

## CALGREEN MECHANICAL MANDATORY MEASURES

### MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

#### BUILDING MAINTENANCE AND OPERATION ( SECTION 5.410)

5.410.2 COMMISSIONING. FOR NEW BUILDINGS 10,000 SQUARE FEET AND OVER, BUILDING COMMISSIONING FOR ALL BUILDING SYSTEMS COVERED BY T24, PART 6, PROCESS SYSTEMS AND RENEWABLE ENERGY SYSTEMS SHALL BE INCLUDED IN THE DESIGN AND CONSTRUCTION PROCESSES OF THE BUILDING PROJECT. COMMISSIONING REQUIREMENTS SHALL INCLUDE ITEMS LISTED IN SECTION 5.410.2.

5.410.2.1 OWNER'S PROJECT REQUIREMENTS (OPR). DOCUMENTED BEFORE THE DESIGN PHASE OF THE PROJECT BEGINS THE OPR SHALL INCLUDE ITEMS LISTED IN SECTION 5.410.4.

5.410.2.2 BASIS OF DESIGN (BOD). A WRITTEN EXPLANATION OF HOW THE DESIGN OF THE BUILDING SYSTEMS MEETS THE OPR SHALL BE COMPLETED AT THE DESIGN PHASE OF THE BUILDING PROJECT TO COVER THE SYSTEMS LISTED IN SECTION 5.410.2.2.

5.410.2.3 COMMISSIONING PLAN. A COMMISSIONING PLAN DESCRIBING HOW THE PROJECT WILL BE COMMISSIONED SHALL INCLUDE ITEMS LISTED IN SECTION 5.410.2.3.

5.410.2.4 FUNCTIONAL PERFORMANCE TESTING SHALL DEMONSTRATE THE CORRECT INSTALLATION AND OPERATIONS OF EACH COMPONENT, SYSTEM-TO-SYSTEM INTERFACE IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.

5.410.2.5 DOCUMENTATION AND TRAINING. A SYSTEMS MANUAL AND SYSTEMS OPERATIONS TRAINING ARE REQUIRED.

5.410.2.5.1 SYSTEMS MANUAL. THE SYSTEMS MANUAL SHALL BE DELIVERED TO THE BUILDING OWNER OR REPRESENTATIVE AND FACILITIES OPERATOR AND SHALL INCLUDE THE ITEMS LISTED IN SECTION 5.410.2.5.1.

5.410.2.5.2 SYSTEMS OPERATIONS TRAINING. A PROGRAM FOR TRAINING OF THE APPROPRIATE MAINTENANCE STAFF FOR EACH EQUIPMENT TYPE AND/OR SYSTEM SHALL BE DEVELOPED AND SHALL INCLUDE ITEMS LISTED IN SECTION 5.410.2.5.2.

5.410.2.6 COMMISSIONING REPORT. A REPORT OF COMMISSIONING PROCESS ACTIVITIES UNDERTAKEN THROUGH THE DESIGN AND CONSTRUCTION PHASES OF THE BUILDING PROJECT SHALL BE COMPLETED AND PROVIDED TO THE OWNER OR REPRESENTATIVE.

5.410.4 TESTING AND ADJUSTING. TESTING AND ADJUSTING OF SYSTEMS SHALL BE REQUIRED FOR BUILDINGS LESS THAN 10,000 SQUARE FEET.

5.410.4.2 SYSTEMS. DEVELOP A WRITTEN PLAN OF PROCEDURES FOR TESTING AND ADJUSTING SYSTEMS. SYSTEMS TO BE INCLUDED FOR TESTING AND ADJUSTING SHALL INCLUDE, AS APPLICABLE TO THE PROJECT, THE SYSTEMS LISTED IN SECTION 5.410.4.2.

5.410.4.3 PROCEDURES. PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH APPLICABLE STANDARDS ON EACH SYSTEM AS DETERMINED BY THE ENFORCING AGENCY.

5.410.4.3.1 HVAC BALANCING. BEFORE A NEW SPACE-CONDITIONING SYSTEM SERVING A BUILDING OR SPACE IS OPERATED FOR NORMAL USE, BALANCE IN ACCORDANCE WITH THE PROCEDURES DEFINED BY NATIONAL STANDARDS LISTED IN SECTION 5.410.4.3.1 OR AS APPROVED BY THE ENFORCING AGENCY.

5.410.4.4 REPORTING. AFTER COMPLETION OF TESTING, ADJUSTING AND BALANCING, PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.

5.410.4.5 OPERATION AND MAINTENANCE MANUAL. PROVIDE THE BUILDING OWNER WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH SYSTEM PRIOR TO FINAL INSPECTION.

5.410.5.1 INSPECTIONS AND REPORTS. INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE ENFORCING AGENCY.

### ENVIRONMENTAL QUALITY

#### POLLUTANT CONTROL ( SECTION 5.504)

5.504.1.3 TEMPORARY VENTILATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH MERV OF 8, BASED ON ASHRAE 52.2-1999, OR AN AVERAGE EFFICIENCY OF 30% BASED ON ASHRAE 52.1-1992. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY.

5.504.3 COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEETMETAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM.

5.504.5.3 FILTERS. IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR THAT PROVIDES AT LEAST A MERV OF 8. MERV 8 FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY, AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL.

#### AIR QUALITY AND EXHAUST ( SECTION 5.506)

5.506.1 OUTSIDE AIR DELIVERY. FOR MECHANICALLY OR NATURALLY VENTILATED SPACED IN BUILDINGS, MEET THE MINIMUM REQUIREMENTS OF SECTION 121 OF THE CALIFORNIA ENERGY CODE AND CHAPTER 4 OF CCR, TITLE 8 OR THE APPLICABLE LOCAL CODE, WHICHEVER IS MORE STRINGENT.

5.506.2 CARBON DIOXIDE (CO2) MONITORING. FOR BUILDINGS EQUIPPED WITH DEMAND CONTROL VENTILATION, CO2 SENSORS AND VENTILATION SHALL BE SPECIFIED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CALIFORNIA ENERGY CODE, CCR, SECTION 121(c).

#### OUTDOOR AIR QUALITY ( SECTION 5.508)

5.508.1.1 CFCs. INSTALL HVAC AND REFRIGERATION EQUIPMENT THAT DOES NOT CONTAIN CFCs.

## CODES

1. THE COMPLYING CODES SHALL BE 2022 CALIFORNIA BUILDING CODE, 2022 CALIFORNIA PLUMBING CODE, 2022 CALIFORNIA MECHANICAL CODE, 2022 CALIFORNIA GREEN BUILDING STANDARD CODE AND 2022 CALIFORNIA ENERGY CODE.

#### SECTION 15732 - PACKAGED ROOFTOP AIR-CONDITIONING UNITS

##### PART 1 - GENERAL

###### 1.1 SECTION REQUIREMENTS

- Submittals: Product Data and Shop Drawings.
- Comply with ASHRAE 15.
- EER: Equal to or greater than prescribed by the energy code adopted by the Authority Having Jurisdiction.
- 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

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

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

##### END OF SECTION 15732

#### SECTION 15810 - DUCTS AND ACCESSORIES

##### PART 1 - GENERAL

###### 1.1 SECTION REQUIREMENTS

- Submittals: Product Data for fire and smoke dampers.
- 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.
- Comply with NFPA 90B for systems serving spaces in 1 or 2 family dwellings or serving spaces less than 25,000 cu. ft..
- Comply with NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations," for kitchen hood ducts.
- Comply with UL 181 and UL 181A for ducts and closures.
- Testing, Adjusting, and Balancing Agency Qualifications: AABC certified (to be furnished by Tenant).

##### PART 2 - PRODUCTS

###### 2.1 DUCTS

- Spiral Duct: Spiral Lock Seam, without insulation, G90 galvanized finish, ASTM A-653/924
  - Basis of Design Manufacturers: Lindab SPIROsafe, alternates to the basis of design must be submitted for review.
  - 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.
- Galvanized Steel Sheet: Forming steel, ASTM A 653/653M, G90 coating designation.
- 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.
  - Adhesive: ASTM C 916, Type I.
  - Mechanical Fasteners: Galvanized steel pin, length as required to penetrate liner plus a 1/8 inch projection maximum into the airstream.
- Joint and Seam Tape: Comply with UL 181A.
- Joint and Seam Sealant: Comply with UL 181A.
- 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

- 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.
- Fire Dampers: Factory-fabricated fire dampers, complete with required hardware and accessories. UL labeled according to UL 555, "Fire Dampers".
- Flexible Connectors: Flame retardant or noncombustible fabrics, coatings, and adhesives complying with UL 181, Class 1.
- 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

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

###### 3.2 TESTING, ADJUSTING, AND BALANCING

- The Tenant will supply an independent balance agent to balance and adjust the HVAC installation. The balance agent will be responsible for any pulley or belt changes required.
- The GC is to have trained staffed available during the balancing to correct issues noted by the balance agent.
- 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%.
- The balance agent is to supply a copy of the balance report to the Tenant, engineer and general contractor for review.

##### END OF SECTION 15810

#### SECTION 15855 - DIFFUSERS, REGISTERS, AND GRILLES

##### PART 1 - GENERAL

###### 1.1 SECTION REQUIREMENTS

- Submittals: None.

##### PART 2 - PRODUCTS

###### 2.1 OUTLETS AND INLETS

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

##### PART 3 - EXECUTION

###### 3.1 INSTALLATION

- Coordinate location and installation with duct installation and installation of other ceiling and wall mounted items.
- 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

## HVAC GENERAL NOTES

- GENERAL NOTES APPLY TO HVAC SHEETS.
- 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 OBTAIN INSPECTIONS REQUIRED BY CODE. SEE ARCHITECTURAL SHEETS FOR THE PREVAILING CODES.
- CONTRACTOR AND SUBCONTRACTORS SHALL REVIEW A COMPLETE SET OF THE CONSTRUCTION DOCUMENTS.
- 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.
- 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.
- DUCT DIMENSIONS ON PLANS INDICATE DIMENSIONS OF INTERNAL FREE AREA.
- PERFORATED CEILING DIFFUSERS SHALL BE 4-WAY UNLESS NOTED OTHERWISE.
- COORDINATE ROOF WORK WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
- 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 RADIUSSED ELBOWS WITH AN INSIDE RADIUS OF AT LEAST 1/2 THE WIDTH OF THE DUCT.
- REPLACE AIR FILTERS WITH NEW, CLEAN MERV 13 AIR FILTERS AT TURNOVER.
- 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.
- PROVIDE LABELING CALLED FOR IN THE HVAC DRAWINGS USING ENGRAVED PHENOLIC PLATES.
- PROVIDE P3000 12 GA. UNISTRUT WITH PG FINISH FOR DUCT SUPPORTS AND OTHER UNISTRUT IN AREAS EXPOSED TO VIEW. FLOTTED UNISTRUT AND OTHER UNISTRUT WITH HOLES IS NOT ACCEPTABLE.
- APPLIANCES TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUPPORTS FOR APPLIANCES SHALL BE TO SUSTAIN VERTICAL AND HORIZONTAL LOADS WITHIN THE STRESS LIMITATIONS SPECIFIED IN THE BUILDING CODE.

## HVAC MATERIAL SCHEDULE

	APPLICATION	ALLOWABLE MATERIAL
DUCT	CONCEALED, GENERAL EXHAUST	RECT. OR ROUND AS SHOWN
	CONCEALED, RETURN	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED, SUPPLY	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED, TYPE I HOOD EXHAUST	RECTANGULAR 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)
	EXPOSED GENERAL EXHAUST	RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC
	EXPOSED RETURN	RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC
	EXPOSED SUPPLY	RECT. LINED OR ROUND AS SHOWN, NO EXPOSED DUCT-SEALING MASTIC

## HVAC ABBREVIATIONS

(E)	EXISTING
ABV	ABOVE
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BOH	BACK OF HOUSE
CLG	CEILING
CTE	CONNECT TO EXISTING
DN	DOWN
EXT'G	EXISTING
FLR	FLOOR
FOH	FRONT OF HOUSE
GYP	GYPNUM BOARD
NTS	NOT TO SCALE
O/H	OVERHEAD
OBD	OPOSED BLADE DAMPER
TYP	TYPICAL
U/G	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
VFD	VARIABLE FREQUENCY DRIVE
VSC	VARIABLE SPEED CONTROLLER
W/	WITH
WIC	WALK-IN COOLER

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
LL	LANDLORD
SPS	TENANT'S SODA POP SUPPLIER
TAB	TENANT'S TEST AND BALANCE VENDOR
TCC	TENANT'S CABLING CONTRACTOR
TDC	TENANT'S 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
TPS	TENANT'S PHONE SUPPLIER
TRS	TENANT'S RAILING SUPPLIER
TSV	TENANT'S SIGN VENDOR
TUV	TENANT'S UV SNATIZER SUPPLIER
WCS	TENANT'S WALK-IN COOLER SUPPLIER
WHS	TENANT'S WATER HEATER SUPPLIER

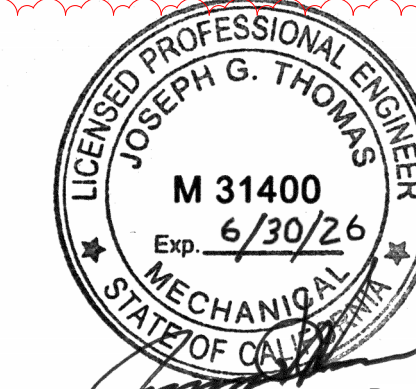
## HVAC SYMBOLS

	CEILING DIFFUSER
	CEILING-MOUNTED RETURN OR EXHAUST REGISTER
	SUPPLY REGISTER
	RETURN GRILLE
	FLEXIBLE DUCT
	MITERED CORNER WITH TURNING VANES
	DUCTWORK INTERNAL FREE DIMENSIONS (WIDTH/HEIGHT) 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]

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08/30/23 PERMIT SET  
08/14/24 CONSTRUCTION SET

Revisions:

1 01/04/2024 BUILDING REVIEW COMMENTS  
2 02/24/2024 BUILDING REVIEW COMMENTS 2  
3 03/26/2024 HEALTH COMMENTS  
4 07/02/2024 LL TRUSS COORDINATION/DBS  
5 07/18/2024 ADDENDUM COMMENTS

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VH JT/SC

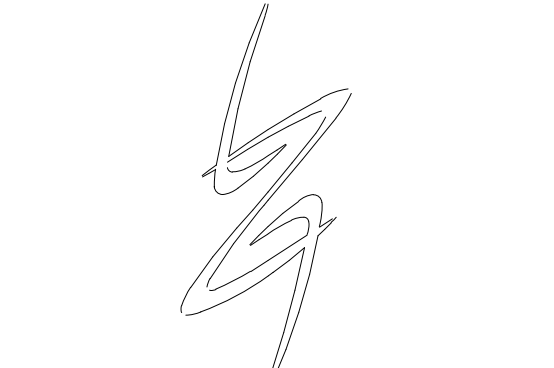
Project No.

CMG-4882

Contents:

HVAC  
SPECIFICATIONS

# M010



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VH JT/SC

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CMG-4882

Contents:  
HVAC PLAN

M100

### HVAC PLAN NOTES

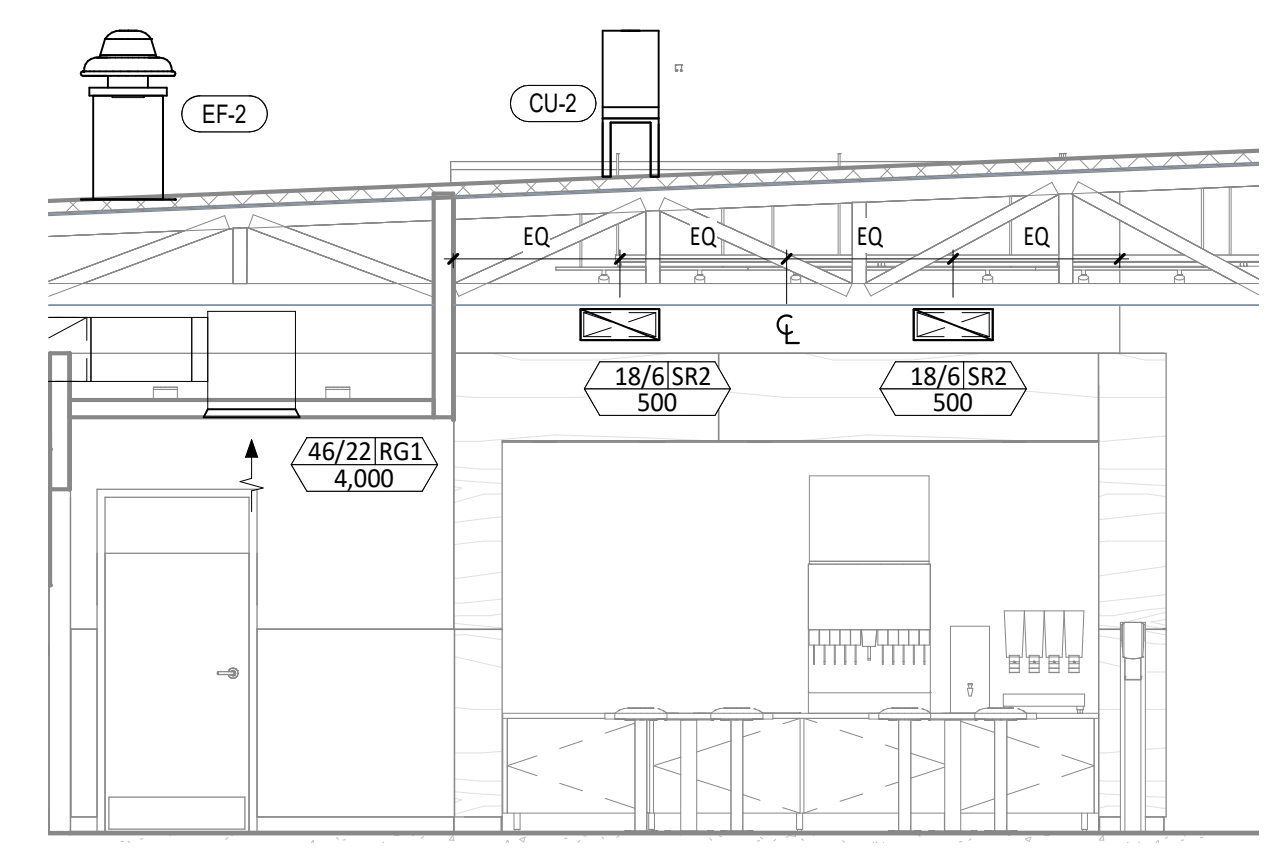
- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING MOUNTED EQUIPMENT LOCATION. TYPICAL.
- PAINT DUCTWORK VISIBLE THROUGH DINING ROOM SUPPLY REGISTERS BLACK. TYPICAL.
- PENETRATIONS THROUGH SHEAR WALL SHALL BE LIMITED TO 10" DIAMETER (OR A GROUP OF PENETRATIONS ALL CONTAINED WITHIN 10" DIAMETER). IF LARGER PENETRATIONS OR GROUPS OF PENETRATIONS ARE REQUIRED COORDINATE WITH STRUCTURAL ENGINEER FOR APPROPRIATE BRACING. SEE STRUCTURAL DRAWINGS FOR SHEAR WALL LOCATION.
- 30/16 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.
- 30/16 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.
- 30/16 DUCT UP FROM BUILDING SUPPLY THROUGH ROOF. TRANSITION TO RTU-1 SUPPLY CONNECTION IN ROOF CURB.
- 30/16 DUCT UP FROM BUILDING SUPPLY TO RTU-2 SUPPLY CONNECTION. TRANSITION IN ROOF CURB.
- NOT USED
- 16/10 DUCT UP FROM HOOD 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.
- NOT USED.
- NOT USED.
- 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 66" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.

