

Chick-fil-A

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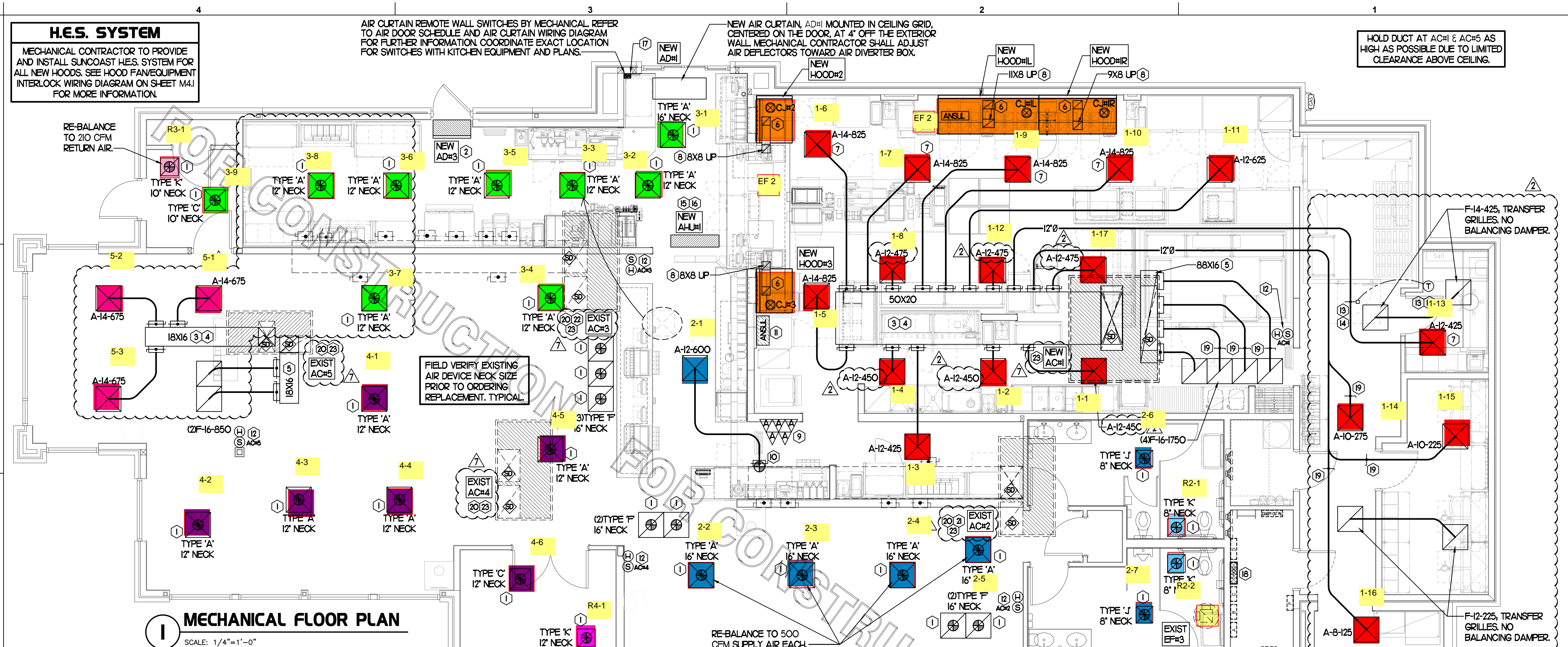
CHICK-FIL-A
CENTRE AT GLEN
BURNIE
6709 RITCHIE HWY
GLEN BURNIE, MD 21061

FSR#01433

BUILDING TYPE / SIZE:	S03-146	
RELEASE:	v05.21	
REVISION SCHEDULE		
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SHEET
MECHANICAL
FLOOR PLAN
SHEET NUMBER

M1.1



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.

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

NEW AIR CURTAIN, AD#1 MOUNTED IN CEILING GRID, CENTERED ON THE DOOR, AT 4" OFF THE EXTERIOR WALL. MECHANICAL CONTRACTOR SHALL ADJUST AIR DEFLECTORS TOWARD AIR DIVERTER BOX.

HOLD DUCT AT AC#1 & AC#5 AS HIGH AS POSSIBLE DUE TO LIMITED CLEARANCE ABOVE CEILING.

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

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

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

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

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 M4.I.I FOR CAPTURE-LET 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 M4.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 M1.2 FOR CONTINUATION.
- MOUNT NEW SMOKE DETECTOR TEST/RESET STATIONS FOR ALL A/C UNITS ON WALL. COORDINATE EXACT LOCATION WITH KITCHEN ELEVATIONS AND ELECTRICAL. CONTACT SUNCOAST ENVIRONMENTAL CONTROLS AT 1-877-544-6679 TO PURCHASE A NEW SMOKE DETECTOR TEST/RESET STATION FOR EACH RTU.
- PROVIDE & INSTALL NEW SPIN-IN COLLAR AND ROUTE NEW DUCT TO NEW GRILLE AS SHOWN.
- ANSUL UTILITY CABINET. LOCATE TOP OF CABINET 0'-2" BELOW CEILING. COORDINATE FINAL MOUNTING LOCATION WITH KITCHEN EQUIPMENT.
- MOUNT NEW REMOTE TEMP SENSOR AND NEW LENNOX HUMIDITY SENSOR FOR ROOFTOP UNIT AS NOTED BELOW (OR ABOVE WAINGSCOTING IF APPLICABLE). ROUTE NEW WIRING FOR NEW REMOTE TEMP SENSOR TO NEW TSTAT IN CFA T500 PANEL. ROUTE NEW WIRING FOR NEW LENNOX HUMIDITY SENSOR TO UNIT ON ROOF. REFER TO WIRING DIAGRAM ON SHEET M4.I.
 - AC#1: MOUNT NEW REMOTE TEMP SENSOR ON WALL AT 5'-8" AFF. COORDINATE FINAL MOUNTING LOCATION IN FIELD WITH KITCHEN EQUIPMENT, SHELVING, AND ELECTRICAL. MOUNT NEW LENNOX HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR.
 - AC#2, AC#3, AC#4, & AC#5: MOUNT NEW REMOTE TEMP SENSOR ON WALL AT 5'-0" AFF. MOUNT NEW LENNOX HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR.

- YOUNG REGULATOR 12" MODEL 2010 ROUND ZONE DAMPER WITH MODEL T-312CE AUTOMATIC CHANGE-OVER THERMOSTAT. MOUNT TSTAT AT 4'-0" AFF. POWER OPEN/SRING 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 LINE 24/7. PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM. SEE DETAIL ON SHEET M4.I FOR MORE INFORMATION.
- MOUNT AIR HANDLER ON OVER-HEAD WALL ABOVE CASED OPENING. MOUNT UNIT AT 12" ABOVE CASED OPENING. ROUTE REFRIGERANT PIPING ABOVE CEILING AND UP THRU ROOF TO CONDENSING UNIT. CUMI. SEE SHEET M1.2 FOR CONDENSING UNIT LOCATION. REFRIGERANT PIPING BELOW ROOF SHALL BE HIDDEN WITHIN WALLS AND CEILINGS.
- ROUTE CONDENSATE FROM A-14-411 TO TERMINATE INTO FLOOR DRAIN LOCATED BEHIND ICE MAKER IN DRIVE THRU. COORDINATE EXACT LOCATION OF DRAIN WITH PLUMBING PLANS. CONDENSATE PIPING SHALL BE TYPE K COPPER WITH 1/2" ARMAFLEX INSULATION. CONDENSATE MUST SLOPE MIN 1/8" PER FOOT TO TERMINATION POINT. CONTRACTOR SHALL INSTALL A CONDENSATE LIFT PUMP IN ORDER TO ROUTE CONDENSATE ABOVE CEILING.
- MOUNT A-14-411 THERMOSTAT ON WALL NEXT TO AD#1 REMOTE WALL SWITCHES. SEE SCHEDULE ON SHEET M3.I FOR INTERLOCK WITH T500 PANEL.
- ELECTRICAL CONTRACTOR TO PURCHASE AND INSTALL NEW CFA T500 TEMP CONTROL PANEL WITH AUTOMATIC TIMER FOR LIGHTING CONTROLS AND 6-THERMOSTAT TEMP CONTROL CABINET. COORDINATE WITH ELECTRICAL CONTRACTOR FOR NEW LOCATION OF TEMP CONTROL CABINET. CONTROL WIRING TERMINATIONS BETWEEN NEW THERMOSTATS, NEW SENSORS, AND NEW/EXISTING RTUS BY MECHANICAL CONTRACTOR. REFER TO WIRING DIAGRAM ON SHEET M4.I.
- RUSKIN MODEL MDRS25 OR EQUIVALENT MANUAL VOLUME DAMPER WITH LOCKING QUADRANT HANDLE.
- INSTALL NEW DUCT SMOKE DETECTOR IN THE SAME LOCATION AS DEMOLISHED DUCT SMOKE DETECTOR. ROUTE NEW WIRING TO NEW SMOKE DETECTOR TEST/RESET STATION ON KITCHEN WALL. REFER TO WIRING DIAGRAM ON SHEET M4.I.
- GC TO CONFIRM EXACT LOCATION OF AC#2 MAIN DUCT RUNS RELATIVE TO PROPOSED NEW WALL PRIOR TO START OF CONSTRUCTION. CONTACT JLL PM OR AOR IF DETERMINED THERE IS A CONFLICT.
- GC TO CONFIRM EXACT LOCATION OF AC#3 MAIN DUCT RUNS RELATIVE TO PROPOSED NEW WALL PRIOR TO START OF CONSTRUCTION. CONTACT JLL PM OR AOR IF DETERMINED THERE IS A CONFLICT.
- INSTALL NEW SUPPLY AIR SMOKE DETECTOR. ROUTE NEW WIRING TO NEW SMOKE DETECTOR TEST/RESET STATION ON KITCHEN WALL. REFER TO WIRING DIAGRAM ON SHEET M4.I.

TOTAL AIR BALANCE SCHEDULE

EQUIPMENT MARK	AC#1 (NEW)	AC#2 (EXIST)	AC#3 (EXIST)	AC#4 (EXIST)	AC#5 (EXIST)	EF#1 (NEW)	EF#2 (NEW)	EF#3 (EXIST)	TOTAL
SERVES	KITCHEN	SIDE DINING	MAIN DINING	MAIN DINING	PLAY AREA	HOOD#1L HOOD#1R	HOOD#2 HOOD#3	REST-ROOMS	
SUPPLY AIR CFM	9,000	3,150	4,000	2,750	2,025				20,925
RETURN AIR CFM	7,000	2,400	3,000	1,950	1,700				16,050
OUTSIDE AIR CFM	2,000	750	1,000	800	325				+4,875
EXHAUST CFM						1,912	1,402	500	-3,814
PRESSURIZATION									+1,061
REMARKS	ADJUST AND VERIFY BALANCE OF ALL HVAC EQUIPMENT IS AS SHOWN IN ORDER TO MAINTAIN BUILDING AIR BALANCE.								

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 THIS 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.
- L. CONSTRUCTION OF FLEXIBLE DUCTWORK SHALL INCLUDE SPIRAL METAL HELIX BONDED TO A POLYESTER CORE, FIBERGLASS INSULATION WITH POLYETHYLENE OR MYLAR VAPOR BARRIER. ALL COMPONENTS SHALL HAVE APPROPRIATE U.L. APPROVAL AND SHALL BE EQUIVALENT TO THERMAFLEX MKE.
- M. FLEXIBLE DUCT SHALL BE INSTALLED PER THE "ADC FLEXIBLE DUCT PERFORMANCE AND INSTALLATION STANDARDS, 4TH ED" USING FOIL TAPE AND DRAWBAND ON THE INNER CORE AND TAPE OR DRAWBAND ON THE OUTER JACKET.
- N. DUCT TAPE SHALL BE EQUAL TO FASSON 181-B FX, 2-1/2" WIDE.
- O. SINGLE THICKNESS TURNING VANES SHALL BE INSTALLED AT 90 DEGREE TURNS IN SUPPLY DUCTWORK WHERE ANY ONE DIMENSION IS GREATER THAN 12".
- P. RADIUS ELBOWS MAY BE SUBSTITUTED FOR 90 DEGREE ELBOWS AT THE DISCRETION OF THE CONTRACTOR. CENTERLINE RADIUS EQUAL TO; R=W PER FIGURE NO. 2-2 IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- Q. EXTERNAL INSULATION ON BOTTOM OF DUCTS 24" OR WIDER SHALL BE SUPPORTED WITH STICK PINS ON 18" CENTERS. STICK PIN WASHERS SHALL BE COVERED WITH DUCT TAPE OR MASTIC.

2.03 CONTROLS (C15735)

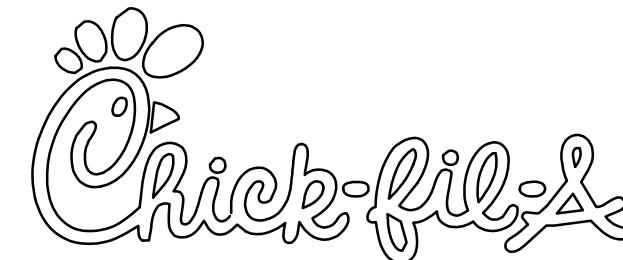
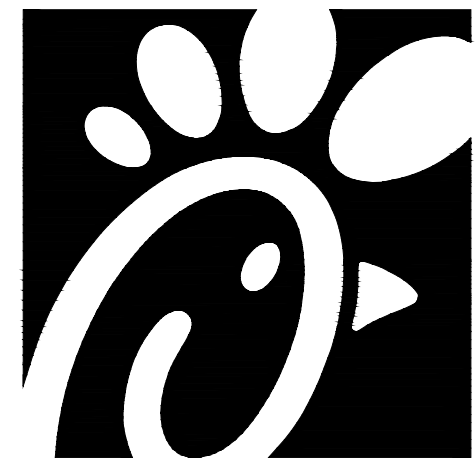
- A. SYSTEMS SHALL BE COMPLETE WITH CONNECTIONS TO EXISTING CFA-500 TEMPERATURE CONTROL PANEL AS MANUFACTURED BY SUNCOAST ENVIRONMENTAL CONTROLS (S.E.C.) (PH: 877-544-6679). CONTROL WIRING TERMINATIONS ARE BY THE MECHANICAL CONTRACTOR.
- B. THE SMOKE DETECTORS SHALL BE FACTORY INSTALLED AND WIRED BY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

PART III - EXECUTION

3.01 SCOPE

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

NATIONAL ACCOUNTS	
1.	LENNOX EQUIPMENT - CONTACT LENNOX NATIONAL ACCOUNTS AT 800-367-6285 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY. LENNOX EQUIPMENT NOT PURCHASED THRU LENNOX NATIONAL ACCOUNTS WILL NOT BE ACCEPTED.
2.	LOREN COOK FAN AND CURB PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
3.	PRICE AIR DEVICES - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
4.	AIR DOORS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
5.	HALTON HOODS - CHICK-FIL-A WILL PURCHASE AND PROVIDE THE HOODS FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING THE HOODS. CONTACT HALTON CO. AT 270-237-5600 FOR MORE INFO.
6.	ROYAL METAL PRODUCTS START COLLARS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
7.	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.
8.	CIRCULATING FAN PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
9.	BROMIC ELECTRIC HEATER PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE HEATER DIRECTLY FROM BROMIC COMPANY. CONTACT MR. FRANK SARVER AT 858-400-4063 FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU BROMIC COMPANY WILL NOT BE ACCEPTED.



