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EarthCraft Virginia

e-newsletter

Sensibly Built for the Environment!

Issue #4, February 2010



Upcoming Trainings

February 18, 2010: Multi-Family Training
Richmond, VA from 9AM - 3:30PM

March 18, 2010: Single Family Training
Fredericksburg, VA from 9AM - 4PM

To register, please visit our website, www.earthcraftvirginia.org, and click on the "trainings" menu item. There you'll find the registration forms.

Remember, you must be registered in advance!

Features & Awards

Awards

EarthCraft Virginia wins the JRGC Leadership award in the non-profit category.

Two EarthCraft certified Multifamily projects were winners at 2009 Governor's Housing Conference:

- Best Housing Development: Hurt Park Phase II Developer - Roanoke Redevelopment & Housing Authority
- Mixed Use or Mixed Income Housing Development: The Station at Potomac Yard Developer - Alexandria Housing Development Corporation

Congratulations

Habitat For Humanity Virginia wins Best Affordable Housing Energy Conservation Effort at 2009 Governor's Housing Conference

From the Executive Director
KC McGurren, Executive Director



Happy New Year or should I say happy February,

Last year proved to be a difficult year for all, but the construction industry was certainly one of those affected the hardest.

Despite the economic situation, the EarthCraft House program continues to gain strength and awareness. As depressed as the industry was, we managed to certify 263 homes, 2 ½ times what we had projected for 2009.

Our partnership with Habitat for Humanity continues to flourish. Last year alone Habitat for Humanity affiliates across the state certified 44 houses and participating HFH affiliates nearly tripled from 10 in 2008 to 28 at the end of last year.

Through everyone's combined efforts EarthCraft Virginia was recognized by James River Green Building Council for their "Leadership Award" and by Energy Star for their "Leadership in Housing Award". We also received the Governor's Environmental Excellence for their "Environmental Program" award.

Many of these successes are attributed to the support from our partners including Home Builders Association of Virginia, Dominion Virginia Power and your commitment to green building. In the coming year we hope to work together with our EarthCraft builders to generate more awareness of the program, build better buildings, and sell more homes. We are looking forward to hosting our first EarthCraft Virginia Awards Reception on March 25th by recognizing outstanding EarthCraft builders, developers, and their projects. On behalf of everyone at EarthCraft Virginia, I thank you for your continued support and commend your efforts in promoting high performance, green building and contributing to a more sustainable future for all.

Sincerely,

A handwritten signature in black ink that reads "KC McGurren".

Stix and Brix
Chuk Bowles, Technical Director

Welcome to 2010 and good riddance to 2009. At EarthCraft Virginia we somehow managed to exceed our projections for both single and multi-family projects in 2009, but the industry as a whole has endured a very rough time. Although we don't know what the future will hold we can be sure that the color of the next decade will be "green". Most builders are aware that new provisions in the 2009 codes are taking the first preliminary steps in an attempt to make houses "greener". Under the IRC and IECC all new single family construction would be required to provide either a blower door test (N1102.4.2) or

Hall Design Collaborative certifies the first EarthCraft PLATINUM House.

Stephen Thomas Homes wins the "Builder of the Year" award by HBAV.

Miller Custom Home wins an award for Green home of the year for their work on house, the "mothership".

Habitat for Humanity
Steve Reed, Habitat Coordinator

Habitat for Humanity Multi-Family-
Maple Ridge

Habitat for Humanity of Northern Virginia is nearing completion on their Maple Ridge condominiums in Fairfax, Virginia. This project will serve a rapidly growing need in Northern Virginia for high quality affordable housing. Maple Ridge will be the first Habitat for Humanity project certified in the EarthCraft Virginia Multifamily program, serving 9 more partner families with a homeownership opportunity. This three story 9-unit building has been built primarily with volunteers and will be dedicated March 6th.

The Maple Ridge condos feature R-19 wall insulation, R-49 ceiling insulation on the top floor, and energy efficient appliances and equipment. The HVAC equipment is located within conditioned space, with all the ductwork thoroughly sealed with mastic. Tightly sealed ductwork will ensure that the homeowners get the best possible performance from their equipment, resulting in lower utility bills. The mastic sealed joints will keep the system tight and operating just as effectively many years from now.

Each condo has a fresh air intake and Energy Recovery Ventilation (ERV) system, providing healthy indoor air quality to the units, which have all been thoroughly air-sealed for a tight building envelope. The ground floor units are designed to meet wheelchair accessibility requirements, with zero step entrances, ample interior door widths, and accessible features used in the bathrooms and throughout the units.

Chris Conway, EarthCraft Virginia Technical Advisor for the Maple Ridge project, notes "Maple Ridge is an outstanding product of our partnership with

a Visual Inspection Option (N1102.4.2.2) in lieu of the blower door test. If the blower door test is chosen the code requires that building tightness shall be less than or equal to 7 ACH (air changes per hour) when tested at a pressure of 50 pascals. IRC section 1103.2.2 also requires ducts to be tested for air tightness unless they are located within the thermal envelope. Inform your HVAC contractor that Section M1401.3 requires a heat load/heat gain analysis to assure provide sizing of HVAC equipment.

