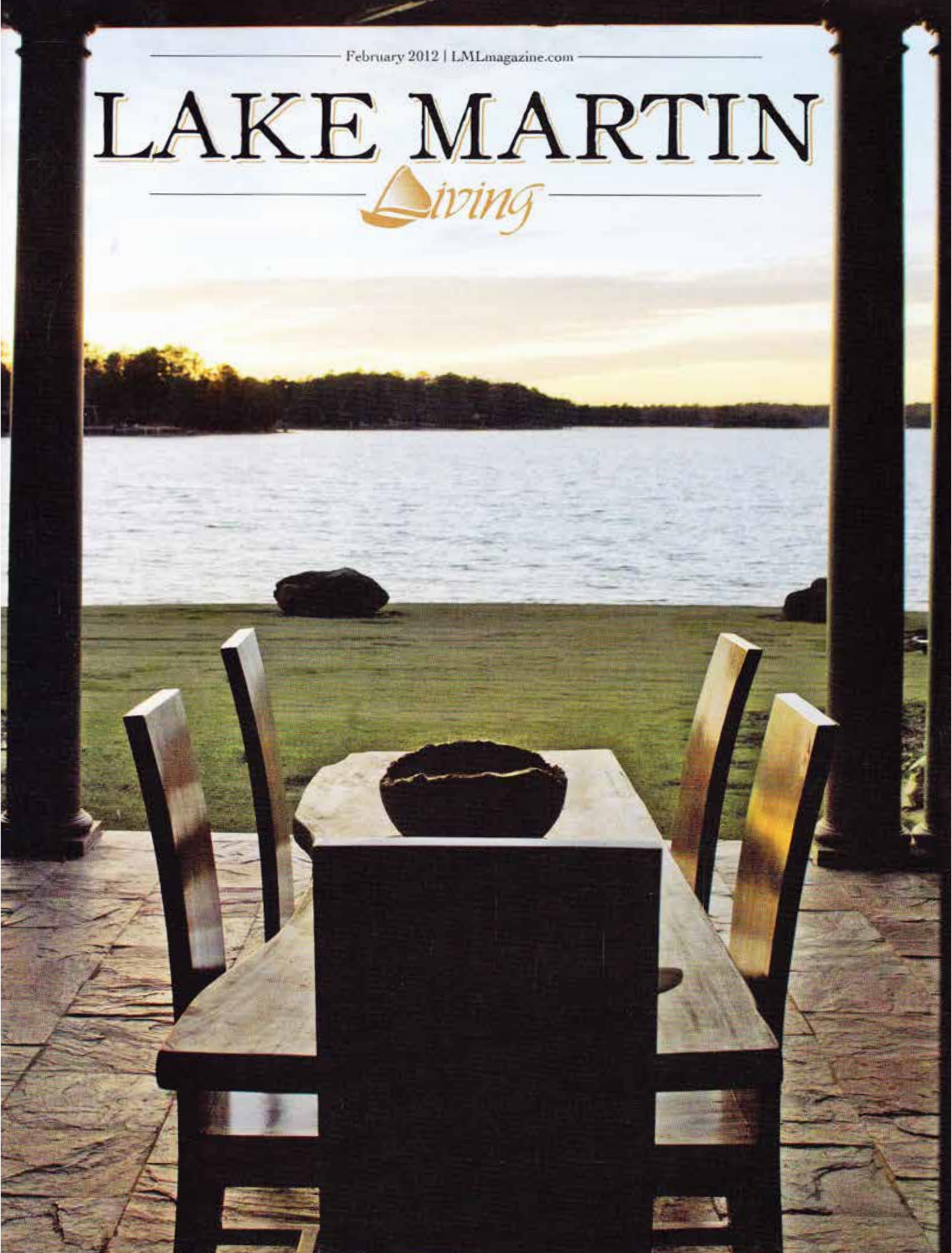


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Architect:
Rebecca Dunn Bryant, AIA
LEED AP

Contractor:
Kane Building LLC



LEED[®] for Homes[™]
project under construction.