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



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



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 2084 EXPIRATION 09/30/2022

CHICK-FIL-A
CENTRE AT GLEN BURNIE
6709 RITCHIE HWY
GLEN BURNIE, MD 21061

FSR#01433

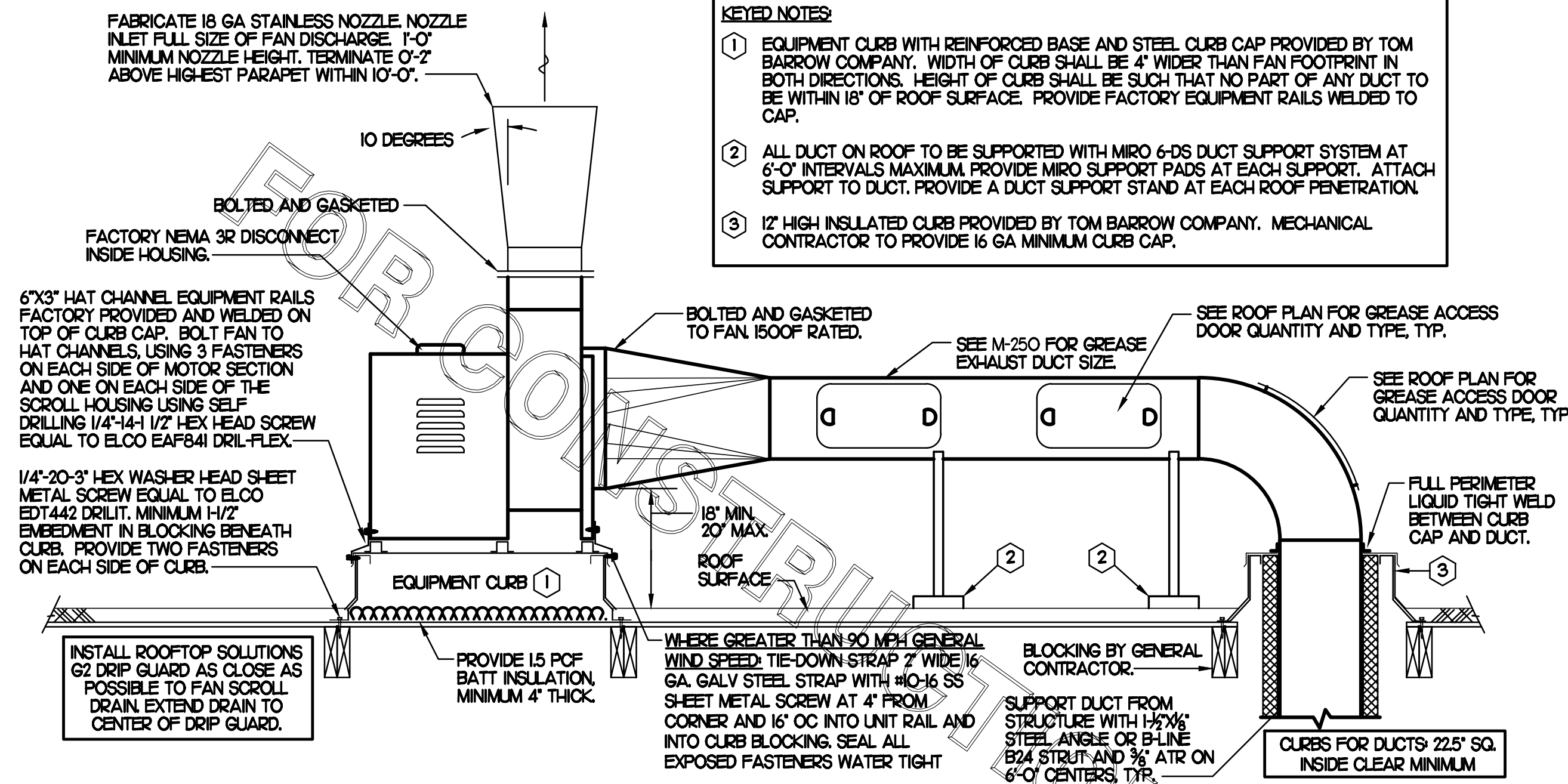
BUILDING TYPE / SIZE:	S03-146	
RELEASE:	v05.21	
REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
1	03/18/22	Electric Heater

CONSULTANT PROJECT #	22001.HF.R
PRINTED FOR	CONSTRUCTION
DATE	02/10/2022
DRAWN BY	DSF

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SHEET
MECHANICAL
SPECIFICATIONS
SHEET NUMBER

M7.1

CONSTRUCTION



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

SHEET NOTES

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

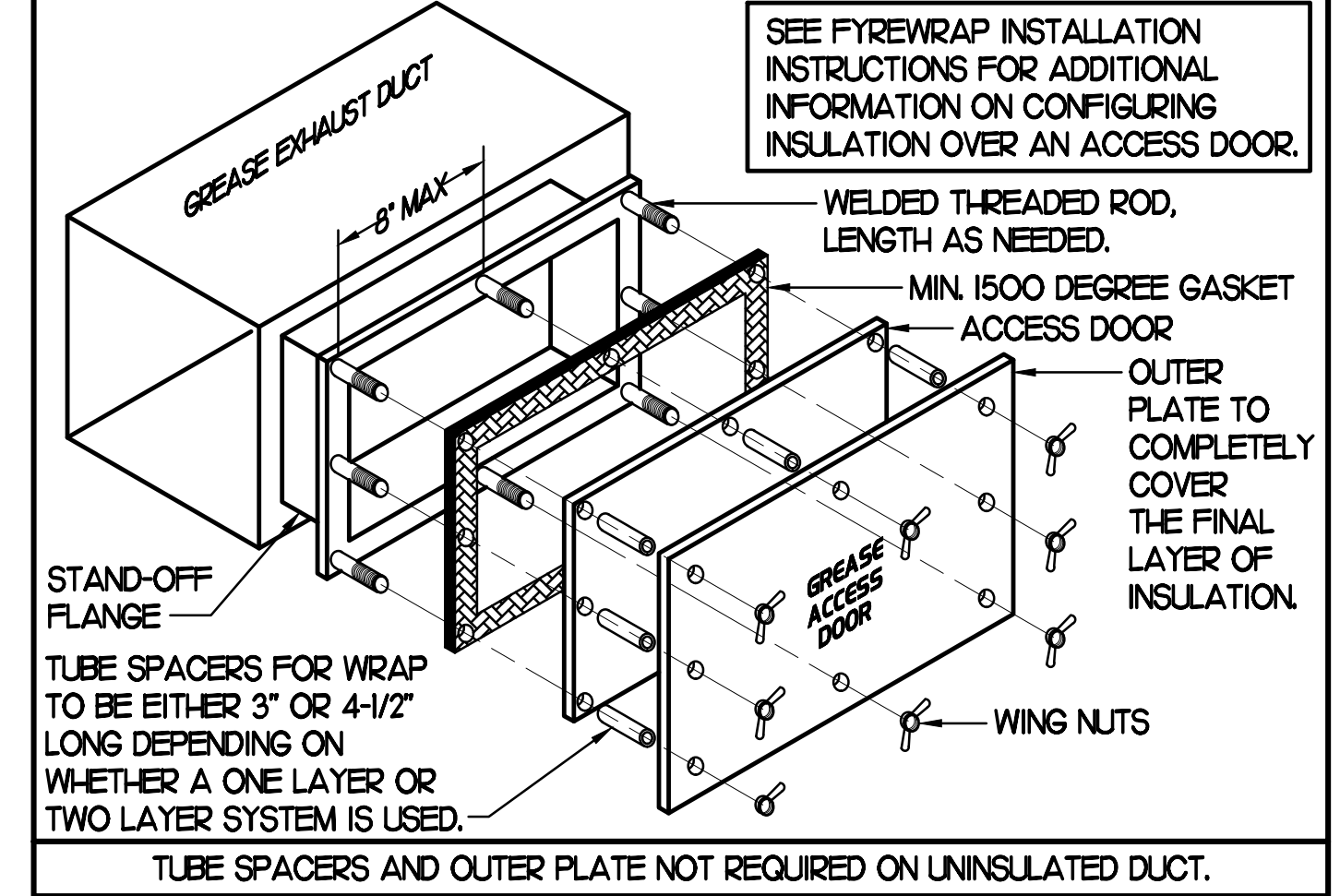
KEY NOTES

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

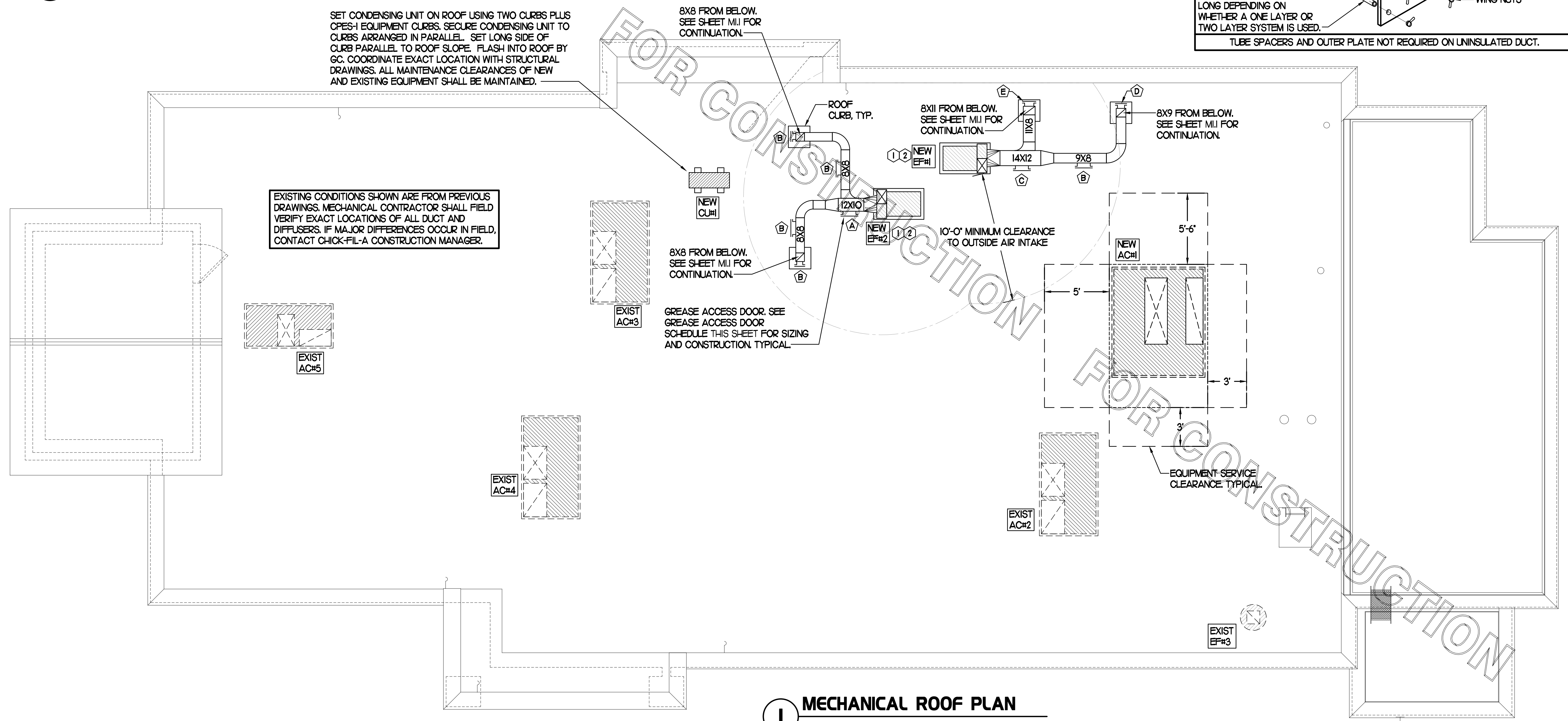
GREASE ACCESS DOOR SCHEDULE

MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	7.5H X 14W	9.5H X 16W	I
B	5.5H X 14W	7.5H X 16W	I
C	9.5H X 14W	11.5H X 16W	I
D	6.5H X 14W	8.5H X 16W	I
E	8.5H X 14W	10.5H X 16W	I

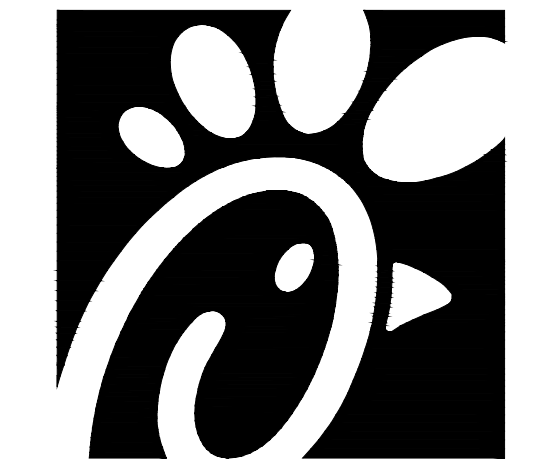
I. ACCESS DOORS SHALL BE UL 1978 LISTED OR FIELD FABRICATED, REQUIRE NO TOOLS FOR REMOVAL AND MEET THE REQUIREMENTS OF THE CURRENT EDITION OF THE IMC. ACCESS DOOR ASSEMBLY SHALL BE WELDED IN PLACE TO THE GREASE EXHAUST DUCT AND THE ACCESS DOOR SHALL BE SECURED WITH T-LUMB SCREWS. ACCESS DOORS SHALL BE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



2 KITCHEN HOOD EXHAUST FAN - UTILITY SET FAN
NO SCALE



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

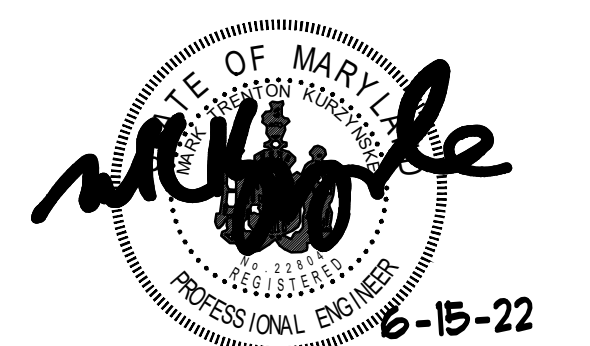


Chick-fil-A

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CHICK-FIL-A
CENTRE AT GLEN BURNIE
6709 RITCHIE HWY
GLEN BURNIE, MD 21061

FSR#01433

BUILDING TYPE / SIZE: S03-146
RELEASE: v05.21
REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 22001.HF.R
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DATE 02/10/2022
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SHEET
MECHANICAL
ROOF PLAN
SHEET NUMBER

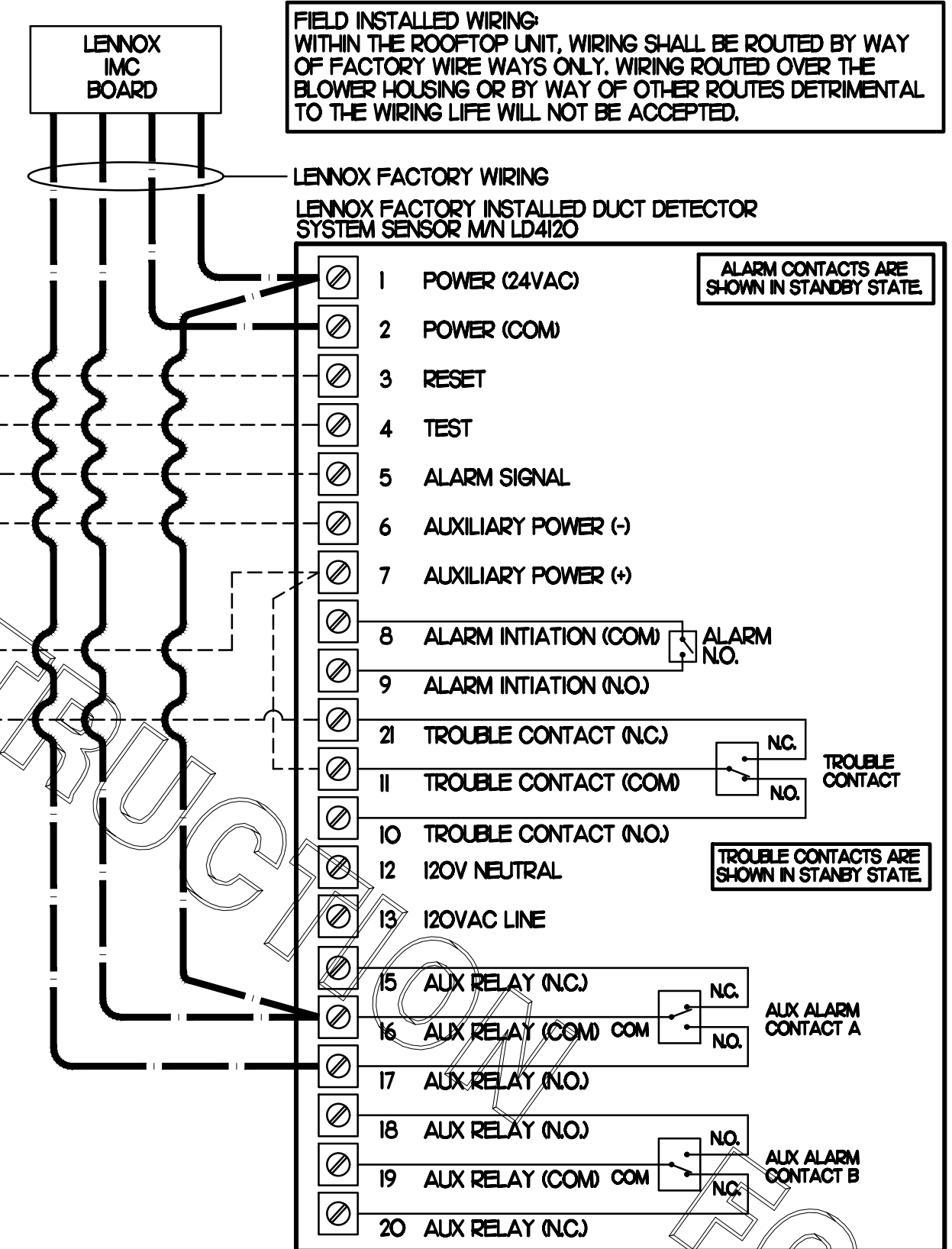
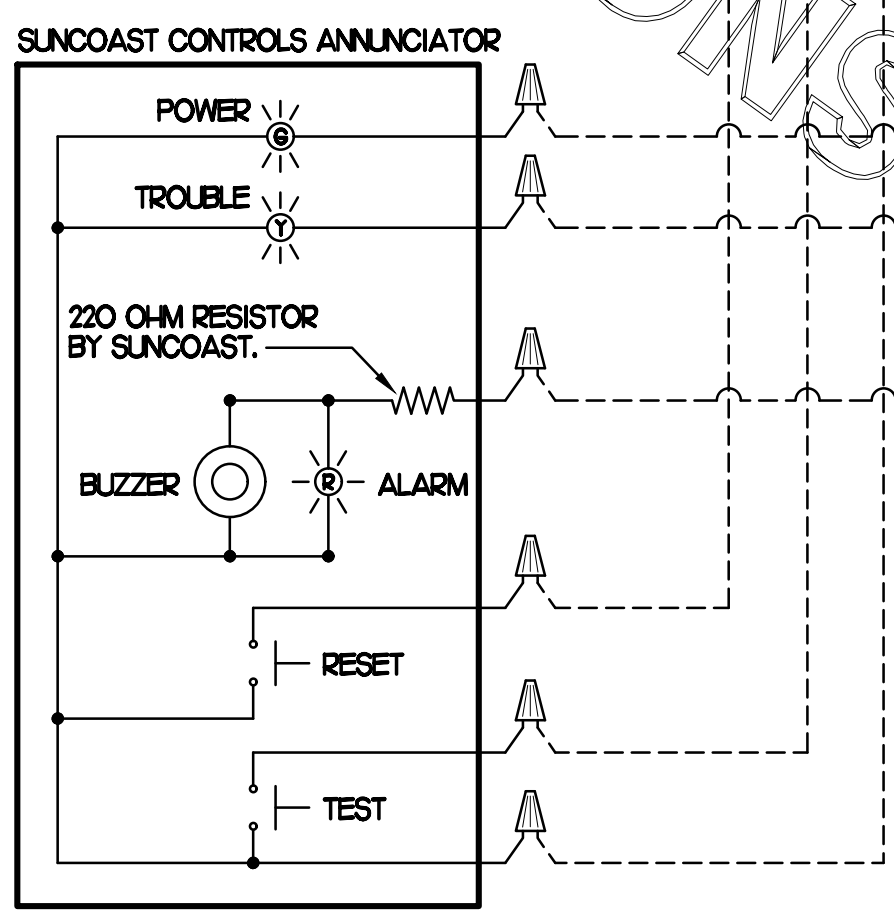
M1.2

CONSTRUCTION

SUPPLY SIDE DETECTORS
IF SUPPLY SIDE SMOKE DETECTORS ARE SHOWN ON DWG M11, 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 M11.

