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THE MAGAZINE
OF THE NATIONAL ASSOCIATION
OF HOME BUILDERS

Builder

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APPLIANCES** /// P.48

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Award- Winning Houses

**Smart land use, great
details, high efficiency**

SEE PAGE 56

2014 Chevy Silverado

Rising to the
Challenge



For truck people, there's no faking it, no in-between: A pickup can either do the job, or it can't. Today, that job can mean anything from hitching trailers to hauling the family in serene comfort with amenities once associated only with luxury cars.

Fortunately, the all-new Chevy Silverado is designed, engineered and built by real truck people like its chief engineer, Jeff Luke, an avid hunter and fisherman whose first truck was a 1985 Chevy. Immersed in pickup science at work and with trucks woven into their daily lives, these passionate men and women have created the Silverado of their dreams—and yours.

That 2014 Silverado is an overachiever; a real can-do pickup. No full-size pickup on the market is quieter, and a trio of Direct Injection, Variable Valve Timing and Active Fuel Management is standard on every one of the three available EcoTec3 engines—a 4.3L V6, a 6.2L V8 (available fall 2013) and a 5.3L V8 that boasts the best V8 fuel economy in a pickup.¹ The 5.3L V8 is even more efficient than the Ford F-150's EcoBoost V6.²

The all-new 2014 Chevy Silverado muscles the bar to a new high for full-size pickups.

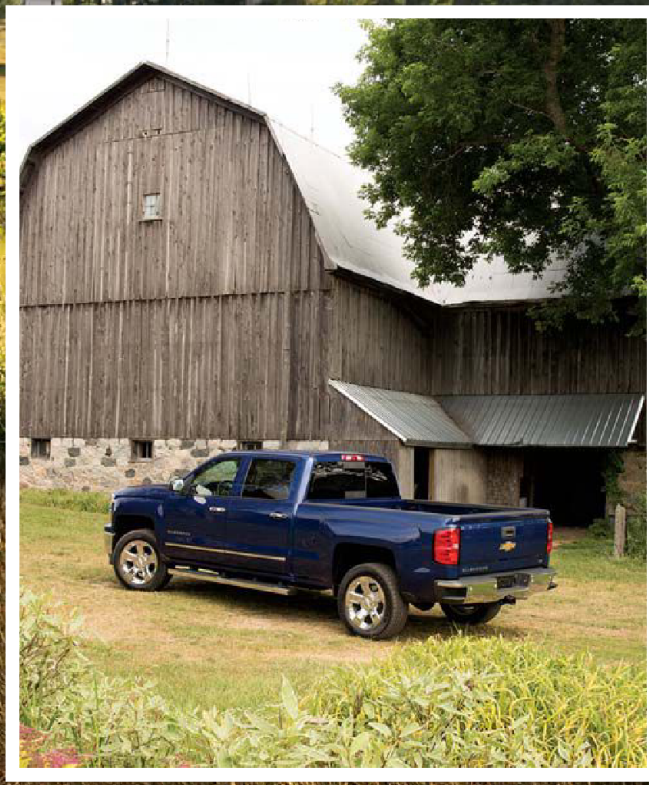
The Silverado's bold, aerodynamic design sends a powerful message of all-new advances. Lavish use of high-strength steel boosts solidity and trims weight. Inlaid triple-sealed doors help keep wind and road noise outside, leaving luxurious quiet within.

An available customizable 8" diagonal color touch-screen houses the advanced Silverado MyLink³ infotainment system with natural-speech commands. Bluetooth^{®4} and USB ports⁵ boost connectivity. A cocoon of safety offers available Lane Departure Warning and Forward Collision Alert with a vibrating Safety Alert Driver Seat, standard electronic stability control, Hill Start Assist and available Hill Descent Control.

Out back, the Chevy keeps getting the job done: A CornerStep rear bumper and pocket handgrips lend an easy boost into the box, with no fold-down contraptions. Available LED lamps illuminate the box, eliminating fumbling in the dark. An available EZ-Lift and Lower Tailgate opens without a thud and closes smoothly with one hand.

The result is a new benchmark in full-size pickups, a truck with all the passion and purpose of the people behind it. The Silverado and its creators have something else in common: No job was left undone.

Visit silveradostrong.automobilemag.com for more.



¹EPA-estimated 16 city/23 hwy mpg (2WD), 16 city/22 hwy mpg (4WD) with the available 5.3L V8 engine. ²EPA-estimated 16 city/22 hwy mpg (2WD), 15 city/21 hwy mpg (4WD) F-150 3.5L EcoBoost V6. ³Full functionality requires compatible Bluetooth and smartphone. Some devices require USB connectivity. ⁴Go to gmtotalconnect.com to find out which phones are compatible with the vehicle. ⁵Not compatible with all devices.

"Looking back to '85 and the first Chevy truck I owned, the comfort and capability of today's truck is mind-boggling."

"We're most proud of the Silverado's fuel economy,¹ its refinement and capability."

"Tried, tested and true means a lot to me, and we have to deliver that to the customer."

Jeff Luke

GM Executive Chief Engineer,
Full-Size and Midsize Trucks



1. All-day comfort seats with dual-firmness foam. More second-row knee room and foot room.

2. Available 5.3L EcoTec3 has the best V8 fuel economy in a pickup.¹ Available class-leading towing capacity of up to 11,500 pounds² is available. Other EcoTec3 engines: 4.3L V6 and 6.2L V8 (Max Trailering Package and 6.2L V8 engine available fall 2013).

3-4. Hand assists and CornerStep rear bumper offer easy, secure access to cargo.

5. Available Color Touch Radio with Silverado MyLink hands-free voice-activated control.³ Other options include Trailer Sway Control, Trailer Brake Controller and Rear-Vision Camera System.

2



4



3



5



¹EPA-estimated 16 city/23 hwy mpg (2WD), 16 city/22 hwy mpg (4WD) with the available 5.3L V8 engine. ²2WD Double Cab equipped with the 5.3L V8 engine and the Max Trailering Package (available fall 2013). Maximum trailer weight ratings are calculated assuming a properly equipped base vehicle, plus driver. See dealer for details. Class is half-ton full-size pickups. ³Full functionality requires compatible Bluetooth and smartphone. Some devices require USB connectivity.

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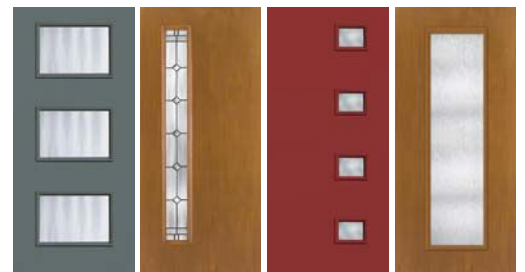
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NAHB

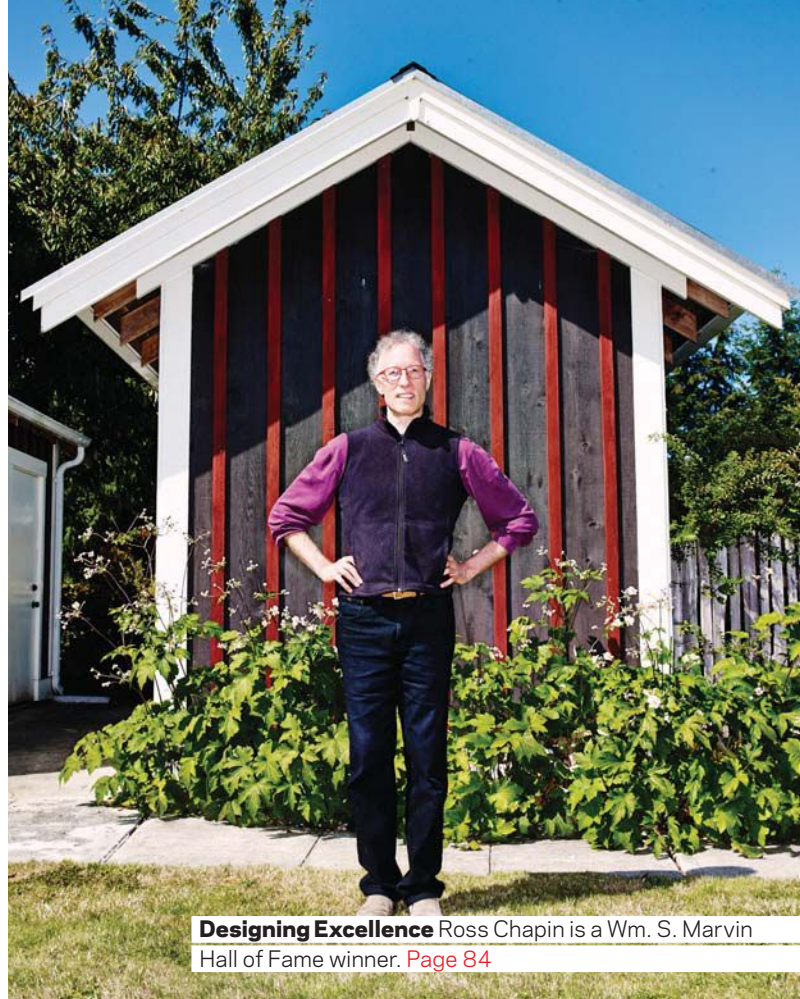
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Designing Excellence Ross Chapin is a Wm. S. Marvin Hall of Fame winner. [Page 84](#)

Features

56 Award-Winning Houses

Smart land use, great details, and energy-wise design are just a few of the reasons why these homes were selected as winners in this year's Builder's Choice Custom Home Design Awards.

78 How to Get Acquired

Six tips for builders to navigate the current industry trend of mergers and acquisitions.

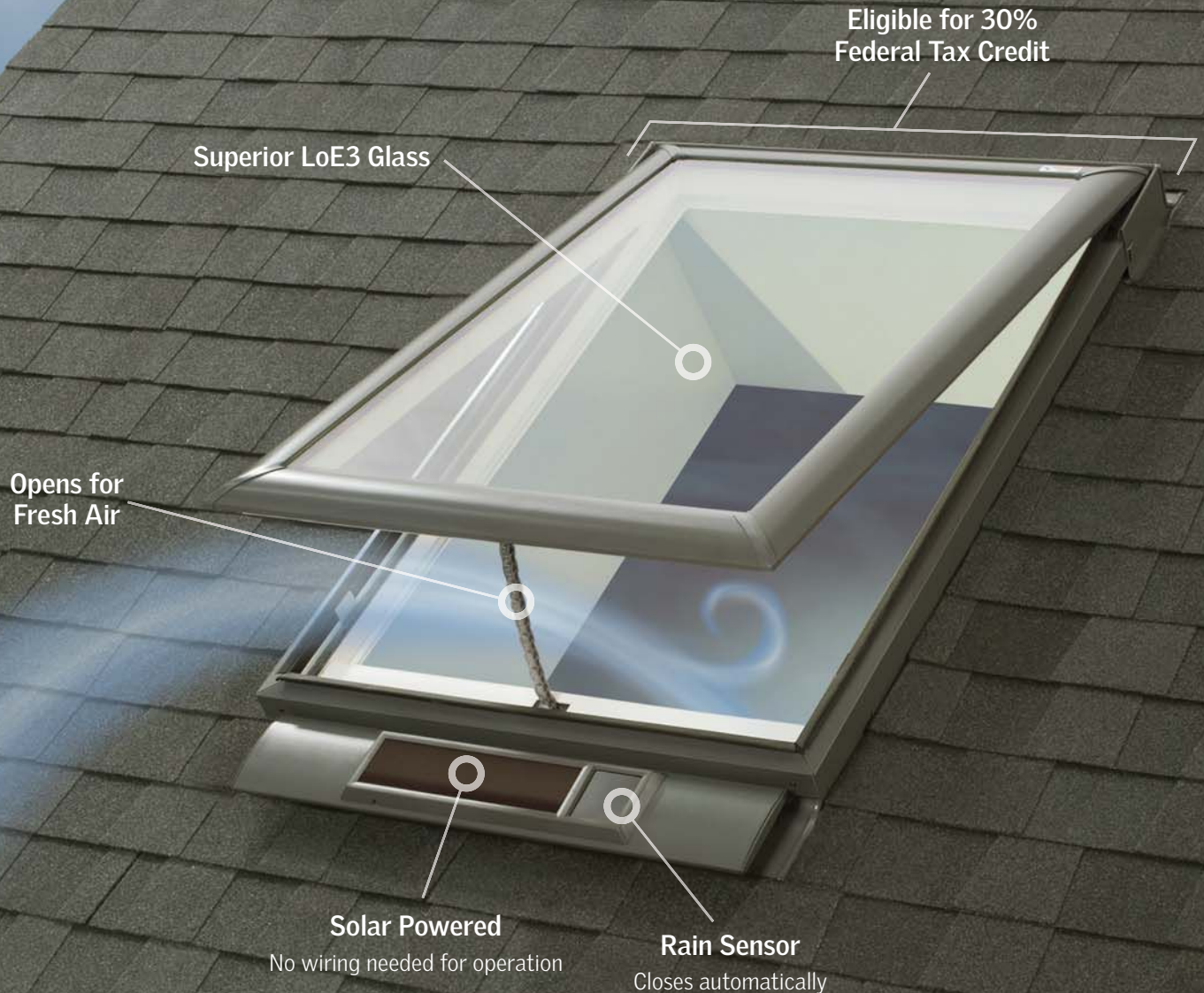
84 Home Design Hall of Fame

Builder Bert Selva and architects Ross Chapin and Adele Chang—this year's Wm. S. Marvin Hall of Fame winners—create stunning housing and share with us some of their top design tips.

On the Cover Parkside Residences, our Project of the Year, makes wise use of its site with great indoor spaces and appealing materials. Photography: Casey Dunn

Volume 36, number 10. Builder (ISSN 0744-1193; USPS 370-600) is published 12 times per year: monthly in Jan., Feb., March, April, May, June, July, Aug., Sept., Oct., Nov., and Dec. by Hanley Wood, LLC, One Thomas Circle, N.W., Suite 600, Washington, D.C. 20005, for the National Association of Home Builders and printed in the USA. Copyright 2013 by Hanley Wood. Opinions expressed are those of the authors or persons quoted and not necessarily those of the NAHB. Reproduction in whole or in part prohibited without written authorization. Single-copy price: \$8.00 (except House Plans issues, which are \$12.95). Periodicals postage paid at Washington, D.C., and at additional mailing offices. Postmaster: Send address changes to Builder, P.O. Box 3494, Northbrook, IL 60065-9831. Member: Business Publications Audit, American Business Media.

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FEATURE

Land Strategies for Little Guys

As big builders buy up the medium builders, a lot of the developable land will dry up for little builders. Solutions for little guys? Do what the behemoths can't: be nimble and smart. Follow the story online and look for it in print in our December issue.

go.hw.net/bol1013-land-strategies



SLIDESHOW

Design Details That Seal the Deal

Take a look at our Project of the Month (page 27) and then go online for expanded coverage, complete with a slideshow of design trends that home buyers want. One popular request is for walk-in pantries where small appliances and cooking gadgets can be discreetly stored. go.hw.net/bol1013-details-buyers-want



HOUSE PLANS

No Children? No Problem!

Many typical starter or move-up homes assume kids will be in the picture, but that's not the case for all home buyers. The homes highlighted in this article feature fewer (but nicer) bedrooms, no Jack-and-Jill baths, and very private master suites. go.hw.net/bol1013-childfree-house-plans



CONSTRUCTION

Get the Most Bang for Your Air-Sealing Buck

If done well, air-sealing has a positive impact on occupant comfort, energy efficiency, and indoor air quality, but it also can be costly. To help builders facing new codes, Owens Corning Science and Technology's Dave Wolf prioritizes the leaks in a house by ranking which ones have the biggest impact on air infiltration. go.hw.net/bol1013-air-sealing

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POSTMASTER Send address changes to Builder, P.O. Box 3494, Northbrook, IL 60065-9831

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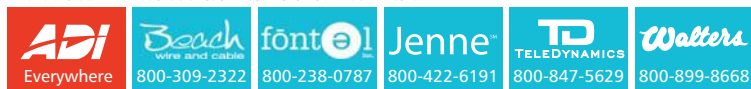
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Editor's Notes



Jean Dimeo
EDITOR-IN-CHIEF

Bigger is Not Better

The recovery brought with it larger new houses. Why?

During the recession, many Americans—reeling from downsized paychecks and declining home values—scaled back their super-sized lifestyles. Sales of giant SUVs and four-door pickup trucks fell, new-home sizes shrunk, recent graduates moved back home with mom and dad, and newlyweds stayed in rental apartments. How quickly we forget the recent past.

Commerce Department data shows that the average size of a new home was 2,647 square feet during the second quarter of 2013, eclipsing the record of 2,561 square feet set in the first quarter of 2009. The new-home average was 2,380 square feet in 2010, and it's been climbing ever since.

While new houses are larger nationwide, they've expanded the most in Lancaster, S.C., Jacksonville, N.C., and Naples, Fla., according to data compiled by Metrostudy, the research arm of BUILDER. For example, the average size of a new house in Lancaster, a fast-growing suburb of Charlotte, was 3,321 square feet during the second quarter, up 39 percent since 2010.

I don't think people need bigger houses; what they need are homes that are well designed to accommodate the way they live. They also need dwellings that are more energy- and water-efficient, helping families live more comfortably and affordably.

Twenty years ago my husband and I bought a two-story 1,500-square-foot brick Colonial built in 1945. With 1.5 bathrooms, three small bedrooms with little closet space, and two rapidly growing sons, we built a 1,200-square-foot addition to the original square footage. My husband insisted on a enormous family room with 9-foot ceilings where he could watch college football on a gigantic flat-screen TV. Fortunately, I convinced him to ditch the living room, and to make the old and new parts of the house as energy- and water-efficient as possible.

We quickly learned, though, that we don't need all that space. My husband isn't having his buddies over every weekend to watch a big game, and the additional space just gives our two sons more places to spread their sports equipment, shoes, iPods, backpacks, etc. As a busy working mom, all I see are more rooms to clean and more kids' stuff to trip over.

I grew up in a small three-bedroom house with only one full bathroom. I had to beat my younger brothers to the bathroom in the morning; otherwise, I might get stuck with a cold shower. The house was cramped, but on a minimal budget, my mother was a tasteful decorator. Other than sharing the tiny bathroom, it was a cozy, comfortable place to grow up.

Today, my friends and I often chat about chucking our oversized houses and moving into much smaller places. With age comes wisdom. We all now agree that quality trumps quantity (along with fewer square feet to clean). **B**

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³. Humidity levels compared to Samsung mono-cooling refrigerators.

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November 14, 2013 • Washington, DC

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Forum

Letter to the editor from Martin Freeland, president of Atlanta-based Berke Consulting, in response to the article "Help Wanted," August 2013.

I liked your article on the labor shortage and believe the problem may escalate.

With most new homes being built in the Southeast and Southwest, the governments in those states are the most hostile to illegal workers. While builders report record sales, it will be interesting to see what happens to the time it takes to close homes, and to quality and customer satisfaction. If a four-month schedule runs over, customers will be unhappy. If less-skilled people are building homes, the quality will suffer.

Not only did labor leave the industry; so did many superintendents, construction managers, and estimators. The "operations" people need more than classroom training; they also need experience to be proficient.

The first thing large builders cut during the recession? Training and HR departments. While I do not know every builder in the country, I know of only two who have continued to actively train their people. One is mentioned in your article (Wayne Homes).

Almost all builders cut staffs during the recession. Many who were let go are now working at Home Depot, UPS, etc. They get paid and receive benefits. I don't see these former superintendents or construction managers going back into the home building business. So there will be a shortage of skilled people to build twice as many homes.

