

# Professional Builder®



# TOP 100 PRODUCTS



**ALSO IN THIS ISSUE**  
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Resolving Process Failure / 86



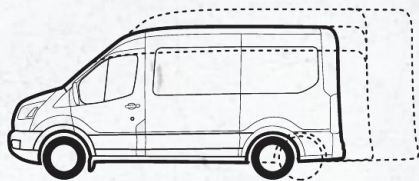
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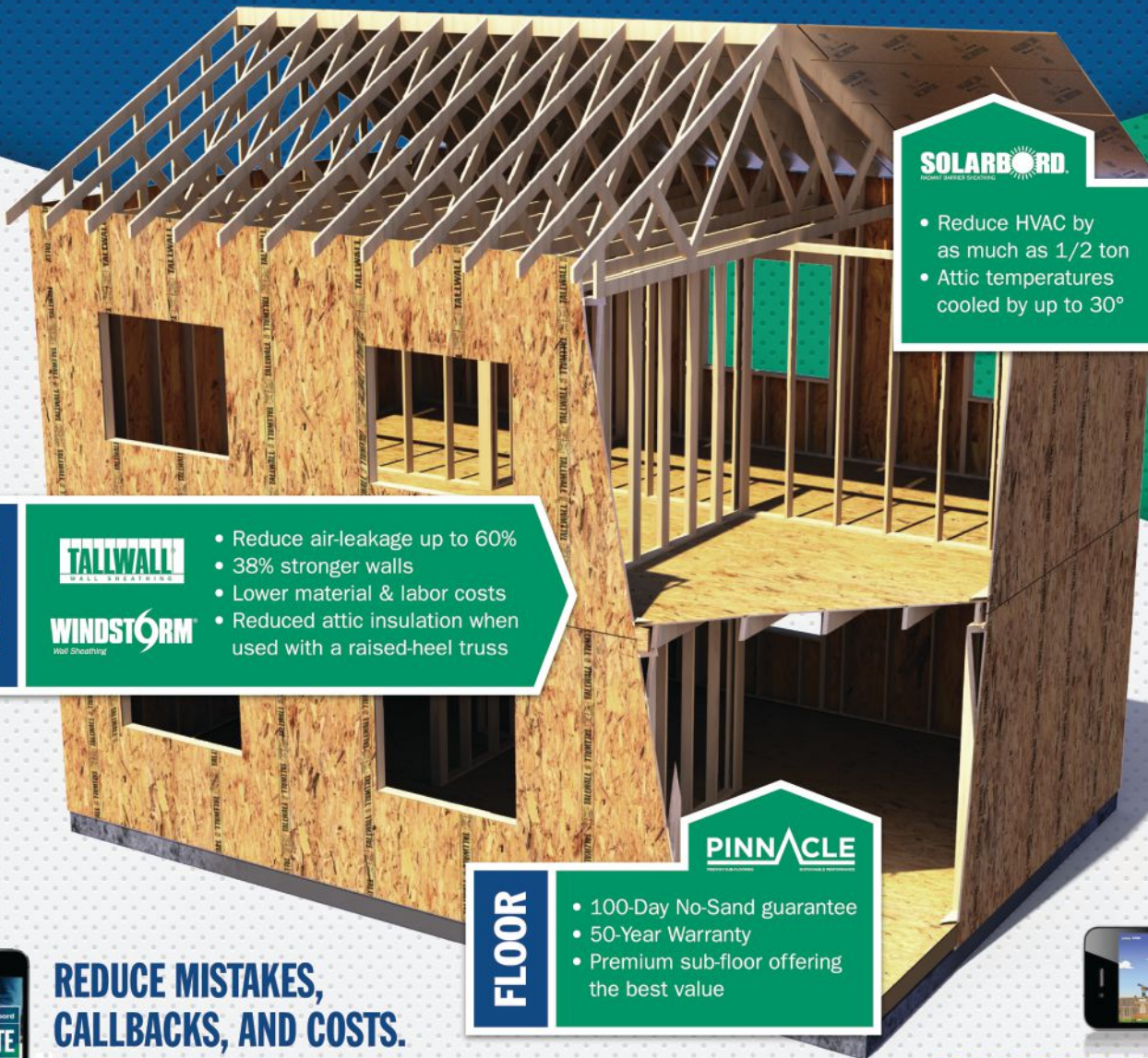
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# august

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# Labor Pain

The release of June housing starts and permits by the Census Bureau was met with great fanfare by the media, eliciting headlines such as “Housing Starts Jump 26.6%” and “Building Permits Surge 30% Year-Over-Year.” Not called out in many of the headlines was that the gains were all in the multifamily sector, and most of them for rental apartments. On a monthly basis, single-family permits decreased 1 percent while multifamily increased by 29 percent.

It’s true that the recession stalled the usual progression of first-time buyers into the market and that, by and large, it is good for the entire industry that household formations are increasing, no matter whether those households rent or buy. But that’s not the whole story behind the paltry single-family numbers. There are more buyers out there for single-family homes, but many builders just don’t have the labor to build them.

A recent article by CNBC’s Diana Olick quotes Bruno Pasquinelli, president of CB Jeni Homes, in Dallas, as saying that builders there are taking “a complete beating” from the labor shortage. In *The Wall Street Journal*, another Texas builder, CastleRock Communities’ partner Lance Wright, said that instead of the 45 days it usually takes from contract to start, he has “houses sitting 60 to 90 days, waiting to get out of the ground.” Others around the country tell the same story. A builder in Denver told me that his company is operating at around 50 percent of what it could be doing due to lack of labor.

During the housing boom, I ran a series of articles on immigrant labor in the construction industry. At that time, many of these workers were undocumented. The stories reported on the industry’s dependence on an immigrant workforce, how it was playing out in different areas of the country, and the issues associated with running operations with workers who were keeping one eye out for the authorities.

A few days after the magazine mailed, I began receiving emails and letters from outraged readers about the article. Most of them felt that such attention should not have been given to the topic, that

they themselves did not hire illegals, and that they were cancelling their subscriptions. One especially memorable phone call on the subject came from a builder’s wife. Her voice trembled with rage as she told me it was un-American to focus attention on people who were taking jobs away from “our boys.”

The fact is, there were not enough of “our boys” working in construction to sustain the level of building then, just as there are not enough now—even with today’s smaller production numbers. Please be assured that I am not in favor of loosening our current border security measures or forgoing enforcement of restrictions on the employment of people who are in our country illegally. I do feel that we missed an opportunity back then to develop a guest worker program for construction, but that ship has sailed.

So what can be done? Industry consultant Scott Sedam has been writing in these pages for a long






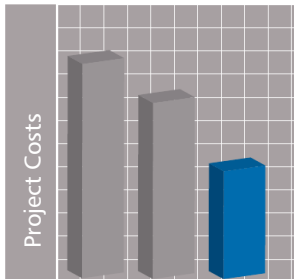








Something larger, more game-changing, needs to happen.

time about this issue. Two years ago, he tried to whip up interest in starting programs to bring more young people into construction, to no avail. Since then, he has turned his attention to helping interested builders become a “builder of choice.”

But in order to ease the pain of labor shortages, perhaps something larger, more game-changing, needs to happen. One idea would be for the industry to start using more panelization. Building panelized components in a factory environment reduces waste, shortens construction times, and saves money on materials. But more importantly, it can provide jobs that are steady and year-round. Builders are already using preassembled windows, doors, and roofing systems. Maybe it’s time to take the next step.

**Denise Dersin, Editorial Director**  
ddersin@sgcmail.com

# It's Not Complicated, Saving is Better!

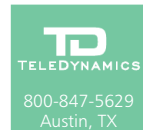
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847.391.1000 • Fax: 847.390.0408

## STAFF

### EDITORIAL DIRECTOR

Denise Dersin  
703.992.7640; ddersin@sgcmail.com

### EDITOR-IN-CHIEF

Amy Albert  
818.308.6648; aalbert@sgcmail.com

### SENIOR EDITOR

Mike Beirne  
847.391.1051; mbeirne@sgcmail.com

### CONTENT MANAGER

Ingrid Bush  
202.780.9591; ibush@sgcmail.com

### ASSOCIATE EDITOR

Michael Chamernik  
847.954.7976; mchamernik@sgcmail.com

### CONTRIBUTING EDITORS

Susan Bady | Bob Schultz | Scott Sedam

### DESIGNER

Robin Hicks

### GROUP DIRECTOR – PRINCIPAL

Tony Mancini  
484.412.8686; tmancini@sgcmail.com

### DIRECTOR OF EVENTS

Judy Brociek  
847.954.7943; jbrociek@sgcmail.com

### DIRECTOR OF AUDIENCE DEVELOPMENT

Doug Riemer

### MANAGER OF CREATIVE SERVICES

Lois Hince

### MARKETING DIRECTOR

Michael Porcaro  
847.954.7925; mporcaro@sgcmail.com

### SUBSCRIPTION INQUIRIES

Circulation Department, Professional Builder  
3030 W. Salt Creek Lane, Suite 201  
Arlington Heights, IL 60005-5025  
circulation@sgcmail.com

### REPRINTS

John Premetz  
219.670.0045; johnapremetz@att.net

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## Soft Sell

The last scene of the final episode of *Mad Men*, AMC's hit TV series, finds advertising mastermind Donald Draper seated in a lotus position, chanting at a meditation retreat on the California coast. While the others in the group are looking within, Don is dreaming up one of the most famous and successful TV commercials of all time, the 1970s "Hilltop" Coca-Cola ad, in which a huge chorus of flower children croons about teaching the world to sing in perfect harmony.

It's a clever bit of storytelling, but not because we've caught our antihero in the act of not meditating. Don's Esalen epiphany captures a moment in the history of commerce: when advertising becomes fully aware of its own astonishing ability to leverage youthful idealism to sell a soft drink.

The Scottish author Robert Louis Stevenson, who rejected working in the family lighthouse business in order to become a writer, is credited with saying that "Everyone lives by selling something." But in modern times, being brand-aware is being smart because a crucial aspect of good quality is the reliable products you choose for constructing your homes. Sound products help you keep the promise you make to buyers, and they help you maintain your hard-earned reputation.

Each month we devote several pages to delivering the latest in new products. But this month we center almost the entire issue around them. How do we know they're worth the trouble? You told us. The 100 products featured here were selected by you, the readers, as those you're most interested in using.

But there's more to this issue. We've partnered with the NAHB's Home Innovation Research Labs to bring you the latest results of its brand-use survey, which HIRL has been doing annually since 1994. Now compiled for the first time into an extensive report, the study asks builders in 32 regions of the U.S. about the brands of flooring, kitchen appliances, HVAC systems, interior paints, decking, and other products they're currently using. The methodology was developed in the 1970s by PhDs with strong grounding in both statistics and the housing industry. "I have the first research ever published, with coffee stains all over it," says Ed Hudson, director of market research at HIRL.

So, on the pages that follow, no hard sell, just top picks from professional builders. After all, what more trusted endorsement is there than a recommendation from a peer?

**Amy Albert, Editor-in-Chief**

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## FINANCING

## Arizona Launches Path to Home Ownership



The Arizona Housing Finance Authority launched a new program called the HOME Plus home loan program that will assist prospective homebuyers with a non-repayable down-payment assistance grant. The new loan program is available to statewide renters (except those in Pima County). The program was introduced as a response to increasing rents, which often prevent creditworthy renters from being able to save enough money for a down payment. Buyers who have sufficient credit to be approved to buy a home are eligible.

The down-payment assistance grant can be used for the down payment and closing costs of a home equal to 4 percent of the initial principal balance of the mortgage loan. Qualified U.S. military personnel and veterans may receive an additional 1 percent of down-payment assistance for a total of 5 percent of the mortgage amount.

Dirk Swift, the Arizona Housing Finance Authority's Homeowner Programs administrator, said in a press release that HOME Plus raises funds for its initiative in national capital markets and forms partnerships with banking and lending institutions to facilitate the HOME Plus program throughout Arizona.

Homeownership rates in Arizona mirror the national average, which is at its lowest rate in two decades. But despite these low ownership rates, many who

rent still want to own their own home. "Zillow research has found that Millennials are now actually more eager to own a home than older Americans, but their biggest challenge is coming

up with enough money for a down payment," Swift explained to *Professional Builder*. "With the HOME Plus program, this obstacle has been removed. Over the past two months, the Arizona Housing

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[MARKET UPDATE]

Finance Authority has helped more than 275 new homebuyers by providing more than \$1.7 million in down payment assistance grants.”

Swift notes the challenge in boosting

awareness of the down-payment assistance program. “A recent NeighborWorks American study showed 70 percent of Americans are unaware of down-payment assistance programs,”

Swift says. “When homebuyers don’t know down-payment assistance programs exist, they aren’t seeking these solutions.” The HOME Plus program creates a pathway to homeownership by giving creditworthy renters who can qualify for a mortgage but cannot afford the down payment the funds they need to purchase a home of their own.

Those who have an annual household income of less than \$88,340 and are planning to buy a home that costs less than \$353,360 can access the funds for the down-payment assistance grant. Buyers must work through an Arizona Housing Finance Authority approved and participating lender to obtain a Fannie Mae HFS Preferred 30-year fixed mortgage. The grant is only available in conjunction with a HOME Plus loan, and those using the grant do not have to be first-time homebuyers to qualify. **PB**



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HOUSING REPORT

## Renters Play Bigger Role in Housing



Whether one rents or owns may be more a stage-of life decision rather than a choice determined by being part of a particular generation. Older households generally are

expected to stay put in their owned homes. However, Tony Green, managing partner of The Pinehills, a master planned community in Plymouth, Mass., presented a scenario during a conference session at the recent PCBC held in San Diego that speaks to one source of demand for rental housing.

Seeing an unmet need for rentals, The Pinehills management introduced plans to build apartments.

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[MARKET UPDATE]

Homeowners were concerned and expressed fears about changing the character of their community and decreasing property values. But a middle-aged, recently widowed Pinehills homeowner

put a face on this particular housing need. Due to her new circumstance, she needed to find affordable housing but still wanted to stay in The Pinehills.

During a community forum, she

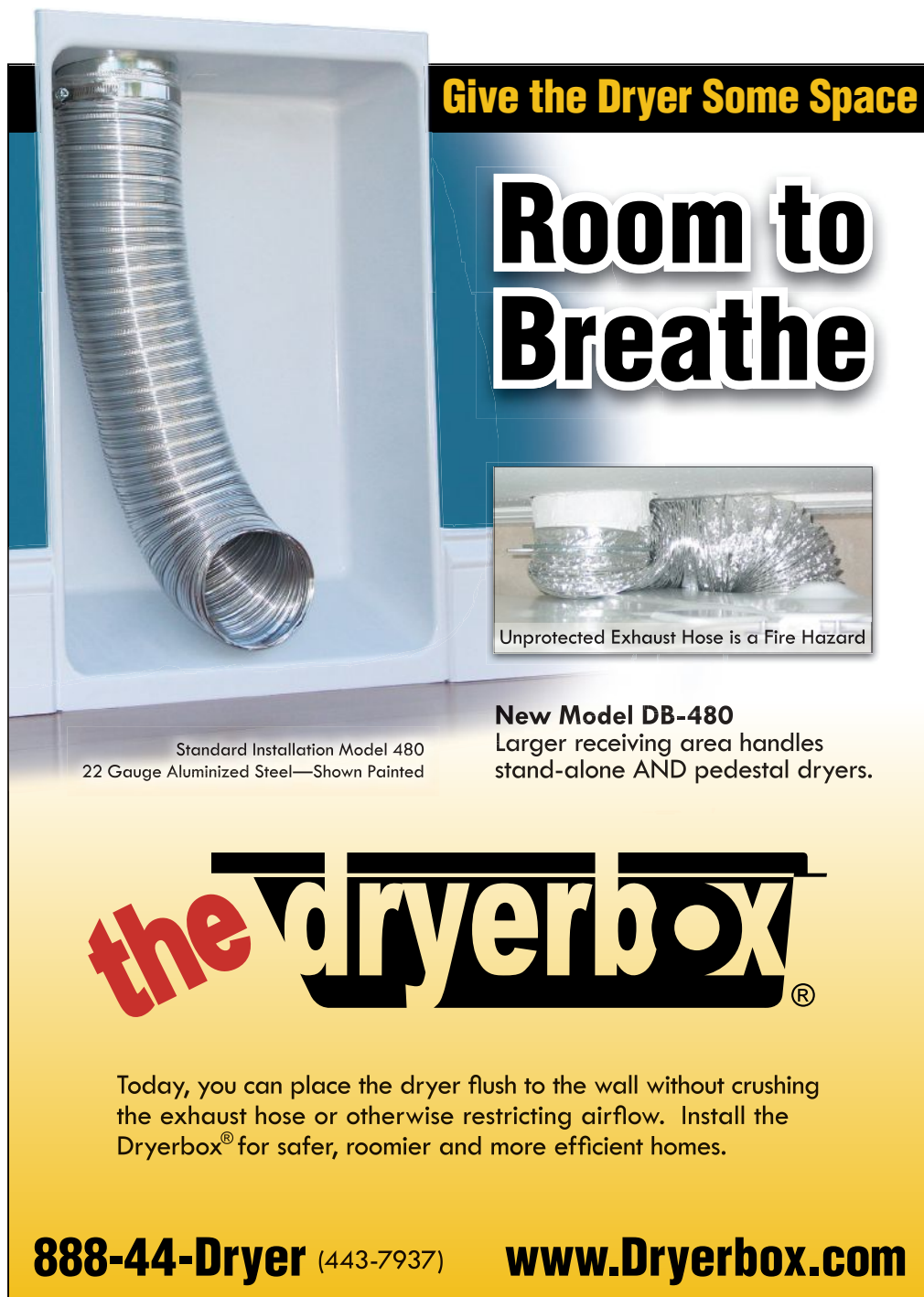
explained to fellow homeowners that their opposition to apartments would exclude her from the community she wanted to stay in. Green said that the homeowners relented.

An annual report released by the Joint Center for Housing Studies of Harvard University reveals that the growing pool of renters is coming from older and wealthier households. The report, titled "The State of the Nation's Housing," says that renter household growth tracked by the Housing Vacancy Survey has averaged 770,000 annually since 2004, making 2004 to 2014 the best 10-year period for renter growth since the late 1980s.

Households aged 45 to 64 account for about twice the increase in renters than do households under the age of 35. Even households in the top half of the income distribution, generally assumed to be homeowners, contribute 43 percent to the growth in renters. The highest demand in history for rental housing consequently pushed multifamily starts to its highest level ever in a quarter century, with developers adding 1.2 million units since 2010.

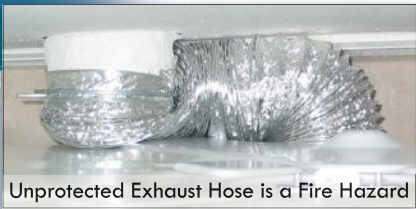
The report credits single-family homes with helping to meet the current demand for rental housing. Besides mom-and-pop landlords, companies such as Waypoint Homes, an Oakland, Calif., subsidiary of Starwood Property Trust, have bought and renovated more than 10,000 houses for lease in seven states. Renters in single-family detached homes increased by 3.2 million between 2004 and 2013 and lifted the single-family share of occupied rentals to 35 percent from 31 percent.

Despite the expansion of rental stock, the national vacancy rate dipped to its lowest point in almost 20 years and the market is likely to remain tight as Millennials move from their parents' homes and form their own households. Indeed, the Joint Center projects that the combination of young adults and immigrants to the U.S. should return annual household growth to its longer-run average of about 1.2 million through



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[MARKET UPDATE]

2025. These new households may be renters first but are likely to participate as first-time and move-up homebuyers, particularly as today's young adults move into their 30s and 40s.

The Joint Center's latest projections indicate that adults younger than 30 will account for more than 20 million new households during the next 10 years, and that most of those will

be renters. However, the middle class is burdened by rising rents, which, at 3.2 percent, have outpaced inflation by double. The study reports that almost 50 percent of renters see more than half of their income consumed by the cost of housing, and that burden is creeping up the income ladder. Twenty percent of renters who earn between \$45,000 and \$75,000 a year are now weighed down by the cost of renting.

The most likely prospects for single-family homes are probably middle-aged and married with kids; households headed by a single parent; and childless married couples. But the progress of single-family starts is still sluggish, the report says. Though starts last year broke 1 million, the Joint Center adds that, housing crash notwithstanding, that number would have been a 50-year low. However, some mitigating developments include the slowdown in existing home sales and foreclosure-related sales, with slight growth in non-distress-related sales.

"The lingering effects of the housing crash are clear," says the report. "Despite the rebound in home prices, many homeowners are still left with negative or limited equity." Using statistics collected by CoreLogic, the study cites the number of homeowners with less than 20 percent equity at 15 million. "Since these owners would be hard-pressed to cover the costs of selling their homes and also come up with a down payment on another property, they are effectively shut out of the housing market," the report says.

While unemployment is below 6 percent and the U.S. has seen steady job growth since 2010, the Joint Center's report cites the long-term drop in household income as a crucial concern. Median household income in 2013 was \$51,900, off 8 percent from 2007 and comparable to 1995 levels. The report counters with a bright spot: Signs in the beginning of 2015 point to a lift in wages that could provide a welcome boost to the housing industry. **PB**

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# USE OF HEALTH REIMBURSEMENT ARRANGEMENTS MAY PROMPT FINES

**B**uilders and other small-business owners who want to make health care insurance more affordable for their employees could face excessive penalties from the Internal Revenue Service (IRS) as high as \$36,500 per year, per employee.

The penalties come from a provision in the Affordable Care Act regarding the use of Health Reimbursement Arrangements (HRAs) that allow employers to provide pre-tax dollars to employees to help them pay for medical care. Prior to enactment of the Affordable Care Act, HRAs were an important tool for small businesses with fewer than 50 workers seeking to help their employees pay for their family's health care.

Employers with fewer than 50 full-time workers are not required to offer health care to their employees. But instead of encouraging small businesses to help defray the cost of health care, the law unfairly penalizes companies that offer HRAs, which is one of the most efficient methods for small-business owners to give employees more choice and greater control over their health care coverage.

This provision went into effect on July 1, and all employers, regardless of size, face fines of \$100 per day, per employee from the IRS if they try to make health insurance more affordable for their workers through HRAs. These penalties are more than 18 times greater than the \$2,000 employer mandate penalty per full-time employee that's being phased in for businesses with more than 50 workers that fail to provide qualifying health coverage to their employees.

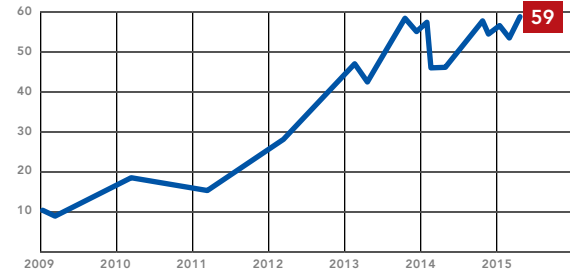
The good news: Legislation that would remedy the situation is pending in both chambers of Congress. The Small Business Healthcare Relief Act was introduced in the House by Reps. Charles Boustany, R-La., and Mike Thompson, D-Calif., and in the Senate by Sens. Charles Grassley, R-Iowa, and Heidi Heitkamp, D-N.D. This bipartisan legislation would enable small businesses with fewer than 50 employees to continue using HRAs to help employees cover the cost of health insurance. It would also protect employers from being financially penalized for providing this cost-sharing option to their employees.