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

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

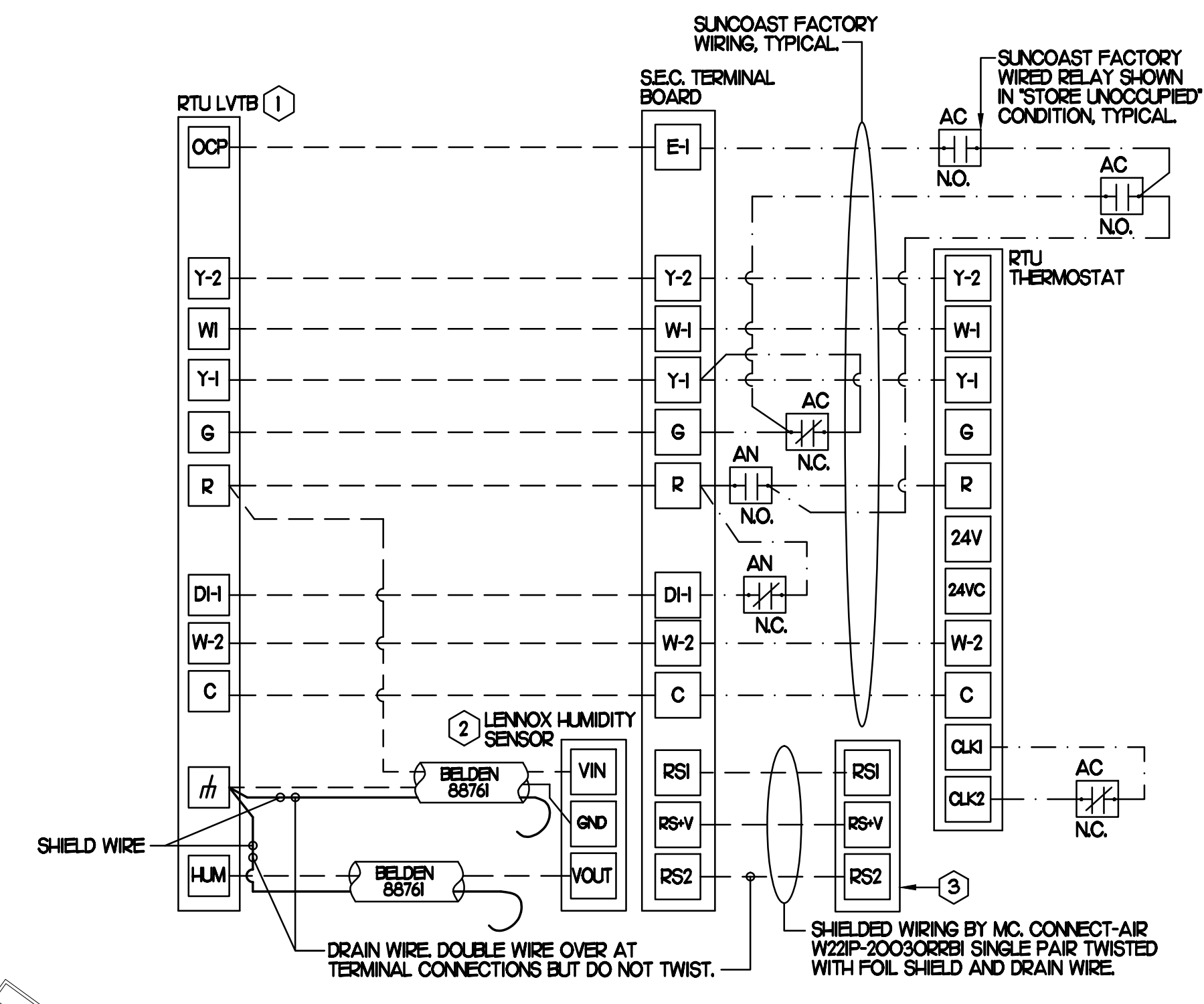


LEGEND
 S.E.C. SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF TEMP/FAN CONTROL PANEL LOCATED IN KITCHEN)
 KEY NOTE REFERENCE
 (1) MC MECHANICAL CONTRACTOR
 (AC) SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, ENERGIZED BY PUTTING STORE SWITCH IN 'STORE OCCUPIED' POSITION.
 (AN) SUNCOAST RELAY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

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 (LCH TYPE) LEAVE THE SETTING AT THE DEFAULT VALUE SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 60 MINUTES AFTER 'OCCUPIED' START. AT KITCHEN RTUS (LCH TYPE) CHANGE THE VALUE TO 5400 SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 90 MINUTES AFTER 'OCCUPIED' START.
 - MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INTERIOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
 - SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNCIATOR WIRING.
 - AT HUMIDITROL RTUS SET PRODIGY-M3 BOARD CONTROL PARAMETER #06 FOR DEHUMIDIFICATION OPERATION TO A VALUE OF 7. OLDER M-3 IMC BOARD ECTO PARAMETER 4.24 VALUE TO BE SET TO A VALUE OF 7.
 - AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #06 FOR DEHUMIDIFICATION SET POINT TO A VALUE OF 60 (#60 RH).
 - AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #07 FOR DEHUMIDIFICATION MODE DEAD BAND TO A VALUE OF 2 (#2 RH).
 - SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
 - FOR MS4V UNITS, SET THE MS4V 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 HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. 'ACH#2 HUMIDITY SENSOR' OR 'ACH#2 TEMP SENSOR'. PLACE LABELS ON WALL ADJACENT TO DEVICE DO NOT APPLY DIRECTLY TO DEVICE.

1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - LENNOX
 NO SCALE



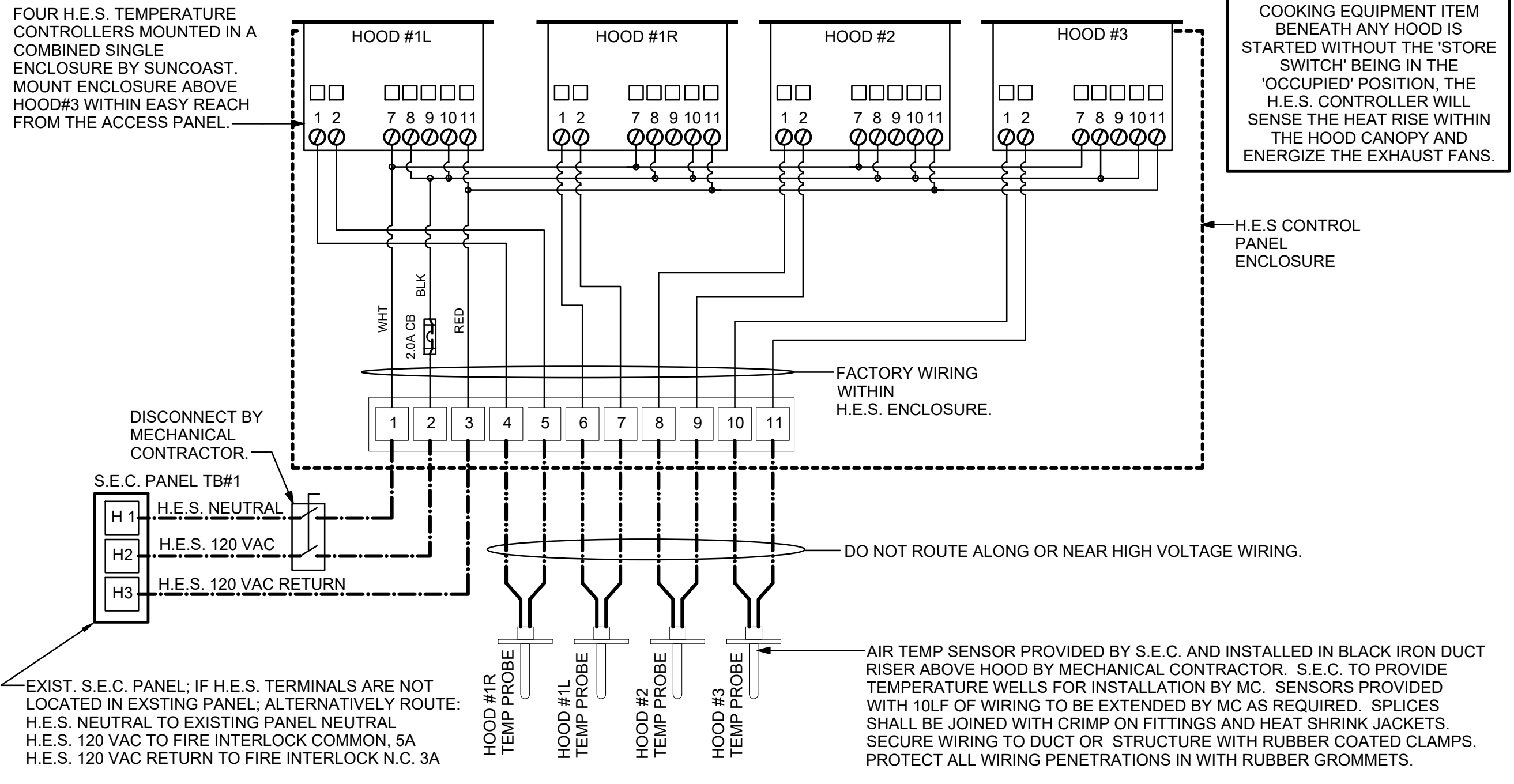
- KEYED NOTES**
- LOW VOLTAGE WIRING TO RTU TO BE ROUTED TO UNIT THRU FACTORY WIREWAY.
 - HUMIDITROL UNITS ONLY: WIRING TO HUMIDITY SENSOR TO BE MADE WITH TWO SEPARATE RUNS OF SHIELDED TWISTED PAIR, TERMINATE SHIELD WIRES AT TB4, LEAVE OPEN AT SENSOR.
 - NETWORK TSTAT REMOTE TEMP SENSOR PROVIDED BY SUNCOAST AND INSTALLED BY MC. FIELD CALIBRATE EACH SENSOR.

2 ROOFTOP UNIT CONTROL WIRING - LENNOX
 NONE

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

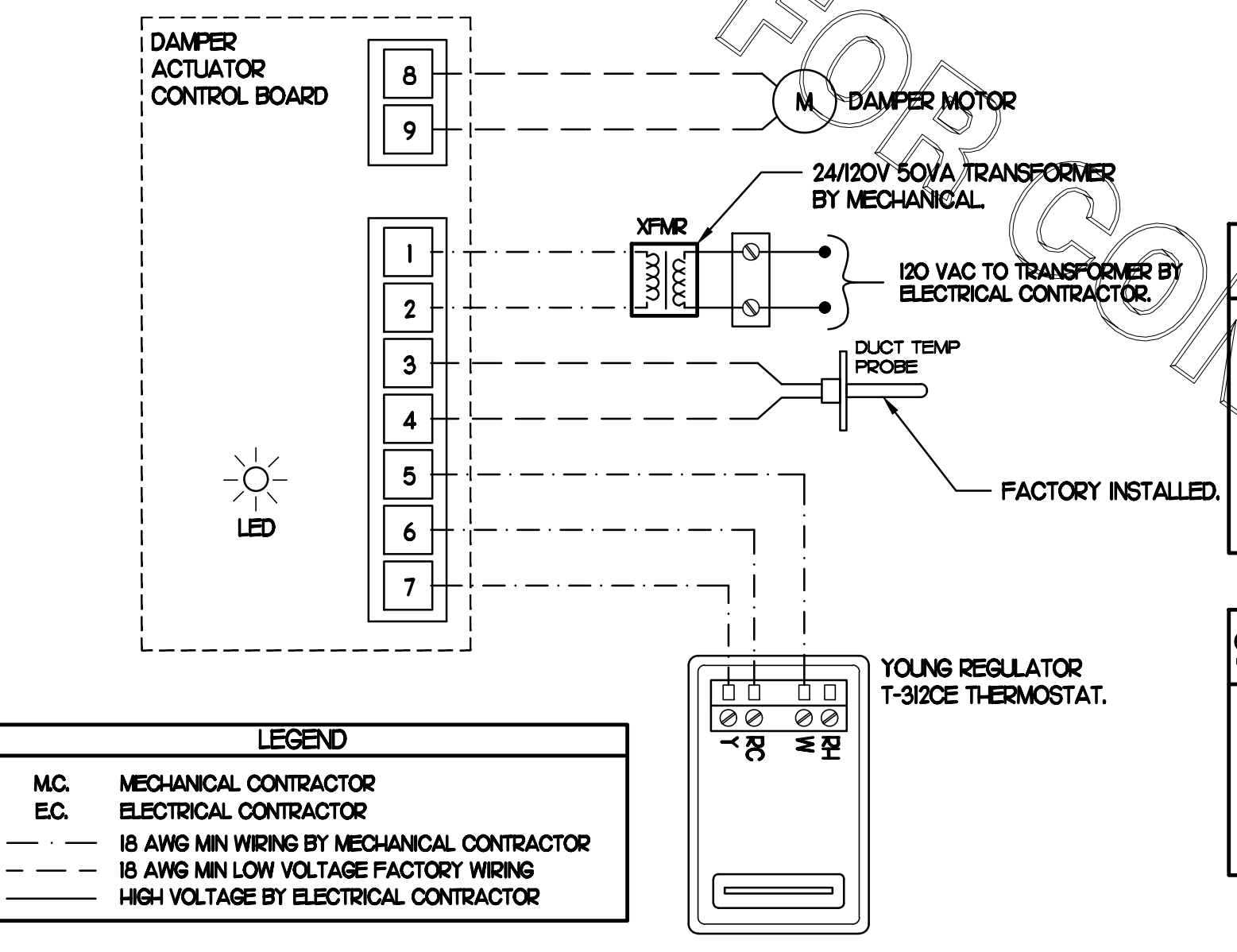
- GENERAL NOTES**
- MECHANICAL CONTRACTOR TO PURCHASE THE H.E.S. CONTROL PANEL AND COMPONENTS FROM SUNCOAST ENVIRONMENTAL CONTROLS. TELEPHONE 877-544-8679.
 - CONTROLS COMPONENTS TO BE FACTORY MOUNTED IN LABELED NEMA-1 ENCLOSURES.
 - MECHANICAL CONTRACTOR TO PROVIDE A PROFESSIONALLY LAMINATED COPY OF THIS DETAIL ATTACHED TO THE ENCLOSURE CONTACT ENGINEER OF RECORD FOR A REPRODUCIBLE COPY OF THE DETAIL.

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



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

3 HOOD EXHAUST SAFETY SWITCH (H.E.S.) WIRING DIAGRAM
 NONE



LEGEND
 MC MECHANICAL CONTRACTOR
 EC ELECTRICAL CONTRACTOR
 - - - 18 AWG MIN WIRING BY MECHANICAL CONTRACTOR
 - - - 18 AWG MIN LOW VOLTAGE FACTORY WIRING
 - - - HIGH VOLTAGE BY ELECTRICAL CONTRACTOR

- NOTES**
- SEE DWG M11 FOR COMPONENT MODEL NUMBERS AND ORDERING INFORMATION.
 - 120V POWER FOR TRANSFORMER TO BE NON-SWITCHED AND HOT 247.
 - PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM.

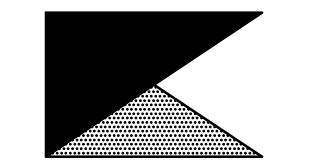
- SEQUENCE OF OPERATION**
- WHEN THE SUPPLY AIR TEMPERATURE IS LESS THAN 72°F THE DAMPER WILL OPEN FULLY ON A RISE IN SPACE TEMPERATURE ABOVE THE SETPOINT.
 - WHEN THE SUPPLY AIR TEMPERATURE IS GREATER THAN 72°F THE DAMPER WILL OPEN FULLY ON A FALL IN SPACE TEMPERATURE BELOW THE SETPOINT.

