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November 1, 2016

Garry Bowcott
Local 188 Restaurant Group
685 Congress Street
Portland, ME 04101

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Re: Kitchen hood ventilati

Enclosed are drawings and s
8'x8' kitchen hood ventilat
following:

Date: 12/15/16

1. Drawing KV-1 - plan
2. Drawing KV-2 - section
3. Drawing KV-3 - front section
4. Drawing KV-4 - roof plan view
5. Drawing KV-5 - equipment plan
6. Electrical specifications (2 pages)
7. Chase construction detail
8. 8'x8' kitchen hood detail
9. Operating and maintenance instructions (2 pages)

Note the following work to be done by others:

1. Electrical - see specifications.
2. Site preparation for the kitchen hood system:
 - a. Provide fire rated ceiling panels in the grid ceiling above the hood location.
 - b. Cut and frame opening for the 36"x36" roof curb. Install and seal new roof curb.
 - c. Provide a fire rated chase construction from the suspended ceiling to the roof curb.
 - d. After the hood is installed, provide and install 5/8 fire code sheet rock around the exposed perimeter of the hood. The enclosure will extend from the bottom of the hood to the grid ceiling above. Nevtec will provide the framing.

3. Fire suppression system hood is in place. It typically will furnish required. The gas company or plumber.

Plans to be submitted to the and Inspections for the permit. Suppression system will need

The 36"x36" roof curb will need

Please call if you have any

Sincerely,

Rod Davis



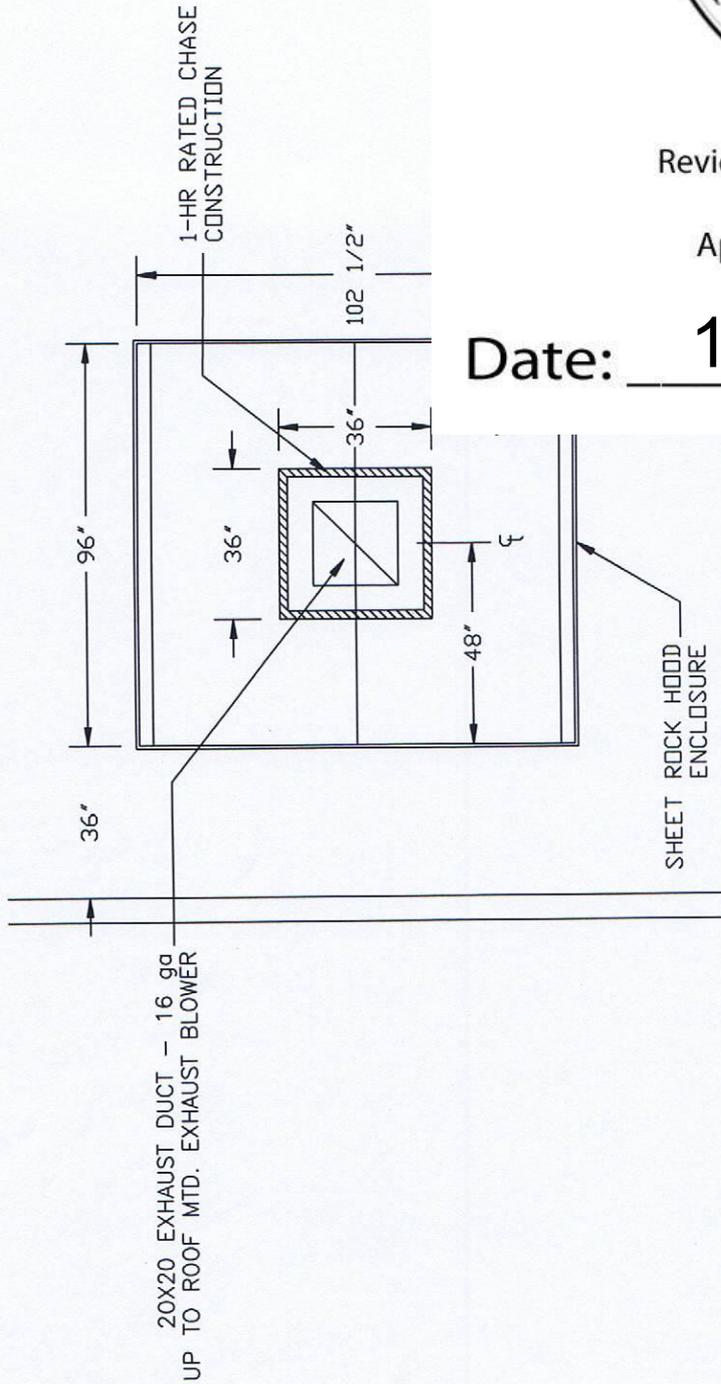
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- NOTES:
1. AN APPROVED FIRE SUPPRESSION SYSTEM TO BE INSTALLED. TWO NFPA HOODS.
 2. 4 - NFPA APPROVED LIGHTS TO BE INCLUDED WITH HOOD.



