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## ARCHITECTURAL

**Item 1**      **Clarification:** All millwork items are to be 19mm Melamine construction unless noted otherwise

**Item 2**      Specifications Section 06400 Architectural Woodworking

**Part 2 - Products,**

Under paragraph **2.1 Materials**

**Add** a new item 7 "Melamine Composite Panels: NEMA LD 3, Grade VGL decorative laminate thermos-fused to both sides of panel board. Premium quality, colours selected by consultant from manufacturer's woodgrain line."

and **Add** a new paragraph - "**2.2a Melamine Faced Particleboard**

1. To CAN3-0.188.1-M78, Grade "R" particleboard sanded faces, 13 mm, 16 mm, and 19 mm thickness, faced with laminated plastic. Melamine resin impregnated cover sheet with coloured and/or pattern paper inner layer. Thermally fuse to rigid particleboard substrate. Melamine faces shall be 8 mil thickness. Wood grain pattern to be chosen by Consultant from manufacturer's full range. Allow for up to three (3) colours from full range of manuf. selection.

NOTE: interior of all millwork cabinets MUST match exterior Melamine colour. WHITE interiors will not be acceptable.

- .1 Acceptable Material: Melamine as manufactured by Eldorado, Flakeboard, Formica or Arborite Division of Domtar Construction Materials Ltd., are of acceptable quality but colour/pattern requires approval prior to confirmation of full acceptance.

## MECHANICAL

**Item 1**      The kitchen exhaust hood and the entire kitchen exhaust system is to be included as part of the price under this tender package. The included exhaust hood shop drawings are to be made part of the mechanical tender package.

End of Addendum No. 1

FOR QUESTIONS, CALL THE  
International Sales Office  
REGION 20  
PHONE: (647) 977 - 2217  
EMAIL: reg20@captivaire.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#7533057

| HOOD NO | TAG        | MODEL           | MANUFACTURER | LENGTH | MAX COOKING TEMP | TYPE | APPLIANCE DUTY | DESIGN CFM/FT | TOTAL EXH CFM | MIN CFM | EXHAUST PLENUM RISER(S) |      |        |     |      |      |         | TOTAL SUPPLY CFM | HOOD CONSTRUCTION    | HOOD CONFIG |       |
|---------|------------|-----------------|--------------|--------|------------------|------|----------------|---------------|---------------|---------|-------------------------|------|--------|-----|------|------|---------|------------------|----------------------|-------------|-------|
|         |            |                 |              |        |                  |      |                |               |               |         | WIDTH                   | LENG | HEIGHT | DIA | CFM  | VEL  | SP      |                  |                      | END TO END  | ROW   |
| 1       | Left Hood  | 5424 ND-2-PSP-F | CAPTIVEAIRE  | 10' 0" | 600 DEG          | I    | HEAVY          | 195           | 1950          | 1560    |                         |      | 4'     | 14" | 1950 | 1824 | -1.014' | 1852             | 430 SS WHERE EXPOSED | LEFT        | ALONE |
| 2       | Right Hood | 5424 ND-2-PSP-F | CAPTIVEAIRE  | 10' 0" | 600 DEG          | I    | HEAVY          | 195           | 1950          | 1560    |                         |      | 4'     | 14" | 1950 | 1824 | -1.014' | 1852             | 430 SS WHERE EXPOSED | RIGHT       | ALONE |

HOOD INFORMATION

| HOOD NO | TAG        | FILTER(S)            |     |        |        |                        | LIGHT(S) |                |            | UTILITY CABINET(S) |      |             |      |            |          |  | FIRE SYSTEM | HOOD HANGING WEIGHT |
|---------|------------|----------------------|-----|--------|--------|------------------------|----------|----------------|------------|--------------------|------|-------------|------|------------|----------|--|-------------|---------------------|
|         |            | TYPE                 | QTY | HEIGHT | LENGTH | EFFICIENCY @ 7 MICRONS | QTY      | TYPE           | WIRE GUARD | LOCATION           | SIZE | FIRE SYSTEM |      | ELECTRICAL | SWITCHES |  |             |                     |
|         |            |                      |     |        |        |                        |          |                |            |                    |      | TYPE        | SIZE | MODEL #    | QUANTITY |  |             |                     |
| 1       | Left Hood  | CAPTRATE SOLO FILTER | 7   | 16"    | 16"    | 85% SEE FILTER SPEC    | 3        | L55 SERIES E26 | NO         |                    |      |             |      |            |          |  | YES         | 683 LBS             |
| 2       | Right Hood | CAPTRATE SOLO FILTER | 7   | 16"    | 16"    | 85% SEE FILTER SPEC    | 3        | L55 SERIES E26 | NO         |                    |      |             |      |            |          |  | YES         | 635 LBS             |

HOOD OPTIONS

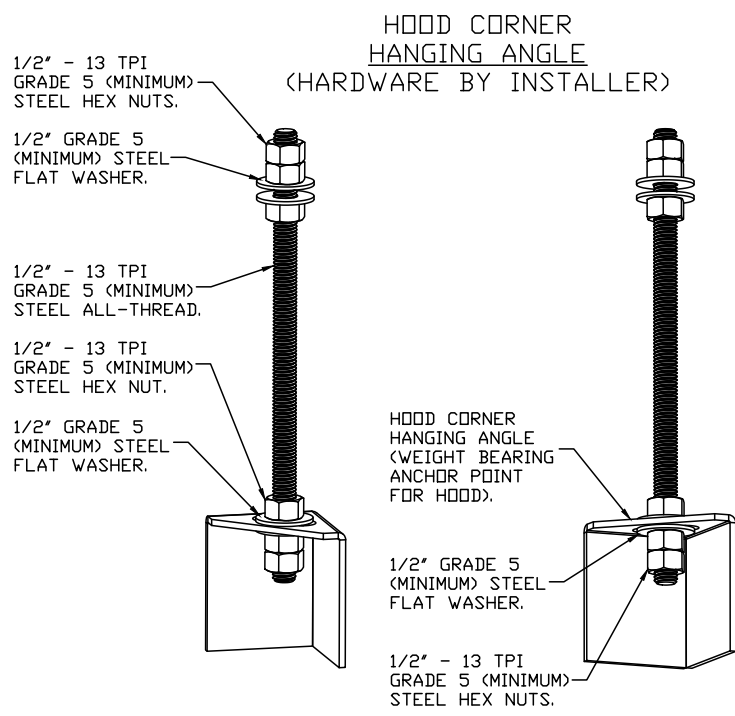
| HOOD NO | TAG        | OPTION                                                                              |
|---------|------------|-------------------------------------------------------------------------------------|
| 1       | Left Hood  | BALANCE DAMPERS.                                                                    |
|         |            | INSULATION FOR TOP OF HOOD.                                                         |
|         |            | INSULATION FOR BACK OF HOOD.                                                        |
|         |            | RISER SENSOR INSTALL 6IN PLEN.                                                      |
| 2       | Right Hood | LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS. |
|         |            | RIGHT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.                           |
|         |            | BALANCE DAMPERS.                                                                    |
|         |            | INSULATION FOR TOP OF HOOD.                                                         |
|         |            | INSULATION FOR BACK OF HOOD.                                                        |
|         |            | RISER SENSOR INSTALL 6IN PLEN.                                                      |
|         |            | RIGHT WALL AS END PANEL.                                                            |

PERFORATED SUPPLY PLENUM(S)

| HOOD NO | TAG        | POS   | LENGTH | WIDTH | HEIGHT | TYPE | RISER(S) |      |     |     |        |
|---------|------------|-------|--------|-------|--------|------|----------|------|-----|-----|--------|
|         |            |       |        |       |        |      | WIDTH    | LENG | DIA | CFM | SP     |
| 1       | Left Hood  | Front | 120"   | 16"   | 6"     | MUA  | 12"      | 24"  |     | 617 | 0.171' |
|         |            |       |        |       |        | MUA  | 12"      | 24"  |     | 617 | 0.171' |
|         |            |       |        |       |        | MUA  | 12"      | 24"  |     | 617 | 0.171' |
|         |            |       |        |       |        | MUA  | 12"      | 24"  |     | 617 | 0.171' |
| 2       | Right Hood | Front | 121"   | 16"   | 6"     | MUA  | 12"      | 24"  |     | 617 | 0.171' |
|         |            |       |        |       |        | MUA  | 12"      | 24"  |     | 617 | 0.171' |
|         |            |       |        |       |        | MUA  | 12"      | 24"  |     | 617 | 0.171' |
|         |            |       |        |       |        | MUA  | 12"      | 24"  |     | 617 | 0.171' |

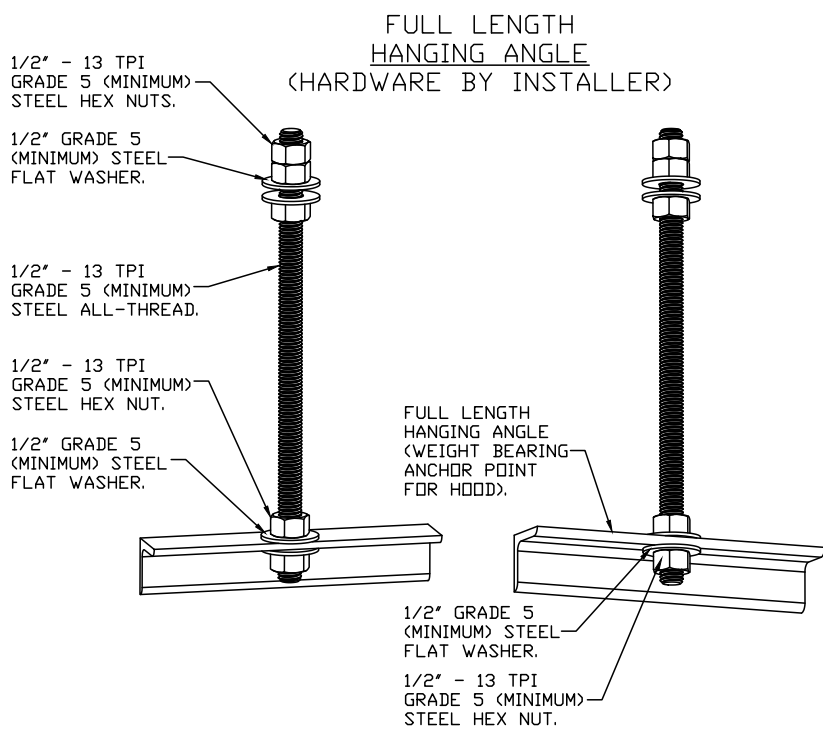
WALL-MOUNT UTILITY CABINET

| HOOD NO | LOCATION | SIZE        | UTILITY CABINET(S) |                 |         |          | WEIGHT     |
|---------|----------|-------------|--------------------|-----------------|---------|----------|------------|
|         |          |             | TYPE               | SIZE            | MODEL # | QUANTITY |            |
| 1       | WALL MNT | 12"x60"x30" | TANK FS            | 4.0/4.0/4.0/4.0 |         |          | 500.00 LBS |



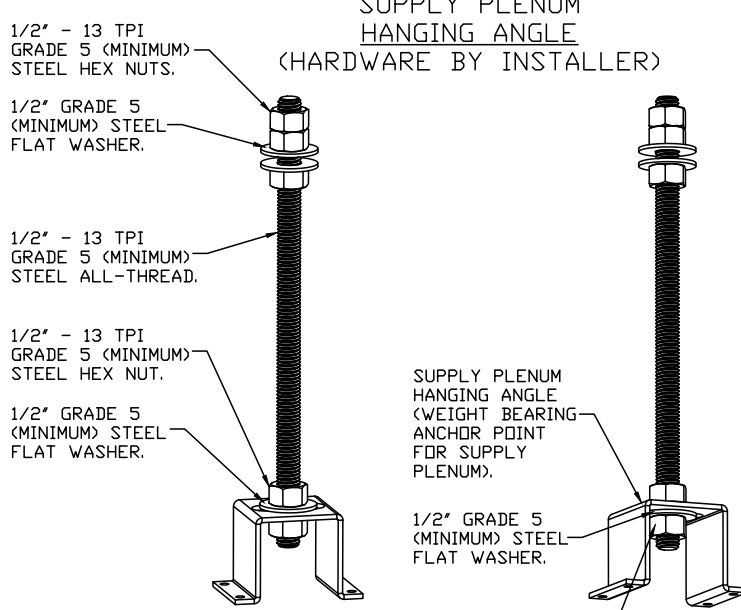
ASSEMBLY INSTRUCTIONS

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 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.