I [recently] spoke with the CEO of a leading search firm that specializes in home building. He was in agreement with what I have written above. Also, when I call builders I know, they tell me similar stories. They are outgrowing their staffs and compromising on finding and hiring new people. (Most won't admit this unless they know you.)

New salespeople can be hired, trained, and able to sell homes fairly quickly. But for operations jobs, it will take years for people to become proficient. Construction management degrees will help, but no graduate could actually run a job or take over an estimating role for a builder.

I have a home in Georgia, where agriculture is big business. The Hispanic community occupied many units in an apartment complex in Clayton, Ga. When I pass those apartments, there are almost no cars or peo-

ple. I'm guessing they are 90 percent vacant, and the farmers are having trouble finding labor. I'm also guessing it will be the same for masons, roofers, and framers in the home building business.



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In the News

Greenbuild Offers Residential Sessions

On Nov. 20 and 21, the conference will offer many educational sessions specifically geared to residential builders and designers.

NOV. 20

8:00-9:00 a.m.

Net-Zero-Energy Affordable Housing, Philly Style!

8:00-9:00 a.m.

Building-Related Renewable Energy and 360 State Street

2:00-3:00 p.m.

Insights on Multifamily Benchmarking from EPA & Fannie Mae

2:00-3:00 p.m.

Wrangling the White Elephant – Reuse Spurring Revitalization

3:30-4:30 p.m.

Building Community—The Grangegorman Masterplan in Dublin

3:30-4:30 p.m.

Local Energy Efficiency Policies for Multifamily Buildings

NOV. 21

8:00-9:00 a.m.

US' Largest Occupied Affordable Housing Deep Energy Retrofit

8:00-9:00 a.m.

Lichen and the Rock: an Integrated Response to Daylight

8:00-9:00 a.m.

After the Storm: Recovering (Materials) from a Natural Disaster

8:00-9:00 a.m.

Energy Performance Scores in Residential Efficiency Programs

8:00-9:00 a.m.

Developers Speak: Effective and Successful Green Multifamily

9:30-10:30 a.m.

Ventilate Multifamily Buildings Successfully in Eight Steps!

9:30-10:30 a.m.

Paseo Verde: Case Study of a LEED ND & Homes Mixed-Use TOD

9:30-10:30 a.m.

Introducing Passive House Standard- A LEED Partner

NOV. 21 CONT.

9:30-10:30 a.m.

The Highest Scoring Platinum LEED Home Is 13,795 Square Feet

9:30-10:30 a.m.

Highrise Residential Trends and Strategies for Success

3:30-5:30 p.m.

Designing for the Post-Carbon Economy: It's Zero or Nothing

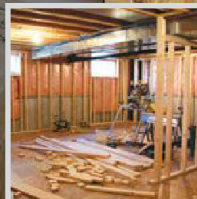
3:30-5:30 p.m.

Evaluating New York City's Energy Benchmarking Policy

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In the News

Greenbuild Rocks with Clinton and Bon Jovi

Former Secretary of State Hillary Clinton and Bon Jovi headline this year's Greenbuild International Conference & Expo, now owned by Hanley Wood, LLC, publisher of BUILDER and other media brands. Greenbuild is the construction industry's largest gathering of professionals representing all sectors of green building.

The 2013 show will be held Nov. 20 to 22 in Philadelphia at the Pennsylvania Convention Center. Beside Clinton and Bon Jovi, the event features educational programming, workshops, a vast exhibition floor, and ample networking events that provide opportunities to learn about the latest technological innovations, explore new products, and exchange ideas.

Hanley Wood purchased Greenbuild from the U.S. Green Building Council (USGBC); USGBC continues to provide the programming.

For more information, visit greenbuildexpo.org. Follow the event on Twitter @Greenbuild and Facebook at facebook.com/Greenbuild.

Meritage Homes Moves into Nashville

Meritage Homes has bought Phillips Builders, the ninth largest builder in Nashville, Tenn., with 100 closings last year, according to BUILDER's annual Local Leaders list. The purchase price was not disclosed.

"This is our fourth expansion market in the last two years and is consistent with our strategy to enlarge our southeast region," Meritage CEO Steven J. Hilton said in a news release.

The purchase gives Meritage access to some 500 lots in Nashville and 150 to 200 home closings in 2014. Meritage Homes will operate under the Phillips Builders brand name, and Jason and Charlie Phillips, grandsons of founder Randall Phillips Sr., will manage the company, which began in 1952.

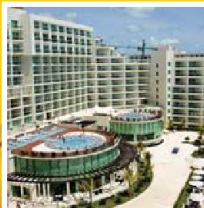
— TERESA BURNEY

Oklahoma Builders Pay Bonuses to Lure Trades

Contractors rebuilding central Oklahoma after back-to-back tornadoes ruined thousands of homes in late May are taking drastic measures to hire laborers.

The Oklahoman reports that unlicensed building contractors are luring construction crews away from their employers with on-the-spot cash bonuses and the promise of hefty pay raises. The newspaper quotes Robert Crout, president of the Central Oklahoma Home Builders Association,

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The “green movement” – sparked by the quest to improve our environment and new government mandates – has individuals evaluating their homes and places of business for ways to improve efficiency and sustainability.

The average American home uses 11 percent of its energy consumption in lighting alone. To address this opportunity, Progress Lighting is committed to manufacturing fixtures that maximize energy savings – without sacrificing aesthetics.



In the News

who said some trades have reported offers of \$200 to walk away from their jobs and join new construction crews. One Oklahoma City home builder told BUILDER that the offers have been as high as \$2,500.

Coupled with the post-tornado rebuilding frenzy, the housing recovery in Oklahoma has created a stranglehold on construction labor. The volume of work and the high demand for housing has proved to be “easy pickings” for out-of-town builders without Oklahoma-issued licenses and for trades “who turned general contractor overnight,” the newspaper reports.

Even before the tornadoes, building permits were up 16.4 percent from a year ago during the first half of 2013, according to the Central Oklahoma Home Builders Association. The newspaper reports that the Moore Home Builders Association—located in the Oklahoma City hardest hit by the tornadoes—has stopped accepting membership applications so companies that are operating out of “motel-room offices and P.O. boxes” cannot use the credential to claim they are local. — SHARON O'MALLEY

Century Homes Knows the Power of Persuasion

When asked about mergers and acquisitions, most builders will insist they aren't for sale. But that doesn't mean the right suitor can't nudge them to give up their independence.

When Century Communities, the fast-growing builder in Colorado, approached Austin, Texas-based Jimmy Jacobs Custom Homes, “I can tell you [they weren't] for sale,” recalls Dale Francescon, who with his brother, Robert, owns and runs Century.

Jimmy Jacobs was one of at least 10 builders in Texas the Francescons had under consideration for acquisition. The finalists emerged from a list culled by financial adviser Michael P. Kahn & Associates.

On Sept. 11, Century acquired Jimmy Jacobs, the 156th largest builder in closings last year, for an undisclosed sum. Jimmy Jacobs—ranked as Austin's top custom builder by the *Austin Business Journal*—appealed to Century because the companies have similar strategies.

Through this acquisition, Century picks up 915 lots in a dozen communities in Austin and San Antonio, bringing its total in all markets to more than 5,700.

Century's growth is being fueled by a public offering of stock last year that raised \$241.5 million. The firm intends to continue

its land acquisition through the end of 2013, and is interested in acquiring other builders.

Century is interested in organic growth, too. It is building single- and multifamily projects along Colorado's Front Range, and housing markets there “continue to grow,” says Dale. — JOHN CAULFIELD

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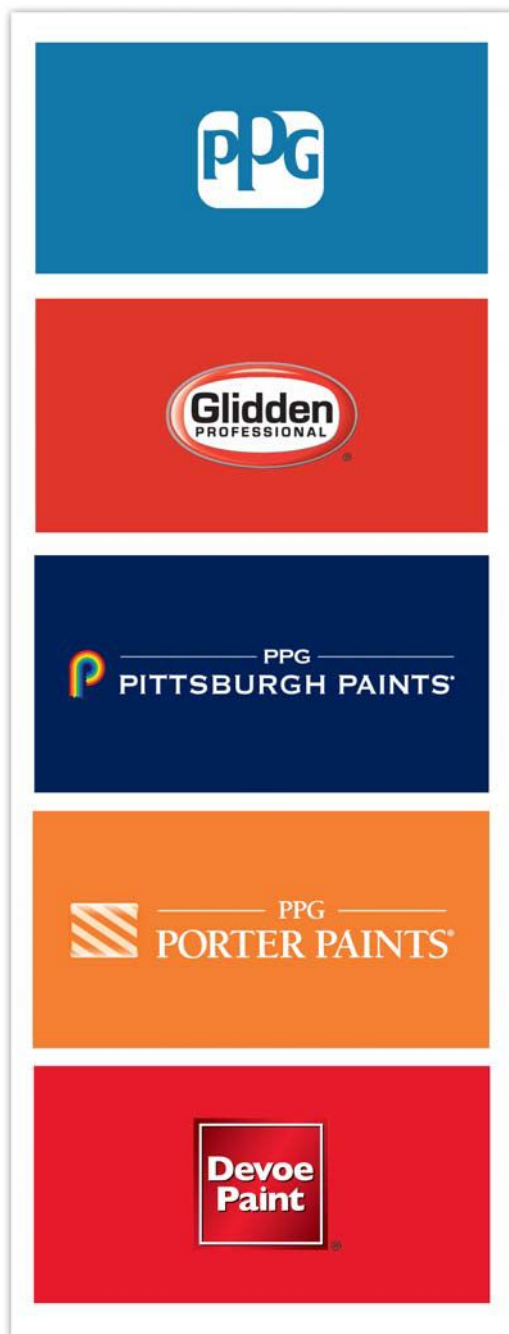


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Foundations

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PROJECT OF THE MONTH

Details That Buyers Want

Custom touches sell houses—and can be more attainable than you think.

By listening closely to its customers, a small luxury production company has hit on a winning formula to compete with custom builders in one of the country's priciest and most demanding markets.

Located in Darien, Conn., Sun Homes' Kensett development—which includes 62 attached homes—ranges (see page 28)

Jeff McNamara

Foundations

in price from \$1.4 million to \$1.8 million in an area known for its top-ranked public schools, charming downtown, and proximity to New York. Rather than contracting with an architectural firm, Sun Homes co-owner Bill McGuinness designed the units himself based on customer feedback.

"We hear directly from homeowners what they like and what they don't like," he says. "Usually what they want is a different list than what outside architects or designers

think they want."

McGuinness's layouts include practical but posh touches that make each of the company's seven models feel decidedly un-production. Some of them are higher-end designs and details, but many can be affordably added to your new homes.

High-end kitchens. Sun Homes' options include full-height cabinets, oversized islands with marble tops, and dramatic arches.

A buyer favorite is the service area in the 5-foot-by-12-foot pantry, with a dedicated space for unsightly small appliances that's tucked behind a frosted glass door.

Patios near the kitchen. Even in this northern location, buyers crave outdoor space for barbecuing and entertaining, and they want the grilling area to be close to the kitchen.

Formal dining rooms. "Most architects want to get rid of them but we hear time and time again that buyers want them," McGuinness says. Homeowners feel they are essential for family gatherings and entertaining, he adds. For many, "it's probably the least-used but most valued room in the house."

Garages near the kitchen. They provide easy access for unloading groceries, which is especially important to older buyers.

Large laundry rooms. Buyers want full-height linen cabinets, space for a work table, and ironing board storage.

Second-floor master bedrooms reachable via elevator. "For years the empty nester market has been shy about elevators, but we are selling a lot of them," McGuinness says.

Large storage areas. Sun Homes offers 16-foot-by-14-foot master closets, made possible by smaller but efficiently designed bathrooms.

Large first-floor dens. Buyers love roomy dens with fireplaces and room for a sectional and big-screen TV.

High-function landscaping. Private backyard gardens are screened from nearby houses year-round with evergreen trees and shrubs such as arborvitae, spruce, and fir.

The builder's discerning clients, who are inundated with design ideas from the Internet, home magazines, and TV shows, "expect these unique touches," McGuinness explains, and his ability to listen to them is paying off—the company has raised prices three times since its models opened in September 2012. — JENNIFER GOODMAN

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FIELD REPORT

Saving Trees, Relocating Jobs, and Urban Renewal

Economic news from across the country. BY TERESA BURNEY

News You Can Use BUILDER scans news across the nation each month for interesting, informative, and useful items, choosing a handful of the most significant for this Field Report.

Phoenix Adds Tech Center Jobs

Asurion, a company that offers protection plans for cellphones and other technology, plans to spend \$12 million and create more than 500 jobs at its new Phoenix technical support center by year's end.

The new Phoenix team will provide technical assistance for owners of mobile and other electronic devices, setting up devices, troubleshooting problems, and educating consumers about their cellphones, gaming devices, laptops, and tablets.

Austin Sides with Mother Nature

A deal with developer Trammell Crow to save four "heritage" oaks with trunks 24 inches in diameter or larger will cost Austin an estimated \$3.1 million in lost tax revenues over 30 years, the Austin Business Journal reports.

And redesigning a \$500 million mixed-use downtown development to spare the four oak trees will cost the developer some 60,000 square feet of potential development at the city's old Green Water Treatment Plant.

Best Place You've Never Heard Of

You likely own products from Mason, Ohio. A 30-minute drive from Cincinnati, Mason is the worldwide headquarters for Proctor & Gamble's oral, personal health, and pet care businesses. P&G in Mason employs nearly 2,000 workers; Luxottica eyewear, Lenscrafters, and other related businesses employ another 1,533. Mason is No. 7 on Money magazine's best places to live list because of jobs and schools: it has a 97 percent graduation rate—sixth best in Ohio.

Tidying up Towson

Developer Caves Valley Partners is behind a redevelopment project for Towson, Md. Firm principal Arthur Adler told the Baltimore Sun that Towson will become a vibrant urban core like Bethesda or Harbor East, both bustling Maryland suburbs. The \$300 million, five-acre project will include 200,000 square feet of office space; 100,000 square feet of retail; a 300-room hotel; 350 apartments; 300 student housing units; and parking.

PulteGroup Pulling Into Atlanta

PulteGroup has started hiring more than 200 new employees in accounting, finance, purchasing, information technology, human resources, and administration for its new corporate headquarters in Atlanta's Buckhead community.

In May, Pulte announced plans to move from the suburbs of Detroit to be closer to more of its markets in 2014. It expects to have 300 to 350 employees in Atlanta.

"The area's amenities and access to a talented and growing workforce makes Atlanta the right choice for us,"
— Richard Dugas, CEO, PulteGroup



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DETAILS

Pantry Raid

Sliding doors disguise kitchen storage.

According to the NAHB, at least 84 percent of all buyers consider a walk-in pantry essential or at least desirable. So, with more clients requesting walk-in pantries, builders must make them work in homes of all sizes.

In this clean, contemporary kitchen, builder Charlie Sleichter had to get creative because the powder room on the adjoining wall prevented him from building a bigger storage space.

This compact kitchen serves as an entertaining hub, so finding pantry doors that wouldn't take up extra space posed yet another challenge. A barn door, rather than a hinged one, was just the right thing, says architect Ankie Barnes.

What's more, these asymmetrical sliding doors work some sleight of hand, tricking the eyes into perceiving the pantry as centered on the wall. The storage space and its entry actually are positioned slightly to the right to accommodate the powder room plumbing.

Birch plywood with a clear varnish is hardy, looks fresh, and is easy on the wallet, says Barnes. Most important, sliding doors of birch plywood can handle frequent use.

Their exposed stainless steel rolling hardware is both functional and ornamental. The absence of pulls is intentional, Barnes says, because they would have upset the optical illusion. Design doesn't hinder function, however, as the doors open and close just fine with a push or a pull. — RACHEL BARRON



Project Contemporary Kitchen Renovation, Washington, D.C.

Architect Barnes Vanze Architects, Washington

Builder Artwork, Washington

Ankie Hoachlander/HDPhoto

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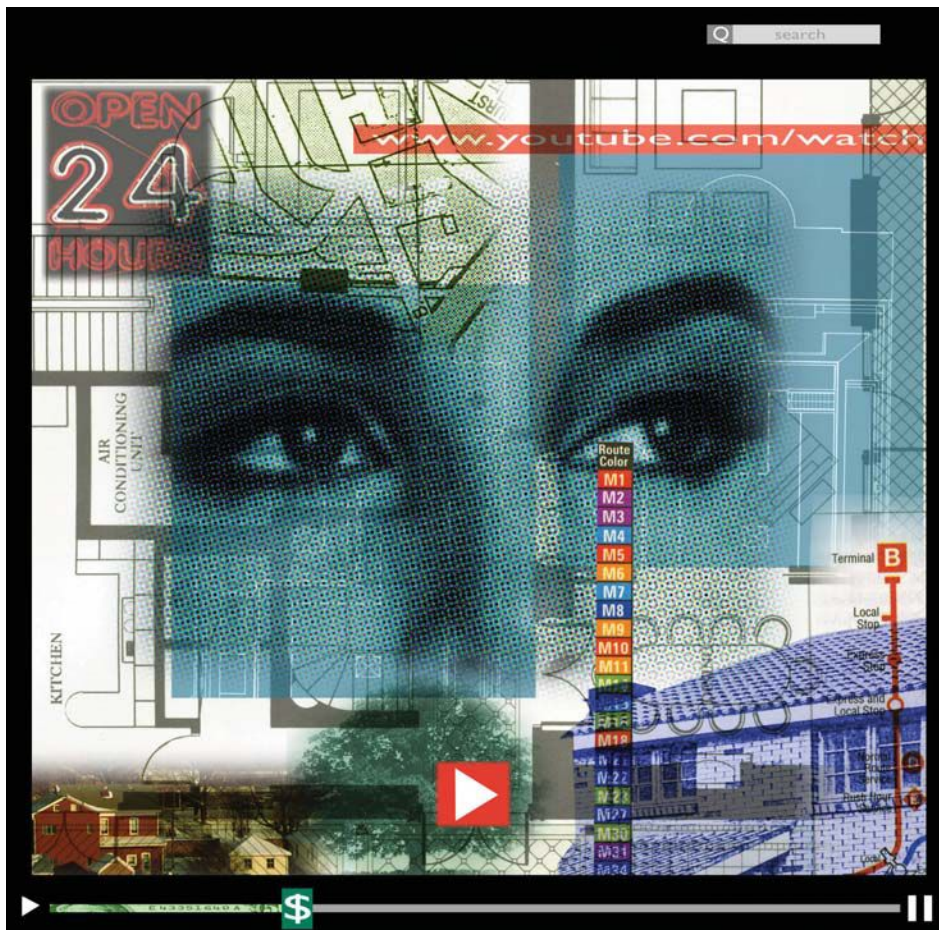
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TACTICS

YouTube Offers Success for Less

Home builders use video sharing website ads to reach shoppers.

If pictures are worth a thousand words, some home builders are figuring out that moving pictures in YouTube videos are worth exponentially more without costing exponentially more.

YouTube, the second most popular search site behind Google, has become a powerful advertising tool for some home builders.

"While YouTube has long been primarily thought of for entertainment, we are finding it as one effective way to get in front of the right audience," says Deborah Wahl, Pulte-Group's chief marketing officer. The company uses YouTube to market its three brands:

Centex, Del Webb, and flagship Pulte.

When Pulte rolled out Pulte Life Tested home designs last spring, it launched a YouTube video to explain the new designs and show them in a home setting. The video includes interviews of real people—sharing what they're looking for in a new home—from the focus groups that helped create the designs. The clip (www.youtube.com/watch?v=yXV7c-KDyV7c&feature=youtu.be) had more than 750,000 views in four months.

