

WINTERGREEN

A monthly update on Steven Winter Associates, Inc.'s work in the realm of Energy Efficient, Sustainable, and High-Performance Buildings

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HITTING THE GREEN MARKET: WHAT SHOULD YOU DO?

So you have an environmentally friendly building product – now how do you go about getting green certification and targeting the green building market? SWA recently advised Timbron International of Walnut Creek, California, on how to do just that.

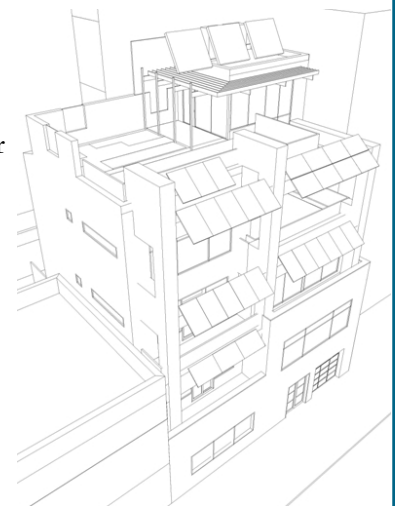
Timbron has developed and manufactured a waterproof interior molding that eliminates the need for wood - it is made from 100% post-consumer recycled polystyrene. Polystyrene is not biodegradable and usually not recycled—it ends up occupying volumes of space in landfills. Beyond these environmental benefits, Timbron has traits that are similar to wood— it can be sawn, nailed, and caulked just like wood. It is a good choice for wet areas in the home and is highly durable. The waterproof product will not warp from moisture, and the inorganic material resists mold, mildew, termites, and other pests.

SWA held a strategic planning session with Timbron staff to help the company position itself in the booming green-building market. Green-product manufacturers can pursue environmental certification of their products; seek inclusion in respected green product listings; advertise in the growing number of environmental publications; participate in conferences and committees dedicated to green building; and request recognition from green building programs (such as local green home certification programs). SWA has completed strategic planning with a number of product manufacturers seeking to develop and market superior building products, including precast wall components, sheathing, siding, and vapor barriers.



HIGH PERFORMANCE HOME FOR THE BIG APPLE

SWA's design for a high-performance, steel-frame home on New York City's Upper West Side is about to start construction. The client's desire for a utilitarian, energy efficient, and sustainable single-family residence was met by optimizing solar access for photovoltaic (PV) and solar hot water panels. To figure out the maximum solar exposure possible, SWA conducted a sunlight study using 3-D mass modeling Radiance software. Other features specified for this 7,500-square-foot townhouse include high-performance fiberglass windows and rain-water recycling. The design also balances interior and exterior spaces on each of the five terraced floors. Green roofs and vertical plantings are interwoven with partially exposed structure, solar panels, terraces, and windows, all optimized to the building's location and use. Construction is scheduled for completion in 2007.



PROMOTING SUSTAINABLE BUILDING POLICY



In July SWA's Helen English, Executive Director of the **Sustainable Buildings Industry Council (SBIC)** addressed an audience of 175 at the **Environmental and Energy Study Institute's** Congressional briefing titled "High-Performance Green Buildings: A Look at Their Benefits and the Role of Federal Policy." Representing SBIC (which is managed by SWA), English spoke about the Council's long history promoting a "whole building approach" to design. It's been more than a decade since SBIC started the development of the Whole Building Design guide (now managed by the **National Institute of Building Sciences (NIBS)**) and had most recently led to the Council's support of Section 914 of the Energy Policy Act of 2005. SBIC uses the framework of the Whole Building Design Guide to help define the characteristics of a truly high performance building: aesthetic, accessible, cost effective, healthy, productive, safe, secure and sustainable.

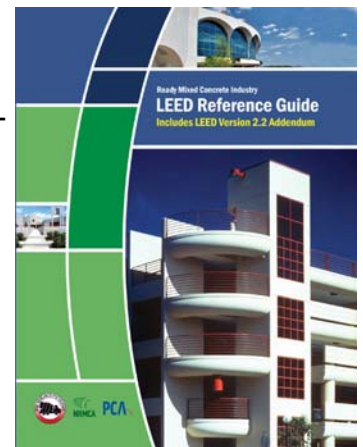
That section calls for the **U.S. Department of Energy (DOE)** to work with NIBS to conduct an assessment of existing building standards to begin the process of coming up with one overarching high performance building standard. On the energy side, according to some estimates, buildings account for more than 40% of annual U.S. energy use and are the source of more than a third of greenhouse gas emissions. As the lifespan of a typical non-residential building is over 75 years the economic, environmental, and health impacts of inefficient buildings are long-lasting. Recognizing that many high-performance measures can be incorporated with minimal up-front costs while yielding enormous savings during a building's life cycle, various organizations within the building industry have established targets for such savings; for example, in December 2005, the **American Institute of Architects (AIA)** called for a 50% reduction by 2010 of fossil fuels used to construct and operate buildings, with an additional 10% reduction per year for the ensuing five years.

According to English, "SBIC and the Whole Building Design Guide promote an integrated design approach to creating high-performance buildings that calls upon building owners, designers, contractors, and building operators to interact closely throughout all phases of the project," she said, "so that all attributes of a building's performance are addressed equally and in an integrated fashion."

Copies of English's presentation and full details of the briefing, as well as those of the two other speakers, are posted on the EESI website: www.eesi.org.

LEED GUIDE FOR CONCRETE AVAILABLE

For architects, builders, and developers who are wondering whether choosing ready-mixed concrete could help their project to attain LEED points, there's a new resource. Published by the **RMC Research Foundation** (part of the **National Ready Mixed Concrete Association**) and supported in part by the **Portland Cement Association (PCA)**, the Ready Mixed Concrete Industry LEED Reference Guide offers documentation of concrete's sustainability as a building material, and how its use can contribute to a building's overall LEED rating. Potential LEED points through the use of concrete are discussed in such areas as storm-water management, landscape paving, minimizing energy use, optimizing energy performance, managing construction waste, recycled content, regional materials, certified wood, innovation in design, site-wide VOC reduction, and reducing the use of Portland cement. The 78-page illustrated technical document also includes guidance on documenting LEED points and a list of all applicable LEED credits in different categories. The guide was written by SWA and is available in both hard copy and on a CD through NRMCA at: www.nrmca.org.



For more information
visit the SWA Website:
swinter.com

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