Congress needs to act quickly on this legislation so that small businesses can continue to provide health care assistance to their employees—voluntarily—without fear of needless penalties. And until this legislation becomes law, the government should not penalize employers that use HRAs to help their employees. **PB**

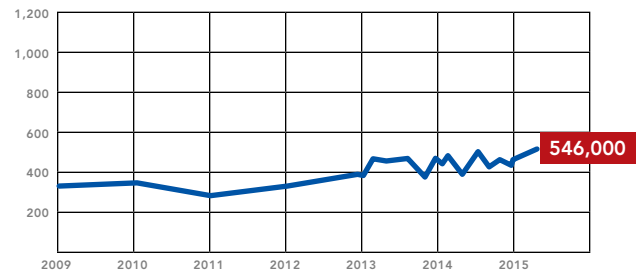
ABOUT NAHB: THE NATIONAL ASSOCIATION OF HOME BUILDERS IS A WASHINGTON, D.C.-BASED TRADE ASSOCIATION REPRESENTING MORE THAN 140,000 MEMBERS INVOLVED IN REMODELING, HOME BUILDING, MULTIFAMILY CONSTRUCTION, PROPERTY MANAGEMENT, SUBCONTRACTING, DESIGN, HOUSING FINANCE, BUILDING PRODUCT MANUFACTURING, AND OTHER ASPECTS OF RESIDENTIAL AND LIGHT COMMERCIAL CONSTRUCTION. FOR MORE, VISIT NAHB.ORG.

## HOUSING MARKET SNAPSHOT

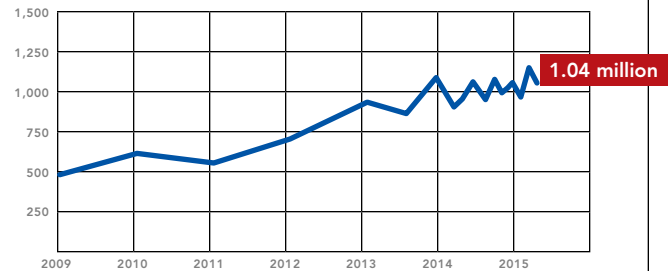
**BUILDER CONFIDENCE GREW**



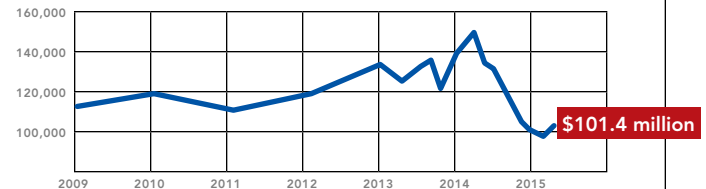
**NEW-HOME SALES ROSE**



**HOUSING STARTS DROPPED**



**REMODELING SPENDING INCREASED**



According to the NAHB/Wells Fargo Housing Index, builder confidence was bolder in June, gaining five points from the previous month. May new-home sales gained 2.2 percent from April to an annual rate of 546,000 homes while new-home starts dropped 11.1 percent during the same period to an annual rate of 1.04 million. Remodeling spending in May edged up 0.9 percent to \$101.4 million.

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2014 Employer Health Benefits Survey, The Henry J. Kaiser Family Foundation, September 10, 2014. <sup>2</sup>One Day Pay<sup>SM</sup> is available for most properly documented, individual claims submitted online through Aflac SmartClaim<sup>®</sup> by 3 PM ET. Aflac SmartClaim<sup>®</sup> not available on the following: Short Term Disability (excluding Accident and Sickness Riders), Life, Vision, Dental, Medicare Supplement, Long Term Care/Home Health Care, Aflac Plus Rider and Group policies. Individual Company Statistic, 2015. <sup>3</sup>Eastbridge Consulting Group, U.S. Worksite/Voluntary Sales Report. Carrier Results for 2002-2014. Avon, CT. Coverage is underwritten by American Family Life Assurance Company of Columbus. In New York, coverage is underwritten by American Family Life Assurance Company of New York.



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# CREATING A FIRST IMPRESSION

Brick and stone veneer gain ground as buyers seek curb appeal and low maintenance for their exterior material and design choices

By Mike Beirne, Senior Editor

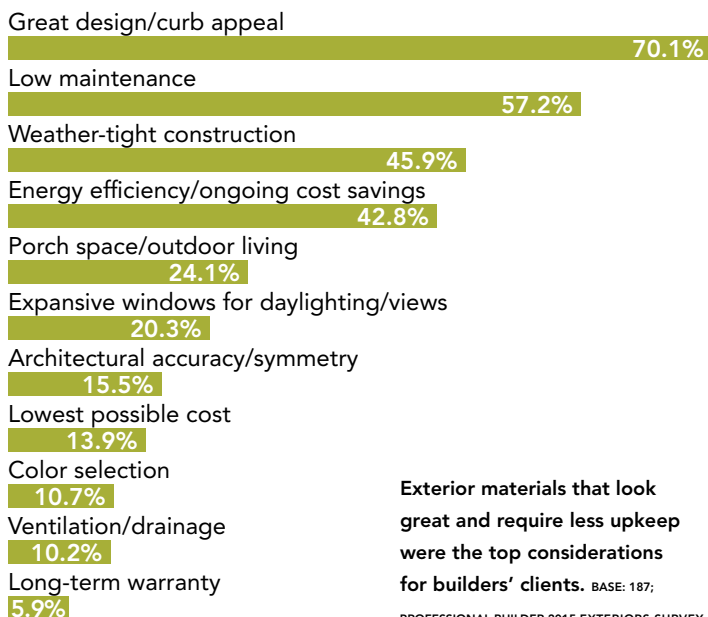
Homebuyers are increasingly cognizant of the importance of curb appeal and consequently are demanding exteriors with varied materials and treatments. Builders and architect/designers who completed *Professional Builder's* Exterior Design survey noted that their clients are asking for more brick and stone. However, a shortage of skilled masons could explain why more builders are spec'ing stone veneer and brick veneer for their projects.

A considerable number of builders also stated in their

comments that they're spending more money on what goes underneath the cladding. "We invested more dollars in house-wrap, rain screening, insulation, window upgrades. All premium products and installation methods to make sure no water penetrates the building," wrote a New Jersey home builder and remodeler. Plants and grass also are factoring into delivering more curb appeal as builders put more focus on landscaping and outdoor living amenities. More findings from the 2015 survey are presented in the charts that follow.

## BUYER CONSIDERATIONS

In general, what are the most important issues among your buyers with regard to the home exterior?

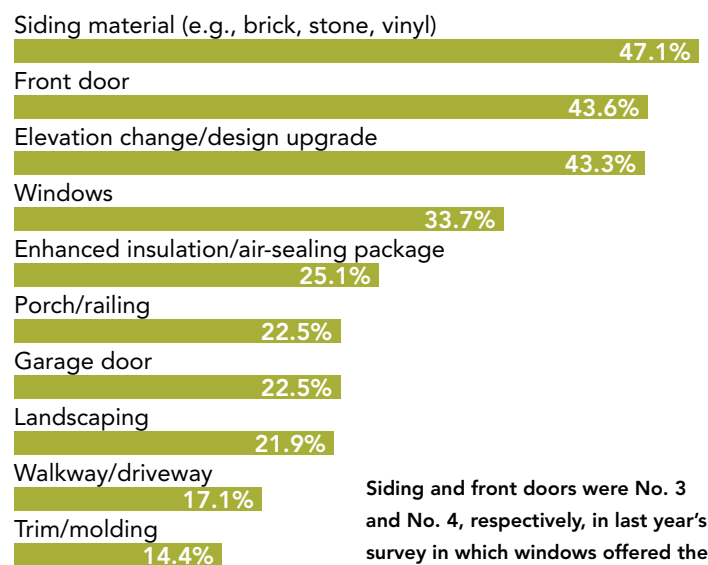


Exterior materials that look great and require less upkeep were the top considerations for builders' clients. BASE: 187;

PROFESSIONAL BUILDER 2015 EXTERIORS SURVEY

## UPGRADES, COST, AND INVESTMENT

In which areas have you had the most success selling home exterior upgrades? Pick your top three.

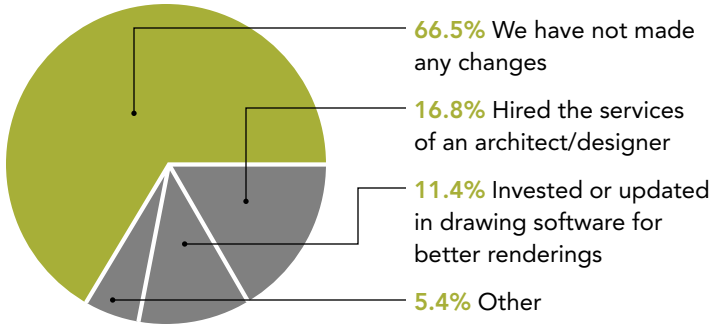


Siding and front doors were No. 3 and No. 4, respectively, in last year's survey in which windows offered the top upgrade opportunity. BASE: 187;

PROFESSIONAL BUILDER 2015 EXTERIORS SURVEY

**UPGRADES, COST, AND INVESTMENT (CONT.)**

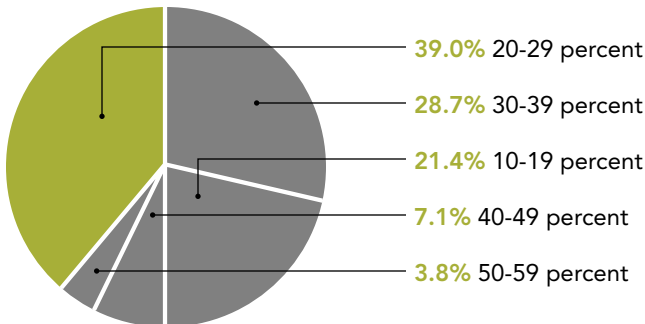
What is the single biggest change you made to your home exterior (design or material) offering in the past 12 months in order to meet the needs/demands of your buyers?



Among the changes mentioned in the "other" category were the use of upgraded materials such as composite siding and stone veneer and building house designs that are more contemporary.

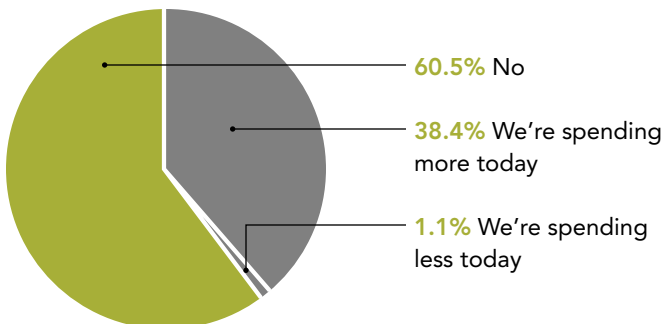
BASE: 185; PROFESSIONAL BUILDER 2015 EXTERIORS SURVEY

Please estimate the percentage of the total cost (materials and labor) of your new homes that is spent on the exterior.



BASE: 185; PROFESSIONAL BUILDER 2015 EXTERIORS SURVEY

In general, has the amount your company invests in exterior design/materials changed in the past 24 months?



BASE: 185; PROFESSIONAL BUILDER 2015 EXTERIORS SURVEY

Explain why and in which areas you've invested more or less

Exterior trim details, windows, more protective underlayment, drainage behind cladding. (Connecticut production home builder)

More stone and stucco and less brick. More tile roofs and less asphalt. (Texas custom home builder)

Costs have increased for most materials. Insurance costs are up. Roofing installation costs are up as well, thanks to OSHA rules and decreased productivity. A lot of clients are trying to save money by being their own general contractors, which, without specialized knowledge, is costing them more. (Michigan builder/remodeler)

Customers seem to want better quality materials for both interior and exterior of houses. There has been an increase for all brick veneer or stone veneer where before it was all vinyl. If vinyl is being used, there seems to be some brick veneer or stone veneer. (Ohio custom home builder)

We install more stucco and less brick. (Texas custom home builder)

Designing a variety of house styles that have authentic appeal: farmhouse, Arts and Crafts, Tudor cottage, etc. (Pennsylvania production home builder)

Spending more as a result of developing all new homes on VisionRez (BIM software) to provide a more detailed look at what we are building. (Texas luxury production home builder)

Using more fiber-cement product and real stone (thin-cut veneer). (Pennsylvania luxury production home builder)

Customers want more energy-efficient materials, which are more expensive. (Rhode Island, builder/remodeler)

Screens or double skins; highly energy-efficient windows; more insulation in exterior walls; overhangs or shade screens. (California architect/designer)

Better curb appeal, mainly hardscapes and integrated landscape planning. (Georgia builder/remodeler)

We're investing much more in windows and doors. Also, most clients want more involved patios with a place to entertain out of doors. (Pennsylvania production home builder)

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<sup>1</sup>Data current as of 3.26.15 [www.AHRIdirectory.org](http://www.AHRIdirectory.org)

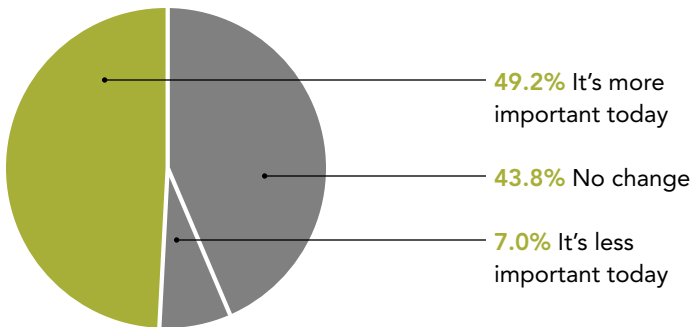
**SIDING**

What types of siding/exterior materials do you specify for your new homes?

Homes:	All	Most	Some	None
Fiber cement	12.5%	21.7%	40.8%	25.0%
Stucco/EIFS	11.5%	19.4%	35.3%	33.8%
Vinyl siding	9.8%	24.8%	30.8%	34.6%
Stone veneer	6.9%	23.6%	47.2%	22.2%
Concrete/concrete block	6.9%	4.3%	24.1%	64.7%
Wood	5.8%	12.4%	42.9%	38.8%
Brick veneer	5.7%	14.5%	39.5%	40.3%
Brick	5.2%	15.7%	44.8%	34.3%
Stone	4.8%	17.6%	34.4%	43.2%
Composite siding	4.4%	8.7%	38.3%	48.7%

Brick is widely available and popular with Midwestern builders, but the material, as well as stone, dropped to the bottom of the list compared with the 2014 survey. Several builders noted that they had difficulty finding brick and stone masons. Insulated vinyl, aluminum/metal siding, and composite shakes/shingles did not make the top 10. BASE: 187; PROFESSIONAL BUILDER 2015 exteriors survey

Compared with two years ago, when it comes to selling new homes, how much more or less important to your clients is offering elevation designs that incorporate multiple exterior materials?



Eighty-seven percent of survey respondents also said they use multiple materials for exterior cladding on an individual home.

BASE: 185; PROFESSIONAL BUILDER 2015 EXTERIORS SURVEY

**ROOFING**

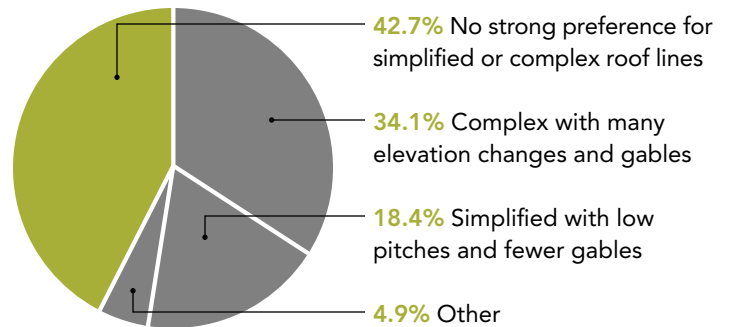
What types of roofing material do you specify for your homes?

Homes:	All	Most	Some	None
Asphalt shingle	33.5%	46.5%	18.2%	1.8%
Concrete/clay tile	9.6%	9.6%	24%	56.8%
Metal	2.3%	11.7%	63.3%	22.7%
Synthetic	2.0%	2.0%	14.7%	81.4%
Wood shake/shingle	0%	1.9%	25.7%	72.4%
Slate	0%	2.9%	17.3%	79.8%

Asphalt shingle is the most popular roofing material, with 80 percent of builders surveyed indicating they use it on all or on most of their projects, followed by concrete/clay tile and metal.

BASE: 171; PROFESSIONAL BUILDER 2015 EXTERIORS SURVEY

During the past 12 months, which type of roof line did most of your clients prefer?



The majority of builders perceived client preferences for either simplified or complex roof line design. BASE: 185; PROFESSIONAL BUILDER 2015 EXTERIORS SURVEY

**METHODOLOGY & RESPONDENT INFORMATION**

This survey was distributed between May 20 and June 11, 2015, to a random sample of *Professional Builder's* print and digital readers. No incentive was offered. By closing date, a total of 187 eligible readers returned completed surveys. Respondent breakdown by discipline: 29.4 percent custom home builder; 20.3 percent diversified builder/remodeler; 16.6 percent production builder for move-up/move-down buyers; 14.4 percent architect/designer engaged in home building; 4.3 percent luxury production builder; 4.3 percent production builder for first-time buyers; 3.7 percent manufactured, modular, log home, or systems builder; 2.7 percent multifamily; and 4.3 percent other. Approximately 53.4 percent of respondents sold one to five homes in 2014, and 18 percent sold more than 50 homes.



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By Mike Lyon, Contributing Editor

**S**ales and marketing leaders all across the country have heard—or will soon hear—this request: You need to hire an online sales specialist, and he or she had better be great. Whether you’re creating this position, replacing an underperforming employee, or expanding your team, the online sales program is now a priority for builders everywhere.

Why? Because so many builders are seeing the huge opportunity to increase sales by improving the customer experience on the front end. Surveys show us, year after year, that if you send new leads to front-line sales, they often receive less-than-stellar follow-up. Last year, the Online Lead Response Survey we conducted in partnership with Lasso CRM revealed that 39% of the builders shopped did not respond via email to leads and 69% never called the lead. (To download the Lead Response Survey, visit [www.lassocrm.com/2014survey](http://www.lassocrm.com/2014survey).)

The bad news is that most builders aren’t following up. The good news is that most builders aren’t following up. That creates tremendous opportunity for those who are following up with prospects and exceeding their expectations.

When you establish a position to manage all of these new contacts—combined with the right follow-up process—you will increase sales dramatically. Believe it or not, you’ll be able to instantly place yourself in the top 3% of builders nationwide.

## AVOID COMMON PITFALLS

Start off by hiring the right online sales specialist. Don’t fall into common traps we often see:

- Grabbing that admin who isn’t doing anything else and having him or her do it.
- Turning it over to your marketing person.
- Recruiting the same way you do for your sales team.

This role is the face of your organization—the first contact that many will have with your company. It’s not a salesperson

in the classic sense. It’s also not a marketing person per se, and it most definitely is not an admin or support position. Your online sales specialist requires a unique set of skills in order to be successful. If you underestimate the importance, you set up the person and the position for failure—potentially dismissing a valuable role for your company because of poor hiring practices. Put as much effort into finding the right person as you would for anyone on your sales team.

## HUNTERS VS. FARMERS

Your typical salesperson has a classic hunter profile. Find the sale, kill the sale, drag the sale home, and triumphantly drop it in front of the manager. While he ogles the kill, the salesperson might say, “I did the hard work. Do your own paperwork.” (Can you tell that I’m a salesperson, too?)

Many salespeople claim they’re not detail oriented. When you talk about long-term follow-up, segmentation, lead scoring, and analytics, their eyes glaze over. That’s inherent with this species, and it’s why they excel in their sales role. A driver personality is rejection-resistant: The word “no” only motivates them to work harder on discovering what it will take to close the deal.

Conversely, the role of the online sales specialist requires more of a farmer personality. These kinds of people don’t mind cultivating a lead for months, days—even years. They don’t care where or when the prospect buys. Their job is to dig and patiently nurture potential buyers along the path to purchase.

“Finding new potential customers who have the ability, authority, and willingness to purchase” is an accurate description of this sort of prospecting. The primary goal is to deliver qualified traffic to the onsite sales team.

Finding a patient, diligent, and successful online sales specialist requires finding someone who:

- Is measured by a different set of metrics.
- Understands marketing and sales and the importance of nurturing a lead as part of the process.

Now that we’ve established that you’ll need a professional

# HIRING AN ONLINE SALES SPECIALIST

Filling this singular role requires a special process to pinpoint the best talent

with a distinct set of skills and personality traits, let's look at the best way to find this person.

## USE A PRECISE SEARCH PROCESS

With a targeted hiring process, you will be able to attract the top talent: not necessarily the ones with the most experience but candidates who are highly coachable and possess the greatest drive; who have a positive attitude and the ability to follow a process to convert prospects to appointments. Here's how to reap the results you're looking for by taking the time and using a systematic, defined process.

You already know the basics: Utilize all the job boards and hiring sites that make sense for your market. Post the opening and description. Then, make sure that you:

1. Conduct the entire interview process over the phone and email. That's how 99.4% of your customers will be interacting with this new hire. Measure responsiveness. Is the communication quick? If the person you're interviewing doesn't get back with you in a timely fashion, he or she won't be fast at follow-up.
2. Send out a questionnaire to all candidates who seem to be a close enough fit. (You will be surprised how many never respond.) How they answer the questions will be a great way to get a feel for their ability to communicate in writing.
3. With candidates who make it past this step, schedule a quick phone interview to explain the position and talk about the company. Then, ask many of the same questions from the original questionnaire. Again, you're trying to judge how engaging they are on the phone. Do they answer questions well? Are they likeable? Don't spend the entire call talking--get the candidate to talk to you.
4. When you hang up, wait for the candidate to send you a thank you email. The process ends there for those who don't. Have those who do take a profile test. We like the DISC profile (the letters stand for Dominance, Influence, Steadiness, and Conscientiousness.)

5. When you receive the DISC, make sure you like the results before moving on to a second phone interview.
6. On this phone interview, role-play a portion of a call, with you as the customer. After a few minutes, provide some coaching and see how the applicant responds to the feedback. How well did the candidate respond to feedback? Is she or he coachable?
7. After they send a thank you email, ask them to visit [www.bombbomb.com](http://www.bombbomb.com), set up a free account, and send a video in which they explain why they would be the best fit for this position. This allows you to see body language and facial expression and to observe comfort level with technology and video communication.
8. Only when you decide to offer the position should you meet in person.

You might be thinking, "Holy cow, this is rigorous." Absolutely. The process outlined above allows you to quickly filter through hundreds of candidates to get to the top five in no time. If they can't follow this process, communicate well, and show you their best self, then they'll never be able to follow a rigorous process with prospects. This approach is designed to allow you to observe the quality and quantity of their communication before extending the job offer. You'll save considerable time by getting the right person, right away.

Recruiting isn't easy. Too often the process isn't systematic: We get a recommendation, have an in-person meeting, get a good gut feeling, make the hire, and hope it works out.

