



**CITY OF NORTH MANKATO**

**Emergency Escape & Rescue Opening and Window Wells**

**R310.1 Emergency escape and rescue required.**

Basements, habitable attics, and every sleeping room shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but not be required in adjoining areas of the basement. Where emergency escape and rescue openings are provided they shall have a **sill height of not more than 44 inches measured from the finished floor to the bottom of the clear opening**. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section R310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court that opens to a public way.

**R310.1.1 Minimum opening area.**

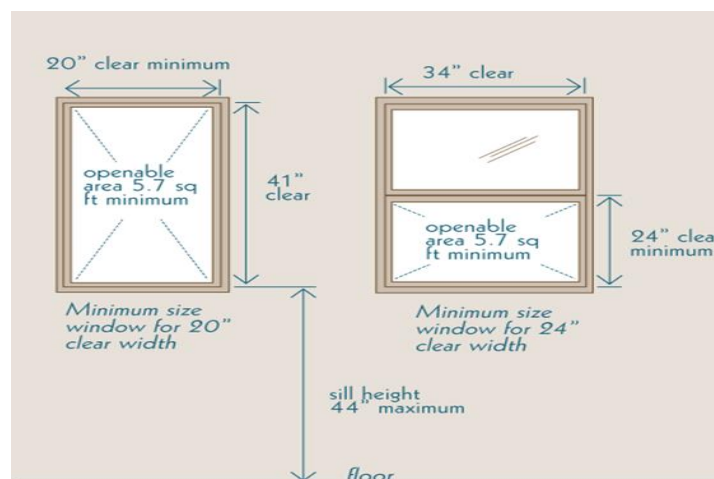
All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet.

**R310.1.2 Minimum opening height.**

The minimum net clear opening height shall be 24 inches.

**R310.1.3 Minimum opening width.**

The minimum net clear opening width shall be 20 inches.



**R310.2 Window wells.**

The minimum horizontal area of the window well shall be 9 square feet, with a minimum horizontal projection and width of 36 inches. The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

**Exception:** The ladder or steps required by Section R310.2.1 shall be permitted to encroach a maximum of 6 inches (152 mm) into the required dimensions of the window well.

**R310.2.1 Ladder and steps.**

Window wells with a vertical depth greater than 44 inches shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or steps required by this section shall not be required to comply with Sections R311.7 and R311.8. Ladders or rungs shall have an inside width of at least 12 inches, shall project at least 3 inches from the wall and shall be spaced not more than 18 inches on center vertically for the full height of the window well.

**R310.2.2 Drainage.**

Window wells shall be designed for proper drainage by connecting to the building’s foundation drainage system required by Section R405.1 or by an approved alternative method.

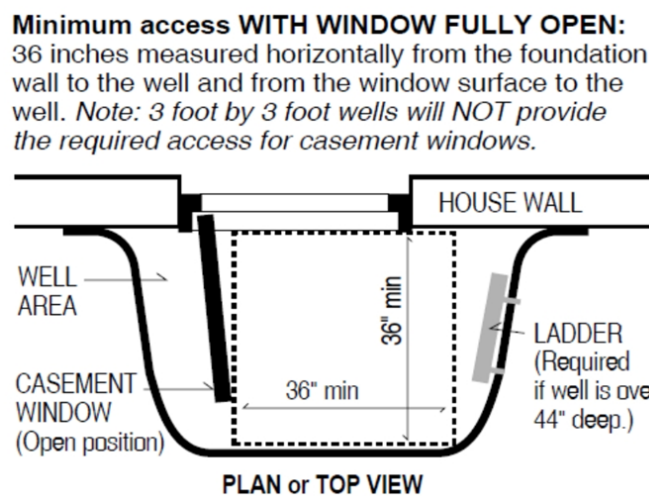
**Exception:** A drainage system for window wells is not required when the foundation is on well-drained soil or sand-gravel mixture soils according to the United Soil Classification System, Group I Soils, as detailed in Table R405.1.

