



WHITE PAPERS

SUSTAINABLE DESIGN: GREEN IN MORE WAYS THAN ONE

SUSTAINABLE DESIGN MEANS MORE THAN saving the environment. It means saving money. Thanks to a wealth of new sustainable building materials, your next construction project can put money back in your pocket through rebates and energy savings.

What is Green?

Sustainable or “green” design incorporates environmentally friendly elements, such as renewable building products and large amounts of natural light.

“Sustainable design is the process of thinking about and defining environments that are ecologically responsible, both in terms of energy and material resources,” explained Bob Nold, president of the U.S. Green Building Council’s Mississippi Headwaters Chapter. This attitude applies to both the construction and the operation of a building.

Why Do It?

There are various reasons to go green, and for many companies, the primary driver is saving money.

Price-wise, many sustainable design elements compare favorably with their conventional cousins, especially as more eco-friendly products have come on the market. While more ambitious green projects may involve higher initial costs, those are usually recouped because the advanced buildings operate more efficiently than their predecessors.

In this age of dwindling resources and rocketing energy prices, building owners must look beyond the cost of construction and weigh the expense of operating and maintaining a building over its long-term use. This is especially important, as heating and cooling costs alone represent about 32 percent of a building’s operating budget. From this perspective, the advantages of sustainable design are clear, whether you are renovating an existing property or building from the ground up.

“The true measure of financial impact should be evaluated over the life cycle of the specific project, which is where the economic advantage of sustainable design becomes quite evident,” Nold explained.

Case in point: Adobe Systems has spent \$650,000 since 2001 on sustainable upgrades, such as an integrated building-

monitoring and lighting-control system, to two of its buildings in San Jose, Calif. The company saved \$728,000 as a direct result of these upgrades, according to a February 2007 article in Forbes magazine.

Despite such success stories, many building owners have been reluctant to enter the green era of construction, largely because they aren’t familiar with sustainable design. But that hesitance is costing them money every day.

Energy-Efficient Structures

Technological advancements created a broad range of quality sustainable building materials, ranging from windows that conserve energy to flooring made from renewable resources like bamboo.

When it comes to energy efficiency—especially saving on heating costs – the roof is a crucial structural element. A variety of energy-efficient and attractive materials are available for roof construction—such as slate and clay tiles, and metal rooves—giving owners a range of options for the look and feel of a building.

The walls that enclose a structure also contribute to its energy efficiency. For many projects, precast concrete wall panels—also known as thermal mass walls—offer a sustainable and affordable option. Used widely in Europe in both residential and commercial construction, precast concrete walls offer numerous benefits, including durability, affordability and resistance to fire, mold and mildew.

Builders seeking sustainable materials gravitate to precast panels because they can be made from recycled materials. They also can be erected in a fraction of the time required to construct traditional walls.

How to Get in on the Action

If you are ready to incorporate sustainable design into your next project, you first should develop a clear set of goals. Also, team up with engineers, architects and suppliers who have green building experience. These experts offer a wide array of sustainable design strategies and products. They can help you reach all of your project goals—and save you money along the way.



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Additionally, register for LEED certification. The LEED Green Building Rating System™ is the nationally accepted benchmark for the design, construction and operation of high-performance green buildings. To qualify for LEED certification, your project must meet the prerequisites and achieve the minimum number of certification points. Depending on the number of points your building earns, it can qualify as Certified, Silver, Gold, or Platinum. *For more information, go to www.usgbc.org.*

LEED can also help you choose qualified professionals for your project. LEED provides a professional accreditation program, which distinguishes building professionals with the knowledge and skills to successfully steward the integrated design and LEED certification process. Any professional is eligible to take the LEED professional accreditation exam, which certifies their understanding of green building practices and principles.

Why LEED? LEED provides building owners and operators with the tools they need to have an immediate and measurable impact on their buildings' performance. In addition to decreasing life cycle and operating costs earned by buildings that qualify for LEED certifications, LEED-certified buildings also qualify for tax rebates, zoning allowances and incentives.

The Future of Design

When it comes to the future of design, all signs seem to be pointing toward sustainable strategies.

Nold said it best: "It's the only future we have. Seriously, sustainable design is already firmly established in the areas of commercial and public construction, renovation and commercial interiors, and the demand for it is increasing. Sustainable design will, and must, gravitate to all aspects of our built environment."

To learn more about sustainable materials for your next building, check out the Green Builder Sourcebook at <http://www.greenbuilder.com/sourcebook>.

For the present and the future, what is best for the world also is best for your bank account. Smart builders are constructing high-performance buildings and they are saving money in the process.

Fabcon Goes Green

At Fabcon, we set out to create a panel that allows builders to leverage the benefits of green building. The result of our efforts is VersaCore+Green™, which Fabcon introduced in March. At the same price as its predecessor, VersaCore Plus, VersaCore+Green offers the highest R-value (a measurement of energy efficiency) of any Fabcon panel.

One way of evaluating the sustainability of a material is by its ratio of recycled to non-recycled content. More than half—58 percent—of the content of a VersaCore+Green panel is from recycled material. In addition to fly ash, a byproduct of coal refining, all of the steel and 20 percent of the insulation in VersaCore+Green are recycled.

For more information, contact Fabcon at 1-800-727-4444.