### HVAC PLAN NOTES

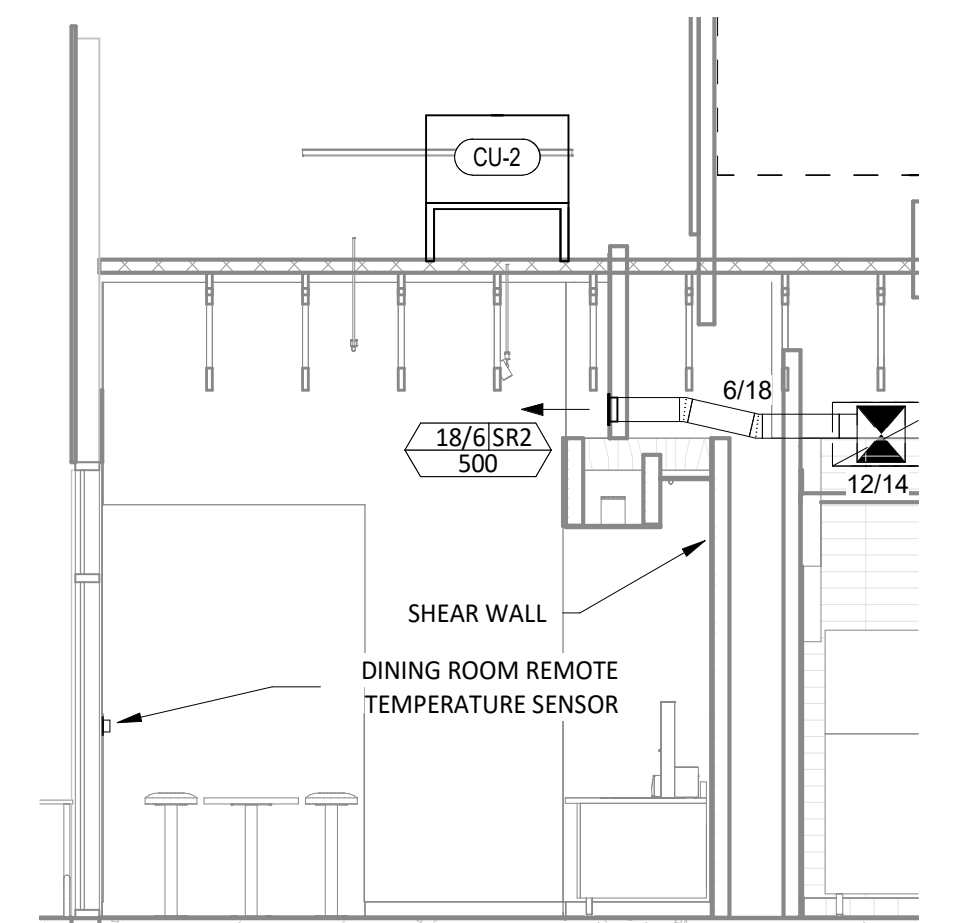
- INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-2 AT THIS LOCATION 66" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
- INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TEMS FOR RTU-1 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
- INSTALL GRIDPOINT 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 CABLE FROM TEMPERATURE SENSOR TO HOOD CONTROL PANEL.
- INSTALL KITCHEN HOOD, HD-1. SUPPORT HOOD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. 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, 4, AND 9/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.

### HVAC PLAN NOTES

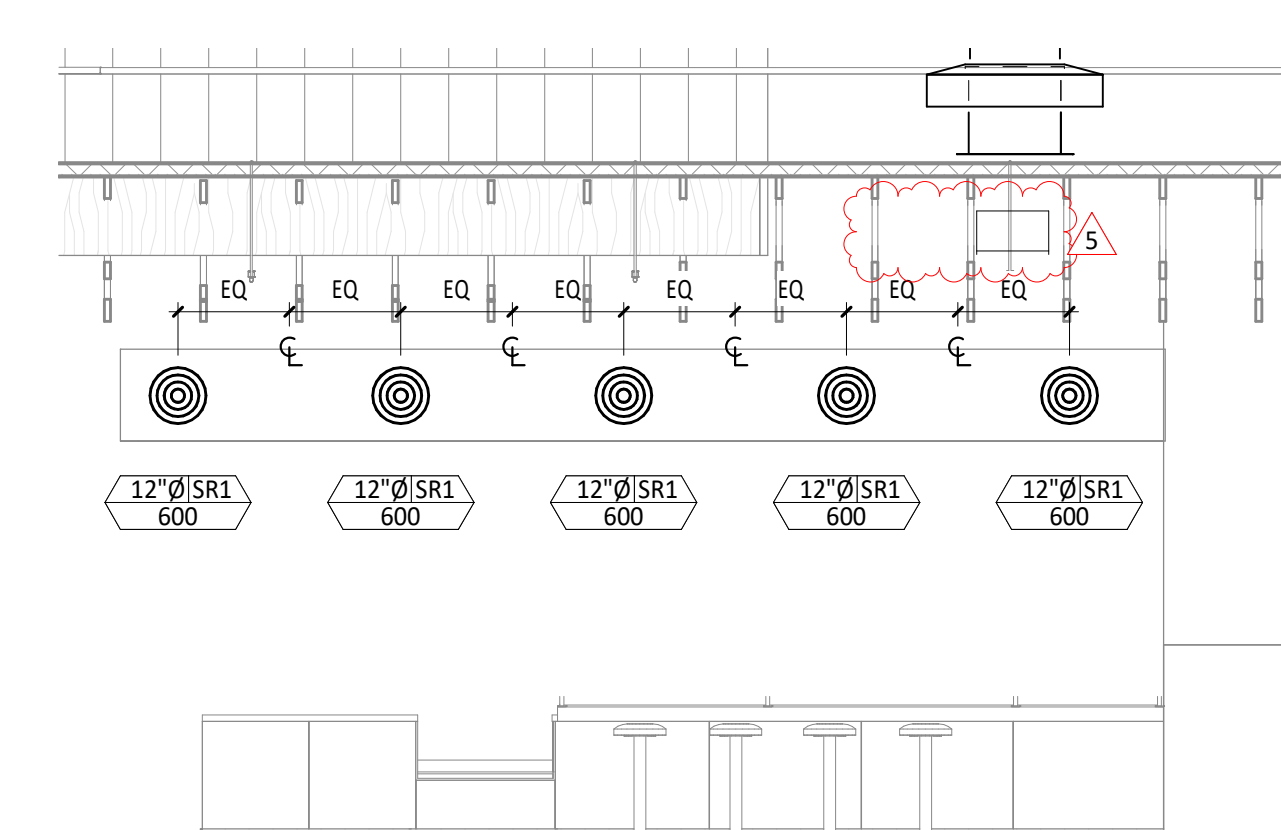
- INSTALL REMOTE CONDENSER FOR ICE MACHINE ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING. TRAP 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. PROVIDE PERMANENT LABEL IDENTIFYING RTU NUMBER AND AREA OR SPACE SERVED.
- INSTALL EXHAUST FAN EF-1 PER DETAIL 5/M700 AND AS DETAILED IN THE 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.
- ADJUST SUPPLY REGISTERS SO THAT SUPPLY AIR HITS WALL ON OPPOSITE SIDE OF ROOM AT APPROXIMATELY 7' AFF WITH NO DRAFTS FELT IN THE DINING ROOM.



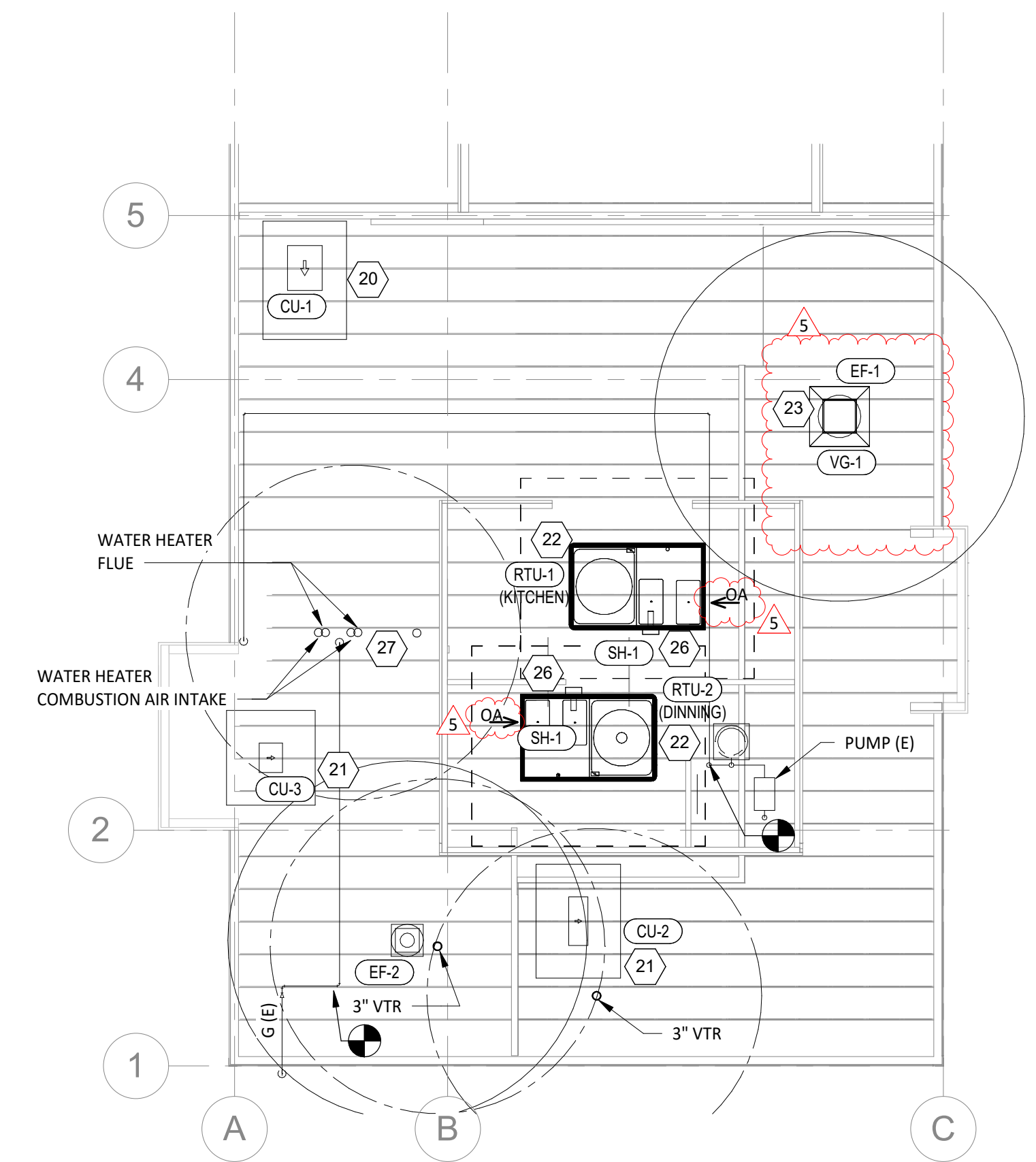
4  
M100  
1/4" = 1'-0"



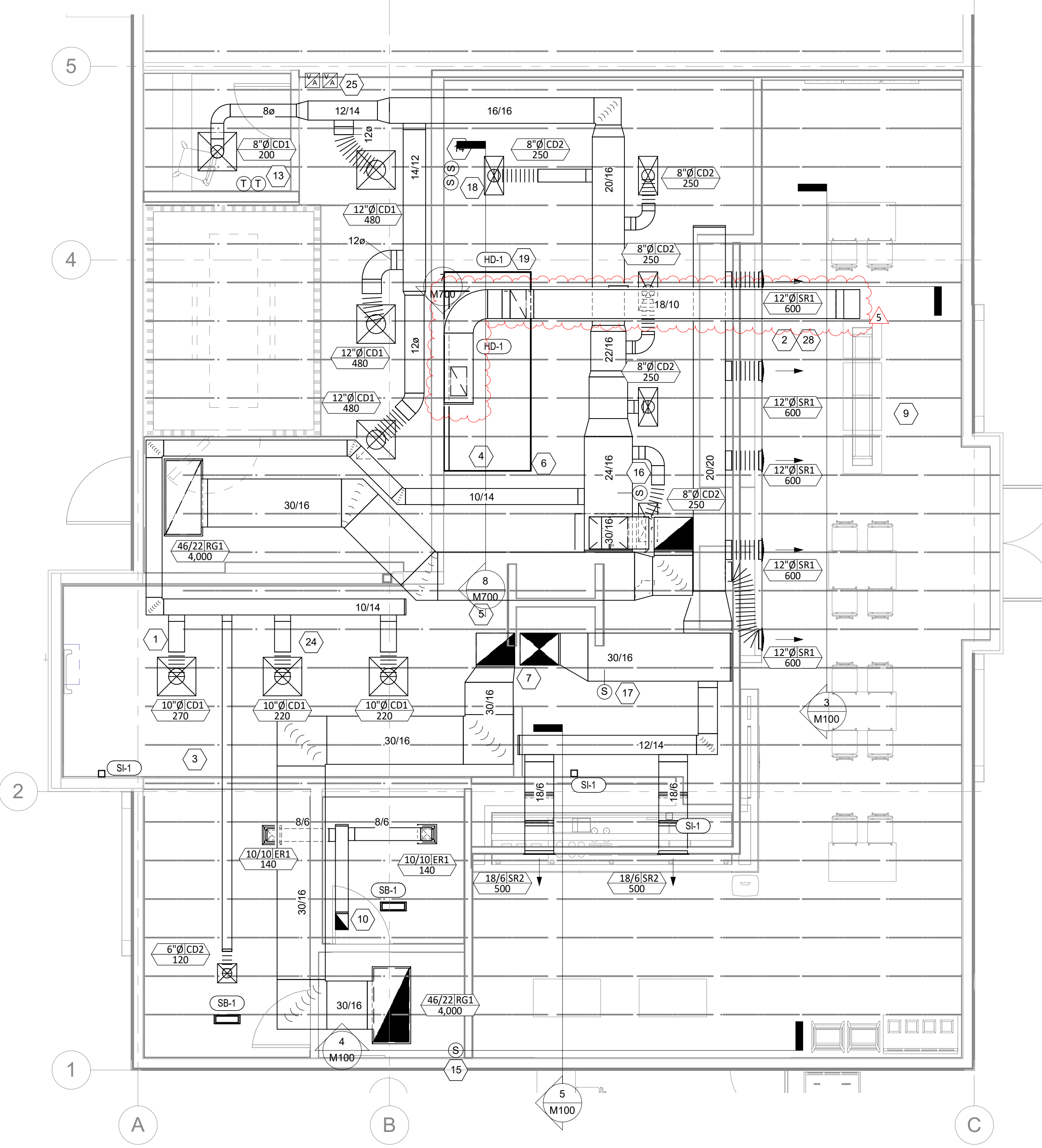
5  
M100  
1/4" = 1'-0"



