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# Competing Forecostics

PLUS,
HOW TO SWAY BUYERS TO NEW HOMES

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PERFECTING THE POST-GLOSING EXPERIENCE / 42

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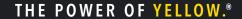






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### april

### Professional Builder Volume 75, No. 4









### Front of book

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Zero energy homes: reality or pipe dream?

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Hearth & Home Technologies reduces inventory by 90 percent with Lean manufacturing.

### HousingZone. com/PB

ON THE COVER: In 2009. 3.9 million homes foreclosed, according to RealtyTrac. That number is expected to balloon to six million homes over the next three years. Competing with foreclosures is a way of life for builders. On page 24, we talk with builders who are winning the foreclosure battle. Photo: Getty

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### Smart Urban Living

In Byers Place homes, Arcadia chose to heat exclusively with Rinnai products, including Rinnai's Direct Vent Wall Furnace, Hydronic Air Handler and Intelligent Indoor Fireplace. With zone heating, homeowners are able to control the temperature in each area to match their individual lifestyle.

In a typical two-story Byers Place home, Arcadia specified:

- a Rinnai ES22 (RHFE556) Direct Vent Wall Furnace for the basement level;
- a Rinnai RHFE750 Fireplace and ES22 (RHFE556) Wall Furnace on the main level; and
- a Rinnai Hydronic Air Handler and R94LS Tankless Water Heater on the upper level.



We want residents to feel that a home here is an investment in their quality of living — one that not only enriches their lifestyles, but also meets their desire for sustainability.

By incorporating Rinnai gas appliances in these single-family homes, Mark Bethel helped homeowners:

- reduce energy consumption;
- save money each month on their utility bills;
- do what's right for the environment, without ever sacrificing comfort or convenience;
- heat water only when needed, delivering a continuous stream of hot water to multiple demands simultaneously;
- minimize indoor heat loss with the use of a direct vent combustion system.

Learn more about the Rinnai green advantages for you and your customers.







Mark Bethel, Builder Byers Place Homes Arcadia Properties







### Professional Builder

VOL. 75 NO. 4

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Additional staff and contributors, including National Housing Quality Executive Council members, are listed on page 65.

### perspective

## **Zero-Energy Homes:** Reality or Pipe Dream?



f you're a fan of cutting-edge building technology like I am, you've probably kept close tabs on the zero-energy housing (ZEH) movement. Supported by national and regional programs like the DOE's Building America and the Northeast Sustainable Energy Association, ZEHs have been in the media spotlight for quite some time and are considered by enthusiasts to be the Holy Grail of the home-building industry.

By combining the latest high-performance design and construction techniques — such as air-leakage control — with energy-efficient materials and systems and renewable energy sources, builders have been able to create homes that produce as much energy (or even more) as they consume. In some cases, homeowners are able to sell excess energy back to their local utility.

To date, the vast majority of ZEHs have been either highly subsidized demonstration projects or ultra-lux builds for deep-pocketed clients — certainly not a product that's ripe for today's cost-conscious consumers. However, we're starting to see signs that the ZEH movement is slowly inching closer to Main Street.

First, the sheer number of net-zero and near-net-zero projects in the U.S. has skyrocketed in the past few years, especially in areas where green homes are in high demand, such as Seattle, San Francisco and Boulder, Colo., says David Johnston, founder of Boulder-based green-building consulting firm What's Working and co-author of *Toward a Zero Energy Home: A Complete Guide to Energy Self-Sufficiency at Home* (Taunton, 2010).

"In Boulder alone, we have over 400 zero or near-zero homes built, under construction or permitted," says Johnston, who also heads up GreenBuilding.com. "We're seeing an increase in the number of projects from both the top down — homes in the 4,000- to 5,000-square-foot range — and the bottom up, with affordable housing projects on the low end."

Johnston says the cost premium for going net-zero is also coming down as builders master the process, subsidies and incentives become more prevalent and costs for renewable and energy-efficient technologies drop. "I know of several zero-energy projects built for less than \$100 a square foot," he says.

I'm not advocating that all builders jump into the zero-energy home business tomorrow. Just don't be surprised if a competitor makes a bold play in this arena some time in the not-too-distant future. After all, just think of the marketing advantage a net-zero home builder, who is price-competitive, would have over the competition.

David Barista, *Editor-in-Chief* dbarista@reedbusiness.com



### letters

### Fired up about **home sprinkler systems**

Your recent article on home sprinkler systems (January 2010, page 75) leaves some unanswered statistical questions. You alluded to homes equipped with and without sprinkler systems. The true data should include homes without fire alarms, homes with battery-powered fire alarms and homes with hard-wired fire alarms, as well as the age of homes and the construction materials used.

Statistics, like many other things, can be manipulated to favor whichever side of the issue you want it to show. Adding the considerations mentioned above to your report may show that 100 percent of the fire deaths occurred in homes with no working fire alarms, or that the homes were of older construction which allowed for rapid propagation of the fire and smoke. I would imagine the ratio of sprinklered to non-sprinklered is so great that no true statistical values can be generated.

I spent 27 years studying fires and explosions. I'm now retired and the owner of a construction company. Although sprinkler systems would be nice, my clients are not willing to pay the extra cost of installing them, and appraisers will be unlikely to increase home value due to their installation. Case in point: We get no credit for ground fault interrupters (GFI) or arc fault breakers in-



stalled in our homes. Home inspectors will do their usual thing and scare homeowners to death over this issue, even though they don't have sprinkler systems installed in their own homes.

The International Code Council is not a branch of the government — merely a committee of people who have not been elected by the citizens of this country, but are now trying to tell the citizens what they must do with their own homes. Doesn't anybody see a problem with this? I'd like the word "mandatory" to be changed to "should." This will allow the people to decide how they want their houses built.

### Mike Steorts

Steorts Homebuilders LLC Hurricane, W.Va.

### Al Gore and low green-home appraisals

As a Certified Residential Appraiser and a part-time builder, I must take exception to your editorial comments concerning "fighting" low green appraisals (February 2010, page 7).

First, there is no such thing as a "green-home appraisal." Since all appraisers are highly regulated and must follow very strict guidelines in preparing and reporting residential appraisals, I would recommend you spend some time with a CRA (Certified Residential Appraiser) and try to gain a better understanding of the appraisal process and reporting procedures.

Second, as the global warming hoax continues to blow up, the market will continue to resist meaningless marketing terms such as sustainable and green. By the way, money, or in this case, cost, is merely a reflection of the energy requirements for a particular product or home. It is contradictory (and the market recognizes it as a little silly) to claim a home or product is sustainable or green when it requires more energy (and cost) to produce, and even with tax subsidies will seldom conserve energy in the long term (we could discuss energy location, production, transmission, efficiency, etc.).

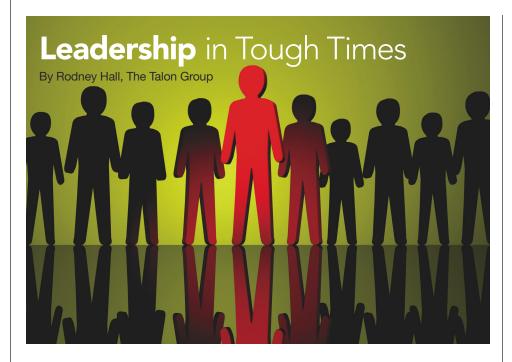
In addition, if your magazine really supports sustainable, green-building approaches, why do most features involve homes that are far larger with products and materials that are far more expensive than would be considered reasonable and actually conserving resources? You aren't suffering a little bit of the Al Gore (do as I say, not as I do) problem, are you?

Appraisers merely report what the market is willing to pay for comparable properties, with or without "green" features, and, in this case, cost seldom reflects market-derived value. Your suggestion to "select" your appraiser and to try and influence a particular "green value," is in violation of USPAP (Uniform Standard Professional Appraisal Practice) and could land you and the appraiser in jail for violating federal law.

As a long-time reader (long before you became editor), I have appreciated *Professional Builder* for keeping me informed of products, materials and building ideas. I hope you can continue to provide similar service in the future.

### Rod Tovey Certified Residential Appraiser Pocatello, Idaho

### bestoftheblogs)



he burden of the economic recovery extends beyond unemployment statistics, business failures and the financial markets. It forces us to modify our behavior on several fronts, personally and professionally. How it impacts the leadership role was a topic of a recent Urban Land Institute roundtable discussion. Here are the highlights:

### Communication is king

- 1. It's not enough to simply communicate with your team. For maximum effectiveness, increase the frequency of communication. This goes a long way toward curbing speculation and helping team members stay focused.
- 2. Withholding relevant information leads to speculation, rumors and hearsay. If bad news lands on the doorstep, better to share it than not.
  - 3. Share what needs to

be shared, but don't over-inform. People deserve to hear the truth, but not beyond the facts that pertain to them.

- 4. Take internal audits to gauge team members' state of mind: What are they feeling? What are their needs? What can you do to support them?
- **5.** It's perfectly fine to not have answers to every question or comment. Listening is the first step to being an effective leader, and probably the most difficult for people in leadership.

### Model the behavior you want to see in others

- 1. Demonstrate dedication by pitching in outside your normal range of duties, going the extra mile, and doing "whatever it takes."
- 2. You don't have to be the first to arrive and the last to leave every day, just make sure you're not a LIFO—last in, first out.
- **3.** Remember, nothing kills morale more than a

leader labeled as "Do as I say, not as I do."

### Engage the team

The ability to adapt to changing environments or market demands is critical to the success of any business. The same is true of the people on your team. Help them break free from the routine by encouraging feedback. Follow these three steps:

- **1.** Make certain everyone understands the basics and is pursuing those standards consistently.
- **2.** Keep everyone focused daily on the work at hand. This helps minimize distractions, gossip and needless speculation.
- **3.** Ask for input, ideas and feedback, and then try some of them. Celebrate the successes, no matter how small the impact. In times like these, your team needs all the wins it can get.

Read more posts by Rodney Hall at www.HousingZone. com/Blogs.

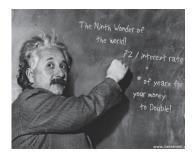
### The Miracle of Compound Interest

By Charlie Scott, Woodland, O'Brien & Scott

ccording to Wikipedia.
com, "compound
interest" arises when
interest is added to
the principal, so that from that
moment on, the interest that
has been added also itself
earns interest.

Customer satisfaction has a similar compounding effect on customer referral sales. The problem is, most businesses don't think about their current customers in a "compounding" comparison; too many are focused on short-term results, solutions and returns. These companies seem to gravitate to simple interest returns while viewing a compound interest formula as too much short-term hassle for its short-term return.

In our recent study, we



found that top-performing home-building companies over time — saw significant returns on their prior customer care and referral sales strategies. We saw builders with "customer referral sales" rates of 50 percent of total sales compared to the industry average of 11 percent. They grew their customercentric culture by including customer-care metrics into their management dashboard and focused on continuous improvement in satisfaction.

Read more posts by Charlie Scott at www.HousingZone. com/Blogs.





### Boomers Stay Put in **Growing Numbers**

By Susan Bady, Senior Editor



he baby boomers are at it again. As they get older, retired or not, they'll be increasingly inclined to stay where they are rather than depart for sunny climes and golf courses. According to a story in the March issue of the AARP Bulletin, the 2010 U.S. Census will show that the number of older Americans (and the median age overall) has increased significantly. The first boomers will turn 65 next year, and quite a few are electing to age in place.

The trend isn't new, of course. Boomers (my genera-

tion) aren't typically attracted to the Sun City retirement model. And as they enter their late fifties and early sixties, they've become even more anchored to the homes and communities they know best. They've established careers, raised children, made friends and are often faced with caring for elderly parents—in the same town and often the same house. Once you put down those roots, it's hard to start over again.

About a month ago, William Frey, a demographer with the Brookings Institution, wrote an interesting

article called "Five Myths About the 2010 Census and the U.S. Population." One of the myths is that the U.S. is getting uniformly older. Frey agrees that over the next 20 years we'll see a surge in senior citizens, but different parts of the country will be aging at different rates. That's because the child population has declined in some states and increased in others. Census projections for 2020 showed median ages over 40 in Maine, West Virginia and Pennsylvania, compared with below 36 in Utah, Texas, Georgia and California. Frey predicts that the young-old regional divide could intensify over time.

So what does this mean for home builders? Well, it certainly reinforces the adage about real estate being local, and supports the need to do market research.

Read more posts by Susan Bady at www.HousingZone. com/Blogs.

# Business BUARE Big to financials: The youngest BUSINESS EVALE The youngest BUSINESS The youngest BUSINESS The youngest BUSINESS

### The Reverse Angie's List

By Nick Bajzek, Products Editor

here are a number of services out there that serve as clearing houses for consumer complaints—Angie's List being among the most prominent. Needless to say, you don't want your firm to be bad-mouthed in that sort of forum. But what if you had a way of reporting troublesome clients? What if someone stiffed you on a job—would you call them out digitally?

There's a new site that lets vou do just that. It's called BusinessBeware.biz. The site, which charges a one-time \$5 registration fee, claims this service is particularly keen on getting consumers to settle the dispute with you before you move to a collections agency or small claims. They say, "Try using our site before using a collection agency! Seriously, when customers won't respond to your overdue invoice notice, file a complaint about them on our site and we send a letter to them letting them know that they are on our site. And believe it or not, most send the check within the week!"

It's an interesting idea, but I'm wondering if making a move like this can do your firm more harm than good by airing the proverbial dirty laundry in such an open forum.

Read more posts by Nick Bajzek at www.HousingZone. com/Blogs.

### Redefining the Supply Chain

By Glenn Singer, Builder Partnerships, LLC

The standard definition of the building material supply chain goes something like this: Raw material manufacturer > Building material manufacturer > Distributor

- > Contractor > Builder. The supply chain can be expanded to include key influencers who are code officials, utilities, lenders, architects and state and local HBAs. Let's look at a few of these and I will explain what I mean.
- Code officials—Many manufacturers focus on state and local code officials by educating them on the proper installation of their products, as well as providing building science education—all in an effort to minimize field issues.
- Lenders—A manufacturer can get ahead of its competition by learning of new projects early in the game by developing relationships with key lenders.
- Architects It is important to identify architects who have key builder clients as they can influence builders in determining which products to specify. Read more posts by Glenn Singer at www.HousingZone.com/Blogs.

