



SCOTT COUNTY BUILDING INSPECTIONS

GCE-300 • 200 FOURTH AVENUE WEST • SHAKOPEE, MN 55379-1220
Phone: (952) 496-8160 • <https://www.scottcountymn.gov/Building-Inspections>

This handout is intended as a guideline, see MN Rules chapter 1309, Residential code and MN Rules chapter 1346, Mechanical and Fuel Gas codes for complete code requirements:

<https://www.dli.mn.gov/business/codes-and-laws/2020-minnesota-state-building-codes>

FIREPLACE GUIDELINES

WOOD BURNING FIREPLACE CHIMNEYS

- ❖ Chimneys shall be constructed of masonry in accordance with the Minnesota State Residential Building Code requirements or shall be approved factory-built assemblies “listed” or “approved” by Underwriters Laboratories, International Code Council, or other recognized agencies for use with wood burning appliances. The “listed” or “approved” chimney assemblies shall be installed in accordance with their listings.

CLEARANCE TO COMBUSTIBLES (R1001.11)

- ❖ Wood beams, joists, studs, and other combustible material shall have a clearance of not less than 2 inches from the front faces and sides of masonry fireplaces and not less than 4 inches from the back faces of masonry fireplaces. The airspace shall not be filled, except to provide fire-blocking in accordance with Section R1001.12.
- ❖ Masonry chimneys equipped with a chimney lining system listed and labeled for use in chimneys in contact with combustibles in accordance with UL 1777 and installed in accordance with the manufacturer’s instructions are permitted to have combustible material in contact with their exterior surfaces. (R1003.18 exc. 1)
- ❖ Where masonry chimneys are constructed as part of masonry or concrete walls, combustible materials shall not be in contact with the masonry or concrete wall less than 12 inches from the inside surface of the nearest flue lining. (R1003.18 exc. 2)
- ❖ Exposed combustible trim and the edges of sheathing materials, such as wood siding and flooring, shall be permitted to abut the masonry chimney side walls, provided such combustible trim or sheathing is not less than 8 inches from the inside surface of the nearest flue lining. (R1003.18 exc. 3)

CHIMNEY HEIGHT TERMINATION & CAPS

- ❖ The chimney shall terminate at a point not less than 2 feet above any portion of a structure within 10 feet of the chimney. Chimneys shall terminate not less than 3 feet above the highest point where the chimney passes through the roof. (R1003.9)
- ❖ Masonry chimneys shall have a concrete, metal, or stone cap, sloped to shed water. (R1003.9.1)
- ❖ Masonry chimneys shall be lined. The lining material shall be compatible with the type of appliance connected, in accordance with the appliance listing and manufacturer’s installation instructions. Listed materials used as flue linings shall be installed in accordance with their listings and the manufacturer’s instructions. MN Mechanical code. (801.16)

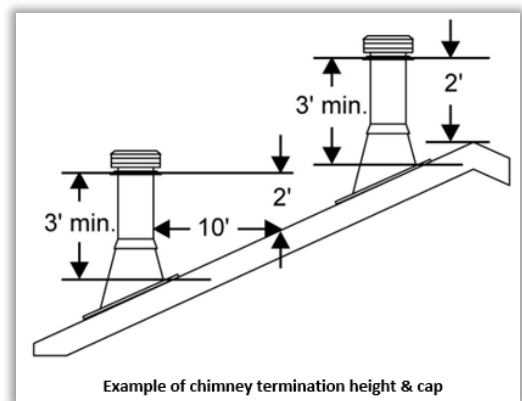


Figure 1 Example of chimney termination height and cap

- ❖ A drip edge, and a caulked bond break around any flue liners in accordance with ASTM C 1283.