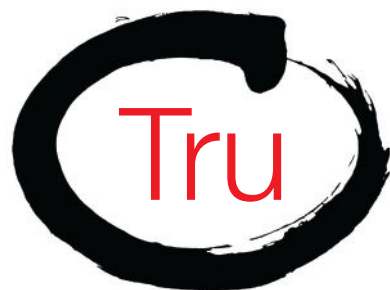
Don't be left trying to figure out how to get rid of someone you've just hired. Take your time, follow this hiring process, and your next online sales specialist will rise to the top of a crowded sea of job candidates. What's more, he or she will help you do better business. **PB**

*Mike Lyon is president of Do You Convert, a company exclusively focused on online sales and marketing for home builders and developers. Write him at [mike@doyouconvert.com](mailto:mike@doyouconvert.com).*



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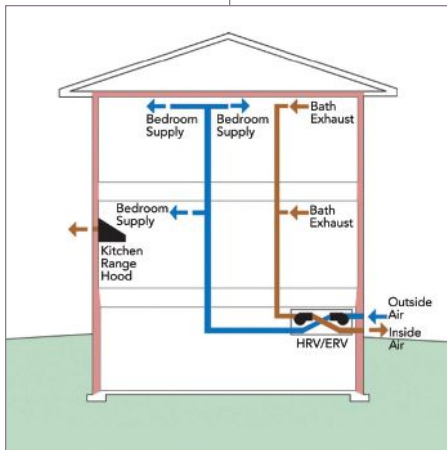


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Circle 768

# WHOLE-BUILDING VENTILATION

Energy-efficient homes require careful attention to indoor air quality



Heat recovery ventilators and energy recovery ventilators work by balanced ventilation, throughout the home and continuously, without the energy penalties associated with regular exhaust fans.

## TIGHT CONSTRUCTION + INDOOR AIR QUALITY

High-performance homes provide more affordable, comfortable, healthy, durable, and safe dwellings for all Americans, and that's a good thing. Tight construction is one of the cornerstones of high-performance homes. But exceptionally tight homes also need good ventilation to create equally exceptional indoor air quality (IAQ). But it can't be overstated that properly designed ventilation systems are dependent on the climate zone you build in. Without considering the specific conditions in which you're working, you'll end up installing a ventilation system that's ineffective or, at worst, dangerous.

To understand the importance of good indoor air quality, consider that people spend nearly 90 percent of their time indoors, with the majority of that time spent in their homes. And since concentrations of many pollutants are, on average, two to five times greater indoors than in the outdoor air, ventilation is essential to maintaining good indoor air quality.

Historically, residential ventilation wasn't considered a problem by builders or homeowners because it was largely believed that operable windows and high rates of enclosure leakage provided enough outside air in the home. That's not a safe bet anymore. As homes become more airtight, research shows a need to improve methods for supplying fresh air to occupants. As building codes become more rigorous, it's critical to address other system-based technical challenges for achieving energy efficiency, including water protection, comfort, and indoor air quality.

Resources can help improve IAQ in the homes you build. The Building America Solution Center (<https://basc.pnnl.gov>) consolidates resources on a full range of high-performance home topics including IAQ and ventilation to make these resources easier to access and use. The research results that come from our Building America program can be found under HVAC at: <https://basc.pnnl.gov/building-components#selection>.

Currently, strategies and solutions for whole-house and spot ventilation can be found in the Solution Center using a building component interface or with a checklist interface based on the Environmental Protection Agency's Indoor airPLUS Program (<https://basc.pnnl.gov/checklists/epa-indoor-airplus#Moisture-Control>).

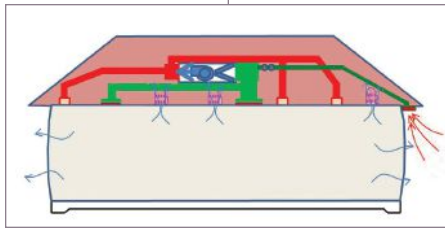
By Sam Rashkin, Chief Architect  
Building Technologies Office,  
U.S. Department of Energy

Ventilation systems do two different tasks: spot ventilation and whole-building ventilation. Spot ventilation is for specific, non-continuous tasks such as removing moisture generated from cooking or bathing. Whole-building ventilation provides a healthy indoor environment. Three accepted practices are used to meet the delivered or mechanical ventilation: supply-only ventilation, exhaust-only ventilation, and balanced air ventilation. Each method is effective, but it's crucial that the ventilation methods match the climate zone to ensure good building durability, safety, and indoor air quality.

The ventilation information contained in this article is a product of the Building America Solution Center, which provides building-science-based knowledge on a variety of residential design and construction topics for new and existing homes. For additional guidance on selecting, designing, and installing ventilation systems, visit <https://basc.pnnl.gov/resource-guides/whole-building-delivered-ventilation#block-views-guide-static-blocks-block-1>

### SUPPLY-ONLY VENTILATION

Supply-only ventilation will create a positive pressure in the conditioned space relative to the outdoors. This strategy typically depends on building envelope leaks to remove the stale air. If a supply-only ventilation system is drawing 80 cfm of outdoor air into the home while the air handler is operating, then at the same time 80 cfm must be exiting the building

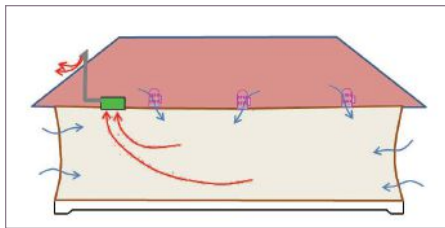


somewhere. That “somewhere” is the many leaks in the building envelope between indoors and outdoors.

In humid climates where the conditioned indoor air is dryer than the outdoor air, this can be a good strategy. It will help keep building envelope materials dry while providing ventilation air that is both filtered and dehumidified. In cold, dry climates where indoor air is more humid than the outdoor air (in high-performance buildings), supply-only ventilation would be a poor strategy.

### EXHAUST-ONLY VENTILATION

Exhaust-only ventilation is the reverse of supply-only ventilation: stale air leaves the building from a known location (through exhaust fans ducted to the outdoors) and outdoor air enters the building from an unknown location. For every cubic foot of air exhausted out of the building, a cubic foot of air has to come into the building from somewhere. Again, that “somewhere” is the many air leaks in the building envelope that connect the conditioned space to unconditioned space or directly to the outdoors. With this strategy, the outdoor air entering the building is neither filtered nor conditioned. The target ventilation rate is met by operating a quiet exhaust fan



at a specific flow rate for a scheduled runtime each hour.

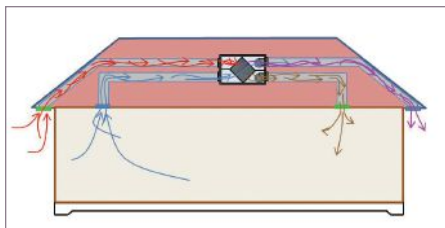
This strategy works well in cold, dry climates because the air outdoors is generally drier than the air indoors (in tightly built homes). Unlike older, leaky homes, newer high-performance homes are built to be more airtight. They tend to accumulate more moisture—water vapor in the indoor air comes from cooking, bathing, and

clothes washing. Exhaust-only ventilation is needed to safely remove this moisture before condensation becomes an issue.

Make-up air moving through the envelope helps to keep building materials dry in cold, dry climates. Exhaust-only ventilation would be a poor strategy in humid climates, where water vapor outdoors is typically higher than indoors. Heat recovery ventilators and energy recovery ventilators provide balanced ventilation throughout the home. They can be set to operate continuously without the energy penalties associated with regular exhaust fans because they have a heat exchanger that transfers heat between outgoing and incoming air streams.

### BALANCED VENTILATION

Balanced ventilation is designed to provide both supply and exhaust. The best means for providing this balanced system is with a heat recovery ventilator (HRV) or an energy (or enthalpy) recovery ventilator (ERV). Both provide a controlled way of ventilating a home while minimizing energy loss because they incorporate a heat exchanger that uses conditioned air from the outgoing exhaust air to precondition the fresh incoming air. The heat exchanger transfers heat but does not allow the intermingling of outgoing and incoming air.



Here, incoming and outgoing air volumes are balanced and air is evenly distributed throughout the house. These are whole-house systems; they can share the central furnace’s air handler and duct system or have their own duct system.

The main difference between an HRV

and an ERV is the way the heat exchanger works. With an ERV, the heat exchanger transfers water vapor along with heat energy, while an HRV only transfers heat. See the manufacturers’ specifications for determining which model is best in which climate and install it according to the directions for best performance, especially in regard to ERVs in humid climates. Research shows that most ERVs can recover about 70 to 80 percent of the sensible energy in the exiting air. In summer, ERVs seem to perform best during peak outdoor conditions and lose efficiency during low-temperature, high-humidity conditions. **PB**





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# MANAGING RISKS IN HOME BUILDING OPERATIONS



It starts with leading by example, and then focusing on people and process

By Tony Callahan

**B**uilders face a host of risks in the course of doing business, including production stoppage, budget variances, liability associated with jobsite accidents, governmental compliance, and quality defects, to name a few. If unmanaged, these risks can sink you. But by developing a work culture that focuses on people and processes, risks can be managed.

## SETTING THE TONE: LEADING BY EXAMPLE

Developing a company culture that focuses on people begins at the top, but it's a goal that must be shared by each level of management. It takes time and requires consistency and trust. Leaders at all levels must provide regular, open, and honest communication. Involve and empower employees, trades, and suppliers to achieve shared goals.

**Align words and actions.** There needs to be consistency between what you say and what you do. Demonstrate frugality on the jobsite and you're in a better position to expect the same from trades and suppliers. Show a strong work ethic by arriving first to work in the morning and leaving last in the evening and you're more likely to get others to put in the hours needed to hit a tough closing date. It's one of the most effective ways that leaders earn the respect of those around them.

**Be accessible and available.** Leading by example often manifests itself in what people see. But what they hear is also important. Open, honest, and frequent communication means sharing company objectives and current events on a regular basis. It's letting people know that you want to hear about the risks out there.

You also need to make it clear that you want recommendations on the best way to manage risks. Company meetings, departmental meetings, employee portals, and notices that employees see when they log in are all avenues for sharing information.

## Make sure that communication and message dovetail.

For example, if a conversation about better communication is beneficial, face-to-face interaction is more effective than sharing a memo in a newsletter or posting it to a company employee website or on a bulletin board.

**Clearly define roles, accountability, and authority.** Involved and empowered employees and trades are essential to managing risks. But empowerment has to come with ground rules. Builders should define job functions and roles, individual accountability, and decision-making authority so that each member of their team knows what they can and can't do. Make it clear that some issues, such as safety, quality, and governmental compliance, are everyone's responsibility. (Yes, some companies may have full-time positions dedicated to managing these risks, but the person in that role can't be everywhere at once.)

**Emphasize that safety is everyone's job.** Unmitigated risk is seeing an issue and doing nothing about it. Conversely, the person who believes safety, quality, or government compliance is everybody's job and then sees a hazardous situation, observes a quality defect being constructed, or sees an OSHA, EPA, or other requirement being ignored is more likely to intervene and correct the situation before it becomes a bigger problem.

**Use recognition as a team-building tool.** When someone observes a risk and takes action to prevent it from becoming a problem, be sure to acknowledge him or her. When you recognize people for doing well, it motivates them to do more.

Early in my career, a mentor told me that it was my job as a leader to "catch someone doing something right and thank them for it." That advice has stuck with me ever since. Appreciation goes a long way. Celebrate your company's success with the people who helped make that success a reality. Consider including your key suppliers and trades in the celebration. The more they feel a part of the team,

# RETAINING TALENT

Key employees helped you get where you are today, and losing them is one of the biggest risks you face in the current climate.

- 1. FOLLOW THE GOLDEN RULE.** Treat them the way you'd want to be treated. Get to know them, and remember that what motivates one person may not motivate another. There's no shortcut on this one.
- 2. INVEST IN YOUR PEOPLE.** Look for job enrichment opportunities. Provide your team with access to continuing education and cross-training opportunities.
- 3. PROVIDE CHALLENGES.** Put your best people to their highest and best use. Who better to work on your biggest challenges and take advantage of best opportunities?
- 4. PAY COMPETITIVELY.** Don't wait until a valued employee gets an offer from the competition before you review compensation. Review regularly and make sure compensation is commensurate with the employee's contribution to your company.



the more they will choose your firm over the competition when labor is tight. This is also a good example of how a focus on people can mitigate a labor shortage risk.

## AN ENGAGED TEAM CAN SHARPEN BEST PRACTICES

Focusing on people is important—and it's just the start. With an engaged team, a builder can further manage risk by developing processes that are best practices for the builder's environment.

**Involve those closest to the process.** Best practices are often best developed by enlisting the individuals who actually perform the job. This is essential for efficiency; a good process will prevent employees from reinventing the wheel every time they execute a task. A good process that's followed will provide consistency. Documented processes are also a great tool for new-employee orientation and training. It's imperative that documented processes be kept up to date. An outdated process can be just as harmful as no process at all.

**Leverage know-how across teams.** Cross-functional process improvement teams can be assembled for assignments that range from meeting customer requirements to reducing warranty costs, cycle times, and construction costs to improving quality. Such teams can reduce costs and manage risks at the commodity level. These commodity teams can be made up of employees from purchasing at a corporate, regional, and divisional level for large production builders.

Cross-functional teams should also include a representative from construction and resources from sales, warranty, and accounting. The resources are typically involved just as needed to address a specific issue. However, the purchasing and construction members of the team work together to identify opportunities to reduce costs while also implementing cost avoidance strategies.

Take advantage of knowledge from varied markets, too. Any builder that works in multiple regions needs to tap the knowledge base of its teams in various locations.

**Don't forget suppliers and trades.** They can enhance cross-functional teams. Involve them early in the design process to ensure sound construction, warranties, cost management, and continuous improvement—this can save a lot of mistakes down the road. Your framer can tell you that a specific floor plan will be labor-intensive while providing you with a list of things you can do to reduce the labor required. An HVAC contractor can review the plans and tell you where the problem areas are (e.g., LVL preventing duct run). Other trades and suppliers that are good resources during the design process include pro dealers (lumberyards), foundation companies, plumbers, cabinet and countertop companies, flooring companies, and electricians.

## A PROCESS IMPROVEMENT TEAM CAN HELP LEAD

One of the biggest opportunities to manage risk is to have a cross-functional team that reviews new plan designs and plan changes. The team should include (at a minimum) the architect, structural engineer, pro dealer, framer, HVAC contractor, and folks from purchasing, sales, construction, and, if applicable, the design studio.

By developing a culture that focuses on people and processes, risks can be managed. It's not easy, but leaders at all levels need to lead by example; provide regular, open, honest communication; and involve as well as empower employees, trades, and suppliers to achieve shared goals. The old TEAM adage, "Together Everyone Achieves More," rings especially true when it comes to mitigating risk. **PB**

*Tony Callahan is president of Callahan Consulting Group, callahanconsultinggroup.com, in Kennesaw, Ga. tonyc@callahancg.com.*

# ZIP System® Sheathing and Tape Outperforms Housewrap

**O**n the jobsite, every minute counts. That's why ZIP System® sheathing and tape is essential for builders who want both moisture protection and speed. This innovative structural roof and wall system with an integrated water and air barrier gets the job done right with a simple two-step installation. Because only one man is needed to tape, the job gets done 40% faster than traditional OSB and housewrap.

ZIP System® wall sheathing is an all-in-one structural panel, with a built-in moisture and air barrier, providing a tight building envelope during and after construction. Because ZIP System sheathing and tape is faster to install than traditional OSB and housewrap and provides a 180-day rough dry-in, builders can schedule subcontractors sooner, which can help compress overall project timelines.

ZIP System® roof panels feature a built-in moisture barrier and eliminate the need for felt paper and H-clips. A code-recognized structural panel and underlayment all in one, ZIP System roof panels prevent expensive rework due to torn felt. Shingles or tiles can be applied directly to the panels.

Together, ZIP System® sheathing panels and ZIP System™ tape provide an all-in-one solution that eliminates the need for housewrap or felt, making the system quicker to install than traditional materials, while helping reduce moisture and air leakage risks.



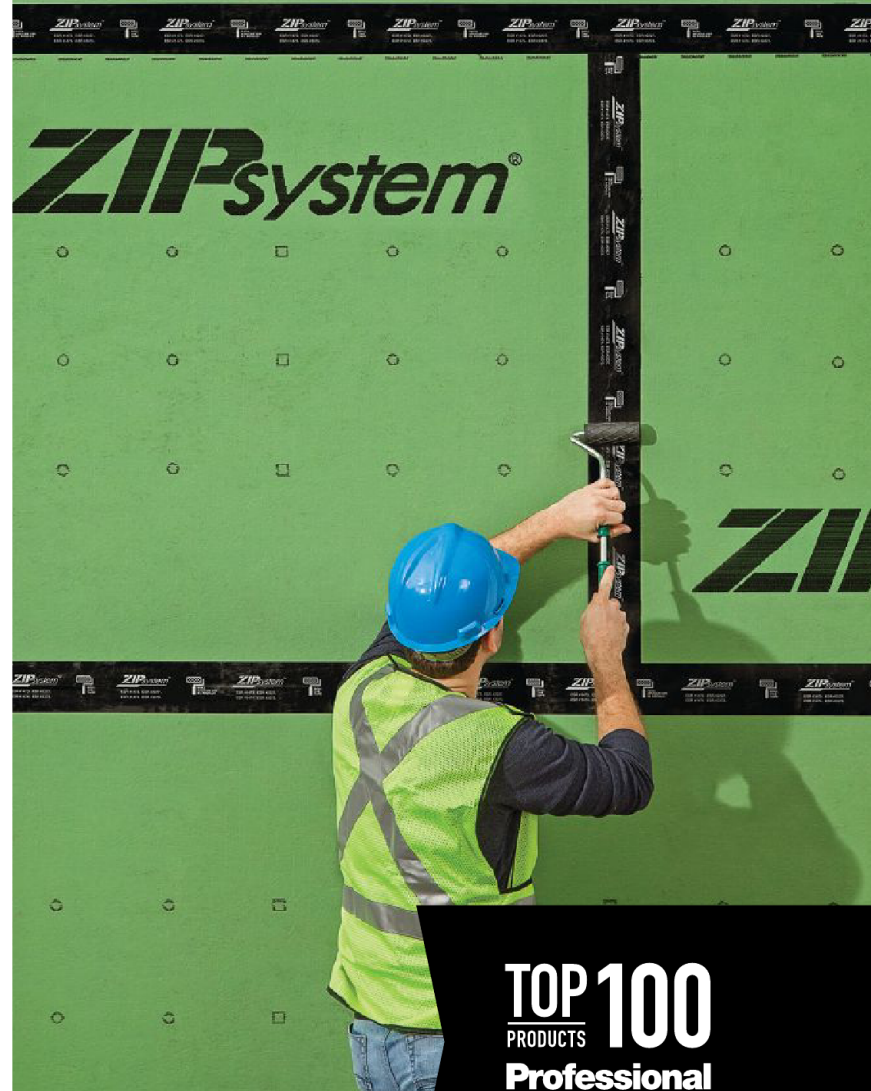
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# Icynene Classic Max: One-and-done low VOC spray foam innovation

**R**esidential builders seeking to differentiate their builds can consider Icynene's low VOC spray foam insulation – Icynene Classic Max. This one-and-done innovation eliminates the requirement of an ignition barrier in residential unvented attic applications. Plus, as a low VOC spray foam product, Icynene Classic Max allows for re-entry and re-occupancy after 4 hours of active ventilation (at 40ACH) following installation, meaning construction schedules can be shortened.

Through extensive actual end-use configuration testing, in collaboration with the ICC Evaluation Service and an ICC-ES accredited fire consultant, a fire in an unvented attic equipped with Icynene Classic Max is smothered in less than a minute. This helps to keep homes and families protected. Icynene Classic Max is the industry's most extensively fire tested spray foam product.

Icynene Classic Max low VOC spray foam insulation does away with the need for an ignition barrier in an unvented attic space, eliminating additional material and labor expenses. This helps the safety- and cost-conscious builder construct safer family homes and manage their construction budgets.

Differentiate yourself in the marketplace and offer your clients both peace-of-mind and the opportunity to purchase a well-built home. Icynene Classic Max adds value to your builds and helps you stand out in the marketplace. Contact Icynene to learn more about this high performance spray foam innovation.





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**Kevo Knows if You're Inside Or Outside Your Home** — Kevo includes patent-pending intelligent positioning technology that detects whether an authorized user is inside or outside of the home before granting access, to help prevent unauthorized entry. Kevo features auto-calibration that automatically enables this technology and adjusts Kevo continuously to provide convenient and secure user interfacing.

**Control home access through eKeys on the Kevo Mobile App** — An eKey is an encrypted electronic key. The eKey moves your physical key into the digital world and significantly improves your home access experience. With the Kevo app, you can enjoy the security and convenience of complete key management:

- Send an eKey to anyone, anywhere, anytime
- An eKey allows you to pre-set time constraints for the recipient. You control the days and the time of

the week when the eKey will be active.

- Temporarily disable or permanently delete any user from the Kevo system
- eKeys never expire and can be reassigned from one person to the next
- Free, unlimited Guest eKeys

**Easy to Install** — Kwikset Kevo replaces existing deadbolt locks, with no hard wiring or internet usage. It runs on 4 AA Alkaline batteries that typically last for one year.

**SmartKey® Re-Key Technology** — Kwikset also offers their patented SmartKey technology on the Kevo Bluetooth deadbolt and enables homeowners to reset their security by re-keying their locks quickly and easily. SmartKey provides superior security and re-keying convenience unlike any other smart lock on the market.

To learn more visit [www.Kwikset.com](http://www.Kwikset.com).



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**Kwikset**

# Larger Dryerbox<sup>®</sup> Handles Stand-Alone and Pedestal Dryers

**T**he good idea of protecting dryer transition hose in the cell of the wall just got better. Allowing the dryer to be pushed flush to the wall—without crushing the duct—yields more room in the laundry, and it helps save energy by letting the dryer operate at peak performance. Importantly, it also helps mitigate a very real fire hazard (lint buildup is very flammable and accounts for thousands of home fires every year).

The new model DB-480 is built in the U.S. to the same standards as the original models: deep drawn 22 gauge aluminized steel, only bigger.

It is taller and wider to safely collect the transition hose for dryers that sit directly on the floor as well as those on a pedestal. It can be installed to vent up or down. The larger receiving area is designed to give the contractor a standard installation on the bottom plate for every home.

Homebuyers can upgrade the dryer without remodeling the laundry room, and the standard placement simplifies installation, saving construction costs.



**New model 480 is much larger so it can accommodate free standing and pedestal dryers venting up or down.**

**the dryerbox<sup>®</sup>**

[480.Dryerbox.com](http://480.Dryerbox.com)

# Noble Company Premium Products Hit Top 100 in Professional Builder

**C**ustom tiled showers must be waterproofed to protect against water damage to rooms below the shower. In order for that water to drain, waterproofing membranes (such as Chloraloy®) must be sloped to the drain. Mortar is generally used to create the slope, however, that is very time consuming and labor intensive. Noble Company offers a time-saving alternative, PRO-SLOPE™, a light-weight shower pre-slope. PRO-SLOPE installs in minutes and provides the slope and drainage needed for long term performance and is available in 3 standard sizes with extensions to accommodate additional sizes.

Linear shower drains have become a favorite for design and construction professionals. A single-slope is used which allows for the use of large profile tile, ideal for contemporary designs. Noble Company's FreeStyle Linear Drain™ is the premier choice for linear drain installations. Made from a single piece of PVC or ABS, with an internal single-slope, the FreeStyle Linear Drain is easy to install, and offers a low-profile making it ideal for barrier-free showers, popular for aging in place applications.

The FreeStyle Linear Drain is also the only linear drain with a clamping collar, which ensures a watertight connection between the membrane and the drain. The collar tightens the sheet membrane to the top of the drain so water flows down the sloped membrane directly into the drain. The unique watertight connection, paired with its impressive capacity of 36 gallons of

water per minute, make the FreeStyle Linear Drain the best choice for multi-head, high volume showers.

FreeStyle Linear Drains offer incredible design flexibility. The low-profile and high-capacity drainage allow for drain placement at the shower wall, exit, or anywhere it best fits the design. Available in 4 stainless steel strainer designs and a tile-top option.

For an ultra-thin waterproofing sheet membrane, use ValueSeal® to waterproof thin-bed tile and stone installations.



