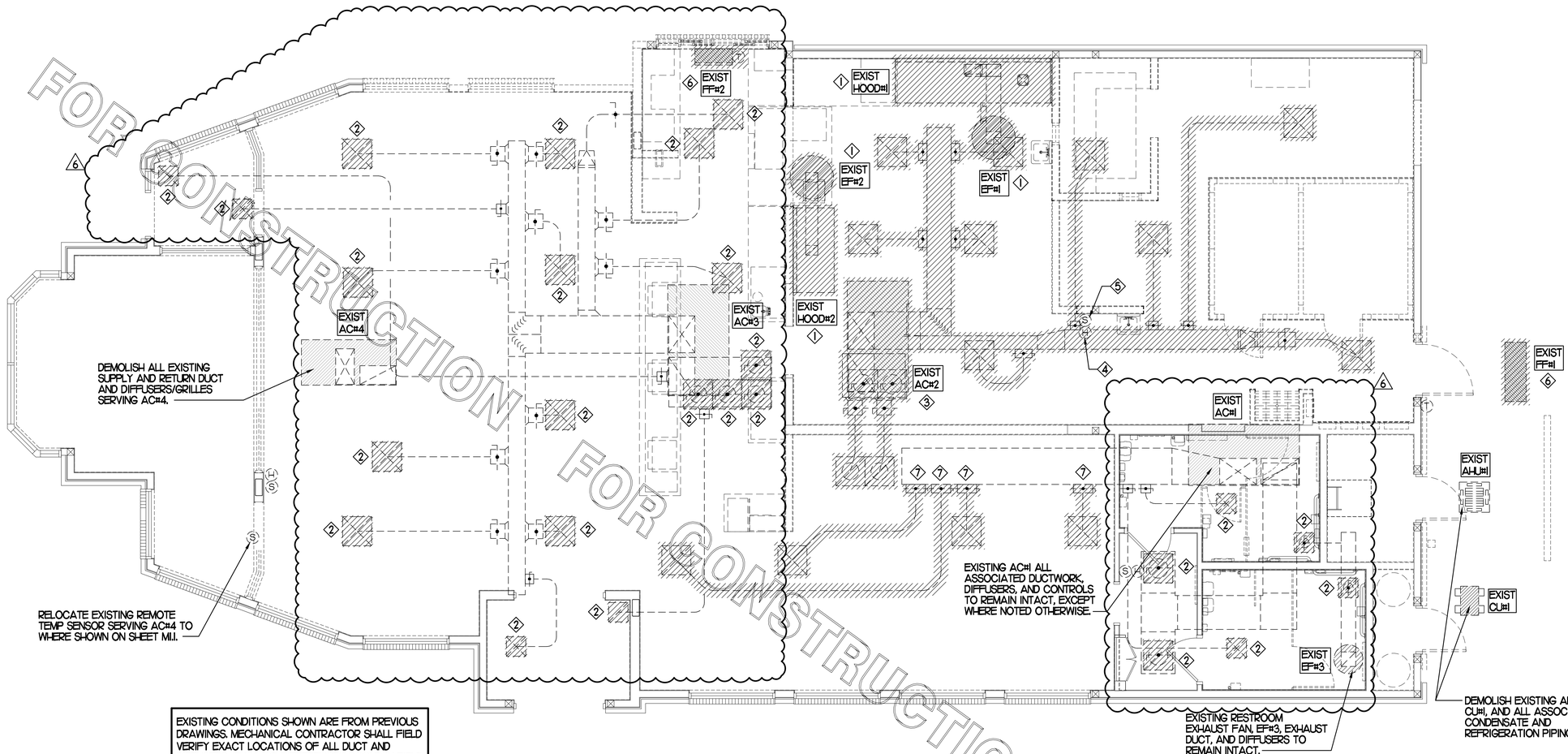

EXISTING CONDITIONS SHOWN ARE FROM PREVIOUS DRAWINGS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS OF ALL DUCT AND DIFFUSERS. IF MAJOR DIFFERENCES OCCUR IN FIELD, CONTACT CHICK-FIL-A CONSTRUCTION MANAGER.

DEMOLITION KEY NOTES

1. DEMOLISH EXISTING HOOD, ALL ASSOCIATED GREASE DUCT, EXHAUST FAN, AND ITS ASSOCIATED ROOF CURB. PATCH AND REPAIR ROOF TO MATCH SURROUNDING CONSTRUCTION.
2. DETACH AND DEMOLISH EXISTING AIR DEVICE. SECURE DUCT ABOVE CEILING GRID FOR RE-CONNECTION. SEE SHEET M1.1 FOR NEW CONNECTION.
3. DEMOLISH EXISTING AC#2, ALL ASSOCIATED SUPPLY/RETURN DUCT, ALL ASSOCIATED DIFFUSERS, AND EXISTING ROOF CURB. PATCH AND REPAIR ROOF TO MATCH EXISTING CONSTRUCTION.
4. DEMOLISH EXISTING REMOTE HUMIDITY SENSOR.
5. RELOCATE EXISTING REMOTE TEMPERATURE REMOTE HUMIDITY SENSOR WHERE SHOWN ON SHEET M1.1.
6. DEMOLISH EXISTING AIR CURTAIN.
7. DEMOLISH EXISTING BRANCH DUCT AND ASSOCIATED DIFFUSER.

1 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 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.

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Atlanta, Georgia 30349

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Kurzynske & Associates License No. F-0823, Expires 6/30/22

NORTH CAROLINA PROFESSIONAL SEAL 035575 ENGINEER MARK T. KURZYNSKE
2-18-22

CHICK-FIL-A
Waverly Place
411 Colonades Way
Cary, NC 27518

FSR#01218

BUILDING TYPE / SIZE: S97-100
RELEASE: v02.2021

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
6	01/28/22	CD Coordination

CONSULTANT PROJECT # 21105.HF.R
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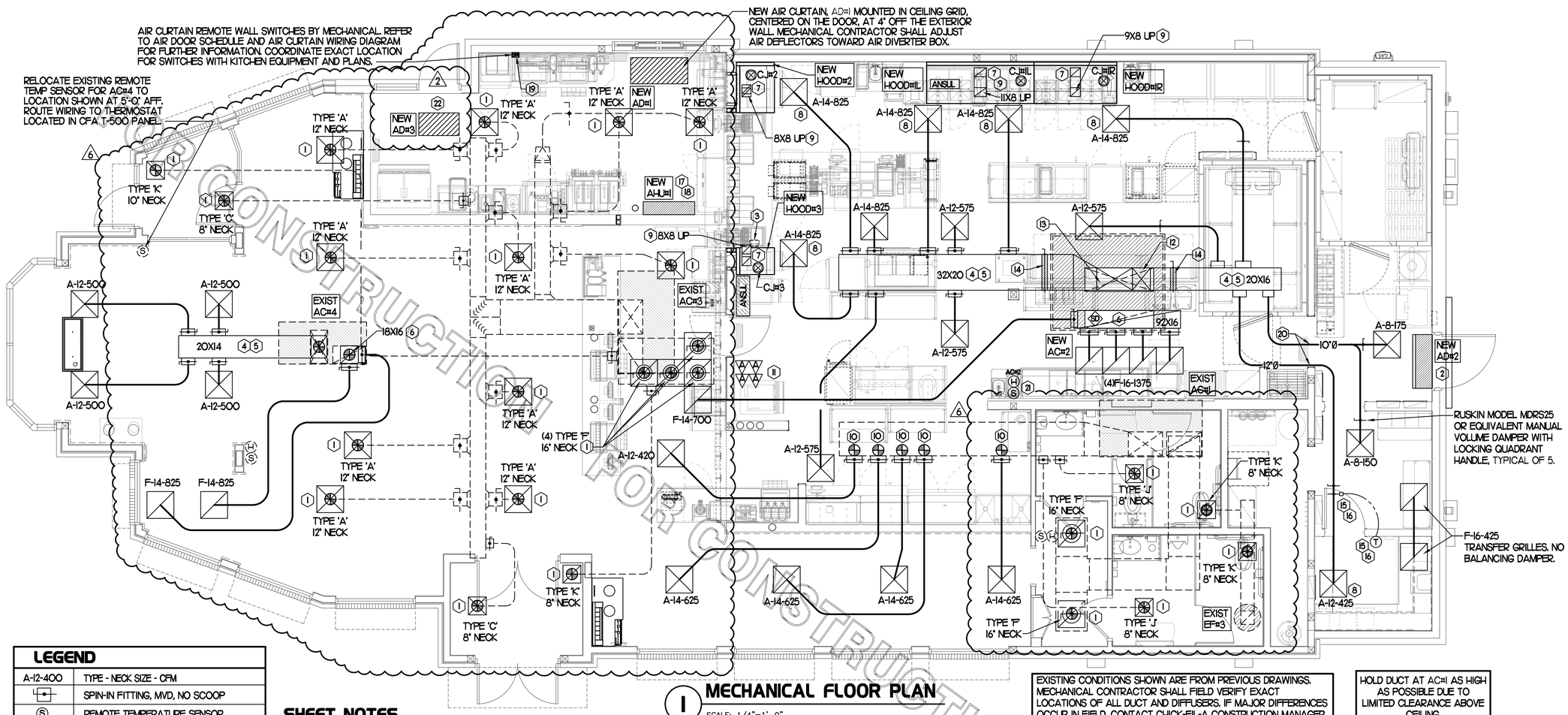
SHEET
MECHANICAL DEMO PLAN

SHEET NUMBER
M0.1

CONSTRUCTION



I MECHANICAL FLOOR PLAN

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

LEGEND

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

TOTAL AIR BALANCE SCHEDULE

EQUIPMENT MARK	AC#1 (EXIST)	AC#2 (NEW)	AC#3 (EXIST)	AC#4 (EXIST)	EF#1 (NEW)	EF#2 (NEW)	EF#3 (EXIST)	TOTAL
SERVES	SIDE DINING	KITCHEN	MAIN DINING	PLAY AREA	HOOD#1L HOOD#1R	HOOD#2 HOOD#3	REST-ROOMS	
SUPPLY AIR CFM	3,400	8,000	4,920	2,000				18,320
RETURN AIR CFM	2,450	6,200	3,700	1,650				14,000
OUTSIDE AIR CFM	950	1,800	1,220	350				+4,320
EXHAUST CFM					1,912	1,091	350	-3,353
PRESSURIZATION								+967
REMARKS	ADJUST AND VERIFY BALANCE OF ALL HVAC EQUIPMENT IS AS SHOWN IN ORDER TO MAINTAIN BUILDING AIR BALANCE.							

SHEET NOTES

1. DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
2. REFER TO ELEVATIONS ON M2.1 AND HOOD DETAILS ON MH1.1 FOR CAPTURE-JET FANS DUCTING REQUIREMENTS.
3. HARDPIPE SHALL BE USED FOR ALL TAKE-OFF'S EXCEPT WHERE ALLOWED BY DETAIL 1/M3.1. USE OF FLEXIBLE DUCT SHALL BE LIMITED TO THOSE SITUATIONS WHERE NO OTHER MEANS TO ACCOMPLISH ROUTING IS POSSIBLE.
4. 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.
5. MECHANICAL CONTRACTOR SHALL BALANCE HVAC SYSTEM AS SHOWN ON THIS PLAN & IN SCHEDULES ON SHEET M3.1. IF AIRFLOWS DIFFER BY MORE THAN 5%, CONTACT CFA CONSTRUCTION MANAGER. TEST AND BALANCE REPORT SHALL BE DONE PRIOR TO STORE TURNOVER AND SUBMITTED TO CFA'S CONSTRUCTION MANAGER.

KEY NOTES (THIS SHEET ONLY)

6
1. CONNECT NEW AIR DEVICE TO EXISTING TAKE-OFF. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW DUCT IN ORDER TO MAKE CONNECTION WHERE AIR DEVICE IN SHOWN IN NEW LOCATION. ANY FLEX DUCT USED SHALL NOT BE LONGER THAN 4'-0". SEE DETAIL 1/M3.1. COORDINATE AIR DEVICE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN.