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SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

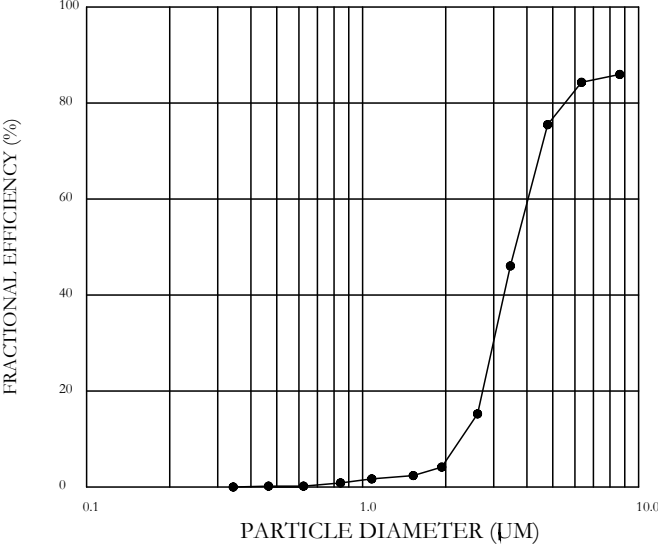
THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

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

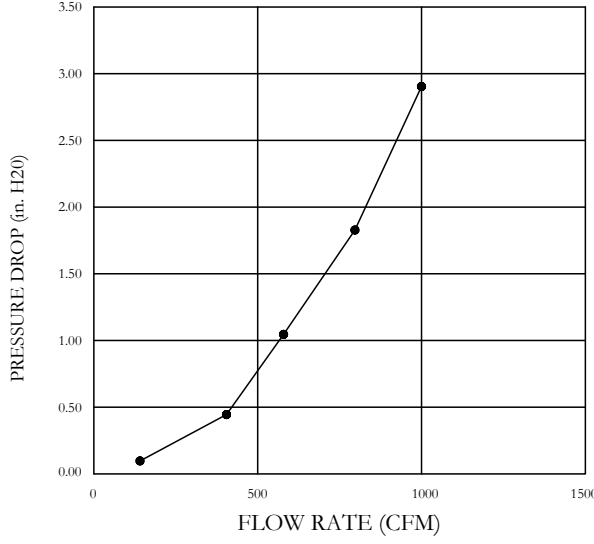
UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

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 SOLO 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.



CLEARANCE TO COMBUSTIBLES

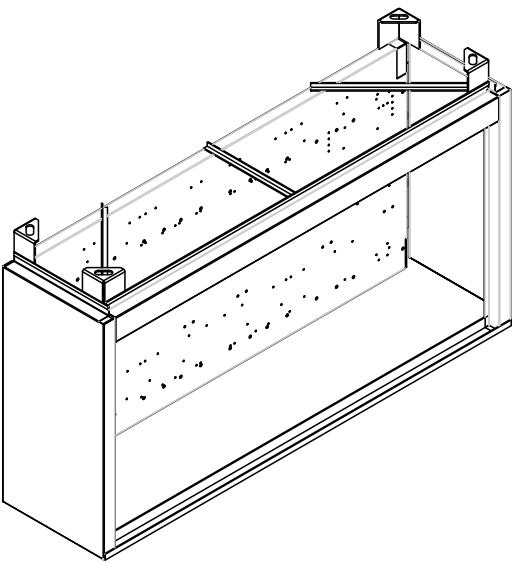
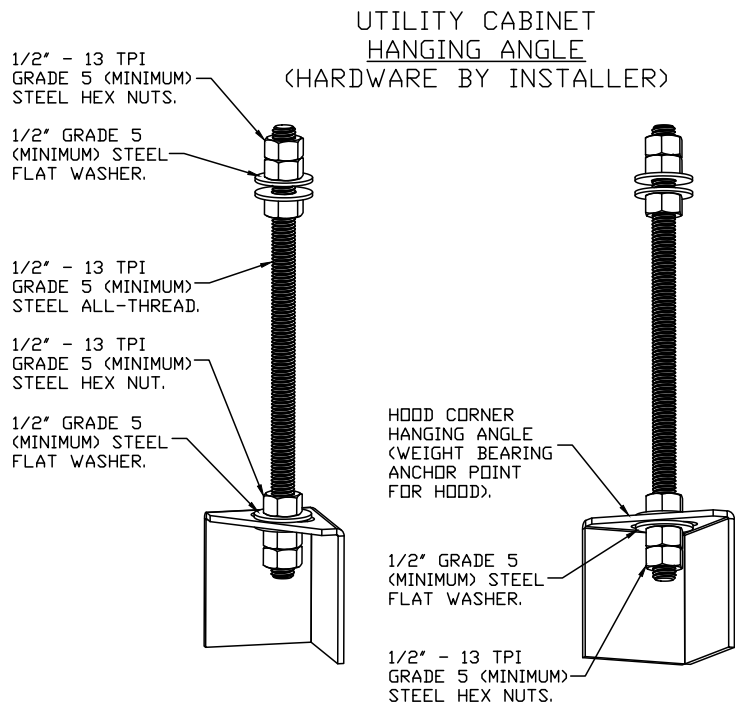
| HOODS # | SURFACE | *CLEARANCE |
|---------|---------|------------|
| 1       | TOP     | 0"         |
|         | FRONT   | 0"         |
|         | BACK    | 0"         |
|         | LEFT    | 18"        |
|         | RIGHT   | 18"        |
| 2       | TOP     | 0"         |
|         | FRONT   | 0"         |
|         | BACK    | 0"         |
|         | LEFT    | 18"        |
|         | RIGHT   | 0"         |

- \*0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.

WALL-MOUNT UTILITY CABINET  
ASSEMBLY INSTRUCTIONS

CABINET TO BE HUNG BY OTHERS. SEE UTILITY CABINET SCHEDULE FOR CABINET SIZE.

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 UTILITY CABINET HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



REVISIONS

| DESCRIPTION | DATE: |
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4444 Eastgate Parkway, Unit #20, Mississauga, ON L4W 4T6 PHONE: (647) 977 - 2217 FAX: 9192275905 EMAIL: reg20@captivaire.com

International Sales Office

Oakville Croatian Church R2

2110 Trafalgar Road,

Oakville, ON, L6H 7H2

DATE: 5/15/2025

DWG.#:  
7533057

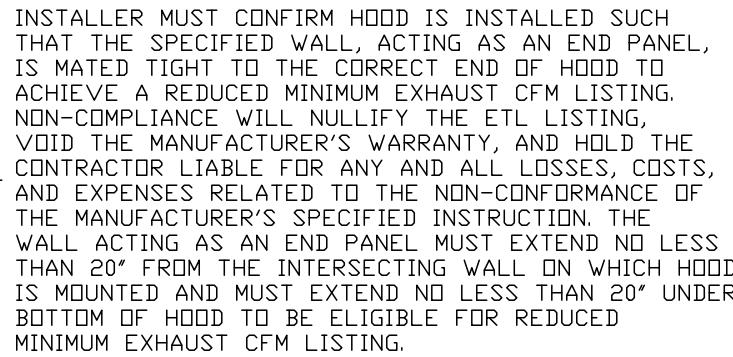
DRAWN BY: Ryan Fung

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

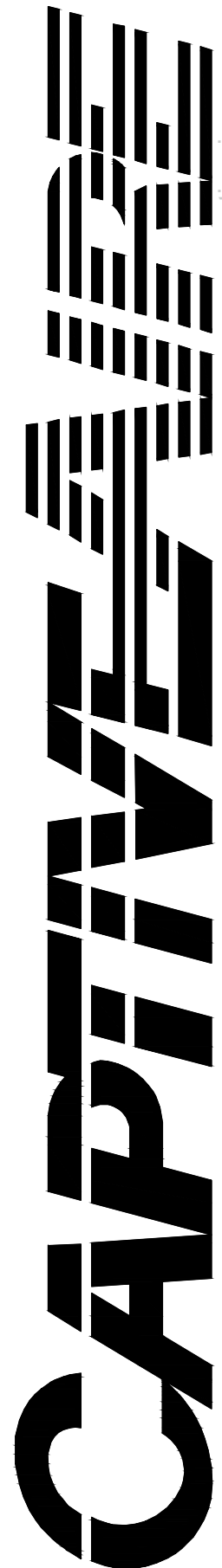
MASTER DRAWING

SHEET NO.

1



| REVISIONS |             |       |
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4444 Eastgate Parkway, Unit #20, Mississauga, ON, L4W 4T6 PHONE: (647) 977 - 2217 FAX: 9192275905 EMAIL: reg20@captiveaire.com

Oakville Croatian Church RE  
2110 Trafalgar Road,  
Oakville, ON, L6H 7H2

**DATE:** 5/15/2025

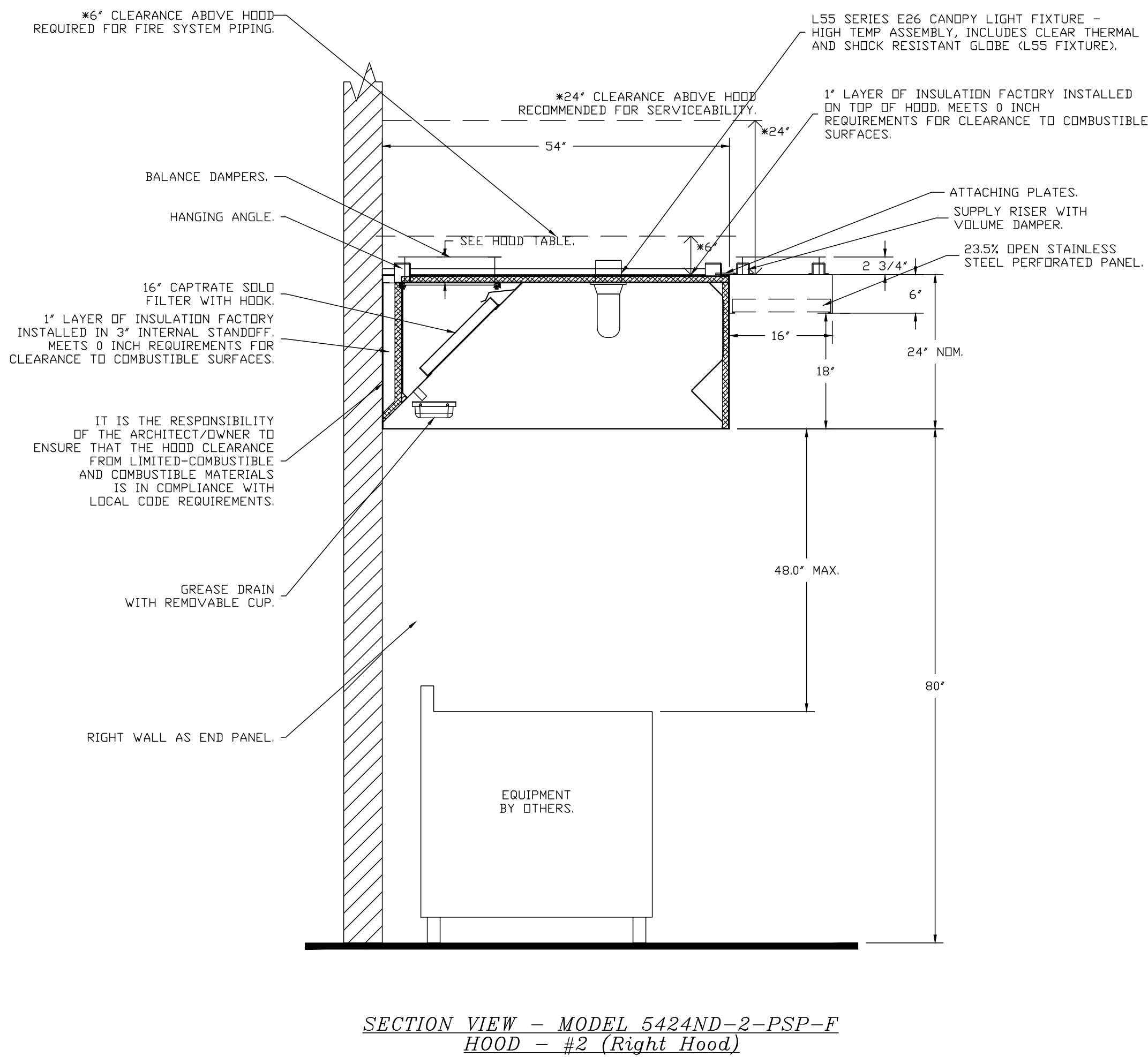
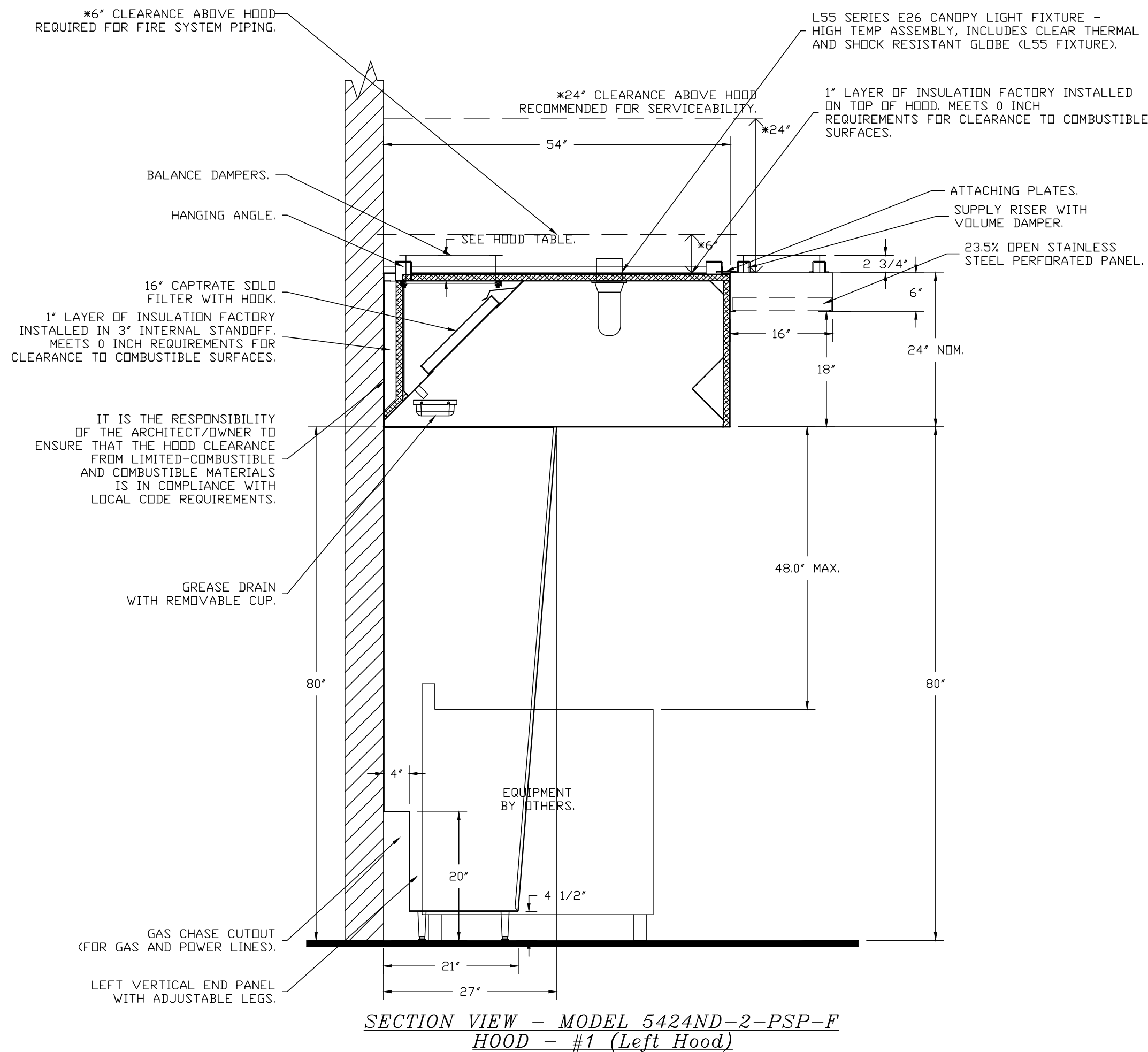
**DWG.#:**  
7533057