3  
M100  
1/4" = 1'-0"



2  
M100  
1/8" = 1'-0"



1  
M100  
1/4" = 1'-0"

VENTILATION SCHEDULE																			
ROOM NO.	ROOM AREA	ROOM NAME	TOILET ROOM # WC+UR	OCC. DENSITY PER/1000 SF	AIRFLOW RATE CFM/PERSON	AIRFLOW RATE CFM/SF	EXHAUST RATE CFM/SF	EXHAUST RATE (CONT.) CFM/FIXT	EXHAUST RATE (INTERM.) CFM/FIXT	REQUIRED OUTDOOR VENTILATION AIR & NUMBER OF PEOPLE				EXHAUST			SUPPLY		REMARKS
										CODE # OF...	OA(PER)	OA(SF)	TOTAL OA	REQUIRE D (CFM)	ACTUAL (CFM)	SYSTEM	ACTUAL (CFM)	SYSTEM	
100	30.0	MAIN ENTRY		10	5	0.06	0	0	0	1	5	2	7	0.0	0		50	RTU-2	
101	593.0	DINNIG		70	7.5	0.18	0	0	0	42	315	107	422	0.0	0	0	3350	RTU-2	
102	75.0	UTENSIL		70	7.5	0.18	0	0	0	6	45	14	59	0.0	0	0	300	RTU-2	
104	82.0	POS		70	7.5	0.18	0	0	0	6	45	15	60	0.0	0	0	220	RTU-1	
103	42.0	PASSAGE		0	0	0.06	0	0	0	0	0	3	3	0.0	4000	0	0	RTU-2	
105	24.0	ORDERING		70	7.5	0.18	0	0	0	2	15	5	20	0.0	0	0	100	RTU-2	
106	80.0	SERVING		20	7.5	0.12	0.7	0	0	2	15	10	25	56.0	0	0	250	RTU-1	
107	338.0	COOKING		20	7.5	0.12	0.7	0	0	7	52.5	41	93.5	236.6	0	0	1000	RTU-1	
108	225.0	KITCHEN		20	7.5	0.12	0.7	0	0	5	37.5	27	64.5	157.5	3860	0	1920	RTU-1	
109	48.0	OFFICE		5	5	0.06	0	0	0	1	5	3	8	0.0	0	0	200	RTU-2	
110	94.0	COOLER		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111	120.0	RESTROOM	2	0	0	0	0	50	70	0	0	0	0	140.0	140	0	120	RTU-1	
112	58.0	RESTROOM	2	0	0	0	0	50	70	0	0	0	0	140.0	140	0	0	RTU-2	
113	293.0	PICK UP		20	7.5	0.12	0.7	0	0	6	45	36	81	205.1	0	0	490	RTU-1	

AIR BALANCE SCHEDULE				
TAG	SUPPLY FLOW	RETURN FLOW	EXHAUST FLOW	SUBTOTAL
EF-1	0 CFM	0 CFM	1,900 CFM	-1,900 CFM
EF-2	0 CFM	0 CFM	280 CFM	-280 CFM
RTU-1	4,000 CFM	2,850 CFM	0 CFM	1,150 CFM
RTU-2	4,000 CFM	2,850 CFM	0 CFM	1,150 CFM
NET PRESSURIZATION				120 CFM

CONTROL FUNCTIONS
A. 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.
B. 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.
C. THE THERMOSTATS SHALL DETERMINE OCCUPIED/UNOCCUPIED STATUS BASED ON THE SCHEDULE IN THE ENERGY MANAGEMENT SYSTEM.

SANITIZING EQUIPMENT SCHEDULE									
TAG	COUNT	DESCRIPTION	FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS		
					MANUFACTURER	MODEL			
SB-1	2	BATHROOM AIR PURIFICATION UNIT	TUV	GC	RGF ENVIRONMENTAL GROUP	BRU ASSEMBLY	SEE ELECTRICAL SHEETS FOR CONNECTION INFORMATION		
SH-1	2	HVAC AIR PURIFICATION UNIT	TUV	GC	RGF ENVIRONMENTAL GROUP	REME-HALO	SEE DETAIL 6/M700 FOR INSTALLATION INFORMATION.		
SI-1	3	ICE MACHINE TREATMENT SYSTEM	TUV	GC	RGF ENVIRONMENTAL GROUP	IMS-B-GA	SEE PLUMBING DRAWINGS FOR INSTALLATION INFORMATION.		

FAN SCHEDULE											
TAG	DESCRIPTION	AIRFLOW	E.S.P.	WEIGHT	ELECTRICAL		FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS
					MOTOR POWER	V/P/H			MANUFACTURER	MODEL	
EF-1	UPBLAST UL762 EXHAUST FAN	1,900 CFM	1.20 in-wg	126 lb	1 hp	120/1/60	HS	GC	CAPTIVE-AIRE	DUB5HFA	DIRECT DRIVE UL762 UPBLAST EXHAUST FAN FURNISHED WITH WEATHERPROOF DISCONNECT AND VENTED ROOF CURB
EF-2	DOWNBLAST RESTROOM EXHAUST FAN	280 CFM	0.50 in-wg	81 lb	0.25 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

AIR TERMINAL SCHEDULE										
TAG	DESCRIPTION	FACE SIZE	MATERIAL	FINISH	MOUNTING	FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		NOTES
								MANUFACTURER	MODEL	
CD1	PERFORATED CEILING DIFFUSER	24" X 24"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NAILOS	4320A TYPE L	PROVIDE WITH INTEGRAL OBD
CD2	PERFORATED CEILING DIFFUSER	24" X 12"	ALUMINUM	WHITE	SURFACE MOUNT	GC	GC	NAILOS	4320A TYPE S	
ER1	PERFORATED CEILING EXHAUST	12" X 12"	ALUMINUM	WHITE	SURFACE MOUNT	GC	GC	NAILOS	4330R TYPE S	PROVIDE INTEGRAL OBD
RG1	PERFORATED CEILING RETURN	48" X 24"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NAILOS	4330R TYPE L	
SR1	ADJUSTABLE TURBO NOZZLE	SEE NECK SIZE	ALUMINUM	WHITE	WALL	GC	GC	AIR CONCEPTS	ANR-12	PROVIDE WITH CONCEALED MOUNTING AND FACE-ACCESSIBLE OBD
SR2	DOUBLE DEFLECTION SUPPLY REGISTER	SEE NECK SIZE	ALUMINUM	WHITE	WALL	GC	GC	NAILOS	51DH	PROVIDE WITH INTEGRAL OBD

VIROGUARD SCHEDULE							
TAG	COUNT	DESCRIPTION	DUCT CONNECTION SIZE	FAN	FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN
VG-1	1	HURRICANE-RATED VIROGUARD HOOD EXHAUST FAN ROOFTOP CONTAINMENT SYSTEM	16" X 16"	CAPTIVE-AIRE DUB5HFA	TDC	GC	ENVIRONMENTAL

CONDENSING UNIT SCHEDULE															
TAG	DESCRIPTION	NOMINAL CAPACITY	NUMBER OF		REFRIGERANT		ELECTRICAL			FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS	
			COMPRESSORS	CIRCUITS	TYPE	CHARGE	WEIGHT	MOC	FLA			V/P/H	MANUFACTURER		MODEL
CU-1	CONDENSING UNIT - WALK-IN COOLER		1	1	R-404A	10.4 lb	250 lb	15 A	9 A	208/3/60	WCS	GC	HARFORD	KPCL99MZOP-3E	FURNISHED WITH WALK-IN COOLER
CU-2	REMOTE CONDENSER - LOW CAPACITY ICE MAKER		0	1	R-404A	11.46 lb	100 lb			120/1/60	KES	GC	HOSHIZAKI	URC-9F	FURNISHED WITH ICE MAKER
CU-3	REMOTE CONDENSER - SODA MACHINE ICE MAKER		0	1	R-404A	3.86 lb	100 lb			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						BASIS FOR DESIGN					REMARKS					
			AIRFLOW	E.S.P.	DUCT COLLARS			MAU PLENUM			AC PLENUM			NO. OF LIGHT FIXTURES	WEIGHT	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL						
					NO.	WIDTH	LENGTH	NO.	WIDTH	LENGTH	NO.	WIDTH	LENGTH												
HD-1	TYPE I CANOPY HOOD	600 °F	1,900 CFM	0.85 in-wg	1	10"	1' - 6"	9' - 4"	4' - 3"	LENGTH	WIDTH	AIRFLOW	NO.	WIDTH	LENGTH	AIRFLOW	NO.	DIAMETER	6	900 lb	HS	GC	CAPTIVE-AIRE	5424 ND-2	MAT'L: 18 GA. TYPE 430 SS. FURNISHED WITH VERTICAL END PANELS, VAPORPROOF INCANDESCENT LIGHT FIXTURES, 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	EER	AIRFLOW			NET COOLING CAPACITY			HEATING CAPACITY			NUMBER OF		REFRIGERANT		ELECTRICAL			FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS			
				TOTAL	OA	E.S.P.	TOTAL	SENSIBLE	DB	WB	COND. EAT	INPUT	OUTPUT	EAT	COMPRESSORS	CIRCUITS	TYPE	CHARGE	WEIGHT			MOC	MCA		V/P/H	MANUFACTURER	MODEL
RTU-1	KITCHEN ROOFTOP UNIT	10 ton	11.5	4,000 CFM	1,050 CFM	1.00 in-wg	110,840 Btu/h	94,230 Btu/h	78 °F	64 °F	95 °F	0 Btu/h	117,230 Btu/h	70 °F	2	2	R-410A	23.9 lb	1,617 lb	60 A	49 A	208/3/60	HES	GC	TRANE	WHC120H3R0A	FURNISHED WITH COMP. ENTHALPY ECON., BAROMETRIC RELIEF, RET. SMOKE DETECTOR W/ REMOTE KEYED ANNUNCIATOR/RESET, M.O.D., MERV-13 FILTERS, 24" CURB, HAIL GUARD, TOOLLESS HINGED ACCESS PANELS, DISCONNECT, & UNIT-MOUNTED CONVENIENCE RECEPTACLE
RTU-2	DINNING ROOFTOP UNIT	10 ton	11.5	4,000 CFM	1,050 CFM	1.00 in-wg	110,840 Btu/h	94,230 Btu/h	78 °F	64 °F	95 °F	0 Btu/h	117,230 Btu/h	70 °F	2	2	R-410A	23.9 lb	1,617 lb	60 A	49 A	208/3/60	HES	GC	TRANE	WHC120H3R0A	FURNISHED WITH COMP. ENTHALPY ECON., BAROMETRIC RELIEF, RET. SMOKE DETECTOR W/ REMOTE KEYED ANNUNCIATOR/RESET, M.O.D., MERV-13 FILTERS, 24" CURB, HAIL GUARD, TOOLLESS HINGED ACCESS PANELS, DISCONNECT, & UNIT-MOUNTED CONVENIENCE RECEPTACLE

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Signature: \_\_\_\_\_ Date: 8/14/2024  
Exp. Date: 06/30/2026

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Issue Record:

08/30/23	PERMIT SET
08/14/24	CONSTRUCTION SET

Revisions:

1	01/04/2024	BUILDING REVIEW COMMENTS
2	02/24/2024	BUILDING REVIEW COMMENTS 2
3	03/26/2024	HEALTH COMMENTS
4	07/02/2024	LL TRUSS COORDINATION/DBS
5	07/18/2024	ADDENDUM COMMENTS

Drawn: \_\_\_\_\_ Checked: \_\_\_\_\_  
VH JT/SC

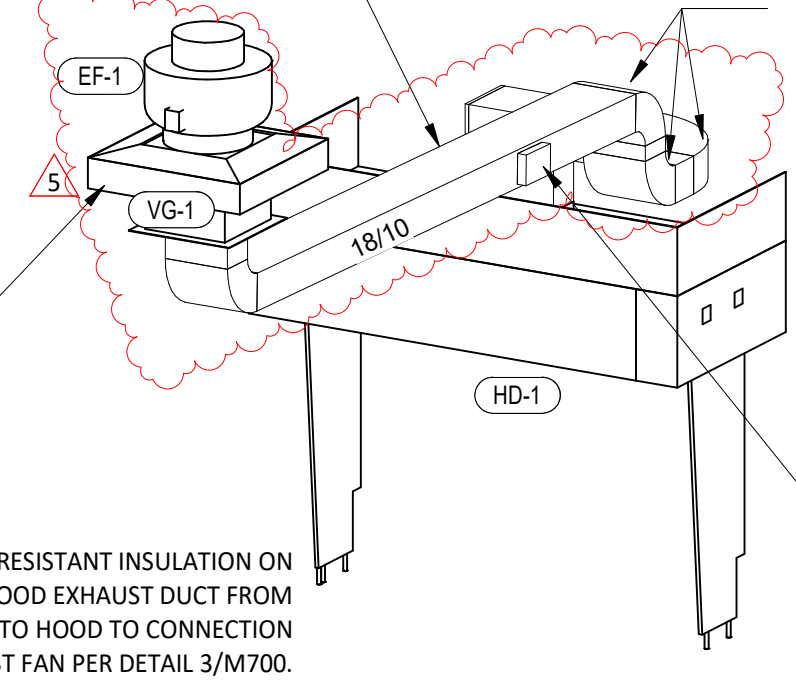
Project No: \_\_\_\_\_  
CMG-4882

Contents:

HVAC SCHEDULES

M600

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

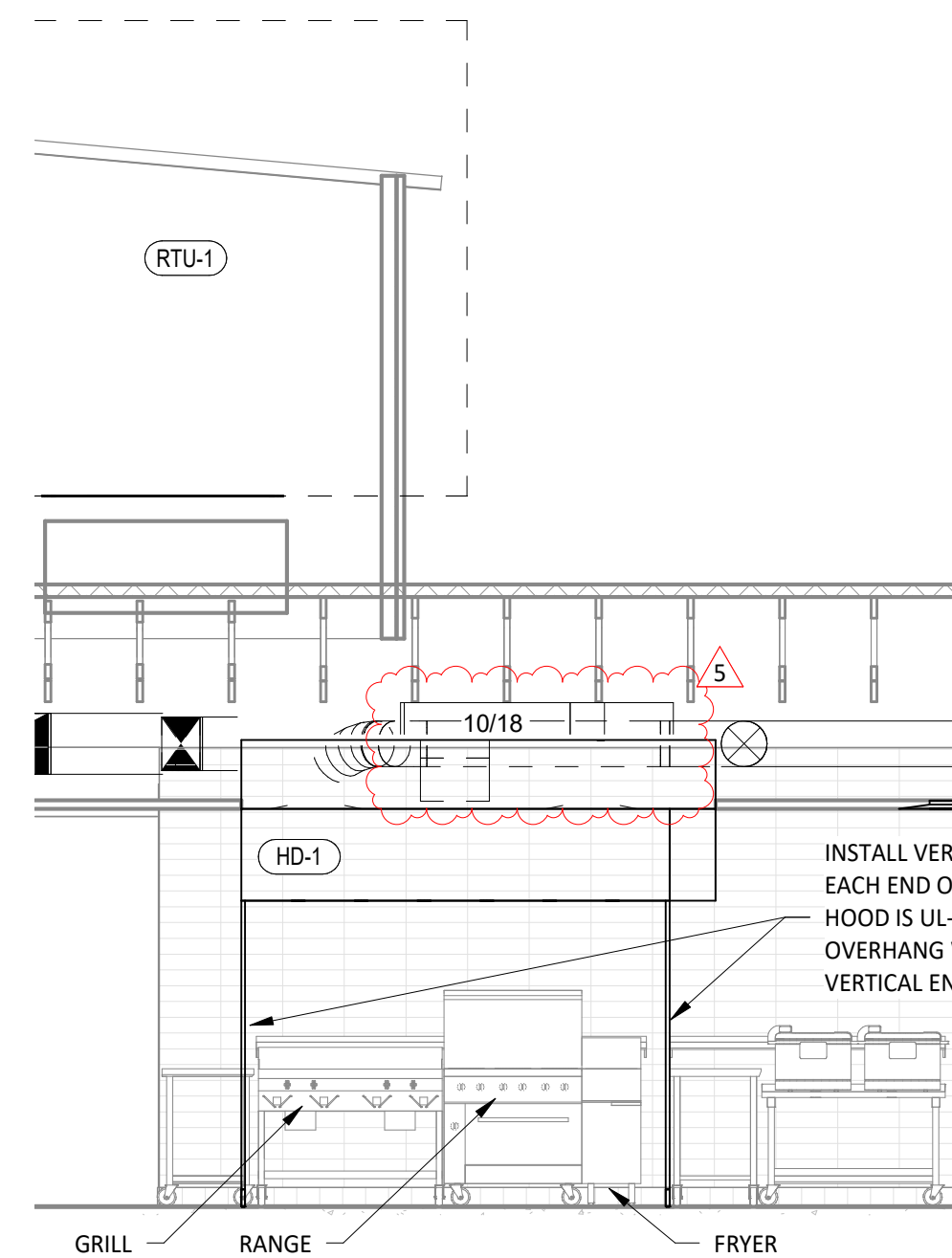


PROVIDE FIRE RESISTANT INSULATION ON TYPE I HOOD EXHAUST DUCT FROM CONNECTION TO HOOD TO CONNECTION TO EXHAUST FAN PER DETAIL 3/M700.

PROVIDE RADIUS ELBOWS WITH AN INSIDE RADIUS OF 0.5 X THE DUCT DIMENSION AT ALL CHANGES OF DIRECTION IN THE TYPE I HOOD EXHAUST DUCT.

