

## Manitoba Building Code and National Fire Code – Life Safety Items

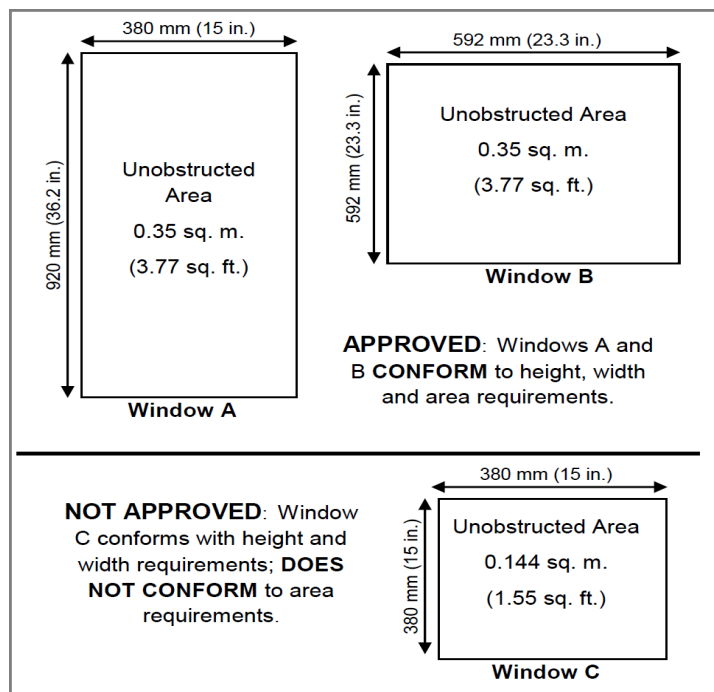
### Bedroom Window Egress

Each bedroom must have at least one outside window. This window must be openable from the inside without the use of tools or special knowledge (except where a door provides direct access to the exterior).

The window must provide an unobstructed opening with a minimum area of 0.35 sq.m. (3.77 sq.ft.) with no dimension less than 380 mm (15 in.).

Although the minimum dimensions required for height and width are 380 mm (15 in.), a window that is 380 mm by 380 mm (15 in. by 15 in.) would not comply with the minimum area requirements.

Where a window required for a bedroom opens into a window-well, a clearance of at least 760 mm (30 in.) must be provided in front of the window. Where the sash swings toward the window-well, the operation of the sash must not reduce the clearance in a manner that would restrict escape in an emergency.



### Ventilation

Must have kitchen and bathroom exhaust fans or HRV pickup. There is an exception for seasonal cottages (seasonal to mean non-winterized) where natural ventilation via openable windows is sufficient.

### Smoke Alarms

Smoke alarms conforming to CAN/ULC-S531, must be installed in each dwelling. Wired-in or \*wireless smoke alarms - \*wireless only permitted if there is no attached garage - must be installed on or near the ceiling. Sufficient smoke alarms must be installed on each level, including basements and on any storey with sleeping rooms as well as in each sleeping room and in a location between the remainder of the storey and the sleeping rooms, eg. hallway. They must be permanently connected to an electrical circuit and must have no disconnect switch between the breaker or fuse and the smoke alarm. Where more than one smoke alarm is required in a dwelling, the smoke alarms must be wired so that the activation of one alarm will cause all alarms within the dwelling unit to sound.

### Carbon Monoxide (CO) Alarm

Every dwelling unit that contains a fuel fired appliance or an attached garage requires carbon monoxide alarms conforming to CAN/CSA -6.19. They shall be installed in each bedroom or outside within 5 m of each bedroom door and at least one per level. They shall be mechanically fixed on or near the ceiling in each room containing a solid-fuel appliance.

### Attached Garages

If the home includes an attached garage, a wall between the garage and living quarters must have a 45 minute fire rating to the underside of the roof sheathing, with a self closing, weather stripped door. A heat detector must also be installed and interconnected with all other alarms within the dwelling.

### Fire Extinguishers

Fire extinguishers with a minimum classification/size of 2-A:10B:C per NFPA-10, shall be located in a kitchen and near an exiting door and must have at least one per level in the dwelling.

## Exterior Stairs, Guards and Handrails

Stairs which have more than three risers and which exceed 600 mm (2 ft.) above the finished ground level also require guardrails. These guards are to be located at least 900 mm (36 in.) in height measured vertically above a line drawn through the outside edges of the stair nosing. If the stairs have an intermediate landing, the guardrail must be at least 1070 mm (42 in.) in height over the landing area. Openings situated below these heights are to be such as to prevent the passage of a spherical object having a diameter of 100 mm (4 in.).

If outside stair has more than three (3) risers, a handrail is required on one side of the stair. The handrail is to be located between 865 mm (34 in.) and 965 mm (38 in.) in height measured vertically above a line drawn through the outside edges of the stair nosing's. Stairs with 3 risers or less do not require handrails. There must be no member or attachment between 100 mm (4 in.) and 900 (35 in.) measured from the floor surface of the deck which will facilitate climbing.

Handrails shall be constructed so as to be continually graspable along their entire length with no obstruction on or above them to break a hand hold, except where the hand rail is interrupted by newels at changes in direction. A clearance of not less than 50mm (2 in.) shall be provided between the hand rail and the surface behind it.

## Interior Stairs, Guards and Handrails

When an interior stair has more than 2 risers, the sides of the stair and the landing or floor level around the stairwell must be enclosed by walls or be protected by guards. Guards for stairs within dwellings must be not less than 900 mm (35 in.) in height measured vertically above a line drawn through the outside edges of stair nosing's, and not less than 900 mm (35 in.) in height above landings.

Openings through a guard must be of a size as to prevent the passage of a spherical object having a diameter of 100 mm (4 in.) unless it can be shown that the location and size of openings that exceed this limit do not represent a hazard.

When a stair has more than 2 risers a handrail must be provided on at least one side of the stair if it is less than 1100 mm (43 in.) in width; and on two sides of the stair if it is 1100 mm (43 in.) in width or greater.

Handrails on stairs must be not less than 865 mm (34 in.) and not more than 965 mm (38 in.) in height, measured vertically from a line drawn through the outside edges of the stair nosing. A clearance of not less than 50 mm (2 in.) must be provided between each handrail and the wall to which it is fastened.

Handrails and stair stringers must not project more than 100 mm (4 in.) into the required width of the stairway.

Required handrails must be constructed so as to be continually graspable along their entire length with no obstruction on or above them to break a handhold, except when the handrail is interrupted by newels at changes in direction.

Handrails must be attached to wood studs, wood blocking, steel studs or masonry at points spaced not more than 1.2 m (4 ft.) apart with a 50 mm (2 in.) clearance to any surface behind. Attachment to wood studs and blocking must consist of not less than 2 wood screws at each point, penetrating not less than 32mm (1.25 in.) into solid wood. Handrails must be able to resist a concentrated load of 0.7 kN at any point.