RAIN CAPS

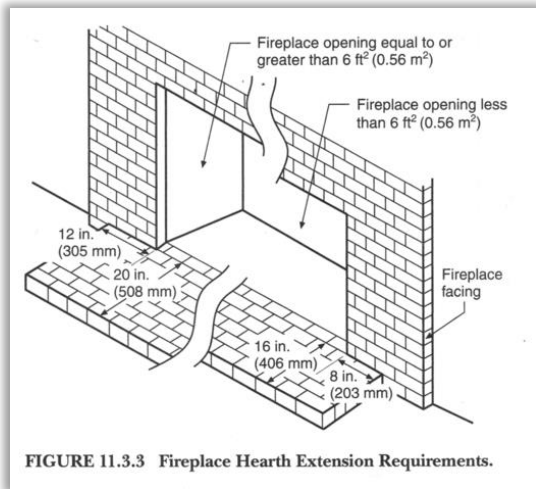
- ❖ Where a masonry or metal rain cap is installed on a masonry chimney, the net free area under the cap shall not be less than four times the net free area of the outlet of the chimney flue it serves. (1003.9.3)

HEARTH AND FLOOR COVERINGS

- ❖ The minimum thickness of fireplace hearths shall be 4 inches. (R1001.9.1)
- ❖ The minimum thickness of hearth extensions shall be 2 inches. R1001.9.2)



Example of metal rain cap on masonry chimney



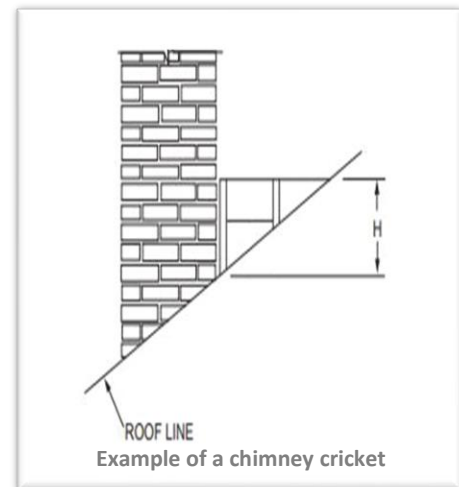
- ❖ Masonry fireplace hearths and hearth extensions shall be constructed of concrete or masonry, supported by noncombustible materials, and reinforced to carry their own weight and all imposed loads. Hearth extensions shall extend at least 16” in front of and 8” beyond each side of the fireplace opening. Where the fireplace opening is 6 square feet or larger, the hearth extension shall extend at least 20 inches in front of and at least 12 inches beyond each side of the fireplace opening. (R1001.10)

CHIMNEY CRICKETS

- ❖ Chimneys shall be provided with crickets where the dimension parallel to the ridgeline is greater than 30 inches and does not intersect the ridgeline. The intersection of the cricket and the chimney shall be flashed, and counter flashed in the same manner as normal roof-chimney intersections.

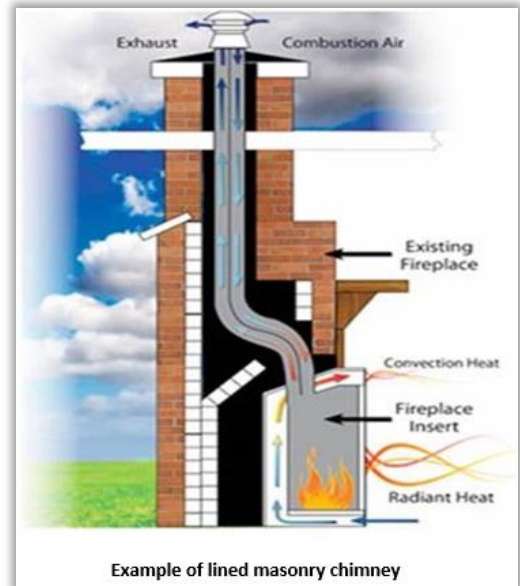
TABLE R1003.20 CRICKET DIMENSIONS

ROOF SLOPE	H
12:12	1/2 of W
8:12	1/3 of W
6:12	1/4 of W
4:12	1/6 of W
3:12	1/8 of W



