

STRUCTURAL ENGINEERING REQUIREMENTS FOR BUILDINGS DESIGNED UNDER PART 9 OF THE BC BUILDING CODE – SURREY BULLETIN 01-04

The Association of Professional Engineers and Geoscientists of BC (APEGBC) has become aware that some municipalities are requiring that for a Part 9 Building, which includes one or more Part 4 components, a Professional Engineer be engaged to consider the overall structure. This includes evaluating such things as lateral load resistance and the load path to the foundations. APEGBC is not opposed to this position but recommends that when this is required a Structural Engineer of Record (SER), as identified in the APEGBC *Guidelines for Structural Engineering Services for Building Projects*, be engaged for this purpose.

The approach identified above is consistent with the above referenced APEGBC Guidelines. This document identifies that the role of the Specialty Structural Engineer is limited to the design of specific specialty structural elements (e.g. wood trusses, prefabricated beams, open webbed steel joists). However the SER is required to take overall responsibility for the structural integrity of the Primary Structural System. The Primary Structural System, as defined in this Guideline, is considered as a combination of elements which support the building's weight and the applicable live load based on occupancy, use of the space and environment loads such as wind, snow and seismic forces. It also includes fall protection anchorage forces.

The Specialty Structural Engineer providing a design of a Part 4 component can take on the responsibility of an SER but only if they are qualified to do so, are assigned this task and formally accept the responsibility. Where a Specialty Structural Engineer acts as the SER, they assume all the responsibilities of an SER as outlined in the Guidelines for Structural Engineering Services for Building Projects, which includes confirming such things as the load path and lateral load resistance adequacy of the Primary Structural System for all Part 4 components in the structure.

The above process will assure that there is an appropriately qualified engineer responsible for the Primary Structural System and prevent the carrying out of multiple structural design reviews of a Part 9 Building by each engineer that has been engaged to design a Part 4 component for the building.

(Reproduced by the Western Wood Truss Association of BC from an APEGBC response to the Surrey Building Division, Bulletin 01-04, January 2004)