APPLICATION FOR VARIANCE

State Form 44400 (R7 / 10-13)
Approved by State Board of Accounts, 2013

INDIANA DEPARTMENT OF HOMELAND SECURITY
CODE SERVICES SECTION
302 West Washington Street, Room W246
Indianapolis, IN 46204-2739
http://www.in.gov/dhs/fire/fp_bs_comm_code/

INSTRUCTIONS: ***Please refer to the attached four (4) page instructions.***
Attach additional pages as needed to complete this application.

Variance number *(Assigned by department)*: 15-11-05

1. APPLICANT INFORMATION *(Person who would be in violation if variance is not granted; usually this is the owner)*

Name of applicant	Title
STEVEN L. SEYMOUR	OWNER
Name of organization	**Telephone number**
HARDLY-ABLE HOLDING Co. LLC	(812) 240-9401

Address *(number and street, city, state, and ZIP code)*: 946 W. CR. 125 S. CENTERPOINT, IN 47840

2. PERSON SUBMITTING APPLICATION *(If different than applicant)*

Name of applicant	Title
Name of organization	**Telephone number**
	( )

Address *(number and street, city, state, and ZIP code)*:

3. DESIGN PROFESSIONAL OF RECORD *(If applicable)*

Name of design professional	License number
Name of organization	**Telephone number**
	( )

Address *(number and street, city, state, and ZIP code)*:

4. PROJECT IDENTIFICATION

Name of project	State project number	County
BAD APPLE SALOON	378675	CLAY

Address of site *(number and street, city, state, and ZIP code)*: 400 WRIGHT ST. CORY, IN. 47846

Type of project

☐ New ☐ Addition ☐ Alteration ☑ Change of occupancy ☐ Existing

5. REQUIRED ADDITIONAL INFORMATION

The following required information has been included with this application *(check as applicable)*:

☑ A check made payable to the Indiana Department of Homeland Security for the appropriate amount. *(see instructions)*

☑ One (1) set of plans or drawings and supporting data that describe the area affected by the requested variance and any proposed alternatives.

☑ Written documentation showing that the local fire official has received a copy of the variance application.

☐ Written documentation showing that the local building official has received a copy of the variance application.

6. VIOLATION INFORMATION

Has the Plan Review Section of the Division of Fire and Building Safety issued a Correction Order?

☐ Yes *(If yes, attach a copy of the Correction Order.)* ☑ No

Has a violation been issued?

☐ Yes *(If yes, attach a copy of the Violation and answer the following.)* ☐ No

Violation issued by:

☐ Local Building Department ☐ State Fire and Building Code Enforcement Section ☐ Local Fire Department

7. DESCRIPTION OF REQUESTED VARIANCE

Name of code or standard and edition involved: INDIANA MECHANICAL CODE 2014

Specific code section: SEC. 6.K, 507.2, 507.2.1, 507.2.4

Nature of non-compliance *(Include a description of spaces, equipment, etc. involved as necessary.)*

675 IAC 18-1.6-6 CHART. 5 EXHAUST HOODS REQUIRED PER TABLE 507.2.1 THE USE OF A TYPE 1 HOOD WILL REQUIRE TWO (2) PENETRATIONS THROUGH AN 18" MASONRY WALL, A FAN AND DUCT WORK TO PULL THE EXHAUST THROUGH THE SERVING DOOR, AND UP THROUGH THE HOOD, THEN BACK THROUGH THE 18" WALL INTO THE CHIMNEY. SKETCHES ATTACHED.

8. DEMONSTRATION THAT PUBLIC HEALTH, SAFETY, AND WELFARE WILL BE PROTECTED

Select one of the following statements:

☑ Non-compliance with the rule will not be adverse to the public health, safety or welfare; or

☐ Applicant will undertake alternative actions in lieu of compliance with the rule to ensure that granting of the variance will not be adverse to public health, safety, or welfare. Explain why alternative actions would be adequate *(be specific)*.

