

IRC 2015 CODE CHANGES

Work exempt from permits; (New Changes)

-Storage sheds that do not exceed 200 square feet in size, example (12'x16'=192sq ft.)

-Fences not over 7 feet high (2006 code – 6'high)

The 2015 Minnesota Energy Code is scheduled to become effective February 14, 2015

Please be aware of the changes regarding:

- Residential foundations must be insulated to an R-15 (including crawl spaces),
- Minimum R-10 on the exterior (maximum R-11) on the interior. Unless closed Cell spray foam is used. R402.2.8

*** Be advised that if the foam does not have a “built-in” drainage plane, the entire foam assembly will need to be covered with a minimum of 6 mil poly that is sealed at the top, bottom, joints and overlaps.***

-Ceiling R-Value 49

-Wood Framed Walls R-21

-PLEASE document the required insulation for these areas on your building plan.

-Blower-Door Testing Requirements: Builders must conduct a blower-door test on all new residential buildings documenting air infiltration level to confirm Home's Energy Efficiency.

Blower-door test results can be dropped off at the Dilworth City Office. The Certificate of Occupancy can be issued once the City has the required documentation that the home has passed the blower door test and all other required inspections.

*All egress window height is 44inches measured from the finished floor height to the bottom of the clear opening of the window.

-Window Fall Protection Sec.R312.2

In dwelling units, where the lowest part of the opening of an operable window is located more than 72inches above the finished grade or surface below, the lowest

part of the window opening shall be a minimum of 36 inches above the finished floor of the room in which the window is located.

-Radon Requirements 2015 Minnesota State Residential Building Code
1303.2402

Potential entry routes for radon gas shall be SEALED such as;

*Floor openings *Unconditioned crawl space

*Concrete joints *Sumps

*Foundation walls

***Vent pipes routed through unconditioned spaces shall be insulated with a minimum of R-4 insulation.

-Automatic Fire Sprinkler System Sec. R313

All TWINHOMES and TOWNHOMES are required to have an automatic residential fire sprinkler system installed. (New construction)

An automatic residential fire sprinkler system shall be installed in single family homes that are 4500 square feet and larger. Floor area shall include all floors and basements, excluding garages. (New construction)

-Fire Protection of floors. Sec. R501.3

-Smoke Alarms Sec.R314.3.1

An individual dwelling unit shall be equipped with C/O and smoke alarms located as required for new dwelling when;

1. Alterations, repairs,(including installation or replacement of windows or doors) or additions requiring a permit occur and when entering the home is required to perform the inspections.
2. One or more sleeping rooms are added or created in existing dwellings.

Mechanical

Ducts, air handlers, and filter boxes shall be sealed. (Mandatory) Joints and seams shall comply with either the International Mechanical Code or the International Residential Code, as applicable.

Duct tightness shall be verified by either of the following;

Post construction air test

Rough-in air test

***Exception: The total leakage test is not required for ducts and air handlers located entirely within the building thermal envelope.

This information will need to be submitted to the Building Official before the Certificate of Occupancy can be written.

-R403.2.3 Building Cavities (Mandatory). Building framing cavities shall not be used as ducts or plenums.

Nonmetallic ducts shall be constructed with a Class 0 or Class 1 duct material that also complies with UL181.

R403.5 Mechanical ventilation (Mandatory)

The type of mechanical ventilation system and the air flow rate information will be required on the Building Permit Application.

CHAPTER 5

FLOORS

SECTION R501 GENERAL

R501.1 Application. The provisions of this chapter shall control the design and construction of the floors for all buildings including the floors of *attic* spaces used to house mechanical or plumbing fixtures and *equipment*.

R501.2 Requirements. Floor construction shall be capable of accommodating all loads according to Section R301 and of transmitting the resulting loads to the supporting structural elements.

R501.3 Fire protection of floors. Floor assemblies, not required elsewhere in this code to be fire-resistance rated, shall be provided with a $\frac{1}{2}$ -inch (12.7 mm) gypsum wallboard membrane, $\frac{5}{8}$ -inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member.

Exceptions:

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA13D, or other approved equivalent sprinkler system.
2. Floor assemblies located directly over a crawl space not intended for storage or fuel-fired appliances.
3. Portions of floor assemblies can be unprotected when complying with the following:
 - 3.1. The aggregate area of the unprotected portions shall not exceed 80 square feet per story.
 - 3.2. Fire blocking in accordance with Section R302.11.1 shall be installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.
4. Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10-inch (50.8 mm by 254 mm) nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.

SECTION R502 WOOD FLOOR FRAMING

R502.1 Identification. Load-bearing dimension lumber for joists, beams and girders shall be identified by a *grade mark* of a lumber grading or inspection agency that has been *approved* by an accreditation body that complies with DOC PS 20. In lieu of a *grade mark*, a certificate of inspection issued by a lumber grading or inspection agency meeting the requirements of this section shall be accepted.

R502.1.1 Preservative-treated lumber. Preservative treated dimension lumber shall also be identified as required by Section R317.2.

R502.1.2 Blocking and subflooring. Blocking shall be a minimum of utility grade lumber. Subflooring may be a minimum of utility grade lumber or No. 4 common grade boards.

R502.1.3 End-jointed lumber. *Approved* end-jointed lumber identified by a *grade mark* conforming to Section R502.1 may be used interchangeably with solid-sawn members of the same species and grade. End-jointed lumber used in an assembly required elsewhere in this code to have a fire-resistance rating shall have the designation "Heat Resistant Adhesive" or "HRA" included in its *grade mark*.

R502.1.4 Prefabricated wood I-joists. Structural capacities and design provisions for prefabricated wood I-joists shall be established and monitored in accordance with ASTM D 5055.

R502.1.5 Structural glued laminated timbers. Glued laminated timbers shall be manufactured and identified as required in ANSI/AITC A190.1 and ASTM D 3737.

R502.1.6 Structural log members. Stress grading of structural log members of nonrectangular shape, as typically used in log buildings, shall be in accordance with ASTM D 3957. Such structural log members shall be identified by the *grade mark* of an *approved* lumber grading or inspection agency. In lieu of a *grade mark* on the material, a certificate of inspection as to species and grade issued by a lumber-grading or inspection agency meeting the requirements of this section shall be permitted to be accepted.

R502.1.7 Structural composite lumber. Structural capacities for structural composite lumber shall be established and monitored in accordance with ASTM D 5456.

R502.2 Design and construction. Floors shall be designed and constructed in accordance with the provisions of this chapter, Figure R502.2 and Sections R317 and R318 or in accordance with AF&PA/NDS.

R502.2.1 Framing at braced wall lines. A load path for lateral forces shall be provided between floor framing and *braced wall panels* located above or below a floor, as specified in Section R602.10.8.

R502.3 Allowable joist spans. Spans for floor joists shall be in accordance with Tables R502.3.1(1) and R502.3.1(2). For other grades and species and for other loading conditions, refer to the AF&PA Span Tables for Joists and Rafters.

R502.3.1 Sleeping areas and attic joists. Table R502.3.1(1) shall be used to determine the maximum allowable span of floor joists that support sleeping areas and *attics* that are accessed by means of a fixed stairway in accordance with Section R311.7 provided that the design live load does not exceed 30 pounds per square foot (1.44 kPa) and the design dead load does not exceed 20 pounds

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