2. 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.
3. CJ#4 MOUNTED INSIDE CABINETRY SERVING SCJ PLENUM. SEE DETAIL 2/M2.1.
4. BRANCH TAKE-OFFS SHALL NOT BE LOCATED CLOSER THAN 3'-0" FROM ANY ELBOW INCLUDING THE SUPPLY AIR DROP FROM CURB.
5. 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.
6. 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.
7. HALTON MBD DAMPER AT HOOD COLLAR BY MECHANICAL CONTRACTOR. REFER TO SHEET M2.1 AND MH1.1 FOR FURTHER INFORMATION.
8. MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
9. 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.
10. PROVIDE NEW SPIN IN FITTING, SUPPLY BRANCH DUCT, AND AIR DEVICE AS SHOWN.
11. REPLACE EXISTING SMOKE DETECTOR TEST/RESET STATION FOR ALL A/C UNITS ON WALL SHOWN. CONTACT SUNCOAST ENVIRONMENTAL CONTROLS AT 1-877-544-6679 TO PURCHASE A NEW SMOKE DETECTOR TEST/RESET STATIONS FOR EACH RTU.
12. 20X16 VERTICAL DROP. PROVIDE TURNING VANES IN ELBOW. 20X16 SUPPLY MAIN TO BE LOCATED ENTIRELY BELOW JOISTS. HOLD 20X16 SUPPLY MAIN AS HIGH AS POSSIBLE DUE TO LIMITED CLEARANCE.
13. 20X32 VERTICAL DROP. PROVIDE TURNING VANES IN ELBOW. ELBOW TO BE PARTIALLY LOCATED WITHIN STRUCTURE. BOTTOM OF ELBOW TO BE AT SAME ELEVATION AS BOTTOM OF 32X20 SUPPLY MAIN. 32X20 SUPPLY MAIN TO BE LOCATED ENTIRELY BELOW JOISTS. HOLD 32X20 SUPPLY MAIN AS HIGH AS POSSIBLE DUE TO LIMITED CLEARANCE.
14. PROVIDE RUSKIN CD35 MANUAL BALANCING DAMPER WITH 6" MAXIMUM BLADE WIDTH, OPPOSED BLADE ACTION, LOCKING QUADRANT HANDLE WITH 2" STANDOFF AND 16 GA GALVANIZED BLADE AND FRAME CONSTRUCTION.
15. YOUNG REGULATOR 12" MODEL 2010 ROUND ZONE DAMPER WITH MODEL T-312CE AUTOMATIC CHANGEOVER THERMOSTAT. MOUNT TSTAT AT 4'-0" AFF. POWER OPEN/SPRING CLOSE. ADJUST MECHANICAL LIMIT FOR 50 CFM MINIMUM AIRFLOW. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
16. PROVIDE 120V/24V 50 VA TRANSFORMER TO SERVE YOUNG REGULATOR ZONE DAMPER ACTUATOR AND THERMOSTAT. POWER TRANSFORMER FROM 120V POWER CIRCUIT THAT REMAINS LIVE 24/7. PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM. SEE DETAIL ON SHEET M4.1 FOR MORE INFORMATION.
17. MOUNT AIR HANDLER ON OVERHEAD WALL ABOVE CASED OPENING. MOUNT UNIT AT 12" ABOVE CASED OPENING. ROUTE REFRIGERANT PIPING ABOVE CEILING AND UP THRU ROOF TO CONDENSING UNIT, CU#1. SEE SHEET M1.2 FOR CONDENSING UNIT LOCATION. REFRIGERANT PIPING BELOW ROOF SHALL BE HIDDEN WITHIN WALLS AND CEILINGS.
18. ROUTE CONDENSATE FROM AH-U#1 UP THRU ROOF TO CONNECT TO EXISTING CONDENSATE LINE. REFER TO SHEET P-301 FOR CONT. CONDENSATE PIPING SHALL BE TYPE K COPPER. BELOW ROOF DECK CONDENSATE SHALL HAVE 1/2" ARMAFLEX INSULATION. PROVIDE PREFAB PIPE CURB FOR PENETRATION THRU ROOF. CONDENSATE MUST SLOPE MIN 1/8" PER FOOT TO TERMINATION POINT. CONTRACTOR SHALL INSTALL A CONDENSATE LIFT PUMP IN ORDER TO ROUTE CONDENSATE UP THRU ROOF.
19. MOUNT AH-U#1 THERMOSTAT ON WALL NEXT TO AD#1 REMOTE WALL SWITCHES. SEE SCHEDULE ON SHEET M3.1 FOR INTERLOCK WITH T500 PANEL.
20. ROUTE DUCT BETWEEN WALL STUDS ABOVE CEILING. COORDINATE WITH ARCH AND STRUCTURAL FOR EXACT LOCATION. USE 1" WRAP AT WALL PENETRATION.
21. RELOCATE EXISTING REMOTE TEMPERATURE SENSOR TO LOCATION SHOWN AT 5'-8" AFF AND ROUTE WIRING TO T500 TEMP CONTROL PANEL. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT. MOUNT LENNOX REMOTE HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR AND ROUTE WIRING TO A/C UNIT ON ROOF.
22. AIR CURTAIN MOUNTED IN CEILING, CENTERED ON DOOR, AT 18" OFF EXTERIOR WALL. SUSPEND UNIT FROM STRUCTURE USING ATR PER MANUFACTURER'S IOM. LOCATE MAGNETIC CONTACT TYPE MICROSWITCH IN DOOR FRAME ON STRIKE SIDE.

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 AC#1 AS HIGH AS POSSIBLE DUE TO LIMITED CLEARANCE ABOVE CEILING.

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Kurzynske & Associates License No. F-0823, Expires 6/30/22

NORTH CAROLINA PROFESSIONAL SEAL 025575 ENGINEER MARK T. KURZYNSKE
2-18-22

CHICK-FIL-A
Waverly Place
411 Colonades Way
Cary, NC 27518

FSR#01218

BUILDING TYPE / SIZE: S97-100
RELEASE: v02.2021

REVISION SCHEDULE

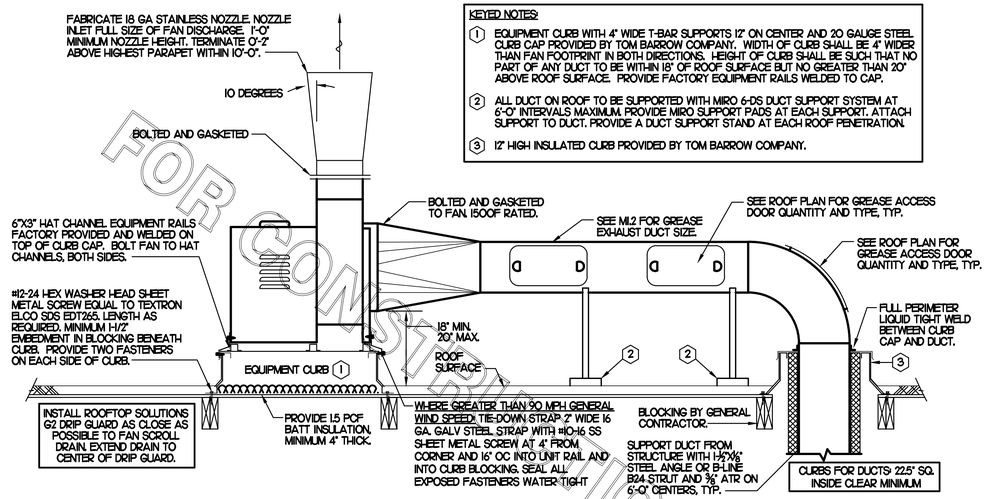
NO.	DATE	DESCRIPTION
2	10/29/21	Permit Review Cmmts - BLDG
6	01/28/22	CD Coordination

CONSULTANT PROJECT # 21105.HF.R
PRINTED FOR CONSTRUCTION
DATE 09/07/2021
DRAWN BY BLM

CONSTRUCTION

SHEET
MECHANICAL FLOOR PLAN

SHEET NUMBER
M1.1



KEYED NOTES:

1. EQUIPMENT CURB WITH 4" WIDE T-BAR SUPPORTS 12" ON CENTER AND 20 GAUGE 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 BUT NO GREATER THAN 20" ABOVE ROOF SURFACE. PROVIDE FACTORY EQUIPMENT RAILS WELDED TO CAP.
2. 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.
3. 12" HIGH INSULATED CURB PROVIDED BY TOM BARROW COMPANY.

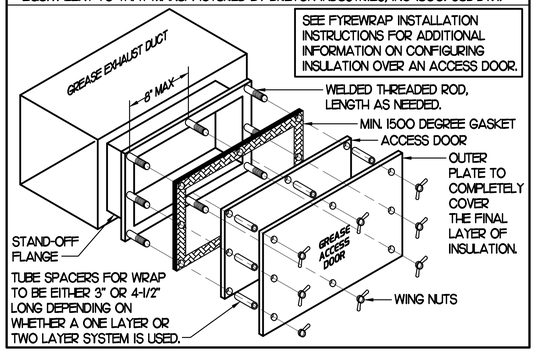
2 KITCHEN HOOD EXHAUST FAN - UTILITY SET FAN

NO SCALE

GREASE ACCESS DOOR SCHEDULE

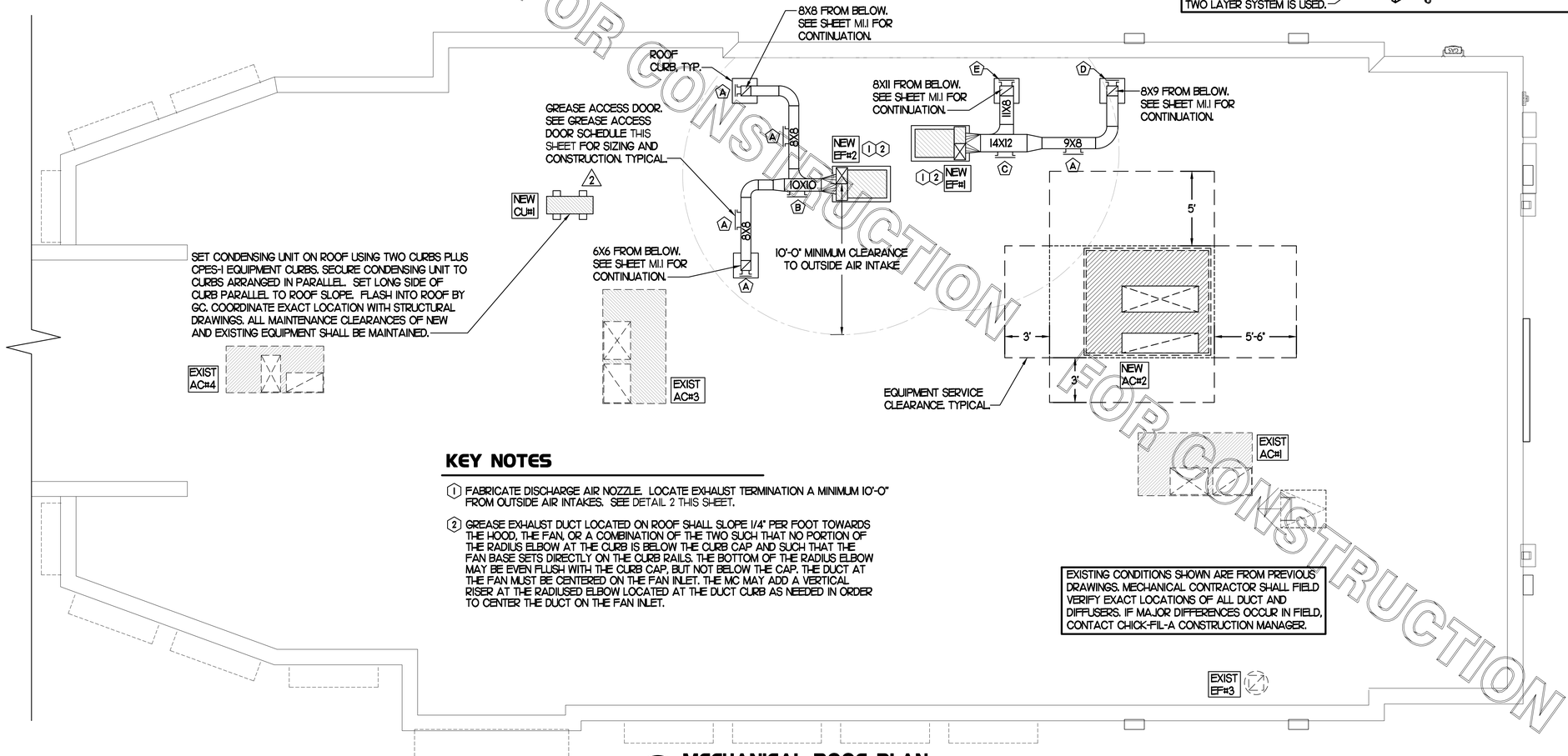
MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	5.5H X 14W	7.5H X 16W	1
B	7.5H X 14W	9.5H X 16W	1
C	9.5H X 14W	11.5H X 16W	1
D	6.5H X 14W	8.5H X 16W	1
E	8.5H X 14W	10.5H X 16W	1

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



SHEET NOTES

1. 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.
2. 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.
3. MAINTAIN 18" CLEARANCE FROM GREASE EXHAUST DUCTWORK ABOVE ROOF TO ANY COMBUSTIBLE CONSTRUCTION INCLUDING PARAPET WALLS.



KEY NOTES

1. FABRICATE DISCHARGE AIR NOZZLE. LOCATE EXHAUST TERMINATION A MINIMUM 10'-0" FROM OUTSIDE AIR INTAKES. SEE DETAIL 2 THIS SHEET.
2. 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 RADIUSED ELBOW LOCATED AT THE DUCT CURB AS NEEDED IN ORDER TO CENTER THE DUCT ON THE FAN INLET.

1 MECHANICAL ROOF PLAN

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

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Kurzynske & Associates License No. F-0823, Expires 6/30/22

NORTH CAROLINA PROFESSIONAL SEAL 035575 ENGINEER MARK T. KURZYNSKE
2-18-22

CHICK-FIL-A
Waverly Place
411 Colonades Way
Cary, NC 27518

FSR#01218

BUILDING TYPE / SIZE: S97-100
RELEASE: v02.2021

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSTRUCTION

CONSULTANT PROJECT # 21105.HF.R
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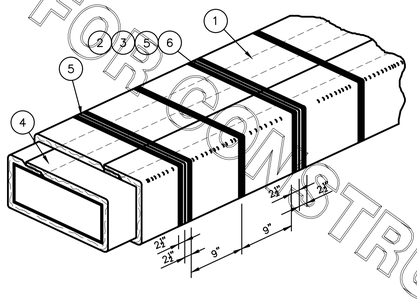
SHEET
MECHANICAL ROOF PLAN

SHEET NUMBER
M1.2

FyreWrap® Elite™ 1.5 Duct Insulation
Commercial Kitchen Grease Duct System
ASTM E 2336/ICCES AC101 System
1 and 2 Hour Fire-Rated Enclosure, Shaft Alternative
Zero Clearance to Combustibles
Intertek Design No. UNI/BI 120-02
Butt Joint System (Both Layers, Max. 24"x24" Duct)



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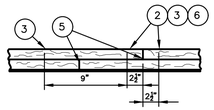


Butt-Joint
Adjacent Blanket Pieces

LEGEND:	
1	FYREWRAP ELITE 1.5 DUCT INSULATION, TWO LAYERS (EACH 1 1/2", TOTAL THICKNESS = 3")
2	FILAMENT TAPE (TEMPORARY HOLD)
3	1/2" CARBON OR SS BANDING STRAPS (PERMANENT HOLD)
4	3" MINIMUM LONGITUDINAL OVERLAP
5	1" COMPRESSED BUTT JOINT
6	3" WIDE ALUMINUM FOIL TAPE AT 2ND LAYER TRANSVERSE BUTT JOINTS

Revisions	Comments

UNIFRAX

SUBJECT-

LOCATION-

BLDG. NO.- DATE- 04-05-2011

DRAWN- S.A.RUSTAY ENGINEER APPROVAL-

SCALE- N.T.S. DATE SIGNED-

DRAWING NO. FP-693

PROJECT NO.