**DRAWN BY:** Ryan Fung

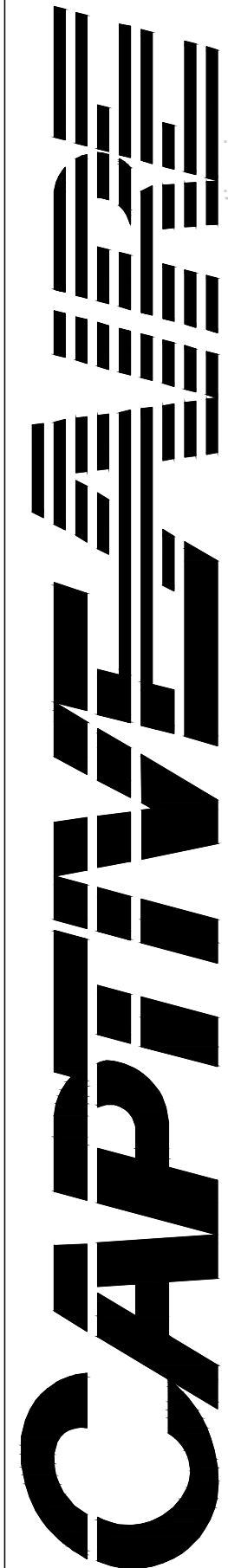
**SCALE:**  
3/4" = 1'-0"

## MASTER DRAWING

**SHEET NO.**



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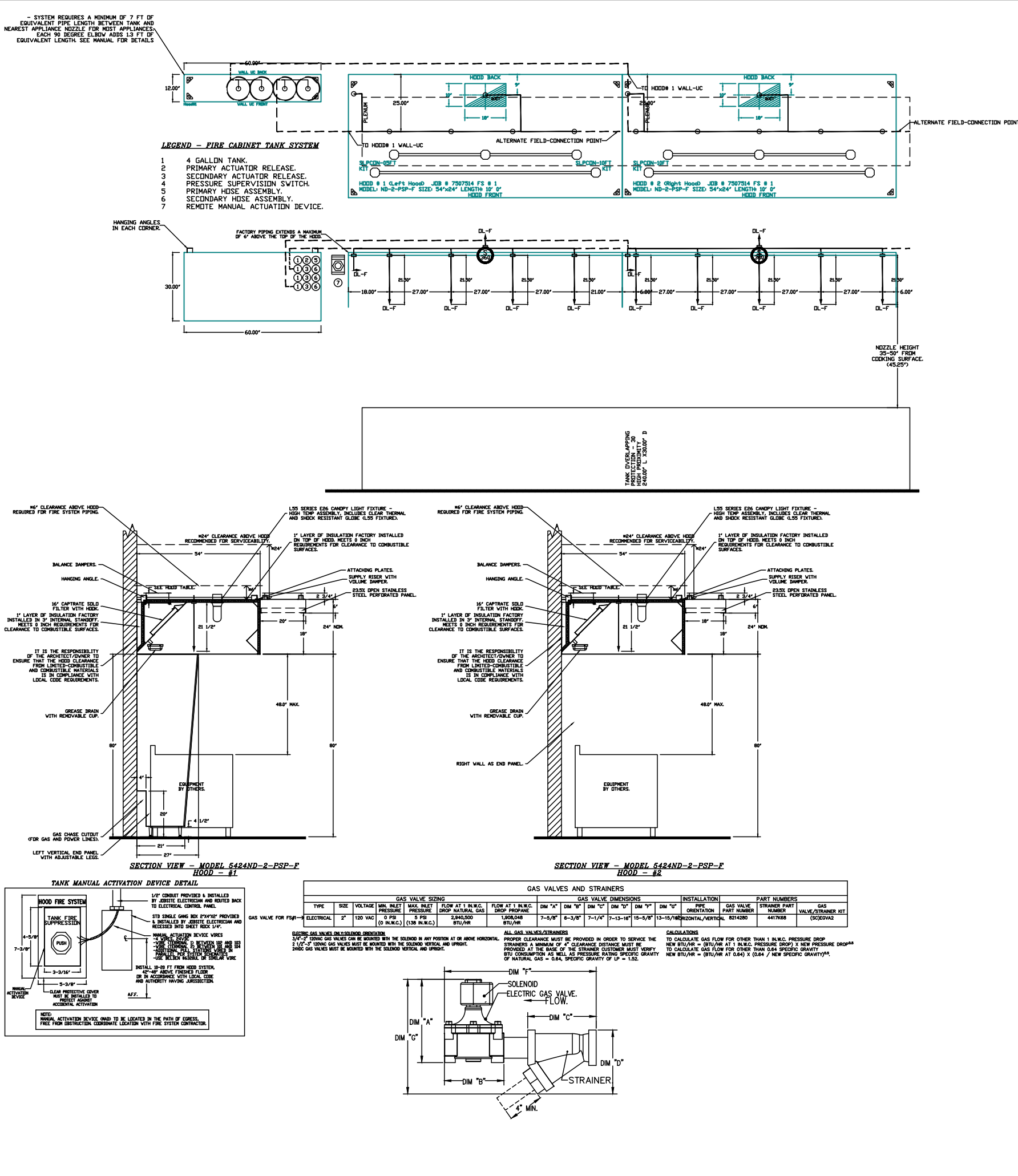


**International Sales Office**  
4444 Eastgate Parkway, Unit #20, Mississauga, ON, L4W 4T6 PHONE: (647) 977-2217 FAX: 9192275905 EMAIL: reg20@captiveair.com

Oakville Croatian Church R2  
2110 Trafalgar Road,  
Oakville, ON, L6H 7H2

**DATE:** 5/15/2025  
**DWG.#:** 7533057  
**DRAWN BY:** Ryan Fung  
**SCALE:** 3/4" = 1'-0"  
**MASTER DRAWING**

**SHEET NO.**  
3



NOTES

FIELD PIPE DROPS AS SHOWN

PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY GAS

FIELD INSTALLED BRACKET FACTORY WILL PROVIDE SIX 2 GAIN LONG PIECES OF CHROME

PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED

SHIP LOOSE BRON PARTS WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED

SHIPPED LOOSE TO BE FIELD-INSTALLED

RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVE, SALAMANDERS, ETC.

OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION

IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE

FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD

APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE

THIS PRE-ENGINEERED FIRE SYSTEM COMPLIES WITH UL 300 REQUIREMENTS

DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-S3

SYSTEM SIZE: TANK-SP-4-VE DESIGN FP: 61, MAXIMUM FP: 60

HOOD # 1 1/2" LONG x 54" WIDE x 24" HIGH

RISER # 1 SIZE: 1/2" x 1/2"

HOOD # 1 METAL BLOW-OFF CAPS INCLUDED

HOOD # 2 1/2" LONG x 54" WIDE x 24" HIGH

RISER # 1 SIZE: 1/2" x 1/2"

HOOD # 2 METAL BLOW-OFF CAPS INCLUDED

HEAVY-DUTY APPLIANCES (RATED 6000 BTU) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIREFIGHT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH

NEED TO LIGHT-DUTY APPLIANCES (RATED 4500 BTU) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION

| AGENT DISTRIBUTION PIPING LIMITATIONS       |                      |  |  |
|---------------------------------------------|----------------------|--|--|
| PIPE SECTION                                | MAX PIPE LENGTH (FT) |  |  |
| MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE | 45                   |  |  |
| OVERLAPPING NOZZLE APPLIANCE BRANCH         | 10                   |  |  |
| DEDICATED NOZZLE APPLIANCE BRANCH           | 10                   |  |  |

| FIRE SYSTEM INFORMATION - J087533057 |         |             |        |        |                           |
|--------------------------------------|---------|-------------|--------|--------|---------------------------|
| SYSTEM TAG                           | TYPE    | SIZE        | MAX FP | DESIGN | INSTALLATION              |
| 1                                    | TANK FS | 45/45/45/45 | 60     | 61     | WALL UTILITY CABINET LEFT |

| SYSTEM TAG | TYPE          | SIZE | SUPPLIED BY          |
|------------|---------------|------|----------------------|
| 1          | SC ELECTRICAL | 2000 | CAPTIVE FIRE SYSTEMS |

| SYSTEM TAG | KEY NUMBER | PART DESCRIPTION                                                                                                                                                                                                                                                           | QTY. BY FACTORY | QTY. BY SUB |
|------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|
| 1          | 0 - 0      | TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET                                                                                                                                                                                                 | 1               | 0           |
| 1          | 0 - 0      | TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET                                                                                                                                                                                                        | 1               | 0           |
| 1          | 0 - 0      | 1/2" TANK-SP-4-VE 1/2" BLOW-OFF CAPS INCLUDED                                                                                                                                                                                                                              | 2               | 0           |
| 1          | 0 - 0      | 45/45/45/45 1/2" x 1/2" BRASS ELBOW, BRASS                                                                                                                                                                                                                                 | 2               | 0           |
| 1          | 0 - 0      | 45/45/45/45 1/2" x 1/2" BRASS ELBOW WITH 1/2" MET FEMALE CONNECTION, VESGA                                                                                                                                                                                                 | 2               | 0           |
| 1          | 0 - 0      | 75000 1/2" x 1/2" PRE-PRESS TEE X 1/2" MET FEMALE CONNECTION, VESGA                                                                                                                                                                                                        | 4               | 0           |
| 1          | 0 - 0      | 87-30000-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION                                                                                                                                                    | 3               | 0           |
| 1          | 0 - 0      | 87-30000-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION                                                                                                                                                                                                        | 3               | 0           |
| 1          | 0 - 0      | 87-30000-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE RELEASE FOR FIRE SYSTEM, SUPPLY, TANK FIRE SUPPRESSION                                                                                                                               | 1               | 0           |
| 1          | 0 - 0      | 87-30000-001 DIN CONNECTOR, CAPTIVE PART #0540-001-004, TANK FIRE SUPPRESSION, SUBMOUNTABLE SOLENOID CONNECTION (SEE #0540-001-004)                                                                                                                                        | 1               | 0           |
| 1          | 0 - 0      | 87-30000-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION                                                                                                                                                                                                                    | 16              | 0           |
| 1          | 0 - 0      | 87-30000-001 HARDWARE, DIN/LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION                                                                                                                                                                                   | 8               | 0           |
| 1          | 0 - 0      | 87-30000-001 JUNCTION BOX FOR MANUAL PULL STATION, 1/2" DEEP BACK BOX, RED COLOR                                                                                                                                                                                           | 1               | 0           |
| 1          | 0 - 0      | AS484 1/4" MET SOLENOID VALVE AND CAP, JB INDUSTRIAL 1/4" FLARE X 1/4" MET WALL UNION USED ON TANK SERVICE ONLY                                                                                                                                                            | 2               | 0           |
| 1          | 0 - 0      | DATAMARK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION                                                                                                                                                 | 4               | 0           |
| 1          | 0 - 0      | SLIP-ON-SOFT SUPERVISED LOOP CONNECTION KIT - CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 1/2" GAP, JO CONTAINS 7 FEET OF BLACK NG WIRE, 7 FEET OF TAN NG WIRE, 5 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS | 1               | 0           |
| 1          | 0 - 0      | SLIP-ON-SOFT SUPERVISED LOOP CONNECTION KIT - CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 1/2" GAP, JO CONTAINS 7 FEET OF BLACK NG WIRE, 7 FEET OF TAN NG WIRE, 5 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS | 2               | 0           |
| 1          | 0 - 0      | TANK TANK TANK TANK - USED FOR TANK FIRE SUPPRESSION                                                                                                                                                                                                                       | 16              | 0           |
| 1          | 0 - 0      | 1/2" TANK/BRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION                                                                                                                                                                | 4               | 0           |
| 1          | 0 - 0      | VIC-88900-001 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION                                                                                                                                                                                                                     | 4               | 0           |
| 1          | 0 - 0      | 87-30000-001 HARDWARE, DIN/LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION                                                                                                                                                                                   | 1               | 0           |