"Video is effective in communicating our home building brands because it allows viewers to get to know us," Wahl says.

YouTube is but one part of Pulte's Internet arsenal at a time when more than 75 percent of people use the Internet to search for homes, some even before setting foot inside a community and many before talking to a Realtor, according to the company.

The videos Pulte uploads to YouTube give viewers a good idea of what the community looks like, what the homes and amenities are, and images of local establishments.

Reeling in Prospective Buyers Other builders are having success with YouTube, too. Clayton Homes, a large builder of manufactured modular homes headquartered in Maryville, Tenn., uses YouTube to walk potential buyers through its products and nurture them through its three- to six-month buying period. Clayton sends video links to prospective buyers to educate them about its products and processes, emphasize the structural integrity of modular homes versus old-style mobile homes, and show the construction and delivery processes.

While many of the videos are instructive and persuasive, some are merely entertaining, designed to foster warm feelings about Clayton Homes. There's one with the co-stars of Duck Dynasty, Phil and Kay Robertson, sitting in their kitchen, discussing how Clayton Homes are built in America as they talk about filling a home with love. (www.youtube.com/watch?v=GMIqnaI9CFs)

"Right off the bat we really weren't sure what to expect" from the advertisements, says Jim Greer, Clayton's lead generation manager. "It has turned out very well for us. We are excited about the results."

Cheaper Measurable Results Unlike some forms of advertising, results can be measured from YouTube and advertisers pay only for the traffic they get. "You pump money into that and you know real quick whether it's successful," Greer says.

The Internet is changing the way many people buy products, says Patrick Grandinetti, Google's head of real estate industry. Before, consumers decided on products in the store. Now, consumers often form opinions about products from Internet research that's done before they walk into a store, Grandinetti says.

For tutorials on how Google advertising works, visit www.google.com/ads/video/index.html. — TERESA BURNEY

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FROM THE
CREATORS OF

AdvanTech

JUMP BALL

Why I Sold My Business

Three builders recount their decisions to accept new ownership.

EDITED BY JOHN CAULFIELD



Greg Lingo sold Cornell Homes in July to Ryland Group, and is now president of Ryland's Philadelphia division.



Carl Mulac sold Joseph Carl Homes to Avatar Holdings in October 2010. He's now president of Avatar Properties.



Pat Hamill is CEO of Oakwood Homes, which Mountain Real Estate Capital bought in March 2012.

"We were looking at a market that was definitely improving," says Lingo about his decision to sell the company he founded in 2006. "We had gotten ourselves into the No. 3 position in Philadelphia with 'mattress money' from friends, family, and personal investment. But that could only get us so far."

Lingo was approached by other builders, too, but ultimately chose Ryland, which he calls "the perfect partner." Lingo says he liked Ryland's "decentralized" approach "that leverages the know-how of the local operator." He got assurances that Cornell Homes' 40 or so employees all would be maintained after the acquisition, and he hit it off with Ryland's CEO Larry Nicholson and COO Pete Skelly. "They are two people I thought I could work for."

As an independent builder, Lingo spent half of his time "making sure our banking relationships were there." He now turns over those responsibilities to Ryland and says he concentrates "on things we like to do best, like acquiring A locations and maintaining strong subcontractor relationships. Now, we can focus on leading."

Mulac and his partner, Reuben Leibowitz of private equity real estate firm Jen Partners, launched Phoenix-based Joseph Carl Homes in spring 2008. Twenty months later, the pair accepted a \$62 million acquisition offer from Florida-based Avatar Holdings.

It seemed like a perfect fit, recalls Mulac, as Avatar's Solavita, a master planned community for active adults in Poinciana, Fla., "was very similar to our footprint" at Canta Mia, an active-adult community in Goodyear, Ariz.

Inevitably, there were "integration issues," says Mulac, noting that it took 18 months for the builder and developer to mesh. Only last year did AV Homes (Avatar's name now) finish installing a new accounting system.

But things have worked out well, says Mulac, who heads AV's home building arm. For the six months ending June 30, AV reported a 33.6 percent increase in closings, and a 42.9 percent gain in home building revenue. In July, the investment firm TPG paid \$135 million to acquire 41.9 percent of AV Homes, which recently acquired several pieces of land in Phoenix and is searching for home building opportunities in and outside of Arizona and Florida.

Hamill and Larry Canarelli had been business partners since 1991, and they still own land in Colorado. But when Canarelli's Las Vegas-based American West Development ran into financial trouble last year that led to a bankruptcy filing, Hamill realized Oakwood's growth would need a new financial source.

There were several suitors, Hamill says. But Denver-based Oakwood already established a relationship with Mountain Real Estate Capital (MREC), with which it had acquired the 2,600-acre Banning Lewis Ranch in Colorado Springs, Colo. In March 2012, MREC entered into a strategic partnership with Oakwood and committed more than \$100 million to the builder's expansion into second-tier markets.

Since that deal was consummated, Oakwood has moved into Omaha, Neb., and Salt Lake City. Hamill—who retained his partnership—told BUILDER in August that he had just met with two builders that Oakwood is interested in acquiring. The company is on pace to close about 600 homes in 2013, and 1,000 next year.



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RED TAPE

Southern Showdown

Residents oppose Beazer Homes' proposal to resize lots in one Myrtle Beach community.

Builders often expect some community or municipal opposition to new developments, and they are rarely disappointed.

For example, even before it filed a proposal for a 775-home subdivision on 400 acres in Franklin, Tenn., PulteGroup this summer faced pushback from officials and neighbors who fear a Del Webb community would diminish that property's rural character.

Pulte had modified its proposal from 1,000 homes on 460 acres after meeting with

homeowners last spring. Such give and take sometimes helps smooth the approval process. Conversely, a project can unravel when a builder loses the trust of homeowners.

In order to allow smaller lots than the original development plan called for, Beazer Homes has tangled with county officials and owners over its proposal to rezone the remaining 90 acres of Cameron Village in Myrtle Beach, S.C.

A source familiar with Beazer's latest revised plan told BUILDER in August that

Beazer intends to complete 663 homes—well below the 741 home sites approved. Of the 319 remaining to be constructed, 58 single-family homes would be built on 8,000- to 9,000-square-foot lots, eight on 9,000- to 10,000-square-foot lots, 51 on 10,000- to 11,000-square-foot lots, and 14 on lots larger than 11,000 square feet. The rest would be single- and multifamily homes on lots 7,500 square feet or smaller.

The original development plan called for at least 21 percent of the houses on lots at least 10,000 square feet. Homeowners still reeling from the housing recession are convinced that lot reductions and smaller new homes would further erode those values. Debby Perkins, who has owned a 10,000-square-foot lot house at Cameron Village since December 2007, was trying to get signatures from at least 300 residents on a petition to block Beazer's plans.

Chris Teal, Beazer's Myrtle Beach division president, wrote in an email in August that his company was “working with the planning department in Horry County and the residents of Cameron Village to come up with an acceptable solution for all parties that would keep the number of total homes well below the approved level.”

Teal noted that Beazer had completed “an extensive offering” of amenities at Cameron Village. Amenities remain a sore point with owners who complain that Beazer failed to install aerating fountains, more open space, and a separate pool for the Village's multifamily area. “The residents' perception that Beazer promised stuff it hasn't delivered on is a far bigger hang up” than reducing the lot sizes, observes Councilman Gary Loftus.

Cameron Village is in a planned development district, so changes require county council approval. Horry County's 11-person planning commission has rejected Beazer's proposals twice. Whenever the council puts this on its agenda, a “one-read” resolution to deny the proposal would be offered. If that resolution passes, the proposal is dead for a year; if it's defeated, there could be as many as three more “reads.”

As of mid September, this issue was still in limbo. But given the community's insurrection, Loftus didn't think Beazer could get its proposal passed unless it addressed the amenities disputes first. “I told them they should drop back 10 yards and bring out their best punter.” — JOHN CAULFIELD

A close-up portrait of a woman with dark hair and blue eyes. A stylized fire effect is superimposed on her forehead and right eye area, with flames and smoke extending upwards. The background is dark and moody.

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Foundations



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There is no community in the U.S. more successful than The Villages near Ocala, Fla., which ranks No. 15 on the BUILDER 100. It solidly nails the needs and desires of a large segment of active-adult home buyers. Consider the evidence:

- The Villages consistently ranks as the top selling master plan in the U.S. by Metrostudy, a sister company of BUILDER. By mid-2013, The Villages started homes at a pace of 3,525 a year, up 31 percent versus the previous year.
- At the peak of the market, The Villages sold more than 4,000 homes a year; Metrostudy forecasts 3,944 new-home sales in 2014.
- It delivered 1,500 lots in the 12 months ended in June, accounting for 45 percent of all annual lot deliveries in central Florida.
- Metrostudy ranks The Villages as the healthiest of the largest 100 markets.
- No other builder/developer constructs more homes in one place than The Villages, the largest single-site development in the U.S. More than 85,000 people live there and it's expected to reach 100,000 at build-out.

Formula for Success The Villages developer, Gary Morse, has had time to get the formula right. The development began in 1972 as a

mobile home park founded by Morse's father, Harold Schwartz. In 1983, Morse joined him, using his marketing skills to figure out how to draw retirees in droves to the remote site.

Morse switched the development to stick-built houses and enticed seniors with amenities, activities, and the promise of perpetual fun in the sun. He advertised free golf for life and organized neighborhoods around town squares filled with shops and restaurants.

CDDs Make It Possible Growing the development would have been difficult for a single developer to do without Community Development District financing. In Florida, developers can create special purpose districts that sell bonds to pay for streets, utilities, and amenities, and future homeowners repay the bonds over time. Many CDDs defaulted during the downturn, but not at The Villages. The community is in its final stage of development, but there's no indication that Morse, who lives there, plans to move on.

"My family has dedicated our lives to build a retirement community where dreams come true," says Morse's daughter, Jennifer Parr, in an online video. "As much as it has taken to create the community, it will take more to manage it." — TERESA BURNEY

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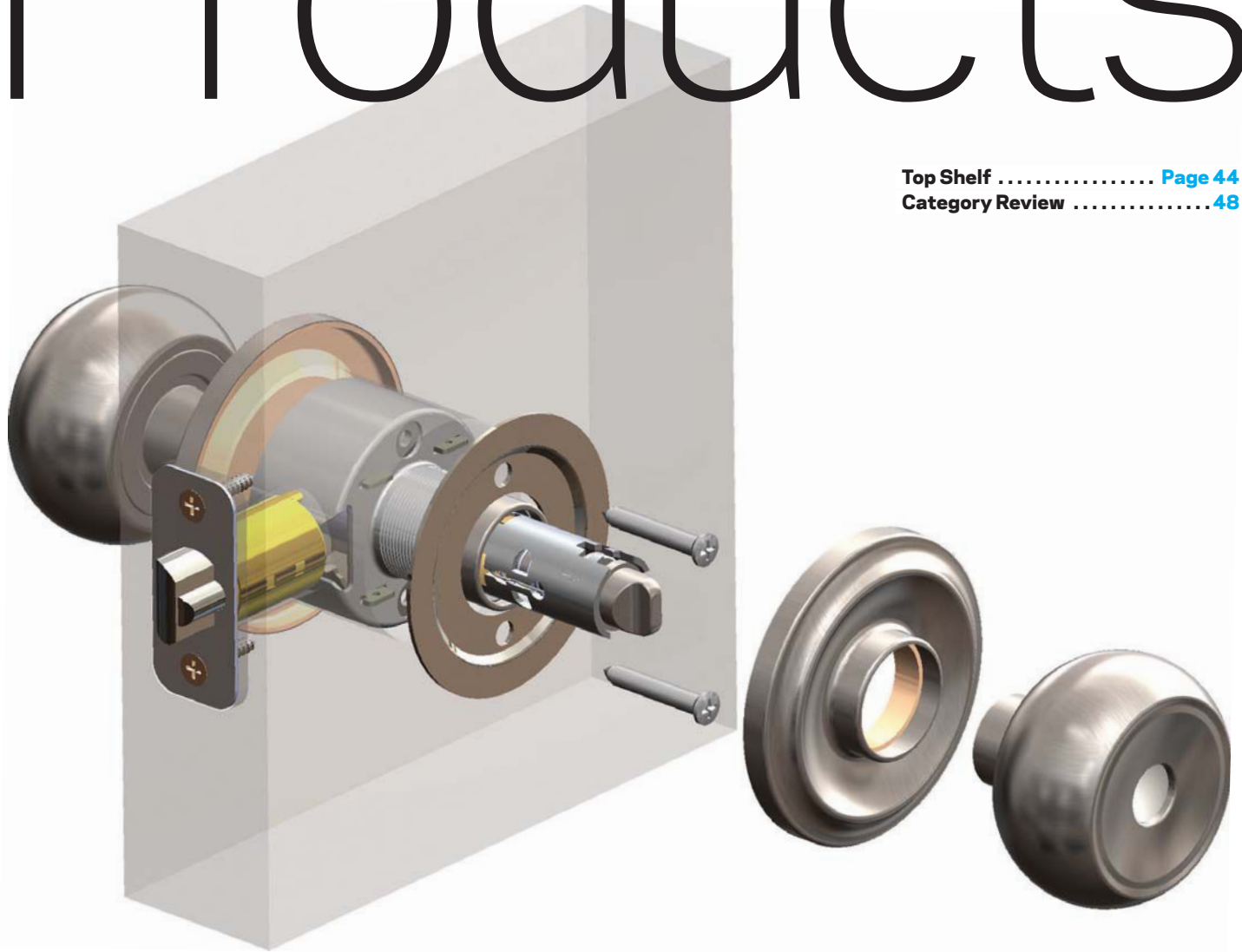
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Products

Top Shelf **Page 44**
Category Review **48**



Brinks Push Pull Rotate

This collection of door hardware offers a solution for homeowners with their hands full, allowing egress with the touch of a finger, elbow, or hip. Available in four finishes, the line includes interior locking, interior non-locking, and exterior locking options, as well as levers and matching deadbolts. The hardware fits in all standard doors, says the firm, and has a lifetime warranty for material or workmanship defects. www.brinksppr.com



TOP SHELF

Editor's Picks

This month's roundup of eight new products you should know about.

EDITED BY SANDRA MALM

1. Gerber Faucets

The Viper collection, previously known for high-performance toilets, has expanded to include bathroom and kitchen faucets. Designed with the professional contractor in mind, the line focuses on quality construction to help eliminate callbacks and quick installation to save time and money, says the company. The faucets feature a 1.5 gallon per minute flow rate and drip-free ceramic disc technology. www.gerberonline.com

2. Pyrolave Surface

For bold designs that are easy to clean, this enameled lava stone is now available in integrated sinks and countertops. Fabrication techniques allow for completely customized designs with a bright color palette of 16 glossy and 16 matte options. According to the company, the nonporous surface is highly resistant to heat, stains, and acids, as well as UV fading and corrosive products. www.pyrolave.com

3. Leviton AFCI Outlet

The SmartlockPro OBC AFCI receptacle offers protection from electrical fires resulting from damage in branch circuit wiring and extensions. Required by the National Electrical Code in many areas of the home, AFCI receptacles are designed to recognize many types of hazardous arc-faults and interrupt power to the circuit. This outlet also features the firm's patented reset/lockout technology. www.leviton.com

4. Kwikset Deadbolt

This proximity- and touch-sensitive deadbolt opens with ease. The mechanism is operated with a mobile app that turns a smartphone into an electronic key via Bluetooth technology. Homeowners can add additional users as needed, and there's also a key fob option for those who don't use smartphones. Multiple levels of encryption increase digital security, according to the company. www.kwikset.com

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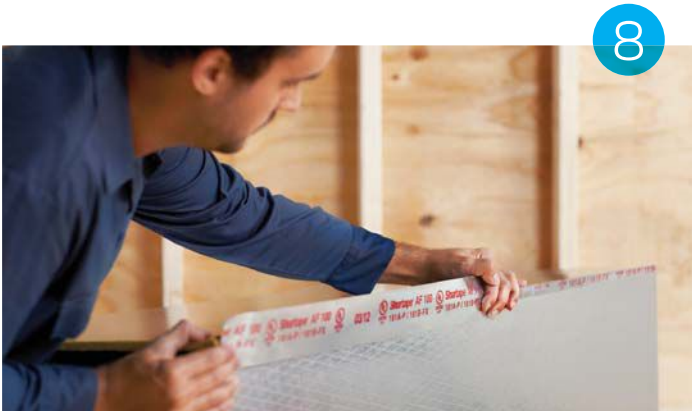
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5. Jeld-Wen Pet Doors

The integrated pet door panel in these vinyl sliding patio doors includes a factory-installed option for canine-friendly design. Beneath the lockable panel, a clear flap stays closed via a magnetic pull that prevents it from being blown open but is flexible enough for easy passage, according to the firm. The company also offers its integrated pet panel in fiberglass pre-hung entry doors.

www.jeld-wen.com

6. Milwaukee Compact Tools

Upgrades to the M12 lithium-ion platform feature improved performance, ergonomics, and portability, according to the company. Of the six new tools, four—the 3/8-inch drill/driver (pictured), 3/8-inch hammer drill/driver, 1/4-inch hex impact driver, and 3/8-inch impact wrench—replace existing models. The 1/4-inch hex screwdriver and 1/4-inch impact wrench also join the product line.

www.milwaukeeetool.com

7. Blanco Utility Sink

The Stellar undermount laundry sink adds sleek, transitional style to any utility or laundry room. Constructed from surgical-grade stainless steel with a brushed finish that's easy to keep clean, the sink has a generous 23-inch-by-17 3/4-inch bowl that's 12 inches deep. It's also appropriate for installation in the kitchen, the manufacturer says. The sink comes with a limited lifetime warranty.

www.blancoamerica.com

8. Shurtape Cold Temp Foil

Designed for diverse weather conditions, the AF series of cold temperature aluminum foil tapes can be applied in temperatures ranging from minus 20 F to 260 F, according to the company. The lined, acrylic adhesive tapes form an airtight bond on joints and seams in a variety of HVAC, construction, and electrical applications. It is a low-VOC acrylic adhesive.

www.shurtape.com

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FREIGHTLINER

CATEGORY REVIEW

Embracing the Savings

When it comes to appliances, consumers are getting more for their money: more features and energy savings and better performance.

Buyers often are skeptical about green products that may add to the cost of a home, but nearly all American consumers are sold on the idea of energy-saving appliances. From washers and dryers to refrigerators, energy-efficient appliances topped buyers' wish lists in a recent NAHB survey.

In fact, 94 percent of buyers rated appliances certified to the EPA's Energy Star program as the most coveted feature of a new home, and a new study shows that they have good reason to clamor for these units. Eco-friendly appliances perform the same or better than their older, resource-guzzling counterparts while costing the same or even less, according to a report from the American Council for an Energy-Efficient Economy (ACEEE). In other cases, electricity bill savings outweigh price increases.

For example, a household with a refrigerator, washer and dryer, dishwasher, central air conditioner, and toilets that just meet the current efficiency standards will save \$360 on annual utility bills compared with a house equipped with the same products purchased 20 years ago, the report found.

