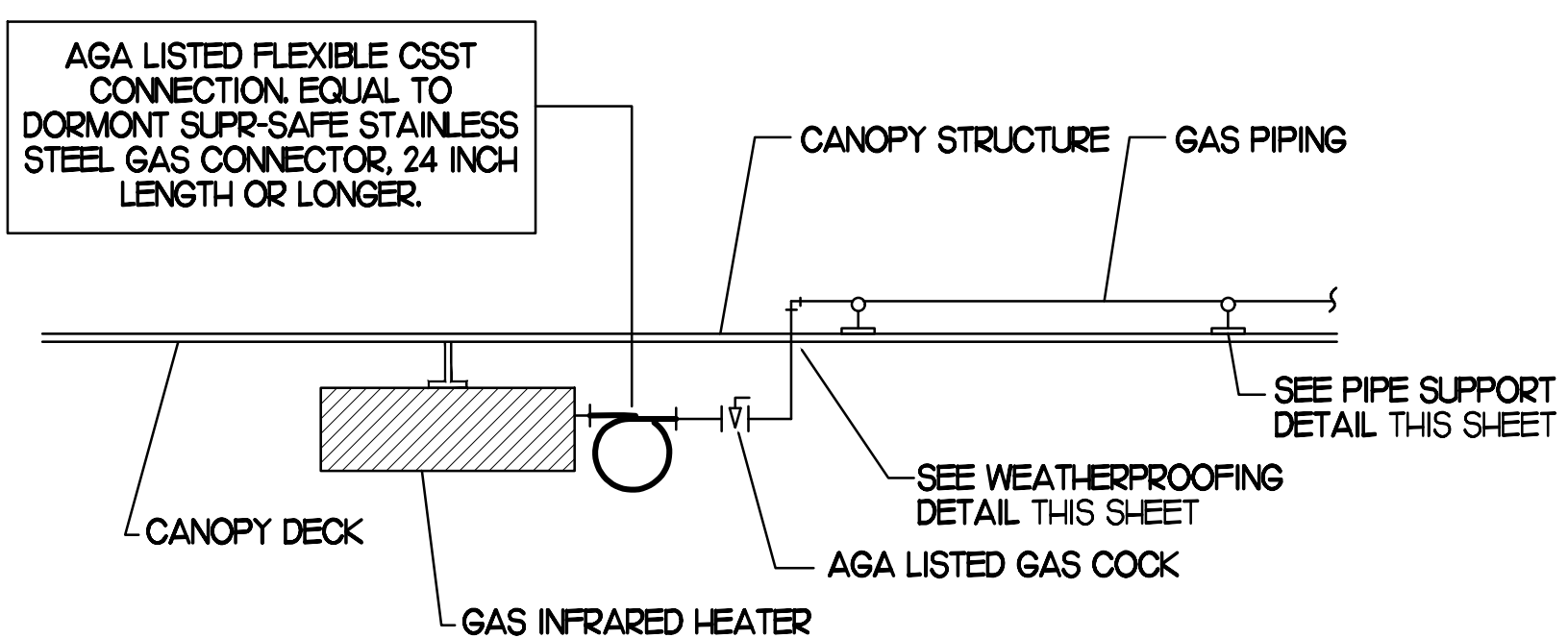
**3 PIPING SUPPORT ON MAIN BLDG ROOF**  
NO SCALE



**2 WEATHERPROOFING AT CANOPY PENETRATION**  
NO SCALE



**4 PARAPET PENETRATION DETAIL**  
NO SCALE



**3 GAS CONNECTION AT APPLIANCE**  
NO SCALE

**BROMIC ELECTRIC HEATER SCHEDULE**

| MARK    | INPUT (KW)   | FRAME SIZE |       |       | MOUNTING TYPE | MODEL     | MANUFACTURER |
|---------|--|------------|-------|-------|---------------|-----------|--------------|
|         |  | LENGTH     | WIDTH | DEPTH |               |           |              |
| ALL EH  | 6.0  | 56"        | 8.5"  | 3.5"  | BRACKET       | BH0420005 | BROMIC       |
| NOTES   | <ul style="list-style-type: none"> <li>CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH BROMIC COMPANY FOR THE ELECTRIC HEATER PACKAGE. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ELECTRIC HEATERS DIRECTLY FROM BROMIC COMPANY. CONTACT BLAKE RUSSIE AT 858-381-4850, FOR PRICING AND AVAILABILITY. BROMIC HEATERS NOT PURCHASED THRU BROMIC COMPANY WILL NOT BE ACCEPTED.</li> </ul> |            |       |       |               |           |              |
| REMARKS | <ol style="list-style-type: none"> <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.</li> <li>PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS.</li> </ol>   |            |       |       |               |           |              |

**GAS FIRED INFRARED HEATER SCHEDULE**

| MARK    | INPUT (MBH)  | FRAME SIZE |       |       | MOUNTING TYPE | MODEL  | MANUFACTURER |
|---------|--|------------|-------|-------|---------------|--------|--------------|
|         |  | LENGTH     | WIDTH | DEPTH |               |        |              |
| ALL GIH | 50.0   | 48"        | 13"   | 10"   | BRACKET       | 2352NG | SCHWANK      |
| 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 DOWNWARD, 12" LATERALLY FROM THE SIDE OF THE HEATER.</li> <li>MOUNTING BRACKET PROVIDED AND INSTALLED BY CANOPY MFR.</li> <li>PROVIDE HEAT SHIELD ABOVE EACH HEATER AT THE BOTTOM OF THE BRACKET.</li> </ol> |            |       |       |               |        |              |

**CIRCULATING FAN SCHEDULE**

| MARK    | CFM   | RPM   | HP  | MODEL  | MANUFACTURER |
|---------|---|-------|-----|--------|--------------|
|         |   |       |     |        |              |
| ALL CF  | 5,750   | 1,625 | 1/8 | U8TE4D | TP1          |
| REMARKS | <ol style="list-style-type: none"> <li>ALUMINUM PADDLE WITH STEEL HUB/SPIDER PROPELLER.</li> <li>360 DEG. ROTATING HEAD 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.</li> <li>PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO UNDERSIDE OF CANOPY OR EXISTING OVERHANG, FACING DOWNWARD, 12" LATERALLY FROM THE FAN LOCATION.</li> <li>REMOVE PULL CHAIN EXTENSION AT ON/OFF SWITCH IN FIELD.</li> <li>FACTORY CERTIFIED FOR OUTDOOR INSTALLATION.</li> </ol> |       |     |        |              |



