

What it means to build green

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With the flood of information about earth-friendly products saturating the marketplace, figuring out what it means to build green can be daunting.

So start fresh. Forget the trends. Although cosmetic interior design choices from flooring to fabrics play a part, builders say environmentally friendly building starts before construction even begins.

According to the North Carolina Green Building Technology Database, green building means that energy, water and materials are used efficiently during the construction and lifetime of the structure; the health and productivity of occupants is supported; and the impact of the structure on the local and global environment is minimized. And there's no need to guess about which materials and methods work best. Well-known home-building certification programs include the federal Energy Star and the National Association of Home Builders Green Home Building Guidelines. Local builders Scott Allred and Gary Silverstein know what it takes to go green. The Triad Green Building Council members were recently recognized for projects certified under NAHB guidelines, which rate homes gold, silver or bronze based on the level at which the guidelines are met. Allred's Precept Construction LLC earned a silver certification for its Greensboro Builders Association Parade of Homes entry at 8404 Cripplegate Trace in Browns Summit. Silverstein's company, Silverstein Construction Corp., received a bronze certification for its Parade home at 8185 Sanford's Creek Drive in Colfax. The designations were the result of a long-term strategy, not piecemeal details.

Green building is really an integrated approach, Silverstein says. "It's not a matter of doing things. Doing things are good, but it's an entire approach that starts with choosing the building site all the way through house plans to the details of the finishes."

Allred and Silverstein offer a few pointers on environmentally friendly techniques and materials.

- Site design is critical because the orientation of a house affects how efficiently it will be heated and cooled. Design should take advantage of the sun as a heating source and existing tree cover for shade. The site plan could even include leaving part of the lot undeveloped, resulting in a smaller environmental impact, Silverstein says. Planning a home near main arteries or public transportation options also reduces the size of its carbon footprint.
- Builders set the tone with the foundation. A sealed crawlspace ensures indoor air quality and energy efficiency by lowering humidity, which decreases susceptibility to mold, wood rot and insect damage, Allred says.
- Another key component is the way a house is framed, which contributes to energy efficiency. "There are many nontraditional ways of insulating a house these days that do a much more complete job and are more effective at insulating a house," Silverstein says. "What we're trying to do is make a tight building envelope (so that) indoor air temperature becomes less affected by outdoor air temperature."
- Builders and homebuyers also need to consider where their building materials originate, the builders say. Whether they're shipped across the country or come from local sources determines how much energy is required to make a product.

The focus on preserving natural resources, emerging conservation-minded building and design trends, and consumer awareness are forcing construction professionals to approach building differently. Local companies seem ready for the challenge.

"The builders in this community have quickly embraced green building," says Allred, who is chairman of the Triad Green Building Council. "They might not have in the past, but they are going to in the future. Most of them are doing it because they think it's the right thing to do, not because they have the financial incentive."

Allred said the council is encouraging more participation in certification programs. But he also stresses the need to keep in mind consumers' needs and affordability when it comes to the higher prices involved in green construction. The national building program helps in that regard, allowing buyers and builders to pick and choose materials and features as long as minimum levels are met.

"That's the good part about the NAHB program," Allred says. "The bronze, silver and gold rating system allows people to choose the green features that they want to try to stay within their budget."