Newer appliances are loaded (*see page 50*)

LG French Door

The Energy Star-qualified French Door refrigerator's unique Door-in-Door feature allows for quick access to the most commonly needed items without opening the entire refrigerator. Users simply push a button on the door handle to release the magnetic seal, keeping cold air in the rest of the unit. The 31-cubic-foot-capacity unit offers 20 percent more space compared with standard French door models, the company says. www.lg.com





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with features that weren't offered a decade ago, the study notes. Consumers now have a range of options in bottom-freezer refrigerators (including French-door models), and clothes washers often include large tub capacities, electronic controls, steam cycles, and automatic dispensers. Dishwashers have seen the most upgrades with stainless steel tubs, delayed start functions, and a decrease in price of about 30 percent with a 50 percent decrease in energy use.

"Everyone knows that replacing your old appliance with a new, more efficient model will save you money," says Steven Nadel,

ACEEE executive director. "What this report shows is that consumers haven't had to sacrifice good performance or new features in exchange for improved efficiency."

South Carolina builder Todd Usher of Addison Homes specs only Energy Star appliances, noting that energy-efficient features add no more than 10 percent to the cost of an appliance, and more important, his buyers expect them. "Very few clients question the investment in energy-efficient appliances once they understand the benefits," he says.

Consumers also can look beyond the ubiquitous Energy Star certification for appli-

ances bearing EPA's "Most Efficient" designation, which singles out the top 5 percent of products in several categories.

More technologies are on the horizon. Starting next fall, new EPA standards will require Energy Star refrigerators and freezers to use at least 10 percent less energy than models meeting 2014 federal minimum efficiency standards. EPA also is encouraging manufacturers to incorporate "smart" features like energy-use tracking, remote management, and smart grid-ready connections; some companies already offer a selection of these models. — JENNIFER GOODMAN



Bosch Ascenta 800 Plus

The Ascenta 800 Plus dishwasher exceeds Energy Star requirements and can be used for washing small loads that fill half or less of the dishwasher's capacity. The ActiveWater feature uses design, water pressure, and efficiency to circulate 2.5 gallons of water into the cleaning power of more than 600, the firm says. A flow-through water heater channels water via coils in a confined chamber for more efficient heating. www.bosch-home.com



Samsung DV457

The company's DV457 clothes dryer is the first and only dryer to receive the Energy Star Emerging Technology Award for advanced dryers. The smart grid-ready model uses 36 percent less energy than a conventional dryer, which can translate to as much as \$635 in electricity and 9,000 pounds of carbon dioxide emissions saved over the life of the product, according to the manufacturer. www.samsung.com



GE RightHeight

The Energy Star-labeled RightHeight front-load washer and dryer come with built-in risers that raise them 7 inches, a larger door opening for loading and unloading laundry, and wash and dry features that simplify the process. The dryer's Detangle Assist function rotates the drum in reverse to prevent clothes from tangling and to speed up drying. The units come in white, red, or metallic carbon finishes. www.geappliances.com



Jenn-Air Refrigerator

The manufacturer's new 24-inch undercounter refrigerator offers 4.9 cubic feet of storage space with a fully flush, built-in design. The Energy Star-labeled unit features automatic interior LED lighting, two full-width door bins, and temperature control. It comes with two movable shelves and one fixed shelf. Other features include adjustable levelers, concealed controls, and an extra-quiet soft-close door function. www.jennair.com

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Crowe's Economy

Where's the Land?

Builders face low lot supply and fluctuating financial conditions.

The interruption in the lot production pipeline coupled with reviving demand has resulted in a low supply of lots and rising prices for supply.



David Crowe
CHIEF ECONOMIST
NAHB
WASHINGTON, D.C.
dcrowe@nahb.com

Lots approved for home building remain in short supply as the housing market recovers but the supply systems struggle to restart. The shortage of buildable lots persists as a residual of the exorbitant housing cycle we recently endured.

Bringing raw land to a point where a home can be constructed requires time and money. Before land can be purchased and developed, debt and equity must be acquired. And before construction can begin, permits and approvals must be obtained. Developers borrow from banks, usually community banks where both parties are familiar with the local market and the individuals making the request. But that connection broke down after the 2008 financial market collapse. Banks failed or were severely restricted in their ability to lend for residential real estate. Consolidations moved the approvals to corporate headquarters, and banking regulators extended restrictions to all banks—even those operating in relatively stable markets.

Lending Still Tight According to the NAHB quarterly Acquisition, Development, and Construction Financing survey, more than 85 percent of respondents were shopping for acquisition and development (A&D) loans in 2005 and 2006. As terms tightened and willingness to lend dried up, that share dropped to less than 25 percent in 2009 to 2011. Some very small improvement began in 2012, and the share is up to one-third most recently.

Before the financial collapse, most builders and developers shopping for funds found availability steady or improving. Conversely, from 2008 to 2009, more than three-quarters of builders looking for A&D funds found availability getting worse. Given the time it takes to obtain approvals and install infrastructure, the near cessation in the development pipeline three to five years ago has resulted in a limited supply of lots today.

Financing conditions have improved slightly but are tighter than in the mid-

2000s. Builders and developers have opened new sources, and NAHB continues to develop a broader array of choices. During the boom, more than 90 percent of credit came from banks and thrift institutions. That share has fallen below two-thirds in 2013 as private investors and equity funds replace banks, but the diversity of sources will take time to generate the stream of lots needed to answer growing housing demand.

Short Supply, Rising Prices The interruption in the lot production pipeline coupled with reviving demand has resulted in a low supply of lots and rising prices for supply. According to a recent NAHB survey, 59 percent of builders reported low or very low supplies in their market, up from 43 percent a year ago and 16 percent in March 2010. Supply is worse for the more desirable locations. Six in 10 builders report low or very low supplies of A lots, half report low or very low supplies of B lots, and 37 percent report limited supplies of C lots.

Price changes are equally pronounced for the more desirable lots. Six in 10 builders report higher prices for A lots than last year, 55 percent report higher prices for B lots, and 45 percent experienced higher prices for C lots.

Pent-up consumer demand and limited supplies of land, labor, and some building materials have caused home prices to rise, but appraisals are limiting the price increases that home builders can pass along. More than one-third of builders have lost a sale because the appraisal was less than the cost of production.

The low lot supply caused by the hiatus in developing land and delivering lots has been compounded by additional market factors. A limited supply of existing homes has helped increase demand for new homes and put more pressure on lot supply. National public builders are buying lots through their balance sheets and avoiding banks. The limited financial capacity of local governments also means there is little infrastructure expansion to accommodate growth, and the approval offices are swamped with work after laying off staff during the downturn.

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PAY DIRT

This year, for the first time, the Builder's Choice Awards merged with the Custom Home Design Awards. Competition was fierce and deliberations were lengthy. Here are this year's jury selections: the cutting-edge and inspired examples of smart land strategies, high-performance building, thoughtful planning, good environmental stewardship, and successful indoor-outdoor flow. For expanded coverage of the Builder's Choice and Custom Home Design Awards, visit builderonline.com and customhomeonline.com. BY CHERYL WEBER, LEED AP, JENNIFER GOODMAN, AND AMY ALBERT



Casey Dunn



ON SITE The houses had to sit low to preserve the view from the developer's uphill lot. Expansive clay soils made the slope unstable, and the proposed sunken houses too expensive an undertaking. Instead, basement

square footage was transferred to smaller second floors, and the first floor was lowered as much as geotechnical limits allowed through the use of 4-foot voided

retaining walls on drilled piers. The conditioned crawlspace used sheet waterproofing over soil retainers on the uphill side, with the vapor barrier fastened to a frame wall on the downslope. Frame walls

were supported on steel beams spanning between columns, with welded 'knife edge' steel plates that closed the gap between the structure and the expansive soil.



PROJECT OF THE YEAR

Parkside Residences, Austin, Texas

// *New life for a tough site* //

Architecture and construction are fields where creative problem-solving can pay off big on issues such as affordability and suburban sprawl. Our judges elevated the Parkside Residences to Project of the Year, not just because the three spec homes are beautifully designed and efficiently built, but because they also make ingenious use of what once was a single lot on an overlooked commercial strip.

The design team (Kevin Alter, Ernesto Cragolino, and Tim Whitehill) overcame several construction challenges, including an unstable 60-foot slope. Their client was the woman next door, who asked them to help her buy, subdivide, and build on the lot. “It didn’t make sense for a typical developer because of the huge cost of foundations and working out access for driveways,” Alter says. “It was about doing something she could feel good about, that wouldn’t spoil her view of downtown Austin.”

The acre plot sits between a single-family neighborhood and commercial properties along a boulevard farther down the hill, and the new flag-lot subdivision is accessed from the commercial street. For economy, the buildings were mostly stick-framed and share a similar material palette. Each stucco-and-cypress-clad home has a green roof that blends into the thick underbrush when viewed from higher on the hillside.

It’s one thing to design a modernist pavilion in the woods, but quite another to do it in a dense urban setting. Alterstudio deftly balanced openness and privacy by fitting each living area and master bedroom with a wall of glass that connects to discrete outdoor space, and with roof planes that carry out past the glass. Select gestures such as richly grained walnut cabinetry and exterior wood screens enliven an otherwise modest composition. “It’s like wearing a beautiful tie with a straightforward suit, and is a counter-argument to the prevailing trend in modern work,” Alter says. “Rather than fetishizing the building, we like to use things with an inherently complex character.”

The judges praised the more-with-less approach, striking indoor-outdoor relationships, and connection to the city. “It puts outdoor spaces on a podium and celebrates them,” a judge said. Others applauded the project’s “affordably constructed resort ambience” and the “compact design in a transitional neighborhood.” — C.W.

CATEGORY Production, Semi-Custom, or Spec, Less Than 3,000 Square Feet

ENTRANT/ARCHITECT
Alterstudio Architects, Austin, Texas

BUILDER Risher Martin Fine Homes, Austin

SITE 0.33 acre

LIVING SPACE 2,300 to 2,700 square feet

SALES PRICE \$560,000 to \$588,000

CONSTRUCTION COST \$215 to \$250 per square foot

PHOTOGRAPHER Casey Dunn

GRAND**Pomona College Student Housing, Claremont, Calif.**

*// High performance,
high function, high ideals //*

The project team for Pomona College's new student housing complex was tasked with honoring the school's architectural heritage while ushering in its new sustainability agenda. The development, the first student residence in California to receive LEED Platinum certification, consists of two residence halls that house 150 students in suites made up of three, four, and five private bedrooms.

The dwellings are intended for upperclassmen and were built to address a growing need on campus to provide apartment-style living for older students who might otherwise move off campus.

From the top down, the structure is chock-full of high-performance technologies that don't detract from the historic ambience. Architect Steven Ehrlich reimagined the terra-cotta on the original buildings' sloped roofs into horizontal plank sunscreens. Glazed clerestories and concrete exterior walls with punched openings found on the older buildings reappear on the new structures, but with high-performance operable glass units and insulated precast wall panels.

"We wanted our project to resonate with the school's history, and to be contextual while at the same time modern and progressive both in terms of architectural style and building performance," Ehrlich says.

He carefully sized and placed windows to optimize natural daylight into each space, and provide more than 95 percent of all regularly occupied spaces with a direct view to the outdoors. A 165-square-foot natural turf playing field on top of the underground garage is used for intramural Frisbee tournaments, lacrosse training, socializing, and sunbathing.

Ehrlich's close collaboration with the school included weekly meetings with the project task force consisting of numerous stakeholders including students, staff, and administrators that extended from the beginning of programming to the end of construction.

The judges were wowed by the many sustainable features packed into the project, which also include rainwater reuse and retention, low-VOC paints and adhesives, bike storage, and drought-resistant landscaping. Flat roofs clad with cool roof thermoplastic membranes support PV arrays, rooftop gardens, and eco-classrooms.

"They nailed the major green components and they did it in a really cool way," the panel said. — J.G.

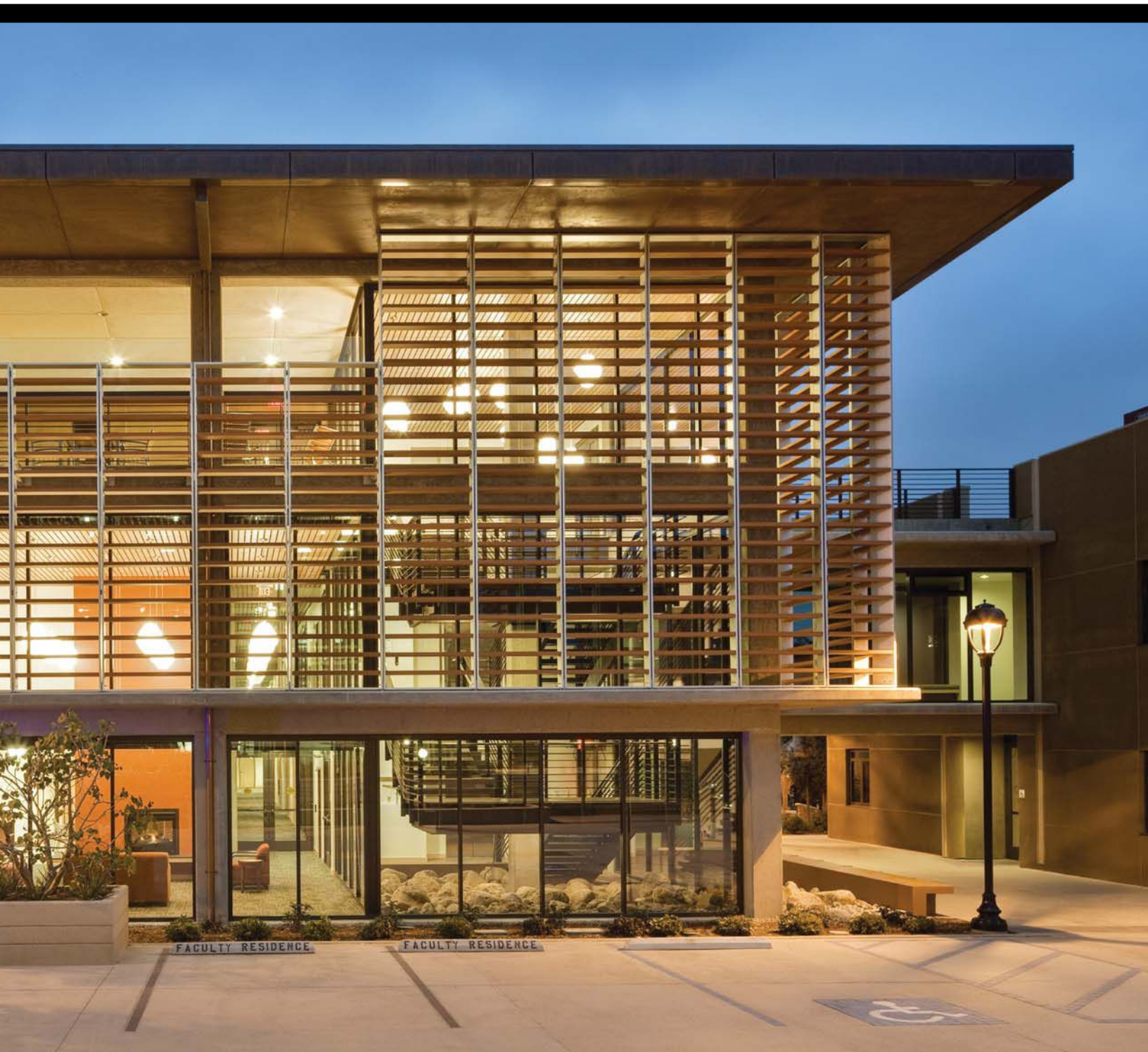
CATEGORY Green Multifamily**ENTRANT/ARCHITECT/****BUILDER** Ehrlich Architects, Los Angeles**LIVING SPACE** 81,000 square feet**OVERALL DENSITY** 8.2 units per acre**CONSTRUCTION COST** \$42.6 million**PHOTOGRAPHER** Tom Bonner

ON SITE For an extremely well-insulated building shell, architect Steven Ehrlich chose to construct the residence halls with Thermomass precast concrete

panels, which consist of two layers of 3- and 5-inch-thick concrete thermally separated by 3 inches of foam insulation. The

assembly provides thermal mass to help regulate the building's heat gain and loss by absorbing heat from interiors during the day and slowly releasing it at night.

He left them fully exposed on the interior as well as the exterior for extra durability inside the suites.





ON SITE Because the Passive House-certified dwelling is so tightly built, it requires mechanical ventilation to keep the indoor air healthy and comfortable. Builder Sloan Ritchie installed a Zehnder heat

recovery ventilator to pull in fresh air and work in conjunction with the Mitsubishi mini-split HVAC system to reduce heating and cooling requirements.

The heat recovery ventilation device recovers up to 90 percent of the energy of the extracted air to warm the incoming fresh air, further saving on heating costs. The air distribution system then channels the optimally

tempered fresh air to individual rooms as needed. The air volume can be adjusted individually for each room.



GRAND

Park Passive, Seattle

// A space-savvy energy miser //

The judges called Park Passive “the epitome of green and also a really cool house.” They were wowed as much by its ultra-insulated building shell as by its good looks and luxury finishes. Using 90 percent less energy for heating and cooling than a traditional home, the Passive House-certified structure is a comfortable 69 degrees for most of the year without any mechanical interventions. Ultra-insulated walls and roof (filled with 16 inches and 20 inches of blown-in fiberglass, respectively) and high-density spray foam under the slab-on-grade foundation help keep interiors a constant temperature. A Mitsubishi mini-split heat pump kicks in on exceptionally hot or cold days.

The jury also was impressed with the amount of living space that architect Marie Ljubojevic eked out of the 2,000-square-foot infill lot, which is closely bordered by a neighboring home on the south. The tricky layout was complicated by Passive House requirements that call for minimal glazing on the north side and 16-inch-thick walls.

“In the instance of this house, most of the challenges faced for building a Passive House were related to the lot size and location with another home near the southern lot line,” explains builder Sloan Ritchie of Cascade Built in Seattle. “In addition to the small, shallow floor plate and zoning requirements to work within the existing house’s form, Passive House requirements minimized glazing on the house’s north side, where windows would have been intuitively placed, and required 16-inch-thick walls.”

The project’s design challenges led the team to creative solutions, says Ritchie, including the double-height vaulted kitchen connecting the main living area to an upstairs play area, a daylit open stair punctuated with views to the street, a nook for a window bench, and flared bay windows on the front façade. Ljubojevic incorporated four bedrooms and three bathrooms into the three-level-plus-roof deck plan, with interior finishes that showcase the use of wood from a site-salvaged tree for stair treads, wall paneling, and a bathroom countertop.

Additional sustainable features include heat pump hot water, no-VOC finishes, a heat recovery ventilator, high-performance windows, and pre-wiring for solar. — J.G.

CATEGORY Green Custom
ENTRANT/BUILDER Cascade
Built, Seattle
ARCHITECT NK Architects,
Seattle

LIVING SPACE 2,710 square
feet

CONSTRUCTION COST \$250
per square foot

PHOTOGRAPHER Joe Bianco

GRAND**Urban Reserve 22,
Dallas***// Low impact, high density //*

Dedicated to modern architecture and low-impact living, the Urban Reserve development in North Dallas is a nature lover's paradise, with wooded rolling terrain, trails, and ponds. Design guidelines there require that homes are at least 20 percent more energy efficient than mandated by code, and narrow lots facilitate increased density.

The LEED Gold home, one of the first to be built in the development, is a striking testament to the community's mission, with many ultra-sustainable features wrapped in a unique sculptural shell designed to block and control the harsh Texas sun. Architect Vincent Snyder created special slate "flaps" that fold down and hang over the east and west sides of the house to shield the sun. He also vented the walls and roofs to reduce heat gain and moisture within the slate-clad envelope and kept glazing to a minimum on all but the southern side of the house, which is wide open to the side yard with rows of sliding glass doors that provide bright, lofty interior spaces.