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



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

Kurzynske & Associates License  
No. F-0823, Expires 12/31/23



**CHICK-FIL-A**  
**MOREHEAD CITY**  
5156 Highway 70 West  
Morehead City, NC 28557

**FSR#02134**

BUILDING TYPE / SIZE: S06E-R  
RELEASE: v12.20

**REVISION SCHEDULE**

| NO. | DATE     | DESCRIPTION   |
|-----|----------|---------------|
| 2   | 03/02/23 | Pre-Bid Notes |

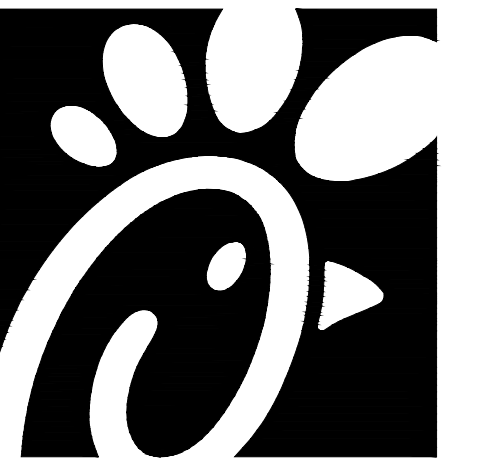
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SHEET  
CANOPY DETAILS  
& SCHEDULES  
SHEET NUMBER

**M5.2**

**CONSTRUCTION**



Chick-fil-A

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



Kurzynske & Associates  
CONSULTING ENGINEERS  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
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**CHICK-FIL-A**  
**MOREHEAD CITY**  
5156 Highway 70 West  
Morehead City, NC 28557

**FSR#02134**

BUILDING TYPE / SIZE: S06E-R  
RELEASE: v12.20

| REVISION SCHEDULE |          |                    |
|-------------------|----------|--------------------|
| NO.               | DATE     | DESCRIPTION        |
| 1                 | 02/14/23 | Playground Removal |
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SHEET  
MECH & ENVELOPE  
COMCHECK

SHEET NUMBER

**M6.1**

### COMcheck Software Version 4.1.5.1 Envelope Compliance Certificate

**Project Information**  
 Energy Code: 2018 IECC  
 Project Title: Chick-fil-A #2134  
 Location: Morehead City, North Carolina  
 Climate Zone: 3a  
 Project Type: Addition

Construction Site: 5156 Highway 70 West, Morehead City, NC 28557  
 Owner/Agent: Chick-fil-A, 5200 Buffington Road, Atlanta, GA 30349  
 Designer/Contractor: Kurzynske & Associates, 2705 Lebanon Pike - Suite One, Nashville, TN 37214, 615-255-5203

| Building Area   | Floor Area |
|---|------------|
| 1-Storage/Office (Dining, Cafeteria/Fast Food) : Nonresidential | 570        |

| Envelope Assemblies   | Assembly | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | Proposed U-Factor | Budget U-Factor <sub>req</sub> |
|---|----------|-------------------------|----------------|---------------|-------------------|--------------------------------|
| Roof 1: Insulation Above Deck, High Albedo Roof Required, 3-Year Aged Solar Reflectance Index = 82.00 (c), [Bldg. Use 1 - Storage/Office] |          | 570                     | ---            | 25.0          | 0.039             | 0.039                          |
| Floor 1: Slab-On-Grade Unheated, [Bldg. Use 1 - Storage/Office] (b)   |          | 113                     | ---            | ---           | 0.730             | 0.730                          |
| <b>NORTH</b>  |          |                         |                |               |                   |                                |
| Exterior Wall 2: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage/Office]  |          | 653                     | 20.0           | 0.0           | 0.064             | 0.064                          |
| Door 1: Insulated Metal, [Bldg. Use 1 - Storage/Office]   |          | 28                      | ---            | ---           | 0.330             | 0.610                          |
| <b>EAST</b>   |          |                         |                |               |                   |                                |
| Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage/Office]  |          | 195                     | 20.0           | 0.0           | 0.064             | 0.064                          |
| <b>WEST</b>   |          |                         |                |               |                   |                                |
| Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage/Office]  |          | 195                     | 20.0           | 0.0           | 0.064             | 0.064                          |

(a) Budget U-factors are used for software baseline calculations ONLY and are not code requirements.  
 (b) Slab-On-Grade proposed and budget U-factors shown in table are U-factors.  
 (c) High albedo roof requirement options: 1) 3-year aged solar reflectance index >= 55.0 thermal emittance >= 0.75, 2) 3-year aged solar reflectance index <= 64.0, 3) initial year aged solar reflectance >= 0.70 thermal emittance >= 0.75, 4) initial year aged solar reflectance index >= 82.0.

Envelope PASSES: Design 4% better than code

**Envelope Compliance Statement**  
Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory

requirements listed in the Inspection Checklist.

| Name - Title | Signature | Date |
|--------------|-----------|------|
|              |           |      |

### COMcheck Software Version 4.1.5.1 Mechanical Compliance Certificate

**Project Information**  
 Energy Code: 2018 IECC  
 Project Title: Chick-fil-A #2134  
 Location: Morehead City, North Carolina  
 Climate Zone: 3a  
 Project Type: Addition

Construction Site: 5156 Highway 70 West, Morehead City, NC 28557  
 Owner/Agent: Chick-fil-A, 5200 Buffington Road, Atlanta, GA 30349  
 Designer/Contractor: Kurzynske & Associates, 2705 Lebanon Pike - Suite One, Nashville, TN 37214, 615-255-5203