### bestoftheblogs)

### The Secret Ingredient

By Chip Pennington, Shea Homes

'hy would anyone want to read my thoughts on new-home builder customer satisfaction, I asked myself. Facing the prospect of penning this blog, I wondered what kind of wisdom I could impart when I try to abide by such a simple customer service philosophy. Transcribed, the clergy may call it "the golden rule." Some may think of it as karma. On television, it was commonly the even-keeled advice from Ward Cleaver. In the cinema. it is a Spike Lee movie featuring Mookie and Sal. Whatever context it may take, it's the guiding principle I follow in making customer-based decisions: "Do the right thing." That's the secret ingredient.

Read all the customer satisfaction books. Decipher the J.D. Power research. Meet with our friends at Avid Ratings or Woodland, O'Brien and Scott. They'll all tell you the same thing: If you do the right thing your customers will be satisfied. It's that easy. And it's that hard.

- **1.** How do you know what is the "right" thing for your organization?
- **2.** How do you know how "right" your thing is?
- **3.** Do you have the right team to be "right?"
- **4.** Does your team fully understand what is "right?"
- **5.** How many roadblocks stand in your team's way to what is "right?"
- **6.** How do you react when your "right" and the custom-



er's "right" don't match?

- **7.** Is the customer always "right?"
- **8.** Is yesterday's "right" tomorrow's "right?"

Can your organization answer those tough questions? If not, maybe burying yourself in some of that J.D. Power research or stocking up on the latest from the business section at Borders might not be such a bad idea.

Read more posts by Chip Pennington at www.HousingZone.com/Blogs.



### ASLA Survey Indicates Rising Interest in Sustainable Landscaping

By Susan Bady, Senior Editor

recent survey by the American Society of **Landscape Architects** indicates that low-maintenance landscaping will be a big trend this year. According to the residential landscape architects who were surveyed. there will also be an increase in demand for drip/water-efficient irrigation; native/adapted drought-tolerant plants; and less lawn. Fountains/water features and food/vegetable gardens also ranked high on the list of popular features.

Low-maintenance landscaping seems like a no-brainer. Most of us don't want to spend any more time than necessary planting, fertilizing, weeding and mowing. But I was glad to see that sustainable practices such as water-efficient irrigation, native plants and smaller lawns are increasing in popularity. If more home buyers really are jumping onto that bandwagon, builders are going to have to be knowledgeable about the latest techniques, products and materials and be able to source whatever the customer wants.

Read more posts by Susan Bady at www.HousingZone. com/Blogs.

### Don't Be Afraid to Look at Numbers

By Jeff Hunt, Brothers Strong

I'm a numbers guy — I love 'em. They can be exciting, frustrating, insightful and depressing. One of my favorite set of numbers to review every quarter is a variance analysis of our estimates vs. actual job costs. In order to get maximum benefit out of the data, we take several "cuts" across the numbers. One such cut is by job type — kitchens, bathrooms, additions, whole house, etc. Another cut is by job size, where we aggregate the job costs into various "buckets" according to project size. We also analyze the numbers by project manager and by salesman.

At the conclusion of each project, during the project de-brief or autopsy, we pull together all the subjective comments from sales and production. That is to say, we try to qualify any specific circumstances that may help to explain whatever variances (positive or negative) exist. This helps us use the data more effectively when it is looked at historically.

The analysis can be quite surprising. For instance, we thought we were solid on large room additions. These are my favorite types of projects—lots of heavy lifting, framing challenges and so forth. Likewise, I have never been a huge fan of bathroom projects. Why sell a little \$50k bathroom when you can sell a \$100k addition?

Well, the numbers told a different story, namely that our financial performance on room additions was significantly lower than on bathrooms. In rooting around for an explanation, we uncovered many contributing factors that we then set about to improve on our room additions. In the meantime, we pursued any and all bathroom leads with much more zest than in the past. So don't be afraid to sit down and spend the time aggregating and analyzing your numbers. It can be some of the most productive time you will ever spend as a business owner! Read more posts by Jeff Hunt at www.HousingZone.com/Blogs.

## INSPIRATION

STARTS HERE



### exclusive research

[ SOCIAL MEDIA SURVEY ]

## Home Builders Not Sold on the **Power of Social Media**

Facebook, Linkedln, YouTube and Twitter have become hugely popular among the masses. But most home builders remain leery of social media tools for marketing and selling homes, according to new research by *Professional Builder*.

By David Barista, Editor-in-Chief

### 

### Methodology

The survey was distributed on March 16, 2010, to a random sample of 9,338 Professional Builder readers. A reminder was deployed on Mar. 19. No incentive was offered. By the closing date of Mar. 23, a total of 389 eligible readers had responded, for a net response rate of 4.2 percent.

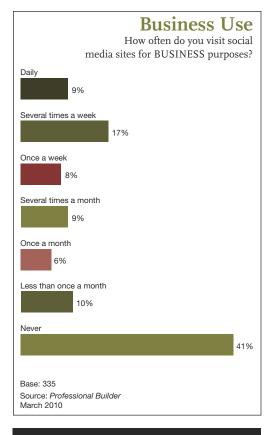
ith a collective following of well over 500 million users, social media Web sites like Facebook, LinkedIn, You-Tube and Twitter have become powerful marketing and networking tools for all types of consumer-driven businesses. Southwest Airlines, Sony, Aflac, Coca-Cola, Sears and Electronic Arts are among the major corporations that have turned to social media to help strengthen their brands, network with their core market demographic and market their products and services.

These companies are not alone. In fact, the social media adoption rate among the nation's largest private companies has surpassed the 90 percent plateau, according to a study of *Inc.* magazine's "Inc. 500" list by the Center for Marketing Research at the University of Massachusetts, Dartmouth.

By contrast, the home-building community remains largely reluctant to adopt social media tools for their businesses, according to a March 2010 survey by *Professional Builder*. Just 59 percent of builders said they currently use social media Web sites for business purposes, and a paltry 26 percent said they visit these sites more than once a week.

When it comes to selling homes using social media, the sentiment among home builders is that these tools provide little or no value for their sales and marketing team. Just 24 percent of respondents agree that social media sites are critical tools for marketing and selling homes, and only 29 percent agree that these tools are important for building the company's brand.

As one respondent put it, "We feel that social

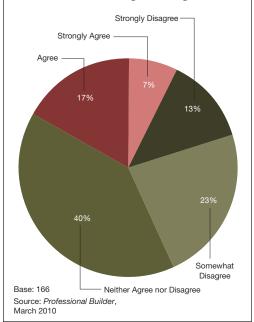


JUST 59 PERCENT of builders said they use social media Web sites for business purposes, and a paltry 26 percent said they visit these sites more than once a week.

media is important, but we're unsure of how much impact it actually has on our sales. Everyone talks about it, but Web site presence still seems to have more impact."

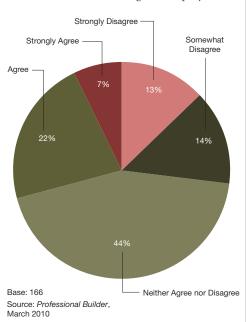
### Using Social Media To Sell Homes

Please indicate the extent to which you agree or disagree with this statement: "Social media sites are critical tools for marketing and selling our homes."



### Using Social Media To Build A Brand

Please indicate the extent to which you agree or disagree with this statement: "Social media sites are critical tools for building our company brand."



ONLY 29 PERCENT of builders agree that social media tools are important for building the company's brand.

WHEN IT COMES to selling homes using social media, the sentiment among builders is that these tools provide little or no value for their sales and marketing team. Just 24 percent of respondents agree that social media sites are critical for marketing and selling homes.

"We recognize the benefits of branding, but social media takes too much time away from core business activities," said another builder respondent. "It's an expense that is not needed to boost business."

Other respondents said they simply don't see the value of social media tools in a business that is so referral-driven and face to face. "In the markets we serve, social media is not a big deal. I can get more accomplished on the golf course than on Facebook," said one respondent. Another builder echoed this sentiment: "So far, I can't see the value. It's a lot of time spent online talking to and connecting with non-clients."

Of course, social media does have its proponents among the home-building community. In particular, these builders are using social media sites as a tool to help boost a specific component



For communicating with peers and colleagues (business-to-business)

for BUSINESS purposes?

40%

For marketing to clients and prospects

Base: 166

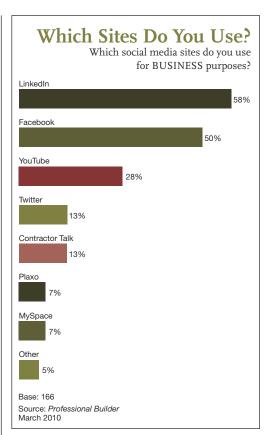
March 2010

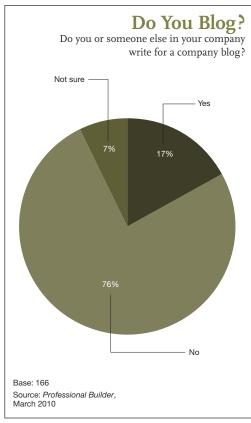
Source: Professional Builder,

TWO-THIRDS of respondents said they use social media sites to keep in touch with peers and colleagues, while about half use these tools to stay informed about product manufacturers and suppliers.

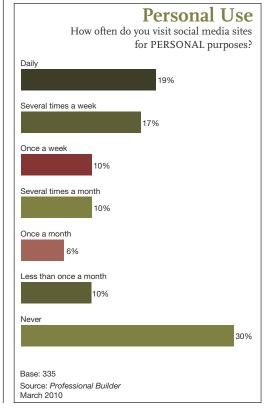
### exclusive research

AMONG THE SOCIAL
MEDIA WEB SITES home
builders are using for
business, LinkedIn and
Facebook are by far the
most popular. Well more
than half of respondents
(58 percent) said they
use LinkedIn, while 50
percent use Facebook.





WHILE 70 PERCENT OF RESPONDENTS said they currently use social media sites for personal purposes, just 36 percent check their accounts more than once a week.



JUST 17 PERCENT of respondents said they or someone at their company currently blogs. But those who do blog said they're seeing payoffs for their efforts by reaching new clients and staying connected with existing customers.

of their business, such as customer service. One respondent stated: "Social media, especially Twitter, is a good channel for customer service issues. Our customers frequently ask questions and initiate conversations via Facebook and Twitter. These sites are actually driving about 8 percent of the traffic to my Web site. This is without a specific social media marketing plan."

Other builders are having success using social media tools to help build and maintain relationships. "Social media is a great way for my company to keep in touch with our customers on a more personal level," said a builder respondent. "This helps us develop stronger personal relationships. Relationships sell homes for me!"

Of the small number of builders who are blogging—just 17 percent of respondents said they or someone at their company currently



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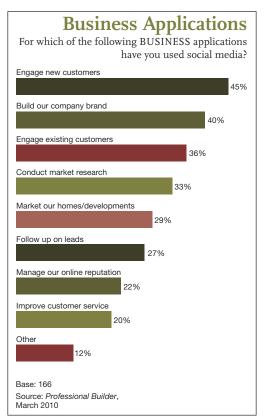
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### exclusive research

connecting with new and existing customers and brand building are the top business reasons for using social media, according to respondents.



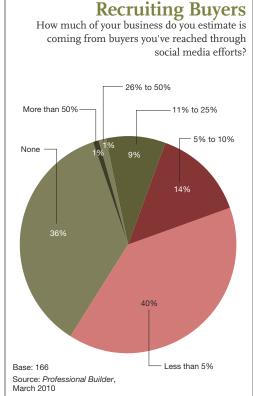
blogs—some are seeing payoffs for their efforts. "Social media does several things for my design/build firm: it qualifies me as an expert through blogs; it keeps clients and potential customers engaged by being able to research ideas from our blogs; and it keeps existing clients engaged with their projects by using social media to bring critical project information to them via social media, in real time."

Among the social media Web sites home builders are using for business, LinkedIn and Facebook are by far the most popular. Well more than

half of respondents (58 percent) said they use LinkedIn, while 50 percent use Facebook, followed by YouTube (28 percent), Twitter and Contractor

Talk (both 13 percent) and Plaxo (7 percent).

MySpace—the once-dominate social media networking site—is used by just 7 percent of respondents. This speaks to the challenges of keeping up with the ever-changing world of social media and finding time to maintain



HOME BUILDERS ARE FINDING very few buyers through social media sites. Just 10 percent of respondents said they're getting a significant chunk of their business (more than 10 percent of home sales) from buyers they've reached through social media.

numerous accounts. Even builders that are big believers of social media admit they struggle to stay on top of the latest Web sites and tools. "As a small home builder it is tough to keep up with all the different social media sites," said one builder. "The challenge is determining which sites to stay linked to."