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POWERED MAKE-UP INTAKE
1 1/2 HP/208V/3Ø MOTOR
WITH 3226 CFM AT 3/8" w.c.

36" MIN

36"

1-HR RATED CHASE
CONSTRUCTION

20X20 DUCT-16 ga

FIRE RATED CEILING PANELS

WELDED DUCT CONNECTION

32"

SHEET ROCK HOOD
ENCLOSURE

15'X4' VENT HOOD

102 1/2"

78"

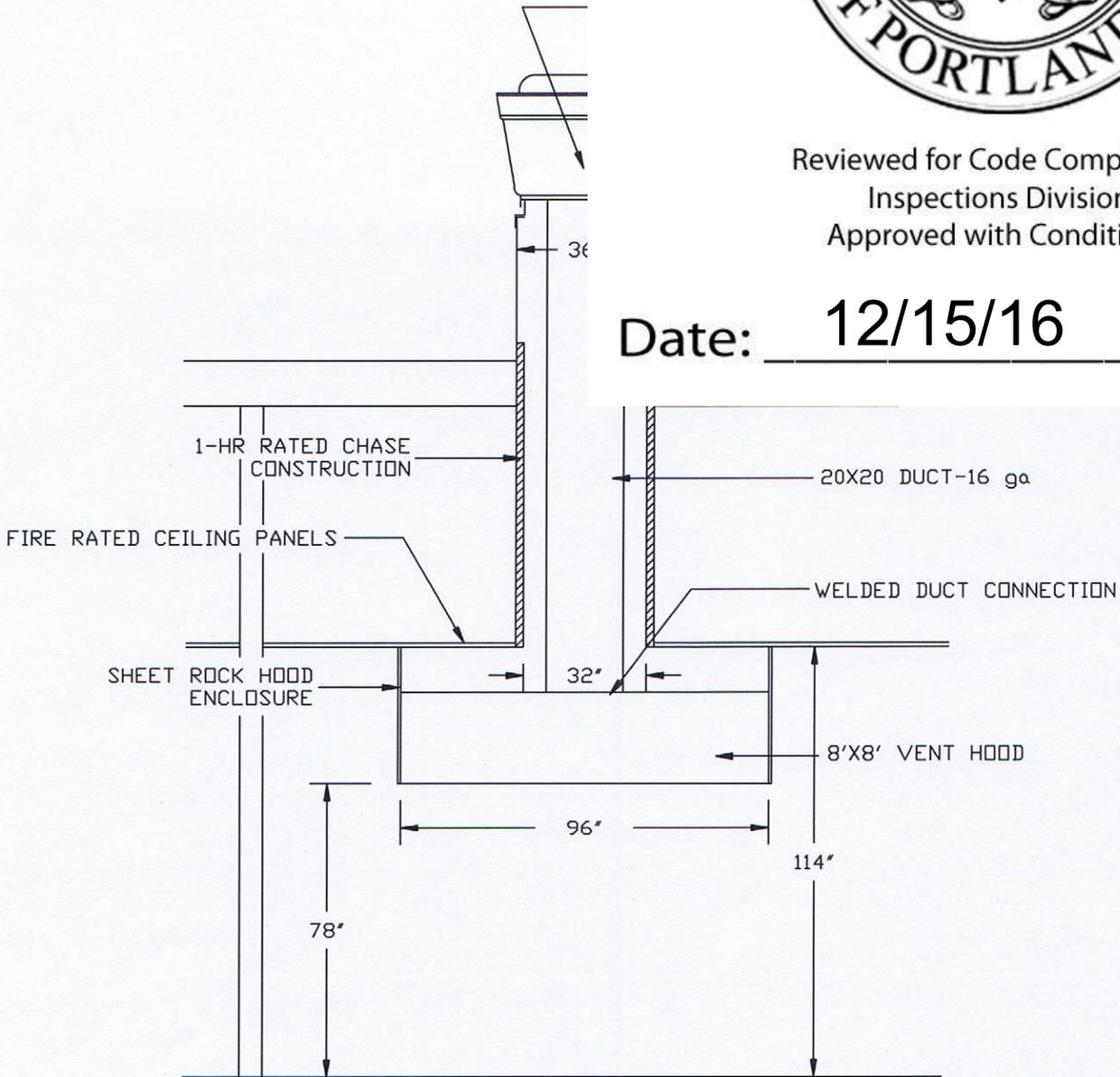
NEW ENGLAND VENTILATION TECHNOLOGIES





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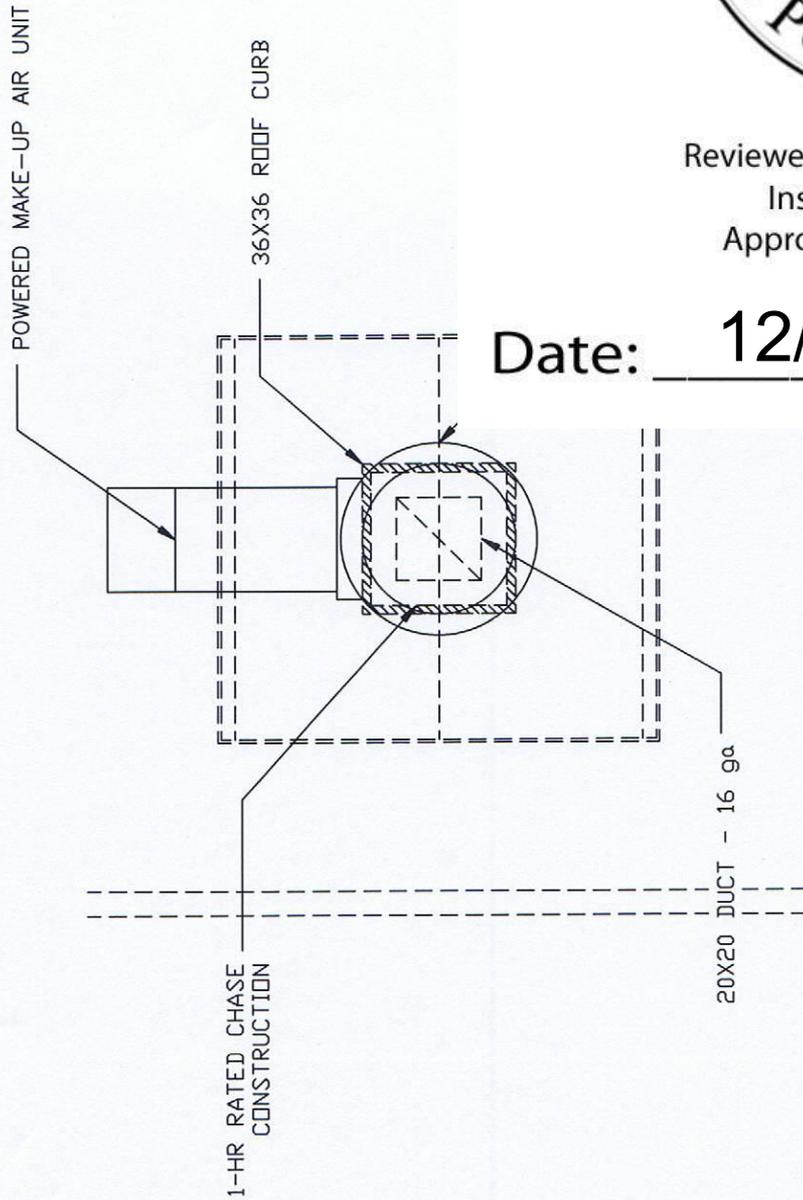
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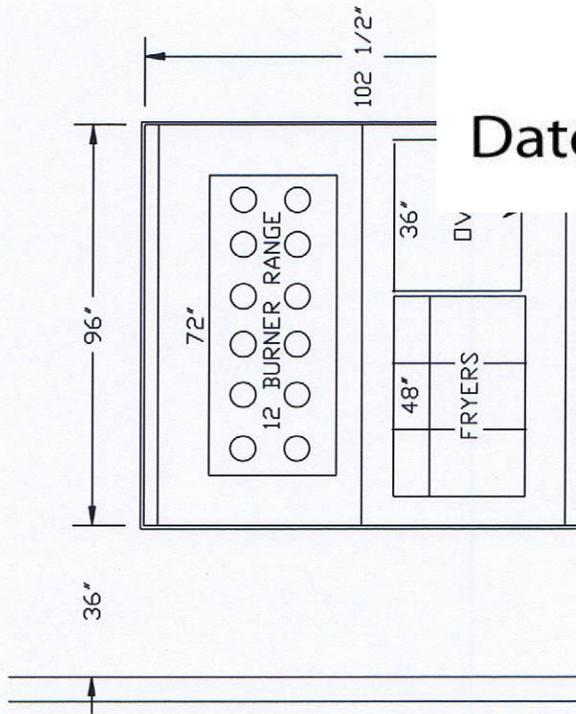
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October 14, 2016

