



#### ON THE COVER:

Our Home of the Year uses a courtyard approach; its four buildings are carefully placed in response to the natural surroundings.









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ISSN (2325-9302)

#### 25 BEST IN AMERICAN LIVING HALL OF FAME

Best in American Living proudly announces this year's inductees to our Hall of Fame.



## CONTENTS

#### 3 MARKETPLACE

#### **Beyond Julia Child's Kitchen**

Kitchens, baths, and laundry rooms just ain't what they used to be—thank goodness!
Learn how new technology is making these rooms more functional than ever.

**Melissa Bailey** 

#### 6 THE DRAWING BOARD

#### **Designing for Millennials**

In just three years, a majority of millennials will turn 30 and create a large market for new homes. Here's how to design for this new group of buyers.

John Guilliams

#### 9 GOING GREEN

#### **Thinking BIG**

Brandon Bryant shares his expertise on green building, and describes the special home that won this year's Green Custom Home award.

Katie Lenkiewicz with Brandon Bryant

#### 14 PORTFOLIO

#### A Sense of Belonging

This year's Best in American Living Awards Home of the Year is a gorgeous and sophisticated example of the age-old estancia approach to architectural design.

**Melissa Bailey** 

#### 19 PROOFS AND TRUTHS

#### A Lot to Love About LID

Low Impact Development techniques for managing storm water are becoming more and more advanced—just in time for increasing runoff regulations.

**Claire Worshtil** 

#### 23 TOOLS & TECHNIQUES

## The Importance of Photography

A picture is worth a thousand words. Make it a good one.

Victor Mirontschuk, AIA and Heather McCune

#### **26 POLICY WATCH**

#### **Regulatory Round-Up**

How a Long-Eared Bat and new Clean Water Act rules could affect your development plans.

Owen McDonough and Michael Mittelholzer

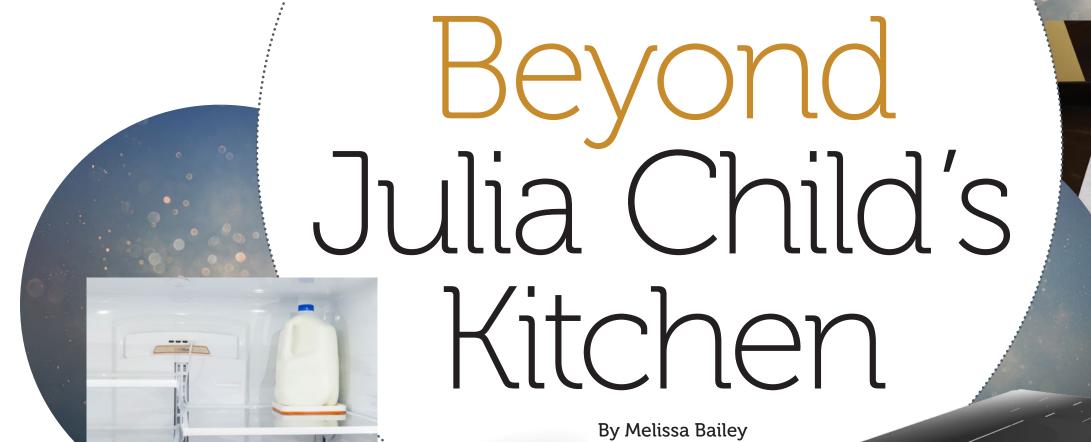
#### 28 IT'S ALL IN THE DETAILS

#### **The Front Porch**

Put as much thought into the design of your porches as you would put into planning a kitchen or bath.

J. Carson Looney, FAIA

2



New induction cooktops, phone apps that control appliances, and inventory monitoring devices are among the many tech innovations in the kitchen, laundry, and bath.

Whether they're made with wireless technology or high-tech ceramic glazes, the newest kitchen, bath, and laundry devices just keep making life easier.

It's hard to imagine what Julia Child would think of all this.

One takeaway from Julia's kitchen (now on exhibit at the Smithsonian's American History Museum) is just how much and how fast appliance technology has changed. And it's not just colors and styles. Today's consumers can tell their ovens and clothes washers what to do when they're not home, and evenly

heat nearly the entire surface of a 36- by 21-inch cooktop. What's more, kitchen and bath designers and engineers say this is just the beginning of such exciting advances.

"Things have really moved beyond the kitchen or bath being a place where you went to take care of basics—making food or getting clean," says kitchen and bath designer MaryJo Camp, Partner at DesignCamp in Denver, "to improvements based on safety—like mixer valves and pilotless stoves—to now, self actualization," she says. "We're moving up the pyramid of Maslow's Hierarchy of Needs."

Camp points out that many people now want their kitchen to help them pursue a connoisseur's hobby, or bond as a family. And the bath has become a spa-like place to rejuvenate, not just bathe. Even energy-saving or water-conserving features relate to self-esteem, says Camp. "We like to feel like we're doing good for the environment."



#### **HIGH TECH**

One of the biggest revolutions has come from wireless technology, according to John Ouseph, Technology Manager, Software & Connected Appliances at GE in Louisville, Kentucky. "The consumer can now remotely monitor, control and receive messages from their appliances," he says. "This technology makes life simpler and gives back more free time"—a bonus for today's multitasking households. Basically, the appliance connects to cloud technology via the home's Wi-Fi. Data goes from the appliance to the "cloud" and then to the owner's mobile phone app--and back.

That means those stuck in traffic can still preheat the oven, or change its temperature--or turn it off. Gone are the days of leaving for vacation and worrying that something may have been left on. And nowadays, one can check to see if the clothes in the dryer are done from the comfort of a backyard hammock. Connected washers can even save a home from water damage by notifying the owner if there's a leak. "A lot of it is about giving the customer peace of mind," says Ouseph.

#### **COOL COOKTOPS**

Just a few years ago, excitement was focused on gas cooktops that use computer chips to cycle the flame on and off, creating extremely low temperatures for simmering. These days, induction cooking is hot.

Induction cooktops use alternating current running through a coil under the cooking surface to create a magnetic field that works to heat metal pots. It only heats the pot, not the cooking surface. (No more burned oven mitts!)

Though the science isn't new, induction cooktops are an example of a technology that can now be manufactured more cheaply and is being applied in new ways. Bosch Home Appliances, for example, makes "Flexinduction" cooktops that allow cooks to combine two zones into one continuous cooking surface. "It's a great way to grill on the stove or perfect for a griddle," says Dan Kenny, Director of Brand Marketing at Bosch Home Appliances in Irvine, California. "And induction technology has a much faster heat time—it takes less than half the time to boil water than a conventional ceramic cooktop."

Bosch's sister company Thermador has taken that a step further with it's "Freedom" induction cooktop. It uses 48 three-inch coils to both expand the usable cooking surface and allow cooks to use various sizes and shapes of pots, pans, or griddles in whatever configuration they choose. It recognizes the cookware size and shape to deliver heat only where it's needed. "Practically the whole top can be a burner," boasts Thermador's Zach Elkin, Director, Brand Marketing, also based in Irvine.

#### **CONSERVATIONIST**

Today's technology has also vastly improved home appliances' water use. Thermador offers a dishwasher, for example, that uses just 2.2 gallons of water to run a normal cycle—compared to four or five gallons for most dishwashers, and about 20 gallons for washing by hand. It works this magic in part by filtering then recirculating the same water throughout the cycle.

motor and recirculation system makes the little water it does use work hard: "If there was a flow meter measuring how much water was used, it would be as if that 2.2 gallons is reused to perform like 600 gallons of water," says Elkin. The dishwasher also has a heat pump that works in effect as a mini tankless water heater, heating cold tap water rather than drawing from a distant home water heater.

This patented Toto showerhead

injects air into each and every water droplet to increase the water volume and make

it feel as though there's

And then there are the new water saving toilets and showers. While showerheads and toilets may not have been categorized as appliances in the past, it's hard to label today's newfangled products just "plumbing." Some rain and handheld showers now inject air into each water droplet, which increases the water volume and makes it feel as though there's more water pressure. Like all water-saving showerheads, these patented Toto products use 2.0-2.5 gallons per minute, depending on each state's standard.

Toto's "washlets" are a bidet that combines with a toilet, and are quite high-tech. At first glance, these would seem to use *more* water. However, according to Lea Mendoza, Senior Product Designer at Toto USA, these appliances are water misers. "The Japanese are very efficient in using everything to its maximum," says Mendoza. "Toto is concerned not just with the user experience but also with the environment," she says. "We've revolutionized how to flush."

For example, the company's 1G Double Cyclone flushing system has two nozzles that create a centrifugal, cyclonic rinsing action that uses just 1 gallon per flush. This is a savings that adds up when compared to most new toilets, which use 1.6 gallons per flush, or pre-1992 toilets, which use 3.5 to 7 gallons.

And these days, even the toilet bowl surface itself is

#### **Marketplace**

high-tech. Some of these commodes—and sinks, too—have an integrated glaze that creates a super-smooth ionized surface that stays cleaner than the plain old ceramics. That way, less water and fewer cleaning chemicals are needed to keep them germ-free. Taking that concept one better, Toto has also created a bowl with a "photocatalystic" glaze that the toilet then hits with UV light. Microbes don't stand a chance.

#### WHAT COULD BE BETTER?!

So just what drives all this change?

Manufacturers say it's all about the
consumer. "We innovate around consumer
pain points," says Bosch's Dan Kenny. GE's
Ouseph agrees: "It's not just the 'whizbang'; it's about enhancing the customer's
experience." And Toto's Mendoza notes,
"We don't do this for its own sake but to
make people's lives better, and we also
make sure we're not creating a negative
impact on the environment."

But, as Camp points out, often the technology exists first, then it is applied to user needs. "We get the technology, and then that changes the way we design," she says.

As if all this weren't amazing enough, what's next on the tech horizon will be even more exciting, says Ouseph. "Next we'll have truly 'smart' appliances that learn your activity," he says. These intelligent gadgets will track users' history—which



Toto's newest toilet bowls use UV light to keep bowls clean—which means they can use less water and cleaning chemicals.

days of the week the family uses more hot water at what time of day, for example—and adjust accordingly to save water or electricity. A smart clothes washer, as another example, could be programmed precisely by the user, perhaps to run a particular cycle longer and do an extra rinse. Then that custom wash cycle could be saved as a favorite for the user.

GE Appliances also has a partnership with Local Motors called First Build, which has created a fridge that can use a scale connected via USB ports in the unit to track supplies of the one thing every family runs out of most—milk. So, when in the grocery store on the way home from work, all the consumer will need to do is check his or her phone app to know what's needed.

We think Julia would approve.

**Melissa Bailey** is Principal at Melissa Bailey Marketing & Communications in Manhattan Beach, California and serves as Managing Editor of *Best in American Living*.