KITCHEN HOOD SYSTEMS NOTES

1. CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT WITH HALTON CO. FOR THE HOODS. CHICK-FIL-A WILL PURCHASE AND PROVIDE THE HOODS FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING THE HOODS. CONTACT HALTON CO. AT 270-237-5600 FOR MORE INFO.
2. THE FIRE SUPPRESSION SYSTEM SHALL CONSIST OF A COMPLETE WET ANSUL SYSTEM FURNISHED BY HALTON. THE HOOD SHALL BE FURNISHED PRE-PIPED BY HALTON.
3. THE R-102 ANSUL FIRE SUPPRESSION SYSTEM EXTERNAL TO THE HOODS SHALL BE INSTALLED IN ACCORDANCE WITH HOOD MANUFACTURER'S SHOP DRAWINGS BY AN AUTHORIZED ANSUL SYSTEM INSTALLER SELECTED AND HIRED BY HALTON. COST FOR ANSUL INSTALLATION INCLUDED IN PRICE OF HOODS TO CFA.
4. HOOD EXHAUST DUCTWORK SHALL BE 16 GA. BLACK STEEL WITH CONTINUOUS LIQUID TIGHT WELD OF JOINTS & SEAMS.
5. TURNS IN GREASE EXHAUST DUCTWORK SHALL BE LONG RADIUS TYPE, WITH A CENTERLINE RADIUS R=3W/2, NO EXCEPTIONS ALLOWED. NO MITERED FITTINGS ALLOWED.
6. ALL STAINLESS STEEL CLOSURE PANELS SHALL BE SUPPLIED BY HOOD MANUFACTURER AND INSTALLED BY THE MECHANICAL CONTRACTOR ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. SLOPE ALL GREASE EXHAUST DUCT BACK TO HOOD AT 1/4" PER FOOT OF RUN.
8. WRAP NEW GREASE DUCT WITH UNIFRAX FYREWRAP. INSULATION ON ACCESS DOORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION RECOMMENDATIONS. UNIFRAX FYREWRAP PRODUCT USED SHALL MEET LOCAL CODE REQUIREMENTS.
9. SUPPORT HOODS WITH THREADED ROD AT EACH FACTORY SUPPORT POINT. EACH SUPPORT POINT MUST SUPPORT THE HOOD WEIGHT EQUALLY. ATTACH TO STRUCTURE AS DETAILED ON STRUCTURAL DRAWINGS. ATTACH HOOD TO WALL AT 16' INTERVALS ALONG FULL LENGTH OF HOOD ON TOP AND BOTTOM. ATTACHMENT TO WALL REQUIRES FIELD DRILLING OF SUPPORT ANGLE AT BACK OF HOODS. EACH WALL ATTACHMENT POINT MUST OCCUR AT A WALL STUD. ATTACHMENT HARDWARE TO BE #12-24 HEX HEAD SHEET METAL SCREW EQUAL TO TEXTRON SDS EDT265, LENGTH AS REQUIRED TO FULLY PENETRATE THE STUD.
10. MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SUNCOAST H.E.S. SYSTEM FOR ALL HOODS. SEE HOOD FAN/EQUIPMENT INTERLOCK WIRING DIAGRAM ON SHEET M4.1 FOR MORE INFORMATION.

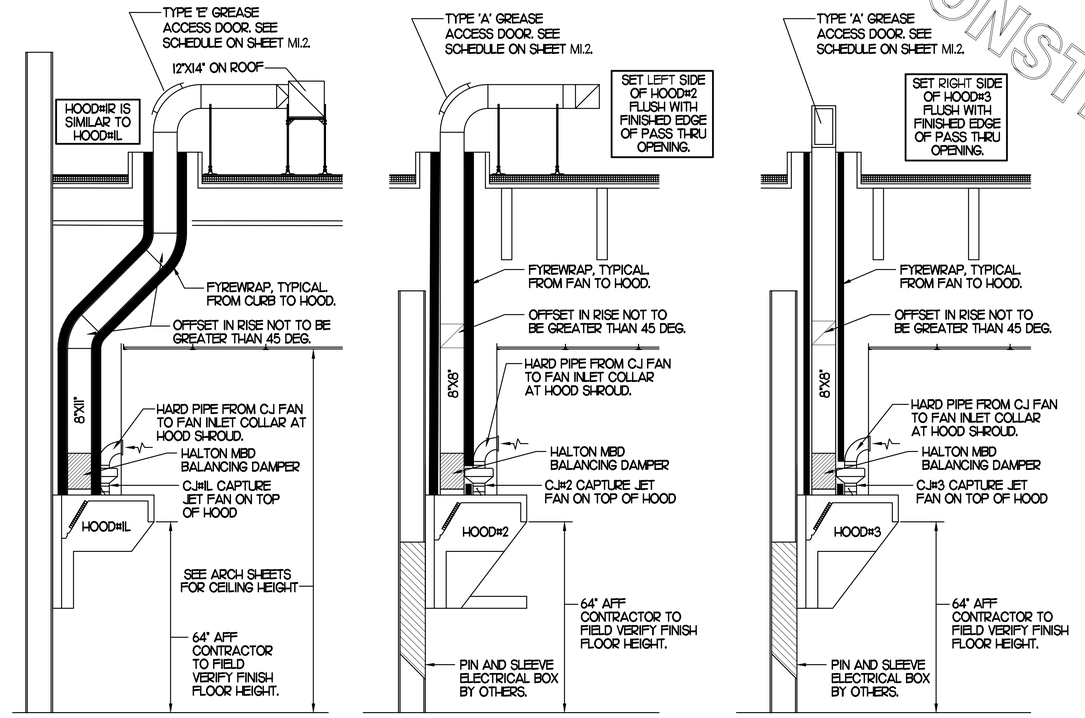
HOOD SCHEDULE

MARK	EXHAUST CFM	SP • TAB PORT	CAPTURE JET CFM & S.P.	TYPE	COLLAR SIZE	WIDTH	DEPTH	HEIGHT	MANUFACTURER	MODEL	REMARKS
HOOD#1L	1,080	0.13"	72 • 0.30"	BACK SHELF	8"X11"	96"	37"	38"	HALTON	KVL-2	1
HOOD#1R	832	0.13"	55 • 0.30"	BACK SHELF	8"X9"	74"	37"	38"	HALTON	KVL-2	1
HOOD#2	701	0.30"	30 • 0.29"	BACK SHELF	8"X8"	45"	34"	38"	HALTON	KVL-C	1
HOOD#3	390	0.37"	18 • 0.30"	BACK SHELF	8"X8"	24"	34"	38"	HALTON	KVL-D	1
NOTES	DIMENSIONS OF HOODS INCLUDE BACK AND SIDE SPACERS (HEIGHT DOES NOT INCLUDE CLOSURE PANELS).										
REMARKS	1. HOOD SHOP DRAWINGS ARE INCLUDED FOR REFERENCE ON SHEETS MH1.1 AND MH1.2. REFER TO SHOP DRAWINGS FOR HOOD OPTIONS AND CONSTRUCTION.										

NOTE:
SEE ARCHITECTURAL PLANS FOR HOOD LOCATIONS.

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

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



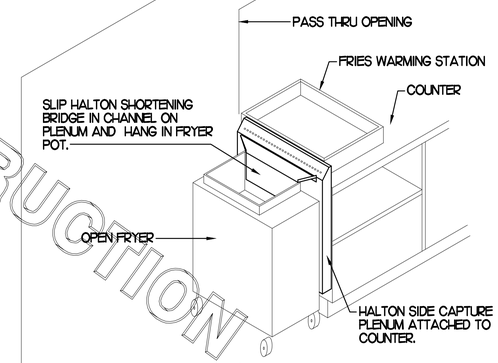
SECTION "A-A"

SECTION "B-B"

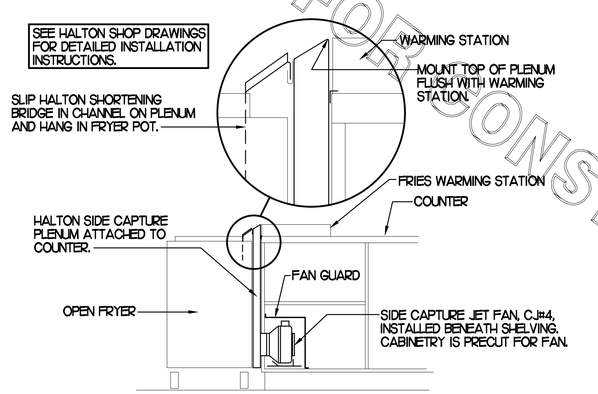
SECTION "C-C"

3 HOOD ELEVATIONS

NONE



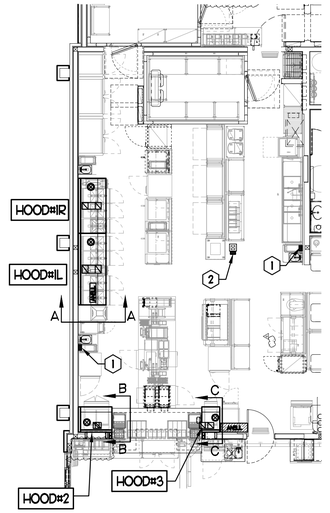
ISOMETRIC VIEW



FRONT VIEW

2 HALTON SIDE CAPTURE JET PLENUM

NOT TO SCALE



KEY NOTES

1. ANSUL PULL STATIONS SERVING HOOD#2 AND HOOD#3 ADJACENT TO HAND SINK SHOWN. LOCATE ANSUL PULL STATION BETWEEN 42" AND 48" AFF. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT ELEVATIONS. J-BOX AND CONDUIT ARE BY ELECTRICAL. PROVIDE WHITE BAKELITE LABEL WITH 1/4" HIGH LETTERS INDICATING THE HOODS SERVED, I.E.: 'PASS-THRU HOODS'. BOTH PULL STATIONS SERVE THE SAME REMOTE MOUNTED ANSUL TANKS.
2. ANSUL PULL STATION SERVING HOOD#1L AND HOOD#1R. LOCATE ANSUL PULL STATION BETWEEN 42" AND 48" AFF. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT ELEVATIONS. J-BOX AND CONDUIT ARE BY ELECTRICAL. PROVIDE WHITE BAKELITE LABEL WITH 1/4" HIGH LETTERS INDICATING THE HOODS SERVED, I.E.: 'MAIN COOKLINE' HOODS'.

1 HOOD LAYOUT

1/8"=1'-0"

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Kurzynske & Associates License
No. F-0823, Expires 6/30/22

NORTH CAROLINA PROFESSIONAL SEAL 035575 ENGINEER MARK T. KURZYNSKE
2-18-22

CHICK-FIL-A
Waverly Place
411 Colonades Way
Cary, NC 27518

FSR#01218

BUILDING TYPE / SIZE: S97-100
RELEASE: v02.2021

REVISION SCHEDULE

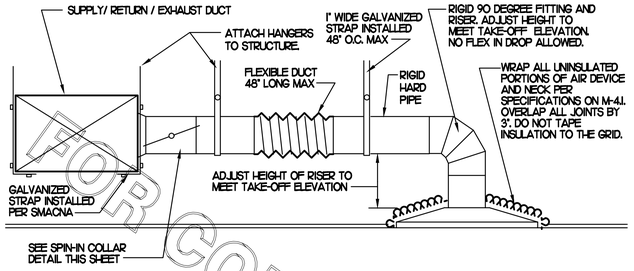
NO.	DATE	DESCRIPTION

CONSTRUCTION

CONSULTANT PROJECT # 21105.HF.R
PRINTED FOR CONSTRUCTION
DATE 09/07/2021
DRAWN BY BLM

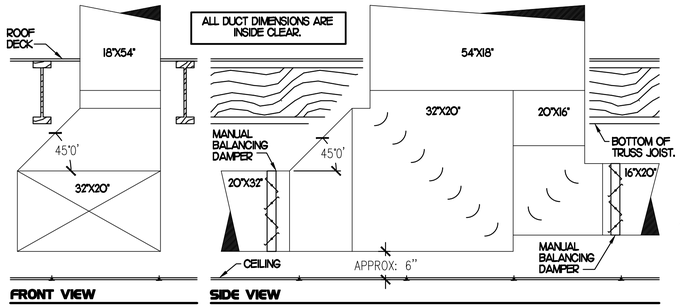
SHEET
HOOD DETAILS & SCHEDULES

SHEET NUMBER
M2.1



1 SAG/RAG/GRILLE TAKE-OFF

NO SCALE



5 AC#2 TEE CONSTRUCTION

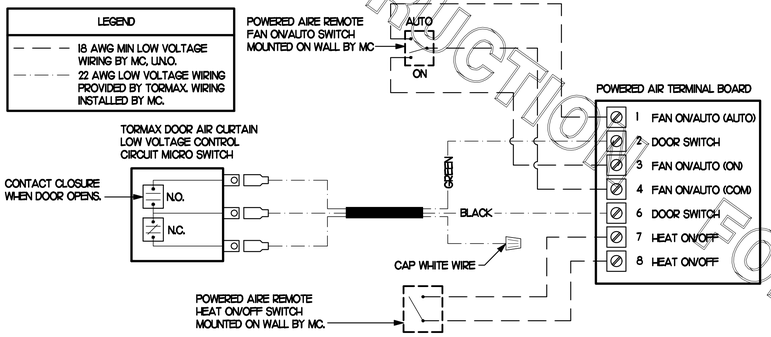
NO SCALE

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-1-48(E)	POWERED-AIRE	2-4
AD#2 (NEW)	3,847	4,220	NA	3/4	REAR DOOR	RBT-1-48	POWERED-AIRE	1
AD#3 (NEW)	1,374	2,987	NA	3/4	DRIVE THRU DOOR	CHA-1-36	POWERED-AIRE	1

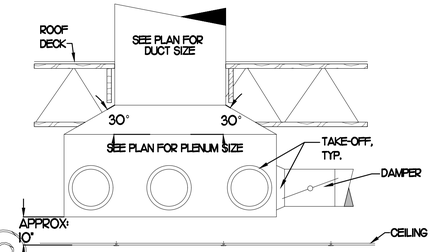
NOTES
- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE AIR DOORS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT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

REMARKS
1. FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.
2. FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER LOCATED ABOVE CEILING.
3. FACTORY WIRED DISCONNECT.
4. FACTORY PROVIDED, FIELD INSTALLED REMOTE WALL SWITCHES FOR HEATING ON/OFF AND FAN ON/AUTO SWITCH. SEE AIR CURTAIN WIRING DIAGRAM DETAIL THIS SHEET.