| Quantity | System Type & Description   |
|----------|---|
| 1        | AC#1 (25 ton) (Single Zone):<br>Heating: 1 each - Central Furnace, Gas, Capacity = 384 kBtu/h<br>Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00% Et<br>Cooling: 1 each - Single Package DX Unit, Capacity = 283 kBtu/h, Air-Cooled Condenser, Air Economizer<br>Proposed Efficiency = 10.60 EER, Required Efficiency: 9.80 EER + 11.4 IEER<br>Fan System: AC#1 (25 ton)   Kitchen - Compliance (Motor nameplate HP method) : Passes<br><br>Fans:<br>Supply Supply, Constant Volume, 8500 CFM, 7.5 motor nameplate hp, 0.0 fan efficiency grade<br>Exhaust Exhaust, Constant Volume, 2000 CFM, 0.7 motor nameplate hp, 0.0 fan efficiency grade                 |
| 1        | AC#2 (8.5 ton) (Single Zone):<br>Heating: 1 each - Central Furnace, Gas, Capacity = 192 kBtu/h<br>Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00% Et or 80% AFUE<br>Cooling: 1 each - Single Package DX Unit, Capacity = 100 kBtu/h, Air-Cooled Condenser, Air Economizer<br>Proposed Efficiency = 12.10 EER, Required Efficiency: 11.00 EER + 12.6 IEER<br>Fan System: AC#2 (8.5 ton)   Dining - Compliance (Motor nameplate HP method) : Passes<br><br>Fans:<br>Supply Supply, Constant Volume, 2830 CFM, 2.0 motor nameplate hp, 0.0 fan efficiency grade<br>Exhaust Exhaust, Constant Volume, 750 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade    |
| 1        | AC#3 (12.5 ton) (Single Zone):<br>Heating: 1 each - Central Furnace, Gas, Capacity = 192 kBtu/h<br>Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00% Et or 80% AFUE<br>Cooling: 1 each - Single Package DX Unit, Capacity = 155 kBtu/h, Air-Cooled Condenser, Air Economizer<br>Proposed Efficiency = 10.60 EER, Required Efficiency: 10.60 EER + 12.2 IEER<br>Fan System: AC#3 (12.5 ton)   Dining - Compliance (Motor nameplate HP method) : Passes<br><br>Fans:<br>Supply Supply, Constant Volume, 5000 CFM, 5.0 motor nameplate hp, 0.0 fan efficiency grade<br>Exhaust Exhaust, Constant Volume, 1355 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade |
| 1        | AHU#1/CU#1 (Single Zone):<br>Split System Heat Pump<br>Heating Mode: Capacity = 40 kBtu/h,<br>Proposed Efficiency = 10.00 HSPF, Required Efficiency = 8.20 HSPF<br>Cooling Mode: Capacity = 34 kBtu/h,<br>Proposed Efficiency = 16.20 SEER, Required Efficiency: 14.00 SEER   |

#### Quantity / System Type & Description

| Quantity | System Type & Description  |
|----------|--|
| 1        | EN (Infrared Heater) (Single Zone):<br>Heating: 1 each - Radiant Heater, Electric, Capacity = 20 kBtu/h<br>No minimum efficiency requirement applies<br>Fan System: None |

**Mechanical Compliance Statement**  
Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Mark Kurzynske, P.E.  
Name - Title Signature Date

FOR CONSTRUCTION

FOR CONSTRUCTION

FOR CONSTRUCTION

CONSTRUCTION

# I. SECTION C15000 - MECHANICAL SPECIFICATIONS

## PART I - GENERAL

### 1.01 SCOPE

- A. IT IS THE RESPONSIBILITY OF CONTRACTOR TO READ ALL SPECIFICATIONS AND CONSULT ALL DRAWINGS WHICH MAY AFFECT THE INSTALLATION AND COORDINATION OF HIS WORK WITH OTHER TRADES. CONTRACTOR SHALL COORDINATE AND MAKE MINOR ADJUSTMENTS IN LOCATION OF EQUIPMENT AND MATERIALS AS NECESSARY TO SECURE COORDINATION.
- B. COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES, INCLUDING BUT NOT LIMITED TO THE LATEST APPROVED EDITIONS OF NFPA-96, NFPA-90A, NFPA-54, SMACNA, ASHRAE 90.1 AND ASHRAE 62.
- C. SYSTEM LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY STRUCTURAL CONDITIONS. COORDINATION WITH OTHER TRADES, COORDINATION WITH FINISHES AND OTHER CONDITIONS. STRUCTURAL SUPPORTS SHALL NOT BE CUT OR ALTERED TO ASSURE FIT OF HVAC SYSTEM. TEN FOOT CLEARANCE SHALL BE MAINTAINED BETWEEN OUTSIDE AIR INTAKES AND EXHAUST FANS AND PLUMBING VENT TERMINALS.
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER FINAL PAYMENT IS APPROVED. CONTRACTOR SHALL HONOR FACTORY WARRANTIES ON ALL EQUIPMENT PROVIDED AS PART OF THIS SYSTEM.
- E. UPON COMPLETION OF PROJECT, ALL SYSTEM EQUIPMENT AND MATERIALS SHALL BE IN NEW, CLEAN CONDITION WITH ALL DAMAGE RESTORED TO CONDITION ACCEPTABLE TO THE OWNERS REPRESENTATIVE. ALL EQUIPMENT, COMPONENTS AND DUCTWORK SHALL BE INSPECTED AND THOROUGHLY CLEANED, READY FOR USE. AT COMPLETION OF JOB, ALL MISCELLANEOUS TOOLS, SCAFFOLDING, SURPLUS MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED BY CONTRACTOR.
- F. CONTRACTOR SHALL PROVIDE TWO SETS OF 2" MERV 8 OR HIGHER THROW AWAY TYPE FILTERS. A CLEAN SET SHALL BE PROVIDED PRIOR TO TEST AND BALANCE AND AGAIN PRIOR TO OPENING.

## PART II - PRODUCTS

### 2.01 HEATING AND COOLING EQUIPMENT (C15730)

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

### 2.02 DUCTWORK (C15735) (SEE DWG M2.1 FOR ADDITIONAL GREASE DUCT SYSTEM REQ.)

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

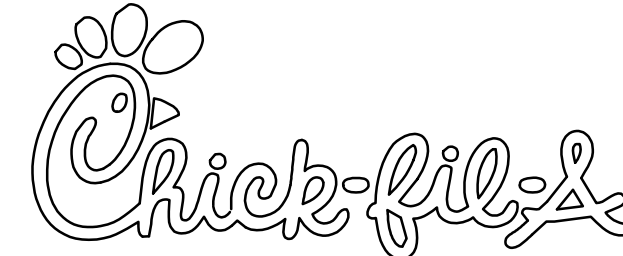
### 2.03 CONTROLS (C15735)