Garry Bowcott
Local 188 Restaurant Group
685 Congress Street
Portland, ME 04101

Re: Kitchen hood ventilation

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Electrical Sp

8'x8' Hood

Exhaust Blower

2
5.

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Supply Blower

1 1/2 HP/208V/3 phase motor
4.6 FLA.

Notes:

1. Two AC inverters (variable frequency drives) will be furnished (by Nevtec) to control the exhaust and make-up air blowers for variable speed operation (see attached).

Input: 1 or 3 phase, 200-230V, 50-60Hz
Output: 3 phase, 3-wire, 200-230V

2. Provide wiring connections to the exhaust blower and make-up air unit. Each motor is pre-wired to an external weatherproof box, located on the exterior of each blower housing. A service switch is provided at each blower. All other electrical materials required are to be furnished by the electrical contractor.
3. The hood will have a total of 4 lights, which will need to be wired. Conduit is run between the junction boxes of the light fixtures. Switch for the hood lights to be supplied by the electrical contractor.
4. Wire the supply blower to shut down upon activation of the fire suppression system. Exhaust blower to continue operating.

Please call if you have any questions regarding the electrical specifications.

Rod Davis

Variable Frequency Drive (VFD)

Input AC Power

1. Circuit breakers feeding the VFDs are required to be fast acting. They should be sized as 1.5 times the drive. Refer to the table below.
2. Each VFD should be fed by its own breaker combined on the same breaker, each drive should have its own fuse (fuses or miniature circuit breakers).
3. Input AC line wires should be run in conduit. AC input power to multiple VFDs can be combined if needed.
4. The VFD should be grounded on the terminal block.

STOP!

DO NOT connect incoming AC power to output terminals.



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Output Power

1. Motor wires from each VFD to its respective motor should be run in steel conduit away from control wiring and other electrical equipment to avoid noise and crosstalk between drives.
2. If the distance between the VFD and the motor exceeds 300 FT, an output reactor should be used between the VFD and the motor. The output reactor should be sized accordingly.
3. If the distance between the VFD and the motor is between 500 and 1000 FT, a dV/dT filter should be used.
4. No contactor should be installed between the drive and the motor. Operating such a device while the drive is running can potentially cause damage to the power components of the drive.
5. When a disconnect switch is installed between the drive and motor, it should only be operated when the drive is in a STOP state.

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For more information, refer to the VFD operating instructions that came with the VFD.