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Test the Waters Now, and Be Ready

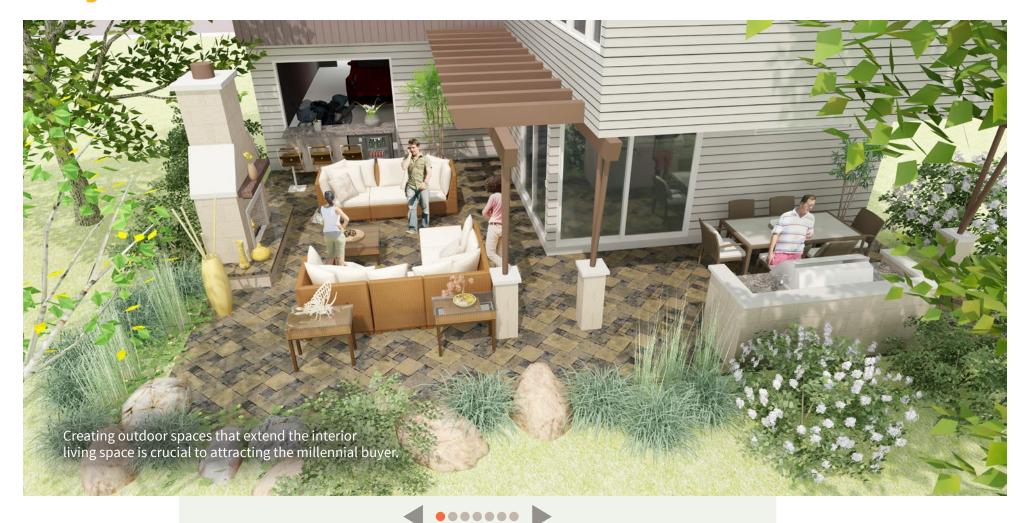
By John Guilliams

Millennials outnumber the Baby Boom by 15 million. In just three years, a majority of them will be turning 30— and ready to spend big on home purchases. Don't be caught unprepared.

It seems the millennials are on everyone's minds lately, and for good reason. While boomers numbered 77 million, the millennials represent 92 million potential new buyers. From the workplace to the housing market, their impact is just beginning. In three years, a

majority of millennials will be reaching the age of 30. That creates a big wave of people, and they'll be ready to spend \$1.6 trillion on home purchases, according to research by The Demand Institute Housing & Community Survey. That's a lot of money to be made.

Millennials realize that the urban areas are financially out of reach, so they are heading to the first and second ring suburbs of the city. And now is the time to be preparing for these buyers. By including at least one millennial targeted floor plan in any new series, builders and architects can start to get a temperature read for what they are looking for, and provide it when the bigger market hits the streets.



#### MOTIVATING FACTORS AND SELLING CHALLENGES

It should come as no surprise that affordability is both the biggest motivating factor and the biggest challenge for millennials purchasing a home. This generation is saddled with more student loan debt than ever before. In fact, since 2003 the average student loan debt has risen 25 percent, with average debts of approximately \$25,000, according to the Federal Reserve. Despite their current financial situations, millennials are optimistic and looking toward the future. Household formation—both traditional and non-traditional—will be one of the biggest motivating factors for millennials entering the home market. The majority do plan to get married or have kids in the next five years, and according to The Demand Institute, 8.3 million millennial households will be formed.

#### **GET READY BY TESTING THE WATERS**

When creating a new plan series matrix, include a model targeted to the millennial. This gives you a chance to test the waters before the big wave expected in 2018. Make sure the sales staff takes notes when Gen Y buyers visit your models. Based on NAHB's What Home Buyers Want survey, the Gen Y home should be a three- or four-bedroom, two-story house. But it should be significantly different from the house they grew up in. Millennials want homes that offer value, flexibility, openness, and are technology-centric.

## DESIGNING FOR MILLENNIALS: CREATE AFFORDABLE VALUE AND FLEXIBLE, MULTIFUNCTIONAL PLANS

The millennial buyer is realistic about what they can afford. According to NAHB's survey millennials are looking for smaller

#### Who are the Millennials?

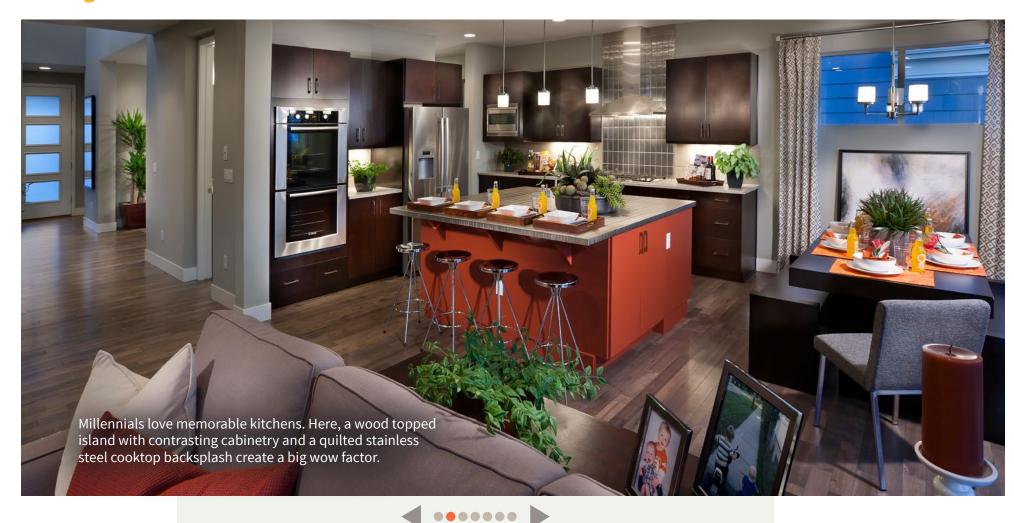
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- Peak of millennial births was 1988–1994 (nearly 4 million births each year)
- 84% seek single family dwellings, if affordable (SOURCE: DEMAND INSTITUTE)

than average homes (2,475 square feet versus the average of 2,690). They are also willing to move farther from the central urban core that has been their choice of location as apartment dwellers.

Because millennials are looking for value, they see the formal living room and dining room as spaces that should be used better. They just don't see the sense in rooms that require special furniture and need to be heated or cooled year-round but will only be used once or twice a year. These buyers also want value in sustainable features that can result in lower utility bills.

This generation has grown up with the cell phone, and now the smart phone. They want their homes to be a reflection of that technology. Multifunctional best describes the smart phone: it's a camera, a constant news source, an entertainment center, and oh yeah...you can call someone on it from just about anywhere. The smart home needs to be just as well-designed. Rooms should serve more than one purpose, or be flexible enough to change as the family changes.

Be sure that at least one\_bedroom can flex to an office, project room, or man cave. While the master bath needs to be memorable and modern with a stunning shower, the other bedrooms can share a bathroom, and a powder room on the main level will do. Just remember it needs to be able to expand to a potential full bath if an older family member needs to move in with the family in the future—again, flexibility and growth are key to this buyer. Laundry rooms, walk-in pantries, and extra storage in the garage are also features millennials value.