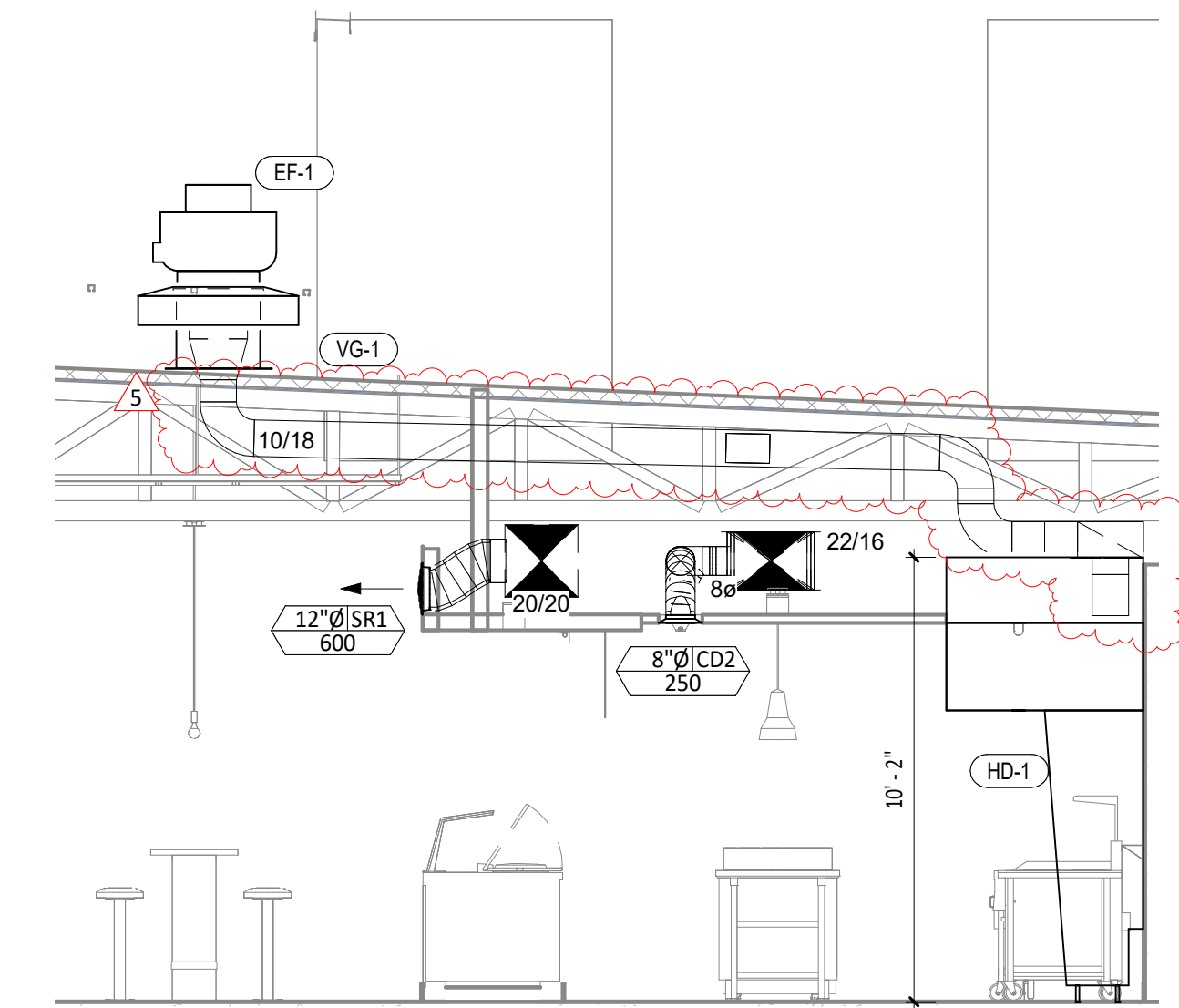
GREASE DUCT CLEANOUTS SHALL BE UL LISTED DUCTMATE PREINSULATED CLEANOUT DOORS MODEL D128ULWSB1 FOR DUCTS AT LEAST 17" TALL AND DW128ULWSB1 FOR DUCTS LESS THAN 17" TALL. CLEANOUTS SHALL BE FURNISHED BY TENANT. COORDINATE NUMBER AND SIZE REQUIRED WITH ENVIRONMENTAL. INSTALL AS SHOWN IN THE HVAC FLOOR PLAN.

9 HOOD EXHAUST ISOMETRIC  
M700 NOT TO SCALE



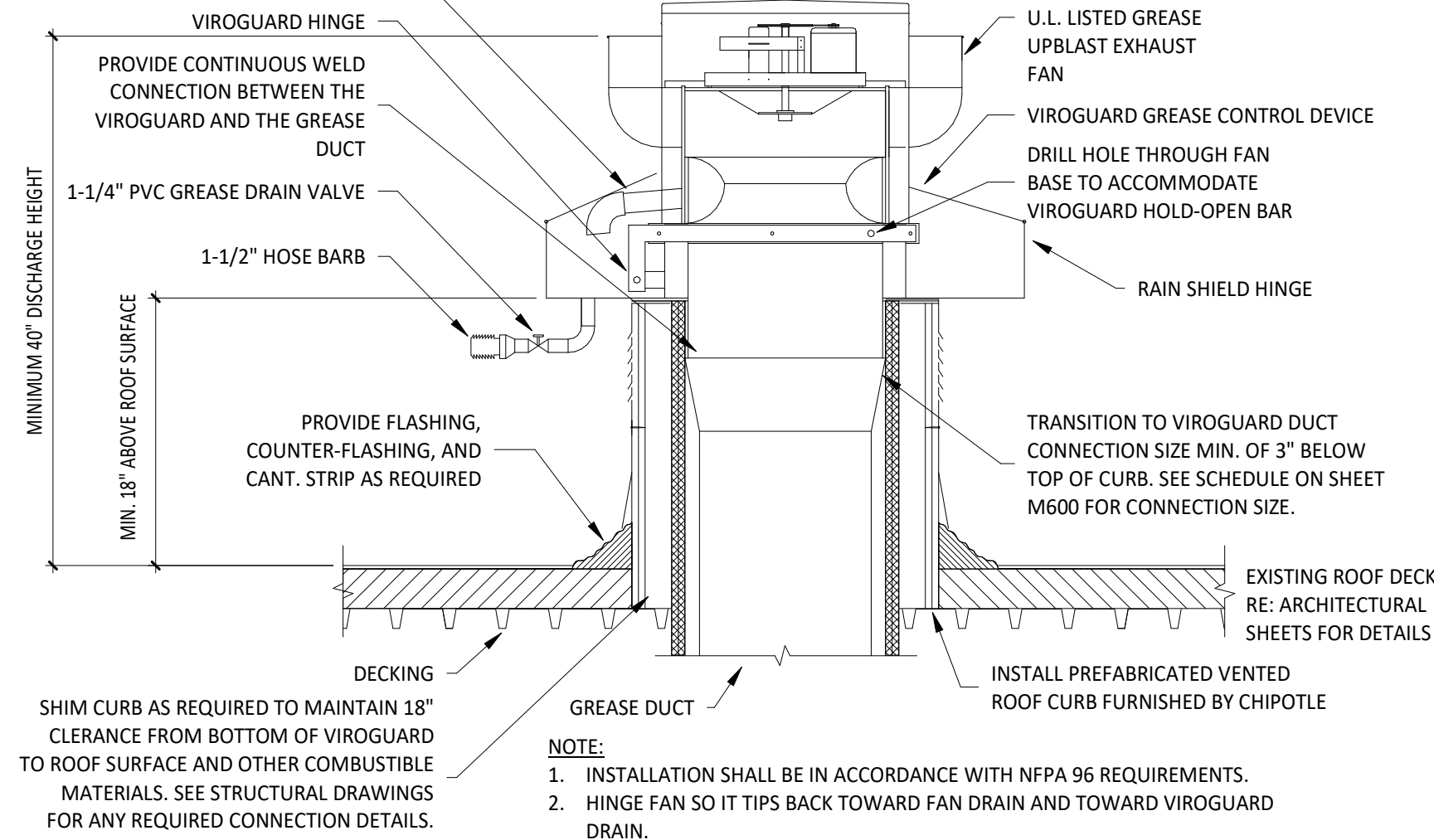
INSTALL VERTICAL END PANELS AT EACH END OF HOOD AS SHOWN. HOOD IS UL LISTED FOR 0" OVERHANG WHEN USED WITH VERTICAL END PANELS.

8 HOOD ELEVATION  
M700 1/4" = 1'-0"

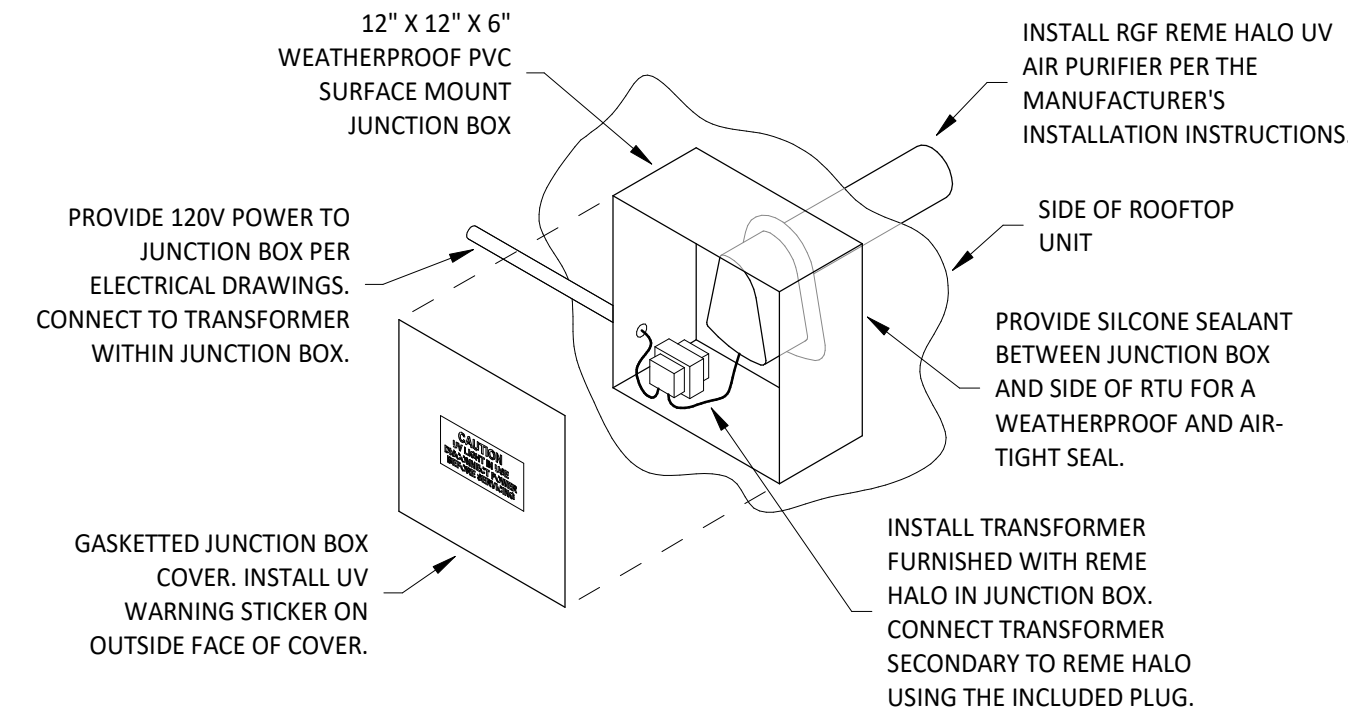


7 DUCT SECTION AT HOOD  
M700 1/4" = 1'-0"

EXHAUST FAN DRAIN WITH RUBBER ELBOW. ROTATE EXHAUST FAN SO THAT FAN DRAIN IS ON THE SAME SIDE AS THE VIROGUARD HINGE.

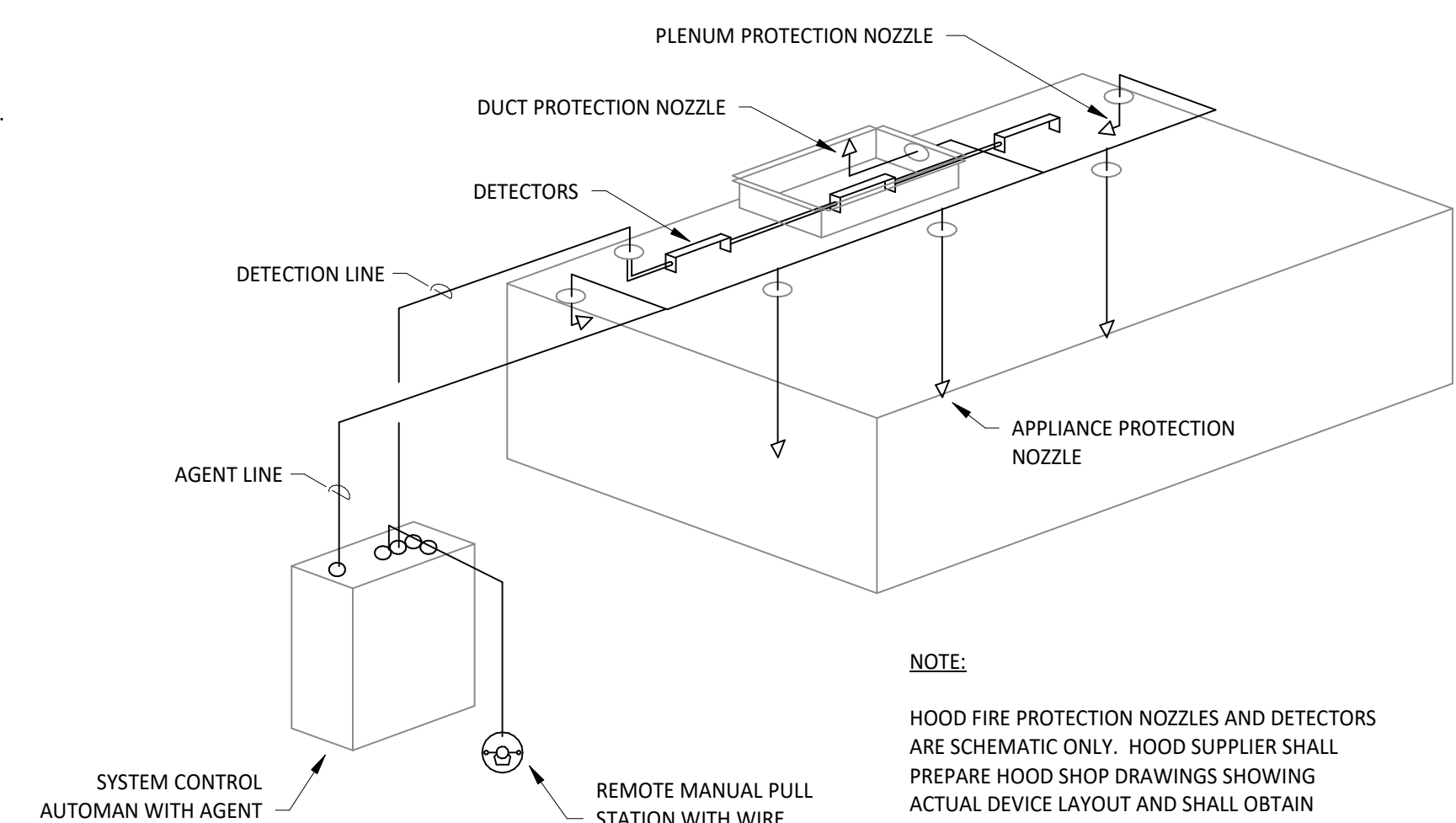


5 GREASE EXHAUST FAN  
M700 NOT TO SCALE



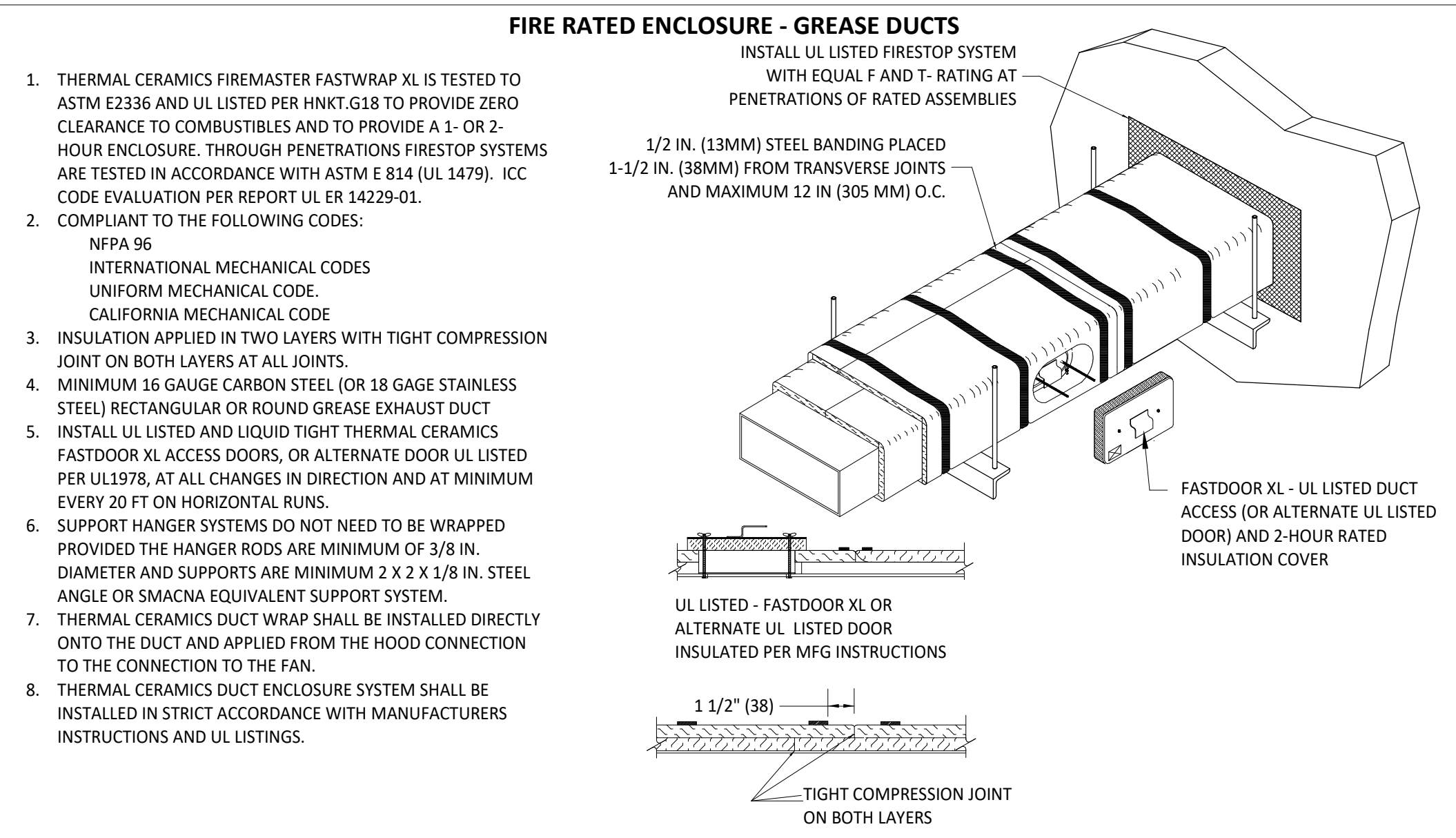
**INSTALLATION LOCATION**  
INSTALL AIR PURIFIER WITH JUNCTION BOX ON OUTSIDE FACE OF ROOFTOP UNIT AND WITH UV LAMP TUBE EXTENDING INTO THE INTERIOR OF THE ROOFTOP UNIT. FIELD VERIFY EXACT LOCATION TO AVOID DAMAGING, TOUCHING, OR INTERFERING WITH ANY RTU INTERIOR COMPONENTS. INSTALLATION LOCATION SHALL BE AS FOLLOWS:  
**TRANE:** INSTALL INTO THE SUPPLY AIR STREAM THROUGH THE REMOVABLE PANEL COVERING THE HORIZONTAL DISCHARGE SUPPLY AIR OPENING.  
 **YORK:** INSTALL INTO THE SUPPLY AIR PLENUM FROM THE BACK SIDE OF THE UNIT JUST ABOVE THE HEAT EXCHANGER.

