

system VISION

FOR OUR
FRIENDS AND
PARTNERS
IN THE
AFFORDABLE
HOUSING
INDUSTRY

NEWSLETTER

Healthy Building Resource Center at Advanced Energy

summer 2004 | issue one

Welcome to the first of many newsletters designed to keep you in touch with what is going on in the programs offered by the Community Development Initiative and the North Carolina Housing Finance Agency.

The Healthy Building Resource Center at Advanced Energy will be providing you with information that will spark ideas for your office and the field.

We will also be recognizing some of the builders, developers and sub-contractors in the various programs who have shown outstanding performance and initiative while adapting the SystemVision™ standards into their building practices. 

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affordable housing program changes through the years

From the beginning of its affordable housing program, Advanced Energy has always known that there would have to be some changes and adaptations made along the way. (And we have tried to keep them at a minimum.) The field changes came about, for the most part, as the builders, subs and Advanced Energy realized that field adaptation of the standards could be improved.

One upgrade, the duct insulation standard, was rendered obsolete as the building codes caught up with SystemVision and required all ducts outside the conditioned space to be R-6. We responded to this by upping the ante with our hot water heater standards. We now require that all electric hot water heaters have an efficiency rating >.91EF, allowing us to meet Energy Star requirements. Let's hope code catches up.

Other changes have come about through common-sense problem solving. An

outdoor thermostat is required on all heat pumps. Fresh air filters must be accessible from the conditioned space.

The Affordable Housing program provides the training and consultation that leads to improved health, safety, durability, comfort and energy efficiency of houses and commercial buildings.

With respect to training, the Community Development Initiative and Housing Finance Agency requires that all insulation and HVAC contractors who work on program homes must attend Advanced Energy's

one-day introductory session. This a time-saving measure that benefits everyone involved and will be strictly enforced. If the subcontractor has not attended a session and attempts a project and fails, he or she will be charged for a return trip. If you have a subcontractor that has not attended this session, please call Sonia Joyner at HFA (919) 877-5630 or Sinceri Guerrero at CDI 1-919-835-6006 to schedule a training day.

Also, we will be requiring that all new insulation and HVAC contractors meet

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SystemVision™ program continues to grow by leaps and bounds



Thanks to the wonderful work that all of you are doing, the number of homes built under the programs run by Community Development Initiative and the North Carolina Housing Finance Agency is growing at an incredible rate as more non-profit builders across North Carolina find out about these programs.

As the chart shows, we were able to grow the number of certified homes in the

programs from the years 2002 to 2003 by over 300 percent, and we're projecting continued growth through 2004. We are expecting to certify 350 homes this year. What does all this mean? Well for the builders, developers and funders: more healthy, safe, durable, environmentally responsible and economically feasible homes. For the subs: possible business opportunities as more builders come on board. And for Advanced Energy: impact on the subsidized housing market. Thanks again to all of you making this happen! **SV**

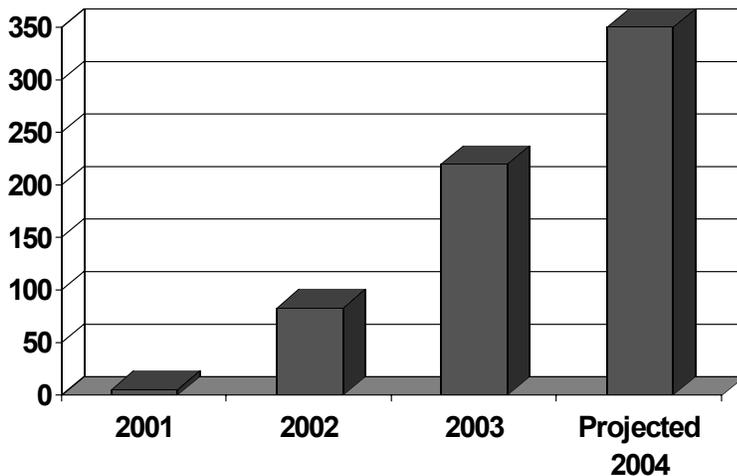
SystemVision: (sis'-tim vizh'-un), n
1. to see and understand how all the parts or components of a system fit together. 2. to understand the interactions among components of an assemblage that together form a complex or unitary whole. 3. the ability to anticipate system interactions.

Advanced Energy's vision is to help you achieve your vision. We look at the world of building science a little differently from most, and we have developed a unique teaching approach that we call SystemVision™.

By treating the building as a system, the SystemVision™ initiative helps building professionals improve the durability, energy efficiency and environmental impacts of a house — emphasizing the health, comfort and safety of the occupants.

Our involvement includes plan reviews, quality control visits and performance testing. **SV**

Guaranteed Homes per Year



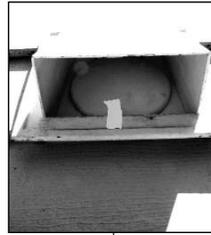
Benefits of SystemVision™ Training — Advanced Energy's professional trainers are committed to helping companies increase their profits by teaching course attendees how to apply SystemVision™ principles to their everyday work. Profits increase by decreasing callbacks | increasing sales, products and margins | competitive differentiation. If your company has additional training needs, we can adapt one of our existing courses or create customized training. For more information about training, contact Keith Aldridge at 1-919-857-9034 or training@advancedenergy.org.

tech tips

Q When is a 70 cfm fan not enough to move 50 cfm of air?