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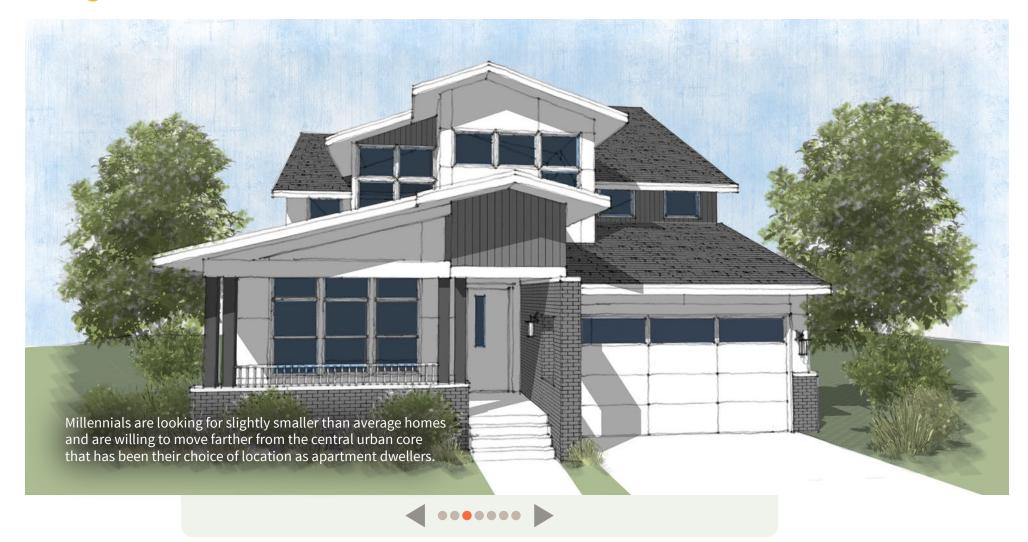
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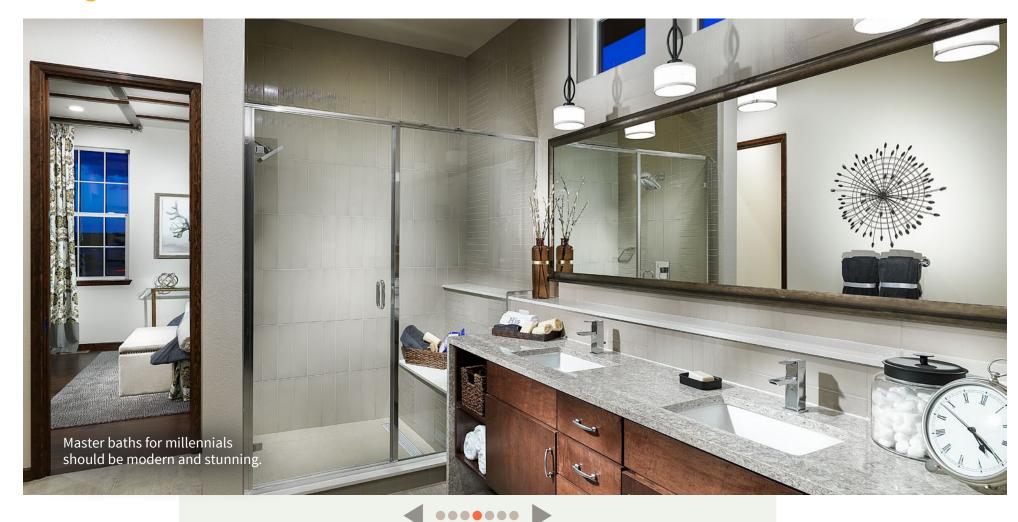
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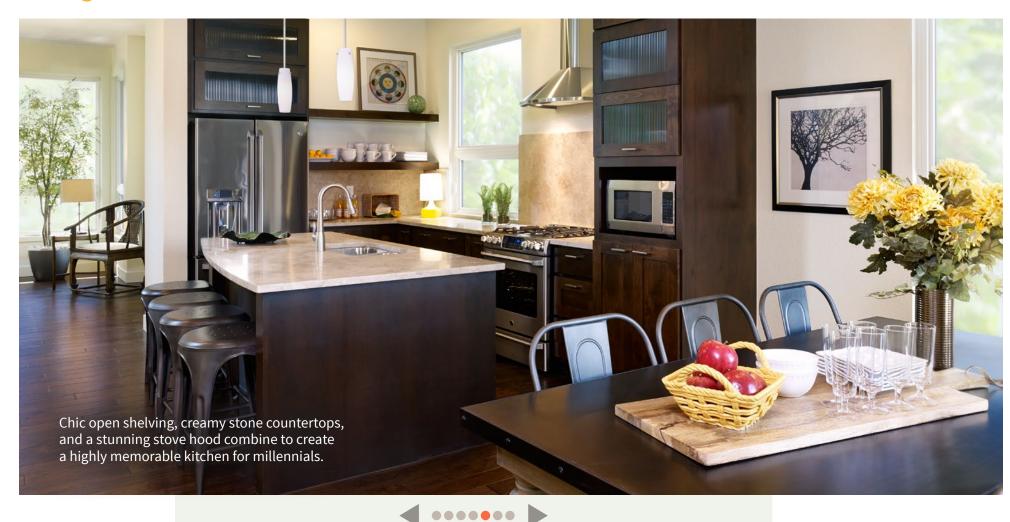
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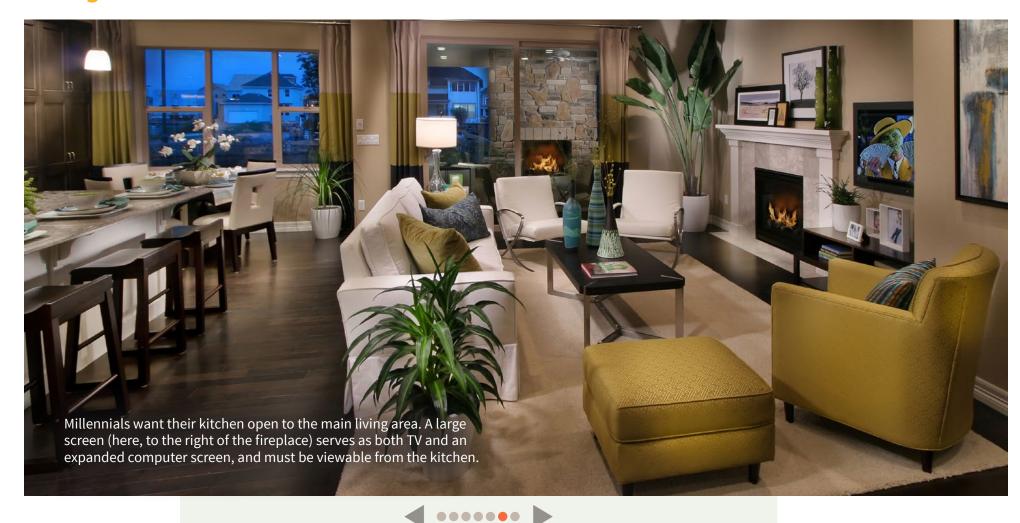
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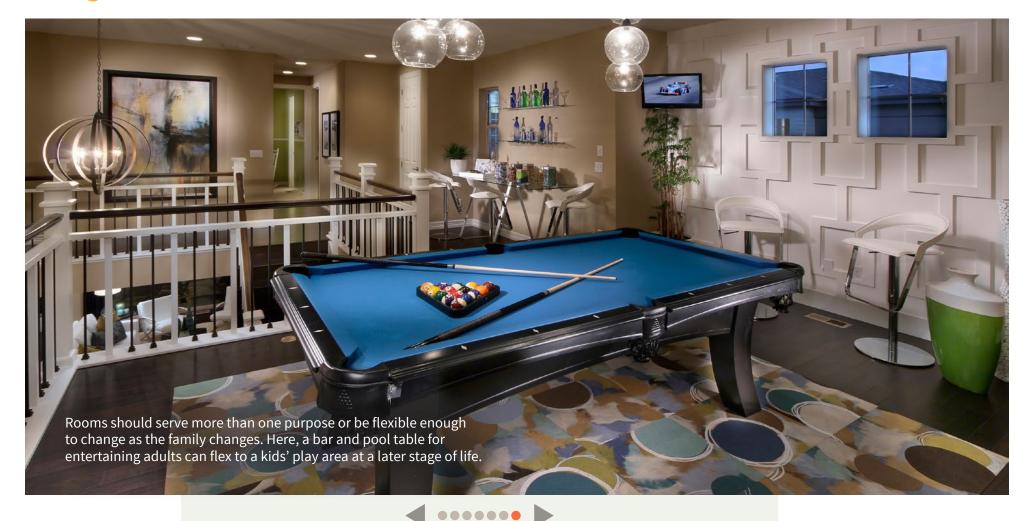
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Because millennials are looking for value, they see the formal living room and dining room as spaces that should be used better. They just don't see the sense in rooms that require special furniture and need to be heated or cooled year-round but will only be used once or twice a year. These buyers also want value in sustainable features that can result in lower utility bills.

This generation has grown up with the cell phone, and now the smart phone. They want their homes to be a reflection of that technology. Multifunctional best describes the smart phone: it's a camera, a constant news source, an entertainment center, and oh yeah...you can call someone on it from just about anywhere. The smart home needs to be just as well-designed. Rooms should serve more than one purpose, or be flexible enough to change as the family changes.

Be sure that at least one\_bedroom can flex to an office, project room, or man cave. While the master bath needs to be memorable and modern with a stunning shower, the other bedrooms can share a bathroom, and a powder room on the main level will do. Just remember it needs to be able to expand to a potential full bath if an older family member needs to move in with the family in the future—again, flexibility and growth are key to this buyer. Laundry rooms, walk-in pantries, and extra storage in the garage are also features millennials value.



#### MOTIVATING FACTORS AND SELLING CHALLENGES

It should come as no surprise that affordability is both the biggest motivating factor and the biggest challenge for millennials purchasing a home. This generation is saddled with more student loan debt than ever before. In fact, since 2003 the average student loan debt has risen 25 percent, with average debts of approximately \$25,000, according to the Federal Reserve. Despite their current financial situations, millennials are optimistic and looking toward the future. Household formation—both traditional and non-traditional—will be one of the biggest motivating factors for millennials entering the home market. The majority do plan to get married or have kids in the next five years, and according to The Demand Institute, 8.3 million millennial households will be formed.

#### **GET READY BY TESTING THE WATERS**

When creating a new plan series matrix, include a model targeted to the millennial. This gives you a chance to test the waters before the big wave expected in 2018. Make sure the sales staff takes notes when Gen Y buyers visit your models. Based on NAHB's What Home Buyers Want survey, the Gen Y home should be a three- or four-bedroom, two-story house. But it should be significantly different from the house they grew up in. Millennials want homes that offer value, flexibility, openness, and are technology-centric.

## DESIGNING FOR MILLENNIALS: CREATE AFFORDABLE VALUE AND FLEXIBLE, MULTIFUNCTIONAL PLANS

The millennial buyer is realistic about what they can afford. According to NAHB's survey millennials are looking for smaller

#### Who are the Millennials?

- Born in the years from 1980 to 2000, this generation is also known as Generation Y or Gen Y
- Peak of millennial births was 1988–1994 (nearly 4 million births each year)
- 84% seek single family dwellings, if affordable (SOURCE: DEMAND INSTITUTE)

than average homes (2,475 square feet versus the average of 2,690). They are also willing to move farther from the central urban core that has been their choice of location as apartment dwellers.

Because millennials are looking for value, they see the formal living room and dining room as spaces that should be used better. They just don't see the sense in rooms that require special furniture and need to be heated or cooled year-round but will only be used once or twice a year. These buyers also want value in sustainable features that can result in lower utility bills.

This generation has grown up with the cell phone, and now the smart phone. They want their homes to be a reflection of that technology. Multifunctional best describes the smart phone: it's a camera, a constant news source, an entertainment center, and oh yeah...you can call someone on it from just about anywhere. The smart home needs to be just as well-designed. Rooms should serve more than one purpose, or be flexible enough to change as the family changes.

Be sure that at least one\_bedroom can flex to an office, project room, or man cave. While the master bath needs to be memorable and modern with a stunning shower, the other bedrooms can share a bathroom, and a powder room on the main level will do. Just remember it needs to be able to expand to a potential full bath if an older family member needs to move in with the family in the future—again, flexibility and growth are key to this buyer. Laundry rooms, walk-in pantries, and extra storage in the garage are also features millennials value.

EXAMPLE PLAN SERIES MATRIX				
TARGET	PLAN 1 +50 Buyer	PLAN 2 Millennial w/ young family	PLAN 3 Family with older kids	PLAN 4 Large Family Buyer
SQ FT/STYLE	2,000 SF, Ranch	2,200 SF, 2 Story	2,400 SF, Main Floor Master	2,650 SF, 2 Story
MAIN FLR HT	9 feet	9 feet	9 feet	9 feet
SECOND FLR HT	N/A	8 feet	8 feet	8 feet
BASEMENT HT	9 feet	9 feet	9 feet	9 feet
OUTDOOR LIVING	Part of footprint	Part of footprint	Part of footprint	Part of footprint
MAIN LEVEL	Great room with fireplace Master suite with 4 pc. bath Kitchen Study & guest or bedroom 2 & bedroom 3 with Jack and Jill "Swing" dining Pantry Owner's entry Laundry room near master Powder room and/or hall bath	Contemporary plan Great room Single dining space Flex space or plan options Memorable kitchen Outdoor area priority Edgy plan	Great kitchen Nook Large enough for holiday dinners Great room Master bedroom Powder room Laundry near master Study/Guest suite option	Great kitchen Nook Formal dining Great room Flex space: bedroom, study or project room Powder room Laundry room
UPPER LEVEL	N/A	Master suite with 4 pc. bath Master shower seat standard Bed 2 Bed 3 Hall bath Laundry Bonus space optional	Bed 2 Bed 3 Hall bath Loft to bed 4 suite	Master suite Master shower seat standard Bed 2 w/ bath Bed 3 & 4 w/ Jack & Jill bath Standard loft
MEMORY POINTS	Kitchen is special Plan needs to live big Multi-gen suite or guest would be great Master bath: large shower and no tub Position eating area for formal or informal use	New plan that lives casually and very large. Please emphasize great room and kitchen. Design dynamic.	Flex upstairs for change when kids move out.	A plan that lives casually and very large. Please emphasize informal areas of main floor. Separate kids bedrooms from master.