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

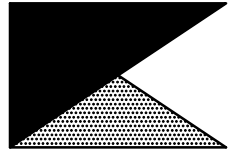
## PART III - EXECUTION

### 3.01 SCOPE

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



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



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

Kurzynske & Associates License  
 No. F-0823, Expires 12/31/23



**CHICK-FIL-A**  
**MOREHEAD CITY**  
 5156 Highway 70 West  
 Morehead City, NC 28557

**FSR#02134**

BUILDING TYPE / SIZE: S06E-R  
 RELEASE: v12.20

| REVISION SCHEDULE |      |             |
|-------------------|------|-------------|
| NO.               | DATE | DESCRIPTION |
|                   |      |             |

|                      |              |
|----------------------|--------------|
| CONSULTANT PROJECT # | 22180.HF.R   |
| PRINTED FOR          | CONSTRUCTION |
| DATE                 | 1/17/2023    |
| DRAWN BY             | DSF          |

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SHEET  
 MECHANICAL  
 SPECIFICATIONS  
 SHEET NUMBER

**M7.1**

## NATIONAL ACCOUNTS

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

**CONSTRUCTION**

**MODEL: KVL-2-IC** \* FACTORY UNIT IS ADVISED OF ANY SPECIAL REQUIREMENTS AT THE TIME OF ORDER

**STANDARD FEATURES**

- S.S. FILTERS (KSA) 3
- 1/2 S.S. FILTERS (KSA) -
- CAPTURE-JET \*
- STAND-OFF \*
- L.E.D. LIGHTS 2

**OPTIONS**

- REMOTE SWITCH PANEL
- FIRE PROTECTION \*
- ETL LISTED \*
- W/D EXHAUST DAMPER \*
- CEILING CLOSURE 2
- STD. BACKSPASH \*
- INSULATED BACKSPASH \*
- MBD DAMPER \*

**MATERIAL**

- EXPOSED SURFACES 18 GA. S.S. \*
- ALL 18 GA. S.S. \*

**COMMENTS:**

- CLOSURE HEIGHT = TBD (TWO SIDES)
- CEILING HEIGHT = ADVISE CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF
- 98" x 24" ACCESS DOOR LEFT SIDE FOR ACCESS TO CAPTURE-JET WITH FRONT INTAKE & MBD
- CONTINUOUS CAPTURE INTERNAL RIGHT END OUTLET
- 8" REAR STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED (2) PRESSURE FRYERS

| DATE                                     | DWG. NO.   | ITEM NO. | EXHAUST AIR INFORMATION |
|--|------------|----------|-------------------------|
| 12.28.22                                 | U22-950-01 | H-1L     | CFM T.A.B. SP           |
| PROJECT: CHICK-FIL-A #2134 MOREHEAD CITY |            |          | 709 .13' .23'           |
| LOCATION: MOREHEAD CITY, NC              |            |          | CFM SP                  |
| SUBMITTED BY: HALTON CO.                 |            |          | 47 .30'                 |

K FACTOR EQUATION: CFM = K FACTOR \* .357 K FACTOR = 1999

**MODEL: KVL-2-IC** \* FACTORY UNIT IS ADVISED OF ANY SPECIAL REQUIREMENTS AT THE TIME OF ORDER

**STANDARD FEATURES**

- S.S. FILTERS (KSA) 5
- 1/2 S.S. FILTERS (KSA) -
- CAPTURE-JET \*
- STAND-OFF \*
- L.E.D. LIGHTS 3

**OPTIONS**

- REMOTE SWITCH PANEL
- FIRE PROTECTION \*
- ETL LISTED \*
- W/D EXHAUST DAMPER \*
- CEILING CLOSURE 2
- STD. BACKSPASH \*
- INSULATED BACKSPASH \*
- MBD DAMPER \*

**MATERIAL**

- EXPOSED SURFACES 18 GA. S.S. \*
- ALL 18 GA. S.S. \*

**COMMENTS:**

- CLOSURE HEIGHT = TBD (TWO SIDES)
- CEILING HEIGHT = ADVISE CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF
- FRONT CLOSURE PANEL WITH 40"x24" LEFT OUT DOOR RIGHT SIDE (ACCESS TO FIRE SUPPRESSION)
- 40"x24" LEFT DOOR LEFT SIDE AT CAPTURE-JET WITH FRONT INTAKE
- CONTINUOUS CAPTURE INTERNAL LEFT END OUTLET
- 8" REAR STAND-OFF TO HAVE 1" THICK INSULATION
- NOTICED RIGHT END PANEL
- EQUIPMENT COVERED (4) PRESSURE FRYERS
- MBD WEIGHT = 80 LBS HOOD WEIGHT = 669 LBS

| DATE                                     | DWG. NO.   | ITEM NO. | EXHAUST AIR INFORMATION |
|--|------------|----------|-------------------------|
| 12.28.22                                 | U22-950-01 | H-1R     | CFM T.A.B. SP           |
| PROJECT: CHICK-FIL-A #2134 MOREHEAD CITY |            |          | 1204 .13' .22'          |
| LOCATION: MOREHEAD CITY, NC              |            |          | CFM SP                  |
| SUBMITTED BY: HALTON CO.                 |            |          | 80 .30'                 |

K FACTOR = 3365

**MODEL: KVL-C-IC** \* FACTORY UNIT IS ADVISED OF ANY SPECIAL REQUIREMENTS AT THE TIME OF ORDER

**STANDARD FEATURES**

- S.S. FILTERS (KSA) 2
- CAPTURE-JET \*
- STAND-OFF \*
- L.E.D. LIGHTS 1

**OPTIONS**

- REMOTE SWITCH PANEL
- FIRE PROTECTION \*
- ETL LISTED \*
- W/D EXHAUST DAMPER \*
- CEILING CLOSURE 2
- STD. BACKSPASH \*
- INSULATED BACKSPASH \*
- MBD DAMPER \*

**MATERIAL**

- EXPOSED SURFACES 18 GA. S.S. \*
- ALL 18 GA. S.S. \*

**COMMENTS:**

- CLOSURE HEIGHT = TBD (TWO SIDES)
- CEILING HEIGHT = ADVISE CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
- 18"x18" ACCESS DOOR CENTERED AT CAPTURE-JET WITH FRONT INTAKE
- NOTICED RIGHT END PANEL
- DOUBLE RECEPTACLE PIN & SLEEVE
- 8" REAR STAND-OFF TO HAVE 1" THICK INSULATION
- 8" SIDE & REAR STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED (2) FRYERS
- HOOD WEIGHT = 240 LBS

| DATE                                     | DWG. NO.   | ITEM NO. | EXHAUST AIR INFORMATION |
|--|------------|----------|-------------------------|
| 12.28.22                                 | U22-950-01 | H-2      | CFM T.A.B. SP           |
| PROJECT: CHICK-FIL-A #2134 MOREHEAD CITY |            |          | 701 .30' .39'           |
| LOCATION: MOREHEAD CITY, NC              |            |          | CFM SP                  |
| SUBMITTED BY: HALTON CO.                 |            |          | 30 .29'                 |