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# TOP 100 PRODUCTS

**T**hroughout the year, we deliver news of the latest and greatest in home building. Products are an important aspect of that news because the ones you choose help you improve your business, maintain your reputation, and construct homes that are as sound as they are appealing. You've seen many of those products featured in this magazine: new items brought to market by building product manufacturers.

But of all the new products featured this past year, the Top 100 Products are the ones that were chosen by you; the ones that prompted the most inquiry and the strongest interest from you, the readers of Professional Builder. On this and the pages that follow, products are grouped into the following categories:

- Windows & Doors
- Exterior Products
- Interior Products
- Kitchen & Bath
- Outdoor Living
- Structural / Insulation / Housewrap
- Mechanical / Electrical / Home Tech
- Lines & Collections



## MODERN-LOOK DOORS | PLASTPRO

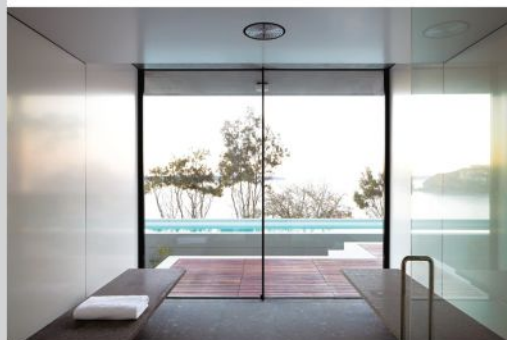
The Modern Door collection from Plastpro combines contemporary composition with quality construction to offer building professionals and homeowners stylish new options for fiberglass doors. The doors feature flush-glazed profiles to create a modern look with no unsightly screw holes. Sealed on all six sides with composite material, the doors also have a HydroShield Technology moisture barrier and are energy efficient. **For more info circle 800**

## SERVERY WINDOW ▶ LA CANTINA DOORS

With a growing demand for an indoor/outdoor kitchen experience, LaCantina Doors developed a functioning pass-through kitchen window called the Servery Window. The window requires no bottom guide or channel, which means the counter can be floated



through the exterior, allowing for a continuous countertop. The product features LaCantina's narrow stile and rail profile, which provides for more glass and natural light. The Servery Window is available in aluminum, aluminum thermally controlled, aluminum wood, and clad and wood. **For more info circle 801**



## ◀ SLIDING GLASS WALL VITROCSA

Vitrocsa, the inventor of the sliding glass wall, has created a dual-glazed, thermally broken window system where the sills and frames are completely concealed in the floor and walls, allowing the glazing to span from floor to ceiling, with

the  $\frac{7}{8}$  vertical jambs being the only evidence of a sliding system. The Pure window system is available in sliding or fixed units made of U.S.-manufactured aluminum profiles and glass. The special curtain wall system comes with a patented ultra-flush threshold, which provides an obstacle-free indoor-outdoor experience. **For more info circle 802**



### ▲ 90-DEGREE CORNER WINDOW | KOLBE

After seeing an increase in customer demand for 90-degree window units, Kolbe expanded the VistaLuxe Collection to include one. The 90-degree corner direct-set window comes with a range of glass choices that address different climate zones and performance needs. The VistaLuxe Collection products have a wood interior and an aluminum-clad exterior that can be painted in standard custom and new mica colors, all backed with a 30-year finish warranty. Energy efficiency is maintained while minimal frames and sashes optimize opening size and maximize viewing area. **For more info circle 803**

### BI-PARTING PATIO DOOR | PLY GEM

Ply Gem Windows Mira Premium Impact Series now features a bi-parting patio door, which includes impact-rated glass for select coastal applications. Available in sizes up to 12 feet wide, the bi-parting door creates a transition from home to the outdoors with the impact glass helping prevent windblown debris from breaking through. The product is available in 46 exterior colors along with a variety of standard and custom sizes. **For more info circle 804**



### ▲ TOP-HINGED ROOF WINDOW | VELUX

The GPL roof window from Velux enables you to take advantage of outdoor views and admit daylight and fresh air to spaces such as lofts and attics. The window is designed to be within reach to provide maximum ventilation, and the ventilation flap allows for fresh air circulation when the window is closed. The glass is easy to clean from the inside due to the rotating sash, and the bottom latch of the window opens to a 45-degree angle for emergency escape and rescue. **For more info circle 805**

### ◀ WALL-MOUNT SLIDING DOOR | JOHNSON HARDWARE

The 200WF Wall Mount with Clear Satin Anodized Finish Fascia can hold up to a 400-pound sliding door. The product can be used for any height and for door thicknesses of 1 inch or greater. The wall mount will accommodate a single door opening up to 96 inches wide and converging door openings up to 192 inches wide. The hardware system includes a thick-walled aluminum I-beam track, available in lengths of 48, 60, 72, 96, 120, 144, and 192 inches, and extruded aluminum mounting brackets that can be positioned anywhere along the I-beam track for secure fastening to wall studs, blocking, or other solid support. Systems include enough brackets for a 16 inches-on-center fastening wall. **For more info circle 805**



### ▲ MULTI-SLIDE DOOR | MARVIN WINDOWS AND DOORS

The Ultimate Multi-Slide Door from Marvin allows homeowners to bring the outside in. The product is available in an array of configurations and sizes to fit a variety of openings. When the door slides open, the panels stack in front of one another. The panels come in standard widths of 3 feet to 5 feet and heights of 7 feet to 12 feet. Consumers can choose from a unidirectional configuration or the bi-parting style, which opens from the center. Each configuration is available in both left- and right-handed styles. **For more info circle 807**



## ▲ POLYMER SLATE ROOFING TILES INSPIRE ROOFING PRODUCTS

With varied-width polymer slate tiles that replicate the multiple sizes of natural, thick slate, Aledora Slate V-Series from Inspire Roofing is an economical, lightweight roof tile option that's easy to install and low-maintenance. Available in four widths: 6, 8, 10, and 12 inches, the tiles can be installed in a non-repeating straight or staggered pattern. The product features a Class A fire rating, 110-mile-per-hour wind uplift rating, Class 4 impact rating, and a lifetime warranty.

**For more info circle 808**



## ▲ GLASS MOSAICS | MARAZZI USA

The glistening, mottled seascape colors of Caicos glass mosaics from Marazzi USA are heightened by the ever-changing light present within a space. Six colorways are included in the series: Baby Beach, Blue Beach, Crane Beach, Eagle Beach, Grace Beach, and Shoal Bay. Small accent touches or full walls of these interlocking glass combinations can exude playfulness or serenity. Caicos can be paired with ceramic or porcelain tile for backsplashes, focus walls, fire, and spa features, both indoors and outdoors. **For more info circle 811**

## MARBLE OVERLAY | ARRISCRAFT

Architects, designers, and builders can now incorporate the distinction of quarried limestone in virtually any project with Adair Marble Overlay from Arriscraft. These thin, easy-to-install limestone units create a dry-stack design that can be laid in horizontal or vertical patterns for customized outcomes. Adair Marble Overlay is adhered to a suitable solid substrate and is installed with dry joints. It is available in the color Blue Grey and has variations in color and pattern that add to its unique character. **For more info circle 809**



## STEEL ROOFING | QUALITY EDGE

Made from steel and offered in four profiles—shake, slate, tile, and standing seam—Matterhorn Metal Roofing from Quality Edge can withstand hurricane-force winds of up to 130 miles per hour and has a patented four-point fastening system that conceals the overlapping metal panels on slate and shake. **For more info circle 812**



## ▲ SYNTHETIC SLATE | DAVINCI ROOFSCAPES

A new Single-Width Slate 12-inch tile is being launched by DaVinci Roofscapes. Smokey Gray is the 50th color offered by DaVinci and the darkest gray available. The color will be available as a standard color option in the DaVinci Multi-Width and Single-Width Slate product lines as well as the Bellaforté Slate line. The launch of the dark gray pavement tone was due to marketplace requests for new colors. DaVinci's products are 100 percent recyclable and have a 50-year limited warranty. **For more info circle 810**



## ▲ INTERIOR/EXTERIOR WALL FINISH | STO

Sto has introduced Stolit Milano, a very fine, workable finish for interior and exterior wall surfaces. This new product offers ease-of-application with a wide range of decorative looks. The water-based acrylic finish is highly breathable, mildew-resistant, and can also be top-coated to provide additional surface protection. Stolit Milano can be custom-tinted in a wide selection of colors and offers a longer-lasting and more uniform look to the surface. **For more info circle 813**



### ▲ VINYL SIDING ACCESSORIES | CERTAINTEED

CertainTeed has updated its Vinyl Carpentry siding accessory collection to provide more home exterior design options that boost curb appeal. A 3½-inch Fluted Corner, available in Colonial White, is a new subtle corner upgrade that adds character to a house with true-to-wood dimensions. The Flexible J-Channel, which is particularly useful around curved windows and ventilation treatments, has an improved design that has been modified to further enhance performance and is offered in White, Clay, Gray, and Beige. **For more info circle 814**



### ▲ VINYL SPLIT SHAKE SIDING | THE FOUNDRY

The Weathered Collection Split Shake Siding from The Foundry offers a 7-inch exposure with natural surfacing shingles and random mill saw marks. Split Shakes are defined by peaks and grooves along the grain. The Weathered Collection features the look of cedar that has weathered over time with color options of Golden Straw, Vanilla Bean, Red Cedar, Aged Cedar, Colonial Grey, and Coastal White. The panels are durable and maintenance-free. An ASA cap maximizes color appearance with no painting, staining, or sealing required. The product is backed by a limited lifetime warranty for residential installation. **For more info circle 817**

### SPECIALTY SIDING SHAPES | THE FOUNDRY

The Foundry's Specialty Siding Shapes Collection from the Tapco Group offers finely crafted details to add dimension to a home's exterior. The versatile round shapes, crafted from real cedar molds, showcase authentic texture with subtle grain and saw-mark detailing and are available in 10 standard colors that can be mixed and matched. The fish-scale shapes' soft curves lend appeal to a variety of architectural styles and are available in the standard Snow color. **For more info circle 815**



### MANUFACTURED STONE VENEER | BORAL

Versetta Stone from Boral is a non-structural, cement-based, manufactured stone veneer that delivers the authentic beauty of traditional stone masonry with lower cost and less installation time. Made of lightweight aggregate materials that are about one-fourth the weight of full-thickness stone, Versetta Stone uses a mechanical fastening system that allows builders to install the product without building support footings. With no need to paint, coat, or seal, Versetta Stone is backed by a 50-year limited warranty including one-time transferability. **For more info circle 818**



### ▲ INTERLOCKING SIDING AND TRIM ROYAL BUILDING PRODUCTS

Made with cellular PVC technology, Celect siding and trim from Royal Building Products seals out air and moisture so it will not rot, crack, or peel. Instead of butting together, Celect snaps together with a patent-pending interlocking joint system that makes seams virtually disappear. The unique gravity-lock design keeps courses locked tightly to one another—maintaining structural integrity even under the harshest weather conditions. Celect's Kynar Aquatec coating resists fading, chipping, cracking, and flaking, and also repels water, mold, and mildew. **For more info circle 816**



### ▲ STONE-COATED METAL ROOFING | HEADWATERS

For those in search of a stylish stone-coated metal roofing system that offers resistance to wind, hail, snow, ice, and earthquake damage, Headwaters' Allmet brand systems are made from 3/16-inch Galvalume-coated metal and offer a Class A fire rating. A variety of styles are available, including Allmet Granite Ridge, Continental, Wood Shake, and Shadowline. Allmet roofing products come with a limited lifetime transferable warranty that covers fire, winds of up to 120 miles per hour, and 2½-inch hail stones. **For more info circle 819**

### STONE COLUMNS | PLY GEM STONE ▶

Ply Gem Stone has expanded the distribution of its Column Collection, making it easier for builders and contractors to access the product line. Designed as an architectural feature for applications including fence and railing accents, the Column Collection is an affordable way for builders and contractors to add curb appeal and character to home exteriors. Molded from a Civil War-era ledgestone fence, the Column Collection is almost identical to quarried stone with an authentic, variegated design. **For more info circle 820**



### FIBER-CEMENT SHAKE | NICHIIHA ▶

Nichiha has unveiled an improved, pre-finished fiber-cement siding that features enhanced aesthetics, finishes, and performance. Boasting a variegated look for an authentic appearance, Sierra Premium Shake is thicker than many shake fiber-cement products and provides depth and shadows that portray the look of real wood shake. Nichiha partnered with PPG to offer progressive finish options for its Sierra products, and the Duracolor ST Semi-Transparent Finish comes in three colors: Terra, Hazelnut, and Shadow. **For more info circle 821**



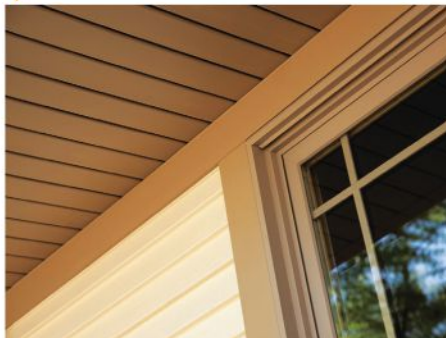
### DARKER SIDING COLORS | PLY GEM

Ply Gem has expanded the color options within its siding brands, providing on-trend choices for homebuyers looking to color-coordinate siding, windows, shutters, and trim. Two dark colors—Amber and Hazelnut—have been added to select Variform by Ply Gem product lines, and Sunset Amber and American Hazelnut are available in select NAPCO by Ply Gem product lines. The darker hues can be used as an accent or as the primary siding color. **For more info circle 822**



### COOL ROOFING | INSPIRE ROOFING PRODUCTS

Color technology used in synthetic roofing tiles from the Tapco Group's Inspire Roofing Products division deflects the sun's heat from rooftops, which can keep homes cooler and boost points for LEED certification. The tiles from Inspire's Aledora Slate, Classic Slate, and Arcella Shake product lines offer the look of natural slate but weigh less and come in 6-, 6½-, 7-, 7½-, and 8-inch sizes, allowing for non-repeating staggered or straight applications. The tiles carry a Class A or Class C fire rating, Class 6 impact rating, and a 50-year limited lifetime warranty. **For more info circle 823**



### POLYURETHANE COLUMNS | FYPON

Fypon columns come in smooth white paintable or timber stainable options and offer all the benefits of polyurethane. The columns are reinforced, adjustable to multiple heights, suitable for use on both interiors and exteriors, and can handle loads of up to 12,000 pounds. The pre-primed column is ready for paint or stain, and installation hardware is included. **For more info circle 824**

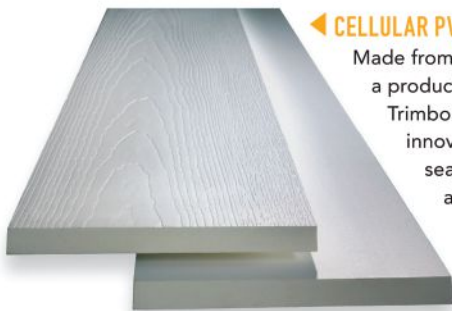
### MANUFACTURED STONE | PROVIA ▶

ProVia has added two product lines to its Heritage Stone manufactured stone collection. With fossilization features and subtle color variations that reflect those found in nature, Heritage Natural Cut Stone (pictured) is available in three colors: Woodbridge, Fernwood, and Ashworth. Heritage PrecisionFit Stone Panels combine a precise fit for quick installation with irregular edges and interesting patterns to make for a great stacked-stone look, and are available in Sage Grey, Adobe Sands, and Driftwood. **For more info circle 826**



### CELLULAR PVC TRIMBOARD | KLEER TRIMBOARD

Made from cellular PVC, Klear PVC Trimboard, a product from the Tapco Group's Klear Trimboard division, is available with Klear's innovative TruEdge. TruEdge features sealed edges that resist stains from dust and dirt and provides a smoother finish than wood and other PVC boards. It also has UV inhibitors to protect it from the elements over time. **For more info circle 825**







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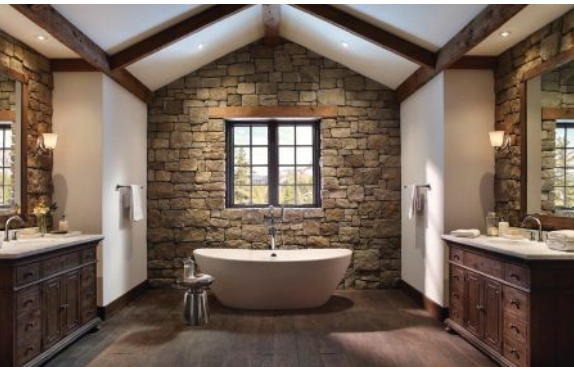


## ◀ SEA GLASS MOSAICS | NEW RAVENNA

New Ravenna's Sea Glass collection designed by Sara Baldwin offers eight mosaic designs. With patterns available in multiple colors and tones inspired by nature, including The Tempest (shown), the mosaics are hand-cut and assembled by artisans on the coastline in Virginia. Each mosaic is a custom creation and is made to fit each installation. The designs can be created in any of New Ravenna's more than 70 colors of glass and installed on both vertical and horizontal surfaces, indoors and out. **For more info circle 827**

## VENTLESS CLOTHES DRYER | WHIRLPOOL ▶

Designed to offer greater flexibility and more upsell opportunities, the ventless Whirlpool HybridCare clothes dryer with Hybrid Heat Pump technology provides builders and designers the freedom to place dryers virtually anywhere in the home—and reduces overall energy costs for the homebuyer. By repurposing energy during the drying cycle, the new technology reduces energy consumption while providing dryer performance and layout mobility. The three available modes (Speed, Eco, and Balanced) allow flexibility while providing optimal drying results. **For more info circle 828**

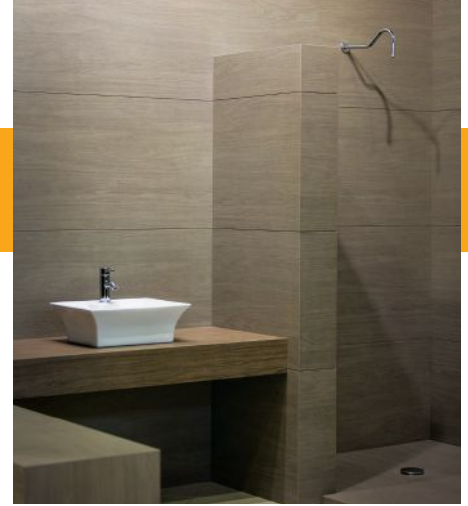


## ▲ STONE WALL PROFILES | ELDORADO STONE

Eldorado Stone offers even more possibilities for dramatic interiors with four new wall designs. The SeasideWall boasts an old-world-quality stone profile, featuring a cool-to-warm gray blend. The RusticWall, with its palette of blondes, russet, and cool grays, is perfect for transforming a bathroom into a spa retreat. The StudyWall brings classic elegance to any room with the intricate detail of small stones, and The UrbanWall complements any style with a balance of weather-worn surface contours and precision-cut stone. **For more info circle 830**

## SLATE-LOOK PORCELAIN TILE | DALTILE

The stylized texture in Daltile's Porada glazed porcelain tiles looks and feels like natural slate but offers ease of maintenance. A bold color palette (Soft Taupe, Rich Brown, Subtle Grey, and Deep Grey) and wide graphic variation emulate the look of natural stone. Modular field tile sizes are excellent for creating patterns, and subtle texture effects add character and visual interest. **For more info circle 831**



## ▲ TIMBER-LOOK PORCELAIN TILE | NEOLITH

The Timber Collection of porcelain tile by Neolith draws from the warm, bucolic qualities of real wood and features a soft wood-grain pattern etched into stunning, cool- and neutral-toned slabs. The new product line utilizes delicate detail to give the look and feel of natural wood in four versatile colors: Timber Ash, Timber Ice, Timber Night, and Timber Oak. Ideal for any surface application, the Timber Collection is available in a variety of thicknesses including 3 and 5 millimeters and format size 3,600 by 1,200 millimeters. **For more info circle 829**



## ▲ DIRECT-VENT GAS FIREPLACE | INNOVATIVE HEARTH PRODUCTS

The Astria brand from Innovative Hearth Products offers the Montebello DLXCD Direct-Vent Fireplace, which features a ceramic-glass opening, a contemporary burner, and an array of available glass media colors. The design features a ceramic glass option for optimum heat transfer and safety. An adjustable flame height gives users control of heat output, and an intermittent pilot ignition includes battery backup to provide continued operation in the event of a power outage. Gas controls are located on the side of the fireplace, which provides easy installation and operation. **For more info circle 832**



**DIRECT-VENT GAS FIREPLACE | HEAT & GLO**

The REVO Direct Vent gas fireplace series from Heat & Glo delivers the modern design styles that homebuyers want, with the unique installation applications builders need. At 7 inches deep, the REVO Series fireplaces simply hang on the wall or are recessed in-wall, saving space and eliminating the need for a chase. The contemporary series can be installed during any stage of building and in a single trip. Once a hole is made in the wall and SLP venting pipe is set, the lightweight unit is hung on mounting brackets. The slender models quickly fill their compact fireboxes to produce heat output up to 24,000 Btu. The REVO series comes in square, horizontal, or vertical models. Multiple front and panel finish options and optional LED backlighting also are available. **For more info circle 833**



**PAINT SPRAYER | TITAN TOOLS**

Made for daily use, Titan Tools' Impact 400 is a compact, portable unit that weighs 20 percent less than other competitive sprayers without losing the durability expected from a commercial sprayer. Recommended for single-gun applications with a maximum tip size of 0.021 inch, the Impact 400 is capable of handling weekly workloads of 50 to 100 gallons and will spray all standard architectural coatings—stains, lacquers, enamels, oil, and latex house paints and primers. **For more info circle 836**

**PAINT COLOR PROGRAM | WELLBORN CABINET**

Define a unique style and experiment with bright, bold color using Wellborn Cabinet's ColorInspire program. Wellborn is collaborating with Benjamin Moore, Sherwin-Williams, and Valspar to launch the program, which offers an extensive variety of paint colors and paint decks to choose from and is available in Wellborn's Estate Collection and Elegant Bath Inset Door Cabinetry. **For more info circle 834**



**MANUFACTURED STONE FIREPLACE SURROUNDS | ELDERADO STONE**

Eldorado Stone Fireplace Surrounds are hand-finished and sanded during their four-step production process and can be installed in just a few hours. Each fireplace surround comes with an installation kit. Videos and online design tools are available on the product's website. Surrounds are available in 11 profiles and colors including Oyster Shell, Oak Barrel (shown), and Summer Wheat. Choose between a smooth, rustic, weathered, distressed, or antique finish. **For more info circle 835**

**ENGINEERED STONE TILE | ARMSTRONG**

Armstrong's Alterna engineered stone tile collection now offers an expanded collection of shapes and sizes for both floors and walls. Made with a composite material primarily consisting of crushed limestone, the tiles are beautiful and durable but are warmer to the touch, softer underfoot, and easier to maintain than natural stone. Each design comes with up to 32 unique tiles, which allows for minimal repetition and a breadth of tile appearances from slate to terra-cotta. **For more info circle 837**



**SINTERED COMPACT SURFACE | NEOLITH**

Made with translucent clays, the Onyx color from Neolith uses proprietary technology to create a durable, sintered surface that can be backlit. Available in 6 or 12 millimeter thicknesses and 3,200 by 1,500 millimeter size, Classtone is suitable for countertops, flooring, and wall cladding. Onyx is available in a polished finish and is scratch, wear, and heat resistant, hygienic, stain resistant, impervious to chemicals, and easy to clean. Its natural colors will never fade due to exposure to UV rays, making it suitable for outdoor surfaces. **For more info circle 838**