The millennials' list of wants extends beyond the four walls of the home. Outdoor living is a feature this buyer is looking for. Not a luxurious outdoor kitchen, but a space that extends the interior living space to the outdoors. This requires clever design. A 10-foot by 10-foot concrete patio will not impress this buyer.

Those interior living spaces need to be thoughtfully put together also. The rooms need to be arranged so the family stays connected, both physically and digitally. The living room is no longer the place to catch the latest episode of *Friends*. The TV screen is now the portal to the internet, a favorite cooking show, and a place to research the latest science project. The relationship of the kitchen and its dining area to

the living space and TV screen are crucial to this lifestyle. And just like their phones, millennials want apps for their homes. The Nest thermostat, which "learns" its homeowners' favorite temperatures, turns itself down when they're away, and has remote control through Wi-Fi, opened that new frontier for today's homeowners.

#### **ABILITY TO ENDURE, COME WHAT MAY**

One last thought about your plan for the millennial: Many of the jobs this group now has weren't even around when they were finishing high school, so they are aware of looking forward to the unknown. Hidden opportunities like unfinished space in the basement or a bonus room above a garage that

MAIN LEVEL **GEAR BAY** 2- CAR

can be easily converted can be just the element in your plan that shows you understand this buyer.

Unlike a phone, the Gen Y buyer isn't signing on for a two-year contract. They want to stay in their new home for awhile, so it needs to be able to grow with them, and adapt to their needs. A little R&D now can give you a jump start to tap into that \$1.6 trillion cash flow that's coming in three years.

John Guilliams is Partner and Director of Design at KGA Studio Architects, PC, in Louisville, Colorado.















Reused barn siding from the owners' grandparents combines with field-fence-style railings to create a fabulous stairwell.

Brandon Bryant designed Katie's Ridge in what he calls a "modern mountain" style. The home uses geothermal cooling, solar passive design, and energy recovery ventilation, among other green building techniques.

The inspired young builder who took home this year's Best in Green Custom Home Award shares his philosophy with Best in American Living's Katie Lenkiewicz.

People are becoming increasingly aware of the impact they are having on the planet and this has transferred to the housing market. Efficiency is now a quality that many potential home buyers look for and green homes are becoming more common nationwide. Many builders are adapting to this new demand and developing creative ways to give buyers the efficiency they desire without compromising the comforts of a traditional home.

Brandon Bryant of Red Tree Builders is this year's Best in Green Custom Home Award winner for his custom home, "Katie's Ridge" in Asheville, North Carolina. He was also named a finalist for the Best in Green Young Professional of the Year Award. Here, he provides insight into his inspiration for the Katie's Ridge home, his company's vision, and his hopes for the future of green construction.

#### **Going Green**



A contemporary fireplace and uncased window openings combine with wood floors and natural light to create a modern home with lots of warmth.

**BUILDER** Brandon Bryant,

**DESIGN PARTNER** Jason Weil INTERIOR/EXTERIOR DESIGNER Amanda Bryant

**NAHB:** What is your company's vision in terms of green building construction? How are your homes unique and how are they true to this vision?

**Brandon Bryant (BB):** Basically, there are many different ways you can build a green home. At Red Tree Builders, we don't focus on solely one aspect such as energy efficiency or air quality but instead incorporate a whole-house approach that looks at all aspects of building a green and healthy home. We strive to be sustainable in each step of the building process.

**NAHB:** What sustainable practice or feature do your clients most commonly choose to incorporate in their homes?

**BB:** All of our homes are Green Built certified, so right from the start we always have a standard of green certification to

meet. The client, however, can decide the specifics they want to include in their home to reach this level or exceed this level. I see most of our clients asking for geothermal heating and cooling, healthy air quality, as well as LED lighting.

**NAHB:** What do you find to be the biggest obstacle for the creation of sustainable homes? Is it in the construction itself. the design, the marketing, or another aspect?

BB: To me, it's mainly about education. North Carolina is one of the leading states for the most green homes in the country, so most people have heard about green homes—but they may not have a full understanding. I like to tell them, "you may have heard about this but here's what it really means." I can educate people up front about the potential savings they're making

Floor-to-ceiling windows in Bryant's "Katie's Ridge" home capture the beautiful views. Careful siting, along with the use of high quality windows and advanced insulation techniques,

keep the home energy efficient despite all of the glass.



Large windows and broad decks create a seemless indoor-outdoor feel and allow the owners of Katie's Ridge to enjoy Asheville's natural beauty.

down the road, sometimes even within the first year. We work together to further the understanding that they're getting a healthier home, a more energy efficient home. So while there may be some extra cost up front in specific areas, it pays off and not only for their wallets.

**NAHB:** What steps are you and your company taking to expand education about green homes?

**BB:** The first source for our company is our website—people engage with the online resources and learn about our homes. Then of course, they receive even more information when they decide to build a home with us. Our design build process takes our clients through a series of informational meetings to both educate them and and help them enjoy building green. We use an abundance of tools to get people the information they need—including marketing materials, owner education videos, and partner resources that highlight the benefits of green homes, cost savings, and the reduction of our carbon footprint. The NAHB and Department of Energy have some helpful resources that I've recently used to provide additional

education to clients who want to learn more. We are also working with our local college to develop an apprentice/ internship model which will allow new trades, or those who show interest in construction, the opportunity to learn green practices first-hand.

**NAHB:** When you talk about using "sustainable" materials for your projects, what are your criteria (are they locally sourced, low impact, etc.)?

**BB:** For us, "sustainable" refers to the longevity of the house. We are building houses to last a lifetime – ones that future generations can enjoy as well. As for sustainable materials, we do utilize the abundance of trees found in the mountains of Asheville from wood floors in the home to a unique bathroom countertop feature. Also, our first choice is always local

products. If something needs to be built offsite, such as cabinets, we use cabinetry lines that are manufactured using sustainable tree choices within a specific geographic range of our area.

**NAHB:** Your website explains that you like to help customers stay within their pre-determined budget. What are the strategies you use to accomplish this while still using innovative technologies?

**BB:** The budget is set at the beginning during our design build process. We start with the Green Built standard, which we know we have to maintain and then start outlining things and putting out options for the customer. For example, do they want geothermal or solar? We also look at the customer's long-term budget and what might be most cost-effective down the road. Throughout the entire building process the client is kept very involved with how things are progressing. Today, we



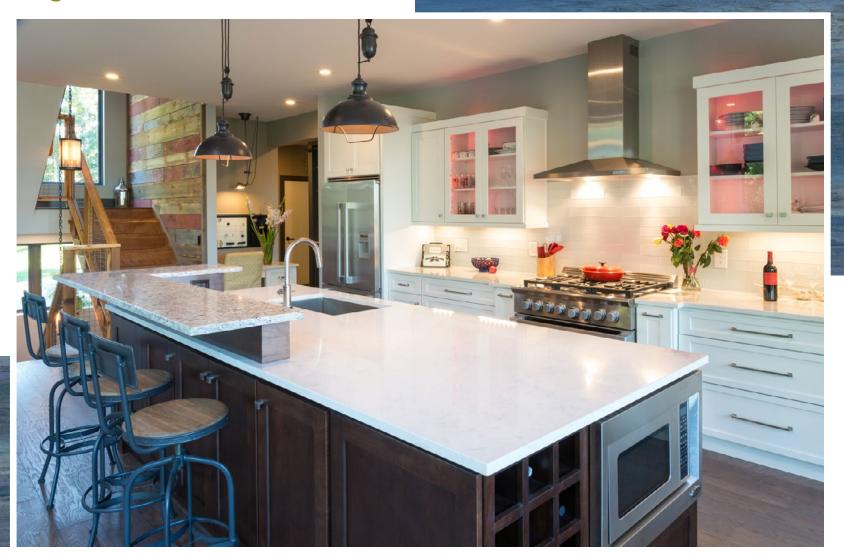
Taking advantage of the gorgeous Blue Ridge Mountain views was paramount in designing Katie's Ridge.

are lucky to also have a number of innovative web tools that support the selection process and give the owner real-time visibility of their budget, selections, and upcoming decisions. These project management tools have allowed the owner to be part of the building process like never before.

NAHB: Congratulations on winning NAHB's Best in Green Award for your Katie's Ridge home. Could you describe to me your vision for this home in terms of what the client was looking for and how you developed your ideas?

**BB:** The location for this home has amazing views and I really wanted to take advantage of that. People in Asheville live for the outdoors, so I knew I really wanted to create a seamless indoor-outdoor feel. This home, like many of the homes we build, was a blend of craftsmen and modern style, or what I like to call "mountain modern style." The home design has

#### **Going Green**



Rose-colored interiors in the glass-front cabinets were used to pick up the hints of pink in the owners' reused barn siding.

floor-to-ceiling windows to capture the beautiful views. Using high quality windows, advanced insulation techniques, and house placement helped us ensure the home remained energy efficient despite the large amount of glass.

**NAHB:** What feature of the Katie's Ridge home are you most proud of?

BB: This is hard to narrow down. Getting the HERS (Home Energy Rating System) rating of 48—I was very excited about that. But I am also very happy with the overall feel of the home. It's modern, but it really brings the outdoors inside and the indoors out. It's cozy, and has lots of warm natural light. On the inside, we used barn siding that belonged to the owners' grandparents. Overall, the home blended well and everything

#### **KATIE'S RIDGE FEATURES**

- Geo-thermal heating and cooling
- High-performance windows
- Solar passive design
- Smart technology thermostats
- Sealed ductwork
- Spray foam insulation
- Energy Recovery Ventilations (ERV) for healthy indoor air
- LED lighting
- Reclaimed barn wood provides energy-efficiency, structure, and design element
- HERS Rating (without use of solar) of 48

came together. I think it's a great representation of the fact that you can have a green home without compromising design.

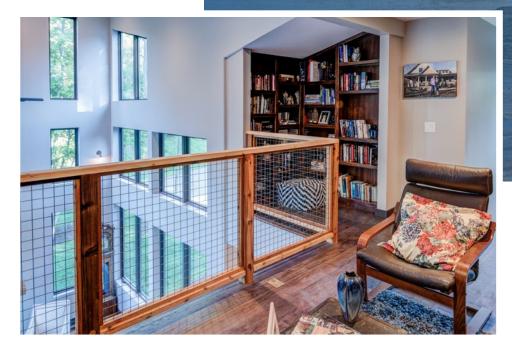
**NAHB:** For this home, what made you decide not to use solar power when trying to achieve a low HERS score?

