



The Lynchburg **GREEN** **BUILDING INITIATIVE**

BY MITCHELL MALCHEFF

FOR EVERY ACTION, THERE IS AN EQUAL AND OPPOSITE REACTION, AND IN THE CASE OF CONSTRUCTION, ESPECIALLY RENOVATION, THAT REACTION IS WASTE. LOTS OF WASTE.

SUCH WAS THE CASE FOR SCOTT ELLIOTT OF CUSTOM STRUCTURES (CS) AFTER HE AND HIS CREW UNDERTOOK THE ENORMOUS TASK OF RENOVATING 75,000 SQUARE FEET OF THE THIRD FLOOR OF THE DEMOSS LEARNING CENTER ON THE CAMPUS OF LIBERTY UNIVERSITY. A RELATIVELY YOUNG ARCHITECTURAL/CONSTRUCTION COMPANY, CS BEGAN IN 2003 AND SPECIALIZES IN HIGH-END RESIDENTIAL CONSTRUCTION AND LIGHT COMMERCIAL.

IT WAS THE DEMOSS PROJECT - AND THE WASTE THAT RESULTED FROM IT - IN PARTICULAR THAT SPURRED ELLIOTT, PRESIDENT OF CS, AND RON DRISKILL, VP OF CS, TO FIND WHAT THEY HOPE WILL BE A "GREEN" ANSWER TO THE WASTE PROBLEM; THE LYNCHBURG GREEN BUILDING INITIATIVE (LGBI).

"[SCOTT] HAD BEEN THROUGH SEVERAL PROJECTS WHERE HE REALIZED THERE WAS A LOT OF WASTE GOING INTO LANDFILLS FROM CONSTRUCTION SITES AND THOUGHT THAT HE COULD MAKE A DIFFERENCE. HE REALLY WANTED EVERYONE TO BECOME MORE AWARE OF THOSE TYPES OF ISSUES," JENNY TREVEY, PROGRAM AND DEVELOPMENT DIRECTOR OF LGBI SAID.

CONSTRUCTION WASTE AND WHAT HAPPENS TO IT IS JUST ONE FACET OF WHAT LGBI HOPES TO ACCOMPLISH. AS OF NOW, LGBI IS A PROVISIONAL MEMBER OF THE UNITED STATES GREEN BUILDING COUNCIL (USGBC), A NATIONWIDE BUILDING INDUSTRY COALITION WHOSE STATED GOAL IS "TO TRANSFORM THE WAY BUILDINGS AND COMMUNITIES ARE DESIGNED, BUILT AND OPERATED TO PRODUCE A HEALTHY

and prosperous environment that improves the quality of life.”

Members of the USGBC are at the forefront of a green building demand that is projected to explode from a \$12 billion industry in 2008 to \$60 billion in 2010. The provisional James

environmental impact.

“I’m hoping this will educate people on how they can save our environment, save our energy and get a return on their money,” Toler said.



CS’ 75,000 square foot renovation on Liberty’s campus is a good example of a “green” building. Instead of huge amounts of drywall to a landfill, CS shipped the drywall to a plant in Charlottesville that separates it into its component parts, namely gypsum, lime and paper. The gypsum and lime were then sold to farmers as fertilizer and the paper was recycled. The leftover steel was also resold from the project.



SCRAP STEEL FROM LU’S DEMOSS LEARNING CENTER WAS SOLD TO SAVE WASTE.

River Chapter is composed of organizations and individuals from a wide variety of backgrounds within and outside of the building community. Working together, they hope to educate the public about the need for sustainable and environmentally-responsible building practices.

Back to waste and CS’ 75,000 square foot renovation on Liberty’s campus, which provides a good example of a “green” building. Instead of sending huge amounts of drywall to a landfill, CS shipped the drywall to a plant in Charlottesville that separates it into its component parts, namely gypsum, lime and paper. The gypsum and lime were then sold to farmers as fertilizer and the paper was recycled. The leftover steel was also resold from the project. To a large degree, green building is relatively new to Lynchburg.

“Nothing was being said about [the green movement] around here, that’s for sure,” Elliott said.

Despite Elliott’s sentiments, new members of the fledgling LGBI are proving that, for them, the green movement is just as much about practicing as it is about preaching. Wayne Toler, president of Toler Insulation, promotes the use of products like cellulose, which is 85 percent newspaper and fiberglass, of which 40 percent is recycled glass and sand. Toler is part of an industry that used 1.5 billion tons of recycled glass last year alone and believes the LGBI will help to make people aware of the vast number of ways they can reduce their

While the last part of Toler’s statement may surprise some who believe that going green is just an added expense with incentive, the results of spending a little extra money in the building process can have long-term effects. According to the USGBC, green buildings can reduce energy use by anywhere from 24 to 50 percent if they are LEED compliant (which will be explained in greater detail below), a rating system that is used to determine how environmentally-friendly a particular building is.

“GREEN BUILDING DOES NOT WORK FOR SOMEBODY WHO’S GOING TO LIVE IN A HOME FOR A YEAR OR TWO. IT WORKS ON A PAYOFF. IT MIGHT BE A LITTLE BIT MORE UPFRONT COST NOW, BUT THE PAYOFF IN CERTAIN SYSTEMS [IS WITHIN] THREE YEARS. OTHER SYSTEMS MIGHT BE FIVE TO 10 YEARS,” ELLIOTT SAID.

Kennedy Tile, a local Lynchburg business since 1946, was promoting the use of sustainable materials long before “green” became the buzzword it is today.

“We’ve been recycling for years,” owner Karen Kennedy said.

