

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#5264423

| 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

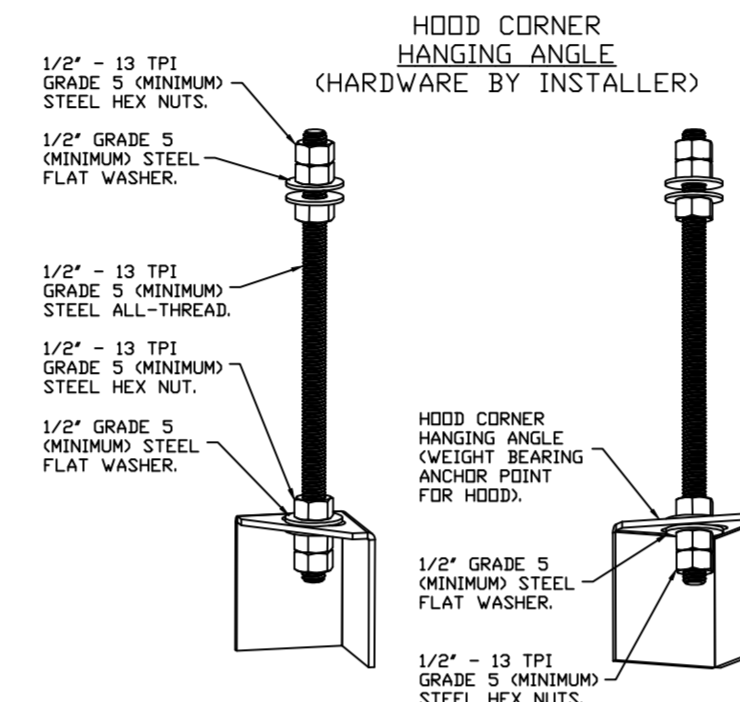
| HOOD NO | TAG | FILTER(S) | | | | LIGHT(S) | | | | UTILITY CABINET(S) | | | | FIRE SYSTEM PIPING | HOOD HANGING WEIGHT | | |
|---------|-----|-----------------------|-----|--------|--------|------------------------|-----|----------------|------------|--------------------|-------------|------------------|---------|--------------------|---------------------|--------------------|-------------------|
| | | TYPE | 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 | NO | RIGHT | 12"x54"x24" | ANSUL R-102 | 3.0/3.0 | SC-31110MA | 1 LIGHT 1 FAN | YES | 1113 LBS |

HOOD OPTIONS

| HOOD NO | TAG | OPTION |
|---------|-----|---|
| 1 | | FIELD WRAPPER 18.00' 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 | SP |
| 1 | | Front | 183' | 22' | 6' | MUA | 10" | 28" | | 650 | 0.166' |
| | | | | | | MUA | 10" | 28" | | 650 | 0.166' |
| | | | | | | MUA | 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" | |
| | | | | | | AC | | 8" | 114 | 0.041" | |



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.

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.

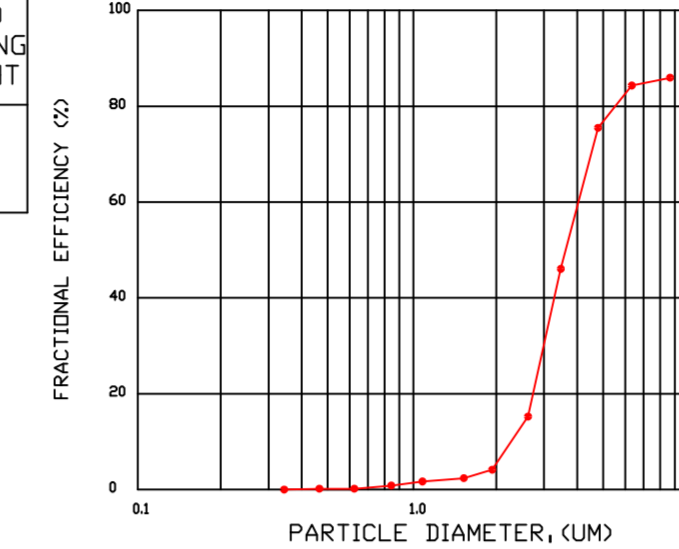
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

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

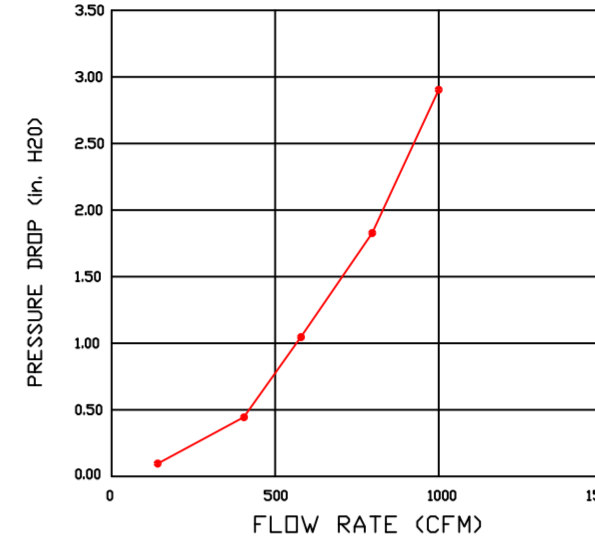
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

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.

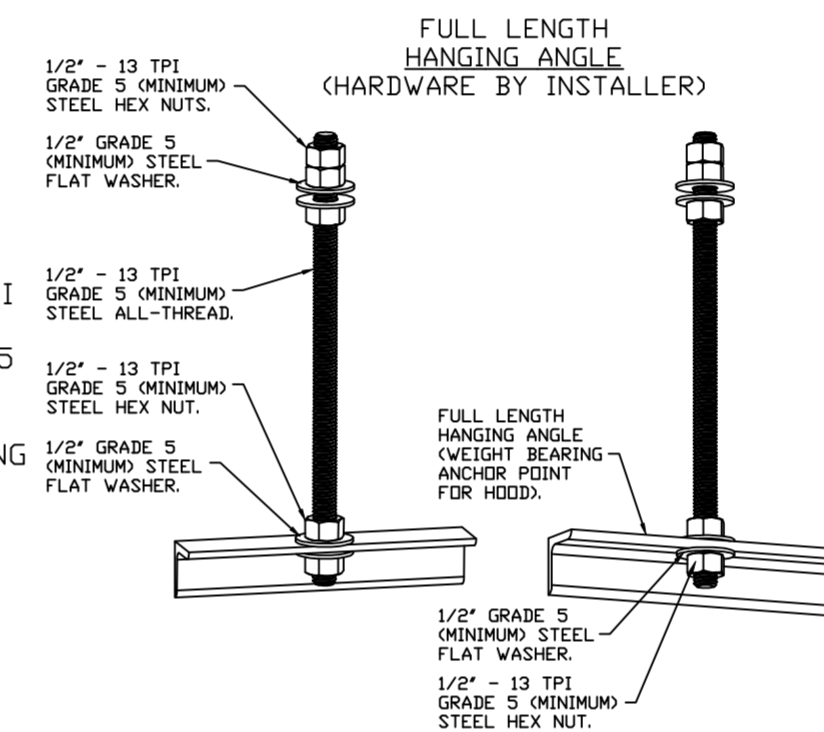
EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE

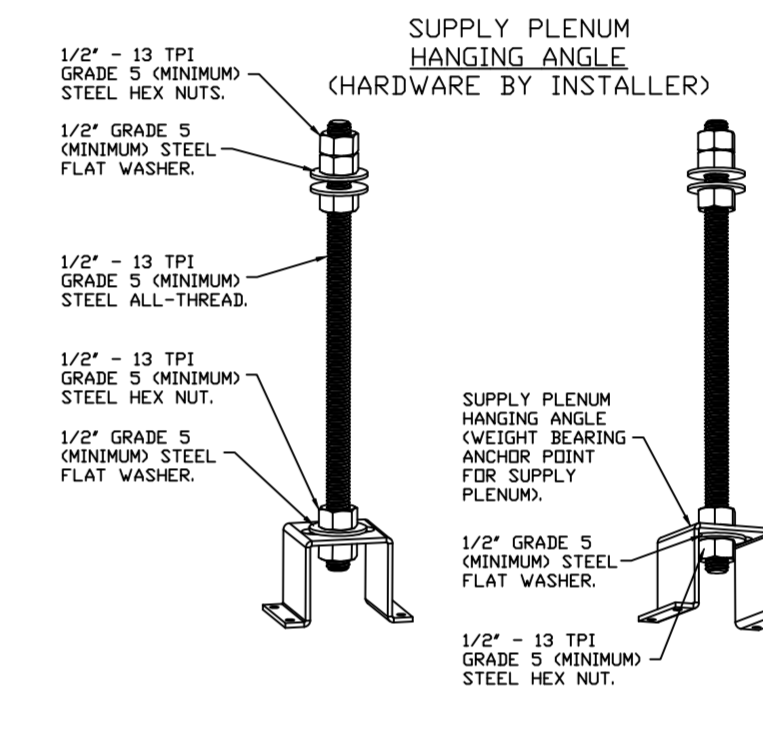


CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.