Green House in the Rough

Make your way down to Lake Martin just past the Amphitheater, turning left onto Tecumseh Point road and nestled into a beautiful lake front lot you will find a Green House under construction.

by BRENT AND DEBORAH HOLMAN



YOU MAY HAVE HEARD OF THE GREEN ENVIRONMENTAL MOVEMENT. What is a Green Home and does it have anything to do with any kind of conservation or impact on the environment? First things first; a Green Home is not a hut made of sticks and covered with palm leaves for a roof. It could be colored green with

paint or some green outside paneling, but this Green home is very much state of the art with cutting edge modern technology. It's designed to be energy efficient, and cost effective, with a low impact on the nature.

Mr. And Mrs. Dunn's Lake home is getting a make-over, and this is not your normal remodeling project. This is a total redesign. The radical thinking of not only Mr. Dunn, but also incorporates the input of contractors and architects with vivid imagination and full working knowledge of energy efficient environmentally friendly homes. Environmentalism brings together the philosophy and concerns for conservation and health of the environment with a balance of low human impact on nature in all aspects of industries, pollution controls and of course building and construction. With environmentalism and energy efficiency in mind lets begin our quest in understanding how home construction

can be considered environmentally friendly.

LEED (Leaders in Energy and Environmental Design) is a type of rating system to help in the design and construction of energy efficient green homes. This same design can be extended to neighborhoods as well. LEED was developed by the U.S. Green Building Council (USGBC) in 1998 with the intent of providing guidelines in the construction of green building design. One of the interesting facts we found about LEED is that it is a transparent process where all criteria about green construction is publicly reviewed by members of the U.S. Green Building Council.

LEED measures a number of performance ratings in several key areas of any construction project. These measurements include the following: Sustainable Sites- Is the site selected suitable for a low impact on the ecosystem, promotes reduction of erosion, reduction in light pollution, and reduced heat island effect. Water Efficiency- Installing efficient appliances with low water usage and any form of outside landscaping with low water use. Energy and Atmosphere- Per the U.S. Department of Energy, buildings use 39% of energy and 74% of electricity produced each year in America. This category of the LEED ratings system is one that's rated high on any homeowners list of what can be done to not only save energy, but also save money. The Energy and Atmosphere section of LEED ratings gives some novel ideas for this kind of savings. Ideas such as efficient design, efficient appliances, lighting (construct and orient the home in a way that will use more of the sun as a light source), and use of renewable and clean sources of energy (solar panels in some areas of the country wind generated power).

Materials and Resources - In this category LEED recommends selection of sustainable grown products and materials and promotes waste reduction as well as reuse and recycling of building materials. Building material



in the form of old and aged lumber was stripped from an old home in the Lafayette area, transported to the building site and will be incorporated into the construction process of the home for Mr. and Mrs. Dunn. Indoor Environmental quality- Just as the name of this category suggest, LEED promotes a strategy that can improve the quality of air inside any home. The U.S. Environmental Protection Agency estimates that we spend on average 90% of our time inside our homes, so why not incorporate some form of air exchange? This not only can over time, lower monthly power bills but also promotes healthy living. Location and Linkage- The LEED rating system understands how a home will impact the environment and how it fits into the community. This category encourages building on previously developed sites and away from environmentally sensitive areas such as refuges and conservancy sites. Also they encourage building in locations that have open spaces for walking and outdoor activities. Awareness and Education-When construction of a Green Home is complete does the home owner understand how to manage and maintain these new green features to their maximum effect. Innovation in Design- Does the home owner have any ideas outside the LEED recommendations to improve on any performance of a green home design. Green home projects are rewarded if a LEED Accredited Professional is on the team during construction. Regional Priority- The USGBC along with chapter affiliates have identified important local environmental concerns. LEED credits these selected regions of concerns throughout the country, and awards bonus points for projects addressing these local priority environmental concerns.

If you are planning on a new home construction from ground up or just thinking about a remodeling project with green energy efficient concerns





in mind, choose a contractor that's associated with LEED.