6 UV AIR PURIFIER INSTALLATION  
M700 NOT TO SCALE



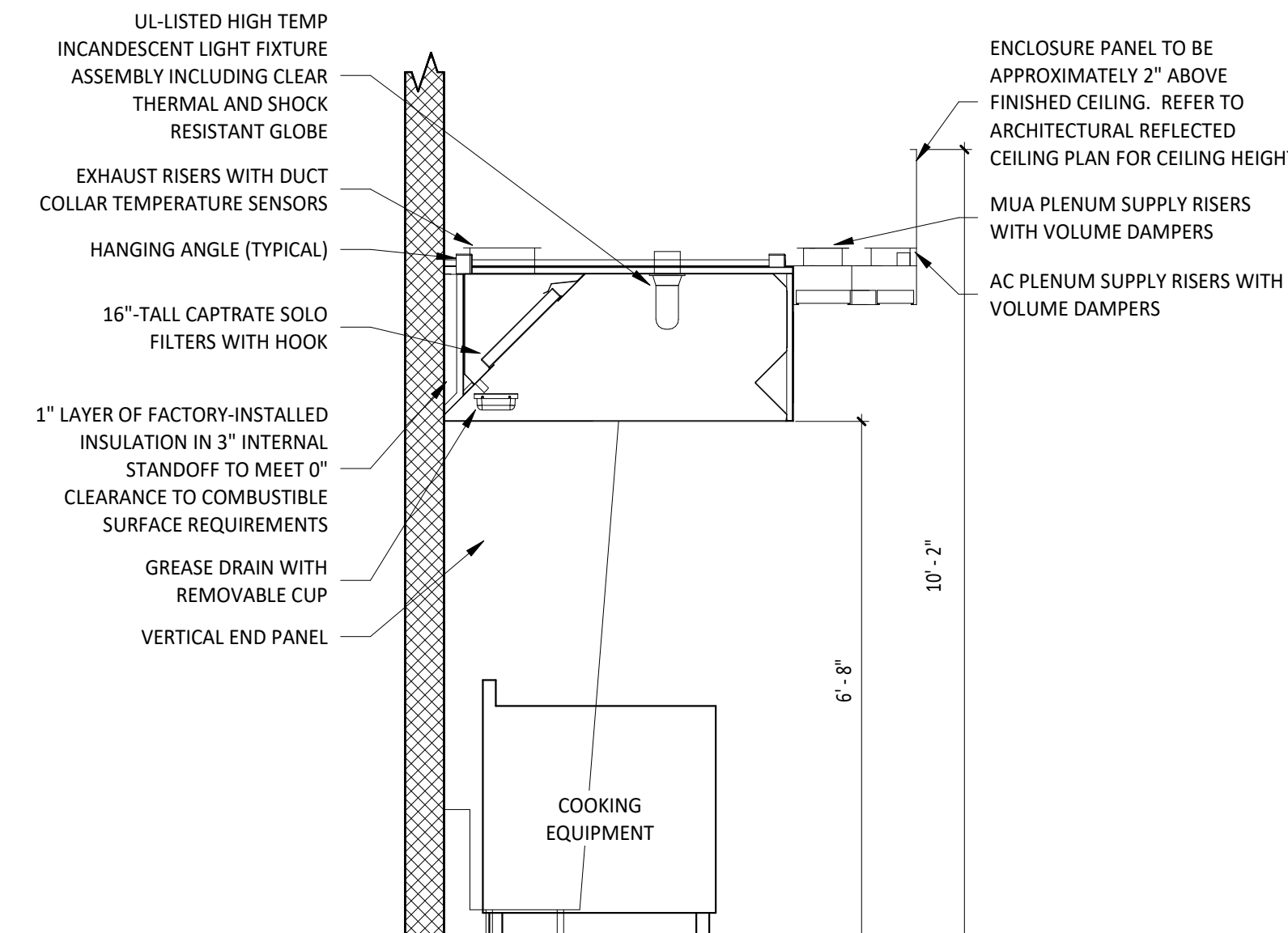
**NOTE:**  
HOOD FIRE PROTECTION NOZZLES AND DETECTORS ARE SCHEMATIC ONLY. HOOD SUPPLIER SHALL PREPARE HOOD SHOP DRAWINGS SHOWING ACTUAL DEVICE LAYOUT AND SHALL OBTAIN PERMITS ASSOCIATED WITH THIS WORK.

4 FIRE SUPPRESSION SYSTEM SCHEMATIC  
M700 NOT TO SCALE

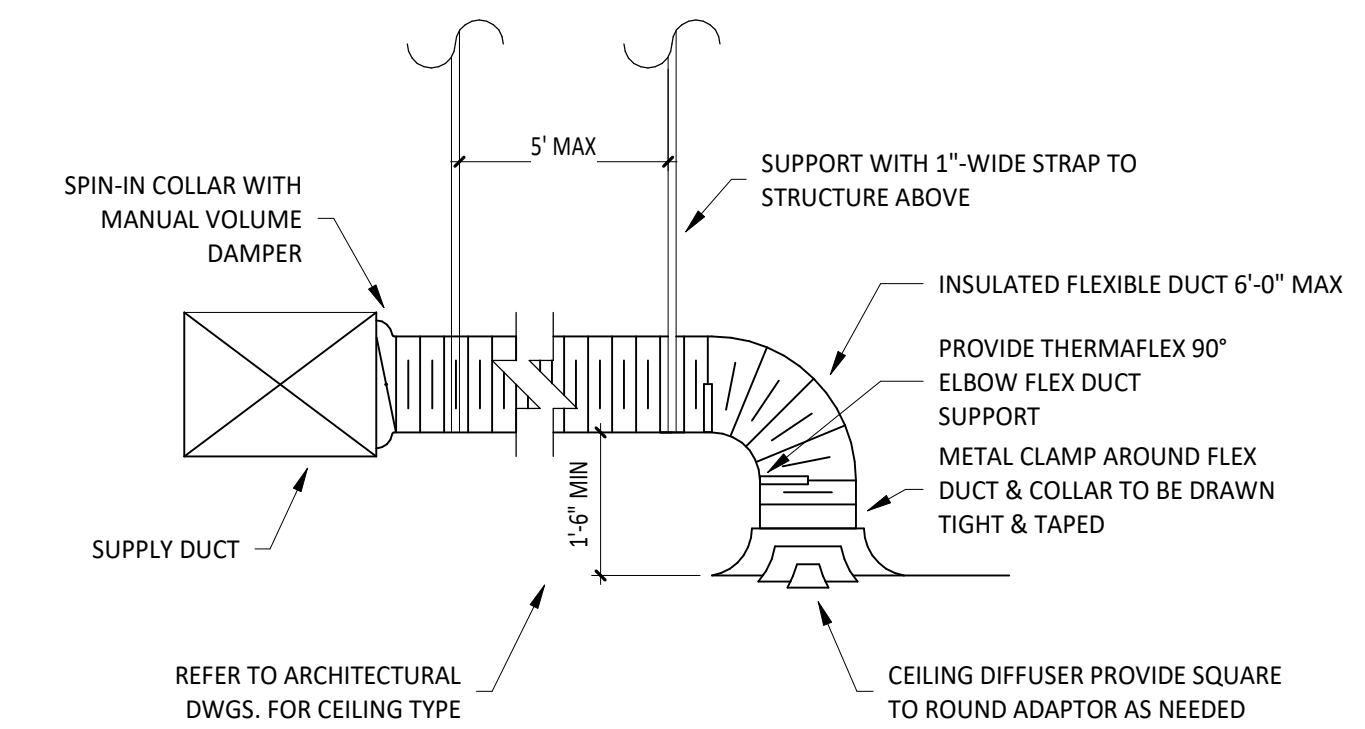


- FIRE RATED ENCLOSURE - GREASE DUCTS**
1. THERMAL CERAMICS FIREMASTER FASTWRAP XL IS TESTED TO ASTM E2336 AND UL LISTED PER HNK1.G18 TO PROVIDE ZERO CLEARANCE TO COMBUSTIBLES AND TO PROVIDE A 1- OR 2- HOUR ENCLOSURE. THROUGH PENETRATIONS FIRESTOP SYSTEMS ARE TESTED IN ACCORDANCE WITH ASTM E 814 (UL 1479). ICC CODE EVALUATION PER REPORT UL E 14229-01.
  2. COMPLIANT TO THE FOLLOWING CODES:  
NFA 96  
INTERNATIONAL MECHANICAL CODES  
UNIFORM MECHANICAL CODE  
CALIFORNIA MECHANICAL CODE
  3. INSULATION APPLIED IN TWO LAYERS WITH TIGHT COMPRESSION JOINT ON BOTH LAYERS AT ALL JOINTS.
  4. MINIMUM 16 GAUGE CARBON STEEL (OR 18 GAGE STAINLESS STEEL) RECTANGULAR OR ROUND GREASE EXHAUST DUCT
  5. INSTALL UL LISTED AND LIQUID TIGHT THERMAL CERAMICS FASTDOOR XL ACCESS DOORS, OR ALTERNATE DOOR UL LISTED PER UL1978, AT ALL CHANGES IN DIRECTION AND AT MINIMUM EVERY 20 FT ON HORIZONTAL RUNS.
  6. SUPPORT HANGER SYSTEMS DO NOT NEED TO BE WRAPPED PROVIDED THE HANGER RODS ARE MINIMUM OF 3/8 IN. DIAMETER AND SUPPORTS ARE MINIMUM 2 X 2 X 1/8 IN. STEEL ANGLE OR SMACNA EQUIVALENT SUPPORT SYSTEM.
  7. THERMAL CERAMICS DUCT WRAP SHALL BE INSTALLED DIRECTLY ONTO THE DUCT AND APPLIED FROM THE HOOD CONNECTION TO THE CONNECTION TO THE FAN.
  8. THERMAL CERAMICS DUCT ENCLOSURE SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND UL LISTINGS.

3 FIREMASTER DUCT WRAP - UL HNK1-G18  
M700 NOT TO SCALE



2 HOOD SECTION VIEW  
M700 NOT TO SCALE



**NOTE:**  
1. METHOD OF INSTALLATION FOR AIRTIGHT SEAL IS TYPICAL FOR ALL FLEX CONNECTIONS TO AIR DISTRIBUTION DEVICES.

1 DIFFUSER CONNECTION  
M700 NOT TO SCALE

Consultant:

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LENA, ILLINOIS 61048  
TEL: 815.369.9155  
FAX: 815.369.4495  
LINGLEDESIGN.COM

**LICENSED PROFESSIONAL ENGINEER**  
JOSEPH G. THOMAS  
M 31400  
Exp. 6/30/26  
MECHANICAL  
STATE OF CALIFORNIA

Signature: \_\_\_\_\_ Date: 8/14/2024  
Exp. Date: 06/30/2026

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

STORE NO.: 04-4882  
MAIN & HWAY 113  
1460 E. Main St  
Woodland CA 95776

Issue Record:

08/30/23	PERMIT SET
08/14/24	CONSTRUCTION SET

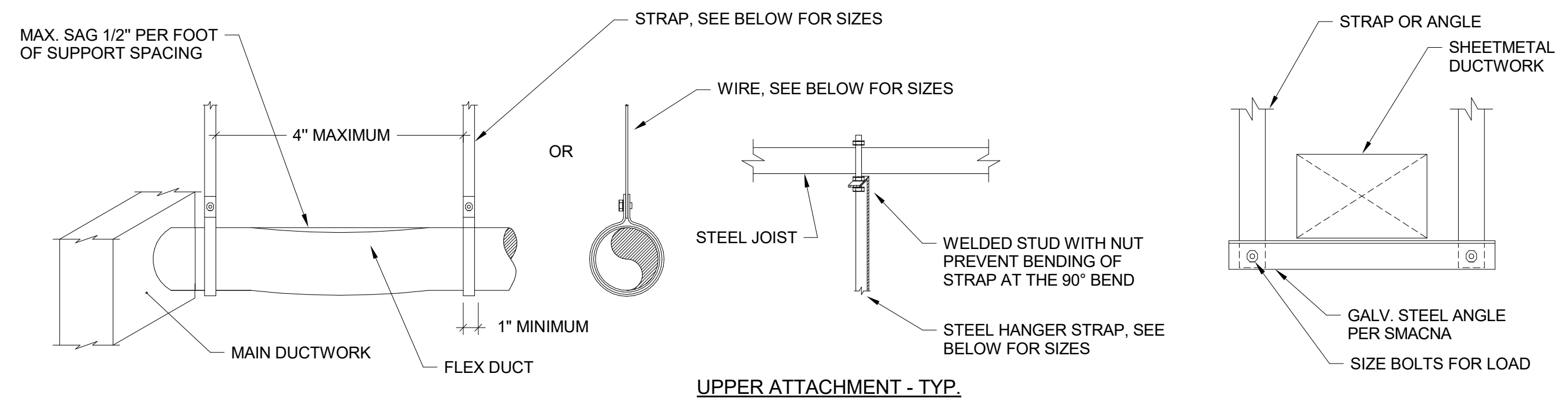
Revisions:

1	01/04/2024	BUILDING REVIEW COMMENTS
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Drawn: \_\_\_\_\_ Checked: \_\_\_\_\_  
VH JT/SC

Project No: \_\_\_\_\_  
CMG-4882

Contents:



**NOTE:**  
 1. DUCT SHOULD EXTEND STRAIGHT FOR SEVERAL INCHES FROM A CONNECTION BEFORE BENDING.  
 2. SUPPORT SYSTEM MUST NOT DAMAGE DUCT OR CAUSE OUT OF ROUND SHAPE.

**NOTE:**  
 1. SHEETMETAL DUCTWORK SUPPORTS SHALL BE MINIMUM OF 2" WIDE.

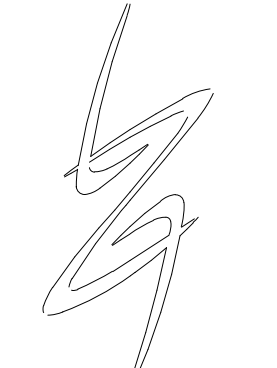
**TRAPEZE HANGER LOWER ATTACHMENT - TYP.**

RECTANGULAR DUCT HANGERS MINIMUM SIZE								
MAXIMUM HALF OF DUCT PERIMETER	PAIR AT 10 FT SPACING		PAIR AT 8 FT SPACING		PAIR AT 5 FT SPACING		PAIR AT 4 FT SPACING	
	STRAP	WIRE/ROD	STRAP	WIRE/ROD	STRAP	WIRE/ROD	STRAP	WIRE/ROD
P/2=30"	1" X 22 GA	10 GA (.135")	1" X 22 GA	10 GA (.135")	1" X 22 GA	12 GA (.106")	1" X 22 GA	12 GA (.106")
P/2=72"	1" X 18 GA	3/8"	1" X 20 GA	1/4"	1" X 22 GA	1/4"	1" X 22 GA	1/4"
P/2=96"	1" X 16 GA	3/8"	1" X 18 GA	3/8"	1" X 20 GA	3/8"	1" X 22 GA	1/4"
P/2=120"	1-1/2" X 16 GA	1/2"	1" X 16 GA	3/8"	1" X 18 GA	3/8"	1" X 20 GA	1/4"
P/2=168"	1-1/2" X 16 GA	1/2"	1-1/2" X 16 GA	1/2"	1" X 16 GA	3/8"	1" X 18 GA	3/8"
P/2=192"	NOT GIVEN	1/2"	1-1/2" X 16 GA	1/2"	1" X 16 GA	3/8"	1" X 16 GA	3/8"
P/2=193" UP	SPECIAL ANALYSIS REQUIRED							
WHEN STRAPS ARE LAP JOINED USE THESE MINIMUM FASTENERS:			SINGLE HANGER MAXIMUM ALLOWABLE LOAD					
			STRAP			WIRE OR ROD (DIA.)		
1" X 18, 20, 22 GA. - TWO #10 OR ONE 1/4" BOLT			1" X 22 GA. - 260 LBS.			0.106" - 80 LBS.		
1" X 16 GA. - TWO 1/4" DIA.			1" X 20 GA. - 320 LBS.			0.135" - 120 LBS.		
1-1/2" X 16 GA. - TWO 3/8" DIA.			1" X 18 GA. - 420 LBS.			0.162" - 160 LBS.		
PLACE FASTENERS IN SERIES, NOT SIDE BY SIDE.			1" X 16 GA. - 700 LBS.			1/4" - 270 LBS.		
			1-1/2" X 16 GA. - 1100 LBS.			3/8" - 680 LBS.		
						1/2" - 1250 LBS.		
						5/8" - 2000 LBS.		
						3/4" - 3000 LBS.		

