



Building Code Requirements for Single-Family Dwellings and Remodels

Building Inspections | City of Eden Prairie | 8080 Mitchell Road | Office: 952-949-8342

Exterior Notes:

- **Building and Energy codes:** This building shall be built to the Minnesota Rules chapter and 2020 IRC and MN Energy Code, Chapter 1322
- **Occupancy Classifications: (MN Rules Chapter 1300.0070 Definitions)**
- **Exterior Openings and Flashing:** All exterior openings, horizontal trim, ledger boards, wall/roof intersections, including kick-out flashing shall be made leak proof. **(IRC R703.7.5, R703.8, R903.2 & R905)**
- **Pan Flashing of windows and doors: (R703.8.1)**
- **Address Numbers:** Provide approved house numbers fronting the property on a contrasting background in letters 4 inches high. **(IRC R319.1 & IFC)**
- **Weather Barriers:** A minimum of one layer of number-15 asphalt felt or approved equal shall be applied over sheathing to underside of rafters or trusses unless prohibited by sheathing or siding manufacturer. **(IRC R703.2)**
- **Stucco-Cultured Stone Veneers:** on wood framed structures shall comply with approved industry standards. **(IRC R703.6)**
- **Masonry/Concrete Support:** Wood members shall not permanently support the dead loads of any masonry or concrete. **(General Supports IRC R703.7)**
- **Weep Hole Requirements:** Weep holes for masonry construction shall be installed per **IRC R703.7.6.**
- **Grade:** Grade away from foundation walls shall fall a minimum of 6 inches within the first 10 feet. **(IRC R401.3)**
- **Roof Ventilation:** Provide cross ventilation for all enclosed attic and enclosed rafter spaces. **(IRC R806)**
- **Ice Protection:** Provide proper ice protection from the eave's edge to a point at least 24 inches inside the exterior wall line of the building. **(IRC R905.2.7.1)**
- **Driveways:** Shall be surfaced with asphalt, cement or other approved hard-surface material. **(EP City Code Chapter 11)**

Interior Notes:

- **Foundations/Framing:**
 - Foundation anchor bolts require 7-inch minimum embedment, 1-inch minimum grout between bolt and masonry, ½-inch diameter, 6-inch on center, a minimum of 2 per piece, 12 inches from ends with washers. **(IRC 403.1.6)**
 - A foundation drainage system shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means to the buildings exterior. **(IRC R405)**
 - Masonry block and poured foundation walls shall be designed per section **(IRC R404)** and appropriate tables or designed by an engineer.
 - Interior foundation energy wall with fiberglass insulation must be separated from the foundation wall by means of a moisture and air barrier. **(Mn Rules Chapter 1322)**
- **Furring Strips/Plates:** Wood furring strips and plates installed on concrete shall be treated wood or resistant to decay. **(IRC R317.1)**
- **Slab Vapor Retarders:** In all conditioned spaces provide an approved vapor retarder between concrete slab and sub grade. **(IRC R405.2.2)**

