AAMA ANALYSIS

Breathing New Life into an Old Document

2008 Window, Door and Skylight Standard is Complete

BY KEN BRENDEN

It is said that industry standards are "living documents" because constant movement and change are to be expected. The performance-based, material-neutral North American Fenestration Standard governing doors, windows and unit skylights, AAMA/WDMA/CSA 101/I.S. 2/A440 is no exception, and the latest round of care and feeding has prepared a new 2008 version which was just approved by the International Code Council (ICC) for adoption.

These changes have prepared the 2008 edition to supersede the 2005 edition. While much has remained the same, there are additions, revisions and clarifications stemming from marketplace developments, test laboratory experience and the realities of product specification and code enforcement.

Changes at a Glance

The following is an attempt to summarize those changes quickly.

Performance Classes. Perhaps of greatest importance is the reduction in the number of door and window performance classes from five to four. For more than ten years, the performance classes have been: R (typically for one- and two-family residential applications), LC (typically for low-rise multi-family dwelling and offices, professional buildings or motels), C (typically lighter industrial buildings, hotels and retail buildings), HC (typically hospitals, schools, government and other mid-rise buildings) and AW (typically for larger institutional, high-rise buildings or where demanding use of fenestration products is expected).

For the 2008 edition, the C and HC classifications have been eliminated and a new "CW" classification has been added. Entry-level Performance Grades (PG)—are 15 psf (720 Pa) for R class, 25 psf (1,200 Pa) for LC class (where larger sizes and higher loading requirements are expected), 30 psf (1,440 Pa) for the new CW class (commonly used in low-rise and mid-rise buildings where larger sizes, higher loading requirements, limits on deflection, and heavy use are expected), and 40 psf (1,920 Pa) for the AW class (mid- and high-rise buildings where increased loading requirements must meet the most extreme environmental and usage conditions).

Primary Designation. The format of the "primary designator"—the way in which compliant windows are identified—has changed. Formerly consisting of the type code, followed by the class and performance grade (e.g., C-R25 for a casement product tested for R-class qualification at a design pressure of 25 psf), the designator now consists of the performance class followed by the PG designation and the size tested, and then the type code (e.g., R-PG25 (760 X 1520 mm) – Type C).

Performance Grades. Optional performance grades may be specified in each class above the minimum "gateway" requirement in increments of 5 psf, up to a maximum cap of 100 psf—changed from the former cap of 65 psf above gateway design pressure—for all classes except AW, for which there is no cap.

Test Sizes. An alternative minimum test size has been added for R-class products. This provision allows a product to qualify for the R Performance Class via testing of a specimen that is *smaller* than the usual gateway minimum test size, provided that it qualifies at a higher minimum PG as specified in the standard for different product types.

Product Types. A 31st product type has been added as covered by the standard: the Tubular Daylighting Device (TDD). TDDs are non-operable fenestration units typically field-assembled from a manufactured kit, consisting of an exterior-glazed weathering surface, a light-transmitting tube with a reflective interior surface and an interior-sealing device such as a translucent ceiling panel.

Secondary Designators. The addition of these, optional supplements to the primary designator, can be used to indicate positive or negative design pressure, the water penetration resistance test pressure and the Canadian air infiltration/exfiltration level.

Additional changes focus on requirements for side-hinged doors (SHD). Force-to-latch requirements have been changed from a prescriptive 15 lbf (65 N) maximum to a "test and report" requirement only. Also, the heaviest available glazing assembly must be used (or simulated with weights) on specimens submitted for operating cycle testing. Successful testing then qualifies products of equal or lesser weight. ■

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