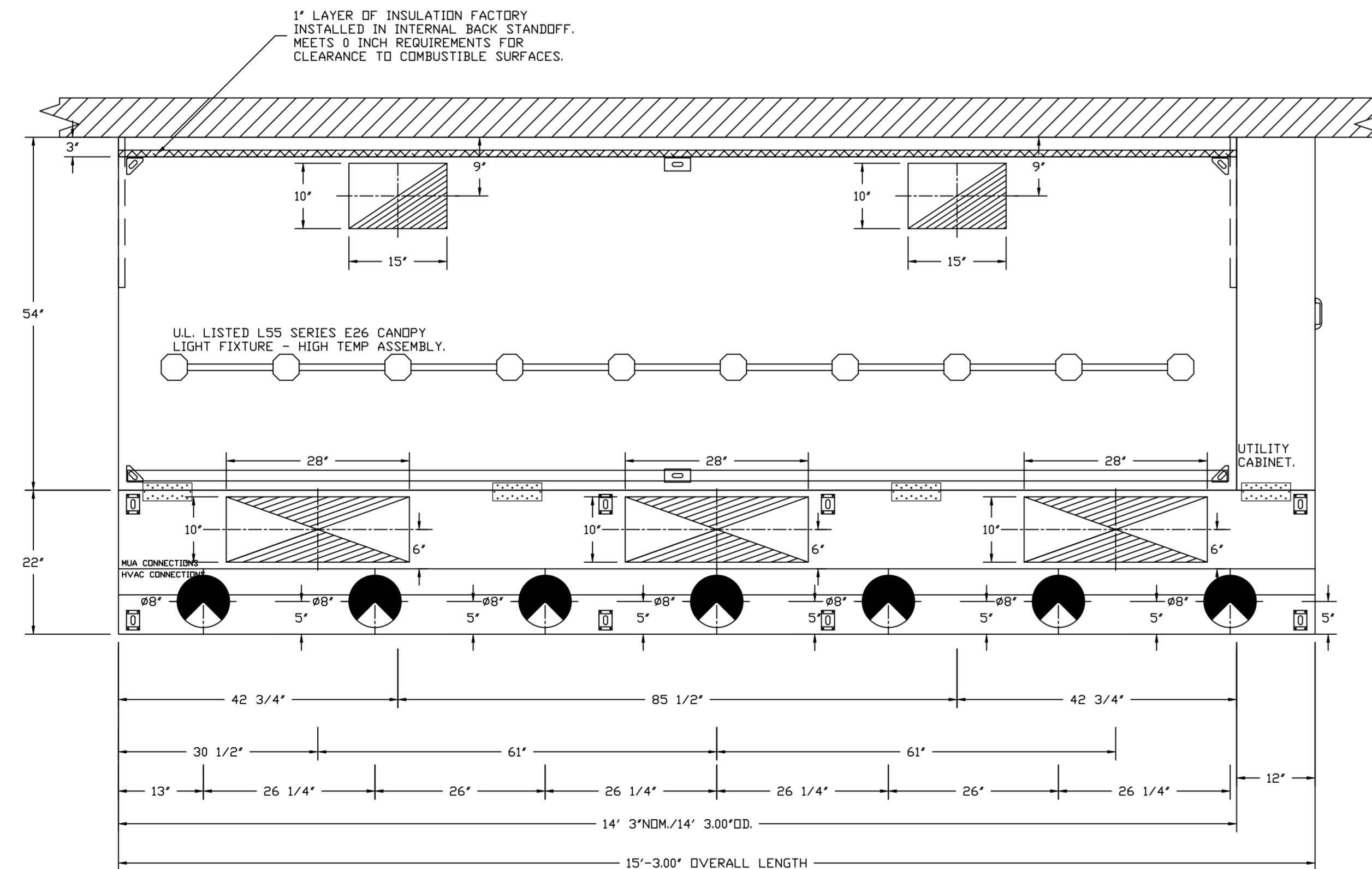
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ASSEMBLY INSTRUCTIONS

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 PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



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

SHOP DRAWING REVIEW

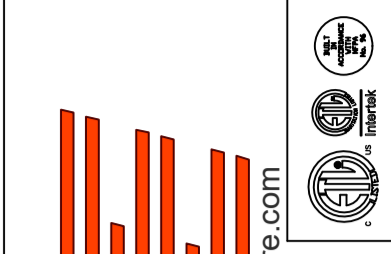
- NO EXCEPTIONS TAKEN
- MAKE CORRECTIONS NOTED
- REVISE AND RESUBMIT
- REJECTED

REVIEW IS FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS AND SPECIFICATIONS. NO RESPONSIBILITY IS ASSUMED BY THIS ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTNESS OF QUANTITIES, DIMENSIONS AND DETAILS. SUBMITTING CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ADDITIONAL ENGINEERING COSTS AND COSTS TO OTHER CONTRACTORS DUE TO SUBSTITUTIONS.

CASE Engineering Inc.
CRAIG COLLIER 04/04/2022

REVISIONS

| DESCRIPTION | DATE |
|-------------|------|
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CAPTIVE AIR
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CHIPOTLE COPPERFIELD RELO #3882
 HOUSTON, TX, 77065

DATE: 1/10/2022

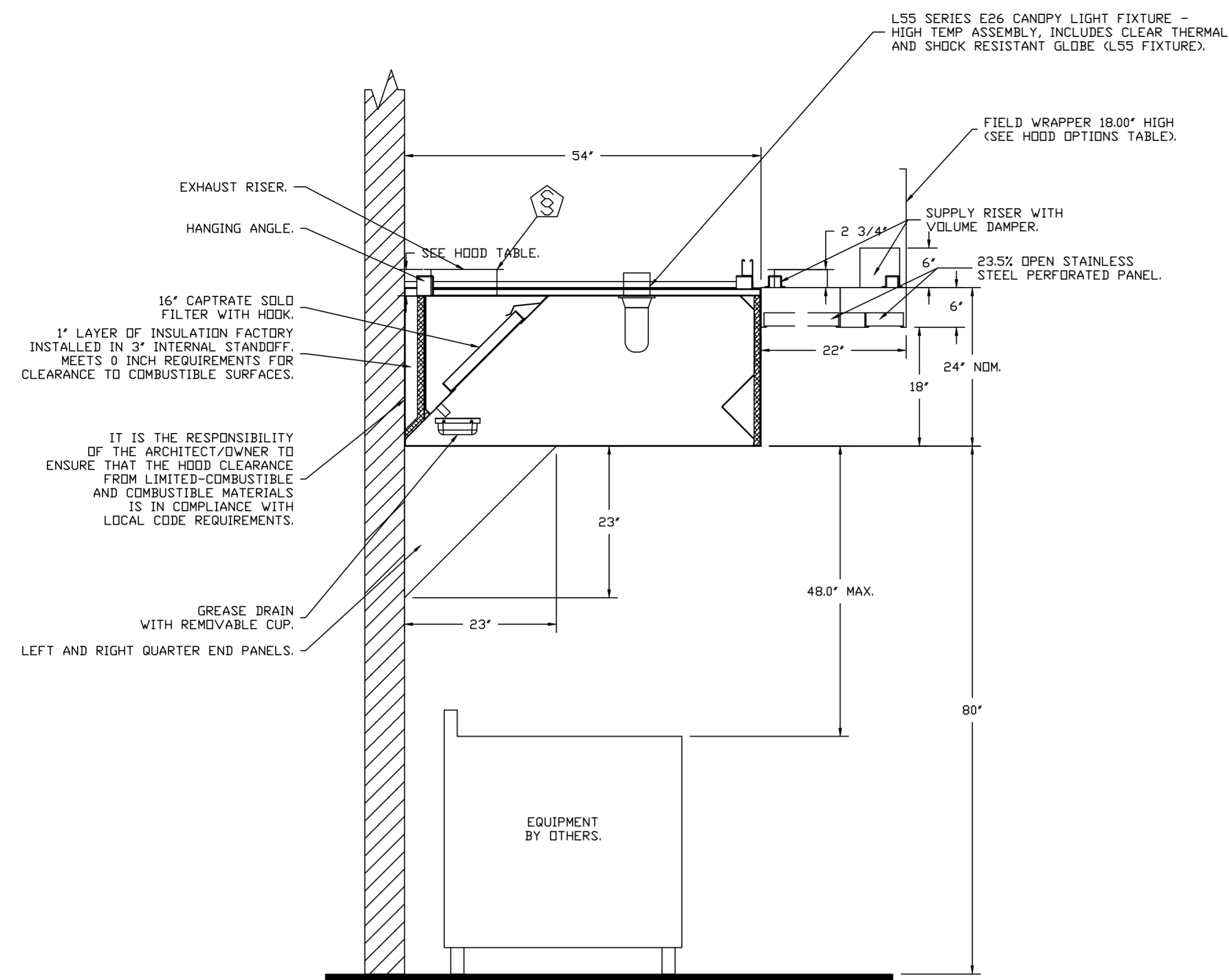
DWG.#: 5264423

DRAWN BY: JMB-40

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

MASTER DRAWING

SHEET NO.