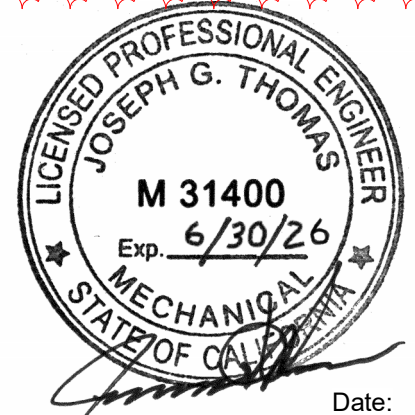
**NOTES:**  
 1. DIMENSIONS OTHER THAN GAGE ARE IN INCHES.  
 2. STRAPS ARE GALVANIZED STEEL. OTHER MATERIALS ARE UNCOATED STEEL.  
 3. 12, 10 OR 8 GA. WIRE IS STEEL OF BLACK ANNEALED, BRIGHT BASIC, OR GALVANIZED TYPE.  
 4. REFER TO SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" FOR FURTHER INSTRUCTION.  
 5. AREAS CLASSIFIED AS SEISMIC DESIGN CATEGORY C,D,E OR F SHALL BE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE.

**TYPICAL DUCT HANGING DETAIL**  
 NOT TO SCALE

Consultant:



UNGLDESIGN GROUP, LLC  
 158 WEST MAIN STREET,  
 LENA, ILLINOIS 61048  
 TEL: 815-369-9155  
 FAX: 815-369-4495  
 UNGLDESIGN.COM



Date: 8/14/2024  
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Drawn: VH Checked: JT/SC

Project No. CMG-4882

Contents: HVAC DETAILS

M701



STATE OF CALIFORNIA  
**Mechanical Systems**  
 CERTIFICATE OF COMPLIANCE  
 Project Name: Chipotle Mexican Grill  
 Project Address: 2023-08-17T17:03:43-04:00

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Joseph G. Thomas  
 Company: WCV Engineers, Inc.  
 Address: 760 Creel Drive  
 City/State/Zip: Wood Dale, Illinois 60191

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:  
 1. The information provided on this Certificate of Compliance is true and correct.  
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).  
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.  
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.  
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: JOSEPH G. THOMAS  
 Company: WCV ENGINEERS, INC  
 Address: 760 Creel Drive  
 City/State/Zip: Wood Dale, Illinois 60191

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 Documentation Software: Energy Code Ace  
 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance  
 Report Version: 2022.0.000  
 Schema Version: rev 20220101

STATE OF CALIFORNIA  
**Domestic Water Heating System**  
 CERTIFICATE OF COMPLIANCE  
 Project Name: Chipotle Mexican Grill  
 Project Address: 2023-08-17T17:19:35-04:00

**A. GENERAL INFORMATION**

01	Project Location (city)	Woodland	02	Climate Zone	12
03	Occupancy Types Within Project (select all that apply):				
• Restaurant					

**B. PROJECT SCOPE**

This table includes domestic water heating systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive paths outlined in 140.1/170.2(d) and 141.0(a)/180.1, or 141.0(b)(2)/180.2 for additions or alterations. Solar water heating systems are documented on the NRCC-SAB compliance document. Combined hydronic water heating systems are documented on the NRCC-MCH compliance document.

My project consists of (check all that apply):  
 New system (DHW system being installed for the first time)  
 System Alteration (equipment, distribution or controls)

**C. COMPLIANCE RESULTS**

Table C will indicate if the project data input into the compliance document is compliant with water heating requirements. If this table says "DOES NOT COMPLY" or "COMPLIES WITH EXCEPTIONAL CONDITIONS" refer to Table D. or the table indicated as not compliant for guidance.

01	02	03	04
Domestic Hot Water Equipment	Distribution Systems	Controls	Compliance Results
Table F	Table G	Table H	
Yes	Yes	Yes	COMPLIES

**D. EXCEPTIONAL CONDITIONS**  
 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

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**E. ADDITIONAL REMARKS**  
 This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

**F. DOMESTIC HOT WATER EQUIPMENT**

This table is used to demonstrate compliance with mandatory equipment requirements in 110.1 and 110.3. Compliance with prescriptive requirements in 140.5(c) / 170.2(d) must also be demonstrated and with 141.0 / 180.1 / 180.2 for addition and alteration scopes.

Equipment Schedule: Water Heating Efficiency and Standby Loss

System Name	DWH-1,2	Exception to 140.5(c)/170.2(d)3	Exceptions Do Not Apply	Gas Service Water Heating System >= 1MMBtu/h <sup>1</sup>	Capacity-weighted Average Efficiency %	Designed Standby Loss	Maximum Standby Loss
P-100,600	Commercial Gas Instantaneous Water Heater	0	199	0.95	0.8	TE	

**Water Heating Equipment All Occupancies**

System Name	DWH-1,2	Exception to 140.5(c)/170.2(d)3	Exceptions Do Not Apply	Gas Service Water Heating System >= 1MMBtu/h <sup>1</sup>	Capacity-weighted Average Efficiency %	Designed Standby Loss	Maximum Standby Loss
18	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
21	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

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**G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM**

This table is used to demonstrate compliance for nonresidential occupancies with distribution requirements in 120.3 and 140.5. For multifamily and hotel/motel occupancies, compliance is demonstrated with requirements 110.3(c), 160.4, 170.2(d).

**Mandatory Pipe Insulation All Occupancies**

13	<input type="checkbox"/>	For systems serving dwelling units, pipe insulation must meet the minimum insulation requirements in Table 160.4-A (see blow) except: • Piping that penetrates framing members shall not be required to have pipe insulation for the distance of the framing penetration. Piping that penetrates metal framing shall use grommets, plugs, wrapping or other insulating material to assure that no contact is made with the metal framing. Insulation shall abut securely against all framing members • Piping installed in interior or exterior walls shall not be required to have pipe insulation if all of the requirements are met for compliance with Quality Insulation Installation (QII) as specified in the Reference Residential Appendix RA3.5. • Piping surrounded with a minimum of 1 inch of wall insulation, 2 inches of crawlspace insulation, or 4 inches of attic insulation, shall not be required to have pipe insulation.
14	<input checked="" type="checkbox"/>	For systems serving nonresidential spaces, pipe insulation for the following applications is specified to comply with Table 120.3-A (see below) per 120.3: • Recirculating system piping, including supply and return piping of the water heater • The first 8 ft of hot and cold outlet piping, including between storage tank and heat trap, for a nonrecirculating storage system • Pipes that are externally heated
15	<input checked="" type="checkbox"/>	Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service per 120.3(b) / 160.4(f). Pipe insulation buried below grade must be installed in a water proof and non-crushable casing or sleeve.

**TABLE 120.3-A / 160.4-A PIPE INSULATION THICKNESS**

Fluid Temperature Range (°F)	Conductivity Range (Btu-in per hour per ft <sup>2</sup> per °F)	Insulation Mean Rating Temp (°F)	Nominal Pipe Diameter (in)			
			< 1	1 to < 1.5	1.5 to < 4	1.5 to < 4 Multifamily & Hotel/Motel
105-140	0.22 - 0.28	100	1.0 in or R-7.7	1.5 in or R-12.5	1.5 in or R-11	2.0 in or R-16

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**H. DOMESTIC HOT WATER CONTROLS**

This table is used to demonstrate compliance with control requirements in 110.3 for all occupancies. For multifamily residential and hotel/motel occupancies, compliance is also demonstrated with requirements in 160.4(e) / 170.2(d).

	Yes	No	Not Applicable	Requirement
01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Construction documents require manufacturer certification that service water-heating systems are equipped with automatic temperature controls capable of adjusting temperature settings per 110.3(a).
02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per 110.3(c) unless covered by California Plumbing Code 613.0.
03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per §110.3(c) unless systems serves healthcare facility.
04	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For recirculation systems serving multiple dwelling units, design includes automatic pump controls per 170.2(d) or 180.1(b)3 for additions.
05	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference Appendix RA4.4.9 per 170.2(d).
06	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Combustion air positive shut-off shall be provided per 160.4(3) on all newly installed commercial boilers as follows: • Boilers with input capacity >= 2.5 MMBtu/h, in which the boiler is designed to operate with a nonpositive vent static pressure • Boilers where one stack serves two or more boilers with a total combined input capacity per stack of 2.5 MMBtu/h.
07	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Boiler combustion air fans with motor >= 10 hp shall meet one of the following • The fan motor shall be driven by a variable speed drive OR • The fan motor shall include controls that limit the fan motor demand to <=30% of the total design wattage at 50% of the design air volume.
08	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Newly installed boilers with an input capacity (dghte) 5MMBtu/h and a steady state full-load combustion efficiency < 90% shall maintain excess (stack-gas) oxygen concentrations <= 5% by volume on a dry basis over firing rates of 20-100%. Combustion air volume shall be controlled with respect to firing rate or flue gas oxygen concentration. Use of a common gas and combustion air control linkage or jack shaft is prohibited.

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**I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**  
 Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

**J. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**  
 There are no forms required for this project.

**K. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION**  
 There are no forms required for this project.

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 Company: WCV Engineers, Inc.  
 Address: 760 Creel Drive  
 City/State/Zip: Wood Dale, Illinois 60191

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 FAX: 815.369.4495  
 UNLGEDESIGN.COM

**Professional Engineer Seal:**  
 LICENSED PROFESSIONAL ENGINEER  
 JOSEPH G. THOMAS  
 M 31400  
 Exp. 6/30/26  
 MECHANICAL  
 STATE OF CALIFORNIA

Signature: \_\_\_\_\_ Date: 8/14/2024  
 Exp. Date: 06/30/2026

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Drawn: \_\_\_\_\_ Checked: \_\_\_\_\_  
 VH JT/SC

Project No: CMG-4882

Contents: HVAC TITLE 24

**M801**



EXHAUST FAN INFORMATION - JOB#6192244

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	EF-1	1	DU85HFA	CAPTIVEAIRE	1900	1.200	1437	TEAO-ECM	1.000	0.5880	1	115	11.6	601 FPM	94	13.3
2	EF-2	1	DR12HFA	CAPTIVEAIRE	280	0.500	1256	TEAO-ECM	0.250	0.0880	1	115	2.9		50	5.8

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-1	1	GREASE BOX
		1	REMOVE HINGE KIT LABEL FROM THE FAN BASE
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
2	EF-2	1	ECM WIRING PACKAGE - EXHAUST - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -MSC- (TELCO), CCW ROTATION
		1	12-BDD DAMPER
		1	2 YEAR PARTS WARRANTY

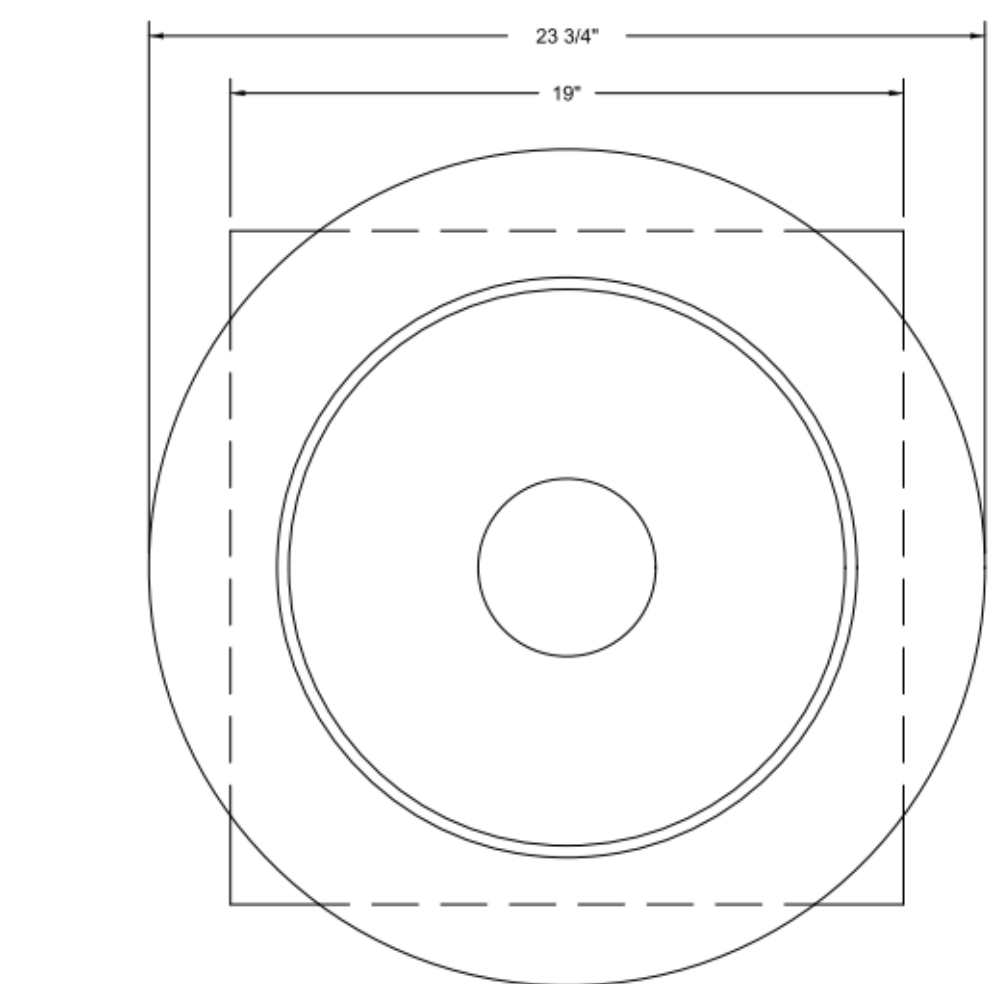
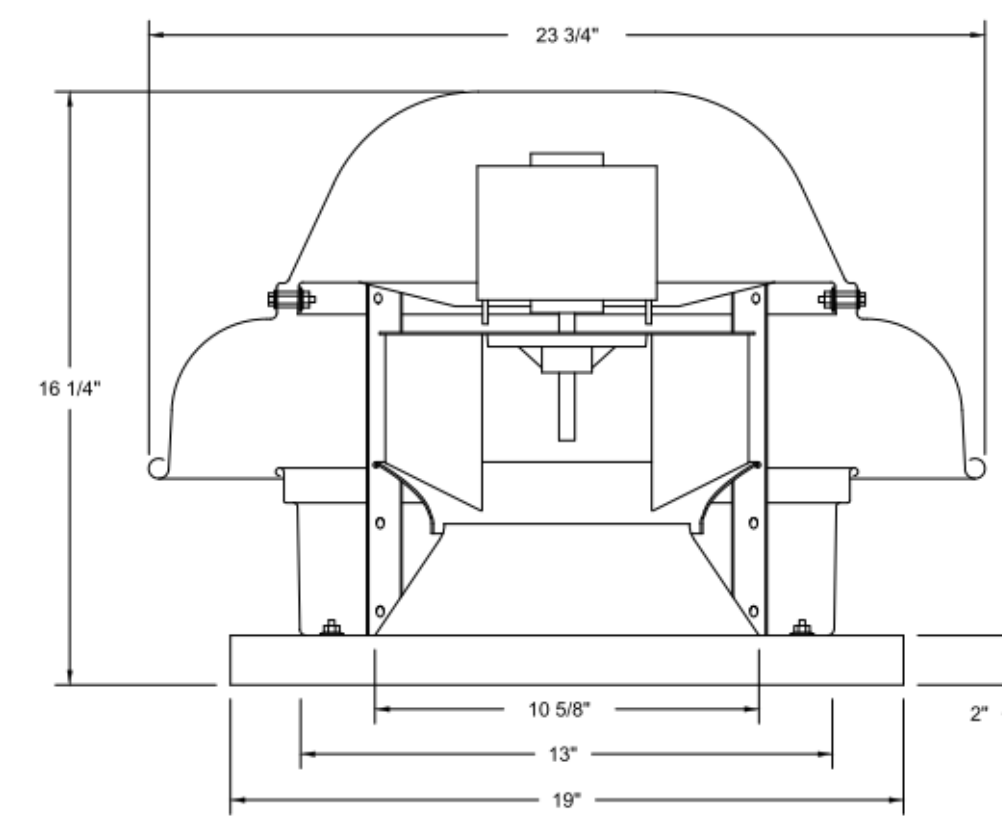
FAN ACCESSORIES

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					

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	EF-1	32 LBS	CURB	23.000"W X 23.000"L X 20.000"H VENTED.
2	# 2	EF-2	31 LBS	CURB	17.500"W X 17.500"L X 26.000"H.