4 AIR CURTAIN WIRING DIAGRAM

NO SCALE



6 RETURN DROP GEOMETRY

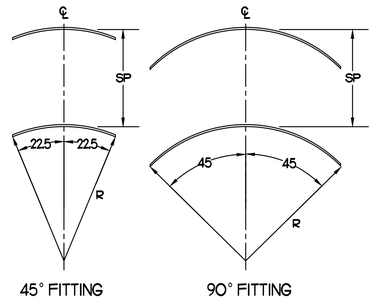
NO SCALE

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	1,7
C	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	ENTRYS	14X14	20X20	BEVELLED	1,3,5,6
F	PRICE MODEL 80 EGGCRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CORE, FACTORY FLAT BLACK BACKPAN AND ROUND NECK.	DINING KITCHEN	SEE PLAN	24X24	LAY-IN	1,7
J	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	RESTROOMS	10X10	16X16	BEVELLED	1,2,3,5,6
K	PRICE MODEL APDDR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS ENTRYS	14X14	17X17	SURFACE	1,4,5,6

NOTES
- MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

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



TURNING VANE SCHEDULE		
R	SP	GA
2"	1.5"	24

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

3 TURNING VANES

NO SCALE

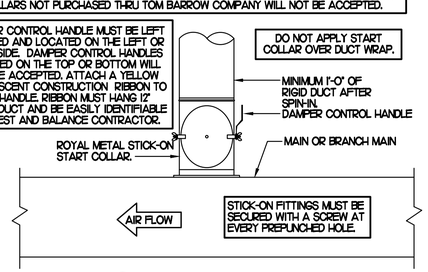
GAS FIRED ROOFTOP UNIT SCHEDULE

MARK	COOLING CAPACITY (MBH)		HEATING CAPACITY (MBH)			FAN SECTION (CFM)				MODEL	MANUFACTURER	REMARKS
	TOTAL	SENS	INPUT	OUTPUT	STAGES	SUPPLY	O.A.	HP	ESP			
AC#1 (EXIST)	–	–	–	–	–	3,400	950	–	–	EXISTING	EXISTING	–
AC#2 (NEW)	279.6	198.5	480.0	384.0	2	8,000	1,800	7.5	1.0	LGH300S4B	LENNOX	1-14
AC#3 (EXIST)	–	–	–	–	–	4,920	1,220	–	–	EXISTING	EXISTING	–
AC#4 (EXIST)	–	–	–	–	–	2,000	350	–	–	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.
- VERIFY MIN. 10' DISTANCE OF O.A. INTAKE OPENINGS OF A/C UNITS FROM ANY EXISTING SOURCE OF AIR POLLUTION (EXHAUST FAN, COMBUSTION FLUE, VENT ETC). IF SUCH CONDITIONS EXIST, CONTRACTOR IS REQUIRED TO DUCT OUTSIDE AIR INTAKE ON ROOF AWAY FROM ANY SUCH SOURCE.

REMARKS
1. PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST. ECONOMIZER TO BE LOW LEAKAGE/HIGH PERFORMANCE.
2. SEE DETAIL 2/M4.1 FOR SETTING OF PRODIGY M3 BOARD CONTROL PARAMETERS BY MC.
3. PROVIDE 14" HIGH ROOF CURB.
4. PROVIDE FACTORY INSTALLED AND UNIT POWERED 115V GFI SERVICE OUTLET.
5. PROVIDE FACTORY INSTALLED RETURN SIDE SMOKE DETECTOR.
6. PROVIDE FACTORY INSTALLED NON-FUSED DISCONNECT.
7. PROVIDE 2" MERV 8 THROW AWAY FILTERS.
8. PROVIDE HINGED PANELS FOR FILTER ACCESS, FAN MOTOR ACCESS, COMPRESSOR ACCESS AND CONTROL COMPARTMENT ACCESS.
9. ADJUST GAS MANIFOLD PRESSURE AT LOCATIONS WHERE ELEVATION EXCEEDS 2000' ABOVE SEA LEVEL AS RECOMMENDED BY MANUFACTURER.
10. PROVIDE FACTORY COIL HAIL GUARD, FIELD INSTALLED.
11. PROVIDE HUMIDITROL OPTION WITH FACTORY WALL MOUNTED HUMIDITY SENSOR.
12. PROVIDE FACTORY INSTALLED BELT TENSIONER.
13. PROVIDE WITH FACTORY CONDENSATE DRAIN PAN OVERFLOW SWITCH.
14. PROVIDE FACTORY CONFIGURED PHASE LOSS PROTECTION.

CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ROYAL METAL START COLLARS. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE ROYAL METAL START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. ROYAL METAL START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.



2 START COLLAR

NO SCALE

EXHAUST FAN SCHEDULE

MARK	CFM	ESP	RPM	TIP SPEED (FPM)	HP (WATTS)	AREA SERVED	MODEL	MANUFACTURER	REMARKS
EF#1 (NEW)	1,912	0.75	1,331	5,226	3/4	HOOD#1, 2 & HOOD#2R	150 CFS	LOREN COOK	H-2
EF#2 (NEW)	1,091	0.75	1,224	4,325	1/2	HOOD#2 & HOOD#3	135 CFS	LOREN COOK	H-2
EF#3 (EXIST)	350	–	–	–	–	RESTROOMS	–	EXISTING	–

NOTES
- GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL.
- GREASE EXHAUST FANS TO BE U.L. 762 LISTED.
- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR FAN/CURB PACKAGE. MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS
1. PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. M.C. TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034
2. PROVIDE FACTORY INSTALLED, PRE-WIRED, NEMA 3 NON-FUSED DISCONNECT. COORDINATE WITH E.C.
3. INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET.
4. UPBLAST, ARRANGEMENT 10, CCW ROTATION. SEE PLANS TO CONFIRM CONFIGURATION.
5. PROVIDE FACTORY STEEL FAN WHEEL.
6. PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE.
7. PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.
8. PROVIDE FACTORY DRAIN CONNECTION.
9. PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL.
10. PROVIDE FACTORY STEEL OUTLET COMPANION FLANGE.
11. UTILITY SET FAN CURB AND ASSOCIATED EXHAUST DUCT CURB PROVIDED BY TOM BARROW COMPANY.
12. PROVIDE FACTORY BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT.

DUCTLESS SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

MARK	COOLING CAPACITY (MBH)		HEATING CAPACITY (MBH)		EFFICIENCIES		FAN SECTION (CFM)	ELECTRICAL DATA			R-410A MODEL			MFGR
	MIN.	MAX.	MIN.	MAX.	SEER	HSPF	AIR FLOW (NET)	MCA	MOCP	VOLTAGE	AH-U	CU		
AH-U#1/CU#1 (NEW)	18.0	33.5	18.0	40.0	16.2	10.0	635-730-830	28	40	208/1/60	PKA-A36KA7	PUZ-HA36NHA5		MITSUBISHI

NOTES
- MECHANICAL CONTRACTOR SHALL PURCHASE THE SPLIT SYSTEM HEAT PUMP DIRECTLY FROM TRANE/MITSUBISHI. CONTACT MR. ISAAC LOCKETT AT 678-775-4226, FOR PRICING AND AVAILABILITY.

REMARKS
1. ELECTRICIAN TO PROVIDE NON-FUSED DISCONNECT.
2. MECHANICAL TO PROVIDE AND INSTALL REFRIGERANT PIPING AS PER MFR RECOMMENDATIONS.
3. PROVIDE ENGRAVED PLASTIC LABEL AT AH-U AND CU WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND RIVETED TO UNIT CABINET.
4. PROVIDE WITH ADEQUATE REFRIGERANT LINE SET. FIELD VERIFY DISTANCE FROM WHERE CONDENSER IS TO BE SET TO AIR HANDLER LOCATION PRIOR TO ORDERING.
5. PROVIDE WITH WALL MOUNTED THERMOSTAT (TAR-CTOIMAU-SB). USE TWO-WIRE, STANDARD, NON-POLAR CONTROL WIRE TO CONNECTOR TB15 ON INDOOR UNIT CONTROLLER. PROGRAM THERMOSTAT CONTROLS TO MATCH DRIVE-THRU RTU SETPOINTS.
6. PROVIDE PAC-SE552A-E CONNECTOR AT INDOOR UNIT (CONNECTOR CN32). WIRE ORANGE AND RED WIRES TO SPARE POLE ON RELAY R-1 IN SUNCOAST T-500 PANEL (TERMINALS 11 AND 7 RESPECTIVELY) AND CAP THE BROWN WIRE.
7. PROVIDE WITH CONDENSATE PUMP (BLUE DIAMOND MAXI BLUE MODEL# X87-721).

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Kurzynske & Associates License No. F-0823, Expires 6/30/22

NORTH CAROLINA PROFESSIONAL SEAL 035575 ENGINEER MARK T. KURZYNSKE
2-18-22

CHICK-FIL-A
Waverly Place
411 Colonades Way
Cary, NC 27518

FSR#01218

BUILDING TYPE / SIZE: S97-100
RELEASE: v02.2021

REVISION SCHEDULE

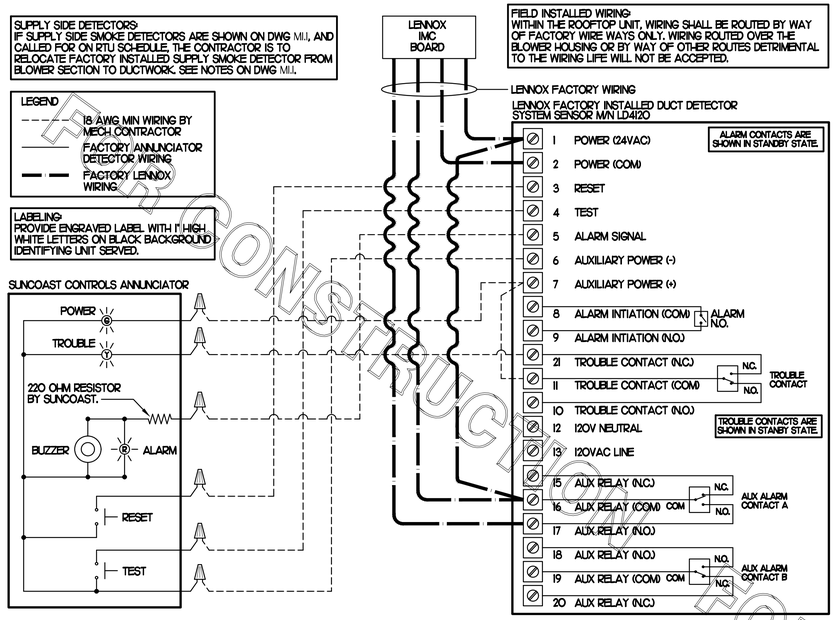
NO.	DATE	DESCRIPTION
2	10/29/21	Permit Review Cmmts - BLDG
6	01/28/22	CD Coordination

CONSULTANT PROJECT # 21105.HF.R
PRINTED FOR CONSTRUCTION
DATE 09/07/2021
DRAWN BY BLM

CONSTRUCTION

SHEET
MECH DETAILS & SCHEDULES

SHEET NUMBER
M3.1

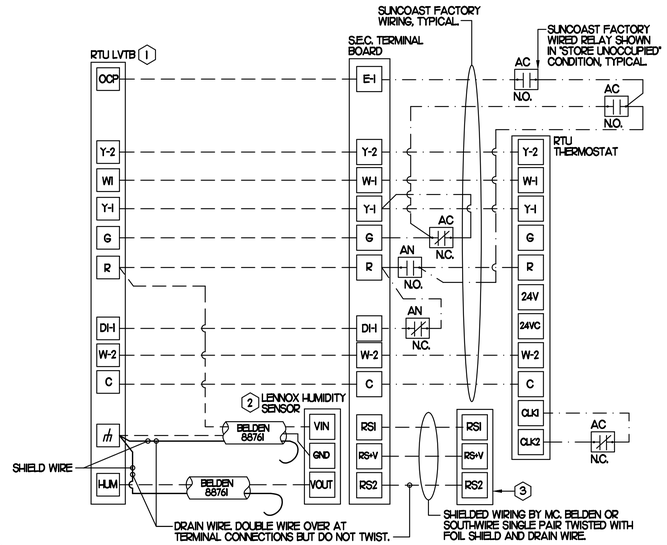


1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - LENNOX

NO SCALE

LEGEND	
S.E.C.	SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF TEMP/FAN CONTROL PANEL) LOCATED IN KITCHEN
(1)	KEY NOTE REFERENCE
MC	MECHANICAL CONTRACTOR
(AC)	SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL. ENERGIZED BY PUTTING STORE SWITCH IN 'STORE OCCUPIED' POSITION.
(AN)	SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL. DE-ENERGIZED WHEN ANSUL FIRE SUPPRESSION SYSTEM IS ACTIVATED, AS NOTED.
- - -	18 AWG MIN LOW VOLTAGE WIRING BY MC, U.N.O. USE BELDEN OR SOUTH-WIRE 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 CABINENT. 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.