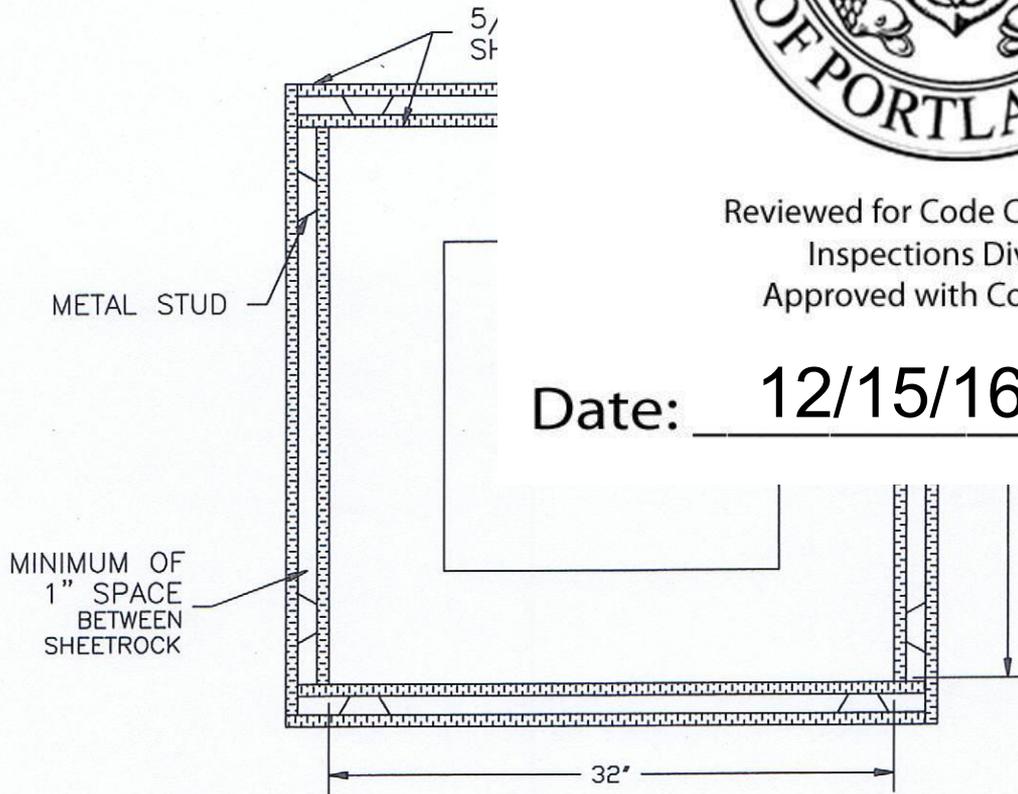
ACTECH SMV VFD CROSS-REFERENCE TABLE

M/N	Volts	1Ø Input	3Ø Input	HP	Input Amps 1Ø 120VAC	Input Amps 1Ø 240VAC	Output Amps	kVA	Breaker 1Ø 120VAC	Breaker 1Ø 240VAC
ESV251N01SXB531	120/240V	X		0.33	6.8	3.4	1.7	0.816	15	15
ESV371N01SXB531	120/240V	X		0.5	9.2	4.6	2.4	1.04	15	15
ESV751N01SXB531	120/240V	X		1	16.6	8.3	4.2	1.992	25	15
ESV112N01SXB531	120/240V	X		1.5	20	10	6	2.4	30	20
					Input Amps 1Ø	input Amps 3Ø			Breaker 1Ø	Breaker 3Ø
ESV371N02YXB531	240V		X	0.5	5.1	2.9	2.4	1.20	15	15
ESV751N02YXB531	240V		X	1	8.8	5	4.2	2.08	15	15
ESV112N02YXB531	240V		X	1.5	12	6.9	6	2.88	20	15
ESV152N02YXB531	240V		X	2	13.3	8.1	7	3.36	25	15
ESV222N02YXB531	240V		X	3	17.1	10.8	9.6	4.48	30	20