**BB:** The land had a ton of tree coverage. To achieve any kind of valuable solar power, we would have to remove more trees in the building envelope, which is not a best practice. No one wants a clear-cut mountain property. I felt that the trees were valuable both as a resource and in adding to the indoor-outdoor style of the home. Therefore, I wanted to avoid clearing them. Also, the home is situated on the north side of the mountain, which is not ideal for solar. So geothermal was the best option, and a common practice we use when building on mountain terrain.

**NAHB:** The home appears to utilize a great deal of natural light. Can you speak to how this impacts its efficiency? Is this level of natural light possible solely because of the location of this home or do you see it as a possibility in more densely populated areas? Is natural light an attribute you find to be popular with clients? Is it something they ask for?

**BB:** Efficiency was a very important part of the design process. We knew we had a HERS goal and wanted to achieve that through geothermal, so the natural light was going to help us. Also, the location has incredible views and we really wanted to take advantage of the beauty and bring the outdoors into the home—the number of windows allowed us to do that. As for other locations, I believe increasing the amount of natural light is totally possible in densely populated urban areas. It may require a bit more creativity, but it's simply a matter of window placement during the design process. Overall, I think natural light is a great feature to include in homes. I believe it makes people happier and it saves energy by requiring less artificial light in the long run. Today's window choices are superb, too, with both existing and emerging technologies. We spend a significant amount of time choosing the right type of window pane technology, gas fill option, spacing, and framing

#### **Going Green**



A cozy reading nook overlooks the main living area—along with miles of Blue Ridge mountain views.

type for specific sides of the house. These strategic decisions support the efficiency by being able to take advantage of winter sun for heating while keep a cool home in the summer with reduced interior fading.

**NAHB:** Congratulations on being a finalist for NAHB's Best in Green Young Professional of the Year Award As a young professional, what has been the best piece of advice you have received during your time as a builder?

**BB:** I'm not sure if this qualifies as advice necessarily, but my motto when building a home is always "treat everybody as I would want to be treated." A home is most peoples' biggest investment. Therefore, I want to keep that in mind and make sure I am doing everything I can to help them create their dream and support their healthy life style. If at the end of the day my

work and the home building process have been a positive experience for the client, then I have fulfilled my goal.

**NAHB:** What role will green building construction play in the future of your company?

**BB:** Green building is my company. In the next five years I would love for all of our homes to be net-zero. This is a big goal and one we cannot do without environmentally conscious clientele who also support this vision. However, a lot of times I don't think we're doing enough. With each home I feel like I keep asking myself, "How can we push the bar?"

Katie Lenkiewicz is an intern for NAHB's Sustainability and Green Building department and is a graduate student at SUNY-ESF in Syracuse, New York.



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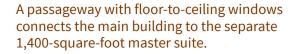


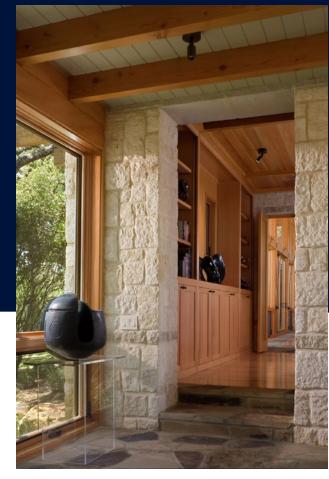


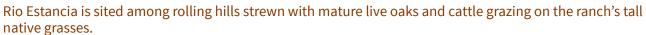












Driving up from San Antonio through live-oak-dotted hills coated with waving native grasses, visitors to Rio Estancia can pull quietly into arbor-covered parking and sneak into their quarters without the owners even knowing the guests have arrived.

And what an arrival. The two-bedroom, two-bath 1,250-square-foot guest house, shaded among a small grove of oaks, opens onto a wraparound deck that

cantilevers out over boulders and plants. The deck overlooks an oval pool inspired by the work of modernist landscape architect Thomas Church. Beyond the pool, cattle graze on a rolling 350 acres of ranchland that runs to the Guadalupe River. It's the epitome of an idyllic getaway from modern life.

From the guest house, a sculpture-like wooden gateway beckons. An Oklahoma flagstone walk leads under a live oak that arches over—almost to the ground. "When the owners first had us look at this incredible site, we saw that arching oak and immediately said, 'Here's your front door,'" says the home's architect, Craig McMahon, who designed the home with design-builder Billy Johnson. A few yards beyond, past an outdoor dining area and to the left of the pool, lies the 2,400-square-foot main lodge.

#### **ESTANCIA STYLE DESIGN**

McMahon and Johnson designed the home based on an "estancia" style—a traditional South American approach that plots multiple buildings in a courtyard fashion. In this custom, buildings must be carefully placed in response to natural surroundings, taking full advantage of vistas, trees for protection from wind and sun, and prevailing breezes for cooling. "The idea is to let nature create your

"When the owners first had us look at this incredible site, we saw that arching oak and immediately said, 'Here's your front door,'" says the home's architect, Craig McMahon.

#### **Portfolio**



The house forms a loose courtyard with four buildings connected by flagstone walks, overhangs, and glassed passageways.

courtyard," says McMahon. Here, the use of these age-old techniques results in a state-of-the-art home that somehow feels as though it's been in place for centuries.

The house forms a loose courtyard with four buildings—the ranch office (which can double as guest quarters) the guest house, the main lodge, and the private master quarters. All are connected by a series of flagstone walks, overhangs and arbors, or glazed passageways.

McMahon takes pride in the way the home was integrated into the property:

"We placed the building elements around the significant oak trees, and took out only one tree," he notes. What's more, all of the natural boulders used in landscaping were either kept in place or moved from somewhere on the ranch.

#### LIMESTONE, FIR, AND GLASS

The home's exterior walls, made from local Sisterdale Cream limestone surrounding traditional framing, seem like twenty-inchthick old stone. Two cool bands of Lueders Gray limestone from a different quarry add visual interest, while warm solid wood covers the floors. Eighteen-foot sloping ceilings gently connect down to ten-foot glass walls, which are shaded by both trees and ten-foot-deep wooden awnings. "The owner wanted the views to be unobstructed by columns or any supports, so we created these metal-supported overhangs rather than a more traditional portico," says McMahon.

The open 25-by-42-foot main living area is completely glazed on the southwest side to take advantage of panoramic views of the pool, rolling hills strewn with mature live oaks, and cattle grazing on the ranch's tall native grasses. A dining area for 12 opens to a broad family room anchored by a huge limestone fireplace. The ceiling,



The 25-foot-wide family room is anchored by a huge limestone fireplace. Its ceiling, crafted from unstained Douglas Fir, is coffered, adding a bit of elegance to balance the home's rustic aspects.

**Upper right:** While most of the home is slab on grade, the private master quarters are cantilevered out over a crawl space to create the impression of floating on waves of native grasses.

Thermostatically-controlled transoms above the limestone wall automatically open when it gets warm to let heat out. An indoor breeze is created when windows on the opposite side are also open.





crafted from unstained Douglas Fir, is coffered, adding a bit of elegance to balance the home's rustic aspects.

Beyond the main living area, McMahon created a cozy library and media room lined with Douglas Fir shelving and panels, where the owners can retreat in the evenings to watch movies or read. From there, a passageway with floor-to-ceiling windows provides privacy for the 1,400-square-foot master suite, a separate living zone. "The passage provides an amazing way to watch nature," notes McMahon. "Because they reflect light, deer walk right up to the windows and you can stand there and watch them up close."

The master bedroom, tucked completely under a canopy of oaks, opens to a screened porch. While most of the home is slab on grade, these private quarters are cantilevered out over a crawl space to create the impression of floating on waves of native grasses. It's a great place to relax and take in the fresh country air, McMahon notes: "It really feels like you're camping."

#### **BUILT WITH RESPECT FOR NATURE**

Though many of the home's windows face the views to the southwest, it was engineered to remain cool with

#### **Portfolio**

minimal electricity usage. A geothermal heating-cooling system reaches 30 feet into the ground to pump up cool air in summer, and warmer air in winter. "The owners spent about 25 percent more for this system but they wanted to care for the environment-- and their system will save the added cost in just six years," says McMahon. "Plus, the typical summer hum of air conditioner compressors is missing." Further, the windows themselves are designed to cool the house: When

warmer air builds up inside, thermostatically-controlled transoms above the limestone wall automatically open to let heat out. If windows on the opposite side are opened as well, cool air from the shaded ground is drawn up and through the home, creating an interior breeze. "The temperature can drop by 15 degrees on hot days," says McMahon. Other green features include a rainwater collection system on the barn roof, and super-efficient expanded foam insulation.





The home's exterior walls, made from local Sisterdale Cream limestone surrounding traditional framing, seem like twenty-inch thick old stone. Two cool bands of Lueders Gray limestone from a different quarry add visual interest, while warm solid wood covers the floors.

Despite its high-tech features, clean lines, and extensive use of glass, Rio Estancia can't really be called modern. Instead, it's simply sophisticated. The home makes the most of the surrounding countryside and allows its residents to thoroughly enjoy the beauty of nature. As McMahon puts it, "It just feels like it belongs."



The home was integrated thoughtfully into the property with the buildings placed carefully around the significant oak trees. All of the natural boulders used in landscaping were either kept in place or moved from somewhere on the ranch.

**Melissa Bailey** is principal at Melissa Bailey Marketing & Communications and serves as Managing Editor of *Best in American Living*.



## ALU ABOUT LID techniques can appeal to ecofriendly buyers and enhance aesthetics, which can ncrease a project's marketability.

#### **Proofs & Truths**

Known by many names, including Green Infrastructure (GI) and Environmental Site Design, Low Impact Development (LID) is a new way to manage stormwater. It includes best management practices (BMPs) such as dry wells, vegetative swales, rain gardens, retention ponds, green roofs, green streets, tree boxes, stream buffers, rain harvesting, and pervious pavers that manage stormwater onsite instead of sending it off-site.

#### **LEARNING TO LOVE IT**

Soon LID will be a must, thanks to the new stormwater management requirements from the U.S. Environmental Protection Agency (EPA). Five years after announcing its plan to develop a National Stormwater Rule, EPA halted development of a one-size-fits-all rule. Instead, the agency will implement

Between new EPA requirements and ecoconscious buyers, Low Impact Development (LID) methods of managing stormwater will soon be the norm, not the exception. Here are some of the best new techniques being used across the country.

By Claire Worshtil

In a recent NAHB survey, 19 out of 50

municipalities had mandatory LID

requirements.

#### **Proofs & Truths**

Some cities are using BioHaven Floating Islands, a manmade floating surface that is covered with plants, to create a concentrated wetland effect.



the stormwater rule in each Municipal Separate Stormwater Sewer System (or MS4) as permits come up for renewal every 5 years. As part of the renewal process, the National Pollutant Discharge Elimination System (NPDES) Phase II MS4 requirements must include post-construction runoff control.

LID can reduce land clearing, grading and infrastructure costs and creates a smaller environmental footprint.

