

## Natural Progression?

BY GEOFF WEISENBERGER

As they evolve from prescription to analysis, green goals also are becoming the law of the land.

**IN THE JANUARY AND FEBRUARY INSTALLMENTS** of this column, I touched upon how the green buildings movement is indeed a reality and that acronyms like LEED (Leadership in Energy and Environmental Design) and LCA (Life-Cycle Assessment) have been pushing the movement forward.

To recap, LEED is a checklist system geared toward making buildings more environmentally friendly, and LCAs are a way of estimating a building's environmental impact. LEED is prescriptive while LCAs are analytical.

### Not Just Asking, but Telling

But the green buildings movement recently has progressed even further with the advent of green building codes and standards. So what once was merely suggested and/or analyzed soon may be enforced, or at least enforceable.

How soon? Very soon. As a matter of fact, the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), along with the U.S. Green Building Council and the Illuminating Engineering Society of North America, has developed one such green standard. ASHRAE Standard 189.1, *Standard for the Design of High Performance, Green Buildings Except Low-Rise Residential Buildings*, was published in January. You can find out more about it, as well as preview a copy, on the ASHRAE website.

ASHRAE isn't the only organization developing green standards. The International Codes Council (ICC), developer of the *International Building Code*, currently is working on a sustainable version of its code: the *International Green Construction Code*. As expected, the IGCC will be consistent and coordinated with ICC's other codes. The first public draft, which ICC is developing with the collaboration of the American Institute of Architects (AIA) and ASTM International, is expected to be available in March 2010, and ICC plans to publish the code in 2012. For more information, see

the link provided in the sidebar.

Both the ASHRAE and ICC documents contain sections on materials. Both groups have included representatives of all major categories of building materials on their

committees and follow a consensus process of evaluating comments from other interested parties. AISC has a voting member representative on the ASHRAE committee and AISI (American Iron and Steel Institute) is represented on the IGCC working group. The development of consensus-based standards and codes is a process of evaluation and compromise where no single interest group dictates the final result, but all groups contribute to a working standard or code that improves the performance of building structures.

Speaking of other construction-related green standards, they are out there. The National Association of Home Builders has developed the *National Green Building Standard* ([www.nahbgreen.org](http://www.nahbgreen.org)). ASTM has formed Committee E60 on Sustainability, geared toward the development of sustainability-related standards ([www.astm.org/COMMITTEE/E60.htm](http://www.astm.org/COMMITTEE/E60.htm)). Then there is Green Globes, a green buildings assessment and ratings system that uses an online, questionnaire-based approach and can be applied to new and existing buildings ([www.greenglobes.com](http://www.greenglobes.com)). There is even discussion in the bridge community regarding the development of a green standard exclusively geared toward bridges.

The Portland Cement Association (PCA) has published its own version of a green code as a series of amendments to the *IBC*. Regrettably, rather than being a consensus document that addresses sustainable issues honestly, these amendments are designed to promote more concrete use in buildings under the guise of sustainability—a 21st century Trojan horse containing all of concrete's biased proposals that have been rejected in the *IBC* consensus process. The Building Owners and Managers Association International, AIA, AISI, ICC, the American Forest and Paper Association and AISC all have voiced concerns regarding the document and have requested that PCA withdraw it.

### Keep 'em Honest

One thing to keep in mind when looking at any of these standards is that none of them are perfect. The same could be said for any building standard, but it is especially true when it comes to standards that center around something as widely debated as environmental guidelines. As I've mentioned previously, the green buildings movement is nowhere near being fully mature, and there are still plenty of issues that should be ironed out before green mandates are implemented into code language. (It's too late for some, but that's what new versions are for.) Even the greenest of green standards must recognize the de facto goal of *all* building codes is safety.



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### Green Links

- ASHRAE Standard 189.1  
[www.ashrae.org/greenstandard](http://www.ashrae.org/greenstandard)
- ICC's International Green Code  
[www.iccsafe.org/cs/IGCC/Pages/default.aspx](http://www.iccsafe.org/cs/IGCC/Pages/default.aspx)
- NAHB's National Green Building Standard  
[www.nahbgreen.org](http://www.nahbgreen.org)
- ASTM Committee E60 on Sustainability  
[www.astm.org/COMMIT/COMMITTEE/E60.htm](http://www.astm.org/COMMIT/COMMITTEE/E60.htm)
- Green Globes  
[www.greenglobes.com](http://www.greenglobes.com)
- USGBC: LEED Public Policies  
[www.usgbc.org/DisplayPage.aspx?CMSPageID=1852#state](http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1852#state)

So in reviewing, commenting on or even considering implementation of any green-related standard, ask yourself these questions:

- Is it clear of purpose?
- What are its goals?
- Is it properly applied?
- Is it consensus-based?
- Is it balanced or biased?
- Does it involve greenwashing?
- Is it realistic in its expectations?
- Can it be properly administered by local building code officials?

### When and Where?

How widely will any of these standards become implemented and how soon? No one really knows at this point, but certainly a logical scenario would be that the more green-minded jurisdictions will be the early adopters and momentum likely will build from there.

Actually, a good indicator of who some of the early adopters might be are those municipalities that already have implemented LEED requirements for public buildings. California, for example, requires all new and renovated state-owned buildings to achieve 20% energy savings by 2015 (using 2003 as a baseline year) and also requires them to be designed and operated to meet or exceed LEED Silver standards. In addition, it recently adopted CALGREEN, the nation's first statewide green building code, which will take effect January 1, 2011.

Besides California, more than 30 states now require public buildings to meet LEED criteria in some way, and municipalities in more than 40 states have similar LEED mandates. A link in the sidebar offers a comprehensive list.

Will the variety of rating systems, standards and codes result in confusion in the marketplace? Yes. There will need to be a movement away from competing standards and codes toward cooperation among various industry bodies to consolidate, or at the very least coordinate, their efforts.

Any green code or standard process should proceed carefully and with input from all corners of the construction world and, especially in terms of materials, should not become a battleground pitting one solution over another. It's up to the design and construction industry to make their voices heard and keep the various code processes fair and balanced. **MSC**