

HVAC SPECIFICATIONS

SECTION 15732 - PACKAGED ROOFTOP AIR-CONDITIONING UNITS PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data and Shop Drawings.
- B. Comply with ASHRAE 15.
- C. EER: Equal to or greater than prescribed by the energy code adopted by the Authority Having Jurisdiction.
- D. Warranties: Submit a written warranty, signed by the manufacturer, agreeing to the repair or replacement of components that fail within 5 years of Substantial Completion.

PART 2 - PRODUCTS

2.1 PACKAGED UNITS, 5 TO 20 TONS

- A. Factory assembled and tested, consisting of compressors, condensers, evaporator coils, condenser and evaporator fans, refrigeration and temperature controls, filters, and dampers.
 - 1. Refer to Rooftop Heating/Cooling Unit Schedule on drawing M600 for capacities, and manufacturers.
 - 2. Evaporator Fans: Belt or direct driven, forward curved centrifugal.
 - 3. Exhaust/Relief Fans: Direct drive, forward curved centrifugal or propeller.
 - 4. Condenser Fans: Direct drive propeller.
 - 5. Refrigerant Coils: Aluminum fins and copper coil.
 - 6. Compressors: Serviceable hermetic or fully hermetic, with safety controls, hot gas bypass, and timed off controls.
 - 7. Heat Exchangers: Gas fired, with gas controls, electronic ignition, high limit cutout, and forced draft proving switch.
 - 8. Economizer controls (Comparative Enthalpy, 100% capacity).
 - 9. Smoke Detectors: Photoelectric in supply and/or return as called for in schedule on sheet M600.
 - 10. Operating Controls: Two stage heating and two stage cooling on units 7-1/2 tons and over.
 - 11. Roof curb.
 - 12. Control Wiring from T-stat to rooftop unit: Shall be 18ga / 7 conductor, rated for plenum applications.
 - 13. Control Wiring from T-stat to remote sensor: Shall be a separate 18ga / 2 conductor shielded, rated for plenum applications.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install units level and plumb and firmly anchored.
- B. Connect gas piping to burner with pipe same size as gas train inlet, and provide union with sufficient clearance for burner removal and service.
- C. Install ducts to termination in roof mounting frames. Terminate ducts through roof structure.
- D. Connect units to wiring systems and to ground.

END OF SECTION 15732

SECTION 15810 - DUCTS AND ACCESSORIES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data for fire and smoke dampers.
- B. Comply with NFPA 90A for systems serving spaces more than 25,000 cu. ft. in volume or building Types II, IV, and V construction more than 3 stories in height.
- C. Comply with NFPA 90B for systems serving spaces in 1 or 2 family dwellings or serving spaces less than 25,000 cu. ft..
- D. Comply with NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations," for kitchen hood ducts.
- E. Comply with UL 181 and UL 181A for ducts and closures.
- F. Testing, Adjusting, and Balancing Agency Qualifications: AABC certified (to be furnished by Owner).

PART 2 - PRODUCTS

2.1 DUCTS

- A. Spiral Duct: Spiral Lock Seam, without insulation, G90 galvanized finish, ASTM A-653/924
 - 1. Basis of Design Manufacturers: Lindab SPIROsafe, alternates to the basis of design must be submitted for review.
 - 2. Fittings: Factory produced standing seam construction with internal sealing. Fittings with a major axis of 36" or smaller shall be 20 gauge. Fittings with a major axis of 37"-48" shall be 18 gauge.
 - B. Galvanized Steel Sheet: Forming steel, ASTM A 653/653M, G90 coating designation.
 - C. Duct Liner: ASTM C 1071, Type II, with an airstream surface coated with a temperature resistant coating. Thickness: 1-1/2 inch. R-value : 8.
 - 1. Adhesive: ASTM C 916, Type I.
 - 2. Mechanical Fasteners: Galvanized steel pin, length as required to penetrate liner plus a 1/8 inch projection maximum into the airstream.
 - D. Joint and Seam Tape: Comply with UL 181A.
 - E. Joint and Seam Sealant: Comply with UL 181A.
 - F. Rectangular Metal Duct Fabrication: Comply with SMACNA's "HVAC Duct Construction Standard" for metal thickness, reinforcing types and intervals, tie rod applications, and joint types and intervals.
- 2.2 ACCESSORIES
- A. Volume-Control Dampers: Factory fabricated volume control dampers, complete with required hardware and accessories. Single blade and multiple opposed blade, standard leakage rating, and suitable for horizontal or vertical applications.
 - B. Fire Dampers: Factory-fabricated fire dampers, complete with required hardware and accessories. UL labeled according to UL 555, "Fire Dampers".
 - C. Flexible Connectors: Flame retardant or noncombustible fabrics, coatings, and adhesives complying with UL 181, Class 1.
 - D. Flexible Ducts: Factory fabricated, insulated, round duct, with an outer jacket enclosing 2 inch thick, glass fiber insulation, R-value: 6.0, around a continuous inner liner.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Duct System Pressure Class: Construct and install each duct system with 2 inch positive and negative duct pressure classifications.
- B. Conceal ducts from view in finished and occupied spaces. Except where noted as exposed.
- C. Avoid passing through electrical equipment spaces and enclosures.
- D. Support and connect metal ducts according to SMACNA's "HVAC Duct Construction Standard".
- E. Install duct accessories according to applicable portions of details of construction as shown in SMACNA standards.
- F. Install liner and/or insulation on ductwork per the material schedule on sheet M010.
- G. Install volume control dampers in lined duct with methods to avoid damage to liner and to avoid erosion of duct liner.
- H. Install fire and smoke dampers according to manufacturer's UL approved written instructions.
- I. Install fusible links in fire dampers.
- J. Provide saddle taps at tees for exposed ductwork.

3.2 TESTING, ADJUSTING, AND BALANCING

- A. The owner will supply an independent balance agent to to balance and adjust the HVAC installation. The balance agent will be responsible for any pulley or belt changes required.
- B. The GC is to have trained staffed available during the balancing to correct issues noted by the balance agent.
- C. The balance agent is to balance airflow within distribution systems, including submains, branches, and terminals to indicated quantities +/- 10%. The hood exhaust system shall be balanced to a tolerance of: -0+10% and the make-up air system to a tolerance of -10+0%.
- D. The balance agent is to supply a copy of the balance report to the owner, engineer and general contractor for review.

END OF SECTION 15810

SECTION 15855 - DIFFUSERS, REGISTERS, AND GRILLES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: None.

PART 2 - PRODUCTS

2.1 OUTLETS AND INLETS

- A. All air terminal devices:
 - 1. Refer to Grills, Registers, and Diffusers Schedule for equipment schedule
 - 2. Manufacturer: As scheduled (NO SUBSTITUTIONS)
 - 3. Material: As scheduled.
 - 4. Finish: As scheduled.
 - 5. Mounting: As scheduled.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Coordinate location and installation with duct installation and installation of other ceiling and wall mounted items.
- B. Locate ceiling diffusers, registers, and grilles, as indicated on the architectural "reflected ceiling plans." Unless otherwise indicated, locate units in center of acoustical ceiling panels.

END OF SECTION 15855

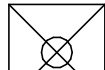
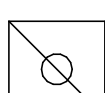

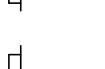
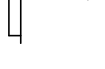
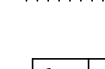
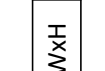
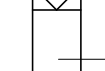

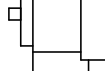

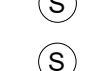
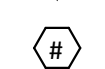
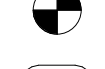

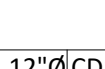



NOTE:
WARRANTIES FOR THE ROOF TOP UNITS MUST BE TRANSFERRABLE TO THE LANDLORD IF OR WHEN THE TENANT VACATES THE PREMISE.

HVAC GENERAL NOTES

- A. GENERAL NOTES APPLY TO HVAC SHEETS.
- B. WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION, INCLUDING APPLICABLE SECTIONS OF NFPA, THE MECHANICAL CODE, AND ANY INTERIM AMENDMENTS AT THE TIME OF THE PROPOSAL. PURCHASE PERMITS ASSOCIATED WITH THE WORK. OBTAIN INSPECTIONS REQUIRED BY CODE. SEE ARCHITECTURAL SHEETS FOR THE PREVAILING CODES.
- C. CONTRACTOR AND SUBCONTRACTORS SHALL REVIEW A COMPLETE SET OF THE CONSTRUCTION DOCUMENTS.
- D. COORDINATE WORK WITH THE WORK OF OTHER TRADES, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND OF THE EXISTING CONDITIONS AT THE PROJECT SITE.
- E. DRAWINGS FOR THE MECHANICAL WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWING SHALL NOT BE SCALED FOR EXACT MEASUREMENTS, REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, OFFSETS, ACCESSORIES, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
- F. DUCT DIMENSIONS ON PLANS INDICATE DIMENSIONS OF INTERNAL FREE AREA.
- G. PERFORATED CEILING DIFFUSERS SHALL BE 4-WAY UNLESS NOTED OTHERWISE.
- H. COORDINATE ROOF WORK WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
- I. UNLESS NOTED OTHERWISE RECTANGULAR DUCT ELBOWS GREATER THAN 45° SHALL BE MITERED ELBOWS WITH DOUBLE-THICKNESS TURNING VANES AND RECTANGULAR DUCT ELBOWS 45° OR LESS SHALL BE RADIUS ELBOWS WITH AN INSIDE RADIUS OF AT LEAST 1/2 THE WIDTH OF THE DUCT.
- J. REPLACE AIR FILTERS WITH NEW, CLEAN MERV 8 AIR FILTERS AT TURNOVER.
- K. THE TERM "FURNISH" MEANS SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS. THE TERM "INSTALL" DESCRIBES THE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
- L. PROVIDE LABELING CALLED FOR IN THE HVAC DRAWINGS USING ENGRAVED PHENOLIC PLATES.
- M. PROVIDE P3000 12 GA. UNISTRUT WITH PG FINISH FOR DUCT SUPPORTS AND OTHER UNISTRUT IN AREAS EXPOSED TO VIEW. SLOTTED UNISTRUT AND OTHER UNISTRUT WITH HOLES IS NOT ACCEPTABLE.

HVAC MATERIAL SCHEDULE		
CATEGORY	APPLICATION	ALLOWABLE MATERIAL
DUCT	EXPOSED SUPPLY	RECT. LINED OR ROUND AS SHOWN, NO EXPOSED DUCT-SEALING MASTIC
	EXPOSED RETURN	RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC
	EXPOSED GENERAL EXHAUST	RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC
	CONCEALED, SUPPLY	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED RETURN	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED GENERAL EXHAUST	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED, TYPE I HOOD EXHAUST.	RECT. 16 GA. BLACK IRON W/WRAP OR UL 1978 FACTORY-MANUFACTURED DUCT W/ WRAP. (SUBMIT SHOP DRAWINGS FOR FACTORY-MANUFACTURED DUCT PRIOR TO ORDERING FOR APPROVAL.)

HVAC SYMBOLS

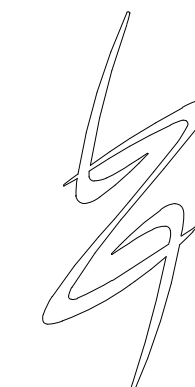
-  CEILING DIFFUSER
-  CEILING-MOUNTED RETURN OR EXHAUST REGISTER
-  SUPPLY REGISTER
-  RETURN GRILLE
-  FLEXIBLE DUCT
-  MITERED CORNER WITH TURNING VANES
DUCTWORK INTERNAL FREE DIMENSIONS (WIDTHxHEIGHT)
RECTANGULAR TO ROUND DUCT TRANSITION
-  DUCT-MOUNTED SMOKE DETECTOR
-  MOTOR-OPERATED DAMPER
-  MANUAL VOLUME DAMPER
-  GREASE DUCT CLEANOUT
-  MITERED CORNER WITHOUT TURNING VANES
-  GRIDPOINT THERMOSTAT
-  GRIDPOINT ZONE SENSOR MODULE
-  GRIDPOINT SUPPLY PROBE
-  PLAN NOTE: SEE PLAN NOTES LISTED ON THE SAME SHEET FOR NOTE MEANING
-  CONNECT TO EXISTING
-  EQUIPMENT TAG: SEE EQUIPMENT SCHEDULE ON SHEET M600 FOR EQUIPMENT INFORMATION
-  AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET
-  GRILL, REGISTER, OR DIFFUSER TAG:
TAG
NECK SIZE
AIRFLOW [CFM]

HVAC ABBREVIATIONS

- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- CD CEILING DIFFUSER
- CU CONDENSING UNIT
- (E) EXISTING
- EF EXHAUST FAN
- ER EXHAUST REGISTER
- EXT'G EXISTING
- HD HOOD
- MUA MAKEUP AIR UNIT
- OBD BLADE DAMPER
- RG RETURN GRILLE
- RTU ROOFTOP UNIT
- SR SUPPLY REGISTER
- VSC VARIABLE SPEED CONTROL

- CO2AS TENANT'S CO2 ALARM SUPPLIER
- GC GENERAL CONTRACTOR
- HES TENANT'S HVAC EQUIPMENT SUPPLIER
- HS TENANT'S HOOD SUPPLIER
- KES TENANT'S KITCHEN EQUIPMENT SUPPLIER
- TAB TENANT'S TEST AND BALANCE VENDOR
- TCC TENANT'S CABLING CONTRACTOR
- TDC TENANT DUCT CLEANER
- TEMS TENANT'S ENERGY MANAGEMENT SYSTEM SUPPLIER
- TLS TENANT'S LIGHT/LAMP SUPPLIER
- TMB TENANT'S MENU BOARD SUPPLIER
- TMS TENANT'S MILLWORK SUPPLIER
- TP TENANT'S PHONE SUPPLIER
- TRS TENANT'S RAILING SUPPLIER
- TSV TENANT'S SIGN VENDOR
- TUV TENANT'S UV SANITIZER SUPPLIER
- WCS TENANT'S WALK-IN COOLER SUPPLIER
- WHS TENANT'S WATER HEATER SUPPLIER

Consultant:



LINGLE DESIGN GROUP, LLC
158 WEST MAIN STREET,
LENA, ILLINOIS 61048
TEL: 815.369.9155
FAX: 815.369.4495
LINGLEDESIGN.COM



4100 Wadsworth Blvd.
Wheat Ridge, CO 80033
p. 303.985.3260

COPYRIGHT 2020
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC.. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC..



CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 02-4189

9259 E RAY ROAD - MESA, AZ 85212

Issue Record:

06/17/22 PERMIT SET
10/11/22 REVISION 1

Revisions:



Drawn:

Checked:

EK

JCAA

Project No.

21-250

Contents:

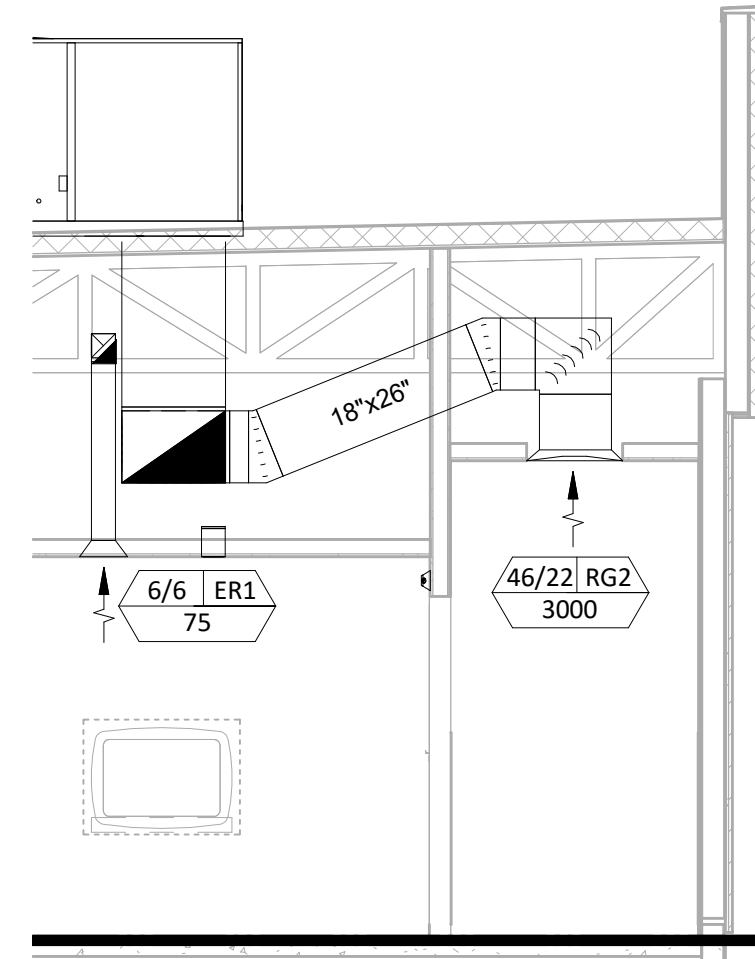
HVAC
SPECIFICATIONS

M010

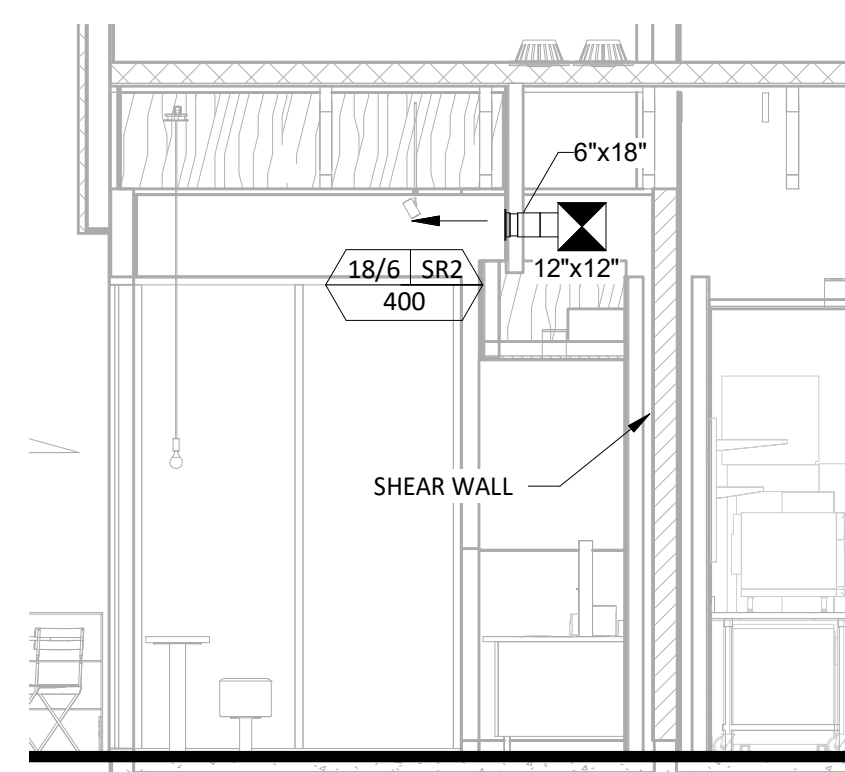
HVAC PLAN NOTES

- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING MOUNTED EQUIPMENT LOCATION. TYPICAL.
- PAINT DUCTWORK VISIBLE THROUGH DINING ROOM SUPPLY REGISTERS AND RETURN GRILL BLACK. TYPICAL.
- PENETRATIONS THROUGH SHEAR WALL SHALL BE LIMITED TO 10" DIAMETER (OR A GROUP OF PENETRATIONS ALL CONTAINED WITHIN 10" DIAMETER). IF LARGER PENETRATIONS OR GROUPS OF PENETRATIONS ARE REQUIRED COORDINATE WITH ARCHITECT FOR APPROPRIATE BRACING.
- 26/14 DUCT UP FOR TRANSITION TO RTU-1 RETURN CONNECTION IN ROOF CURB. RTU-1 SHALL HAVE AN INTEGRAL SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM. INTERLOCK SMOKE DETECTOR TO RTU-1 OPERATION.
- 26/18 DUCT UP FOR TRANSITION TO RTU-2 RETURN CONNECTION IN ROOF CURB. RTU-2 SHALL HAVE AN INTEGRAL SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM. INTERLOCK SMOKE DETECTOR TO RTU-2 OPERATION.
- 26/14 DUCT UP FROM BUILDING SUPPLY THROUGH ROOF. TRANSITION TO RTU-1 SUPPLY CONNECTION IN ROOF CURB.
- 26/18 DUCT UP FROM BUILDING SUPPLY TO RTU-2 SUPPLY CONNECTION. TRANSITION IN ROOF CURB.
- 16/16 DUCT UP THROUGH ROOF. TRANSITION TO MAU-1 SUPPLY CONNECTION IN ROOF CURB.
- 10/15 DUCTS UP FROM HOOD TO 20/15 DUCT THROUGH ROOF TO EF-1 COMPLIANT WITH NFPA 96. PROVIDE RADIUS ELBOWS WITH AN INSIDE RADIUS OF 0.5W AT ELBOWS IN GREASE DUCT.
- 8/6 DUCT UP THROUGH ROOF TO EF-2.
- 28/30 DUCT DOWN TO MAKEUP AIR PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL FOR 3.
- 8" DIA. DUCT DOWN TO AC PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL. CAP UNUSED DUCT CONNECTIONS.
- INSTALL GRIDPOINT THERMOSTATS FURNISHED BY TEMS FOR RTU-1 AND RTU-2 AT THIS LOCATION AT 48" AFF. COORDINATE WITH ELECTRICAL SWITCHING IN THIS AREA. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
- INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-1 AT THIS LOCATION 60" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
- INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-2 AT THIS LOCATION 66" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
- INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TEMS FOR RTU-1 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
- INSTALL REMOTE SUPPLY PROBE FURNISHED BY TEMS FOR RTU-2 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
- INSTALL REMOTE TEMPERATURE SENSOR FOR HOOD HD-1 AT THIS LOCATION 66" AFF. COORDINATE LOCATION WITH EQUIPMENT. PROVIDE (2) #18 G. THERMISTOR CABLES FROM TEMPERATURE SENSOR TO HOOD CONTROL PANEL.
- INSTALL KITCHEN HOOD, HD-1. SUPPORT HOOD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL HOOD ACCORDING TO THE REQUIREMENTS OF ITS LISTING, IN COMPLIANCE WITH NFPA 96, THE BUILDING CODE, AND AUTHORITIES HAVING JURISDICTION. HOOD SHALL HAVE AN INTEGRAL DUCT COLLAR TEMPERATURE SENSOR TO AUTOMATICALLY ENERGIZE THE EXHAUST AND MAKEUP AIR FANS IF COOKING TEMPERATURES ARE DETECTED. EXHAUST DUCT SYSTEM TO BE WELDED OR FACTORY-MANUFACTURED WATER AND AIR TIGHT. INSTALL CLEANOUTS PER CODE AND AS SHOWN. INSTALL HOOD PER DETAILS 2 AND 4/M700. CHIPOTLE WILL PROVIDE AN INDEPENDENT TESTING AGENCY FOR TESTING THE INTEGRITY OF THE GREASE DUCT SYSTEM.
- INSTALL REMOTE CONDENSING UNIT FOR WALK-IN COOLER ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3' OF THE CONDENSING UNIT. CUT 2-1/2" HOLE IN WALK-IN COOLER ROOF FOR REFRIGERANT LINE SET AND SEAL PER THE COOLER MANUFACTURER'S INSTALLATION INSTRUCTIONS AFTER LINE SET IS INSTALLED.
- INSTALL REMOTE CONDENSER FOR ICE MACHINE ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. SEAL PIPING PENETRATIONS THROUGH ROOF. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3' OF THE REMOTE CONDENSER. IF REFRIGERANT PIPING TO ICE MAKER IS EXPOSED TO PUBLIC VIEW CONCEAL WITHIN A STAINLESS STEEL SHROUD AS SHOWN IN THE ARCHITECTURAL DRAWINGS.
- INSTALL ROOFTOP EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- INSTALL EXHAUST FAN EF-1 PER DETAIL 5/M700 AND AS DETAILED IN ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL GREASE VIROGUARD SYSTEM FURNISHED BY CHIPOTLE ON EXHAUST FAN, EF-1.
- PROVIDE SUPPLY DIFFUSER CONNECTION TO SUPPLY SYSTEM PER DETAIL 1/M700. TYPICAL.
- PROVIDE AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET. WIRE A UNIT BACK TO EACH SMOKE DETECTOR. MOUNT UNIT 60" AFF. TYPICAL.
- INSTALL REME HALO AIR PURIFIER FURNISHED BY TUV IN RTU PER DETAIL 6/M700. SEE ELECTRICAL DRAWINGS FOR POWER CONNECTION INFORMATION. INSTALL UV WARNING STICKERS ON FACE OF ENCLOSURE PER DETAIL AND ON ANY RTU ACCESS DOOR(S) THROUGH WHICH THE REME HALO WOULD BE VISIBLE IF OPENED.
- MAINTAIN 10" CLEARANCE BETWEEN WATER HEATER FLUE TERMINATION AND OUTSIDE AIR INTAKES. MAINTAIN 10" CLEARANCE BETWEEN WATER HEATER COMBUSTION AIR INTAKE AND EXHAUST FAN EF-1 DISCHARGE. SEE PLUMBING DRAWINGS FOR MORE INFORMATION ON WATER HEATER FLUE AND COMBUSTION AIR TERMINATIONS.

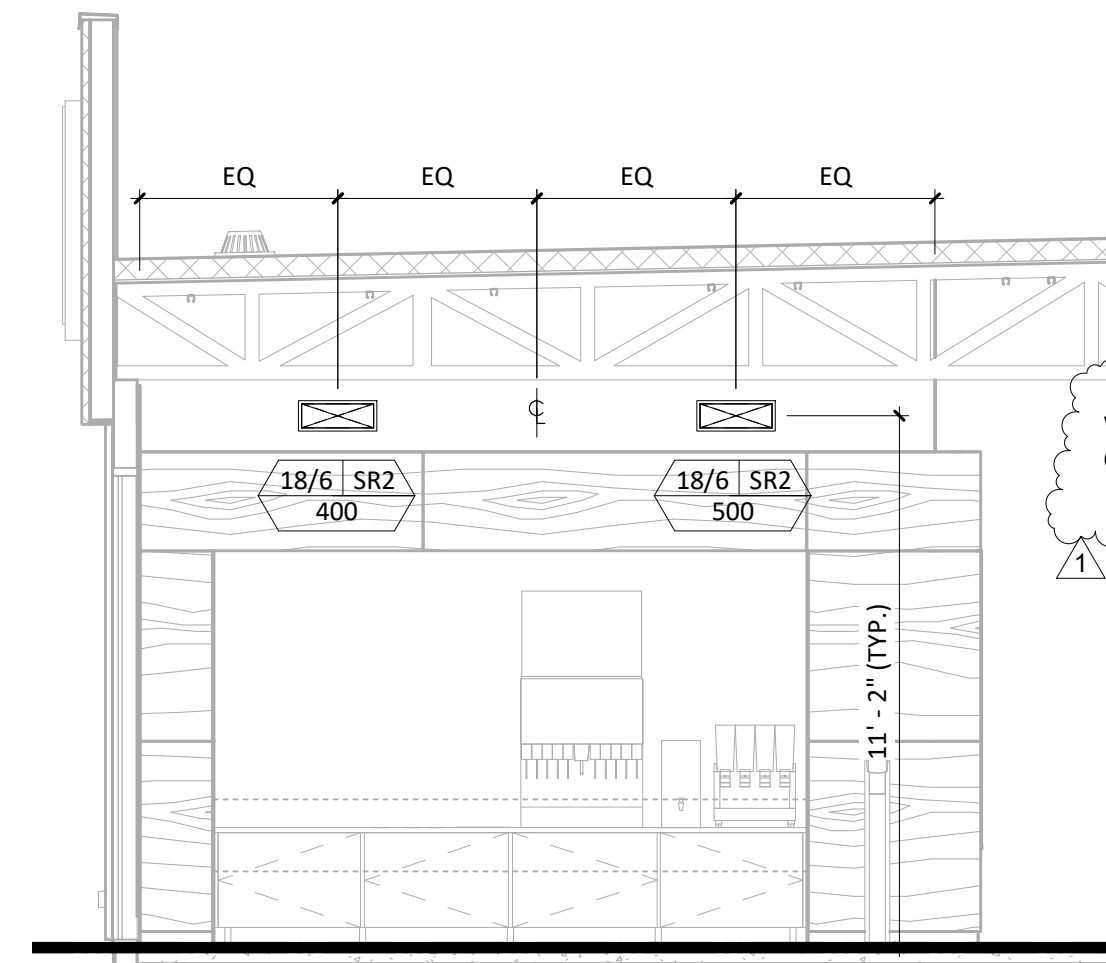
- CO2 TANK CHART INC. CARBO-MIZER 450 OR EQUIVALENT. TANK SHALL BE IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. TANK MUST COMPLY WITH CHAPTER 50 AND 53 FO THE IFC. PROVIDE EMERGENCY SHUTOFF VALVE TAG ON SUPPLY LINE AND REQUIRED SIGNAGE PER NFPA REQUIREMENTS. VENT RELIEF PIPING A MINIMUM OF 10' FROM OPENINGS INTO BUILDING.
- SUPPLY PIPING, FLEX-TECH PEB FDA/NSF-51 POLYETHYLENE BEVERAGE HOSE. LABEL PIPING A MINIMUM OF EVERY 20" WITH PRODUCT DESCRIPTION AND FLOW DIRECTION. PROVIDE SLEEVE FOR OUTSIDE INSTALLATION. PIPING MUST COMPLY WITH CHAPTER 50 AND 53 OF THE CFC AND ASME A13.1.
- CARBONATOR UNIT BY SODA SUPPLIER.
- CO2 DETECTOR, RAD-0102-06 OR EQUIVALENT, COMPLETE WITH NECESSARY CONTACTS FOR COMMUNICATION FIRE ALARM SYSTEM (AS APPLICABLE). CONTRACTOR TO ENSURE COMPLIANCE. INSTALL UNIT IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS WITHIN 12" AFF.
- AUDIBLE VISUAL ALARM LOCATION.
- EMERGENCY PROCEDURES LOCATION.
- WARNING SIGN IN ACCORDANCE WITH 2018 IFC SECTION 5307.4.5 STATING "CAUTION-CARBON DIOXIDE GAS. VENTILATE THE AREA BEFORE ENTERING. A HIGH CARBON DIOXIDE (CO2) GAS CONCENTRATION IN THIS AREA CAN CAUSE ASPHYXIATION." SIGN MUST BE AT LEAST 8"x6".
- 8/8 DUCT UP THROUGH ROOF TO EF-3.
- ROUTE 8"x8" EXHAUST DUCT ABOVE CEILING THEN ROUTE DOWN AND TERMINATE WITH WIRE MESH AT 12" AFF.
- CO2 REMOTE FILLER ON EXTERIOR WALL.



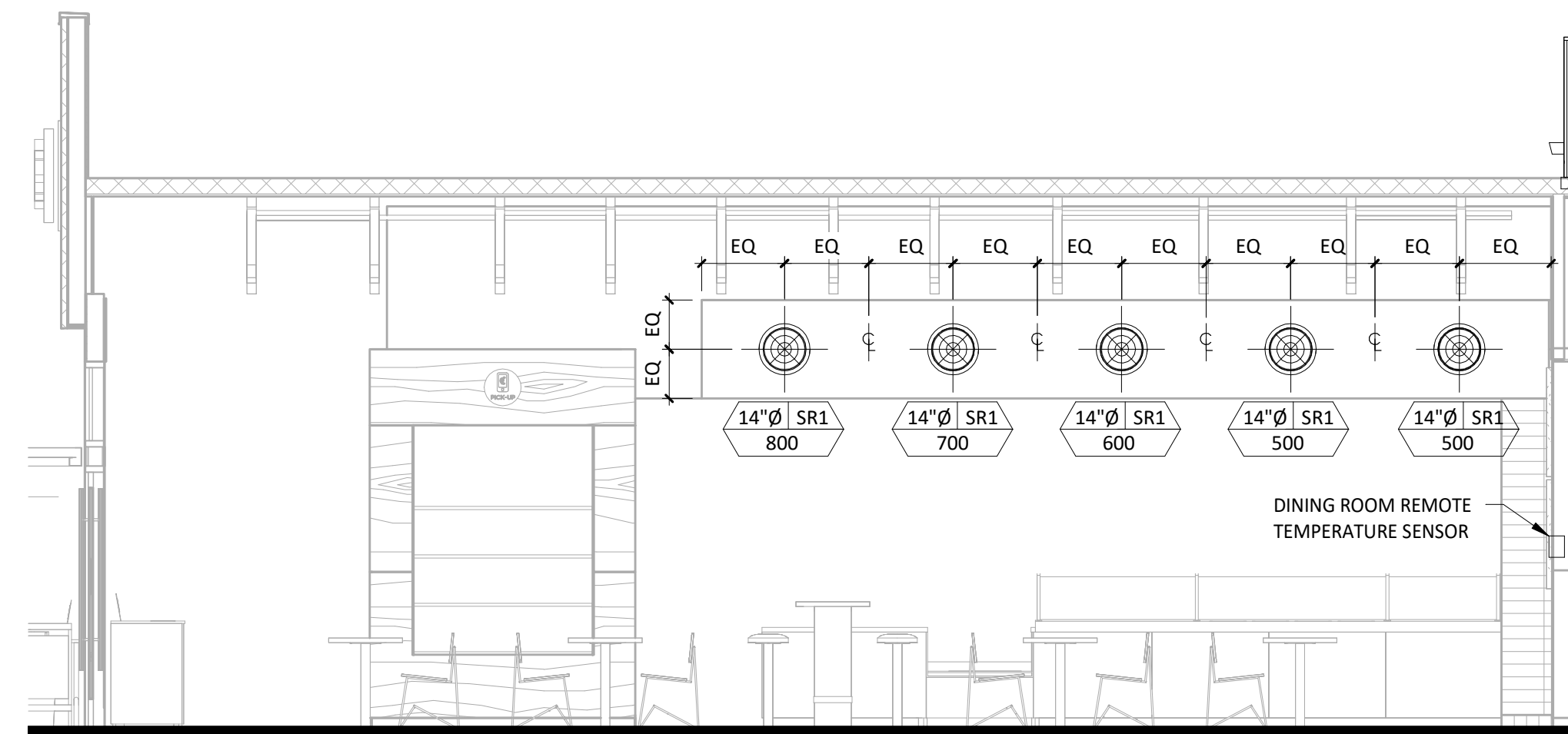
6 M100 HVAC DINING ROOM RETURN SECTION 4
1/4" = 1'-0"