There's also the issue of control, or lack thereof, especially when it comes to maintaining a company's reputation online. "With social media, it's so easy for naysayers and competitors to put half-truths and out-and-out lies online, and many people believe them," said one respondent. Another builder agreed: "I believe it is another source to use with caution, as it would not be too difficult to have your reputation ruined by one very disgruntled client." **PB** 

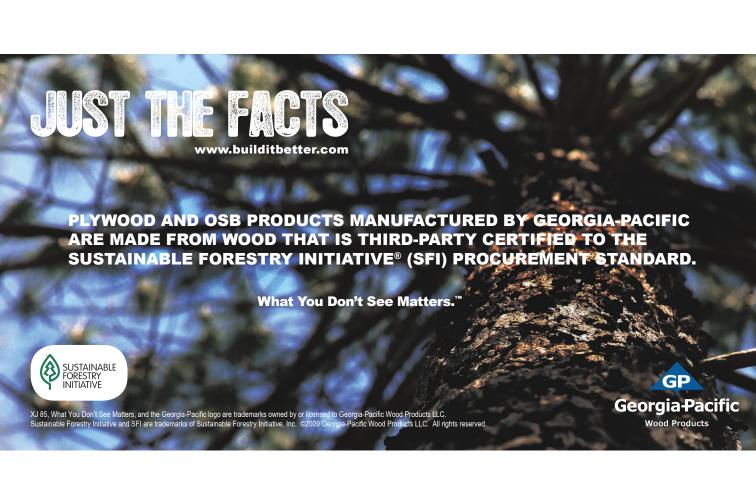
Professional Builder / April 2010

"Everyone talks about social media, but

Web site presence still seems to have

more impact." — Builder respondent







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### lean building forum

### Hearth & Home Cuts Inventory 90% With Lean Manufacturing

Scott Sedam hosts the Lean Building Forum on Housing Zone.com/Lean, where each month he interviews those who are implementing the principles of Lean operations in home building. This month, Sedam talks with Brad Determan, president of Hearth & Home Technologies, about how Lean has helped radically transform the company. This is a highly abbreviated transcript. For the complete transcript and audio interview, visit www.HousingZone.com/Lean.

By Scott Sedam, Contributing Editor

**Scott Sedam:** The first three months on the Lean Building Forum we spoke with home builders, so we thought it was time to bring in a supplier — one that's truly made a name for itself in Lean implementation. Today we are talking with Brad Determan, president of Hearth & Home Technologies, makers of the well-known Heatilator and Heat & Glo brands, among others. Welcome, Brad, to the Lean Building Forum.

**Brad Determan:** Thank you, Scott.

**SS**: Hearth & Home Technologies (HHT) has won the Shingo Prize for Excellence in Manufacturing for both of your plants and your Fireside Hearth & Home distribution operation won the National Housing Quality Award. There is no other building industry

firm more vested in Lean methodology than HHT. How did you and the company become proponents of Lean methodology?

BD: I began working with Lean in the mid-1980s at Electrolux. I was brought in as the change-maker for Heat & Glo in 1985, and one thing that attracted our parent, HNI, to Heat & Glo was that we had already begun our Lean journey, so it was a good fit.

### SS: How did your own thinking evolve during those early years?

**BD:** I grew up running factories, and when you ask a guy who runs a factory that isn't Lean, the first thing he'll tell you is, "I have a million square feet, 3,000 people and I do X dollars worth of business." A badge of pride in those days was how big it was and how many people worked there, not how efficient it was and how many people worked there given the revenue. Lean completely changes your perspective.

### SS: I visited your Lake City, Minn., plant and found the people to have an almost obsessive focus on Lean. How do you take 350 "everyday people" and turn them into Lean zealots?

BD: In the early days of Heat & Glo, I described Lean differently than what you often hear, which is a set of tools or processes. I presented Lean to the organization as a new way of working together. It's a much broader context than tools and processes. It's a mindset and a

### This month's Lean Building Forum guest

BRAD DETERMAN is an executive vice president with HNI Corp., the second-largest office furniture manufacturer in the world and a leading manufacturer of gas- and woodburning fireplaces. Determan is also president of HNI's Hearth & Home Technologies operating company and leads HNI's Business **Process Improvement System for driving** Lean operations throughout the corporation. Prior to joining HNI, Determan was a group VP for Electrolux AB, with responsibility for multiple business units in North America. Determan has an

attended the Harvard Advanced Management Program.



MBA and a bachelor's degree in industrial engineering, and has

way for us to all work together for the common good and betterment of the organization and our customers.

### **SS:** Did you conduct any special training?

**BD:** In the early years, we laid in the training, the tools and the event structure — the classic architecture on how to make a Lean transition go. There's much more dialogue today about how to broaden it beyond the shop floor into the administrative side of the business and both upstream and downstream in the value chain. Now that is the minimum ticket to the game. We either broaden our Lean thinking and processes to the entire business or we're stopping way short of its full potential.

**SS:** Being in your plants is a unique experience. Tell us about them and what someone would look for that's different from what you'd see in a typical manufacturing plant.

**BD:** First you look for strong physical discipline. Many call that 5S (5S is a Lean tool that stands for sort, set in order, shine, standardize, sustain), but whatever you call it, you'll quickly notice an orderly workplace. Second, you'll see visual management techniques that will, even as a lay person, give you a grasp on how well things are running. You'll notice a lot of engagement, conferencing, a lot of rapid activity. A piece of equipment changeover will look like an Indy 500 pit stop. You will see the flow, which direction things move, how things transform from, in our case, a flat piece of steel into something that has a form and becomes a fireplace by the time it gets two or three hours into the operation.

SS: The Lean culture was evident everywhere. People were eager to tell their story, wanting me to understand what they're doing and how it's helping. Several said to me, "You know if we hadn't been doing this our plant would probably be in another country."

**BD:** I'm gratified to hear that.

SS: At Lake City, your plant manager said, "Scott, we've been doing this for so many years, I think this is just the way things work, but you're looking from the outside. How would you describe our people?" My response became a slide I always use now in Lean build-

ing. I said, "You have created a culture of 350 obsessed people with an eye for and a total intolerance for waste of any kind." He replied, "That's us!"

**BD:** I recall when our target was one implementable idea from each member each year, and now we think in terms of a dozen or more. So, if they have that idea of laundering protective sleeves versus using disposable ones to save \$70K, how to redesign our shipping pallets to save \$100K, or just save another 15 seconds on a product changeover, they bring that to the table.

### **SS:** How about an example of a significant improvement outside the factory?

BD: Our Fireside Hearth & Home division is a vertical business model with 27 distribution outlets and four regional distribution centers. After a lot of work, we now have the very leanest model in value chain delivery, but the product's got to be there. The concept we use is "kitting," which is the selection, packaging and delivery of unassembled parts, with the goal of minimizing production and installation time. We are kitting to a distribution location and then cross-tracking it versus having a distribution location stock everything and having to do the kitting from there. It works very well.

### **SS:** Was the transition difficult?

**BD:** In distribution you find the same attitude as in manufacturing: "My warehouse is 25,000 square feet and I have a million dollars worth of inventory." We've broken that pattern

Scott Sedam hosts the Lean **Building Forum** on HousingZone. com/Lean, where each month he interviews those who are implementing the principles of Lean operations in home building. For the complete transcript and audio of the interviews, visit www. HousingZone. com/Lean. Contact Sedam at scott@truen.com.



### 5 Tips for Adopting Lean Principles, from Brad Determan of Hearth & Home

- 1. In manufacturing and distribution it used to be, "How big is it, how much inventory do you have and how many people work there?" Now it's, "How efficient is it, how little inventory can you operate with and how much revenue do you have given the number of people?"
- 2. Broaden your Lean thinking and processes to the entire business or you're stopping way short of its full potential.
- 3. There are four things you should observe in any operation that is practicing Lean: physical discipline, visual management techniques, people that are engaged and hustling, and flow.
- 4. You have to be a best total cost buying company, not a lowest price buying company. Many understand this intellectually, but practicing it is a major business transformation.
- 5. Go to your suppliers and ask the simple question, "How can we be easier to do business with?"

### lean building forum



THE FIRESIDE HEARTH & HOME warehouse that services Minnesota successfully reduced its daily inventory from \$1 million to approximately \$50,000 to \$60,000 per day. Trucks bring inventory daily, delivering only what is needed for the next day's installations. The inventory is placed into yellow-outlined "day rows," which are assigned to individual installers. The rows hold only the inventory needed for the next day's installations. When the installer returns to the warehouse, any excess piping and materials are placed in the gray bins for tracking and restocking. *Photo: HNI* 

HEARTHG HE ME TELEVISION TO THE PROPERTY OF TH

HEARTH & HOME facilities in Lake City, Minn., and Mt. Pleasant, lowa, were awarded the coveted Shingo Prize for Operational Excellence for Lean business practices in 2005 and 2006. *Photo: HNI*  and have taken out 90 percent of the inventory in the last 24 months. We've improved our "complete to promise" to the builders by about 15 points. We've gone from the low 80s to the upper 90s in delivery on time and 10 percent of the inventory!

SS: That's huge savings. A builder last week told me he had cut his WIP by 50 percent in the last three years and he's doing the same number of units as three years ago. Ironically, he said that if not for this downturn and being pushed on Lean, he'd have never gotten around to it. How about an internal example?

**BD:** Our accounting group has done a nice job of identifying quality, delivery, cost and safety metrics to help improve their process. They've cut throughput time, cut the cost of the invoice and increased first-time yield where invoices don't fall out of the system because they don't match up with POs.

SS: One of your guys, Tim Rethlake, was down south last week talking to your customers about how Hearth & Home Technologies can be easier to do business with. You are clearly not making the mistake of just focusing internally, but continually bringing the customer feedback into the process.

**BD:** Absolutely. Right now we have 19 teams meeting with 49 customers gather-

ing information on customer experience. This industry will never again look like it did in 2006. It is reshaping itself, and we must reshape ourselves to meet it, yet Hearth & Home Technologies doesn't have a solid identity in the marketplace. We woke up and said, "Hey, we really need to better understand how our customers feel about our whole company, not just one of our brands." I was with four customers last week asking simple questions like, "What is it we do that makes it easy for you to do business with us? What is it we do that makes it difficult to do business with us?" That provokes an honest dialogue that yields fascinating opportunities.

SS: Give us an example from those meetings. BD: Our dealers don't like our new price book. We rebuilt it a year ago and we muffed it. We made it harder for them to price the product, and they all told us that. So we're going back to fix it.

### **SS:** How did you bring your suppliers on board?

**BD:** We have a comprehensive supplier management system where we monitor their performance. Part of how they're scored is willingness to participate in waste elimination and improvement, and the vast majority of them are eager to do that. But said the simplest way, we are a *best total cost* buying company; we are not a *price* buying company. Intellectually, anybody who reads this will understand that point. To actually administrate and run your business that way is a much different challenge. For a purchasing agent to pay an extra dollar for a widget because of the other things that company can do to lower the total cost structure of

how that widget is applied is a major transformation in the thought process of purchasing. You'd hope it's not a problem in the senior leadership of the company.

SS: That's ironic, because I often meet purchasing agents, managers and directors who really do get total cost, but more often than not they are hindered by senior management. Senior management doesn't get it and thus demands, "Give me the lowest roofing price per square, period!" or "I want the lowest price on framing per square foot, period!" I have to tell the purchasing managers that their problem is they don't have the total cost measurements they need to make their point about total cost.

**BD:** That's a fair comment, and it is a burden on companies like ours in the supply base to help provide that data. We have to be on time, have fewer callbacks, and point out where the value is in the equation to create a total cost picture. Without the data, you're going to default to price alone.

### SS: So what's next for Hearth & Home Technologies?

**BD:** We've been at this for 15 years now as Hearth & Home. HNI has been doing it for 20 years and I have been implementing Lean for 25 years. Yet, if you ask me where we are on a scale of learning from 1 to 100, I'd say a 30, at best. Although we feel better than ever about our core capabilities, like everyone in the housing industry, it's been a painful few years.

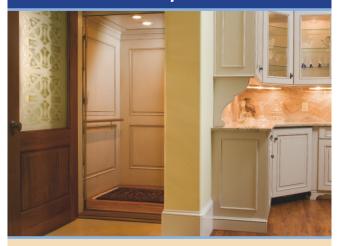
We have so much to do in strategic deployment and that will keep us focused on those breakthrough initiatives while we maintain our day-to-day Lean efforts. At the heart of strategic deployment are 140 people on 15 teams that are driving alignment and cross-functional resource allocation as we focus on three primary goals: back to growth, managing down our cost structure and improving customer satisfaction. We're only six months into this interesting and powerful process, but we're feeling very good about the downstream outcomes.

SS: Those goals would be shared by at least 90 percent of the readers, but the difference with Hearth & Home Technologies is that your Lean processes are integral to everything you do. Lean isn't a program, an event or something you do when you have time. It's your life at HHT, it's the culture and really quite remarkable in that regard.

Brad, you've been very helpful today, and as our first supplier participant I think we'll have many readers ask to hear from more manufacturers and suppliers. Brad told me earlier he would welcome any team who wants to visit one of his plants, see the process firsthand and learn the applications to home building. If you'd like to pursue that, simply drop me an email and I will forward it to the folks at HHT. Brad, thanks for talking with us today on the Lean Building Forum. PB



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### Beat Foreclosures

Price is important, but there are other strategies that will give home builders a competitive edge.

By Pat Curry, Contributing Editor

hen *USA Today* decided to report on the foreclosure crisis, they looked for one neighborhood to show just how bad it had gotten. That neighborhood was Oakwood Homes' Green Valley Ranch, a masterplanned community of more than 7,400 homes in Denver. When the story ran in April 2008, lenders had taken action on 919 homeowners in Green Valley Ranch, according to the article. Oakwood CEO Pat Hamill was quoted in the story, in *Time* magazine and on the NBC national news.

"It was just terrible," Hamill says. "It was very difficult to sell a home."

The need for a successful strategy to compete against foreclosures is clear. From January 2008 to January 2010, the median price of a new house has dropped almost \$29,000, according to the National Association of Home Builders.

"Foreclosures are keeping prices down in some areas, making it very difficult for builders







### Tips for Competing Against Foreclosures

- Shop foreclosures as your competition. List the pros and cons of their properties and yours, and have them ready when customers present them as an objection to buying your home. Make sure customers know the true cost of buying a foreclosure.
- Survey prospective buyers to determine a competitive price point.
- Critically assess your current plans and processes to drive out cost.
- Identify your benefits (warranties, incentives, choice, energy savings, etc.) and communicate those to all prospective buyers.
- Track foreclosures and bank-owned properties in your communities.
- Keep an eye out for properties that aren't being maintained.
   Take over lawn care if necessary.
- Communicate with your current homeowners. Enlist their help in keeping communities looking good.





to compete when their prices are fixed with costs of materials and labor," says David Crowe, NAHB chief economist. "Those have come down a little, but not enough in some places to compete with distressed sales."