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



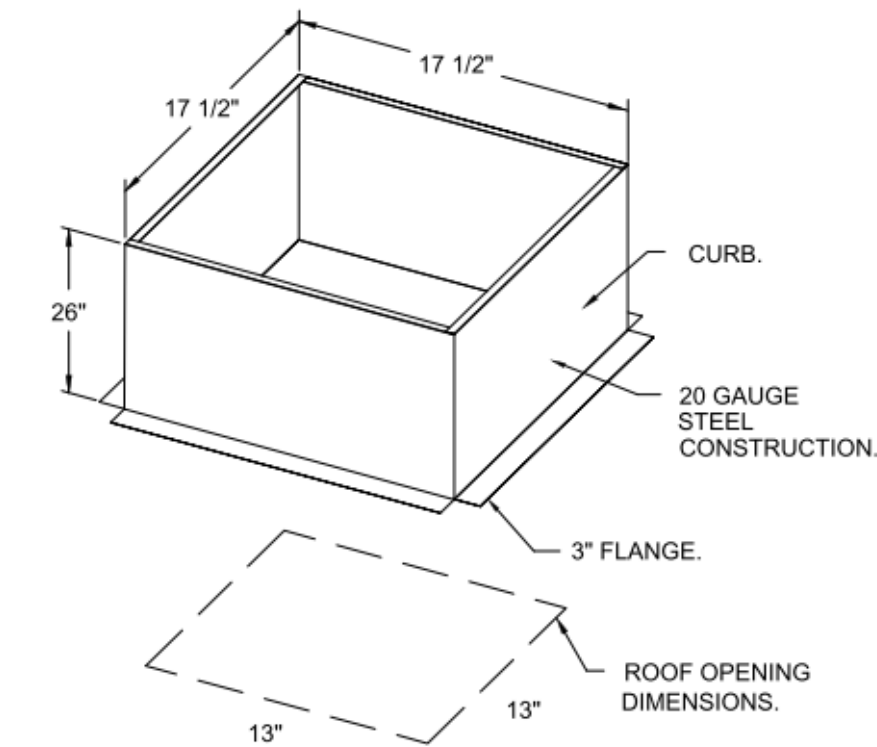
TOP VIEW

FEATURES:

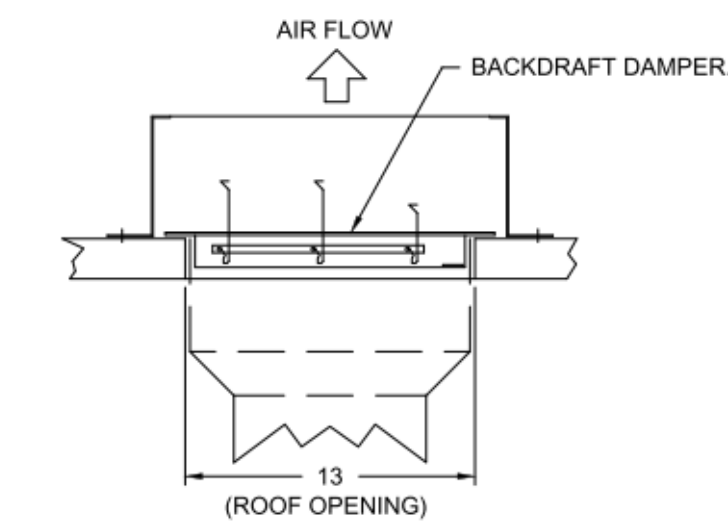
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- SAFETY DISCONNECT.
- STANDARD BIRD SCREEN.
- SPEED CONTROL.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).

OPTIONS

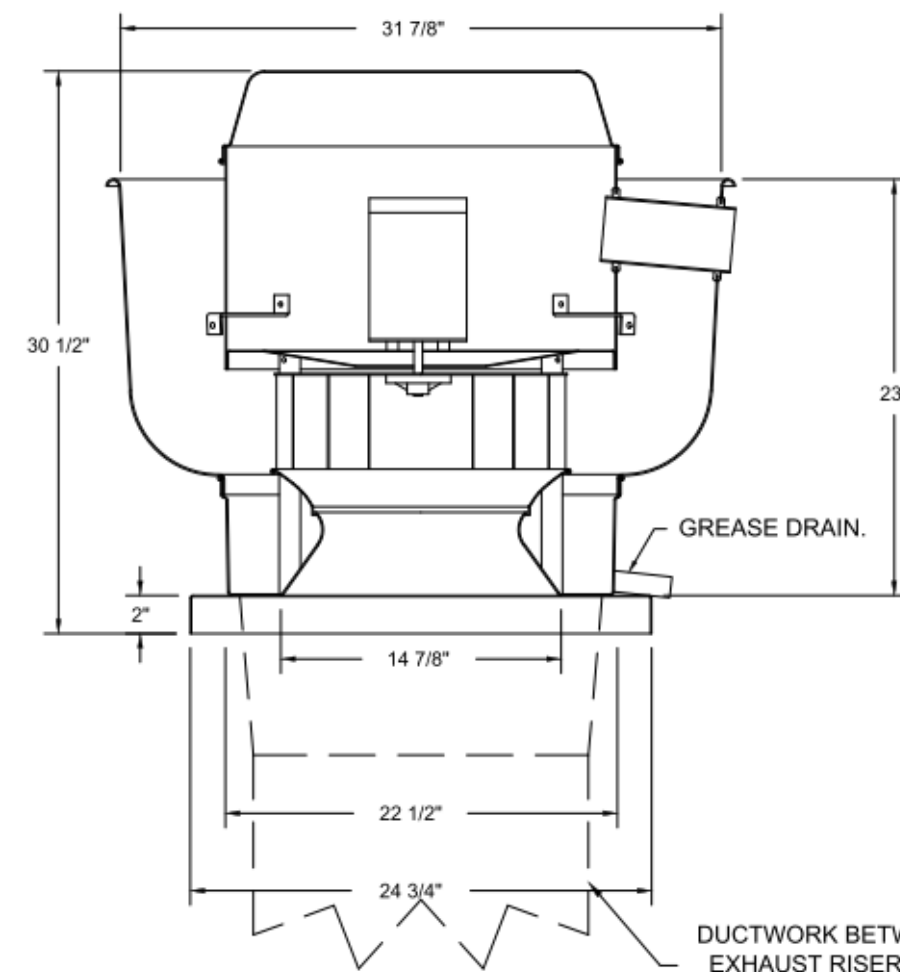
- ECM WIRING PACKAGE - EXHAUST - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -MSC- (TELCO), CCW ROTATION.
- 12-BDD DAMPER.
- 2 YEAR PARTS WARRANTY.



BACKDRAFT DAMPER INSTALLATION



FAN #1 DU85HFA - EXHAUST FAN (EF-1)



FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- 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

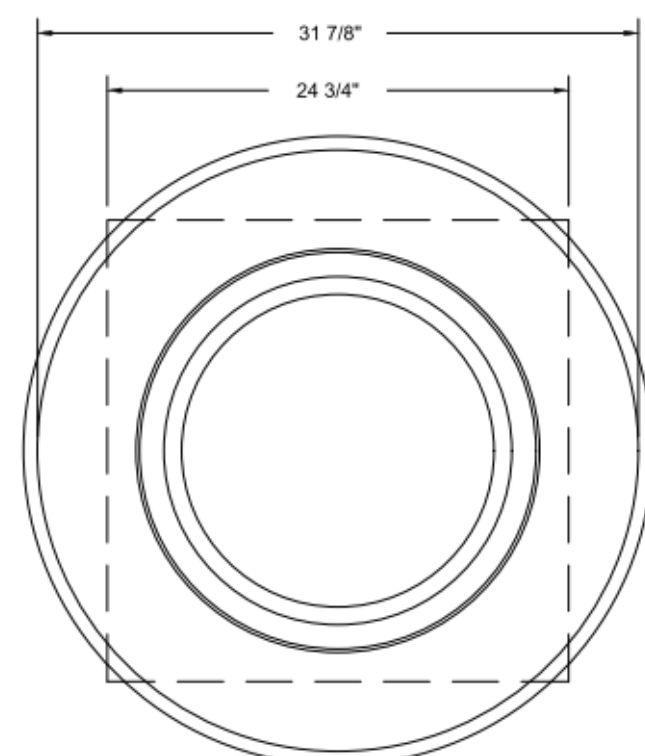
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DEGRADING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST

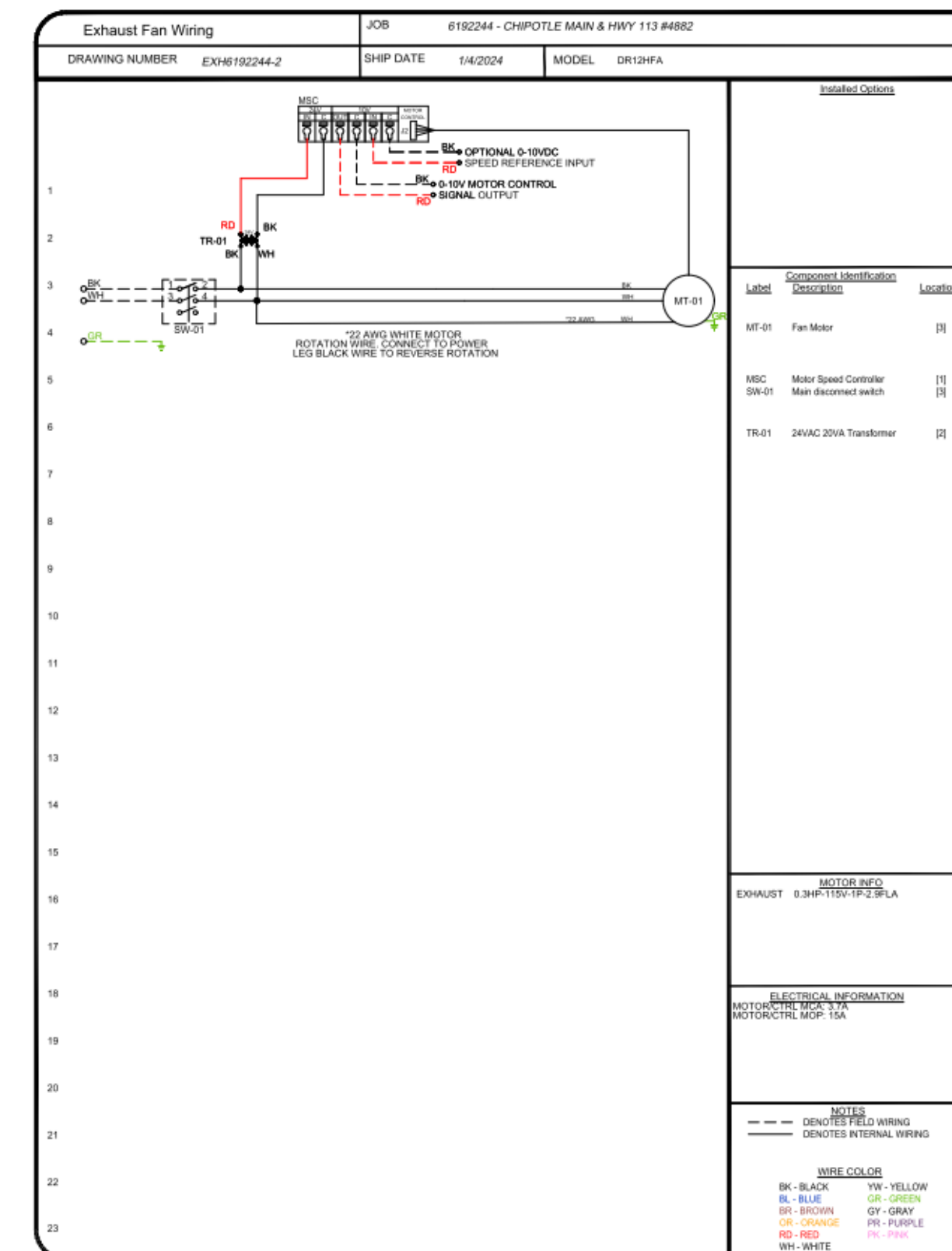
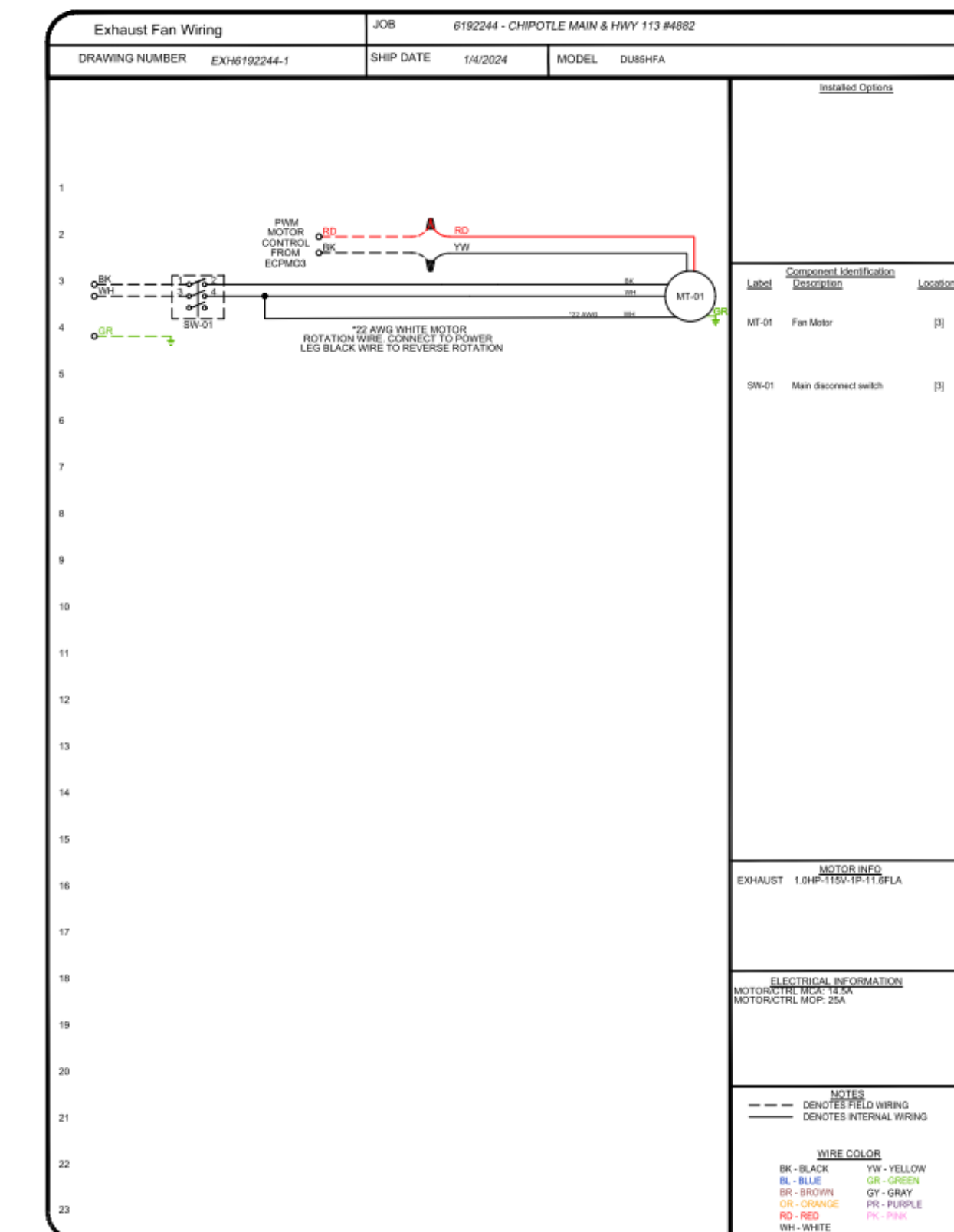
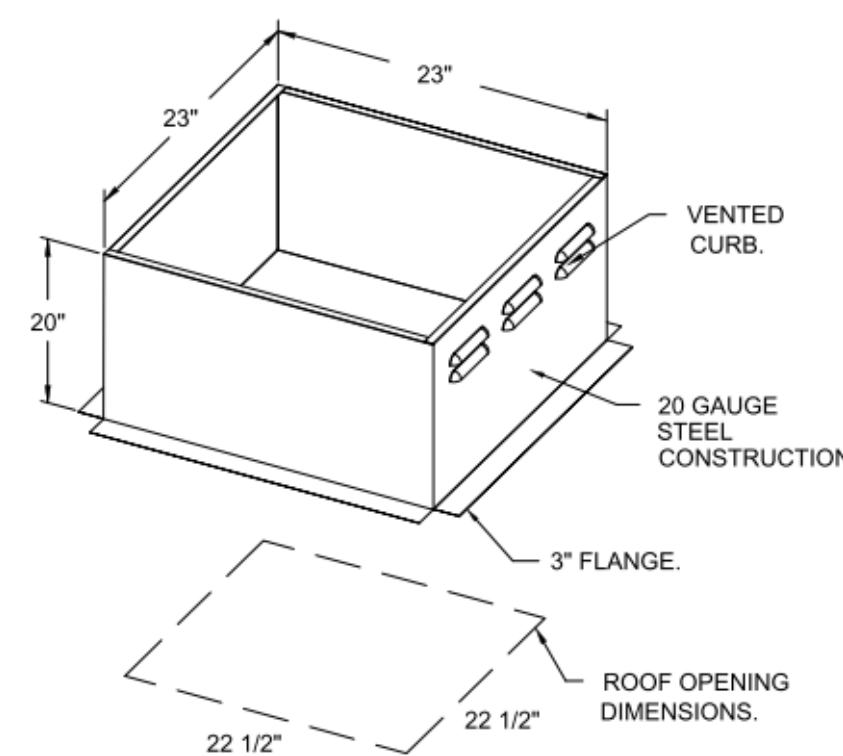
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- REMOVE HINGE KIT LABEL FROM THE FAN BASE.
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.