4 OFFICE VAV DAMPER AND TSTAT
 NO SCALE



Chick-fil-A

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6-15-22

CHICK-FIL-A
CENTRE AT GLEN BURNIE
 6709 RITCHIE HWY
 GLEN BURNIE, MD 21061

FSR#01433

BUILDING TYPE / SIZE: S03-146
 RELEASE: v05.21
REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 22001.HF.R
 PRINTED FOR CONSTRUCTION
 DATE 02/10/2022
 DRAWN BY DSF
 HVAC CONTROLS
 SHEET NUMBER

M4.1

MODEL: KVL-2-IC

STANDARD FEATURES

S.S. FILTERS (KSA)	4
1/2 S.S. FILTERS (KSA)	1
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: 1) CLOSURE HEIGHT = TBD (TWO SIDES) 2) CLOSURE HEIGHT = ADVISE CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF

FRONT CLOSURE PANEL WITH 64"x24" ADDRESS DOOR LEFT SIDE (ADDRES TO ANULAR TANKS & MBD DAMPER) 18"x18" ADDRESS DOOR RIGHT SIDE AT CAPTURE-JET BY FRONT C/O INTAKE CONTINUOUS CAPTURE INTERNAL LIGHT END PANEL 8" REAR STAND-OFF TO HAVE 1" THICK INSULATION

HOOD LEFT END PANEL

HOOD WEIGHT = 402 LBS

PROJECT: CHICK-FIL-A #1433 CENTER @ GLEN BURNIE

LOCATION: GLEN BURNIE, MD

DATE: 01.31.22

DWG. NO.: U22-072-01

ITEM NO.: H-1L

EXHAUST AIR INFORMATION: CFM 1080, T.A.B. .13, SP .24

CAPTURE AIR INFORMATION: CFM 72, SP .30

K FACTOR EQUATION: CFM = K FACTOR * 10^{SP}

K FACTOR = 3043

MODEL: KVL-2-IC

STANDARD FEATURES

S.S. FILTERS (KSA)	3
1/2 S.S. FILTERS (KSA)	1
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: 1) CLOSURE HEIGHT = TBD (TWO SIDES) 2) CLOSURE HEIGHT = ADVISE CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF

FRONT CLOSURE PANEL WITH 64"x24" ADDRESS DOOR LEFT SIDE (ADDRES TO ANULAR TANKS & MBD DAMPER) 18"x18" ADDRESS DOOR RIGHT SIDE AT CAPTURE-JET BY FRONT C/O INTAKE CONTINUOUS CAPTURE INTERNAL LIGHT END PANEL 8" REAR STAND-OFF TO HAVE 1" THICK INSULATION

HOOD LEFT END PANEL

HOOD WEIGHT = 402 LBS

PROJECT: CHICK-FIL-A #1433 CENTER @ GLEN BURNIE

LOCATION: GLEN BURNIE, MD

DATE: 01.31.22

DWG. NO.: U22-072-01

ITEM NO.: H-1R

EXHAUST AIR INFORMATION: CFM 932, T.A.B. .12, SP .23

CAPTURE AIR INFORMATION: CFM 55, SP .30

K FACTOR EQUATION: CFM = K FACTOR * 10^{SP}

K FACTOR = 2348

MODEL: KVL-C-IC

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: 1) CLOSURE HEIGHT = TBD (TWO SIDES) 2) CLOSURE HEIGHT = ADVISE CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF

FRONT CLOSURE PANEL WITH 64"x24" ADDRESS DOOR LEFT SIDE (ADDRES TO ANULAR TANKS & MBD DAMPER) 18"x18" ADDRESS DOOR RIGHT SIDE AT CAPTURE-JET BY FRONT C/O INTAKE CONTINUOUS CAPTURE INTERNAL LIGHT END PANEL 8" REAR STAND-OFF TO HAVE 1" THICK INSULATION

HOOD LEFT END PANEL

HOOD WEIGHT = 202 LBS

PROJECT: CHICK-FIL-A #1433 CENTER @ GLEN BURNIE

LOCATION: GLEN BURNIE, MD

DATE: 01.31.22

DWG. NO.: U22-072-01

ITEM NO.: H-2

EXHAUST AIR INFORMATION: CFM 701, T.A.B. .30, SP .39

CAPTURE AIR INFORMATION: CFM 30, SP .29

K FACTOR EQUATION: CFM = K FACTOR * 10^{SP}

K FACTOR = 1291

MODEL: KVL-C-IC

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: 1) CLOSURE HEIGHT = TBD (THREE SIDES) 2) CLOSURE HEIGHT = ADVISE CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF

FRONT CLOSURE PANEL WITH 64"x24" ADDRESS DOOR LEFT SIDE (ADDRES TO ANULAR TANKS & MBD DAMPER) 18"x18" ADDRESS DOOR RIGHT SIDE AT CAPTURE-JET BY FRONT C/O INTAKE CONTINUOUS CAPTURE INTERNAL LIGHT END PANEL 8" REAR STAND-OFF TO HAVE 1" THICK INSULATION