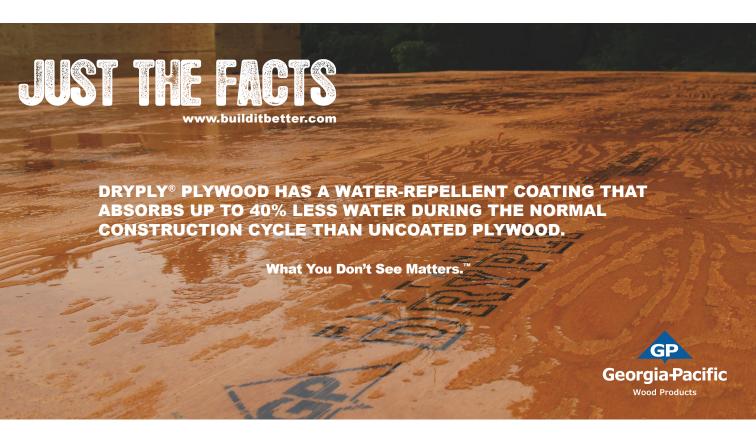
### A problem that won't go away

The practice of using foreclosures as comparables in appraising the value of new homes for sale is putting further pressure on pricing. And the impact doesn't seem likely to lessen any time soon. According to the most recent delinquency survey by the Mortgage Bankers Association, the combined percentage of loans in foreclosure or one payment past due in the fourth quarter of 2009 was 15.02 percent on a non-seasonally adjusted basis, the highest ever recorded in the survey. The percentage of loans 90 days or more past due set new record highs, the MBA reported.

"Government programs aren't working all that well to keep people in their houses," Crowe notes. "While I give them credit for trying, the re-default rate shows that even the relatively few numbers that are getting through the gateway are falling apart again. The foreclosure inventory will continue to be fed as long as there's high unemployment, and we'll probably have that through most of 2010."

Builders have addressed the problem from every possible angle: buying distressed lots to reduce land costs; retooling their products and processes to eliminate waste and increase value; educating buyers on the realities and costs of buying a foreclosure; and even shifting their operations to new, lessimpacted markets until their own markets show signs of recovery.

To that end, we present five creative approaches that builders are using to compete with foreclosures in their markets.





### 1. Shortening closing time

With the glut of foreclosures in the Atlanta market, Suwanee, Ga.-based Touchstone Homes has dramatically retooled its product line to directly compete against foreclosures. The builder has designed seven new plans, including two townhomes, to appeal to first-time buyers, says Michael

Zambri, sales manager. It's a process that started more than two years ago to design more efficient plans that can be built more quickly and less expensively.

Since the redesign, Touchstone Homes has shifted from building homes priced from the high \$200,000s to the mid-\$300,000s to a price point from the high \$100,000s to the high \$200,000s. One of their townhome communities has a base price in the \$180,000s, and Touchstone is working toward offering a product priced in the \$140,000s.

In choosing their primary points of competition, while keeping their costs as low as possible, Touchstone zeroed in on some of the realities of foreclosures: unknown problems and uncertain time frames. "We needed to show the buyer it's important to have warranties," Zambri says, "and that foreclosures and short sales will take as long as it would take to deliver their dream house with their choices."

They got a "huge reception" from their trade partners, who not only helped them value-engineer their plans and make

"The key is you get out and treat it like any other builder competitor. See what you're looking at through the customer's eyes."

— Scott Jagoe, Jagoe Homes, Owensboro, Ky.

them Energy Star-compliant, but also to communicate with local building departments. "When you're on this tight of a schedule, it's important that you get your inspections and pass them," Zambri notes. On houses up to 2,600 square feet, in communities where the municipality is cooperative with permits and inspections, Touchstone can close in 60 days. During the boom times, the cycle time on the same house would have been four to five months.

To date, Touchstone has rebooted three communities with the new plans. "So far, the process is working for us," he says. "This will be our business model going forward."

### 2. Competitive shopping

Jagoe Homes in Owensboro, Ky., has had good success competing against foreclosures—including ones in their own neighborhoods—by approaching them like they would any other competitor, shopping them, and putting together a factbased list of pros and cons, asking, "What do they have that



we don't?" That way, when customers come in the door, the sales agents aren't caught off guard.

In one neighborhood, Fox Run in Henderson, Ky., Jagoe had 10 to 15 home sites left to sell, and 19 foreclosures on the market in the same neighborhood. Sales counselor Jeanie Burke addressed that head-on in her orientation, says coowner Scott Jagoe, telling prospective buyers that the community had some successes as well. Not all of the houses were foreclosures, and she knew how many owners were making their payments. She also knew every foreclosure in

the community. If a customer came in and said they were also looking at a foreclosure, she would say, "Okay, I know what you're talking about. I've been through that house; look at these four or five things. These items have been stripped out. There have been no utilities for five or six months, and no maintenance that a homeowner would

do. It wasn't winterized correctly. Add those costs on."

Burke was able to offer a brand-new home with a full warranty, incentives, Energy Star rating, an interest-rate buydown, help with closing costs and a guarantee that they'd close on time for their interest-rate lock. Jagoe Homes has

since finished out the community. When they left, there were still 15 foreclosures for sale.

"The key is you get out and treat it like any other builder competitor," Jagoe says. "See what you're looking at through the customer's eyes."

### 3. Online tools

In Phoenix, one of the hardest-hit foreclosure markets, Tempe, Ariz.-based Fulton Homes has helped prospective buyers understand the costs associated with buying a foreclosure

"There are certain foreclosures that can't be competed against. If the lender in possession hits a certain price, no one can touch that."

— Kevin Belew, Norfolk Homes, Ann Arbor, Mich.

with an online calculator. Measuring the home's condition from "good" to "wrecked," it adds up everything from windows and electrical to termites and mold removal to give a true cost of purchase, then provides a list of floor plans and quick-delivery homes in the same price range.



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up to 6'4", and Best-In-Class\* side door opening area of 6'x4'3", the Sprinter takes it all in stride. Visit MBSprinterUSA.com or your local dealer and start loading the unexpected today.

A quick comparison guide points out other unpleasant possibilities of buying a foreclosure, such as having to evict the current owner or tenant or pay off liens from unpaid work; a lack of disclosures; and the risk that a previous owner might have sabotaged the house with clogged drains, torn-out wiring or worse.

"Foreclosures are obsolete because they don't have the technology we have been putting in our homes the last two years."

— Laura Mather, Wathen-Castanos, Fresno, Calif.

To add a bit of levity to the process, they also give prospective buyers a photo gallery of images from a trashed foreclosure that's on the market, with captions such as: "The kitchen really opens up without all those pesky cabinets and appliances!"

Fulton also takes the unusual step of offering to help customers buy a foreclosure if they're absolutely sure that's the right choice for them. There are no strings attached; their position is that getting foreclosures sold and off the market is good for everyone.

### 4. Expansion into new markets

Kevin Belew is co-founder of Norfolk Homes in Ann Arbor, Mich. Belew's auto-dependent state has been brutalized by the collapse of the economy, and he thought that by focusing on the Ann Arbor market, close to the University of Michigan with its biotechnology industry, the company would be somewhat protected from the challenges that are prevalent throughout the state.

Belew was right to a certain extent; he's had some success competing against short sales by acquiring land at discounted prices, eliminating waste and lowering his cost structure. But "there are certain foreclosures that can't be competed against. If the lender in possession hits a certain price, no one can touch that," he says.

Norfolk Homes' current strategy has been expansion to Nashville and Huntsville, Ala. "We zigged when everyone else was zagging," Belew says. "We looked at those as opportunistic markets, and we're fighting as hard we can fight in Michigan."



\*Based on a comparison of Automotive News classification of full-size commercial vans.

### THE ENERGY EFFICIENCY ADVANTAGE

WATHEN-CASTANOS HYBRID HOMES in Fresno, Calif., has virtually eliminated any price advantage offered by foreclosures—or even market-rate resales—in a very weak, foreclosure-heavy market with its Hybrid Homes brand of energy-efficient homes. In designing the new product, Wathen-Castanos recognized that price point was key, "but people weren't willing to compromise," says President Mike Nimon. "With that, we needed to give a wow factor without that compromise."

Located in a market where it's not uncommon to hit 110 degrees in the summer and air conditioners run nonstop from April through October, the builder knew that a lower power bill would get buyers' attention. On the Home Energy Rating System (HERS) index, a zero-energy home scores zero. According to Energy Star, a home built after 2006 to the specifications of the HERS Reference Home scores 100. Wathen-Castanos homes score in the 50s to 60s, whereas the average resale or foreclosure comes in at 150 points, Nimon says.

"From a marketing perspective, it's all about education," says Laura Mather, executive vice president of sales and marketing for Wathen-Castanos. "We have testimonials from people with utility bills of \$30 to \$70 in the summer versus \$400 to \$700 a month. [Our houses and foreclosures] could look very much the same, but theirs are obsolete because they don't have the technology we have been putting in our homes the last two years. When we meet with appraisers, lenders and buyers, we want them to get to that word, 'obsolete,' when they look at comps."

To help buyers make a valid comparison when they're looking at homes, Mather created a printable checklist of all the energy-saving components in its Hybrid Homes plans.

That's not to say that Wathen-Castanos hasn't paid attention to other factors that are important to today's buyers. In the Fresno/Clovis market, pricing starts at just under \$200,000. Hybrid Homes' Las Casas at Viscaya community in Dinuba offers homes priced as low as \$150,000. The result: 42 sales since January.

TO HELP BUYERS make a valid comparison when looking at its new, energyefficient homes versus foreclosures and resales, Wathen-Castanos offers a printable checklist of all the energy-saving features in its Hybrid Homes plans.



### 5. If you can't beat 'em, buy 'em

And what about Oakwood Homes, and their position as Ground Zero for the Denver foreclosure crisis? Rather than retreat from the situation, Hamill and his team launched a multi-pronged assault. They started tracking foreclosure notices, bank-owned properties and bankruptcies, and formed a citizens advisory board ("sort of a neighborhood watch," Hamill says) to stay on top of the foreclosed houses. They cut the grass and, in cases where the banks had shut off the water, spray-painted the yards green. They talked to their homeowners to assure them that Oakwood Homes wasn't going anywhere.

Oakwood started its own foreclosure company, bought about 25 houses, rehabbed them and rented them out, typically to prospective new-home buyers who needed to improve their credit.

"It was enough to plant some seeds, almost like urban

renewal," says Hamill. "People started coming back to the community."

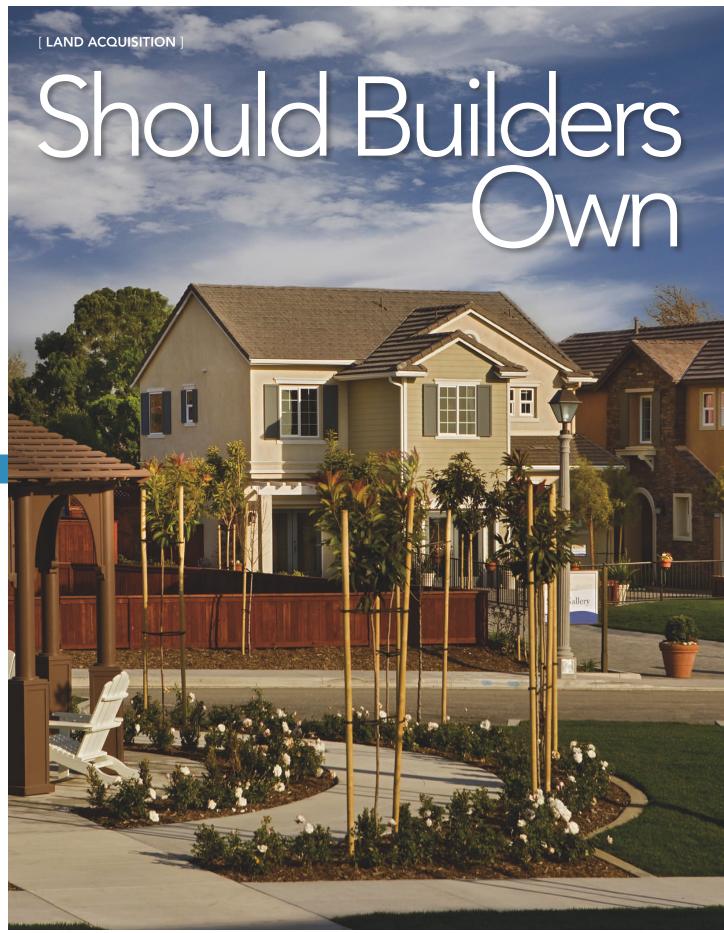
At the same time, they also retooled their product to compete with distressed sales, which at one point accounted for 80 percent of the sales in Denver. They toured foreclosures and surveyed home buyers. Fifty percent said that if a builder could offer a house within \$15,000 of the price of a comparable foreclosure, they'd much rather buy a new house. Oakwood Homes came up with a product line called New Beginnings: homes from 1,100 to about 1,400 square feet for a base price of \$129,000 to about \$150,000.

The combined efforts have paid off. Oakwood has no inventory homes for sale in Green Valley Ranch, and there are only three bank-owned properties in the community.

"We're past stabilization," Hamill says. "We've had eight or nine price increases in the past year. It's a remarkable turnaround." PB

### Publisher's note:

By press time, we had not yet received materials for the quartz countertop ad slotted for this page. The team responsible for the ad is reported to have fallen into a deep and prolonged hypnotic state upon seeing samples of the new Noble collection from Samsung Radianz<sup>™</sup> and have been heard murmuring the words, "mmm...sparkly." In lieu of the ad, you can view the product at the website.





# 2 Company of the second of the

Deep discounts make it tempting to load up on lots, but this time builders need to think long and hard about what they buy.