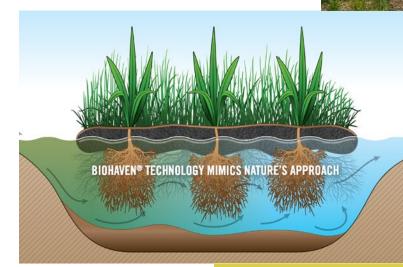
LID requires suitable site conditions and typically requires more up-front information about the building site, a more detailed stormwater management plan, and careful construction of BMPs. Most LID projects use a combination of sophisticated techniques and simple strategies like planting trees and designing sites to have fewer impervious surfaces. Where its use is appropriate, LID can provide builders and developers with reduced land clearing and grading costs, reduced infrastructure costs, and a smaller environmental footprint. In addition to these benefits, LID can appeal to ecofriendly buyers and enhance aesthetics, which can increase a project's marketability.

#### WHAT'S NEW IN THE WORLD OF LID?

Most builders are familiar with retention ponds, and raingardens, and other popular BMPs, but there are lots of new and innovative LID practices being employed around the country.

The city of Louisville, Kentucky, has expanded the idea of green streets to include green alleyways, going a step further to address the runoff associated with the community design trend of parking in the rear. Planners there are also designing stormwater curb exten-

sions that extend the length of the sidewalk and reduce the crossing distance for pedestrians.

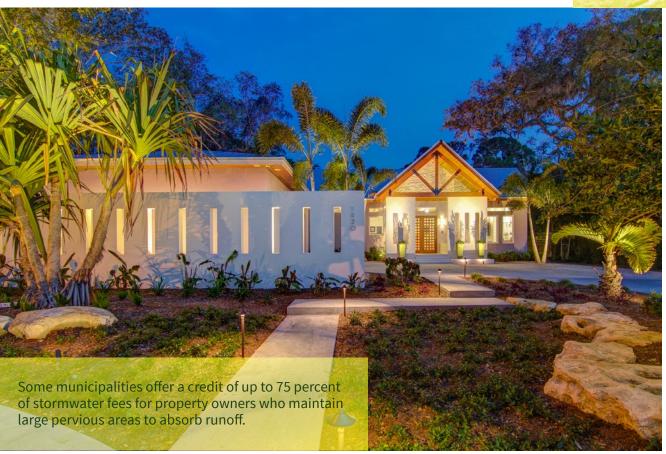




BioHaven Floating Islands can be launched in either shallow or deep water, and can be securely anchored or tethered to ensure that they remain in a specific location.

#### **Proofs & Truths**

The state of Montana, as well as some scattered communities around the country, has been experimenting with BioHaven® Floating Islands. These natural floating islands create a concentrated wetland effect which means that 250 square feet of island translates to an acre's worth of wetland surface area. These versatile floating islands can be launched in either shallow or deep water, and can be securely anchored or tethered to ensure that they remain in a specific location.



Charleston, South Carolina encourages developers to select portions of the site where the drainage pattern, topography, and soils are favorable for the intended use and fit the site design to follow the natural contours of the land. The goal is to minimize clearing and grading and preserve natural drainageways and patterns. This process identifies the smallest possible area on the site that would require land disturbance, which can also save a developer money.



In Vernon, Connecticut, developers are constructing cul-de-sacs with bioretention areas in the center to capture the drainage that runs toward the middle, enabling builders to keep the popular street design while limiting impervious area.

Some western states are using xeriscaping in their buffer strips. Xeriscape buffer strips use the same concept as vegetated ones, except they incorporate low- to no-water use plants and rock. Lawn areas adjacent to sidewalks, driveways, and streets are typically hotter and drier and require more water than areas not adjacent to these impervious surfaces. By planting a xeriscape buffer between sidewalks, driveways, and streets and the lawn, water needs will be reduced. Less runoff will also occur, as the xeriscape buffer

strip captures and filters the water leaving the lawn area.

In many cases, LID techniques can reduce stormwater mitigation costs incurred by builders and developers, and may result in smaller or no detention ponds, allowing for more useable land. The city of Portland, Maine, offers a credit toward stormwater service charges, and the City of Cedar Rapids, Iowa, will be implementing a stormwater BMP cost share program for residents. Ann Arbor, Michigan, offers credits for the use of rain



barrels on downspouts, creation of rain gardens, cisterns, or drywells and Kansas City, Missouri offers fee credit of up to 75 percent of the total monthly stormwater fee for property owners who maintain large pervious areas to absorb runoff or who properly install maintained stormwater detention structures.

#### IS LID MANDATORY OR VOLUNTARY?

The answer is, it depends on location. Of 50 municipalities that NAHB looked at as part of a recent LID survey conducted by Stateside Associates, 41 of the 50 (82 percent) were found to employ either mandatory or voluntary LID requirements with 19 (38 percent) being mandatory and 20 (44 percent) being voluntary. Twelve (24 percent) of the municipalities offer some form of incentive for LID implementation. These incentives are primarily financial, such as credits applied against fees and general charges associated with the application of LID requirements or below-market-rate loans. In some municipalities—like Ashville,

#### **Proofs & Truths**



North Carolina—LID is mandatory, but an incentive is offered to developers who go above the base requirements.

One of the great unknowns of LID is who will maintain the facilities after the developer has complete the project, and will they do it right? There are three choices when it comes to the maintenance of these devices—the homeowner. an HOA, or a utility district. If the homeowner or HOA fails to properly maintain the system, the system will fail. The party that is most likely to properly maintain these systems and ensure their success is a utility district, sometimes called a Public Improvement District (PID).

A PID is a defined geographic area established to provide specific types of improvements or maintenance within the area, which are financed by assessments against the property owners within the area. In most instances, mortgage

companies include PID assessments within the property owner's escrow payment and pay the assessment at the same time that ad valorem taxes are paid.

While the long-term performance of LID is unknown, there are many industry and environmental benefits of these practices. Builders and developers around the country are becoming active participants, helping their jurisdictions craft LID-enabling legislation and regulations that achieve the requirements of the NPDES permits and support cost-effective implementation in land development and construction.

**Claire Worshtil** is the Senior Program Manager for Land Use at NAHB and Assistant Editor of Best in American Living magazine.



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# The Importance of PHOTOGRAPHY

By Victor Mirontschuk, AIA and Heather McCune

Developing an eye for good photography will help you capture better shots, whether you take the images yourself or hire a pro. Here's what to look for when judging your own and others' work.

How many times have you heard or even said yourself: A picture is worth a thousand words. Old adages earn that status for the simple truth of the statement. However, in this case we would like to amend the familiar saying: The *right* picture is worth a thousand words.

The "right" photos tell a story and stimulate the imagination—something that is important for every builder, developer, and remodeler—and imperative for those with an eye toward winning top honors in the Best In American Living Awards. Here we'll share a few tips to help you shoot photos that will capture the interest and imagination of prospects...and of the awards judges.

#### **DIGITAL EQUIPMENT**

We live in the age of phone photography—everybody snaps images on their iPhones and calls the job complete. To capture the right photo, it's worth thinking beyond your phone and considering a digital camera and the effects of different lenses.



In the example shown below. Photo One was shot with a wide angle 17 millimeter lens and captures far more of the space than the 24 millimeter lens did in Photo Two. Remember, the right equipment is the first step in getting the right photo.



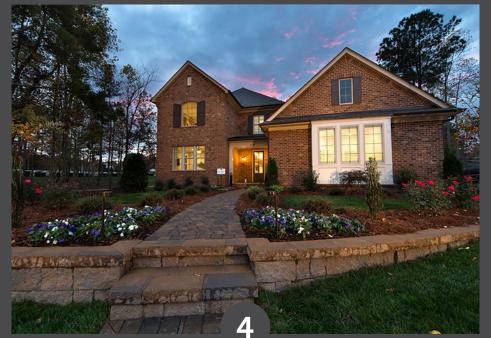
#### WHAT TO CONSIDER WHEN TAKING A PHOTO

The list is long, but we've narrowed it down to a few basics you should always consider:

### COMPOSITION

Angle can make all the difference in an image. Photo Three captures the elevation yet flattens it at the same time. Photo Four is the same house. shot from a slightly different perspective. It shows depth and is more inviting.





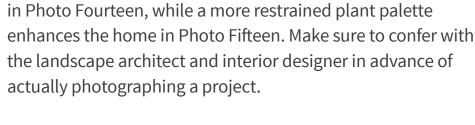


#### WHAT TO AVOID WHEN TAKING A PHOTO

What to leave out of a photo is just as important as what to put in. Some things to avoid:

**CLUTTER:** Some shots die because of the clutter in the image, no matter how good the composition and framing. Too much landscaping hides the elevation

times that thought takes the back seat, and the result is a nice photo of furniture as shown in Photo Sixteen, Furniture should enhance an image, not become the focus of it.



FURNITURE SHOTS: Each image should showcase a space to help the viewer understand how people live in it. Too many



DO IT YOURSELF OR HIRE A PRO?

Chances are, if you choose to take photos yourself, you might get lucky with one or two shots, but to tell the whole visual story of a house takes the skills and experience of a true "architectural" photographer. The word architectural is in quotes for a reasons it's an important distinction. A wedding, family or portrait photographer may be talented with a camera, but not so much in understanding architecture or how to shoot it for maximum impact.

When searching the Internet for photographers, the search term should be "Architectural Photography." Review portfolios on line, check references with previous clients and finally decide on a photographer whose style is compatible with your vision.



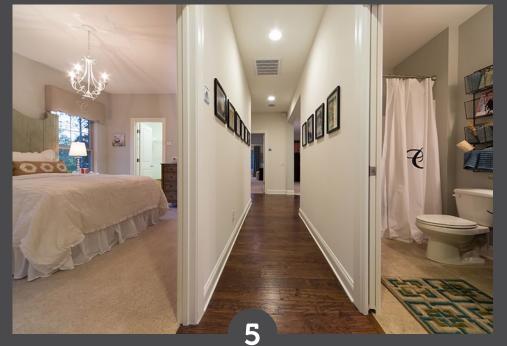






## COMPOSITION

The same applies to shooting interior spaces. Photos Five and Six both show hallways, yet the latter photo is a far more compelling shot because it has visual anchors both in the foreground (stairs), in the middle (the arch) and in the distance (the window to the outside).







#### WHAT TO AVOID WHEN TAKING A PHOTO

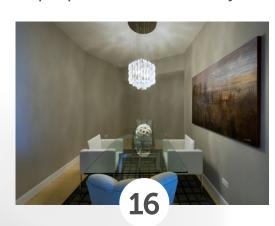
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in Photo Fourteen, while a more restrained plant palette enhances the home in Photo Fifteen. Make sure to confer with the landscape architect and interior designer in advance of actually photographing a project.