K FACTOR EQUATION: CFM = K FACTOR \* .357 K FACTOR = 1291

**MODEL: KVL-C-IC** \* FACTORY UNIT IS ADVISED OF ANY SPECIAL REQUIREMENTS AT THE TIME OF ORDER

**STANDARD FEATURES**

- S.S. FILTERS (KSA) 2
- CAPTURE-JET \*
- STAND-OFF \*
- L.E.D. LIGHTS 1

**OPTIONS**

- REMOTE SWITCH PANEL
- FIRE PROTECTION \*
- ETL LISTED \*
- W/D EXHAUST DAMPER \*
- CEILING CLOSURE 3
- STD. BACKSPASH \*
- INSULATED BACKSPASH \*
- MBD DAMPER \*

**MATERIAL**

- EXPOSED SURFACES 18 GA. S.S. \*
- ALL 18 GA. S.S. \*

**COMMENTS:**

- CLOSURE HEIGHT = TBD (THREE SIDES)
- CEILING HEIGHT = ADVISE CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
- 18"x18" ACCESS DOOR CENTERED AT CAPTURE-JET WITH FRONT INTAKE
- DOUBLE RECEPTACLE PIN & SLEEVE
- 8" REAR SIDE STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED (2) FRYERS
- HOOD WEIGHT = 240 LBS

| DATE                                     | DWG. NO.   | ITEM NO. | EXHAUST AIR INFORMATION |
|--|------------|----------|-------------------------|
| 12.28.22                                 | U22-950-01 | H-3      | CFM T.A.B. SP           |
| PROJECT: CHICK-FIL-A #2134 MOREHEAD CITY |            |          | 701 .30' .39'           |
| LOCATION: MOREHEAD CITY, NC              |            |          | CFM SP                  |
| SUBMITTED BY: HALTON CO.                 |            |          | 30 .29'                 |

K FACTOR EQUATION: CFM = K FACTOR \* .357 K FACTOR = 1291

**HANGER BRACKET DETAIL**

**OPTIONS**

- REMOTE SWITCH PANEL
- FIRE PROTECTION \*
- ETL LISTED \*
- W/D EXHAUST DAMPER \*
- CEILING CLOSURE 3
- STD. BACKSPASH \*
- INSULATED BACKSPASH \*
- MBD DAMPER \*

**MATERIAL**

- EXPOSED SURFACES 18 GA. S.S. \*
- ALL 18 GA. S.S. \*

**COMMENTS:**

- CLOSURE HEIGHT = TBD (THREE SIDES)
- CEILING HEIGHT = ADVISE CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
- 18"x18" ACCESS DOOR CENTERED AT CAPTURE-JET WITH FRONT INTAKE
- DOUBLE RECEPTACLE PIN & SLEEVE
- 8" REAR SIDE STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED (2) FRYERS

**MODEL: MBD EXHAUST VOLUME DAMPER**

**MATERIAL: ALUMINIZED FRAME 16GA CONT. WELDED OUTER SHELL AND ADJUSTABLE BLADES**

| TAG  | L'  | W'  | QUANTITY |
|------|-----|-----|----------|
| H-1L | 8"  | 8"  | 1        |
| H-1R | 10" | 11" | 1        |
| H-2  | 8"  | 8"  | 1        |
| H-3  | 8"  | 8"  | 1        |

**MODEL: KVL-2-IC TYPICAL INSTALLATION**

**MODEL: KVL-C-IC TYPICAL INSTALLATION**

**60143 PIN & SLEEVE BOX DETAIL**

**NOTE:** THIS DETAIL DEPICTS THE INSTALLATION OF THE DOUBLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-2 & HOOD H-3.

**60143 SPlice STRIP/U-CHANNEL DETAIL FOR HOOD H-1**

**Integral Side Jet Arm H-2**

**Integral Side Jet Arm H-3**

**TYPICAL WIRING OF CAPTURE-JET FAN**

**KSA Grease Extractor**

20" Extraction of contaminants from the exhaust air is provided by the KSA Multi-Cyclone grease extractor. Efficient grease extraction is achieved by forcing the exhaust air to spiral continuously in the same direction in the multiple chambers of the extractor, thus separating the grease particles from the air flow centrifugally. High extraction efficiency and low pressure loss over the KSA remain practically constant in use.

**60143 SPlice STRIP/U-CHANNEL DETAIL FOR HOOD H-1**

**60143 SPlice STRIP/U-CHANNEL DETAIL FOR HOOD H-1**

**Halton KVL-2-IC**

CONFORMS TO UL STD. UL STD. 710 CERTIFIED TO ULC STD. 5646

MODEL NO. SERIAL NO. ITEM NO.

**GENERAL REQUIREMENTS**

FILTER TYPE: CONVENT HOODS FOR COMMERCIAL AND INSTITUTIONAL KITCHENS THE FAN CURRENT IS RATED FOR 120V, 60 HZ. THE LIGHTING CIRCUIT IS RATED FOR 120V, 60 HZ. THE HOODS ARE CERTIFIED BY ETL FOR 6" BACH CLEARANCE TO COMPARABLE RESIDENTIAL COOKING APPLIANCES. THE HOODS ARE COMPLIANT WITH ALL VENTILATION REQUIREMENTS TO NFPA 96. THE HOODS ARE PROVIDED WITH REPLACEMENT COA FILTERS AND LIGHTING FIXTURES. REPLACE FILTERS ONLY WITH UL CLASSIFIED FILTER TYPE OF THE SAME MODEL AND SUITABLE FOR USE TO HEAVY DUTY COOKING APPLIANCES.

| BACH LEVEL  | MINIMUM OVERHEAD CLEARANCE | MINIMUM CLEARANCE TO COOKING SURFACE | MIN. CLEARANCE TO WALLS |
|-------------|----------------------------|--------------------------------------|-------------------------|
| RESIDENTIAL | 6" (0")                    | 18" (0")                             | 18" (0")                |
| COMMERCIAL  | 6" (0")                    | 18" (0")                             | 18" (0")                |
| INDUSTRIAL  | 6" (0")                    | 18" (0")                             | 18" (0")                |
| HEAVY       | 6" (0")                    | 18" (0")                             | 18" (0")                |
| VERY HEAVY  | 6" (0")                    | 18" (0")                             | 18" (0")                |

