



This year *SBC* will cover all aspects of green building as it pertains to the components industry to help you make educated business decisions. We begin with a look at certified lumber.

**Above:** The photo above is lumber certified through the Forest Stewardship Council (FSC). These boards are left over from a job recently done by Shep Campbell at Glaze Components in Winchester, VA. In part two of this series on understanding certified lumber, we will visit with various manufacturers who took on projects that required certified lumber.

- at a glance**
- ❑ When it comes to green building standards, not all lumber is created equal.
  - ❑ In the U.S. there are three main standards that define "green" buildings: USGBC's LEED, GBI's Green Globes and NAHB's Green Home Building Guidelines.
  - ❑ There are a variety of forest certification processes that regulate forest management practices and encourage conservation.

Chances are if the title of this article caught your attention, then wood is the major raw material of your component manufacturing and distribution operations. In your business you primarily worry about the size, species and grade of the lumber you purchase to manufacture your products. In the end, you really don't care how it gets to you, as long as it's economical, high quality and arrives on or before the date you need it. Generally, the last thing you care about is the forest from which it comes.

However, there is a global movement called "green building" coming to a market near you (if it hasn't already), and it will change the way you purchase lumber. While green building affects a whole host of issues related to building design, construction and operations, it also creates a situation where two sticks of lumber are not created equal.

Those two pieces may look and behave the same, but the green building movement insists they are not the same. What matters is their upbringing. Where were they raised, and more importantly, how they were raised. Green building advocates make some compelling arguments as to why this is so, and they have the attention of lawmakers, architects and the general public.

Yet the green building movement is relatively new, and many of you are rightfully unsure of what you need to do before bidding a "green" job that requires certified lumber to meet certain requirements. We've done the research for you, and separated fact from fiction in this two-part series. In this article, we will set the stage by discussing the concept of green building, the creation of three significant green building standards to help define what "green" buildings are, and changes in forest management practices that have led to different forest certification processes, which play an important role in green buildings.

**Green Wood Helps Make Green Buildings**  
 It is well known that lumber companies are in the business of providing sustainable forest yields, or they'd go out of business fairly quickly. The creation of formal forest management programs make those concerned about environmental and conservation issues happy, and we all breathe better because of it (literally). However, forest certification itself really wouldn't affect you at all if building "green" wasn't getting so popular.

What defines a building as "green" is currently under debate, but there are a few standards out there that seek to provide a definition. Determining which green building standard is being used on a given job is important because the standard

dictates which forest certification system is acceptable for use. In other words, these standards are driving the commercial application of the different forest certification processes.

As you may have noticed in your market, more and more buildings—including schools, universities and government offices, and an increasing number of commercial projects—are being built in accordance with one of these green building standards. In addition, these standards are being adapted to new residential construction and may soon have a significant impact on the way homes are built.

In most cases, the green building requirements will be stipulated in the specifications for a particular job. The general contractor (GC) should specify which particular forest certification is required (if only one is acceptable). Some component manufacturers have been successful at convincing a GC to use an alternate forest certification if the one originally specified is very difficult to obtain in that market. However, in most cases it's the green building standard being used for the job that dictates the forest certification used.

We'll go into the various green building standards in greater depth in the next article, but for now it's important to know that there are three major green building standards in the United States: the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Green Building Rating System, the Green Building Initiative's (GBI) Green Globes System and the National Association of Homebuilders' (NAHB) National Green Building Standard.

**USGBC**  
 LEED is currently the most widely recognized green building standard; there are LEED qualified projects underway in 41 different countries! Simply put, it is a system of benchmarks for the design, construction and operation of "green" buildings. According to its literature, LEED is used by everyone from architects to government officials to help "transform

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### So You Want Your Lumber Green?

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#### NAHB

In 2004, NAHB and the NAHB Research Center embarked on a project to review existing green building systems and create a nationally recognized standard. The outcome of that effort is their Green Home Building Guidelines, which is intended to help builders determine thresholds for, "resource-efficient, cost-effective home building."<sup>1</sup>

Similar to LEED, these guidelines come with a checklist, with each line item assigned a particular value. The more points a building receives, the higher it's green building rating. However, unlike LEED, the point assignments are determined using three criteria:

- the environmental impact
- building science and its relation best building practices
- ease of implementation

For example, under this system, the easier it is to implement, the more points it is assigned because the more likely it is to be utilized.

With regard to forest certification methods, the Green Home Building Guideline provides equal credit to all the major systems presently available in North America. The interesting thing about this standard is that a builder can earn as many points for framing the roof with trusses (four points) as they can for utilizing certified lumber in the roof (four points).

### A Forest of Acronyms

Each green building standard has qualifications for the type of lumber that must be used in a project in order for it to be

certified. As mentioned earlier, wood is wood; it performs the same no matter how or where it's raised. But the "how" and "where" makes a big difference in a "green building."