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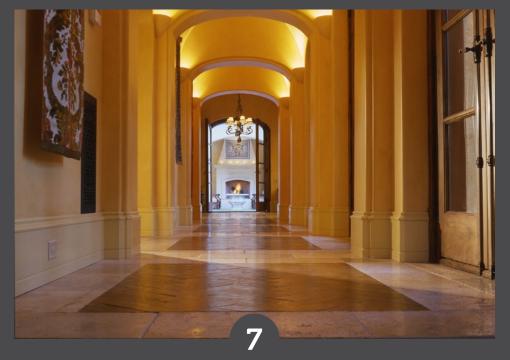








Just as important is ensuring the viewer has a focal point in each image. In Photo Seven the eye is drawn down the dramatic hallway to the fireplace beyond. Photo Eight shows an intimate entry that beckons viewers to the open doorway.







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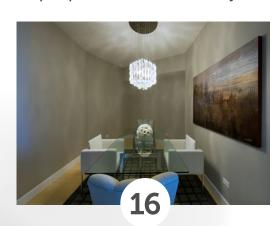
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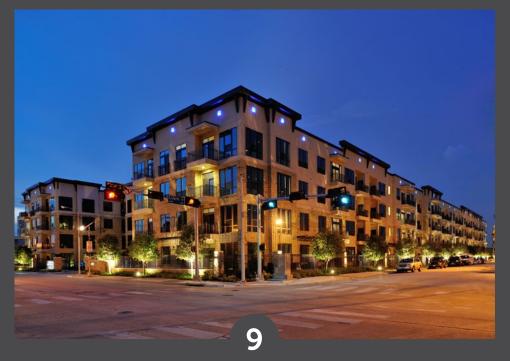








Always capture at least one daytime and one dusk shot of a building exterior. There is no hard and fast rule that one is better than the other, but contrast always helps an image pop as illustrated here in Photo Ten when compared to the same building in Photo Nine.







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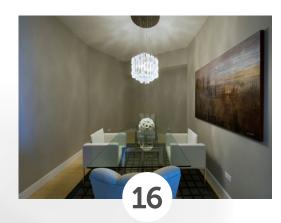
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### BACKGROUND

The inclination is to make the home dominant in every shot, but as Photo Eleven illustrates, the background can really inform a photo. In this case, framing the photo so the house is at the bottom of the image showcases the natural beauty of the location and helps every viewer understand how the home is laid out to take in its surroundings.





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When photographing interiors, a peek out the window can be a good thing—or not. Photo Twelve uses the expansive glass and views to make the living space look larger. Similarly, in Photo Thirteen, the partly shuttered blinds lend a sense of warmth to the space.







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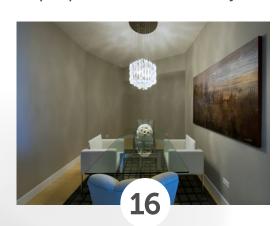
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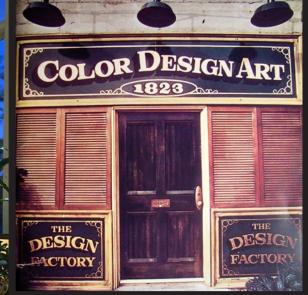


# BEST IN AMERICAN GHAIL OF Fame

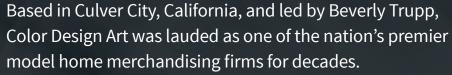
## COLOR DESIGN ART











In 1970, Color Design Art (CDA) exploded on the scene with its very first commission. Its designs not only won accolades and awards, but also made headlines and established CDA as a new star on the horizon of interior design. That would be just the beginning of the company's success and influence in the design community.

As a former educator, Trupp believes in sharing knowledge to help the industry she loves grow and improve. In 1981 Trupp wrote and published COLOR IT HOME, A Builders Guide to Interior Design and Merchandising, which became the "how-to" book for a generation, fostering many professionals who are still influencing, developing, and building the industry today.



## WILLIAM KREAGER













As an Architect and Principal of Communita Design in Seattle, Bill Kreager's contribution to the evolution of residential design has impacted many corners of the industry, including multifamily, planning, and affordable housing to name a few.

As a Master Builder and highly involved member of NAHB, Kreager has made sure to share his expertise by speaking at national conferences over the years. He focuses on the integration of sustainable site planning and building design, and much of his work is in the creation of innovative solutions to the challenges of housing affordability, density, and sustainability.

### DANA EGGERTS













Dana Eggerts founded CDC Designs, an interior design firm for model homes, sales offices, and residential and commercial real estate in 1981. The company is based in Costa Mesa, California. Eggerts started by working with Southern California builders but quickly expanded into other regions, winning dozens of awards for CDC Design's work. Eggerts is nationally recognized and regularly speaks at conferences and seminars to help evolve the building industry.

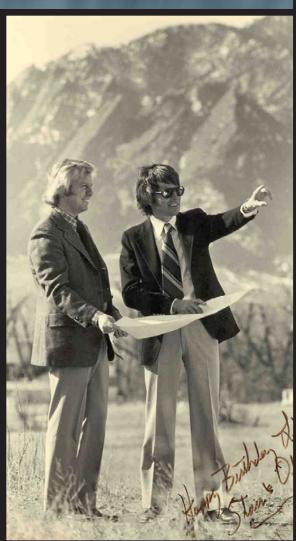
Throughout her career Eggerts maintained a commitment to excellence, recruiting only the best talent, staying at the forefront of trends, and solidifying CDC Designs as a leader in the industry. Her invaluable contributions and successes as a female business owner have made both a significant impact on the progress of woman in the homebuilding industry and a positive role model for others.

### BRUCE DOWNING & JIM LEACH











Both Jim Leach and Bruce Downing, founders of Downing-Leach Architects and Planners in Boulder, Colorado, have contributed significantly to the Best in American Living Awards since its inception. Leach was a judge on one of the first judging panels and continued to judge in the early 80s. Downing continued his impact when he began his subsequent firm, DTJ Design, Inc., which has also received dozens of awards—and helped put Boulder on the map for design excellence. Both men have continued to bring design awareness and excellence to residential design and development through several companies that have helped to evolve good design, and sustainable design to what it is today.

### DAVID WEEKLEY









David Weekley began David Weekley Homes at the age of 23 and has spent most of his life dedicated to the residential building industry.

Since 1976, he has been recognized twice by Inc. magazine as having one of America's 500 Fastest Growing Companies. In 1986 he was the NAHB's Builder of the Year. Most recently, David Weekley Homes was named the 2013 National Builder of the Year by Professional Builder magazine for the second time–making the company one of only two builders to receive this distinction.

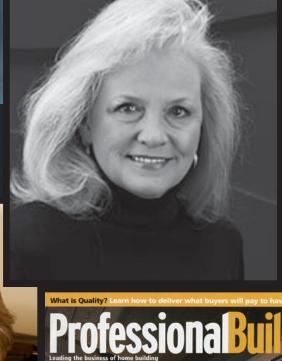
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## HEATHER MCCUNE



••••••





Heather McCune has had a significant impact in the residential design industry in a unique way. As an editor for some of the trade's most prestigious publications—Supply House, Professional Remodeler and Professional Builder—she helped shape the industry by recognizing and propagating great new home design.

As a marketing professional at Bassenian|Lagoni in Newport Beach California, McCune sees design in an entirely different light and has helped bring the firm to the top. A dedicated member of the Design Committee and BALA Subcommittee, she has helped make sure that the Best in American Living Awards are just that—the best.

**Policy Watch** 

By Owen McDonough and Michael Mittelholzer

New Fish & Wildlife Service rules protecting the Northern Long-Eared Bat could require Endangered Species Act permits; and the newly updated Clean Water Act proves murkier than ever.

Land developers and home builders whose land clearing activities impact forested areas during the spring and summer months are facing additional federal permitting hurdles under the Endangered Species Act (ESA), thanks to a decision last May by the U.S. Fish & Wildlife Service (FWS) to protect a bat species found across nearly two-thirds of the United States. Given the sheer size of this species' habitat, there could be a significant impact on land clearing operations. Developers and builders who must obtain federal wetlands permits under the Clean Water Act (CWA) during the normal land clearing and lot development process may be particularly affected by this decision.

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On May 4, final rules went into effect listing a bat species called the Northern Longed-Eared Bat (NLEB) as "threatened" under the ESA. NLEB habitat is found across 37 states including the entire Midwest, Northeast, and a significant portion of the Southeast. According to FWS, the bat populations have been declining for over a decade at a significant rate—but not due to habitat impacts like loss of forested

area due to development, as is typically the case for species protected under the ESA. In this case, the bat populations are declining because of a disease called white-nose syndrome, which is typically transferred among bats in caves during the winter hibernation period.

#### ROOSTING HABITAT PROTECTED FROM CLEARING

While disease is the main reason for the species' population decline, FWS will still regulate land use activities that impact the bat's habitat. This is defined as any forested area that can be used as summer maternity roost habitat (where females raise their young) between June 1st and July 31st, or caves located in forested areas used for winter hibernation habitat. Removing trees is the primary concern for the FWS because trees are often used as roost sites in spring and summer. As a result, land clearing activities occurring within

the NLEB habitat range between April and September could require expensive and time consuming federal ESA permit authorizations.

At the same time, FWS finalized interim special NLEB 4(d) rules authorizing specific land use activities that impact the bat's habitat—as long as those performing these activities comply with FWS's prescribed bat conservation measures. These measures prohibit tree clearing activities between June 1st and July 31st – when newborn NLEB occupy maternity roost trees. The interim rules cover four types of land clearing activities; (1) forestry management, (2) maintenance of rights-of-way

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### **Policy Watch**

transmission corridors, (3) tree clearing of less than or equal to one acre, and (4) bat research activities. All other land use activities, including residential construction activities, that disturb NLEB habitat must seek ESA permit authorization.

NAHB submitted comments on FWS's proposed interim special 4(d) rules on March 16, 2015 and again on July 1, 2015 when these rules went into effect. NAHB urged FWS to exempt land clearing operations for small residential developments (e.g., land clearing operations of 40 acres or less) since these impacts are not significant given the huge habitat range of the species. Second, NAHB pressed FWS to adopt a regulatory definition of "suitable summer NLEB habitat" which would recognize that the bats are unlikely to use small forested tracks of land in suburban or urbanizing areas and exempt clearing activities occurring there. NAHB expects the FWS to finalize the rules by next spring.

#### **CLEAN WATER ACT EXPANDS**

The Clean Water Act (CWA) provides the U.S. Environmental Protection Agency (EPA) and the Army Corps of Engineers (Corps) authority to regulate "navigable waters," which the statute defines simply as the "waters of the United States" (WOTUS). For years, there has been confusion surrounding the definition of WOTUS and the limits of CWA jurisdiction.