HOOD LEFT END PANEL

HOOD WEIGHT = 248 LBS

PROJECT: CHICK-FIL-A #1433 CENTER @ GLEN BURNIE

LOCATION: GLEN BURNIE, MD

DATE: 01.31.22

DWG. NO.: U22-072-01

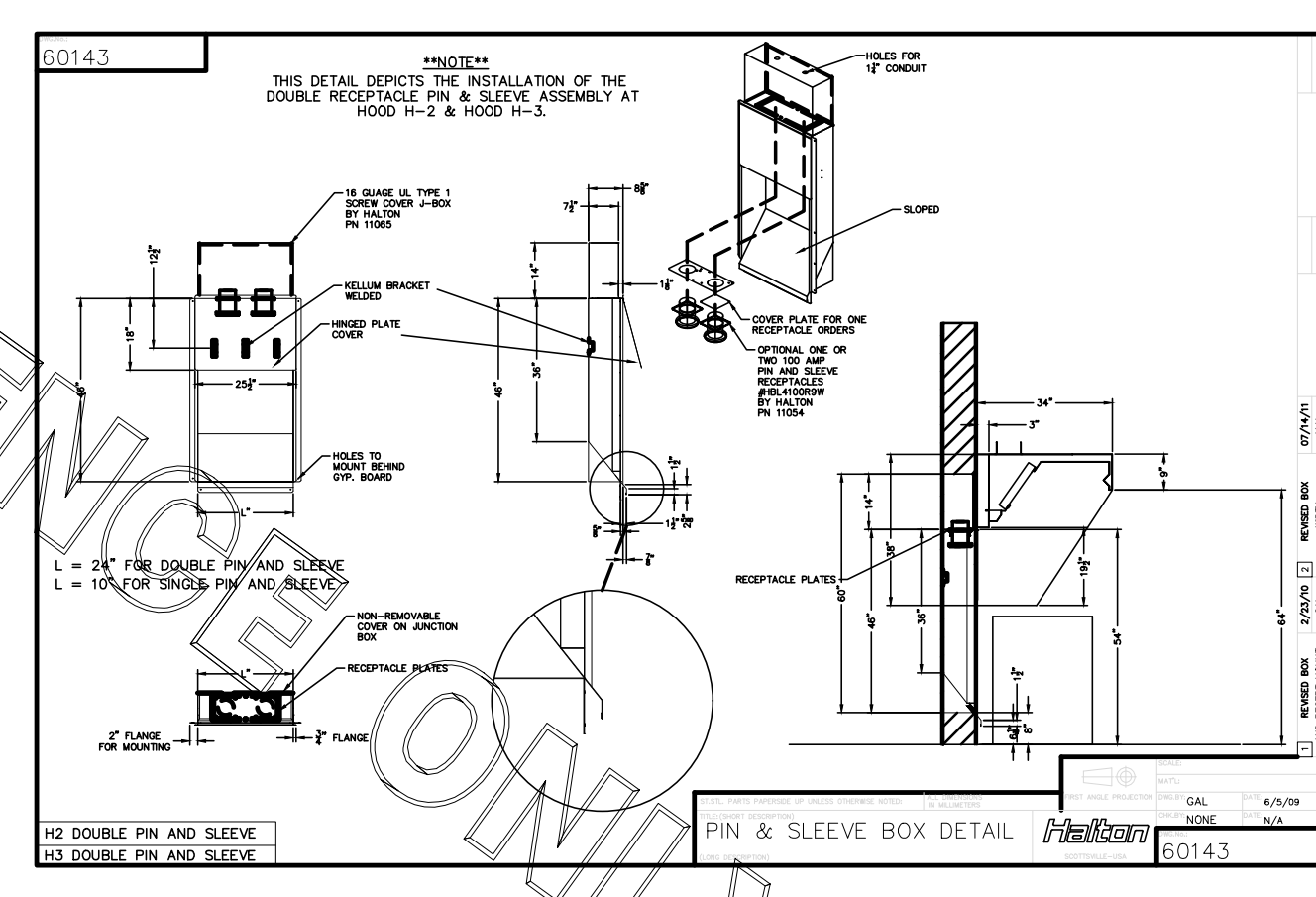
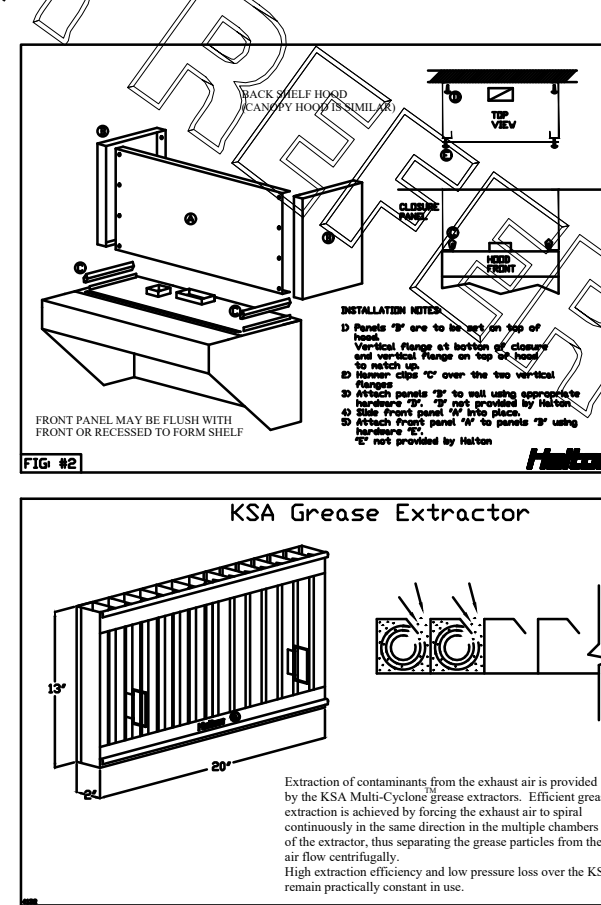
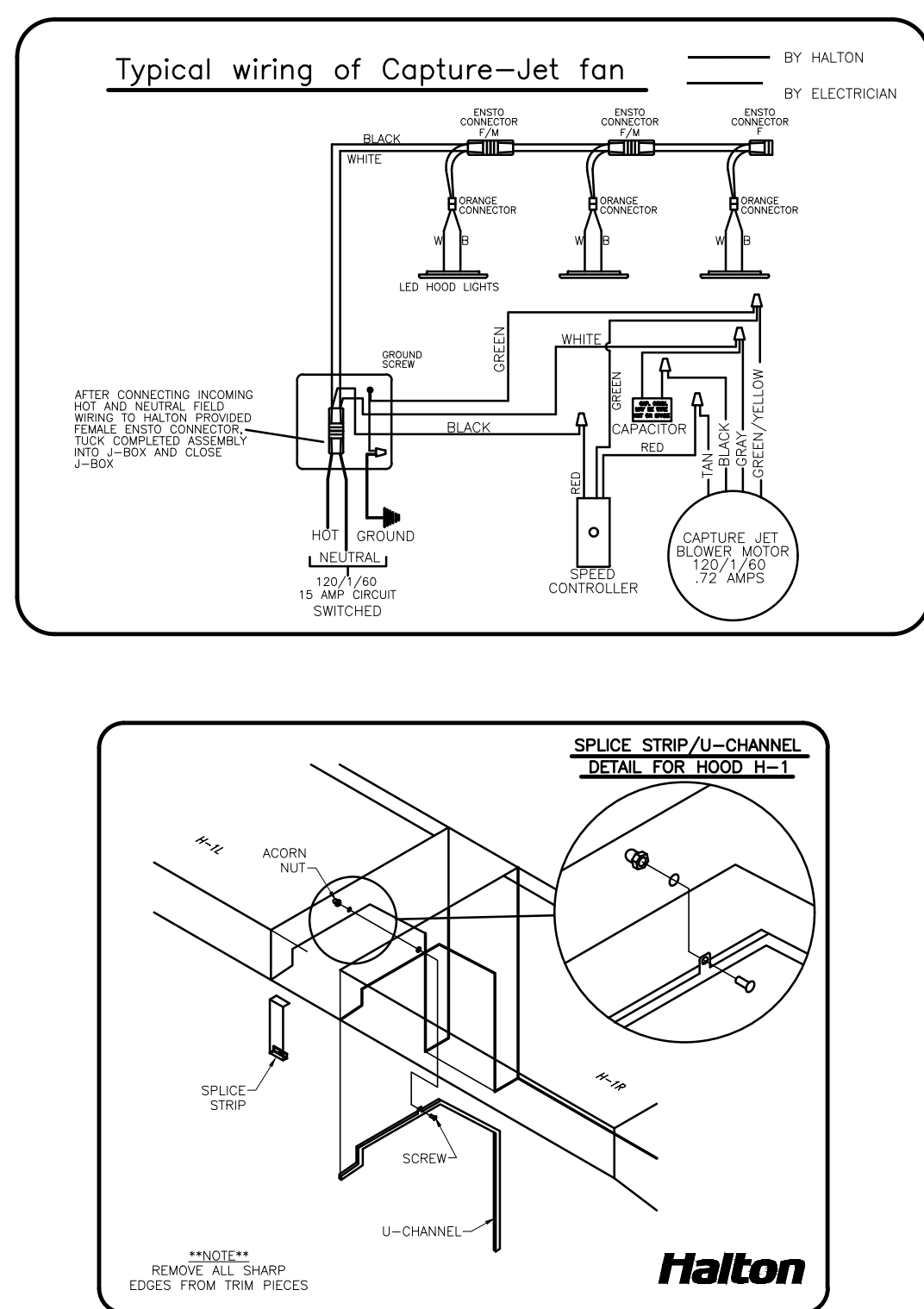
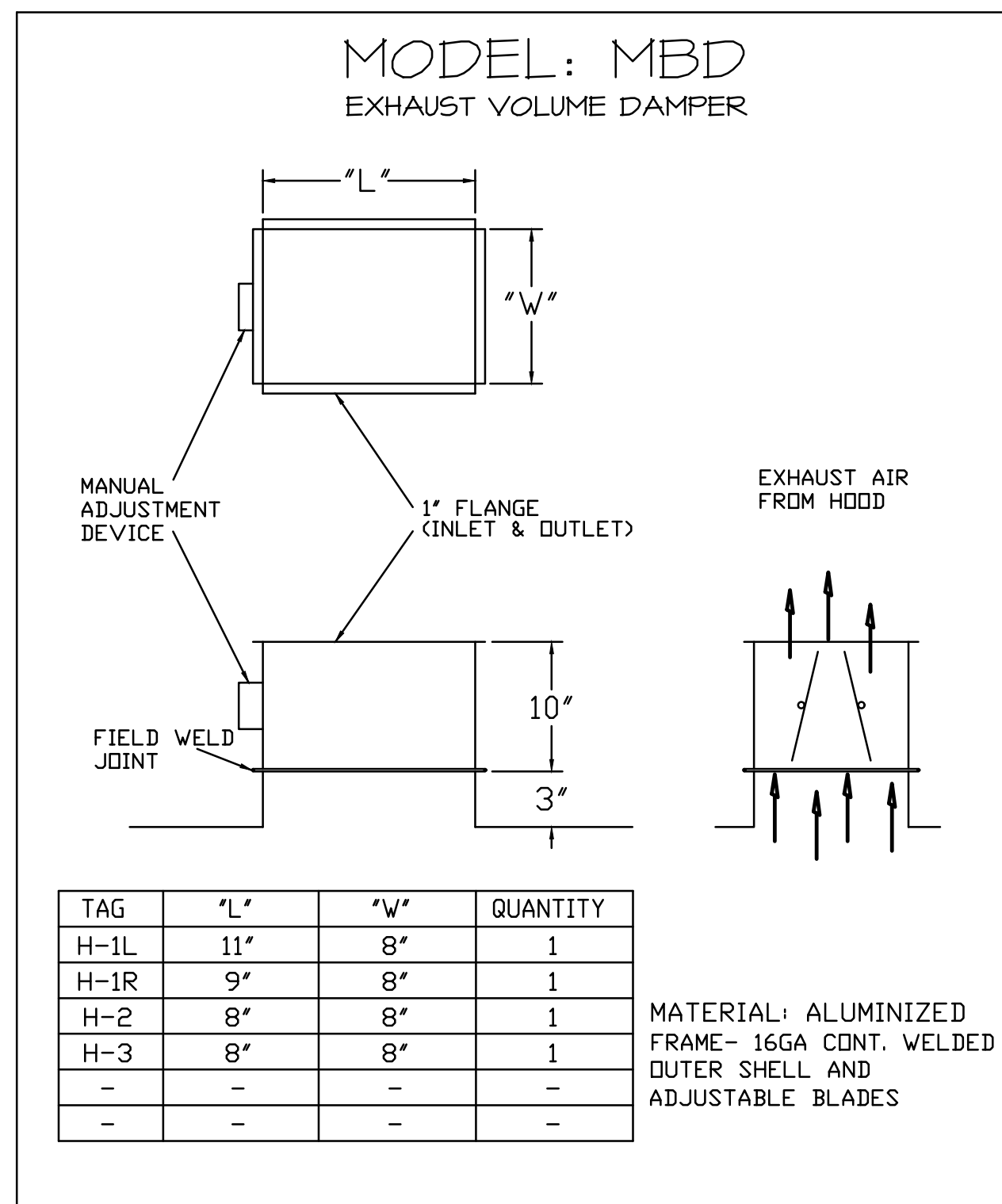
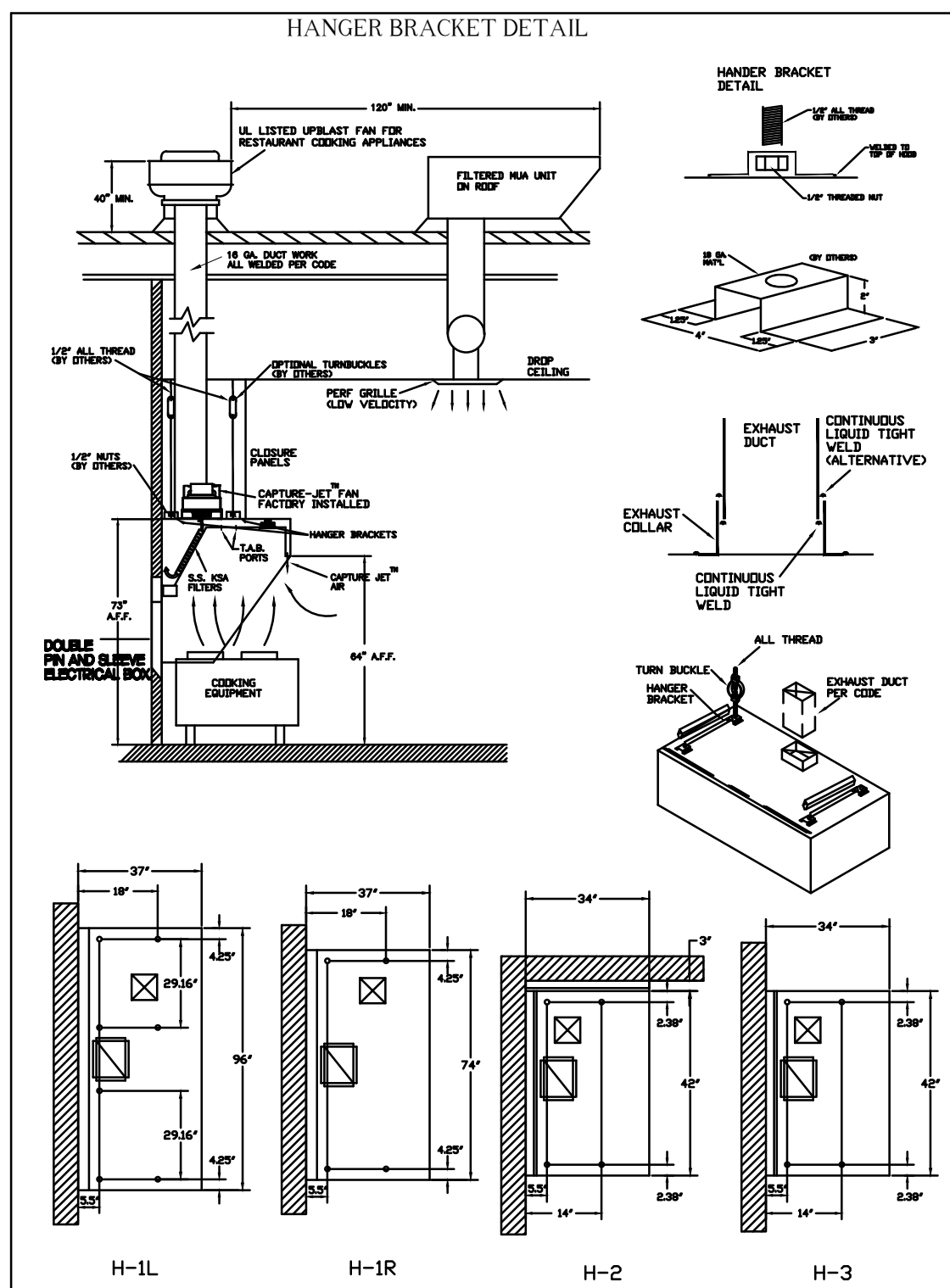
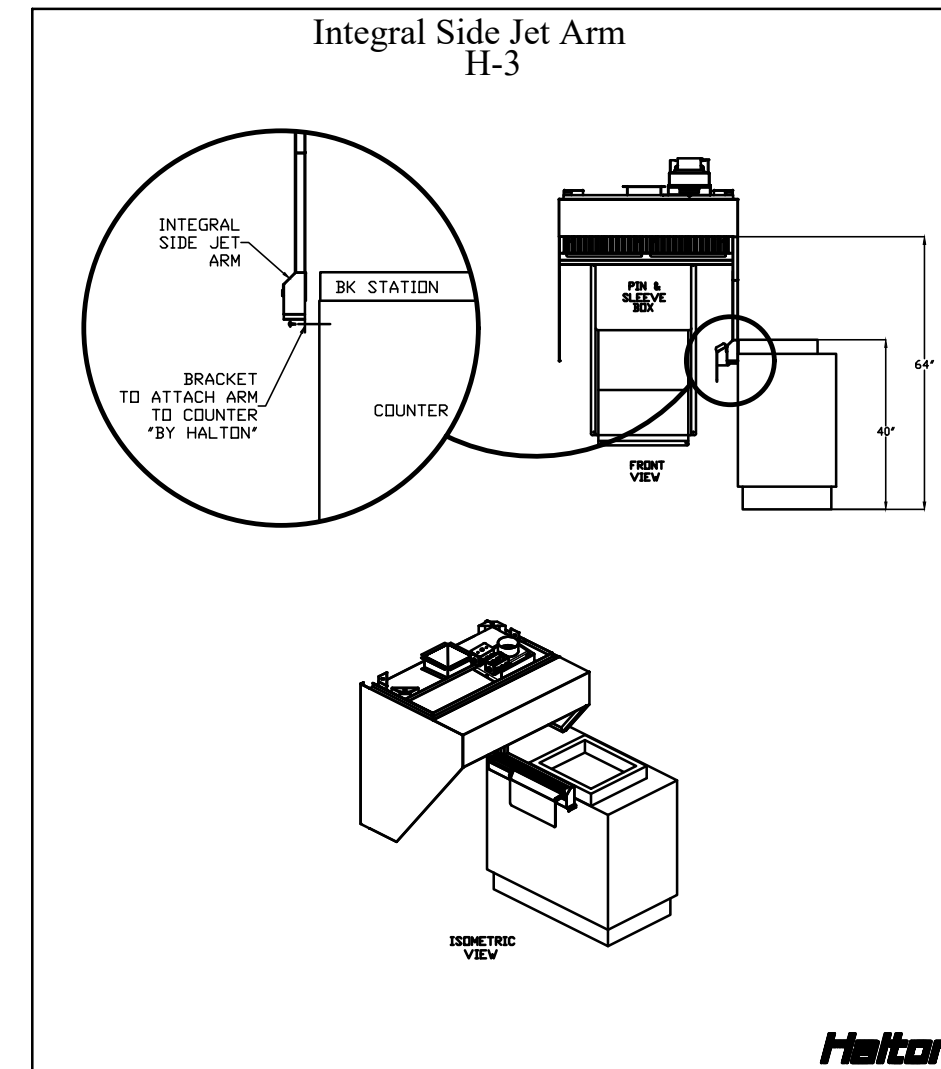
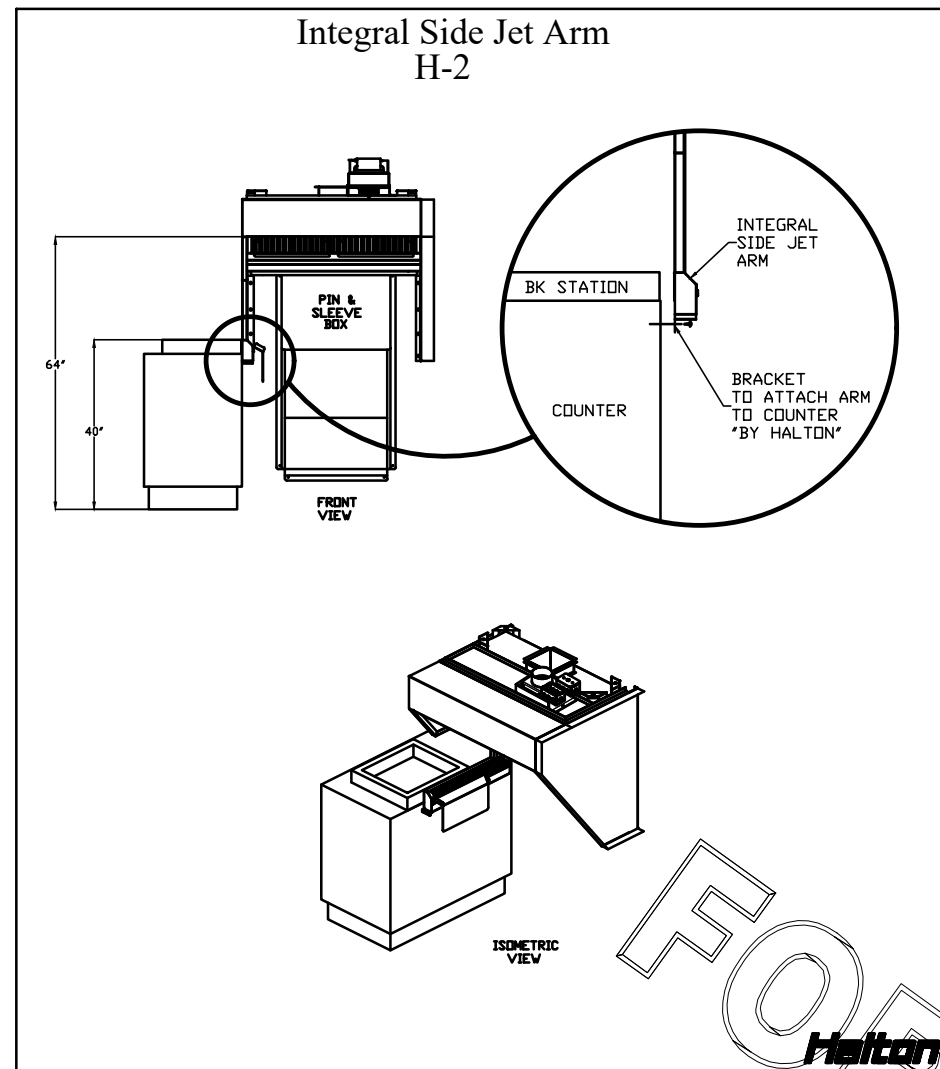
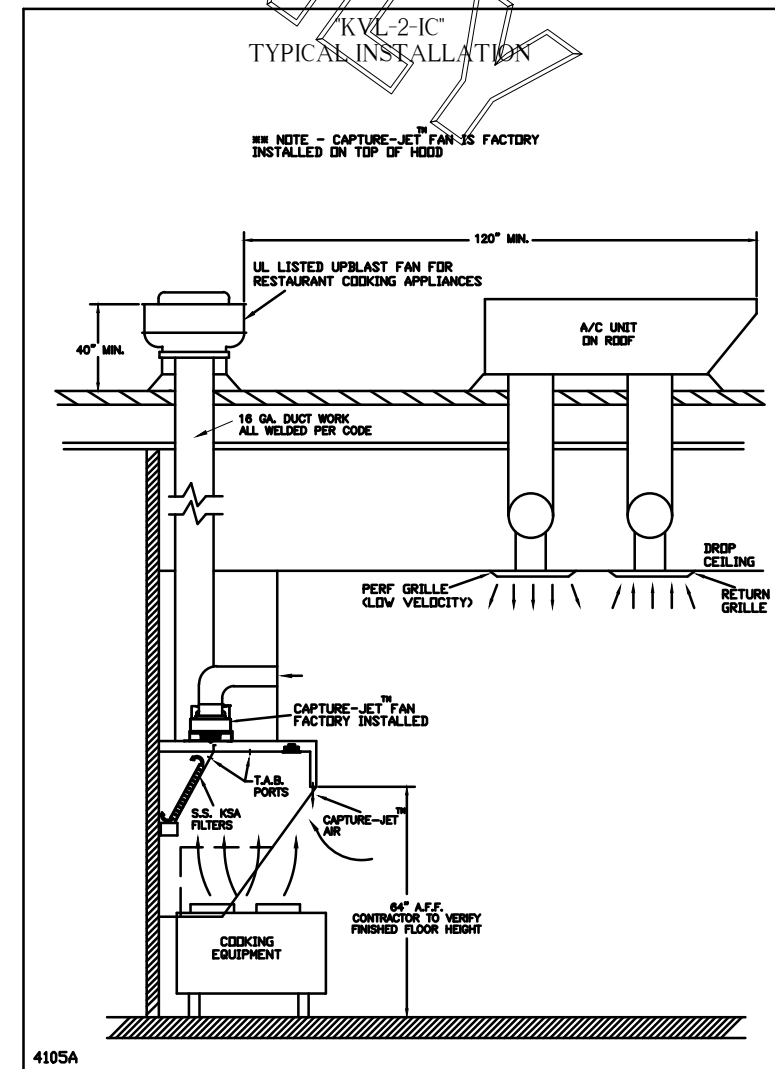
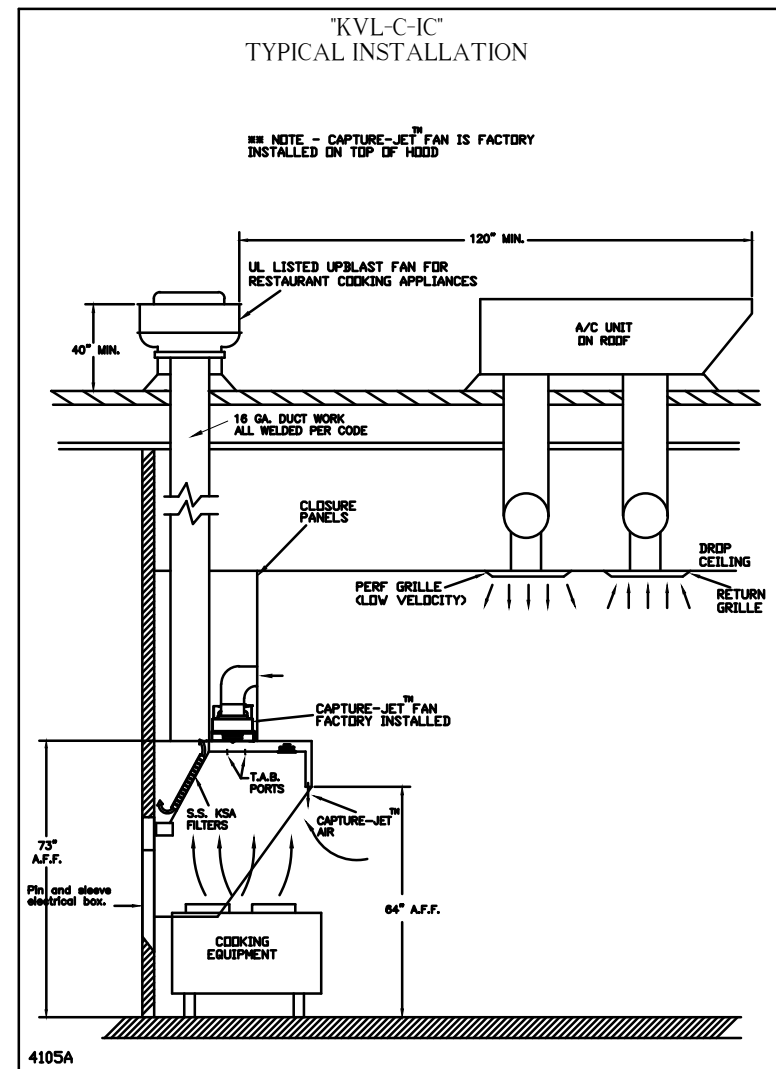
ITEM NO.: H-3

EXHAUST AIR INFORMATION: CFM 701, T.A.B. .30, SP .39

CAPTURE AIR INFORMATION: CFM 30, SP .29

K FACTOR EQUATION: CFM = K FACTOR * 10^{SP}

K FACTOR = 1291



HALTON HOODS
- ETL LISTED PER LATEST 710 STANDARD
- BUILT PER NFPA 96
- NSF LISTED

NSF Halton

HALTON COMPANY, 88 INDUSTRIAL DR., SCOTTSVILLE, KY 40464

MODEL NO. SERIAL NO. ITEM NO.

GENERAL REQUIREMENTS

FLAVOR THE CHICKEN HOOD FOR GENERAL AND RESTAURANT USE. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

1. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

2. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

3. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

4. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

5. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

6. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

7. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

8. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

9. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

10. THE HOOD MUST BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

REV.	DATE	DESCRIPTION
1		
2		
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THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFYING THE FOLLOWING:

- ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS AND CLEARANCES.
- THE LOCATION AND TYPE OF COOKING EQUIPMENT.

NOTE TO APPROVER

ANY CHANGES IN COOKING EQUIPMENT, SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT CHANGES, OCCURRING AFTER THE HOOD IS INSTALLED, MAY REQUIRE REVISIONS TO THIS DRAWING. A RECALCULATION OF EXHAUST AIRFLOW MAY BE REQUIRED.