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

FIRE SYSTEM INFORMATION - JOB#5264423

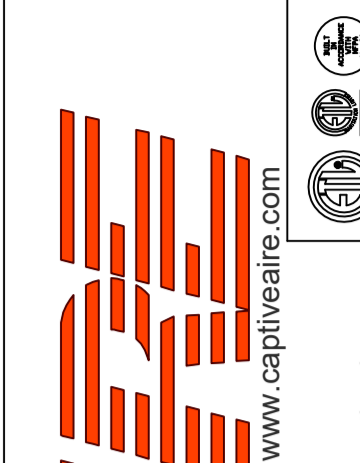
| FIRE SYSTEM NO | TAG | TYPE | SIZE | FLOW POINTS | INSTALLATION | |
|----------------|-----|------------|---------|-------------|--------------------|------------------|
| | | | | | SYSTEM | LOCATION ON HOOD |
| 1 | | ANSUL R102 | 3.0/3.0 | 13 | FIRE CABINET RIGHT | RIGHT, HOOD 1 |

GAS VALVE(S)

| FIRE SYSTEM NO | TAG | TYPE | SIZE | SUPPLIED BY |
|----------------|-----|------------|-------|---------------------|
| 1 | | MECHANICAL | 2.000 | CAPTIVEAIRE SYSTEMS |

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| DESCRIPTION | DATE |
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CAPTIVE
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DWG.#: 5264423

DRAWN BY: JMB-40

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

MASTER DRAWING

SHEET NO. 2

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 | |
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| DESCRIPTION | DATE |
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CHIPOTLE COPPERFIELD RELO #3882

HOUSTON, TX, 77065

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| DATE: 1/10/2022 |
| DWG.#: 5264423 |
| DRAWN BY: JMB-40 |
| SCALE: 3/4" = 1'-0" |
| MASTER DRAWING |

SHEET NO.

3

EXHAUST FAN INFORMATION – JOB#5264423

| 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 | 1.500 | 855 | DDP,PREMIUM | 3.000 | 1.6900 | 3 | 208 | 10.2 | 727 FPM | 297 | 16.2 |
| 2 | EF-2 | 1 | DR12HFA | CAPTIVEAIRE | 150 | 0.600 | 1282 | TEAD-ECM | 0.250 | 0.0930 | 1 | 115 | 2.9 | | 49 | 7.1 |

MUA FAN INFORMATION – JOB#5264423

| FAN UNIT NO | TAG | QTY | FAN UNIT MODEL # | BLOWER | 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 | 2042 | DDP,PREMIUM | 2.000 | 1.3490 | 3 | 208 | 6.1 | 7.7A | 15A | 508 | 21 |

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 | 119043 | 109520 | 53°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 | EF-2 | 1 | 2 YEAR PARTS WARRANTY |
| | | 1 | 1 12-BDD DAMPER |
| 3 | MAU-1 | 1 | ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL (TELCO MOTOR), CCW ROTATION |
| | | 1 | 2 YEAR PARTS WARRANTY |
| | | 1 | MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING |
| | | 1 | LOW FIRE START |
| | | 1 | INLET PRESSURE GAUGE, 0-35" |
| | | 1 | MANIFOLD PRESSURE GAUGE, -5 TO 15" WC |
| 3 | MAU-1 | 1 | UNIT MOUNTED VFD FOR USE WITH ECPM03 |
| | | 1 | SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY |
| | | 1 | 2 YEAR PARTS WARRANTY |

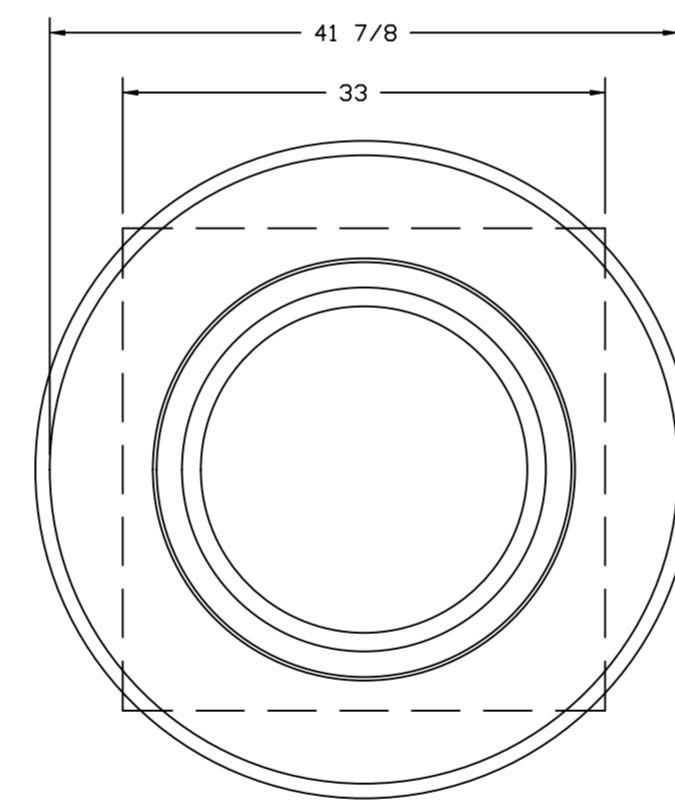
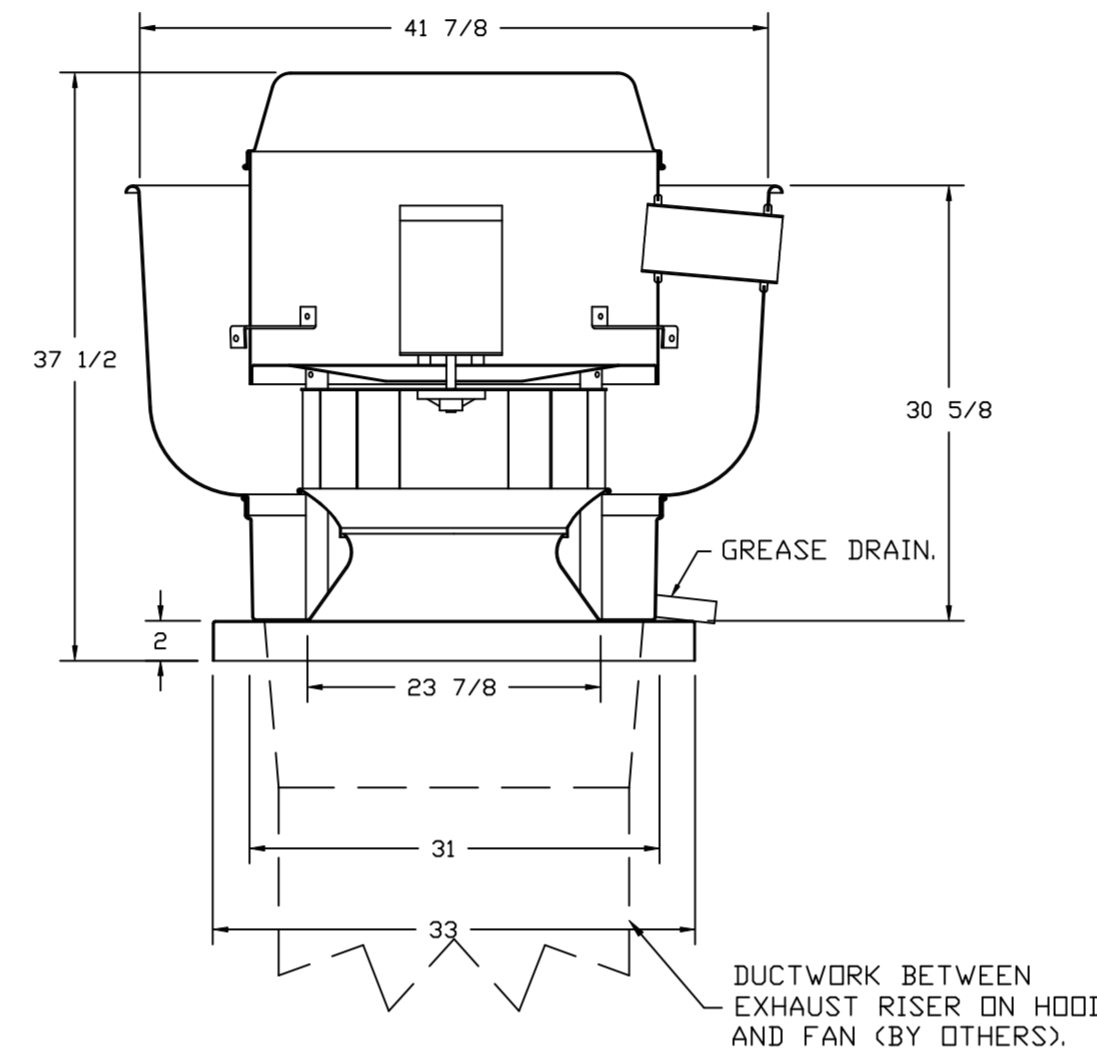
FAN ACCESSORIES

| 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 | | | | | |
| 3 | MAU-1 | | | | | | YES | |

