IBC 2003 edition released

by **Mark S. Graham**

In March, the International Code Council (ICC) published an updated edition of the *International Building Code* (IBC). The 2003 edition (IBC 2003) presents the code as originally published in 2000 with changes approved by ICC through 2002. A number of changes are roofing-related; the most significant follow.

Asphalt shingles

For asphalt strip shingles, the code's 2000 edition generally required attachment with a minimum of six nails in regions where buildings' basic wind speeds are 110 mph (49 m/sec) or greater. In IBC 2003, this has changed to require " ... special methods of fastening ... " that need to be tested according to ASTM D3161, "Standard Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method)," modified to use a 110-mph (49-m/sec) wind speed.

As a result of this change, in high-wind regions where IBC 2003 applies, roof system designers and installers will need to specify and install asphalt strip shingles that specifically have been tested for the 110-mph (49-m/sec) requirement. You should consult asphalt shingle manufacturers for specific products that comply.

Edge metal flashings

IBC 2003 adds a requirement for edge metal flashings (gravel stop, fascia and copings), except gutters, for low-slope membrane roof systems to be designed according to ANSI/SPRI ES-1, "Wind Design Guide for Edge Systems Used with Low Slope Roofing Systems," to resist buildings' basic design wind speeds. Previously, IBC had no specific requirements for edge metal flashings.

ANSI/SPRI ES-1 is an evaluation method that prescribes testing of individual edge metal flashing shapes to determine their wind resistances.

As a result of this change, where IBC 2003 is applicable, edge metal flashings will need to be tested specifically for wind-resistance compliance. This requirement significantly will limit the number of premanufactured and shop-manufactured edge metal flashings that are code-compliant.

To address this issue, NRCA has tested certain edge metal flashing shapes based on the construction details found in *The NRCA Roofing and Waterproofing Manual, Fifth Edition*. (For additional information, see "NRCA receives approval listing," February 2001 issue, page 100.)

Clarifying reroofing

IBC 2003 clarifies reroofing requirements that indicate when roof removal is required. When there are two or more existing layers, IBC 2003 states "all existing layers" of existing roof systems are required to be removed before new roof system installation.

In the code's 2000 edition, it could have been interpreted that for roof system removal situations, only the topmost roof system needed to be removed as long as the completed new assembly consisted of a maximum of two in-place roof system layers.

Also, as it applies to reroofing, IBC 2003 removes the often confusing "25 percent rule" contained in the 2000 edition when code compliance is required. IBC 2003 now clearly states all materials and application methods used for re-covering or replacing existing roof systems must comply with the code.

Additional materials

IBC 2003 references several additional material standards not included in the 2000 edition.

These include, for polymer-modified bitumen sheet products, ASTM D6222, "Standard Specification for Atactic Polypropylene (APP) Modified Bituminous Sheet Materials Using Polyester Reinforcements"; ASTM D6223, "Standard Specification for Atactic Polypropylene (APP) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements"; and ASTM D6298, "Standard Specification for Fiberglass Reinforced Styrene-Butadiene-Styrene (SBS) Modified Bituminous Sheet with a Factory Applied Metal Surface."

Also, for CSPE and PIB membrane systems, ASTM D5019, "Standard Specification for Reinforced Non-Vulcanized Polymeric Sheet Used in Roofing Membrane," has been added.

The addition of these material standards into IBC 2003 greatly simplifies code acceptance of the products complying with these standards.

Applicability

I encourage you to be aware of the specific code and code edition that is applicable in the areas where you conduct business.

Code applicability information is available by contacting the building department in your local code jurisdiction and contained in *The NRCA Building Codes Manual*.

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