

BUILDING & CONSTRUCTION

NORTHEAST

BUILDING A STRONGER REGION



**Next-Generation
Trend**

Younger, technology-focused homebuyers appear ready to embrace the benefits of today's prefabricated houses, creating opportunities for savvy contractors. *Page 10*

There aren't many good things that can be said about the housing market over the last two years, but as the industry begins to strengthen, an interesting paradigm shift is starting to occur: More and more of the components built into our homes are prefabricated. Many of these components have been pre-built for a long time – windows and doors, for instance, are no longer site-built, but are precision-built in a factory.

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Another example is roof trusses – well over half of the homes built today utilize trusses to simplify the construction process. As today's builders look to find a foothold in our fragile housing market, it is helpful to consider what homebuilding might look like in 10 years.

Today's Consumers

As we look to the future of homebuilding, it is helpful to examine the next generation of homebuyers. Technology has dramatically changed the way younger Americans do everything: how they communicate, how they read books, how they listen to music and how they spend their money.

This generation will certainly embrace similar forms of technology – not just in their daily lives, but also in the construction of their homes, as well. We now expect things to be faster and better than ever, and prefabricated homes offer the perfect match to these instant-gratification cravings.

Here's a quick analogy. Think of the last car you purchased. More than likely you did not have the car custom-built by hand, piece by piece, outside in a parking lot. No – you bought a car that was built with careful attention to detail, exacting tolerances and excellent quality control, all thanks to the advances in the car manufacturing process.

Next-Generation Trend

- Younger, technology-focused homebuyers appear ready to embrace the benefits of today's prefabricated houses, creating opportunities for savvy contractors.



The use of prefabricated components can reduce both construction time and waste.



Now think of how most homes are built. The differences are quite poignant. Many homes spend a significant amount of time exposed to the elements. Site-built homes are typically limited in the building tolerances they can achieve, and hence these homes can have a high degree of variability.

The level of quality control in the homes – while outstanding for some builders – is poor for others. This lack of consistency can make it challenging to deliver the quality of homes that today's consumer demands.

Why Now?

The recent recession in the housing market is pushing builders to reinvent themselves to continue to be relevant and successful. In its most recent top-10 list (“Ten for ’10 Ideas to Build On,” *Builder*, June 2010), the National Association of Homebuilders has predicted the top building trends for the next 10 years.

All of these trends target an aspect of green building, and factory-built homes are second on the list. The growth of the green building industry over the last several years has been remarkable, and as this industry continues to expand and refine itself, prefabricated homes will certainly play a key role.

Benefits and Drawbacks

A paradigm shift toward prefabrication is underway that will continue to change the way that homeowners see the process of building a new home. There are many different types of prefabricated or systems-built homes, from panelized homes and modular homes, to concrete and log homes.

Each system has its own specific advantages and challenges, but here are some of the key distinguishing factors that excite homeowners:

1. Durability. A factory-built home never sees the elements until it is unloaded at the jobsite. Most styles of prefab homes can be dried-in very quickly, and with some luck, the structure may never see

bad weather. Without exposure to rain, ultraviolet light, wind or snow, these structures will have a longer lifespan. The shorter construction time also reduces the chance for delays due to bad weather.

2. Waste Reduction. Comprehensive reuse and recycling is much more common with factory-built homes. Many companies produce little or no waste, reducing clutter and cost during construction. The drastic reduction in waste from the prefabricated portions can also encourage the on-site trades to work hard to do their part to reduce waste.

3. Repeatability. The factory-trained worker is an expert in his stage of the construction process. Flashing a window in a comfortable, well-lit environment offers greater consistency and precision than the site-installed window flashing that is installed via a ladder at the end of the workday.

4. Quality. From more consistent material control to checking the accuracy of each component built, the ability to monitor quality in a factory setting can far exceed that found on a jobsite.

5. Precision. Using advanced tools such as computer-aided saws and pneumatic squaring tables allows prefabricated homes to achieve high levels of precision and efficiency.

6. Speed. Once the home arrives on the jobsite, the time saved in erecting the shell can save weeks or more in the construction schedule.

7. Faster Adoption of Change. As the homebuilding industry continues to evolve rapidly, homeowners are likely to find that prefabricated homes can incorporate new technologies and products more readily into their process, avoiding the sometimes painful learning curve that often follows new ideas.

8. Cost. Many of the above factors lead to more cost-effective building solutions than traditional stick building methods. As with most things, there is a range of cost, quality and customer service that varies with the individual manufacturer.

Change is never easy in the building >>

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>> sector. So what are the key issues and roadblocks that builders should keep an eye out for?

» *More Work Up Front.* More up-front planning is required since many of the decisions that builders are used to making during construction must take place before ground is broken. This can take more communication with homeowners early on to help guide them through key milestones for their home.

Any changes made late in the process may be more costly than with a stick built home. These trends will allow leading builders with effective long-term planning to shave cost and time off their schedules.

» *Subcontractor Learning Curve.* Getting your subcontractors up to speed on new methods can be a challenge, especially when you are trying to establish a fair price. The differences for a given trade between stick-built construction and

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» *Design Parameters.* Some types of prefabricated systems will have size limitations. For example, panelized manufacturers may be more cost effective when walls are built in 4-foot increments, and modular homes are typically limited to

13-foot, nine-inch-wide modules to allow for transportation of the home.

Understanding all of these parameters early on can promote synergy in the design process.

Time to Reboot

Very few things change quickly in the homebuilding world, and until now the growth of the prefabricated home market has not been an exception. The “reboot” in the housing industry has opened the door for new ideas, and diversifying your abilities as a builder to include factory-built homes can open new opportunities for you and your customers. ☛

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