REVISIONS

| REVISIONS | DESCRIPTION | DATE |
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CAPTIVE

International Sales Office

4444 Eastgate Parkway, Unit #20, Mississauga, ON L4W 4Y3 PHONE: (416) 977-2277 FAX: 910225905 EMAIL: rep20@captivafire.com

Dakville Croatia Church R2

2110 Trafalgar Road,

Dakville, ON, L6H 7H2

DATE: 5/15/2025

DWG.#: 7533057

DRAWN BY: Ryan Fung

SCALE: 1/2" = 1'-0"

MASTER DRAWING

SHEET NO. 4

EXHAUST FAN INFORMATION – JOB#7533057

| 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           |     | 1   | USB124DD-RM      | CAPTIVEAIRE  | 3900 | 2.000 | 1031 | ODP,PREMIUM | 5.000 | 2.4690 | 3     | 208  | 15.8 | 1292 FPM           | 921          | 20.9  |

MUA FAN INFORMATION – JOB#7533057

| FAN UNIT NO | TAG | QTY | FAN UNIT MODEL # | BLOWER     | HOUSING  | MIN CFM | DESIGN CFM | ESP   | RPM  | MOTOR ENCL  | HP    | BHP    | PHASE | VOLT | FLA | MCA   | MOCp | WEIGHT (LBS) | SDNES |
|-------------|-----|-----|------------------|------------|----------|---------|------------|-------|------|-------------|-------|--------|-------|------|-----|-------|------|--------------|-------|
| 2           |     | 1   | A2-D.500-20D     | 20MF-2-MDD | A2-D.500 | 2500    | 3704       | 0.500 | 1435 | ODP,PREMIUM | 3.000 | 1.6260 | 3     | 208  | 9.5 | 11.9A | 20A  | 695          | 13    |

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(%) |
|-------------|-----|------------|-------------|-----------|-----------------------------|----------|----------------------|
| 2           |     | 367095     | 337727      | 90°F      | 7 IN. W.C. – 14 IN. W.C.    | NATURAL  | 92                   |

FAN ACCESSORIES

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

CURB ASSEMBLIES

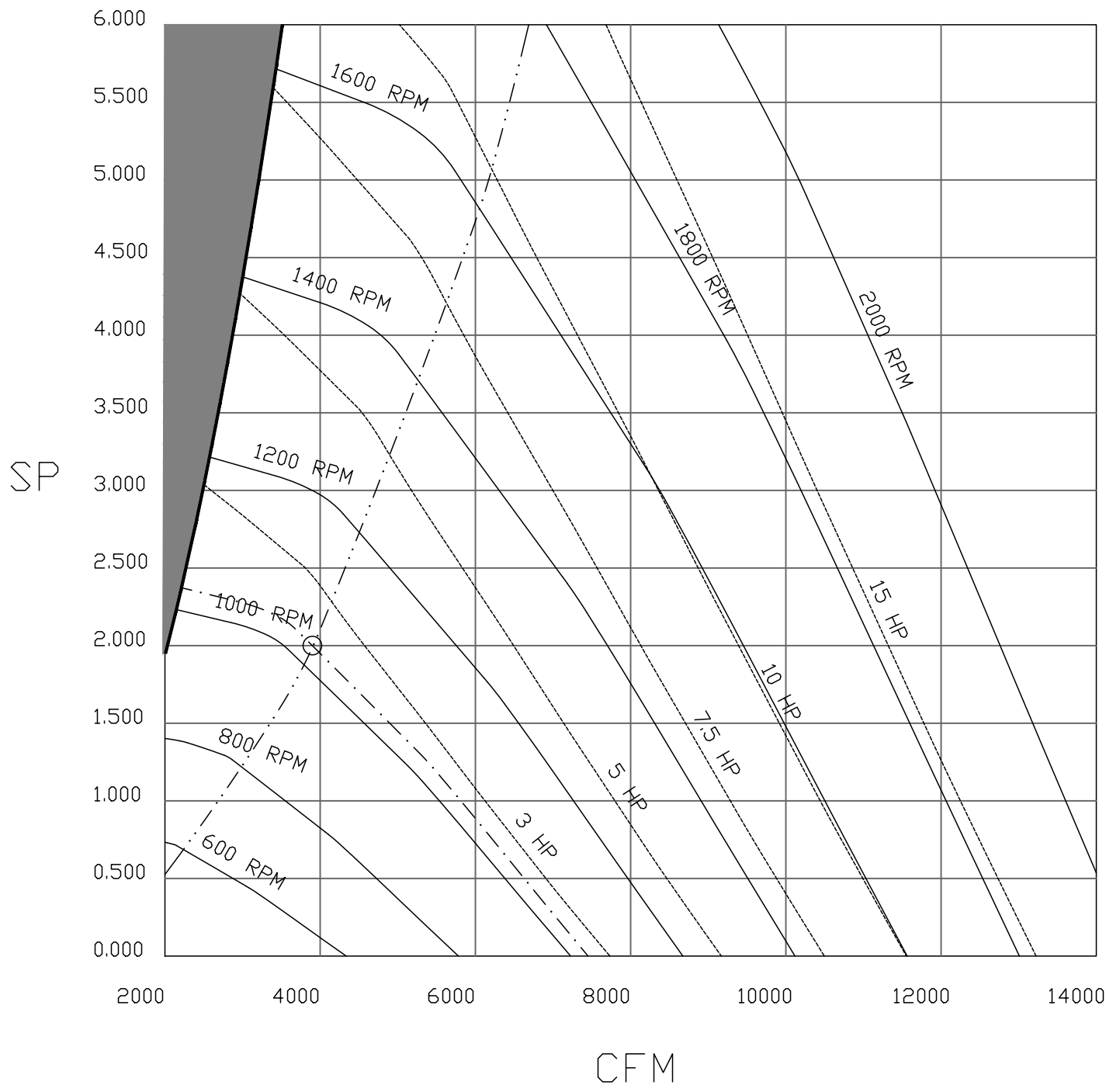
| NO | ON FAN | WEIGHT | ITEM | SIZE                                      |
|----|--------|--------|------|-------------------------------------------|
| 1  | # 1    | 30 LBS | CURB | 42.500"W X 52.000"L X 10.000"H.           |
| 2  | # 2    | 88 LBS | CURB | 31.000"W X 79.000"L X 24.000"H INSULATED. |

FAN SOUND DATA

| FAN UNIT NO | TAG | MOTOR   | SOUND DATA |                    |            | OCTAVE BAND SOUND DATA |       |        |        |        |       |       |       |       |
|-------------|-----|---------|------------|--------------------|------------|------------------------|-------|--------|--------|--------|-------|-------|-------|-------|
|             |     |         | LWA        | SONES @ 5 FT       | DBA @ 5 FT | DISTANCE (FT)          | 63 HZ | 125 HZ | 250 HZ | 500 HZ | 1 KHZ | 2 KHZ | 4 KHZ | 8 KHZ |
| 1           |     | EXHAUST | 83.3       | 20.858213497506497 | 71.8       | 5                      | 86.5  | 87.8   | 87.1   | 81     | 75    | 73.7  | 68    | 60    |
| 2           |     | SUPPLY  | 76.5       | 13.015409337734525 | 65         | 5                      | 71.9  | 79.5   | 74.4   | 74.5   | 70.8  | 67.9  | 65.1  | 61.6  |

FAN#1 – EXHAUST PERFORMANCE CURVES.

3900 CFM, 2 SP @ 1031 RPM AND 2.469 BHP AT 502 FEET AND 120 DEG F.  
\* PLEASE NOTE THAT THESE CURVES WERE ADJUSTED FOR JOB SPECIFIC TEMPERATURE AND ALTITUDE.



REVISIONS

| DESCRIPTION | DATE: |
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International Sales Office

Oakville Croatiaian Church R2

2110 Trafalgar Road,

Oakville, ON, L6H 7H2

DATE: 5/15/2025

DWG.#: 7533057

DRAWN BY: Ryan Fung

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

MASTER DRAWING

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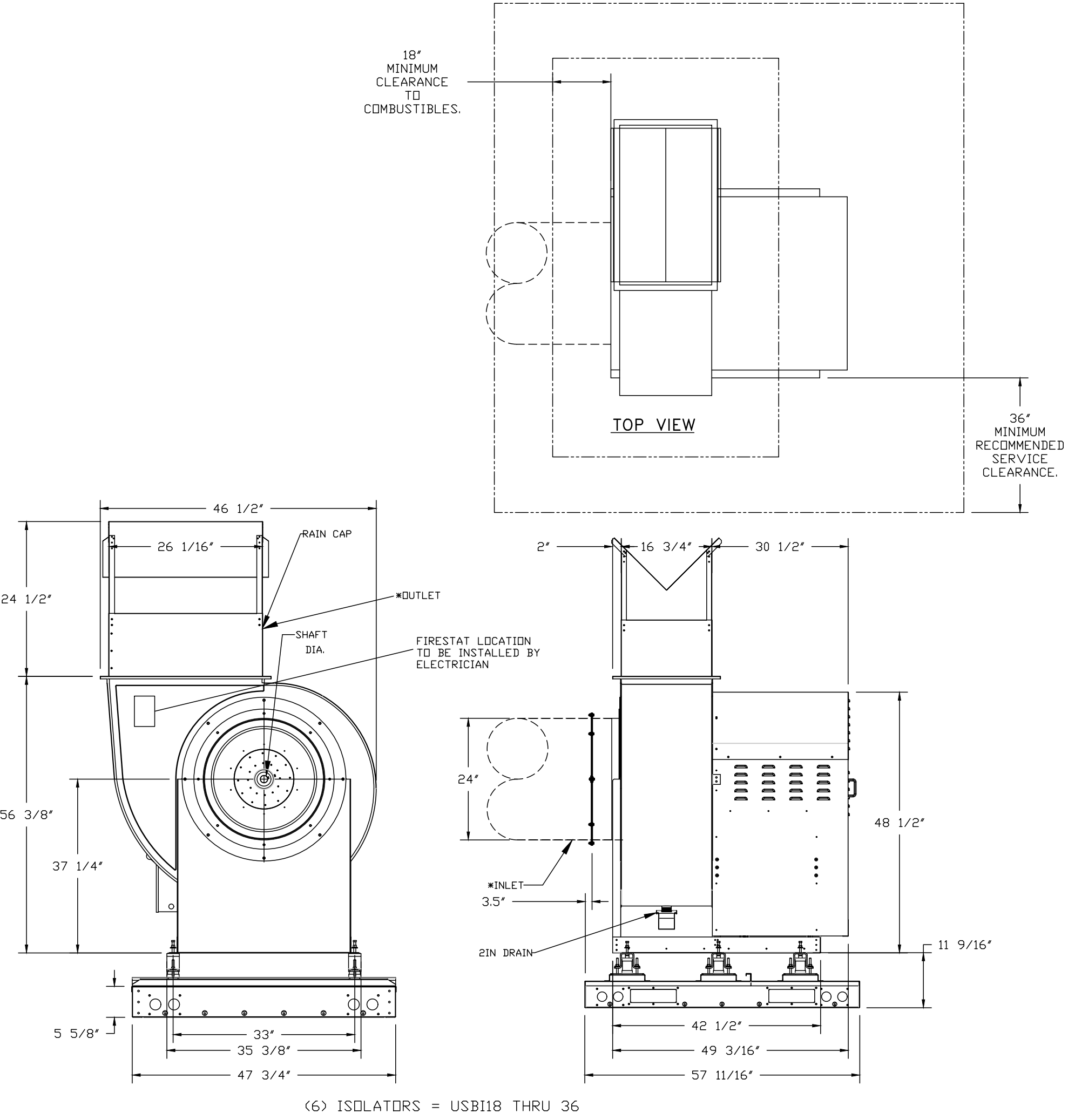
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FAN OPTIONS

| FAN UNIT NO | TAG | QTY | DESCRIPTION                                                                                                                                                   |
|-------------|-----|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           |     | 1   | B124 - INLET SERVICE DUCT CONNECTION, USED TO CONNECT TO STANDARD 24" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER |
|             |     | 1   | UTILITY SET GREASE CUP                                                                                                                                        |
|             |     | 1   | BI - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE                                                                                                |
|             |     | 1   | B124 - INLET CONNECTION STANDARD 24" FLANGED GREASE DUCT                                                                                                      |
|             |     | 1   | CURB MOUNTED SLED FOR USBI 24, USED TO MOUNT ON 52" L X 42.5" W CURB                                                                                          |
|             |     | 1   | B124 - RAIN CAP ASSEMBLY                                                                                                                                      |
|             |     | 1   | UTILITY SET - FAN SLED RESTRAINED SPRING VIBRATION ISOLATORS - B124 THRU B136 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE (SET OF 6)                  |
|             |     | 1   | 2 YEAR PARTS WARRANTY                                                                                                                                         |
| 2           |     | 1   | SIZE 2 TEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS                                                                                               |
|             |     | 1   | INLET PRESSURE GAUGE, 0-35"                                                                                                                                   |
|             |     | 1   | MANIFOLD PRESSURE GAUGE, -5 TO 15" WC                                                                                                                         |
|             |     | 1   | BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 2 (1" MOD VALVE)                                                                                                      |
|             |     | 1   | UPSTREAM PILOT FOR SIZES 1-3                                                                                                                                  |
|             |     | 1   | MOTORIZED BACKDRAFT DAMPER FOR A2-D HOUSING - MEETS AMCA CLASS 1A RATING                                                                                      |
|             |     | 1   | FREEZESTAT                                                                                                                                                    |
|             |     | 1   | SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY                                                          |
|             |     | 1   | 2 YEAR PARTS WARRANTY                                                                                                                                         |
|             |     | 1   | EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET                                                                         |

| HMI SCHEDULE |               |              |                |                |
|--------------|---------------|--------------|----------------|----------------|
| UNIT NUMBER  | HMI #         | HMI LOCATION | TEMP AVERAGING | MODBUS ADDRESS |
| FAN #2       | HMI #1 - UNIT | IN UNIT      | NOT AVERAGED   | 55             |