2 ROOFTOP UNIT CONTROL WIRING - LENNOX

NONE

NOTES:

1. FOR ALL RTUS EXCEPT AT KITCHEN RTU(S), CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #65 TO ZERO (#53 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 RTU(S) (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 RTU(S) (LCH TYPE) CHANGE THE VALUE TO 540.0 SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 90 MINUTES AFTER "OCCUPIED" START.
2. MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INSIDE DOOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
3. SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNCIATOR WIRING.
4. AT HUMIDITROL RTU'S SET PRODIGY-M3 BOARD CONTROL PARAMETER #105 FOR DEHUMIDIFICATION OPERATION TO A VALUE OF 7. OLDER MI-8 IMC BOARD ECTO PARAMETER 4.24 VALUE TO BE SET TO A VALUE OF 7.
5. AT HUMIDITROL RTU'S, SET PRODIGY-M3 BOARD CONTROL PARAMETER #106 FOR DEHUMIDIFICATION SET POINT TO A VALUE OF 60 (60% RH).
6. AT HUMIDITROL RTU'S, SET PRODIGY-M3 BOARD CONTROL PARAMETER #107 FOR DEHUMIDIFICATION MODE DEAD BAND TO A VALUE OF 2 (2% RH).
7. SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
8. FOR MSAV UNITS, SET THE MSAV LOW SPEED SETTING TO THE SAME VALUE AS THE HIGH SPEED SETTING AFTER TAB IS COMPLETE.
9. PROVIDE PLASTIC ENGRAVED LABEL AT ALL NEW SENSORS WITH ¼" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "ACM2 HUMIDITY SENSOR" OR "ACM2 TEMP SENSOR". PLACE LABELS ON WALL ADJACENT TO DEVICE. DO NOT APPLY DIRECTLY TO DEVICE.

KEYED NOTES:

(1) LOW VOLTAGE WIRING TO RTU TO BE ROUTED TO UNIT THRU FACTORY WIREWAY.

(2) HUMIDITROL UNITS ONLY: WIRING TO HUMIDITY SENSOR TO BE MADE WITH TWO SEPARATE RUNS OF SHIELDED TWISTED PAIR. TERMINATE SHIELD WIRES AT TB-H, LEAVE OPEN AT SENSOR.

(3) NETWORK TSTAT REMOTE TEMP SENSOR PROVIDED BY SUNCOAST AND INSTALLED BY MC. FIELD CALIBRATE EACH SENSOR.

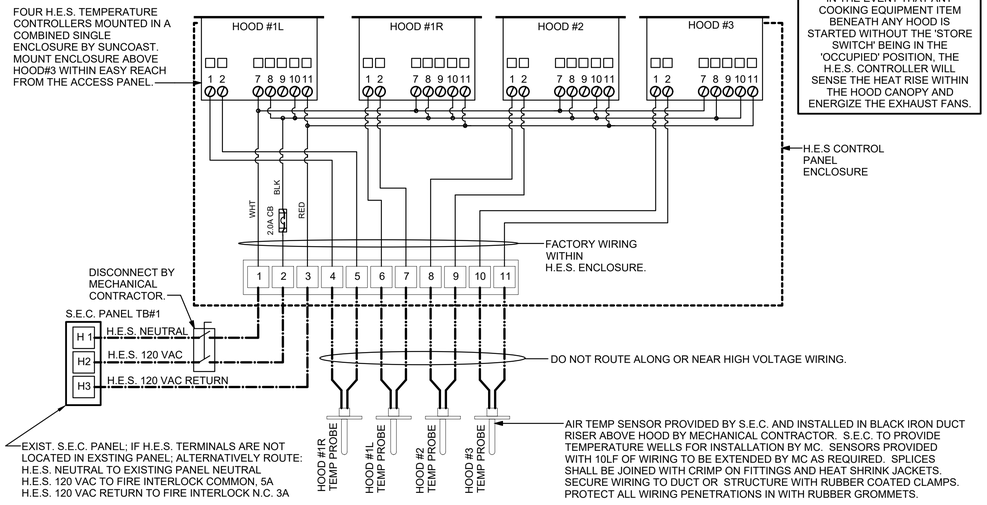
LEGEND	
S.E.C.	SUNCOAST ENVIRONMENTAL CONTROLS CFA-500 ENERGY MGT PANEL
H.E.S.	SUNCOAST ENVIRONMENTAL CONTROLS HOOD EXHAUST SAFETY CONTOLLER
M.C.	MECHANICAL CONTRACTOR
———	18 AWG MIN UNSHIELDED LOW VOLTAGE WIRING BY MC, U.N.O.
—·—	120 VAC WIRING BY MECHANICAL CONTRACTOR

GENERAL NOTES

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

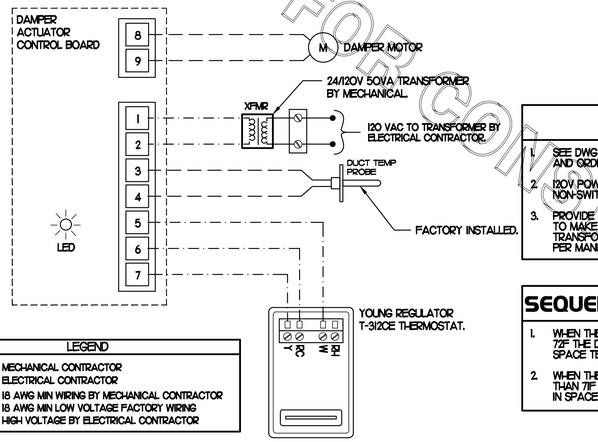
S.E.C. H.E.S. OPERATION

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



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

NONE



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

1. SEE DWG M1.1 FOR COMPONENT MODEL NUMBERS AND ORDERING INFORMATION.
2. I20V POWER FOR TRANSFORMER TO BE NON-SWITCHED AND HOT 24/7.
3. 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

1. WHEN THE SUPPLY AIR TEMPERATURE IS LESS THAN 72F THE DAMPER WILL OPEN FULLY ON A RISE IN SPACE TEMPERATURE ABOVE THE SETPOINT.
2. 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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Kurzynske & Associates License No. F-0823, Expires 6/30/22

NORTH CAROLINA PROFESSIONAL SEAL 25575 ENGINEER MARK T. KURZYNSKE
2-18-22

CHICK-FIL-A
Waverly Place
411 Colonades Way
Cary, NC 27518

FSR#01218

BUILDING TYPE / SIZE: S97-100
RELEASE: v02.2021

REVISION SCHEDULE

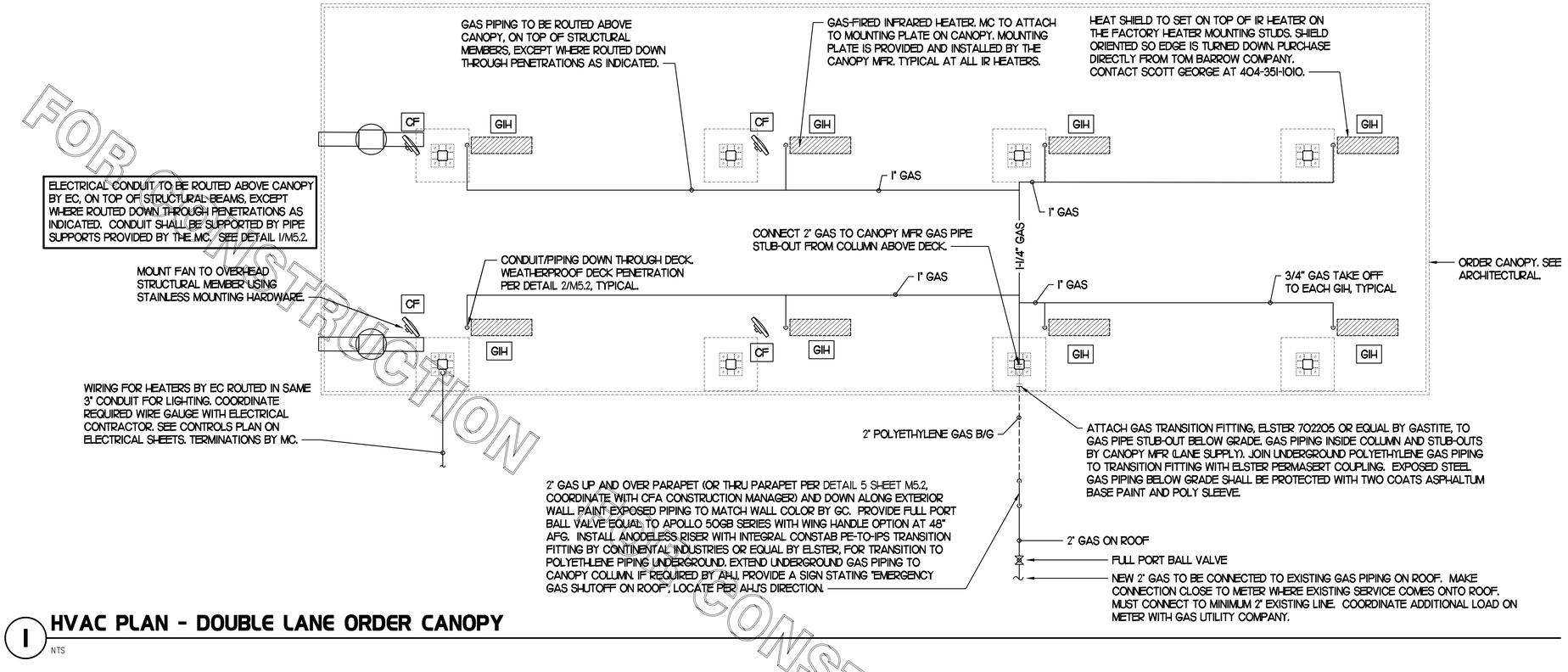
NO.	DATE	DESCRIPTION

CONSTRUCTION

CONSULTANT PROJECT # 21105.HF.R
PRINTED FOR CONSTRUCTION
DATE 09/07/2021
DRAWN BY BLM

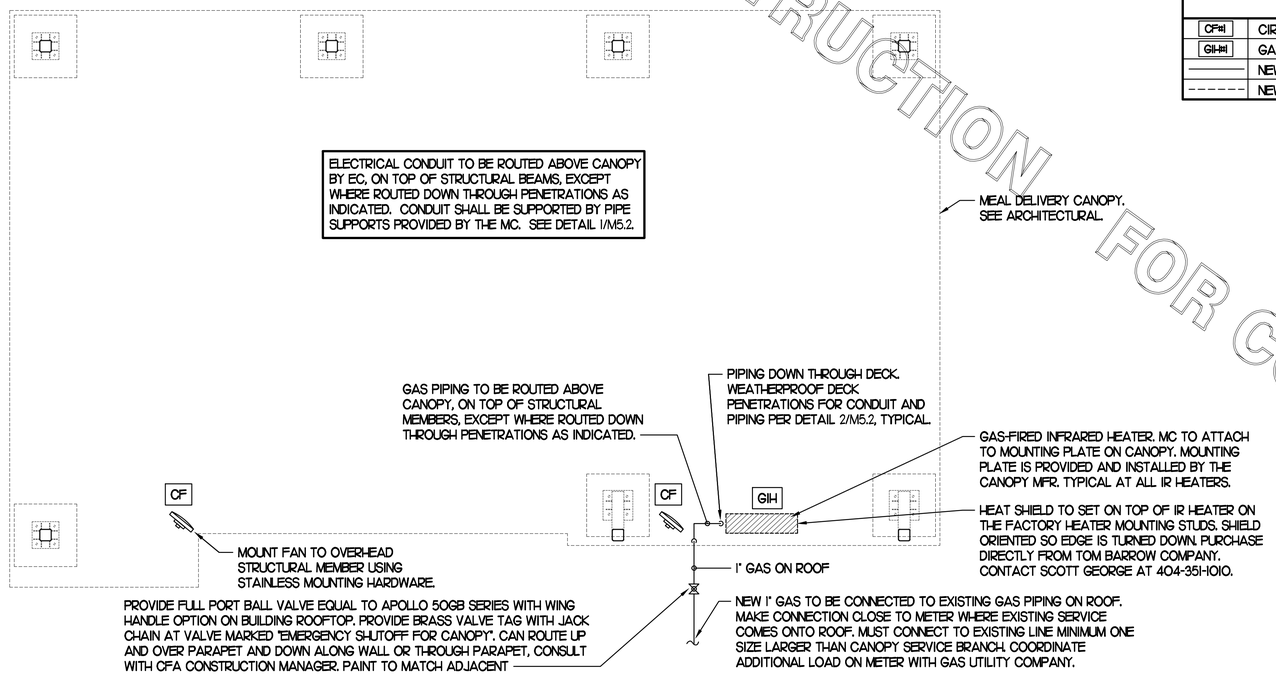
SHEET
HVAC CONTROLS

SHEET NUMBER
M4.1



1 HVAC PLAN - DOUBLE LANE ORDER CANOPY

NTS



2 HVAC PLAN - MEAL DELIVERY CANOPY - UTILITIES AT EXISTING RESTAURANT

NTS

LEGEND			
CF#	CIRCULATING FAN #1 (TYP.)	B/G	BELOW GRADE
GIH#	GAS INFRARED HEATER #1 (TYP.)	EC	ELECTRICAL CONTRACTOR
———	NEW GAS PIPING ABOVE GRADE	MC	MECHANICAL CONTRACTOR
- - - - - -	NEW GAS PIPING BELOW GRADE	– · — · –	CONDUIT ABOVE CANOPY DECK

GENERAL NOTES

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

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2-18-22

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Waverly Place
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BUILDING TYPE / SIZE: S97-100
RELEASE: v02.2021

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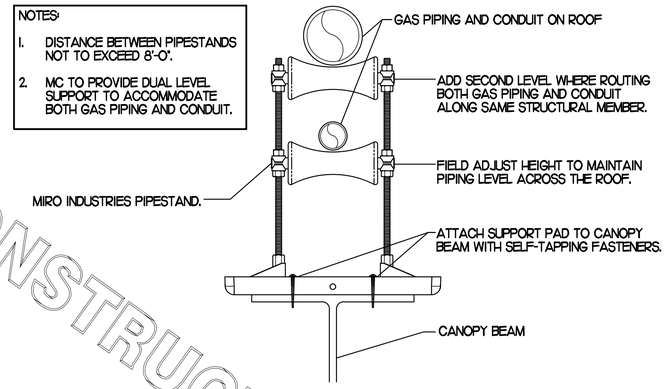
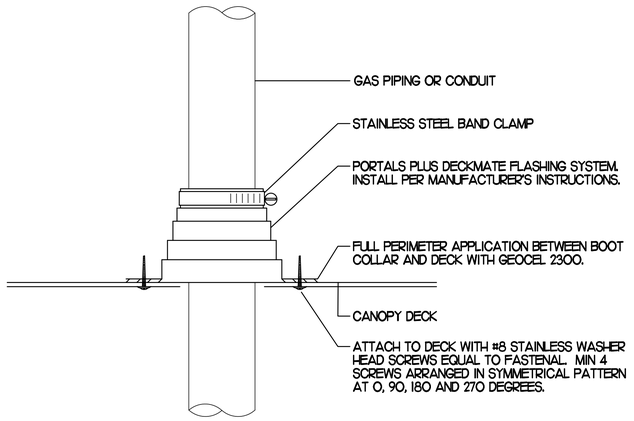
SHEET
CANOPY HVAC PLANS