"Through proper shaping of the roof and sidewalls we controlled the direct daylight while providing significant indirect daylight that greatly reduces the need for artificial lighting even on cloudy days," Snyder says. In the winter months when the sun is lower, sunlight warms the concrete slab ground floor, which acts as a thermal mass.

Water conservation also was a big concern for this project, and the judges were impressed with the way Snyder's design takes that into consideration. "The interesting thing is the roof form, which is really dynamic but designed with the entire purpose of collecting rainwater," said one. Rainwater runs down the penetration-free sloped roofs into a large copper gutter, which slopes to follow the angle of the interior stairs below. The water ends up in a 10,000-gallon underground cistern where it is used for irrigation. In times of heavy rain, the cistern overflows into an adjacent retention pond.

Other sustainable products include a tankless water heater, closed-loop geothermal heating and cooling, bio-based spray foam insulation, and durable copper flashing. The judges loved everything about the project: "The section and structure are amazing, with beautiful detailing, which adds surprise and delight where the structure comes through to let light in and wash the interior walls in light," said one. — J.G.

CATEGORY Green Development or Production Housing**ENTRANT/ARCHITECT** Vincent Snyder Architects, Austin, Texas**BUILDER** Urban Edge/CCM General Contractors, Dallas**STRUCTURAL ENGINEER** Lobsinger & Potts Structural Engineering, Fort Worth, Texas**LIVING SPACE** 3,927 square feet

CONSTRUCTION COST

\$250 per square foot

PHOTOGRAPHER Charles

Davis Smith

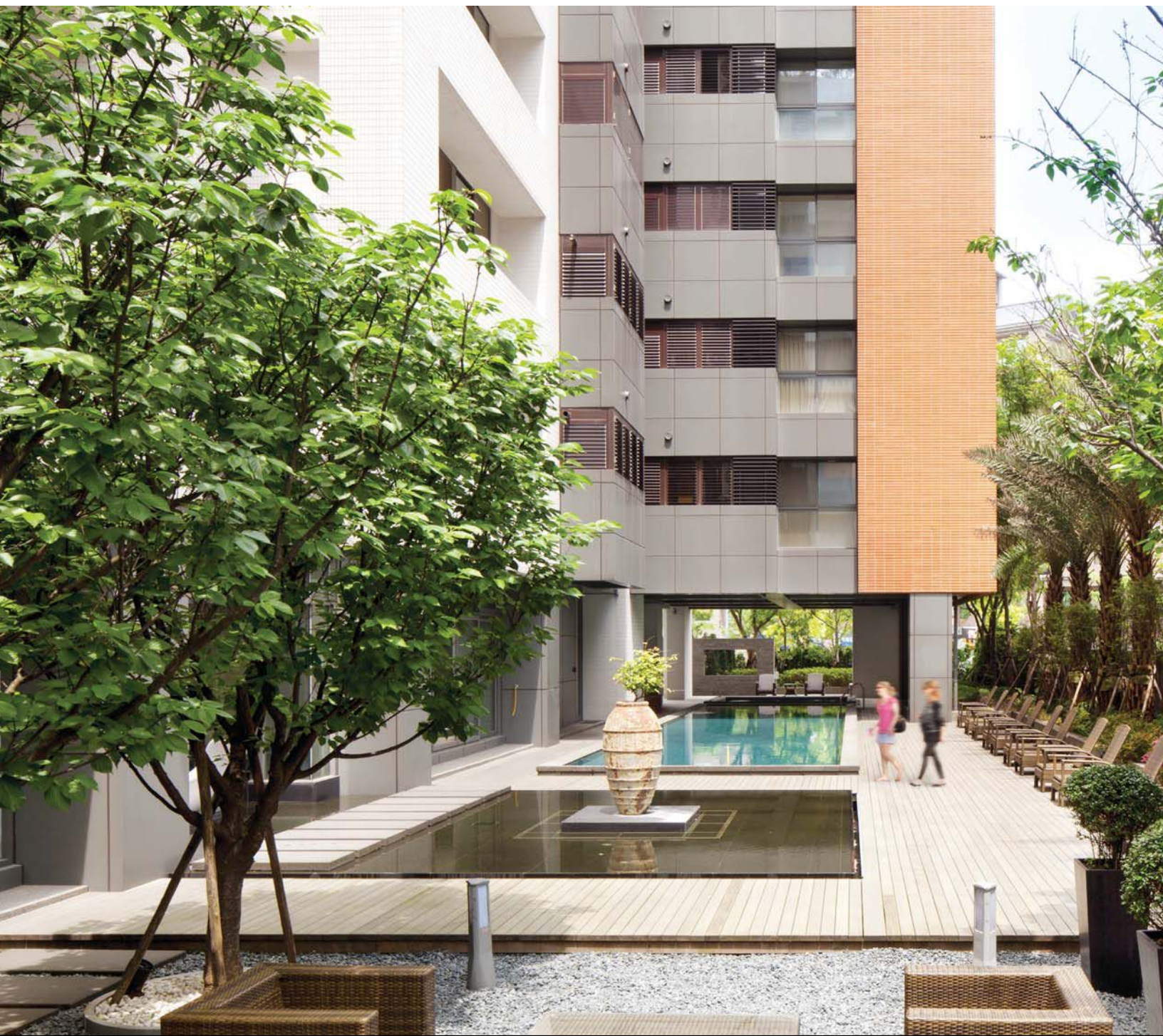
ON SITE Architect Vincent Snyder chose to clad the Urban Reserve house in high-quality S-1 Vermont slate because it is beautiful, low-maintenance, and durable, with a lifespan of up to 300 years if installed correctly.

To ensure that level of longevity, Snyder and the project's roofing contractor selected copper flashings and gutters that would stand the test of time and spec'd a solid wood substrate instead of plywood. They also carefully ventilated behind the shingles to

keep moisture from being trapped within the assembly.

By using it on both the roof and walls, the slate provided a seamless, sculptural look. "A perfect combination of durability and beauty," Snyder says.





ON SITE Transforming a structural component into a compositional one as well, architect Takashi Yanai exposed the buildings' concrete beam

structure in a handful of places instead of keeping it hidden behind finishes. "We think the results are subtle and sophisticated and not overly self-conscious—just enough to set our buildings apart from the

neighbors," he says. "Whenever we use indigenous materials or building components, whether ancient or modern, we try to take a fresh pass at the conventional application."

CATEGORY Multifamily
ENTRANT/DESIGN
ARCHITECT Ehrlich Architects,
Los Angeles



GRAND

Nankang Towers, Taipei, Taiwan

// Good scale, outdoor flow //

The Nankang Towers condominium complex brings laid-back Southern California living to Taipei, with open kitchens designed for entertaining and terraces that provide a strong indoor/outdoor connection. Ehrlich Architects collaborated closely with the Taipei-based architectural firm to achieve the breezy, light-filled design.

“We were surprised to see how receptive people there were to this concept, but at the same time there was a learning curve and a lot of back and forth,” explains Takashi Yanai, Ehrlich Architects’ design principal-in-charge. For example, he modified the American-style kitchens with a closed, vented area for wok cooking, which is popular in the region.

The two 16-story structures employ tested, traditional materials such as tile, granite, and glass in new ways. Yanai specced terra-cotta and white self-cleaning tile in a combination of colors and orientations to create a textural look on the exterior. He also incorporated sunscreen elements, photovoltaics, and discreet glimpses of the concrete beam structure itself as architectural features.

The judges appreciated his approach. “I like that instead of being apologetic about being big, the building embraces its verticality and has good proportions and color used in a way that give it good scale,” said one judge. “The different materials and planes lead to a more vibrant exterior.”

The most striking elements of the project, two glass-enclosed rooftop mechanical towers, house the structure’s water tanks because city water pressure is inadequate to service high-rise buildings. The architect chose to clad the towers in translucent glass that runs down through the buildings’ vertical circulation core. The glass is backlit at night, which creates a lantern effect, Yanai says.

Taipei residents have embraced the project—all units sold quickly for some of the highest prices in the city and two additional 25-story towers are under construction to meet demand.

“It should be noted that we were blessed to have a wonderfully enlightened client who recognized the value of having a foreign architect come in to collaborate with them,” Yanai says. “The project evolved in leaps and bounds through this kind of cultural exchange and discussion.” —J.G.

EXECUTIVE ARCHITECT

HCCH, Taipei, Taiwan

LIVING SPACE

128 units
ranging from 600 square feet to
2,200 square feet

CONSTRUCTION COST

\$400
per square foot

PHOTOGRAPHER

Lawrence
Anderson/ESTO

GRAND**Somerset Pool House,
Chevy Chase, Md.***// A small-town hot spot //*

The project team “took a banal structure and gave it new life,” said the judges of Somerset Pool House, which underwent a deft renovation that gave it “craft and form and a massively upscale look in one fell swoop.” The jury was especially impressed by the modern take on a shed roof.

When it came time to renovate the town’s public pool house, architect Mark McInturff didn’t have just one client—he was working with a village of highly informed and vocal citizens, a building committee, and the local jurisdiction, who all weighed in with plenty to say. There were environmental considerations, too. The pool house, built half a century ago and falling down, was in a ravine near a stream—a sensitive site that could withstand minimal demolition.

“If the building weren’t already there, we couldn’t have built on the site,” admits McInturff, who adds that “the greenest building is the one that’s already there.” The options were either to stop using the structure or build a new one. To keep earth disturbance to a minimum in this critical watershed area, the design team reused the original building. Newly constructed wetlands help protect the stream by capturing surface runoff. Much of the newly built hardscaping uses open decking or porous pavers to maximize the amount of permeable surface in the community center.

A painstaking remodel of the building itself—an existing pool house dating from the 1960s—ensued. Existing 6x12 timber roof frame members were salvaged during demolition; these were reused for an entry sign and a new shade pavilion. The project team opened up the space to make it light-dappled and breezy so it functioned as “one big porch—a gathering place, and not just a bunch of bathrooms and showers,” says McInturff. Using off-the-shelf lumber, standard roof trusses, and exposed stainless steel fasteners helped contain costs (the project came in under budget). In this case, the least pricey solution also turned out to be the best.

The judges also appreciated how beautiful the pool house looks lit up come evening. Both night and day, though, Somerset Pool House has become the place to be. McInturff and his team are proud to report that if you want to grill dinner and sit outside with friends and neighbors on a Saturday night in summer, nabbing a table on the patio will take some doing. —A.A.

CATEGORY Community Recreation
Building or Clubhouse

**ENTRANT/ARCHITECT/
INTERIOR DESIGNER** McInturff
Architects, Bethesda, Md.

BUILDER Therrien Waddell,
Gaithersburg, Md.

LANDSCAPE ARCHITECT
Lila Fendrick Landscape
Architects, Chevy Chase, Md.

SITE 2 acres



CONSTRUCTION COST

Withheld

PHOTOGRAPHER Julia Heine

ON SITE From Memorial Day to Labor Day is high season for this carefully restored pool house, just outside the city limits of Washington, D.C. The shed roof

and its deep overhang extend beyond the building's original walls to provide protected and shady areas. The deep roof overhangs also were designed with the future in mind: It's now possible for nano glass walls to

be installed so that winterization of some of the spaces of the building—which went from neglected to hugely popular—would eventually be possible.





ON SITE Many of the residents at Archer Studios don't own cars and rely on public transportation to get to work. Nevertheless, the project had to satisfy parking

ratios imposed by the city, even though they're typical of higher-income housing. The challenge, says architect John Sheehan, was to design a parking place without letting the cars overwhelm the site. "We shoved

them in back and hid them from street view using a thin veneer of active uses like the meeting room, lounges, lobby, and offices," says Sheehan.

CATEGORY Affordable or Workforce Housing

ENTRANT/ARCHITECT/INTERIOR DESIGNER Studio E Architects, San Diego



GRAND

Archer Studios, San Jose, Calif.

// Workforce housing, market
rate looks //

Near San Jose airport and nearby public transportation, Archer Studios fills an increasingly urgent need: workforce housing in Silicon Valley, one of the highest-ticket real estate markets in the United States. And if that weren't impressive enough, there's more: It may be subsidized, but Archer Studios has the appeal of a nifty new apartment complex. "Income-restricted housing that doesn't look like it," with color, texture, and good-looking doors and windows, said the jury of Archer Studios, who added that the project's quality and details are "as good as in any market rate project."

The project contains one two-bedroom apartment and 41 studio apartments, each with a living, dining and sleeping space, a kitchen, and a bath. Many of the micro-flats also have a balcony or a patio.

The total area of the studios had to top out at just under 300 square feet. To design them, architect John Sheehan and his design team got to work studying cruise ship cabins and the boutique hotels and pied-à-terre apartments of Europe. Unlikely—make that counter-intuitive—inspiration, but "everything has to count," says Sheehan of those compact and efficient places. When it comes to single-room occupancy dwellings, also known as SROs, "you can't waste space," he explains. "You have to make it feel like a great place to be, not an inexpensive place to live."

Taller wall studs were spec'd for the units because the project team pushed for 9-foot ceilings. "A few more inches makes huge difference in a small unit," Sheehan insists. Quality finishes help make a difference, too. Kitchen counters are made of handsome stone composite ("Nothing holds up better over the long haul," says the architect), and aluminum windows, rather than vinyl ones, were chosen for their simple, modern appearance.

Sheehan also credits developer Dan Wu of Charities Housing, who splurged on a fountain for the public outdoor space. It's a smart move that adds value and dignity to the income-restricted project.

If you need further proof that Archer Studios looks anything but subsidized, consider this: as construction was wrapping up, Sheehan recalls, "strangers were driving by and inquiring about the sales prices for the cool new condos." —A.A.

BUILDER Johnstone Moyer,
San Mateo, Calif.

DEVELOPER Charities Housing
San Jose, Calif.

LANDSCAPE ARCHITECT Ivy
Landscape Architects, San Diego

PHOTOGRAPHY Jeff Peters/
Vantage Point Photography

GRAND**Tres Casitas,
Boulder, Colo.***// Smart land strategy,
forward-thinking //*

Is Tres Casitas The Commune 2.0? At the very least, it's a look at what's to come as America ages and the need to live near friends and neighbors in a place that's walkable assumes increased importance. This is hardly housing for old folks as most of us imagine it. The jury praised the "super-dramatic interiors," open corners, and indoor-outdoor flow of the homes.

Builder Rich Sands, owner of Hammerwell, was thinking of his own need to downsize and live near downtown when he bought a foreclosed lot. Thanks to the oddities of zoning on the western edge of Boulder, Sands and architect E.J. Meade, principal of Arch11, realized that three units could fit on the 9,800-square-foot lot. Boulder's floor-to-area (FAR) ratios usually demand 6,000 square feet of lot per unit. The total square footage of the units couldn't exceed 4,900 square feet, so the duo came up with townhomes measuring 1,600, 1,700, and 1,800 square feet.

Sands, his wife, and another couple went in. They quickly found a third buyer, a young single woman who travels frequently for work and who was looking for a place where she could feel safe, along with just the balance of privacy and community that Meade and Sands had in mind. She also happened to be a fan of the duo's work.

Whether empty-nesters, downsizers, or busy professionals, all three homeowners wanted a low-maintenance house. The materials were limited to glass, stucco, metal siding, and a wood rainscreen. "There's nothing that we can remove from the design that wouldn't change the entire character," points out architect James Treadwell, another principal at Arch11 who also worked on the project.

Having collaborated for almost 20 years, Sands and Meade had enough of a following that buy-in on design from the homeowners was easy. What took some effort was ensuring the homes were exactly equal in quality, taking advantage of the site's mountain views—a valuable commodity—and maximizing sunlight while dealing with zoning restrictions and the needs of three separate homeowners of different generations.

The southwest corner of each unit folds upward to gain views and daylight, creating a crease in the flat roof (the "flat" roof's very slight pitch keeps water from pooling). The homes read as a continuous dwelling, though, and they generate lots of interest from passers-by, says Sands, who adds, "I could have sold all these units five times over." —A.A.

CATEGORY Townhomes and Duplexes**ENTRANT/ARCHITECT/
INTERIOR DESIGNER**

Arch11, Boulder, Colo.

**ENTRANT/BUILDER/
INTERIOR DESIGNER**Hammerwell Incorporated,
Boulder**LANDSCAPE ARCHITECT**

R Design, Denver

LIVING SPACE 1,600 to 1,800
square feet per unit

SITE 9,800 square feet

CONSTRUCTION COST

\$300 per square foot

SALES PRICE \$1 million to \$1.2 million per unit

PHOTOGRAPHER Raul J.

Garcia

ON SITE Each house has siding of square-edged red cedar boards in a rainscreen-style application. The rainscreen appears to float on the exterior,

thanks to a space between the cedar siding and the actual box, around which the home's weatherproof membrane wraps. Half-inch gaps between each of the boards allows them to breathe, flex, and

read independently. Air space between siding and membrane results in a tight envelope that breathes well and dries thoroughly.



MERIT AWARDS



MIMA ROOF TERRACE COMMONS, NEW YORK

Category Outdoor Spaces
Entrant/Landscape Architect HM White, New York
Developer The Related Cos., New York
Architect Arquitectonica, New York
Structural Engineer Rosenwasser/Grossman, New York

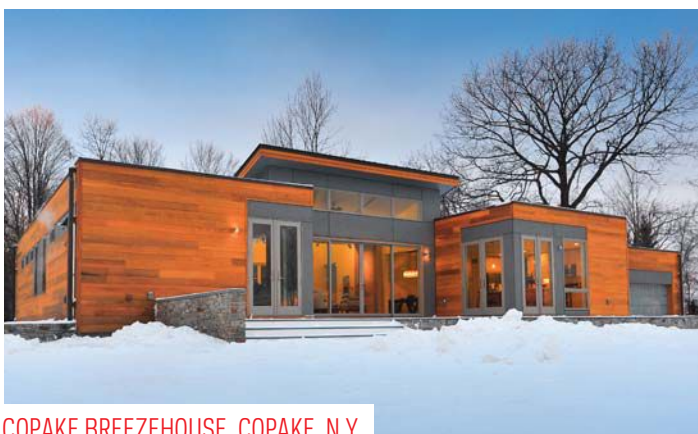
Site 9,000 and 5,4000 square feet
Average Rent \$111 per square foot
Construction Cost \$140 per square foot
Photographer Aaron Booher, HM White



ICE CYCLE HOUSE, BUFFALO, N.Y.

Category On the Boards
Entrant/Designer Matt Burgermaster, MABU Design, Brooklyn, N.Y.
Living Space 2,600 square feet

Construction Cost \$110 per square foot



COPAKE BREEZHOUSE, COPAKE, N.Y.

Category Modular/Prefab
Architect/Builder Blu Homes, Waltham, Mass.

Living Space 2,320 square feet
Construction Cost \$231 per square foot
Photographer Jeff Smith Photography



MOUNT VERNON TH, HOUSTON

Category Duplexes and Townhomes
Entrant/Architect Collaborative Designworks, Houston
Builder Grosvenor Custom Homes, Houston

Square Footage 2,474 to 2,562 square feet
Lot Size 0.14 acre
Photographer Benjamin Hill Photography



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Clear finishes undergo a similar multi-step process. Each individual wood piece is sanded, clear-coated and oven-cured, then sanded and clear-coated a second time before assembly.

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Factory-applied finishes have an environmental benefit as well. All of Marvin's finish work is done using state-approved procedures to contain volatile organic compounds (VOCs). The company's products contain no volatile hazardous air pollutants (VHAPs) and they use a waterborne acrylic enamel that's more environmentally friendly than solvent-borne materials. Since these interior finishes are factory-applied, building professionals can leave it up to Marvin to take care of the entire process.

