BC BUILDING CODE INTERPRETATION COMMITTEE AIBC, APEGBC, BOABC, POABC

INTERPRETATION		
Interpretation Date:	September 20, 2000	File No.:
Building Code Edition:	B.C. Building Code 1998	98 - 0007
Subject:	Garage floor for a house over habitable space	
Keywords:	Garage floor, wood frame construction	
Building Code Reference(s):	4.3.1., 4.4.2., 9.23.1.1.	Page 1 of 1

Question:

Does Article 4.4.2.1. and CSA S413, "Parking Structures" apply to a parking garage with a wooden floor system that is built over a living area in a single family dwelling?

Interpretation:

No, although the principles of CSA S413 do apply.

The floor structure of a parking garage is subject to concentrated vehicle wheel loads, which exceed the scope for Part 9 design loads using conventional wood frame construction as described in Article 9.23.1.1. Therefore, Sentence 9.23.1.1.(4) requires the structural design of the garage floor wood framing to comply with Subsection 4.3.1. Sentence 4.3.1.1.(1) requires the wood framing to conform to CSA O86.1, "Engineering Design of Wood (Limit States Design)".

Subsection 4.4.2., which addresses the design of parking structures, is not referenced from either Subsection 4.3.1. or Part 9, and therefore CSA S413, "Parking Structures" is not applicable to wood frame floors in Part 9 buildings.

Subsection 1.2 of CSA S413 clearly identifies the scope of the standard to include parking structures that are constructed of structural steel or reinforced concrete (including prestressed concrete). The Guide to CSA S413 also states "For types of construction or construction details not covered by this Standard, the same principles of protection required by this Standard shall apply, including multiple protection systems wherever feasible".

R.J. Light Date

Date