SHEET NUMBER
M5.1

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



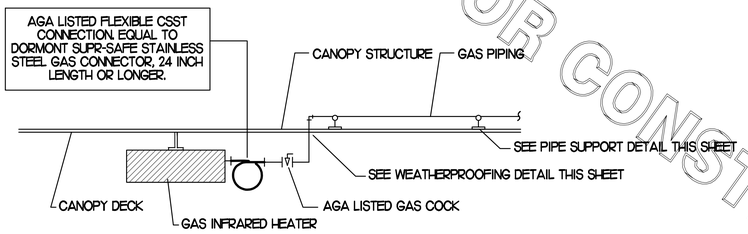
1 PIPING SUPPORT ON CANOPY
NO SCALE



2 WEATHERPROOFING AT CANOPY PENETRATION
NO SCALE

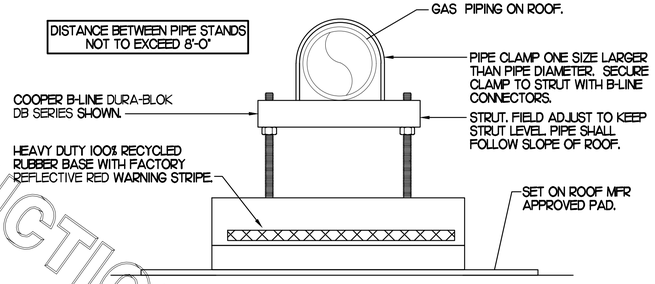
NOTES:
1. NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
2. PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING PIPING FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
3. ENSURE GAS PIPING DOES NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS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

AGA LISTED FLEXIBLE CSST CONNECTION EQUAL TO DORMONT SUPR-SAFE STAINLESS STEEL GAS CONNECTOR, 24 INCH LENGTH OR LONGER.

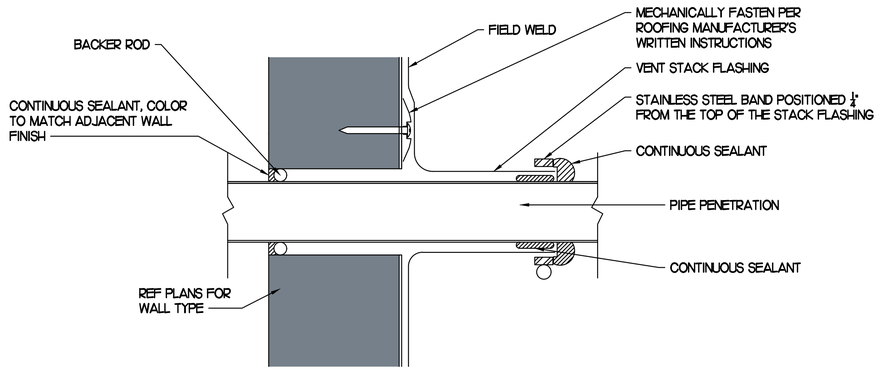


3 GAS CONNECTION AT APPLIANCE
NO SCALE

DISTANCE BETWEEN PIPE STANDS NOT TO EXCEED 8'-0"



4 PIPING SUPPORT ON MAIN BLDG ROOF
NO SCALE



5 PARAPET PENETRATION DETAIL
NO SCALE

GAS FIRED INFRARED HEATER SCHEDULE

MARK	INPUT (MBH)	FRAME SIZE LENGTH	FRAME SIZE WIDTH	FRAME SIZE DEPTH	MOUNTING TYPE	MODEL	MANUFACTURER
ALL GIH	50.0	48"	13"	10"	BRACKET	2352-NG	SCHWANK

REMARKS:
1. STEEL BURNER WITH CERAMIC BURNER TILES.
2. STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING.
3. 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.
4. MOUNTING BRACKET PROVIDED AND INSTALLED BY CANOPY MFR.
5. PROVIDE HEAT SHIELD ABOVE EACH HEATER AT THE BOTTOM OF THE BRACKET.

CIRCULATING FAN SCHEDULE

MARK	CFM	RPM	HP	MODEL	MANUFACTURER
ALL CF	4,600	1,660	1/8	UI8TE-HD	TPI

REMARKS:
1. ALUMINUM PADDLE WITH STEEL HUB/SPIDER PROPELLER.
2. 360 DEG. ROTATING HEAD HORIZONTALLY AND VERTICALLY.
3. OSHA COMPLIANT DOUBLE LOCKING, COATED STEEL WIRE GUARD.
4. 3-SPEED, TOTALLY ENCLOSED, PERMANENTLY LUBRICATED BALL BEARING MOTOR.
5. FACTORY PRE-WIPED POWER CORD.
6. PROVIDE FACTORY WALL MOUNTING BRACKET.
7. 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.
8. REMOVE PULL CHAIN EXTENSION AT ON/OFF SWITCH IN FIELD.

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NORTH CAROLINA PROFESSIONAL SEAL 25575 ENGINEER MARK T. KURZYNSKE
2-18-22

CHICK-FIL-A
Waverly Place
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Cary, NC 27518

FSR#01218

BUILDING TYPE / SIZE: S97-100
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REVISION SCHEDULE

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CONSTRUCTION

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SHEET
CANOPY DETAILS & SCHEDULES

SHEET NUMBER
M5.2

COMcheck Software Version 4.1.5.1

Envelope Compliance Certificate

Project Information

Energy Code: 90.1 (2016) Standard
Project Title: Chick-fil-A #1218
Location: Cary, North Carolina
Climate Zone: 3a
Project Type: Addition
Vertical Glazing / Wall Area: 31%
Performance Sim. Specs: EnergyPlus 8.1.0.009 EPW: USA_NC_Raleigh-Durham.Intl.AP.723060_TMY3.epw)

Construction Site:
411 Colonades Way
Cary, NC 27518

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 (Dining: Cafeteria/Fast Food) : Nonresidential	364
2-Drive Thru (Dining: Cafeteria/Fast Food) : Nonresidential	34

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: High Albedo Roof Required, [Bldg. Use 1 - Storage]	364	---	30.0	0.032	0.039
Floor 1: Slab-On-Grade:Unheated, Vertical 2 ft., [Bldg. Use 1 - Storage] (c)	62	---	10.0	0.540	0.540
Roof 2: Insulation Entirely Above Deck: High Albedo Roof Required, [Bldg. Use 2 - Drive Thru]	34	---	30.0	0.032	0.039
Floor 2: Slab-On-Grade:Unheated, Vertical 2 ft., [Bldg. Use 2 - Drive Thru] (c)	12	---	10.0	0.540	0.540
NORTH					
Exterior Wall 2: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage]	566	19.0	0.0	0.067	0.089
Door 2: Insulated Metal, Swinging, [Bldg. Use 1 - Storage]	28	---	---	0.330	0.370
EAST					
Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage]	124	19.0	0.0	0.067	0.089
SOUTH					
Exterior Wall 5: Wood-Framed, 16" o.c., [Bldg. Use 2 - Drive Thru]	39	19.0	0.0	0.067	0.089
WEST					
Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage]	124	19.0	0.0	0.067	0.089
Exterior Wall 4: Wood-Framed, 16" o.c., [Bldg. Use 2 - Drive Thru]	111	19.0	0.0	0.067	0.089
Door 3: Glass (> 50% glazing):Metal Frame, Non-Entrance Door, Perf. Specs.: Product ID NA, SHGC 0.40, PF 5.00, [Bldg. Use 2 - Drive Thru] (b)	28	---	---	0.770	0.600

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.
(c) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Envelope PASSES: Design 1% 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 90.1 (2016) Standard 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: 90.1 (2016) Standard
Project Title: Chick-fil-A #1218
Location: Cary, North Carolina
Climate Zone: 3a
Project Type: Addition

Construction Site:
411 Colonades Way
Cary, NC 27518

Owner/Agent:
Chick-fil-A
5200 Buffington Road
Atlanta, GA 30349

Designer/Contractor:
Kurzynske & Associates
2705 Lebanon Pike - Suite One
Nashville, TN 37214
615-255-5203

Mechanical Systems List

Quantity System Type & Description

1 AC#2 (25 ton) (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 384 kBtu/h
Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et
Cooling: 1 each - Single Package DX Unit, Capacity = 279 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 10.50 EER, Required Efficiency: 9.80 EER + 11.4 IEER
Fan System: AC#2 | Kitchen -- Compliance (Motor nameplate HP method) : Passes

Fans:
Supply Supply, Constant Volume, 8000 CFM, 7.5 motor nameplate hp, 0.0 fan efficiency grade
Exhaust Exhaust, Constant Volume, 6200 CFM, 0.7 motor nameplate hp, 0.0 fan efficiency grade

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

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

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 90.1 (2016) Standard 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

Inspection Checklist

Energy Code: 90.1 (2016) Standard

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
4.2.2, 5.4.3.1.1, 5.7 [PR1]1	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.2, 6.4.4.2.1, 6.7.2 [PR2]1	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
4.2.2, 8.4.1.1, 8.4.1.2, 8.7 [PR6]2	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.7.2.4 [PR5]1	Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects >=50,000 ft2.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
4.2.4 [FO1]2	Installed below-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
4.2.4 [FO3]2	Installed slab-on-grade insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-_____ ☐ Unheated ☐ Heated	R-_____ ☐ Unheated ☐ Heated	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.2 [FO4]2	Slab edge insulation installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.5.3.5 [FO5]2	Slab edge insulation depth/length.	_____ ft	_____ ft	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.7 [FO6]1	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.7.3 [FO7]1	Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.7 [FO9]3	Freeze protection and snow/ice melting system sensors for future connection to controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.4.4.1.5 [FO11]3	Bottom surface of floor structures incorporating radiant heating insulated to >=R-3.5.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
5.4.3.2 [FR1]3	Factory-built and site-assembled fenestration and doors are labeled or certified as meeting air leakage requirements.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.5.4.3a [FR8]1	Vertical fenestration U-Factor.	U-_____	U-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.5.4.3b [FR9]1	Skylight fenestration U-Factor.	U-_____	U-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.5.4.4.1 [FR10]1	Vertical fenestration SHGC value.	SHGC:_____	SHGC:_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.5.4.4.2 [FR11]1	Skylight SHGC value.	SHGC:_____	SHGC:_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.2.1, 5.8.2.3, 5.8.2.4, 5.8.2.5 [FR12]2	Fenestration products rated (U-factor, SHGC, and VT) in accordance with NFRC or energy code defaults are used.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.2.2 [FR13]1	Fenestration and door products are labeled, or a signed and dated certificate listing the U-factor, SHGC, VT, and air leakage rate has been provided by the manufacturer.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.5.3.6 [FR14]2	U-factor of opaque doors associated with the building thermal envelope meets requirements.	U-_____ ☐ Swinging ☐ Nonswinging	U-_____ ☐ Swinging ☐ Nonswinging	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.4.3.1 [FR15]1	Continuous air barrier is wrapped, sealed, caulked, gasketed, and/or taped in an approved manner, except in semiheated spaces in climate zones 1-6.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.4.1.4, 6.4.1.5 [ME1]2	HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.	Efficiency:_____	Efficiency:_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Mechanical Systems list for values.*
6.4.3.4.1 [ME3]3	Stair and elevator shaft vents have motorized dampers that automatically close.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.4.3.4.5 [ME39]3	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.4.3.4.4 [ME5]3	Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: HVAC systems intended to operate continuously.
6.4.3.8 [ME6]1	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Spaces where 75 percent of the supply outdoor airflow is requried for makeup air that is exhausted from the space or transfer air required for makeup air that is exhausted from the space(s).
6.5.3.2.1 [ME40]2	DX cooling systems >= 75 kBtu/h (>= 65 kBtu/h effective 1/2016) and chilled-water and evaporative cooling fan motor hp >= ¼ designed to vary supply fan airflow as a function of load and comply with operational requirements.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. *See the Mechanical Systems list for values.*
6.4.4.1.1 [ME7]3	Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.4.4.1.2 [ME8]2	HVAC ducts and plenums insulated per Table 6.8.2. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.4.4.1.3 [ME9]2	HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	_____ in.	_____ in.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.4.4.1.4 [ME41]3	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.4.4.2.1 [ME10]2	Ducts and plenums having pressure class ratings are Seal Class A construction.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.8.1-15, 6.8.1-16 [ME110]2	Electrically operated DX-DOAS units meet requirements per Tables 6.8.1-15 or 6.8.1-16.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.4.4.2.2 [ME11]3	Ductwork operating >3 in. water column requires air leakage testing.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.4.4.2.2 [ME11]3	Ductwork operating >3 in. water column requires air leakage testing.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.4.4.2.2 [ME11]3	Ductwork operating >3 in. water column requires air leakage testing.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.5.2.3 [ME19]3	Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.5.2.4.1 [ME68]3	Humidifiers with airstream mounted preheating jackets have preheat auto-shutoff value set to activate when humidification is not required.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.5.2.4.2 [ME69]3	Humidification system dispersion tube hot surfaces in the airstreams of ducts or air-handling units insulated >= R-0.5.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.5.2.5 [ME70]3	Preheat coils controlled to stop heat output whenever mechanical cooling, including economizer operation, is active.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.5.2.6 [ME106]3	Units that provide ventilation air to multiple zones and operate in conjunction with zone heating and cooling systems are prevented from using heating or heat recovery to warm supply air above 60°F when representative building loads or outdoor air temperature indicate that most zones demand cooling.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.5.3.1.3 [ME74]2	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Fans integral to equipment listed under Section 6.4.1.1.
6.5.3.6 [ME72]2	Motors for fans >= 1/12 hp and < 1 hp are electronically-commutated motors or have a minimum motor efficiency of 70%. These motors are also speed adjustable for either balancing or remote control.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Motors installed in space conditioning equipment certified under Section 6.4.1.