## INDUCTION COOKTOPS | WOLF

Wolf Appliance has introduced several enhancements to its line of induction cooktops. The cooktops now include a three-element, 24-inch model with element-bridging capability and a power-boost feature in both transitional and contemporary design styles. Available in a transitional design style are 15-, 30-, and 36-inch sizes with stainless trim. A contemporary design style is offered in 24-, 30-, and 36-inch sizes and sits flush with the surrounding countertop for an integrated, seamless look—or it can be mounted. **For more info circle 839**



## SHOWER PAN SLOPE | NOBLE CO.

Noble Co. makes a preformed composite from durable expanded polystyrene that helps builders create the code-required ¼-inch-per-foot slope toward the center under a shower pan liner. Pro-Slope comes in 40-by-40-inch and 60-by-60-inch sizes and a 40-by-80-inch tub replacement size. Extensions are also available. The product can easily be cut using a utility knife and doesn't require any mortar, mixing, or curing. **For more info circle 843**

## POWERFUL-FLUSH TOILET | GERBER

An improved trapway headlines the improvements to the Avalanche, one of Gerber's most popular toilet lines. The new trapway allows improved flushing and cleaning of the toilet bowl. All internal components are Fluidmaster-brand, including the premium 540 Series 3-inch flush valve combined with the 400A fill valve. **For more info circle 840**



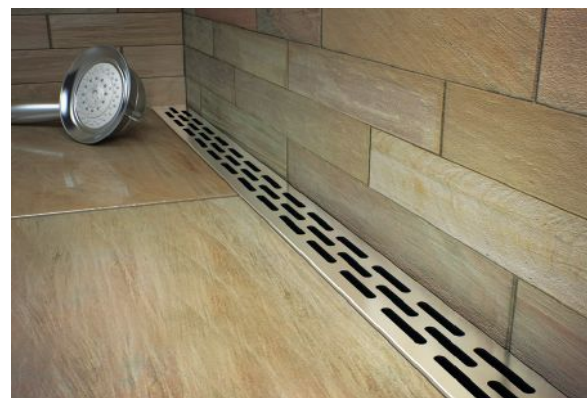
## FRENCH-DOOR DOUBLE OVEN | VIKING

Inspired by the side-swing doors of a commercial-grade kitchen oven, the Viking Professional French-Door Double Oven offers ease of accessibility. With just one hand, the double doors open into an extra-large, 4.7-cubic-foot oven with 11 modes for cooking versatility. Each oven is equipped with six porcelain-coated rack positions and comes standard with backlit steel knobs, three oven racks (two ball-bearing racks in the top oven and one in the bottom), and twin 8.5-inch bidirectional convection fans. **For more info circle 842**



## FREESTANDING RANGES AND VENTILATION HOODS | SMEG

The retro Victoria 36-inch, freestanding ranges and ventilation hoods from SMEG have launched in the U.S. The Victoria marries high style and European design with the latest in technology and chef-inspired cooking functions. The appliance sports an ultra-rapid 18,000 Btu brass burner for maximum heat distribution, eight pro-cooking functions (including double European/true convection features), and molded chrome shelves with smooth, secure telescopic guides. Available in Classic Cream, Stainless Steel, and Gloss Black. **For more info circle 841**



## LINEAR DRAIN | NOBLE CO.

The Freestyle Linear Drain from Noble Co. allows for a single-slope shower base, provides versatility of drain location, and allows the uninterrupted use of large format tile. Made from a single piece of plastic (PVC or ABS) with no seams, the drain features a membrane-clamping mechanism that ensures a watertight connection to the waterproofing membrane. Drains are available in six lengths and four brushed stainless strainer styles. **For more info circle 844**



### ◀ FRENCH DOOR REFRIGERATOR | DACOR

Dacor's 36-inch Distinctive Four Door French Door Refrigerator offers three cooling zones with a single zone that allows users to easily transition between fresh and frozen cooling modes. BlueV lights preserve the freshness and vitamins of fruits and vegetables, while FrostWhite LED lighting provides superior visibility. The refrigerator also offers digital touch controls on the external panel, an ice and water dispenser accessed through the refrigerator door, rapid cooling and quick-freeze capabilities, humidity-controlled shelves, and 22 cubic feet of total storage. **For more info circle 845**



### ▲ STEAM CONVECTION OVEN | BOSCH

The Bosch Benchmark Steam Convection Oven offers steam, true convection, and steam-convection combination cooking options, and is the first steam convection oven for the premium market. The oven is a healthy cooking option that preserves nutrients, flavors, and colors in food and retains moisture. It features horizontal installation and a matching design for perfect alignment with other Bosch ovens and can also be combined with a storage or warming drawer as well as speed microwave ovens. **For more info circle 847**



### FLOOR-MOUNT TOILET | GEBERIT

Geberit's Monolith Floor-Mount Toilet is a slim, attractive alternative to a typical toilet. The Monolith is designed to connect to existing drainage and water supply lines so that, ordinarily, no structural modifications are required. Monolith installs quickly and completely into the existing toilet rough-in. Large and small levers offer water-saving dual-flush choices: 1.6 gallons per flush (gpf) for solid waste and 0.8 gpf for liquid waste. Monolith exceeds EPA WaterSense HET flushing performance and North American code approvals. **For more info circle 846**

### ▲ ENSEMBLE SHOWER WITH FREESTANDING SEAT | STERLING

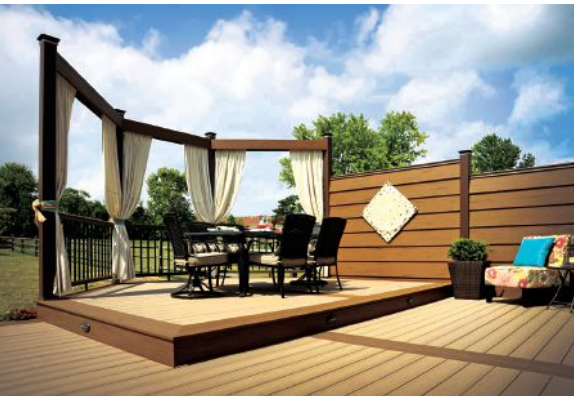
To help builders market to the growing number of buyers concerned about aging in place, Sterling offers a 60-by-32-inch shower base and walls with a freestanding seat. The shower offers an easy and cost-effective bath-to-shower conversion that can be completed in one to two days. Specifically designed as a replacement for a 60-by-32-inch bathtub, the new Ensemble shower base features an end drain, eliminating the need for extensive piping work when moving from a bathtub to a shower. The Ensemble shower base offers a safer entry and exit, with a 3½-inch base threshold (compared with the average 14- or 16-inch bathtub threshold). The shower includes built-in shelves, comes in a neutral color, and is easy to clean. **For more info circle 848**



### ▲ TRIMLESS INDUCTION COOKTOP | THERMADOR

While the original Freedom Induction Cooktop from Thermador has a stainless steel trim around the cooking surface, the new trimless version features a solid dark gray surface that seamlessly integrates with the countertop. The cooktop boasts all the benefits of traditional induction technology, including instantaneous and precise temperature control, and also offers a PowerBoost feature that boils water faster than any other technology in its class. Maintaining a spotless surface is easy, as spills do not scorch the surface and can be wiped off with just a damp cloth. **For more info circle 849**





## ▲ CAPPED COMPOSITE DECKING | TIMBERTECH

TimberTech has added the color Sandy Birch to its Earthwood Evolutions Terrain Collection, which features a protective polymer cap surrounding a proprietary composite core. The light-tan Sandy Birch joins current colors Brown Oak and Silver Maple and is designed to meet the need for a natural earthy tone that can complement any home exterior. Sandy Birch resists scratching, staining, and fading and is available in 12-, 16-, and 20-foot lengths along with matching fascia and riser. **For more info circle 850**



## ▲ GRAY DECKING COLOR | TREX

Trex has expanded its Transcend decking collection to include a new light gray color called Island Mist. This silvery shade features realistic streaking that mimics the natural look and feel of aged tropical hardwood and is designed to be a cooler complement to the three existing tropical-inspired shades as well as five earth-tone hues. Like all Trex Transcend decking options, Island Mist boasts a combination of superior durability and low-maintenance and eco-friendly qualities. **For more info circle 853**

## PVC DECKING SYSTEM | KLEER DECKING

Kleer Decking's decking solution combines 100 percent PVC deckboards with KleerKlip, a specially designed system that conceals fasteners within the grooved edges of the boards. Kleer deckboards are lightweight, easy to handle, and resistant to mold, mildew, and insects. The synthetic boards are designed with an embossed pattern for added traction and are available in solid colors with wood-grain patterns, including Hearthstone and Sequoia, and streaked colors such as Brazilian Redwood and Golden Teak. The product does not splinter and includes a 25-year stain-resistance warranty. **For more info circle 851**



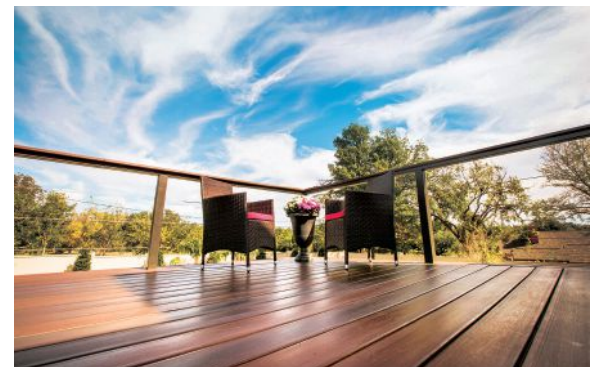
## ECO-FRIENDLY PORCH FLOORING | NYLOBOARD

NyloBoard's use of recycled carpet fiber for strong, durable, and eco-friendly products has led to the launch of NyloPorch, a natural extension of the company's NyloDeck product. NyloPorch contains no wood or PVC and has material properties that resist moisture, mold, and insects while providing a natural-looking wood-grain finish. It is available in four popular colors (Mountain Mocha, Saddle Rose, Desert Spice, and Coastal Mist) plus special-order colors Newport White and Harbor Gray. **For more info circle 854**



## ▲ HARDWOOD DECK TILES | ADVANTAGE LUMBER

Advantage Lumber offers four types of hardwood deck tiles for a variety of outdoor applications: Ipe, Cumaru, Tigerwood, and Massaranduba. The tiles give any project the durability and resilience of long-length ipe decking with a natural, visually attractive surface. Tiles are available in either 20-inch-by-20-inch or 24-inch-by-24-inch sizes. All four species feature a smooth surface; Ipe is also available with an anti-slip surface. **For more info circle 852**



## ▲ CAP STOCK DECKING | AERT

MoistureShield Pro is a cap stock decking line that adds an extra layer of protection and beauty to a composite core that encapsulates wood fibers in polyethylene plastic. As with other MoistureShield products, Pro deckboards can be installed on the ground, in the ground, or underwater and still be protected by the industry-leading lifetime warranty. The durable cap enhances slip and scratch resistance. The decking is available in three variegated colors: Ipe, Brazilian Chestnut, and Graystone. **For more info circle 855**



**CONCRETE DÉCOR PRODUCTS | QUIKRETE**

Three concrete and masonry stains from Quikrete can transform drab driveways, garage floors, sidewalks, and patios into surfaces with pleasing appearances. Etching Stain permanently stains concrete in one step and delivers a marble-like appearance with warm earth tones and unique shading. Penetrating Concrete Stain is a UV-resistant formula that provides an opaque appearance with a deep, rich color highlighted by natural variations in concrete and masonry. Translucent Concrete Stain is a semi-transparent, water-based, polymer-bonded stain that highlights the natural variations in concrete and masonry surfaces. The three stains are available in a variety of colors. **For more info circle 856**



**SCREENED PORCH SHADES  
WEATHER QUEEN SHADES**

Weather Queen Shades offers a product to protect your porch from inclement weather and also for muting outside noise. Screen Porch Shades can withstand harsh weather and are simple to operate from the inside of the porch. The product keeps out pollen and dirt and is easy to clean with a brush or hose. It also offers security when closed by way of a stainless steel rod that will jam in the channel if the shade is lifted from the outside. **For more info circle 857**

**LIGHT-COLORED DECKBOARD | AZEK DECK**

Azek Deck has expanded its Arbor Collection with a light color called Hazelwood, whose sleek but subtle variegation offers a natural shade with earthy richness. Hazelwood was developed to coordinate with current trends in hardscapes and other exteriors, and the light variegation helps camouflage dirt. The new shade joins current colors Acacia, Morado, Silver Oak, and Redland Rose. Hazelwood is available in 12-, 16-, and 20-foot board lengths and in square-shouldered and grooved profiles with matching fascia.

**For more info circle 858**



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Circle 774

## WEATHER BARRIER | JAMES HARDIE

This non-woven, water-resistant weather barrier from James Hardie offers a MicroTech coating that allows moisture inside the home to escape, keeping areas within the walls dry while keeping outside moisture out. It also provides superior air resistance to help reduce a home's energy loss. The system includes HardieWrap weather barrier, HardieWrap Flashing, HardieWrap Flex Flashing, and HardieWrap Seam Tape. It is suited for areas with large temperature swings and/or areas where heat, humidity, sun, and rain are prevalent.

For more info circle 859



## SPRAY FOAM INSULATION | ICYNENE

Icynene's portfolio of spray foam insulation includes Classic Max, an open-cell, low-VOC foam that allows for re-entry and re-occupancy four hours after installation—with active ventilation. Classic Max also is an ignition-barrier-free product that the Canadian manufacturer says can smother an attic fire in less than a minute. Classic Plus is a high R-value open-cell spray foam that achieves R-22 in 2x6 wall assemblies. The product also meets prerequisites and may contribute toward points for new-construction LEED certification.

For more info circle 862



## FIBERGLASS BATT INSULATION | CERTAINTEED

SmartBatt with MoistureSense Technology from CertainTeed is the industry's first kraft-faced fiberglass batt insulation. MoistureSense is a smart vapor retarder that blocks indoor moisture from entering when humidity in the wall cavity is low and allows the wall to breathe in high humidity, reducing the potential for mold and mildew growth. SmartBatt offers an alternative to the practice of installing a vapor barrier film over unfaced batts, eliminating the need for two-step installation and saving considerable time and labor costs.



## FLUID APPLIED WEATHER BARRIER | STO

Sto has launched its energy-efficient StoGuard fluid applied weather barrier to the residential market. It can be sprayed on or applied with a roller and requires no special training, reducing the risk of improper installation. No additional breathing apparatus or special handling is necessary. StoGuard does not require the use of staples, nails, or other means of attachment to adhere to the wall. In addition, it is bonded to the sheathing, does not require mechanical fastening, and will not tear, rip, or blow off during construction.

For more info circle 863



## EPOXY | USP STRUCTURAL CONNECTORS

Miracle Bond by USP Structural Connectors is a high-strength, two-component epoxy designed to be a bonding agent for nearly all household materials including wood, steel, concrete, brick, stone, and CMU block. It's moisture insensitive and can also be used to fill cracks in concrete, block, and stone. Miracle Bond reaches a strength of over 1,000 psi in two days with a quick initial cure of two hours at 75°F. Working time is a convenient 20 minutes, plus the non-sag formulation makes Miracle Bond excellent for overhead patching and repairs.

For more info circle 861

## POLYISO FOAM SHEATHING OX ENGINEERED PRODUCTS

Iso Red CI Polyiso Foam Sheathing from Ox Engineered Products is a closed-cell polyisocyanurate continuous insulation solution that provides the technology for best-in-class foam sheathing R-values and moisture resistance. Continuous insulation outboard of framed walls is known in the building industry as a solution to stop thermal bridging while maintaining wall cavity temperatures and humidity closer to that of the conditioned space.

For more info circle 864







**POLYISO CONTINUOUS INSULATION**  
JOHNS MANVILLE

Johns Manville has added CI Max White insulation to its complete line of building insulation products. A high-efficiency polyiso foam sheathing designed for exposed interior applications in commercial and residential buildings, CI Max White is approved for use without a thermal barrier and provides an attractive and durable interior finish. The company's entire line of foam sheathing products has also received International Code Council Evaluation Service (ICC-ESR-3398) approval for residential and types I-V commercial construction. **For more info circle 865**



**VERSATILE SEALANT**  
BASF

MasterSeal NP 100 by BASF is a hybrid sealant formulated with polymers to give it strong, primerless adhesion to a broad range of substrates. This new construction sealant continues the company's innovation within its MasterBuilders Solutions portfolio. The product's color retention and long-term durability from weather can eliminate costly callbacks for repairs. MasterSeal NP 100 is available in 13 colors to match the most common shades of building materials. **For more info circle 866**



**WINDOW, DOOR, AND TRIM SEALANT** | DAP

The new formula DAP Dynaflex 230 is a 100 percent waterproof window, door, and trim sealant. It delivers a silicone-tough latex formulation and is flexible to endure expansion and contraction without cracking or losing its seal. It adheres to a wide range of materials such as wood, MDF, PVC, polystyrene, and composite trimboard. It can seal joints up to 1-inch wide, can be cleaned with soap and water, has low odor, and can be used for both exterior and interior projects. **For more info circle 867**



**BREATHABLE EXTERIOR INSULATION** | DUPONT

Available in 4-by-40-foot rolls, this building wrap from Tyvek offers builders another option to meet higher R-values. ThermoWrap R5.0 acts as a breathable air and water barrier while providing continuous exterior insulation. Designed to be installed like housewrap with cap staples or cap nails, the rolls feature an uninsulated flap along the bottom edge that overlaps the course below to prevent moisture penetration. ThermoWrap R5.0 is backed by a 10-year limited warranty. **For more info circle 868**

**SELF-ADHERING UNDERLAYMENT** | TARCO

Designed for use in steep-slope roofing, Tarco's LeakBarrier EasyLay UDL SA roofing underlayment is a self-adhering product with a synthetic-felt top surface and a modified bituminous adhesive layer. The synthetic-felt layer is made from several components for long-term weather-barrier performance. EasyLay UDL SA can be used in shingle, shake, slate, tile, and metal roofing applications. Each roll is 216 square feet (36 inches wide, 72 feet long). One pallet contains 25 rolls. **For more info circle 869**



**TERMITE TREATMENT**  
NISUS

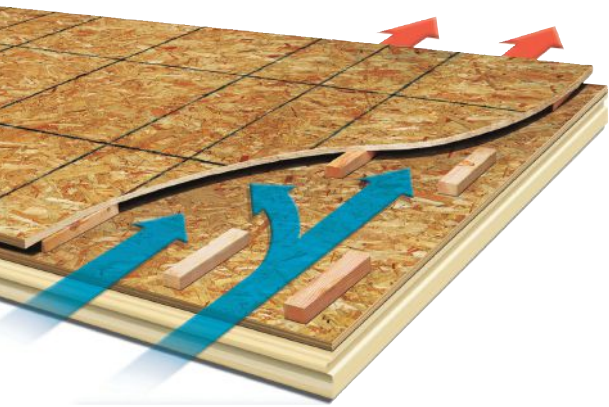
Bora-Care, produced by Nisus, utilizes a patented process that makes use of penetrants and glycols to provide long-term control of termites and other

wood-destroying insects and fungi. Unlike soil treatment for termites, where chemicals can leach into waterways, Bora-Care is sprayed directly onto wood, concrete, and plumbing pipes. The product will not corrode metal fasteners, fittings, or nails; is less toxic than traditional pesticides; and can earn credits for LEED and other green building certifications. **For more info circle 870**

## ROOF INSULATION PANELS | GAF

GAF Cornell ThermaCal Nail Base Roof Insulation Panels are designed for use on structural wood or steel sloped roof decks. Panels consist of: sheathing that serves as a nail base for use with shingles, metal, slate, or tile; built-in ventilation space (a non-ventilated panel is also available); and polyiso insulation. It's ideal for cathedral ceilings, post and beam, and conditioned attics.

For more info circle 871



## ROOF AND WALL SHEATHING SYSTEM | HUBER ENGINEERED WOODS

ZIP System sheathing and tape is a structural roof and wall system from Huber Engineered Woods offering an integrated air and water-resistive barrier. The simple installation process—just put up the panels and tape the seams—is 40 percent quicker to install than housewrap and felt, the manufacturer says.

For more info circle 874



## TRUSS SCREW | SIMPSON STRONG-TIE

This carbon steel truss screw from Simpson Strong-Tie can be used for stud-to-bottom plate or stud-to-top plate connections. It also provides a method for fastening trusses and rafters to top plates. The Strong-Drive SDWC's fully threaded shank goes the length of the fastener to ensure a secure connection, and the screw is tested in accordance with ICC-ES AC233 and AC13 for uplift and lateral loads between wall plates and vertical wall framing and between the top plate and roof rafters or trusses.

For more info circle 872



## HIGH-YIELD ADHESIVE | DAP

DAP SmartBond provides eight times the coverage of standard cartridge adhesives across a wide array of applications and construction materials. DAP also boasts 25 percent faster application thanks to its aerosol distribution, plus the higher strength of polyurethane technology, the manufacturer says. Products in the line include a subfloor adhesive, subfloor gun-grade adhesive, heavy-duty adhesive, landscape adhesive, and an adhesive cleaner.

For more info circle 873



## RIGID THERMAL INSULATION | BASF

Neopor 5300 expandable polystyrene insulation from BASF contains special graphite particles that reflect heat radiation, reducing heat loss. It is specified for use as above- and below-grade continuous exterior insulation and as thermal insulation in other building products used in walls, floors, and roofs. It economically meets insulation code requirements at industry-standard thicknesses, demonstrating eco-efficiency, durability, vapor permeability, and low water absorption, and enabling a more sustainable final building product.

