

# Structural Design for Single and Two Family Dwellings

The purpose of this bulletin is to inform owners, designers and contractors of structural design requirements for single and two family dwellings.

*"This information is provided for convenience only and is not in substitution of applicable City bylaws or Provincial or Federal codes or laws. You must satisfy yourself that any existing or proposed construction or other works complies with such bylaws, codes or other laws."*

Effective December 20, 2012 structural engineers or designers must acknowledge that they have reviewed and confirmed that all structural members and their connections of a single family or two family dwelling including bracing to resist earthquake loads are designed in accordance with one or more of the following:

1. Prescriptive Requirements of Part 9 of the 2012 BC Building Code;  
Note: Plans must include three dimensional (3-D) design drawings of braced wall bands and percentage of braced wall panels;
2. Canadian Wood Council 2009 "Engineering Guide for Wood Frame Construction"; and
3. Part 4 of the 2012 BC Building Code.

The following acknowledgement by a designer or Registered Professional of Record (RPR) shall be included on the structural drawings:

I, \_\_\_\_\_ have reviewed and confirmed that all structural members and connections of this building, including bracing to resist seismic loads, are designed in accordance with \_\_\_\_\_.

Please note that new houses or major additions constructed in the Capital Regional District will require the service of an RPR, a professional engineer responsible in the design and field review of either geotechnical and/or structural disciplines, unless it can be demonstrated to the Chief Building Inspector that the soil conditions of the site and all the building's structural components comply with the Prescriptive Requirements of Part 9 of the 2012 BC Building Code.

Houses having more than two levels of frame construction, that incorporate concrete tile roofs and/or concrete topping on the floors, will not comply with Part 9's Prescriptive Requirements and must be designed in accordance with the Canadian Wood Council Guide or Part 4 of the 2012 BC Building Code and be certified by an RPR.

Designers may refer to the Illustrated Guide for Seismic Design of Houses, published by the Homeowner Protection Office for guidance on the application of Part 9's Prescriptive Requirements for lateral load design of wood framed buildings.

For further information regarding RPR requirements please refer to our bulletin on Letters of Assurance for Single and Two Family Dwellings.

If you have any questions, please contact the Building Inspection office in your area or call the main Building Inspection office at 250.360.3230.