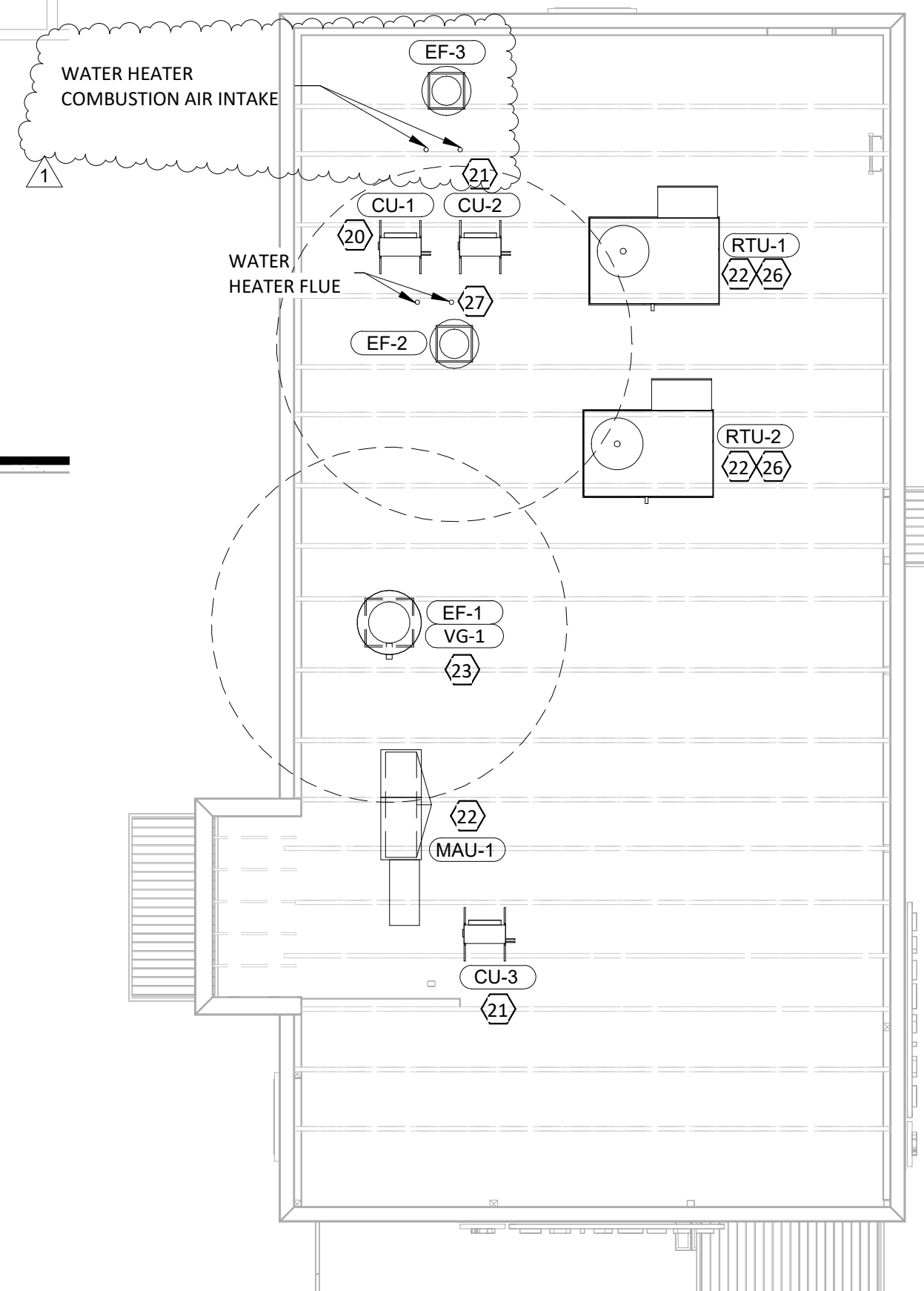
5 M100 HVAC DINING ROOM SECTION 3
1/4" = 1'-0"



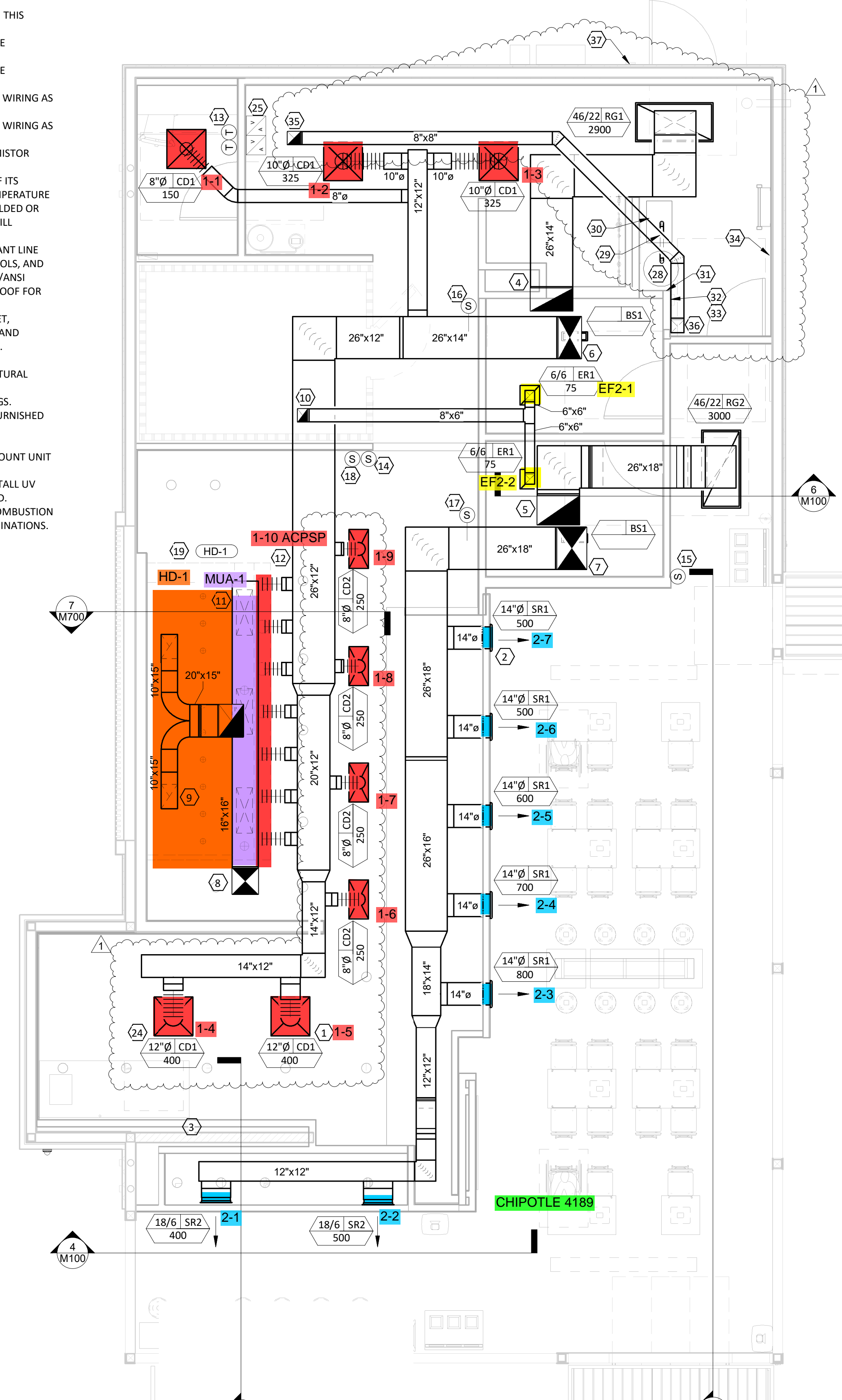
4 M100 HVAC DINING ROOM SECTION 2
1/4" = 1'-0"



3 M100 HVAC DINING ROOM SECTION 1
1/4" = 1'-0"



2 M100 HVAC ROOF PLAN
1/8" = 1'-0"



1 M100 HVAC FLOOR PLAN
1/4" = 1'-0"

Consultant:
LINGDE DESIGN GROUP, LLC
158 WEST MAIN STREET,
LENA, ILLINOIS 61048
TEL: 815.369.9155
FAX: 815.369.4495
LINGDESIGN.COM

CA CONSULTING ARCHITECTS
4100 Wadsworth Blvd.
Wheat Ridge, CO 80033
p. 303.985.3260 #22.013

COPYRIGHT 2020
THIS DRAWING IS AN INSTRUMENT OF SERVICE
AND AS SUCH REMAINS THE PROPERTY OF
CHIPOTLE MEXICAN GRILL, INC. PERMISSION FOR
USE OF THIS DOCUMENT IS LIMITED AND CAN BE
EXTENDED ONLY BY WRITTEN AGREEMENT WITH
CHIPOTLE MEXICAN GRILL, INC.

CHIPOTLE MEXICAN GRILL
CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 02-4189
9259 E RAY ROAD - MESA, AZ 85212

Issue Record:	
06/17/22	PERMIT SET
10/11/22	REVISION 1
Revisions:	
1	10/11/22 Revision 1

Registered Professional Engineer (Mechanical)
70238 PATRICK LEONARD
10/11/22
ARIZONA

Drawn: EK Checked: JCAA

Project No: 21-250

Contents: HVAC PLAN

M100

2018 IMC 1103.1 LIMIT CALCULATIONS						
SPACE	REFRIGERANT CHARGE	REFRIGERANT	VOLUME	MAXIMUM ALLOWABLE CHARGE	REFRIGERANT PER OCCUPIED SPACE	EXCEEDS LIMIT?
110 COOLER	10.4 LBS	R-404A	850 FT3	=(31*850)/1000 = 26.3 LBS	=(10.4*1000)/850 = 12.2 LBS/1000 FT3	NO
ALL OTHER*	25.7 LBS	R-404A	20334 FT3	=(31*20334)/1000 = 630.3 LBS	=(186*1000)/29844 = 6.23 LBS/1000 FT3	NO

PER 2018 IMC TABLE 1103.1, REFRIGERANT R-404A IS ALLOWED AT A MAXIMUM DENSITY OF 31 LBS. PER 1000 CUBIC FEET. ALL AREAS REMAIN BELOW THIS LIMIT. NO ROOMS REQUIRE LEAK DETECTION EQUIPMENT.

*THIS REFERS TO ALL ROOMS DIRECTLY OUTSIDE OF WALK-IN COOLER THAT ARE ALL OPEN TO EACHOTHER. THIS INCLUDES 100 MAIN ENTRY, 101 DINING, 102 UTENSIL, 103 PASSAGE, 104 POS, 105 SERVING, 107 COOKING, AND 108 KITCHEN. BECAUSE ALL OF THESE ROOMS ARE OPEN TO EACHOTHER, THEY ARE CONSIDERED ONE SPACE FOR THIS CALCULATION.

GRILLS, REGISTERS, AND DIFFUSERS SCHEDULE

TAG	DESCRIPTION	FACE SIZE	MATERIAL	FINISH	MOUNTING	FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		NOTES
								MANUFACTURER	MODEL	
BS1	BATHROOM AIR PURIFICATION UNIT	5.44" X 16"		STAINLESS STEEL	GYP CEILING	TUV	GC	RGF ENVIRONMENTAL GROUP	BRU ASSEMBLY	SEE ELECTRICAL SHEETS FOR CONNECTION INFORMATION
CD1	PERFORATED CEILING DIFFUSER	24" X 24"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NAILOR	4320A TYPE L	PROVIDE INTEGRAL OBD
CD2	PERFORATED CEILING DIFFUSER	24" X 12"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NAILOR	4320A TYPE L	PROVIDE INTEGRAL OBD, REMOVE 4-WAY DEFLECTORS
ER1	PERFORATED CEILING EXHAUST	12" X 12"	ALUMINUM	WHITE	GYP CEILING	GC	GC	NAILOR	4330R TYPE S	PROVIDE INTEGRAL OBD
RG1	PERFORATED CEILING RETURN	48" X 24"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NAILOR	4330R TYPE L	
RG2	PERFORATED CEILING RETURN	48" X 24"	ALUMINUM	WHITE	GYP CEILING	GC	GC	NAILOR	4330R TYPE S	
SR1	ADJUSTABLE TURBO NOZZLE	SEE NECK SIZE	ALUMINUM	WHITE	WALL	GC	GC	AIR CONCEPTS	ANR-14	PROVIDE WITH CONCEALED MOUNTING AND FACE-ACCESSIBLE OBD
SR2	DOUBLE DEFLECTION SUPPLY REGISTER	SEE NECK SIZE	ALUMINUM	WHITE	WALL	GC	GC	NAILOR	S10H	PROVIDE INTEGRAL OBD

VIROGUARD SCHEDULE

TAG	QUANTITY	DESCRIPTION	DUCT CONNECTION SIZE	FAN	FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN MANUFACTURER
VG-1	1	VIROGUARD HOOD EXHAUST FAN ROOFTOP CONTAINMENT SYSTEM	18" X 18"	CAPTIVE-AIRE DU240HFA	TDC	GC	ENVIROMATIC

FAN SCHEDULE

TAG	DRIVE TYPE	EXHAUST FLOW [CFM]	E.S.P. [in W.C.]	WEIGHT [lbs]	ELECTRICAL		FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS
					MOTOR POWER	V/P/H			MANUFACTURER	MODEL	
EF-1	DIRECT	3200 CFM	1.20 IN-WG	400	3 HP	208/3/60	HS	GC	CAPTIVE-AIRE	DU240HFA	DIRECT DRIVE UL762 UPBLAST EXHAUST FAN FURNISHED WITH WEATHERPROOF DISCONNECT AND VENTED ROOF CURB.
EF-2	DIRECT	150 CFM	0.60 IN-WG	100	0.18 HP	120/1/60	HS	GC	CAPTIVE-AIRE	DR12HFA	DIRECT DRIVE DOWNBLAST RESTROOM EXHAUST FAN FURNISHED WITH INTEGRAL DISCONNECT, SPEED CONTROL, BACKDRAFT DAMPER, AND CURB.
EF-3	DIRECT	250 CFM	0.30 IN-WG	26	0.03HP	120/1/60	GC	GC	GREENHECK	CUE-070-D	EF-3 IS A ROOF MOUNTED EXHAUST FAN THAT IS CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED. UNIT TO SERVE CO2 STORAGE ROOM. EF-3 TO BE CONTROLLED BY SWITCH UNDER BREAK GLASS LABELED "VENTILATION SYSTEM EMERGENCY ON ONLY". EF-3 SHALL ALSO BE INTERLOCKED WITH CO2 DETECTION SYSTEM TO ACTIVATE WHEN CO2 IS DETECTED IN THE CARBONATION AREA. REFER TO DETAIL 9/M700 FOR MORE DET

MAKEUP AIR UNIT SCHEDULE

TAG	DESCRIPTION	AIRFLOW		HEATING CAPACITY				APPROXIMATE WEIGHT [lbs]	ELECTRICAL		FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS
		SUPPLY FLOW [CFM]	E.S.P. [in. W.C.]	INPUT [MBH]	OUTPUT [MBH]	MAXIMUM TURNDOWN	EAT		MOTOR POWER	V/P/H			MANUFACTURER	MODEL	
MAU-1	MAKEUP AIR UNIT	1950	0.45	225	220	12.5:1	15 °F	650	2 HP	208/3/60	HS	GC	CAPTIVE-AIRE	A1-D.250-G10	FURNISHED WITH DISCONNECT, ROOF CURB, SCREEN INTAKE, AND WASHABLE ALUMINUM FILTERS

CONDENSING UNIT SCHEDULE

TAG	DESCRIPTION	NOMINAL CAPACITY [TONS]	NUMBER OF COMPRESSORS	NUMBER OF CIRCUITS	REFRIGERANT TYPE	REFRIGERANT CHARGE	WEIGHT	ELECTRICAL			FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS
								MOCP	FLA	V/P/H			MANUFACTURER	MODEL	
CU-1	WALK-IN COOLER REMOTE CONDENSING UNIT	--	1	1	R-404A	10.4 lbs.	250	15 A	9 A	208/3/60	WCS	GC	HARFORD	PCL99MZOP-3	FURNISHED WITH WALK-IN COOLER
CU-2	ICE MAKER - REMOTE CONDENSER	--	0	1	R-404A	11.46 lbs.	100			120/1/60	KES	GC	HOSHIZAKI	URC-9F	FURNISHED WITH ICE MAKER
CU-3	PUIW ICE MAKER - REMOTE CONDENSER	--	0	1	R-404A	3.86 lbs.	100			120/1/60	KES	GC	HOSHIZAKI	URC-5F	FURNISHED WITH ICE MAKER

KITCHEN HOOD SCHEDULE

TAG	DESCRIPTION	MAX COOKING TEMP.	EXHAUST PLENUM						PERFORATED SUPPLY PLENUMS										NUMBER OF LIGHT FIXTURES	APPROX. WEIGHT [lbs]	FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS	
			AIRFLOW [CFM]	SP [in. W.C.]	DUCT COLLARS			LENGTH	WIDTH	SP [in. W.C.]	SUPPLY PLENUM LENGTH	SUPPLY PLENUM WIDTH	MAU PLENUM			AC PLENUM		MANUFACTURER					MODEL			
					NO.	WIDTH	LENGTH						AIRFLOW [CFM]	NO.	WIDTH	LENGTH	AIRFLOW [CFM]							DUCT COLLARS NO.		DIAMETER
HD-1	TYPE I CANOPY HOOD WITH PERFORATED MAU AND AC SUPPLY PLENUMS	600°F	3200	0.86	2	10"	15"	14' - 3"	4' - 3"	0.2	15' - 3"	22"	1950	3	10"	28"	800	7	8"	10	1200	HS	GC	CAPTIVE-AIRE	5424 ND-2-ACPSP-F	MAT'L: 18 GA. TYPE 430 SS. PROVIDE WITH 16" TALL HE SS FILTERS, INTEGRAL UTILITY CABINET, ANSUL SYSTEM, DUCT COLLAR TEMPERATURE SENSOR, PREWIRE PACKAGE, SPARE FIRE SYSTEM DRY CONTACT, AND 4-POLE 20A CONTACTOR

