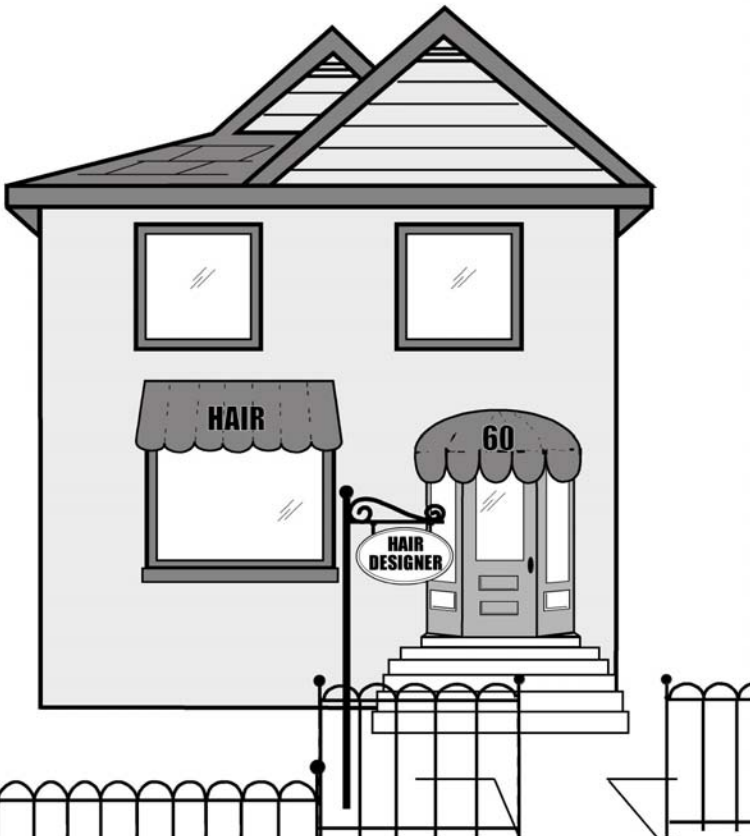


Residential Conversion

*Guidelines for the conversion
of a residential building
(house) to commercial use.*



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note

The Winnipeg Building By-law is primarily an administrative document that adopts the Manitoba Building Code and related standards to provide construction requirements. Throughout this publication the Manitoba Building Code will be referred to as the Building Code.

Every effort has been made to ensure the accuracy of information contained in this publication. However, in the event of a discrepancy between this publication and the governing City of Winnipeg By-law, the By-law will take precedence.

Can a residential building such as a single family house be converted for commercial purposes?

Perhaps, keeping in mind that for most buildings an application will likely have to be made to rezone the property to a Commercial designation. In addition, renovations may have to be made to the building in order to comply with the Building Code.

How much time is involved and how much would the whole conversion process cost?

Time and expenses will vary for the rezoning process. A good rule of thumb is to allow 6 months for rezoning and approximately \$1,000 - \$1,500 for application and advertising fees. A 10% dedication fee may also apply. There may be additional costs for zoning site development upgrading. Furthermore, renovations to the building required by the Building Code may involve substantial architectural, engineering, and construction expenditures. All these costs should be examined before proceeding further.

What type of construction permits may be required?

The conversion may require building, plumbing, mechanical, electrical, and occupancy permits.

What zoning site development upgrading may be required?

The site upgrading may include:

- (a) asphalt or concrete surfacing for required or voluntary parking and loading areas;
- (b) bumper guard fencing; and
- (c) landscaping.

What if I can't comply with these zoning regulations?

You may apply for a variance to the Zoning By-law, however, approval is subject to the results of a public hearing.

What if the building is located on land that is already zoned Commercial?

If the land upon which the residential building is located is zoned Commercial, the conversion may not require a rezoning. However, all zoning site development upgrading regulations must still be met, and a permit must be obtained.

In addition, certain uses may require Conditional Use approval even with Commercial zoning. Conditional Use approval is subject to the results of a public hearing.

What renovations might be required by the Building Code?

Residential conversions would normally be assessed according to:

1. access for the physically disabled;
2. structural sufficiency as a commercial establishment;
3. fire rated floor assemblies;
4. tenant fire separations;
5. a sufficient number of complying exits;
6. stairways;
7. spatial separations to property lines and/or other buildings on the same property;
8. a fire alarm and detection system;
9. emergency lighting;
10. exit signs;
11. sufficient headroom for stairs and complying handrails and guardrails for these stairs;
12. complying stair risers, treads, and landings;
13. sufficient headroom in the basement;
14. complying mechanical ventilation and exhaust systems;
15. complying plumbing systems.