By Pat Curry, Contributing Editor

When the real-estate market was running at full steam, builders had their land acquisition teams working nonstop to feed the machine. Massive lot inventories were seen as a good thing, especially as land prices — and housing demand — spiraled upward.

Then, with the housing crash, attitudes toward lot inventories changed dramatically as builders sought to shed expenses, reduce their carrying costs and become "land light." Tens of thousands of lots were abandoned, and builders were forced to take billions in land impairment charges and write-offs in option deposits.

Should builders even be thinking about amassing lots again? On one hand, it's a moot point because it's already happening all over the country. Meritage, Richmond American, Lennar and K. Hovnanian all have bought vacant sections of Phoenix subdivisions. Toll Brothers and Standard Pacific recently announced acquisitions in the Raleigh, N.C., area. Toll, Lennar and K. Hovnanian also have taken over stalled projects in land-constrained south Florida.

Meritage has reported buying about 4,000 lots in 2009. CFO Larry Seay told industry analysts during a January 27 earnings call that "about the only place we aren't buying land today is Las Vegas."

In preparation for the inevitable return of the housing market, and with balance sheets fat with net-operating-loss carryback cash, builders are taking advantage of prices that haven't been seen in a decade or more.

WYETH COVE in Upland,

Calif., was built on

by Trumark Homes

finished lots acquired

Another significant reason to buy land now is that the attitude of many municipalities toward home builders has changed dramatically in the wake of unemployment and severe budget cuts. The process and cost of taking a project vertical is getting easier.

"They need building permits; they need fees," says Buz Hoffman, founder and CEO of Hoffman Estates, Ill.-based Lakewood Homes. "There slowly is a movement by the larger and more sophisticated municipalities. Do you keep the fees high and get nothing, or keep them reasonable and get nothing?"

#### A new approach

Ironically, the eagerness of builders to snap up finished lots in A-rated locations at fire-sale prices has fueled the same kind of price runups and bidding wars that were prevalent during the boom and helped push pricing past the point of sustainability. Virtually any deal for blue-top or finished lots in A locations in Southern California right now will attract all the major public builders, with "upwards of 15 offers, many above asking price," says Tom Banks, former regional vice president for Lennar's Inland Empire division in Southern California and now co-founder of Greencrossing Real Estate Cos., a development, investment and consulting firm based in Aliso Viejo, Calif. Lots that were selling for \$75,000 to \$85,000 18 months ago are now selling for \$140,000 to \$150,000.

This time around, though, builders are paying much closer attention to the fundamentals, making sure the product will stay within the FHA conforming guidelines (which means underwriting to extremely thin profit margins) and keeping their land inventory levels at much more manageable levels.

How much supply should you have? Most of the industry pros we talked to thought that a supply of more than two years' worth of lots is asking for trouble.

During the heyday, bigger builders had a three- to five-year supply of land that they owned or controlled. "That was getting way out in front of themselves," Banks says. Today, he's seeing builders take positions of 12 to 18 months' supply.

"At some point in the last cycle, we became very stupid and lost track of fundamentals of supply and demand," Banks says. "It became a competition — public builder X is growing at 15 percent a year, so we need to grow at 20 percent — and everyone was incentivized on that. We never looked at if it was sustainable. I don't see builders getting way out over their skis again, having more than five years' supply of lots. Back in my days at Lennar, that was a good thing. Now it's a bad thing. You want to be back to the NVR model, and buy lots just when you need them."

#### What to look for

With a good chunk of finished lots already tied up in some markets, builders need to look for properties that can stand on their own. "That's where a lot of people got caught in



the last down cycle," says Tom Dallape, principal of Irvine, Calif.-based land-brokerage firm The Hoffman Co. "They bought lots that were reliant on other people to bring infrastructure to them."

Dallape says a good first choice is a tentative map location with all utilities to it or the ability to obtain utilities yourself. Second choice would be an approved site with "some utilities you have to go chase down, but with right of way in place."

It's incumbent on private builders to buy smartly because "banks won't be involved," says Lakewood Homes' Hoffman. "The money to buy them will be very expensive money."

Lakewood is buying land, Hoffman says, because the current pricing is giving him access to locations that are 20 to 25 miles



#### **CHECKLIST FOR BUYING LAND**

HERE ARE STEPS to take as you prepare to look for lots:

- 1. LINE UP YOUR FUNDING. The ability to close quickly can make the difference in getting or losing a deal. Establish your access to capital and know the kinds of dollars you can commit before you start shopping. If your conventional lender can't help you, look to the private market.
  - 2. FOCUS ON A AND B LOCATIONS CLOSE TO
- JOBS. In most markets, there are finished lots available in those locations, and they're the sites with the best chance for absorption in the short term.
- 3. RESEARCH OTHER PROJECTS IN THE AREA AND THEIR FINANCIAL DYNAMICS. An offer of 500 finished lots at \$7,500 per lot sounds like a bargain until you find out that the site next door has 10,000 lots that a competitor just bought at \$5,000 apiece.
- 4. WORK BACKWARDS. Start with what your customers want, need and can get financing for. Make sure that product will work on the site from a pricing standpoint.
- 5. DON'T SKIP THE FUNDAMENTALS. Do the pro forma, assign a realistic absorption rate and analyze the carrying costs.
- 6. KEEP A TIGHT LID ON DISCUSSING YOUR DEALS. To say you're not the only person looking at lots today would be an understatement.





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Denis Leonard brings to Business Excellence Consulting degrees in construction engineering and education in addition to a master's and doctorate in quality management. Denis is a fellow of the UK's Chartered Quality Institute and is a senior member of the American Society for Quality with whom he is a Certified Manager of Quality and Organizational Excellence, auditor and Six Sigma Black Belt. An ASQ Feigenbaum Medalist, he has won several international awards for research publications. He has been a judge and examiner for the Wisconsin Forward Award, Baldrige National Quality Award Board of Examiners, International Team Excellence Competition and the National Housing Quality Award. A former professor of quality at the University of Wisconsin, he has experience in management, engineering, training, auditing and consulting with expertise in strategic and operational quality improvement initiatives. He developed and implemented integrated quality, environmental and safety management systems at Veridian Homes in Madison, Wis., earning them the National Housing Quality Award, Energy Value Housing Award, Innovative Housing Technology Award, NAHB Safety Award for Excellence and *Professional Builder* magazine's Builder of the Year. In 2007, Denis won Big Builder magazine's APEX Award for his work in quality management.

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SENIOR PARTNER | BSB DESIGN

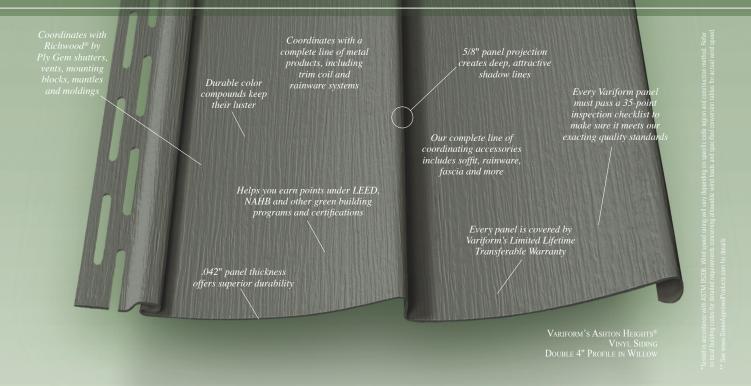
Steve joined BSB as marketing director during the depths of the recession of 1991 and helped grow BSB into one the nation's few truly national residential design firms in the country, now with six offices nationwide. With an architecture degree from University of Virginia, Moore has spent the past 32 years in the housing industry, serving as a staff member of NAHB, a construction superintendent, a home builder production manager and architectural firm manager. As an industry volunteer, Moore has held chair positions on NAHB committees for Design, Multifamily Pillars and the Sales and Marketing Council in addition to positions with the AIA, Multi-Housing World and ULI. He is a frequent speaker at national and regional building industry conventions, seminars and management conferences, speaking on design trends, innovation and construction efficiencies. While as an NAHB staff member, Steve was contributing author for the NAHB publication "Higher Density Housing: Planning Design Marketing" and founded the Best in American Living Awards (BALA), now co-sponsored with *Professional Builder* magazine. In January 2009, Steve was elected to the inaugural class of the BALA Hall of Fame.

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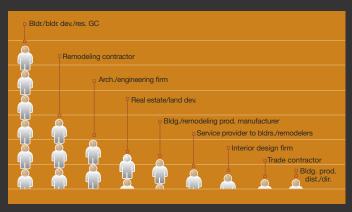


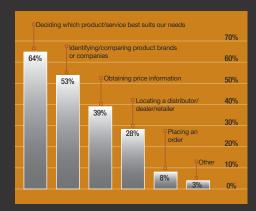






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Source: HousingZone Visitor Research Study, October 2008

#### WHY THEY ARE VISITING?

- Industry news/key issues
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- Products
- Best practices/case studies
- Economic outlook & insights
- Research
- Online Education
- Projects & industry developments

- Peer opinions & experiences
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#### FEATURED THIS MONTH:

- Stimulus
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- ▶ High Performance Homes









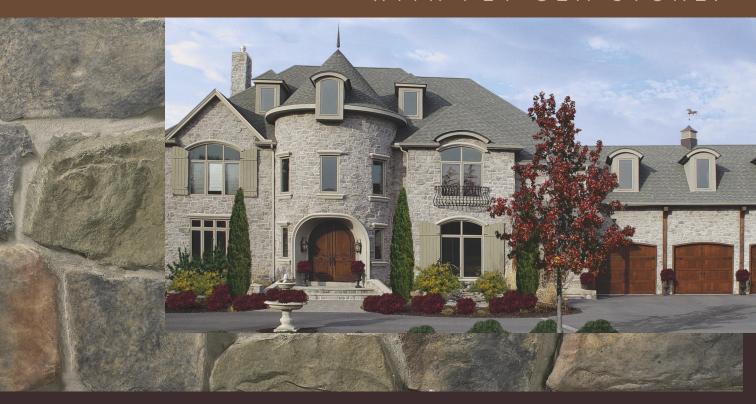






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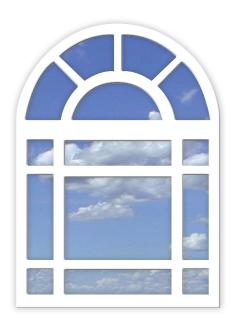
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## Just-In-Time Lots Benefit Builders, Banks

Pat Hamill, CEO of Denver-based Oakwood Homes, has seen most of his competition go bankrupt or pull out of the market. The result is that banks now hold thousands of finished lots in locations that work well for his business model. Like most other private builders, though, Hamill has faced difficulty finding cash to buy land and would rather not tie up big chunks of his own money.

His solution has been to offer the banks a premium price that's paid when a house is built on the lot and sold, as opposed to a deep-discount price for an up-front purchase.

Hamill has already done two deals that way, buying about 100 lots in Feathergrass and Banning Lewis Ranch in Colorado Springs, and has three more in the works — two with banks and one with a landowner. At the distressed price, the owners might expect to get \$20,000 to \$30,000 per lot upfront. By selling them on a just-in-time basis, they'll get \$45,000 to \$52,000 per lot. As long as the bank is reasonably healthy financially and isn't under "intense regulatory pressure to raise capital," it's much more profitable for them, he says.

"It's a no-brainer for the banks," Hamill says. "The banks can command a much higher price, and we're not tying up valuable capital." closer to Chicago's employment cores than in the past. But even with the lure of A locations, he's approaching his purchases very cautiously. He used to buy land and use that as a starting point to price his houses; now it's the other way around. He determines a sales price that can compete against foreclosures and works backward to see what he can pay for the land.

"It's reversed itself completely," Hoffman says. "Those who will be successful will look at land from that point of view."

He's also being "very, very careful" about which builders are nearby.

"If we're going to be intercepted or surrounded by the publics," says Hoffman, "I don't want any part of it."

Those kinds of fundamentals are true as well for Danville, Calif.-based Trumark Homes. Co-founder/principal Michael Maples has taken the lessons of this downturn to heart. His target properties are within 40 minutes of major job centers in San Francisco and Southern California — nothing in the boondocks. He wants sites with general plans for housing that either have an environmental impact report (EIR) already done, or don't need one. "We've done them," Maples says. "They're expensive and slow. If it needs an EIR, we're not doing it. If the neighbors will fight it, we're not going to do it. We don't want the brain damage."

Maples' ideal location is one that's land-constrained and won't get overheated — and not just because it will limit competition from other new-home builders. He's not about to get kicked in the teeth by REO (real estate owned) inventory of another builder who goes belly up.

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With the amount of activity in the market, it seems unlikely that prices on good locations are going to go any lower. For private builders trying to compete against publics with internal sources of cash, it's imperative to have a funding source lined up and ready to go, because one of the keys to buying land is the ability to pull the trigger.

"The deals have very short strings on them," says Douglas Shipman, CEO of Developer's Financial Solutions in Rancho Santa Fe, Calif. "You could find a deal for 50 cents on the dollar and say, 'I have all cash; I'll give you 35 cents on the dollar. Take it or leave it.' They'll say, 'Can you do 35 cents and close in 10 days?'"

Trumark has been financing its deals entirely with equity. "We don't see back debt coming back to land for at least 12 months," Maples says. In looking for equity partners, Maples says he certainly wants the best terms, but he also wants partners with the ability to perform and "chemistry between the organizations. You're in a land deal for a long time. You have to be able to work together."

Just be prepared for sticker shock on the financing. While each deal will be based on its own merits, private money is expensive — 8 to 10 basis points above prime is not unusual, with 400 to

600 basis points in closing costs. That's all the more reason to do your due diligence and underwrite to thin margins.

Indeed, the terms might make builders consider waiting until conventional financing returns to the market. But there's also a sizable risk to sitting on the sidelines.