Allow us introduce Mike Kane of Kane Building LLC. HERS Rater (Home Energy Rating System), LEED AP, President of The Tallapoosa County Home Builders Association 2007 mkane@kanebuildingllc.com. Being a HERS Rater qualifies Mr. Kane "to perform the functions of inspecting and analyzing a home to evaluate the minimum rated features and prepare an energy efficiency rating". Architect Rebecca Dunn Bryant AIA, LEED Faculty, LEED AP rebecca@watershed.pro of Watershed Green Consulting and Education for the Deep South, Fairhope AL. She is a LEED accredited professional since 2002. She is one of about 100 individuals nation wide that are trained to give LEED and green building training to architects and contractors. These two individuals, who are LEED Accredited Professionals along with their companies are heading up the construction of The Green Home on the Lake for Mr. Dunn and family. Upon arrival on site, one of the first things noticed was spray foam insulation in every space between

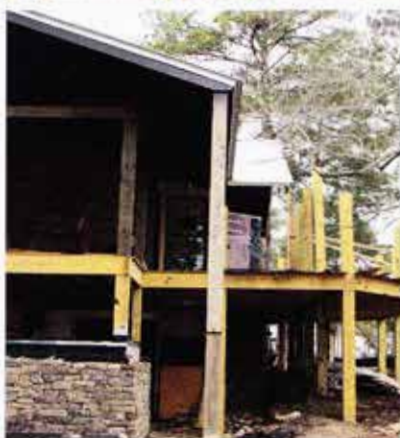
the framing studs, which were 2X6 instead of the normal 2X4s. This insulation was also sprayed into every open space in the rafters and in between the window and door seals. Windows installed were rated with a low U factor for optimum insulation. The construction of the fire place was also LEED accepted, meaning the doors that open to the fire box has got to be able to seal.

The outside construction consisted of yet more insulation between the studs and the outside sheathing. Mr. Kane pointed out an air gap between the insulation and sheathing to avoid moisture damage along with increased insulation. The silver or light gray color of the metal roof is designed to reflect heat back into the atmosphere, where as a dark shingle roof will absorb heat. More insulation is placed under the metal roof. Over hangs of the eaves were four feet instead of the normal two feet to help control direct sun entering the home. Insulation was placed on the outside of the foundation and the inside of the basement walls. This type of insulation is constructed of Insulated Concrete Forms (ICFs). An eight inch reinforced concrete sandwiched between two layers of rigid foam. This helps to control moisture and heat loss/gain. This is just a



small sampling of the construction process. All of these building concepts incorporate the green energy efficient design.

Visit Rebecca@watershedpro for a wonderful insight of the LEED buildings projects and educational information about green energy efficient homes. "Watershed offers Continuing Education & Training for Architects, Engineers, Realtors, Builders, & LEED Accredited Professionals. We also offer educational programs to the community, reaching out to homeowners and business owners to help share practical green strategies for the humid South." (Watershedpro) Mrs. Bryant gives the home remodeling projects some green ideas. Such as: Get a home tune up- Hire a certified HERS rater to evaluate your insulation, weather-stripping, HVAC and lighting for cost effective improvements. Sip, don't gulp- Install water conserving aerators in faucets, replace shower heads with WaterSense models and upgrade toilets to dual flush with retrofit kits. This could reduce your water bill by 30%-40%. Make some shade- If you have hot spots in your home due to sun light streaming through windows. Consider building a pergola to shade south facing windows. Plant some trees like wax myrtles and dense cedars to shade low angle sun glaring through east and west facing windows. She list several more cost



cutting ideas that home owners can do by going green. Please visit Rebecca@watershedpro for a full list of these green cost cutting measures.

Green Home construction is truly cutting edge technology employing every aspect of design, ecosystem, education, and the latest development in building material.

We all want to do what we can to save and preserve our Planet. Home is the best place to start. Every small change can make a big difference. Maybe a remodel of your home is in the future. If you take the plunge for a remodeling project choose a green remodel, you will be glad you did. Not only will you save money, also you will be taking a step to save the environment. Go Green!

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