Facts demonstrating that the above selected statement is true:

OVEN DESIGN BY MANUFACTURER TO BE VENTED DIRECT.
N.F.P.A. 96 CHAPT. 14 PROVIDES NATIONALLY RECOGNIZED STANDARDS FOR THE USE OF NATURAL DRAFT VENTING OUT SIDE OF A TYPE 1 HOOD PER SEC. 14.1.1 AND 14.1.4
PROVIDING A TYPE 1 HOOD DOES NOT IMPROVE SAFETY AND HAS THE POTENTIAL TO DECREASE SAFETY. WOOD-BURNING FLUE GASSES WILL COOL MORE WHEN FLOWING THROUGH A HOOD WHICH WILL INCREASE CREOSOTE BUILD UP. USING AN EXHAUST FAN IS LESS RELIABLE THAN A PASSIVE NATURAL DRAFT FLUE/VENT. THE REFRACTORY BOX OF A WOOD FIRED OVEN IS DESIGNED TO CONTAIN FIRES

9. DEMONSTRATION OF UNDUE HARDSHIP OR HISTORICALLY SIGNIFICANT STRUCTURE

Select at least one of the following statements:

☐ Imposition of the rule would result in an undue hardship *(unusual difficulty)* because of physical limitations of the construction site or its utility services.

☐ Imposition of the rule would result in an undue hardship *(unusual difficulty)* because of major operational problems in the use of the building or structure.

☐ Imposition of the rule would result in an undue hardship *(unusual difficulty)* because of excessive costs of additional or altered construction elements.

☐ Imposition of the rule would prevent the preservation of an architecturally or a historically significant part of the building or structure.

Facts demonstrating that the above selected statement is true:

10. STATEMENT OF ACCURACY

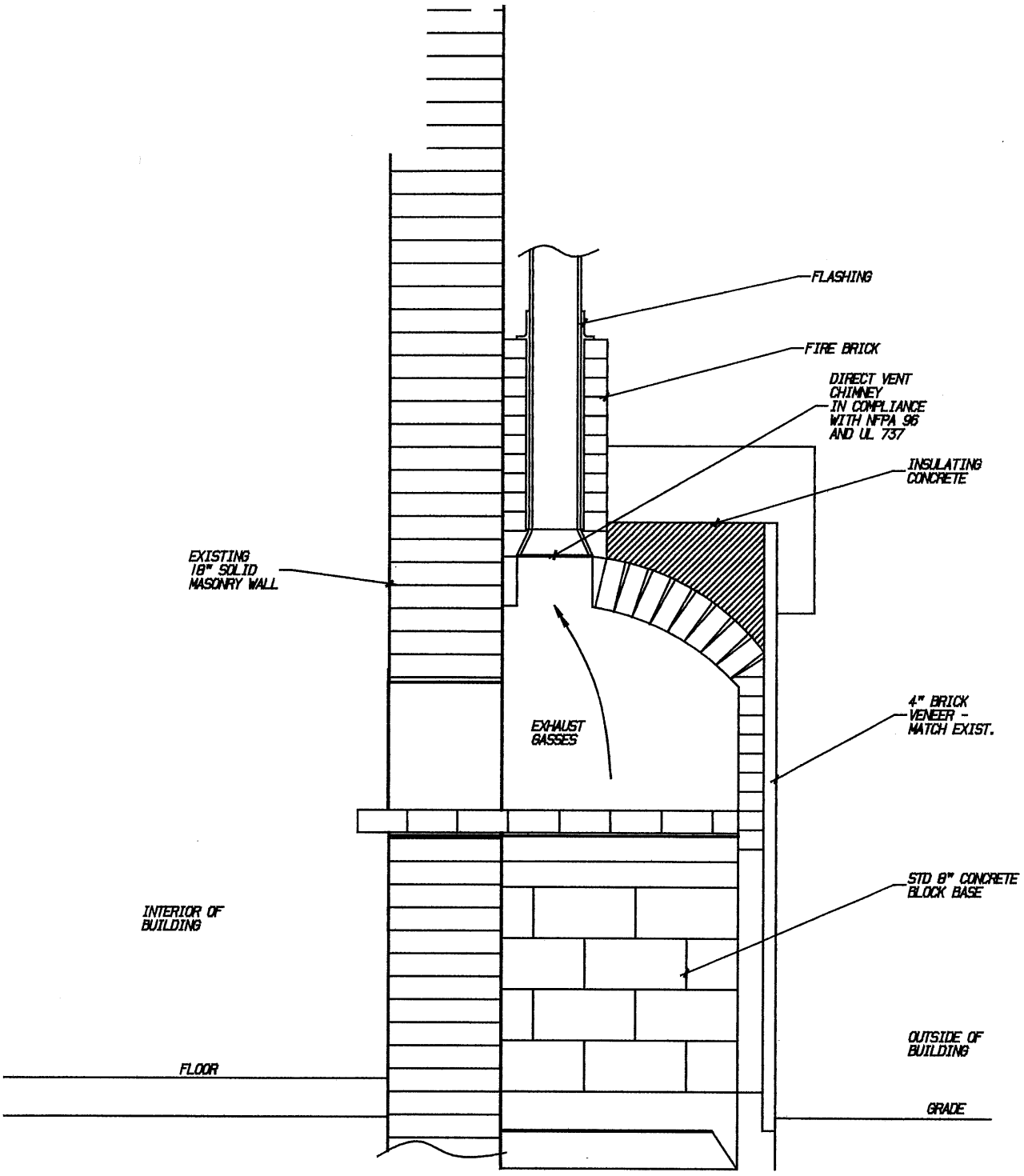
I hereby certify under penalty of perjury that the information contained in this application is accurate.