NOTE: *Some specific Building Code requirements are explained in more detail further on in this publication.*

Why must all these requirements be applied to a simple conversion from a residential building to commercial use?

The residential building was originally constructed for residential use and not commercial use. Commercial and industrial buildings are used by the general public and employees. Therefore, the degree of life safety protection must be higher in these buildings than it is in a residential building such as a house. The Building Code recognizes this and states that when the use of a building changes, the building must be made to comply with the Code requirements for the new use.

Who can determine if it is feasible to convert a building for commercial purposes?

City plan examiners and inspectors are not permitted to assist in planning or laying out your work or to act in the capacity of consultants.

Applicants are advised to retain the services of an architect, engineer, or other qualified person. This should be done in order to determine the suitability of a building with respect to requirements contained in the Building Code and to draw up the necessary plans to show how these requirements will be met.

NOTE: The services of a professional architect and/or engineer are mandatory in the case of Assembly occupancy conversions such as restaurants, private clubs, schools, churches, etc.

Is there any way that compliance with a certain aspect of the Building Code can be waived?

The Building Inspections Division does not have the authority to waive any requirements but it does have authority to accept equivalencies which meet the intent of the Building Code. If you feel you can satisfy a Building Code requirement by using an equivalent material or construction method, contact the Plan Examiner or Building Inspector.

What type of plans are required?

Plans submitted for permit purposes must be properly dimensioned, drawn to scale, and must demonstrate compliance with all the requirements outlined in this publication. The plans should be prepared by a person knowledgeable in the Building Code.

What building use and occupancy classifications does this publication cover?

The basic Building Code requirements that follow are for commercial or industrial buildings that:

- have only one major occupancy classification;
- have a single tenant on any one floor;
- are not more than 3 storeys in building height;
- are not more than 600 sq. m. (6,459 sq. ft) in floor area; and
- are of the following occupancy classifications:
 - (i) **Group A, Division 2** - Assembly occupancy (e.g. restaurants, private clubs, schools, churches, etc.)
 - (ii) **Group D** - Business and Personal Service Occupancy (e.g. offices, beauty salons, banks, etc.)
 - (iii) **Group E** - Mercantile Occupancy (e.g. retail stores, boutiques, etc.)

NOTE: Assembly occupancies must be limited to 2 storeys.

For other occupancy classification, please consult with a design professional.

What are some of the basic Building Code requirements for conversions?

Some specific examples of renovations that may be required by the Building Code are:

1. Provisions for the physically disabled:

Every building must have at least one entrance designed to provide barrier free access for the physically disabled. The entrance must be intended for general use by the public or the occupants. The entrance must open to the outdoors at sidewalk level or to a ramp leading to a sidewalk. The ramp must have a maximum gradient of 1 in 12. See FIGURE 1.

Washroom facilities for each sex must be accessible to and useable by the physically disabled. See FIGURES 2, 3 and 4 for washroom layout and minimum washroom dimensions.

Barrier free access to the basement or second floor may be necessary depending on occupant load. If barrier-free access is provided to a basement or upper floor, an extra measure of

FIGURE 1 - Accessible Entrance Showing Minimum Dimensions.