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MATCHBOX HOUSE, ANN ARBOR, MICH.

Category Affordable Green Home
Entrant/Builder Green Building Services, Southfield, Mich.
Architect Bureau for Architecture and Urbanism, Palo Alto, Calif.

Structural Engineer Johnston Design, Clarkston, Mich.
Living Space 1,740 square feet
Cost \$210 per square foot
Photographer Maylone Photography of Architecture



THE CORNER, MISSOULA, MONT.

Category Multifamily
Entrant/Architect/Builder/Landscape Architect/Interior Designer Eric Hefty & Associates, Missoula, Mont.
Site 4,723 square feet (commercial) and 7,608 square feet (parking)

Average Cost of Home \$310,000 to \$420,000
Density 48 units per acre
Construction Cost \$262 per square foot
Photographer Mark Bryant Photographics



ELEVATION AT ALMA PLAZA, PALO ALTO, CALIF.

Category Production, Semi-Custom, or Spec, Less Than 3,000 Square Feet
Architect Dahlin Group Architecture Planning, Pleasanton, Calif.
Builder DR Horton, Pleasanton

Interior Designer Creative Design Consultants, Costa Mesa, Calif.
Size 2,259 to 2,312 square feet
Construction Cost \$92 square foot
Photographer Christopher Mayer



MOUNT RAINIER MIXED-USE TOWN CENTER DEVELOPMENT PLAN, MOUNT RAINIER, MD.

Category Urban or Community Planning
Architect/Entrant Cunningham | Quill Architects, Washington, D.C.
Historic Architecture Consultant R. McGhee & Associates, Washington

Developer Maryland-National Capital Park and Planning Commission, Riverdale Park, Md.
Total Land Area 15.2 acres with approximately 100 residential units

THE JURY

Steve James, founding principal, DTJ DESIGN, Boulder, Colo. // **Rene Oehlerking**, marketing director, Garbett Homes, Salt Lake City // **Vincent Petrarca**, principal, Tonic Design | Tonic Construction, Raleigh, N.C.
Teresa Rosano, principal, Ibarra Rosano, Tucson, Ariz. // **Abe Sari**, principal, Horizon Builders, Crofton, Md.



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HOW TO GET ACQUIRED

6 pieces of the merger and acquisition puzzle.

By Teresa Burney /// Illustration by Heads of State

Patrick Neal of Neal Communities has what big home builders want to buy.

The veteran Florida builder, who painstakingly kept his business alive in the depths of the recession, has rekindled it into a bonfire that makes his business a poster child for what big builders that want to be bigger are looking for: outsized sales and orders, land in growing markets, and on-the-ground talent to turn that land into homes that sell.

Neal Communities was No. 64 on the 2012 BUILDER 100 list, delivering 487 houses and producing \$143 million in revenue, which Neal has been plowing back into more land. Plus, with roughly 11,000 lots in Florida in its portfolio, the company offers

potential revenue that inspires desire.

With home building reviving across the country, builders like Neal, in desirable markets and who are growing again, are getting multiple calls from potential merger or acquisition suitors. But Neal Communities is not for sale.

"We are making plenty of money and having lots of fun, so every time somebody calls I say 'No thanks,'" the owner says.

For every builder like Neal, with plenty of capital to grow on his own and who is gleefully anticipating the fun of riding the home building cycle up to the top again, there are others—queasy from memories of the steep crash—who want off the ride. Then there are those who want a better seat for the next ride up and need capital partners to get there.

FIND A MATCHMAKER

If you are serious about selling your company, contact a firm that specializes in builder mergers and acquisitions. These specialists can tell you whether your business is ripe for the taking.

Tony Avila, CEO of Builder Advisor Group—Avila Advisors, and Michael Kahn, managing partner of Michael P. Kahn & Associates, are two matchmakers. Builders looking for capital or looking to sell their businesses come to them for advice and services. Large national public home builders, under pressure from Wall Street to grow, also turn to Avila for intel, help, and introductions. Lately, both men have been busy.

Kahn, who says he has advised builders on 100 mergers since 1987, came out of retirement recently when some old friends called looking for matchmaking help. Since early 2012, he says public builders have made at least eight large acquisitions with a total estimated value of \$1.5 billion. “The floodgates have opened,” he says.

Avila stayed busy during the recession helping builders survive by finding sources of cash, often private equity investors. Now, with many of those short-term private investors ready to cash out, he’s working to find exit strategies for them through mergers and acquisitions or by selling stock to Wall Street investors as public companies.

“We are Match.com for builders,” says Avila. “Typically they are using our company as an intermediary. We have sellers coming to us saying, ‘Help, guide us through the process,’ and we have buyers coming to us saying ‘Show us the inventory where we can grow.’ We’ve got acquirers looking at at least 50 of the top markets in the U.S.”

According to Metrostudy, the research arm of BUILDER, the top 10 markets ranked by total closings are: Houston; Dallas/Fort Worth; Phoenix; Washington, D.C. metro

area; Atlanta; Austin, Texas; San Antonio; Las Vegas; Seattle; and Orlando, Fla.

SHOW OFF YOUR NUMBERS

Avila ticks off the three things that make desirable M&A targets: “Have a good inventory of land. Have a good management team. And have good future profitability.”

Builders ready to be acquired need to be prepared to show their cards and prove their worth. A strong profit and margin history certainly will abet their cause. Margins currently look good because builders are constructing homes on cheap land. But as land prices increase, margins easily could decrease, especially if home prices stall.

“Some builders are making very strong profits right now, but all the land they built on they bought distressed,” observes Peter Hazeloop, a vice president at Kahn’s company. “Buyers need to be comfortable that [the builders they buy] can find land in the future and make a profit on it.”

Having good business systems in place is important as well, including an accounting system that can easily show the company’s financial situation.

HAVE LOTS OF THE RIGHT LAND

There’s a higher demand than supply for land right now, so if you have lots of lots, you’re in a great position. Large builders, often with stuffed larders of cash, are looking to buy builders with established footholds in new markets, in markets they exited in the downturn, or in ones where they want to beef up their presence. Builders of interest are closing at least 200—and preferably 400 to 500—per year.

“To be a good target, you really have to have at least three years of lots owned or under contract. I don’t mean handshake agreements,” Kahn says.

Buyers also are looking for acquisitions in areas where employment and populations are growing, with the hope that growth will translate into strong housing demand.

The highest-demand markets are those that form a “smile” on the U.S. map, curving from Seattle through California, Arizona,

Texas, and the Southeast, then up to the Mid-Atlantic. Specifically, Avila sees high demand for mergers and acquisitions in the big markets of California, Arizona, Texas, Florida, and the Carolinas. But there also is demand for builders in smaller niche markets, such as Nashville.

ENSURE COMPATIBILITY

There are other less easily measured things that builder acquirers are looking for, such as compatible company cultures and good chemistry—especially if the management team is staying on.

“Chemistry is going to play a big part in it,” says Kahn. “Is the culture the same or could it fit in?”

“The idea is that they are going to be focusing their local knowledge and expertise to keep feeding the machine,” adds Jody Kahn, senior vice president of John Burns Real Estate Consulting. Kahn worked with her father, Michael Kahn, and his company to close more than 85 home builder transactions.

Jody Kahn says some builders want to buy local builders that have special skills they lack, such as urban infill or on-your-lot construction, or that are serving niches like active adults, first-time buyers, or affluent customers.

“The idea of running a parallel business in a market is pretty appealing,” she says, because the builder can boost sales within its existing footprint.

Patrick Neal, whose company is not for sale, cautions builders to be careful about what they may have to give up. “I would not prosper in a national builder environment,” he says. “I don’t want to retire. I like pushing the buttons. I don’t like calling to ask permission.” Plus, it’s a family affair: he’s got a wife, two sons, and a nephew who want to keep working for Neal Communities.

#MERGE MEISTERS

Got the urge to merge? Try these five deal whisperers who can get it done.

Tony Avila
CEO

Builder Advisor Group—
Avila Advisors
San Francisco
415-561-0600

Michael P. Kahn

Managing Partner
Michael P. Kahn & Associates
Palm Coast, Fla.
904-553-2202

Ivy Zelman

CEO/Principal
Zelman and Associates
New York
212-993-5840

Richard Moriarty

Managing director
and head of home building
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ACQUISITION IN SEATTLE



IF YOU CAN'T BEAT 'EM

CamWest-Toll Brothers deal combines local market know-how with public company capital.

As the recession wound down in 2010, Eric Campbell, co-founder of CamWest Development, saw opportunity—his land-constrained Seattle market was flush with distressed property at rock-bottom prices.

So Campbell, whose company survived the recession focusing on infill construction near Seattle's employment centers, took the deals to his banks, which said he'd have to put up 50 percent to get financing. For CamWest, that meant leaving land for hungry publics that considered moving into Seattle.

"We decided that if we were going to have to compete with public home builders, we would have to go out and get public money," recalls Campbell.

He spoke with Ivy Zelman of Zelman and Associates, an adviser to home builders, about taking CamWest public, and she said the firm had to be in more than one

market to attract public capital. But Campbell, who has young children, wasn't keen on having to travel to build in unfamiliar markets.

Zelman introduced CamWest to Toll Brothers, a builder of high-end homes like CamWest. Toll had deep pockets; it saw opportunity in Seattle and was looking for an access point. Toll Brothers' CEO Doug Yearley visited Campbell, who took him to see a for-sale mountaintop with views of Seattle and the Olympic Peninsula and the potential for million-dollar homes.

In 2011, Toll bought CamWest for a reported \$150 million. The merged company changed its name to CamWest, a Toll Brothers Co., taking advantage of CamWest's local reputation and Toll's well-branded national one. Campbell stayed on as Toll's Seattle division president.

Since the deal was consummated, CamWest has bought properties

Campbell had identified, including the mountaintop community, Belvedere.

"We are on a great growth pattern. Toll did a great job executing on the land" purchases, he says, and the division added 25 employees in 18 months. Most of CamWest's management team remains and the culture between the two builders has been a good fit.

"We both have a desire to build great communities, so at the end of the day, you have a fit because of that alignment," Campbell says.

There were some things Campbell gave up in the deal, such as the ability to make a decision without consult. He's also had to learn to manage up.

Campbell acknowledges that Toll might decide he's no longer needed at the company he founded. That's why, he says, it's important to strike a deal when you sell that's big enough to take care of you and your family if you are let go.

BE REALISTIC ABOUT WORTH

Usually builders don't say how much they sold their companies for, but Avila tells **BUILDER** that the last six builders his organization helped to sell went for multiples of 1.5 to 2.5 times book value, their assets minus liabilities. Where in that range a company fits depends on how much inventory it has, how much land and how many lots it controls, and what its future profitability looks like.

Hazeloop of Kahn's organization advises builders to be realistic about their value and not to expect to get the full purchase price at closing. Typically sellers are paid some at closing and the rest over a period of two or three years, with the amount contingent on whether the builders' results meet predictions and other thresholds.

A backloaded deal gives buyers some security that if the business doesn't perform as well as expected, they won't overpay. So sellers are incentivized to continue making as much money as possible.

Other conditions can be built into a contract. How the buyer and seller agree to treat

capital gains for tax purposes is always a point of contention, accountants say.

Likewise, the company's top executive usually signs on to stay for a two- or three-year period. Such agreements tend to include noncompete clauses that keep former owners and executives from working in that market—for themselves or for a competitor—for a certain period of time.

Because it's a possibility—and often certain—that the purchasing builder will decide it doesn't need you down the line, it behooves you to negotiate a selling price that offers a comfortable cash flow for some time to come. And based on past transactions, that's entirely possible.

"These are very, very large deals," says Michael Kahn. "These are \$100 million and above transactions. That's enough for their families, their children, and their grandchildren."

Jody Kahn said it's rare for CEOs not to serve out their entire employment agreement. However, she has heard of a few who were not offered employment agreements as part of the merger or acquisition because they weren't thought to be a good fit culturally. Plus, she said a few left early because of health or family issues.

GET A TUNE UP

With the M&A trend expected to last another year or two, Michael Kahn says there is time for builders who don't catch a big builders' eye now to groom themselves into more attractive targets.

"Some are ready right now and others need a little tuneup," says Kahn. "We have some that can be ready in six to 12 months, but they need some mentoring to be in the perfect position and to sell with a premium."

He is mentoring a company that expects to sell 150 homes this year and expects to move up to 250 next year when it plans to put the for sale sign up.

"There are those who are kind of on the

MERGER IN DALLAS



BUSINESS AS USUAL

Bloomfield Homes gains a partner and keeps its corporate culture.

Don Dykstra was looking for three things when suitors came calling at his land-rich, eight-year-old Dallas/Fort Worth-based home building company:

First was "to get a little money off the table," recalls the president of Bloomfield Homes. Dykstra and his wife owned the firm they started and he thought it was time to diversify their investments.

Second was "to partner with somebody who would allow us to continue to run it, to allow Bloomfield Homes to reach its full potential," he recalls.

Third was to continue providing opportunities for its employees, the builder adds.

The founder accomplished all three objectives in July when Sumitomo Forestry Co., a giant multinational Japanese company, bought half of

Bloomfield Homes from Dykstra and his wife. The deal, initiated by an introduction from Residential Strategies, had been in the works since December.

"They have left us in charge," Dykstra says. After the sale, he and Rich Ichikawa, CEO of Sumitomo Forestry, met with employees and contractors to assure them business would continue as usual.

Sumitomo Forestry bought half of Bloomfield, but didn't put cash into the business, Dykstra notes. But even part ownership by the 300-year-old company makes Bloomfield look better to banks. "The financial strength will allow us to be strategically more aggressive," he says.

That means Bloomfield, which assembled 3,500 entitled lots during the housing downturn, can develop that real

fence,” says Kahn. “They are not sure if now is the time to sell.”

But Kahn cautions these builders about waiting too long. “The time to sell is when everybody wants to buy. I think we are right in the middle of it now and it might go on for another year or two,” he says.

For builders who want to keep their management teams intact, selling sooner might be better because big builders are hungry for knowledgeable, experienced staff to run their operations in the new markets. As time goes by, these builders will have deeper benches and might be interested in only your land assets.

“So waiting is not necessarily the best thing either,” Kahn says.

Senior editor John Caulfield contributed to this report.

estate more quickly.

In 2012, Bloomfield ranked No. 79 on the BUILDER 100, with 402 closings and \$89 million in revenue. This year, the builder expects to close 600 houses—and that’s just in Dallas.

In Sumitomo, Dykstra thinks he has found the perfect fit for his company goals, but he notes that this is an unusual arrangement.

“Most American companies are not comfortable with a 50/50 culture,” he says. “For the Japanese, their desire is that you are going to work together to provide a solution for everybody, consensus-based management.”

Sumitomo also has another attractive strong trait, says Dykstra: patience. “They are a huge timber company and over 300 years old. When you plant forests as part of your business, you have a long-term perspective.”

SELL OFF IN CHARLOTTE



PICKING THE BATTLEGROUND

Westport Homes hands off non-core land to concentrate on home.

In 2012, Steve Dunn, then president of Indianapolis-based Timberstone and Westport Homes, was looking longingly at opportunities for land buys in the Midwest. However, like many privately held builders, his company lacked cash and lenders willing to fund acquisitions.

Meanwhile, Ryland Homes was craving a bigger presence in North Carolina. The publicly traded builder had cash, but it needed lots. Dunn, whose Timberstone Homes was building in Charlotte and Raleigh, N.C., suggested to Ryland executives that each had what the other desired, and a deal was born.

Ryland Homes bought all operations of Timberstone Homes—the ninth biggest builder in Charlotte—gaining 870 lots and homes, 154 others under contract, plus 17 models.

“This really puts us on the map; it’s a popular place and where a lot of builders want to be,” Drew Mackintosh, vice president of investor relations and communications for Ryland, told BUILDER at the time.

The deal also gave Dunn what he wanted: cash to buy lots and houses where competition from

large public builders like Ryland was not as intense as it is in the Raleigh market.

“As a private builder, we have limited availability of capital as opposed to some of the public builders,” said Dunn at the time of the Ryland deal. “We are looking long term, seeing that our ability to compete on land and lots in the Midwest is a better opportunity than in Raleigh [and Charlotte].”

The strategy has proved successful for the company. Westport Homes is expanding in Columbus, Ohio, and in Fort Wayne, Ind., and Indianapolis, where it has about 25 communities with model homes and another 15 communities where it has lots. While the builder actively is looking for lots in Columbus, it is stocked up in Fort Wayne and Indianapolis for the next two to three years.

Concentrating on the Midwest market also has made it easier for Westport to manage its personnel because the builder didn’t also have to staff a location in farther-away North Carolina.

“Everything has worked out the way we anticipated and wanted it to happen,” Dunn says.

BY DESIGN

These design-oriented visionaries are changing the way we build homes and communities.

By Jennifer Goodman /// Photography by Ian Allen

From innovative site planning and downsized floor plans to a commitment to bringing superior design to middle-class America, this year's three inductees into BUILDER's Wm. S. Marvin Hall of Fame for Design Excellence—architect Ross Chapin, builder Bert Selva, and architect Adele Chang—have dedicated their careers to creating stunning housing.

Ross Chapin Chapin's fresh approach to community building resonates with developers, builders, and buyers across the country. His "pocket neighborhoods" encompass groups of six to eight houses with large porches opening onto a shared green space, which has neighbors relating on a first-name basis. His homes emphasize livability over size, a direct contrast with the McMansion.

"Trends are showing that baby boomers and millennials are shifting away from oversized homes," Chapin says. "In an era of high

energy prices, they want smaller, energy-efficient homes in walkable neighborhoods."

Chapin's projects provide a standard of living that goes deeper than granite countertops and two-car garages, his supporters say. "What's most important is the quality of relationships that a community fosters, and the sense of connection with nearby neighbors," Chapin says.

Bert Selva Selva is obsessed with innovation. His California-based company, Shea Homes, is known for setting design trends instead of following them. The production firm has become one of the country's most forward-thinking home builders by creating demand for new offerings that later become mainstream. For instance, Shea helped engineer the switchover from formal living rooms to open-space floor plans, and it was one of the first production builders to offer outdoor rooms with amenities such as kitchen appliances and fireplaces.

"We look at what's missing in the market and where we could fill a void, even if it's just a twist on what we're already doing," he says.

Adele Chang Chang is passionate about designing houses for the way people really live. She is also dedicated to meeting the needs of her clients, which include many large production builders and developers. They appreciate her ability to discern their needs and then turn those conversations into award-winning creations.

While some architects might turn up their noses at designing for the masses, Chang relishes it. "I like working with companies who are building for the 99 percent, a group that is often left out by the architectural establishment," she says. "I'm proud to be working with builders who are building for the middle class."

 For expanded coverage, visit go.hw.net/bol2013-hall-of-fame



ROSS CHAPIN

Ross Chapin
Architects
Langley, Wash.

DESIGN TIPS

- Do away with rooms that get used only a few times a year, such as the formal dining room or living room. "A smaller house can feel more comfortable when more of it is actually livable."
- Include a work room next to the kitchen for projects, laundry, a home office, mail, and storage. "Take a look at how your clients live and design around that."
- Think about little touches that can make a home feel special. Add a floor-to-ceiling bookshelf in a hallway or a spot for a window seat on the stair landing. "Small things can make a home more personable."
- Window placement is key for a smaller floor plan, Chapin says. Place units on opposite sides of a room to make it feel more spacious.
- Don't overlook outdoor spaces and shared areas; they should be thought of as rooms of their own. "With slightly snug houses, the porch, gardens, and shared common buildings get used more, which fosters connection among neighbors," he says.