REVISE AND RESUBMIT WITH NO CHANGES WITH CHANGES AS NOTED

APPROVED FOR FABRICATION APPROVED BY

DATE

MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW: WEBSITE: WWW.HALTONCOMPANY.COM

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

HALTON CO. (USA)
101 INDUSTRIAL DRIVE
SCOTTSVILLE, KY 42164
1-270-237-5800

PROJECT: CHICK-FIL-A #1433 CENTER @ GLEN BURNIE

LOCATION: GLEN BURNIE, MD

DRAWN BY: AF DATE: 01.31.22

SCALE: NTS

Halton Dwg: U22-072-01

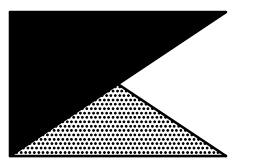
Halton
CARE FOR INDOOR AIR

Sheet **MH1.1**



Chick-fil-A

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



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



PROFESSIONAL CERTIFICATION. HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 2084 EXPIRATION 09/2022
6-15-22

CHICK-FIL-A
CENTRE AT GLEN
BURNIE
6709 RITCHIE HWY
GLEN BURNIE, MD 21061

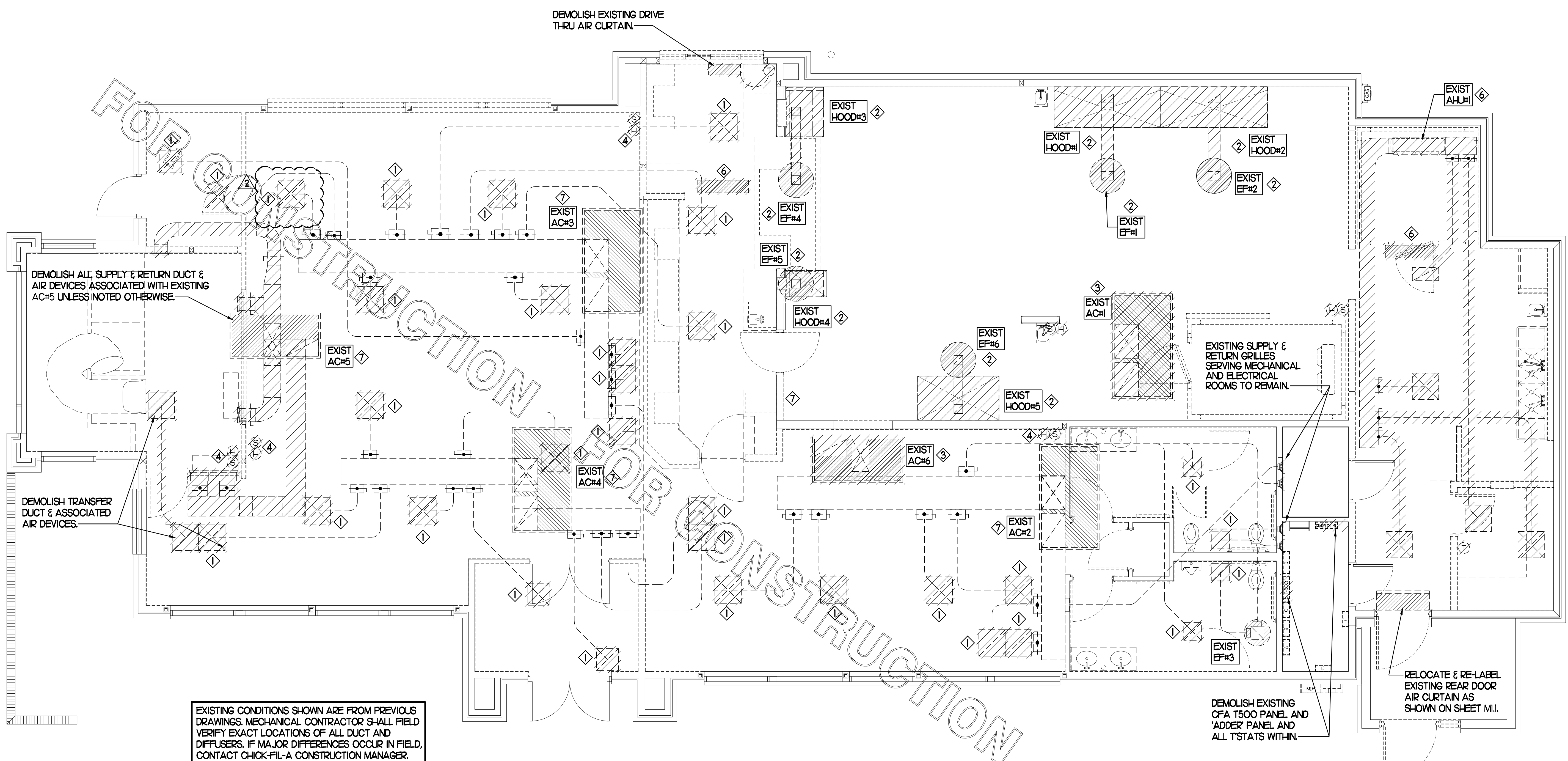
FSR#01433

BUILDING TYPE / SIZE:	S03-146	
RELEASE:	v05.21	
REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
2	03/22/22	Interior Revision

CONSULTANT PROJECT #	22001.HF.R
PRINTED FOR	CONSTRUCTION
DATE	02/10/2022
DRAWN BY	DSF

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SHEET
MECHANICAL
DEMO PLAN
SHEET NUMBER

M0.1



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

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND PAYING ALL APPLICABLE FEES.
- DISPOSAL OF EQUIPMENT AND MATERIALS REQUIRED TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING THE WORK.
- 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.
- MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ROOF AFTER REMOVAL OF EXISTING MECHANICAL EQUIPMENT. SEE ARCHITECTURAL DRAWINGS FOR ROOF PATCHING REQUIREMENTS.
- 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.
- 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.
- CONTRACTOR SHALL INDICATE SALVAGE VALUE IN BID FOR ROOFTOP UNITS BEING REPLACED.

MECHANICAL DEMOLITION FLOOR PLAN

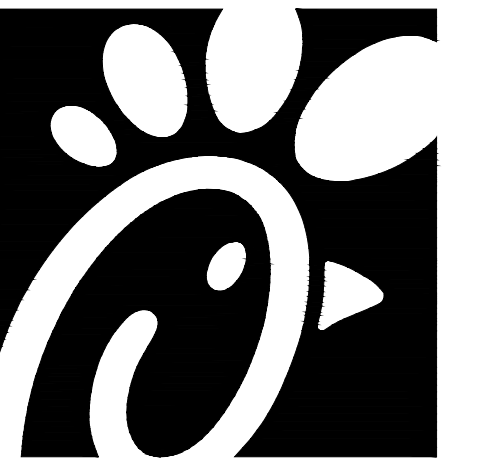
SCALE: 1/4"=1'-0"

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

DEMOLITION KEY NOTES

- DETACH AND DEMOLISH EXISTING AIR DEVICE. SECURE DUCT ABOVE CEILING GRID FOR RE-CONNECTION. SEE SHEET M.I.I FOR NEW CONNECTION.
- 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.
- DEMOLISH EXISTING KITCHEN A/C UNIT, UNIT CONTROLS (REMOTE TEMP SENSOR, REMOTE HUMIDITY SENSOR, T'STAT, REMOTE SMOKE DETECTOR TEST/RESET STATION, ETC.), SUPPLY/RETURN AIR DROPS, ALL ASSOCIATED SUPPLY/RETURN DUCT & AIR DEVICES (UNLESS NOTED OTHERWISE), AND ITS ASSOCIATED ROOF CURB. PATCH AND REPAIR ROOF TO MATCH SURROUNDING CONSTRUCTION.
- EXISTING REMOTE TEMPERATURE AND/OR REMOTE HUMIDITY SENSORS TO BE REPLACED WITH NEW. DEMOLISH ASSOCIATED CONTROL WIRING. SEE SHEET M.I.I FOR FURTHER INFORMATION.
- DETACH AND DEMOLISH EXISTING AIR DEVICE. DEMOLISH EXISTING DUCT TO WHERE SHOWN. SECURE DUCT ABOVE CEILING GRID FOR RE-CONNECTION. SEE SHEET M.I.I FOR NEW CONNECTION.
- DEMOLISH EXISTING AIR HANDLING UNIT, UNIT CONTROLS (REMOTE TEMP SENSOR, REMOTE HUMIDITY SENSOR, T'STAT, REMOTE SMOKE DETECTOR TEST/RESET STATION, ETC.), SUPPLY/RETURN AIR DROPS, ALL ASSOCIATED SUPPLY/RETURN DUCT & AIR DEVICES (UNLESS NOTED OTHERWISE), AND ITS ASSOCIATED CONDENSING UNIT AND ROOF CURB. PATCH AND REPAIR ROOF TO MATCH SURROUNDING CONSTRUCTION.
- DEMOLISH EXISTING DUCT SMOKE DETECTOR(S) AND REMOTE TEST/RESET STATION(S). SEE SHEET M.I.I FOR NEW.

CONSTRUCTION



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



PROFESSIONAL CERTIFICATION. HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 2284. EXPIRATION: 06/30/2022.

CHICK-FIL-A
CENTRE AT GLEN BURNIE
 6709 RITCHIE HWY
 GLEN BURNIE, MD 21061

FSR#01433

BUILDING TYPE / SIZE: S03-146
 RELEASE: v05.21

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	03/18/22	Electric Heater

CONSULTANT PROJECT # 22001.HF.R
 PRINTED FOR CONSTRUCTION
 DATE 02/10/2022
 DRAWN BY DSF

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SHEET
 MECHANICAL
 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 #1433
 Location: Glen Burnie, Maryland
 Climate Zone: 4a
 Project Type: Addition

Construction Site: 6709 Ritchie Hwy, Glen Burnie, MD 21061
 Owner/Agent: Chick-fil-A, 5200 Buffington Rd, Atlanta, GA 30349
 Designer/Contractor: Kurzynske & Associates, 2705 Lebanon Pike - Suite One, Nashville, TN 37214

Building Area	Floor Area
1-Storage/Office (Dining, Cafeteria/Fast Food) : Nonresidential	89

Envelope Assemblies	Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor _(a)
Roof 1: Insulation Entirely Above Deck, [Bldg. Use 1 - Storage/Office]		99	---	30.0	0.032	0.032
Floor 1: Slab-On-Grade/Unheated, Vertical 2 ft., [Bldg. Use 1 - Storage/Office] (b)		39	---	10.0	0.540	0.540
EAST Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage/Office]		109	20.0	0.0	0.064	0.064
SOUTH Exterior Wall 2: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage/Office]		165	20.0	0.0	0.064	0.064
Door 1: Insulated Metal Sliding, [Bldg. Use 1 - Storage/Office]		28	---	---	0.330	0.610
WEST Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage/Office]		49	20.0	0.0	0.064	0.064

(a) Budget U-factors are used for comparing baseline calculations ONLY, and are not code requirements.
 (b) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Project Notes
 Envelope PASSES: Design 13% 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.
 Mark Kurzynske, P.E. Signature: [Signature] Date: 2/9/22

Renovation of an existing restaurant building

COMcheck Software Version 4.1.5.1
Mechanical Compliance Certificate

Project Information
 Energy Code: 2018 IECC
 Project Title: Chick-fil-A #1433
 Location: Glen Burnie, Maryland
 Climate Zone: 4a
 Project Type: Addition

Construction Site: 6709 Ritchie Hwy, Glen Burnie, MD 21061
 Owner/Agent: Chick-fil-A, 5200 Buffington Rd, Atlanta, GA 30349
 Designer/Contractor: Kurzynske & Associates, 2705 Lebanon Pike - Suite One, Nashville, TN 37214

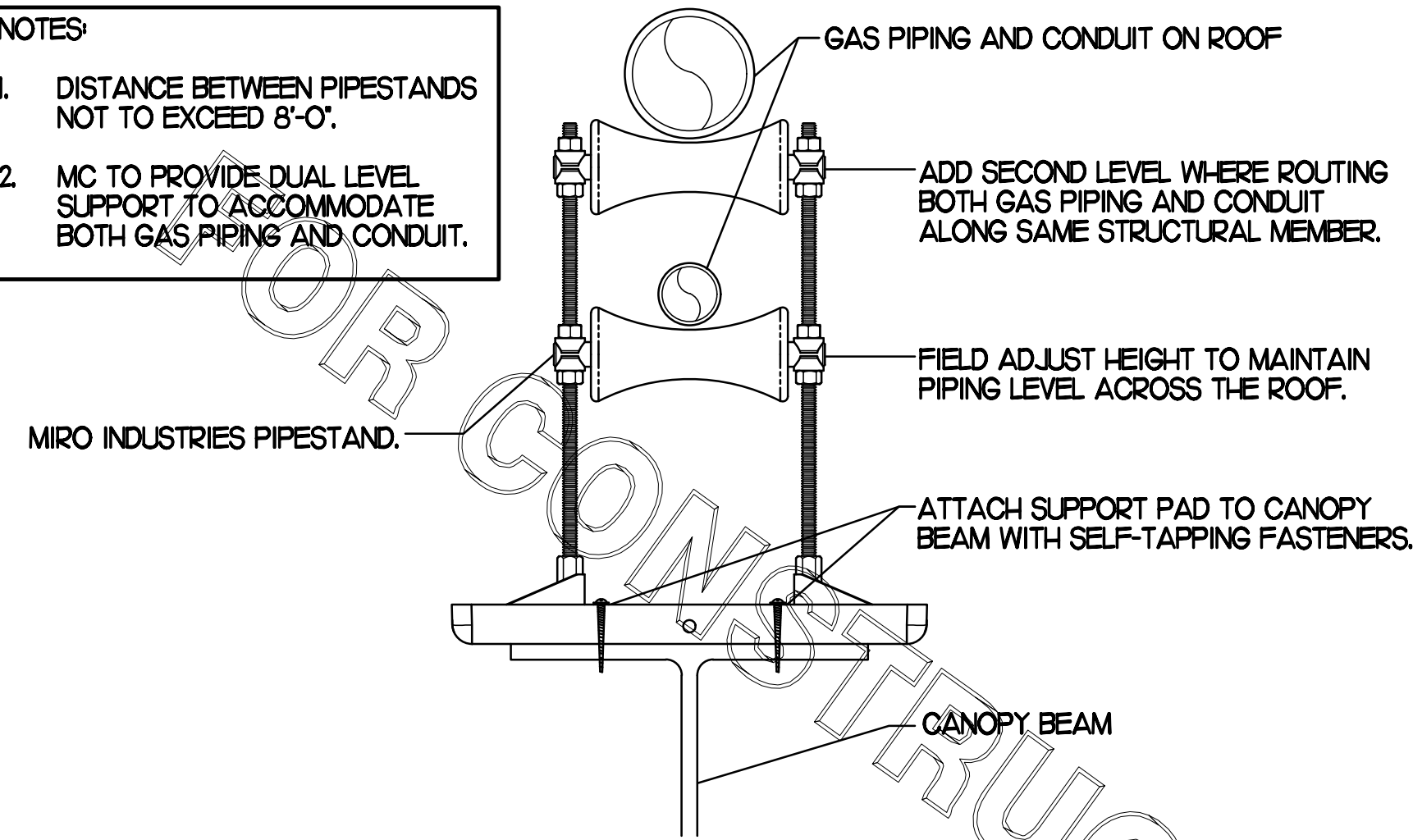
Mechanical Systems List

Quantity	System Type & Description
1	AC#1 (25 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 384 kBtu/h Proposed Efficiency = 80.00% EI, Required Efficiency: 80.00 % EI Cooling: 1 each - Single Package DX Unit, Capacity = 286 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 10.50 EER, Required Efficiency: 9.80 EER + 11.4 IEER Fan System: AC#1 Kitchen - Compliance (Brake HP method) - Passes Fans: Supply Supply, Constant Volume, 9000 CFM, 10.0 motor nameplate hp, 6.2 design brake hp (11.5 max. BHP), 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 2000 CFM, 0.7 motor nameplate hp, 0.7 design brake hp (0.7 max. BHP), 0.0 fan efficiency grade
1	AHU#1ICU#1 (Single Zone): Split System Heat Pump Heating Mode: Capacity = 40 kBtu/h, Proposed Efficiency = 10.00 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 34 kBtu/h, Proposed Efficiency = 16.20 SEER, Required Efficiency: 14.00 SEER Fan System: None
6	GH (Infrared Heater) (Single Zone): Heating: 1 each - Radiant Heater, Gas, Capacity = 50 kBtu/h No minimum efficiency requirement applies Fan System: None
1	EH (Infrared Heater) (Single Zone): Heating: 1 each - Radiant Heater, Electric, Capacity = 20 kBtu/h No minimum efficiency requirement applies Fan System: None

Mechanical Compliance Statement
 Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.
 Mark Kurzynske, P.E. Signature: [Signature] Date: 3/18/22