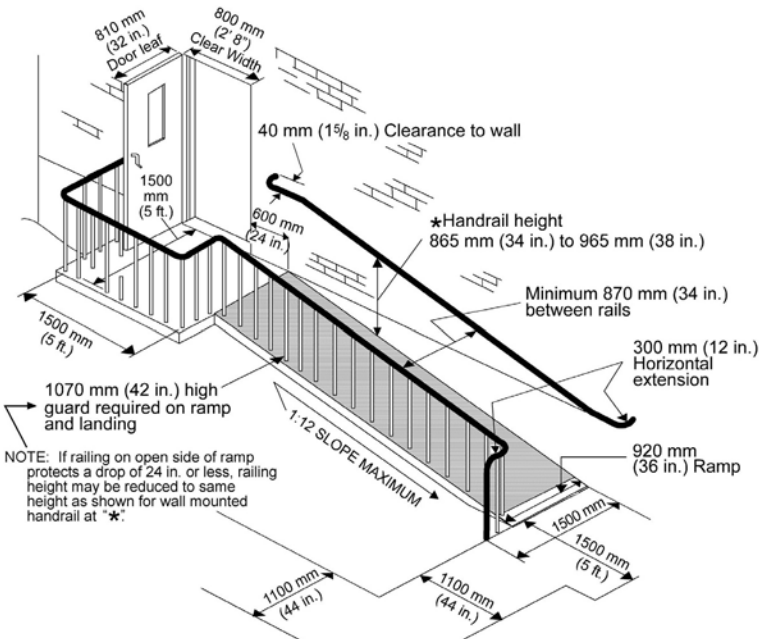
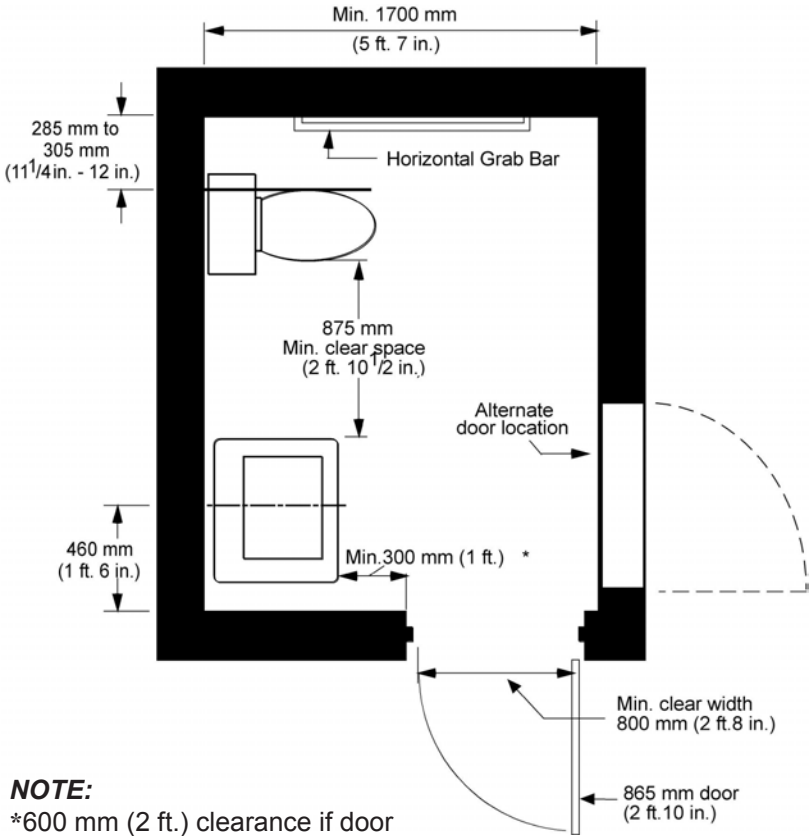


FIGURE 2 - Barrier-free Washroom Requirements



NOTE:
*600 mm (2 ft.) clearance if door swings into washroom

FIGURE 3 - Clearance Below Lavatories

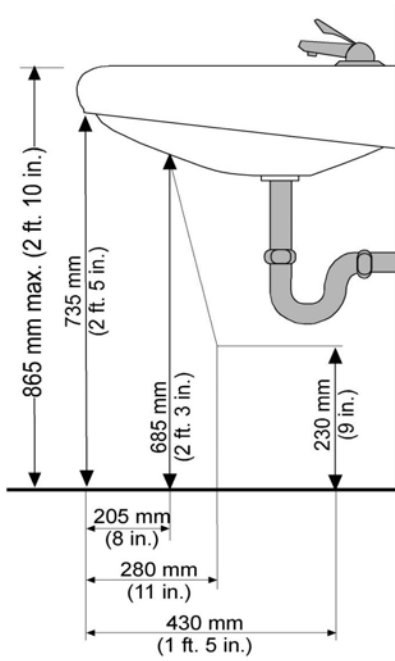
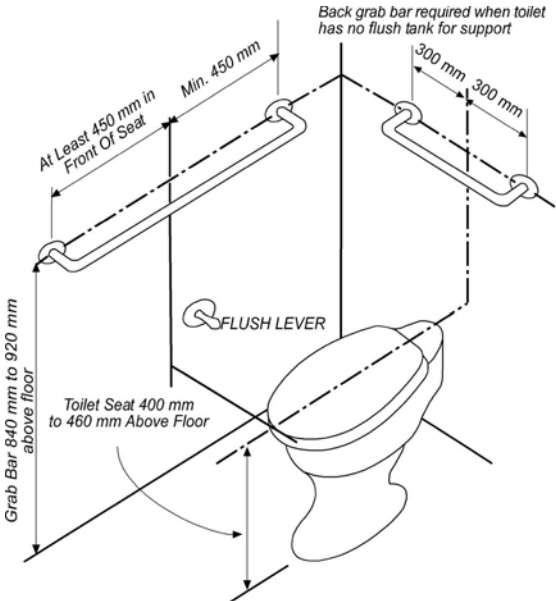


FIGURE 4 - Grab Bars for Toilets



fire safety must also be provided for the disabled on these floors.

