



## The Parade of Homes goes green

By Aïssatou Sidimé - Express-News Business Writer

For decades, environmentally friendly home designs equated to big blocky solar panels that stuck out like ugly blemishes on the rooftop or extra wide roof overhangs that blocked the sun.

But green home design has come a long way with many energy-saving features, such as foam-filled wall panels that are completely hidden behind textured walls and low-E glass that cuts the ultraviolet and heat rays without altering the view.

The Greater San Antonio Builders Association 2008 Parade of Homes opens today and will run through Sept. 7 in the Palacios at Cibolo Canyons with the goal of displaying just how unobtrusive — even attractive — green home features can be. It's the first time the lavish Parade homes are intentionally environmentally friendly.

The nine green \$1 million-plus homes also kick off new environmental requirements for new homes in Cibolo Canyons. Future homes will have to be certified by the Metropolitan Partnership for Energy's Build San Antonio Green program, which is more stringent than the U.S. Department of Energy's Energy Star rating system. It sets new requirements for energy and water consumption as well as interior air quality.

Forestar Real Estate Group, the developer of Cibolo Canyons, has pledged to require all new homes, 450 planned so far, to use a drought-tolerant zoysia grass (but no more than 50 percent of the landscaping can be grass), SAWS-approved plants, drip irrigation only in flower beds and Smart Controllers, which use weather monitors to decide when to water. The developer uses most of the same green guidelines in its design of common areas, including dark-sky street lamps to minimize skyward reflection.

It's part of the developer's plan to promote wider use of green building techniques, said Susan Wright, the Cibolo Canyons community liaison.

The builders association and Cibolo Canyons worked with the Build San Antonio Green program to design new building requirements that affect energy and water usage and the air quality in new homes — which can be poor because of the fumes released by new paints, adhesives and carpet and the dust particles trapped in homes.

The consortium hopes the 2008 Parade of x Homes will inspire other builders to commit to building green for lower-priced local homes.

"Our greatest advantage is that we have simplified things to a list builders can follow," said Lina Luque, the Green Building program associate at Metropolitan Partnership for Energy that certifies homes for

Build San Antonio Green.

“Many people don’t realize that having a green home can still look nice. We’re saying, ‘Look. This is a beautiful house and is still efficient.’ ”

Behind the stucco, water features, courtyards and walls of glass that predominate, builders have installed some unique environmental features in their palaces.

### **Electricity**

Most of the builders have taken several steps to cut energy consumption to at least 80 percent of the electricity used by a new home built to code in 2004. They included using natural gas and Energy Star-rated lighting fixtures, ceiling fans, appliances, water coolers, freezers and dehumidifiers whenever possible; installing low-E windows in nonaluminum casements that do not conduct heat easily; and using compact fluorescents lights, or CFLs.

Dale Sauer found ways to get his home off the electric grid. His 4,394-square-foot, four-bedroom, four-bathroom house features solar tubes in a bathroom and the utility room. These tubes reflect sunlight into the rooms, lessening the need for electric lighting. The CFLs in closets are set on motion sensors — so they extinguish even if the homeowner forgets to hit the light switch when exiting the closet.

For those times when a whole wing of the house will be empty, the Greenwood Custom Homes Inc. and the Dale Sauer houses have installed a central air conditioner that allows the homeowner to program separate temperatures for different sections of the home.

### **Spray foam**

One of the main ways the Parade builders cut energy consumption — by an average 20 percent to 30 percent according to the Energy Star program — was to reduce the ways that heat enters the home and that cold air escapes. That included taking special care to seal ducts, with an Energy Star inspector testing their work.

But several builders also shot spray foam insulation onto the underside of the roof in the attics, to stop heat from entering the attic. Mike Hollaway Custom Homes, Summit Built Homes, Greenwood and Kyle Lindsey Custom Homes also injected the foam insulation into walls because it gets into the nooks that sheets of insulation can’t reach.

Lindsey hired a Dallas-based engineering firm to analyze the drawings and spray foam insulation plan for his house and to tell him exactly how to heat and to cool the house to minimize energy consumption. The engineers gave him a plan that would keep the average heating and cooling costs on the 3,888-square-foot house to \$87 a month. They even guaranteed that price, so if the electric bill ever exceeds \$87, the firm will refund the utility payments to the homeowner. The guarantee is transferable between owners if the house is sold.

## **Water works**

To conserve water, all Parade builders followed the San Antonio Water System-Designated WaterSaver Home guidelines and installed native xeriscaped lawns, monitor-controlled irrigation systems, low-flow showerheads and dual flush toilets, which cost between \$50 and \$100 more than a standard toilet.

They also installed hot-water-on-demand systems or completely tankless water heating systems. Since there is no storage tank, the water is heated only when the faucet is turned on.

Since Build San Antonio Green requires all water heating systems to be within 20 feet of hot water fixtures, the Parade builders often had to use more than one water heater in a home — which raised the costs. Mike Hollaway installed four tankless water heating systems to cover five bathrooms, a kitchen and a washing machine in his 4,533-square-foot, four-bedroom Parade house. With extra motion sensors to activate the water heaters as soon as a person walks into a bathroom, he spent \$10,000 on the water heating systems versus \$2,000 he would have spent to buy two standard water heaters.

Some of the builders also had to be creative in terms of where they installed the units. In some cases, they are mounted on walls in the bathrooms; but many are also in closets scattered throughout a home.

But, with all those water-saving features, the homes are expected to cut usage by an average 60,000 gallons of water per year, according to SAWS. That's more than half of all the water used by the typical home.

"It's enough to account for all the indoor water use for that home for a year," Eddie Wilcut, a manager in the SAWS conservation department.

Kyle Lindsey and Summit also installed a roughly \$450 ScaleBlaster system that breaks down lime in the water to avoid installing water softeners, which consume extra water.

## **Breathing room**

The Parade builders also took steps to create more wholesome work environments and more breathable spaces.

All used low volatile organic compound (VOC) paint and carpet materials to generate fewer fumes during construction, as well as during the first few years of the home.

In many cases, builders installed little or no carpet to reduce the number of surfaces that can collect allergens. In Summit's roughly 4,400-square-foot, three-bedroom, 3 1/2-bathroom home, only the master and second bedrooms are carpeted. The floors in the remaining bedroom and study are covered in bamboo, which is plentiful, rather than endangered hardwoods.

## **Recycling**

Cibolo Canyons also required recycling and reuse of materials on site.

Rather than dump trash and excess construction materials in trash bins, the builders spent a bit more than they would have paid for trash service to have Greenstone Industries process construction debris for recycling, Wright said.

Greenstone employees sorted the trash into recyclables and nonrecyclables and chopped the brush and excess lumber so the builders could use it as mulch on the lots. Greenstone then hauled the aluminum cans, plastic soda bottles and excess nails to recycling facilities before taking the remaining debris to a landfill.

“This significantly reduced the landfill material, and it keeps the job site cleaner,” she said.

### **The payoff**

The purchasers of these first green Parade of Homes products will need to be patient to see the payoff in many of the homes’ green features.

For instance, Sauer estimates that to recoup the costs of the spray foam insulation alone, the initial buyer must live in his Parade house for about seven years.

But of the 184 homes that have gone through Build San Antonio Green certification as of Aug. 22, homeowners have saved an average \$350 per year, or quarter of their energy costs, according to Kris Zebrowski, program associate with the Metropolitan Partnership for Energy.

“All of these techniques and materials can be incorporated from the regular home to the big fancy Parade home, and in the long run it is cheaper,” he said.