"There's going to be a mad scramble for land as the market starts kicking back in," says Dan Nickless, a veteran builder who now heads The Nickless Group and FPC Development in Littleton, Colo. "God forbid a small builder not take advantage of something with reasonable holding costs now, in order to be ready to go."

One final word of advice on looking for land in the months to come: When you find something interesting, keep your mouth shut.

"I'd be very close to the chest about any deals you're pursuing," Nickless says. "A lot of people are chasing deals. Someone else is likely to come in and swoop it up." **PB** 

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In order to maintain a high level of customer satisfaction, builders must deliver a consistent message about quality from pre- to post-closing.

ot long after John and Mary Smith move into their new home, Mary notices a small hole in one of the window screens. She calls the builder, who promises to take care of it right away. A week goes by, then two. Nothing happens. The Smiths interpret this as indifference on the builder's part. The seeds of post-closing disillusionment have been sown.

It's not that the builder doesn't care. He's just busy trying to earn a living, and a damaged window screen doesn't rank very high on his list of priorities. But you'd better believe it's important to the Smiths.

The disconnect between builders and homeowners after move-in is a core issue for the home-building industry, says Carol Smith, a renowned customer-service expert. Smith, the founder and principal of Home Address in Colorado Springs, Colo., has worked with home builders for more than 30 years, written numerous articles and books and delivered

hundreds of educational programs.

"The builder may say, 'The house isn't falling down; water's not squirting out of the ceiling. It's not a big deal that there's a hole in the screen. I'll get to it when I get to it.'" But when builders fail to attend to such details, "homeowners start making a revenge list," Smith says.

Delivering the kind of post-closing construction quality that makes customers rave (in a good way) is fraught with challenges. "An awful lot of post-closing experiences are predicated on pre-closing success," says Dean Potter, vice president of quality and home production processes for K. Hovnanian Cos., Red Bank, N.J. "It starts with the sales process, and ensuring that the customer's expectations are managed correctly." A builder's pre-closing message needs to be very consistent, Potter says, "because customers talk to each other."

Kevin Estes agrees. "In order to have a fighting chance for a delighted customer after clos-





able. But everyone involved needs to recognize that to the homeowner, the last cabinet knob is every bit as important as the roof."

Cleanliness alone can affect a customer's level of satisfaction, says Pennington. "A house can be built perfectly, but if the site is a wreck, the customer associates that with disorganization," he says. The same goes for post-closing service calls: trade contractors who don't clean up after themselves or don't look professional create a negative perception in the homeowner's mind.

About four years ago, MBK Homes in Ir-

"Everyone involved needs to recognize that to the homeowner, the last cabinet knob is **every bit as important as the roof**."

· Carol Smith, Home Address, Colorado Springs, Colo.

ing, the home needs to be delivered on time and 100 percent complete," says the president of Estes Builders in Sequim, Wash. "If not, you're digging out of a hole, and that will be reflected in any post-closing survey results."

#### Establish quality standards

Builders must have a clear vision of what a house looks like when it's complete, Smith says. "That vision needs to be communicated to trades when they're retained and put under contract, and it needs to be demonstrated in the builder's model."

In general, a complete home is one that has all of its parts. All dirt, dust, carpet threads and lint have been removed. Stickers have been taken off windows and splashes of concrete scraped off patios. Trash has been picked up.

"This really shouldn't be a big mystery," says Smith. "The problem we get into is that everybody's very busy, and earning the next dollar has become the top priority. That's understandvine, Calif., set new quality standards based on feedback from a member of their accounting department. The woman was purposely chosen because she had no construction experience and would bring a much-needed customer's perspective to the task.

"We got her a high-end camera that could zoom in on a fly speck on a wall or a dimple on a curtain rod," says Mike Schmidt, vice president of operations for MBK. "She walked the homes, rated them and photo-documented what she saw. The difference between a dirt backyard, not landscaped, and a dirt backyard that had been raked — with the rake grooves showing — turned this company around."

Shea Homes publishes its quality standards in a warranty manual that is provided to customers at the contract stage. "If a situation arises when the standards need to be referenced, we don't have any surprises," says Chip Pennington, corporate director of customer service in Shea's Phoenix office.

#### Nail down procedures

MBK Homes is owned by Mitsui & Co., one of the world's oldest and largest trading companies. "As far as our parent company is concerned, we're a Japanese company and should have very high standards of quality," says Kane.

#### 5 WAYS TO ENSURE POST-CLOSING

SATISFACTION

- 1. Establish quality standards and make sure that everyone from the CEO on down accepts and adheres to them. Trade contractors should get in the habit of reviewing each other's work and correcting mistakes before the next trade comes in.
- 2. Manage customers' expectations right from the start. Give them a clear definition of what you consider a "complete" home, and assure them that you care about the details and won't disappear after they move in.
- Stick to a schedule of followup visits and use them as opportunities to delight customers.
- 4. Respond promptly and courteously to service requests.
- Review completed service tickets regularly to identify and solve recurring problems.



The builder has developed a vast array of procedures and checklists to ensure those standards are met and, as promised, they deliver an "impeccable" home.

Trade contractors are accountable for completing their work properly. Each trade then walks the house with the next scheduled trade to make sure there are no mistakes that will be costly to correct later, says Schmidt. "For example, the plumber puts his ground plumbing in, and before the concrete contractor can pour the foundation, he walks the site with the plumbing foreman, and they measure and verify that the plumbing is coming up in the right walls, the house is trenched properly and the forms are going to work right — before we pour the concrete, because we don't want to rip it out." Assuming there's nothing to fix, the plumbing foreman signs off on his portion of the work.

In the pre-drywall stage, a red slash is spraypainted over any mistakes. Once they're corrected, a green slash is sprayed in the opposite direction. "You can see in an instant every problem that was there to begin with and how many have been remedied," Kane says. "It's kind of a badge of honor — you don't want a sea of red on your work."

In addition to inspections throughout the construction process, MBK does 72-hour and 48-hour walks before delivery. At 72 hours, the superintendent puts a punchlist together, photo-documents the errors and scores the home on quality. At 48 hours, a customer-service representative does the same thing. "We flush the toilets. We run the dishwashers. We overflow the tub to make sure the overflow doesn't leak. We check everything with tissue paper to make sure there's no seeping water," says Schmidt.

One system that works well, says Smith, involves the superintendent walking the house with a prep team — typically two or three people who are well-trained and well-supplied with tools and materials. Over time, they've developed a list of things to look for, such as making sure all the caulking is done, the cabinet knobs are on, the switchplate screws line up with the switch and so on. "If you've built a pretty good home, these are the things that really make it sparkle," she says. "A prep team gets very

#### SHEA PROGRAM CALMS FIRST-YEAR JITTERS

THE SHEA CUSTOMER CARE 1-5-11 PROGRAM is designed to address warranty concerns during the first year of homeownership. Shea discusses the program with buyers before closing, and sends reminder letters for each visit along with a warranty service request. The visits aren't mandatory, but they are encouraged, says Chip Pennington, corporate director of customer service in Shea's Phoenix office.

"Homeowners have a lot of things going on in their heads during a new-home orientation," Pennington says. "They might not remember, later on, how to change the batteries in the smoke detector, change the furnace filter, drain the water heater or program the thermostat."

The 1-5-11 program assures customers that Shea will be in touch with them at least three times after they take occupancy — at one month, five months and 11 months.

A quality review is conducted at one month. At five months, any warranty items noted by the homeowner are addressed. (Depending on the geographic location and season, the five-month visit also gives Shea a chance to inspect the outside of the house when there's no snow on the ground.) The 11-month visit is the last service appointment under the one-year materials and workmanship warranty. Everything from appliances and HVAC equipment to roofing and landscaping is assessed.

efficient and can usually have a home movein-ready in half a day."

#### Maximize touch points

Calls to customers 30 days and 11 months after move-in have become a standard best practice in the home-building industry, says Estes. "We find it effective to tell the customer about the 30-day call because they're anxious about moving in and have not had any post-

closing service," he says. The check-in is scheduled when the keys are handed over, "because it puts them at ease to know we'll be there after the house is finished."

Estes goes beyond just checking in during the 30-day visit. "It's an opportunity to do some un-

solicited service such as changing a furnace filter, testing smoke detectors and lubricating windows. It's also a good time to hit the high points of the orientation again — to tell them one more time where the water shutoff is and how to request additional service."

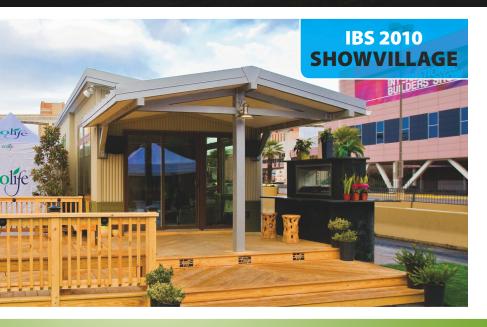
The II-month call isn't mentioned beforehand. "We prefer this to come out of the blue. It's a great opportunity to delight the customer.

"If customers aren't happy at the one-year mark, it doesn't matter how good the builder was up to that point."

- Chip Pennington, Shea Homes, Phoenix

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We also do a few unsolicited items at this call."

Estes encourages builders to look for opportunities for additional contact points — such as service reminders, calls or letters — to thank customers and remind them how important they are. "The more touch points, the better," he says. "It's also not a bad idea to have a customer appreciation event."

Smith thinks it's important for homeowners to have a sense of control in scheduling the 30-day checkup. "More and more families have both adults working, and people aren't really unpacked after 30 days," she says. "I recommend giving customers a choice. Tell them you'd like to set up a time to come out somewhere between 30 and 60 days, if that works for them. If the customer says 'No, 81 days would work for me,' then make the appointment for 81 days. There's nothing magic about 30 days; it's just an industry tradition that we need to let go of."

Ideally, the appointment should be offered to the customer before closing, when it does the most good, says Smith.

#### Minimize dissatisfaction

Certain things aggravate the owners of a new home more than others. In Colorado, for example, the short time frame for planting can lead to dissatisfaction with landscaping. "If you close in November, the landscaping may not be installed until May," says Pennington.

Estes says landscape satisfaction is, in fact, one of the lowest-scoring benchmarks for builders after closing. "Do whatever is practical at the orientation to set reasonable expectations," he suggests. "A good technique is to take the customer to a yard that was landscaped in the last six to 12 months to show them what to expect at different stages." In order to keep those expectations at a manageable level, Estes Builders doesn't feature upgraded landscaping in its attached model homes.

Probably the most important aspect of postclosing satisfaction is a speedy and caring response to service requests. "Benchmarking the time from a customer-service request to a personal response from the builder is important, and often overlooked," Estes says. "The average time to return a customer call should be 15 minutes or less. The time from a request to an appointment to review the problem in the customer's home should be 48 hours or less. The service should be 100 percent completed in one week or less."

Estes requires a customer-service representative to attend all service calls in order to supervise the work and make sure it's completed within the proper tolerances. "That's why the customer hired us in the first place," he says. "Leaving the trade contractor to interface directly with the customer is not proper service."

Builders should periodically review completed service tickets for recurring problems. "The top most common root cause needs to have an action plan to eliminate the cause before or during construction. Then the cause should be re-measured to verify it has been eliminated." A good benchmark for post-closing service and warranty work is less than \$1,000 per home, says Estes.

#### Keep measuring satisfaction

MBK Homes not only measures customer satisfaction, but also how many surveys are re-

turned, says Kane. "We have one customer-service rep who has had a 100 percent response rate for 11 months, without giving customers any gift certificates or other incentives to fill out the surveys. Once a month, our customer-service department makes a list of the five most common

"An awful lot of post-closing experiences are predicated on pre-closing success. A builder's pre-closing message needs to be very consistent."

Dean Potter, K. Hovnanian Cos.,
 Red Bank, N.J.

complaints over all projects, and everyone — including me, the vice presidents, the division managers, the field personnel and the salespeople — meets to go over those complaints and discuss what we can do to improve."

Kane says that over the last 18 months, MBK's most successful initiative to improve pre- and post-closing customer satisfaction has been to appoint a liaison from the corporate office who attends team meetings at each community. "We broke down all the silos and gave the team members a voice for concerns such as 'Don't give me this plumber anymore' or 'Our competitors are doing this in the field and we, as a team, want to offer it in our homes," says Kane.

All of this underscores the importance of consistently building a quality home and managing customer expectations. As Pennington says, "If they're not happy at the one-year mark, it doesn't matter how good the builder was up to that point." **PB** 



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[ RENTAL HOUSING ]

## RENTALS THE

For-sale housing is still stumbling, but rental housing is picking up. These successful projects have all the right ingredients.

By Susan Bady, Senior Editor

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THE EXTERIOR OF OLYMPIC STUDIOS utilizes corrugated



Despite job losses and a weak economy, the outlook for rental housing is, for the most part, positive. CBRE Econometric Advisors (CBRE-EA) forecasts that the vacancy rate for U.S. apartments will drop to an average of 6.8 percent in 2010, from an average of 7.4 percent in 2009. Rents, which have declined significantly, will also begin to increase as discounts and concessions become less widespread, according to CBRE-EA.

Market-research firm Green Street Advisors reports that public real-estate investment trusts (REITs) are gearing up to start nearly \$1 billion in new multifamily projects this year. And projects that were started before the recession kicked in are coming online with sophisticated designs, upscale finishes and amenity packages that renters find hard to resist.

"Right now, rental is pretty much everything we're doing," says Chad Askew of The Housing Studio, an architecture and planning firm based in Charlotte, N.C. "While the apartment market is stronger in some areas than others, it's certainly better than the for-sale market."

Mark Humphreys, principal of Dallas-based Humphreys & Partners Architects, is confident that there will be growth in the rental sector. "All the studies show a large increase in demand starting in 2011 and going way up in 2012," says Humphreys. He believes the incoming wave of echo boomers will create a paradigm shift similar to the garden-apartment boom of the 1970s.