In an attempt to clarify the scope of CWA jurisdiction, EPA

and the Corps (collectively, the Agencies) published the final rule "Clean Water Rule: Definition of 'Waters of the United States'" in June. The rule, which became effective on August 28, updates regulations penned nearly 30 years ago and introduces new definitions and concepts that fundamentally

In practical application the new rule creates more confusion and expands the law's scope to include almost any wet spot on private property.

expand federal jurisdiction under the CWA. NAHB's position is that the rule disregards Congressional intent and recent Supreme Court rulings. Further, recently uncovered internal Corps memos reveal that EPA disregarded the concerns and recommendations of the Corps—EPA's co-regulating agency—during the rulemaking process.

The rule defines eight classes of waters included under the law:

- 1. Traditional navigable waters (TNWs)
- 2. Interstate waters
- 3. Territorial seas
- 4. Impoundments of WOTUS
- 5. Tributaries of waters numbered 1 through 3 above
- 6. Waters adjacent to waters numbered 1 through 5 above

- 7. Regional types of wetlands (e.g., prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools, and Texas coastal prairie wetlands) provided they have a significant nexus to one of the first three waters listed
- 8. Waters in the 100-year floodplain or within 4,000 feet of one of the first five waters listed above, provided they have a significant nexus to one of the first three above.

Waters 1 through 6 are always included under the law, whereas waters 7 and 8 must have a significant nexus to a downstream water, either alone or with other similarly situated waters, to be protected.

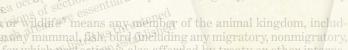
The new rule is intended to enhance protection for the nation's public health and aquatic resources and increase the CWA's predictability and consistency. But in practical application it creates more confusion and expands the law's scope to include almost any wet spot on private property. If a builder's or developer's activities will impact a feature that is determined to be a protected water, he or she must obtain expensive and time-consuming CWA wetland permits from the Corps. Additionally, any impacts to such waters must be offset with costly mitigation. As the definition of WOTUS expands, builders and developers will have to obtain more CWA permits, in turn, increasing project delays and costs.

The rule is facing multiple legal challenges from states, industry, and even environmentalists. Clearly, the courts will soon weigh in on WOTUS yet again.

**Owen McDonough** is NAHB's Environmental Policy Program Manager and **Michael Mittelholzer** is NAHB's Assistant VP of Environmental Poilcy.







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By J. Carson Looney, FAIA

A truly American architectural form, front porches have deep cultural roots across numerous styles and regions. A front porch provides character and a public face to the street, a place to greet and gather, a place of shelter and shade. No better place to gather for a memorable family photo!



Over the last few decades, front porches appear to have come in two types: Real or Simulated. The value created by a real porch is much more than a token nod to an imagined use or applied architectural style, so designers and builders should put as much attention to the porch as they do toward a working kitchen or a functioning bath.

Porches should always be designed to relate to the architectural tradition or style of the home.

Beyond appropriate style and details, a real porch provides protection from sun or rain and sufficient space for circulation, greeting, and entertaining guests with chairs, benches, tables, swings, etc. The iconic American front porch also serves as the transition between public space and the home's private space beyond the front door.

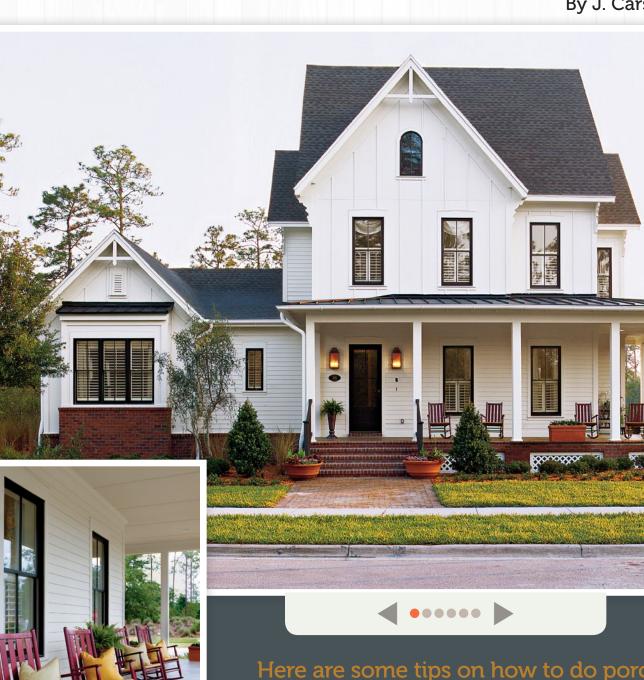
> **J. Carson Looney, FAIA,** is Founding Principal of LRK in Memphis, Tennessee.











#### Here are some tips on how to do porches well:

Modest materials of stained concrete floor, fiber cement siding, plywood/batten ceiling, and simple built-up columns can create an elegant composition if the porch depth, scale, and detailing follow timeless principles.



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> **J. Carson Looney, FAIA,** is Founding Principal of LRK in Memphis, Tennessee.













#### Here are some tips on how to do porches well:

A porch with a depth of at least eight feet provides adequate space for sitting and circulation. Just as one considers the proper size for interior spaces, porches should receive the same consideration.



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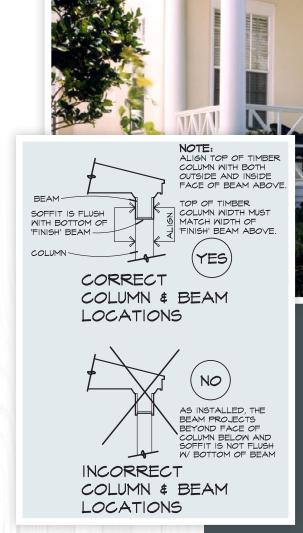


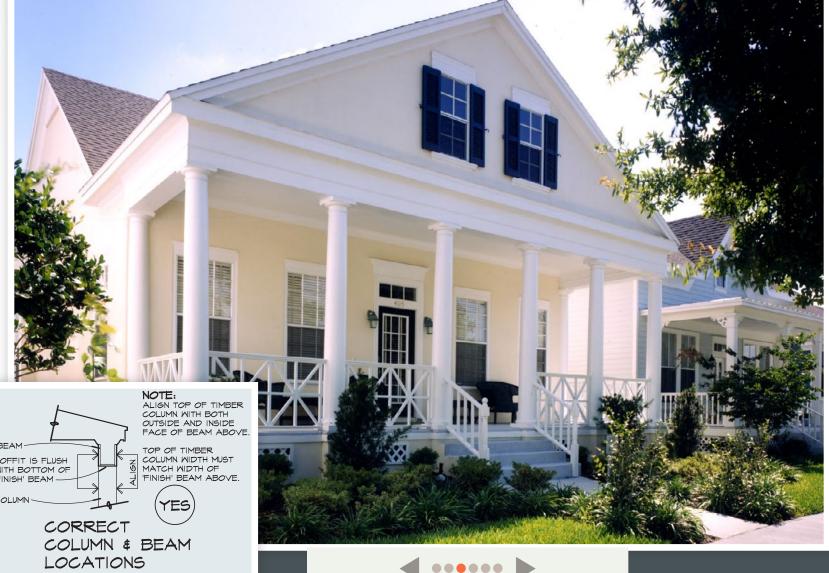
Over the last few decades, front porches appear to have come in two types: Real or Simulated. The value created by a real porch is much more than a token nod to an imagined use or applied architectural style, so designers and builders should put as much attention to the porch as they do toward a working kitchen or a functioning bath.

Porches should always be designed to relate to the architectural tradition or style of the home.

Beyond appropriate style and details, a real porch provides protection from sun or rain and sufficient space for circulation, greeting, and entertaining guests with chairs, benches, tables, swings, etc. The iconic American front porch also serves as the transition between public space and the home's private space beyond the front door.

> **J. Carson Looney, FAIA,** is Founding Principal of LRK in Memphis, Tennessee.





#### Here are some tips on how to do porches well:

Design and detail porches to be appropriate with the architectural style. The porch of this classically styled home follows the rules: floor level raised 24 inches; columns aligned properly with the entablature (beam) above; appropriate scale, detailing, and composition.



By J. Carson Looney, FAIA

A truly American architectural form, front porches have deep cultural roots across numerous styles and regions. A front porch provides character and a public face to the street, a place to greet and gather, a place of shelter and shade. No better place to gather for a memorable family photo!



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#### Here are some tips on how to do porches well:

A wrap-around porch is the perfect architectural and neighborly solution for a corner lot. In this example, brick extends to inside corners with siding under the porch, offering a relaxed character. The desired semi-public separation from the street is provided by raising the floor level 18 to 30 inches above grade.



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### Here are some tips on how to do porches well:

True to its regional architectural character, this vernacular Louisiana Country Home's porch floor is close to the ground. Timber columns and beams provide a crafted and honest feel. The scale and composition of materials extends the interior charm of the home to the front court and lawn.



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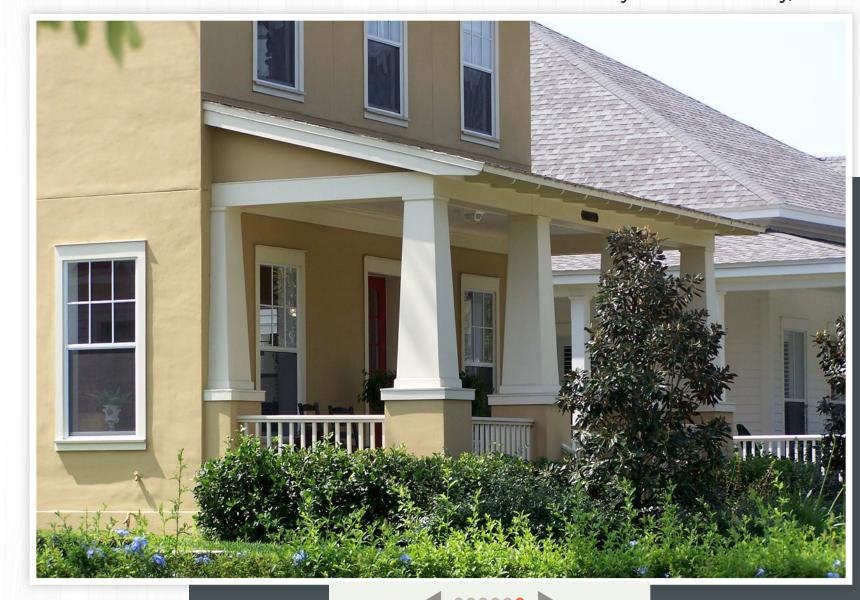












#### Here are some tips on how to do porches well:

Simple yet appropriate materials and details relate to the architectural style. The columns, porch beam, and side rake overhang are intentionally inset from the house corner. (In too many cases, these critical elements occur with no rhyme or reason.)