BERT SELVA

Shea Homes
Walnut, Calif.

DESIGN TIPS

- Home buyers want a space that grows and changes to meet their needs. "The old architecture of very compartmentalized rooms doesn't provide a lot of flexibility."
- Bright, colorful finishes are in for cabinetry and fixtures. "For every element that goes into the house, it feels like it's getting a bit more bolder, more like a resort or spa," he says.
- Professional-style kitchens are must-haves for homeowners who love to cook.
- Energy-efficient features are a differentiator for Shea, but buyers still hesitate to pay top dollar for them. "If you have two homes priced the same and one has green features, that one will be chosen every time," he says.
- Single-story homes are big in the active-adult market.
- For multiple generations living under one roof, Shea has responded with dual master suites or secondary bedrooms with private baths and sitting areas.



A black and white portrait of Adele Chang, a woman with short dark hair, wearing a striped blazer over a white top. She is looking slightly to the left with a gentle smile.

ADELE CHANG

Lim Chang Rohling
& Associates
Pasadena, Calif.

DESIGN TIPS

- Understand the target market and design for those demographics, whether it's young urbanites or retirees.
- Keep the design simple but inject memorable spaces wherever possible.
- When working with custom home clients, find out how the couple or family lives in a home.
- Help clients communicate their vision for their new dwelling.
- Have fun with design and try new ideas and details.
- For infill projects, be sensitive to the context of the location and have a clear understanding of the relevant codes and ordinances governing the site.

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Build Smart

How-To	Page 90
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Pole Position

Local utilities set the rules for temporary jobsite power, but you'll need a building department inspection before you get the juice. Here's a look at the basic requirements for a pole-mounted setup.

1. Sturdy Pole

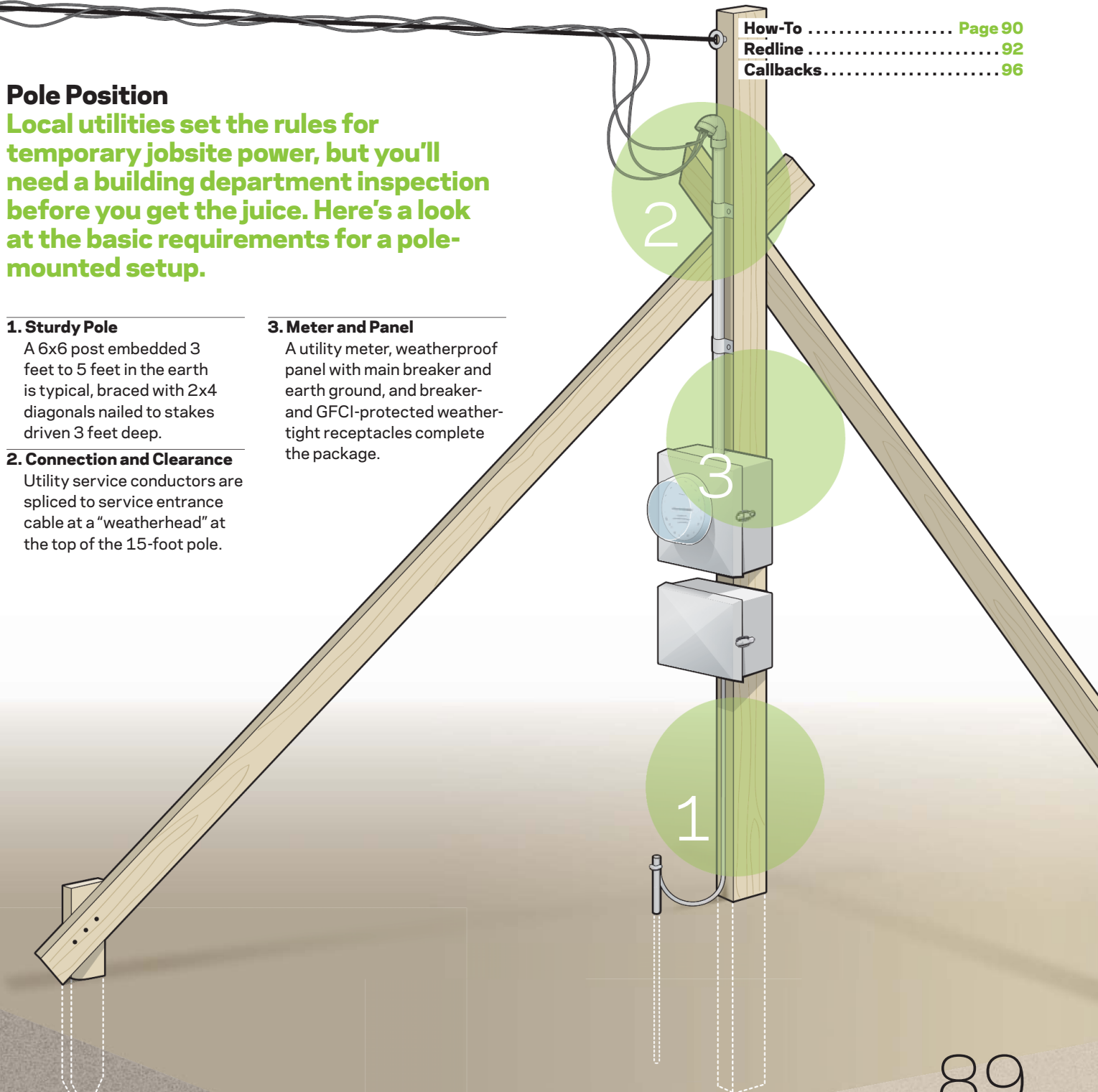
A 6x6 post embedded 3 feet to 5 feet in the earth is typical, braced with 2x4 diagonals nailed to stakes driven 3 feet deep.

2. Connection and Clearance

Utility service conductors are spliced to service entrance cable at a "weatherhead" at the top of the 15-foot pole.

3. Meter and Panel

A utility meter, weatherproof panel with main breaker and earth ground, and breaker- and GFCI-protected weather-tight receptacles complete the package.



HOW-TO

Building a Conditioned Crawlspace

Here's how the pros build an unvented crawlspace—with insulation, vapor barrier, and drainage.

For decades, state building codes required crawlspaces to have sidewall vents, supposedly to remove moisture from the space. But research showed that venting didn't really work for drying out crawlspaces, especially where there was no good vapor barrier on the floor of the crawl.

Venting even can make moisture problems worse by bringing hot, humid outdoor air into contact with the cold ground or with the cold floor of an air-conditioned upstairs. And vents can impose an energy penalty: It's hard to air seal a first-floor deck, so crawlspace vents tend to open up a highway for outdoor air into the heated or cooled living space.

Building scientists have developed (and codes have approved) a workable prescription for a sealed, conditioned, and insulated crawlspace. In essence, this method treats the crawlspace like a short basement, with sidewall insulation, an effective vapor barrier, exterior perimeter drainage that protects the space from rainwater and groundwater, and an interior drain in case there's flooding from a broken pipe or other accidental source. Jeff Tooley, owner of the Healthy Building Co. in Bear Creek, N.C., described the method in a hands-on story in our sister publication, the *Journal of Light Construction*. — TED CUSHMAN



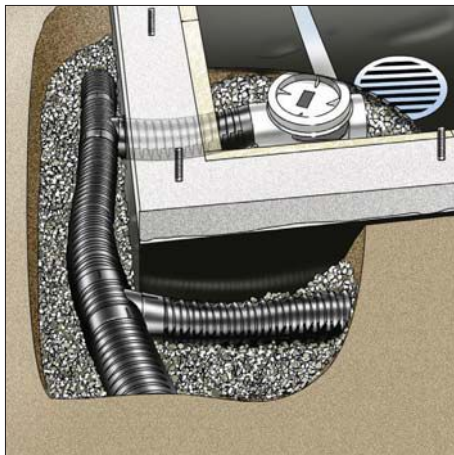
1. Install a Vapor Barrier

A continuous 12-millimeter poly vapor barrier, sealed at the joints with durable waterproof mastic, keeps ground moisture out of the crawlspace.



2. Insulate Side Walls

R-11 or better fire-rated foam insulation fastened to the foundation walls brings the crawlspace within the home's thermal envelope.



3. Supply Drainage

Perimeter foundation drains should be linked to an interior floor drain sealed to the poly vapor barrier—with a backflow preventer so the drains can't flood the space themselves.



4. Supply Conditioned Air

A small fan and duct blowing conditioned air into the space from the first floor keeps the crawlspace at an equilibrium with the occupied space of the house.



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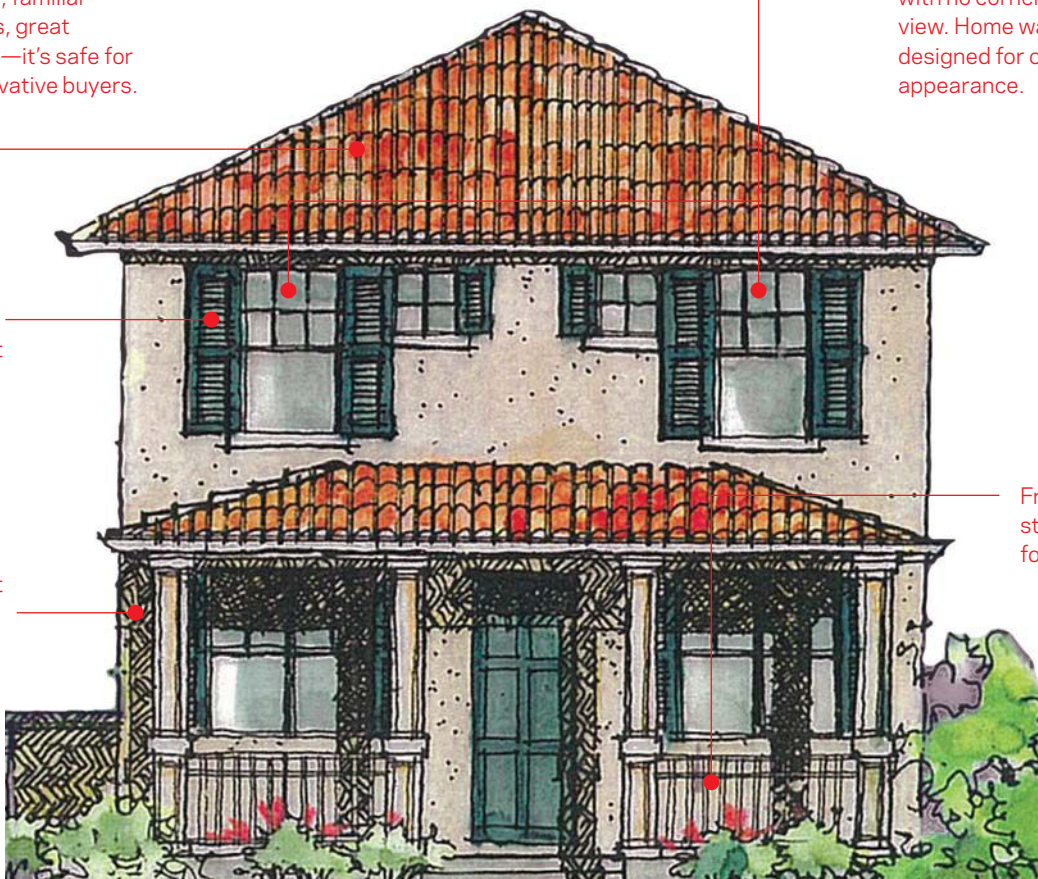
Symmetrical roofs, windows, and details reflect the styling of decades past. Classic, familiar—and yes, great looking—it's safe for conservative buyers.

Foursquare window pattern reflects center hall plan with no corner view. Home was designed for outside appearance.

Window shutters are ornamental, not functional.

Massing is solid, square, and doesn't invite landscaping to be integrated.

Front porch feels staged—it isn't built for outdoor living.



Tried and True The classic foursquare offers familiar and widespread appeal in markets all over the country. It also reminds many buyers of the home they grew up in, and that's not always a good thing.

REDLINE

Moderated Modern

A softer contemporary style attracts a wider market segment.

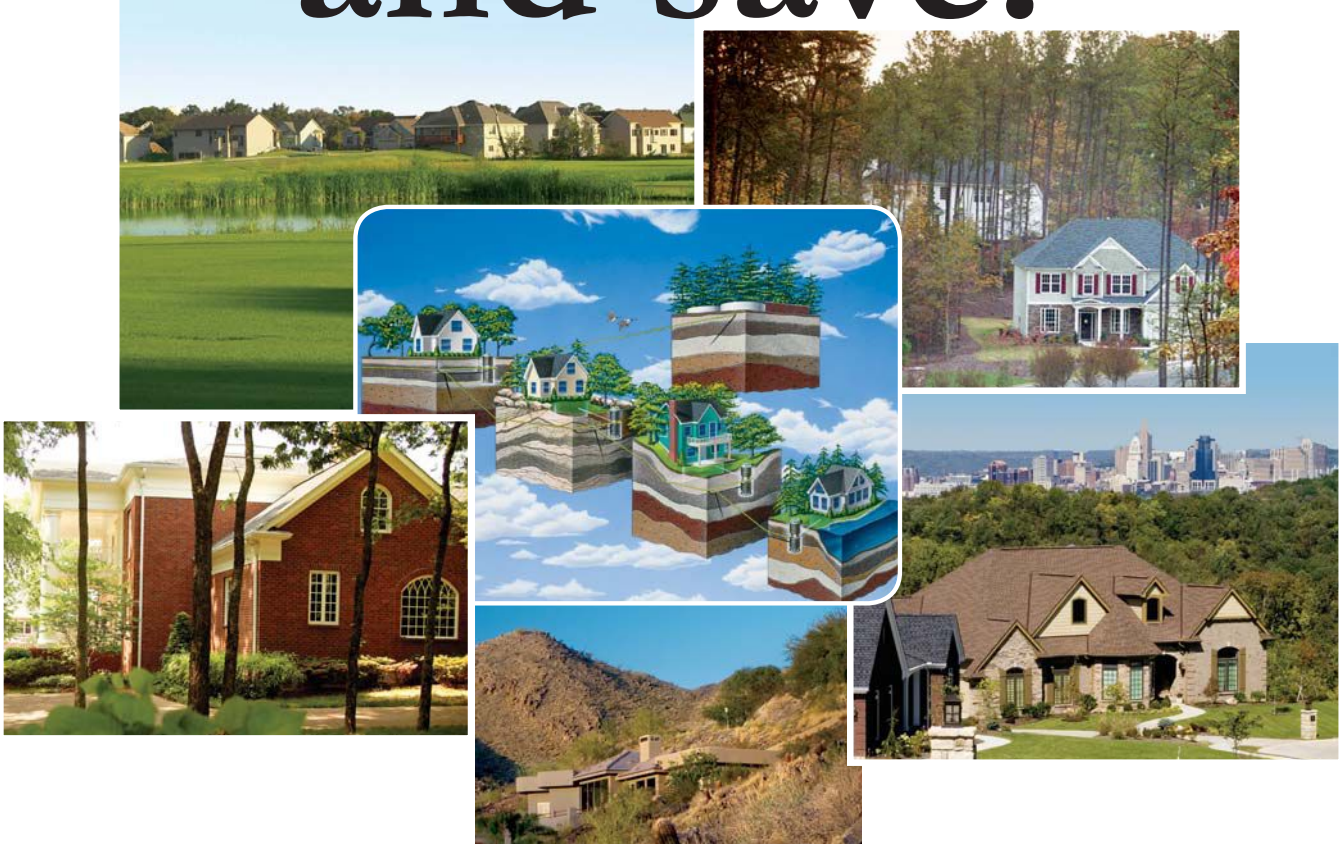
In production housing, requests for contemporary design present a prickly problem. How to deliver something innovative, but not too far out, with broad market appeal?

We faced just that riddle recently for a community in Denver. Buyers from the suburbs wanted to live in a loft downtown but couldn't afford it. Others wanted to be outside downtown but wanted a home that in no way resembled the Colonial they grew up in.

To satisfy the demand for modern with less edge, we revised the foursquare that's classic to Denver and applied a modern face using flat and wedge rooflines (*see page 94*)

Courtesy DTJ DESIGN

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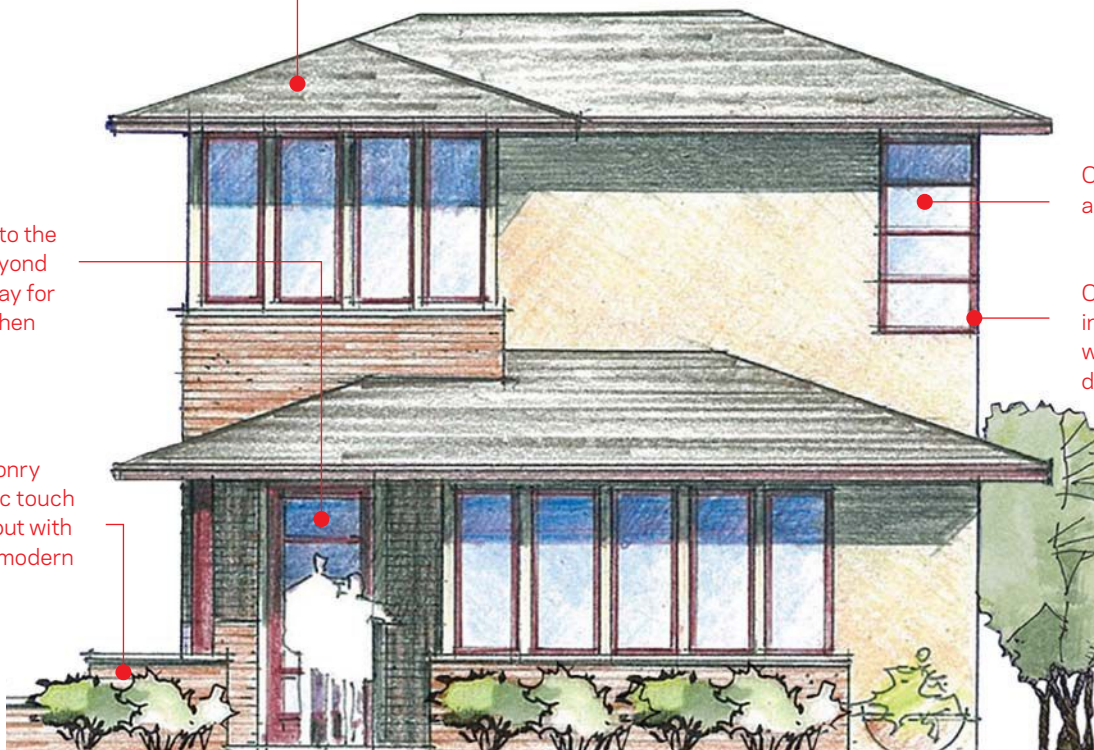
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Corner entry allows views to the courtyard beyond and makes way for plenty of kitchen windows.

Vertical masonry adds a classic touch to the entry, but with mid-century modern styling.



Corner windows admit more daylight.

Color is used, but in subtle ways, on window trim and details.



Q Steve James is founding principal of DTJ DESIGN in Boulder, Colo.
sjames@dtjdesign.com

and contemporary patterns of block and stucco. At first, buyers loved the revisions. But the super-modern elevations? Too edgy.

To soften the edge, we kept the classic lines of the foursquare. But we made the windows bigger, and put a glassed-in kitchen at the front of the house. (Cheaper, more energy-efficient window packages continue to make this easier.) The new homes are filled with light and expand indoor-outdoor living through a generous side courtyard.

The first-floor roof is like the original foursquare, but by enclosing part of the porch, a modern home looks friendly to the street.