Naturally, financing is an obstacle. While large REITs have the credit lines to fund new projects, for most builders FHA is virtually the only source of construction financing for multifamily rental properties. Lately FHA has been inundated with loan applications under the HUD Section 221(d)(4) and Section 223(f) programs. "We've done about 30 HUD deals, which gives us an advantage," says Keith Anderson, executive vice president of Clark Builders Group in Arlington, Va. Clark expects to start several new projects this year.

In short, rental is a bright spot in the battered housing market. But renters demand a lot more than in years past, and to stay competitive, builders will need to step up their game. Here are four exemplary projects that have just the right mix of attributes to get renters in the door.

#### Small Units Live Large

Necessity is often the mother of invention. In the case of Olympic Studios, zoning requirements and the property owner's desire for as many units as possible led to the creation of a 375-square-foot, two-story "mini loft" product. Thanks to clever design that makes the units feel much larger; upscale finishes; attractive rents; and a prime location in Santa Monica, Calif., Olympic Studios has been 100 percent leased — all 165 units — since phase one opened in December 2008.

The project is located on an infill site in Santa Monica's Light Manufacturing Studio District, home to Universal Studios, Yahoo, Island Records and other music/film industry post-production facilities. The rents are affordable by local standards (\$1,110 to \$1,388 per month), with preference given to those who live and/or work in Santa Monica and earn annual incomes of

\$42,450 to \$60,600, per municipal code. About 90 percent of the units are two-level lofts; the remainder are traditional flats.

"We knew that there was a strong market for units that were very well appointed but small in size," says Jim Andersen, chief operating officer of NMS Properties, the Los Angeles-based developer. "We outfitted [Olympic Studios] with the same cabinetry, the same level of stainless steel appliances, the same granite countertops and the same fixtures we use in our luxury buildings. And we put it in a location that's within walking distance of employers, grocery stores, restaurants and shops." In addition, Andersen says, a light-rail station is expected to open soon about half a block away.

Killefer Flammang Architects (KFA) of Santa Monica examined every conceivable way to make the units efficient without compromising livability. "A lot had to do with tucking things under stairs, like the shower, and sharing space," says architect John Arnold. "The two-story design came from a quirk in the city's municipal code that allowed you to have extra building height, but not extra floors." So KFA designed a unit with 20-foot ceilings and a mezzanine level, which doesn't count as a second floor because it's only 88 square feet. On the mezzanine level is a sleeping loft, with the living room, galley kitchen and bathroom below.

High windows bring plenty of light and air into the unit.



#### "The sleeping loft is far removed from those upper windows, so there are no privacy issues," Arnold says. He made the most of every square inch, interlocking the kitchens back to back. Shelves, drawers and nooks were built in throughout for storage and display.

Olympic Studios consists of two buildings with landscaped courtyards. Runoff is directed into an engineered, landscaped earth swale along the main street in front of the project. A two-level, underground parking garage serves both buildings and allowed the second building to be built slab on grade.

The contractor was Frymer Development, Santa Monica.

#### Year-Round Destination

Part of the revitalization of a 16-acre stretch of oceanfront property in Long Branch, N.J., Pier Village Apartments attracts renters who aren't just looking for a summer home, but a year-round lifestyle.

The apartments are part of a larger mixed-use community that includes restaurants, retail stores and open spaces designed by Minno & Wasko Architects and Planners, Lambertville, N.J., and built by Applied Development Co., Hoboken, N.J. There are three phases (buildings) totaling 216 units. One-, two- and three-bedroom apartments range from 800 square feet to 1,200 square feet.

"Applied Development was able to do something important, which was to bring rental housing to the shore," says architect Dave Minno, explaining that much of the development along the Jersey shore has been condominiums. "People tend to use [their condos] just for the summer, and essentially close them up for eight months of the year, which doesn't generate the year-round population that can be supportive of retail."

Phase I of Pier Village Apartments, which was not designed by Minno & Wasko, "had a little bit more of a Victorian feel to it architecturally. We started to transition in Phase 2 to a more contemporary feel. The use of color remained strong, but we wanted to go a little more edgy and upbeat to attract a younger crowd that was primarily New York-oriented in their employment and general life emphasis. The third phase will be even more contemporary."

As part of Phase 2, the architects designed a small boutique hotel called The Bungalow. "It's a very contemporary building with a sort of wing-shaped element at the top of the roof," says Minno. "They show surfing movies at night on that wing-shaped piece of metal."

Residents are a mix of empty nesters, young professionals, blue-collar workers from the Monmouth County area and

## KEYS TO A SUCCESSFUL RENTAL PROJECT

- 1. THE RIGHT LOCATION. Infill sites in urban or suburban areas within walking distance of shopping and other services are ideal. Look for locations near major transportation routes and existing or planned mass transit stops.

  2. THE RIGHT AMENITIES. In general, the
- 2. THE RIGHT AMENITIES. In general, the greater the variety of project amenities, the better. Video rooms, game rooms and fitness centers will get a lot of use. A huge clubhouse isn't necessary, but there should be some type of multipurpose facility where residents can entertain, hold business meetings and the like.
- business meetings and the like.

  3. STRONG DESIGN AND UPSCALE
  FINISHES. In market-rate apartment
  projects, renters expect a higher level of
  design and interior finishes. Architecture
  needs to be appropriate for the site, and
  it's not uncommon to find such features
  as stainless steel appliances and granite
  countertops. Even if a large portion of
  units have standard finishes (such as vinyl
  flooring and laminate countertops), a certain percentage should feature upgrades.

students from Monmouth County Community College. Some commute to jobs in New York via the nearby light-rail station. "It's the last stop on the Jersey shore where you can get a one-seat ride into Manhattan," Minno says, adding that the town of Long Branch plans to build a new pier with a ferry line that will give New York commuters another option.

In addition to the biggest amenity — the Atlantic Ocean — there is a multipurpose room, a swimming pool and a 350-space parking garage that is masked from the street to enhance the community's architectural ambience. Residents have access to the boardwalk and a crescent-shaped park that will support year-round activity such as ice skaing and a farmer's market.

The ocean side of the development, Minno says, was easy to design because of the views. On the western side, a major north-south roadway, is a 50-foot, land-scaped buffer. "That has actually become an amenity," he says. "There are walking trails through it."

Phase 2 leased up quickly, and the developer wants to move forward with Phase 3, he says. "The nightlife [at Pier Village] is very strong. There are great restaurants and a beach club that gets a young, hip crowd. It's become not only a place to live, but a destination."

#### Single-Family Feel

Fifteen years ago, Dallas-based Humphreys & Partners Architects developed The Big House®, a group of multifamily units disguised as a large single-family house. The Big House® has since been used in more than 250 projects, the latest iteration being Newport on the Lake, a 234-unit apartment community in Houston.

To be more precise, Newport on the Lake is in West Houston, near the suburb of Katy and in a Katy school district.



PHASE 2 of
Pier Village
Apartments picks
up the strong
exterior colors
of Phase 1, but
has an edgier
design to attract
younger renters.
Photo: New World
Group

The area is known as the Energy Corridor and attracts young professionals working at the oil and engineering companies headquartered on that side of town, says CEO Mark Humphreys. "If you've been relocated from Louisiana or California and have a \$2,500 per month allowance for housing, you don't want to buy a house, and you don't want to live in a typical apartment project," says Humphreys.

Newport is anything but typical. Many units have attached two-car garages. The two-bedroom apartments (designed for women, he says), have II-foot-deep walk-in closets in the master bedroom. There are two dining areas, a dining room and a breakfast room, "which is unusual for an apartment, but not for a house." Apartments range from 650 to I,380 square feet.

Humphreys describes the architecture as coastal style, typified by siding and shingles. It's appropriate for this site with its man-made lake. "We wanted to tie the architecture to that feeling of being on the water, and the indigenous landscape that you would see on a beach." The groundcover of pine needles, and native plants such as pine trees, live oaks, palmettos and fountain grass, require little water. Turf was used only on the bocce ball court and the "sundowner deck," which is actually a grassy area overlooking the lake. "People can sit out there on Adirondack chairs, have a glass of wine and enjoy the sunset," says Humphreys.

Kayaks and bicycles are provided free to residents. There's also a clubhouse with a business center, fitness center, conference room and full kitchen, and a resort-style pool and spa with an outdoor kitchen.

Newport on the Lake was 95 percent leased at press time. It was developed by Cambridge Development Group, Houston, and built by C.F. Jordan, Dallas.

#### A Sense of Place

Camden College Park appeals to renters of all kinds, from students at the University of Maryland-College Park to young Rprofessionals and families with children. Even though the community is next door to an IKEA store and off Washington, D.C.'s busy Beltway, its pedestrian-friendly streets and multiple recreational spaces give it a genteel, suburban atmosphere.



RESIDENTS of Newport on the Lake can borrow kayaks to paddle around the community's man-made lake. Photo: Richard L. Muniz Photography



TWO-STORY TOWNHOUSES (with flats above) have stoops that connect to wide, tree-lined sidewalks. The building facades are a mix of brick, fibercement trim and panels, and an exterior insulation finishing system (EIFS). Photo: Rick Alexander and Associates

Now 96 percent leased, Camden College Park was built on a 10-acre site that IKEA sold to Camden Property Trust, a REIT that develops apartments all over the U.S. Architect Chad Askew of The Housing Studio, an architecture firm based in Charlotte, N.C., sought to create a project "that had more of a contemporary feel but still some traditional design elements, in addition to a quality streetscape on the primary road that runs through the site." Askew and his team designed townhouse-style units along this main street, with stoops that connect to the sidewalk. Flats are above the townhouses. Seven different courtyards are peppered throughout the community, including outdoor workout stations; lawns for golf, croquet and bocce; and a picnic area and playground.

Forty-seven different floor plans are offered among 508 units. Askew says this is partly because of the twists and turns the buildings take to fit the site. But there was also an effort to create a number of unique plans: "The basic interior layout might be the same, but with a number of iterations along the perimeter of the wall such as a bay in one location but not another, or a deep balcony in one spot and a very shallow or Juliet balcony in another."

According to community manager Chris Williams, the diverse renter profile is due to the location, the standard features and most of all, the amenities, which (in addition to the courtyards) include a resort-style pool, a rock-climbing wall and a coffee bar with free Wi-Fi. There's also free parking, door-to-door trash pickup, optional storage-unit rentals, individual security alarms and an auto-care facility.

Keith Anderson, executive vice president of Clark Builders Group in Arlington, Va., says the project was completed in 21 months — "not bad from a production standpoint." Because Clark shared an entrance with IKEA, arterial roads had to remain open during construction. "It was a tight site from an access point of view," Anderson says. "But we got ahead of it early, thanks to the owner having a good action plan in place." **PB** 



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nergy efficiency requirements for new-home construction have ■ been significantly increased with the introduction of the 2009 International Energy Conservation Code (IECC), and this updated code is becoming more and more pervasive in local jurisdictions around the country. It is likely that most new construction using the 2009 IECC will require some type of performance testing for ducts, as well as the whole building. In the past, building performance tests have been reserved strictly for high-performance, Energy Star-type homes.

What does this mean for builders? As with most updated codes, there are a number of specific changes through-

out the latest version of the energy code, and this article will not attempt to cover all of them. A careful review of the code and consulting with your local building department are the only real ways to learn about what is required.

However, there are two major changes that will have the

most potential to impact standard operating procedures for builders across the country: I) Duct and general air leakage testing are now mandated for all homes where any portion of the HVAC system is not in conditioned space; and 2) A blower door test is required unless a new special air barrier and insulation inspection is performed.

In the 2006 energy code, duct tightness and blower door tests were optional under the performance path, but not required for either the performance or prescriptive paths. Now these tests, or a comparable visual inspection by a third party, are mandatory for any home with any part of the HVAC system not enclosed in conditioned space. Many builders are unfamiliar with these types of tests and don't know where to start or

who to trust to complete them. To that end, we offer the following primer on duct tightness and blower door testing as they relate to the 2009 IECC.

#### Duct tightness testing

Leaky ducts can be a significant source of energy loss in both new and existing homes. Leaky supply ducts can send expensive conditioned air into unconditioned spaces such as attics and crawlspaces, and can be responsible for inadequate air distribution, resulting in rooms that are too cold or too warm for occupant comfort. A measure of the air tightness of the duct system can help identify leaks, and simple duct sealing methods can save energy and increase

conducting duct tests, as are the many HVAC installers. If you are already working with an energy rater, you are likely performing this kind of testing on your homes. If you're not, you may want to work with your current HVAC contractor to see if they are willing to become qualified to conduct this type of performance testing.

The upfront cost for the necessary equipment to conduct duct tests is not too steep for any contractor looking to get into it, and you may benefit from time and cost savings if your HVAC installer can wear both hats on your jobsite.

How and when is it done? For duct tightness testing, the 2009 energy code spells

out three different phases of construction when the testing can be conducted and four testing methods. Here's an overview of the acceptable methods and maximum readings based on the code:

I. Rough-in test performed when only ducts are set. The result should be a maximum of 4cfm/100

square feet of conditioned area.

- 2. Rough-in test after the air handler is installed. The result should be a maximum of 6cfm/100 square feet of conditioned area.
- 3. Post-construction testing of leakage to the outside of the building. The result should be a maximum of 8cfm/100 square feet of conditioned area.
- **4. Post-construction testing of total duct leakage.** The result should be a maximum of 12cfm/100 square feet of conditioned area.

To get the best test results possible, make sure to seal all take-offs, including flexible duct connections, with tape, straps or mastic. It may also be beneficial to conduct the testing in one of the pre-close-in phases that are allowed — and easier and cheaper to go back

#### **RESOURCES**

THERE ARE MANY SOURCES AVAILABLE to understand what steps are necessary to build a tighter house and install a tighter duct system, including the following:

**Duct Tightness Resources** 

- · www.greenbuildingadvisor.com/blogs/dept/musings/duct-leakage-testing
- www.engr.psu.edu/phrc/training/Duct%20Leakage%20Testing.pdf

**Building Tightness Resources** 

- www.nrel.gov/docs/fy00osti/26446.pdf
- www.habitat.org/env/pdf/air\_sealing/.pdf

Finding an Energy Rater

- www.energystar.gov/index.cfm?fuseaction=new\_homes\_partners.locator
- www.natresnet.org/directory/raters.aspx

occupant comfort.