CURB ASSEMBLIES

| NO | ON 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 (EF-1)



TOP VIEW

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

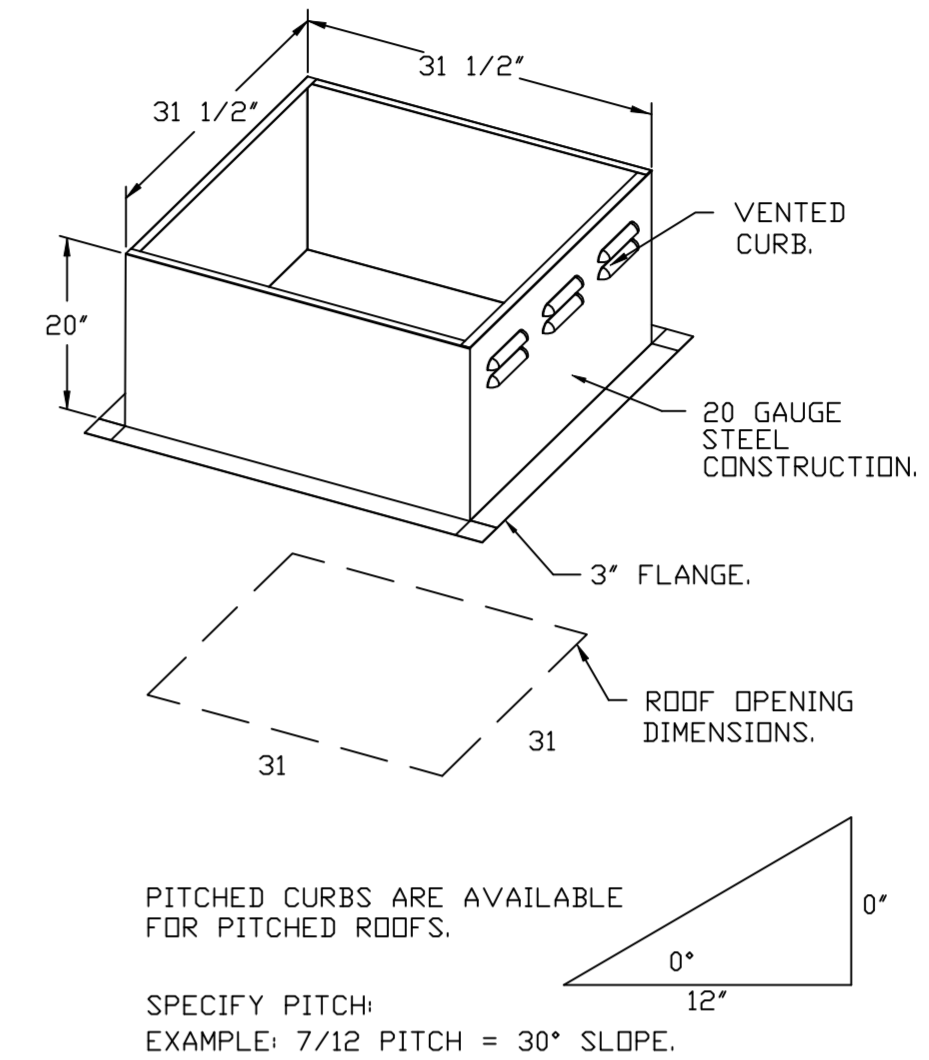
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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.

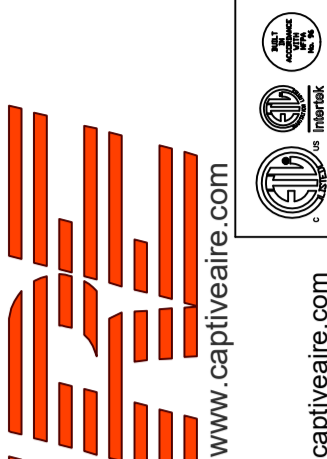


PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

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

REVISIONS

| DESCRIPTION | DATE |
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DATE: 1/10/2022

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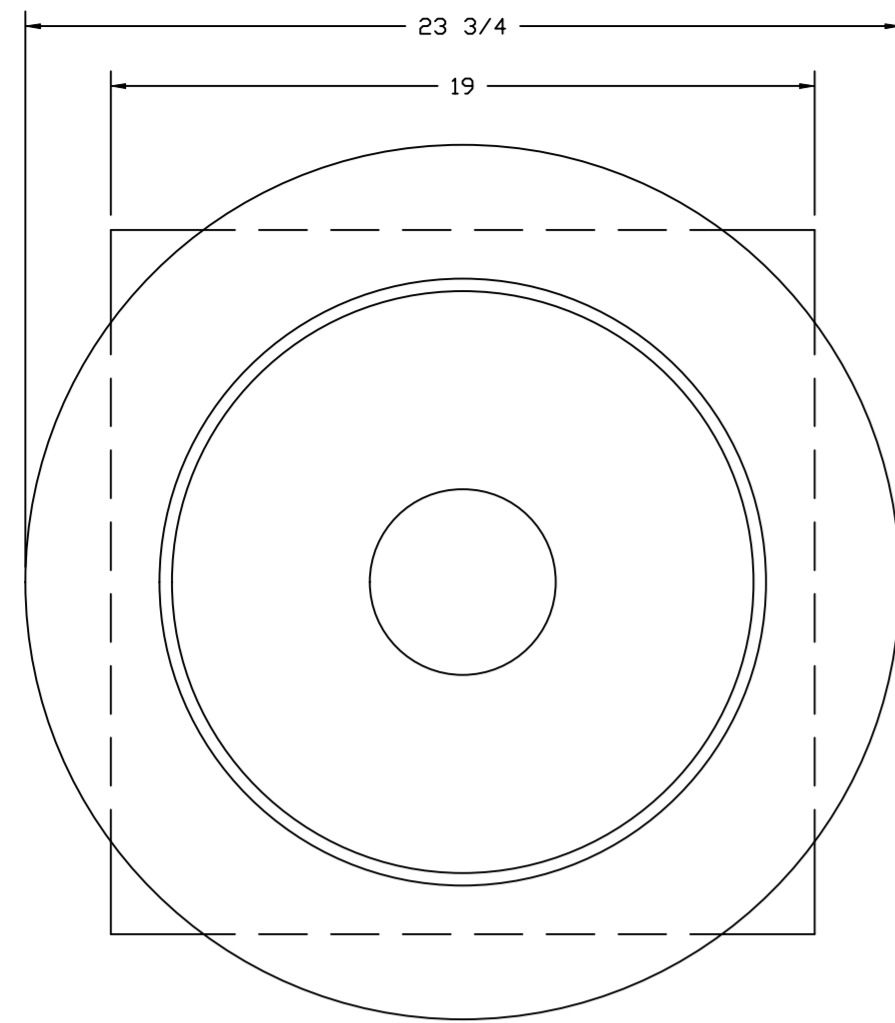
DRAWN BY: JMB-40