GAS FIREPLACE INSERTS/NEW GAS FIREPLACES

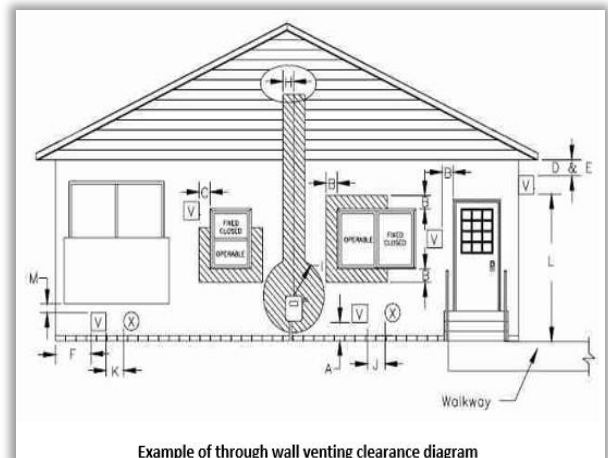
- ❖ Factory built fireplaces shall be listed and labeled in accordance with the requirements of UL 127 and shall be installed in accordance with the manufacturer’s installation instructions. (R1004.1)
- ❖ If a gas fireplace is vented through the wall, exterior clearances shall be in accordance with the manufacturer’s installation requirements. (diagram is a representation of what a typical through wall venting clearance diagram would look like in a manufacturer’s installation instructions)
- ❖ Gas line air test is required for all new gas line installations (see gas line handout) and shall be installed by a bonded mechanical contractor. CSST gas lines shall be bonded to the electrical service grounding electrode system with a bonding jumper not smaller than 6 AWG copper wire or equivalent (310.2.2). The test pressure to be used shall be no less than one and one-half times the proposed maximum working pressure, but not less than 25 psig. The test duration shall be not less than one-half hour (see gas line handout).
- ❖ A noncombustible draft stop material shall be installed to fill the annular space around the fireplace insert venting and the existing chimney.



Example of lined masonry chimney

MANUFACTURED (MOBILE) HOME INSTALLATION

- ❖ Fuel burning appliances to be installed in manufactured homes must be specifically “listed” and “labeled” for that purpose. Do not install unlisted appliances in manufactured homes.



Example of through wall venting clearance diagram



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GLOSSARY of TERMS

CHIMNEY. A primary vertical structure containing one or more flues, for the purpose of carrying gaseous products of combustion and air from a fuel-burning appliance to the outside atmosphere.

CHIMNEY CONNECTOR. A pipe that connects a fuel-burning appliance to a chimney.

CHIMNEY TYPES. Residential-type appliance. An approved chimney for removing the products of combustion from fuel-burning, residential-type appliances producing combustion gases not in excess of 1,000°F (538°C) under normal operating conditions, but capable of producing combustion gases of 1,400°F (760°C) during intermittent forces firing for periods up to 1 hour. All temperatures shall be measured at the appliance flue outlet. Residential-type appliance chimneys include masonry and factory-built types.

FACTORY-BUILT CHIMNEY. A listed and labeled chimney composed of factory-made components assembled in the field in accordance with the manufacturer's instructions and the conditions of the listing.

FIREPLACE. An assembly consisting of a hearth and fire chamber of noncombustible material and provided with a chimney, for use with solid fuels or fuel gas.

FIREPLACE STOVE. A free-standing, chimney-connected solid-fuel-burning heater designed to be operated with the fire chamber doors in either the open or closed position.

LABELED. Equipment, materials, or products to which have been affixed a *label*, seal, symbol or other identifying *mark* of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-*labeled* items and whose labeling indicates either that the *equipment*, material, or product meets identified standards or has been tested and found suitable for a specified purpose.

LISTED. *Equipment*, materials, products, or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of *listed equipment* or materials or periodic evaluation of services and whose listing states either that the *equipment*, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

MANUFACTURER'S INSTALLATION INSTRUCTIONS. Printed instructions included with *equipment* as part of the conditions of listing and labeling.

MASONRY CHIMNEY. A field-constructed chimney composed of solid masonry units, bricks, stones, or concrete.

PELLET FUEL-BURNING APPLIANCE. A closed combustion, vented *appliance* equipped with a fuel feed mechanism for burning processed pellets of solid fuel of a specified size and composition.