The list of forest certification programs in existence today is intimidating (there are over 50 worldwide), but here's a few of the most widely recognized: Forest Stewardship Council (FSC); Sustainable Forestry Initiative Program (SFI); Pan European Forest Certification (PEFC); International Organization for Standardization (ISO); Canadian Standards Association (CSA); and American Tree Farm System (ATFS). Let's briefly discuss a few of these different programs to understand how they're different.

#### FSC

The Forest Stewardship Council (FSC) is the granddaddy of all the programs and is an independent non-profit organization formed to establish a global system for certifying that products come from well managed forests. The mission of FSC is "to promote environmentally appropriate, socially beneficial, and economically viable management of the world's forests."<sup>2</sup>

FSC is a two-pronged process including a forestry performance audit and a chain of custody audit. FSC does not certify forests itself (first-party). Instead it accredits qualified independent organizations like the Rainforest Alliance's SmartWood program to carry out on-the-ground inspection and certification.

#### SFI

The Sustainable Forestry Initiative (SFI) program was established by the American Forest and Paper Association (AF&PA) in 1994 to promote sustainable forestry practices in the U.S. Probably the leading competitor in North America to FSC, SFI is a "comprehensive system of principles, objectives and performance measures developed to integrate both responsible environmental practices and sound business practices."<sup>3</sup>

Compliance with the SFI standard is required by all members of AF&PA. The SFI verification includes both first and second party verification as well as independent third party certification of conformance to the SFI standards. The program also has an education and outreach component geared toward all forest landowners and requires the public release of an annual progress report.

#### PEFC

The Pan European Forest Certification (PEFC) was created in 1999, with the aim of promoting sustainable forest management through independent third party certification. Unlike FSC or SFI, PEFC is more of an umbrella organization that promotes

numerous European certification standards. Although initially developed to address European standards, the PEFC's approach now has worldwide appeal. Today, 35 independent national forest certification schemes, including a few in North America, have been endorsed by PEFC.<sup>4</sup>

#### CSA

The Canadian Standards Association (CSA), the official standards setting body for our friends north of the border, produced a Sustainable Forest Management standard based on a comprehensive set of internationally recognized sustainable forestry criteria in 1996. These standards are consistent with the ISO standards for sustainable forest management, and also require public participation and audits that verify performance. As of 2005, approximately 67.3 million hectares were certified under this standard representing the second largest certification program in Canada.<sup>5</sup>

### Sustainability Makes Sense

It just makes good business sense for lumber companies that supply our industry with this key raw material to practice conservation on their land holdings. Just like farmers, they only harvest trees in certain sections each year, leaving other fields alone, and re-plant more trees than they cut down. This long-sighted view allows them to maintain a continual supply of "product" far into the future, all the while preserving wildlife habitat and a base acreage of mature trees. Fortunately, good business practices also conform with many of the forest management programs listed above. Isn't it great when things come together like that?

As a result, there are a number of sustainable forestry verification programs in North America. But several factors may make it difficult for you to obtain and use it. The major hurdle is meeting their "chain-of-custody" requirements, which provide certification of the product from its source to final delivery.

In the next article, we'll explore what it has taken for some component manufacturers and building material dealers to

<sup>1</sup> NAHB Research Center's Green Home Building Guidelines website: ([www.nahbrc.org/greenguidelines/about.html](http://www.nahbrc.org/greenguidelines/about.html)), Accessed 2008.

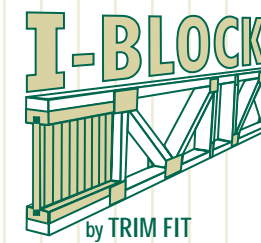
<sup>2</sup> FSC website ([www.fsc.org/en](http://www.fsc.org/en)), 2007.

<sup>3</sup> SFI website ([www.sfi-program.org](http://www.sfi-program.org)), 2007.

<sup>4</sup> PEFC website ([www.pefc.org/internet/html](http://www.pefc.org/internet/html)), 2007.

<sup>5</sup> CSA Sustainable Forest Management website ([www.csa-international.org/product\\_areas/forest\\_products\\_marking/default.asp?language=english](http://www.csa-international.org/product_areas/forest_products_marking/default.asp?language=english)), 2007.

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## Can you see the difference between the trees in these two pictures?



These trees may be certified by the Sustainable Forestry Initiative (SFI).



These trees may not be. The point is, you can't tell just by looking at them.

find and supply products made with lumber certified by one of the major forest certification programs. We'll also discuss the various green building standards further and provide you with a roadmap of how to implement the various standards. From there you can determine if this is something that makes good business sense to you and your company. **SBC**

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