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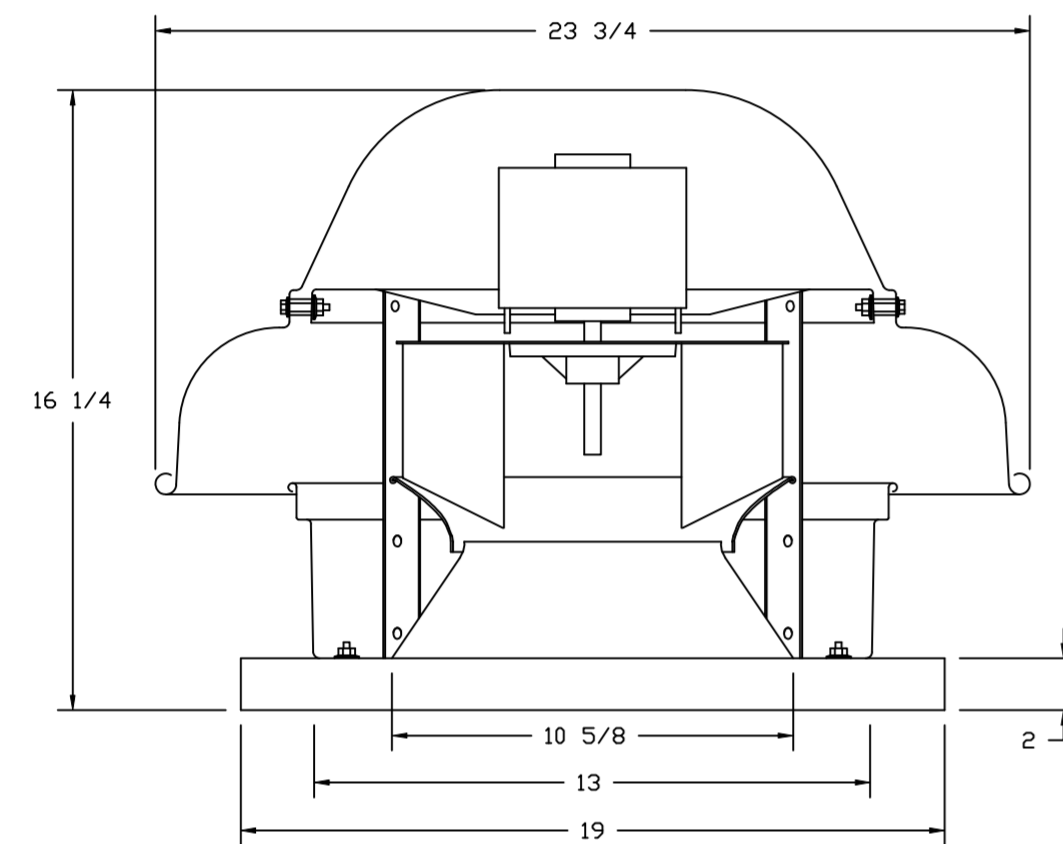
MASTER DRAWING

SHEET NO.

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



TOP VIEW

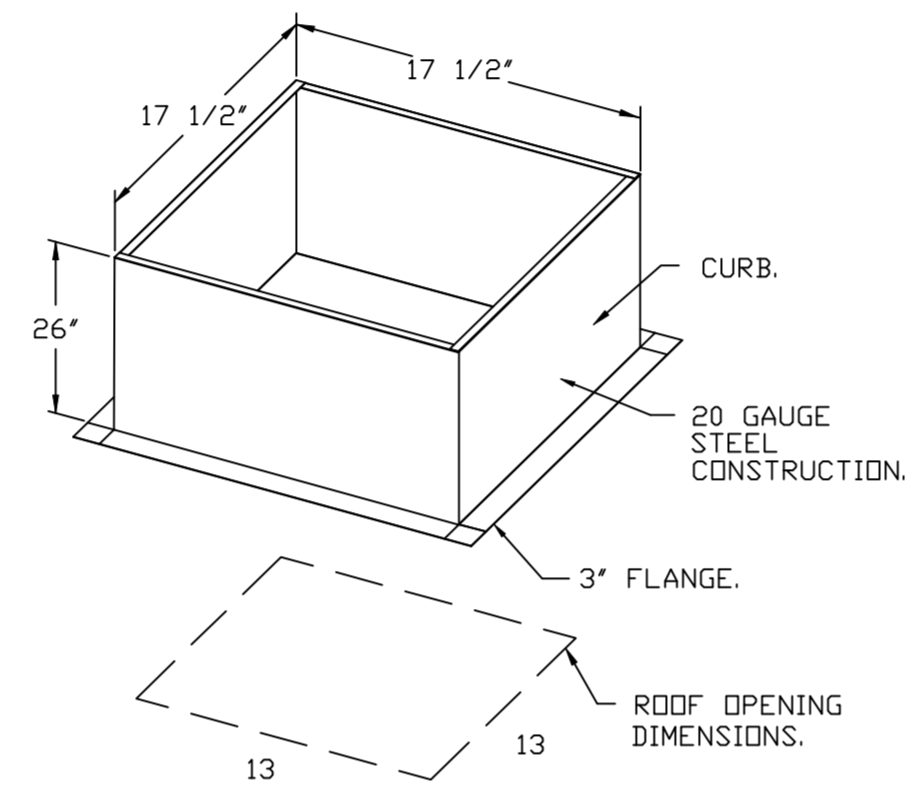


FEATURES:

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

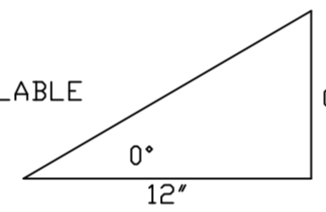
OPTIONS:

- 1 12-BDD DAMPER.
- EDM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.

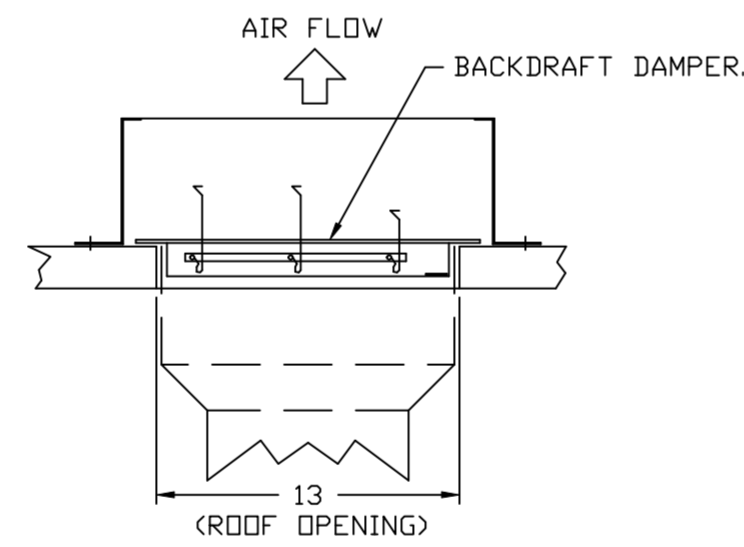


PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

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

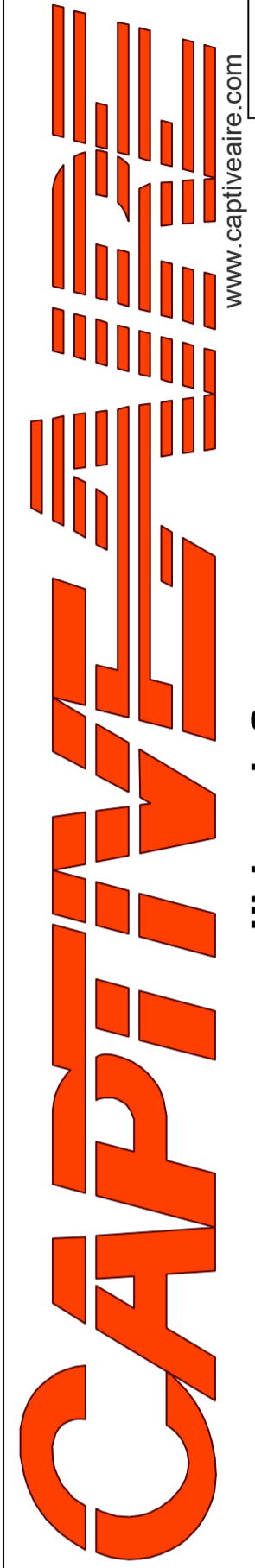
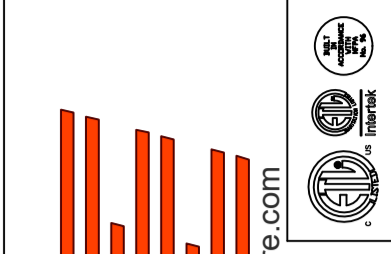


BACKDRAFT DAMPER INSTALLATION



REVISIONS

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4641 Paragon Park Rd., Raleigh, NC, 27616 PHONE: (919) 875-0420 FAX: (919) 875-4577 EMAIL: reg40@captive.com