There are also many other requirements concerning minimum door sizes, door swing, height of thresholds, level areas for ramps, guardrails and handrails for ramps, size and location of grab bars in washrooms, etc. Consult the Building Code expert you have retained.

2. Structural:

Floor assemblies and supports (including foundation) must be structurally certified for a design live load of 4.8 kPa (100 lbs/sq. ft.) by a Professional Engineer registered in the Province of Manitoba.

If the existing structure cannot be certified without modifications, you will be required to submit 2 copies of a detailed engineered plan showing any necessary modifications at the time of your Building Permit application.

3. Fire-Rated Floor Assemblies:

All floor assemblies must be constructed as a fire separation having at least a 3/4 hour fire resistance rating (e.g. 15.9 mm - 5/8 inch Type X gypsum wallboard on the underside of joists).

Load bearing elements such as walls, posts, beams, etc. must have a fire resistance rating equal to the supported assembly, or be of the type of heavy timber construction defined in the Building Code.

TABLE 1 - Travel Distance to Emergency Exits

OCCUPANCY OF FLOOR AREA	MAXIMUM FLOOR AREA		MAXIMUM TRAVEL DISTANCE TO AN EXIT	
	square metres	square feet	metres	feet
A, Div 2	150	1,615	15	49
D	200	2,153	25	82
E	150	1,615	15	49

4. Tenant Fire Separations:

Tenant fire separations shall conform to Table 3.1.3.1 and Section 3.3 of the Building Code or Subsection 9.10.9.

5. Exits:

Normally each floor of the building including the basement will be required to be served by two exits which lead to the outdoors and are remote from one another. Two exits are required in case one is blocked by fire.

Exits, except for exterior exit doors, must be totally enclosed and fire separated from the remainder of the floor area so that it is not necessary to re-enter a floor area to exit the building. The exit enclosure must include a door which leads directly to the outdoors.

The doors from the remainder of the building to the exit enclosure are normally required to be 20 minute labelled doors complete with a listed self closer and latching mechanism to ensure the continuous fire protection of the exit.

The fire separation of the stair enclosure from the remainder of the floor area is normally required to have a 3/4 hour fire resistance rating.

Exit doors must swing on their vertical axis in the direction of exit travel (overhead doors and sliding doors do not meet this requirement and therefore cannot be used as exit doors). The doors must be a minimum of 865 mm (34 inches) in width and 2030 mm (6 feet 8 inches) in height. These exit doors must be equipped with hardware which can be readily opened from the inside without requiring keys, special devices, or specialized knowledge of the door opening mechanism.

NOTE: One exit may be permitted in a building not exceeding 2 storeys in height provided:

- 1) the occupant load served by the exit does not exceed 60 persons,
- 2) area and travel distances are within the limits shown in TABLE 1, and
- 3) the building is limited to a single tenant on each floor.

6. Stairways in 2 Storey, Group D or E Buildings

Where a Group D or E occupancy is located on the first storey and partly on the second storey, stairways serving the second storey need not be constructed as exit stairs provided;

- (a) the building is not greater than 2 storeys in building height;
- (b) the suite is separated from other occupancies by at least a 45 minute fire separation;
- (c) the area occupied by the suite is not greater than 100 m² (1076 sq. ft.) per storey;
- (d) the maximum travel distance from any point in the suite to an exterior exit is not greater than 25 m (82 ft.)
- (e) the floor assemblies have at least a 45 minute fire-resistance rating or are of noncombustible construction; and
- (f) the basement and first storey are separated by at least a 45 minute fire separation

7. Spatial Separation:

The requirements for spatial separation are to prevent the spread of fire from one building to another.

Spatial separation requirements for a particular building would affect the following areas of building construction:

- (a) the type of construction and fire rating of the exterior walls;
- (b) the type of cladding on the outside of the exterior walls; and
- (c) the amount of unprotected openings in these exterior walls, such as windows, doors, etc.