Signature of applicant or person submitting application	Please print name	Date of signature *(month, day, year)*
Stephen D. Mackenzie	STEPHEN D. MACKENZIE	8/5/15
Signature of design professional *(if applicable)*	Please print name	Date of signature *(month, day, year)*

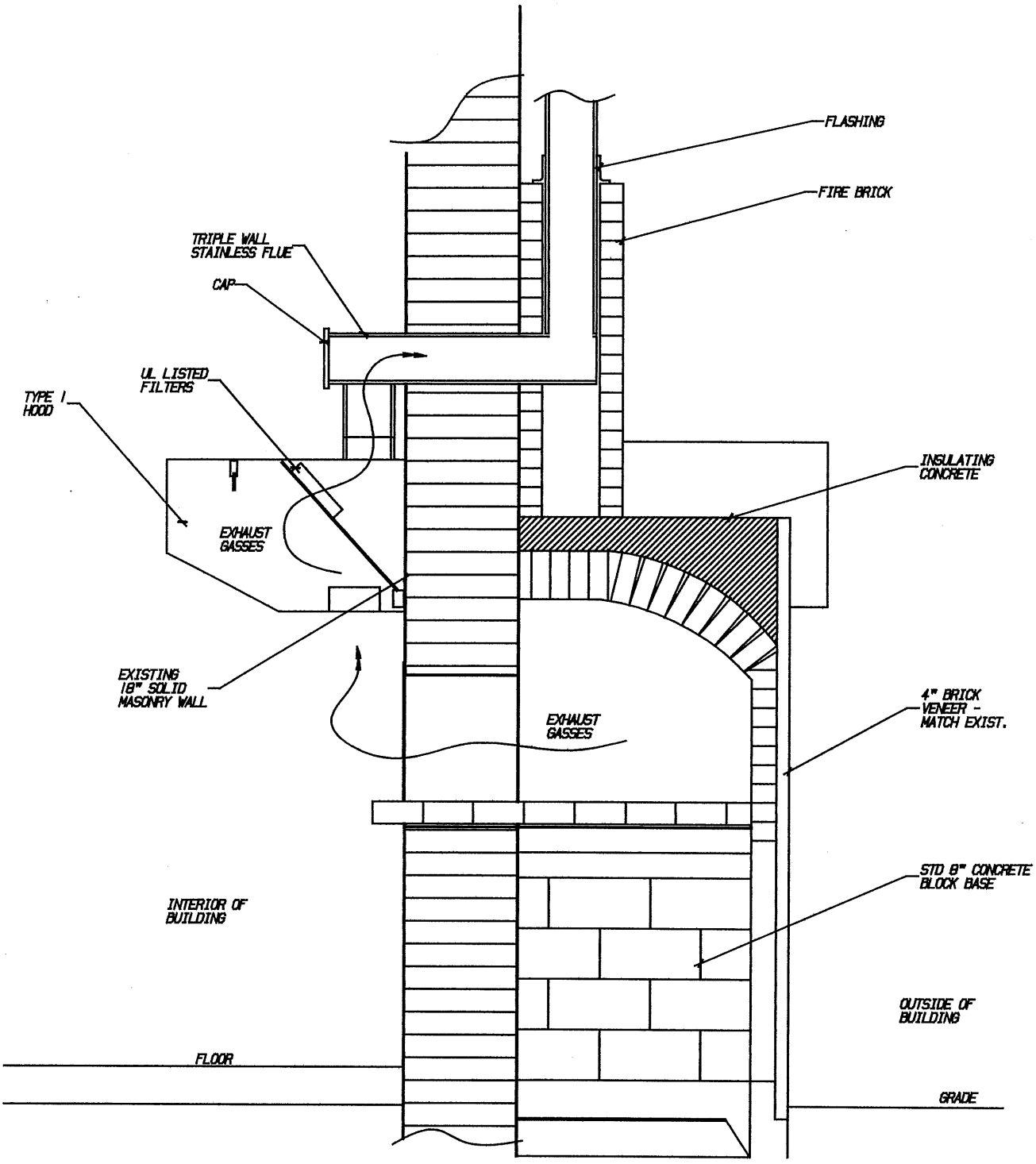
11. STATEMENT OF AWARENESS *(If the application is submitted on the applicant's behalf, the applicant must sign the following statement.)*

I hereby certify under penalty of perjury that I am aware of this request for variance and that this application is being submitted on my behalf.