- **Concealed Spaces:**
 - Enclosed usable storage space under stairways shall be covered with ½-inch gypsum on all walls and ceiling. **(IRC R302.7)**
 - Concealed open space of a floor-ceiling assembly shall be draft stopped. (Not to exceed 1,000 sq. ft.) **(IRC R302.12)**
 - Fireblocking shall be provided at all soffits, ceilings and concealed spaces. **(IRC R302.11)**
- **Bearing Walls/Point Loads:**
 - Solid block bearing walls at their mid-point. (Unfinished walls supporting two floors) **(IRC R602.3.3)**
 - Provide bearing under all point loads continuous to foundation. **(IRC R602.3.3)**
- **Future Decks:** In areas of future decks or porches provide adequate backing for ledger board.
- **All Sleeping Rooms/Basements with Habitable Space** shall be provided with an approved means of egress. **(IRC R310.1)**
- **Egress Windows Shall Have:**
 - A sill height of not more than 44 inches above the floor. **(IRC R310.1)**
 - A minimum net clear opening of 5.7-square-feet. **(IRC R310.1.1) Exception:** Grade floor openings shall have a minimum net clear opening of 5-square-feet.
 - A minimum net clear opening height of 24 inches. **(IRC R310.1.2)**
 - A minimum net clear opening width of 20 inches. **(IRC R310.1.3)**
- **Egress Window Wells Shall Have: (IRC R310.2)**
 - Window wells shall be designed to drain into the building's drainage system. **(IRC R310.2.2 & R405.1)**
 - A minimum net clear area of 9-square-feet.
 - A minimum horizontal projection and width of 36 inches.
 - A permanently affixed ladder or steps if the well has a vertical depth greater than 44 inches. **(IRC R310.2.1)**
 - Add emergency escape window under decks and porches 36-inch min vertical clearance from grade. **(IRC R310.5)**
 - Window wells shall provide a drainage system connected to the main structures drainage system. **(IRC R310.2.2 & R405.1)**
- **Stairways/Landings Shall:**
 - Be illuminated per IRC R311.7.9
 - Width shall not be less than 36 inches. **(IRC R311.1.2)**
 - Have a maximum riser height of 7-3/4 inches. **(IRC R311.7.5.1)**
 - Have a minimum tread depth of 10 inches. **(IRC R311.7.5.2)**
 - Open risers shall not permit the passage of a 4-inch diameter sphere. **(IRC R311.7.5.1)**
 - Have a minimum headroom of not less than 6 feet, 4 inches for existing structures, and 6 feet, 8 inches for new construction. **(IRC R305.2.2)**
 - Shall not allow passage of a 6-inch sphere through the triangular opening formed by the riser, tread, and bottom. **(IRC R 312.1.3 Exception: #1)**
- **Handrails Shall: (MN Rules Chapter 1309.0315 & IRC R315.2)**
 - Have a circular cross section of 1-1/4 inches minimum to a maximum of 2 inches. **(IRC R311.7.8.3)**
 - Have maximum heights of 34 inches and 38 inches above the front edge of tread nosing. **(IRC R311.7.8.1)**
 - Be continuous the full length of the stairs with four or more risers and shall have a space of not less than 1 ½ inches between the wall and the handrail with ends returned to wall or newel post. **(IRC R311.8.3.3)**
- **Guards Shall:**
 - Be provided on surfaces located more than 30 inches above the floor or grade. **(IRC R312.1)**
 - Be not less than 36 inches in height vertically above the nosing of the treads or walking surface. **(IRC R312.1.1)**
 - Not allow passage of a sphere 4 inches in diameter. **(IRC R 311.1.3 - with Exception 2)**
- **Window Fall Protection:**
 - Window fall protection shall be provided in accordance to sections **(IRC R312.2.1 & R312.2.2)**
- **Garages Shall: (MN Rules Chapter 1309.0309, EP City Code)**
 - Be separated from the residence with a 1 3/8-inch thick solid or honeycomb core steel door or a 20-minute fire-rated door. **(IRC R302.5.1)**
 - Be separated from the residence and its attic area by not less than 1/2-inch gypsum board applied to the garage side. (See Eden Prairie's handout for garage attic access doors) **(IRC R302.6)**

- **Automatic Fire Sprinkler Requirements: (IRC R313)**
 - New one- and two-family dwelling units **4,500 square feet or greater** will now require sprinkler systems. Square footage measured will include all floor areas and basement floor areas (finished or unfinished).
Note: Garage square footage is not included in square footage measurement.
- **Floor Assembly Fire Protection (IRC R501.3)**
 - New homes shall provide floor assembly fire protection in accordance to IRC R501.3
- **Smoke Detector/CO Detector: (IRC R314 & IRC R315)**
 - Provide a smoke detector connected to sound the alarm in each sleeping room, outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional story of the dwelling, including basements and cellars. **(IRC R314)**
 - All newly constructed single-family homes and multifamily dwelling units shall have: A carbon monoxide alarm located within 10 feet of each room lawfully used for sleeping purposes. **(IRC R315)**
- **Safety Glazing Shall Be:**
 - Acid-etched, sandblasted, ceramic-fired or embossed marked with manufacturer's or installer's label designating type and thickness of glass, and listing and manufactured to safety glazing standard 16CFR1201. **(IRC R308.1.1)**
- **Access Panels: (MN Plumbing Code Chapter 4715.0900 & IRC R807.1)**
 - Provide a plumbing access for concealed p-traps and whirlpool tub pumps.
 - Attic access shall be 30 x 22 inches, insulated, readily accessible and weather-stripped with headroom of 30-inches minimum. (IRC R807.1)
- **Crawl Spaces Shall Have:**
 - The ground surface covered with an approved vapor 6 mill vapor retarder material, lapped minimum of 6 inches and concrete slab per foundation design tables in IRC Chapter 4. (IRC R506.1 & R506.2.3)
 - The space supplied with conditioned air. (IRC R408.2)
 - The perimeter walls insulated. (MN Energy Code)
 - The unobstructed access opening 18 inches by 24 inches to the under-floor space. (IRC R408.4)
- **Exposed Foam Insulation Shall:**
 - Have a flame-spread index not to exceed 25 and a smoke-developed index not to exceed 450, or be covered with ½-inch gypsum. (IRC R302.9.1 & R302.9.2)
 - Mechanical Ventilation: Bathrooms and water closets in rooms without openable windows shall be provided with a mechanical ventilation system. (IRC R303.3)

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