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Building Green

It's Good for the Environment - and the Bottom Line

By John Frith

Mike Dwight, vice president of sales and marketing for Forecast Homes, is not a card-carrying environmentalist. Yet Dwight is among a small but growing number of California homebuilders who thinks the future is tinged green - green as in environmentally friendly and green as in profitable.

Forecast, Premier Homes, Pardee Homes, and Shea Homes are among the industry leaders in exploring ways of making a home green. But if their efforts prove successful, other builders are expected to join the tide. Not only are there money-saving advantages available, but initial consumer response is proving favorable at both the entry-level and executive home levels.

"Forecast primarily does entry-level homes. It has a very significant impact if we can show prospective homebuyers how our homes will cost less to operate. It makes them more attractive and more available because of energy-efficient mortgages," Dwight said. The mortgages allow homebuyers to count their energy savings as income, helping them qualify for loans.

"To take it further, many jurisdictions offer incentives in fast-tracking (permit approvals), that sort of thing. We're given preference because the project itself is putting less waste into landfills, it's being clean, and it's recycling construction waste. That benefits the community. There are a variety of reasons for doing it, other than that it's the right thing to do," he added.

Dwight said all of Forecast's future projects will be certified green by standards developed by the Building Industry Institute, an affiliate of CBIA. (See sidebar, page 10.)

Many new homes already environmentally friendly

In fact, many builders are already using environmentally friendly techniques, said John Blue, a green building specialist for the California Integrated Waste Management Board, the State's primary recycling agency. For example, engineered wood used to reduce warping of trusses and joists also results in less construction waste.

"One thing that's really easy for production homebuilders is recovery of materials on

site. Builders have a specific waste stream, and it's all pretty clean and easy to collect. They're paying a lot in hauling fees, and cardboard, drywall, wood, and concrete all have established markets (for recycling)," he said.

The state's energy crisis provided a major push for green building in 2001. The threat of rolling blackouts -- and the certainty of skyrocketing utility rates -- first surfaced in San Diego in 2000 as the area's utility became fully deregulated as part of the State's unsuccessful plan to establish a market-based system.

As area consumers increasingly complained about rising energy costs, builders took notice. In January 2001, Shea Homes unveiled its High Performance Home at a San Diego development, combining energy-efficient design, solar electric power, and solar-heated hot water.

Builders around the state quickly followed suit. And at the same time, California adopted new energy-efficiency standards requiring that all new homes be 15 percent more efficient than before -- 30 percent above the national Model Energy Code. (See "The New Energy Standards Are Here" in the May-June 2001 issue of California Builder at www.cbia.org.)

Builders found that energy-efficiency is a good marketing tool

"The average consumer's not terribly concerned that we recycle concrete," Dwight noted. "They think, 'That's laudable, but it's not a reason to buy.' But if the home costs \$40 a month less in utility costs, that is a reason to buy."

In the past few months, Premier Homes and Pardee Homes took environmentally friendly to the next level.

Going green in Corona

Joe Killinger, Premier Homes' purchasing manager, said the impetus for his company moving green started with company CEO Jim Previti last August.

"We had our quarterly senior management retreat and Previti usually has comments about his goals. One goal he wanted was to be a green homebuilder and energy-efficient. I took it as a direction so I started working on making our newest project green at the beginning," he said.

In planning the Belcourt Estates development in Corona, Killinger met with consultants from ConSol, the Stockton-based firm that operates the ComfortWise program, and penciled in more efficient heating systems, improved insulation, spectrally selective glass (windows that reduce solar heat gain in the summer and reduce heat loss in the winter), and Energy Star-certified appliances that use less

energy.

Killinger also directed landscape architects to design front yards that contain more shrubs and less lawn area to reduce water consumption and told the clean-up contractor to recycle most construction waste.

As a result, Premier became the first California Green Builder under BII's standards. Forecast, then also owned by Previti, quickly became the second.

Salespeople at the \$400,000 executive-home development are trained to emphasize the money-saving and green features, and signage is prominently placed to remind buyers. Killinger said sales average three or four a week and that the green features, especially energy savings, are a major draw.

Although the extra features cost nearly \$1,000 per home, incentives such as rebates from Southern California Edison bring down the final cost. The use of the high-end windows and other efficiency features allows lower-tonnage air conditioner compressors to be used. Premier also participates in the ComfortWise program, which includes third-party inspections of the energy features, improving quality control. Because Premier builds over code and has third-party inspections, the city of Corona reduced plan-check times, which saved \$130 per home. In all, Killinger estimated his net cost to build green is about \$300 per home. He hopes more builders will take a closer look.