A When the baffle of a fan that is supposed to stop wind from blowing in hot or cold air is taped off. And how many times does really happen? Probably more times than you've had to miss lunch, stay onsite and eat off that truck with the questionable sanitation

rating. About 20 to 30 percent of all the exhaust fans we test have the baffles taped. This can result in a 70 cfm fan moving as little as 30 cfm. Some manufacturers tape baffles in order to stop them from flapping and making noise during shipping. That's only one potential snag. The other is at the termination. Some of those baffles get taped by the manufacturer for shipping purposes too. The painter is another unwitting accomplice. If he paints over the



termination and it is allowed to dry in the closed position, it will be stuck like that, possibly

for the life of the home. The fan NEVER works. You are building to SystemVision™ standards, and we test all exhaust fans to ensure that they are working properly. As the builder, developer or sub, you need to check the baffles and make sure that when we show up on site, your exhaust fans don't cause you to fail a Q.C. [quality control] check and delay a closing. **SV**

Have a question? We'd love to hear from you. Send your question to **[tech tips]** at: Advanced Energy | 909 Capability Drive | Raleigh, NC 27606-3870 | bklotz@advancedenergy.org [email] | 1-919-832-2696 [fax]

success in the details

Implementing SystemVision™ standards in building practices can be tricky in the first couple of homes. But it doesn't have to be. Catawba Valley Habitat for Humanity is a great example. After sending members of their construction team to a training session in Hickory, they went right to work creating an environment that bred success. Rob Howard, construction coordinator, and Walter Money, construction supervisor, immediately began writing the standards into their specifications. Then, they trained their Americorps volunteers on what they learned. And sent them to the training! "Walter does a great job helping our volunteers educate others," said Howard. "You've got to be meticulous about the little things," referring to caulking, insulating, etc.

Canella Heating and Air, the subcontractor responsible for meeting the standards, is also sharing in the success. In fact, when Advanced Energy shows up for final performance testing, we receive a folder with the results of their duct leakage test, kitchen and bath fan flows, individual room pressures, and the equipment specifications. "Canella is a huge part of this. Knowing the HVAC is done right really helps," claims Howard.

program changes

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with a representative of Advanced Energy



on their first project in the program. This will ensure that we've supplied them with enough information to do the job correctly. To set up a meeting, call Brian Coble at 1-919-857-9051.

Administrative changes. We have begun a policy of charging the responsible trade or builder if more than two visits are required in order to pass a single quality control—which shouldn't be a problem since it's unlikely that a third Q.C. [quality control] visit is needed. Advanced Energy has a new process to schedule Q.C. visits. At least three days before the inspection, call 1-866-WE MASTI[C] (1-866-936-2784). Leave your name, affiliation, phone number, address, type of Q.C. (frame, insulation or final) and plan type. This will give us the information needed to process your request. We'll contact you [the same day or next after 5:00 p.m.] to set up the visit. This has been a big change to our program. And so far, it's been a great one with respect to delivering our services in a more efficient manner. We hope these changes make building to SystemVision™ standards easier and more efficient for everyone involved. **SV**

giving credit where credit is due

Advanced Energy would like to recognize those organizations that have helped complete at least one program home since beginning this run back in 2001.

In future newsletters, this section will be devoted to welcoming those groups who have helped complete their first program home. **Take A Bow!**

HBRC General Contractors

DEVELOPER — City of Asheville, Brick Capital CDC, Cabarrus County CDC, Caldwell Co. HFH, Catawba County HFH, Charlotte HFH, Chatham Co. Habitat for Humanity, Community Development Initiative Builders, Durham County HFH, Farmville Housing Development Corp.,

Forsyth County HFH, Forsyth County Housing Department, Goldsboro HFH, Greater Greensboro Builders Association, Greensboro HFH, Haywood County HFH, High Point HFH, Housing Assistance Corporation, Iredell HFH, Kingdom CDC, Metropolitan CDC, Mitchell Yancey HFH, Moore Co. HFH, Orange Community Housing Corporation, Orange County HFH, Our Towns HFH, Rebuilding Broken Places, REECH, Rural Affordable Housing, Wake County HFH, Wilson Community Improvement Association

HBRC Mechanical Contractors

HVAC CONTRACTOR — McNutt Service Group, Center Heat and Air, Barber Heating Co., Canella Heating & Air, Comfort Design Inc., Kirbys Comfort Solutions, Adonai Building Science Services, Durham Mechanical Services, Wilson Mechanical Inc., Arrington

Enterprises, Wilson Mechanical Inc., Logan Heating and Air Conditioning Inc., Jackson and Son's HVAC, Stokesdale Heating & Air Conditioning Inc., Hendersonville Heating and Cooling, T & J Heating and Air Inc., Houston Heating and Air Conditioning, Sunbelt Mechanical Services, Boone Mechanical Services, LD Swain, Parker Pros, Alpine Heating & A/C Inc., Lovin's Heating & Air, Parker Pros, T & T Heating

HBRC Insulators

INSULATOR — Blownrite Insulation, Carolina Insulation, Insulation Installers, Insulation Pro, Mckee Insulation Co. Inc., Members Interior Construction, Pender & Pettus, QI Renn Building Products Inc., Salem Insulation, Tri-City Insulation & Building Products, Vaquera Brothers Insulation and Gutters, Volunteer Insulators 

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