**R310.4 Bars, grilles, covers and screens.**

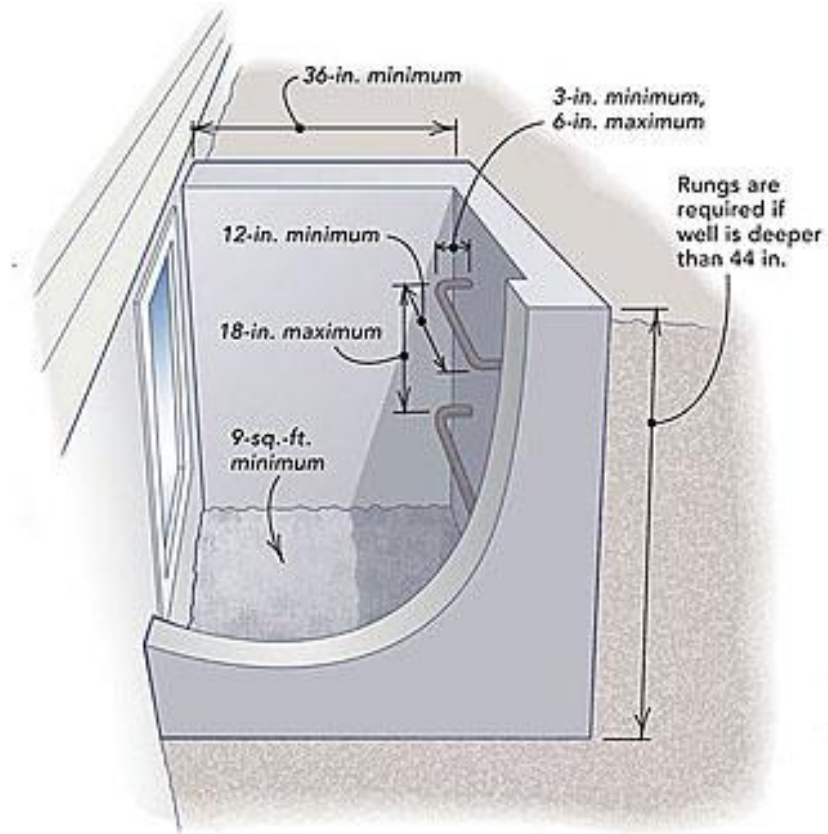
Bars, grilles, covers, screens or similar devices are permitted to be placed over emergency escape and rescue openings, bulkhead enclosures, or window wells that serve such openings, provided the minimum net clear opening size complies with Sections R310.1.1 to R310.1.3, and such devices shall be releasable or removable from the inside without the use of a key, tool, special knowledge or force greater than that which is required for normal operation of the escape and rescue opening.

**R310.5 Emergency escape windows under decks and porches.**

Emergency escape windows are allowed to be installed under decks and porches provided the location of the deck allows the emergency escape window to be fully opened and provides a path not less than 36 inches in height to a yard or court.



## LADDER DIMESIONS



Drawings: Dan Thornton

# **NOTICE**

At the time of final inspection of any window installation, the City of North Mankato is required to inspect the permitted property for the proper installation of smoke alarms as required MN Statute 299F.362 and MN State Building Code chapter 1309.0314.3.1, and carbon monoxide detectors as required by MN Statute 299F.51 and MN State Building Code chapter 1309.0315. If the safety devices are not present, properly installed, and functional in the home, we will not be able to close the permit.

Thank you in advance for your cooperation!

Larry Wasmund  
Building Official

## **Requirements for Smoke Alarms & Carbon Monoxide Detectors**

Smoke alarms are required in each sleeping room, outside each separate sleeping area in the immediate vicinity of the bedrooms, and on each additional story of the dwelling.

Carbon monoxide detectors are to be located outside and within 10'-0" of each separate sleeping area or bedroom. Alarms shall be installed on each level containing sleeping areas or bedrooms.

## **SMOKE ALARMS**

**Flat Ceilings**-When mounted on a flat ceiling, alarms shall be located NO closer than 4" from adjoining wall surface.

**Peaked Ceilings**-When mounted on a peak ceiling, alarms shall be located within 36" horizontally of the peak, but NOT closer than 4" vertically to the peak.

**Sloped Ceilings**-When mounted on sloped ceilings having a rise greater than 1'-8" horizontally shall be located within 36" of high side of the ceiling, but NOT closer than 4" from adjoining wall surface.

**Wall Mounting**-When mounted on wall, alarms shall be located NOT closer than 4" from adjoining ceiling surface & NOT further than 12" from adjoining ceiling surface.

Alarms shall NOT be installed within 36" of a door to a kitchen or a bathroom containing a shower or tub.

Alarms shall NOT be installed within 36" of supply registers of forced air heating or cooling systems and outside of the direct airflow from those registers.

Alarms shall NOT be installed within 36" from the tip of the blade of a ceiling fan.

If basement does NOT have any sleeping areas or bedrooms, alarms shall be located on the basement ceiling near the entry to the stairs leading up from the basement.

Alarms shall be mounted on an inside wall or well insulated ceiling below an attic space.

## **CARBON MONOXIDE DETECTORS**

Detectors shall be installed outside and NOT more than 10'-0" from each separate sleeping area or bedroom and on each level containing sleeping areas or bedrooms.

Detectors can be mounted high or low on a wall or on a ceiling, refer to the manufacturer's installation requirements.