Specific spatial requirements for a particular structure are determined by the building wall area, and by the distance of the wall to the property lines and/or other buildings on the same property.

The analysis to determine spatial separation requirements for a particular building is too lengthy to be included in this publication. Consult the Building Code expert you have retained.

8. Fire Alarm and Detection Systems:

A fire alarm system may be required depending on the size, use, and occupant load of the converted building. If any of the following statements are applicable to the new use of

the building, then a fire alarm system must be installed in accordance with the Building Code.

- (a) The building contains more than 3 storeys, including stories below grade (e.g. a 3 storey building and a basement constitutes 4 storeys).
- (b) The building has an occupant load of more than 300 persons.
- (c) The building has an occupant load of more than 150 persons above or below the first storey.
- (d) The building is classified Group A, Division 2, has an occupant load of more than 150 persons, and is occupied as a restaurant or licensed beverage establishment.
- (e) The building is classified Group A, Division 2, has an occupant load of more than 40 persons, and is occupied as a school, college, daycare, or other similar use.

9. Emergency Lighting:

Emergency lighting is typically required in stairways, corridors used by the public, and exit routes from open floor areas. The Building Code should be consulted for specific regulations governing the installation of emergency lighting.

10. Exit Signs:

Exit signs must be installed if;

- (a) the building exceeds two storeys in building height; or
- (b) the occupant load exceeds 150 persons; or
- (c) the occupant load exceeds 60 persons in a licensed beverage establishment or other similar area having low lighting levels.

Exit signs are also mandatory where a fire escape forms part of a required means of egress. The Building Code should be consulted for specific regulations governing the installation of exit signs.

11-12. Stairs, Landings, Handrails, and Guards

Upgrading or replacement of the stairs, landings, handrails, and guards may be necessary in order to meet the requirements of Section 9.8 of the Building Code.

Stairs need to be addressed with respect to rise, run, width, and headroom. Landings have specific requirements

concerning location, size, and headroom. Handrails and guards must comply with standards governing number, required height, design, clearance, and projection.

In cases where a basement is only used for storage or building services such as the heating system and staff or the public do not normally occupy the area, the existing basement stairs may be acceptable provided they are safe, structurally adequate, equipped with guardrails on open sides and a handrail is provided to assist persons ascending or descending the stairs.

13. Basement Headroom

Where a basement is intended to be used and occupied by persons, the minimum headroom in the basement must be 2.1 m (6 ft. 11 in.). Exit door heights may be reduced to 2.03 m (6 ft. 8 in.).

14. Mechanical Ventilation and Exhaust Systems

All ducts penetrating a required fire separation must be provided with approved fire dampers and/or fire stop flaps and/or other approved system of protecting the penetration.

All cold air returns must be ducted or lined with approved non-combustible materials.

A Mechanical/HVAC permit will be required for new installations and for modifications or changes to existing systems.

15. Plumbing Systems

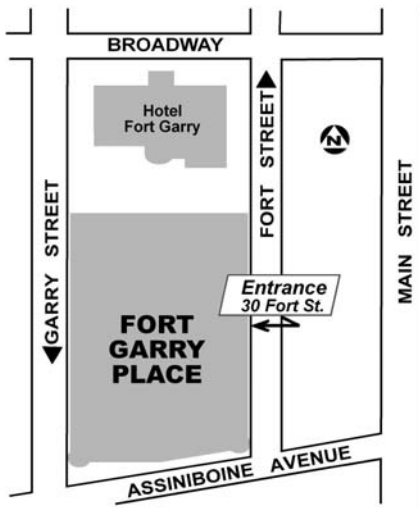
All drain, waste, and vent piping that pierces a fire separation must be non-combustible, except as permitted in articles 9.10.9.7 or 3.1.9.4. of the Building Code.

A plumbing permit will be required for any new installations, and for modifications or changes to an existing plumbing system.

In-Person Customer Service Hours are:

Tuesday to Friday 8:30 am to 4:30 pm -
All Zoning, Permits and Plan Examination
services are available at Unit 31 – 30 Fort
Street.

Mondays 8:30 am to 4:30 pm are reserved for
telephone inquiries and completed application
drop-offs. This enables Zoning and Permits
staff to process building and development
applications received throughout the week.





For more information on building permit approval for conversion of a residential building to a commercial or industrial use contact:

Plan Examination Branch

PH: 204-986-5268

FAX: 204-986-3045

or



***Winnipeg
at your service.***

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