FAN #1 USBI24DD-RM-S - EXHAUST FAN



- FEATURES:**
- CURB MOUNTED FANS WITH VIBRATION ISOLATOR
  - FULL PERIMETER CURB
  - LIFTING HOOK POCKETS ON ALL SIDES
  - UL705
  - UL762 & ULC-S645 (RESTAURANT MODEL)
  - HIGH HEAT OPERATION DIRECT DRIVE 350°F (176°C)
  - HEAT SLINGER
  - GREASE CLASSIFICATION TESTING
  - 2" DRAIN
  - MOTOR WEATHER COVER
  - FULLY SEALED SCROLL HOUSING
  - SCROLL ACCESS DOOR
  - FLANGE 2" - 24 THRU 36

- OPTIONS**
- B124 - INLET SERVICE DUCT CONNECTION, USED TO CONNECT TO STANDARD 24" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER.
  - UTILITY SET GREASE CUP.
  - BI - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE.
  - B124 - INLET CONNECTION STANDARD 24" FLANGED GREASE DUCT.
  - CURB MOUNTED SLED FOR USBI 24, USED TO MOUNT ON 52" L X 42.5" W CURB.
  - B124 - RAIN CAP ASSEMBLY.
  - UTILITY SET - FAN SLED RESTRAINED SPRING VIBRATION ISOLATORS - B124 THRU B136 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE (SET OF 6).
  - 2 YEAR PARTS WARRANTY.

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Oakville Croatia Church R2

2110 Trafalgar Road,

Oakville, ON, L6H 7H2

DATE: 5/15/2025

DWG.#: 7533057

DRAWN BY: Ryan Fung

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

MASTER DRAWING

SHEET NO.

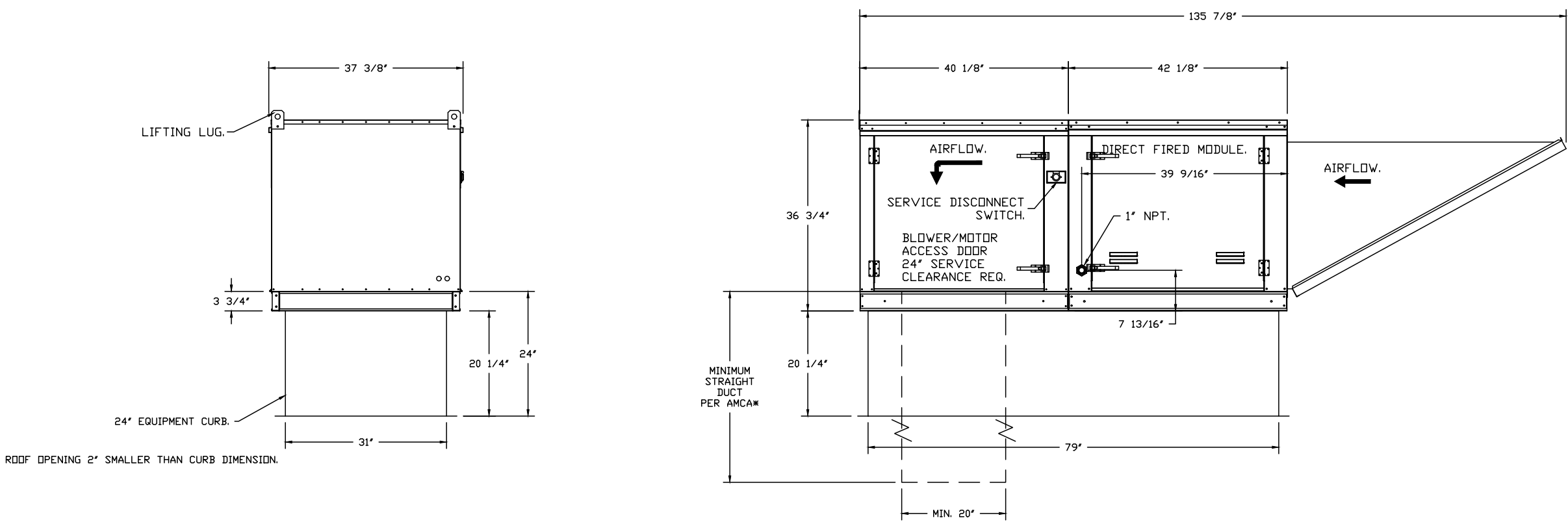
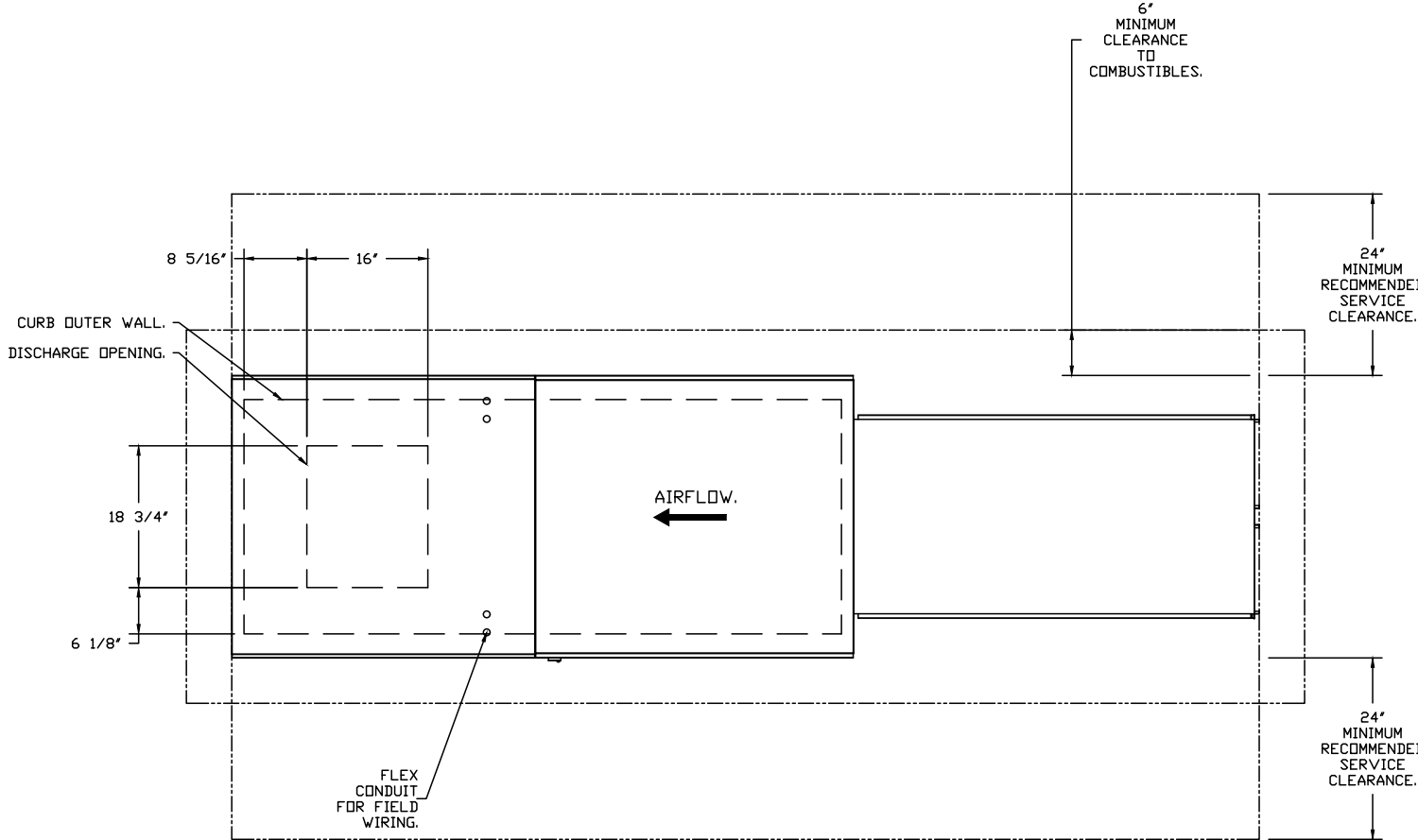
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FAN #2 AP-2500-200 - HEATER  
1. DIRECT GAS FIRED HEATER MAKE UP AIR UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN.  
2. INTAKE HOOD WITH EZ FILTERS.  
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.  
4. DOWN DISCHARGE CONSTRUCTION FOR SIZE 2 DIRECT DRIVE AMUS.  
5. GAS PRESSURE GAUGE - 1/2" NPT. 2" DIAMETER, 1/4" TREAD SIZE.  
6. GAS PRESSURE GAUGE - 1/2" NPT. 2" DIAMETER, 1/4" TREAD SIZE.  
7. BUTTERFLY MID VALVE OPTION FOR HOOD SIZE 2 1/4" MID VALVES.  
8. FLEX LOCATED UPSTREAM OF 1/2" MID VALVE. 1/2" MID VALVE BY SIZE 1-3 MAY GAS PRESSURE OF 14" WC.  
9. MOTORIZED BACK DRAFT DAMPER 22 1/2" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAF. STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE. 1/2" HOSE ACTUATOR INCLUDED.  
10. FREEZE STAT.  
11. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFB IN PREVIRE PANEL OR WITH HOV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM BOX TO MAIN SWITCH.  
12. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).  
13. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.  
14. 2 YEAR PARTS WARRANTY.

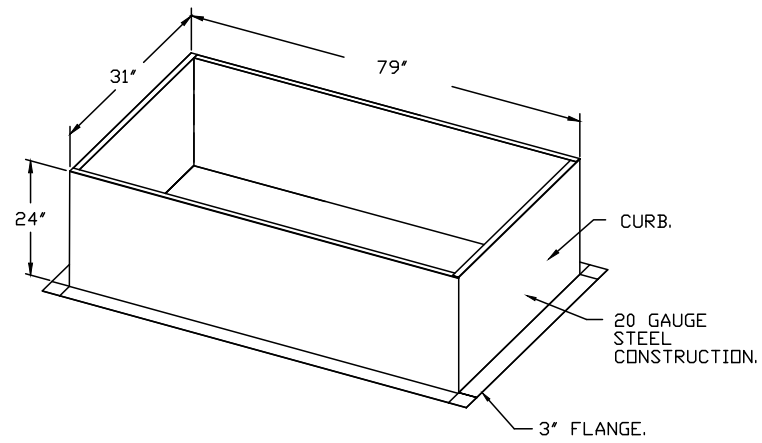
NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMASH STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 203. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE 90° THROAT RADIUS AND WITH TURNING VANS. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BEND ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURN 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 20" x 20".