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

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CONSTRUCTION

CHICK-FIL-A
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FSR#01218

BUILDING TYPE / SIZE: S97-100
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Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.5.3.4 [ME108]2	Parallel-flow fan-powered VAV air terminals have automatic controls to a) turn off the terminal fan except when space heating is required or if required for ventilation; b) turn on the terminal fan as the first stage of heating before the heating coil is activated; and c) during heating for warmup or setback temperature control, either operate the terminal fan and heating coil without primary air or reverse the terminal damper logic and provide heating from the central air handler through primary air.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.5.3.7 [ME109]2	Required minimum outdoor air rate is the larger of minimum outdoor air rate or minimum exhaust air rate required by Standard 62.1, Standard 170, or applicable codes or accreditation standards. Outdoor air ventilation systems shall comply with one of the following: a) design minimum system outdoor air provided < 135% of the required minimum outdoor air rate, b) dampers, ductwork, and controls allow the system to supply <= the required minimum outdoor air rate with a single set-point adjustment., or c) system includes exhaust air energy recovery complying with Section 6.5.6.1.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.5.3.3 [ME42]3	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply. *See the Mechanical Systems list for values.*
6.5.3.3 [ME42]3	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply. *See the Mechanical Systems list for values.*
6.5.3.3 [ME42]3	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply. *See the Mechanical Systems list for values.*
6.5.4.2 [ME25]3	HVAC pumping systems with >= 3 control values designed for variable fluid flow (see section details).			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.5.6.1 [ME56]1	Exhaust air energy recovery on systems meeting Tables 6.5.6.1-1, and 6.5.6.1-2.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.5.7.1 [ME100]2	Conditioned supply air to space with mechanical exhaust <= the greater of criteria of supply flow, required ventilation rate, exhaust flow minu the available transffer air (see section details).			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.5.7.2.1 [ME32]2	Kitchen hoods >5,000 cfm have make up air >=50% of exhaust air volume.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.5.7.2.2 [ME47]3	Kitchen hoods with a total exhaust airflow rate >5000 cfm meet replacement air, ventilation system, or energy recovery requirements shown in Table 6.5.7.1.3.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.5.7.2.3 [ME48]3	Kitchen hoods with a total exhaust airflow rate >5000 cfm meet replacement air, ventilation system, or energy recovery requirements.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.5.7.2.4 [ME49]3	Approved field test used to evaluate design air flow rates and demonstrate proper capture and containment of kitchen exhaust systems.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.5.8.1 [ME34]2	Unenclosed spaces that are heated use only radiant heat.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.5.9 [ME35]1	Hot gas bypass limited to: <=240 kBtu/h – 15% >240 kBtu/h – 10%			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.4.3.9 [ME63]2	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.
6.5.10 [ME73]3	Doors separating conditioned space from the outdoors have controls that disable/reset heating and cooling system when open.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Building entrances have automatic closing devices.

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
8.4.2 [EL10]2	At least 50% of all 125 volt 15- and 20-Amp receptacles are controlled by an automatic control device.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
8.4.3 [EL11]2	New buildings have electrical energy use measurement devices installed. Where tenant spaces exist, each tenant is monitored separately. In buildings with a digital control system the energy use is transmitted to to control system and displayed graphically.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Buildings 25,000 ft2.
10.4.1 [EL9]2	Electric motors meet requirements where applicable.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
4.2.4 [IN2]1	Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	R-_____ ☐ Above deck ☐ Metal ☐ Attic	R-_____ ☐ Above deck ☐ Metal ☐ Attic	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.2, 5.8.1.3 [IN3]1	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the ceiling slope is <= 3:12.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.4 [IN6]1	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-_____ ☐ Mass ☐ Metal ☐ Steel ☐ Wood	R-_____ ☐ Mass ☐ Metal ☐ Steel ☐ Wood	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.2 [IN7]1	Above-grade wall insulation installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.4 [IN8]2	Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-_____ ☐ Mass ☐ Steel ☐ Wood	R-_____ ☐ Mass ☐ Steel ☐ Wood	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.1 [IN10]2	Building envelope insulation is labeled with R-value or insulation certificate has been provided listing R-value and other relevant data.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.9 [IN18]2	Building envelope insulation extends over the full area of the component at the proposed rated R or U value.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.4 [IN11]2	Eaves are baffled to deflect air to above the insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.5 [IN12]2	Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditional space.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.6 [IN13]2	Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.7.1 [IN15]2	Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
5.8.1.7.2 [IN16]2	Foundation vents do not interfere with insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.8 [IN17]3	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
5.4.3.3 [FI1]1	Weatherseals installed on all loading dock cargo doors in Climate Zones 4-8.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.1.2 [FI3]3	Thermostatic controls have a 5 °F deadband.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.4.3.2 [FI20]3	Temperature controls have setpoint overlap restrictions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.4.3.3.1 [FI21]3	HVAC systems equipped with at least one automatic shutdown control.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.4.3.3.2 [FI22]3	Setback controls allow automatic restart and temporary operation as required for maintenance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.4.3.5 [FI5]3	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.4.3.12 [FI200]3	Air economizer has a fault detection and diagnostics (FDD) system (see details for configuration and operational requirements).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.4.3.6 [FI6]3	When humidification and dehumidification are provided to a zone, simultaneous operation is prohibited. Humidity control prohibits the use of fossil fuel or electricity to produce RH > 30% in the warmest zone humidified and RH < 60% in the coldest zone dehumidified.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.7.2.1 [FI7]3	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.7.2.2 [FI8]3	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.7.2.3 [FI9]1	An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000 ft2 of conditioned area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
6.7.2.4 [FI10]1	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
10.4.3 [FI24]2	Elevators are designed with the proper lighting, ventilation power, and standby mode.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement does not apply.

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FSR#01218

BUILDING TYPE / SIZE: S97-100
RELEASE: v02.2021

REVISION SCHEDULE

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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. RADIUSED 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. ANNUCIATOR 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 ENVIRONMENT CONTROLS. SUNCOAST WILL PROVIDE A NETWORK THERMOSTAT US32-NX 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 AVIALABILITY. FANS NOT PURCHASED THRU TOM BARROW 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

Kurzynske & Associates License No. F-0823, Expires 6/30/22

NORTH CAROLINA PROFESSIONAL SEAL 035775 ENGINEER MARK T. KURZYNSKE
2-18-22

CONSTRUCTION

CHICK-FIL-A
Waverly Place
411 Colonades Way
Cary, NC 27518

FSR#01218

BUILDING TYPE / SIZE: S97-100
RELEASE: v02.2021

REVISION SCHEDULE

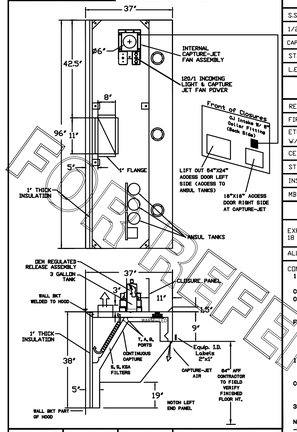
NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 21105.HF.R
PRINTED FOR CONSTRUCTION
DATE 09/07/2021
DRAWN BY BLM

SHEET
MECHANICAL SPECIFICATIONS

SHEET NUMBER
M7.1

MODEL: KVL-2-IC



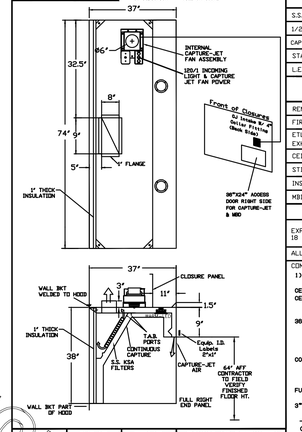
STANDARD FEATURES	
S.S. FILTERS (KSA)	4
1/2 S.S. FILTERS (KSA)	1
CAPTURE-JET	*
STAND-OFF	*
L.E.D. LIGHTS	3
OPTIONS	
REMOTE SWITCH PANEL	
FIRE PROTECTION	*
ETL. LISTED W/O EXHAUST DAMPER	*
CEILING CLOSURE	2
STD. BACKSPLASH	
INSULATED BACKSPLASH	
MBD DAMPER	*
MATERIAL	
EXPOSED SURFACES 18 GA. S.S.	*
ALL 18 GA. S.S.	

COMMENTS:
1) CLOSURE HEIGHT = 61" (TWO SIDES)
CEILING HEIGHT = 122"
CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF
FRONT CLOSURE PANEL WITH 64"x24" ACCESS DOOR LEFT SIDE (ACCESS TO AMBUL TANKS & MBD DAMPER)
18"x18" ACCESS DOOR RIGHT SIDE AT CAPTURE-JET W/ FRONT OJ INTAKE
CONTINUOUS CAPTURE INTERNAL RIGHT END OUTOUT
3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
NOTCHED LEFT END PANEL
-EQUIPMENT COVERED
(4) PRESSURE FRYERS
(1) GRILL
ANGUL WEIGHT = 83 LBS
HOOD WEIGHT= 600 LBS

DATE	DWG NO.	ITEM NO.	EXHAUST AIR INFORMATION		
07.28.21	U21-520-01	H-1L	CFM	TAB	SP
PROJECT: CHICK-FIL-A #1218 WAVERLY PLACE			1080	.13"	.24"
LOCATION: CARY, NC			CAPTURE AIR INFORMATION		
			CFM		SP
SUBMITTED BY: HALTON CO.			72		.30"

4105B

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/O EXHAUST DAMPER	*
CEILING CLOSURE	2
STD. BACKSPLASH	
INSULATED BACKSPLASH	
MBD DAMPER	*
MATERIAL	
EXPOSED SURFACES 18 GA. S.S.	*
ALL 18 GA. S.S.	

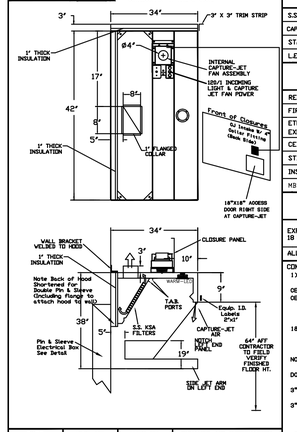
COMMENTS:
1) CLOSURE HEIGHT = 61" (TWO SIDES)
CEILING HEIGHT = 122"
CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF
80"x24" ACCESS DOOR RIGHT SIDE FOR ACCESS TO CAPTURE-JET W/ FRONT OJ INTAKE & MBD DAMPER
CONTINUOUS CAPTURE INTERNAL LEFT END OUTOUT
FULL RIGHT END PANEL
3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
-EQUIPMENT COVERED
(3) PRESSURE FRYERS
(1) GRILL
HOOD WEIGHT = 462 LBS

DATE	DWG NO.	ITEM NO.	EXHAUST AIR INFORMATION		
07.28.21	U21-520-01	H-1R	CFM	TAB	SP
PROJECT: CHICK-FIL-A #1218 WAVERLY PLACE			832	.12"	.23"
LOCATION: CARY, NC			CAPTURE AIR INFORMATION		
			CFM		SP
SUBMITTED BY: HALTON CO.			55		.30"

4105B

MODEL: KVL-C-IC

FACTORY MUST BE ADVISED OF ANY SPECIAL REQUIREMENTS OR THE "AUTHORITY HAVING JURISDICTION" AT TIME OF QUOTE



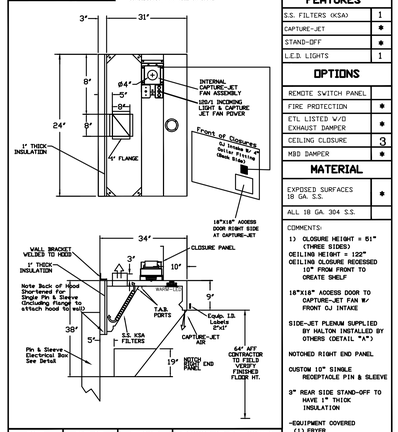
STANDARD FEATURES	
S.S. FILTERS (KSA)	2
CAPTURE-JET	*
STAND-OFF	*
L.E.D. LIGHTS	1
OPTIONS	
REMOTE SWITCH PANEL	
FIRE PROTECTION	*
ETL. LISTED W/O EXHAUST DAMPER	*
CEILING CLOSURE	2
STD. BACKSPLASH	
INSULATED BACKSPLASH	
MBD DAMPER	*
MATERIAL	
EXPOSED SURFACES 18 GA. S.S.	*
ALL 18 GA. S.S.	

COMMENTS:
1) CLOSURE HEIGHT = 61" (TWO SIDES)
CEILING HEIGHT = 122"
CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
18"x18" ACCESS DOOR CENTERED AT CAPTURE-JET W/ FRONT OJ INTAKE
NOTCHED LEFT END PANEL
DOUBLE RECEPTACLE PIN & SLEEVE
3" X 3" TRIM STRIP FOR STANDOFF ON RIGHT END
3" SIDE & REAR STAND-OFF TO HAVE 1" THICK INSULATION
-EQUIPMENT COVERED
(2) FRYERS
HOOD WEIGHT= 282 LBS

DATE	DWG NO.	ITEM NO.	EXHAUST AIR INFORMATION		
07.28.21	U21-520-01	H-2	CFM	T.A.B.	SP
PROJECT: CHICK-FIL-A #1218 WAVERLY PLACE			701	.30"	.39"
LOCATION: CARY, NC			CAPTURE AIR INFORMATION		
			CFM		SP
SUBMITTED BY: HALTON CO.			30		.29"

4123

MODEL: KVL-C-IC



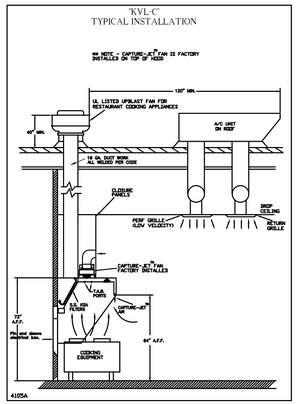
STANDARD FEATURES	
S.S. FILTERS (KSA)	1
CAPTURE-JET	*
STAND-OFF	*
L.E.D. LIGHTS	1
OPTIONS	
REMOTE SWITCH PANEL	
FIRE PROTECTION	*
ETL. LISTED W/O EXHAUST DAMPER	*
CEILING CLOSURE	3
MBD DAMPER	*
MATERIAL	
EXPOSED SURFACES 18 GA. S.S.	*
ALL 18 GA. 304 S.S.	