Almost all of Kennedy’s materials are LEED compliant, right down to the grout. Kennedy

{cont.}

even sells tile made from recycled automobile windshields. Like Toler and Elliott, Kennedy hopes that the LGBI will perform the important function of educating a public she feels has become more interested in recent years about their impact on the environment.

"I think more and more people have become informed about what's happening with our earth ... within the last five years," Kennedy said.

While green building may very well be the norm in the not-too-distant future; Elliott says it could happen within the next few years, it is still a new frontier filled with information that isn't always accurate. For example, the hot new trend in flooring is bamboo, which is often mistakenly touted as a green product, according to Elliott.

"PEOPLE THINK THEY'RE BUYING A BAMBOO FLOOR TO SAVE THE WORLD AND THEY'RE NOT," HE SAID.

While bamboo does grow at an incredible rate, it is shipped almost exclusively from China, which produces 96 percent of the world's bamboo supply. The U.S. produces the other 4 percent. Once the cost of shipping that bamboo around the world is factored in, along with the enormous use of fuel, bamboo becomes decidedly less green when compared with oak flooring that can be produced in North Carolina and only needs to be shipped a few hundred miles instead of thousands.

"Everyday we learn more and more things that are out there that most people don't and we figure the more and more we learn ... the more we can educate," said Trevey.

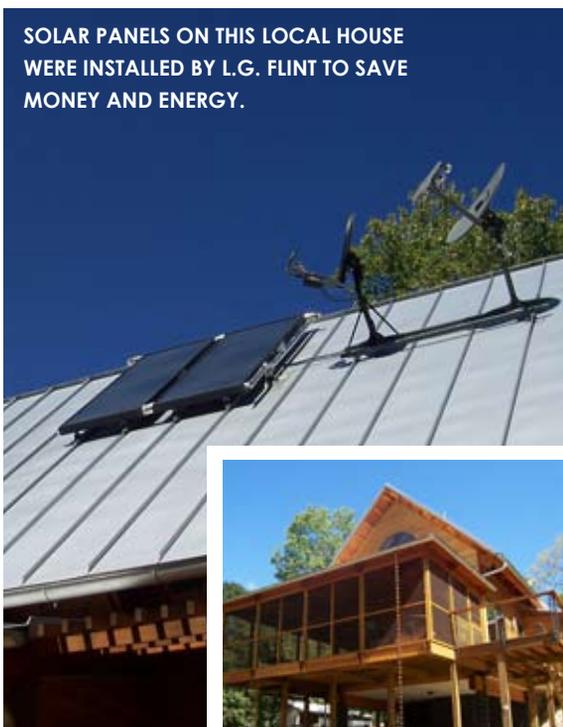
To that end, twice-a-month seminars have (cont.)

already begun that are open to the public and feature LGBI members talking about their specific niche specialty, be it insulation, tile or paint. Green expos for those in the building and design community are planned for the future that will display the latest in green building technology.

Also in production: A resource guide called The Eco-Book that will provide a valuable tool for the community. Each page will feature a different LGBI member and the green resources and practices that they can provide to assist in the building process. The Eco-Book will be available at www.lynchburggreenbuildinginitiative.com as well as throughout the community in professional offices and in LGBI member businesses. One of those members is L.G. Flint, a local construction company. Andy Flint, Vice-President of L.G. Flint, feels that the community is taking a distinct interest in green building.

"It's definitely picked up...when I first came here it wasn't an issue. In the last two to three years, probably 80 to 90 percent [of our customers] bring it up," Flint said.

Like CS, L.G. Flint recycles as much as they can and encourages clients to



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reuse existing materials. Leftover materials are often taken to stores like the Habitat for Humanity ReStore in Lynchburg, which then resells the materials.

“THE LANDFILL IS OUR LAST OPTION,” FLINT EXPLAINED.

While large projects like geo-thermal heating and solar panels may scare some away from green building, Flint tries to push customers towards other, often cheaper alternatives that he terms “the low-hanging fruit,” such as energy-efficient windows and low-flow toilets, which use nearly three-fourths less water than a traditional toilet.

Elliott cites high-efficiency faucets, water cisterns and added attic insulation as just some of the dozens of ways consumers can use less energy, and in the process, lower their energy bill. When considering green building materials, customers should always check to see what tax credits are available from the government.



Mike Marsh explains "green" construction to a group of local middle school students at the Juvenile and Domestic Relations Courthouse.

“Two years ago I looked at...solar panels and all this technical [equipment] as something that our clients wouldn't be interested [in] ...But there are so many systems and tax credits available that it's ridiculous if you're not going green,” Elliott remarked.

While an emphasis towards green building as it relates to consumer building is still in its infancy, federal projects are already being built to LEED standards along with many state and local projects. A LEED project is awarded points in six different categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality and Innovation and Design Process. C.L. Lewis recently renovated the Lynchburg Juvenile and Domestic Relations Court and received 44 out of 69 possible points on the LEED rating system, which earned it a Gold rating.

When the renovation is complete, C.L. Lewis project manager, Daniel Dixon, estimates that nearly 94 percent of the waste at the courthouse

will have been diverted out of landfills. Also, materials used in the renovation may total more than 30 percent of recycled material, along with the use of locally and regionally manufactured products in nearly 30 percent of the construction, an important facet of LEED compliancy. City projects like this are a strong indicator that one of LGBI's many goals may not be far off.

“[We want] to get the community leaders as well as individuals to come together... and educate them to create a great community that we can be proud to live in,” Elliott said.

While there are many other prongs to LGBI's plan, including an emphasis on LEED standards and education, it is clear from the members and organizers that a healthy, vibrant community is paramount. If that goal is accomplished, not only will the LGBI be a success, but Lynchburg and the surrounding communities will be changed for the better as well. 