"Ultimately, it makes builders look better. It shows we're conscientious about what's going on in our environment. The industry is slow to change, but if we do, people might look at us differently. I know I'd love it if my home was a green one," he said.

Going green in San Diego

Pardee Homes is taking building green another step forward at its Santa Barbara development in San Diego by including extensive use of engineered wood, carpets made from recycled soda bottles, and pavers in the driveway that allow water to percolate back into the ground, reducing runoff. The development also features such options as fluorescent lights, tankless water heaters, and low-VOC paint.

Joyce Mason, Pardee's vice president of marketing, said the development's Living Smart design was one of a number of features required to gain voter approval to open up the Pacific Highlands area to development in 1998. Pardee worked closely with environmental organizations to fashion the project, which includes habitat conservation and restoration of natural vegetation. As a result, the local chapter of the Sierra Club supported the project.

Other standard features include the use of certified wood -- lumber from trees grown

and harvested in a way that ensures sustainable forests -- and sealed HVAC ducts. Among some 30 options are solar power panels on backyard trellises; bamboo flooring (a sustainable material that looks like hardwood); fiberglass entry doors; and Energy Star-rated refrigerators, dishwashers, and front-loading washing machines that also use less water.

The development opened in mid-January and the initial reaction was extremely positive, Mason said, with more than 1,000 people visiting the models during the first weekend. The first 10 homes released, priced between \$600,000 and \$800,000, sold out immediately. Mason said at press time that buyers were still choosing options but that the company was receiving positive feedback on several options, especially the solar trellises and indoor air quality features.

Beneficial in the long and short term

Forecast and Premier plan to have all future developments meet the Green Builder Standards, while Pardee plans to be completely Energy Star-compliant. Among other builders, Centex Homes is working with the Alameda County Waste Management Authority, to develop green standards, and Citation Homes recently achieved an 86 percent recycling rate at a project in Union City.

Forecast's Dwight said being on the ground floor of this growing movement will help the industry.

"We as an industry are heading in that direction. It's going to be imposed on us anyway so we might as well act first. That way, when the State is looking at new regulations, we will have pro- active experience and will be able to offer insights as to what's realistic and practical at a cost that won't damage homebuyers' chances to buy a home," he said.

Meanwhile, he said it's good for the bottom line.

"It also gives us a marketing advantage. But the most you ever get in our business is a head start. If it works, others will adopt it," he said.

BII Program Ensures Substance, Practicality

California's Green Builder effort got under way in 1999 when the Building Industry Institute, at the direction of CBIA, began work on developing standards. Mike Hodgson, a principal in ConSol, an energy consulting firm, and CBIA's energy chairman, said BII assembled a group of industry officials, experts from environmental agencies, and representatives from the environmental community to begin the tough task of cobbling together standards.

“We wanted a green building program in California, but we didn’t know what it should be,” Hodgson recalled. “All we knew is it couldn’t be ‘greenwashing’ and that we wanted to develop a program that resulted in verifiable savings.”

Energy consultant George Burmeister surveyed the largest existing green builder programs. “His conclusion was that most weren’t very successful -- they didn’t save much energy or prevent much pollution. The programs were often confusing to the builder, and not simple or clearly defined,” Hodgson recalled.

So BII decided to first focus on energy standards, which were quantifiable, environmentally friendly -- and a potential sales tool. The Community Energy Efficiency Program (CEEP) is now in place in more than 40 jurisdictions around the state. In exchange for building homes that are 15 percent more energy-efficient than the Title 24 requirements, communities agree to expedite energy-related plan checks, deliver quicker inspections, and some may reduce fees and give local recognition.

Meanwhile, the group kept meeting to flesh out a comprehensive voluntary program. Ultimately, the following protocols were adopted:

- Air Quality: Reduce air emissions by meeting the energy standards.
- Waste Recycling: Divert at least 50 percent of job-site waste from landfills to help local jurisdictions comply with State waste diversion laws. Where recycling and diversion are not available, the builder agrees to adopt the BII Waste Recycling Guidelines and work with local jurisdictions to overcome market barriers
- Water Conservation: 25 percent decrease in water use compared to typical 1980s home, using such techniques as reducing lawn area to no more than 75 percent and irrigating shrubs with a drip system.

Hodgson said the BII standards are good for everyone concerned. “George Burmeister is now working with Tom Ingram, Riverside County’s Chief Building Official, to go even further. Tom’s saying if we go green, maybe he can expedite everything (not just energy-related plan checks) because it is consistent with the wishes of his Board of Supervisors. That would really get builders’ attention,” Hodgson said.

Web links

[California Green Builder Program information](#)

[ComfortWise program](#)

[Job-site recycling information](#)

[Alameda County Waste Management Authority](#)