TOP VIEW



REVISIONS

DESCRIPTION	DATE



CHIPOTLE MAIN & HWY 113 #4882  
1460 East Main Street,  
Woodland, CA, 95776

DATE: 1/4/2024  
DWG #: 6192244

DRAWN BY:  
SCALE: 3/4" = 1'-0"  
MASTER DRAWING

SHEET NO. 2

Consultant:

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158 WEST MAIN STREET,  
LENA, ILLINOIS 61048  
TEL: 815.369.9155  
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LICENSED PROFESSIONAL ENGINEER  
JOSEPH G. THOMAS  
M 31400  
Exp. 6/30/26  
MECHANICAL  
STATE OF CALIFORNIA

Signature: \_\_\_\_\_ Date: 8/14/2024  
Exp. Date: 06/30/2026

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STORE NO.: 04-4882  
MAIN & HWAY 113  
1460 E. Main St  
Woodland CA 95776

Issue Record:

DATE	DESCRIPTION
08/14/24	CONSTRUCTION SET

Revisions:

NO	DATE	DESCRIPTION
1	01/04/2024	BUILDING REVIEW COMMENTS
2	02/24/2024	BUILDING REVIEW COMMENTS 2
3	03/26/2024	HEALTH COMMENTS
4	07/02/2024	LL TRUSS COORDINATION/DBS
5	07/18/2024	ADDENDUM COMMENTS

Drawn: \_\_\_\_\_ Checked: \_\_\_\_\_  
Author: \_\_\_\_\_ Checker: \_\_\_\_\_

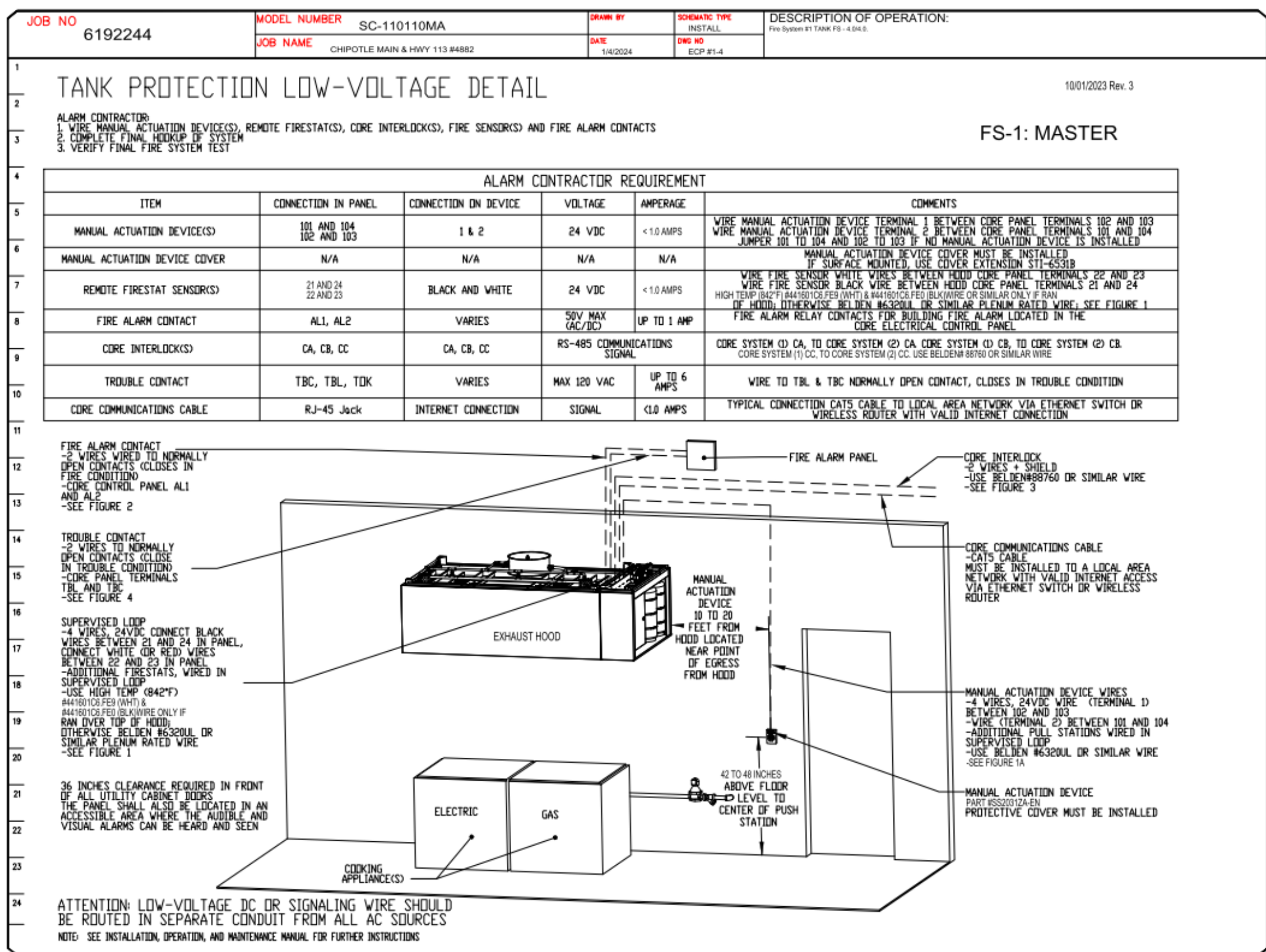
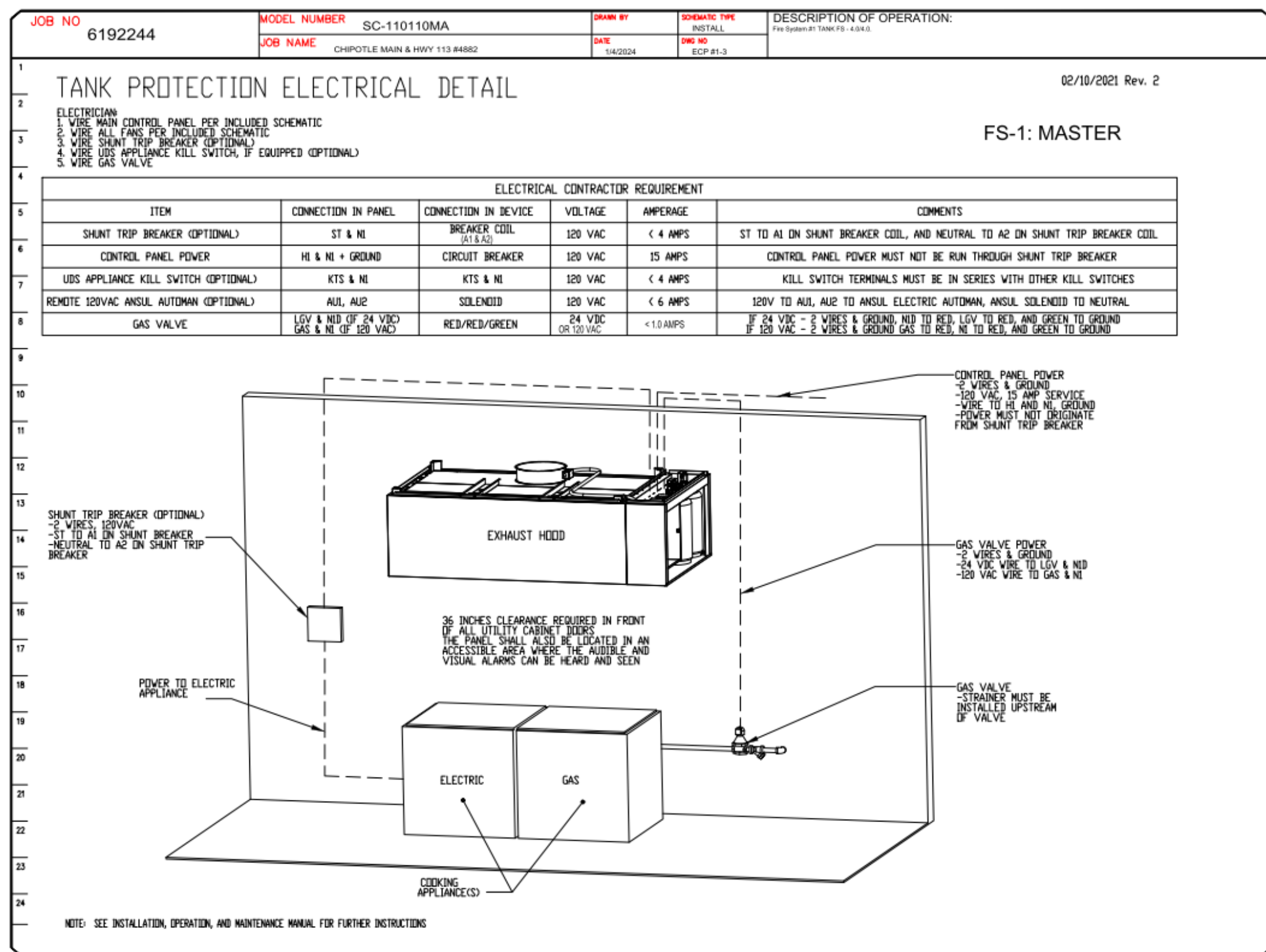
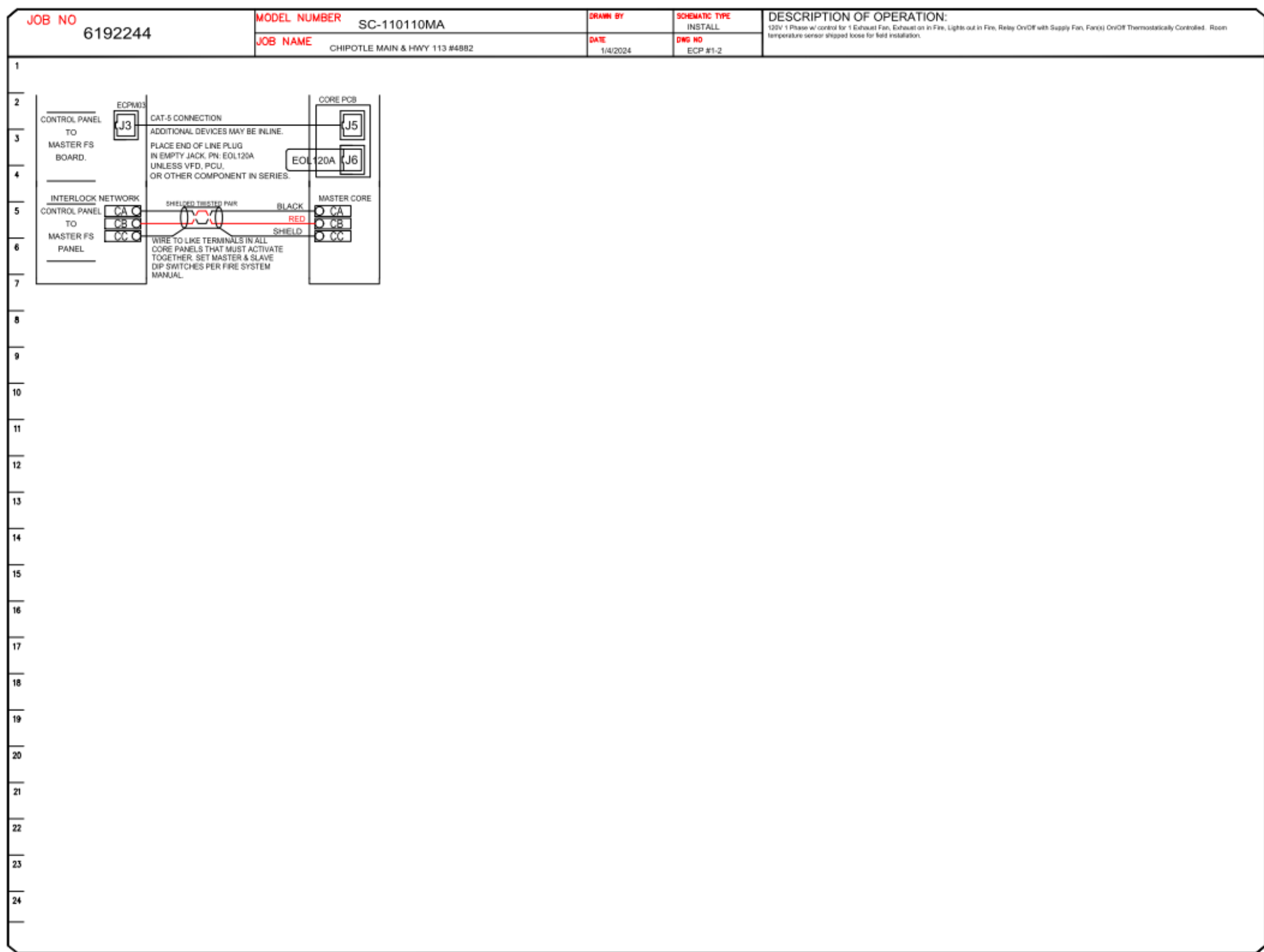
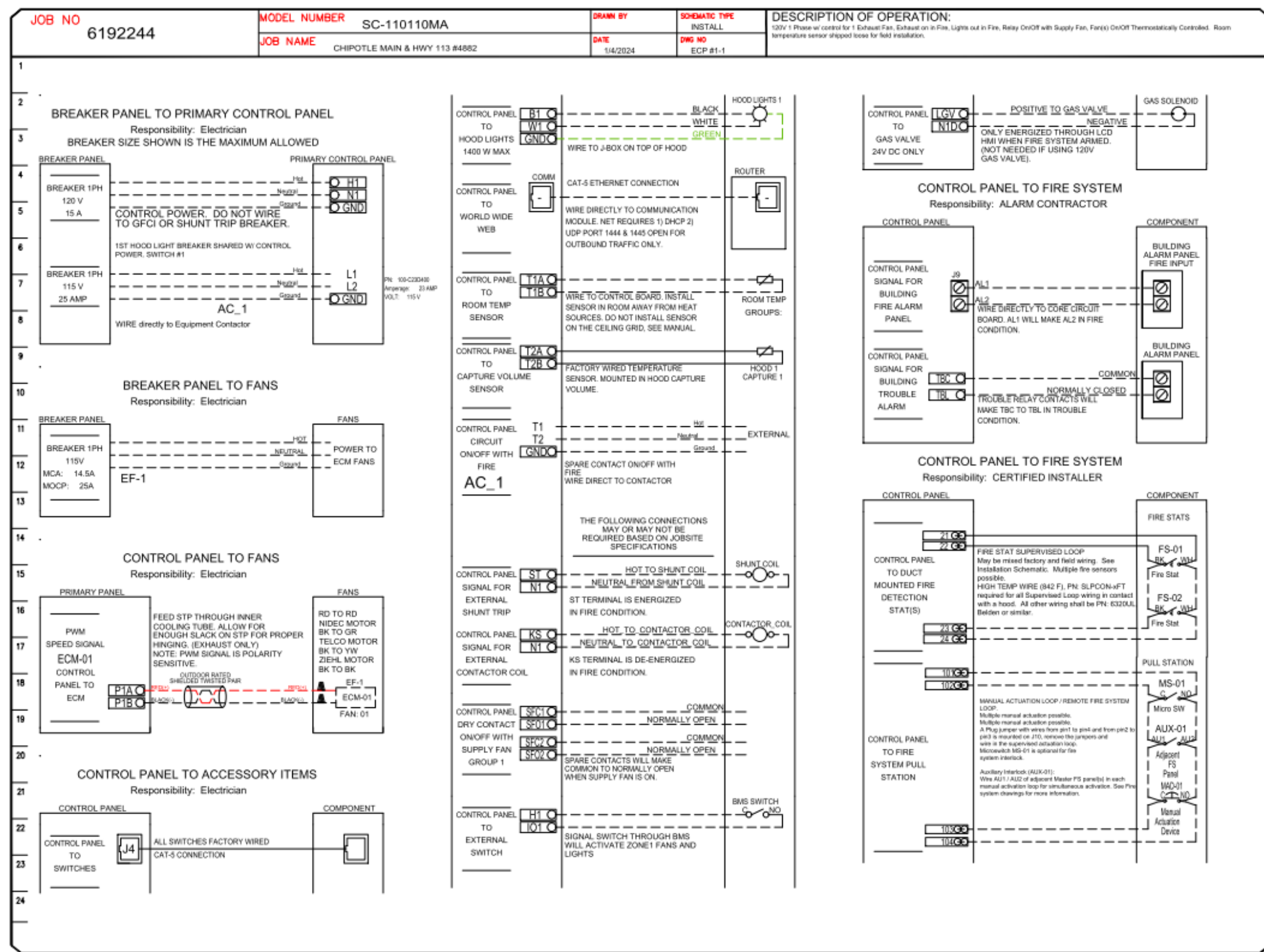
Project No: CMG-4882

Contents:

CAPTIVEAIRE DRAWINGS

M901

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	HP	VOLT	FLA	
1		SC-11010MA	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT	1 LIGHT 1 FAN	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	EF-1	EXHAUST	1	1,000	115	11.6



REVISIONS	
DESCRIPTION	DATE



**CHIPOTLE MAIN & HWY 113 #4882**  
1460 East Main Street,  
Woodland, CA, 95776

DATE: 1/4/2024  
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Author: \_\_\_\_\_ Checker: \_\_\_\_\_

Project No: \_\_\_\_\_  
CMG-4882

Contents:  
**CAPTIVEAIRE DRAWINGS**

**M902**

