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### ***Where can I find the Building Code requirements for residential construction?***

The requirements for residential construction are found in Part 9 of the Manitoba Building Code. The Code provides design information for many of the structural elements utilized in residential construction. These include:

- a reinforced concrete foundation wall and footing for a 1 and 2 storey dwelling;
- a grade beam on a pier for a 1 storey dwelling addition;
- floor and roof joist sizes and spans;
- wall stud sizes and heights;
- lintel/header beam sizes over openings;
- steel, glulam, or built-up wood beams supporting floors for 1 and 2 storey dwellings (uniform loads only);

### ***When am I required to retain a Professional Engineer?***

Where a particular structural element is not found in the Code, or the standards or limits of a particular structural element are exceeded, it will be necessary to retain a Professional Engineer registered in the Province of Manitoba to undertake a structural analysis/design and provide the City with a sealed drawing that demonstrates compliance with the structural

design requirements of the Code. Some examples of when a design under the seal of a Professional Engineer is required are:

- reinforced concrete basement foundation wall and footing that exceeds 12 m (39 ft. 4 in.) in length or varies from the minimum standards;
- reinforced concrete basement foundation walls and grade beams supported on piles;
- underpinning and repairs to severe structural damage.
- concrete retaining walls;
- grade beam and pile foundation for additions of 2 storeys or more;
- wood foundations;
- roof trusses (other than CMHC designs or prefabricated);
- box beams;
- structural composite lumber (SCL) type beams;
- steel beams and glulam beams other than identified in the Building Code;
- unconventional framing;
- wood supporting brick veneer.

### ***How do I go about retaining the services of a Professional Engineer?***

In some cases, material suppliers may have a Professional Engineer on staff who will provide you with a design acceptable to the City. If such a service is not available we suggest you look under “Engineers” in the yellow pages of the phone book. Any of the engineers listed under “structural” will be capable of providing you with the drawing required.

### ***Is the Professional Engineer required to inspect and certify the as-built construction?***

In some cases, the City may require the Professional Engineer to carry out inspection(s) and certify to the City that the construction has been carried out in accordance with the design drawings and requirements of the Code.

Wood foundations, for example must be inspected and certified by a Professional Engineer. Unconventional framing could also require inspection and certification.

**NOTE:** Except for standard design aids, the Plan Examination Branch and Building Inspection Branch are **NOT** permitted to assist in the laying out of any work or to act in the capacity of an engineering or architectural consultant.



PLANNING, PROPERTY  
AND DEVELOPMENT  
DEPARTMENT

**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 this bulletin or building requirements that may pertain to structural design information contact:*

**Plan Examination Branch**  
**PH: 204-986-5268**  
**FAX: 204-986-7307**

or



**Winnipeg**  
**at your service.**

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

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[www.winnipeg.ca/ppd](http://www.winnipeg.ca/ppd)

# The Professional Engineer and Residential Construction

***A general guideline on  
the provision of design  
information for the  
structural elements of  
construction***

AUGUST 1999