Mid-century homes often have lower ceil-

Hip to be Square To soften the modern edge, the foursquare's width, height, roof lines, and porch are maintained. But windows are bigger and crisper elements are used.

ings, but today's buyers expect higher ones. This raises the roof 3 feet and throws the elevation out of whack. To solve that, we designed tray ceilings on the second floor that are built into the truss so the plate height doesn't have to be changed.

The homes are selling well and the transitional elevations are most popular by a 2-to-1 margin. With modern floor plans and moderated styling, we've hit the nail on the head. **B**

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CALLBACKS

Fixing a Wet Crawlspace

Some vented crawlspaces work just fine. For the rest, here's the fix.

Throughout the Mid-Atlantic states and the Midwest, the raised floor construction style is a common alternative to a slab foundation. You set the first-floor frame on posts or on a perimeter wall of block or poured concrete, and then frame the rest of the house from there.

But under that raised floor, problems can occur. If you leave the perimeter open, the space may be dry—but it's cold. Close the perimeter with a continuous stemwall of block or concrete and the space may be warmer, but all too often, it's also damp.

Code requires venting in a crawlspace perimeter wall. The idea is that the vents, in combination with a ground vapor barrier, might keep the space moderately dry. And in many cases, that works. When it doesn't work, though, there can be trouble: moisture, mildew, and even structural rot.

When a crawlspace is too damp, more venting is unlikely to work. What does work is to retrofit the crawl as a sealed, conditioned space—but only after you've sanitized it and dried it out (see page 90 for how to build a conditioned crawlspace). Contractor Jeff Tooley described one such job in our sister publication, the Journal of Light Construction ("Fixing a Wet Crawlspace," JLC, August 2004). This was one of the worst crawlspaces Tooley had ever seen—but the simple fixes that worked on it also will work well on milder cases. — TED CUSHMAN

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Problem



Groundwater and Humid Air

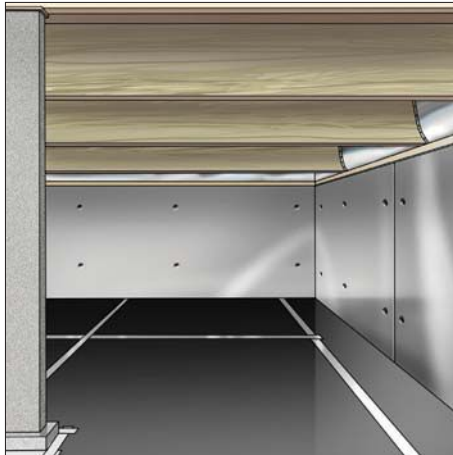
Venting can keep a crawlspace dry if the ground is already dry, and if the outside air is dry, too. But where both ground and air are moist, crawlspaces quickly become mold factories and bug habitats. In bad cases, structural rot may attack the framing.

Solutions



Clean It Up, Dry It Out

Where mildew and water-loving bugs have taken hold, scrub the underside of the frame with water and a borate solution (nontoxic to humans and pets but effective on the problems). Then lay down temporary poly and dry out the structure with a dehumidifier.



Seal It Up

Once the crawlspace framing has been thoroughly sanitized and dried, apply the same methods as with a conditioned crawlspace built new. Install a continuous sealed vapor barrier, proper drainage, insulation, and a supply of conditioned air.

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NATIONAL BEAT

NAHB Briefs

Credit Check

NAHB's newly published Survey on Acquisition, Development and Construction Financing for the second quarter finds that builders and developers are continuing to report modestly better conditions for project financing.

In the second quarter of 2013, the overall net tightening index based on the AD&C survey was -16.5, just slightly lower than the -20.5 reported in the first quarter of 2013. The index is constructed so negative numbers indicate easing of credit; positive numbers indicate tightening.

According to the survey, only 10 percent of NAHB members said availability of credit for land development had gotten worse in the second quarter, compared with 37 percent who said it had gotten better. Meanwhile, 9 percent reported worsening credit conditions for single-family construction, compared with 40 percent who said it got better.

For land acquisition and multifamily construction, NAHB members were about evenly split on whether credit conditions had improved or gotten worse.

Under One Roof

The International Builders' Show and the Kitchen and Bath Industry Show will be held together for the first time in 2014.

By Rick Judson

CHAIRMAN OF THE BOARD, NAHB
WASHINGTON, D.C.



I'm really looking forward to the upcoming NAHB International Builders' Show (IBS), and I urge you to start planning now to attend. For the first time since its inception seven decades ago as NAHB's annual convention and exposition, IBS will be co-located with another popular housing-related show in 2014—the Kitchen and Bath Industry Show (KBIS).

KBIS and IBS will be held simultaneously Feb. 4 to 6 at the Las Vegas Convention Center, creating the na-

tion's largest annual gathering of residential construction and design professionals called Design and Construction Week.

Co-locating the two shows is what I think of as a universal "win." It's more cost-effective for attendees and exhibitors who typically go to both shows or would have to choose between them. It also combines the exceptional networking opportunities associated with two great events at a single location, and the joint exhibition will showcase far more companies and products than either individual show.

To clarify what you should expect in Las Vegas, the NAHB and the National Kitchen & Bath Association will continue to operate and manage their respective events independently. Those who want to attend education sessions at IBS should register for IBS; those who want to attend programs at KBIS should register for KBIS. However, regardless of which event you attend, your show badge grants you access to both show floors. That applies to Expo passes, too.

Details about pricing and attendance (see page 100)



options are available at BuildersShow.com. And don't forget two important details: you get the best price by registering early and with all registration types, spouses pay only \$20 to attend.

Cutting-Edge Sessions In addition to the great exhibits, IBS offers cutting-edge educational opportunities in various formats to help attendees get ahead and stay ahead. For the 2014 show, we are streamlining our innovative "Building Knowledge" sessions from 90 minutes to 60 minutes so attendees can participate in more IBS activities. We also are introducing new education formats and will welcome 40 new industry experts to our lineup of speakers.

Other enhancements include:

- Expanded number of our advanced-level "master sessions."
- "Spotlight Sessions," in which leading industry experts discuss emerging trends.
- A new Tech Hub where attendees can plug in and participate in various education sessions.
- Expanded education opportunities on the show floor,
- Programs designed specifically for material dealers and suppliers and specialty trade attendees

The Centrals—designated areas for networking and education programs geared to particular specialties—return in 2014. These popular resources provide specific programming for people working in custom building, multifamily, sales and marketing, design, and 50-plus new-home construction.

Another great feature of IBS is the New American Home, which celebrates its 31st anniversary as the official IBS show house. Now under construction in nearby Henderson, the house is a desert contemporary showcasing innovative products, concepts, and construction techniques that can be replicated in new homes in any market or price range. The New American Home is co-sponsored by BUILDER and the NAHB Leading Suppliers Council, which is made up of nationally known product and service suppliers to the housing industry.

Finally, IBS provides our industry's premier networking opportunities. From casual gatherings to more structured events, IBS is the ideal place to meet the people you need to know to help your business thrive and grow.

Design and Construction Week promises to deliver great value to everyone who attends.

Among NAHB members who said AD&C credit conditions had continued to deteriorate in the second quarter, the most common problems were lenders simply not making new AD&C loans (76 percent), lowering the allowable LTV (or loan-to cost) ratio (73 percent), reducing the amount they are willing to lend (61 percent), and requiring personal guarantees or collateral not related to the project (58 percent).

Although commercial banks remain the primary source of credit for AD&C by a wide margin, private individual investors were cited in the survey as the primary source of loans for land acquisition by 24 percent of NAHB members, for land development by 16 percent, and for single-family construction by 10 percent. In each case, private individual investors were the second most common source of credit. Read full survey results at nabh.org.

BuilderBooks Benefits

NAHB BuilderBooks exists to help members grow their businesses and maximize their profits. BuilderBooks publishes books that have been specifically created to help members streamline their daily operations, better serve their customers, develop new strategies to safeguard their jobsites, and build and sell more homes. For example, our jobsite safety books have been used on sites across the country, helping members save up to \$7,000 for a single safety violation. For more information, visit BuilderBooks.com.

Home Innovation Research Labs

Quality Matters

As the market rebounds, now's the time to XYQ (examine your quality).

Many companies downsized during the housing market downturn, and now that the market is coming back, a lot of builders, remodelers, and trade contractors will find themselves trying to keep up with growing demand while maintaining quality and profitability. Before the market shifts into full gear, now is the best time to XYQ—examine your quality—to position yourself for the rebound.

The growth will require builders and contractors to get their staff levels back up, which means training and quality management challenges (and opportunities) ahead. Companies with a structured quality management system will be better prepared to take these on while simultaneously increasing customer satisfaction and profitability.

About 10 years ago, Home Inno-

vation Research Labs developed a quality management system and certification program that was modeled after the ISO 9001 quality management requirements, which have become the benchmark for other industries. Home Innovation used its understanding of the home building industry to customize that well-known quality management system to fit new-home construction in a way that emphasized continuous improvement and was easy to implement. Our system has proved effective: Both builders and trade contractors report increased customer satisfaction, reduced callbacks, improved builder-trade and trade-trade relations, and increased profitability as a result of the training and quality certification.

Hot Spot Technique: *It Works* One of the most beneficial elements of our quality management system is the hot spot technique for addressing recurring construction issues. To implement this, a com-

pany identifies its most frequent issue or callback. The next step is to understand the cause of the problem and then boil the solution down to simple instructions that can be delivered at brief jobsite toolbox talks. The discussion typically is paired with a one-page summary that includes two photos: one showing the wrong way and one showing the right way.

The talks are tied to efforts to inspect each job to ensure the hot spot issue is being addressed and done correctly. To be effective, this kind of training is done at least weekly. Some companies do it daily—it can make a big difference in information retention. With this kind of quality management activity, most jobsite problems can be eliminated in a month or less.

The hot spot technique is just one step in a company's quality roadmap. Home Innovation provides consulting services to assist builders and trade contractors in developing and implementing quality management systems.

Visit www.HomeInnovation.com if you are interested in improving your company's quality management.

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Plan View

DESIGN TRENDS

The Informal Era

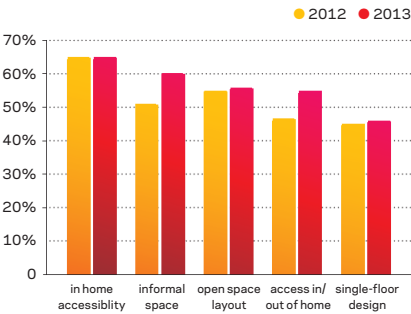
Give buyers the relaxed spaces they crave with these great plans.

Surely the biggest home design change of our time is the rise of casual spaces and the fall of formal rooms. You can point to many factors: the wild success of mobile technology (meaning people can entertain themselves anywhere in the home), the social status that kitchens have gained, and so on, but only one point really matters: the open layout is everything.

Check out the four terrific layouts below. Sure, the exteriors may be traditional, but the informal spaces inside couldn't be any more modern. There's not a single formal living room to be found. Instead, square footage is given where buyers want it: the kitchen and great room. And because more people are working from home, you'll find office space, too. For thousands more plans like these, head to www.BuilderHousePlans.com.

Relaxed, Accessible Spaces are Key

Demand for casual space is rising, according to architects.



Source: The American Institute of Architects Home Design Trends Survey

Kitchen Island Seats 6

Plan #HWP1600001



Total	2,506 Sq. Ft.
Main Level	1,925 Sq. Ft.
Second Level	581 Sq. Ft.
Bedrooms	3
Bathrooms	2 1/2
Dimensions	72'-6" x 68'-0"
Foundation	Crawlspace, Slab
5 sets	N/A
8 sets	\$1,095
Repro	\$1,685
CAD	\$2,595
PDF	\$1,685



Main Level

Second Level

Incredibly Open Layout

Plan #HWP1600002



Square Footage	1,973
Bedrooms	3
Bathrooms	2
Dimensions	88'-6" x 53'-6"
Foundation	Crawlspace
5 sets	\$910
8 sets	N/A
Repro	\$1,145
CAD	\$1,915
PDF	\$1,045



Plan View

Flexible Semi-Open Office

Plan #HWB1600003



Total	2,896 Sq. Ft.
Main Level	2,050 Sq. Ft.
Second Level	846 Sq. Ft.
Bedrooms	4
Bathrooms	3
Dimensions	40'-0" x 82'-0"
Foundation	Slab
5 sets	\$935
8 sets	\$975
Repro	\$1,150
CAD	\$1,990
PDF	\$1,150



Main Level



Alternate Layout



Second Level

Wonderful Flow

Plan #HWB1600004



Total	2,451 Sq. Ft.
Main Level	1,315 Sq. Ft.
Second Level	1,136 Sq. Ft.
Bedrooms	3
Bathrooms	2½
Dimensions	64'-0" x 47'-0"
Foundation	Unfinished Walkout Basement
5 sets	\$648
8 sets	\$736
Repro	\$879
CAD	\$1,430
PDF	\$879



Main Level



Second Level

Mark England

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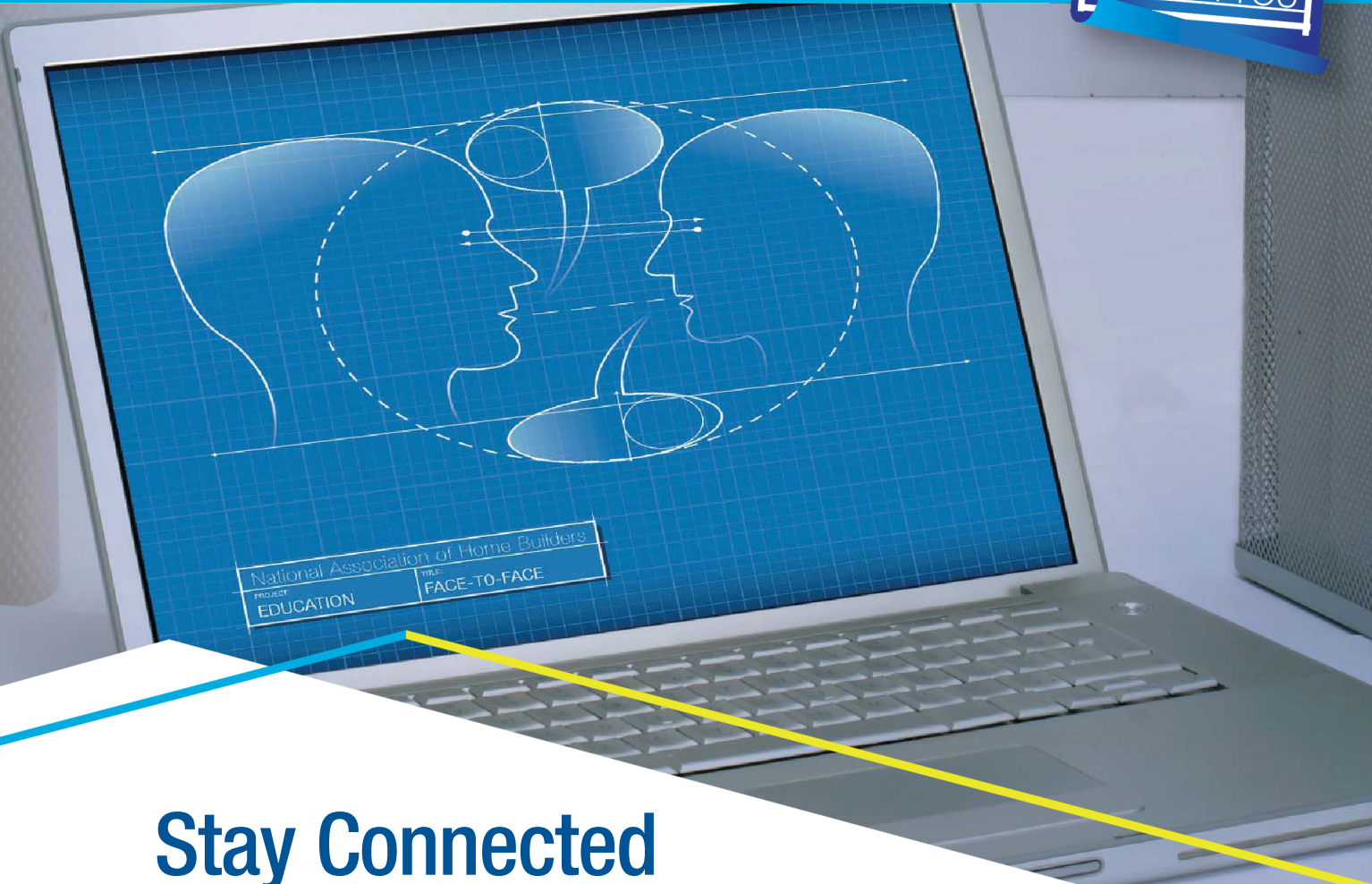
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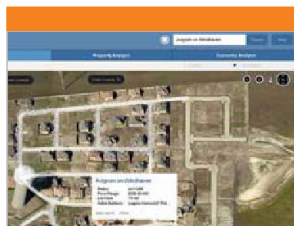
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Improved Process Resin beads for flame retardants are being produced with a less-toxic technology devised by Dow Chemical.

A Safer Fire Retardant

Dow Chemical's new technology could replace a standard chemical whose safety is under review by the EPA.

The National Fire Protection Association recently estimated that fire departments responded to 366,600 home structure fires per year from 2007 to 2011. Those fires caused an annual average of 2,570 deaths, 13,210 injuries, and \$7.2 billion in direct property damage.

Some fire retardants, or FRs, that are found in a number of building products are under regulatory scrutiny for their risk to human health.

This spring, the EPA began assessing 20 flame retardant chemicals, including Hexabromocyclododecane—better known as HBCD—which has been the only flame retardant compatible with the expanded polystyrene polymerization process and approved by regulatory agencies.

HBCD is one of four FRs getting full health risk assessments by the EPA. The regulation on the production and use of

chemicals and their impact by the European Union, dubbed REACH, already mandated HBCD's phase out by August 2015.

While the EPA hasn't released an official phase-out date, some North American manufacturers are gearing up for that eventuality. One company, the Building Solutions division of Dow Chemical, developed a polymeric RF technology that's a suitable substitute to HBCD for use in expanded polystyrene (EPS) foam.

Lorraine Ross, speaking on behalf of the EPS Industry Alliance and the Extruded Polystyrene Foam Insulation Association, explains that the new FR, which Dow started to develop in 2005, is safer than HBCD because it's polymer-based and its large, bulky molecules are not bioavailable, meaning they are not readily absorbed by the body.

A retardant produced with Dow's technology has the same functionality and performance ratings as HBCD, claims Marshall

Moore, Chemtura's director of technology, marketing, and advocacy. It also meets 2012 International Residential Code requirements, Ross notes. As important, the new FR technology hasn't made EPS products more expensive for end users, says Francis Murphy, Flint Hill's managing director of olefins and polymers.

Dow currently is licensing the technology to three leading FR suppliers: Chemtura, ICL, and Albemarle. ICL's Industrial Products division has retrofitted a plant in the Netherlands to make the flame retardant, says Ilan Elkan, the company's vice president for FRs, and Chemtura's Great Lakes Solutions division produces a flame retardant using Dow's technology in its plant in Arkansas.

But while these new FRs being introduced by manufacturers represent an improvement, David Eisenberg, executive director at the Development Center for Appropriate Technology, comments on BUILDER's website that they're not a perfect solution. He asserts that chemicals introduced by the FRs throughout their life cycle could present a number of risks, such as worker exposure and environmental releases during manufacturing, including those from handling and installing the insulation. — JOHN CAULFIELD

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