ROOFTOP UNIT SCHEDULE

TAG	DESCRIPTION	NOMINAL CAPACITY [TONS]	EER	AIRFLOW			NET COOLING CAPACITY					HEATING CAPACITY			# OF COMPRESSORS	# OF CIRCUITS	REFRIG. TYPE	REFRIG. CHARGE	APPROX. WEIGHT [lbs]	ELECTRICAL			FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS
				TOTAL [CFM]	OA [CFM]	ESP [in. W.C.]	TOTAL [MBH]	SENSIBLE [MBH]	EAT [DEG. F]	COND. EAT [DEG. F]	INPUT [MBH]	OUTPUT [MBH]	EAT [DEG. F]	MOCP						FLA	V/P/H	MANUFACTURER			MODEL		
RTU-1	KITCHEN ROOFTOP UNIT	8.5	12	3,400	500	0.8	91.6	76.1	80	63	115	180	144	63	2	2	R-410A	19.8	1350	50 A	41 A	208/3/60	HE5	GC	CARRIER	48HCED09	FURNISHED WITH COMP. ENTHALPY ECON., BAROMETRIC RELIEF, RET. SMOKE DETECTOR W/ REMOTE KEYPAD ANNUNCIATOR/RESET, M.O.D., MERV-8 FILTERS, CURB, HAIL GUARD, TOOLLESS HINGED ACCESS PANELS, DISCONNECT, & UNIT-MOUNTED CONVENIENCE RECEPTACLE
RTU-2	DINING ROOM ROOFTOP UNIT	10	12	4,000	1,000	0.8	106.4	87.4	83	64	115	224	184	60	2	2	R-410A	25.8	1428	60 A	54 A	208/3/60	HE5	GC	CARRIER	48HCED11	FURNISHED WITH COMP. ENTHALPY ECON., BAROMETRIC RELIEF, RET. SMOKE DETECTOR W/ REMOTE KEYPAD ANNUNCIATOR/RESET, M.O.D., MERV-8 FILTERS, CURB, HAIL GUARD, TOOLLESS HINGED ACCESS PANELS, DISCONNECT, & UNIT-MOUNTED CONVENIENCE RECEPTACLE

AIR BALANCE SCHEDULE

TAG	SUPPLY FLOW (CFM)	RETURN FLOW (CFM)	EXHAUST FLOW (CFM)	SUBTOTAL (CFM)
EF-1	0	0	3200	-3200
EF-2	0	0	150	-150
MAU-1	1950	0	0	+1950
RTU-1	3000	2500	0	+500
RTU-2	4000	3000	0	+1000
NET PRESSURIZATION (CFM)				+100

CONTROL FUNCTIONS

- THE MAIN COOKING EXHAUST FAN AND MAKE-UP AIR UNIT SHALL BE INTERLOCKED TO OPERATE TOGETHER. THIS CONTROL CIRCUIT IS ACTIVATED BY A SWITCH AND INCLUDES A FIRE PROTECTION OVERRIDE.
- THE TEMPERATURE IN EACH ZONE IS CONTROLLED BY SPACE TEMPERATURE SENSORS CONNECTED TO THE THERMOSTATS LOCATED IN THE OFFICE. ALL ZONES SHALL OPERATE WITH CONTINUOUS FAN OPERATION DURING OCCUPIED TIMES AND INTERMITTENTLY AS NEEDED TO MAINTAIN SET POINTS DURING UNOCCUPIED TIMES. OUTSIDE AIR DAMPERS SHALL BE OPEN CONTINUOUSLY WHEN EITHER IN OCCUPIED MODE OR WHEN THE HOOD SYSTEM IS ON AND SHALL BE CLOSED DURING UNOCCUPIED PERIODS.
- THE THERMOSTATS SHALL DETERMINE OCCUPIED/UNOCCUPIED STATUS BASED ON SCHEDULE IN THE ENERGY MANAGEMENT SYSTEM.

Consultant:



LINGLE DESIGN GROUP, LLC
158 WEST MAIN STREET,
LENA, ILLINOIS 61048
TEL: 815.369.9155
FAX: 815.369.4495
LINGLEDESIGN.COM



4100 Wadsworth Blvd.
Wheat Ridge, CO 80033
p. 303.985.3260

COPYRIGHT 2020
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC.



CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 02-4189
9259 E RAY ROAD - MESA, AZ 85212

Issue Record:	
06/17/22	PERMIT SET
10/11/22	REVISION 1
Revisions:	
1 10/11/22	Revision 1



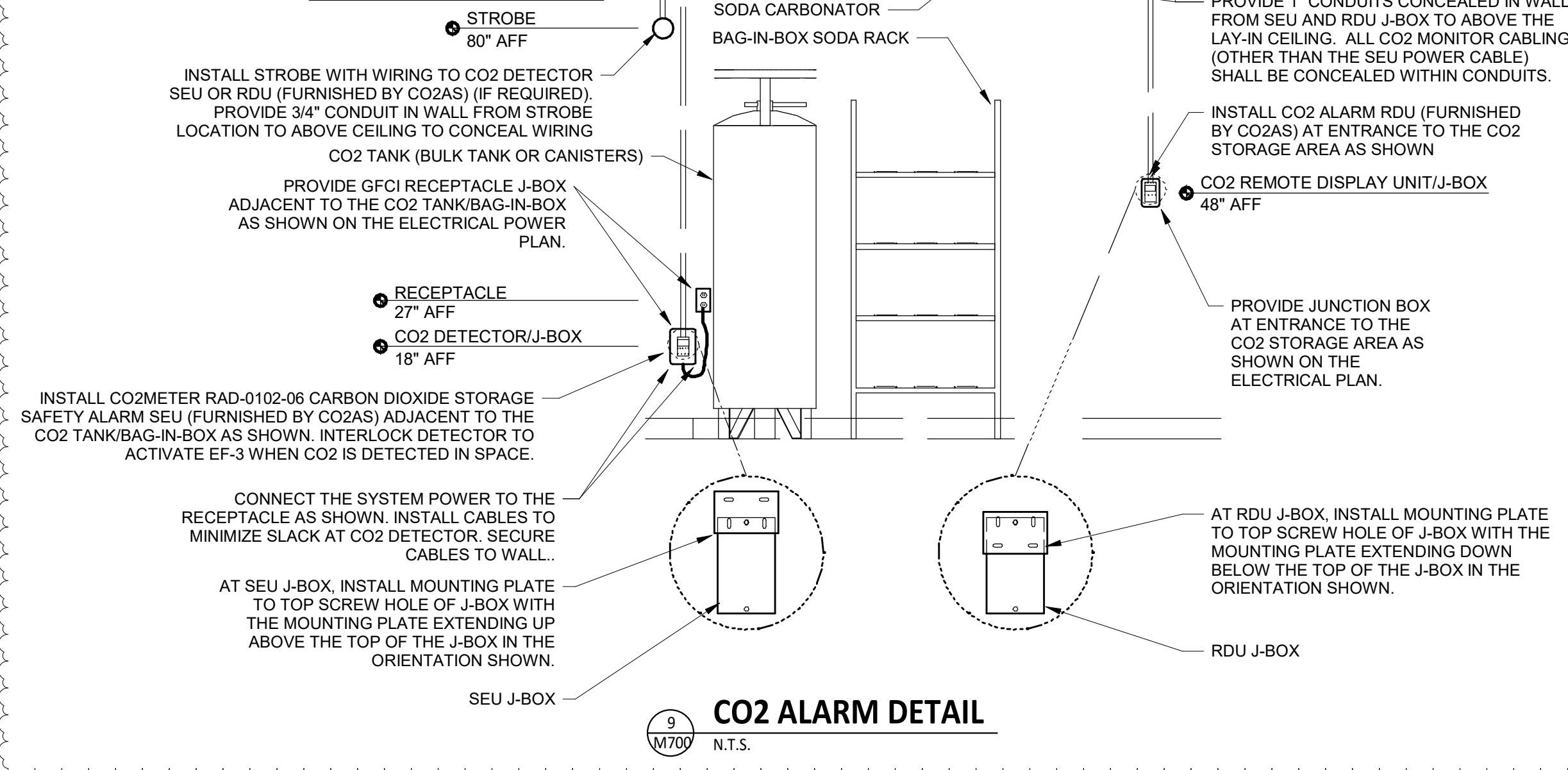
Drawn: EK Checked: JCAA

Project No: 21-250

Contents: HVAC SCHEDULES

M600

CO2 ALARM OPTIONS	
CO2 DETECTOR	X
CO2 REMOTE DISPLAY UNIT	X
REMOTE STROBE	
RELAY	



PROVIDE FIRE RESISTANT INSULATION ON TYPE I HOOD EXHAUST DUCT CONNECTION TO HOOD TO CONNECTION TO EXHAUST FAN PER DETAIL 3/M700.

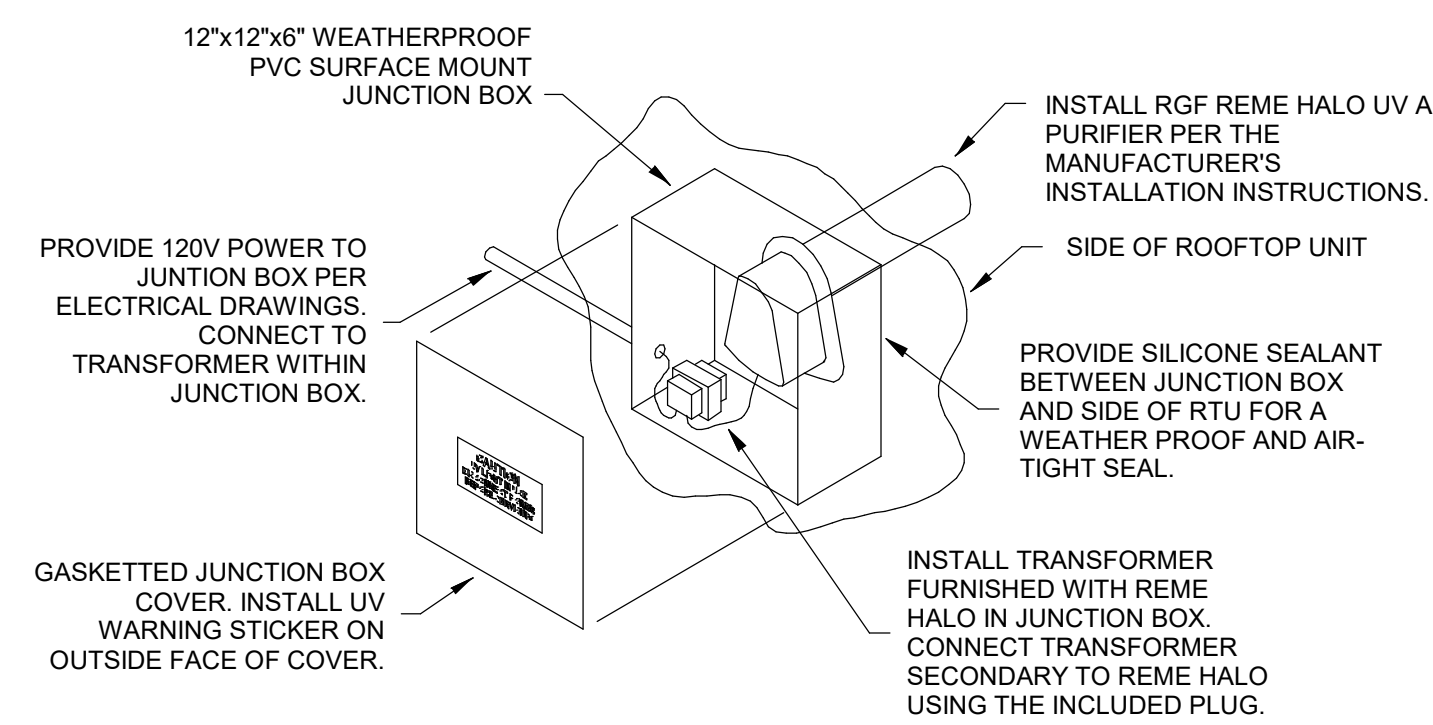
SLOPE HORIZONTAL GREASE DUCT A MINIMUM OF 1/4" PER FOOT DOWN TOWARD THE CONNECTION TO THE HOOD.

MAINTAIN SYMMETRY IN GREASE EXHAUST DUCT'S TRANSITION TO THE EXHAUST RISER.

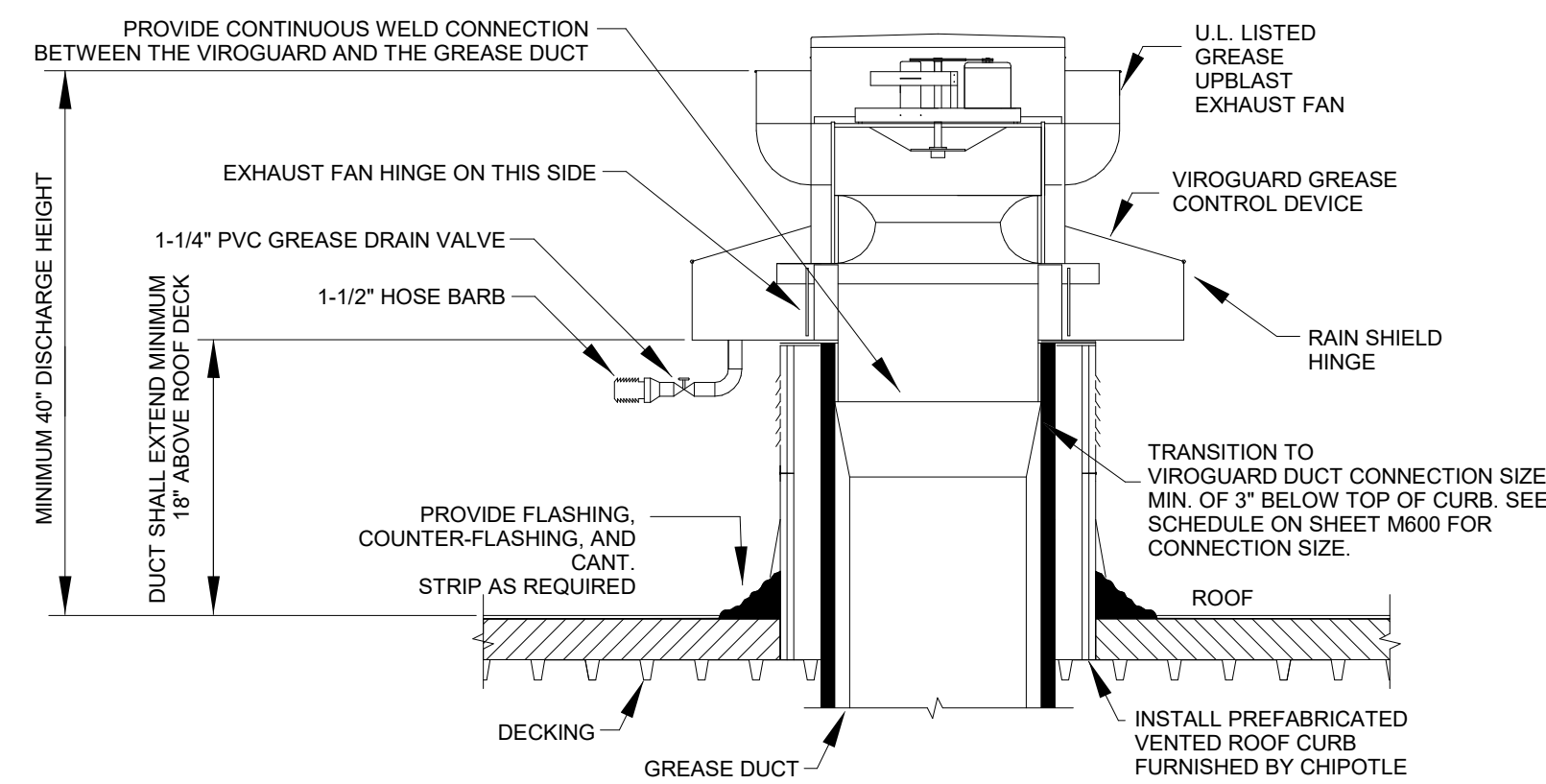
PROVIDE TEE FITTING WITH RADIUSED BACK AND RADIUSED THROAT WHERE INDIVIDUAL EXHAUST RISERS CONVERGE AS SHOWN. THE CENTERLINE OF THE RADII SHALL BE EQUAL TO THE DUCT DIMENSION.