The most common method of duct testing, a duct tightness test, involves pressurizing the duct system with a calibrated fan. The supply registers are sealed off and the ductwork is pressurized (usually to 25 Pascals or o.I in. water column) with a fan located near the air handler. The rate of airflow (expressed in cubic feet per minute at 25 Pascals of pressure) into the ducts is used to determine the duct tightness. When used in conjunction with a blower door test, the duct air loss to the exterior of the house can be determined.

The 2009 IECC is silent on specifying who is authorized to conduct duct tightness testing. Typically, energy raters or analysts are skilled at



and fix any leaks found before everything is sealed up behind the drywall.

If you haven't had duct testing conducted on your homes before, you may want to do a trial run on a home that was completed under the previous energy code just to see where your baseline is with your typical construction practices. That way you may be able to adjust your practices ahead of testing on the next home you build. It will be a lot easier than trying to find and repair duct leaks in the crawlspace or attic of a finished home.

The tightness requirement will be challenging for a number of HVAC installers who have never had their ducts tested. The other solution is to bring all ducts into conditioned space where a leaky duct does not directly result in wasting energy.

LEAKY DUCTS can be a significant source of energy loss in both new and existing homes. Duct tightness testing can help identify leaks. *Photo: Kes Spray Insulation* 

## Blower door testing

The blower door test measures the amount of air that flows into or out of a house while maintaining a set pressure difference between the indoors and outside. By using a calibrated fan and metering equipment, airflow can be measured at a variety of pressure differences around 50 Pascals. Test results are expressed in many ways, most commonly air changes per hour, under natural conditions (ACHnat) or at test pressure (ACH50); airflow at test pressure (CFM50); or equivalent leakage area (usually square inches).

Tighter homes have lower values than leaky homes. The blower door test is used to determine the airtightness of a home. A leaky house will lose more conditioned air to the outdoors or draw unconditioned air indoors. A very airtight house without mechanical ventilation can develop indoor air quality issues under some circumstances.

Who should perform the testing? Again, the code is not specific as to

who can conduct blower door tests to be in compliance with the code. Home energy raters or analysts are a good first choice for this kind of testing. However, the code also permits builders and insulation installers to conduct the tests; a third party is not required. You would obviously want to double-check with your local code inspector to make sure he is comfortable with you conducting your own tests. If so, the initial investment in the equipment and training may be worth it to offset more costs for outside testers.

Blower door tests are always conducted after the home is completed. The maximum test result for a blower door test in all regions of the country is 7ACH at 50 Pascals.

As with duct tightness testing, it would be a good idea to perform a blower door test on a previously constructed home to gauge your baseline and identify what you might be able to do to improve your readings for a new home. Most homes with

reasonable air sealing should be able to pass the 7ACH at 50 Pascals level.

#### Visual inspection alternative

Where the 2009 energy code calls for building envelope tightness testing, there is an alternative available: third-party (or code official) visual inspections. Using this method, an HVAC or insulation installer would conduct a series of visual inspections to ensure that all ducts are properly sealed, insulation is installed properly and cracks and openings to the outside are appropriately sealed. There are additional requirements for the visual inspection beyond those of typical air sealing, including insulated headers and corners. an air barrier behind tubs on an exterior wall and air barriers in common walls separating dwelling units.

#### Mastering party walls

One of the trickiest applications of the new code requirements for testing is residential buildings with party walls. There are many more variables for potential air leakage in these types of buildings than in single-family detached homes — including leakage between units, common areas and entrances, and variations in the number of exposed sides to each unit — and they are not all easily accounted for in the testing equation.

The 2009 IECC has a lot of ambiguity on this particular issue and there is no true industry standard for duct tightness and blower door tests as they relate to multifamily and single-family attached buildings. For these reasons, multifamily builders are probably best served to stick to the visual inspection option that is available under the new energy code and make sure, in advance of any inspections, that local code officials are comfortable with that plan of action. **PB** 

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Kitchen Fixtures



#### Hit the Beach

Introducing the stylish Beach Wall Mount Chimney Range Hood by Franke. The new hoods sport 600-CFM internal Aspira-TEK blowers, variable speed settings, a quiet mode, redesigned electronic controls and a recirculation fan. It measures approximately 30 inches across and is wall-mounted. For more info, go to www.HousingZone.com/PBinfo and enter # 244

buildit

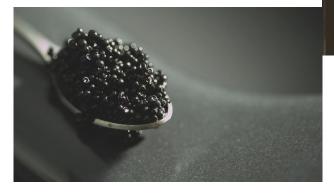
#### Don't be Left Fuming

Perfect for upscale kitchens, the new WT32 range hood from Best has a unique four-speed electronic, push-button control with translucent blue backlit indicator controls. The hood uses a delay timer that automatically shuts off the range hood after five minutes to ensure all cooking fumes have been cleared. It even has an indicator to let homeowners know to change the filter. For more info, go to www. HousingZone.com/PBinfo and enter # 242

#### High-Class Sinks

Kohler's new Caviar Cast Iron Sinks show the company has an eye for unique color techniques. The Caviar employs a partially translucent enamel mixed with heavy pigments to give a subtle, flecked appearance. The company guarantees the cast iron sinks won't chip, crack or burn. For more info, go to www.

HousingZone.com/PBinfo and enter # 243



### Smart and Cool... Really Cool

The Resource Saver refrigerator is the most efficient side-by-side refrigerator from Whirlpool yet. It exceeds federal minimum efficiency standards by 30 percent (equivalent to the power used by a 60-watt light bulb). It's a smart fridge, too. The company's 6th Sense technology helps quickly cool existing food and adjusts temperatures inside the refrigerator to normal operating temperatures. For more info, go to www.HousingZone.com/PBinfo and enter # 245





#### Taking the Lead on Lead

All American Standard kitchen and bar faucets sold nationwide will meet the latest lead-free requirements coming out of California. Shown here is the Pekoe Bar Faucet, which also meets the strict WaterSense standard maximum flow rate requirement of 1.5 gallons per minute. All models are equipped with washerless ceramic disc valves. For more info, go to www.HousingZone.com/PBinfo and enter # 246

#### Energy Star Deliciousness

Samsung's FTQ307 Induction Range, the recipient of a 2010 ICES Honoree Award in the Eco-Design and Sustainable Technology category, offers homeowners fast and efficient cooking, with precise controls and cool-to-the-touch features. The range also features a 3-fan convection oven and warming drawe. It MSRPs for about \$1,999. For more info, go to www.HousingZone.com/PBinfo and enter # 247



The 800 Series top-mount sink line by Oliveri features two and three basin models, including the Maxi and Gourmet basin. The company uses a clever design touch — the lip inside the top of the sink allows the cutting board and drain tray to fit securely. The extra-large faucet deck provides a stable platform for tall contemporary faucets. For more info, go to www.HousingZone.com/

PBinfo and enter # 248



#### Style, Meet Function -

Moen never skimps on style and the Arbor is no exception. It features a high-arc spout, multi-function pulldown wand and docking mechanism. The S-shaped handle, which can be installed on the right or left side of the faucet, adds an unexpected flair for high-end kitchens. Arbor is available in a single-hole mount, and a coverplate is included for three-hole sink applications. For more info, go to www. HousingZone.com/PBinfo and enter # 249



[BATHROOM PRODUCTS]

# Bath **Fixtures**

#### Rub a Dub Dub

The popular ioDIGITAL line gets a style boost in Roman tub applications with the 90° bath suite. The Moen faucet line features geometric, 90-degreeangled lines and a minimalist design. The new style option and bright chrome finish provides more variety to match consumer tastes and décor options. For more info, go to www. HousingZone.com/PBinfo and enter # 253

#### Walk this Way

The Walk Shower System by Novellini is ideal for retrofit installations and can be customized to include a fully equipped tower panel complete with multiple accessories. Features include up to eight jets, a limescale-proof rain showerhead, a thermostatic mixer, a hand shower and a methacrylate shower tray combined with an Iroko shower board (a tough, dense and very durable wood). For more info, go to www.HousingZone.com/PBinfo and enter # 251



#### Lovely Ava

Accessible hydrotherapy is Aquatic's goal in the new Ava line. The tub has a modern design paired with an automated door that lowers to open and rises to close, making entry and exit equally as simple for people who walk up or are in wheelchairs. A roomy, benchless bathing well accommodates a wider range of bathers. For more info, go to www. HousingZone.com/PBinfo and enter # 254

#### Sleek and Sophisticated

The Metal One collection by Xylem features, among other things, aluminum and chromed brass stands designed expressly for the company's glass vanity tops. According to Xylem, the Metal One line is made for those wanting a simple, modern look with uncomplicated functionality. A matching glass shelf that hangs suspended beneath by two aluminum tubes on either side to complete the streamlined design is among the many flairs. For more info, go to www.Housing-Zone.com/PBinfo and enter # 252

#### Heavy Metal Bathing

Copper naturally resists mold and bacteria, so it's no stretch to feature solid copper in the bath. Sunrise's new Riveted Copper Clad Cast Iron Eiffel Bath features a solid copper skirt that is a full quarter-inch thick. The copper sheet on the walls is welded for strength and attached with decorative rivets. The cast iron tub is made with a porcelain interior glazed with titanium. For more info, go to www.HousingZone.com/PBinfo and enter # 255







#### Dialed-In for Each Application

According to California Faucets, the new StyleTherm shower system boasts a lengthy list of features that are absent from pressure-balance systems. StyleTherm allows users to dial in exact temperatures and requires no diverter valve to toggle between shower applications, such as showerhead to handheld shower. Each shower application is operated via its own volume control. For more info, go to www.HousingZone.com/PBinfo and enter # 258

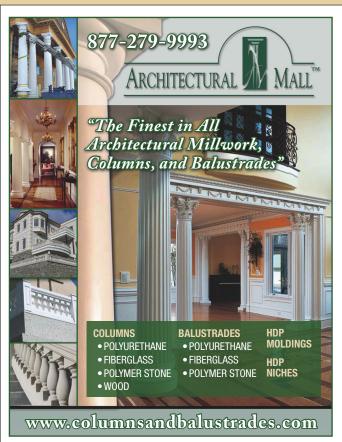
#### Swiss Style

"Modern" doesn't do Laufen's Palomba Lb3 collection of sinks, faucets, tubs and toilets justice. Stark, simple and elegant, the line is inspired by Bauhaus and European styles. Designers can mix and match the vanities with the wide array of sinks and countertops from the Lb3 line for complete design freedom. For more info, go to www.HousingZone.com/PBinfo and enter # 256

#### Shower, Pause, Shower,

Offer your homeowners a new take on showerheads with Alsons' new ActivTouch touch-activated hand shower. It allows consumers to relax and control their shower with one hand and three simple buttons-bathers can start and stop as they please. Style, as always, is top notch. The unit includes a 60-inch extendable shower hose, which stretches to 82 inches. For more info, go to www. HousingZone.com/PBinfo and enter # 257

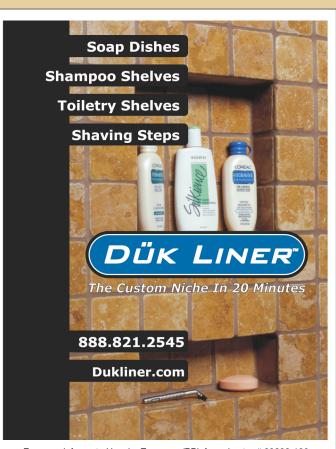




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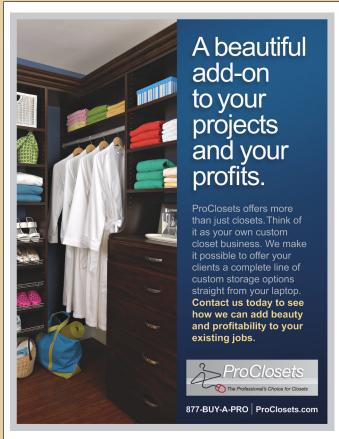
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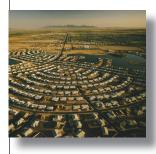
## Think about it

**3,000** The approximate number of home sites that mega-builder Toll



Brothers acquired in the last four months. The company's spending spree includes Hasentree, a residential golf-course community in Wake Forest, N.C.

The percent population growth of traditional retirement destinations like Las Vegas, Orlando and Phoenix between 2007 and 2009, down from 3.1 percent between 2000 and 2007, according to the Associated Press. AP says boomers are staying put, close to where the jobs are.



**17,500** The number of women that are members of the National Association of Home Builders, according to a March 12 *Dallas Morning News* article on **female home builders**.



**6.0** The projected percent **increase in home prices** in Santa Rosa, Calif., during the next year, according to *Money Magazine*. Santa Rosa topped the magazine's list of cities with home prices on the rise. Rounding out the top five are Cheyenne, Wyo. (+4.7 percent); Kennewick, Wash. (4.6 percent); Merced, Calif. (4.4 percent); and Bremerton, Wash. (4.2 percent).



**16.6** The percent of Americans that **live in a multigenerational household**, up 30 percent since 2000, according to the U.S. Census Bureau.

**197,784** The number of homes flipped last year, up 19 percent from 2008, according to RealtyTrac. The sharp increase is primarily the result of a **FHA rule change** that allows borrowers to buy foreclosed homes from owners who have held the title for less than 90 days.

**553,000** The number of vacation homes sold in 2009, up from 513,000 in 2008 (a 7.9 percent gain), according to the **National Association of Realtors**' 2010 Investment and Vacation Home Buyers Survey.



**308,000** The seasonally adjusted level of new-home sales in February 2010, according to the U.S. Census Bureau — **a historic low for the indicator**. February figures were off 2.2 percent from January 2010 and 13 percent from February 2009.

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