FOR CONSTRUCTION FOR CONSTRUCTION FOR CONSTRUCTION FOR CONSTRUCTION

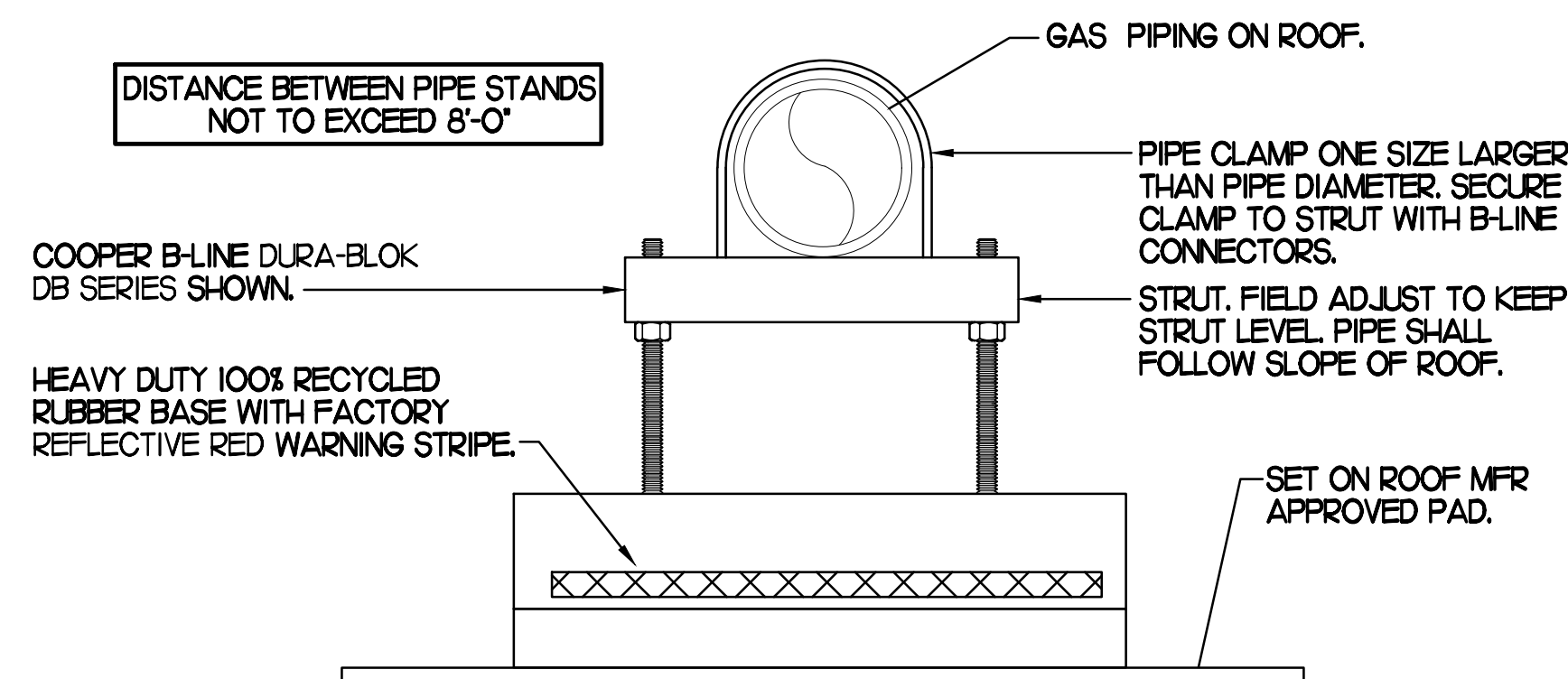
- NOTES**
- DISTANCE BETWEEN PIPESTANDS NOT TO EXCEED 8'-0".
 - MC TO PROVIDE DUAL LEVEL SUPPORT TO ACCOMMODATE BOTH GAS PIPING AND CONDUIT.



1 PIPING SUPPORT ON CANOPY

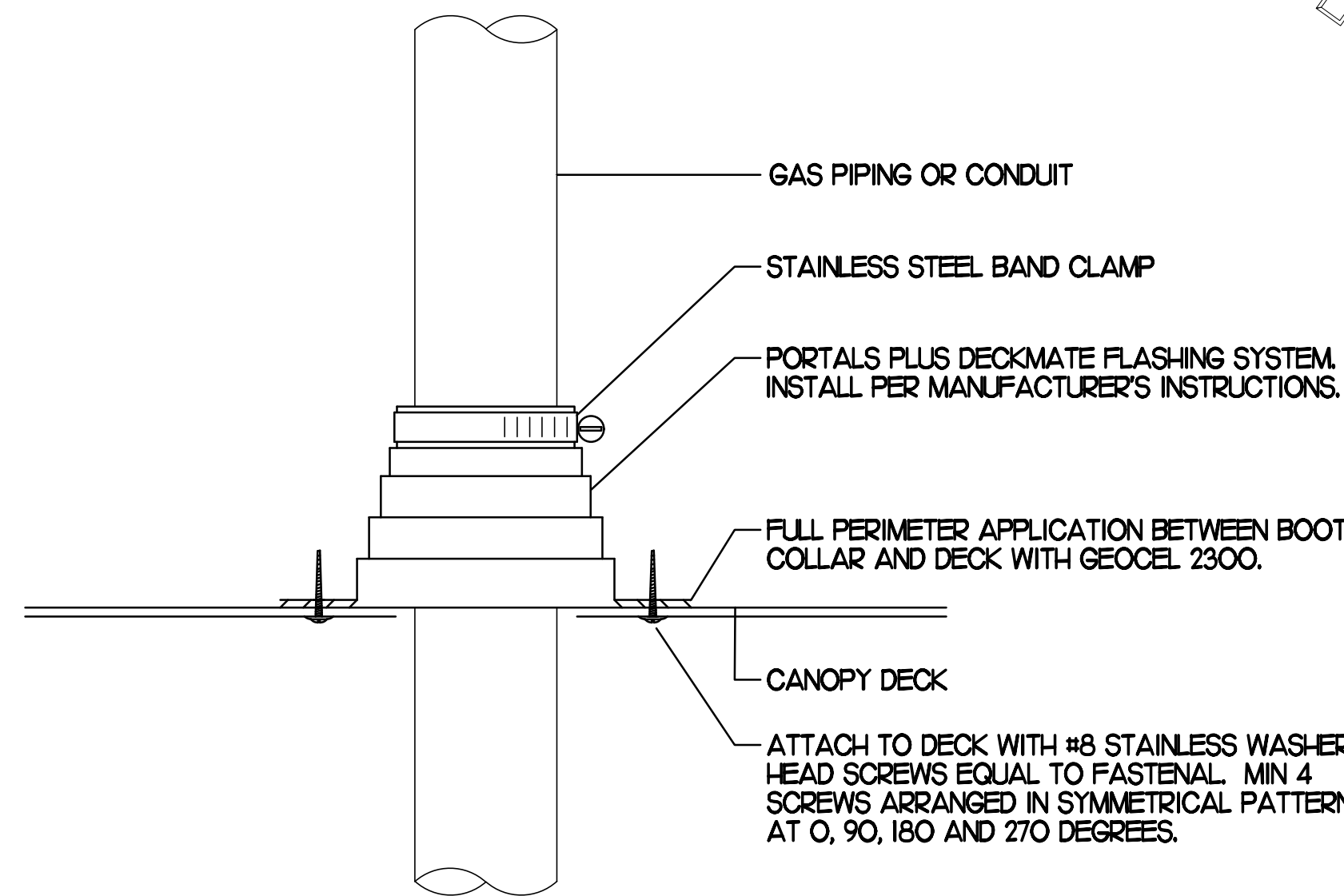
NO SCALE

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



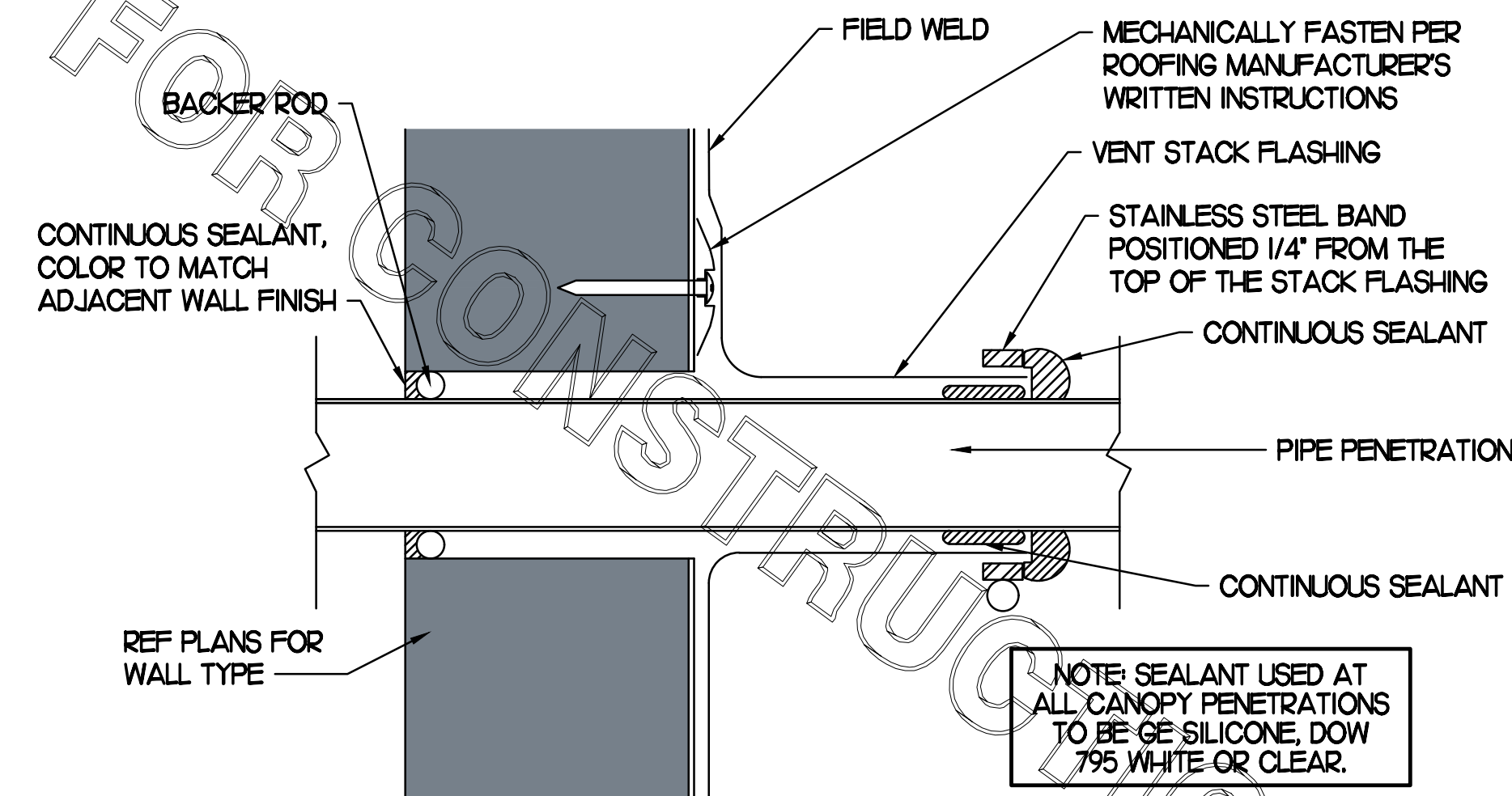
4 PIPING SUPPORT ON MAIN BLDG ROOF

NO SCALE



2 WEATHERPROOFING AT CANOPY PENETRATION

NO SCALE



5 PARAPET PENETRATION DETAIL

NO SCALE

BROMIC ELECTRIC HEATER SCHEDULE

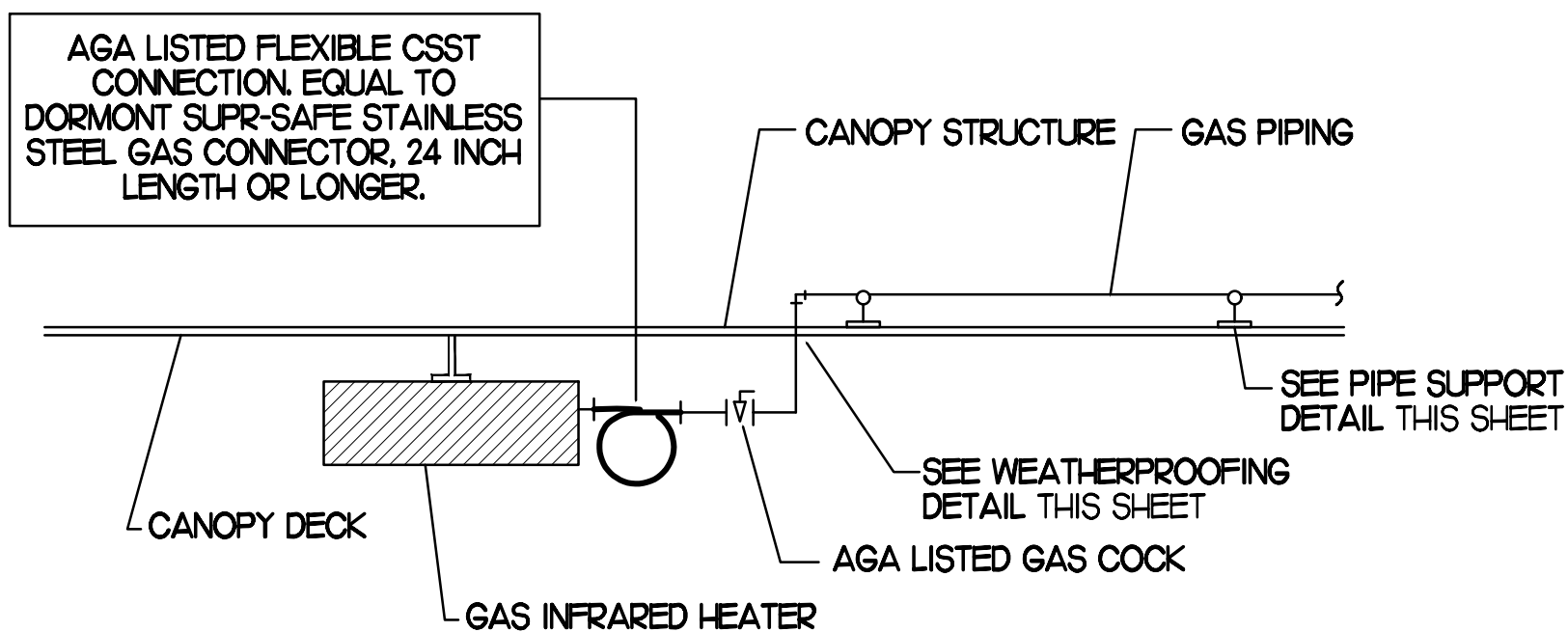
MARK	INPUT (KW)	FRAME SIZE			MOUNTING TYPE	MODEL	MANUFACTURER
		LENGTH	WIDTH	DEPTH			
ALL EH	6.0	56"	8.5"	3.5"	BRACKET	BH0420005	BROMIC
NOTES	<ul style="list-style-type: none"> CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH BROMIC COMPANY FOR THE ELECTRIC HEATER PACKAGE. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ELECTRIC HEATERS DIRECTLY FROM BROMIC COMPANY. CONTACT MR. FRANK SARVER AT 858-400-4063, FOR PRICING AND AVAILABILITY. BROMIC HEATERS NOT PURCHASED THRU BROMIC COMPANY WILL NOT BE ACCEPTED. 						
REMARKS	<ol style="list-style-type: none"> STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS. 						

GAS FIRED INFRARED HEATER SCHEDULE

MARK	INPUT (MBH)	FRAME SIZE			MOUNTING TYPE	MODEL	MANUFACTURER
		LENGTH	WIDTH	DEPTH			
ALL GH	50.0	48"	13"	10"	BRACKET	2352-NG	SCHWANK
REMARKS	<ol style="list-style-type: none"> STEEL BURNER WITH CERAMIC BURNER TILES. STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO CANOPY DECK, FACING DOWNWARD, 12" LATERALLY FROM THE SIDE OF THE HEATER. MOUNTING BRACKET PROVIDED AND INSTALLED BY CANOPY MFR. PROVIDE HEAT SHIELD ABOVE EACH HEATER AT THE BOTTOM OF THE BRACKET. 						