COMMENTS:
1) CLOSURE HEIGHT = 61" (THREE SIDES)
CEILING HEIGHT = 122"
CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
18"x18" ACCESS DOOR TO CAPTURE-JET FAN W/ FRONT OJ INTAKE
SIDE-JET PLENUM SUPPLIED BY HALTON INSTALLED BY OTHERS (DETAIL "A")
NOTCHED RIGHT END PANEL
CUSTOM 10" SINGLE RECEPTACLE PIN & SLEEVE
3" REAR SIDE STAND-OFF TO HAVE 1" THICK INSULATION
-EQUIPMENT COVERED
(1) FRYER
HOOD WEIGHT= 150 LBS

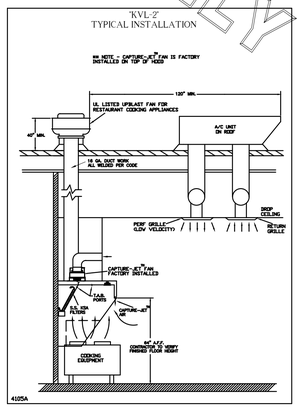
DATE	DWG NO.	ITEM NO.	EXHAUST AIR INFORMATION		
07.28.21	U21-520-01	H-3	CFM	T.A.B.	Total SP
PROJECT: CHICK-FIL-A #1218 WAVERLY PLACE			390	.37"	.42"
LOCATION: CARY, NC			CAPTURE AIR INFORMATION		
			CFM		SP
SUBMITTED BY: HALTON CO.			18		.30"

4105B

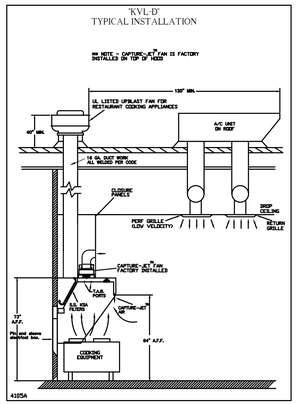
"KVL-C" TYPICAL INSTALLATION



"KVL-2" TYPICAL INSTALLATION

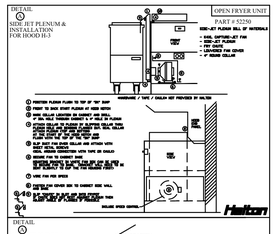


"KVL-D" TYPICAL INSTALLATION

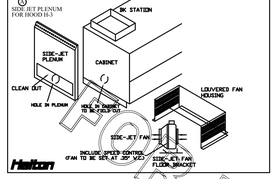


DETAIL
SIDE JET PLENUM & INSTALLATION FOR HOOD H-3

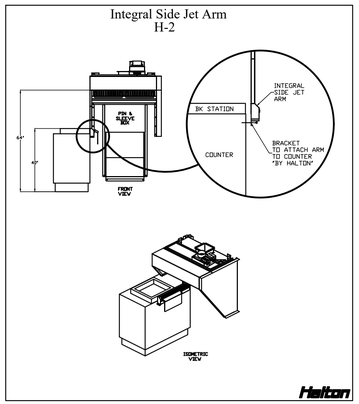
OPEN FRYER UNIT PART # 52230



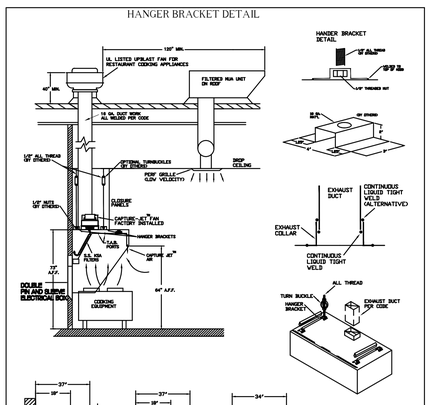
DETAIL
SIDE JET PLENUM FOR HOOD H-3



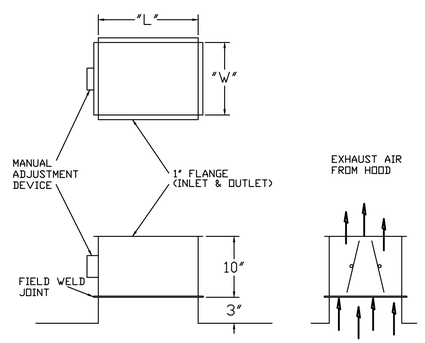
Integral Side Jet Arm
H-2



HANGER BRACKET DETAIL



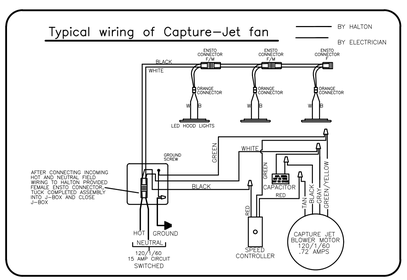
MODEL: MBD
EXHAUST VOLUME DAMPER



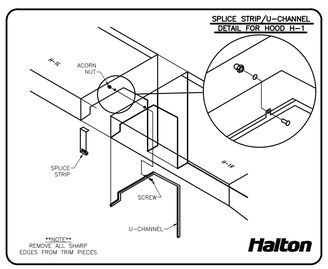
TAG	'L'	'W'	QUANTITY
H-1L	11"	8"	1
H-1R	9"	8"	1
H-2	8"	8"	1
H-3	8"	8"	1
–	–	–	–
–	–	–	–

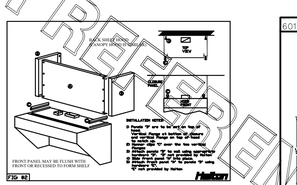
MATERIAL: ALUMINIZED FRAME- 16GA CONT. WELDED OUTER SHELL AND ADJUSTABLE BLADES

Typical wiring of Capture-Jet fan

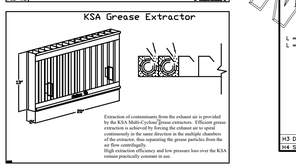


SPLICE STRIP/U-CHANNEL DETAIL FOR HOOD H-1

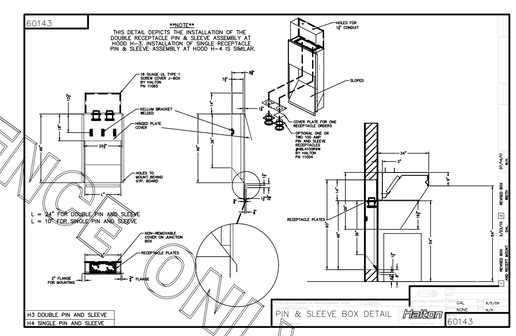




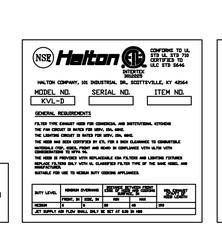
KSA Grease Extractor

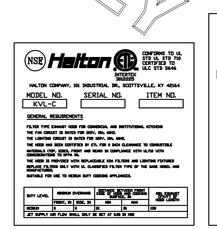


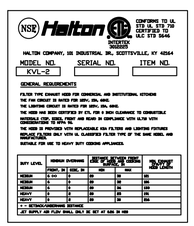
Extraction of contaminants from the exhaust air is provided by the KSA Multi-Cyclone grease extractors. Efficient grease extraction is achieved by forcing the exhaust air to spiral continuously in the same direction in the multiple chambers of the extractor, thus separating the grease particles from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



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







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. ELECTRICAL SUPPLY AND TYPE OF COOKING EQUIPMENT.

NOTE TO APPROVER
ANY CHANGES IN COOKING 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.

☐ REVISE AND RESUBMIT

APPROVED FOR FABRICATION ☐ WITH CHANGES AS NOTED ☐ WITH NO CHANGES

APPROVED BY: DATE:

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

HALTON CO. (USA)
101 INDUSTRIAL DRIVE
SCOTTSVILLE, KY 42164
1-270-237-5600

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

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

PROJECT: CHICK-FIL-A #1218 WAVERLY PLACE
LOCATION: CARY, NC
DRAWN BY: AF
DATE: 07.28.21
SCALE: NTS
Halton Dwg: U21-520-01

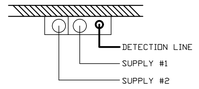
Halton CARE FOR INDOOR AIR

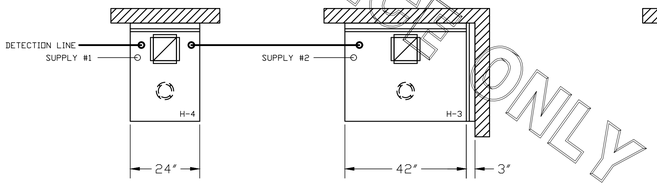
Sheet
MH1.1

PROTECTS HOODS H-3 & H-4

REMOTE MOUNTED:

(1) REGULATED RELEASE (WITH ONE TANK)
(1) SINGLE TANK ENCLOSURE (WITH ONE TANK)



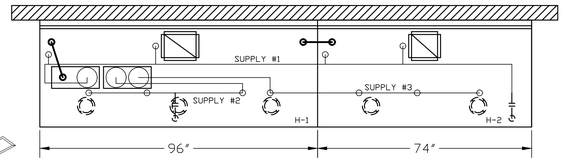


(1) REGULATED RELEASE
(2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN REG. REL.)
(1) SINGLE TANK ENCLOSURE
(2) 3 GALLON TANK

ANSUL R-102 FIRE SYSTEM

A) 6 GALLON SYSTEM (2 TANKS)
(REMOTE MOUNTED)
(FOR HOOD H-3 & H-4)

B) 3/8" BLACK IRON PIPING
W/ 3/8" S.S. APPLIANCE DROPS



(1) REGULATED RELEASE
(2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN REG. REL.)
(1) DOUBLE TANK ENCLOSURE
(3) 3 GALLON TANKS

ANSUL R-102 FIRE SYSTEM

A) 9 GALLON SYSTEM (3 TANKS)
(MOUNTED ON HOOD H-1)
(FOR HOODS H-1 & H-2)

B) 3/8" BLACK IRON PIPING
W/ 3/8" S.S. APPLIANCE DROPS

FUSIBLE LINK RATINGS

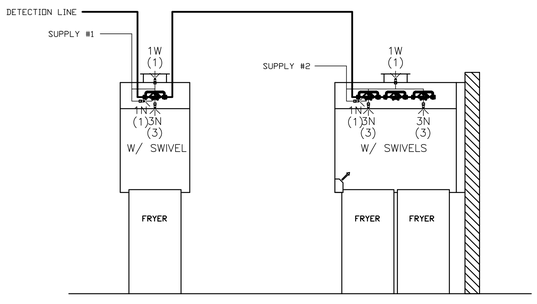
ITEM	TEMP
OPEN FRYERS	450°
2 BURNER / FLAT TOP	450°
PRESSURE FRYERS	450°
GRILL	450°
EXHAUST COLLARS	450°

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

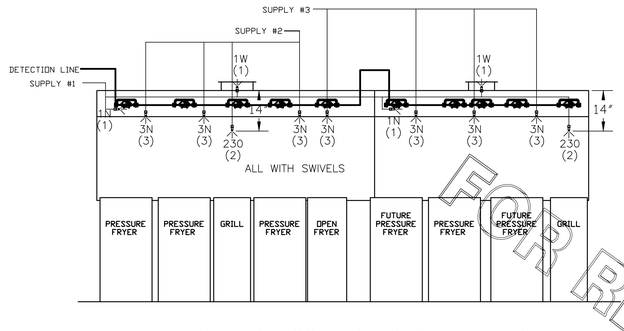
ANSUL R-102 FIRE SYSTEM NOTES
TWO TANK SYSTEM REMOTE MOUNTED
MAXIMUM FLOW POINTS = 22

ITEM #	QTY	DESCRIPTION	FLOW PTS (TOTAL)
1W	4	DUCT NOZZLES	4
1N	4	PLENUM NOZZLES	4
230	2	APPLIANCE NOZZLES	4
3N	10	APPLIANCE NOZZLES	30

TOTAL FLOW POINTS - 42



ANSUL R-102 FIRE SYSTEM LAYOUT



ANSUL R-102 FIRE SYSTEM LAYOUT

ITEM #	QTY	DESCRIPTION
#200	12	SERIES DETECTORS W/ FUSIBLE LINKS
#201	2	TERMINAL DETECTOR W/ FUSIBLE LINKS
#202	2	REGULATED RELEASE W/ DOUBLE POLE MICRO SWITCH
#203	5	3 GALLON TANKS
#204	1	SINGLE TANK ENCLOSURE
#205	1	DOUBLE TANK ENCLOSURE
#206	2	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 APPLICAPBLE 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 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 POSITION MAY AFFECT EXHAUST AIRFLOW. HALTON MUST BE NOTIFIED IF ANY OF THESE CHANGES OCCUR. 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:

HALTON CO. (USA)
101 INDUSTRIAL DRIVE
SCOTTSVILLE, KY 42164
1-270-237-5600

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

WEBSITE: WWW.HALTONCOMPANY.COM

REV:	DESCRIPTION	BY	DATE
1	-		
2			
3			
4			
5			
6			
7			

PROJECT: CHICK-FIL-A #1218
WAVERLY PLACE

LOCATION: CARY, NC
DRAWN BY: AF | DATE: 07.28.21
SCALE: NTS
Halton Dwg: U21-520-02

Halton
CARE FOR INDOOR AIR

Sheet
MH1.2