Signature of applicant	Please print name	Date of signature *(month, day, year)*
Steven L. Seymour	STEVEN L. SEYMOUR	8-20-15



DIRECT VENT INSTALLATION



TYPE I HOOD INSTALLATION

VENTING THE OVEN

Overview

The oven may be vented in a variety of ways depending upon the usage, the building the oven is installed in and restrictions due to local codes. It is very important to take into consideration the complete venting system, including maintenance, before committing to a location.

SEEK OUT QUALIFIED INSTALLERS IN YOUR AREA AND OBTAIN THE PROPER PERMITS. MANY BUILDING AND PLANNING DEPARTMENTS REQUIRE MECHANICAL DRAWINGS OF THE VENTING SYSTEM DEMONSTRATING CODE COMPLIANCE.

Exhaust Vent Requirements

Installation of the exhaust vent shall be in accordance with the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96. This code references UL 737 for direct venting and UL 2162 for indirect venting.

The oven may be vented in either of the following methods:

1. **Direct vent** by connecting the oven to an approved 8" factory built chimney pipe per UL 737.
2. **Indirect vent** by installing the oven under a Type 1 Grease Hood per UL 2162.

SINGLE WALL AND B-TYPE VENT PIPES ARE NOT ACCEPTABLE FOR THIS TYPE OF APPLIANCE!

IT IS IMPORTANT FOR THE INSTALLER TO CONTACT THE LOCAL BUILDING OR FIRE INSPECTOR TO DETERMINE WHICH VENTING METHOD IS ACCEPTABLE.

DIRECT VENTING WITH FACTORY BUILT CHIMNEY

Direct Vent Requirements Using Factory Built Chimneys

- Oven installations utilizing direct vent insulated chimneys must comply with UL 737 and NFPA 96
- DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE
- Factory built insulated chimneys must be listed to UL 103 HT or ULC S627.
- Example chimney pipe: Simpson DuraTech www.duravent.com
- Applicable for building with chimneys 3 stories or less
- 2 sets of offsets (elbows) allowed (15 or 30 degree angles only)
- Attach chimney anchor plate to oven using ***Direct Vent Flue Adaptor - part# DVA***
- Chimney must be installed per chimney manufacturer's installation instructions
- Chimney must terminate to an approved chimney cap with spark arrestor (screen mesh)
- Chimney lengths 25 feet or longer may require an exhaust fan. The Enervex GSV series fan is listed for use with a wood burning pizza oven see: http://www.greasefans.com
- Applicable for pizza and bread products only

Additional Requirements for Canada

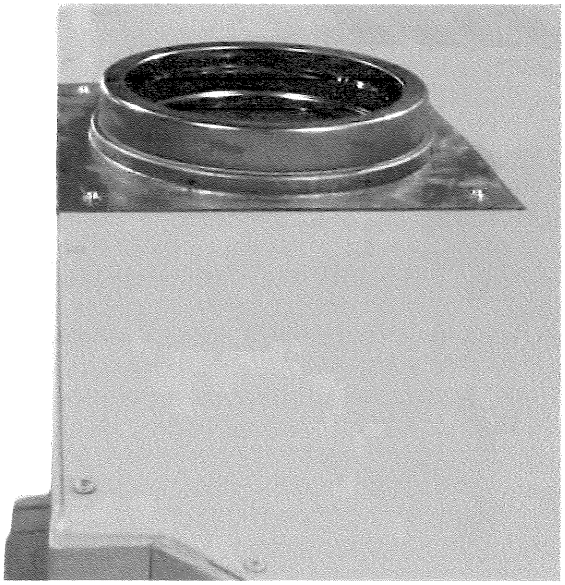
- The use of smoke detectors is highly recommended
- The chimney connector shall not pass through an attic, roof space, closet floor, ceiling, or similar concealed space. Where passage through a wall or partition of combustible construction is desired, the installation shall conform with CAN/CSA-B365

Oven Flue Outlet

- Flue size: 8" round (internal diameter)
- Flue location: on top of oven centered above arch, 10 3/8" (+/- 1") on center behind the front panel

Connecting Factory Built Chimney to Oven

Mugnaini offers an optional Direct Vent Flue Adaptor for installation in the factory. Part# DVA is a flush mount adaptor designed to accept a standard Anchor Plate used with UL 103 double wall insulated chimney.



