# Structural Building Codes Matter

by John McFee

The mass effect of monitoring building codes is revealed.

## **Industry Partners**

- American Forest & Paper Association
- American Iron and Steel Institute
- APA The Engineered Wood Association, iLevel by Weyerhaeuser
- Building Officials in the State of Michigan California, Indiana, Virginia, Wisconsin, Florida, Arizona, New York
- Fire Service Officials in Michigan, Ohio, California and New York
- Foam Sheathing Coalition
- Institute for Building and Home Safety
- International Code Council ad hoc committee process
- National Association of Home Builders
- National Concrete and Masonry Association
- National Council of Structural Engineers Association
- National Institute of Science and Technology
- Steel Joist Institute
- Structural Engineers of Washington • Truss Plate Institute

## at a glance

- □ If you are aware of current code language, you can take advantage the opportunities presented to your company.
- Code language must be understandable to all parties in the marketplace in order for uniform enforcement.
- □ Monitoring code issues on a local level is critical to strengthen our industry's collective influence on building codes.

ave you ever thought about how the building codes can affect your business? The effects can be both good and bad depending on your preparation for the market place and the level of building code enforcement in the areas in which you conduct business. Chances are good the codes touch you in both manufacturing as well as product distribution. It is important to be aware of the current code language and the upcoming changes so you can take advantage of all opportunities presented to your company.

The progression of the building code adoption is moving from many varied codes to the adoption of the I-Codes. A May press release from the International Code Council (ICC) stated that all 50 states have adopted or are in the process of adopting the provisions of the I-Codes. ICC President Wally Bailey was quoted: "I-Code adoptions in all 50 states make building design, construction and code enforcement easier for the entire building industry. Consumers are the big winners. The economic benefits of building to the latest codes can include improved safety, reduced maintenance costs, energy savings and lower insurance premiums."

This is very good news in the fact that the more uniform the code adoption and implementation become, the less disparity in code requirements among the tens of thousands of code jurisdictions. The only down side to this approach is that the interest in the code development process at the ICC level will increase significantly. There will be many groups involved in this process making code changes that have to be monitored. The process will be further complicated when a broad application of codes is used in real building applications-the changes made in one section of the code may seem harmless until they are considered in the broader context. This factor alone could have a dramatic unexpected effect on the design and application of structural building components.

Thankfully, we're prepared for this increasingly complex code development process. WTCA has long been a strong supporter of the code development process on the national level. This is made clear by the effective participation in the ICC code development process since the 2004 code cycle began, when WTCA was appointed as a voting member on the IBC Structural Committee. This activity has allowed us to develop many strong and valuable relationships with other interest groups (see sidebar). It is critical that we consider all interest groups when developing code language for two important reasons. For one, the code language must be understandable to all of the parties that use it to allow for consistent and uniform enforcement. The opportunity to work with these groups allows for a broader viewpoint and enhanced support of complex issues on the code floor.

The second reason it is critical to remain in contact with as many organizations as possible is to protect the interests of manufacturers in our industry. Many times conflicts on the code floor are a result of the presentation of code changes to address a specific issue without any consideration of how the proposed change affects components and systems within the building envelope. Working with the other groups creates the opportunity to look at a single issue from an array of viewpoints. When new code language is developed in this manner, it can be presented to the code adoption body

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## with a broader base of support.





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## **Structural Building Codes Matter** Continued from page 67

Due to nature of how the code is developed and the fact that it is looked at one section at a time, very few people actually understand the code in its entirety from a design standpoint. This leaves us with a great challenge to determine if the sections addressing foundations, walls, floors and roofs have been written in a manner to address load path issues not only within each chapter of the code but from a practical application standpoint of the completed building envelope.

In an effort to incorporate the most sound application of engineering and technology on real world issues, we are fortunate to have the resources of the new SBC Research Institute (SBCRI). Although the opportunities are nearly endless for this new facility, one area will greatly impact future code provisions: testing and collecting data on flow of loads through all aspects of building construction with emphasis on structures to determine the interactions of components, systems and connections throughout. Over time, we will be able to support proposed code change language with a practical real world perspective supported with data resulting from research conducted at the SBCRI.

On the facing page is a summary of the ICC Final Action Hearing results that will ultimately appear in the 2007 ICC Supplement. SBC



## ICC 2006/2007 Final Action Hearing Results Summary

This is a preliminary summary of the International Code Council (ICC) Final Action Hearing (FHA) results from the Rochester, NY meeting. As an industry, we did receive a high level of success on proposals addressing the issues relevant to our industry. The code development process is a result of proposals submitted to change the current code on a pre-established schedule. The proposals were heard at the Code Development Hearings held in September and October of 2006. The results of the fall 2006 hearings were made available for public comment and those comments were heard in May at the Final Action Hearings. The

Item Description	Item Identification	Affected Code Section #,s	FAH Action	Modification Summary
RB 34	Structural Insulating panels (SIP) standard & references	R301.2.1.1 & R202	AMPC1	Includes requirements for SIPs in IRC.
RB44	Seismic provi- sions	R301.2.2	AMPC1	Retains Seismic Design Category C in the consider- ation for irregular structures.
RB 179 – 227	Wall bracing issues	R602.10	Various	Extensively modified braced wall line requirements including requirements for continuously sheathed walls.
RB 264,265, 266,268	Uplift connec- tions	R802.10.5 & R802.11.1	D	Work will continue to achieve a consensus position.
RB 114	Fire protection systems	313.1	D	Disapproved requirement for sprinklers.
IBC – S28	Definitions	1702		Clarify the code requirements for special inspec- tions.
				See section below.

## S28-06/07 - Section: 1702 DEFINITIONS of FABRICATED ITEM

FABRICATED ITEM. Structural, load-bearing or lateral loadresisting assemblies consisting of materials assembled prior to installation in a building or structure, or subjected to operations such as heat treatment, thermal cutting, cold working or reforming after manufacture and prior to installation in a building or structure. Materials produced in accordance with standard specifications-



results of the FAH have been posted and can be found at www. sbcindustry.com/codes.php. The deliverable from all of this work will be the ICC 2007 Supplement. The process starts all over again with the 2007/2008 code change proposal cycle with a deadline for submissions is August 20, 2007. For more on the ICC code development process, see "The Big Picture" in the January/February 2007 issue of SBC.

The following is a table that lists of some of the more important issues that were addressed during the final action hearings.

referenced by this code, such as rolled structural steel shapes, steel reinforcing bars, masonry units, and wood structural panels a standard, listed in Chapter 35, that requires quality control to be provided under the supervision of a third party quality control agency shall not be considered "fabricated items."



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