8 M700 N.T.S. HOOD EXHAUST ISOMETRIC

7 M700 1/4" = 1'-0" DUCT SECTION AT HOOD

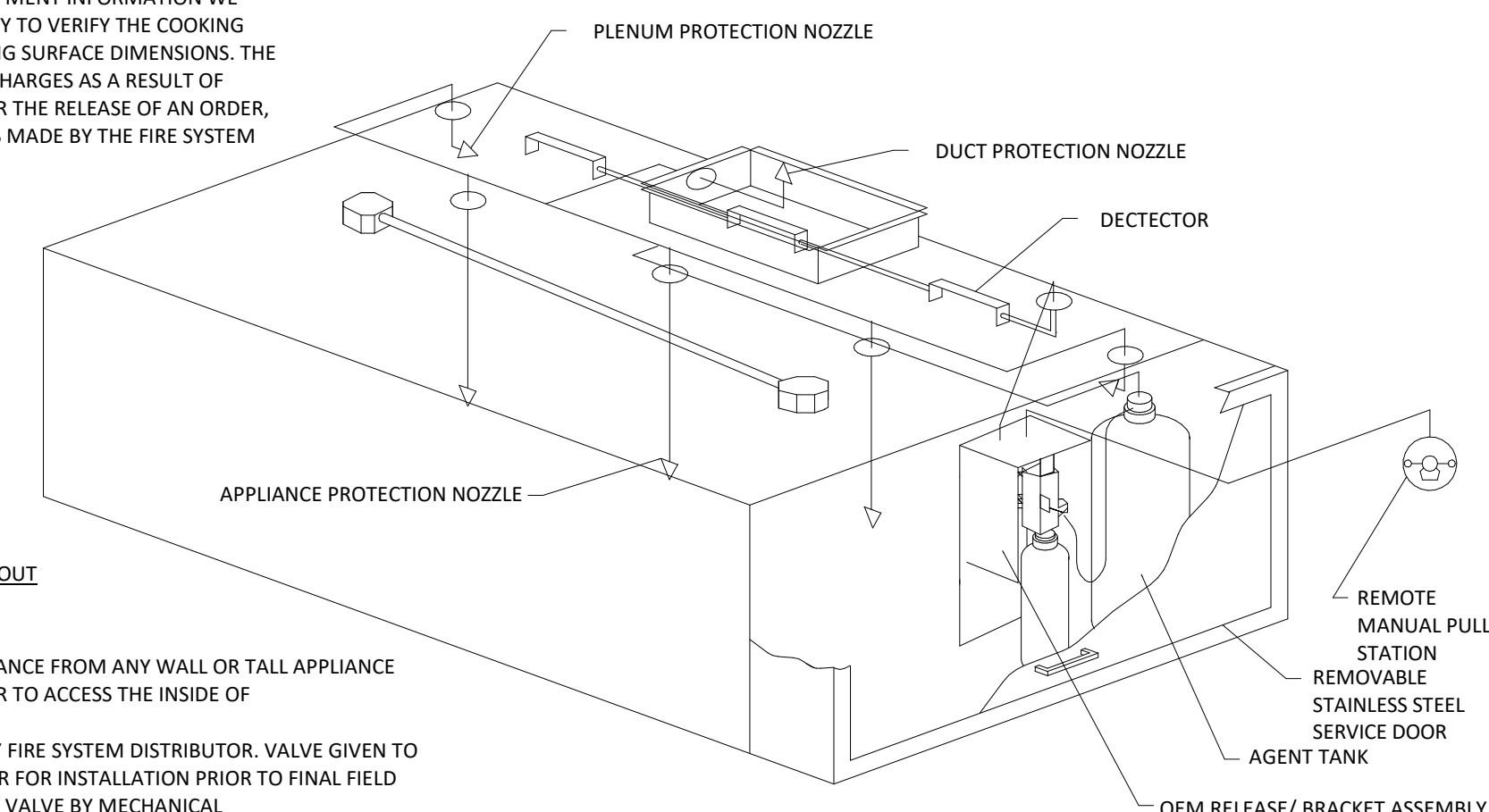


THE ROOF AREA AROUND THE GREASE VENT MUST BE PROPERLY PROTECTED AS NOT TO JEOPARDIZE THE LANDLORD'S WARRANTY ON THE ROOF.

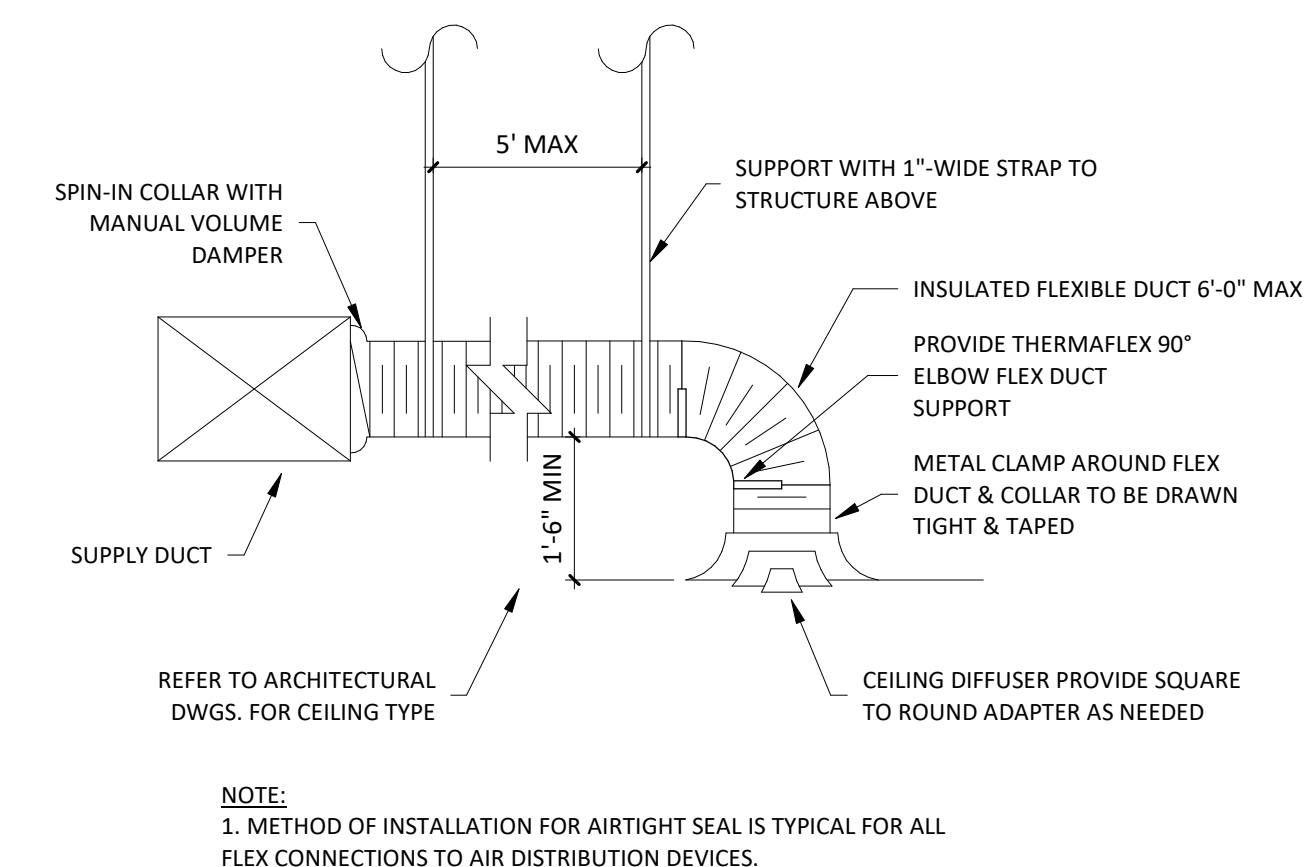
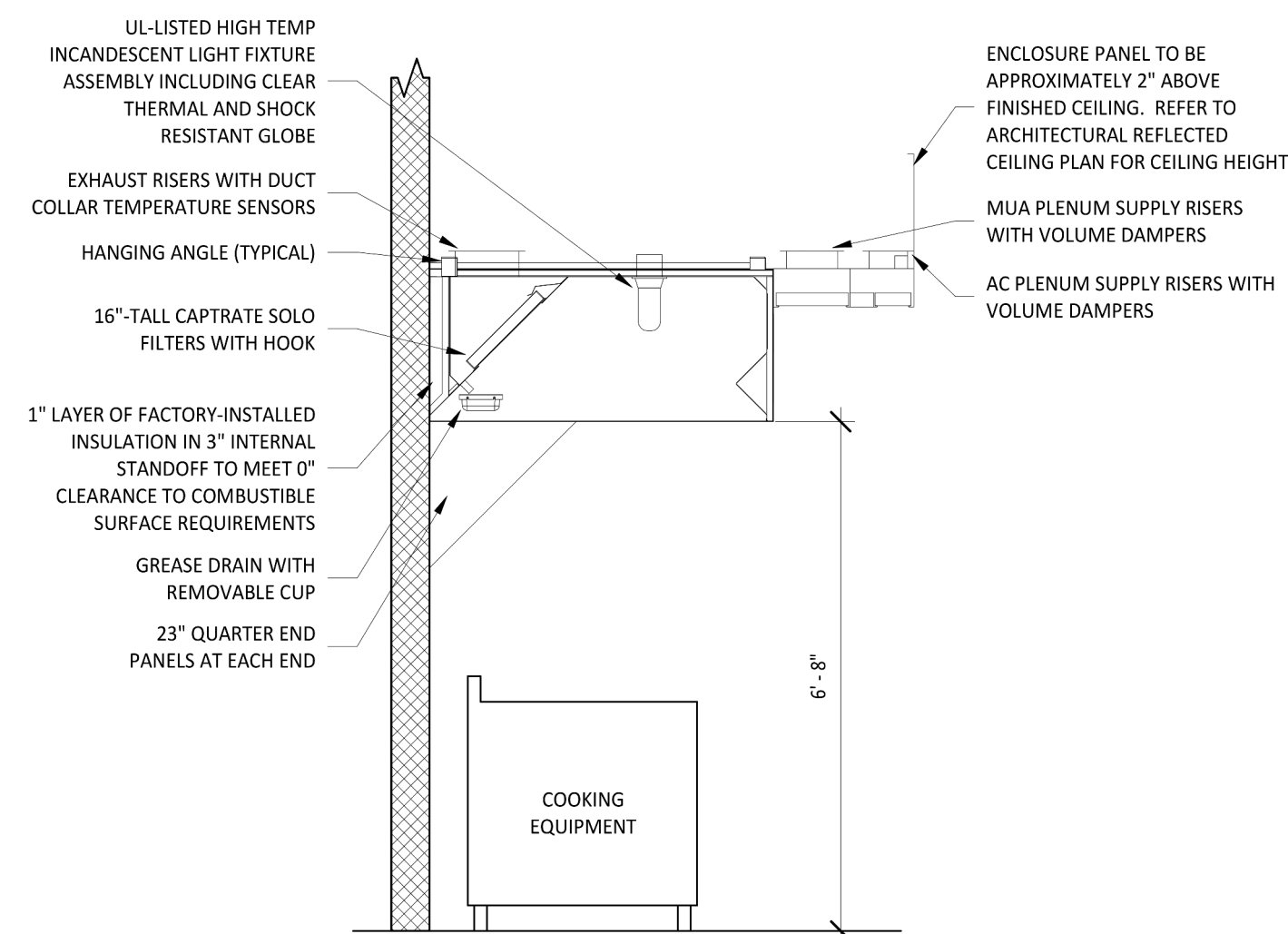
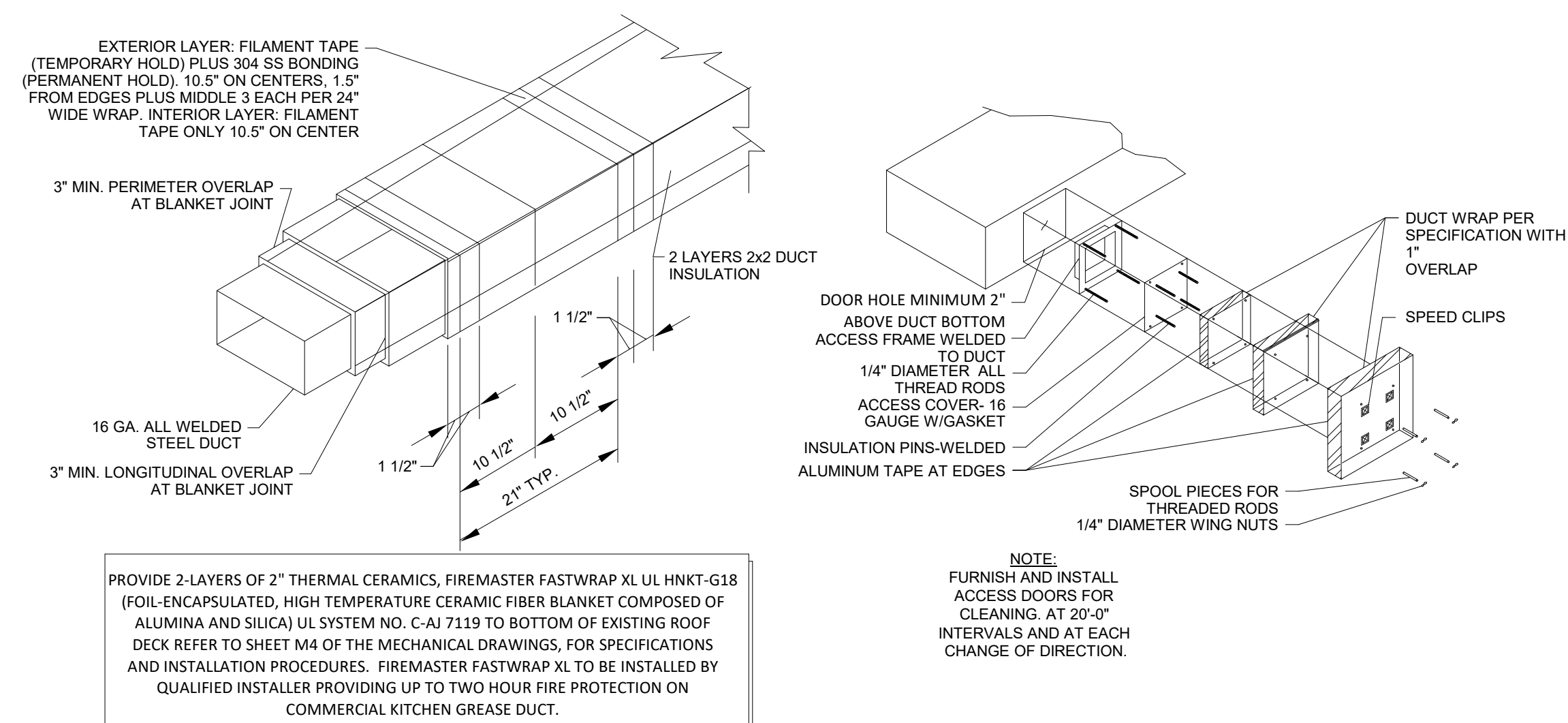


- NOTE:**
- INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 96 REQUIREMENTS.
 - THE INSIDE DIMENSION OF THE GREASE DUCT AT THE CURB TERMINATION SHOULD BE 18" SQUARE FINISHED SIZE FOR THE TOP 3"
 - HINGE FAN SO IT TIPS BACK TOWARD FAN DRAIN AND TOWARD VIROGUARD DRAIN.

CAPTIVE-AIRE SYSTEMS ASSUMES RESPONSIBILITY FOR THE PRE-PIPING OF THE FIRE SYSTEM BASED UPON THE COOKING EQUIPMENT INFORMATION WE RECEIVE. IT IS THE CUSTOMER'S RESPONSIBILITY TO VERIFY THE COOKING EQUIPMENT LOCATION, SPACING, AND COOKING SURFACE DIMENSIONS. THE CUSTOMER IS RESPONSIBLE FOR ADDITIONAL CHARGES AS A RESULT OF COOKING EQUIPMENT LAYOUT CHANGES AFTER THE RELEASE OF AN ORDER, UNION LABOR CHARGES, OR ADDITIONAL TRIPS MADE BY THE FIRE SYSTEM DISTRIBUTOR CAUSED BY JOBSITE DELAYS.



- NOTE:**
- MUST HAVE A MINIMUM OF 36" CLEARANCE FROM ANY WALL OR TALL APPLIANCE FROM THIS END OF THE HOOD IN ORDER TO ACCESS THE INSIDE OF CABINET.
 - MECHANICAL GAS VALVE FURNISHED BY FIRE SYSTEM DISTRIBUTOR. VALVE GIVEN TO CUSTOMER'S MECHANICAL CONTRACTOR FOR INSTALLATION PRIOR TO FINAL FIELD HOOK UP OF SYSTEM. INSTALLATION OF VALVE BY MECHANICAL CONTRACTOR.
 - PER NFPA 96 & NFPA 17A, IF BUILDING DOES NOT HAVE AN ALARM SYSTEM, AN AUDIBLE OR VISUAL INDICATOR NEEDS TO BE PROVIDED. COORDINATE REQUIREMENTS WITH ELECTRICAL CONTRACTOR.



Consultant:

LINGLE DESIGN GROUP, LLC
158 WEST MAIN STREET,
LENA, ILLINOIS 61048
TEL: 815.369.9155
FAX: 815.369.4495
LINGLEDESIGN.COM

4100 Wadsworth Blvd.
Wheat Ridge, CO 80033
p. 303.985.3260

COPYRIGHT 2020
THIS DRAWING IS AN INSTRUMENT OF SERVICE
AND AS SUCH REMAINS THE PROPERTY OF
CHIPOTLE MEXICAN GRILL, INC. PERMISSION FOR
USE OF THIS DOCUMENT IS LIMITED AND CAN BE
EXTENDED ONLY BY WRITTEN AGREEMENT WITH
CHIPOTLE MEXICAN GRILL, INC.

CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 02-4189

9259 E RAY ROAD - MESA, AZ 85212

Issue Record:

06/17/22	PERMIT SET
10/11/22	REVISION 1

Revisions:

1	10/11/22	Revision 1
---	----------	------------

Professional Engineer Seal:

70238 PATRICK LEONARD

Drawn: EK Checked: JCAA

Project No: 21-250

Contents:

HVAC DETAILS

M700

FOR QUESTIONS, CALL THE
Highwoods Group
REGION 40
PHONE: (919) 875-0420
EMAIL: reg40@captiveaire.com

PATENT NUMBERS
AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

HOOD INFORMATION - JOB#5655715

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)				MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG			
										WIDTH	LENG	HEIGHT	DIA				CFM	VEL	SP	END TO END
1		5424 ND-2-ACPSP-F	CAPTIVEAIRE	14' 3"	600 DEG	I	HEAVY	225	3200	10"	15"	4"	1600	1536	-0.854"	1950	798	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	TYPE	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)			FIRE SYSTEM PIPING	HOOD HANGING WEIGHT		
			QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM TYPE	SIZE			ELECTRICAL MODEL #	SWITCHES QUANTITY
1		CAPTRATE SOLID FILTER	10	16"	16"	85% SEE FILTER SPEC	10	L55 SERIES E26	ND	RIGHT	12"x54"x24"	ANSUL R-102	3.0/3.0	SC-311110MA	1 LIGHT 1 FAN	YES	1070 LBS

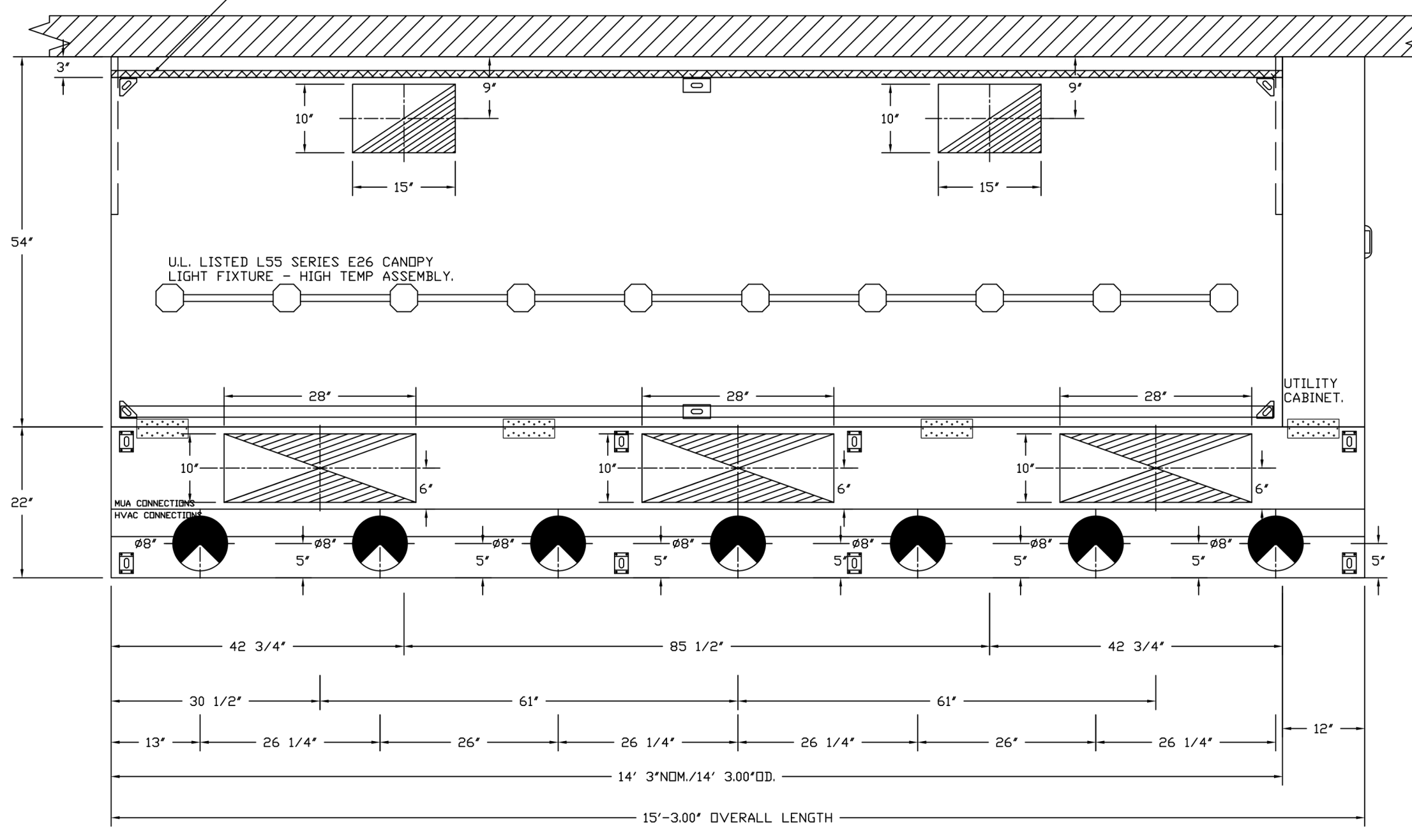
HOOD OPTIONS

HOOD NO	TAG	OPTION
1		FIELD WRAPPER 6.00' HIGH FRONT, LEFT, RIGHT. RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. INSULATION FOR BACK OF HOOD. FULL DIMENSION HANGING BRACKET - FRONT.

PERFORATED SUPPLY PLENUM(S)

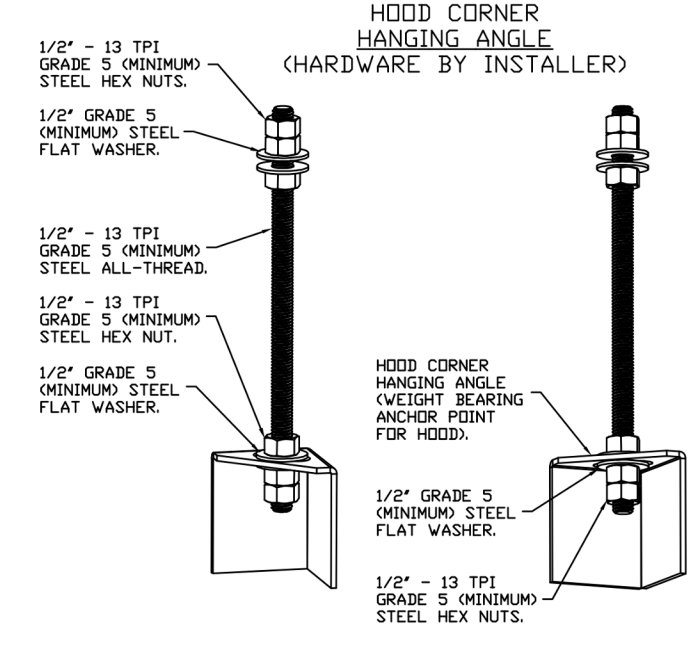
HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)			
							WIDTH	LENG	DIA	CFM
1		Front	183"	22"	6"	MJA	10"	28"	650	0.166"
						MJA	10"	28"	650	0.166"
						MJA	10"	28"	650	0.166"
						AC	8"	114	0.041"	
						AC	8"	114	0.041"	
						AC	8"	114	0.041"	
						AC	8"	114	0.041"	
						AC	8"	114	0.041"	
						AC	8"	114	0.041"	

1" LAYER OF INSULATION FACTORY INSTALLED IN INTERNAL BACK STANDOFF. MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.

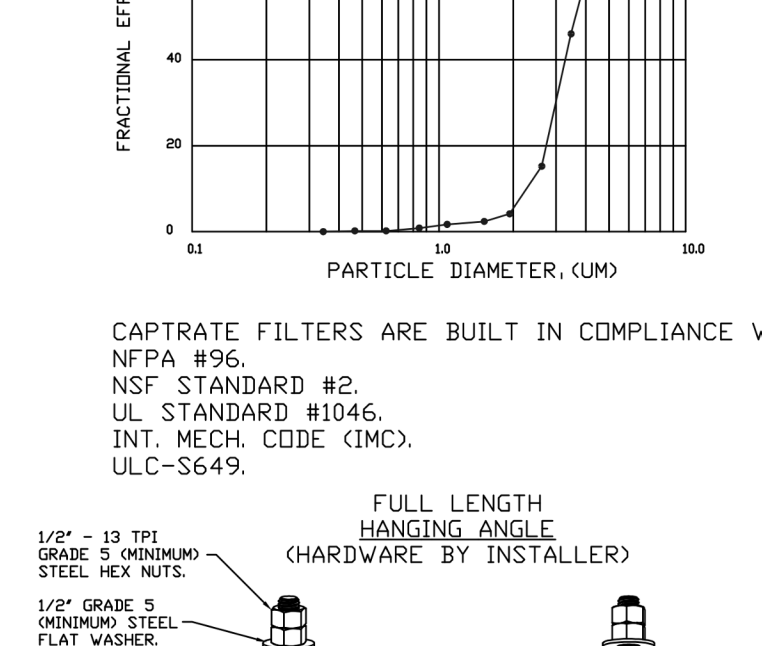


PLAN VIEW - HOOD #1
14' 3.00" LONG 5424ND-2-ACPSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12" AND LONGER.

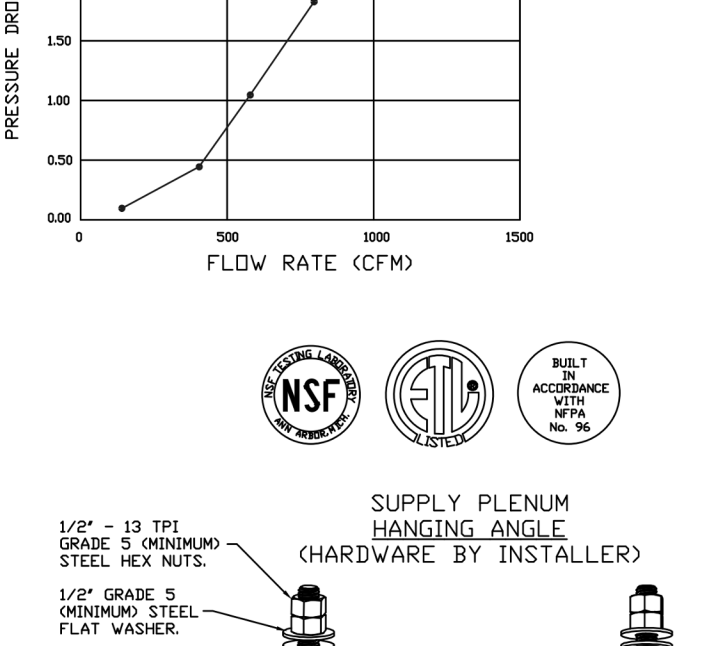
ACPSP SHIPS LOOSE FOR FIELD INSTALLATION



ASSEMBLY INSTRUCTIONS
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR SUPPLY PLENUMS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

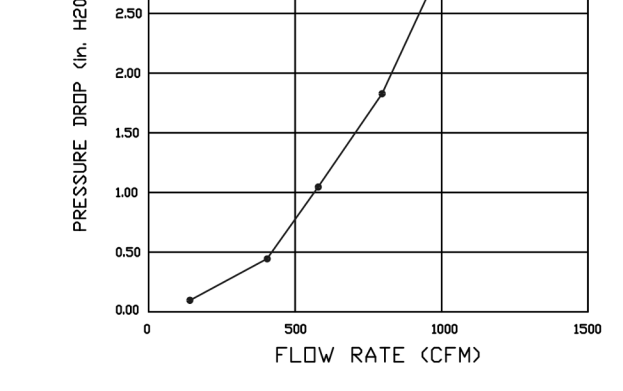
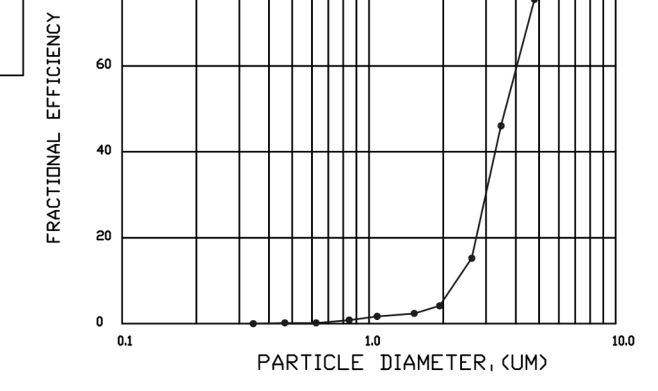
SPECIFICATION: CAPTRATE® GREASE-STOP® SOLID FILTER

THE CAPTRATE GREASE-STOP SOLID FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-Baffle DESIGN IN CONJUNCTION WITH A SLOTTED REAR Baffle DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE. THE CAPTRATE GREASE-STOP SOLID WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96,
NSF STANDARD #2,
UL STANDARD #1046,
INT. MECH. CODE (IMC),
ULC-S649.



REVISIONS

NO.	DESCRIPTION	DATE
1		

Highwoods Group
www.captiveaire.com
4641 Paragon Park Rd., Raleigh, NC 27616 PHONE: (919) 875-0420 FAX: (919) 875-0577 EMAIL: reg40@captiveaire.com

CHIPOTLE EASTMARK #4189
MESA, AZ, 85212

DATE: 9/22/2022
DWG.#: 5655715
DRAWN BY: JMB-40
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 1

Consultant:
LINGUE DESIGN GROUP, LLC
158 WEST MAIN STREET,
LENA, ILLINOIS 61048
TEL: 815.369.8155
FAX: 815.369.4495
LINGUEDESIGN.COM

CA CONSULTING ENGINEERS
4100 Wadsworth Blvd.
Wheat Ridge, CO 80033
p. 303.985.3260 #22.013

COPYRIGHT 2020
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC.

CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 02-4189
9259 E RAY ROAD - MESA, AZ 85212

Issue Record:

06/17/22	PERMIT SET
10/11/22	REVISION 1

Revisions:

1	10/11/22	Revision 1
---	----------	------------

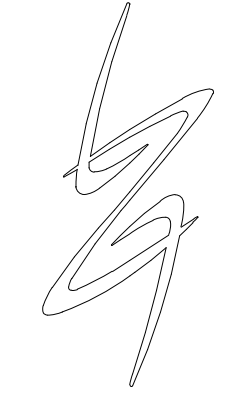
Professional Engineer (Mechanical)
70238
PATRICK LEONARD
10/11/22
ARIZONA

Drawn: EK Checked: JCAA
Project No: 21-250

Contents:
CAPTIVEAIRE DRAWINGS

M800

Consultant:



LINGLE DESIGN GROUP, LLC
 158 WEST MAIN STREET,
 LENA, ILLINOIS 61048
 TEL: 815.369.9155
 FAX: 815.369.4495
 LINGLEDESIGN.COM



4100 Wadsworth Blvd.
 Wheat Ridge, CO 80033
 p. 303.985.3260 #22.015

COPYRIGHT 2020
 THIS DRAWING IS AN INSTRUMENT OF SERVICE
 AND AS SUCH REMAINS THE PROPERTY OF
 CHIPOTLE MEXICAN GRILL, INC. PERMISSION FOR
 USE OF THIS DOCUMENT IS LIMITED AND CAN BE
 EXTENDED ONLY BY WRITTEN AGREEMENT WITH
 CHIPOTLE MEXICAN GRILL, INC.