LET SUPPLY AIR FLOW SHALL ONLY BE SET AT 200 IN. H<sub>2</sub>O

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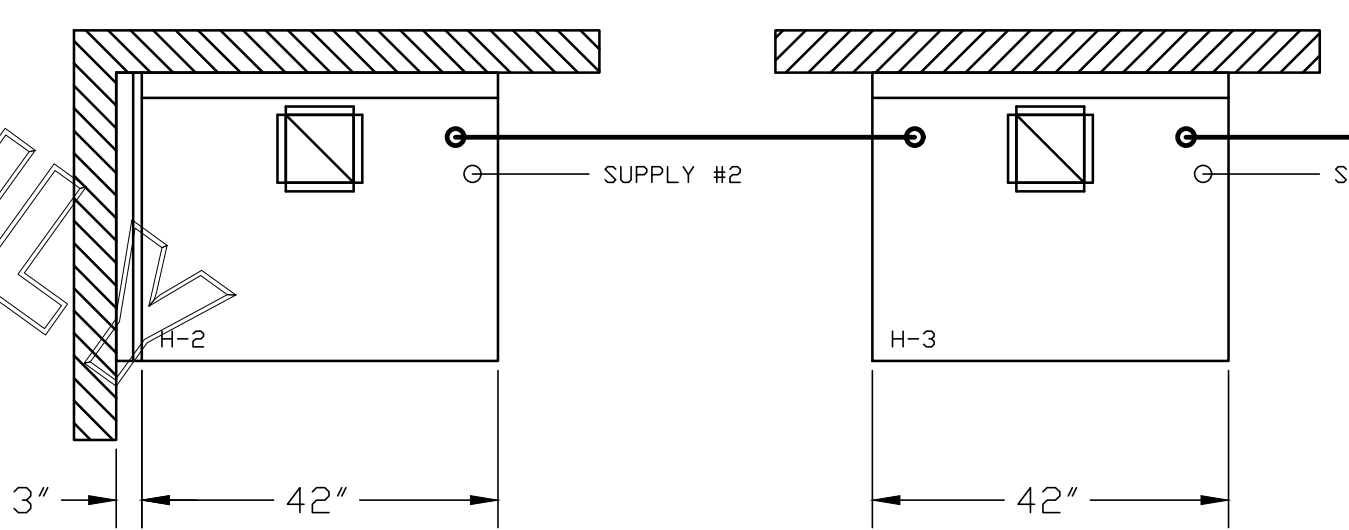
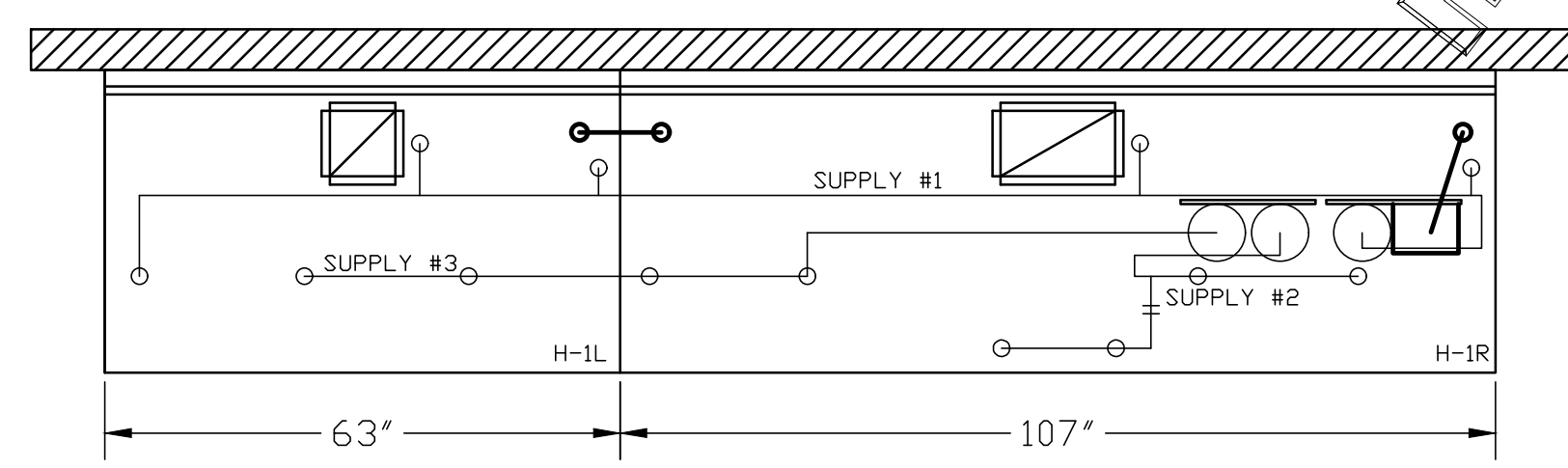
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FOR REFERENCE ONLY

**\*\*SHOP NOTE\*\***  
 PROVIDE A QUANTITY OF TWO REMOTE PULL STATIONS FOR FIRE SYSTEM FOR HOODS H-2 & H-3. ONE PULL STATION REQUIRED FOR HOOD H-1L/R. PROVIDE A TOTAL OF THREE PULL STATIONS!!