CHIPOTLE COPPERFIELD RELO #3882
HOUSTON, TX, 77065

DATE: 1/10/2022

DWG.#:
5264423

DRAWN BY: JMB-40

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

MASTER DRAWING

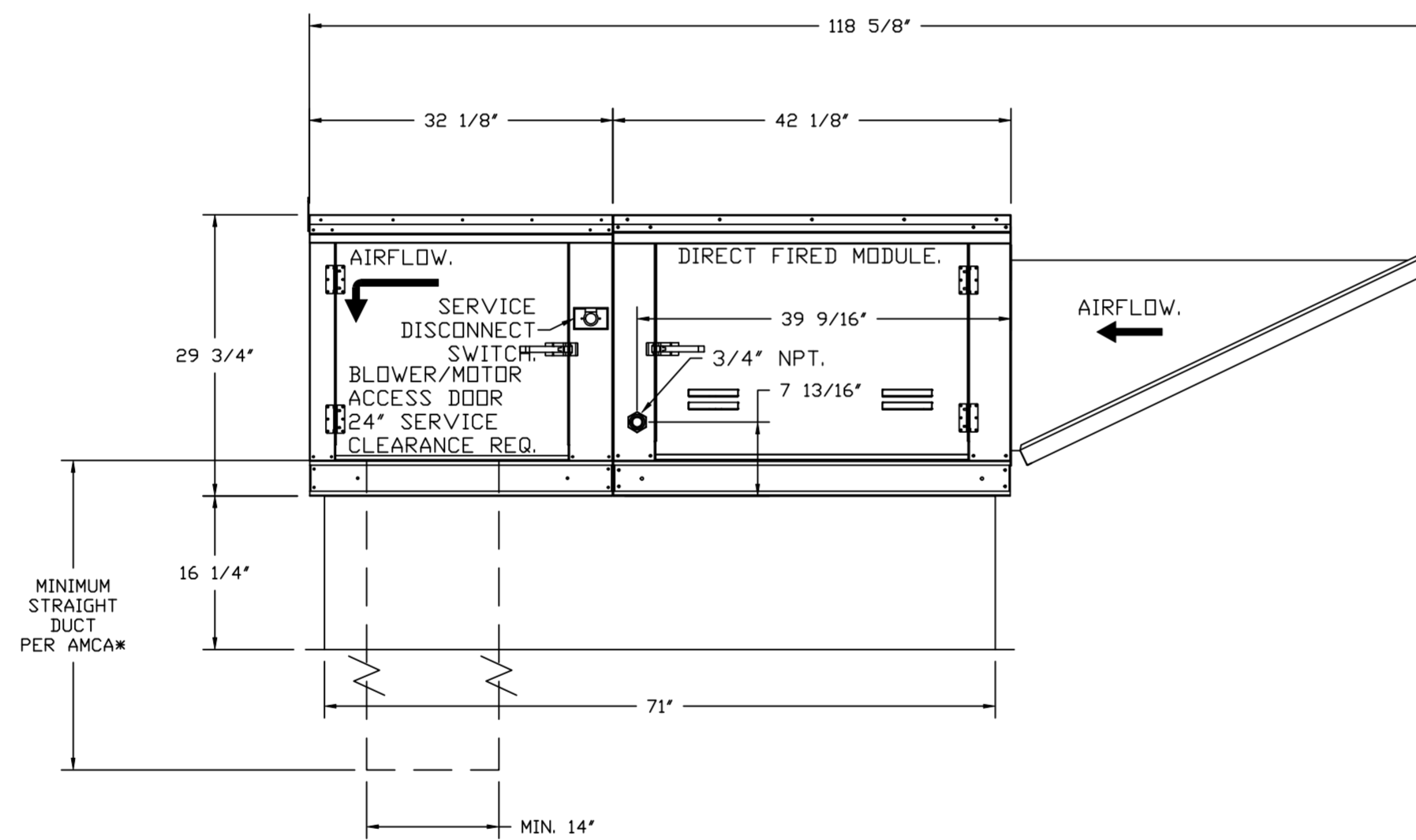
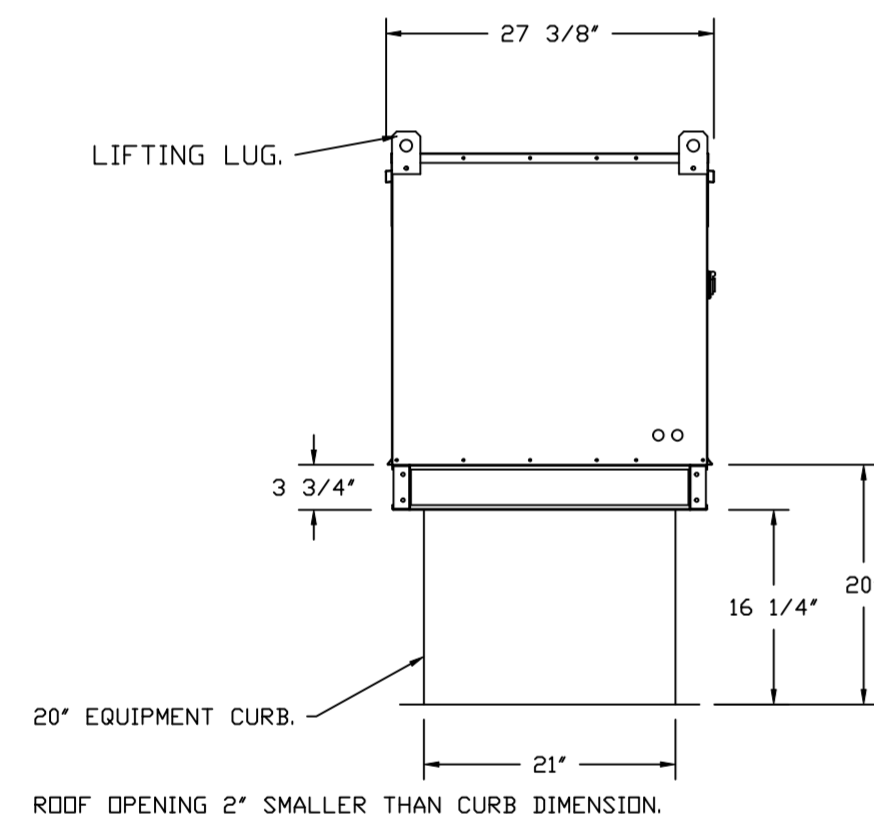
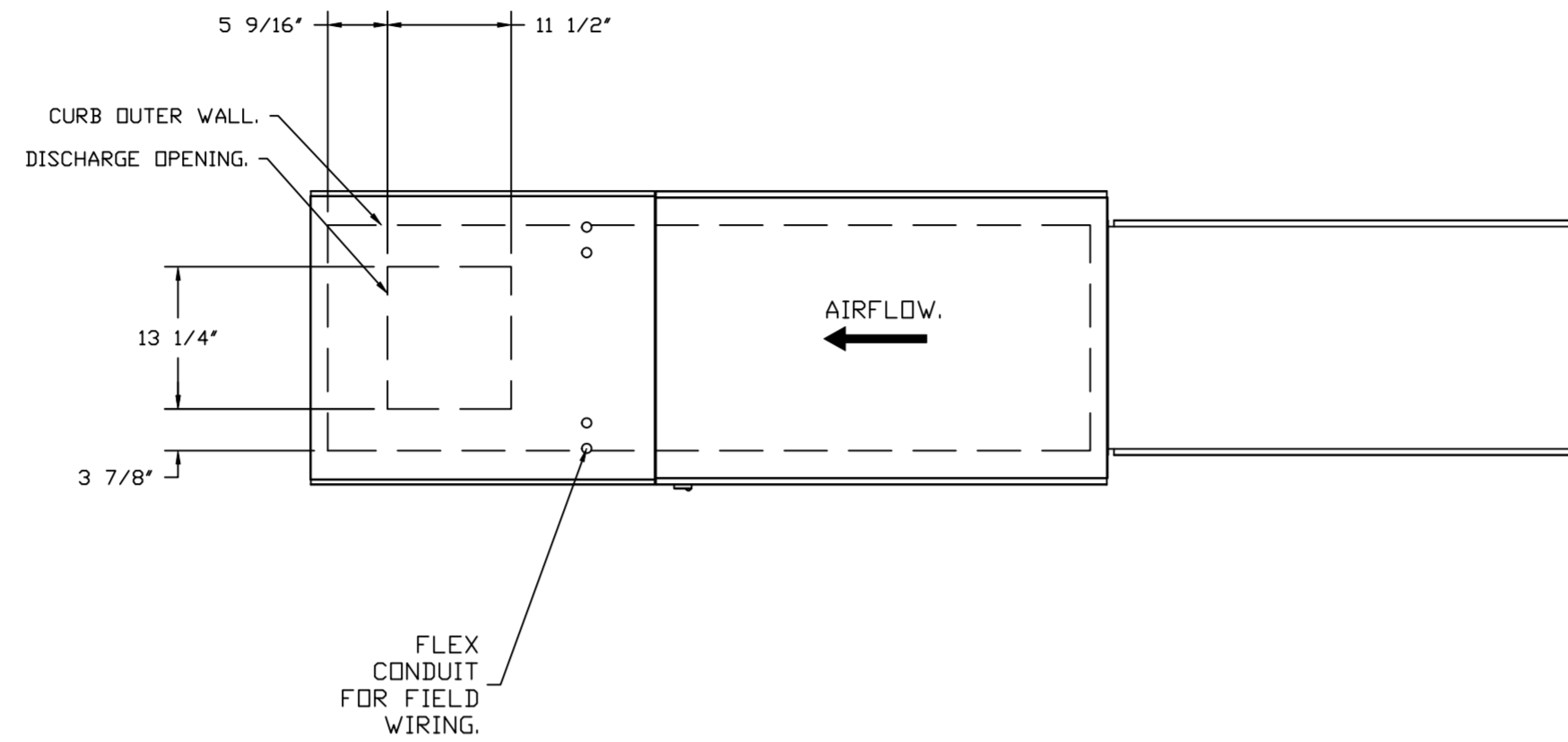
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- FAN #3 AI-D250-15D - HEATER (MAU-1)
 1. DIRECT GAS FIRED HEATED MAKE-UP AIR UNIT WITH 15' MIXED FLOW DIRECT DRIVE FAN.
 2. INTAKE HOOD WITH EZ FILTERS.
 3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
 4. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 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. UNIT MOUNTED VFD FOR USE WITH ECPMOS.
 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. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
 11. 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 = 23°F. TEMP. RISE = 53°F.
 BTUs CALCULATED OFF ACTUAL AIR DENSITY.
 OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 110207.
 INPUT BTUs AT ALTITUDE OF 0.0 FT. = 119790.
 OUTPUT BTUs AT ALTITUDE OF 173 FT. = 109520.
 INPUT BTUs AT ALTITUDE OF 173 FT. = 119043.



