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BULLETIN 2001-017-BU

December 10, 2001

FIRE STOPPING SYSTEMS

The complexities related to fire stop systems have increased over recent years as the number of firestop products and their specific application listings have developed. Designers, contractors and those professionals responsible for providing field review services are reminded of the need to be fully knowledgeable in this field. The following issues are highlighted:

LISTED SYSTEMS

Firestop products are required to be listed in accordance with CAN4-S115-M, "Standard Method of Fire Tests of Firestop Systems". Note that firestop products are not tested in isolation, but instead as part of a specific assembly. Such a listed system is published with a drawing and details of the specific assembly arrangement that must be followed exactly for each application. For example, the listing may include both minimum and maximum annular spacings around service penetrations.

DESIGNER RESPONSIBILITIES

Designers must keep up to date on available listings of firestop systems to ensure that construction details are compatible. For example, there is currently no specific listing to firestop contiguous stairs, although one is being contemplated. Also, designers must provide sufficient details for the contractor to identify the specific firestop system for each and every application on the project.

CONTRACTOR RESPONSIBILITIES

Firestop installations cannot be performed without the specific listing documentation being at hand during each installation. It is recommended that the firestop installer post a firestop system label adjacent to each installation in order to indicate the listing used.

DYNAMIC BUILDING MOVEMENTS

Listed firestop systems are now available for dynamic moment commonly found in all buildings between joints and /or service penetrations. Dynamic movement needs to be considered when selecting a firestop system.

CONSTRUCTION TOLERANCES

Construction tolerances cannot always be maintained to the limits of the firestop system listings at joints and service penetrations. In these cases, buildings or service modifications are required. For example, if the minimum joint spacing for a system listing is 6 mm (1/4 inch) but the joint actually has some portions in point of contact then the opening must be enlarged to the minimum specified clearance.

CONTIGUOUS STAIRS

Recent testing has shown that precast stair joints are prone to failure. Therefore, the City will no longer accept precast type contiguous stairs unless the applicant can demonstrate that adequate fire stopping of both the head and foot joints has been provided.

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