**\*\*PROTECTS HOODS H-2 & H-3\*\***  
 REMOTE MOUNTED:  
 (1) REGULATED RELEASE (WITH ONE TANK)  
 (1) SINGLE TANK ENCLOSURE (WITH ONE TANK)

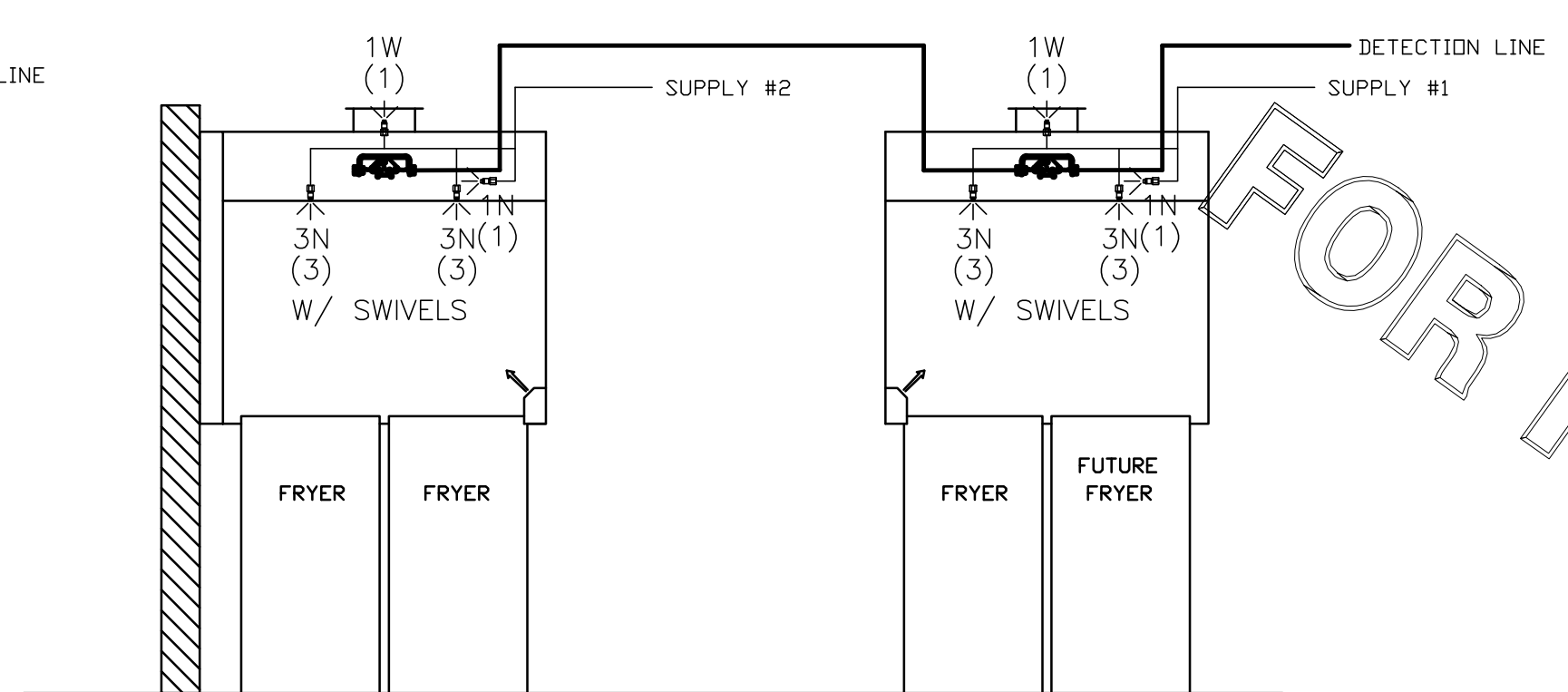
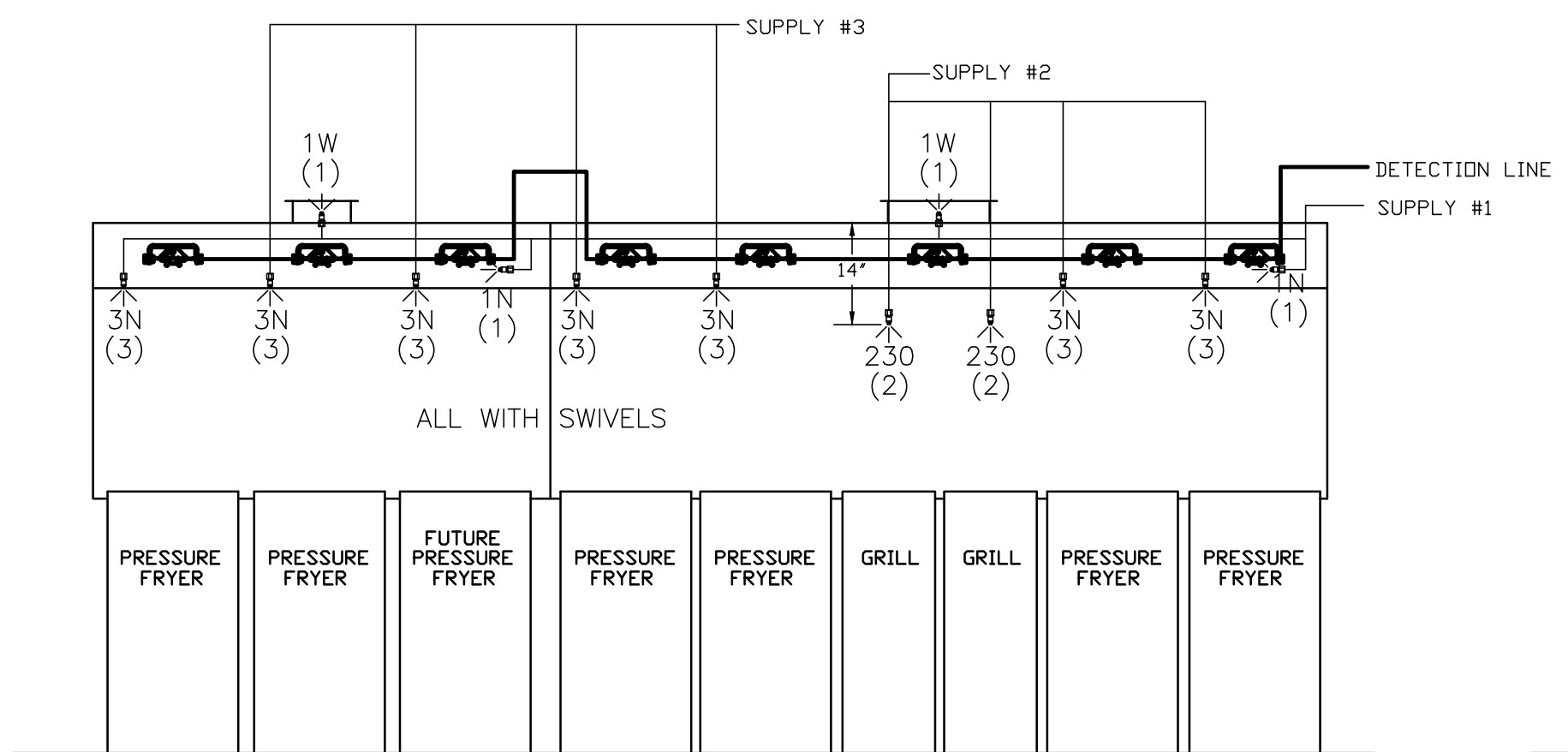


