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CONNECTION

BUILDING SITE SYNERGY

JANUARY 2010

SUSTAINABLE "Green" CHOICES offering VALUE

A Philadelphia Case Study

article by: **Steven Gnau, MBA, LEED AP-Homes**

When Philadelphia homebuilder **Dewey Homes** anticipated the market demand for high-performance green homes, they implemented a tiered pilot home program intended to shape their new product offering through the construction of four individual new homes, each crafted to deliver a measured level of performance and sustainability.

A key project objective was the creation of "scale-able" option packages that provide measurable increased energy savings and enhanced environmental quality.

Two of these homes are expected to be the first LEED-certified production "for sale" homes in Pennsylvania. One of the homes was built to Dewey's minimum standard, Energy Star, and the fourth was built to perform at LEED levels but without the certification process.

The program was implemented mid-stream in existing communities. For that reason, we used "off-the-shelf" designs for the pilot homes, which blended in with the existing community. This approach also set up cost comparisons to previous methods of construction for like models.

Dewey chose to use Energy Star as the minimum standard to establish a base home price. We chose to enhance the base home offering with improved mechanical ventilation and LOW-VOC products such as carpet and paint not required by Energy Star but necessary to maintain good levels of indoor air quality. Energy Star by itself does not result in a well-rounded "green" home.

As a value-based builder, Dewey recognized that the demand for "fully green," LEED-certified for sale housing is limited. Dewey also holds strongly to the belief that each high performance home delivered to a customer needs to be a result of customer choice. Energy performance as a baseline. **SUSTAINABILITY as a CHOICE.**

The Energy Star Program and the LEED for Homes Program were ultimately used to craft option packages. The concept is simple: de-construct a LEED certified home into scale-able parts that can be efficiently defined, purchased and trained. Each piece is marketable – each piece addresses fully a green building science issue. In order to achieve LEED levels of sustainability, a customer would be advised to purchase a combination of the "High Performance Building Envelope," the "High Performance Energy Package" (improved heating and cooling equipment), the "Indoor Air Quality Package" and the "Water Efficiency Package." Interior fit and finish options such as recycled – content countertops are still offered individually because there are too many choices to package.

The option packages work like a ladder that starts with an upgraded building envelope. The twin objectives for this approach are understandable customer choices and scale-ability for the purchasing system. The ladder concept also provides sound buying advice based on return on investment, from bottom to top.

Welcome to "Connection"

2010

The Beginning of a New Year & a New Decade. The opportunities are infinite. Builders and Developers who seek these opportunities and make them a reality will prosper, particularly those creating niches in the market and offering real value to their customers.

Dewey Homes is one of these builders. The article in this month's Connection is written by Steven Gnau who developed a Green Building Excellence Program with Dewey Homes..

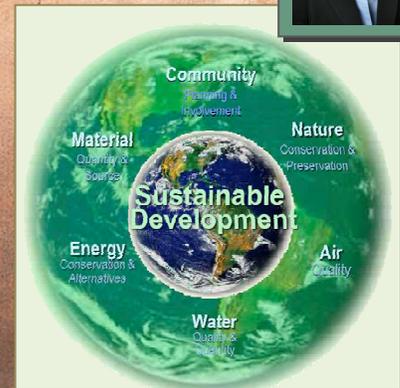
It is a truly innovative and comprehensive program which not only offers real value to the customers, but actually quantifies it. Their premise is that Sustainable "Green" features which can be more expensive can be offered as an option, a choice to the buyer.

They facilitate the buyer to weigh the options with their own lifestyle choices and values and substantiate the return on their investment. The results are amazing and clearly prove Sustainability can make a difference.

We thank Steve & Dewey Homes for their contribution. Enjoy the article,

Amy M. Martino, AIA, CAASH, LEED-AP

*May the New Year be
Healthy, Happy &
Prosperous for everyone!*



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Dewey Homes

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(Continued)

The packages are arranged in order of dollar return. Advising a customer to start with improved energy performance is sound advice. *Also, a Value proposition that has energy savings at the core is far more impactful in terms of influencing mortgage lending terms – good advice that actually affords the customer more buying power.*

Another great reason to sell a customer upgraded energy performance: THE \$2000 EPACT TAX CREDIT for builders. If the home is tested to 50% reduced heating cooling loads when the final energy testing is performed, the builder receives a \$2000 tax credit. In our case, the signed tax credit form arrives with the Energy Star certificate and test results. We know for a fact that when we sell the package, we get the credit. It's purely win – win for the customer and builder. The customer realizes lifetime energy savings and the builder profit is \$2000 plus whatever normal profit is gained through the sale of the option.

The economics of buying a home are changing rapidly. Options that increase building footprints have always created cumbersome purchasing systems and production issues. Today's complex codes and the need for increased detail in energy engineering and testing demand more resources. The savvy builder will focus more on offering a variety of complete house designs and less on the complexities of structural option management to save operational costs.

Each home design needs to carry with it a complete, predictable set of design parameters such as glazing percentage, framing layouts, energy design and footprint so that the upfront investment in engineering is intact each time a home goes into production. The sale of a home must trigger minimal levels of configuration and no new engineering whatsoever.

At the end of the day, a profitable green building program is based on the builder's ability to learn quickly using a value proposition that demonstrates REAL VALUE to the customers.



Steven Gnau, MBA, LEED AP – Homes, is an architect and management consultant to the homebuilding industry, focusing on the relationships between product, purchasing and related information systems. His role in Dewey's Green Building Excellence program included the initial analysis of existing green building programs and management of the LEED certification process, as well as authorship of the program specification and sales tools. Gnau has held executive level positions with major US homebuilders and has managed residential and commercial real estate product development in several states.

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The VALUE Choices

THE PROOF IS THE TEST RESULTS.

After building a sizeable enough group of new homes using the new program, Dewey is in a position to represent very specific levels of energy savings. The average tested Dewey Home without upgrades has a HERS Index of 65. Here's how the pilot homes, calibrated to achieve tiered performance levels, tested:

Energy Star Base Home:
29% energy savings

High Performance Home:
44% energy savings

LEED Certified Home:
46% energy savings

LEED Silver Home:
50% energy savings

On the average, the High Performance Energy Package creates approximately 13% increased energy savings over the Energy Star base house for a total of at least 42% savings. Improved insulation is a great buy!

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Building Site Synergy's "Connection" is the sharing and exchange of ideas, innovations and information for our Clients and Colleagues. It is much more than a newsletter. We welcome any contributions, ideas and insightful topics applicable to Residential, Mixed-Use, Multifamily, 50+ , Multi-generational and Sustainable Communities. MAKE THE CONNECTION.

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