#### SUPPLY SIDE HEATER INFORMATION

WINTER TEMPERATURE = 41° F. TEMP. RISE = 90° F.  
BTU'S CALCULATED OFF ACTUAL AIR DENSITY.  
OUTPUT BTU'S AT ALTITUDE OF 00 FT. = 243920  
INPUT BTU'S AT ALTITUDE OF 00 FT. = 237262  
OUTPUT BTU'S AT ALTITUDE OF 500 FT. = 237727  
INPUT BTU'S AT ALTITUDE OF 500 FT. = 267095

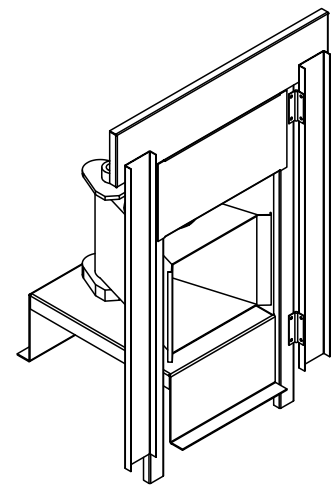
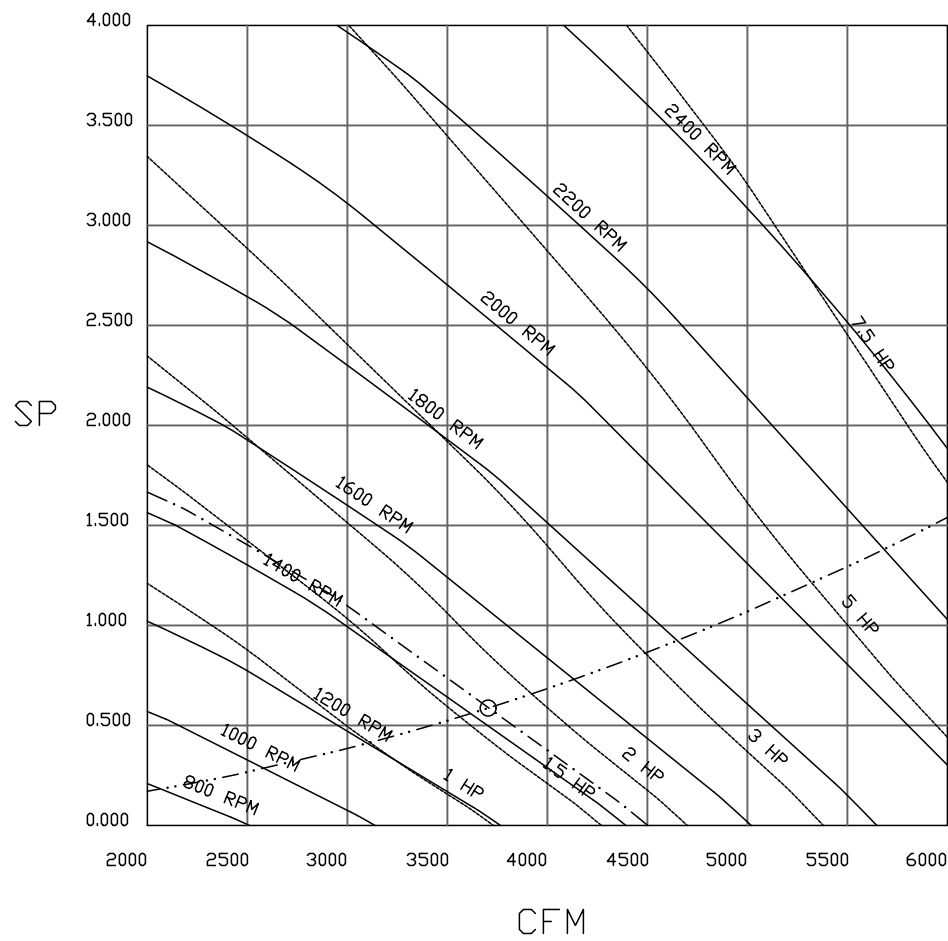


OPTIONS:  
- FULL BOTTOM CORNERS.



#### FAN#2 - HEATER PERFORMANCE CURVES.

3704 CFM, 0.587 SP @ 1435 RPM AND 1.626 BHP AT 502 FEET AND 94 DEG F.  
\* PLEASE NOTE THAT THESE CURVES WERE ADJUSTED FOR JOB SPECIFIC TEMPERATURE AND ALTITUDE.



DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

#### DIRECT FIRED PROFILE PLATE SPECIFICATIONS:

DESCRIPTION:  
DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO. US669923B2), 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 100PPM 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 Z39.4 AND CSA 5.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z39.13 (RECIRCULATING DF HEATERS).

GENERAL CONSTRUCTION:  
- PROFILE PLATES SHALL BE FORMED FROM 600 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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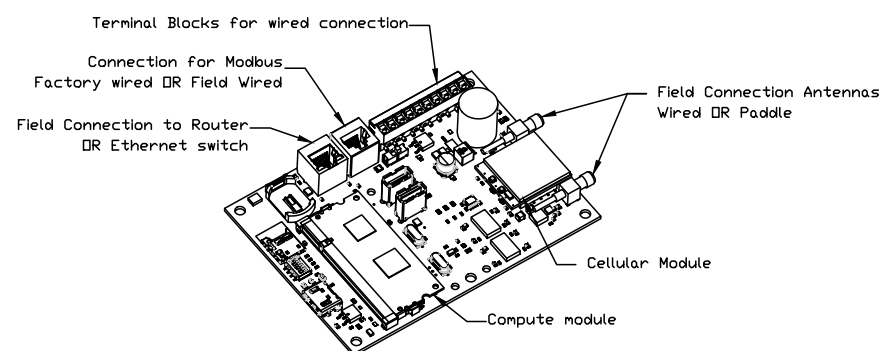
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DWG.#: 7533057  
DRAWN BY: Ryan Fung  
SCALE: 1/2" = 1'-0"  
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SHEET NO. 7



## ELECTRICAL PACKAGE -- JOB#7533057

| NO | TAG | PACKAGE # | LOCATION             | SWITCHES          |                  | OPTION             | FANS CONTROLLED   |        |                |                           |
|----|-----|-----------|----------------------|-------------------|------------------|--------------------|-------------------|--------|----------------|---------------------------|
|    |     |           |                      | LOCATION          | QUANTITY         |                    | TYPE              | Ø      | HP             | VOLT FLA                  |
| 1  |     | DCV-1111  | WALL MOUNT IN SS BOX | SS WALL MOUNT BOX | 1 LIGHT<br>1 FAN | SMART CONTROLS DCV | EXHAUST<br>SUPPLY | 3<br>3 | 5,000<br>3,000 | 208<br>208<br>15.8<br>9.5 |

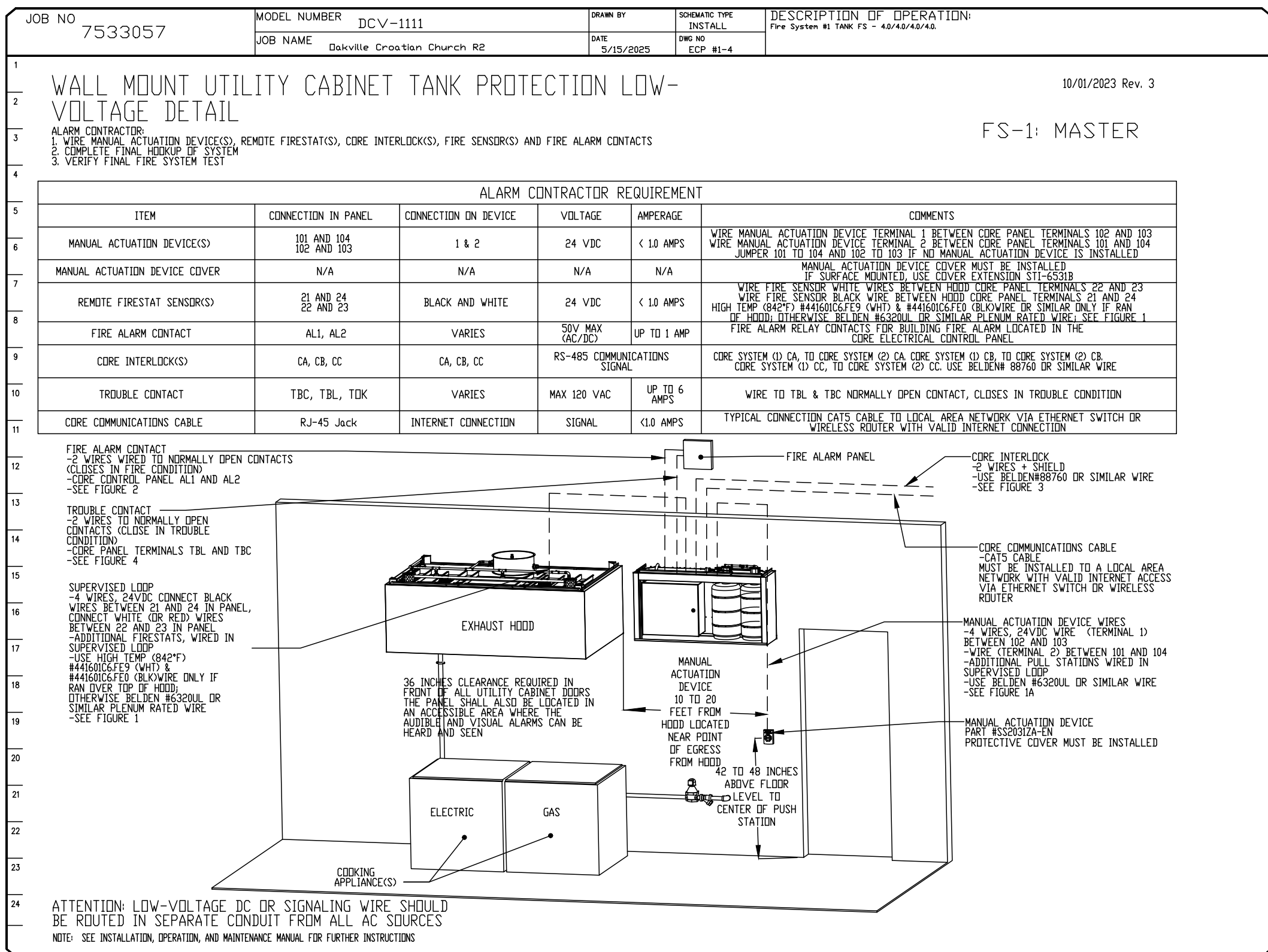
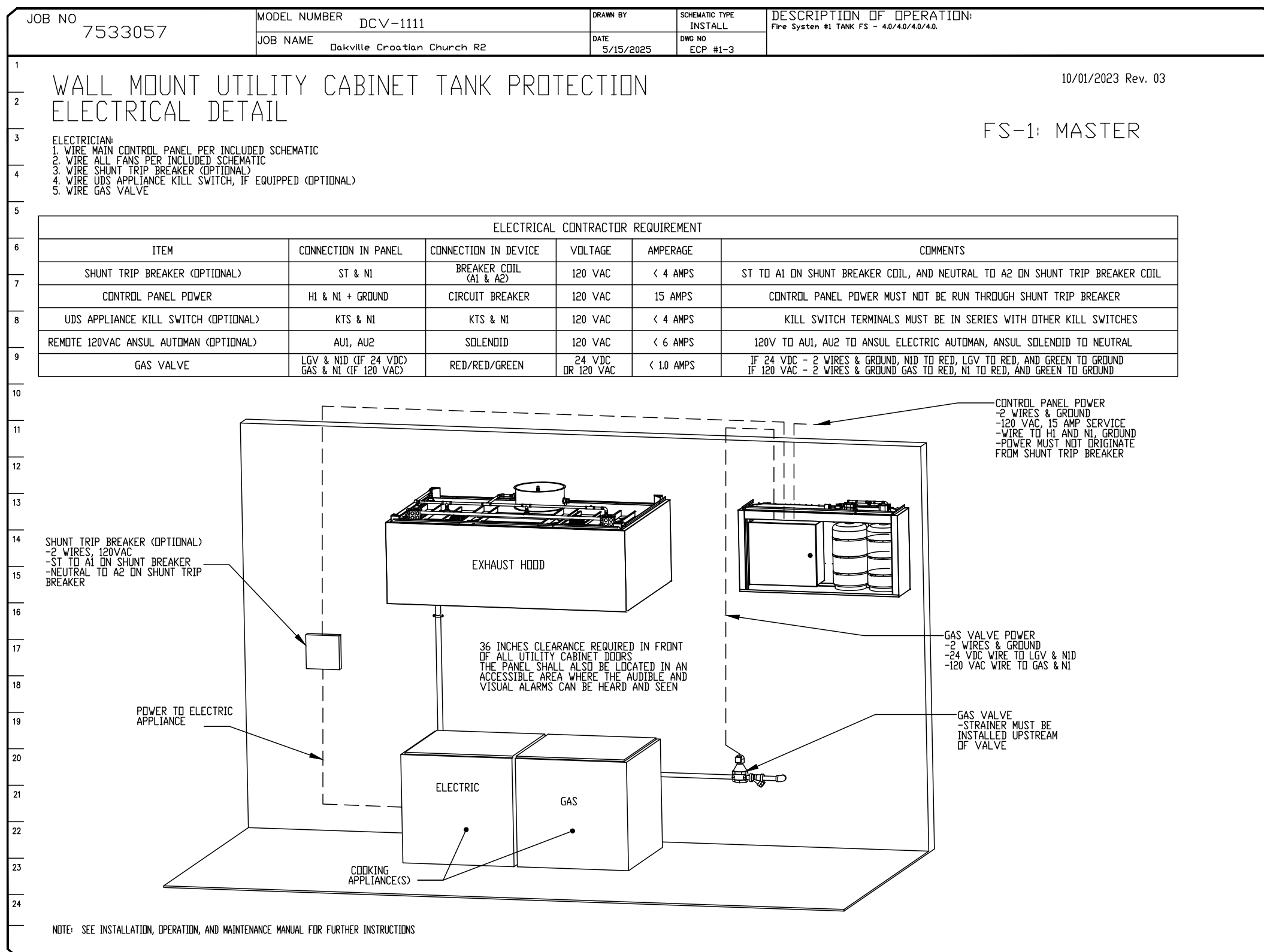
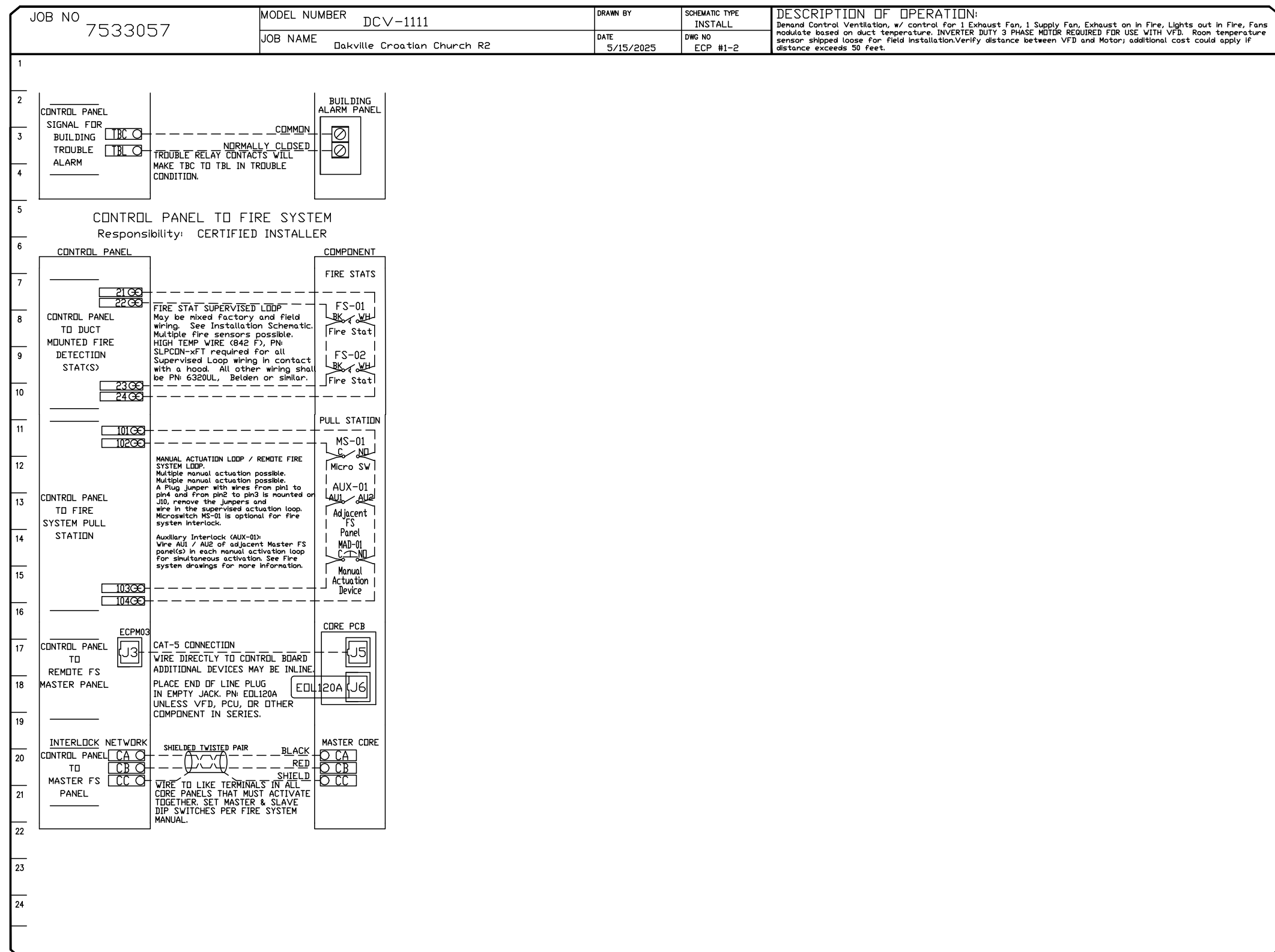
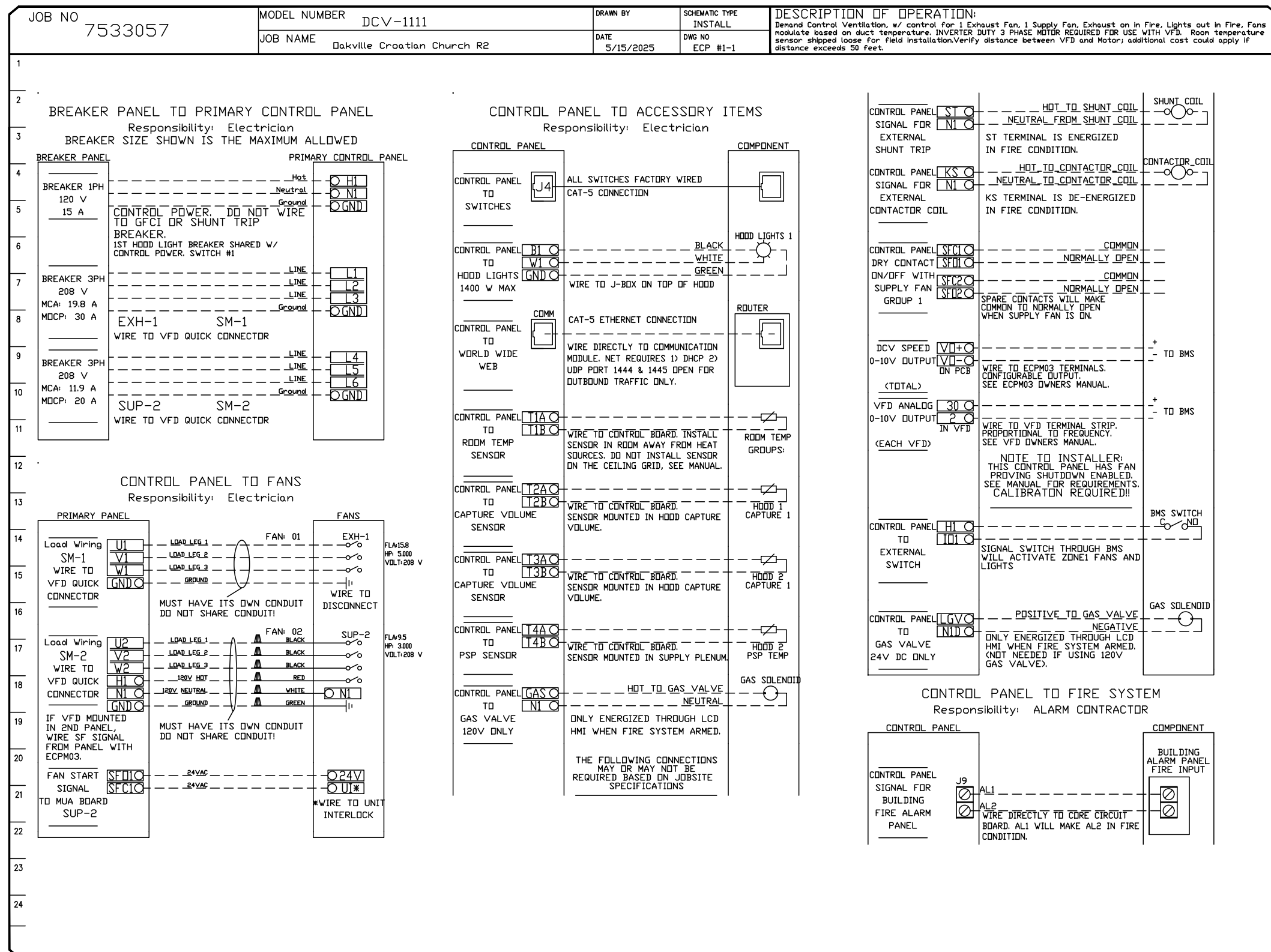