CIRCULATING FAN SCHEDULE

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



3 GAS CONNECTION AT APPLIANCE

NO SCALE

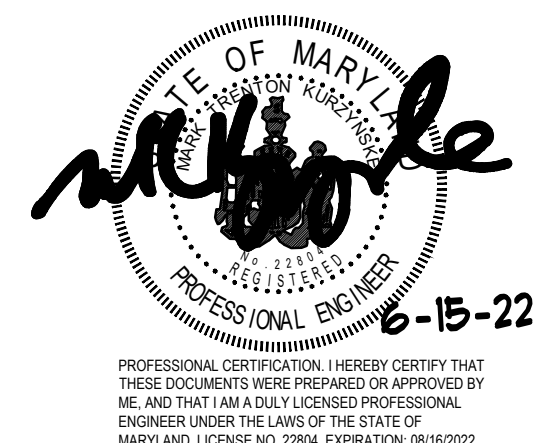


Chick-fil-A

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



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



CHICK-FIL-A
CENTRE AT GLEN BURNIE
6709 RITCHIE HWY
GLEN BURNIE, MD 21061

FSR#01433

BUILDING TYPE / SIZE: S03-146
RELEASE: v05.21

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	03/18/22	Electric Heater

CONSULTANT PROJECT # 22001.HF.R
PRINTED FOR CONSTRUCTION
DATE 02/10/2022
DRAWN BY DSF

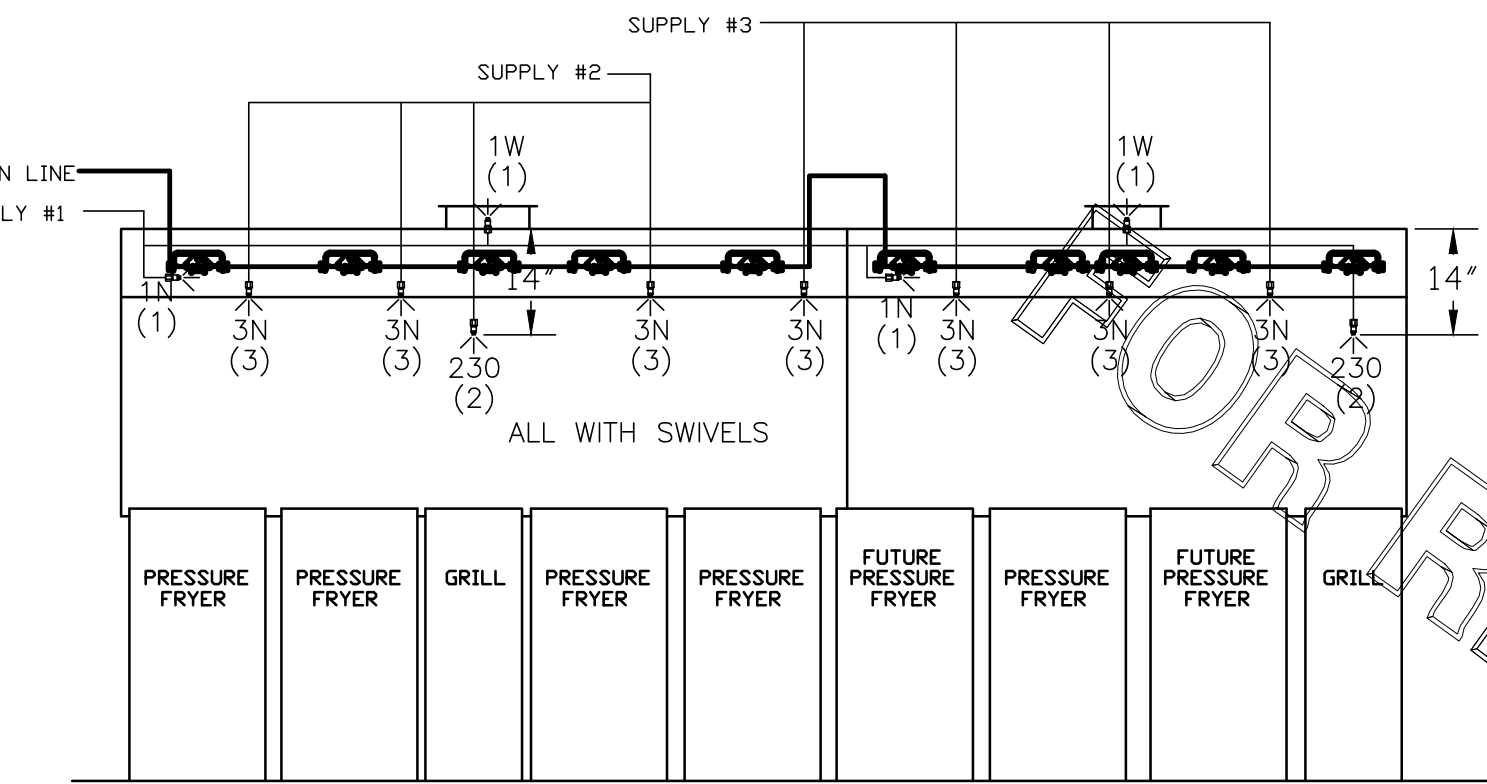
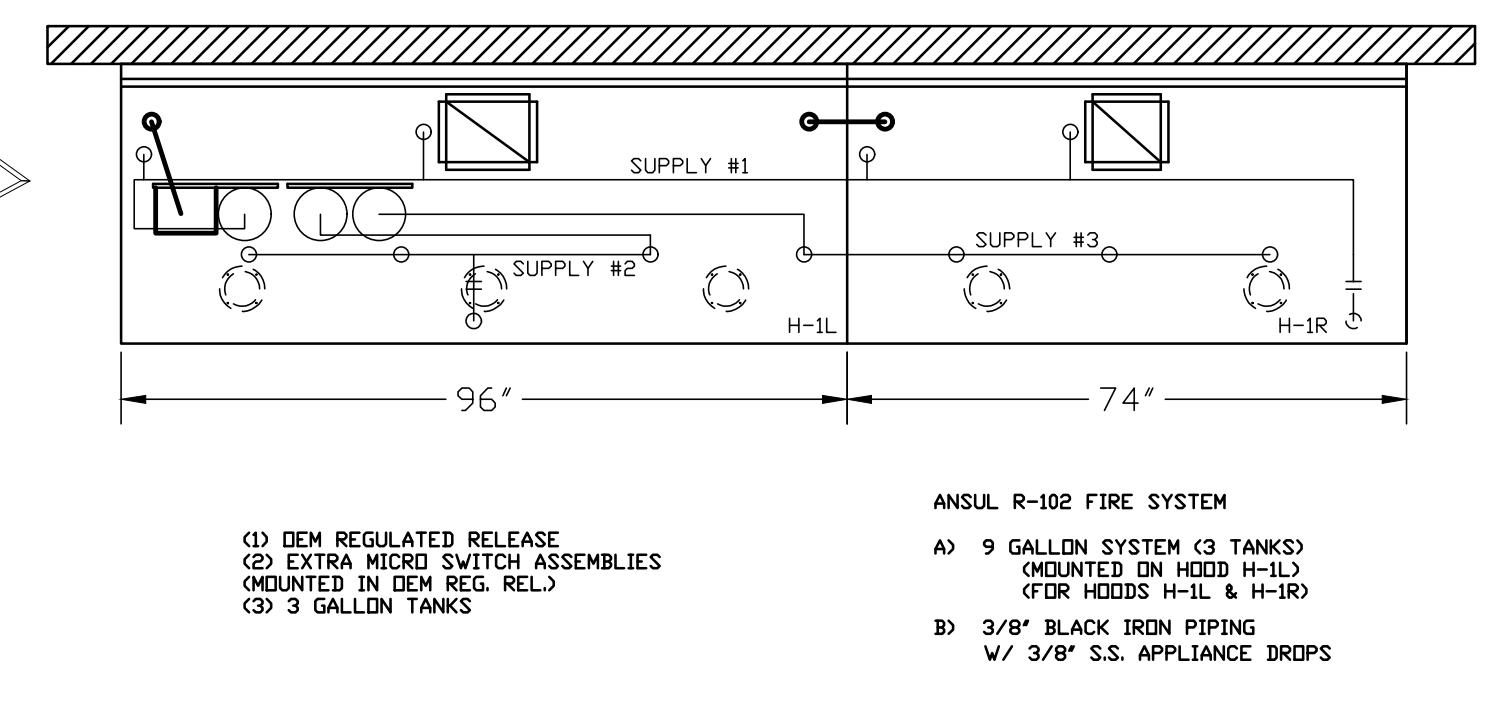
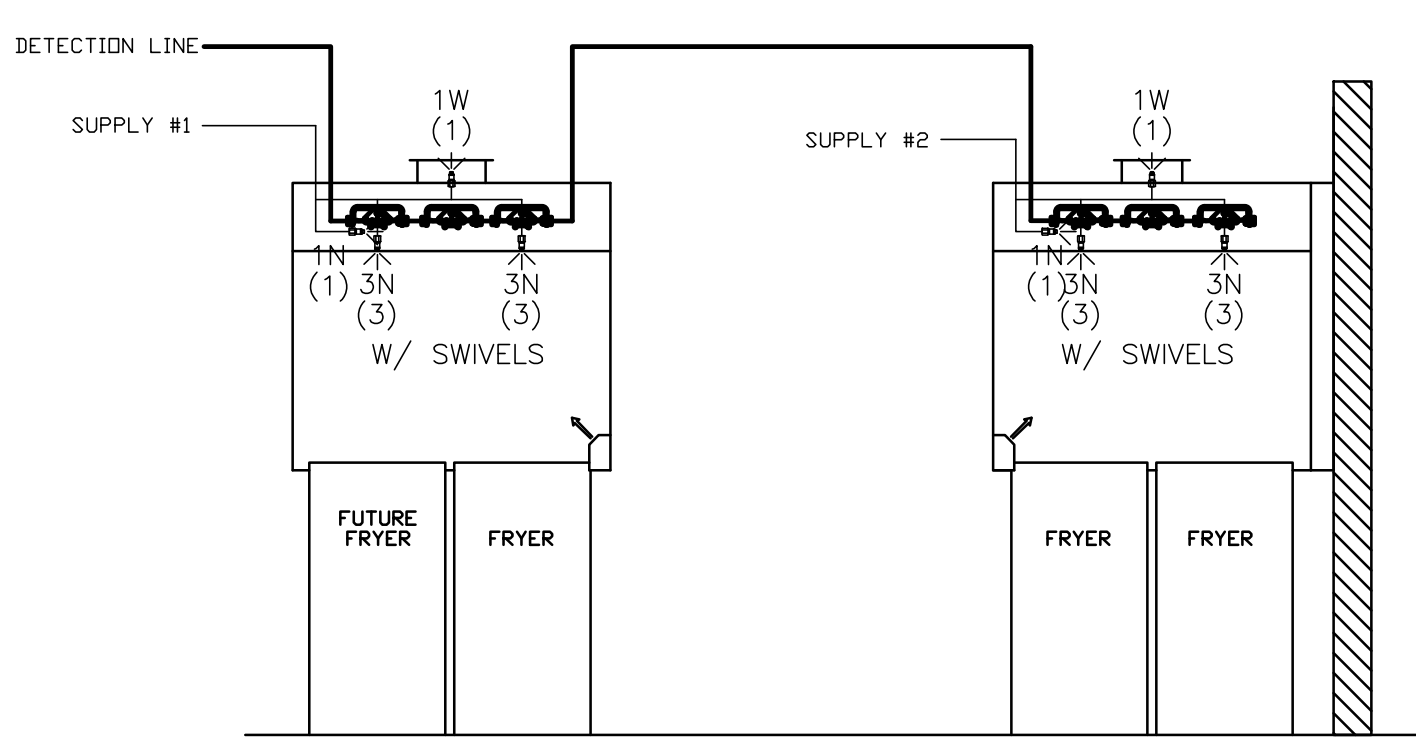
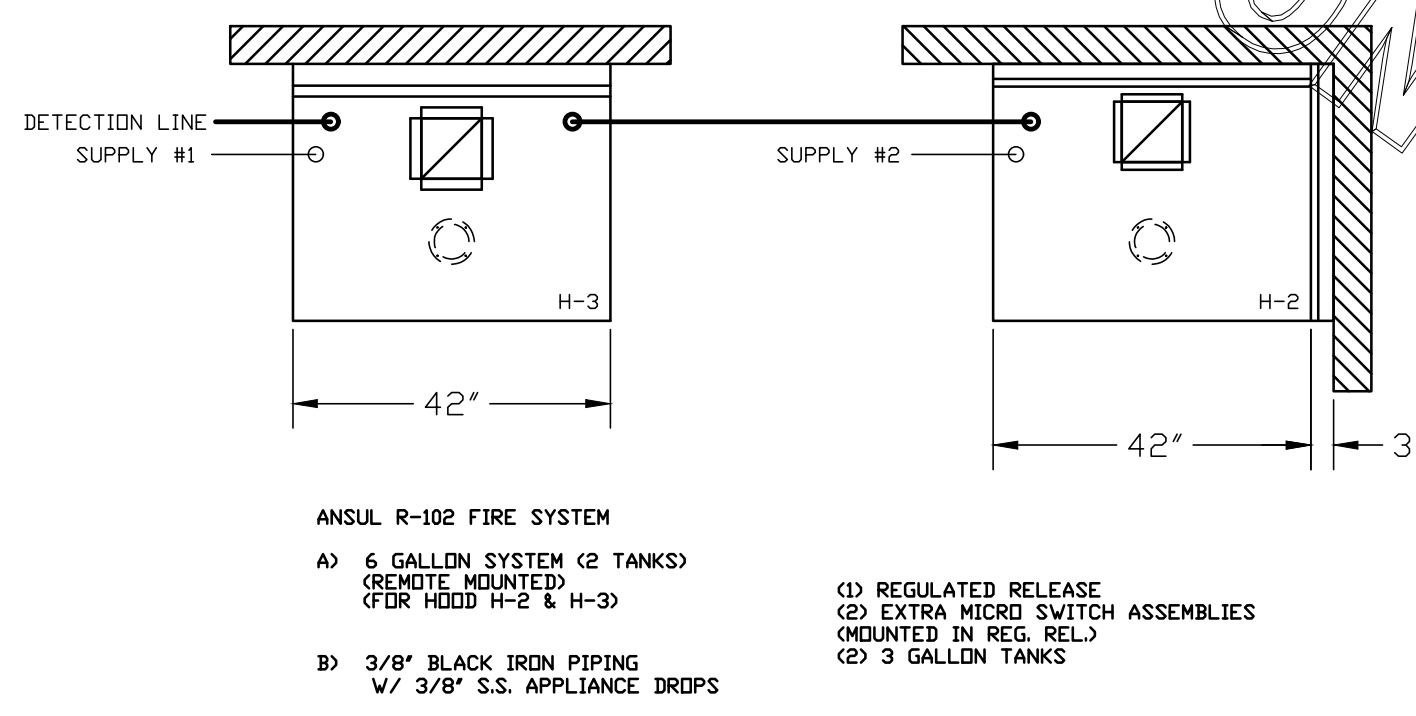
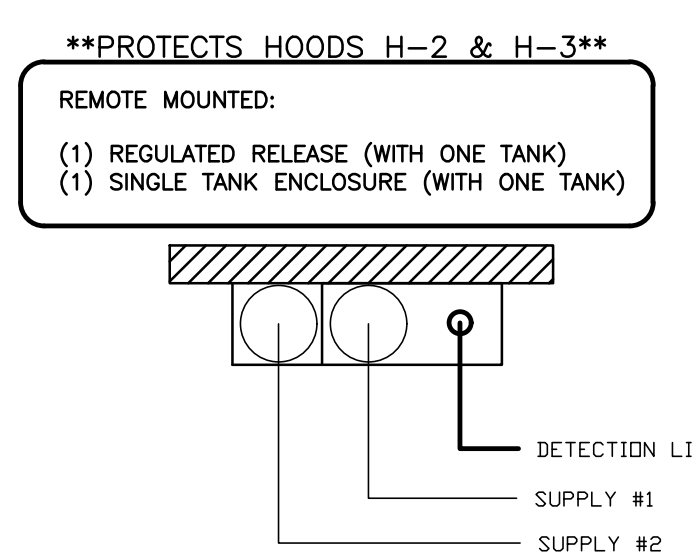
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SHEET CANOPY DETAILS & SCHEDULES
SHEET NUMBER

M5.2

CONSTRUCTION

FOR REFERENCE ONLY



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-1L)
 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
TOTAL FLOW POINTS - 45			

ITEM #	QTY	DESCRIPTION
#200	14	SERIES DETECTORS W/ FUSIBLE LINKS
#201	2	TERMINAL DETECTOR W/ FUSIBLE LINKS
#202	1	DEM REGULATED RELEASE
#202	1	W/ DOUBLE POLE MICRO SWITCH
#202	1	REGULATED RELEASE
#202	1	W/ DOUBLE POLE MICRO SWITCH
#203	5	3 GALLON TANKS
#204	1	SINGLE TANK ENCLOSURE
#205	2	REMOTE PULL STATION

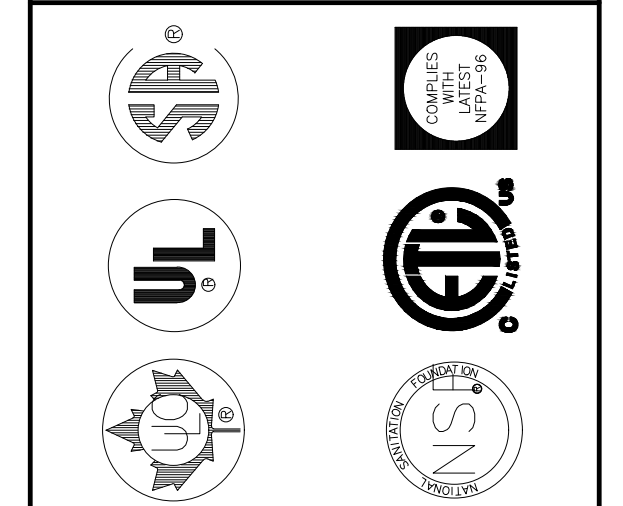
- ANSUL R-102 FIRE SYSTEM
 UL LISTED PER STD LATEST STD 300
- FINAL INSTALLATION IS TO BE MADE IN ACCORDANCE WITH ALL APPLICABLE CODES
 - ALL ELECTRICAL COMPONENTS FOR EQUIPMENT SHUT DOWN TO BE PROVIDED BY THE ELECTRICIAN. MICRO-SWITCH INSTALLED IN REGULATED RELEASE BY ANSUL INSTALLER
 - REMOTE PULL STATION LOCATED PER MECHANICAL DRAWINGS

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

NOTE TO APPROVER
 ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT CHANGES IN COOKING EQUIPMENT MUST BE APPROVED BY THE FACTORY. ANY CHANGES OCCURRING A RECALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.

REVISE AND RESUBMIT
 APPROVED FOR FABRICATION
 WITH NO CHANGES WITH CHANGES AS NOTED

APPROVED BY _____ DATE _____



MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

WEBSITE: WWW.HALTONCOMPANY.COM	HALTON CO. (USA) 101 INDUSTRIAL DRIVE SCOTTSDALE, KY 42164 1-270-237-5600
HALTON CO. (CANADA) 1021 BREVIK PLACE MISSISSAUGA, ON L4W 3R7 1-905-624-0301	

REV.	DESCRIPTION	DATE	BY
1			
2			
3			
4			
5			
6			
7			

PROJECT: CHICK-FIL-A #1433
 CENTER @ GLEN BURNIE
 LOCATION: GLEN BURNIE, MD
 DRAWN BY: AF DATE: 01.31.22
 SCALE: NTS
 Halton Dwg: U22-072-02