For more info circle 875



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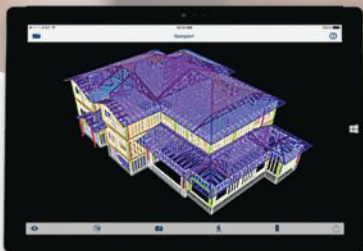
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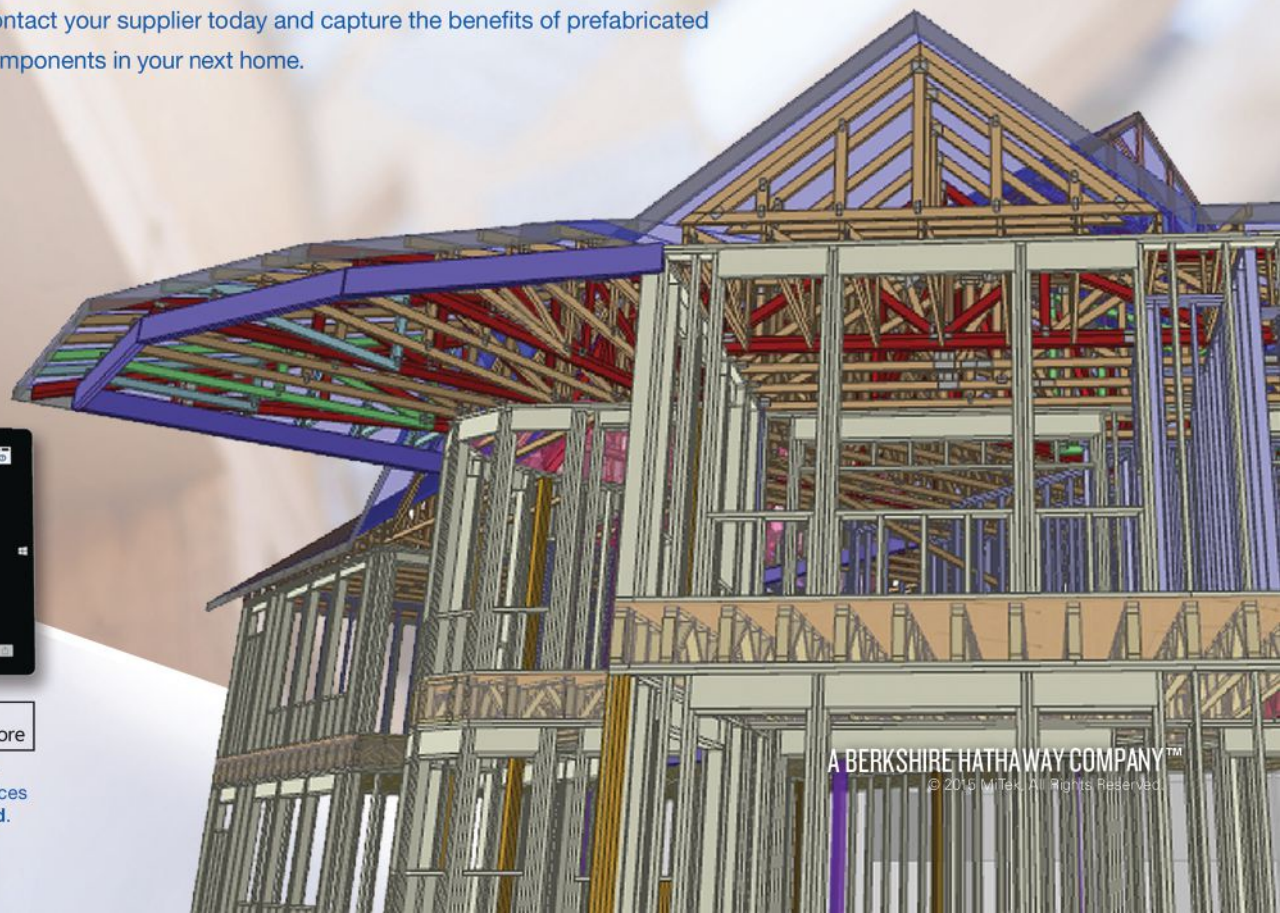
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Circle 775

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## RECESSED DRYER VENT BOX | IN-O-VATE

In-O-Vate makes five models of recessed dryer vent boxes that fit in the wall behind a dryer. The Dryerbox is a deep-drawn, molded product made from 22-gauge aluminized steel, weighing between 4 to 5 pounds. The boxes allow the dryer to be placed flush against the wall without crushing the exhaust hose, which can add an additional square foot or two to the laundry room and protect the exhaust hose from getting damaged or broken during the remainder of construction. **For more info circle 876**

## KEYLESS REMOTE ACCESS WEATHER GUARD

QuickDraw keyless remote access for truck boxes offers push button access from up to 100 feet away and keyless unlocking within 5 feet of the truck box. The Weather Guard system also

provides multilevel digital encryption for increased security, and up to 10 total remote fobs can be programmed per vehicle to give controlled access to multiple users. QuickDraw can be retrofitted for existing boxes and is compatible with 16 Weather Guard models. **For more info circle 880**



## VENTILATION FAN | PANASONIC

Panasonic's WhisperGreen Select ventilation fan includes features that allow for greater customization and easier installation. The built-in Pick-A-Flow speed selector enables users to choose their airflow (50, 80, or 110 cfm). Plug 'N Play modules help installers comply with the latest codes by providing up to three extra features they can pick from in advance or on the fly to meet a variety of ventilation applications. WhisperGreen Select includes an installation bracket with articulating joints so the fan can be positioned exactly, and its SmartFlow technology senses the amount of resistance in the duct run and automatically adjusts fan speed to deliver the optimal cfm output. **For more info circle 877**

## DESIGN SOFTWARE | SOFTPLAN

Like its predecessors, SoftPlan 2014 residential design software offers simplified drawing commands, extensive customization tools, and advanced BIM automation. The 2014 version also includes a 64-bit memory model and improved three dimensional output, allowing users to quickly generate large, detailed renderings. The version also introduces plan sets for printing, interior elevations, and many other new features, enhancements, and symbol libraries. The release of SoftPlan 2014 also launched SoftPlan +, a subscription service for cloud-based SoftPlan access with advanced technical support and complimentary upgrades. **For more info circle 878**



## TANKLESS WATER HEATER | NORITZ

The NRCP line of residential tankless water heaters from Noritz have a circulating pump inside, which keeps hot water close to the outlet. This setup minimizes the wait for warm or hot water and the waste of unused potable water down the drain.

Homeowners can program the recirculation system to operate only when needed by using the digital display system on the front of the water heater. The auto setting allows the system to learn the household's water-usage routines, letting the system automatically control the recirculation loop activation times.

**For more info circle 879**

## TANKLESS WATER HEATER | NAVIEN

Navien Premium Efficiency (NPE) tankless water heaters are available in four output sizes, with or without built-in recirculation. NPE-A (Advanced) features ComfortFlow recirculation, including a pump and buffer tank, as well as six different pump control options. NPE-S (Standard) tops the Energy Star rating list with up to 0.99EF. All sizes have dual stainless steel heat exchangers and come with a 15-year residential warranty. **For more info circle 881**





**FAN WITH RECESSED LED LIGHT | PANASONIC**

The Energy Star-certified WhisperRecessed LED fan from Panasonic includes a recessed LED light and offers quiet operation. The 80-cfm fan exhausts indoor pollutants, allergens, and moisture while its adjustable LED bulb's positioning and deeper lamp regression minimize glare. The warm white dimmable LED lamp lasts up to five times longer than CFLs and uses up to 20 percent less energy. UL listed for tub/shower enclosures, the fan's built-in damper prevents backdraft. **For more info circle 882**



**VENTILATION FAN | PANASONIC**

EcoVent is an Energy Star-rated fan from Panasonic that delivers airflow by incorporating a unique Veri-Boost feature to ensure optimal performance without compromising style. Its smaller grille size blends into the ceiling and doesn't detract from the room's aesthetics. EcoVent provides verification assurance and can be used to comply with airflow requirements for installed performance per ASHRAE 62.2 and Energy Star for Homes 3.0, among others. **For more info circle 883**



**GARAGE DOOR OPENER | LIFTMASTER**

LiftMaster's MyQ-enabled residential garage door opener gives users the ability to control a door from anywhere with a Smartphone via the free MyQ app, as well as from a tablet or computer. The garage door openers, which include battery backup and a quiet DC motor belt drive system, provide home builders with upsell opportunities as well as improved reliability, cutting down on callbacks. **For more info circle 884**



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### ▲ WIRELESS CHARGING SURFACE DUPONT

DuPont is building induction chargers into select versions of its Corian countertops. The Corian Charging Surface will charge a mobile phone or tablet using a transmitter under the countertop to wirelessly transfer energy to a receiver within or attached to the smart device. Nearly all smart devices can be charged with a charging ring from Duracell Powermat, but charging cases also are available, and some devices are already enabled with wireless charging capabilities. To wirelessly charge using the Corian Charging Surface, users need only connect the ring or case to their mobile device and place it on a charging spot. Find local distributors at [corian.com/powerup](http://corian.com/powerup). **For more info circle 885**



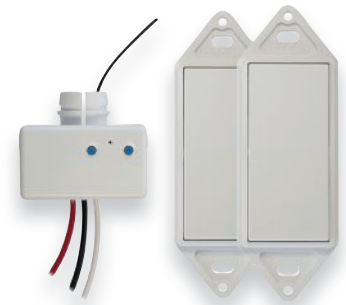
### ▲ SMART LOCK | KWIKSET

The Kevo smart lock by Kwikset is a Bluetooth-enabled deadbolt that satisfies consumer demand for both convenience and security. By simply installing Kevo and downloading the mobile app, your iPhone becomes your key. Convenient and versatile, Kevo gives owners the ability to unlock the door with their smartphone; send electronic keys (eKeys) to family, friends, and service people; and receive notifications whenever someone enters or exits the door.

**For more info circle 886**

### ▲ PHOTOVOLTAIC SYSTEM CERTAINTEED

The Solstice PV System from CertainTeed is available in several configurations including all-black panels and low-profile mounting frames to blend in with the roof. Several inverter options are offered as well as optional monitoring systems that allow homeowners to see how much electricity is being produced. Solstice is UL 1703 approved and has a 25-year power generation warranty. **For more info circle 887**



### ▲ WIRELESS SWITCH | GOCONEX

This wireless electrical switch from GoConex makes installation faster and simpler because it doesn't need to be attached to the frame, providing flexibility for where the switch can be installed. No wires means that the builder or homeowner can move a switch to a new location without cutting drywall or touching wire. The wireless switch reduces building-material and vapor-barrier penetrations. Users also have the option of controlling one or multiple switches from any GoConex wireless switch.

**For more info circle 888**



### ◀ SLIM SOLAR PANELS | CERTAINTEED

The Apollo II Solar Roofing System from CertainTeed seamlessly integrates with roofing shingles and comes in pre-engineered kits for easy installation. Each slim 12-pound module features 14 high-efficiency monocrystalline silicon solar cells with a power rating of 60 watts per module. The low-profile design requires no structural reinforcement, and an open space under the modules allows for easy wiring. Water channels and raised fastener locations improve waterproofing. Apollo II systems are Class A fire-rated and meet UL 790, UL 1703, and IEC 61215 requirements. They can handle wind resistance up to 110 mph and loads up to 250 pounds per square foot. **For more info circle 889**



### ◀ HEATING AND COOLING UNIT | LG

Multi V is a line of energy-efficient systems made by LG Electronics that uses variable refrigerant flow technology. The modular design of this system delivers temperature control by enabling users to cool or heat only the spaces that are being used. The line includes heat pumps that use outside air as a heat exchange medium, and some are suitable for indoor applications. The Multi V water heat pumps are designed with compressors that operate quietly indoors. **For more info circle 890**



### ◀ TANKLESS WATER HEATER | RINNAI

Rinnai expanded the Ultra Series line of condensing tankless water heaters to include the RUR98i and RUR98e. These new RUR models feature recirculation (with or without a dedicated recirculation line) provided by thermal bypass technology that includes an integrated pump, internal bypass line, and thermal bypass valve, which means less wait time for hot water. In addition, the premium MC195T digital controller, a standard feature, allows users to save on gas utility bills by scheduling multiple recirculation events throughout the day to align with usage patterns. **For more info circle 891**



# A NEW SPIN ON A CLASSIC

## NEXT GENERATION ULTIMATE DOUBLE HUNG

*The classics never go out of style, but there's always room for improvement. Marvin's Next Generation Ultimate Double Hung Window stays true to the handcrafted quality that made it a classic, while introducing new features like an all wood interior, automatic locking, and a convenient vent mode. Because at Marvin we believe that the best way to honor the past is by moving forward.*

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Enter for a chance to see **The Who** in concert as part of an exclusive VIP trip and experience their classic song "I Can See for Miles" reimagined at [MarvinWindows.com/NewSpin](http://MarvinWindows.com/NewSpin)

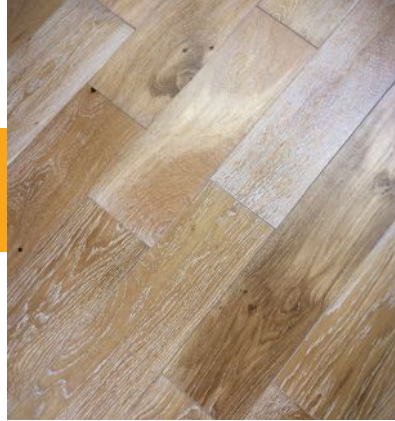
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### VERSATEX TRIMBOARD

Versatexural, the custom millwork division of Versatex Building Products, offers a range of trimboard such

as window surrounds, spires, railings, and brackets. All products are made of cellular PVC, a material that offers the workability of wood without warping, cupping, or splitting. The company prides itself on innovative solutions for new construction, as well as trimboard that brings quality and aesthetics that can match the architectural detailing in historic buildings. Versatex products are code-listed nationally and include a 30-year transferable warranty. **For more info circle 892**



### COUNTRY WOOD FLOORING

Country Wood Flooring offers a variety of engineered and solid wood flooring that has been wire-brushed and oil-finished to emphasize the natural depth and character of the materials used. Five Country Wood collections are offered and include over 100 choices of colors and styles, including engineered and solid oak, maple, mahogany, bamboo, teak, cherry, maple, and hickory. **For more info circle 893**



### WESTERN WINDOWS

Western Window Systems has been manufacturing sleek, energy-efficient doors and windows for more than 50 years. Offerings include bifold doors, window walls, casement windows, and multi-slide doors. The company's Series 3600 Vinyl Multi-Slide Door is made of dual-pane, low-E glass that helps reduce solar heat gain and features cold-formed steel with a rating of 50 kilopounds per square inch. Options include a flush sill, retractable screens, and rolling panels. **For more info circle 894**



### KEYSTONE HARDSCAPES

Keystone, a subsidiary of Contech Engineered Solutions, is a leading provider of hardscape products for landscaping and retaining walls as well as erosion

control and surface stabilization solutions. The company's portfolio includes patio pavers, edging products, and stone for planters, borders, and retaining and structural walls. Keystone products are made with both natural and recycled material and can help builders achieve credits toward LEED certification. **For more info circle 895**



### THERMADOR INNOVATION FOR REAL COOKS

Distinct cooking lines by Thermador—the Professional Series and the Masterpiece Series—target culinary enthusiasts who want their kitchen to be a reflection of their passion for cooking, with design flexibility that offers a chance to personalize the kitchen with innovative and high-performing appliances. In addition, the Thermador Freedom Collection of refrigeration columns allows for cooling configurations that can be customized. All the appliances coordinate with a wide range of kitchen designs. **For more info circle 896**

### BOSCH EUROPEAN KITCHEN APPLIANCES

Bosch home appliances have gone from leading the dishwasher category to bringing modern European design to a full range of kitchen appliances. The company prides itself on purposeful design that's sleek and timeless. Bosch's kitchen offerings include the Benchmark line and an entire collection of 24-inch kitchen appliances designed for small spaces and accessory dwellings. **For more info circle 897**



### TIMBERLAKE CABINETRY

Timberlake Cabinetry is a division of American Woodmark, the third largest manufacturer of kitchen cabinets

in the U.S. The company operates 11 manufacturing centers, nine builder-direct service centers, and partners with distributors and lumberyards across the country. Timberlake brand cabinets offer both style and affordability. Products include 16 cabinetry collections within its top-tier Portfolio and Portfolio Select lines, which have a full range of styles and upgrades, and the Value Built series for the budget-conscious. Many models come with TuffTech and BeautyGuard finishes that resist scuffs, scratches, fading, and moisture. **For more info circle 898**



### ENVIRONMENTAL STONWORKS

Environmental StoneWorks, manufacturer and installer of stone veneer, has six manufacturing facilities across the country and a start-to-finish approach that targets the needs and challenges of home builders. Product design, manufacturing, installation, and warranty support happen under one roof, creating a single point of responsibility. Environmental StoneWorks products are available nationwide through quality building material retailers. **For more info circle 899**





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that lets cool  
spaces love  
hot places.

BASF high-performance materials are smart—and smart is hot. Offering greater design flexibility, our plastics and polyurethanes are at the heart of many an intelligent home. Architects, designers and builders all know that our high-performance solutions help them create a home that is comfortable, energy-efficient, quiet and durable with better indoor air quality and a lower cost of ownership. And, we think that's pretty cool.

We have the industry's leading portfolio of plastics and polyurethanes—offering both off-the-shelf and custom solutions. Find out how BASF Performance Materials can improve your business with chemistry at [www.performance-materials.basf.us](http://www.performance-materials.basf.us).

 **BASF**  
We create chemistry

## New Painted Stone Finish is an Inviting Neutral Backdrop for Kitchens

**M**ore and more homebuyers are drawn to the bright, fresh look of painted cabinetry. Timberlake responded, first with their white palette of Painted Linen, and Silk and Hazelnut Glaze, and recently with the introduction of Painted Stone—a rich, warm gray—on their Sierra Vista, New Haven, and Rushmore collections.

Painted Stone is a refreshing neutral backdrop for kitchen styles from traditional to modern. The Painted Stone finish is also available in several construction options: All Plywood Construction, Furniture Ends, Matching Interior Cabinets and Plywood Veneered Sides, giving designers and builders enhanced flexibility. Choose this trendsetting gray for an entire kitchen or as an upscale accent for other finishes.

Timberlake Cabinetry is a division of American Woodmark Corporation, the third largest manufacturer of kitchen cabinets in the United States. Timberlake cabinets are sold directly to major homebuilders through a network of builder service centers and distributors. With more than 200 cabinet styles and a full array of

coordinating moldings and accessories, Timberlake brand cabinets combine style and affordability. The Company manufactures Portfolio Select and Portfolio, premier lines that deliver a full range of styles and upgrade options that make customizing homes easy, and the Value Built series, a line that offers well-crafted, affordable cabinetry. All Timberlake products have received certification by the Kitchen Cabinet Manufacturers Association (KCMA) Environmental Stewardship Program (ESP). For more about Timberlake Cabinetry and to view the full line of cabinetry styles and accessories, visit <http://www.timberlake.com>.



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With Foundry you'll never have to paint or stain again. Foundry's sustainable single course panels hide overlaps, and generate less scrap than other siding. Its rugged construction endures where wood fails – and provides a fresh look over time, in spite of extreme temperature change. Foundry also has a coast to coast dependency that contains a Class A fire rating, including areas prone to brush fires, along with protection against moisture, insects and pests.

Foundry's genuinely beautiful "on wall" aesthetic appearance is second to none. Crafted with 72 molds cast from genuine wood, Foundry's texture variations are virtually indistinguishable from the real thing, even close up. Choose from different profiles such as Shingle, Split Shake or Staggered Shake to achieve the style you are looking for.



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In order to achieve our **Split Shakes'** genuine hand-split appearance, scores of real cedar molds are used to create **random** grooves and grain. Within each shake, textured depth creates captivating contrast between light and shadow for an unmistakably authentic look. See for yourself today at [FoundrySiding.com](http://FoundrySiding.com)



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# Introducing SoftPlan 2016

**S**oftPlan Architectural Design Software continues its legacy of innovation with SoftPlan 2016. This version incorporates hundreds of new features and enhancements to offer the most complete design experience available.

SoftPlan 2016 integrates HDR tone mapping, gamma correction, and improved lighting to upgrade SoftPlan's three-dimensional output to an unprecedented level. SoftPlan 2016 also implements a new AutoCAD® to SoftPlan Conversion Wizard making it easier than ever to convert DWG files into fully editable SoftPlan drawings.

This release introduces a major advancement in 3D presentation with the new Walkthrough Animations feature. SoftPlan provides an intuitive animation recorder with easy-to-use editing commands that allow the user to create stunning 3D walkthroughs.

Subscribers of the SoftPlan+ cloud services can even upload animations directly to YouTube to share with clients and colleagues.

For a low monthly subscription fee, SoftPlan+ subscribers receive access to the SoftPlan+ cloud services and complimentary upgrades to each new SoftPlan release. Other subscription benefits include SoftPlan re-View functionality on iPad®, iPhone®, and Android™ devices, enhanced technical support, the complete training library, and premium content including additional manufacturer libraries.

With enhanced export capabilities, SoftPlan+ subscribers also have the ability to export 3D models to SketchUp, or create virtual tours of properties using satellite imagery in Google Earth.

Since 1985, SoftPlan has strived to provide an ever-evolving software solution that is powerful while being easy to learn and use. Working through seventeen separate releases, SoftPlan has continued to invest in new product development in order to remain an industry leader.

Over 30,000 architectural, building, and remodeling companies have discovered SoftPlan as the foremost CAD package for residential building professionals.



**SOFTPLAN** 2016  
 ARCHITECTURAL DESIGN SOFTWARE

[softplan.com](http://softplan.com)

# As Housing Market Continues to Recover, Homeowners Voice a Renewed Desire: More Indoor-Outdoor Space

Blending the inside with the outdoors helps builders gain a competitive advantage.

**T**o grow their business, builders today not only need to face the challenges of the current housing market – rising material costs, labor, lot availability – but also anticipate emerging trends. Many recognize the importance of planning for the future, but with so many special home features on the upswing, choosing those that will prove to be the most differentiating, not to mention profitable, can be difficult.

One consideration that shows no signs of stopping is indoor-outdoor living. Hardly a trend anymore, spaces that blend the indoors with the outside are in demand now more than ever. In fact, a recent survey by the American Institute of Architects (AIA) reported that as the housing market continues its path to recovery, homeowners are exhibiting a renewed interest in upgrades, especially when it comes to living space. Of the findings, an increase in outdoor living and blended indoor-outdoor space charted significant spikes, rising five percentage points from 2014. The AIA survey is conducted quarterly with a panel of more than 500 architecture firms that concentrate their practice in the residential sector.

“An increase in home square footage with the rising popularity of accessible design concepts points to a population that is preparing to age-in-place, or, perhaps, is anticipating responsibility for caretaking of older relatives in the future,” says AIA Chief Economist Kermit Baker in a release. “As homeowners prepare to stay in their current homes, investment in outdoor living



spaces has also increased.”

By bringing interior functions outside, indoor-outdoor living allows homeowners to feel as if the outdoor space is an extension of their home – one that goes beyond its four walls. But in order for it to work perfectly, the transition from inside to outside has to be seamless. Builders can achieve this through large sliding glass doors, the continuation of a color scheme, and the extension of an interior floor (weather-resistant, of course). And upgrade options such as pavers, kitchens, fireplaces, outdoor TVs, and landscaping packages make it easy for builders to help homebuyers realize an expanded living room, outdoor cooking and dining area, or entertainment space.

Millennials, currently aged 18-35 and now 25% of the U.S. population, are also more inclined to focus on homes featuring indoor-outdoor living solutions. According to the Garden Media Group's annual garden trends report for 2015, 85% of millennials rated outdoor rooms as “very important,” with activities such as cooking outdoors and transforming yards into relaxing getaways ranking high in popularity.



# Whirlpool® HybridCare™ Heat Pump Dryer

**T**he Whirlpool® HybridCare™ Heat Pump Dryer, Whirlpool brand's most efficient dryer with true ventless dryer technology, is the first ventless heat pump dryer to use a refrigeration system to dry and recycle the same air. This dryer was designed to regenerate energy during the drying cycle to reduce overall energy consumption. This dryer can also be placed almost anywhere within the home thanks to the ventless design since it does not require breaking the building envelope with a wall output.

- ENERGY STAR® Certified: the Whirlpool® HybridCare™ dryer is our most efficient dryer, using 73% less energy\* with the Eco option.
- HybridCare™ Technology: reduces energy use compared to typical dryers that use large amounts of energy in the form of venting hot, moist air out of the home.
- True Ventless Dryer Technology: easily installs in more places in the home since it does not require a wall output.
- No Wall Output: reduces labor and material cost at the time of installation.

Take advantage of the freedom that comes with true ventless dryer technology. This dryer is perfect for new high efficiency homes, condos or apartments with in unit laundry, or custom home designs with unique laundry needs.



[www.insideadvantage.com/ventlessinnovation](http://www.insideadvantage.com/ventlessinnovation)

\*Compared to pre-2004 traditional dryers, when paired with a matching washer, normal cycle, electric only





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We believe you should have the freedom to build without limitations. Now you can with the purposeful innovation of our ventless Whirlpool® HybridCare™ clothes dryer with Hybrid Heat Pump technology. Enjoy greater design flexibility, reduced labor and material costs and the perfect opportunity to impress your homebuyers. Finally, installation and innovation can live together under one roof. Just another way Whirlpool Corporation helps everyone build United.