## CASlink Monitor and Control

- Hood control panel to support communications to cloud-based Building Management System.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
- Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

## MONITORING AND CONTROL POINTS LIST

| DCV Packages                      | Function          | SC Packages                       | Function          |
|-----------------------------------|-------------------|-----------------------------------|-------------------|
| Room Temperature                  | MONITOR           | Room Temperature(s)               | MONITOR           |
| Duct Temperature(s)               | MONITOR           | Duct Temperature(s)               | MONITOR           |
| MUA Discharge Temperature         | MONITOR           | MUA Discharge Temperature         | MONITOR           |
| Kitchen RTU Discharge Temperature | MONITOR           | Kitchen RTU Discharge Temperature | MONITOR           |
| Fan Speed                         | MONITOR           | Controller Faults                 | MONITOR           |
| Fan Amperage                      | MONITOR           | Fan Faults                        | MONITOR           |
| Fan Power                         | MONITOR           | Fan Status                        | MONITOR           |
| YFD Faults                        | MONITOR           | PCI Faults                        | MONITOR           |
| Controller Faults                 | MONITOR           | PCI Filter Clap Percentages       | MONITOR           |
| Fan Status                        | MONITOR           | Fire Condition                    | MONITOR           |
| PCI Faults                        | MONITOR           | CORE Fire System                  | MONITOR           |
| PCI Filter Clap Percentages       | MONITOR           | Building Pressures                | MONITOR           |
| Fire Condition                    | MONITOR           | Prep Time Button                  | MONITOR & CONTROL |
| CORE Fire System                  | MONITOR           | Fans Button                       | MONITOR & CONTROL |
| Building Pressures                | MONITOR           | Lights Button                     | MONITOR & CONTROL |
| Prep Time Button                  | MONITOR & CONTROL | Push Button                       | MONITOR & CONTROL |
| Fans Button                       | MONITOR & CONTROL |                                   |                   |
| Lights Button                     | MONITOR & CONTROL |                                   |                   |
| Push Button                       | MONITOR & CONTROL |                                   |                   |