Part# DVA with anchor plate attached (anchor plate not supplied)

State of Oregon
Building Codes Division
Better Buildings for Oregon

Statewide Code Interpretation
January 2015

No. 15-01
Wood-Fired Pizza Ovens

Code Edition: 2014 Oregon Mechanical Specialty Code (OMSC)

Code Section: Section 507.2.4, 905 and 917.1

Date: January 21, 2015

Subject: Wood-Fired Pizza Ovens

Question:

1. Can a wood-fired pizza oven utilize direct venting per Section 805.2 or follow manufacturer's venting instructions?
2. When direct vented with a flue/chimney, is a Type I grease hood required per Section 507.2.4?

Answer:

1. Yes. Section 905 permits installation of solid fuel stoves listed per UL 737 (listing utilizes direct vent). The chimney shall be per Sections 801.7 and 801.10. Section 917.1 requires solid fuel ovens to be listed and labeled in accordance with UL 2162; Section 917.1 does not require venting to be under a Type I hood, nor does the UL listing require a Type I hood.
2. No. If the manufacturer's installation instructions for the listed hood include a connection to a chimney without a hood, then this method is allowed and a Type I hood is not required per Section 507.2.4.

Analysis:

NFPA 96, Chapter 14, Solid Fuel Cooking Operation, provides nationally recognized standards for the use of natural draft venting outside of a Type I hood.

- Section 14.1.1 and 14.1.4 recognize that natural draft systems can be used under Chapter 14.
- Section 14.1.3: Requires a hood when the appliance "allows effluent to escape from the appliance opening". A listed wood oven contains effluent with a proper draft when installed per listing and manufacturers installation instructions. Therefore it does not

require a hood under these conditions.

- Section 14.7.2: Extinguishing system is not required. "Where acceptable to the AHJ, solid fuel cooking appliances constructed of solid masonry or reinforced Portland or refractory cement concrete and vented in accordance with NFPA 211 shall not require fixed automatic fire extinguishing equipment." This describes most of the listed UL 737 and UL 2162 ovens; therefore an extinguishing system is not necessary when venting installation instructions do not call for such provisions.

These ovens are listed for burning solid wood fuel. Per pound, the fuel content of pizza is ½ of the fuel content of **already ignited** wood in the fireplace. And this assumes that the pizza can burn and does not include the effect of water content in most ingredients. The water in sauce, meat, cheese, vegetables, and dough reduces the chance of ignition and reduces the burning capacity of the pizza.

Grease build-up is negligible in the oven and flue. The operating temperature of a wood-fired pizza oven is 650°F-700°F. The refractory lining of the oven is heated to above the flash point of most fats/oils before the cooking process begins, which if there were any grease build-up would burn off any grease in the oven. The temperatures in the oven approach those seen in a self-cleaning residential oven. The oven operates well above the smoke point of all oils and fats in the oven and the flue temperatures are high enough to ensure that grease does not condense and build up on the flue. The wood oven process is unlike grease laden vapors from a deep fat fryer, which are cooled significantly when mixed with high quantities of exhaust air. Grease cools and condenses on the walls of these systems, creating the fire hazards commonly associated with most Type I systems.

Providing a Type I hood does not improve safety. Disconnecting a tested flue venting system has the potential to decrease safety:

- Wood-burning flue gases will cool more when flowing through a hood, which will increase creosote build-up. Some of the creosote will form where a Type I extinguishing system cannot extinguish the creosote build-up on the hood and exhaust duct should it ignite.
- A Type I hood and extinguishing system are intended for conditions where large pools of grease/oil are present which may ignite in an open kitchen, **outside of a firebox designed to enclose a fire**. The refractory box of a wood-fired oven is designed to contain such a fire.

Using an exhaust fan to guarantee proper venting of a fire is less reliable than a passive, natural draft flue/vent. A fan can fail or be subject to power outages, subjecting the kitchen to uncontrolled quantities of smoke and products of combustion.

Contact:

Mark Heizer, P.E.
Mechanical Code Specialist
503-373-4530
Mark.R.Heizer@oregon.gov