DIRECT FIRED PROFILE PLATE SPECIFICATIONS:

DESCRIPTION:
 DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO. US6695282), 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 100PPM 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 DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

CERTIFICATIONS:
 ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z82.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z82.19 (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.

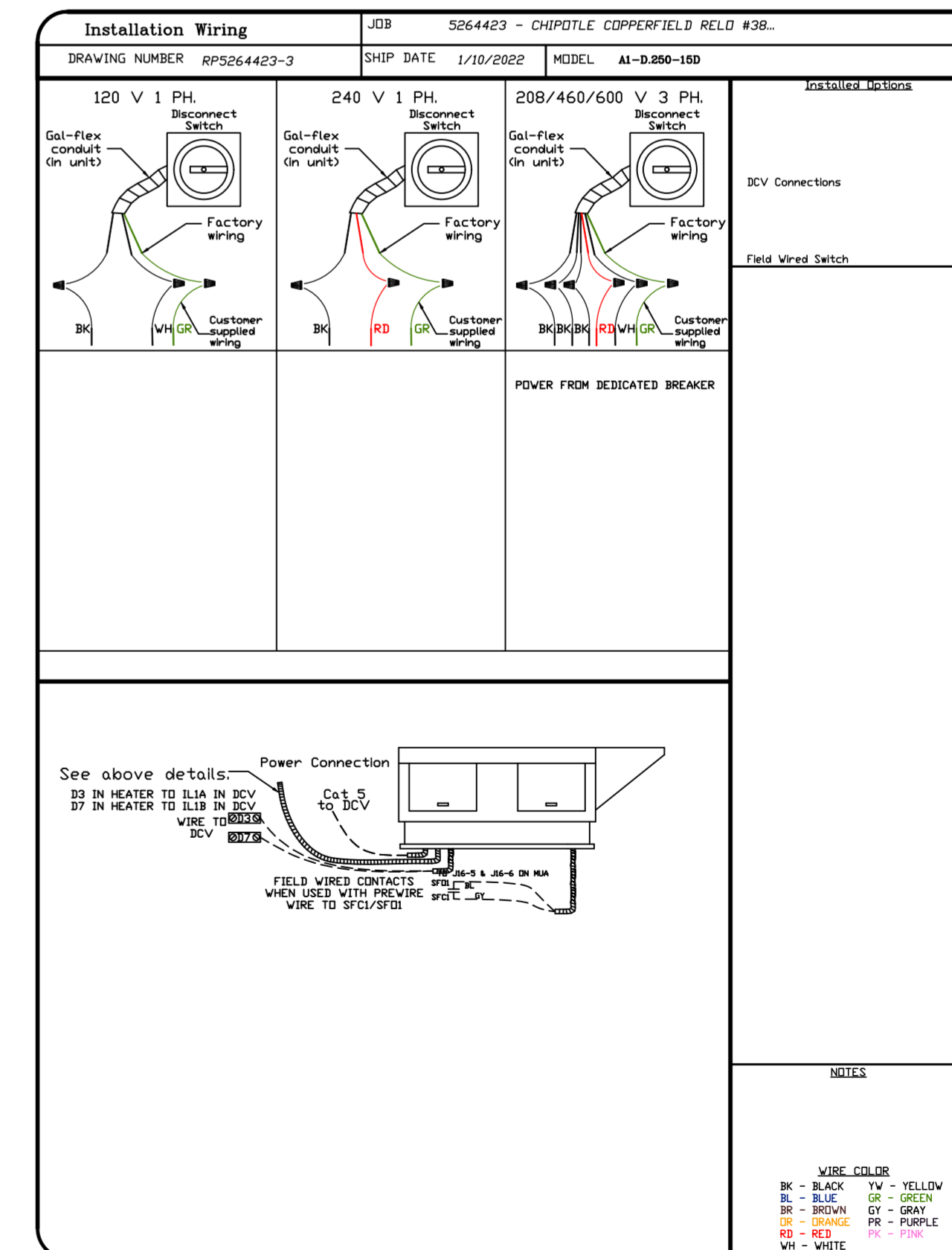
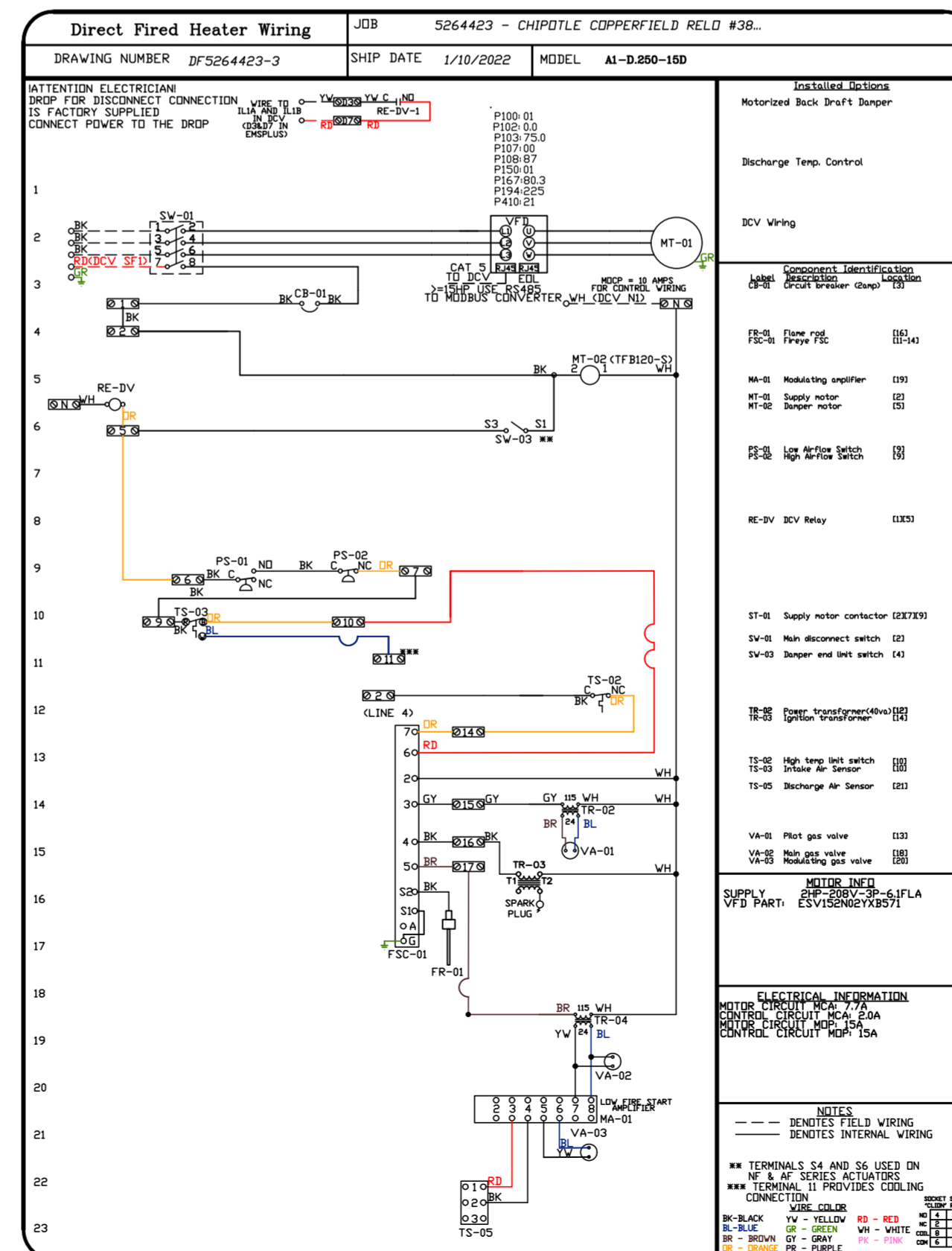
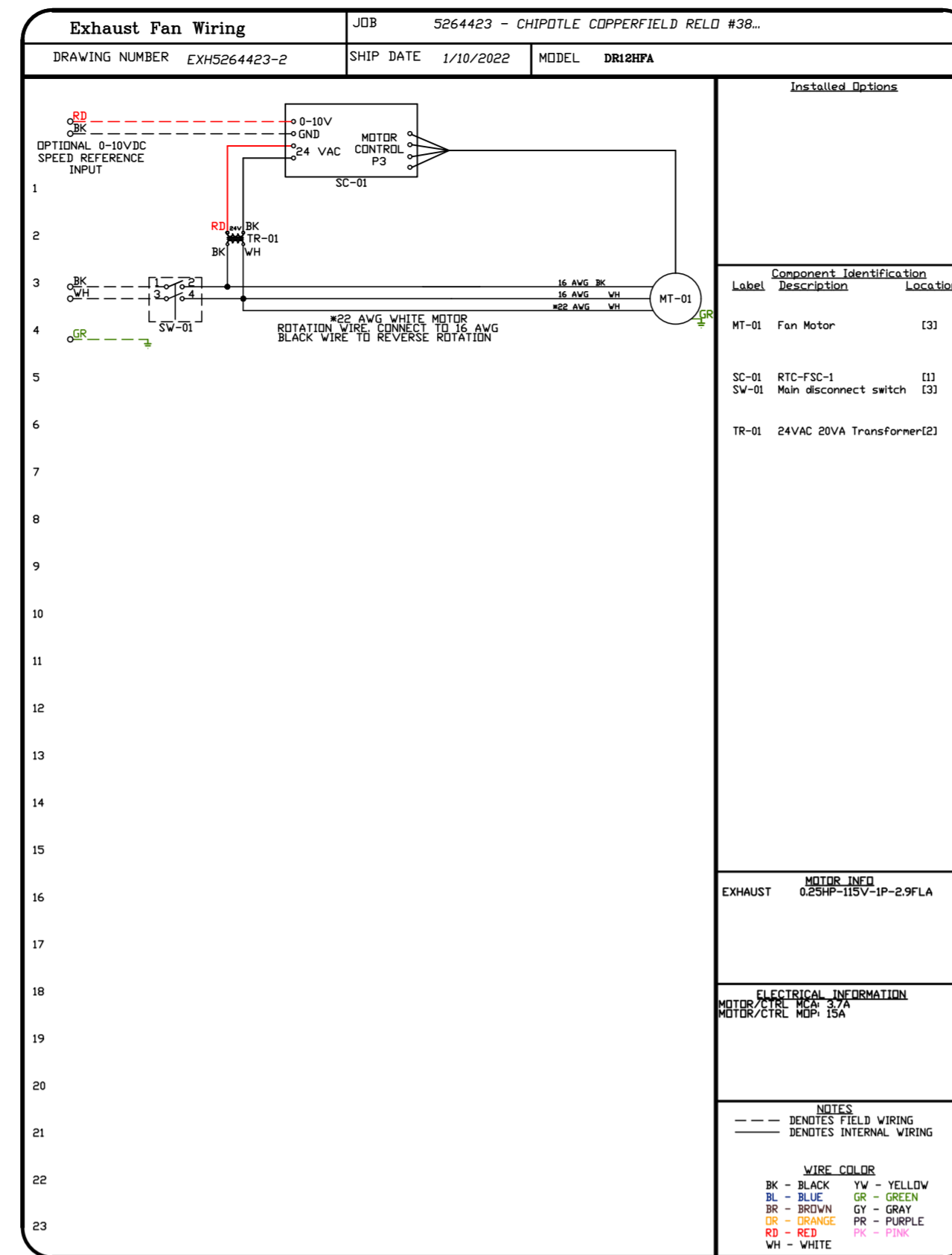
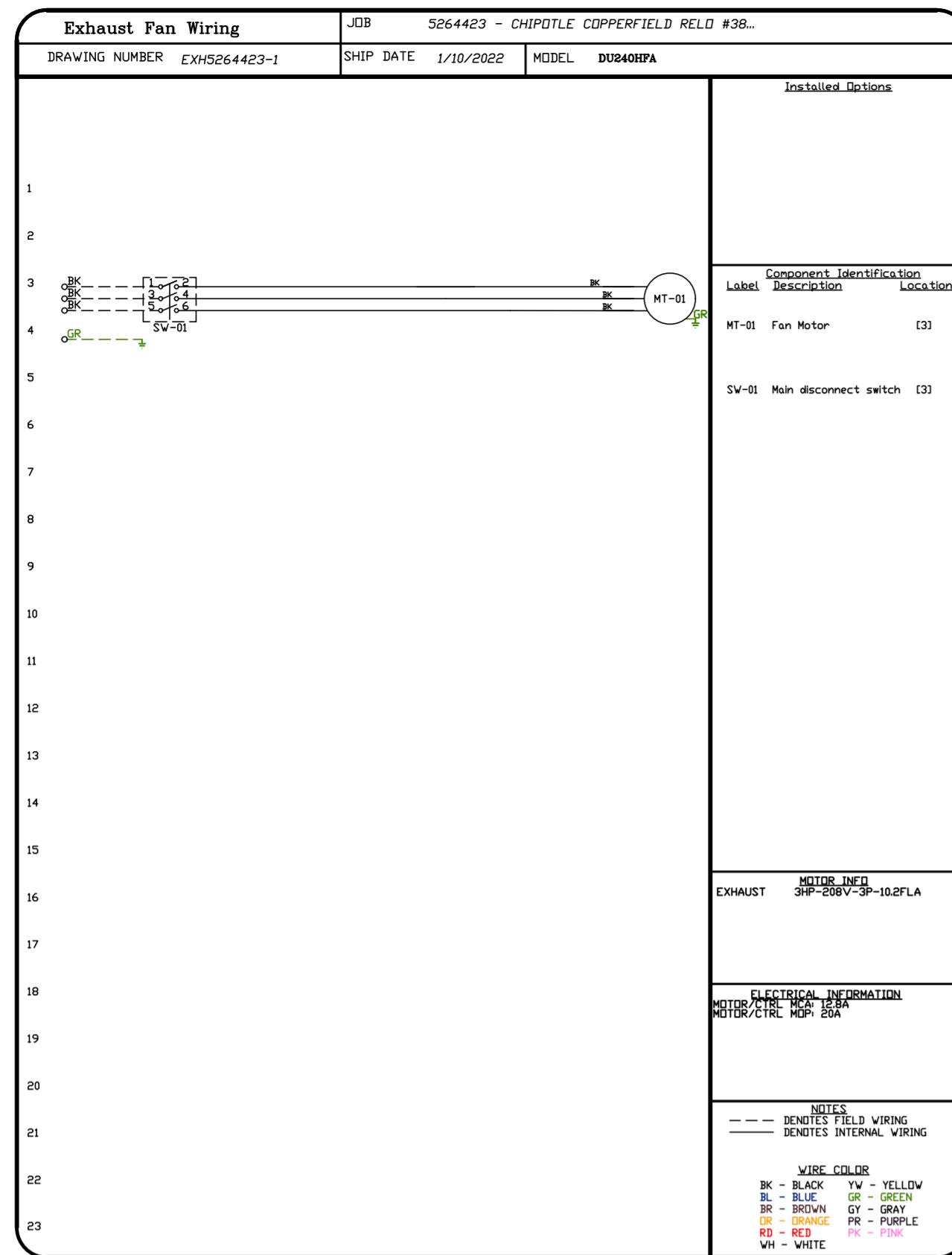
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SHEET NO. 6



| REVISIONS | |
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