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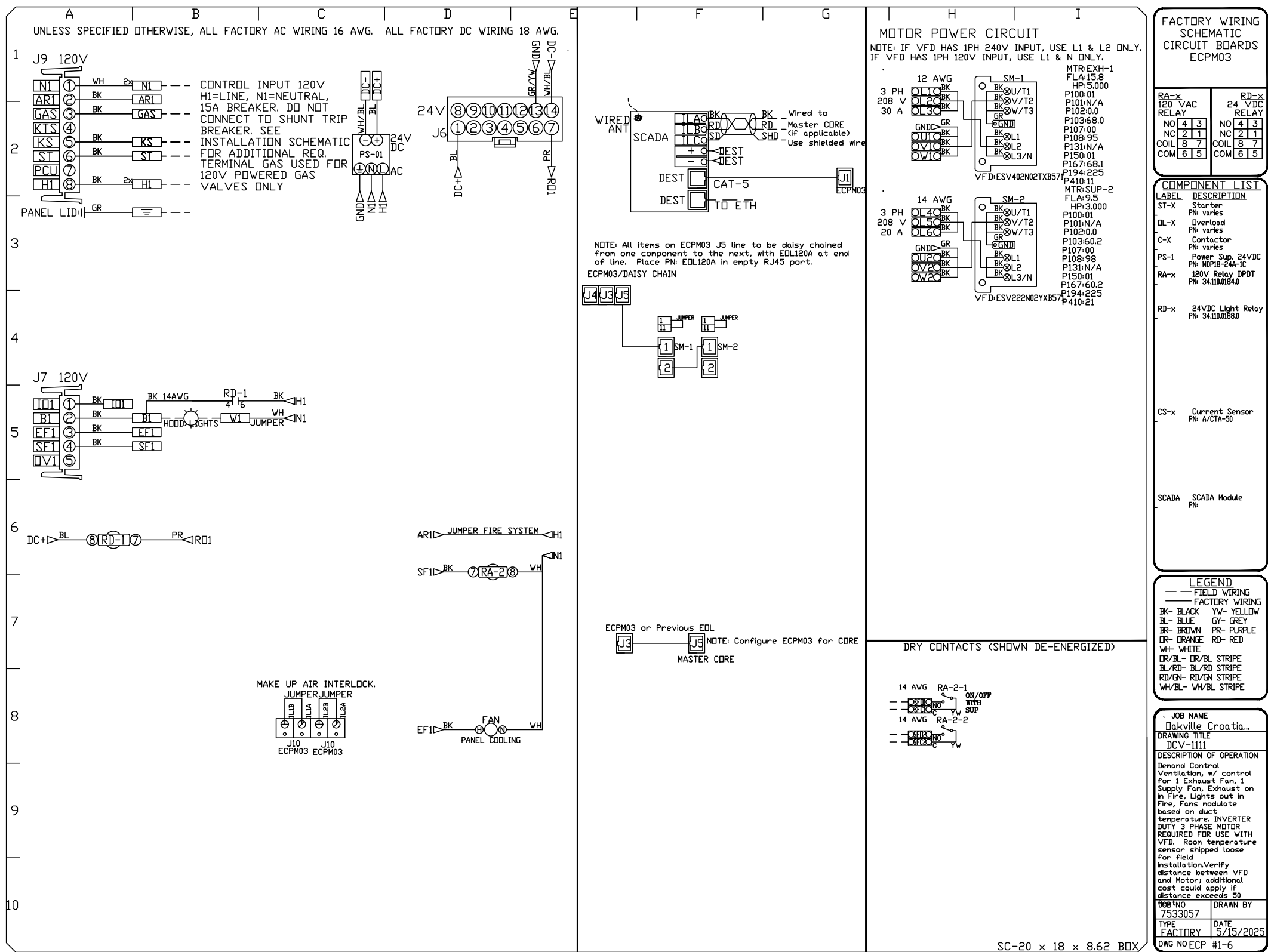
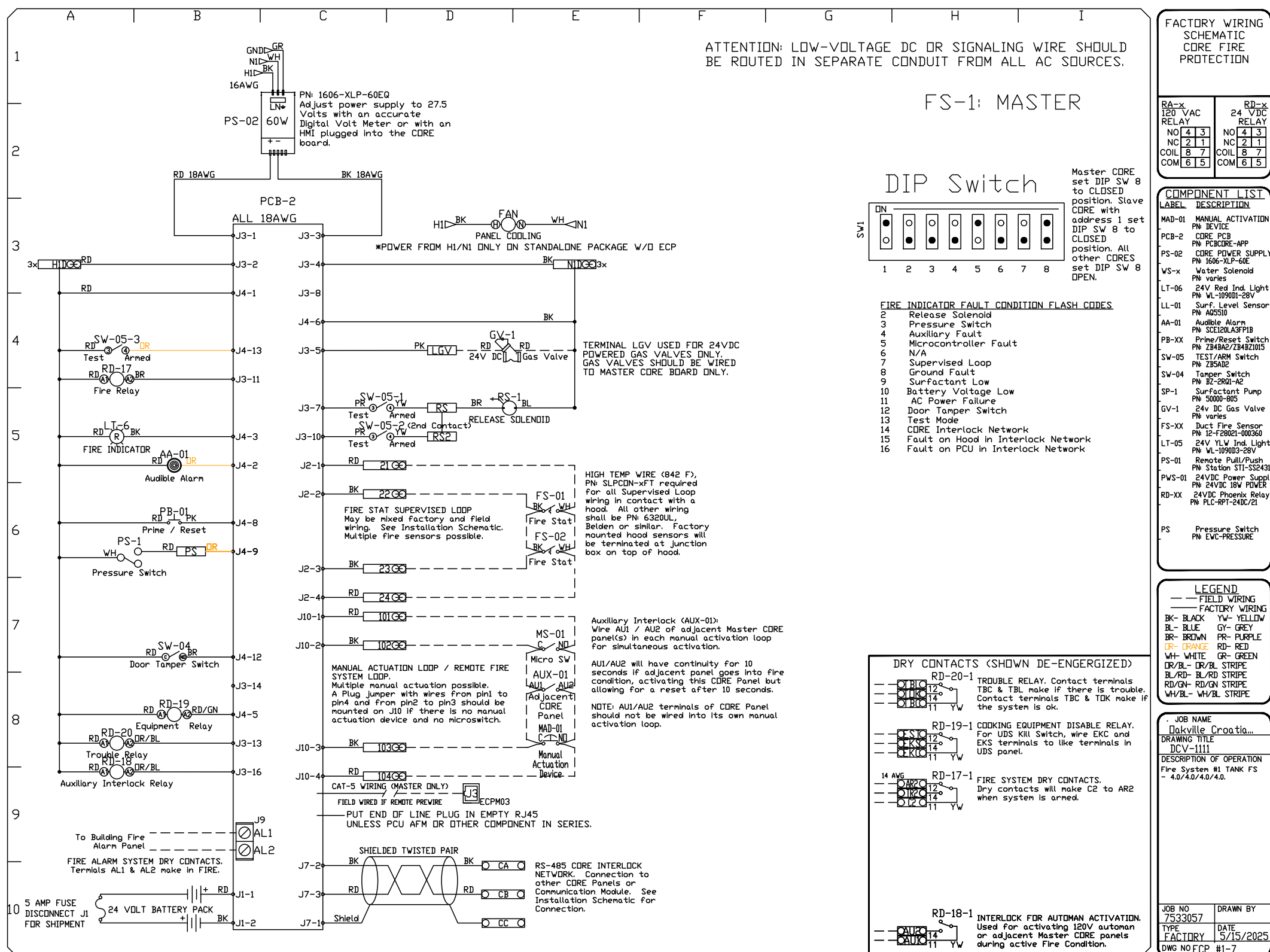
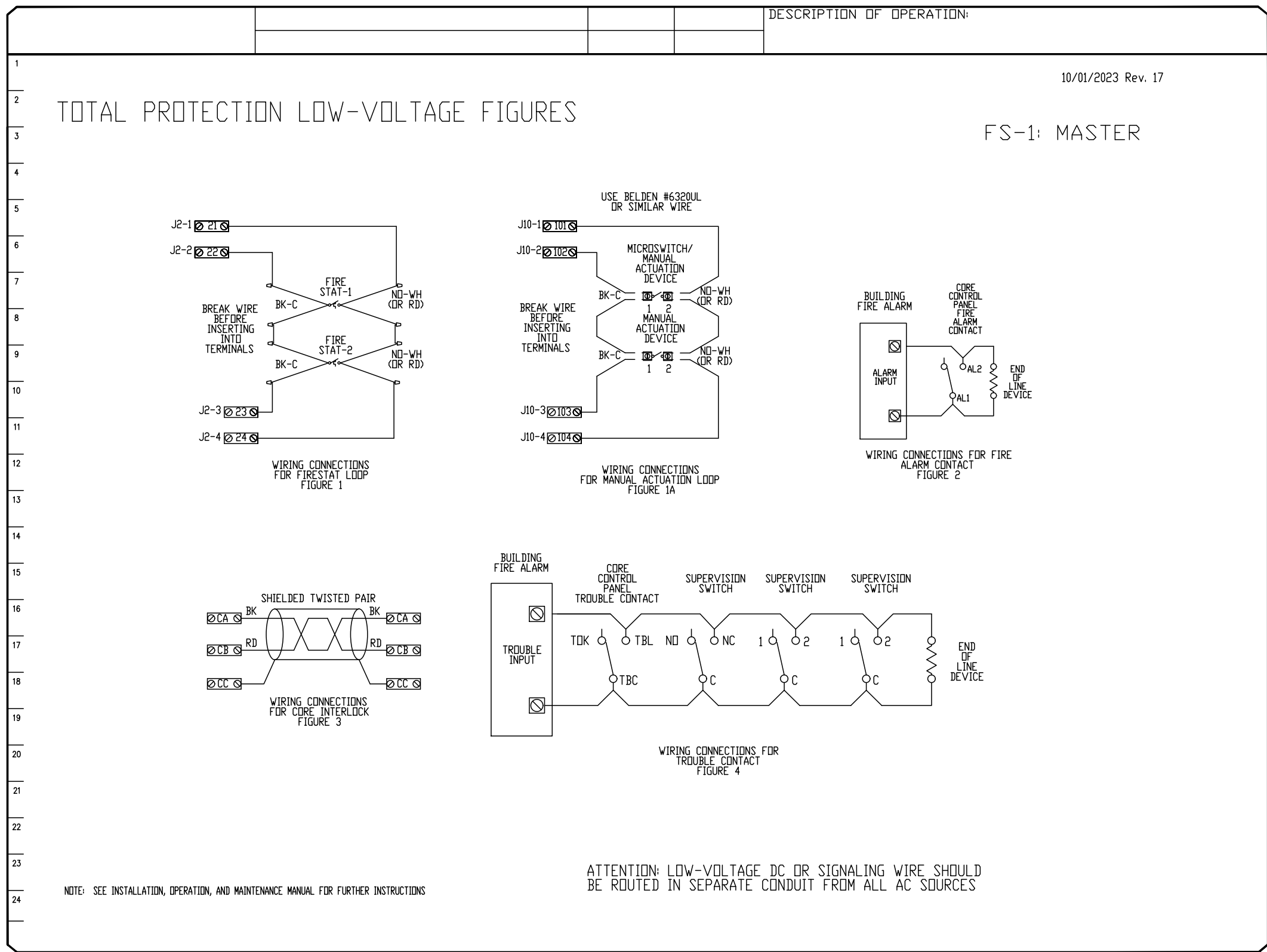
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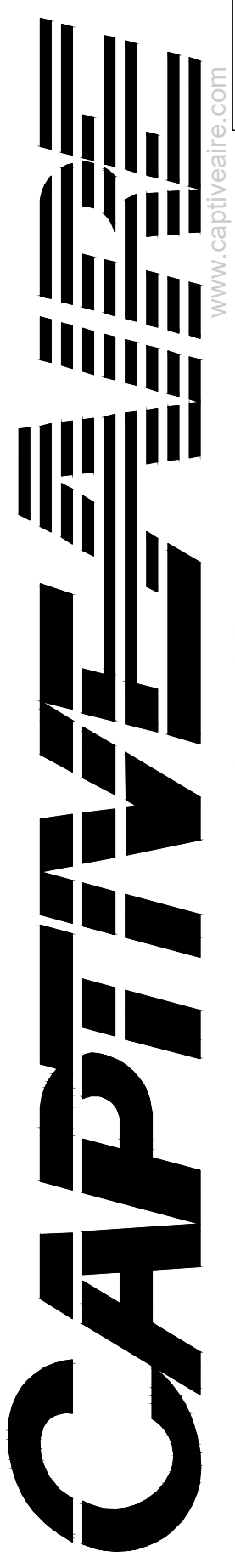
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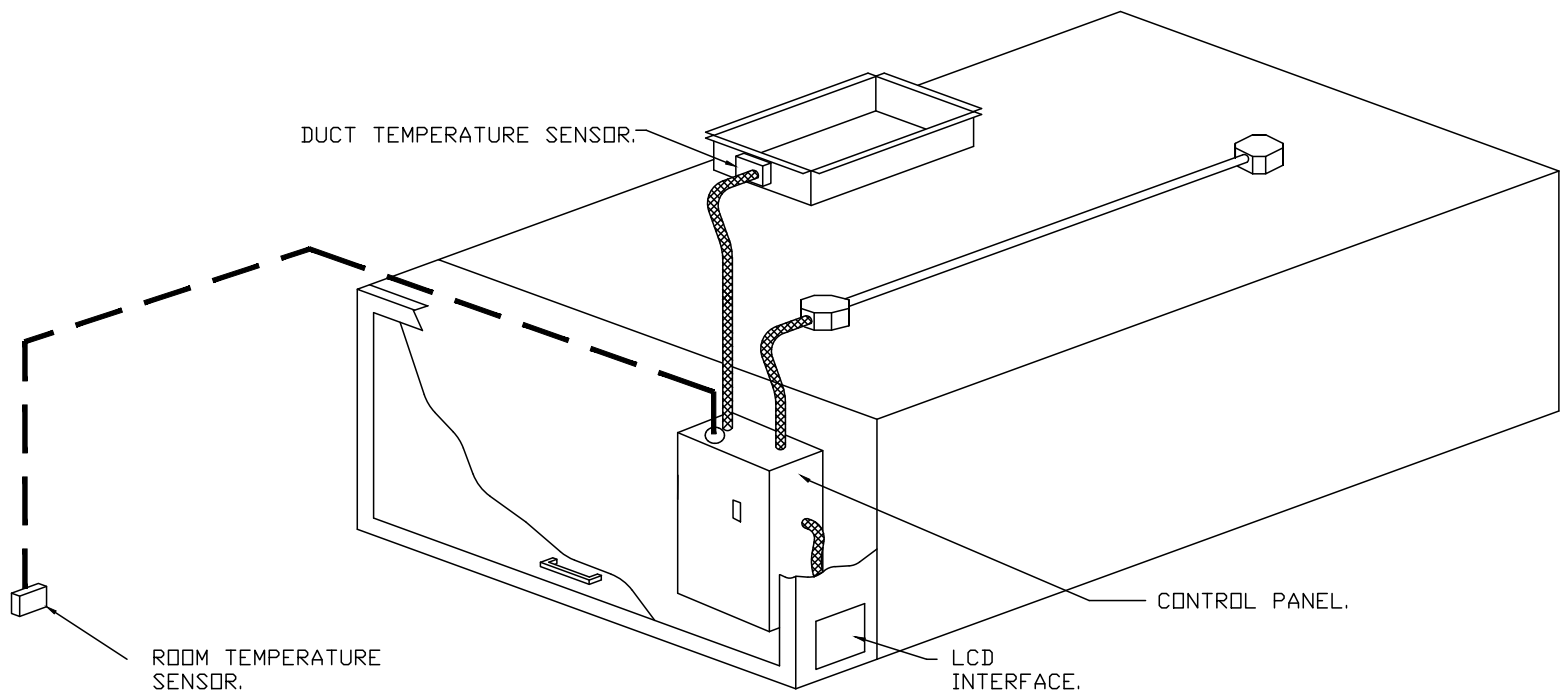
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DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  - A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  - B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
  - C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  - G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.

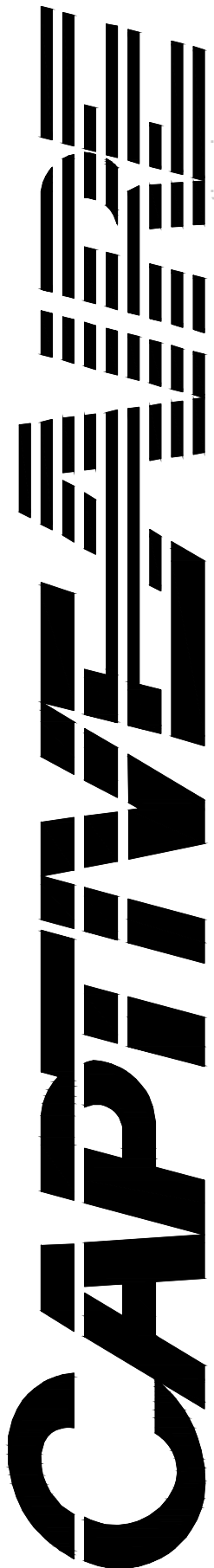


TYPICAL HOOD CONTROL PANEL INSTALLATION

SEQUENCE OF OPERATIONS:

- THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:
- AUTOMATIC: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS ‘DYNAMIC’, THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS ‘STATIC’, FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
  - MANUAL: THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
  - SCHEDULE: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
  - OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
  - FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

| REVISIONS   |       |
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| DESCRIPTION | DATE: |
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DATE: 5/15/2025

DWG.#:  
7533057

DRAWN BY: Ryan Fung

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

MASTER DRAWING

SHEET NO.