- (1) DEM REGULATED RELEASE
- (2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN DEM REG. REL.)
- (3) 3 GALLON TANKS

- ANSUL R-102 FIRE SYSTEM**
- A) 9 GALLON SYSTEM (3 TANKS) (MOUNTED ON HOOD H-1R) (FOR HOODS H-1L & H-1R)
  - B) 3/8" BLACK IRON PIPING W/ 3/8" S.S. APPLIANCE DROPS

- (1) ELEC REGULATED RELEASE
- (2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN REG. REL.)
- (1) SINGLE TANK ENCLOSURE
- (2) 3 GALLON TANK

- ANSUL R-102 FIRE SYSTEM**
- A) 6 GALLON SYSTEM (2 TANKS) (REMOTE MOUNTED) (FOR HOOD H-2 & H-3)
  - B) 3/8" BLACK IRON PIPING W/ 3/8" S.S. APPLIANCE DROPS



ANSUL R-102 FIRE SYSTEM LAYOUT

**FIRE EXTINGUISHER**

**ANSUL**

|                                 |           |
|---------------------------------|-----------|
| 13051 5 LBS ABC MODEL AA05      | QTY _____ |
| 13052 10 LBS ABC MODEL AA10S    | QTY _____ |
| 13053 6 LTR CLASS K-GUARD K01-3 | QTY _____ |

SUPPLIED BY HALTON

**FUSIBLE LINK RATINGS**

| ITEM                | TEMP |
|---------------------|------|
| OPEN FRYERS         | 450° |
| 2 BURNER / FLAT TOP | 450° |
| PRESSURE FRYERS     | 450° |
| GRILL               | 450° |
| EXHAUST COLLARS     | 450° |

**ANSUL R-102 FIRE SYSTEM NOTES**  
 THREE TANK SYSTEM MOUNTED ON TOP OF (H-1R)  
 MAXIMUM FLOW POINTS = 33

**ANSUL R-102 FIRE SYSTEM NOTES**  
 TWO TANK SYSTEM REMOTE MOUNTED  
 MAXIMUM FLOW POINTS = 22

| ITEM                     | QTY | DESCRIPTION       | FLOW PTS (TOTAL) |
|--------------------------|-----|-------------------|------------------|
| 1W                       | 4   | DUCT NOZZLES      | 4                |
| 1N                       | 4   | PLENUM NOZZLES    | 4                |
| 230                      | 2   | APPLIANCE NOZZLES | 4                |
| 3N                       | 11  | APPLIANCE NOZZLES | 33               |
| <b>TOTAL FLOW POINTS</b> |     |                   | <b>45</b>        |

| ITEM | QTY | DESCRIPTION                                       |
|------|-----|---|
| #200 | 8   | SERIES DETECTORS W/ FUSIBLE LINKS                 |
| #201 | 2   | TERMINAL DETECTORS W/ FUSIBLE LINKS               |
| #202 | 1   | DEM REGULATED RELEASE W/ DOUBLE POLE MICRO SWITCH |
| #202 | 1   | REGULATED RELEASE W/ DOUBLE POLE MICRO SWITCH     |
| #203 | 5   | 3 GALLON TANKS                                    |
| #204 | 1   | SINGLE TANK ENCLOSURE                             |
| #205 | 3   | REMOTE PULL STATION                               |

**ANSUL R-102 FIRE SYSTEM**  
 UL LISTED PER STD LATEST STD 300

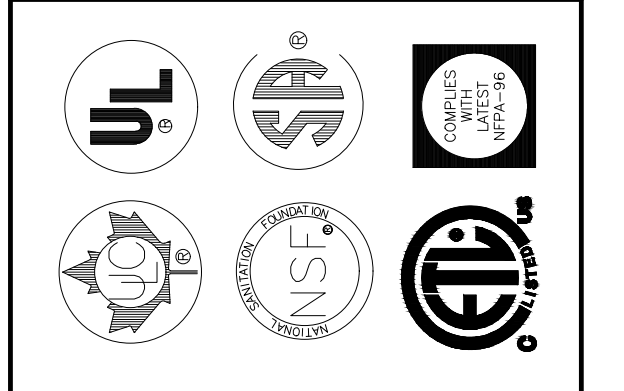
1. FINAL INSTALLATION IS TO BE MADE IN ACCORDANCE WITH ALL APPLICABLE CODES
2. ALL ELECTRICAL COMPONENTS FOR EQUIPMENT SHUT DOWN TO BE PROVIDED BY THE ELECTRICIAN. MICRO-SWITCH INSTALLED IN REGULATED RELEASE BY ANSUL INSTALLER
3. REMOTE PULL STATION LOCATED PER MECHANICAL DRAWINGS

THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFY THE FOLLOWING:  
 1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS AND CLEARANCES.  
 2. THE LOCATION AND TYPE OF COOKING EQUIPMENT.

**NOTE TO APPROVER**  
 THIS EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT POSITION MAY AFFECT EXHAUST AIRFLOW. HALTON MUST BE NOTIFIED IF ANY OF THESE CHANGES OCCUR. A RECALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.

APPROVED FOR FABRICATION  WITH NO CHANGES  WITH CHANGES AS NOTED

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_



| WEBSITE: www.halton.com<br>HALTON CO. (USA)<br>101 INDUSTRIAL DRIVE<br>SCOTTSVILLE, KY 42164<br>1-270-237-5600 | HALTON CO. (CANADA)<br>1021 BREVIK PLACE<br>MISSISSAUGA, ON L4W 3R7<br>1-905-624-0301 | REVISION DESCRIPTION<br><table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table> | REV | DATE | DESCRIPTION |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|--|-----|------|-------------|--|--|--|--|--|--|--|--|--|--|--|--|
| REV  | DATE  | DESCRIPTION  |     |      |             |  |  |  |  |  |  |  |  |  |  |  |  |
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PROJECT: CHICK-FIL-A #2134 MOREHEAD CITY

LOCATION: MOREHEAD CITY, NC

DRAWN BY: SKM DATE: 12.28.22

SCALE: NOT TO SCALE

Halton

DRAWING No.: U22-950-01

SHEET NO.: MH1.2