CHIPOTLE MEXICAN GRILL, INC.
 PO BOX 182566
 COLUMBUS, OH 43218-2566
 TELEPHONE: 614.318.2400
 INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 02-4189
 9259 E RAY ROAD - MESA, AZ 85212

Issue Record:

06/17/22	PERMIT SET
10/11/22	REVISION 1

Revisions:

1	10/11/22	Revision 1
---	----------	------------



Drawn: EK
 Checked: JCAA

Project No.
 21-250

Contents:
 CAPTIVEAIRE
 DRAWINGS

M801

REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
 Highwoods Group
 www.captiveaire.com
 4841 Paragon Park Rd., Raleigh, NC 27616 PHONE: (919) 875-0420 FAX: (919) 875-0577 EMAIL: req40@captiveaire.com

CHIPOTLE EASTMARK #4189
 MESA, AZ, 85212

DATE: 9/22/2022
 DWG.#: 5655715
 DRAWN BY: JMB-40
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING

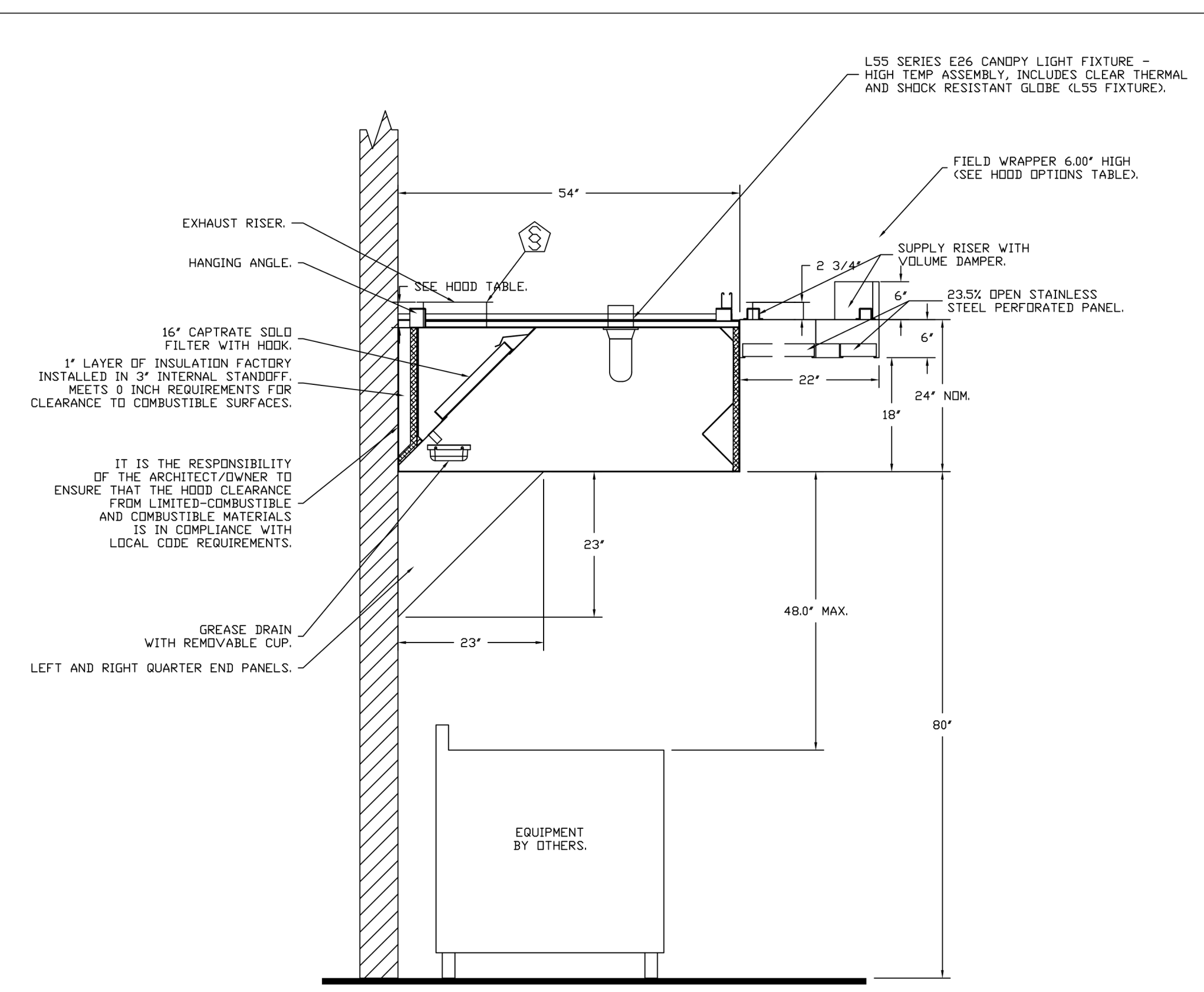
SHEET NO.
 2

FIRE SYSTEM INFORMATION - JOB#5655715

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		ANSUL R102	3.0/3.0	13	FIRE CABINET RIGHT	RIGHT, HOOD 1

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		MECHANICAL	1.500	CAPTIVEAIRE SYSTEMS



SECTION VIEW - MODEL 5424ND-2-ACPSP-F
 HOOD - #1

SECTION 23 38 13 13

SPECIFICATIONS

TAG: Commercial Kitchen Ventilation Hoods, Listed Commercial Kitchen Hoods

PART 1 - GENERAL

1.1 SUMMARY

- A. The ND2 series is a Type I, wall canopy hood for use over 600°F cooking surface temperatures. The aerodynamic design includes a mechanical baffle and performance enhancing lip for exceptional capture and containment.
- B. The hood shall have the size, shape, and performance specified on drawings.

1.2 SUBMITTALS

- A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the project's requirements and meet Federal, State, and Local codes and regulations.
- B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.
- C. The manufacturer shall supply complete computer generated submittal drawings, including hood section view(s) and hood plan view(s). These drawings must be available to the engineer, architect, and owner for their use in construction, operation, and maintenance.

1.3 QUALITY ASSURANCE

- A. This hood is ETL-listed to standard UL710, ULC710, and ULC-S646 when installed in accordance with these installation instructions and National Fire Protection Association Standard NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations."
- B. Built-in compliance with NSF/ANSI Standard 2.
- C. The hood shall be ETL Listed as:
 1. Exhaust Hood Without Exhaust Damper."
 2. ETL Sanitation Listed and built in accordance with NFPA 96.
 3. The ETL label shall list temperature rating(s) and minimum CFM/ft rating(s).

1.4 WARRANTY

- A. All units shall be provided with the following standard warranty:
 1. This equipment is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 2-years from date of shipment.
- B. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 2-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.
- C. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is/is not covered and contact information for warranty claims.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints, and penetrations of the hood enclosure to the lower outermost perimeter, which directs and captures grease-laden vapor and exhaust gases, shall have a liquid-tight continuous external weld in accordance with NFPA 96.

- B. Duct sizes, CFM, and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

2.2 CONSTRUCTION

- A. Construction shall be type 430 stainless steel.
- B. Double wall insulated front to eliminate condensation and increase rigidity on wide sizes. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.
- C. Hood shall be equipped with a minimum of four connections for hanger rods. Hood lengths greater than 12' will have added hangers.
- D. Exhaust duct collar to be 4" high with flange.
- E. The grease drain system shall be an enclosed integral part of the hood back and have slopes with an exposed, removable 1/2 grease cup to facilitate cleaning.
- F. An integral baffle to direct grease laden vapors toward the exhaust filter bank.
- G. Hood shall be furnished with UL classified filters, supplied in size and quantity as required by ventilator.
- H. All seams shall be welded and have stainless steel on exposed surfaces.

2.3 LIGHTING

- A. L55 Series canopy light fixture, includes clear thermal and shock resistant globe.

2.4 FILTERS

- A. Stainless Steel Captrate Solo filter with hook, ETL Listed. Particulate capture efficiency: 85% efficient at 9 microns, 76% efficient at 5 microns.

2.5 OPTIONS

- A. Fire Suppression System: UL 300 fire suppression system.
- B. Optional perforated supply plenum shall provide make-up air discharged below the cooking equipment.
 1. Perforated diffuser plates shall be included in the design to provide even air distribution.
 2. Unexposed surfaces shall be constructed of aluminized steel. Plenum shall be insulated to prevent condensation.
 3. Dual Plenum (AC-PSP)
- C. Hood Mounted Utility Cabinet - Cabinet can store listed fire suppression system, listed components, pre-wired electrical controls.

2.6 ACCESSORIES

- A. End Panel(s) maximize hood performance and eliminate the effects of cross drafts in the kitchen. Units constructed of stainless steel and sized according to hood width and cooking equipment. Exposed edges hemmed for safety and rigidity. Selected panels:
 1. Quarter End Panel
- B. Wrapper(s) may be installed from the factory or field installed. Wrapper(s) selected:
 1. Wrapper
 - C. Miscellaneous option(s) selected:
 1. Full Dimension Hanging Bracket -Unistrut added to allow for various hood mounting locations.
 2. Insulation for Back of Hood -Backside of hood is fully insulated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been

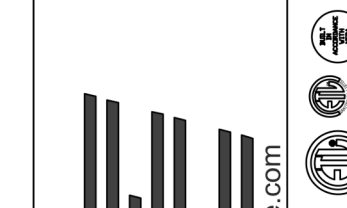
corrected in a manner acceptable to Installer.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

REVISIONS

DESCRIPTION	DATE



CAPTIVEAIRE
 Highwoods Group
 4641 Paragon Park Rd., Raleigh, NC 27616 PHONE: (919) 875-0420 FAX: (919) 875-0577 EMAIL: reg@captivaire.com
 www.captivaire.com

CHIPOTLE EASTMARK #4189
 MESA, AZ, 85212

DATE: 9/22/2022

DWG.#: 5655715

DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 3

Consultant:

 LINGDE DESIGN GROUP, LLC
 158 WEST MAIN STREET,
 LENEXA, ILLINOIS 61048
 TEL: 815.369.9155
 FAX: 815.369.4495
 LINGDESGN.COM

ICA CONSULTING ENGINEERS
 4100 Wadsworth Blvd.
 Wheat Ridge, CO 80033
 p. 303.985.3260 #22.013

COPYRIGHT 2020
 THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC.. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC..



STORE NO.: 02-4189
 9259 E RAY ROAD - MESA, AZ 85212

Issue Record:

DATE	DESCRIPTION
06/17/22	PERMIT SET
10/11/22	REVISION 1

Revisions:

1	10/11/22	Revision 1
---	----------	------------

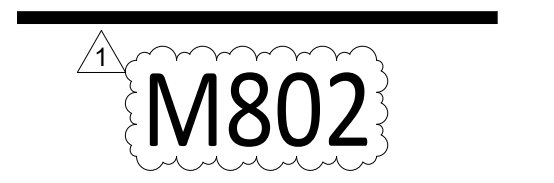


Drawn: EK Checked: JCAA

Project No. 21-250

Contents:

CAPTIVEAIRE DRAWINGS



EXHAUST FAN INFORMATION - JOB#5655715

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
1	EF-1	1	DU240HFA	CAPTIVEAIRE	3200	1.200	791	DDP, PREMIUM	3.000	1.3090	3	208	10.2	727 FPM	304	12.6
2	EF-2	1	DR12HFA	CAPTIVEAIRE	150	0.600	1316	TEAD-ECM	0.250	0.0960	1	115	2.9		49	6.4

MUA FAN INFORMATION - JOB#5655715

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLDWR	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MDCP	WEIGHT (LBS)	SDNES
3	MAU-1	1	A1-D.250-15D	15MF-1-MDD	A1-D.250	1000	1950	0.500	2053	DDP, PREMIUM	2.000	1.3150	3	208	6.1	7.7A	15A	510	20.4

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
3	MAU-1	86022	79140	40°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-1	1	GREASE BOX
		1	REMOVE HINGE KIT LABEL FROM THE FAN BASE
		2	YEAR PARTS WARRANTY
2	EF-2	1	1 1/2" BDD DAMPER
		1	ECM WIRING PACKAGE - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCD MOTOR), CCW ROTATION
		2	YEAR PARTS WARRANTY
3	MAU-1	1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	LDF FIRE START
		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	SIZE 1 TEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV DR PREWIRE WITH VFD) - THREE PHASE ONLY
		2	YEAR PARTS WARRANTY

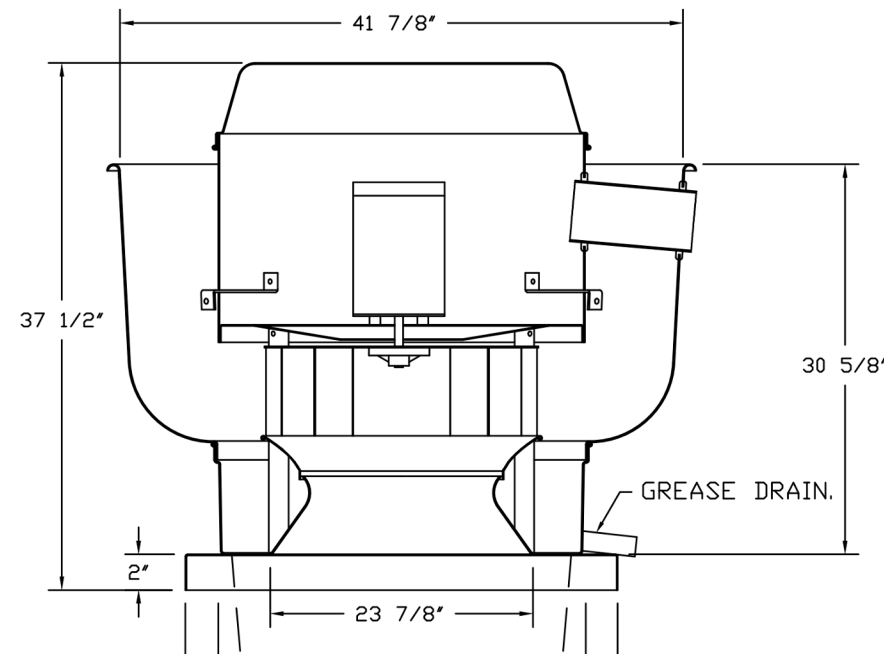
FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST				SUPPLY		
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	EF-1	YES						
2	EF-2		YES					
3	MAU-1					YES		

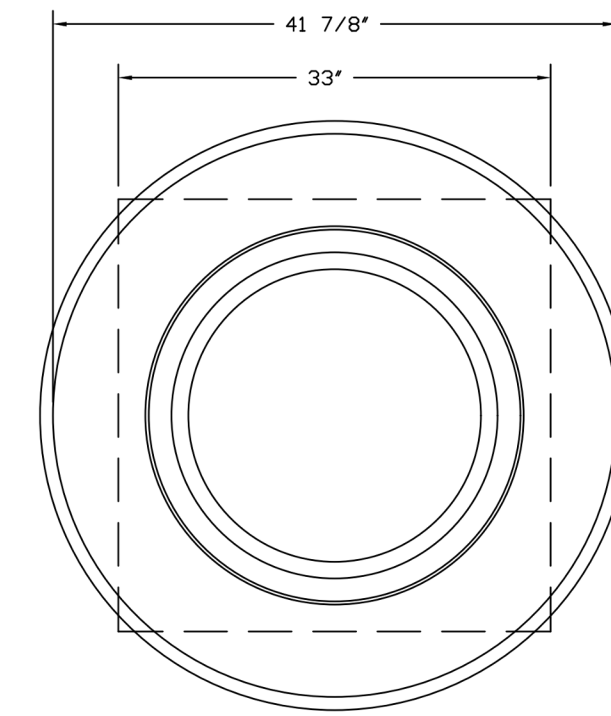
CURB ASSEMBLIES

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1		43 LBS	CURB	31.500"W X 31.500"L X 20.000"H ALONG LENGTH, RIGHT VENTED.
2	# 2	EF-2	31 LBS	CURB	17.500"W X 17.500"L X 26.000"H ALONG LENGTH, RIGHT.
3	# 3	MAU-1	65 LBS	CURB	21.000"W X 71.000"L X 20.000"H ALONG WIDTH, RIGHT INSULATED.

FAN #1 DU240HFA - EXHAUST FAN (CF-1)



DUCTWORK BETWEEN EXHAUST RISER DN HOOD AND FAN (BY OTHERS).



TOP VIEW

FEATURES:

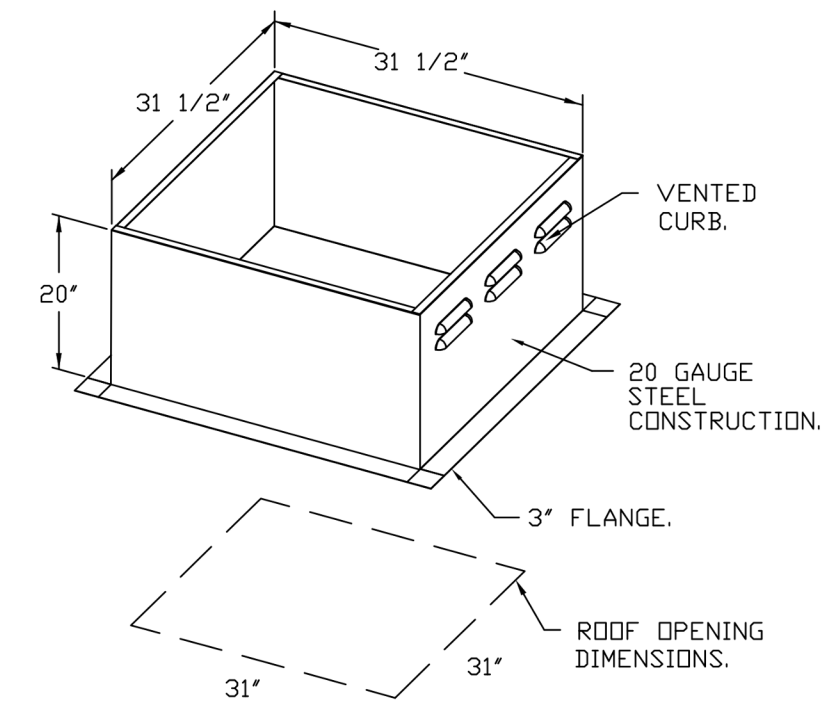
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-5645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST:
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST:
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- REMOVE HINGE KIT LABEL FROM THE FAN BASE.
- 2 YEAR PARTS WARRANTY.



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.

REVISIONS

DESCRIPTION	DATE

CAPTIVEAIRE
 Highwoods Group
 4641 Paragon Park Rd., Raleigh, NC 27616 PHONE: (919) 875-0420 FAX: (919) 875-0577 EMAIL: reg40@captiveaire.com
 www.captiveaire.com

CHIPOTLE EASTMARK #4189
MESA, AZ, 85212

DATE: 9/22/2022

DWG.#: 5655715

DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 4

Consultant:

LINGE DESIGN GROUP, LLC
158 WEST MAIN STREET,
LENA, ILLINOIS 61048
TEL: 815.369.9155
FAX: 815.369.4495
LINGEDESIGN.COM

4100 Wadsworth Blvd.
Wheat Ridge, CO 80033
p. 303.985.3260 #22.013

COPYRIGHT 2020
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC.

CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 02-4189
9259 E RAY ROAD - MESA, AZ 85212

Issue Record:

06/17/22	PERMIT SET
10/11/22	REVISION 1

Revisions:

1	10/11/22	Revision 1
---	----------	------------

Drawn: EK Checked: JCAA

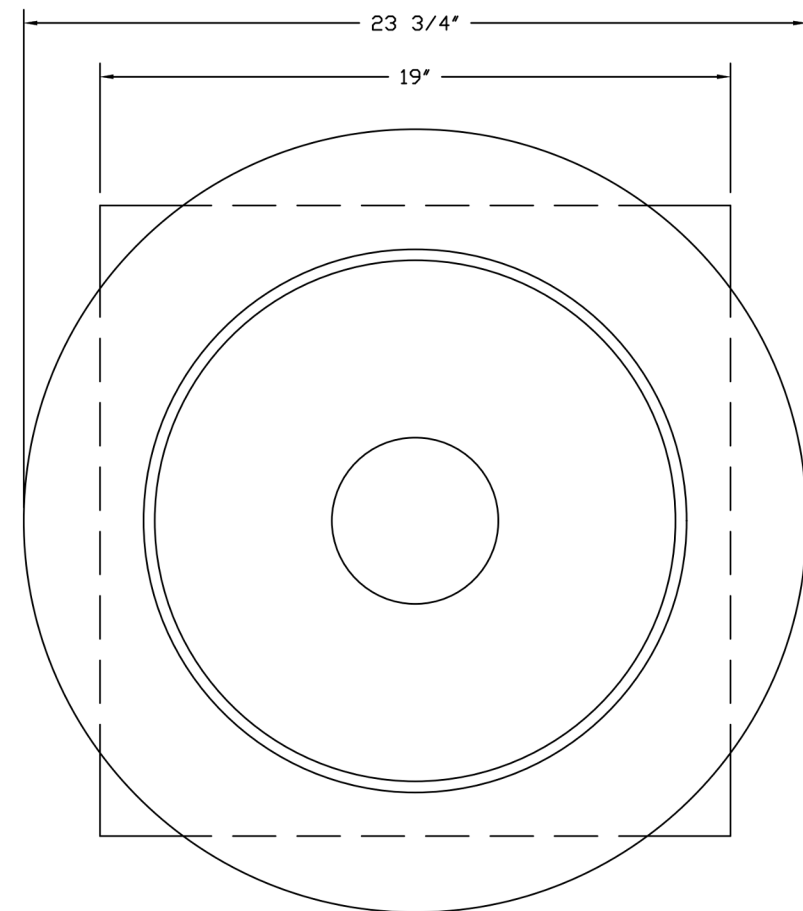
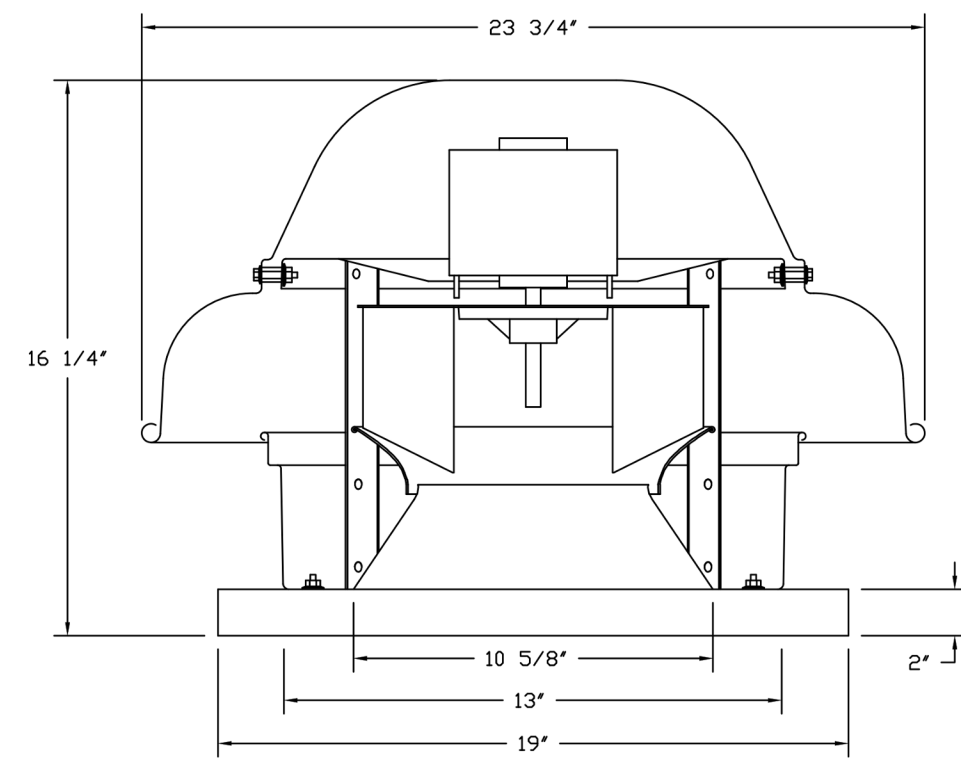
Project No. 21-250

Contents:

CAPTIVEAIRE DRAWINGS

M803

FAN #2 DR12HFA - EXHAUST FAN (CF-2)



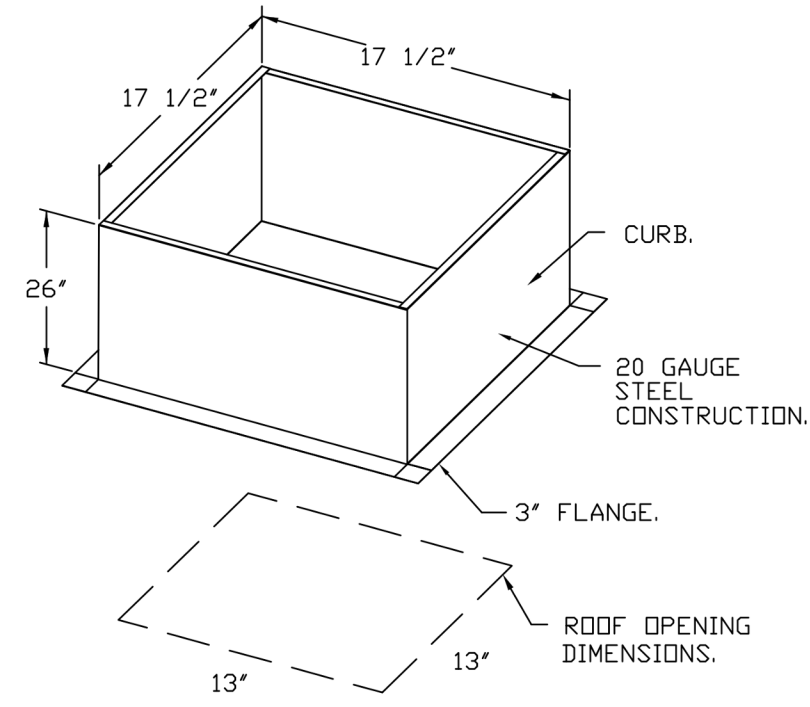
TOP VIEW

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- SAFETY DISCONNECT.
- STANDARD BIRD SCREEN.
- SPEED CONTROL.

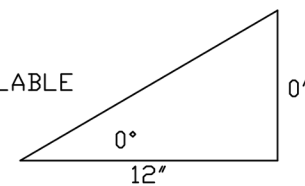
OPTIONS

- 1 1/2-BBD DAMPER.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL.
- RTG- (TELEID MOTOR), DCV ROTATION.
- 2 YEAR PARTS WARRANTY.

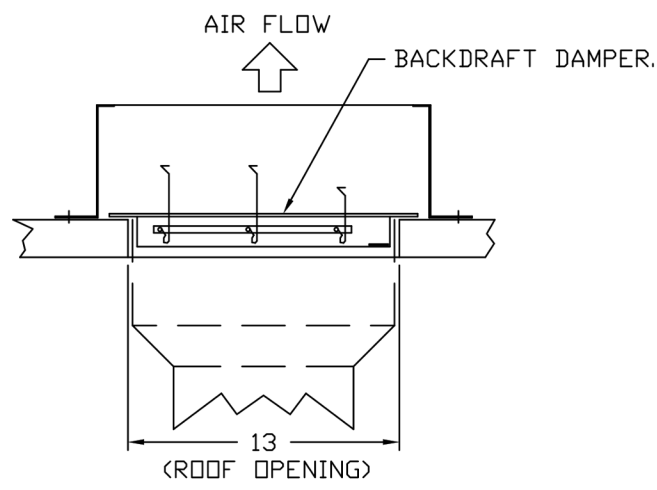


PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.



BACKDRAFT DAMPER INSTALLATION



REVISIONS	
DESCRIPTION	DATE

CAPTIVE
Highwoods Group
4841 Paragon Park Rd., Raleigh, NC, 27616 PHONE: (919) 975-0420 FAX: (919) 975-0677 EMAIL: reg40@captiveaire.com

CHIPOTLE EASTMARK #4189
MESA, AZ, 85212

DATE: 9/22/2022
DWG.#: 5655715
DRAWN BY: JMB-40
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
5

Consultant:

LINGLE DESIGN GROUP, LLC
158 WEST MAIN STREET,
LENA, ILLINOIS 61048
TEL: 815.369.9155
FAX: 815.369.4495
LINGLEDESIGN.COM

4100 Wadsworth Blvd.
Wheat Ridge, CO 80033
p.303.985.3260 #22.013

COPYRIGHT 2020
THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC.. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC..

CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
COLUMBUS, OH 43218-2566
TELEPHONE: 614.318.2400
INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 02-4189
9259 E RAY ROAD - MESA, AZ 85212

Issue Record:

06/17/22	PERMIT SET
10/11/22	REVISION 1

Revisions:

1	10/11/22	Revision 1
---	----------	------------



Drawn: EK
Checked: JCAA

Project No.
21-250

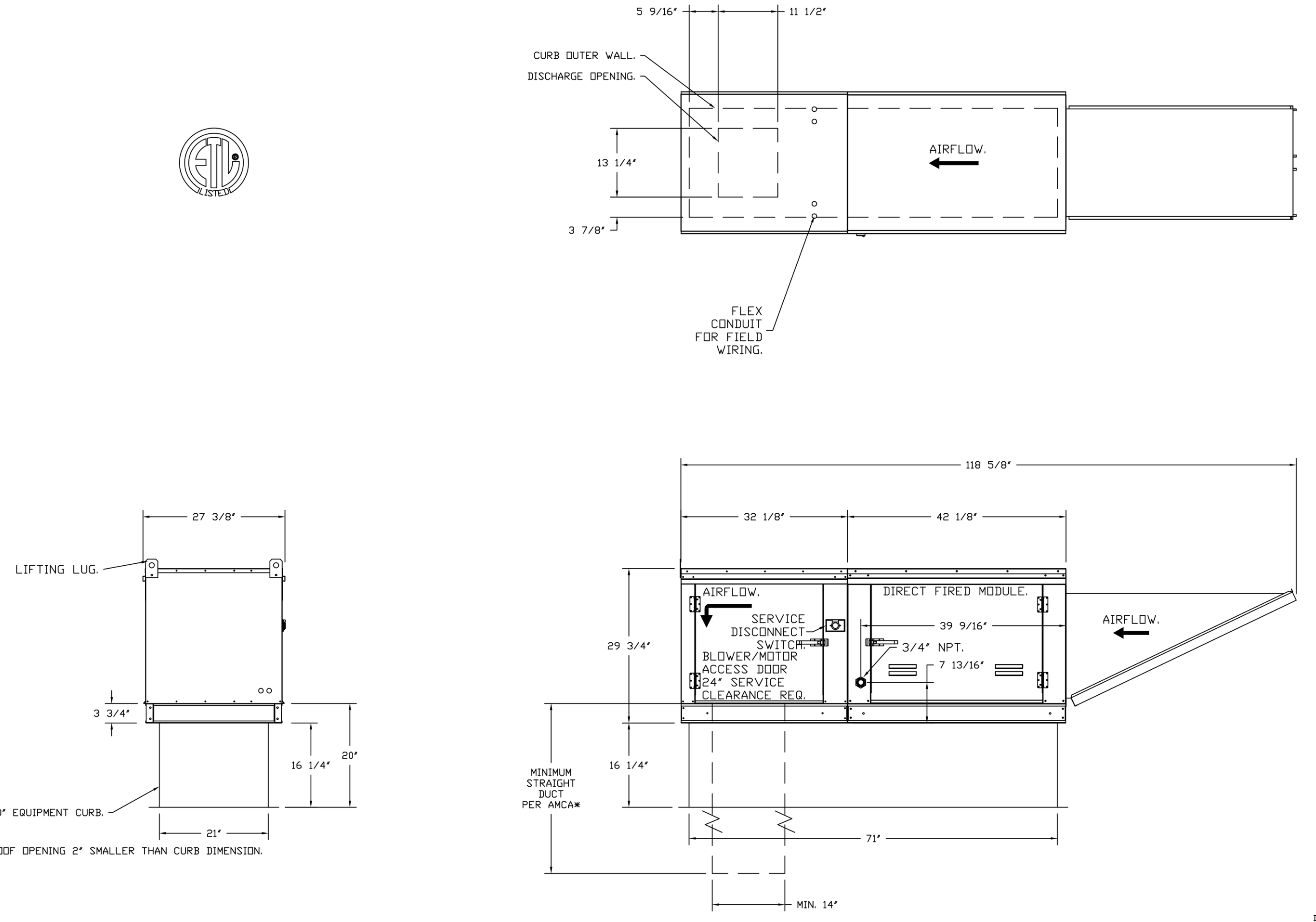
Contents:
CAPTIVEAIRE DRAWINGS

- FAN #3 A1-D250-15D - HEATER (MAU-1)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN.
 2. INTAKE HOOD WITH E2 FILTERS.
 3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
 4. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TFB20S ACTUATOR INCLUDED.
 5. LOW FIRE START - ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
 6. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
 7. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC, 2.5" DIAMETER, 1/4" THREAD SIZE.
 8. DOWN DISCHARGE CONSTRUCTION FOR SIZE 1 DIRECT DRIVE AHUS.
 9. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
 10. UNIT MOUNTED VFD FOR USE WITH ECM03.
 11. HINGED DOUBLE WALL INSULATED DDOOR ASSEMBLY (BURNER/BLOWER SECTION).
 12. 2 YEAR PARTS WARRANTY.

NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT, SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 14" X 14".

SUPPLY SIDE HEATER INFORMATION

WINTER TEMPERATURE = 35°F. TEMP. RISE = 40°F.
 BTU_S CALCULATED OFF ACTUAL AIR DENSITY.
 OUTPUT BTU_S AT ALTITUDE OF 0.0 FT. = 83331.
 INPUT BTU_S AT ALTITUDE OF 0.0 FT. = 99577.
 OUTPUT BTU_S AT ALTITUDE OF 1421 FT. = 79140.
 INPUT BTU_S AT ALTITUDE OF 1421 FT. = 86021.



DIRECT FIRED (DF) PROFILE PLATE SPECIFICATIONS

DESCRIPTION:
 DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO. US6605030B2) SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 50PPM OF CARBON MONOXIDE (CO) AND 850PPM OF NITROGEN DIOXIDE (NO₂). DIRECT FIRED UNITS SHALL BE CONFIGURED WITH THE BLOWER MOUNTED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

APPLICATION:
 SPRING LOADED BURNER PROFILE PLATES ARE ENGINEERED TO AUTOMATICALLY REACT TO THE MOMENTUM OF A FRESH AIR STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM WITH THIS FEATURE. ALL DF UNITS ARE DESIGNED FOR LEAKAGE CONTROL VENTILATION (LCV) REQUIREMENTS.

CERTIFICATIONS:
 ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.19 (RECIRCULATING DF HEATERS).

GENERAL CONSTRUCTION:
 -PROFILE PLATES SHALL BE FORMED FROM G90 GALVANIZED STEEL.
 -PROFILE PLATES SHALL VARY IN SIZE PER UNIT.
 -PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
 -DESIGN SHALL INCORPORATE PROPERLY TORQUED PERMANENTLY MOUNTED SPRING HINGES.
 -SPRING HINGES SHALL BE MADE FROM PLATED STEEL.

REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE

Highwoods Group

4641 Paragon Park Rd., Raleigh, NC 27616 PHONE: (919) 875-0420 FAX: (919) 875-0577 EMAIL: eng40@captiveaire.com
www.captiveaire.com

CHIPOTLE EASTMARK #4189
 MESA, AZ, 85212

DATE: 9/22/2022

DWG.#: 5655715

DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 6

Consultant:

LINGLE DESIGN GROUP, LLC
 158 WEST MAIN STREET,
 LENA, ILLINOIS 61048
 TEL: 815.369.9155
 FAX: 815.369.4495
 LINGLEDISIGN.COM

4100 Wadsworth Blvd.
 Wheat Ridge, CO 80033
 p. 303.985.3260 #22.013

COPYRIGHT 2020
 THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH REMAINS THE PROPERTY OF CHIPOTLE MEXICAN GRILL, INC.. PERMISSION FOR USE OF THIS DOCUMENT IS LIMITED AND CAN BE EXTENDED ONLY BY WRITTEN AGREEMENT WITH CHIPOTLE MEXICAN GRILL, INC..



CHIPOTLE MEXICAN GRILL, INC.
 PO BOX 182566
 COLUMBUS, OH 43218-2566
 TELEPHONE: 614.318.2400
 INTERNET: WWW.CHIPOTLE.COM

STORE NO.: 02-4189
 9259 E RAY ROAD - MESA, AZ 85212

Issue Record:

06/17/22	PERMIT SET
10/11/22	REVISION 1

Revisions:

1	10/11/22	Revision 1
---	----------	------------



Drawn: EK Checked: JCAA

Project No. 21-250

Contents:

CAPTIVEAIRE DRAWINGS