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By Amy Albert, Editor-in-Chief

**Y**ou may know Home Innovation Research Labs (formerly known as the NAHB Research Center) as the third-party certification firm that helps product manufacturers overcome barriers to market entry (as well as the folks whose average workday may involve, say, shooting 2x4s out of a cannon). But HIRL, an internationally accredited testing ground for code compliance, is now publishing the research it does that tracks not what brands of products builders are thinking of spec'ing or prefer to spec, but what they've actually spent money on. "We are producing demand data," says Mike Luzier, President and CEO of HIRL, who points out that many other studies look at preference rather than purchase. Still others contain proprietary data that's not readily available. "It's far more useful and actionable information than opinion," says Luzier of the Brand Use Survey. "It reflects actual sales. People have parted with their hard-earned money to purchase the product."

The method is meticulous, with intense care taken to ensure that the sample accounts for what's really going on in the marketplace. HIRL breaks the country up into 32 discrete areas that run mostly along state lines. By and large, they're the same market areas that were used during the 1970s, when HIRL first started examining builder preferences, and they hew to those used by the National Association of Home Builders and the Census Bureau, says Ed Hudson, director of market research at HIRL. Responses are weighted by builder volume: Data gathered must be proportional to housing starts to ensure that a particular region isn't over- or under-represented.

"Because of our understanding of the industry, it's not actually that hard to put this together," says Luzier, who boasts about Hudson, HIRL's resident data obsessive, being a former carpenter with an encyclopedic knowledge of home building. "The main challenge is getting a representative sample so that the information is truly indicative."

For decades, Home Innovation Research Labs has been polling builders nationwide about which products they most rely upon. Now, the results are available to you.

## HOME CONDITIONING

### AC & HEAT PUMPS INSTALLED IN NEW HOMES

Volumes and Market Shares—U.S. Total

AC & Heat Pumps	Thousands of Systems
American Standard	53.91
Bryant	56.62
Carrier	240.62
Goodman	118.53
Lennox	190.53
Rheem	54.75
Ruud	52.52
Trane	204.32
York	63.37
Others	78.51
<b>TOTAL</b>	<b>1,113.69</b>
Market Share of AC & Heat Pumps	Percentage of Systems
American Standard	4.8%
Bryant	5.1%
Carrier	21.6%
Goodman	10.6%
Lennox	17.1%
Rheem	4.9%
Ruud	4.7%
Trane	18.3%
York	5.7%
Others	7.0%
<b>TOTAL</b>	<b>100.0%</b>

### FURNACES INSTALLED IN NEW HOMES

Volumes and Market Shares—U.S. Total

Furnaces	Thousands of Systems
American Standard	30.55
Bryant	30.52
Carrier	106.36
Goodman	80.28
Lennox	110.58
Rheem	26.90
Ruud	48.36
Trane	97.06
York	60.70
Others	44.20
<b>TOTAL</b>	<b>635.49</b>
Market Share of Furnaces	Percentage of Systems
American Standard	4.8%
Bryant	4.8%
Carrier	16.7%
Goodman	12.6%
Lennox	17.4%
Rheem	4.2%
Ruud	7.6%
Trane	15.3%
York	9.6%
Others	7.0%
<b>TOTAL</b>	<b>100.0%</b>

# BY POPULAR VOTE

## COUNTERTOPS

### SOLID-SURFACE COUNTERTOPS INSTALLED IN NEW HOMES

Volumes and Market Shares—U.S. Total

Solid-Surface Countertops	Thousands of Linear Feet
Avonite Surfaces	32.76
Cambria	300.74
Corian Solid Surfaces	1,312.19
Formica	83.19
Hi-Macs	53.75
Onyx Collection	69.70
Staron	22.28
Wilsonart	286.42
Others	140.28
<b>TOTAL</b>	<b>2,301.32</b>
Market Share of Solid-Surface Countertops	Percentage of Linear Feet
Avonite Surfaces	1.4%
Cambria	13.1%
Corian Solid Surfaces	57.0%
Formica	3.6%
Hi-Macs	2.3%
Onyx Collection	3.0%
Staron	1.0%
Wilsonart	12.4%
Others	6.1%
<b>TOTAL</b>	<b>100.0%</b>

### ENGINEERED STONE COUNTERTOPS INSTALLED IN NEW HOMES

Volumes and Market Shares—U.S. Total

Engineered Stone Countertops	Thousands of Linear Feet
Caesarstone	722.98
Cambria	314.89
Silestone	435.91
Swanstone	22.96
Viatera	4.40
Zodiaq	201.89
Others	280.87
<b>TOTAL</b>	<b>1,983.90</b>
Market Share of Engineered Stone Countertops	Percentage of Linear Feet
Caesarstone	36.4%
Cambria	15.9%
Silestone	22.0%
Swanstone	1.2%
Viatera	0.2%
Zodiaq	10.2%
Others	14.2%
<b>TOTAL</b>	<b>100.0%</b>

### LAMINATE COUNTERTOPS INSTALLED IN NEW HOMES

Volumes and Market Shares—U.S. Total

Laminate Countertops	Thousands of Linear Feet
Formica	2,533.64
Pionite	124.21
Wilsonart	4,515.27
Others	39.12
<b>TOTAL</b>	<b>7,212.23</b>
Market Share of Laminate Countertops	Percentage of Linear Feet
Formica	35.1%
Pionite	1.7%
Wilsonart	62.6%
Others	0.5%
<b>TOTAL</b>	<b>100.0%</b>

\* TOTALS MAY VARY SLIGHTLY DUE TO ROUNDING

## DOORS &amp; WINDOWS

**WINDOWS  
INSTALLED IN NEW HOMES**

Volumes and Market Shares—U.S. Total

Windows	Thousands of Units
Andersen	2,528.84
Atrium	456.95
Jeld-Wen	1,819.24
Marvin/Integrity	561.87
MI/CertainTeed	971.95
Milgard	1,145.57
Pella	810.06
Ply Gem	1,510.89
Simonton	417.41
Others	4,379.79
<b>TOTAL</b>	<b>14,602.56</b>
Market Share of Windows	Percentage of Units
Andersen	17.3%
Atrium	3.1%
Jeld-Wen	12.5%
Marvin/Integrity	3.8%
MI/CertainTeed	6.7%
Milgard	7.8%
Pella	5.5%
Ply Gem	10.3%
Simonton	2.9%
Others	30.0%
<b>TOTAL</b>	<b>100.0%</b>

**GARAGE DOORS  
INSTALLED IN NEW HOMES**

Volumes and Market Shares—U.S. Total

Garage Doors	Thousands of Units
Amarr	126.30
CHI Overhead Doors	38.90
Clopay	164.21
Mid-America Door	19.40
Midland	29.36
Overhead Door	191.43
Raynor	52.46
Stanley	43.95
Wayne Dalton	199.20
Others	145.35
<b>TOTAL</b>	<b>1,010.56</b>
Market Share of Garage Doors	Percentage of Units
Amarr	12.5%
CHI Overhead Doors	3.8%
Clopay	16.2%
Mid-America Door	1.9%
Midland	2.9%
Overhead Door	18.9%
Raynor	5.2%
Stanley	4.3%
Wayne Dalton	19.7%
Others	14.4%
<b>TOTAL</b>	<b>100.0%</b>

**PATIO DOORS  
INSTALLED IN NEW HOMES**

Volumes and Market Shares—U.S. Total

Patio Doors	Thousands of Units
Andersen	194.75
Atrium	79.16
Jeld-Wen	116.32
Marvin/Integrity	63.51
MI/CertainTeed	45.23
Milgard	60.75
Pella	66.98
Ply Gem	71.78
Therma-Tru	137.14
Others	314.58
<b>TOTAL</b>	<b>1,150.18</b>
Market Share of Patio Doors	Percentage of Units
Andersen	16.9%
Atrium	6.9%
Jeld-Wen	10.1%
Marvin/Integrity	5.5%
MI/CertainTeed	3.9%
Milgard	5.3%
Pella	5.8%
Ply Gem	6.2%
Therma-Tru	11.9%
Others	27.4%
<b>TOTAL</b>	<b>100.0%</b>

## KITCHEN

### KITCHEN CABINETS INSTALLED IN NEW HOMES

Volumes and Market Shares—U.S. Total

Kitchen Cabinets	Thousands of Units
Aristokraft	1,069.37
Armstrong	571.88
KraftMaid Cabinetry	1,709.49
Legacy Cabinets	293.59
Merillat	923.01
Mid Continent Cabinetry	303.99
QualityCabinets	537.72
Timberlake Cabinetry	481.21
Wellborn Cabinet	565.68
Others	8,615.48
<b>TOTAL</b>	<b>15,071.43</b>
Market Share of Kitchen Cabinets	Percentage of Units
Aristokraft	7.1%
Armstrong	3.8%
KraftMaid Cabinetry	11.3%
Legacy Cabinets	1.9%
Merillat	6.1%
Mid Continent Cabinetry	2.0%
QualityCabinets	3.6%
Timberlake Cabinetry	3.2%
Wellborn Cabinet	3.8%
Others	57.2%
<b>TOTAL</b>	<b>100.0%</b>

### KITCHEN SINKS INSTALLED IN NEW HOMES

Volumes and Market Shares—U.S. Total

Kitchen Sinks	Thousands of Units
American Standard	212.40
AmeriSink	26.75
Blanco	90.21
Delta	59.68
Elkay	195.18
Franke	28.82
Kohler/Sterling	258.13
Moen	62.45
ProFlo	32.43
Others	91.57
<b>TOTAL</b>	<b>1,057.60</b>
Market Share of Kitchen Sinks	Percentage of Units
American Standard	20.1%
AmeriSink	2.5%
Blanco	8.5%
Delta	5.6%
Elkay	18.5%
Franke	2.7%
Kohler/Sterling	24.4%
Moen	5.9%
ProFlo	3.1%
Others	8.7%
<b>TOTAL</b>	<b>100.0%</b>

### MAJOR KITCHEN APPLIANCES INSTALLED IN NEW HOMES

Volumes and Market Shares—U.S. Total

Major Kitchen Appliances	Thousands of Appliances
Whirlpool/Maytag/ KitchenAid/Amana/ Jenn-Air/Roper	793.70
Bosch/Thermador/ Gaggenau	95.86
Electrolux/Frigidaire/ Hotpoint	318.35
GE	938.75
Kenmore	269.39
LG	58.06
Samsung	12.61
Sub-Zero/Wolf	78.94
Viking	28.71
Others	25.22
<b>TOTAL</b>	<b>2,619.59</b>
Market Share of Major Kitchen Appliances	Percentage of Appliances
Whirlpool/Maytag/ KitchenAid/Amana/ Jenn-Air/Roper	30.3%
Bosch/Thermador/ Gaggenau	3.7%
Electrolux/Frigidaire/ Hotpoint	12.2%
GE	35.8%
Kenmore	10.3%
LG	2.2%
Samsung	0.5%
Sub-Zero/Wolf	3.0%
Viking	1.1%
Others	1.0%
<b>TOTAL</b>	<b>100.0%</b>

[DESIGN]

# the modular order

Anyone who still harbors preconceived notions about modular housing should see what's going on in the factory and the field



Karoleena's homes are built with a proprietary steel core that makes them extremely strong. Ductwork, wiring, and plumbing are run through the floor, allowing for large interior spaces and a modern look.

**By Susan Bady,  
Senior Contributing Editor**

In the last decade, modular-housing design and production have been greatly refined, erasing previous limitations. The single-family modular homes built today rival stick-built in architectural excellence and construction quality. Yet the misconceptions persist: They're the same as trailers. ... They're cheap and low-quality. ... They're boxes with no design flair.

The fact is, architects are teaming up with manufacturers to produce more modular-friendly designs, says Kam Valgardson, general manager of Irontown Homes, a manufacturer based in Spanish Fork, Utah. "If you have an understanding of the parameters of modular design, you can design inside of them to unlock many hidden benefits in cost and time," he says. "Modular homes don't need to look like Lego bricks stuck together. The modules can be built in any shape or size and can be integrated with components or site-built elements that meet your architectural goals."

Gone are the days of modular homes appealing to a single-strata customer group who just want a solidly built, utilitarian-style product, says Mike Zangardi, director of marketing for Ritz-Craft Corp., in Mifflinburg, Pa.

"We've moved far beyond the 'Monopoly board'-style buildings that became synonymous with our industry's perceived identity," Zangardi says. "Because of our associations with a strong network of highly skilled builder-distributors, we can jointly achieve any style of architecture with a clearly defined scope of work for each orchestrated project. We combine the best of the factory's efficiencies with local and regionally correct style and craftsmanship."

PHOTO: STEVE DUTCHESON PHOTOGRAPHY



PHOTO: STEVE DUTCHESON PHOTOGRAPHY

This 6,000 square-foot custom home in Vancouver was designed and fabricated by Karoleena, a modular company based in Okanagan Falls, B.C. Karoleena markets to upscale professionals in the Vancouver area who want a well-built, energy-efficient custom home without the headaches of conventional construction.

The popularity of modern architecture has been a boon for modular companies such as Irontown, partly because simply designed homes with flat or low-pitch roofs build and ship very well. “Plus, improved shipping, crane, and setting techniques drastically reduce stress on the modules as they travel between the factory and the site,” Valgardson says.

To dispel the perception that modular homes are cheap and low-quality, he notes that Irontown Homes produced the modules for a 4,500-square-foot custom home that sold for more than \$6 million and is rated LEED Platinum.

Karoleena, in Okanagan Falls, B.C., designs and fabricates upscale modular homes for the Vancouver market and will soon begin marketing them in the U.S. “We’re selling a pretty elite product, so our clients are professionals, entrepreneurs ... people who are looking for an intelligent solution to building a custom home,” says Kurt Goodjohn, co-founder and chief marketing officer. “They don’t want the headaches that are associated with traditional construction, but they still want a beautiful, architecturally designed home with all the bells and whistles.”

Karoleena’s portfolio of floor plans ranges from 730 to 2,400 square feet. Built to plan, the homes cost approximately \$260,000 to \$700,000, though Goodjohn says most customers build one-of-a-kind custom. Karoleena draws a 3-D model of every home, “with every nut and bolt showing in the drawings, before we send it to the shop floor.”

In addition, the homes utilize a proprietary steel core—a structural steel skeleton that permits bigger window openings and large, unobstructed spans. “We can put all of the ducting, wiring, and plumbing through the floor; there are no bulkheads, which creates a very modern look,” Goodjohn says.



Vaulted ceilings and open floor plans make the cottages feel larger. “There are no media rooms or offices—just a big common area where families can interact,” says developer Rob Brennan.



Heritage Sands cottages range from 900 to 1,350 square feet, with one to three bedrooms. The Howes, one of the smallest, has an optional loft bedroom and bath that can be guest quarters or an office.



PHOTOS: ALISON CARON

Low-maintenance interior materials help cottage dwellers make the most of precious time spent at the beach. Interior design is by MacKenzie & Mae Interiors, in Hyannis, Mass.





# quick turnaround on cape cottages

Architect Douglas Kalfelz laid out the Heritage Sands cottages around common greens that run perpendicular to the water, which creates small neighborhoods while providing common view corridors and pathways for visual and physical access to the ocean.

During the 1930s, New England families fled to Cape Cod in the summer to seek relief from the heat. Campgrounds with tents evolved into clusters of beach cottages that over the years were passed down from generation to generation. No new cottages have been built on the Cape—until now.

CapeBuilt Development, Newburyport, Mass., and Dennis, Mass., town planner Dan Fortier spearheaded the adoption of new zoning that paved the way for Heritage Sands. Located on the site of a former RV park in Dennisport, Mass., Heritage Sands is “the first time in 50 years that a parcel like this, on the ocean, has been developed as cottages in pocket neighborhoods,” CapeBuilt’s Rob Brennan says.

Due to the very short construction time frame—from Memorial Day to July 4—CapeBuilt chose to have modules fabricated by Keiser Homes, of Oxford, Maine. Once they’re delivered to the site, it takes one day to set them on the foundation and another day to make them weather-tight. Five weeks later, the keys are handed over to the new owners.

Since the crew only has to dig the foundations and use a crane to remove the modules from a flatbed truck, “You’re

not stockpiling adhesives or other materials that conservation agents wouldn’t want to see,” Brennan says.

“While initially it might seem that designing with modular would be a constraint, the simple fact of working within certain dimensional modules was a perfect fit in this case,” says Douglas Kalfelz, principal and managing partner of Union Studio Architecture, in Providence, R.I. “With the Cape cottage, good proportion, simple details, and natural materials are the rule. The dimensions of the standard boxes gave us a framework that fit nicely into the program and the aesthetic goals of the neighborhood.”

The biggest challenge, he says, “has been the loss of the simple field adjustment. Often subtle issues only become apparent when you see [them] in person. With modular, by the time you realize it would have been good to move that light switch to the other stud bay, the switch, Sheetrock, insulation, and fixture are already installed and working.”

Prices start in the low \$400,000s. Units with direct ocean frontage currently start in the \$920,000s. Brennan says a new home on a 1-acre lot with ocean frontage would run \$1.5 million to \$2 million, so buyers perceive Heritage Sands as a good value. To date, CapeBuilt has sold 38 cottages.



This 2,400-square-foot ski retreat in Killington, Vt., features big, chalet-style windows and additional windows throughout each room that allow plenty of light and views from the mountaintop site. On-site finishes include huge wooden beams, uniquely shaped solid-surface countertops, and a custom stone fireplace. Modules were supplied by Ritz-Craft.

### benefits for builders large & small

The use of modular construction in multi-family housing has been increasing as builders discover how much they can save in time and money. Bald Hill Builders, in Sharon, Mass., does 20 to 40 projects a year, including apartments, condominiums, and assisted-living facilities.

“We’re not exclusively modular,” says Matt Grosshandler, vice president of operations, “but the time savings can be substantial. A multifamily project that would have taken as much as 24 months can be completed in 12 to 16 months. Your holding costs and on-site costs will be reduced, and the owner of the building can start collecting rents earlier.”

Small builders that subcontract all or most of their work will see a benefit in “packaging” those subcontracts into a modular factory, Valgardson says. “This dramatically reduces the scopes of work for each trade. In an expensive or hard-to-build area, especially, it provides a value in time and money.”

For example, a factory in Utah pays less for materials and labor than a builder would pay in Big Sur, Calif. “The factory will be building



Ritz-Craft’s Restore the Shore Collection is designed for areas that were ravaged by Hurricane Sandy. Shown is the 2,234-square-foot Beach Haven II, finished on site by Phoenix Custom Modular Homes, of Manahawkin, N.J. The porch was built in the factory. The “upside down” floor plan has the kitchen, master suite, and great room on the upper level to take advantage of coastal views.

Bald Hill Builders used modules from KBS Builders, in South Paris, Maine, to assemble this three-unit townhouse building in New York City. Bald Hill considers the logistics and scheduling of each project before determining if modular is the best option.



PHOTOS: TOP LEFT, DAVID BROWN PHOTOGRAPHY; TOP RIGHT, MICHAEL DAYER/PHOENIX CUSTOM MODULAR HOMES; BOTTOM, BALD HILL BUILDERS

# Panasonic



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Irontown Homes fabricated the modules for this 3,600-square-foot home in Park City, Utah. The exterior is a mix of materials including stone and board-and-batten, vertical stained cedar.

## 9 reasons to go modular

1. Any architectural style is possible.
2. It's faster. Project completion time can be reduced by 25 to 50 percent.
3. It's greener. The need for waste removal on the building site is significantly reduced.
4. The amount of space needed on site for staging and stockpiling materials is greatly reduced.
5. Site work can be delayed to occur during the factory process, which limits the project's impact on the neighborhood.
6. Factory labor/material rates are lower due to the manufacturer's buying power—savings that are passed along to the builder.
7. Modular homes are much stronger than stick-built homes because the modules are over-engineered to withstand the rigors of travel.
8. Large-volume tract builders can adjust their production up or down in any given month based on sales, without added construction overhead or extra staff.
9. Modular companies can help smaller builders who typically service the on-your-lot buyer contain their soft costs and market their homes more competitively.



Stacked stone on the base of the kitchen island contrasts with the warm tones of the wood flooring and cabinetry.

the home while site work is under way, providing a 30 to 50 percent time savings," he says.

Even a hybridization of modular and site-built, while less efficient than a solely modular project, still provides the benefits of off-site or factory construction, Valgardson adds.

Bald Hill Builders considers the logistics and scheduling of each project before determining whether modular is the best choice. There are many advantages but also many challenges, such as transporting and setting the modules, Grosshandler says.

For instance, not all fabricators handle the setting of the modules as well as the manufacturing. If a jobsite is particularly difficult to reach, modular construction may be too expensive an option. Ultimately, Zangardi says, the availability and cost of labor in the job location determine whether the project can be built more economically with modules.

Karoleena's Goodjohn is betting there are successful home builders in North America who are tired of building on site. "With all of their knowledge, experience, and contacts, if they teamed up with us we could make a huge impact," he says. "Modular is a much better way of building."

"The factories are getting better and smarter," Grosshandler says. "Modular done well is the wave of the future." **PB**

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# PROCESS FAILURE



By Scott Sedam, Contributing Editor



Sometimes life—and work—would be easier if you could forget some things you’ve learned. Blissful ignorance has its appeal, not just for individuals but for companies, schools, churches, governments, and organizations of all kinds. Just keep on doing what you’re doing, even if it’s not working so well. Blame the suppliers, blame the trades, blame your people, blame the other builders, blame the market, blame the press, and blame the government at every level. No worries, you have a long road to travel before you get to blaming yourself.

Yet, for most of us—and I suggest for everyone who has any bent toward process improvement—once you have that piece of knowledge, know its consequences, and are banged over the head with continual reminders, you just can’t let it go.

Even more difficult is willful ignorance whereby an individual or company makes the choice to ignore what Jim Collins termed, “Objective Current Reality.” I don’t have the temper I

had when I was young, and some now even describe me as patient, but encountering willful ignorance can push me right to the edge. Many times I have counseled—talked down, in effect—younger builder associates who decided to “face the brutal facts,” (another Collins saying) on difficult issues while their colleagues and bosses willfully refused. I could be the only author in history to quote Jim Collins and Cat Stevens in the same article, but during these talks, Cat’s old song “Father & Son” comes to mind with the line, “It’s not easy to be calm, when you’ve found something going on.”

This is the sixth in a series of articles in *Professional Builder* about process waste, how to identify and understand it, and awakening to the reality that the majority of product waste has its roots in bad process. There are hundreds of examples of process failure that seriously impede productivity and profit for builders, suppliers, and trades alike, yet there is significant resistance to tackling process obstacles head on. Going after product waste is comparatively simple. You can see it, touch it, measure it, test it. Process waste is a far bigger challenge.

# FEAR OF FACING THE FACTS

The desire to deny it is strong, but it's time to admit: Most product waste has its roots in bad process



## A TELLING EXAMPLE

To illustrate, I'll focus on one example that I first wrote about 15 years ago and have touched on many times since, yet I see precious little awareness, shallow understanding, and virtually no change despite the veritable gold mine that awaits those who solve it. Even worse, this issue often generates fear in senior managers when confronted with it, and I'll admit I am still trying to work out what's behind their reaction.

Let me first suggest what their response *should* be. The inarguable data comes in that there is a minimum of \$10K waste per unit in your homes on a single process issue. You are profitable, but at 20 percent gross margin on your \$300K units, you're not setting the world on fire. That \$10K would increase your current gross margin to above 23 percent, which would make your investors very happy. You are building 100 units annually, so that's a million bucks. You should be ecstatic, but you aren't. In fact, you don't even want to engage on this issue. Can you guess what this might be?

This particular \$10K (minimum) that's buried under every house in the U.S. and Canada is caused by wasted or otherwise unnecessary trips to the building site. I observed this phenomenon first in my college years, as a loader in a large commercial lumberyard in Ohio. I began to notice how one builder in particular almost never required extra trips to the sites for more materials. He got it right the first time. Three loads and done.