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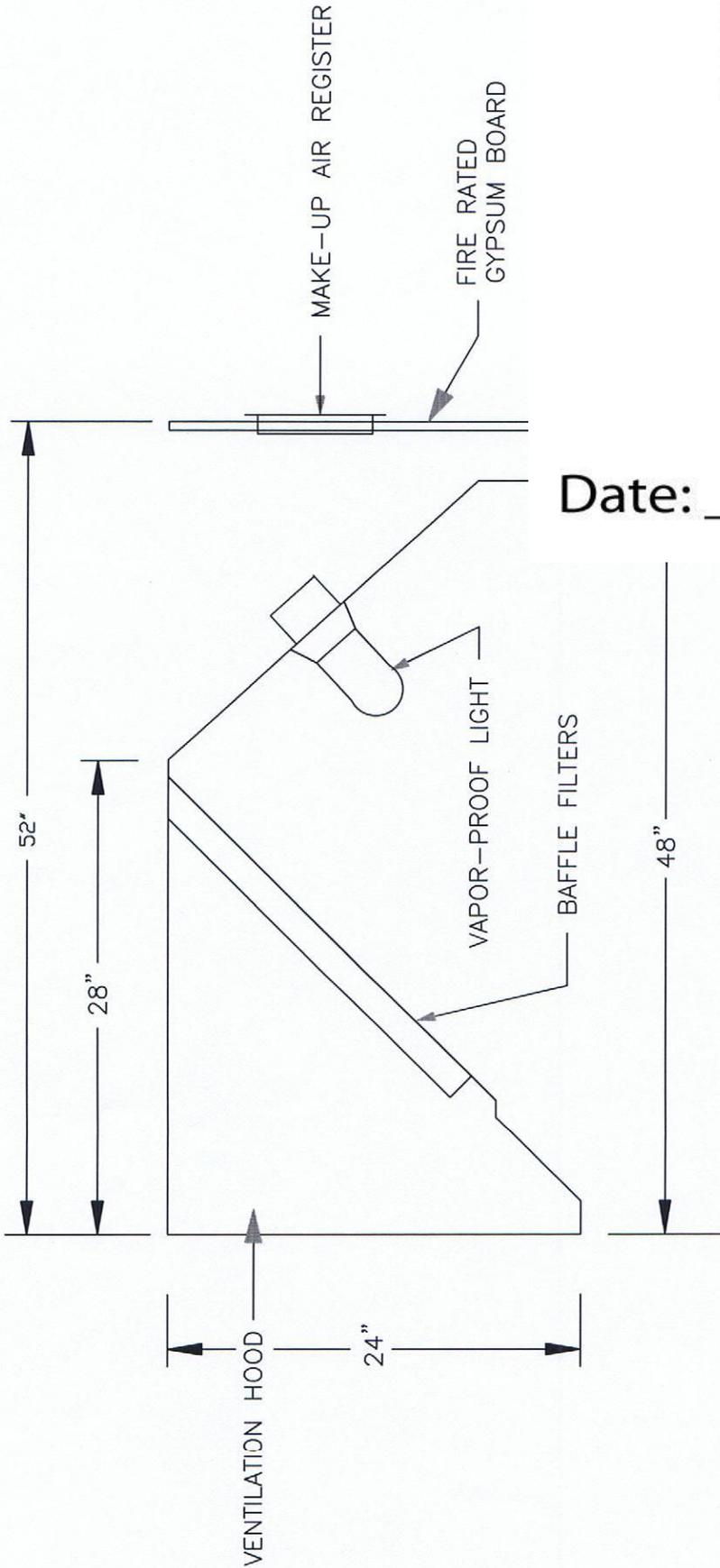
1-HR FIRE RATED CHASE CONSTRUCTION DETAIL

The above sketch shows a cross section of an NFPA 96 complying chase. This is required when exhaust duct travels through any interior space other than the cooking area being ventilated.



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1. 2 - 8'x48", 18 ga. GALVANIZED STEEL VENTILATION HOOD.
2. ACCESSORIES INCLUDE (4) UL RATED VAPOR PROOF LIGHTS, (12) 20X16 GALV FILTERS, AND ENCLOSED GREASE CONTAINERS.
3. FILTER SYSTEM IS COMPLETELY REMOVABLE FOR CLEANING.
4. EXTERNAL SEAMS AND JOINTS HAVE A LIQUID TIGHT, CONTINUOUS WELD.
5. HOODS BUILT TO NFPA 96 AND UL STANDARDS.
6. UL LISTED GREASE FILTERS INSTALLED AT A 45° ANGLE.
7. HOODS TO BE MOUNTED IN AN ISLAND CONFIGURATION.