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

INTERPRETATION		
Interpretation Date:	December 20, 2000	File No.:
Building Code Edition:	B.C. Building Code 1998	
Subject:	Fire stopping of precast concrete scissors stair	98 – 0015
Keywords:	Fire stopping, scissors stair, precast concrete, exit shaft, smoke-tight joints	
Building Code Reference(s):	3.1.8.3.(3), 3.4.4.4.(2)	Page 1 of 2

Question:

Is non-shrink grout an acceptable method for fire stopping the gap between a precast concrete stair and a cast in place concrete wall within an exit stair shaft with scissors stair?

Interpretation:

No.

Sentence 3.4.4.4.(2) requires *exit* stairs within a scissors stair to be separated from each other by a smoke-tight *fire separation* having a *fire-resistance rating* not less than that required for the floor assembly through which they pass. In the case of precast concrete scissor stairs, the precast concrete stair floor slab acts as the fire and smoke separation between superimposed exit shafts. It is critical that all gaps between the precast concrete stairs and cast in place concrete walls be fire stopped to maintain a smoke-tight joint.

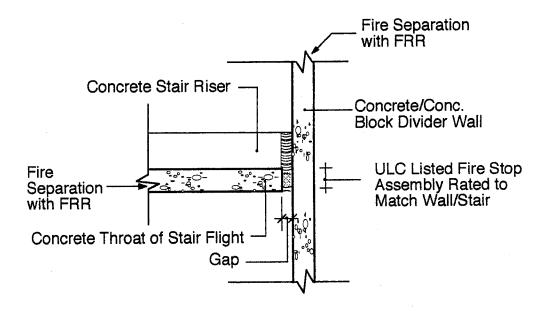
In order to maintain this smoke-tight requirement, the gap at the edge of the precast concrete stairs should be filled with a fire stop system that has been tested in accordance with CAN4-S115-M, "Standard Method of Fire Tests of Firestop Systems" and has an "F" rating not less than the *fire-resistance rating* required for the *exit* shaft *fire separation* (refer to figure on page 2).

Furthermore, it is recommended that the installation of the fire stop system in a scissors stair should be smoke tested in the field to ascertain the smoke tightness.

R.J. Light
Committee Chair

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Interface between precast stair & Divider/Enclosing Wall of Scissors Stair