That builder was extremely particular about material, species, lengths, and how the loads should be stacked. For others, "hot shot" runs were a way of life. Forty years later, I've learned the average lumber company requires five to seven additional trips to a site beyond what should have originally been required had things gone right from the beginning. This isn't a rough guess. We have had more than 200 lumber and material dealers participate in our LeanWeek sessions with builders, and we have the data. For these firms, the trips average about \$275 each, without opportunity cost; a huge bullet that most studies calculate at about 50 percent of the raw cost.



**SOMETIMES LIFE—AND WORK—  
WOULD BE EASIER IF  
YOU COULD FORGET SOME  
THINGS YOU'VE LEARNED.**



Think about this a moment. Let's take the average, which is six trips, at a very low calculation of \$250 per trip totaling \$1,500. That's a huge amount of cost that someone has to pay for. How many times do builders go to their lumber dealers and appeal for a \$200 or \$300 price cut? That's almost impossible to get these days.

But what if the builder calls the lumber company and suggests, "How about we work together this year to eliminate four of those six trips and we each pocket more than \$500?" Do you think the lumber company would be interested? I have asked countless groups of builder personnel at conferences, HBA/BIA meetings, Builder 20 Groups, etc., how many could show me that they have taken the initiative to do this. I never get a raised hand. I've asked several groups of lumber companies how many of their builders have ever offered. Again, no one. But why? Isn't the benefit obvious?

The average builder in the U.S. or Canada writes checks to somewhere between 30 and 60 firms in the process of building a house. The low number is for builders using a lot of turn-key relationships, but 40 is a good working number. Our data shows that the average number of extra trips runs around 1.5 per supplier/trade. Let's be conservative and say the total number of excess trips is 50 per house total. With 4,800 suppliers and trades now having participated in our LeanWeeks, we know that the conservative average cost per trip is \$200. Sure, there are \$50 trips, but then there is the foundation crew that eats up \$800 for a single trip, before doing any work.

A couple of years ago we commissioned a survey of suppliers and trades and received 497 of 600 surveys back—an incredible response. When we totaled and averaged their cost per trip, it came to \$201! In short, \$200 is a solid number, and again, we are not counting the huge impact of lost opportunity, so it's actually quite low in terms of real effect.

There's no denying it. More than 50 trips at \$200 each accounts for more than \$10K on the average \$300K home. Be honest now. Have you ever really gone after this? If you still have doubts, there's one subtlety here that finally dawned on us after an electrician became thoroughly unplugged during one session, passionately explaining that builders don't even realize that 80 percent of the wasted trips are happening. He

described how "dry runs," where work cannot be started or a delivery made, generate a lot of unpleasant communication. The builder hears about it at least at the field level. The insidious ones, he went on, are when a two-day rough requires a third trip to complete due to a conflict, missed delivery, etc., and he and his fellow suppliers and trades rarely say a word.

They are good soldiers. They just do it, move on, and take the hit. This "unable to complete" applies to virtually every trade, far more often than builders ever realize, and it's not without significant cost.

I've asked literally thousands of suppliers and trades now what percentage of wasted trips do they ever even try to collect a trip charge. Their answer: less than 10 percent. Similarly, I ask purchasing what percentage of the extra trip charge invoices that they see are approved and paid by the builder. They also answer less than 10 percent. Ponder that. This means builders actually pay for less than 1 percent of the wasted trips to building sites. The suppliers and trades eat this \$10K on every one of your homes or rather, bury it in their overhead. No matter, the costs are there.

## TIME TO PAY UP

So, who ultimately pays? Is this at the heart of why builders avoid confronting this critical process issue?

I've had several builders actually get angry with me for generating awareness of the problem. Their concern is they will suddenly get hit with all sorts of trip charges. It is true that so many suppliers and trades out there have eaten these costs for so long that they just think that's the way home building is and never try to collect. So is that an answer? Keep them in the dark and hope they remain unaware? Do that if you are content with lower profit for you, your suppliers, and your trades.

Right now, there is no greater issue affecting builder profitability in the U.S. than trade shortages. It matters not where you live; everyone thinks they are the worst in the country. Imagine for a moment, if you worked with your suppliers and trades in earnest and over the next couple of years eliminated 80 percent of those extra trips totaling \$8K of cost. What would happen? They would immediately get more profitable at the same bid price they are



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**ANY BUILDER WHO STRONGLY COMMITS TO ELIMINATING WASTED TRIPS UNAVOIDABLY COMMITS TO DOING A WHOLE LOT OF OTHER THINGS RIGHT, AND THAT'S WHY WE KNOW THE MONEY IS THERE.**



getting now. Several results accrue. First, they will put you at the top of their list because you have clearly demonstrated you care about their success. Second, they can bid you more closely now, knowing they won't have extra costs to bear. Third, you'll get their best crews, and nothing keeps you on schedule and ensures quality better than having the best crews. Finally, even beyond those three important factors, you will make a lot more money. To get it, though, you'll have to make some changes.

## MAKE IT HAPPEN

Get a team of your strongest people together from all parts of the company—not just construction and estimating—and brainstorm a list of everything you'd have to do to eliminate these extra trips. The age-old Lean Six Sigma technique “The 5 Whys” is perfect to get you started. Let's try it:

1. Why do our suppliers and trades have to make extra trips to building sites that kill the schedule and cost them money? Because we lack complete detail on plans, options, and specifications.
2. Why? Because purchasing is so far behind.
3. Why? Because we never give purchasing enough time and information to get bids, contracts, and scopes done before a new project opens.
4. Why? Because Product Development is always behind.
5. Why? Because senior management keeps changing the product.

If a builder figured out what they were going to build and stuck with it; product development had plans, specifications, and options determined on time; and purchasing had all the information it needed for 100 percent complete bid packages and start packages, would you reduce extra trips? Would you make more money? Would they make more money? That could go in many directions. For example, in another company the root may be that Sales accepts too many late or custom change orders. In still another company, it may be a breakdown

in the PO/VPO system. In still another, it could be poor scheduling practices. No matter what the source, this is a way to reduce cost and stay on schedule.

So don't be afraid to make multiple iterations of the 5 Whys. If you need six or seven questions to get to the heart of the matter, then do it. In the first example above, I would ask: Why does senior management keep changing the product? It could be because they bought the land wrong and what they had in mind originally wasn't working. Or because two new competitors opened down the road at the identical price point. Or it could just be that the management team can't ever make a decision and stick with it.

Compare that to dealing with a product issue, such as whether to switch from Siding A to Siding B, or go to a higher level of carpet pad, or change the pitch of a roof. That's easy. Process resolution is far more complex and messy. Any builder who strongly commits to eliminating wasted trips unavoidably commits to doing a whole lot of other things right, and that's why we know the money is there. I could have made this entire point with other processes, but the wasted trip problem is the hardest to deal with that I've encountered. There is genuine fear in opening up to suppliers and trades and admitting that your process failures are hurting their bottom line. There is fear that if you blow it, all you'll get is a constant stream of trip charges leading to higher cost. There is fear that you will never actually see the money you save them. All that fear adds up to a big mental roadblock. That results in maintaining business as usual and going the traditional route of trying to negotiate lower cost. In this market, I wish you luck.

Will you allow fear to keep your back turned to this critical issue? Will fear keep you from facing the brutal facts of this and other process failures? I fear you will. I hope you will not. **PB**

Scott Sedam is President of TrueNorth Development. For the latest PDF in this series, “Bridging the Margin Gap,” send a request via email to [info@truen.com](mailto:info@truen.com) and include “Margin Gap” in the subject line.

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# STARTER HOMES

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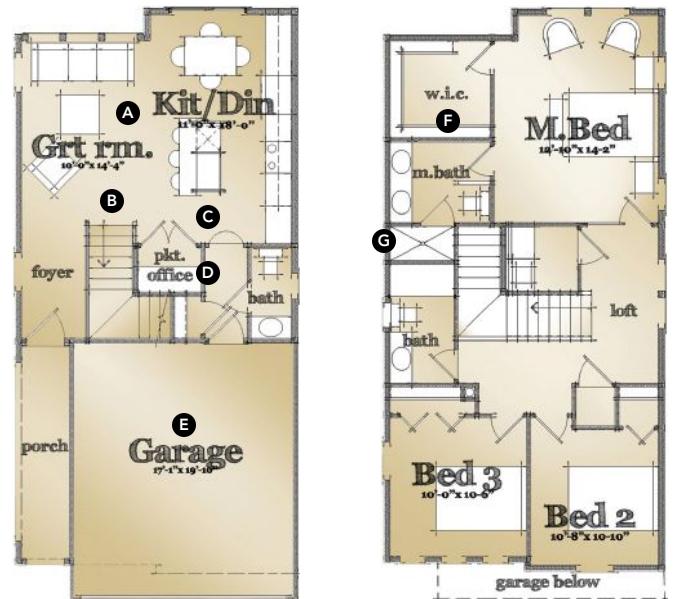
First-time buyers are a varied lot. Here's how to deliver to this diverse pool

By Larry W. Garnett, FAIBD, House Review Lead Designer

The startling fact that a growing percentage of the population simply cannot afford a new home should encourage us to find solutions for economical starter homes. The American Dream of owning a home has been derailed by several factors, including rising land and construction costs. Also, many first-time buyers have very high (and perhaps unrealistic) expectations. They want the same amenities and materials they enjoyed in their Baby Boomer parents' home or their luxury apartment.

Just as all other market segments have become diversified, so have first-time buyers. Some are single and seeking locations close to work and recreation, while others focus on local schools and child-friendly neighborhoods. Although the following design concepts offer a variety of ideas, they all share basic components: living and dining areas that flow into each other, outdoor spaces that enhance the indoor square footage, and open floor plans with particular attention to maximizing spaces on a visual level. Providing affordable and functional starter homes might be the greatest challenge our industry now faces. These ideas can help. As always, we welcome any comments or suggestions.

- A** Casual living is key for the starter home. The open plan allows for easy entertaining and the ability to keep an eye on the little ones.
- B** Stairs are in the living area, instead of the foyer. This makes day-to-day living simpler, with the upper floor more accessible for laundry and baby monitoring.
- C** Every inch of space is important. Circulation isn't wasted on unnecessary hallways; instead, it flows through the rooms.
- D** The pocket office replaces the den, allowing for a messy space to keep mail and papers. The space can be closed off when entertaining.
- E** The plan is narrow: This starter home works easily in cool, hip, infill neighborhoods and in those that hope to become that way.
- F** Owner's suite is separated from the secondary bedrooms, with a large walk-in closet.
- G** Instead of a tub in the master bath, there's a larger shower, answering current buyer demand.



**M**oney is often tight for folks buying a starter home, so a primary design focus is to provide bang for the buck. The design of the home should be simple to build, employing lean techniques that ensure ease of construction and that offer value. The home should also have a strong aesthetic that will appeal to the large group of savvy Millennial buyers now most likely to buy a starter home.

**STARTER HOME****ARCHITECT**

TK Design & Associates  
Todd Hallett, AIA, CAPS  
tkhomedesign.com  
248.446.1960

**PLAN SIZE**

Living area: 1,440 sf  
Width: 22 feet  
Depth: 46 feet, 2 inches  
Porches: 73 sf  
Garage: 358 sf



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### [HOUSE REVIEW]

#### STARTER HOME

#### ARCHITECT

EDI International  
Richard Handlen, AIA, LEED AP  
richard.handlen@edi-international.com  
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415.362.2880

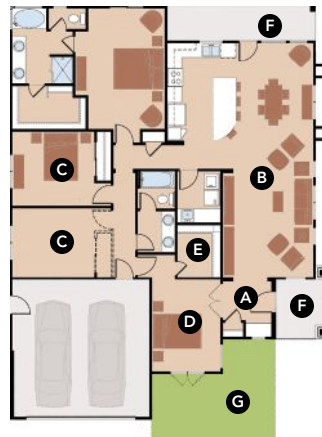
#### PLAN SIZE

Living area: 1,890 sf  
Width: 45 feet  
Depth: 60 feet



The goal of this plan design is to appeal to both ends of the market: first-time and move-down buyers. They have some common requirements beyond the tricked-out master and great room.

Young families are looking for bedroom count while older buyers need the room for bounce-back kids, visiting grandkids, and hobbies. Everyone in between wants flexibility to be able to use spaces as needs change. The three secondary bedrooms have options to omit walls or add French doors, which open spaces to a variety of uses. The plan also addresses the large number of corner lots in the community. The foyer can rotate so the front door faces the long side of a corner lot or the narrow interior lot frontage.



- A** Foyer can rotate, depending on whether lot is on a corner or interior
- B** Great room serves as a family gathering area
- C** Bedrooms 2 and 3 can be combined as a dorm room, or one can open to the hallway to flex into a play or hobby area
- D** Bedroom 4 can also function as a den, parlor, or home office off the foyer
- E** Jumbo closet for bedroom 4 can expand, contract, or be omitted, depending on buyer needs
- F** Porches at both front and rear offer protected connections to the outdoors and neighborhood
- G** Optional street-side patio has a 3-foot fence



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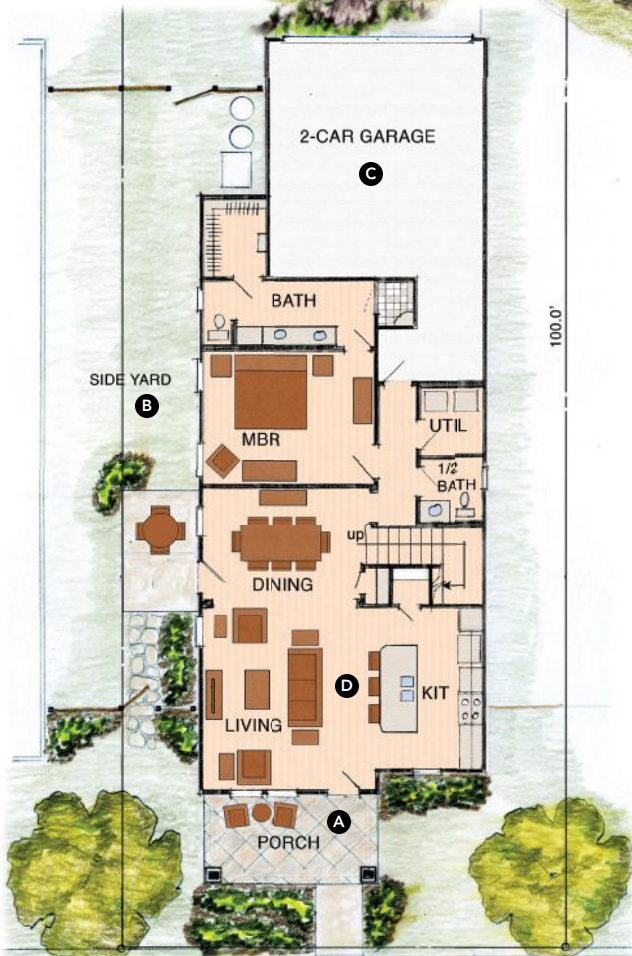
THE BROOKLYN

DESIGNER

Larry W. Garnett, FAIBD  
 larrygarnett@  
 larrygarnett.com  
 larrygarnett.com  
 254.897.3518

PLAN SIZE

Living area: 1,750 sf  
 Width: 26 feet  
 Depth: 76 feet, 4 inches



One of several designs created for a new neighborhood of homes ranging from 1,400 to 1,800 square feet, this four-bedroom plan features an open living and dining area with a spacious front porch and a private side yard. Targeting the first-time buyer, the homes all feature rear-lane auto access and fenced side yards. The front porches of each home face small yards and a pedestrian-friendly network of sidewalks and walking trails.



- A** 8-foot-deep front porch faces a small yard and sidewalk
- B** Private side yard has fence and gate at front and rear; perfect for children's play area, pets, and outdoor entertaining
- C** Two-car garage features rear-lane access
- D** First floor has an open living and dining area plus a master bedroom
- E** Second floor has three bedrooms



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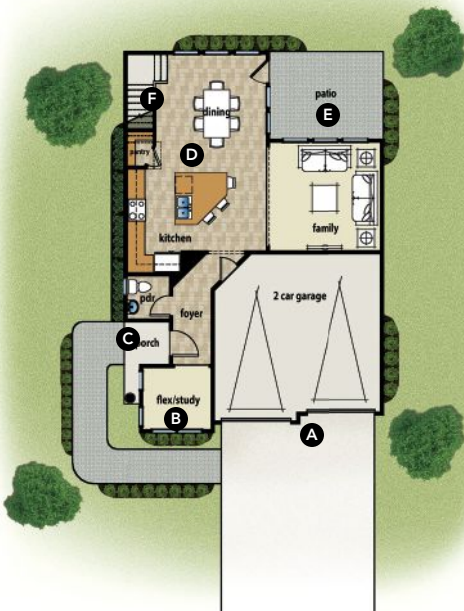
### THE DANFORTH

#### ARCHITECT

GMD Design Group  
Scott Gardner, AIA  
scott@gmddesigngroup.com  
919.320.3022  
Donnie McGrath  
donnie@gmddesigngroup.com  
770.375.7351

#### PLAN SIZE

Living area: 1,695 sf  
Width: 30 feet  
Depth: 44 feet



Starter homes are an interesting compromise. Cost is the main concern, but which features are too important to be omitted during value engineering? In this plan, curb appeal, openness, and flow are key features that differentiate this home from the typical starter model. To play up curb appeal, the garage is set behind the study/flex room. Moving the front entry to the side of the home allows for a room to be forward of the garage. The foyer is modest, which provides extra square footage in the kitchen and dining and family rooms. Typically, a starter home is completely flat across the back, but breaking up the rear plane of the home improves flow and increases the sense of space on the main areas of the first floor. Detailing on the front elevation creates character and charm, while the remaining roof and massing are fairly simple, as well as cost-effective to build.

- A** Front wall of garage is staggered to create interest on the front elevation
- B** Flex study is a great space for a home office or den
- C** Front door is set back from the front, providing an entry into the heart of the plan and reducing the dominance of the garage in this narrow home
- D** By breaking the plane of the rear wall, the kitchen, dining, and family rooms open to one another, with a good sense of flow
- E** Rear patio fills the corner created by the dining space, offering additional privacy for outdoor living space on narrow lots
- F** Stair is located in the most-used area of the home, with access from all living spaces at the back of the home
- G** Loft provides sense of arrival and adds natural light at the top of the stair
- H** Centrally located laundry and bathroom share a plumbing wall for efficiency
- I** Master bath provides large standard-size pan shower, separate vanities, and a large, adjacent walk-in closet
- J** To increase efficiency, HVAC equipment is located in conditioned space, which makes for smaller equipment and lower energy costs

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[HOUSE REVIEW]

STARTER HOME

**ARCHITECT**

The Evans Group  
 Donald F. Evans, AIA  
 devans@theevansgroup.com  
 theevansgroup.com  
 407.650.8770

**PLAN SIZE**

Living area: 1,320 sf  
 Width: 30 feet  
 Depth: 80 feet



**D**o you remember your very first home? I do. I was married with one daughter and paid \$28,800 for 1,200 square feet with a carport. We bought the home on Christmas Eve and made the salesperson very happy. Some 45 years later, that home would now cost about \$149,900. This 1,320-square-foot home is 28 by 40 feet with an 8-foot porch in the front setback. The front porch puts eyes on the street, allowing you to keep an eye out for the neighbors. The porte cochere becomes the daytime parking space for the car, while the garage has a dual existence as a workshop, playroom, etc. The sports court allows kids to play basketball, ride scooters, and practice roller blading, all without the interference of cars. Mom and Dad can sit comfortably on the back patio and respond to calls of "Watch this!" Although small in size, this home answers all the needs of today's young family just starting out. The American Dream is alive and well—provided we recognize the importance of smart-sized homes and buyers staying within their means.

- A** Front porch
- B** Porte cochere
- C** Sports court
- D** Back patio



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 40  Remodeler working in building activities  
 90  Other (please specify) \_\_\_\_\_

4. Which category best describes your job title? (Check one box only.)  
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 30  Construction Manager, Superintendent, Purchasing Agent, Buyer  
 40  Other Management personnel  
 50  Sales or Marketing Manager  
 90  Other (specify): \_\_\_\_\_

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 C  Multi-Family                         F  Other (specify): \_\_\_\_\_

6. How many homes does your firm build per year? (Check one box only.)  
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 C  26 – 100 units                        F  0 units

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 04  Central Vacuum Systems  
 05  Computer Hardware and Software  
 06  Construction Equipment  
 07  Decking / Fence Materials  
 08  Doors  
 09  Engineered Wood Products  
 10  Fireplaces and Accessories  
 11  Flooring and Floor Coverings  
 12  Garage Doors  
 13  Green Building Products  
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 15  Home Automation Systems  
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 17  Insulation and Related Products  
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 21  Plumbing Fixtures / Faucets  
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 23  Siding  
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 25  Tile  
 26  Trucks  
 27  Windows  
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 C  Neither of the above
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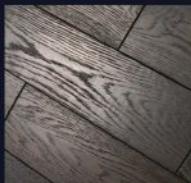
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## Chad Kane: At Schumacher Homes, a drive to win and understanding working capital are key



Chad Kane  
CFO  
Schumacher Homes  
Canton, Ohio

**S**chumacher Homes operates in 32 markets in 14 states. In the course of building 12,000 houses since the company was founded by Paul Schumacher in 1992, the builder has won numerous accolades for design as well as the National Housing Quality award. Chad Kane, a Marine veteran, arrived in 2013 following financial management stints with several Ohio companies and realized a lifelong dream of being a chief financial officer.

**Q** How did you land with a home builder after working in such industries as aviation forging, material handling, and tire maintenance and distribution?

**A** Well, it's a small world, and that has been evident in my career. It's so important, not only in the home building industry, but in all industries, to be collaborative, network-oriented, and able to produce results. I think these three competencies are key to giving you options in your career. During my tenure in finance in the tire industry, the company I worked for grew, in an eight-year period, from under \$150 million to close to \$1.5 billion in revenue. The company was a family-owned operation, just like Schumacher Homes. The primary owner of the tire company was a great friend with the primary owner of the home builder. That networking opportunity

opened the gateway into the home building industry for me. So, in summary, I am in the home building industry because of networking, being open-minded, and doing whatever it takes to produce results.

**Q** What budgeting and financial control practice(s) did you bring from those industries to Schumacher?

**A** The largest contribution is providing more dynamic and transparent tools that offer opportunities for decision-makers to make better proactive decisions for more profit, and the understanding of working capital. Many times, organizations—not just home builders—look at budgeting as a profit-and-loss projection only. It's imperative to have enough flexibility in your working capital so not only can you capitalize on opportunities as they arrive, but also not have it be a disruption to the company. Not paying attention to working capital can really cripple an organization, especially if it becomes a distraction to the operations of the business.

**Q** What is most rewarding about what you do in your current job?

**A** It is the people I work with. I've been here for over a year and a half, and I have been blessed by the organization as they welcomed me with open arms. It has been a learning experience for me, and I would like to think that the organization has learned a few things from me along the way as well. It's a very fun and exciting environment, and it loves to win. Our No. 1 competency is that we stop at nothing to make our goals and produce desired results. That creates a culture that works collaboratively under pressure to be agile enough to overcome hurdles and create solutions for all challenges that may present themselves. How can you not love and be rewarded by that?

**Q** What's your biggest challenge in the business or in your job right now?

**A** The biggest obstacle is having quality trade depth. Not only is the trend of available skilled labor declining, but we are a scattered-lot home builder. Our construction department does a great job cultivating and managing trade relations with great communication and relationship management skills to overcome that challenge, but it's not an easy objective to accomplish.





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