As these new codes are adopted across the Commonwealth it is unclear how these requirements will be implemented. Will they be third party verified or would the builder be able to obtain a blower door and test his own project? Will our building inspectors start lugging around large fans and related testing apparatus? Is it possible that different counties would have varying testing requirements or is it possible to have one testing criteria accepted by all?

No matter how these issues are addressed, EarthCraft builders are ahead of the curve as these requirements have been mandatory for all EarthCraft certified house since inception of the program in Virginia. Unfortunately for other builders it holds the promise of increasing construction costs as they likely will have to devote more time and resources to meet these requirements. In the long run we think these new requirements are a good thing as it will cause other builders to focus on air sealing and duct leakage as part of the construction process. We would hope to see more attention to detail in HVAC sizing analysis leading to less oversized mechanical equipment and better forced air distribution system designs. We believe these code changes are a significant step towards the standardization of high performance buildings and the prospect of a more sustainable future for all.

Showcase Single Family Builder
Eagle Construction

Eagle Construction of Virginia Proves High-Volume Builders can Build Green



Townhomes in the West Broad Village Development, Short Pump, VA.

Green is the latest "in word." As much as the dot com-era affected everyone in the late 1990s, the same can be said about the green movement in the past few years. As recently as 5 years ago, green building was viewed as a niche market comprised of a small group of builders and an even smaller group of consumers. Today the average consumer is more conscious of their purchasing decisions, opting for hybrids instead of SUVs, CFLs instead of incandescent bulbs, energy efficient green homes instead of

conventional code built homes.

Eagle Construction of Virginia--having recognized this consumer shift--has incorporated green building practices in their homes and certified 32 EarthCraft houses in 23 developments across the state under the EarthCraft Single Family Program in 2009 alone, with several homes currently under construction. When asked about Eagle's choice to incorporate EarthCraft standards in their construction approaches, Adam Copenhaver, a Project Manager, noted, "The decision for implementing the EarthCraft Certification Program into our building process was simply a matter of deciding to do the right thing. Not only does EarthCraft's standard increase Eagle's quality while growing environmental awareness, but the EarthCraft certification program insures our EarthCraft home product also pays dividends to our customers through substantially lower utility bills and maintenance costs, a healthier living environment, and provide greater comfort to our customers."

With so many people claiming to be green these days, Eagle Construction recognized

Habitat for Humanity. It showcases how healthy, comfortable, efficient and affordable homes can be built utilizing little more than teamwork, proper planning and donated materials, time, and money".



the need to back up their claim of being a high-performance green builder. This was achieved through the EarthCraft Program's 3rd party verification requirement, utilizing RESNET (Residential Energy Services Network) certified HERS (Home Energy Raters) to inspect, test, and perform energy modeling on every house built to the EarthCraft standard. All Eagle certified EarthCraft homes are blower door tested to ensure thermal envelope tightness and duct blasted to confirm that duct leakage to outside of the thermal envelope does not exceed 6% of the conditioned floor area of the house. Eagle Construction of Virginia should be proud to market that their average EarthCraft certified home is 27% more energy efficient than the same house built to code.

Multifamily Project:

Community Housing Partners' General Contracting Department leads the way in Affordable Multifamily Green Building

Todd Peacock, Vice President of Construction, has been driving affordable housing through sustainable construction for Community Housing Partners' Construction Department. The Christiansburg, VA based group has been working with EarthCraft Virginia, incorporating green building practices in to their projects since the inception of the program in 2005. CHP participated in 2 of the 3 EarthCraft Multifamily pilot projects: Yorktown Square I & II, a 116 unit renovation project located in Yorktown, VA and Cassel Pines an 18 unit new construction project located in Wytheville, VA. Since then they have continued to incorporate green building as standard construction practices and certify several new construction and renovation projects, including one historic rehab under the EarthCraft Virginia Multifamily Program.

One area that sets CHP apart from most construction companies is the investment they make in their staff. All of the construction staff including Mr. Peacock, 3 Project Managers, 5 Superintendents, and Construction Coordinator have a solid understanding of the EarthCraft standards and green building practices. CHP furthers their staff's knowledge of green building by providing continuing education opportunities. Mr. Peacock notes, "We believe that providing education through all levels of our operation is key to successful projects. Having someone in the office who is LEED AP is great, but if the superintendent in the field does not have a grasp of basic building science, your sustainability effort will not go very far. We started by reinforcing our staff's knowledge of critical details and by bringing a new focus to the work we do. This improved the durability and energy efficiency of our projects which I believe is the first step to building a green project. Now, we build from that base making incremental improvements each year and trying at least one new product or technique on every project."

With several projects currently under construction throughout the state and more on the drawing board, 2010 promises to be a busy year for Mr. Peacock and his staff. The Construction Department continues to set the standard for EarthCraft Certified Affordable Multifamily Construction and elevates Community Housing Partners as the premier builder in the non-profit community.

Partners & Sponsors



Dominion



Angelwood Phase II, located in King George, VA, developed by Project Faith, and built by Community Housing Partners.



The EarthCraft Virginia program is made possible by the support of its sponsors and partners. If you are interested in becoming a sponsor or would like more information on the different packages, please contact us at (804) 225-9843 or admin@earthcraftvirginia.org.

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